

SM-268ATE Multi-Function Six-In-One Electronic Load

Software Manual

(ATE Version)

Sun Moon Technology Corporation



Table Of Content

1 Introduction & Setting -----	2
1-1 Standard Equipment	
1-2 System Requirements	
1-3 Link SM-268 & PC	
1-4 Install Software & Setting	
2 Execute The Test SM-268ATE Program -----	4
3 Option in File Table -----	5
4 Injunction in Edit Model Table -----	6
4-1 Option in the Test item	
4-2 Explain the parameter in the test item	
4-3 Set the system & common parameter & Password	
4-4 Test Item	
4-5 File modify	
5 Injunction in Test table -----	32
5-1 File	
5-2 Option	
5-3 ReSend	
5-4 Print	
6 Print -----	38
6-1 Tools	



1 Introduction & Setting

SM-268ATE may link to PC by the COM port, and test automatically . It may be controlled by the software ,which based the Windows operation system. The software is powerful , and operation easily . The test data & result can be stored and printed.

1-1 Standard Equipment

SM-268ATE Software Manual	1Pcs.
SM-268ATE Test Software	1Pcs.
SM-268ATE RS-232C Link wire	1Pcs (9 Pin D-Type).

1-2 System Requirements

Equipment of PC advised as following:

Operation System : Microsoft Windows 95/98

CPU: Pentium or Super

Memory: 16 MB at least.

Hard-disk: 1 GB at least.

Soft-driver: 3.5Inch / 1.44MB.

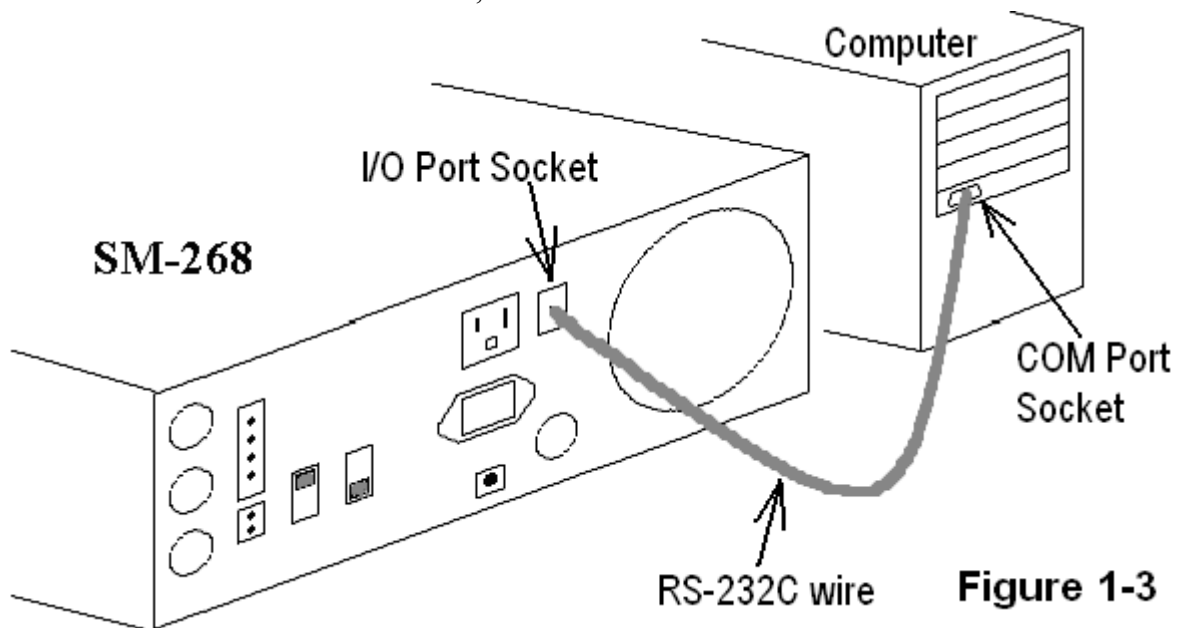
Monitor: VGA or SVGA

Mouse

Com and Print Port

1-3 Link SM-268 & PC

Please refer to the attached drawing(1-3) and Link SM-268 & PC with the RS-232C wire. One end connects to the "I/O Port socket", the other to PC COM socket.



