Brief introduction

Software of the model TOP 48 operates under windows 98 SE/ME/2000.

For windows98SE/ME/2000:

1.Take off TOP 48 (Do not connnecting with TOP 48);

2.Run "setup.exe" from disk,and continue;

3.Finally press the button comfirm and start the computer again.

4.Aftor starting the windows. Use the wire to connect with TOP48.The flat head of the wire connects to the USB interface of the PC computer.the square head to TOP48.

5. After the red-light is on ,run "Start/programme/TOP48/TOP48.exe " .Wait for about five seconds,if the green LED light,every thing OK.

For windows XP:

As the complexity of XP copy and the speciality of USB control,The procedune of installation isn't smooth like the WINDOWS98 SE/ME/2000.Sometimes.only throngh a few times can you sulleed. AS Cupress does not confirm that it supports xp, some of users can not operate wnder"XP". Most of them operate very well.

1.Remove TOP48 programmer(Do not connecting with TOP48).

2.Operate the "setup.exe"on the compact dis and.finish auoding to the instraction.

3.After starting windows xp again connect the TOP48 to the USB ,the red LED light. Computer will found new hardware device and show message as follows:

```
          Xxxxxxxxxxxx

          xxxxxxxxxxxxxxxx …

 Cypress EZ-USB(2131Q/2131S/2135S)-EEPROM  missing
```

"EEPROM missing" is a common information.

4.If finding the USB device drive file(.inf &.sys),display as follows.

```
         Xxxxxxxxxxxxxxxxxxxxxxxxx

         Xxxxxxxxxxxxxxx

  Cypress EZ-USB(2131Q/2131S/2135S)-EEPROM  missing

              xxxxxxxxxx(I)

         Xxxxxxxxxxxx(S)
```

Choose (I),and press the next step(N) to auto-installing software.

5.Now you can see message as follows:

```
         xxxxxxxxxxxxxxxxx

      Cypress EZ-USB Simple Device

         xxxxxxxxxxx

         Xxxxxxxxxxx
```

press the next step(N) to continue;

6."Finding new hardwane guide"The talk frame shows. "Finishing finding the new hendware guide"pness "end"and installation is over.

7. start the WindowXP again.

8.Combine TOP48 with usb connective mouth.Run TOP48.exe.After TOP main window wait of about 5 secod, green LED is on. Every thing is OK,you may write and read the device normally.Take your attention!If the green LED light is out.you can't continue readding and writing, or show "Read USB bad!"

9.If you can't open the equipment it shows the driving grogr022um fails. Now need reinstall from step1 to step8.

Hard ware Installation.

1.The USB interface may insevt or pull with electricity first start the computer and then connect with TOP48.

2.connect the flat head of the wire to the interface of USB,the square head of it to the outlet in the side of TOP48(each end of the wire is different,you must distingnish one from another)The power LED(red) is on, Now the computer has connected with the programm of TOP48.After about five seconds later.The working LED of TOP48 "READY"(green)is on.The computer is ready to operate now.

3.Run "Seting/system/"On the main menu, Click "Power status" to display power status.If show between 5 lever to 10 lever, power is OK.If the lever less than 5,you may connect it to the preparing stable powersupply(5V/2A).If beyond grade10 .the USB interface can't insert or pall with electrily you must connect with the prograncmer first them the computer works well or affect the protection electric circuit of the coputer,start the computer again.

4.Off-line operation,under not connecting with TOP48,The computer may also operate the softwere of TOP48 when the intraction that can's open the equipment appears. Press the botton "OK"for off-line operation.

<u>Main Window.</u>

Main window of TOP48 as follows
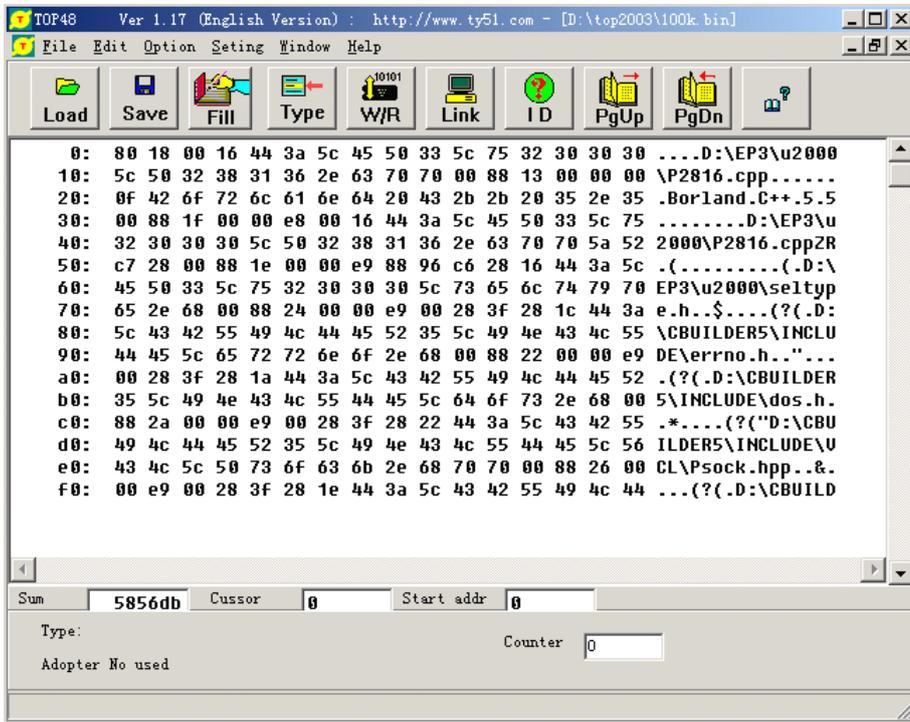
Most of operations about TOP48 can be carried out in the main menu. Some ordinary operation.

