GODIYMODULES Clip-24Cx-001

GODIYMODULES SOIC8 SOP8 Test Clip Instruction Manual

Model: Clip-24Cx-001

1. INTRODUCTION

This manual provides detailed instructions for the proper use and care of your GODIYMODULES SOIC8 SOP8 Test Clip. This tool is designed for in-circuit programming of EEPROM chips, specifically 93/25/24Cx series, without the need to desolder the chip from the circuit board. Please read this manual thoroughly before operation to ensure safe and effective use.

2. PRODUCT OVERVIEW AND PACKAGE CONTENTS

The GODIYMODULES SOIC8 SOP8 Test Clip kit includes the following components:

- SOIC8 SOP8 Test Clip with Ribbon Cable
- SOP8 to DIP8 Adapter Board (150mil)
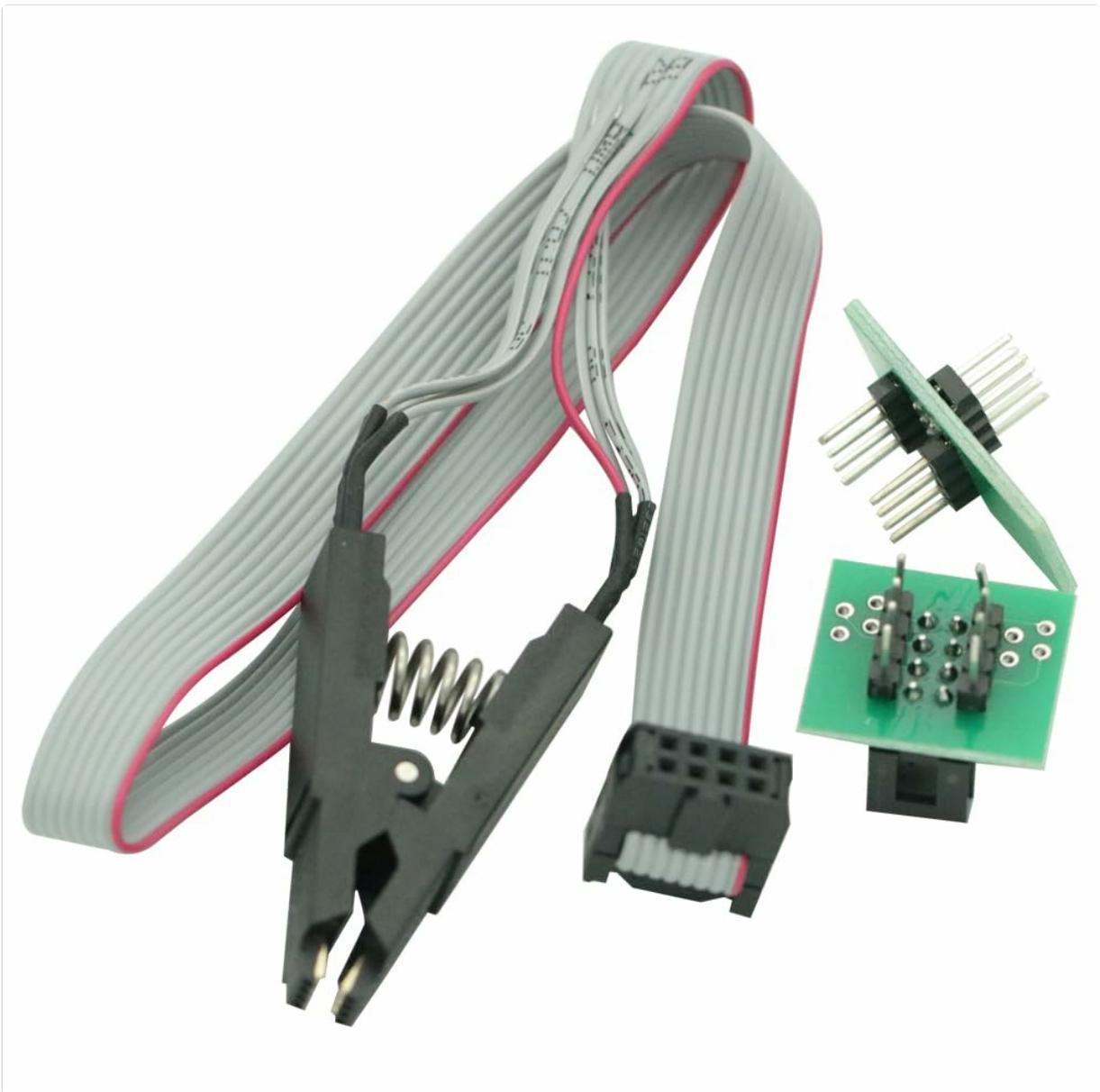- SOP8 to DIP8 Adapter Board (205mil)