1-4 Install Software & Setting

Insert SM-268ATE installation soft-disk,and run SETUP.EXE, the interface listed as following:

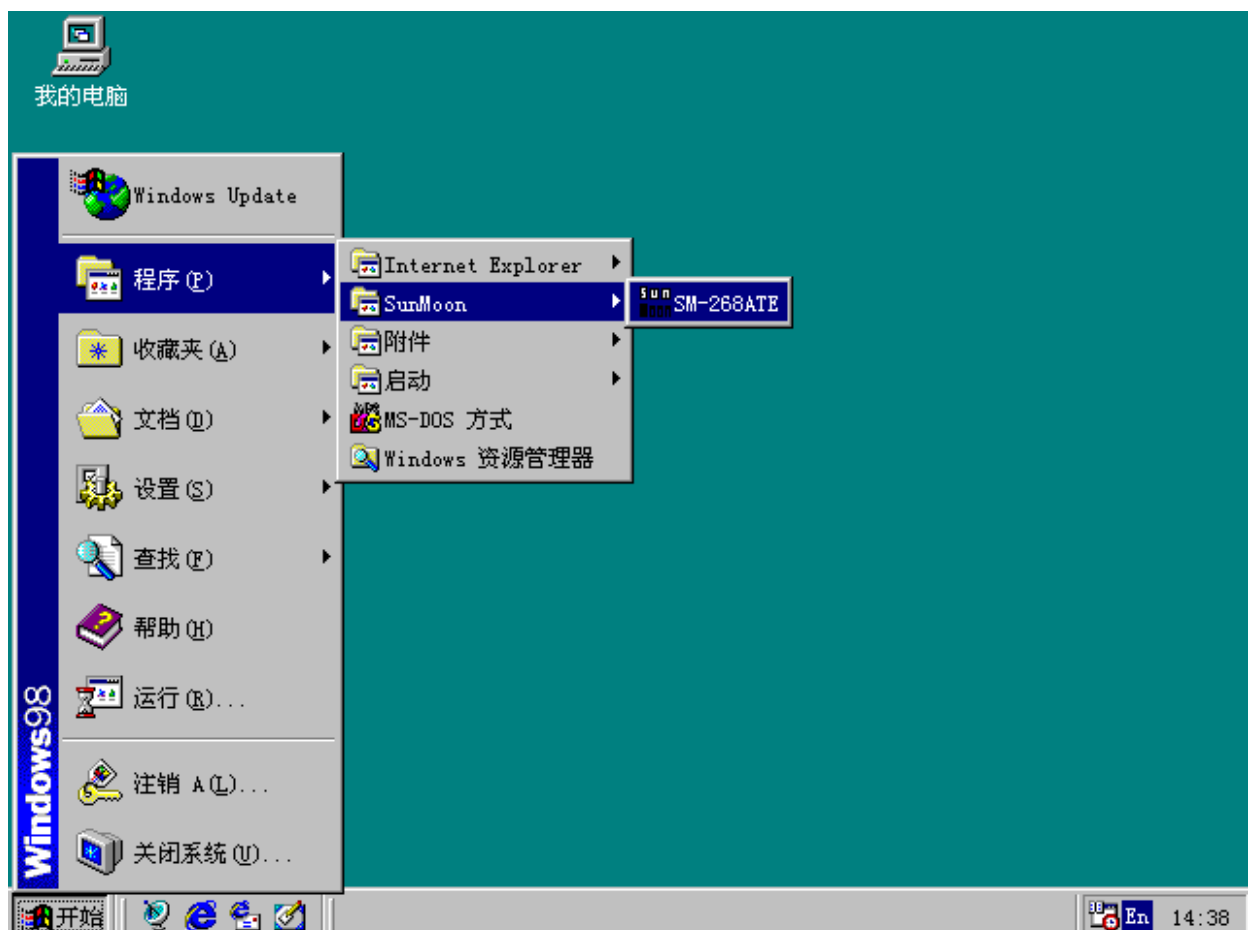
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 Website: www.sunmoontec.com
 Email: sunmoon@sunmoontec.com



SM-268ATE+ Software Version:8.10

Please operating according to the prompt, the program will be installed into your PC easily.

