

# **77PXX Writer User Manual**

V1.00

**MCU Series Development Tools**

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## User's Manual

version	date	description
V1.00	2013 year 3 month V1.00	The first version released
V1.10	2013 year 11 Delete month	th option , Roll number and 77 Series of unrelated content

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## 1 product description

This manual describes 77PXX Writer and PC Burning machine to use the software. 77PXX Strong features writer

Large, easy to use, it is a support for a variety of SEMICO OTP MCU The latest generation of writer, it has the online programming

Two kinds of programming and offline programming mode, using USB Interface with PC Communication can be programmed for different voltage chip

Automatically adjust the voltage while the programmer not only simple, but also taking into account the burning high accuracy, high speed performance, stability

Given other characteristics, which is particularly suitable for mass production.

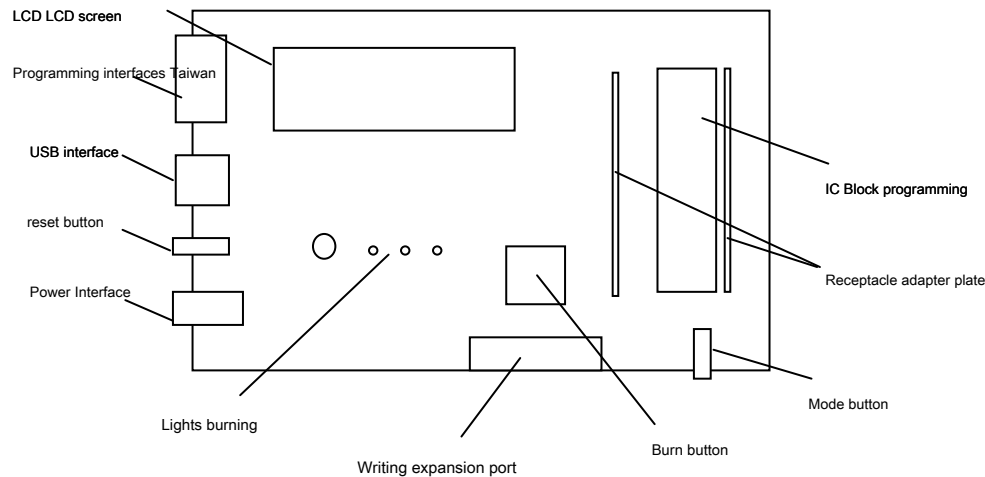
### 1.1 Features

- It has support chips as follows: 77PXX Support writer CS77P21 , CS77P22 , CS77P23 , CS77P25 , CS77P33 , And later it will be launched to support the follow-up of the corresponding chip, so stay tuned.
- Short-circuit protection and overcurrent protection circuit, in order to prevent the wrong insertion chip, resulting in the power plug and the anti-ground short burn Ruined writer of components.
- use USB Interface for easy and PC Machine Internet
- Support online, offline programming mode two chips.
- Online mode, selectable areas programming, programming code editing support.
- Online mode, a variety of chip operating functions: blank check, program, verify, read back, encryption, automatic programming.
- In offline mode, the chip supports programming and readback Checksum value.
- The different programming voltages for the chip, the automatic voltage regulator, without manual adjustment.

### 1.2 packing list

- 77PXX Writer 1 station
- 15V Regulated DC power supply adapter 1 station
- USB connecting cables 1 root
- " 77PXX Writer factory test list. " 1 Part

### 1.3 Writer hardware architecture



**Map 1-1 A block diagram of the major components of programmer**

- IC Block programming interfaces and programming extensions

Writer provides a 40pin of IC Block programming, 2 × twenty two And a socket adapter plate 20 Pin expansion port outlet

Three interfaces to the user for programming the chip.

For in-line (such as DIP Package) chip, the user can directly insert IC Block programming were burning; for the patch

(Such as SOP or QFP Packages, etc.) or soft seal chip, through a dedicated user can IC Test rack insert IC Block programming or transfer

Programming socket adapter plate, can be connected through the expansion port adapter cable programming and programming.

- LCD LCD

- The system initialization information is displayed:

If the programmer after power up or reset, the programming voltage VDD, VPP It is incorrect, LCD The display will show " VDD

too low "or" VDD too high "" VPP too low "or" VPP too high "Prompts the user voltage is not correct.

At this time online, offline, are not burning property. If you connect USB Cable, do not take 15V power supply, LCD Also shows electric

Pressure error, this time not burning, but the data can be downloaded online to the programmer.

If the programmer after power up or reset, the programming code which has not yet, then LCD LCD display will show " NO VALID

DATA "Message, this time in the online mode, the user can still burn the chip, and the like readback operations, but

In offline mode, the chip can not be read back or offline programming Checksum operating.

in case D12 Errors, it displays " d12 chip is err "

- Online mode information is displayed:

If the writer by USB Cable PC Machine is connected, and after a successful enumeration, LCD The LCD will display " USB

Connecting. "Message, buzzer, after the host computer using the command line, LCD display "Link ..." Beep

Rang, writer enter online mode.

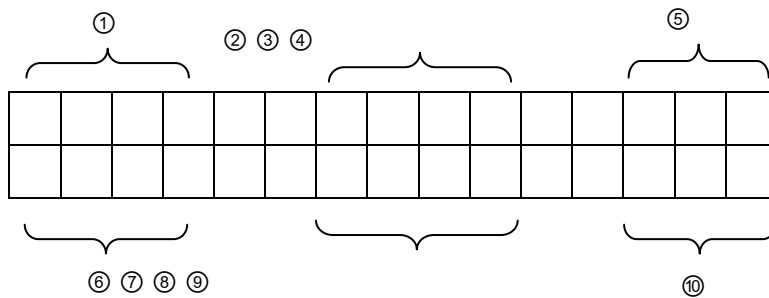
- Offline idle mode information is displayed:

If after reset or power on the programmer, which has programming code, LCD After the LCD display system initialization

After receiving, the idle mode display content. Writer in complete offline programming or offline read-back chip Checksum After the value will

Return to the idle mode display. The display includes the stored machine and die read prepared from Checksum ,Chip model,

Execution state.



① ④ stored in the programmer programming code Checksum value;

② ③ spaces

⑤ stored in the programmer programming code corresponding to the type of chip;

⑥⑨ read from the chip program code Checksum Value; ⑦ space or the

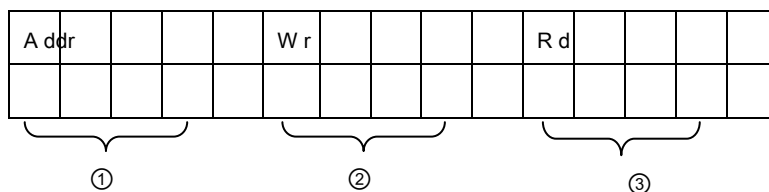
\*\*\*

If the chip is not encrypted, display spaces, if the chip is encrypted, it will show "\*\*\*" indicates that the chip encryption. ⑩ spaces

A state information on the operation performed ⑩.

If " ok "On behalf of a successfully executed operation; If" err "On behalf of the last operation failed.

- Offline programming error message is displayed:



① Programming error address (hexadecimal number);

② Value (hexadecimal) to be written;

③ The actual values are read back out (hexadecimal number);



- **led Status Indicator**

led Status indicators show the following four states:

Off: The system does not supply power module fails or programmer. .

**Red:** The system is powered on, but not yet with PC By machine USB Connected, or connected to, but not yet installed USB drive.

**Orange:** The system is powered, and with PC By machine USB Linked, and the USB Enumeration success.

**Flashing orange:** system is powered on, and with PC By machine USB It is connected, through positive and USB versus PC Data on

News of.

- **Card board and port configuration card**

77 Series expansion port programming without pallets

- **Reset button, and mode of operation key buttons**

Reset button: Reset writer;

Operation key: the online mode, press this button is invalid; offline mode, a separate press it perform offline burn

**Record function; offline mode, with the mode button, chip readback Checksum Value and Option / Password value Function**

can.

Mode: the next working online mode, press invalid; offline mode of operation, first press this key, and then press operation

**Key to perform the read-back chip Checksum Value and Option / Password value function.**

- **DC Power Jack**

**Will be supplied 15V Direct power supply adapter into this interface.**

- **USB B Type mouth**

**Will be supplied USB Thus a cable termination port, and the other end PC Connected.**

- **Programming interfaces Taiwan**

The programmer programming interface station uses a nine-pin serial port, as shown in the pin diagram below,

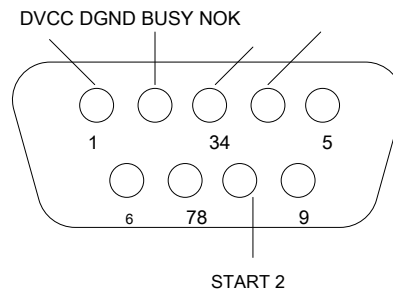
**1 No. Pin: Power DVCC**

**2 Pin number: Ground DGND**

**3 Pin number: BUSY Signal, when burning is low, the remaining high level**

**4 Pin number: NOK Whether a signal, determining the write is successful, when the high level programming, programming is done if successful low Level, if failure is high**

**8 Pin number: START signal**



Map 1.2 Programming interface diagram Taiwan

NOTE: When burning even programming station, in order to reduce interference caused by long wires, preferably programming jig VDD / VPP Pin on

To add a small capacitor, general VDD Additive 1000p About capacitors, VPP Additive 50p About capacitance.

## 2 Product Installation

### . 1 System Requirements

PC programming software requires minimum system configuration is:

- IBM PC Gallop 3 (Or compatible)
- 256MB RAM
- 32MB Free hard disk space
- Mouse, and keyboard USB mouth
- CD-ROM Drive (if burning software can be downloaded from the Internet may not be required CD-ROM driver)
- **operating system: Win NT / 2000 / XP / Vista ( 32Bit ) / Win7 ( 32Bit )**

The recommended configuration is:

- IBM PC Gallop 4 Above (or compatible)
- 512MB More memory
- 64MB Free hard disk space
- Mouse, and keyboard USB mouth
- CD-ROM driver
- **operating system: Win NT / 2000 / XP / Vista ( 32Bit ) / Win7 ( 32Bit )**

### 2.2 Burning software installed

PC burning software detailed steps are as follows: a. Double-PC burning software installation package, as shown in FIG.



Map 2-1 PC burning software installation package

two. Choose a language

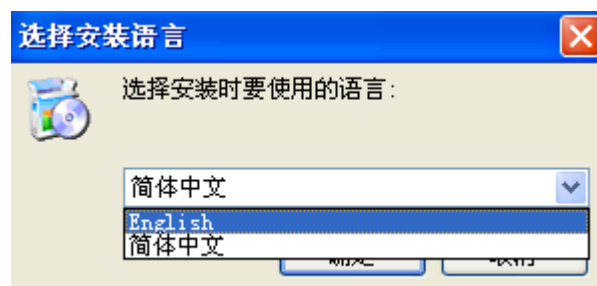


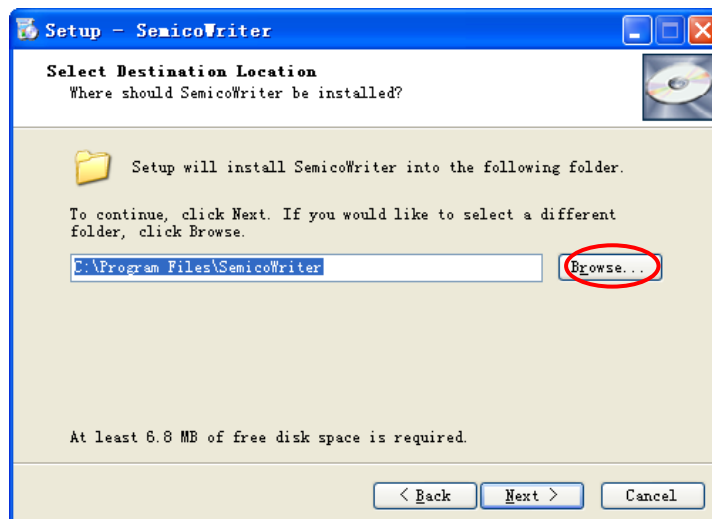
Figure 2-2 Setup Language dialog box

three. Installation Environment and pop-up Wizard dialog box, click "Next>" "Continue, as shown in FIG.



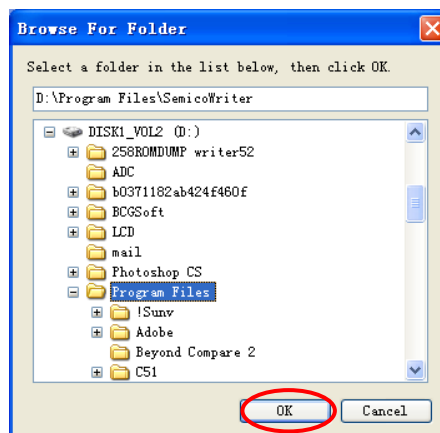
Map 2-3 Installation Wizard dialog box and environment

four. pop up" Select Destination Location "Dialog box, click" Browse ... ",As shown below.



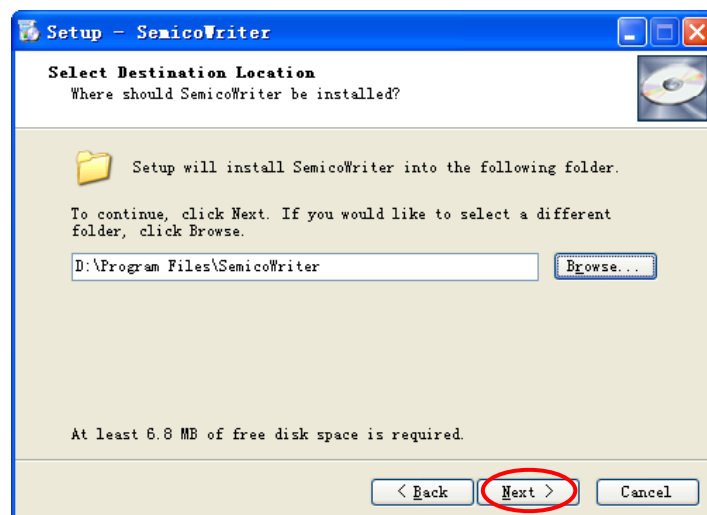
Map 2-4 " Select Destination Location "Dialog

Fives. In the pop-up " Browse For Folder "Dialog box, select Semico Writer Installation directory and press " OK ", As shown below. **It is worth noting: It is strongly recommended to choose the installation directory in English!**



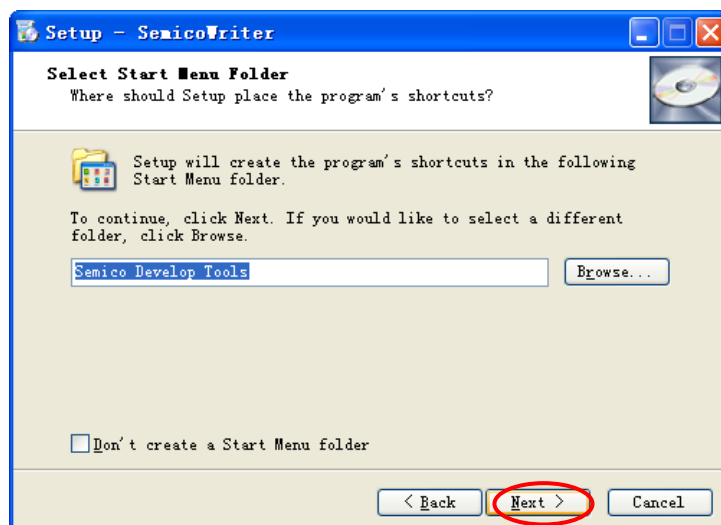
**Map 2-5 " Browse For Folder "Dialog**

six. return" Select Destination Location "Dialog box, click" Next> "Continue, as shown in FIG.



