# **SUPERPRO®/2000**

## **Operation Instructions for Stand-Alone Mode**

## Introduction

SUPERPRO/2000 comes with two work modes:

- **PC Hosted Mode** (**Remote Mode**): This is the standard mode universal programmers work under. Programmer is connected to PC via printer port and controlled by the software which integrates powerful functions for all engineering purpose.
- Stand-Alone Mode: Powered by MCU, LCD, large capacity FLASH memory for algorithms and user data, SUPERPRO/2000 performs same functions as under PC-hosted mode such as Program, Read, Blank Check, Verify, Erase, Secure and Buffer Edit. Data buffer are non-violated and algorithms are updateable via printer port. Below is instructions for stand-alone mode only. Please refer to USER; S GUIDE- SUPERPRO FOR WINDOWS for PC-hosted mode.

### **Features**

- Ultra-high programming speed. Program 8Mb FLASH Memory in 12 sec.. with SUPERPRO/2000+ and 20 sec. With SUPERPRO/2000.
- Embeded high-speed MCU, keypad, 16X2 LCD display, 4Mb algorithms memory, 4Mb non-violated data buffer(8Mb, 32Mb,128Mb optional)
- ZIF48 universal pin-drivers, universal adapters. Supports E/EPROM, FLASH, Microcontroller, PLD. Tests standard logic devices and SRAM.
- Algorithms updateable via printer port.
- Supports low voltage devices down to 1.8V.
- Pin integrity and insertion check before program
- Automatic electronic serial number generation and insertion.
- Full-auto mode enable zero-key-stroke operation. Programming starts upon detection of correct insertion of chips.
- User-editable batch command.
- Standard functions including Program, Read, Blank Check Check, Verify, Erase, Secure.
- Buffer Edit, Buffer Checksum.

### <u>Menu</u>

## Keypad

• ENTER: Select and enter submenu

• **EXIT:** Exit to upper menu.

• Arrow Up, Arrow Down: Scroll to select. Change data at cursor location when editing buffer.

• Arrow Left, Arrow Right: Scroll to locate address or data in buffer editing.

#### **RUN**

Perform real action to chips. Type of chip should be selected before action. Function set varies with types. Standard functions are as follows:

- AUTO Execute the command sequence t user defined in SETTING-EDIT AUTO
- PROGRAM Programs chip with buffer data.
- READ Read chips and save data to buffer(FLASH), Calculate and save checksum of the data file for verify of next power-up.
- BLANK CHECK
- VERIFY
- ERASE
- SECURE Program lock bit of chips.

#### SELECT DEVICE

Select devices to be handled. Use ENTER and **Arrow Up** or **Arrow Down** to select, first select manufacture and then type.. Your select will be saved automatically as default device, no selection is need when enter next time. Operation will be rejected and warning will be given if the capacity of the device selected is larger than that of the flash memory. Please contact your local dealer for upgrade of flash memory.

#### **BUFFER**

#### **BUFFER EDIT**

View or modify buffer. Valid only for memory and microcontroller.

ENTER and then will be displayed the first address and data. Use **Arrow Right** or **Arrow Left** to move cursor to digit to be viewed or changed. Use **Arrow Up** or **Arrow Down** to change the number and so change the address or data.

#### **CHECK SUM**

Calculate the checksum of buffer and compare with the value saved last time. This is important to avoid loss in volume product due to accident violation of data.

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#### **SETTING**

#### **EDIT AUTO**

Define command sequence which can be executed by enter AUTO in RUN.

#### **CHIP ADDRESS**

ENTER and use **Arrow Up** or **Arrow Down** to set chip start address. Enter and then set chip end address. Default value in the library will be used upon selection of chip type.

#### **BUFFER ADDRESS**

ENTER and use **Arrow Up** or **Arrow Down** to set buffer start address. Enter and then set buffer end address. Default value in the library will be used upon selection of chip type.

#### **AUTO CHECKSUM**

ENTER and use Arrow Up or Arrow Down to toggle ENABLE and DISABLE.

If ENABLE, Checksum will be calculated automatically after **READ.** 

#### **INSERTION CHECK**

ENTER and use **Arrow Up** or **Arrow Down** to toggle **ENABLE** and **DISABLE**.

If ENABLE, programmer will automatically check if the chip is inserted properly before program. You can select **IGNORE** or **EXIT**.

#### **BEEPER**

**ENABLE** or **DISABLE** the beeper.

#### **AUTO COUNTER**

ENTER and then use Arrow Up or Arrow Down to toggle ENABLE and DISABLE.

As soon as ENABLE is selected, programmer will ask you to enter in the address to save the counter value and the initial value. The counter will step up by one and write the current value to the address specified in the chip automatically after each successful program.

secure the chip after program.

#### **AUTO RUN**

ENTER and then use Arrow Up or Arrow Down to toggle ENABLE and DISABLE.

If ENABLE, programmer will monitor socket continually and start programming automatically upon detection of chip insertion.

#### **ENCRYPTION**

ENTER and then use Arrow Up or Arrow Down to edit encryption table (exist in only some microcontrollers).

### Update of embedded algorithms library

- Connect programmer to PC printer port. Turn on power and run SUPERPRO For Windows.
- Enter LIBRARY. LIBRARY-READ read in current library in programmer algorithm memory and modify. LIBRARY-MODIFY load library saved on harddisk to modify.
- REMOVE unwanted devices. Use SEARCH or MANUFACTURER/DEVICE NAME to select wanted devices and then ADD.
- Go to step1through step3 until finished. Press OK to generate new library.
- Press TRANSFER to upload the library to algorithms memory in the programmer.
- Finished. Turn on the programmer once again to work in stand-alone mode.