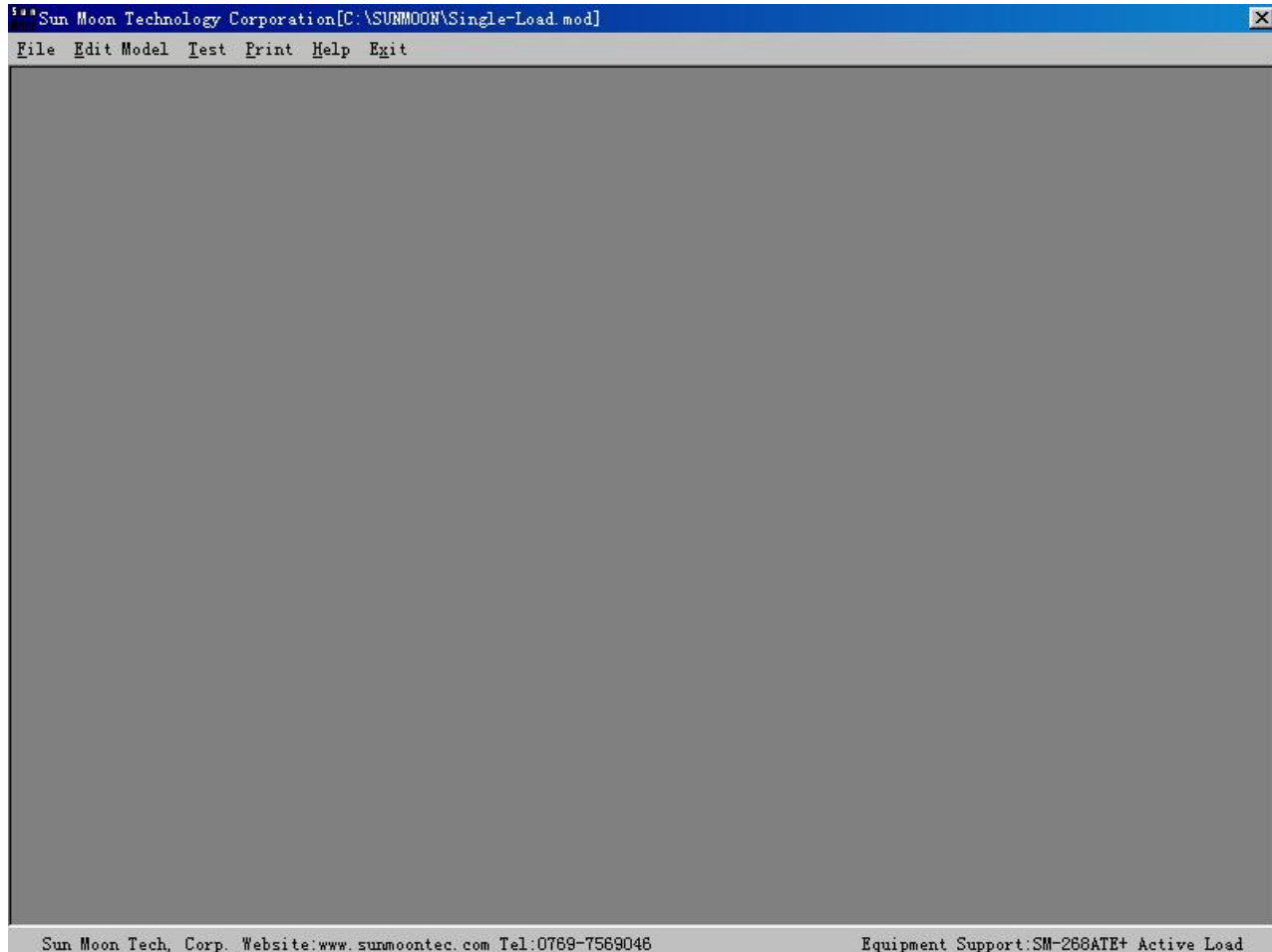
If you needs run the test program, press the “Begin” button in the Program table, select “SunMoon”, and “SM-268ATE”, the test program start up.