Can be operated by directly touching "fast key".

It can come up the same effete as the menu operating does. Even more quickly and convenient. Operating concerning the needing and writing is carried out in the related talk frame after choosing the model.
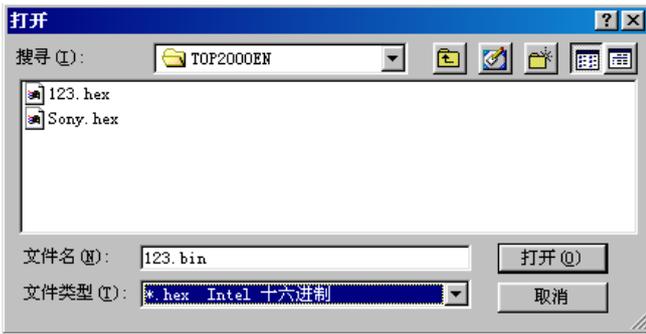
<u>Notice</u>

<u>The file window displays the data being written into the component.</u>

Chapter 1 Software operation

ONE. File operation and Edition.
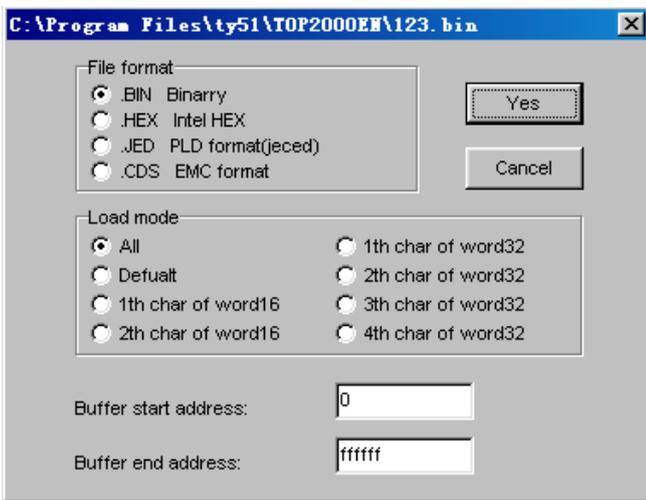
  1 File operation.

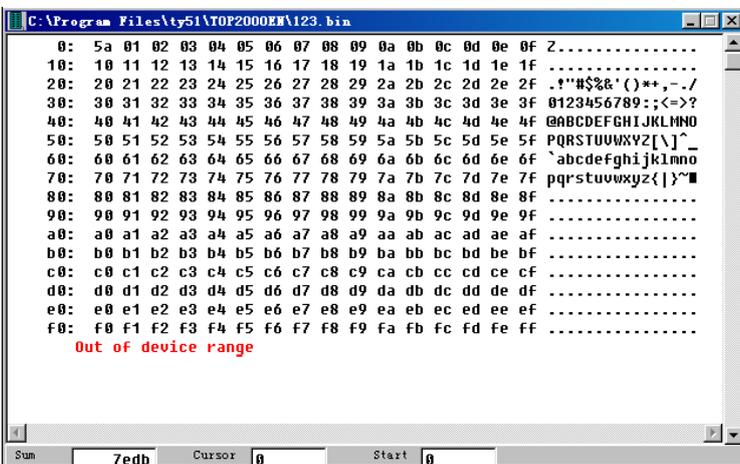Choose "file" in the main menu, POP-UP as follows:

The file menu contains the memory operation of file.

It is divided into the binary system and the hexadecimal format

The choice is finished in the format talk after choosing the file name.

The data is loaded into the buffer area after confirming the file format. And start address. Display as follows.

2 Amending file data.

You can move the word. By mouse or touch if need to amend the data, after loading the file into the file window. Directly touch the key to enter the data. But it must be two-position hexadecimal.

File data window as follows:

3 Positioning data start address:

If there are large amounts of data .It is hard to find the

Data you want. You may touch the "Enter key". The window
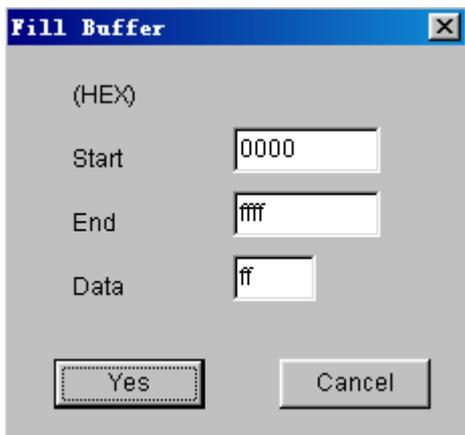
Will move to the address.

4 Edit and Amend the menu.
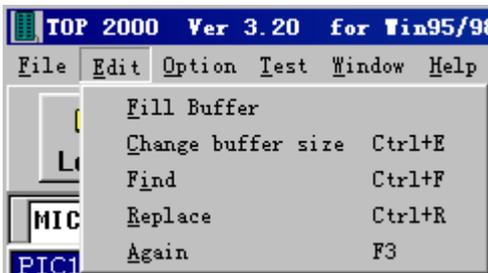
5 Fill in the data.

Choose mean, "amend and fill in data" pop-up talk frame.