Figure 2.1: Complete SOIC8 SOP8 Test Clip kit, showing the test clip, ribbon cable, and the two included adapter boards.

Figure 2.2: Close-up view of one of the adapter boards, typically used for 25xxx series EEPROM chips, showing pin headers for connection.
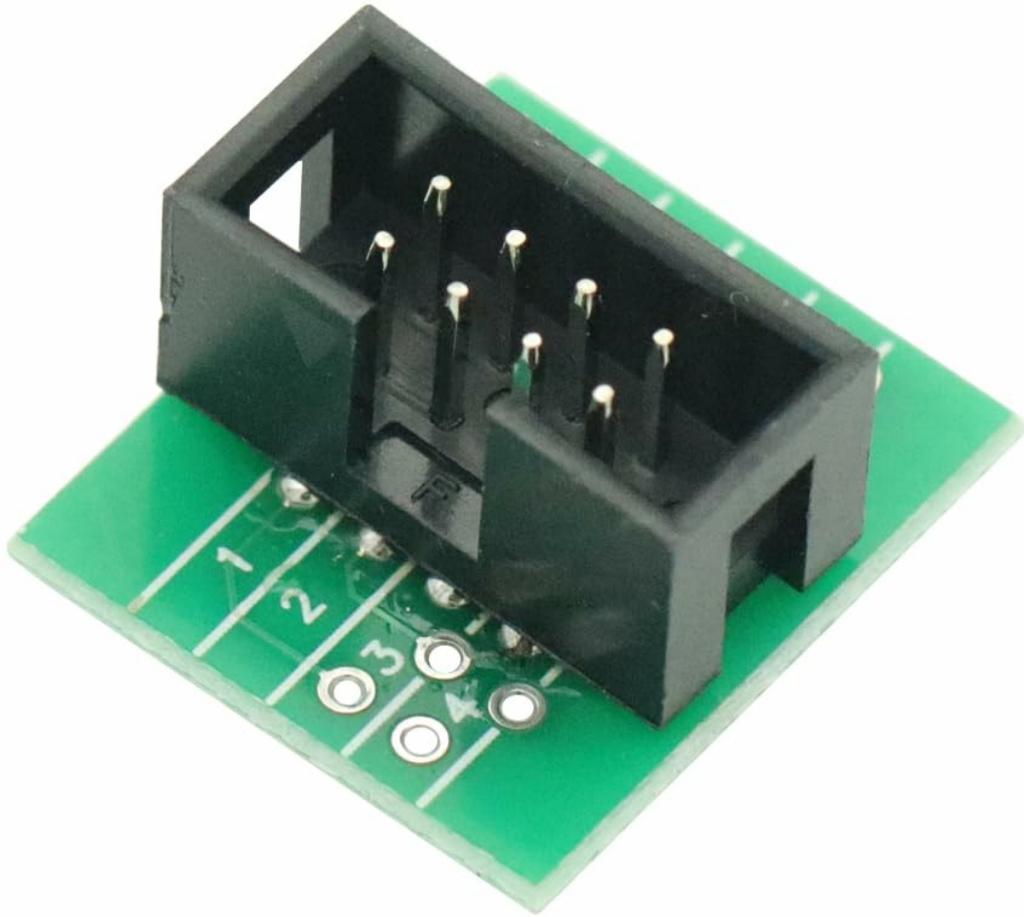
Figure 2.3: Close-up view of the other adapter board, providing a SOP8 socket to DIP8 pin conversion for broader compatibility with programmers.