2 Execute The Test SM-268ATE Program

The following interface will be showed after the SM-268 Test Program start-up. You may select the [File], [Edit Model], [Test],[Print],[Help] or [Exit] , and run it in the main interface of “Sun Moon Technology corporation”.

Main interface



Function option in the main interface as following:

File: Manger the test program.

Edit Model: Edit test item and Set parameter

Test: Run the program and test power supply.

Print: Print the report of test result & data.

Help: Explain contents.

Exit: Exit the test system.

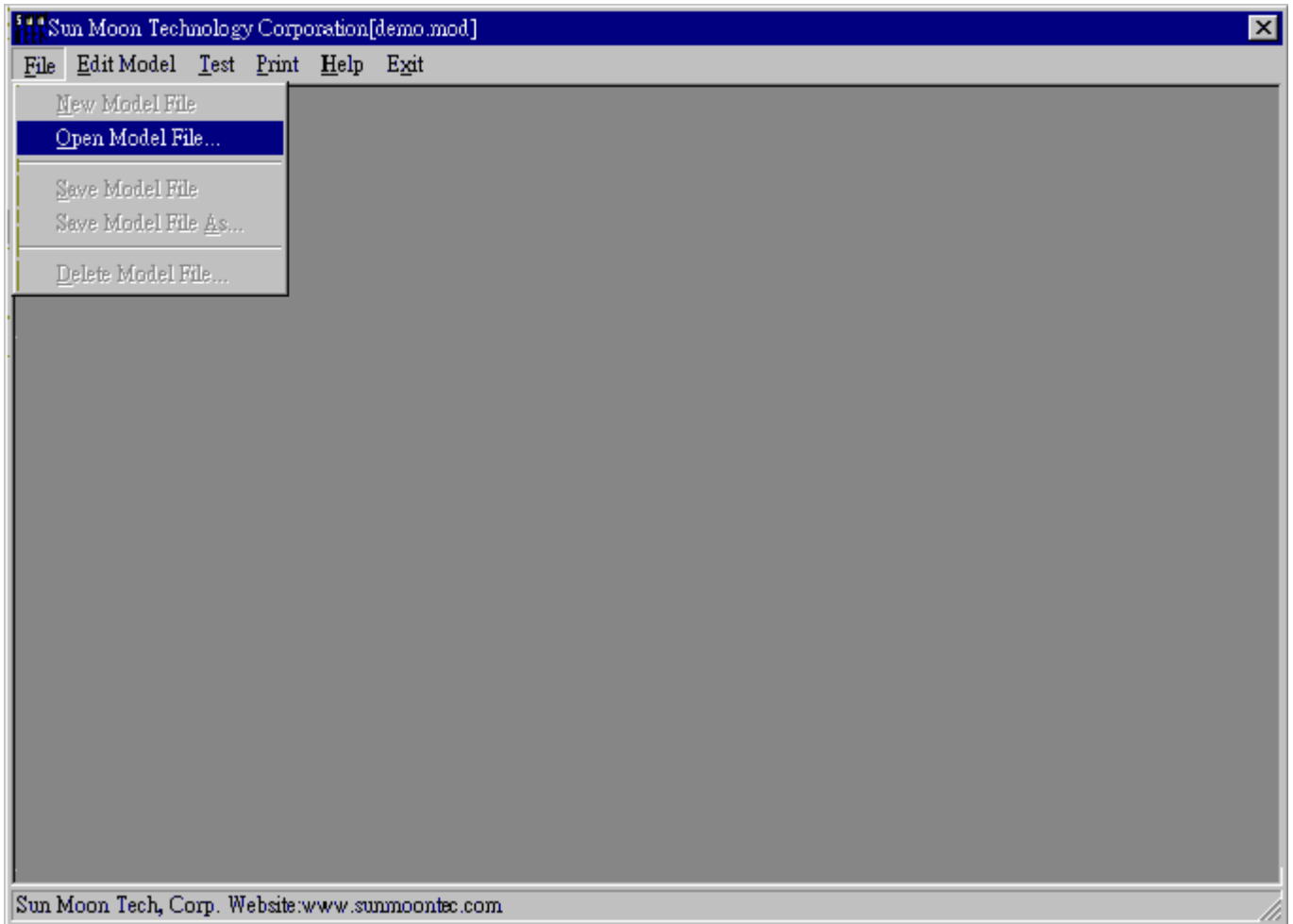
If [Help] button is showed in a window, the explain contents may be listed, but the contents is only about to the current item.