Enter the address scope and the data that is filled up. Then touch the "Confirm" key.
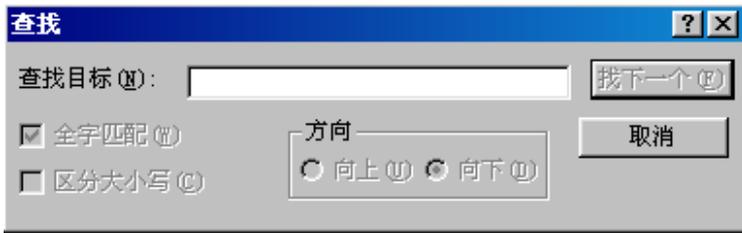

6 Searching

The "searching" order is used to search the pointed hexadecimal number at

the data window. Only input two Characters, after carrying out the order.

POP-up talk frame as follows:

替换为(P): 12

查找

查找目标(N): ☐ 找下一个(F)
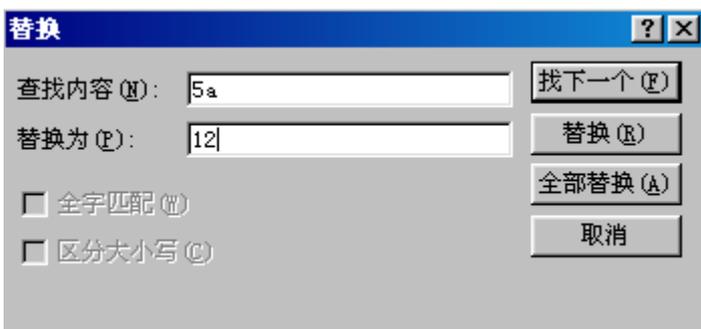
☑ 全字匹配(W) 方向 取消
☐ 区分大小写(C) ○ 向上(U) ◉ 向下(D)

Touch "search for the next" and begin to search.

Continue to search again by touching "search for the next".

7 Replace the character.

The order is used to replace the text character after carrying out the order. pop-up substituting talk frame as

follows

替换

查找内容(N): 5a 找下一个(F)

替换为(P): 12 替换(R)

全部替换(A)

☐ 全字匹配(W) 取消
☐ 区分大小写(C)

Enter the text character substituted in the "search aim" frame also paste
on the clip board.

First touch "search the next" to find position of the character substituted

Touch the "Replace" key again.

Be careful! First you have to touch the "search the next" key for the second
time, touch the "replacement" key again.

8 Expand or Contract the file buffer zone.

The area of the file buffer zone is usually as large as the file. If you

add the data, you must first expand the largest address of buffer area,

Choose the menu "amend and expend or contract the file buffer area" pop-up

talk frame: Input the largest address or the right of the end address. Then touch the "Yes" key.

9   POP-UP format menu.

Filling up and expending or contracting file buffer area may be carried out by pop-up menu.

Single-touch the right key of mouse on the file window and pop-up the following menu.

10 Edition Key

Page up

Home

Page down

End

Two. Choose model.

1   Choose the menu "operate and choice model "pop-up window as follows.
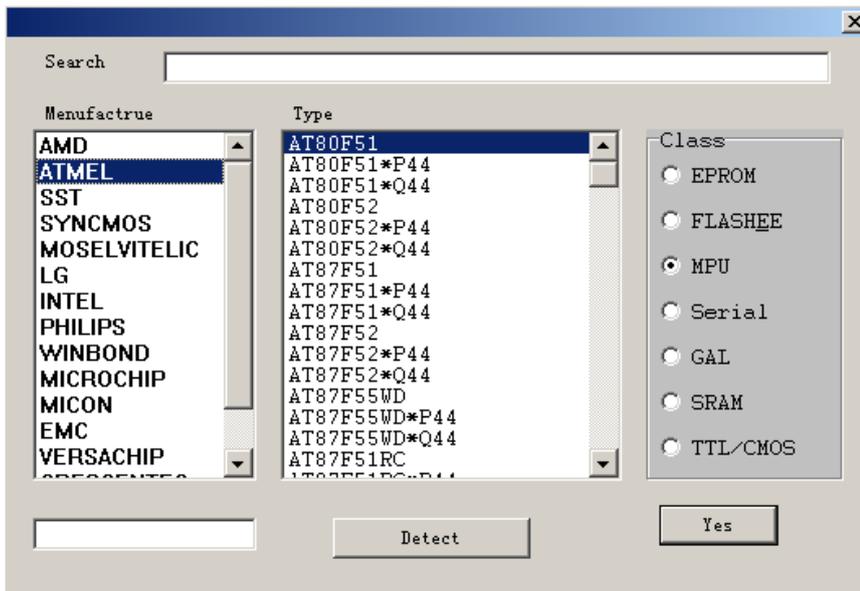
2   Choose the memory or computer on slice in the "category" frame or other

      category.

3   Choose the producer in the "manufacturer" list frame.

 Example: Choose "Atmel".

4   Choose the model in the "Component model" list frame.

 For example, choose "89c51".