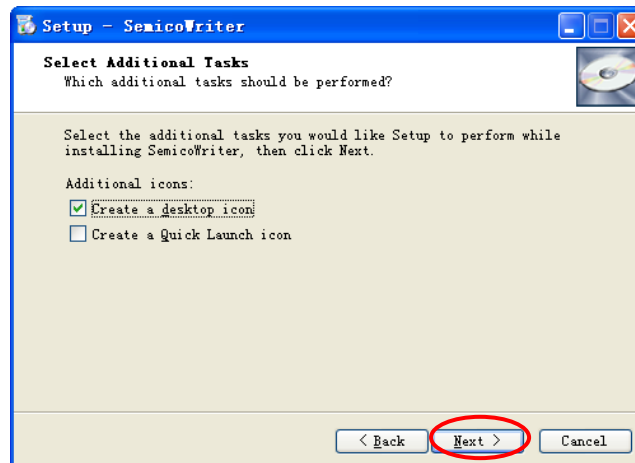
**Map 2-6 " Select Destination Location "Dialog**

Seven. pop up" Select Start Menu Folder "Dialog box, click" Next> "Continue, as shown in FIG.



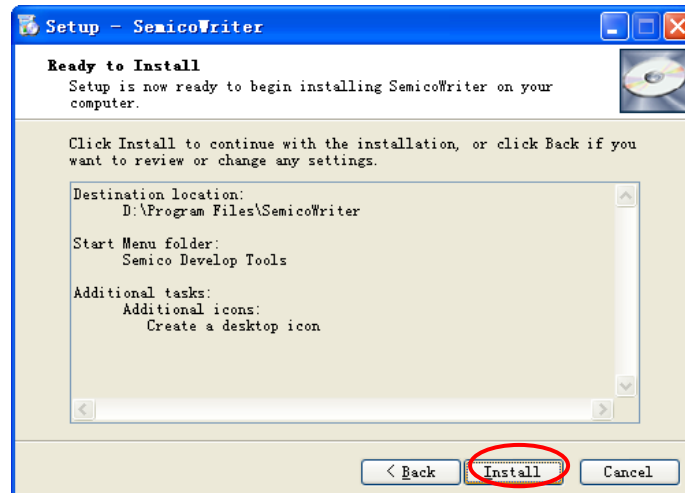
**Map 2-7 " Select Start Menu Folder "Dialog**

Eight. pop up" Select Additional Tasks "Dialog box, click" Next> "Continue, as shown in FIG.



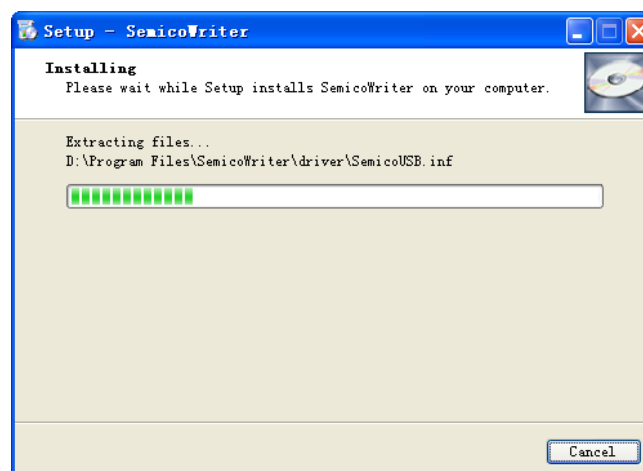
**Map 2-8 " Select Additional Tasks "Dialog**

nine. pop up" Ready to Install "Dialog box, click" Install "Continue, as shown in FIG.



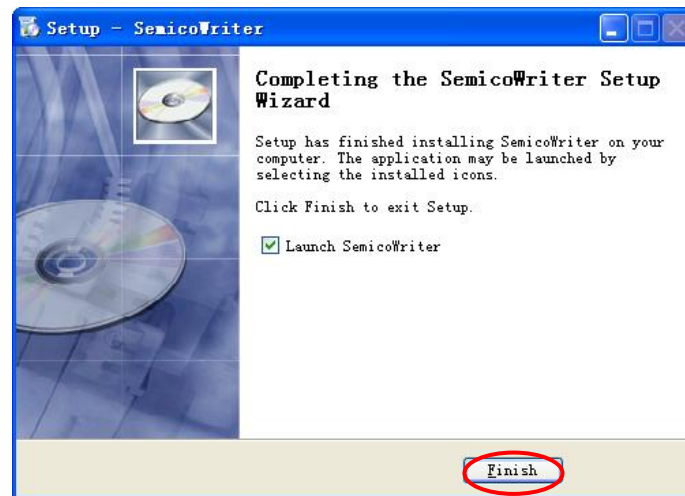
**Map 2-9 " Ready to Install "Dialog**

ten. pop up" Installing "Dialog box, installation Semico Writer ,As shown below.



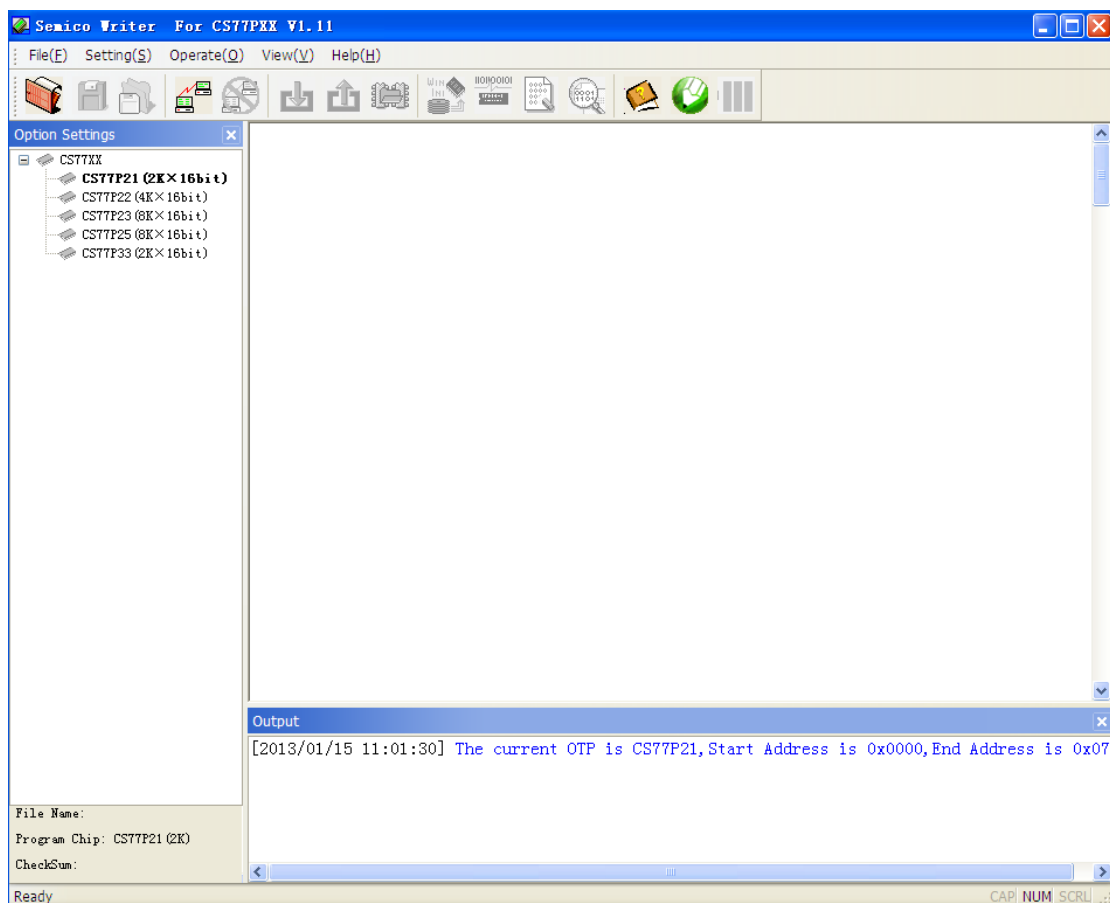
**Map 2-10 " Installing "Dialog**

eleven. pop up" Completing the Semico Writer Setup Wizard "Dialog box, click" Finish "End of the installation, as shown in FIG.



**Map 2-11 " Completing Setup Wizard "Dialog**

twelve. After installation, pop Semico Writer Initial interface, as shown in FIG.

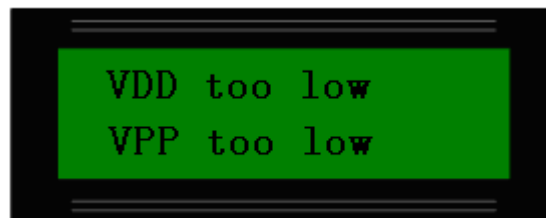


**Map 2-12 Semico Writer The initial interface**

## 2.3 Writer connection

One. First, make sure IC Programming seat or no programming expansion port and connected to the chip to be programmed, if connected, please take chips from IC Programming seat or unseat the connector cables to the expansion port of programming. two. The random distribution of 15V One end of the access power supply mains socket, the other end into a power outlet on the left side of the programmer. three. The programmer power, power indicator POWER Bright red, and over 1s Left and right, wait after power is stable, LCD Screen display message.

At this time, if the voltage error, then LCD The display will show the current voltage, as shown below. If the voltage is correct, it will not show the voltage.



Map 2-13 Writer voltage error message

If at this time, LCD Screen prompts " NO VALID DATA "Information, as shown below, then the programmer EEPROM

No data, because the internal programmer programming code has not been downloaded and set, can not be performed offline programming required jumps to step four, into the "connection mode" to download programming code and settings.

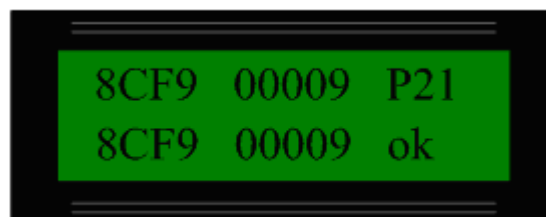


Map 2-14 EEPROM No data message

77 Series without having to card board, if EEPROM Burn the downloaded data, LCD Programming information is displayed, as shown in 2-17 Fig.

If you need to burn off, make sure LCD Whether to set consistent information displayed on the screen and the content needs to burn. If agreement can be directly offline programming; otherwise, skip to Step four also need to enter "online mode" to download the programming code and settings.

If you need online programming, skip to Step four, into the "online mode" programming code.



Map 2-17 Information Display settings



four. will USB End of the cable connected to plug PC Machine USB Port, insert one end of the burner USB interface.

If the PC Machine USB Before opening the programming has been successfully installed in USB Driven, the power indicator POWER From red to orange, and the buzzer short called twice (drops. Drops.), And LCD Screen prompts about 1 Seconds " USB Connecting .. " USB Information has been connected. At this show writer and PC machine USB It has been connected.



**Map 2-18 USB Connected showing**

If the PC Machine USB The mouth has not yet been installed writer USB Drive, insert USB After the connection lines, power indicator POWER Red -> Orange flash twice, LCD The screen display does not change, PC Desktop bottom right of the pop machine "Found New Hardware USB Devie "Prompt box, then pop-up" connection to Window Updata To search for software "dialog box, wait for the installation USB drive. USB Driver Installation Please refer to the following section.

## 2.4 USB Driver installation (Method a)

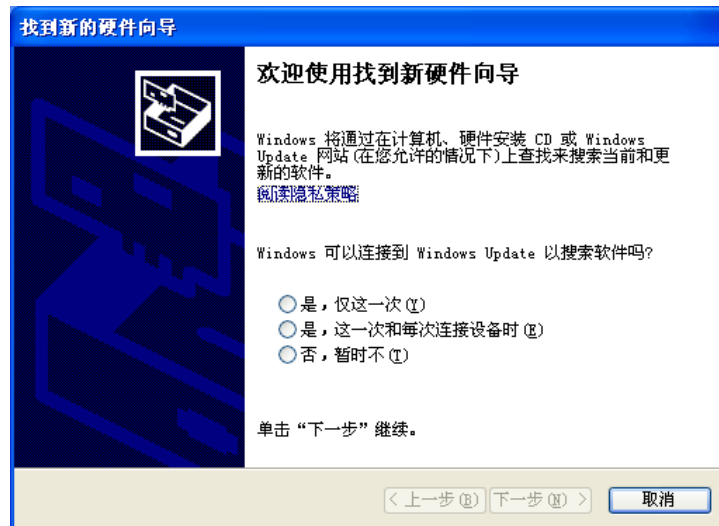
**Note:** In general, please use this method to install the user programmer USB drive!

One. If the first time writer, the writer and PC By machine USB After the cable is inserted and the power programmer, will PC Desktop bottom right of the pop machine "Found New Hardware USB Devie "Prompt box, as shown in FIG.



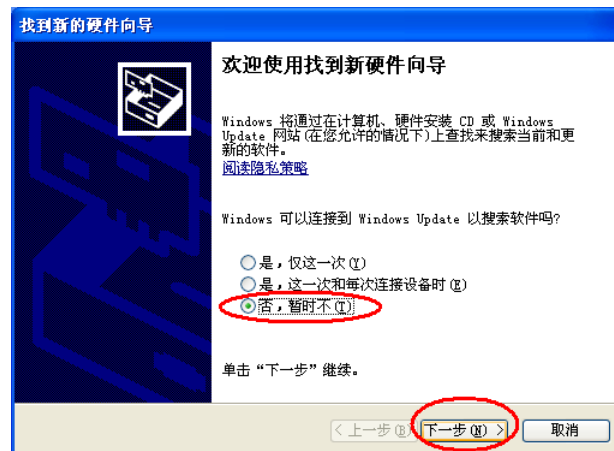
Map 2-19 A writer driver installation step

two. Pop-up "connection to Window Updata To search for software "dialog box, as shown in FIG.



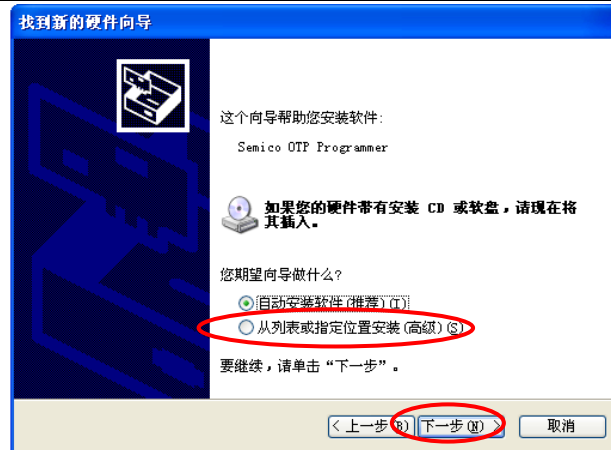
Map 2-20 Step two writer driver installation

three. In the dialog box, select "No, no", then click on "Next", shown below.



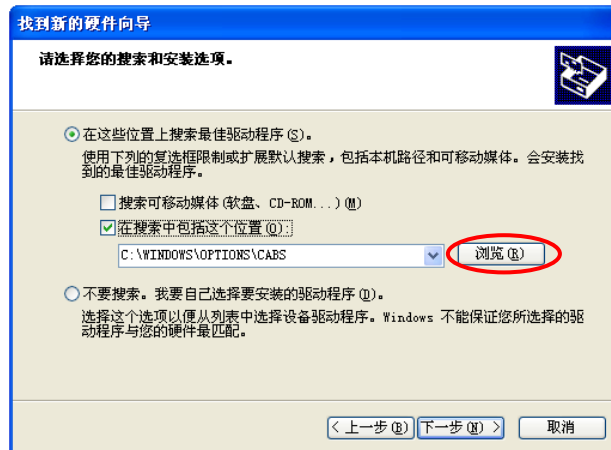
Map 2-21 Step Three writer driver installation

four. Pop-up "Found New Hardware Wizard" dialog box, select "Install from a list or specific location" option, and then click "Next", as shown below.



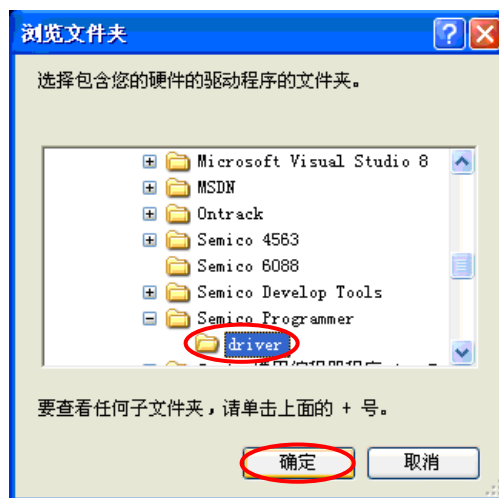
Map 2-22 Step Four writer driver installation

Fives. In the "search and installation options" dialog box, click "Browse", as shown below.