If you abandon the operation currently, press [Close] or [Cancel] button, the data & setting will not with any change.

3 Option in File table

Only [Open Model File...] injunction can be used in the [File] table, in the main interface. If the other option needs to be used, please enter the [Edit Model] and continued.

Open the Model File



Run [Open Model File...], the following window will be popped:

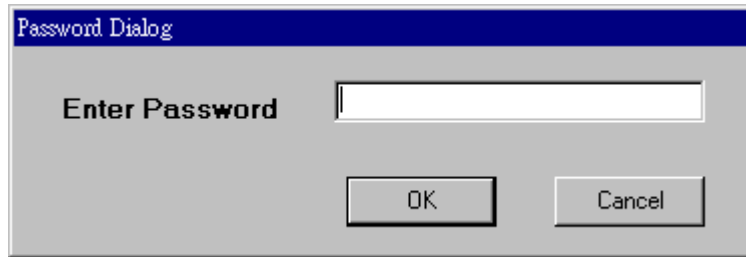


Select the Disk, path, file(*.MOD type), and press the [Ensure] when all is OK. The file will be loaded in the Memory automatically, and the file name will be showed in the head of interface. You may press [Cancel] button and give up.

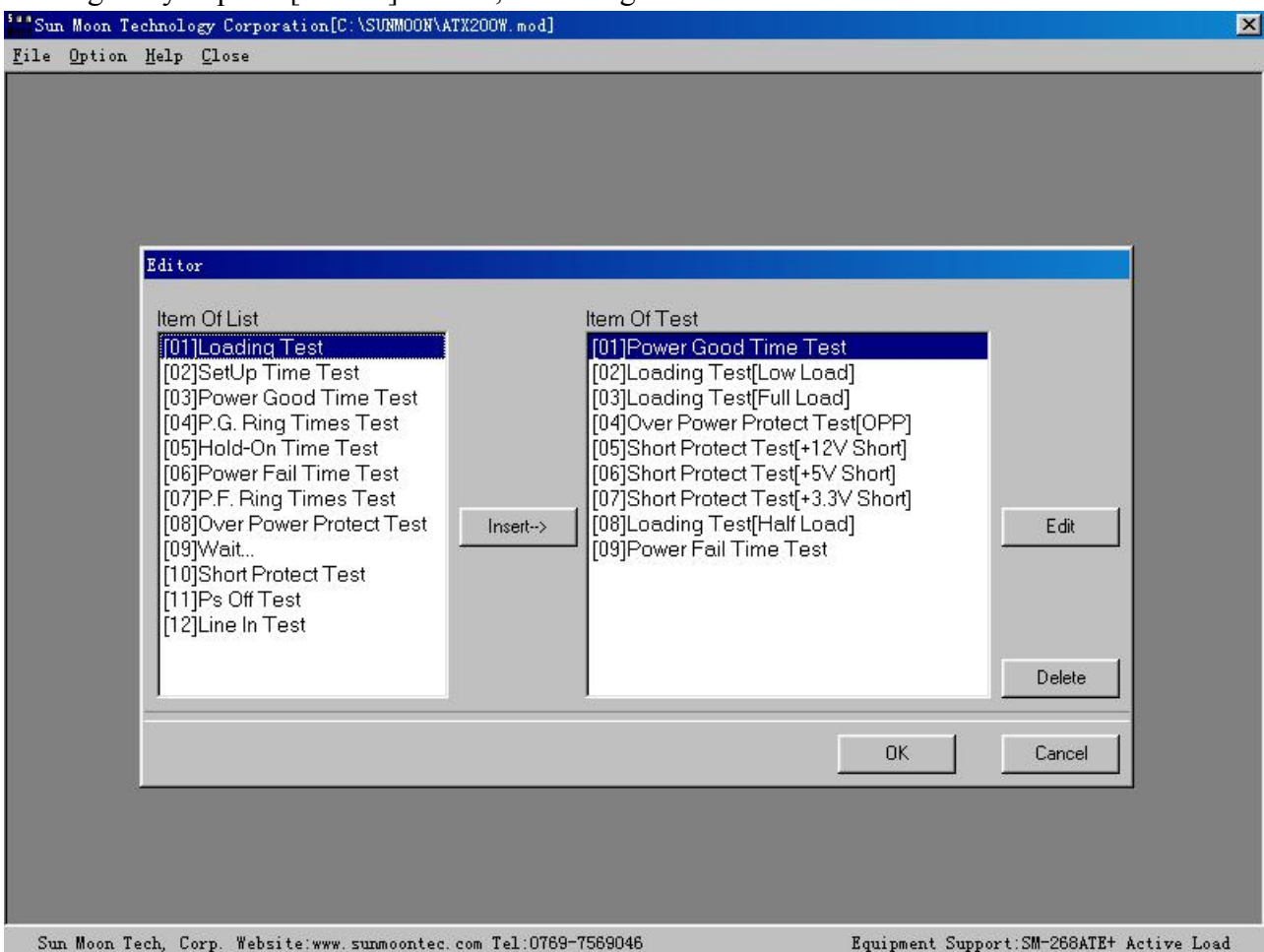
4 Injunction in Edit Model table

Enter the Editor window

When you run the [Edit Model] injunction in main interface, the Password Dialog window popup, the original password is “sunmoon”.



Press [OK] button after typing the password, the Editor interface as following will be popped as following If the password is right. Otherwise, you could only browse the connects with Not any change. If you press [Cancel] button , the dialog will be off and returned to the main interface..



There are two part in the Editor window. Contents in the left is the test item for optional, Right is the item will be tested. The items will be ran step by step according to the sequence listed in the “Item Of Test”, until end.



4-1 Option in the Test item

SM-268ATE software is designed for power supply test specially .It's very powerful. You can edit it freely. The following is the test item offered by the SM-268ATE system:

Loading Test (Load test in Static state)

SetUp Time Test

Power Good Time Test