5   Touch the "conform" to enter the reading and writing operation.

6   After choosing the category, also touch the "Testing

 Factory code" to get the two-word code .

The first-word standards for the manufactory . The second-word

Standards for the type.

Chapter 2　Read and Write EPROM, EEPROM.

ONE.　Ordinary procedure .

1　Connect the TOP48 well, Then Connect 9V. 400MA direct current into the right

　outlet then lamp lights.

2　Operate "TOP48 exe"

3　Choose the "file" in the main menu and load the data in the

　File buffer area

4　Insert the chip into the outlet and lock tightly

5　Choose model, pop-up operation window after confirming.

　reading and writing operation is carried out.

TWO. Read and write operation.

　All sorts of model operation are almost the same.
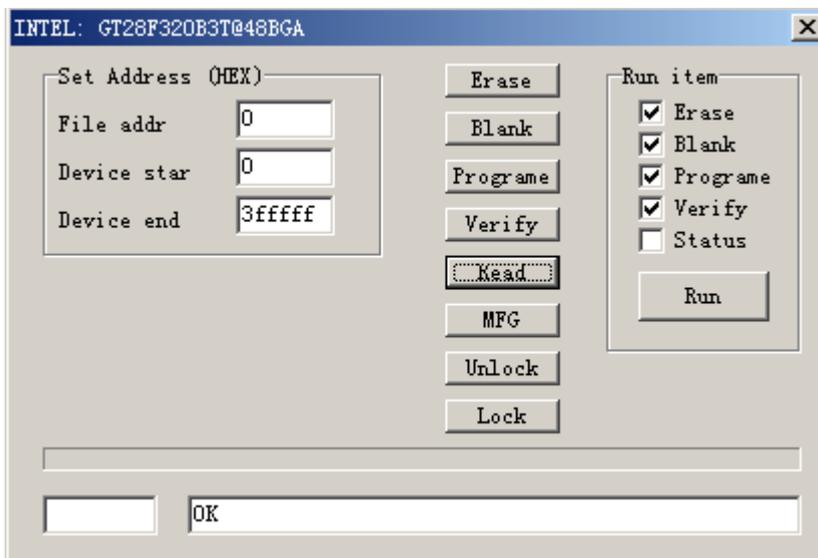
　Take an example for the 29c010 as follows:

1　Window.

　Choose the "operation\read and write component". pop-up

　the operation window.

2　The file start address.

　Generally, begin with the zero address and enter the data.

　but also change address. enter the data into any possible beginning address

Enter the HEX number.

The biggest number may be the six –position. the biggest address, 8M, default "0".

3   The component start address.

Insert the data into the possible start address. operating

is the same with 1 default zero.

4   The data length.

HEX system address length.

5   Write the component.

Before writing the component, pay attention to the

Component model. Don't make a mistake about the programmer voltage. or destroy the component or equipment after conforming all devices is right. Put the component programming into the component outlet and lock the slab.

After writing, the programmer auto-checks, if any errors.

the wrong address and content will be shown at the window, during the writing touch the "Ctrl" and stop operating.

6   Read the component

Insert the content of the chip into the buffer area

7   Erase

Erase the whose content, then display the "FF".

As long as the electric erase may use the order,

EPROM should be erased in ultraviolet radiation erasing.

8 Blank

Before enter the component, Check if empty,

Every word of the empty is "FF" (HEX system)

If finding the blank word daring the searching the wrong address and content will be shown at the window and stop searching

Check the all address space of EPROM when searching the blank .It has nothing to do with the beginning address and length set up.

9 Verify

   In order to be same that the data writing into the component
is right. Compare the content of the component with the file.
If different the address and content of this word will be shown at the window.
  Read operation includes the comparison not re-operation.

10 Protect

  Many EEPROM and FLASTI came protection function.
   Protected the component only read not write
  Only after protecting can you rewrite.

 11 Unprotection.

 It is contrary with the protection.

 12 Read ID

  Get the two-word code the first-word
 Standards for the manufacturer and the second-word the
 Model.

 13 Write speed

  The programming speed from the different factory product
 is almost different even from the product of the same factory.
 Its different model has the different programming speed. Generally the
 standard speed is sep up.
   Check if it is blank before writing the component.
   Every word of the blank is all "FF"(HEX system)
 Or. It isn't allowed to enter the new content.
 ultraviolet lamp may be used to check after if not.. the
component is spoiled.
 If finding won-blank word. When checking.
 The wrong address and content will be shown at the window port and stop
checking

Chapter 3 Read and write MCU

ONE   Ordinary steps.

1   Connect TOP48 well, Insert the random 9V. direct

current into the right outlet the power lamp lights.

2   Operate "TOP48, exe" ;

3   Choose the file in the main menu and load the data in the file buffer area.

4   Insert the chip into the outlet and lock tightly.

5   Choose model. pop-up operation window.

    Reading and writing operation is carried out.

TWO. Read and write operation.

    All sorts of model operation are almost the same . Take

 An example for the 89c51 as follows.