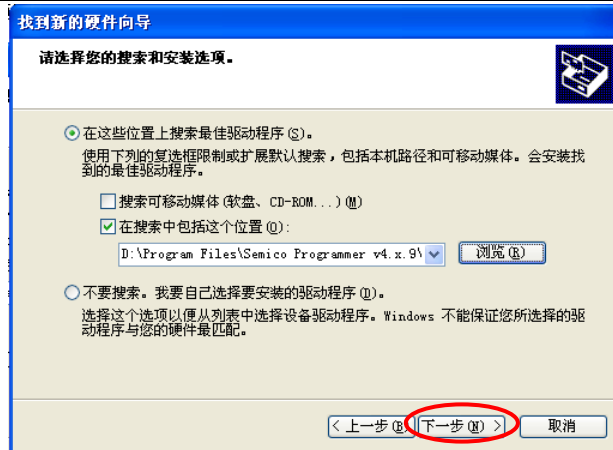
Map 2-23 Step five writer driver installation

six. In the dialog box, select the drive where the file folder writer ( Semico Writer Installation directory under " driver "Folder), and click" OK ", as shown in FIG.



Map 2-24 Step Six writer driver installation

Seven. Return to "search and installation options" dialog box, click "Next" to start installing the driver, as shown below.



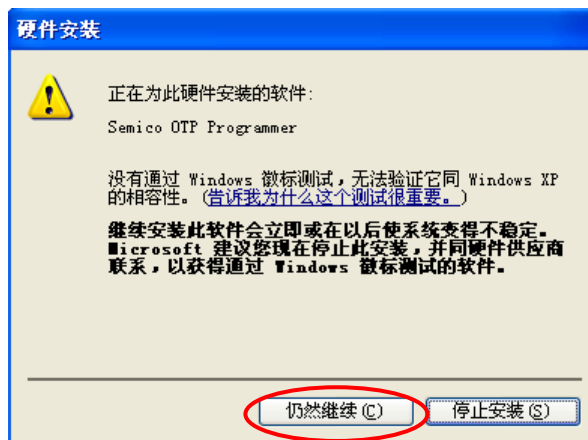
Map 2-25 Step Seven writer driver installation

Eight. Hardware Update Wizard then start searching for a drive, as shown in FIG.



Map 2-26 Writer driver installation Step Eight

nine. After the wizard searches for the correct writer drive, pop-up "Windows Logo test does not "suggest that at this time, please disregard, click on the" Continue "button, as shown by.



Map 2-27 Writer driver installation Step 9

ten. Then the programmer will start to install the driver, as shown in FIG.



Map 2-28 Writer driver installation Step 10

eleven. After a successful installation, it will pop up "to complete the Hardware Update Wizard" dialog box, click "Finish" to complete, as shown below.



Map 2-29 Writer driver installation Step 11

twelve. So far, writer drive has been successfully installed, there will be the bottom right of the desktop USB Device connection icon, as shown in red circle shown here, and will pop up "new hardware is installed and ready to use" prompt, prove PC Machine has been successfully identified programmer. At the same time, the power indicator POWER From red to orange, and the buzzer tones fast called "drip. Drip. Drip. Drip.". LCD screen display "USB Connecting .. "Prompt information.



Map 2-30 Writer driver installation Step 12

## 2.5 USB Driver installation (Method B)

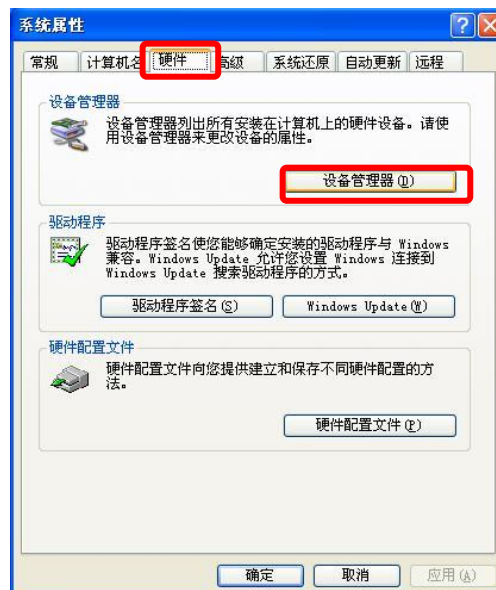
**Note: If you use a programming device can not be successfully installed USB Driving, please try to use the second mounting method USB drive!**

One. Right-click "My Computer" in the pop-up option, select "Properties", as shown below.



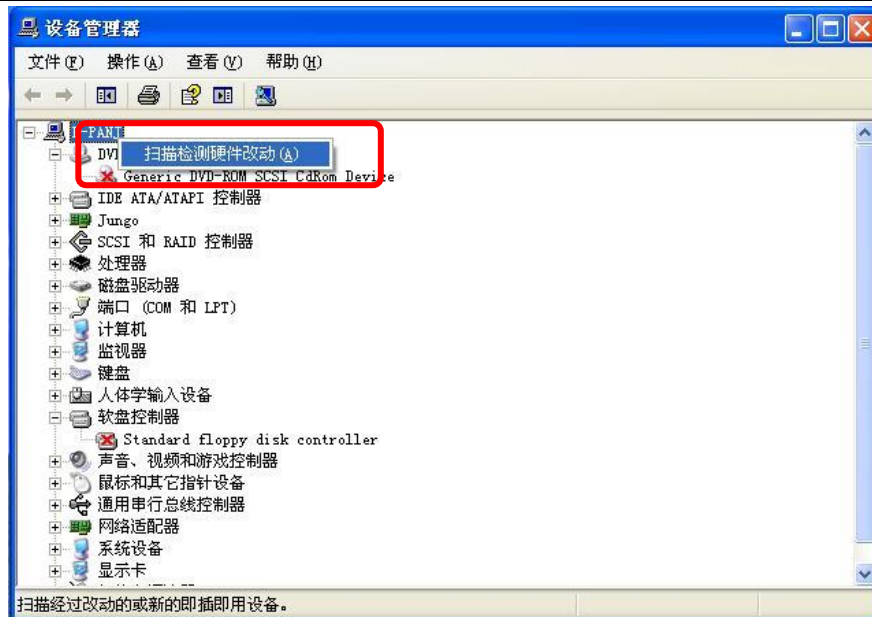
**Map 2-31 A writer driver installation step**

two. In the pop-up "System Properties" box, select the "Hardware" tab, click "Device Manager";



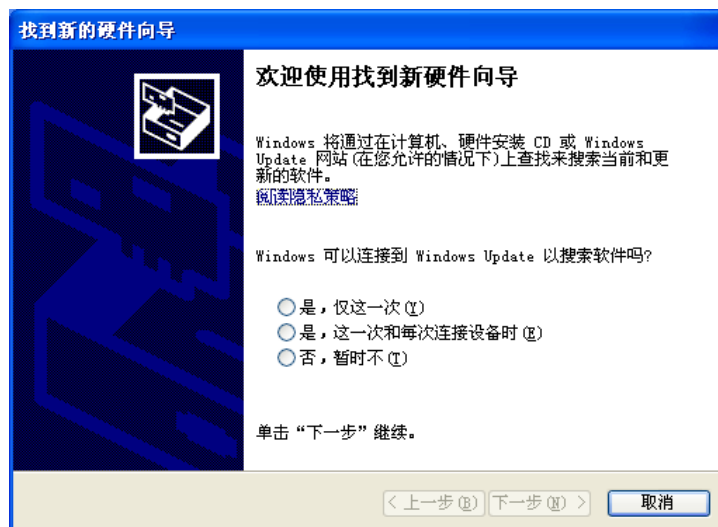
**Map 2-32 Step two writer driver installation**

three. If the writer did not successfully install the driver, then the "Device Manager", you would typically see "? Unknown USB Device "; In this case, right-click the computer name, and select the " Scan for hardware changes ";



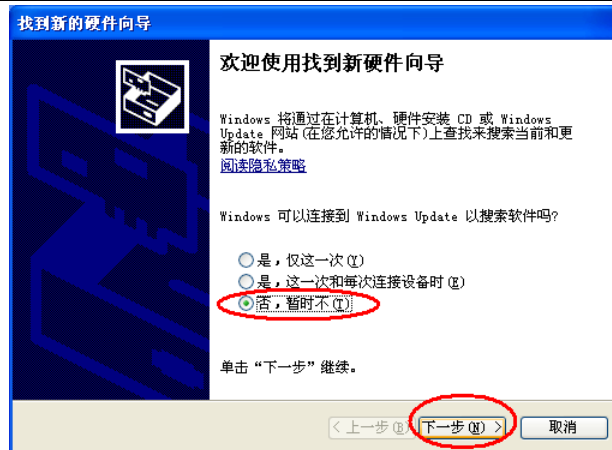
Map 2-33 Step Three writer driver installation

four. Pop-up "connection to Window Updata To search for software "dialog box, as shown in FIG.



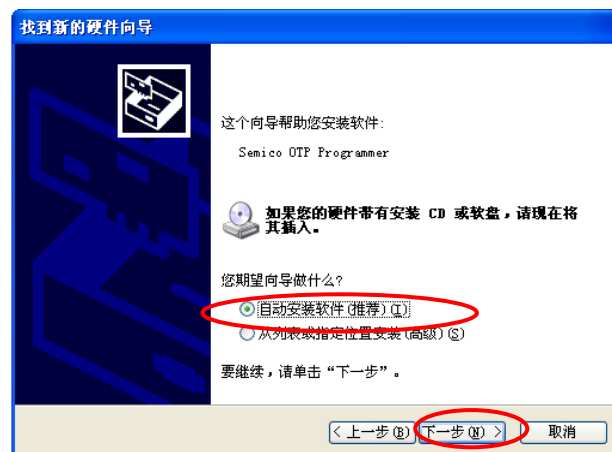
Map 2-34 Step Four writer driver installation

Fives. In the dialog box, select "No, no", then click on "Next", shown below.



Map 2-35 Step five writer driver installation

six. Pop-up "Found New Hardware Wizard" dialog box, select "Install from a list or specific location" option, and then click "Next", as shown below.



Map 2-36 Step Six writer driver installation

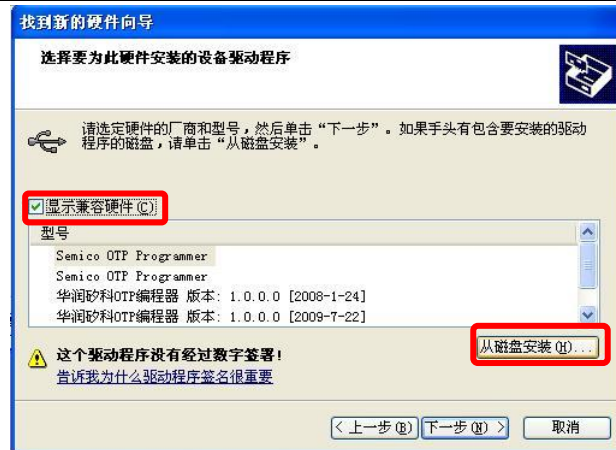
Seven. In the "search and installation options" dialog box, click "Browse", as shown below.



Map 2-37 Step Seven writer driver installation

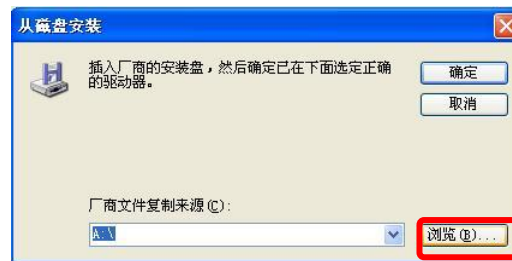
Eight. In the dialog box, check "Show compatible hardware", click "Have Disk ... ";





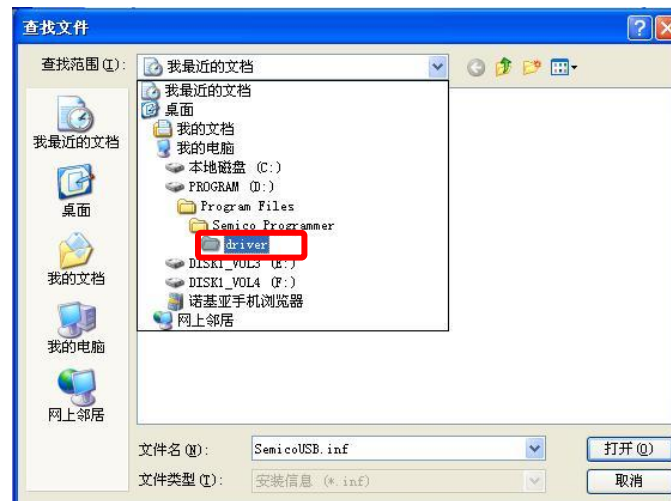
Map 2-38 Writer driver installation Step Eight

nine. In the pop-up "Disk" dialog box, click the "Browse ..." ;



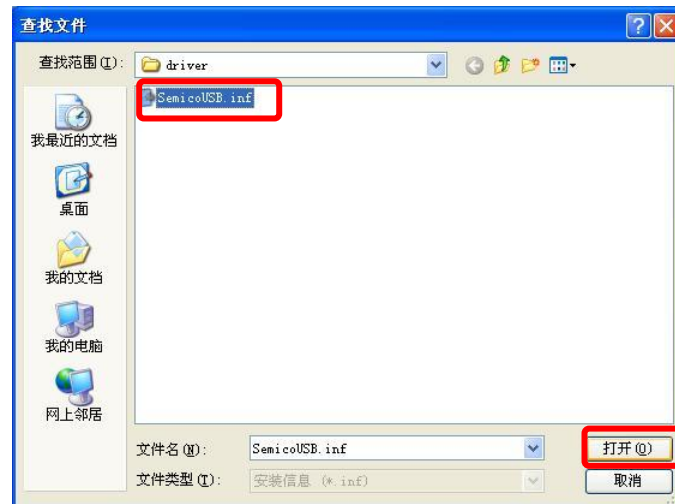
Map 2-39 Writer driver installation Step 9

ten. In the pop-up "Find File" dialog box, select Semico Writer PC software installation directory under " driver " table of Contents;



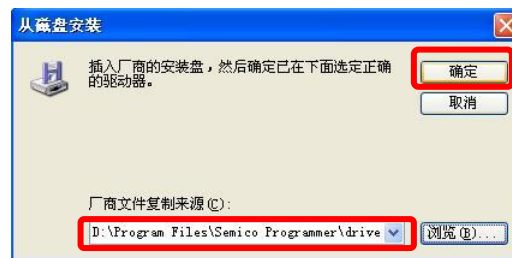
Map 2-40 Writer driver installation Step 10

eleven. select" SemicoUSB.inf "File and select" Open ";



Map 2-41 Writer driver installation Step 11

XII. Confirm USB A drive path to the file, and select "OK";



Map 2-42 Writer driver installation Step 12

thirteen. Select models compatible hardware box. " Semico OTP Programmer "And then select" Next ";



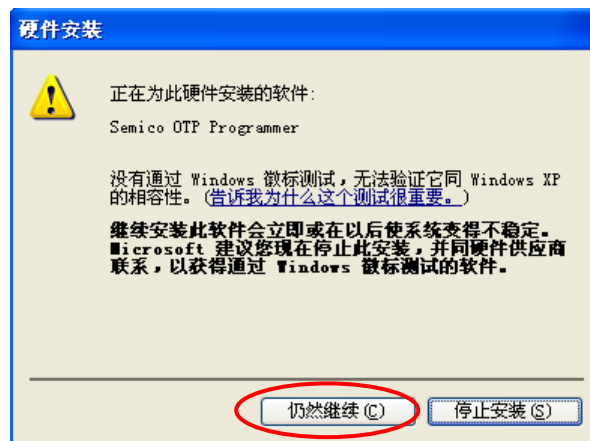
Map 2-43 Writer driver installation step thirteen

fourteen. Hardware Update Wizard then start searching for a drive, as shown in FIG.