3. SPECIFICATIONS

Feature	Detail
Model Number	Clip-24Cx-001
Connector Type	SOIC8 / SOP8 Test Clip
Pin Format	SOIC / SOP
Compatible EEPROM Series	93Cx, 25Cx, 24Cx
Item Weight	30 g
Product Dimensions	30 x 2 x 1 cm

4. SETUP INSTRUCTIONS

1. **Identify the Target Chip:** Locate the SOIC8 or SOP8 EEPROM chip on your circuit board that you

intend to program. Ensure the chip is compatible with the 93/25/24Cx series.

2. **Select the Correct Adapter:** Choose the appropriate SOP8 to DIP8 adapter board (150mil or 205mil) based on the width of your target chip.

3. **Connect Adapter to Programmer:** Insert the selected adapter board into your EEPROM programmer's DIP8 socket. Ensure correct orientation, typically indicated by a notch or pin 1 marking.

4. **Connect Test Clip to Adapter:** Plug the ribbon cable from the SOIC8 SOP8 Test Clip into the corresponding header pins on the adapter board. Pay close attention to the pin 1 indicator on both the cable connector and the adapter board to ensure correct alignment.

5. **Attach Test Clip to Chip:** Carefully align the test clip with the target EEPROM chip on the circuit board. Gently press down on the clip to ensure all 8 pins make firm and secure contact with the chip's leads. Verify that no pins are bent or misaligned.

Important: Always ensure the circuit board is powered off and discharged before connecting or disconnecting the test clip to prevent damage to the chip or programmer.

5. OPERATING INSTRUCTIONS

1. **Verify Connection:** After attaching the test clip, double-check all connections from the clip to the adapter and from the adapter to the programmer. A stable connection is crucial for successful programming.

2. **Launch Programming Software:** Open the software for your EEPROM programmer on your computer.

3. **Select Chip Type:** Within the programming software, select the exact model of the EEPROM chip you are working with (e.g., 24C02, 25Q64).

4. **Read/Write Operations:** Proceed with your desired operation (read, erase, write, verify) as per your programmer's software instructions.

5. **Handling Protected Chips:** If you encounter a protected function or difficulty reading/writing the chip at normal voltage, it may be necessary to supply an external 3.3V voltage to the chip's VCC pin during the operation. Consult your programmer's documentation or chip datasheet for specific requirements.

6. **Disconnect Safely:** Once programming is complete and verified, power off the circuit board and the programmer. Carefully remove the test clip from the EEPROM chip by gently pulling it upwards.

6. TROUBLESHOOTING

- **"Chip Not Detected" or "Read/Write Error":**
  - Ensure the test clip is making firm and correct contact with all pins of the EEPROM chip. Misalignment or poor contact is a common cause of errors.
  - Verify the ribbon cable is correctly oriented and fully seated in the adapter board.
  - Confirm the correct chip type is selected in your programming software.
  - Check if the target circuit board is completely powered off. Residual power can interfere with in-circuit programming.
  - For chips with protected functions, consider supplying an external 3.3V to the chip's VCC pin as described in Section 5.

- **Clip Does Not Stay Attached / Poor Contact:**
  - Ensure the chip's leads are clean and free of solder residue or corrosion.

- Apply gentle, even pressure when attaching the clip. Avoid excessive force.
- The clip is designed for standard SOIC8/SOP8 packages. Verify your chip's dimensions match.

- **Damage to IC:**
  - Always handle the test clip and chip with care. Avoid bending chip pins during attachment or removal.
  - Ensure the circuit board is completely unpowered before connecting or disconnecting the clip.

7. Maintenance

- **Cleaning:** Keep the test clip pins and adapter contacts clean. Use a soft, dry brush or isopropyl alcohol with a cotton swab to remove any dust or residue.

- **Storage:** Store the test clip and adapters in a clean, dry, and anti-static environment when not in use. Protect the pins from bending or damage.

- **Inspection:** Periodically inspect the test clip for any signs of wear, damage, or bent pins. Replace if necessary to ensure reliable operation.

8. Warranty and Support

Specific warranty information for the GODIYMODULES SOIC8 SOP8 Test Clip is not provided in the product details. For any support inquiries, technical assistance, or warranty claims, please contact your retailer or the manufacturer directly through their official channels.