1   Window

    Choose the "operation\read and write component"

    POP-UP the operation window.
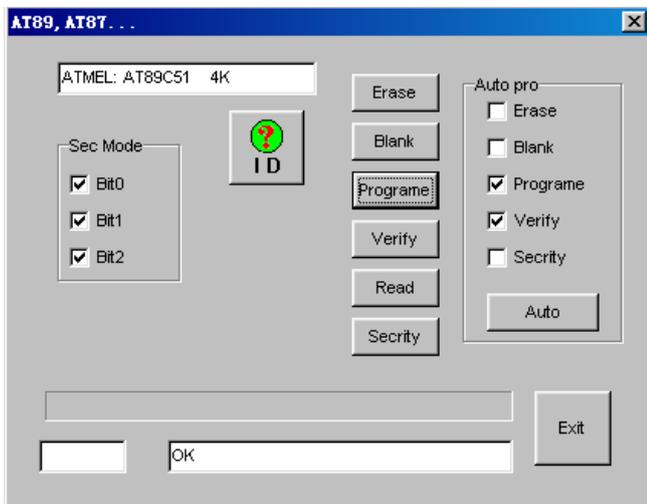
2   Write the component,Especially pay attention to the component model, before

    writing the component. After no mistake is confirmed in all device. Put the

    programming component on the outlet lock slat.

    The programming is auto-checked after writing if any errors,

the wrong address and content will be shown at the window.

3   Read the component.

    Read the content of the chip into the file buffer area.

4   Erase

    Erasing the whole content it will be shown "FF", Only
 by the electric erasing can this order be used. EPPOM needs
 ultraviolet radiation erasing.

5   Blank

    Before enter the component. Check if empty. Every word of the blank is "FF".
     (HEX system)

    If finding the won blank, when searching the wrong address and content will
be shown at the window and stop searching.

    Check the all address space of ERROM when searching the
 Blank. If has nothing to do with the start address and length set up.

6   Verify

    In order to be sure that the data writing into the component
 is right. compare the content of the component with file, If
different the address and content of this word will be shown at
the window.

    Read operation includes the comparison not operate it again.

7   Protect

    Don't read after the programming protection.

    In order to protect the producers benefits only after erasing can it be
    write again.

8 M.F.G.

    Get the two-word cold, the first-word standards for the
 Factory, and the second, the model.

Chapter 4 Testing SRAM

1 Choose the menu order. "operate/choosing model" pop-up the talk frame as follows:
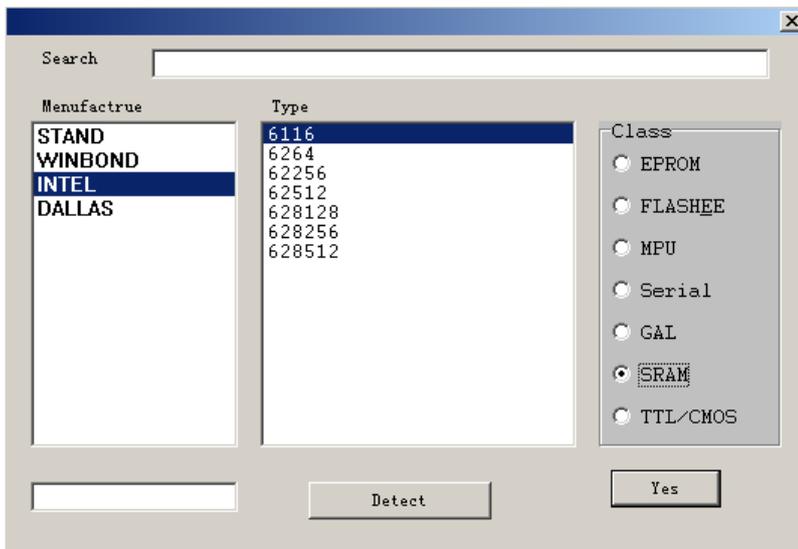
Choose "Testing static RAM" pop-up the following window.
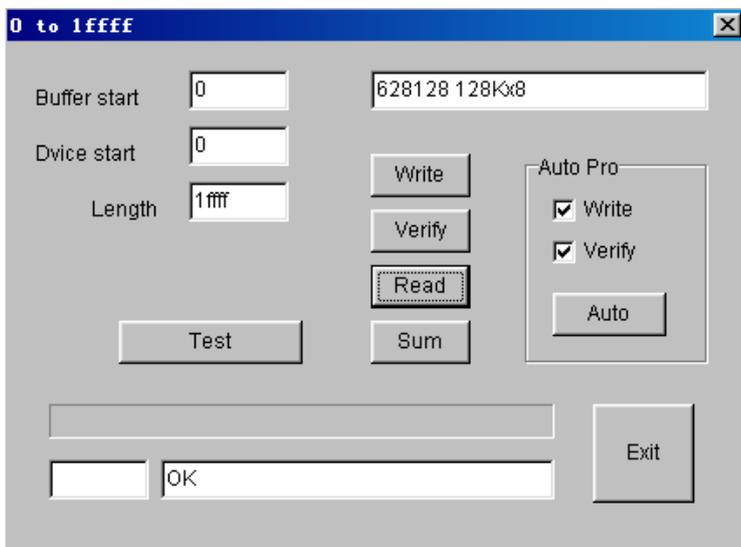
2 Choose the model (by) with a mouse.

3 Touch the "fast test" or "all-test" and begin to check.

Chapter 5 Read and Write serial port memory.

ONE ordinary procedure

1 Connect the TOP48. Insert the 9V direct current into the right power outlet the power lamp lights.

2 Operate "TOP48, exe"

3 Choose the "file" in the buffer area menu and load the data in the file buffer area.

4 Insert the chip into the outlet and lock tightly.

5 Choose model, pop-up the operate window after confirming

Read and write operation of the component is carried out.