Map 2-44 Writer driver installation step fourteen

fifteen. After the wizard searches for the correct driving simulator, pop-up " Windows Logo test does not "suggest that at this time, please disregard, click on the" Continue "button, as shown by.



Map 2-45 Writer driver installation step fifteen

sixteen. Then the programmer will start to install the driver, as shown in FIG.



Map 2-46 Writer driver installation step sixteen

XVII. After a successful installation, it will pop up "to complete the Hardware Update Wizard" dialog box, click "Finish" to complete, as shown below.



Map 2-47 Writer driver installation step seventeen

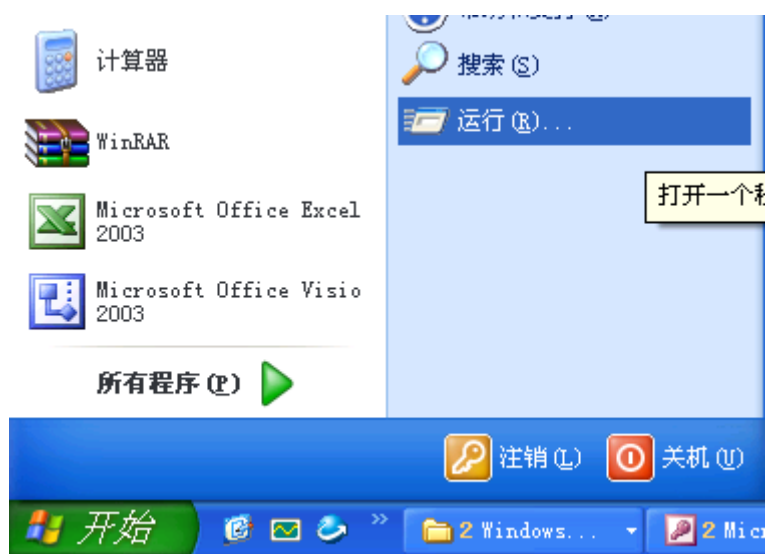
eighteen. So far, writer drive has been successfully installed, there will be the bottom right of the desktop USB Device connection icon, as shown at FIG red circle, and will pop up "new hardware is installed and ready to use" prompt box; Device Manager "Universal Serial Bus Controller" appears "Semico OTP Programmer" Device. At this point PC Machine has been successfully identified programmer. At the same time, the power indicator POWER From red to orange, and the buzzer fast twice called "drop. Drop.". LCD screen display "USB Connecting .. "Prompt information.



Map 2-48 Writer driver installation step eighteen

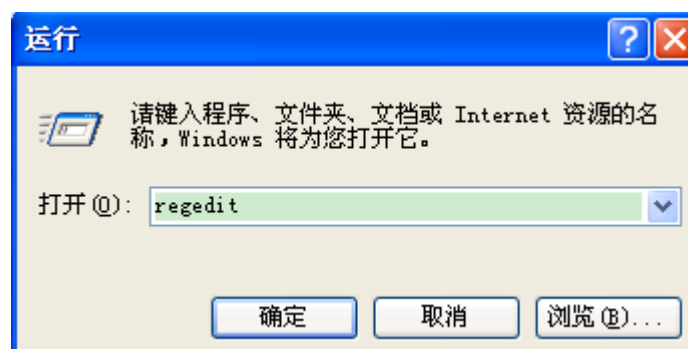
## 2.6 USB Driver installation fails Solution

Click Start select Run



Map 2-49 Solution Step one writer drive can not be installed

Entry regedit

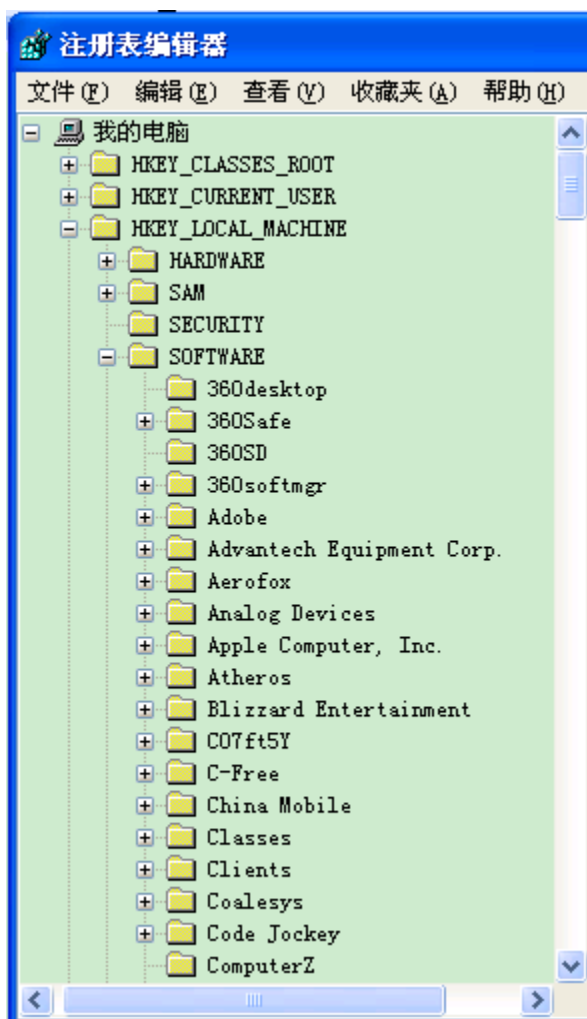


Map 2-50 Step two solutions writer drive can not be installed

Search Path

HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Microsoft \ Windows \ CurrentVersion \ RunOnce Such as it exists after deleting the new, such as does not exist, a new direct

Find a Registry HKEY\_CURRENT\_USER \ Software \ Microsoft \ Windows \ CurrentVersion \ RunOnce Such as it exists after deleting the new, such as does not exist, a new direct



**Map 2-51 Step three solutions writer drive can not be installed**

Re-install the driver, the problem can be solved

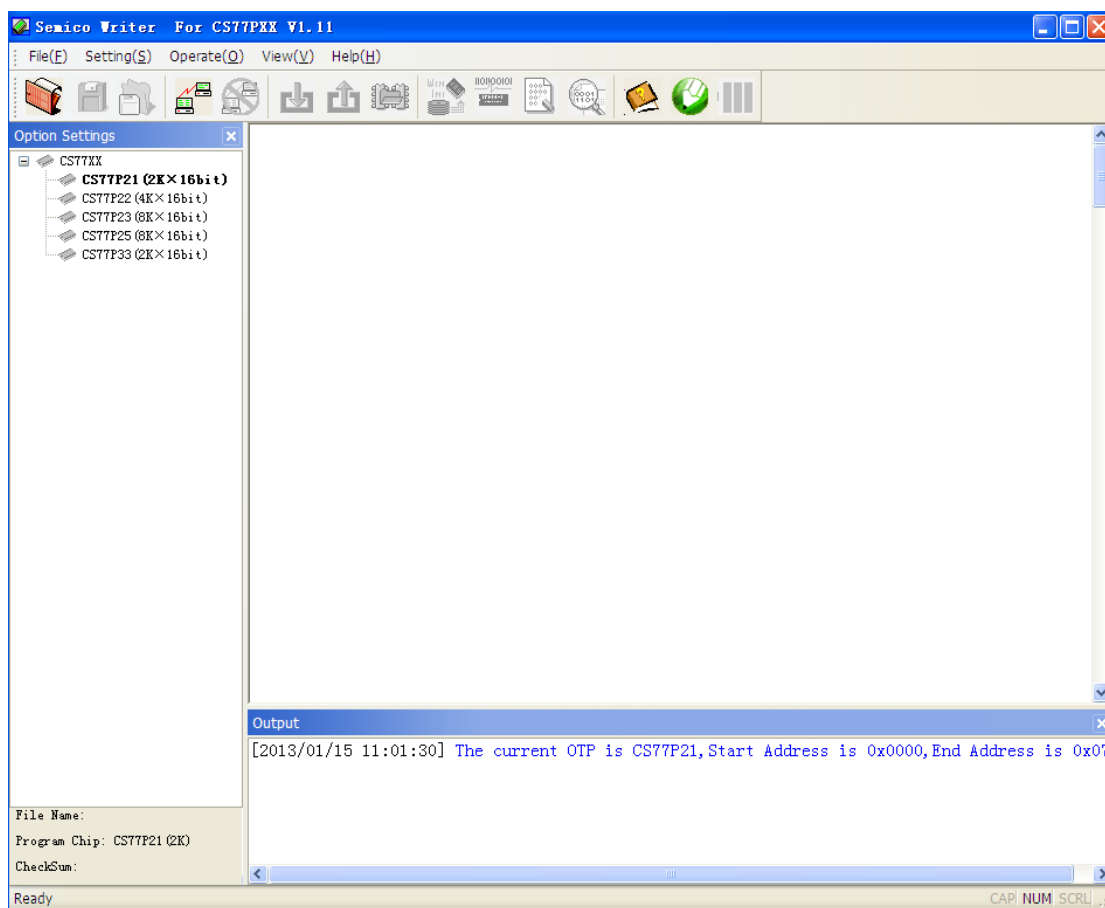
### 3 Burning Software

according to "2.2 Burning software installed" The steps to successfully install the burning software PC After the machine, burning software generates a shortcut icon on the desktop as shown below in FIG.



Map 3-1 Burning software desktop shortcut icon

Users can double-click the shortcut icon or click " Start " menu → " program "→" Semico DevelopTools "→" Semico Writer For CS77PXX " To open burning software. After opening the software interface as shown in FIG.

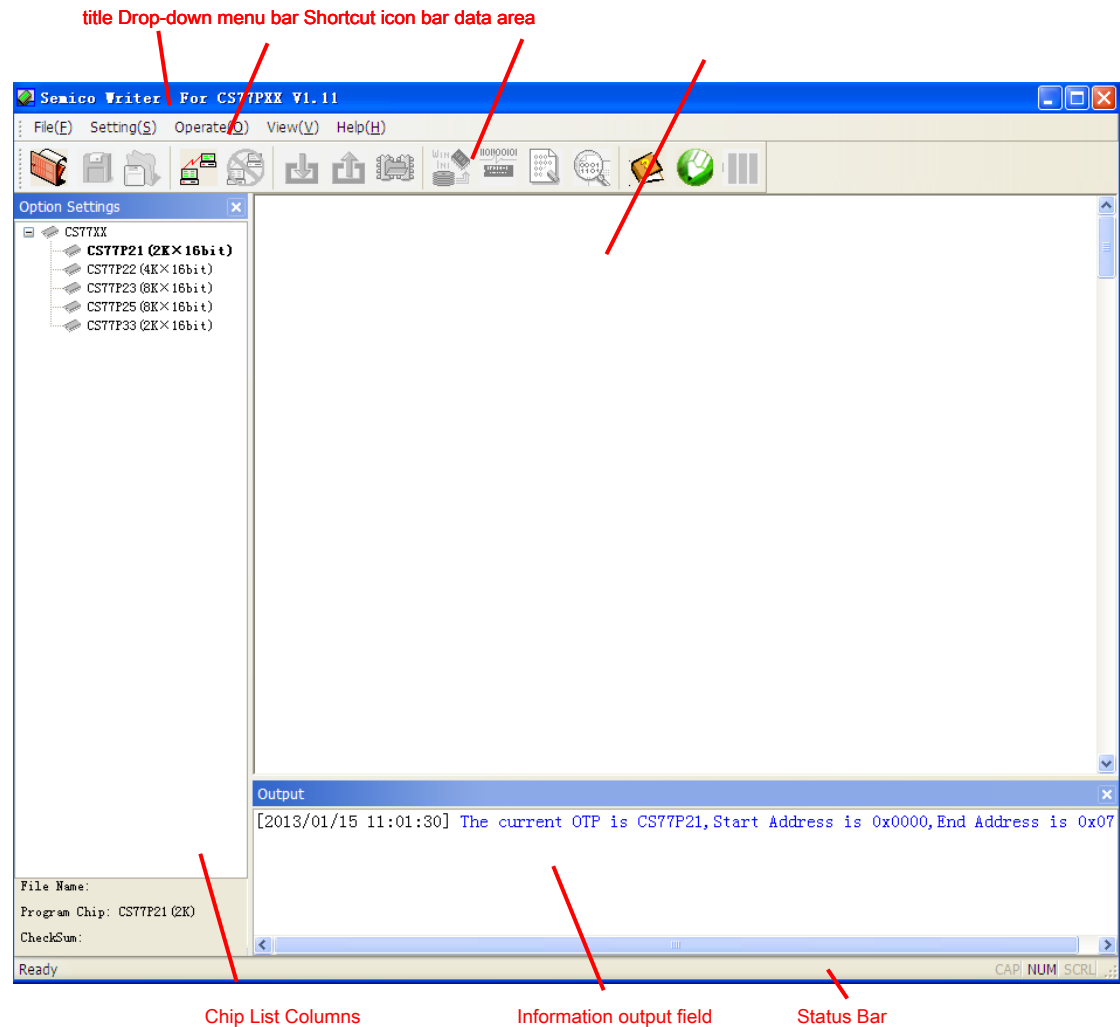


Map 3-2 Semico Writer The initial interface

### 3.1 Constituent elements introduced

Burning software consists of the following components: title bar, menu bar, pull-down, shortcut icon bar, chip list field,

Data area, information output and status bar, as shown in FIG.



**Map 3-3 Burning software interface elements consisting map**



## 3.2 title

Most burning software is the top title bar, as shown below. In the title bar of the left labeled with the name burning software -

" Semico Writer For CS77PXX "And the software version number -" vX.XX . "



Map 3-4 Burning software title bar

The far right of the title bar is software controlled button.



Software for the window is minimized;



Software for maximizing the window;



For closing the software.



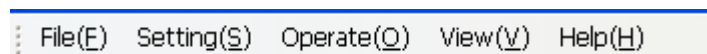
If the software has been maximized, there is no icon, but For software restore the window to its original size.

### 3.3 Drop-down menu bar

Burning software default is below the title bar drop-down menu bar, as shown below. Select the drop-down menu can be used each rat

Punctuation election, or by the keyboard. " Alt "+" Letters corresponding to for example: To select View Drop-down menu, button

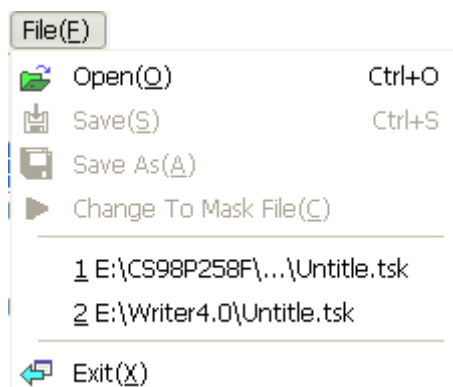
Disk " Alt "+" V . "



Map 3-5 Burning software pull-down menu bar

One. file File

"file File "Pull-down menu contains items as shown below.



Map 3-6 File Drop-down menu items

Wherein the functional description of each item listed in the following table.

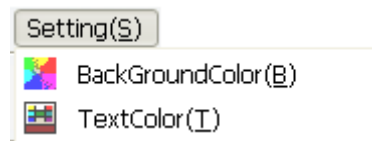
table 3-1 File The drop-down menu functions Description

Project Name Shortcut	Function Description
Open	Ctrl + O Open a tsk File format
Save	Ctrl + S Save the data in the current data area to the current position
Save As	Save the data in the current data area to a specified location
Change To Mask File	This feature is temporarily invalid
Exit	Software Exit Closes

Change To Mask File The following items are recently opened files history.

two. Set up Setting

"Set Setting "Pull-down menu contains items as shown below.



