

Vikye TL866II Plus

Vikye USB Programmer TL866II Plus Instruction Manual

Comprehensive Guide for Setup, Operation, and Maintenance

INTRODUCTION

This instruction manual provides detailed guidance for the proper use and maintenance of your Vikye TL866II Plus USB Programmer. This device is designed for programming various integrated circuits, including EEPROM, Flash, BIOS, 8051, AVR, MCU, GAL, and PIC microcontrollers. Please read this manual thoroughly before operating the programmer to ensure optimal performance and safety.

KEY FEATURES

- **High-Speed Programming:** Equipped with a high-performance MCU and a 12Mbps USB interface for efficient data transfer.
- **Ultra-Low Power Consumption:** Operates solely via the USB interface, eliminating the need for an external power supply.
- **Portable Design:** Compact dimensions (approximately 10CM x 6CM x 2.5CM) for easy transport.
- **Programmable Voltage Control:** Independent program-controlled VCC (1.8V to 6.5V) and VPP (1.8V to 18V) programming voltages with multi-stage LC filter for stable power.
- **Advanced Protection:** Features Grade 3 overcurrent protection for VCC/VPP power supplies and VPP overvoltage protection on each of the 40 pins, safeguarding both the programmer and the programmed chip.
- **Wide Chip Support:** Supports over 15,000 chips, including serial and parallel series 40/44/48PIN large capacity FLASH.
- **Universal 40-Pin ZIF Socket:** Designed for convenient chip insertion without requiring specific orientation adjustments.
- **Unique Serial ICSP Interface:** Supports serial download and high-speed parallel high-voltage programming.
- **Logic IC Testing:** Capable of functional tests for 54/74F/LS/HC CMOS4000 series ICs to identify logic gate errors.
- **Self-Testing Function:** Allows the programmer to test its own VPP, VDD, GND, and I/O pins, including internal short-circuit tests.
- **Firmware Upgradability:** Built-in hardware firmware upgrade function ensures the programmer stays current with

the latest chip support.

- **Automatic Serial Numbering:** Supports various automatic numbering functions and custom algorithms via DLL for unique chip identification in mass production.
- **RC Calibration:** Original chip encryption operation on AVR microcontrollers with internal RC Calibration byte.



Figure 1: Conceptual diagram highlighting the programmer's key benefits: batch burning, compact size, and high-speed operation.

PACKAGE CONTENTS

Upon opening your package, please verify that all the following items are included:

- Vikye TL866II Plus USB Programmer Unit
- USB Connection Cable
- IC Extractor Tool
- Various Adapters for different chip packages (e.g., SOP8, PLCC32, PLCC44, etc.)
- Pin Headers



Figure 2: Overview of the Vikye TL866II Plus USB Programmer and its included accessories.



Figure 3: Detailed view of the programmer unit and its comprehensive set of adapters and tools.

SETUP GUIDE

1. Software and Driver Installation

1. **Download Software:** Obtain the latest programming software and drivers from the official Vikye manufacturer website. Ensure you download the version compatible with your operating system (e.g., Windows 10).
2. **Install Drivers:** Follow the on-screen instructions to install the necessary USB drivers for the programmer. It is recommended to install drivers before connecting the device.
3. **Install Programming Software:** Install the programming application. This software will allow you to select chip types, load firmware files, and initiate programming operations.

2. Connecting the Programmer

4. **Connect USB Cable:** Plug one end of the provided USB cable into the USB port on the Vikye TL866II Plus programmer.
5. **Connect to Computer:** Connect the other end of the USB cable to an available USB port on your computer. The programmer will draw power directly from the USB port.
6. **Verify Connection:** Open the installed programming software. The software should detect the connected programmer. If not, check device manager for proper driver installation.



Figure 4: The USB port on the Vikye TL866II Plus programmer for computer connection.