 TWO. Read and write operation.

 Window: Choose the operation\ read write Component: in the main menu and pop-up the operate window.
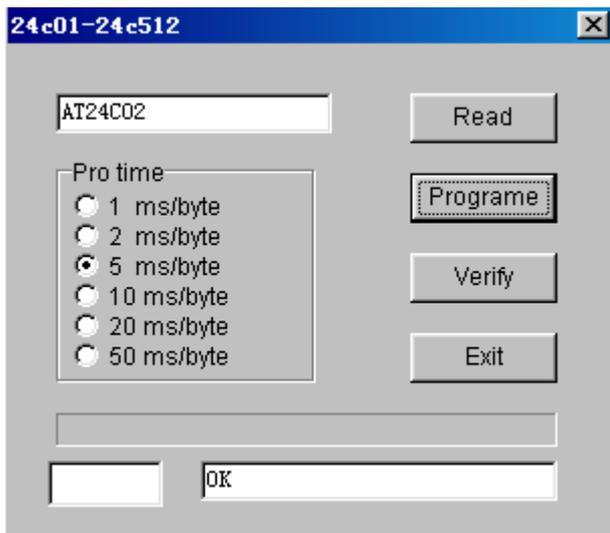
1 Choose the writing speed.

    The serial port memory, its "write speed" is of great

Difference. if slow, no mistake is made , but it takes long

to write. if fast, you'd better choose the different speed by

experiment, move over, the near data may overlap

to make a mistake. Generally. 2-20ms

2 Read the component

    Only once read the data of the component into the file

buffer area then "Storage file" menu order preserves the data

in order to be used in the future

3 Write the component.

   Write the data of the file window into the component.

You must prepare for the data at the file window in advance

Write into the component of this series by covering way .That is to say. Don't

erase.

4 Comparing the data.

   "Write" operation contains comparison. usually you needn't

compare again but compare with file separately to confirm if

the file is the same with the data of the component.

Chapter 6 Read and Write PLD

ONE. ordinary procedure.

1. Connect "TOP48" well. Insert the 9v direct current connector into the right power outlet then the instruction lamp light;

 2. Operate on the main menu the "TOP48, exe";

 3. Choose the "file /transferring the file into the buffer area /PLD file {JED}" and load the data in the file buffer area;

 4. Insert the chip into the outlet and lock tightly;

 5. Choose the model, pop-up the operation window after

 confirming then read and write the component.

 TWO. File format

    All the PLD files take the "melting silk file" in the shape of JECED, its expending name is "JED" choose the file in the main menu and transfer the file into the buffer area /PLD File (JED) then load the data into the file buffer area.

 Shown as follows.
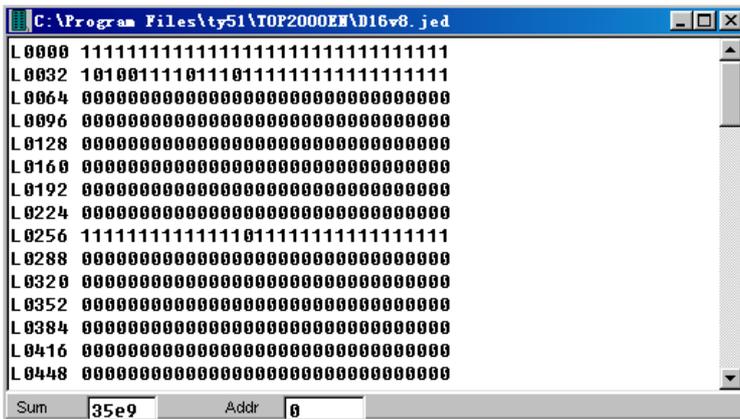
THREE Read and write operation.

  Window: Choose the "operate\ read and write component " on the main menu then pop-up the operate window.
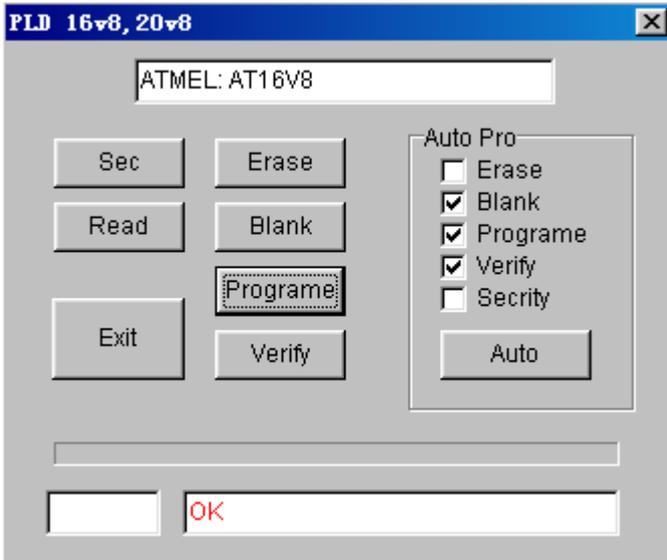
1 Read the component

   Only once read the data of the component into the "File window".

2 Write the component

   Write the data of the file window into the component, The data of the file
   window need be prepared in advance and only after the component must be blank
   can it be written.

3 Compare the data.

   "Writing" operation includes comparison.

 Generally, not comparing, but it can be compared with the file separately. Be
sure that the file is the same with the data of the component.