Map 3-7 Setting Drop-down menu items

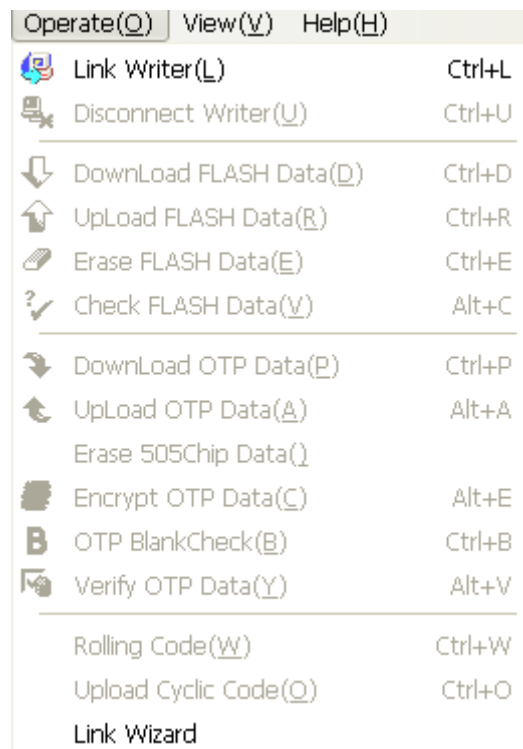
Wherein the functional description of each item listed in the following table.

table 3-2 Setting The drop-down menu functions Description

project name	Function Description
BackGroundColor	Background color setting data area
TextColor	Set the data area font color

three. operating Operate

"operating Operate "Pull-down menu contains items as shown below.



Map 3-8 Operate Drop-down menu items

Wherein the functional description of each item listed in the following table.

table 3-3 Operate The drop-down menu functions Description

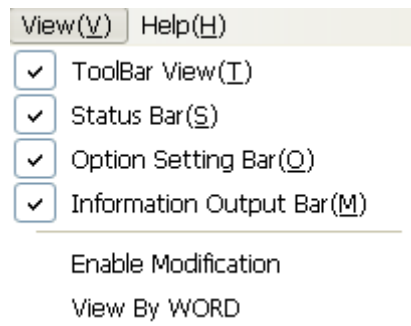
project name	Function Description
Link Writer	Burner connection
Disconnect Writer	Disconnect the burner
DownLoad FLASH Data Programming data set and the data downloaded to the burner zone	
UpLoad FLASH Data Read back burner and displays the data in the data area	
Erase FLASH Data	This feature is temporarily invalid

table 3-3 Operate The drop-down menu Function Description (Continued)

project name	Function Description
Check FLASH Data	Writer data read back and compared with the data of the data area
DownLoad OTP Data The data area is provided and the data downloaded to the chip OTP	
UpLoad OTP Data	From OTP Chip set and read back data and displays the data area
Encrypt OTP Data	encryption OTP Chip data
OTP BlankCheck	Correct OTP Chip blank check
Verify OTP Data	Readback OTP Chip Set and data and area data compared with the data
Continue DownLoad Online mode setting and programming operations, the rolling code box	
Upload Cyclic Code	Rolling code set information read back burner in
link Wizard	Burner connection using the wizard

#### four. view View

"view View "Pull-down menu contains items as shown below.



Map 3-9 View Drop-down menu items

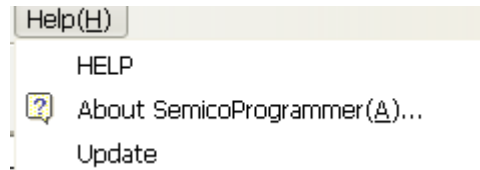
Wherein the functional description of each item listed in the following table.

table 3-4 View The drop-down menu functions Description

project name	Function Description
ToolBar View	Shortcut icon bar display / hide control
Status Bar	Status Bar Show / Hide control
Option Setting Bar	Chip category selection box Show / Hide control
Information Output Bar Information output field show / hide control	
Enable Modification	ROM Region can be modified / non-modified
View By Word	Display Word / byte Display

#### Fives. help Help

"help Help "Pull-down menu contains items as shown below.



**Map 3-10 Help Drop-down menu items**

Wherein the functional description of each item listed in the following table.

**table 3-5 Help The drop-down menu functions Description**

project name	Function Description
HELP	help
About SemicoProgrammer	Burning software version information
Updata	Lower computer firmware update

Click on " About SemicoProgrammer "After the item, the pop-up information box which contains the burning software version

This information - VX.XX And contact Email .

Click on Updata , A lower firmware updates online.

### 3.4 Shortcut icon bar

The following is a drop-down menu bar shortcut icon bar, as shown below. Users can click with the mouse in order to achieve the drop-down menu bar











Various functions.










**Map 3-11 Burning software shortcut icon bar**

Wherein each icon corresponds to each item pull-down menu bar, and implement the functions shown in the following table.

**table 3-6 Shortcut Icon Function Description**

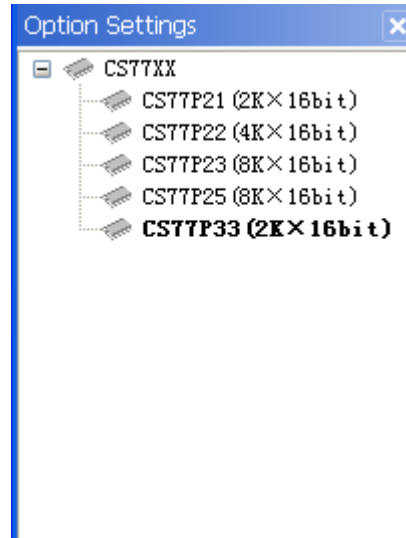
menu icon	The corresponding item in the drop-down		hot key	Realize the function
	Menu Item	Children		
	File	Open	Ctrl + O	Open a task File format
	File	Save	Ctrl + S	The data in the current data area To save the current position
	File	Save As	/	Save the data in the current data area to a specified location
	Operate Link	Writer	/	Burner connection
	Operate Disconnect	Writer	/	Disconnect the burner
	Operate DownLoad	FLASH Data	/	Programming data set and the data downloaded to the burner zone
	Operate Upload	FLASH Data	/	Read back burner and displays the data in the data area
	Operate Check	FLASH Data	/	Writer data read back and compared with the data of the data area
	/	/	/	Set the data and the data downloaded to the area OTP Chip (blank check + programming verification)
	Operate DownLoad	OTP Data	/	Set the data and the data downloaded to the area OTP Chip (+ verify programming)

**table 3-6 Shortcut Icon Function Description (Continued)**

menu icon	The corresponding item in the drop-down		hot key	Realize the function
	Menu Item	Children		
	Operate Upload	OTP Data	/	From OTP Chip set and read back data and displays the data area
	Operate Encrypt	OTP Data	/	encryption OTP Chip data
	Operate OTP	BlankCheck	/	Correct OTP Chip blank check
	Operate Verify	OTP Data	/	Readback OTP Chip Set and data and area data compared with the data
	Help About SemicoProgrammer		/	Burning software version information
	View Modify		/	Enter the interface can be modified
	Operate Link Wizard		/	Guide

### 3.5 Chip List Columns

The following is a shortcut icon bar on the left column chip list, as shown below. Which includes all types of programming chips supported. Before the user and "writer connected" Replacing the chip model or programming code required in this column corresponding to the double click chip model, in the pop-up box set accordingly.



Map 3-12 Burning software chip list column

### 3.6 Data Area

The right column lists the chip is a data area, as shown, for display tsk File programming code, programmer FLASH

The programming code and saved from OTP chip ROM Area back to the program code read. Which can be divided into three parts:

Address of the message area, the value (in hexadecimal format) and numerical information area ( ASCII Format) character area.

Address message area Numerical information area Numeric character area

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
00000000h	08	02	38	02	08	05	38	85	39	0E	08	06	38	9B	0		??-8-??
00000010h	90	38	90	36	03	36	91	38	0F	24	97	10	0F	28	95	27	?? 6?#\$(?)
00000020h	90	10	99	33	16	10	98	33	16	10	96	2C	16	21	72	10	??#??#?#?#?
00000030h	16	23	30	10	96	22	44	10	96	21	5A	10	96	27	8E	10	##0#?D#?Z#??
00000040h	9A	32	06	08	1A	3A	03	24	2F	10	9A	39	A3	3B	87	08	?#-:\$/#???
00000050h	23	3A	03	20	2F	10	15	2B	E1	08	A3	38	9B	39	85	10	#:/#*#???
00000060h	9A	37	43	10	9D	32	09	08	15	27	07	08	1B	3A	03	24	?C#?#?#?#?#?#?
00000070h	43	10	9B	39	15	27	40	10	7D	08	A3	38	15	2B	43	10	C#?#?#?#?#?#?
00000080h	15	2F	AF	08	A3	38	85	10	9A	32	1C	30	1A	3A	03	24	#/???#0#?#?
00000090h	59	10	9A	39	15	27	53	10	9C	32	A3	32	EB	08	23	3A	V#?#?#?#?#?#?
000000A0h	03	20	15	2B	59	10	9C	3B	A3	3B	C3	08	23	3A	03	24	+V#?#?#?#?#?
000000B0h	15	2F	85	10	9A	32	0E	08	1A	3A	03	24	68	10	9A	39	/???#?#?#?#?
000000C0h	15	27	6C	10	A3	38	82	08	23	3A	03	20	68	10	15	2B	'1#?#?#?#?#?
000000D0h	D2	08	A3	38	9B	39	8A	10	9B	32	07	08	1B	3A	03	20	????#?#?#?#?
000000E0h	15	2F	8E	10	9A	32	10	08	1A	3A	03	24	85	10	9A	39	/???#?#?#?#?
000000F0h	15	27	80	10	A3	32	EB	08	23	3A	03	20	15	2B	85	10	'#?#?#?#?#?
00000100h	A3	38	C3	08	23	3A	03	24	15	2F	23	30	81	38	01	08	??#?#?#?#?#?
00000110h	85	3E	97	10	23	30	81	38	15	23	85	10	05	28	97	10	??#0?#?#?#?
00000120h	9	27	97	10	A5	38	03	25	97	10	94	2B	14	2F	11	06	???%??#/06

Map 3-13 Burning software data area

Wherein the address value of the address prompt information area corresponding to the numerical value for each row address information in the first data area. due to

Numerical information by region 8-Bit (I.e. byte) display, so that the address information of the address area is prompted by the calculated byte pattern,

And real chips ROM Not necessarily the same address can not be simply equated.

Numerical data area from three sources: tsk File, writer FLASH Programming and read back the code

From OTP chip ROM Area back to the program code read. No matter what the source, it is displayed are used 8-Bit (I.e word

Festival mode) display.

However, the instruction bus for more than 8-bit of OTP Chip (Example: CS98 Series, etc.), and the arrangement of the data and the real address

Inter-chip is not consistent. E.g: CS98P153 The instruction bus 14-bit The actual chip ROM Instruction is 14-bit

Save it as a unit, but also to address 14-bit Calculated. However, when displayed in bytes of the data area,

The original 14-bit Two-byte instruction, low 8 Bits one byte (low byte), high 6 Bits one byte (high

Byte), high high byte 2 Bits 0 Filled, then a low byte first, high byte mode display data one by one

Area. Data area is also prompted by byte address calculation, so OTP chip ROM The actual address areas should

The data area is divided by the prompt address 2 The value obtained.

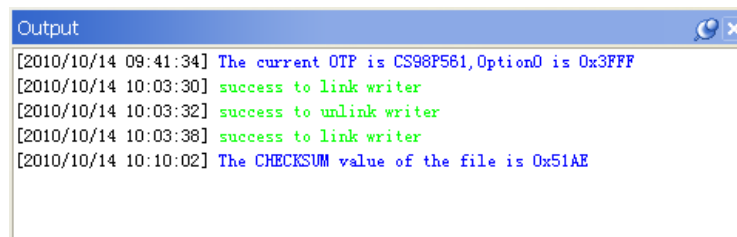


### 3.7 Information output field

Below the data area is an information output field, shown below, it is used to display the currently selected chip model, the online mode

And the results of the operations performed by the corresponding values (such as: Checksum , Option , Password, frequency calibration, etc.), giving

More tips and references for ease of use.



Map 3-14 Burning software information output column

### 3.8 Status Bar

Bar below the output information is the status bar, shown below, is used to prompt the relevant status information.



**Map 3-15 Burning software status bar**

Far left of the status bar displays the current status of burning software. For example, above the "Ready" indicates the ready state.

The rightmost display the keyboard status.

among them, "CAP" "Caps Lock key is on the keyboard" Caps Lock "Valid flag; if the font is black, represents a capitalization

Effective locking; if gray, this indicates invalidity.

among them, "NUM" "Num Lock key on the keyboard." Num Lock "Valid flag; if the font is black, indicating little

Keyboard valid; if gray, this indicates invalidity.

among them, "SCRL" "Scroll Lock key is on the keyboard" Scroll Lock "Valid flag; if the font is black, represents a roll

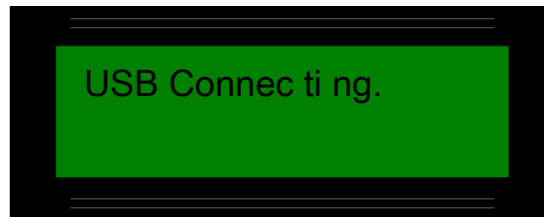
Movable locking valid; if gray, this indicates invalidity.

## 4 Line operation

### 4.1 Ready to work

One. Please follow" [2.3 Writer connection](#) "The steps in connection USB , Power indicator writer POWER

From red to orange, LCD Screen display 1 Seconds " USB Connecting .. "Message, buzzer fast twice called" drop. Drop. ".

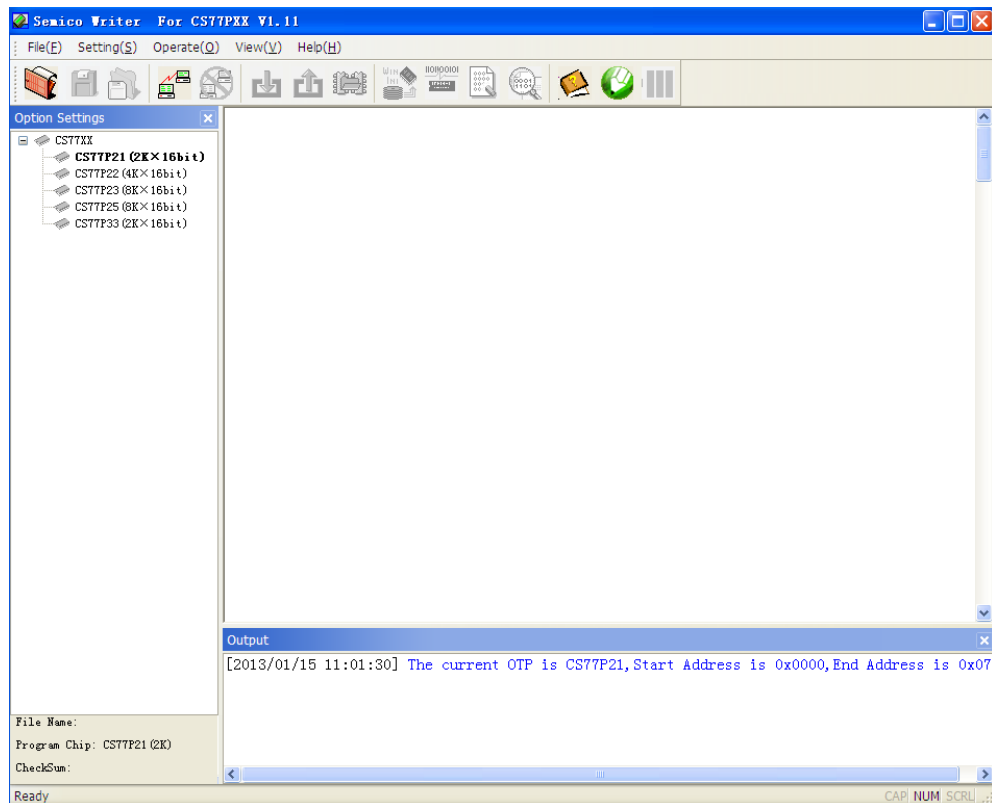


Map 4-1 USB connected LCD Showing

two. Double-click on the desktop. " Semico Writer For 77PXX "Shortcut icon or click " Start " menu → " Journey

sequence "→" Semico Develop Tools "→" Semico Writer For CS77PXX " To open burning software. Open Software

After the interface as shown in FIG.

