SUPERPRO^â/3000
Operation Instructions for Stand-Alone Mode

I. Introduction

SUPERPRO/3000 is the multi-purpose universal programmer, which comes with the following operation modes:

1. PC-Hosted Mode (Remote Mode)
    Programmer is connected to PC via USB port and controlled by the software which integrates powerful functions and the extreme user-friendly interface for all engineering purposes.
2. Stand-Alone Mode
    Powered by keyboard, LCD and large capacity CF memory card for algorithms and user data, SUPERPRO/3000 performs the same functions as PC-Hosted mode without connecting to PC. The user can download the project file into the CF card with connecting to PC (no function of serial number generation under stand-alone mode).
    Below are instructions for stand-alone mode only. Please refer to USER'S GUIDE- SUPERPRO FOR WINDOWS for PC-hosted mode.
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Features

■ Ultra-high programming speed. Program and verify 32Mb FLASH memory (Intel 28F320W18) in about 14 sec..
■ Embedded high-speed CPU, 6-keys keypad, 16X2 LCD display, CF card slot.
■ ZIF 48 universal pin-drivers, universal adapters. Supports E/EPROM, FLASH, Micro-controller, PLD and SRAM tests.
■ Pin integrity and insertion check before programming the chip
■ Supports low voltage devices down to 1.5V.
■ Full-auto mode for zero-key-stroke operation. Programming operation starts upon detection of correct insertion of chips.
■ According to requests, selecting whether starting CHECKSUM test or stopping reading the data for the reliability of the data file.
■ Project management, making the programmer operation easier.

II. Update Algorithms

The CF card is required for stand-alone mode, in which all contents related to the operation are stored in the format of project file. The project file includes device type, data file, device configuration, AUTO command sequence etc. That is, the user can complete all configurations only by selecting the project file from the menu before beginning the work. It is possible to download the project file into the CF card through only PC-hosted mode. The project file function under the stand-alone mode simplifies the operation and prevents the loss from the operation mistakes. The CF card is used not only for storing the project file but also as the data buffer. A CF card can store hundreds of project files, depending on its capacity and the size of the stored files. If the size of the stored project files exceeds the capacity of the CF card, the software would show up a warning message. Encountering this warning message, the user should reduce the size of the project files or replace the CF card with a larger capacity. Please refer to User Guide-Library of Standalone mode for more detailed information of the project download.

III. Menu

Keypad

ENTER	Select and enter the submenu
EXIT	Exit to the previous menu.
- **‾**	Scroll to select. Change data at the cursor location when editing the buffer.
® **¬**	Scroll to locate an address or data in editing the buffer.

RUN

Execute the sequence of programming operations. The function set varies with types. Standard functions are as follows:

AUTO	Execute the AUTO command sequence that user defined (define when create the project)
PROGRAM	Programs a chip with the buffer data.
READ	Read chips and save the data into the buffer(CF card). (Please don't change the data in the project file).
BLANK CHECK	Check whether the chip is blank or not
VERIFY	Compare the programmed data with the buffer data.

ERASE	Erase the chip
SECURE	Protect the chip. Same with LOCK/MEMORY PROJECT

SELECT PROJECT

Select projects in the CF card. Use ENTER and ← or ‾ to select the project, then use ENTER to call in the algorithms and data.
Your selection will be saved automatically so you don't need to select it again even when reentering next time.

BUFFER

DISPLAY THE BUFFER
Display the content in the buffer. Use ENTER to display the start address and data, and ® or ¬ to move the cursor to the address to be modified, then use ↑ or ↓ to change the address.
LOAD PROJ DATA
Load the current project to the buffer.
CHECK SUM
Calculate the checksum of the buffer and compare with the value saved last time. If they are different from each other, display the checksum value respectively.

OPTION

Modify some options of the project. It should be noted that the change is not saved. Therefore, the first set-up configuration of the project will be called in even when reentering next time.

1) PRODUCTION MODE
For "PRODUCTION MODE" Setting, use ↑ or ↓ to select "enable" or "disable". Once enable is selected, the programmer will check the status of socket continuously, and automatically start to run the command sequence once it identifies there is a chip in the socket. The zero-key-stroke operation is enabled. The default is "enble".
2) AUTO CHECKSUM
For "AUTO CHECKSUM" Setting, use ↑ or ↓ to select "enable" or "disable". Once "enable" is selected, the programmer will verify the checksum automatically before executing RUN. The default is "enble".
3) READ OPTION
For "READ OPTION" Setting, use ↑ or ↓ to select "enable" or "disable". Once "disable" is selected, the READ function is not allowed. The default is "disable".
4) PIN CHECK
For "PIN CHECK" Setting, use ↑ or ↓ to select "enable" or "disable". Once "enable" is selected, the programmer will execute the insertion check and the contact check before operation. The default is "enable".
5) BEEPER
For "BEEPER" Setting, use ↑ or ↓ to select "enable" or "disable". The default is "enable".

IV.Important Information

If the buffer data is changed improperly, it will cause the program error and loss. The advice is below:
■Compare the checksum in the buffer with the origin in the project (usually before the production)
■READ operation will change the content in the buffer. The default is "disable" for READ function. If the user needs to read, please run LOAD PROJ DATA or reselect the project.
■After changing the CF card or downloading the data, please reselect the project and load the accurate data.

SUPERPRO/3000 Stand-alone Mode Monitor diagram

SELECT FUNCTION
1) RUN
2) SELECT PROJECT
3) BUFFER
4) OPTION

AT89C51
1) AUTO
2) PROGRAM
3) READ
4) VERIFY
5) BLANK CHECK
6) ERASE
7) LOCK-BIT1
8) LOCK-BIT12

SELECT PROJECT
1) PRJ0 WINBOND
   W89C54
2) PRJ1 ATMEL
   AT89C51
   .
   .
   .

BUFFER
1) DISPLAY BUFFER
2) LOAD PROJ DATA
3) CHECK SUM

DISPLAY BUFFER
00000000: 4D

SETTING
1) PRODUCTION MODE
2) AUTO CHECKSUM
3) READ OPTION
4) PIN CHECK
5) BEEPER

PRODUCTION MODE
1) ENABLE
2) DISABLE

AUTO CHECKSUM
1) ENABLE
2) DISABLE

READ OPTION
1) ENABLE
2) DISABLE

PIN CHECK
1) ENABLE
2) DISABLE

BEEPER
1) ENABLE
2) DISABLE