4 Erase

   Eraser is used to erase the original contents including the array fuse
   constructing control field and flag field etc.

Chapter 7 Testing the common integrated Circuit.

Choose the "operate/ choice model" on the main menu.

Choose the 7th item of the "category to test TTL/CMOS"

```
┌──────────────────────────────────────────────────────┐ [×]
│                                                        │
│  ┌────────────────────┐   ┌─────────────────┐  ┌──────────┐
│  │ MFG TYPE           │   │ Detect MFG/Type │  │    OK    │
│  └────────────────────┘   └─────────────────┘  └──────────┘
│   MFG                 TYPE                              │
│  ┌──────────────┐  ┌────────────────┐                  │
│  │ Standard     │  │ 74xxx          │  ┌──────────────────────┐
│  │              │  │ 40xxx          │  │ ○ EPROM              │
│  │              │  │ 45xxx          │  │ ○ FLASH/EEPROM       │
│  │              │  │                │  │ ○ MPU                │
│  │              │  │                │  │ ○ SERIAL EEPROM      │
│  │              │  │                │  │ ○ GAL                │
│  │              │  │                │  │ ○ TEST RAM           │
│  │              │  │                │  │ ◉ TEST TTL/COMS      │
│  └──────────────┘  └────────────────┘  └──────────────────────┘
└──────────────────────────────────────────────────────┘
```
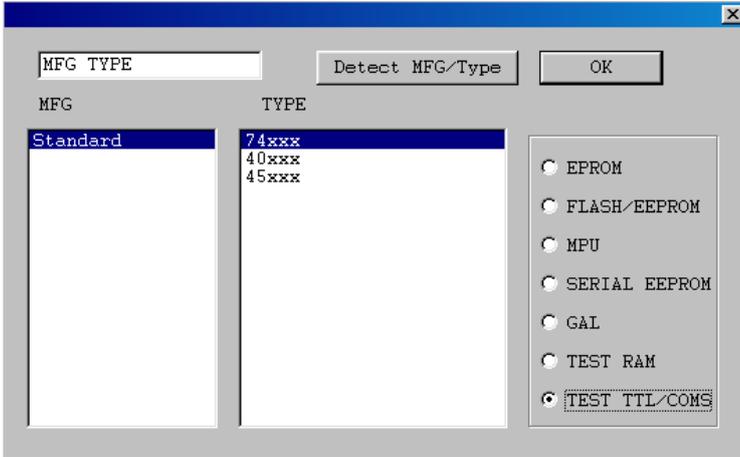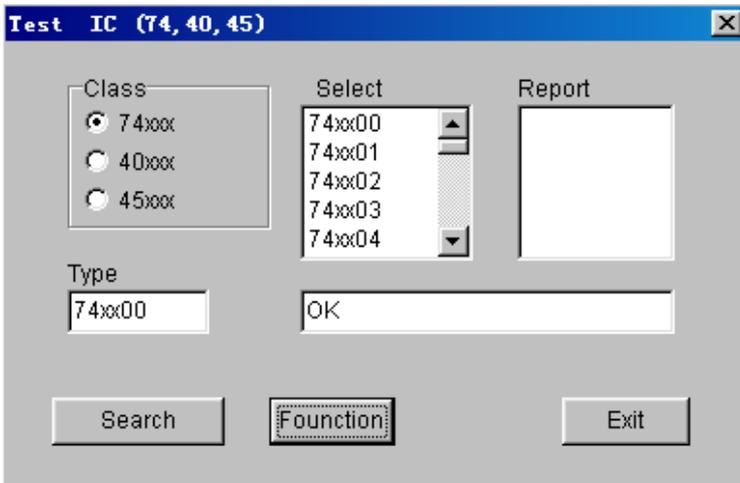
Return to the testing window as follows.

```
┌─ Test  IC (74,40,45) ─────────────────────────────┐ [×]
│                                                    │
│  ┌─Class──────┐   Select          Report           │
│  │ ◉ 74xxx    │  ┌──────────┐    ┌────────────┐    │
│  │ ○ 40xxx    │  │ 74xx00  ▲│    │            │    │
│  │ ○ 45xxx    │  │ 74xx01   │    │            │    │
│  └────────────┘  │ 74xx02   │    │            │    │
│                  │ 74xx03   │    │            │    │
│   Type           │ 74xx04  ▼│    └────────────┘    │
│  ┌──────────┐    └──────────┘                      │
│  │ 74xx00   │    ┌──────────────────────────┐      │
│  └──────────┘    │ OK                       │      │
│                  └──────────────────────────┘      │
│  ┌──────────┐  ┌───────────┐      ┌──────────┐    │
│  │ Search   │  │ Founction │      │   Exit   │    │
│  └──────────┘  └───────────┘      └──────────┘    │
└────────────────────────────────────────────────────┘
```

1 Choose the type

Use the TOP to test thousands of types with the 74.45.40 series components. Every item corresponds with a bank file.

2 Type-choosing.

After conforming the family bank you can choose in the list frame to test the certain type.

3 Testing

Testing the logic function of the component to judge whether

The component is good or not. If good, the speaker rings down only once or three times.

4 Auto-test the type.

You can find out its type by this function if its type is unknown.

The component with the same logic function may have

several different types. They will be shown at the window.