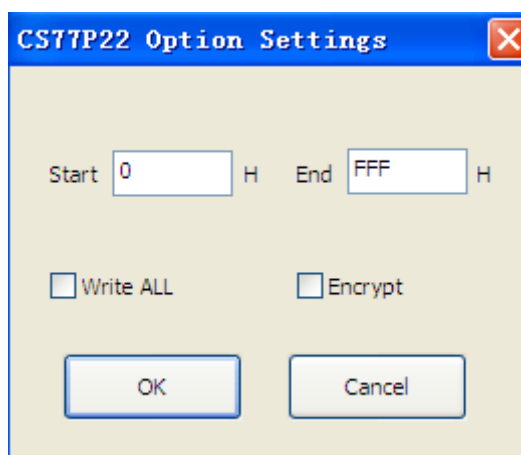


Map 4-2 The initial burning software interface

## 4.2 Chip set and select a file

One. Please be operated in accordance with OTP Chip model, on the left to find the corresponding core burning software "chip list bar"

Sheet items, double-click to bring up the following chip Settings dialog box, select the programming area, whether encryption, click "OK" submit.



Map 4-3 Chip Settings dialog box ( CS77P22 )



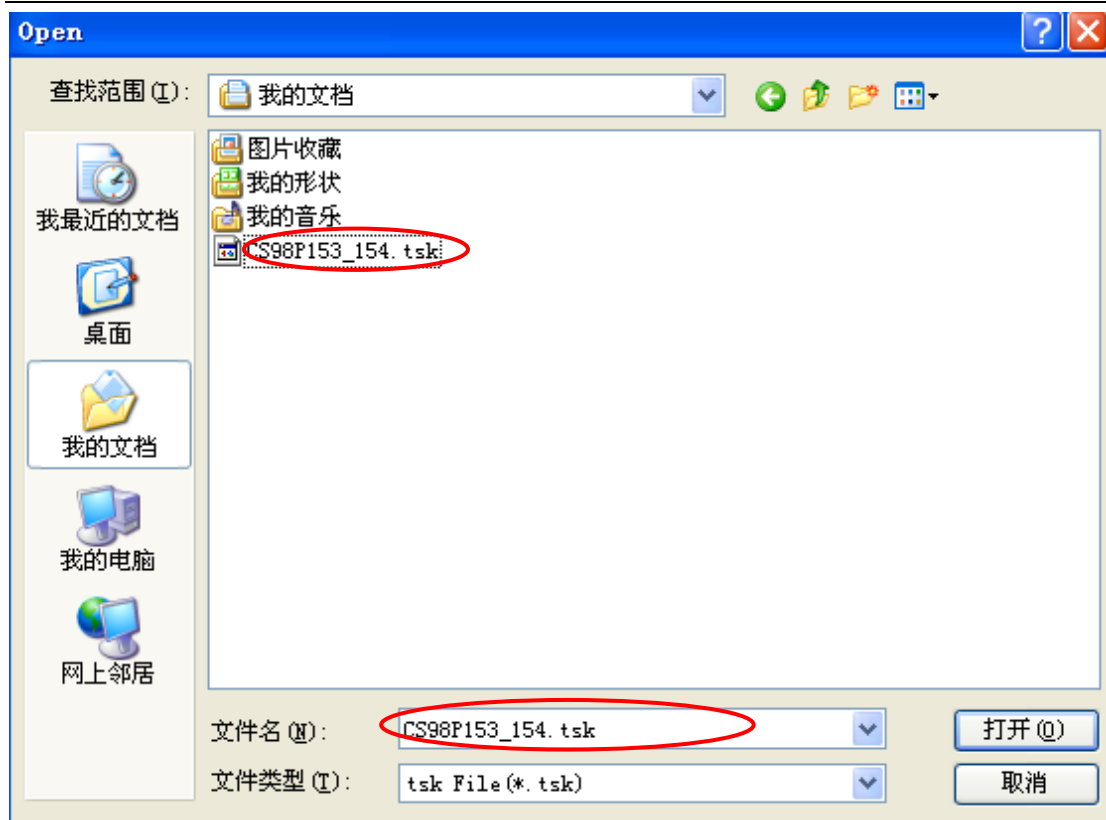
two. Please click on the shortcut icon bar

Icon to bring up the Open File dialog box as shown below, choose to be burned

Recorded file ( tsk After the format, where only an exemplary example) is opened (by opening the file with the chip ROM Size is inconsistent,

Whether to continue the pop-up dialog) and edit the file data can be observed from the data area, while significantly updated information output bar

Shows open files Checksum value. If it can open hex File, automatically transcode tsk Format.



Map 4-4 Open File dialog box



Map 4-5 Open File dialog box

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00000000H:	17	14	09	14	2C	0A	DD	00	E0	00	06	09	12	00	FF	1F
00000010H:	0A	14	13	00	5B	00	5B	07	03	07	6D	00	23	04	41	00
00000020H:	0F	08	00	00	11	0A	2D	07	43	00	1B	07	13	00	98	10
00000030H:	D0	00	D1	00	EC	00	D2	00	EA	00	E7	12	EE	00	E2	00
00000040H:	D1	0A	FF	18	67	00	00	18	5E	00	E6	13	06	09	36	11
00000050H:	2B	11	7E	13	EF	13	EA	12	01	17	15	17	49	12	11	12
00000060H:	3C	11	AF	17	50	0E	68	14	EA	13	D0	0C	40	14	06	18
00000070H:	27	01	83	0E	3C	14	40	14	E3	18	27	01	83	0E	29	14
00000080H:	00	18	1E	01	83	0E	46	14	27	13	64	14	03	18	1E	01
00000090H:	83	0E	4C	14	30	13	64	14	02	18	1E	01	83	0E	52	14
000000A0H:	35	13	64	14	04	18	1E	01	83	0E	58	14	41	13	64	14
000000B0H:	05	18	1E	01	83	0E	5E	14	39	13	64	14	80	18	1E	01
000000C0H:	83	0E	64	14	3C	13	64	14	D0	08	FF	18	67	00	29	14
000000D0H:	21	12	D0	0C	74	14	06	18	27	01	83	0E	70	14	74	14
000000E0H:	E3	18	27	01	83	0E	29	14	03	18	1E	01	83	0E	7A	14
000000F0H:	4F	13	64	14	02	18	1E	01	83	0E	80	14	55	13	64	14
00000100H:	04	18	1E	01	83	0E	86	14	58	13	64	14	05	18	1E	01
00000110H:	83	0E	8C	14	5B	17	64	14	00	18	1E	01	83	0E	92	14
00000120H:	65	13	64	14	80	18	1E	01	83	0E	64	14	62	13	64	14
00000130H:	FF	18	05	00	06	00	0B	00	16	00	57	00	97	09	17	04
00000140H:	06	00	16	00	57	00	D7	09	17	04	06	00	16	00	57	00
00000150H:	97	08	17	04	06	00	16	00	57	00	17	09	17	04	06	00
00000160H:	00	18	0C	00	0D	00	0E	00	01	18	0F	00	12	00	C2	03
00000170H:	00	1C	00	1C	00	1C	00	1C	00	1C	00	1C	00	1C	00	1C
00000180H:	00	1C	48	1C	3C	1C	00	1C	40	1C	18	1C	00	1C	00	1C
00000190H:	00	1C	00	1C	00	1C	00	1C	00	1C	78	1C	14	1C	00	1C
000001A0H:	70	1C	38	1C	00	1C	40	1C	18	1C	00	1C	45	0A	85	0A
000001B0H:	06	0A	12	00	15	00	57	00	57	0A	17	04	05	00	15	00
000001C0H:	57	00	97	0A	17	04	05	00	16	00	57	00	17	0A	17	04
000001D0H:	06	00	12	00	15	00	57	00	57	08	17	04	05	00	15	00
000001E0H:	57	00	97	08	17	04	05	00	16	00	57	00	17	08	17	04
000001F0H:	06	00	12	00	09	18	57	00	45	08	D7	05	01	15	06	0A
00000200H:	12	00	85	08	22	0E	08	15	06	0A	85	0A	62	06	FD	14
00000210H:	06	08	05	15	09	18	62	00	FA	10	45	0A	40	18	62	00
00000220H:	FA	10	45	0A	C0	18	62	00	FA	10	1F	18	58	00	00	18
00000230H:	59	00	D8	05	21	15	45	0A	8F	18	62	00	FA	10	45	0A

Map 4-6 Data display area after the file is opened

| The checksum value of the file is 0x0019 7CF9

Map 4-7 Information output after the file is opened

### 4.3 Connection writer

carry out OTP Chip set and verified, please click on the shortcut icon bar

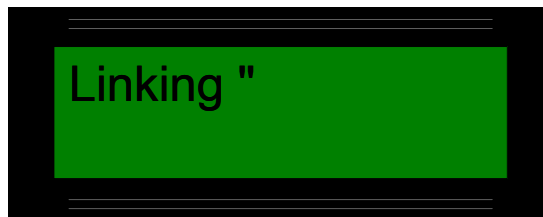


Icon, connecting programmer.

If the connection is successfully programmed, prompts, as shown below. When a user clicks "OK" significant update information output column

Shows " success to link the writer "Success information writer is connected, while the lower programmer machine LCD display" Linking ... "

Writer into the online mode.



Map 4-8 The connection is successful writer LCD prompt



Map 4-9 Writer connection succeeded dialog box

```
2013/01/15 12:38:41] Set OTP to CS77P22, Start Address is 0x0, End Address is 0xFFFF, Unencrypt
2013/01/15 12:38:44] The checksum value of the file is 0x0019 7CF9
2013/01/15 12:39:12] success to link writer
```

Map 4-10 Writer connection success information output

If the programmer is not powered on or is not and PC By machine USB Or connected USB Enumeration failed, click on the "Connect programmer"

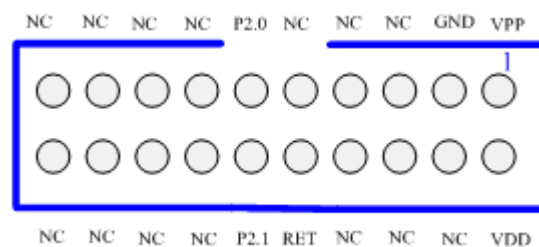
Shortcut icons are shown below message box will appear.



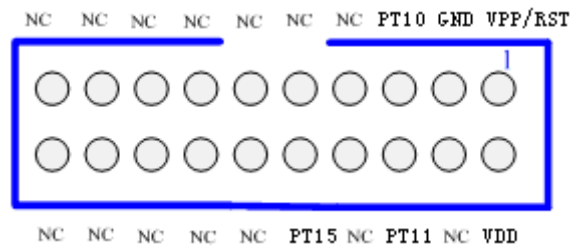
Map 4-11 Writer connection fails balloon

## 4.4 Chip placement

CS77P2X Soft seal chip programmed by the expansion port, a null signal extension is defined as follows:



Map 4-12 77P2X Writing Assignment



Map 4-13 77P33 Writing Assignment

## 4.5 Chip blank check



Before and after the connection is successful writer placed a good chip, for online programming, we recommend click on the shortcut icon bar Map

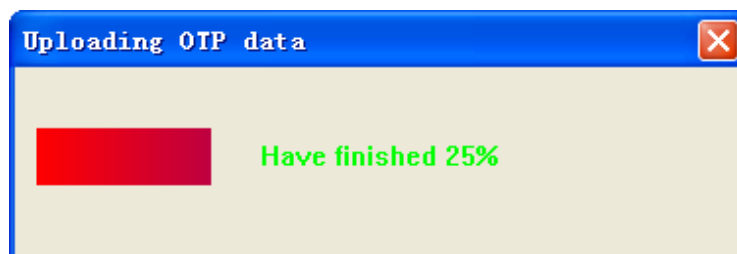
Standard, the chip blank check operation.

Pop-up "operation progress bar chip blank check." If the chip blank check is passed, the pop-up "Success to blankcheck OTP datas "

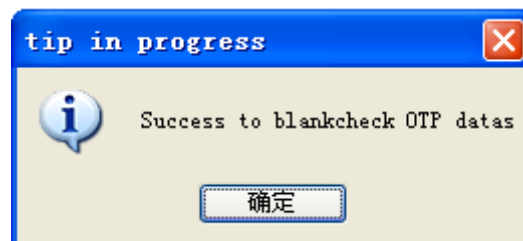
Success tips chip blank check box, and update information display output column blank check and successfully took prompt information; otherwise, pop

Chip blank check failure message box, which comprises a non-null and non-null data address information, and outputs the update information display field blank check

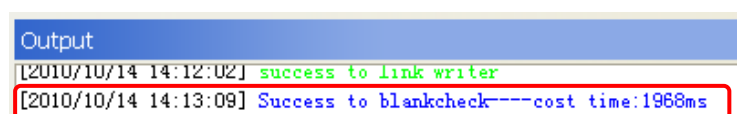
Failure and address non-empty, non-empty data and other information tips.



Map 4-16 Chip blank check operation progress bar

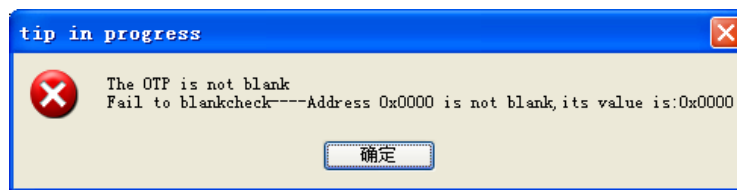


Map 4-17 Chip blank check box success tips

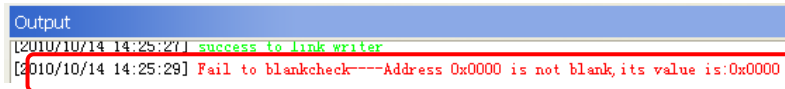


Map 4-18 Chip blank check success information output





Map 4-19 Chip blank check failed balloon



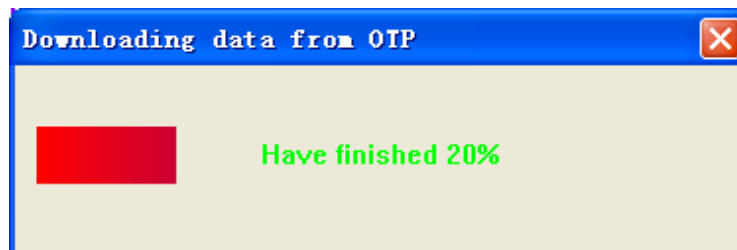
Map 4-20 Chip blank check failure information output

## 4.6 Chip burning

Writer connection is successful, place the chip and to ensure good data area contains data, you can click on the shortcut icon bar



Icon in the chip online programming. pop up OTP Chip burning progress bar.



Map 4-24 Chip burning progress bar

If the programming failed, the pop OTP Programming failed prompt box prompts error address, read data and the burn-in data. point

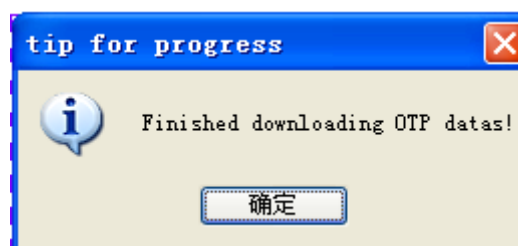
After click "OK" output information column calibration frequency information (if supported), and related error messages.



Map 4-25 Chip programming failed balloon

If the burn is successful, the pop-up OTP Burning success prompt box. Click "OK" output frequency output bar

Calibration information (if supported), status and time-consuming programming success information.



Map 4-26 Device programming success tips box

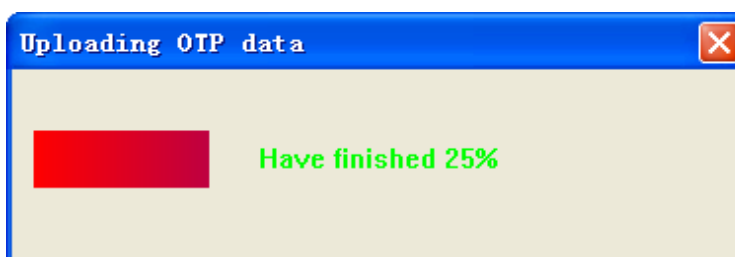
## 4.7 Chip verification

Writer connection is successful, place the chip and to ensure good data area contains data, you can click on the shortcut icon bar



Icon for online verification of the chip.

First, check the state of progress of the pop-up box.