OPERATING INSTRUCTIONS

1. Preparing the Chip for Programming

1. **Identify Chip Type:** Determine the exact model and package type of the integrated circuit you intend to program.
2. **Select Adapter (if necessary):** If your chip is not a standard DIP package, select the appropriate adapter from the included accessories. For example, use a SOP8 adapter for SOP8 chips or a PLCC adapter for PLCC chips.
3. **Insert Chip into Adapter/ZIF Socket:**
 - For DIP chips, lift the lever on the ZIF (Zero Insertion Force) socket of the programmer. Carefully align the chip's Pin 1 with the corresponding marking on the socket (usually indicated by a notch or dot). Insert the chip gently and then lower the lever to secure it.
 - For other package types, insert the chip into the selected adapter first, ensuring correct orientation. Then, insert the adapter into the ZIF socket of the programmer, aligning Pin 1.



Figure 5: The ZIF socket on the programmer for chip insertion.

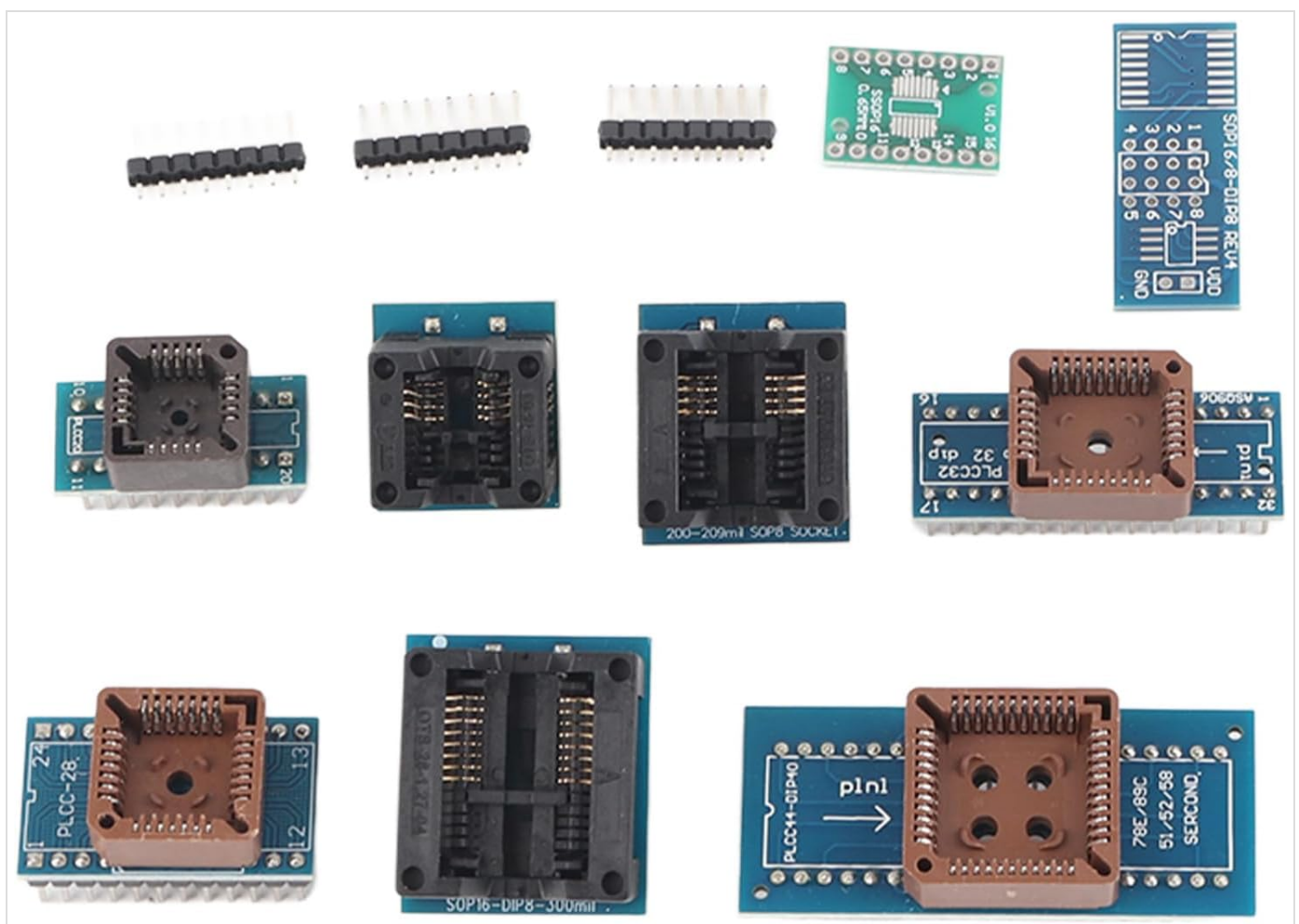


Figure 6: Assortment of chip adapters for various IC packages.