5 <u>The list for testing type.</u>

74xxx

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 20 21 22 25

26 27 28 30 32 33 37 38 40 42 43 45 46 47 48 50 51 52 53 54 55 60

70 72 74 85 86 95 107 108 109 110 111 112 113 114 116 123 125 126

128 132 133 136 137 138 139 145 147 148 150 151 152 153 154 155 156

157 158 159 160 161 162 163 164 165 166 168 170 173 174 175 180 183

189 190 191 192 193 194 195 240 241 242 243 244 245 247 248 249 251

253 257 258 259 260 266 273 276 279 280 283 290 293 295 298 299 322

323 352 353 365 366 367 368 373 374 375 377 378 386 390 393 465 540

541 573 574 590 640 641 643 644 645 670 688 804 805 870

40xxx

00 01 02 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 2122 23 24

25 26 27 28 29 30 32 33 35 38 40 41 42 43 44 48 49 50 51 52 53

54 55 56 60 63 66 67 68 69 70 71 72 73 75 76 77 78 81 82 85 86

93 94 95 96 97 99 101 102 103 105 106 108 109160 161 162 163 174

175 192 193 194

45xxx

01 02 03 04 06 08 10 11 12 14 15 16 17 18

19 20 29 32 38 43 53 55 56 72 84 85 103 105 106 108 109 160 161 162

163 174 175 192 193 194

45xxx

01 02 03 04 05 06 07 08 10 11 12 14 15 16 17 18 19 20 29 32 38 43

53 55 56 72 84 85

TOP48 has the function of the "additional information", except the users code file. The user may use it to keep a security for software or other parposes

Choose the "Seting/other" on the main man, and enter the following window.
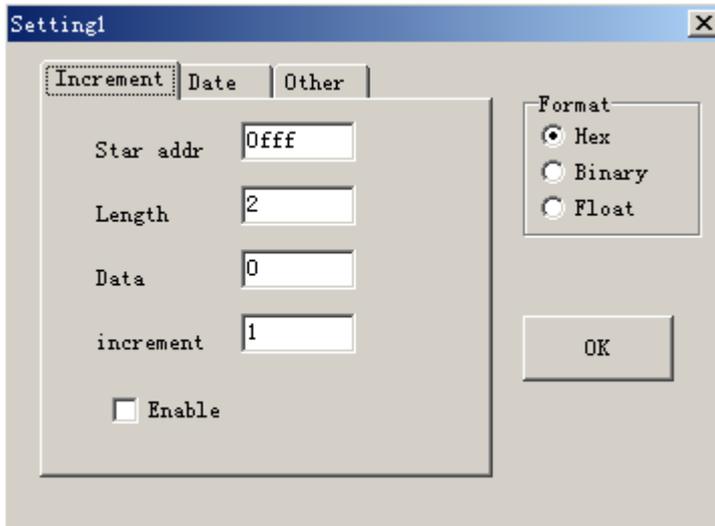
(1) "Increment" page:

Operate the position of the addition information in the programme frame of the "stast position". The position must he the space that the device doesn't finish using generally, at the baclc of file, if the room is ouapied by the users files. The additional information can't be writer again.

1. Set the start address in "star addr" frame;

2. Set the length of data in the "Length" frame (Max 8 char);

3. Set a integer value in "Data" frame;

4. Choose the additionl quantity in the "increment" frame, it is also integer if the minas flay is addedup. It show "decnement".

5. Choose the "Enable".

(2) "Date" page:

1. Set the start address in "star addr" frame;

2. Choose the Date and line allowed.

3. Set "Enable".

<u>(3) "other" page:</u>

1. Produeing method in quantity. If admitted while reading and writing the device, press the "Auto" only once whether self-testing device is inserted tightly kegin neading and writing programme at once. Not pressing the mouse sartablefor a great deal of .

Press the "Auto" and operate for one time, it will display "OK", please take many the written device. After take many the device, display the "put the next one —". After the next is put well and all pins keep a good torch with them. Auto recycle operation If it is over 5 seconds it will netine out the necycle.

2. Testing the condition of the pin , of admitted a single tonch with each cheek whether each pin keeps a good tonch with nepovt immediately and stop operation.

3. Qnichly-testing the electric carnemt evon if this choice is forbidden. Testing the careat is still effectiue , slow down the calcite speed and clecrease its sensibility.

Notice:

1.   If you need to use the adapter you'd better buy the original product of import (pin is slight) or purchase the product from our company the bad pin is easy to damage the lock socket.

2.   If the electric current of USB is under grade 5 you should can't with the stable poner (5V12A) if begond the grade 10 or equal to it. It can't be inserted and pulled with electricity you should conneet with programmer first.

3.   The adapter and loac socket are easy, to damage. The maintenance isn't guaranteed.

TOP48 series cparts':

1.   A main frame of TOP48.

2.   A stable power (5V12A).

3.   A universal adapter for SDP—UNIV—44(simple).

4.   An adapter for PLCC32, (simple).

5.   Standard wire(USB1.1)

6.   A user's Manual for Top48 programmer.

7.   A software disc

A ppendix:common reference for the universal.

Adapter:

1.   SPD—UNIV—44   PLCC44(P44)

2.   SPD—UNIV—44   SOP44(Q44)

3.   PLCC32

4.   SOP44

5.   SDP—UNIV—48   TSOP48

6.   SDP—UNTV—40   TSOP40

    7. SOP—UNTV—i320   uBaA48