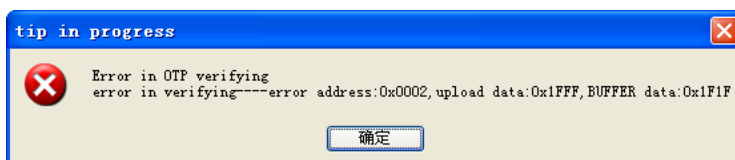


Map 4-27 Chip verification progress box

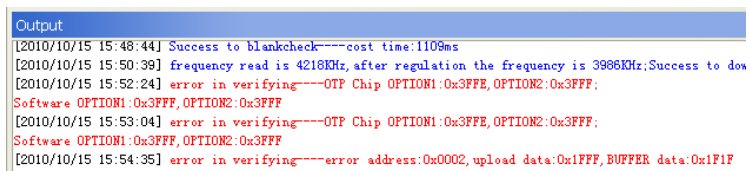
If the OTP Inconsistent data back to the chip and the data read out of the data area, parity error pop up as follows

Prompt box prompts error address, read data, and the data buffer. Click "OK" message box output phase

Off error message.



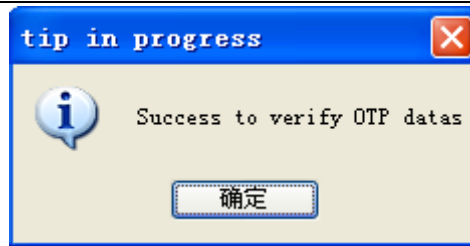
Map 4-28 Chip verification error prompt box



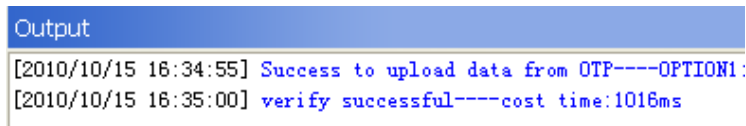
Map 4-29 Chip failure message output block

If the OTP The chip back data consistent with the data read out of the data area, the pop verification success mention as follows

Block diagram. Click "OK" message box output status and time-consuming verification success information.



Map 4-30 Chip verification is successful balloon



Map 4-31 Chip output information block verification is successful

## 4.8 Chip readback

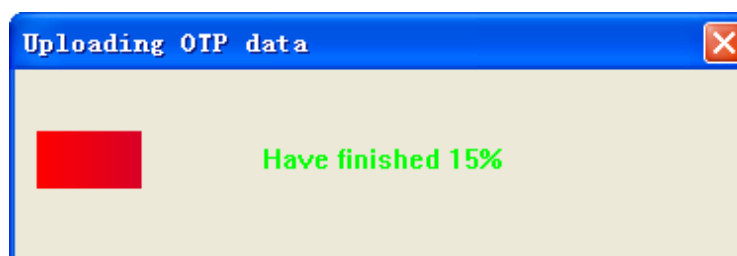
After the connection is successful writer and place a good chip, you can click on the shortcut icon bar



Icon with the chip

Machine back to reading.

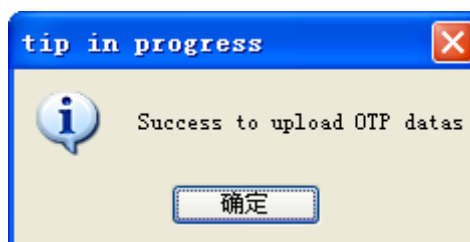
First read back the state of progress of the pop-up box.



Map 4-32 Chip status readback progress box

After the read-back is completed, the pop-up "OTP After the chip is read back successfully" message box. Click "OK" significant information output column

It shows status read-back success and time-consuming information, data display area to update the data read back out.



Map 4-33 Chip readback success balloon

## 4.9 Exit online mode

Working in online mode programmer, to exit the online mode, enter the offline mode, you can click on the shortcut icon bar



of Icon to display disconnected programmer. Writer goes offline mode.

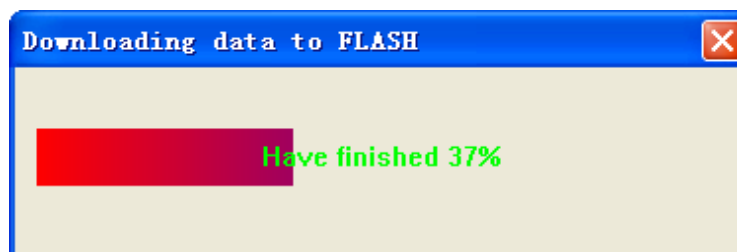
## 4.10 Download and burn data set information



Writer connection is successful and to ensure that the data area contains data, you can click on the shortcut icon bar Icon will burn

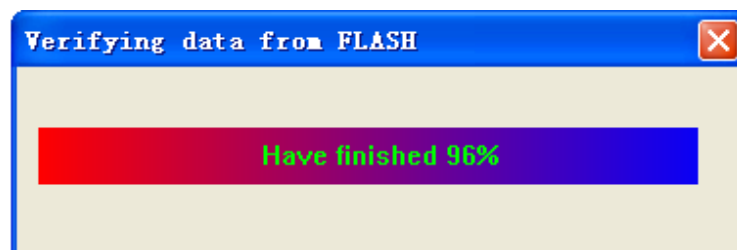
Programming and data setting information set on the software download to the programmer in order to prepare to enter the work offline mode.

Download progress box pop up as shown in FIG.



**Map 4-44 Configuration and data download progress box**

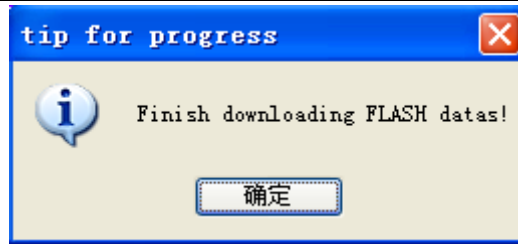
Then, check the progress of the pop-up box as shown in FIG, downloaded to the programmer of the configuration information and data validation.



**Map 4-45 Configuration and data check progress box**

If the verification is successful, the success of the pop-up message box as shown below, and click "OK", the download message box output

Power status and time-consuming information.



Map 4-46 Configuration and data download prompt box success

If the verification fails, the failure is shown as balloon prompted an error address, read data, and buffer data. Click on

After the "OK" box to output information related error messages.



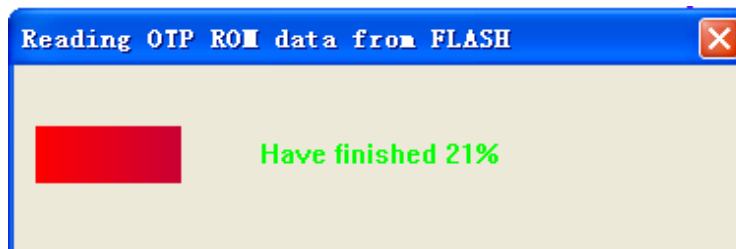
Map 4-47 Configuration and data download failed message box

#### 4.11 Check setting information data and burn



Writer connection is successful and to ensure that the data area contains data, you can click on the shortcut icon bar Icon from the writer

Programming and readback data individually compared with the data area.



Map 4-48 Configuration and data check progress box

If the verification is successful, the success of the pop-up message box as shown below, and click "OK", the output information output box to check

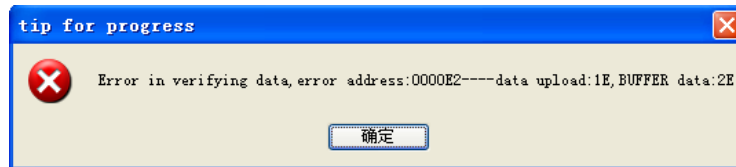
Power status and time-consuming information.



Map 4-49 Configuration and data verification is successful balloon

If the verification fails, the failure is shown as balloon prompted an error address, read data, and buffer data. Click on

After the "OK" box to output information related error messages.



Map 4-50 Configuration and data validation fails balloon

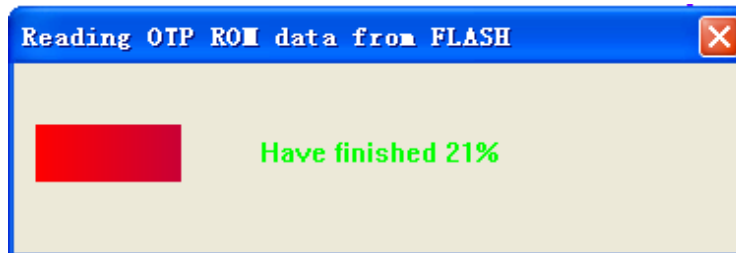
## 4.12 Readback setup information and data burning



Writer connection is successful, you can click on the shortcut icon bar

Icon set back from the burning letter read writer in

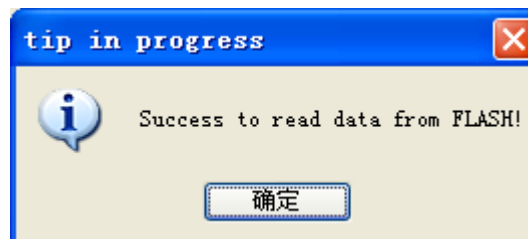
Information and data to the software programming.



Map 4-51 Configuration and data read back progress box

Read-back is completed, the pop success tips box below, and click "OK" after the information output bar displays a successful status readback

And consuming information, data display area to update the data read back out.

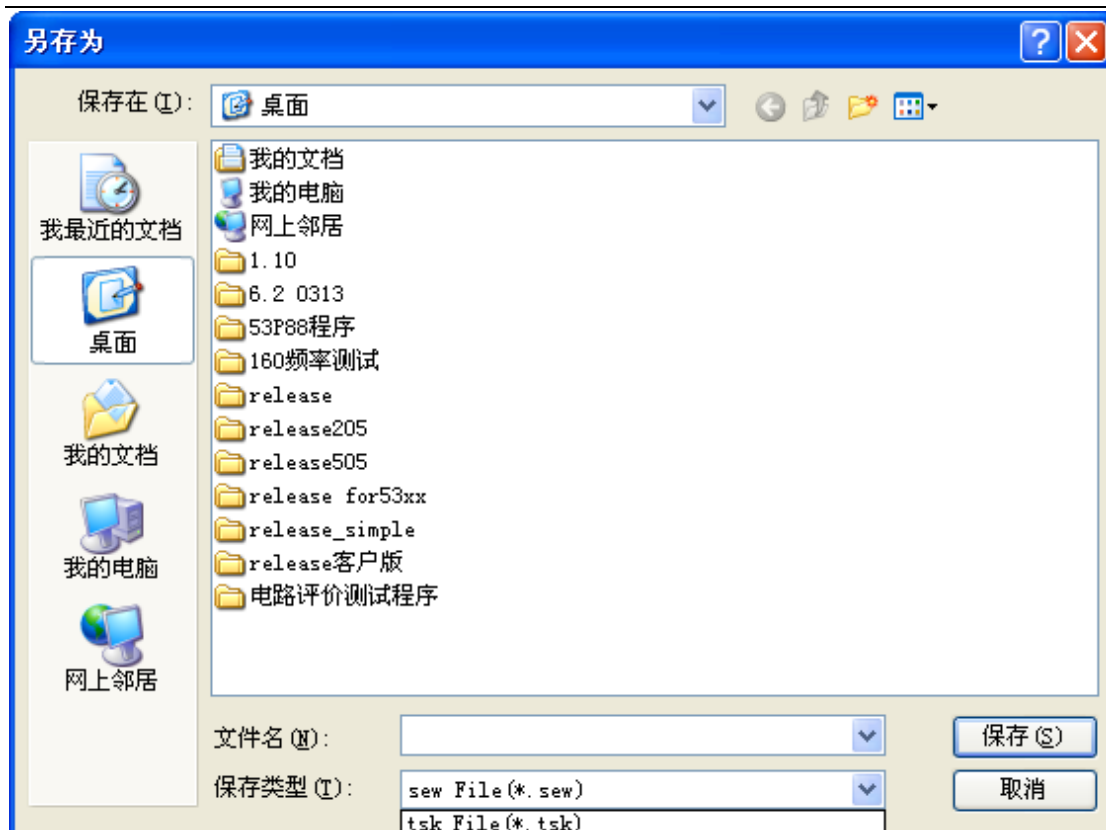


Map 4-52 Configuration and data read-back success balloon

## 4.13 SEW Use file

PC Support sew Format files, the PC after opening a program file, click FILE Menu, then click SAVE

AS ,As shown below



Map 4-53 Save as sew file

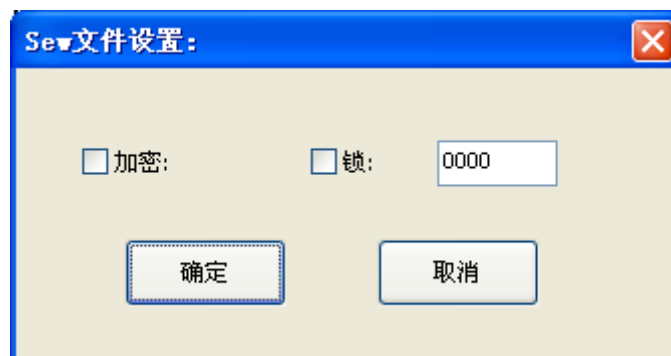
Select Save As Type sew file After, you can save the file as a program sew File format, the file format can be saved when

Prior to chip selection, and the corresponding program file encryption, online programming zones configuration, i.e. open the corresponding sew After the file is not

We need to configure the chip, according to the opportunity to host sew Files automatically configure the chip.

sew Files also can be directly double-click.

In the Save As sew File operation, and the lock will pop encryption selection dialog box, as shown below:



Map 4-54 Encryption and locking selection dialog

If you choose to encrypt ( Encrypt Data), the data display area is encrypted, and the chip type and the configuration is locked,

Can not be changed, if double-click on any chip tree view, pop-up boxes will only show the current sew Selected core file

Data slice type and configuration. With a choice of encryption sew File programming chip, chip read-back command reads the data display area

The data is also encrypted data. In general, if need be protected programming data, in addition to using encryption sew Culture

Member, preferably while protecting the programming selection program configuration.



Encrypted files can not be changed, so if it is to open an encrypted file, change the toolbar button will be disabled,



Grayed

If you choose to lock ( Lock ), The file with a specific ID The programmer binding in check Lock In the edit box before output

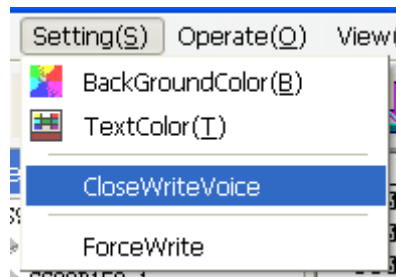
Enter ID number. Download to making FLASH And to download OTP Operation, will check writer ID ,in case ID Does not match,

The operation can not be downloaded.

## 4.16 Tone settings

Writing in the offline programming is done, the buzzer will sound three short to prompt the programming is done, if the user does not want to hear this mentioned

An alert tone, a tone may be closed by the host computer, the menu as shown below:



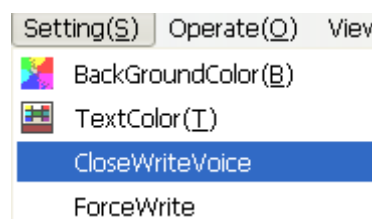
**Map 4-56 Close beep**

Click on the menu again, open tone.

## 4.17 Writing mandatory coverage

Force overwrite programming, typically used to modify the encrypted data in the programming of the chip, programmed not be verified at this time, can not guarantee

Evidence of the effectiveness of programming. Click shown below forced programming menu:





#### Map 4-57 Writing mandatory coverage

Forced to enter the programming mode, the entire screen background turns orange, then click OtpDownload Programming, not any

He check, click Auto Writing, blank check and the check is not optional. If you click on FlashDownload Download programming data, this

After the programmer has entered the offline programming forced write mode.

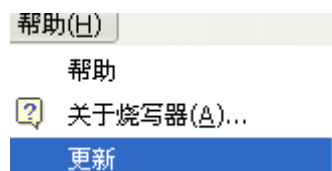
**note: OTP** The chip can only 1 Fired 0 It has been programmed for the 0 Data can not be rewritten as 1 But also because the choice to force

When the programming is not parity, even the 1 Rewrite 0 We can not guarantee correct programming.

### 4.18 Writer firmware upgrade

PC programmer firmware can be upgraded, if the writer firmware version is too low, in Link Host chance when prompted, can

Use upgrades. Click on Help Menu, then click Update ,As shown below:



Screen displays a progress bar, programmer automatically reset after the download is complete.