2. Using the Programming Software

4. **Launch Software:** Open the Vikye programming application on your computer.
5. **Select Chip:** In the software interface, navigate to the chip selection menu and choose the exact model of the chip you have inserted. The software will display the correct pinout and programming parameters.
6. **Load Data File:** Load the firmware or data file (e.g., .hex, .bin) that you wish to write to the chip.
7. **Perform Operations:** The software typically offers several operations:
 - **Read:** Reads the current data from the chip into the software.
 - **Erase:** Erases the existing data on the chip. This is often required before writing new data.
 - **Blank Check:** Verifies if the chip is completely erased.
 - **Program/Write:** Writes the loaded data file to the chip.
 - **Verify:** Compares the data on the chip with the loaded data file to ensure successful programming.
8. **ICSP Programming:** For chips supporting In-Circuit Serial Programming (ICSP), connect the ICSP cable (not always included, may need to be purchased separately) to the dedicated ICSP port on the programmer and to the target circuit board. Follow the software's instructions for ICSP operations.
9. **Logic IC Testing:** Utilize the software's logic IC test function for 54/74F/LS/HC CMOS4000 series chips. This feature helps identify faulty logic gates.

USB Universal Programmer

Support simultaneously burn with 4 Programmers each computer



Figure 7: The programmer unit, highlighting its compact design and ZIF socket.

MAINTENANCE

- **Cleaning:** Keep the programmer unit clean and free from dust. Use a soft, dry cloth for cleaning. Avoid liquid cleaners.
- **Storage:** Store the programmer and its adapters in a dry, cool place, away from direct sunlight and extreme temperatures.
- **Handle with Care:** The ZIF socket and adapters contain delicate pins. Handle them carefully to prevent bending or damage. Use the provided IC extractor tool for safe chip removal.
- **Software Updates:** Regularly check the manufacturer's website for software and firmware updates to ensure compatibility with new chips and improved functionality.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Programmer not detected by computer/software.	Drivers not installed correctly. Faulty USB cable or port. Software not launched or outdated.	Reinstall drivers from the official website. Try a different USB cable or port. Ensure the software is running and up-to-date.
Chip programming fails or verification errors.	Incorrect chip selected in software. Chip not inserted correctly in ZIF socket/adaptor. Faulty chip or adapter. Data file corruption.	Verify the chip model selected in the software matches the physical chip. Re-insert the chip, ensuring Pin 1 alignment and secure connection. Test with a known good chip or adapter. Re-download the data file.
Programmer shuts down or resets during operation.	Overcurrent or overvoltage protection triggered. Unstable USB power supply.	Check for short circuits or incorrect chip insertion. Try connecting to a different USB port, preferably a powered hub if available.
Adapters appear faulty or pins are bent.	Manufacturing defect or mishandling.	Carefully inspect and attempt to straighten bent pins with fine tweezers. If severely damaged, contact support for replacement.

TECHNICAL SPECIFICATIONS

Feature	Detail
Model	TL866II Plus
Dimensions (L x W x H)	3.94 x 2.36 x 1.18 inches (10 x 6 x 2.5 cm)
Item Weight	12.7 ounces
Interface	USB (12Mbps)
Power Supply	USB Powered (no external power required)
Programmable VCC	1.8V - 6.5V
Programmable VPP	1.8V - 18V

Feature	Detail
Chip Support	15,000+ (EEPROM, Flash, BIOS, 8051, AVR, MCU, GAL, PIC, etc.)
Socket Type	40-pin ZIF (Zero Insertion Force)
Operating System Compatibility	Windows (specific versions depend on software/driver)

WARRANTY AND SUPPORT

For warranty information, technical support, and the latest software/firmware updates, please refer to the official Vikye manufacturer website or contact your point of purchase. Keep your purchase receipt as proof of purchase for any warranty claims.



Figure 8: Vikye brand logo.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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