iP-8xx7/µPAC-7186EG/I-8xx7/I-8xx7-80 provide the Flash memory write protect feature.

Before enabling the Flash memory write-protect, user must completely download the ISaGRAF program and make sure the system work well. When the Flash memory status is write-protected, user can not update the ISaGRAF driver and ISaGRAF program for protecting the Flash memory from any environment disturbance.

Providing the hardware and software write-protect for the Flash memory:

Hardware Write-Protect Models	Software Write-Protect Models
iP-8847/8447 µPAC-7186EG I-8837-80/8437-80 (PCB V 2.7)	I-8837/8437 I-8817/8417 I-8837-80/8437-80

Hardware Write-Protect Method:

iPAC-8xx7 : Power off the iP-8xx7, change the switch on control panel to "lock" position to protect the Flash memory.
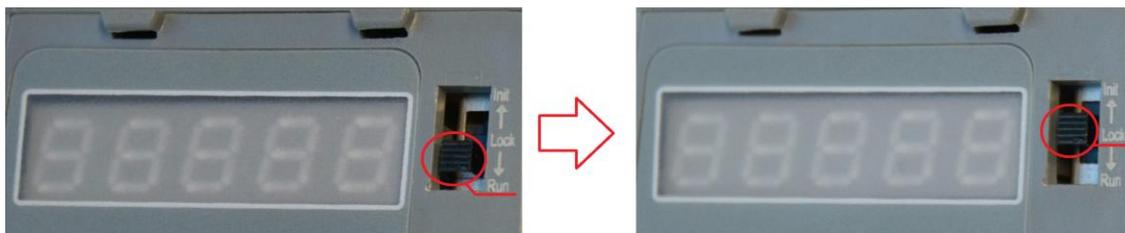
µPAC-7186EG : Power off the µPAC-7186EG, open the cover and find out the jumper(JP12). Then put the JP12 in "Lock" position to protect the Flash memory.
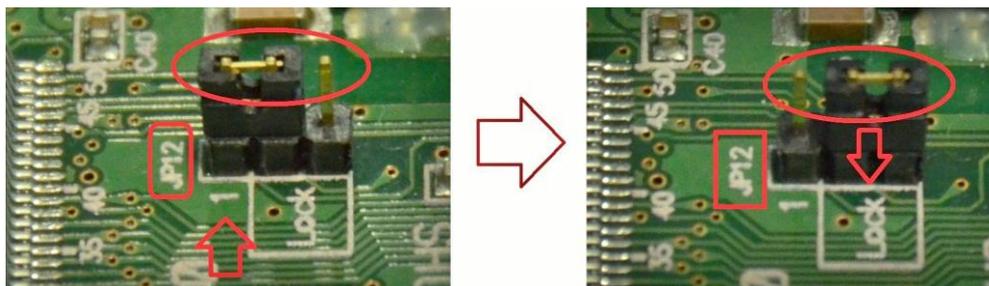
I-8xx7-80 : Power off the I-8xx7-80, open the cover and find out the jumper(JP2) on CPU board (since C386 version of 2.7). Then put the JP2 in "Lock" (2 and 3) position to protect the Flash memory.
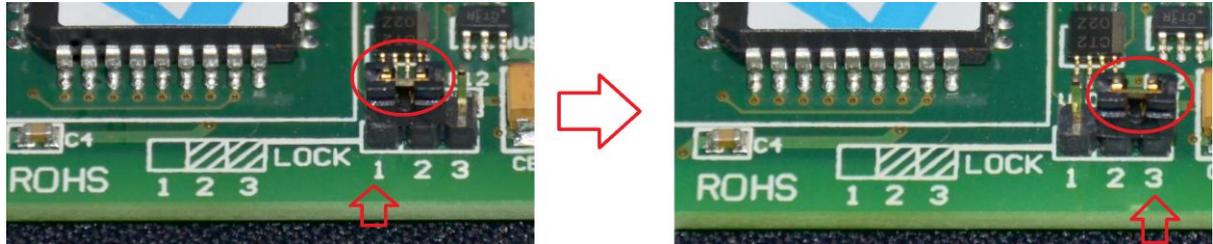
Software Write-Protect Method:

User must update the driver of I-8437/8837/8417/8817 or I-8437-80/8837-80 to protect the Flash memory. Our latest released driver can be obtained at the following website:
www.icpdas.com > Products > Software > ISaGRAF > Driver or
http://www.icpdas.com/products/PAC/i-8000/isagraf-link.htm (Please extract the zip file)

Example:
*** Use I-843-807/8837-80 driver 4.14 as an example ***

1. Create a file folder named "8xx7_80" in your hard drive. (Ex. "c:\ 8xx7_80")

2. Copy "napdos\ISaGRAF\8000\driver\80M\4.14\" all files from CD_ROM or extract the zip file into your folder "8xx7_80".

3. Run "c:\ 8xx7_80\7188xw.exe" in your hard drive.

4. Link COM1 or COM2 of your PC to COM1 of the controller through a RS-232 cable (CA-0915). If you use other COM port (ex. COM5), please modify the first line of "7188xw.ini".
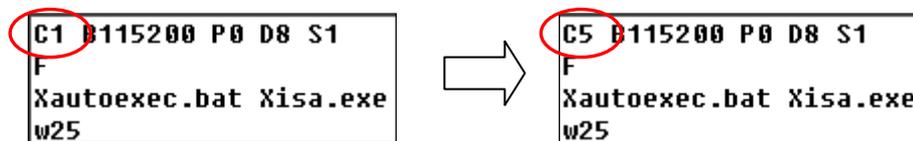
5. Power off I-8x37-80, connect pin "INIT" to "INIT*COM" and then power it up.

6. If the connection is OK, " i8000E-80>" messages will appear on the 7188xw screen.

```
ICP_DAS MiniOS7 for I-8000E(80MHz) Ver. 2.01 build 000,Nov 03 2005 16:47:52
SRAM:512K, FLASH MEMORY:512K
[CPU=RDC 1120]
Serial number= 01 12 EF C8 0E 00 00 6C

i8000E-80>_
```

7. Press "Alt+F4" to auto download the files and reboot system. Wait about 90 sec. , DO NOT REMOVETHE POWER.

8. Type " dir " to make sure " autoexec.bat " and " isa_nf.exe " are well burned.

```
i8000E-80_UDP_NF>dir

 0>autoexec.bat 04/15/2011 18:31:10     14[0000E]8002:0000-8002:000D
 1>isa_nf.exe   05/10/2011 18:41:19 193304[2F318]8004:000E-AF36:0005
Total File number is 2  Free space=265338 bytes
i8000E-80_UDP_NF>_
```

9. Press "Alt+X" to exit "188xw.exe", remove the connection between "INIT" - "INIT*COM", and recycle the power of the controller to protect the Flash memory.

10. If you want to download ISaGRAF Driver or ISaGRAF program, must retry step 5 to 9. Attention: Step 7 is press "Ctrl+F4" to auto download the files and reboot system. Wait about 90 sec. , DO NOT REMOVETHE POWER.

11. Type " dir " to make sure " autoexec.bat " and " isa.exe " are well burned.

```
i8000E-80>dir

 0>autoexec.bat 04/15/2011 18:31:10     14[0000E]8002:0000-8002:000E
 1>isa.exe      03/04/2011 17:18:16 194246[2F6C6]8004:000E-AF71:0004
Total File number is 2  Free space=264396 bytes
```