Upgrade feature can also be used to repair programmer firmware. If the write firmware is damaged and can not function properly, there LCD

No display, USB Can not connect, and so no response key, according to the following steps to fix:

- 1 . connection USB line.
- 2 . Press and hold the programming button, then press the reset, reset release, continue to hold down the programming button 2 second, POWER Light color, release

Programming buttons.

- 3 . Run PC software programmer, click on Help Menu, then click Update .

## 5 Offline operation

### 5.1 Ready to work

One. Please follow" [2.3 Writer connection](#) "The steps in the power on and into the work offline programming mode. Writer is powered on, the power indicator writer POWER Red, too 1s Left and right, wait after power is stable, system initialization information. After system initialization is complete, enter offline mode, LCD Screen display settings information.



Map 5-1 Offline mode settings Information Display

Among them, the meaning of each character represented, please see " 1.3 Programmer hardware configuration "in a" [LCD LCD display idle mode information](#) . "

If you need to start burning off at this time, make sure LCD Whether to set the information displayed on the screen is the need of programming content. If so, you can perform offline programming; after Otherwise, you need to go "online mode" to download the appropriate programming code and settings can only be offline programming.

If the writer is powered on, LCD Tip as shown below. " NO VALID DATA "Information, then the writer can not be read at system initialization parameter, then enter the" connection mode after "and provided to download programming code, can only operate offline.



Map 5-2 EEPROM No data suggest FIG.

### 5.2 Chip placement

Writer enters the offline mode, LCD After the screen shows the correct setup information, please refer to " [4.4 Chip placement](#) "Connection program chips.

### 5.3 Offline programming

One. After the programmer enters the offline mode good chip and placed correctly, the user can press the "burn button" to start the offline programming operation, busy Light.

two. carried out OTP Burn operation, LCD Burn and burn progress display the number of tips.



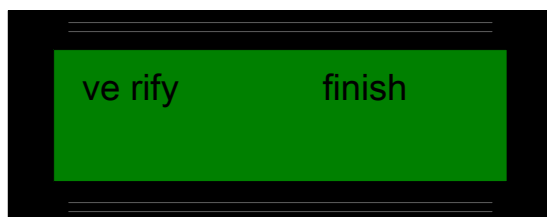
Map 5-8 Burn times and progress tips

three. Burn progress from 00% Scroll to the 99% - device programming is successful, then OTP After re-power chip, and then perform a readback Checksum Verification process, then LCD Display readback verify operation and progress tips.



Map 5-9 Readback Checksum Tip check progress

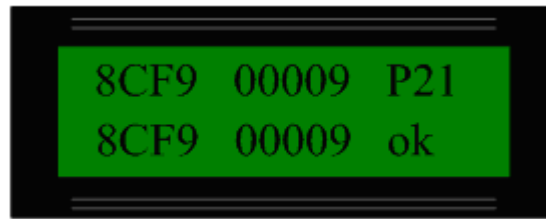
four. " progress : "Read back from behind the progress percentage 0 Scroll to the 99 Rear, LCD After checking the display read-back message.



Map 5-10 Readback Checksum Check success tips

If the OTP After re-power the readback Checksum And the value before the backup Checksum Values coincide, it is considered OTP Chip programming success.

Fives. After a successful return to display the main interface programming information.



Map 5-11 The main interface is displayed after successful burn

When the programming is successful, busy Lights off, ok Lights, the buzzer short beeps three times, indicating programming success. The buzzer tone can be shut down by the host computer, see 4.16 chapter. If an error occurs during programming, buzzer sounding cry, this error tone will not close.

## 5.4 Offline readback

One. After the chip is placed correctly, the user which is to hold down mode Key, then press "Burn button" to start an offline read-back operation, busy Light.

two. Read offline mode next time Checksum Value, LCD display Checksum Readback progress.



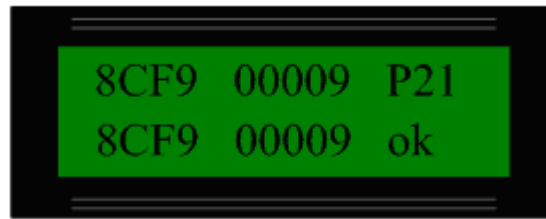
Map 5-14 Offline readback operation progress display

three. " progress : "Read back from behind the progress percentage 0 Scroll to the 99 Rear, LCD display Checksum Figure readback completed prompt.



Map 5-15 Offline readback end tips

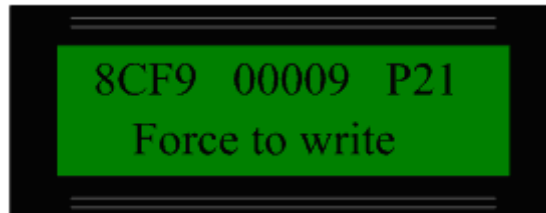
four. Checksum After the read-back is completed, LCD According to the results read back the main interface to update the display information. Simultaneously busy Lights off, ok Lights, three short beeps the buzzer sound, buzzer sound may be closed (see 4.16 chapter).



**Map 5-16 The main interface after the end of offline readback display**

## 5.4 Writing mandatory coverage

After the programmer enters the programming mode forced (see setting method 4.17 Chapters Also, please note that read known risk of forced programming), not the frequency of calibration and verification, and the rest of the process 5.3 The same section of offline programming. Does not show the programming is done OTP middle checksum Value, and the display programming prompts force, as shown below:



**Map 5-18 Mandatory programming prompt is displayed**

After the mandatory programming is completed, the buzzer is not a short beep three times, but short beeps long beep sound.

## 6 Frequently Asked Questions

One. Why not take the chip, but also through the blank check writer?

If the value of the chip and connected to the program code area of the space-time control pin chip match the default level, the programmer can also check the chip will not receive empty behavior can occur.

two. After burning the wrong chip, whether certain "hopeless" a?

**Not necessarily. for OTP For the chip, it will only support ROM / Option Empty data area by firing non-empty. If the chip burn, burn only for some** program, and this program burned into the right back of the program for some reason not yet burning, all is empty, then theoretically you can continue to burn down. Of course, that has been burned into the front section of the program should be consistent.

If the chip programming, mistakenly firing a non-null data null data, in theory, can continue to burn; but if the null data mistakenly firing a non-null data, that would not work.

## 7 Analysis and processing anomalies

### **One. After power programmer, POWER light is not on.**

- 1 . Check whether the regulated DC power adapter 15V Output;
- 2 . Check the power adapter plug is plugged tight at both ends, whether the electrical receptacle terminal electrical city.
- 3 . To see whether the problem is resolved, if not resolved, replace a power adapter, immediately after the power failure and technical personnel.

### **two. After power programmer, POWER Lights, but LCD No display screen.**

- 1 . Press the reset button, wait 2s So, observe LCD Is there a show, if not the content displayed, immediately after the power failure and technical personnel.

### **three. After power programmer, LCD The second line shows the screen " d12 chip err "information.**

- 1 . an examination IC It is inserted chip programmer seat, or whether the chip is connected through expansion port programming and programmer; if later, the writer set off, the chip is removed after power-up, to see whether the problem is resolved.
- 2 . If not resolved, please power off and then press the reset button, wait 2s So, observe whether the problem is resolved.
- 3 . If not resolved, connect USB to PC Machine, observe USB If successful enumeration (symbol: POWER Light from red to orange, short buzzer called twice, PC Device Manager identified on the machine semico otp programmer ). If the enumeration fails, immediately after the power failure and technical personnel.
- 4 . If successful enumeration, please click on the icon to open burning software observation "Connect writer" if the connection is successful. If fails, immediately after the power failure and technician; if successful, you can ignore this issue.

### **four. And electrically connecting the programmer USB to PC machine, POWER Instructions to maintain the red, the buzzer does not ring, LCD To maintain the original screen display.**

- 1 . Whether that has not been installed USB drive. If so, then according to PC Machine-screen prompts to install USB Drive; otherwise, continue down the judgment.
- 2 . USB Are plug the cable too loose, pull it out again to chip in, it is impossible to change a USB Cable try again.
- 3 . The above methods can not solve the problem, then immediately after the power failure and technical personnel.

### **Fives. Programmer In the installation USB When the driver can not be installed USB drive.**

- 1 . please confirm USB Port is turned on, not be shielded, USB Reliable connection line;
- 2 . Please turn off all anti-virus software, port monitoring, blocking software, to try again;
- 3 . Manually specify hardware mode drivers of driver installation;
- 4 . These methods are not, please try to do the replacement computer, or if you can not install USB Drive, then please contact technical staff immediately after the power failure.

### **six. Writer goes online mode, click on the "Connect writer" icon to bring up the "Open device failed".**

- 1 . Make sure the programming is powered on, and POWER Light is red, LCD display" USB Connecting .. ";
- 2 . please confirm USB Connecting cable for the programmer and PC Machine is connected;
- 3 . please confirm USB Driver has been successfully installed, and USB Enumeration has been successful (it can be observed from the Device Manager is

No identification to Semico OTP programmer );

- 4 . The current USB After the driver uninstall reinstall to see if that resolves.
- 5 . These methods are ineffective, immediately after the power failure and technical personnel.

**Seven. After the programmer plugged, LCD Display voltage value, enter the online mode, click on the "Connect writer" icon, pop-up " Volt too low "or" Volt too high "prompt.**

- 1 . Make sure you are connected 15V power supply.
- 2 . If you have to confirm the connection 15V Power on again, reset.
- 3 . If the problem still exists, indicating programming voltage module is incorrect, contact the technical staff after the power failure.

**Eight. Writing in the online mode, Flash Data validation error.**

- 1 . Reset or re-power programmer, try again to observe whether the problem is resolved.
- 2 . If that does not work, then the technical staff immediately and contact after a power outage.

**nine. Writing in the online mode, automatic programming operation, blank check error.**

- 1 . Make sure that the chip is empty plate, not subjected to any operation.
- 2 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
- 3 . If these methods do not work, and back to an empty piece to try. If multiple pieces are empty this problem occurs, the power off immediately and

technical personnel.

**ten. Writing in the online mode, automatic programming, the programming operation, verify error.**

- 1 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
- 2 . If the automatic programming operation, the first address and to check the error, verify whether the chip has been encrypted, and if so, this is

normal, replace a piece operating unencrypted;

- 3 . Please confirm that the chip has been programmed, and the current burn data and the burn-in data inconsistencies, and if so, is normal for OTP

**In chips, once someone burn 0 After, we can no longer firing 1 .**

- 4 . If these methods do not work, and back to an empty piece to try. If multiple pieces are empty this problem occurs, the power off immediately and

technical personnel.

**eleven. Writing in the online mode, perform chip blank check operation, blank check failed.**

- 1 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
- 2 . If the ROM By blank check, and Option Blank check fails, make sure the chip is encrypted or has been programmed, if so, is normal, replace

an empty sheet operations;

- 3 . If multiple pieces are empty this problem occurs, the power off immediately and technical personnel.

**twelve. Writing in the online mode, the chip performs a verify operation, the verification fails.**

- 1 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
- 2 . Check the data and the data area of the chip set and whether the burn-consistent data set and chips.
- 3 . Make sure that the chip is not encrypted.
- 4 . If the above methods are ineffective, try changing a blank sheet after programming verification. If multiple pieces are empty this problem occurs,

the power off immediately and technical personnel.

**thirteen. Writing in the online mode, the chip performs encryption operation, an encryption fails.**



- 
- 1 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
  - 2 . Make sure that the chip is not encrypted.
  - 3 . If these methods do not work, try changing an empty piece after burning encryption. If multiple pieces are empty this problem occurs, the power off immediately and technical personnel.

fourteen. Writing in offline mode, perform offline programming operation, programming error.

- 1 . Make sure the chip is placed in the correct position, in line with "attached 1 Writing expansion port definition "requirements.
- 2 . Make sure that the chip is not encrypted.
- 3 . If these methods do not work, try switching to an empty piece burning. If multiple pieces are empty this problem occurs, the power off immediately and technical personnel.

fifteen. Writing in offline mode, performing an offline programming operation, verification error occurs, two reprogramming have failed.

- 1 . Please try to change an empty piece burning. If multiple pieces are empty this problem occurs, the power off immediately and technical personnel.

**sixteen. Writer after power, LCD It will prompt " EEPROM ERROR "**

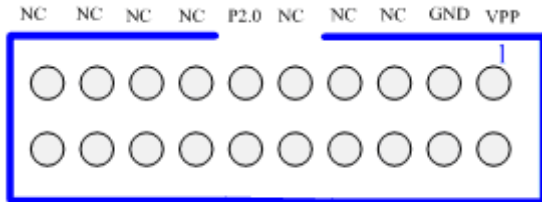
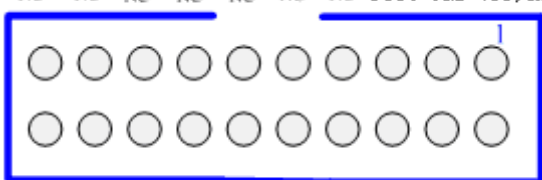
- 1 . download again flash 2 . If the problem persists, contact technical staff

## Attached 1 Writing expansion port is defined

77 Series chip to chip burning through expansion interface programming. Is defined according to the signal as shown in the following table chip

It should be connected to the corresponding pin extension programming interface pins.

**Schedule 3-1 Each chip is programmed expansion interface signal definition table**

Support chip models	FIG expansion interface signal defines programming
CS77P2X	 <p>NC NC NC NC P2.0 NC NC NC GND VPP</p> <p>NC NC NC NC P2.1 RET NC NC NC VDD</p>
CS77P33	 <p>NC NC NC NC NC NC NC PT10 GND VPP/RST</p> <p>NC NC NC NC NC PT15 NC PT11 NC VDD</p>

## Attached 2 Semi-automatic burning table settings

use HB8102P Semi-automatic programming station connected Semico writer for programming, setting of each parameter and programming station

Meaning in the following table:

parameter name	Minimum	Maximum		
DelayHoldTime	200	800	500	Indicate the detection of IC After the fall burst cutting area, a time delay  Then clamped IC ( unit ms) (Sop300 use 50ms; dip300 use 500ms; Other use 300ms)
DelayStartTime	100	800	300	It represents the grip to be burned IC After waiting for a stable grip time. unit ms
StartSignalWide	10	800	100	It represents the pulse width of the start signal emitted units ms
WriteTimeLimit	5	180	10	After it represents the start signal is not within a certain period of time  After the signal is detected, it is reported Time out information,  And stop the clamping operation unit s
NumbersLimit	9	100		Indicates a maximum tube contained IC Number, when this number is reached, this is stopped in the discharge pipe, and prompt information. unit pcs  When set to 9 When is considered pipe capacity is infinite.
AutoWriteType	A , B , AB		AB A unit	s provided for programming work or A , B  Two units simultaneously.
BuzzerAlarm	Y / N		Y	Set in the event of failure, the need for sound alarm
WriterID	0 - 12		000	Signal corresponding to the selection criteria or the burner
StartSignal	L , H		L	Set an active level of the enable signal L : Active low H : Active High
BusySignal *	X, L, H		L	Standard signal 1 X : Indicates invalid L : Indicates active low H : Indicates active high
OKSignal **	L, H		L	Standard signal 2 Reference signal 1
NGSignal **	X, L, H		L	Standard signal 3 Reference signal 1

DelayCheckBusy	0-800	100	For setting a transmission completion Start After the command to start the subject Measuring the time interval whether to enter the burner unit between programming mode ms
EOTDebounce	0-800	10	when Busy After the signal is set active, the programming is completed, Busy Signal from the Busy State to the Ready State, Ready Settling time, if in this time has been Ready , The start determination OK with NG signal
OKNGDebounce	0-800	10	When there is no Busy When the signal is sent to complete the Start instruction After, they will start to detect OK with NG signal. in Debounce In continuous time, a stable detected OK or NG The signal, it is determined OK or NG
TwoSocketFlag	Y / N	Y	Whether the burner is provided for simultaneously burn two IC . When set to Y , Then A , B Two bits will also burn grip IC And at the same time send Start instruction
NGRetryTimes	0 - 5	0	When the burn appears NG After, whether to re-test. 0 table It shows no retest.

**Contact information**

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