P.G. Ring Times Test (Times of Power Good signal surge from Low to High)

Hold-On Time Test

Power Fail Time Test

P.F. Ring Times Test (Times of Power Good signal surge from High to Low)

Over Power Protect Test

Wait... (wait test)

Short Protect Test

Ps Off Test (ATX Power Ps off signal test)

Line In Test (Test with difference line voltage input)



4-2 Explain the parameter in the test item

Loading Test (Load test in static state)

Define: Turn on the power supply with static load , Compare the tested voltage with the Range of High & Low, which you have set in the software.

The screenshot shows a software window titled "Test Function". At the top, there are buttons for "OK", "Cancel", and "Help". Below these is a dropdown menu showing "[01] Loading Test" with "Up" and "Down" navigation buttons. A "Remark" field is present but empty. Below the remark field, two parameters are listed: "i/p Source Voltage(V)" with a value of 230.0 and "i/p Source Frequency(Hz)" with a value of 60.0. At the bottom of the window is a table with columns for "IxNo = 1", "Edit", and seven voltage levels: +12V, +5V, -5V, -12V, +3.3V, and +5VSB. The first row of the table is highlighted in green.

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100
Go-NoGo Upper(V)		12.50	5.50	5.50	12.50	3.50	5.50
Go-NoGo Lower(V)		11.50	4.50	4.50	11.50	3.00	4.50

Notice: If the o/p voltage is in the range, which you have set, the judgment is PASS, otherwise FAIL

SetUp Time Test

Define: Turn on the power supply with initial load, and SM-268 will monitor the power supply o/p voltage, if the o/p voltage achieved the Vref, then record the time at the moment.

Test Function

OK
Cancel
Help

[01]SetUp Time Test

Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(mS)	800.0
Go-NoGo Lower(mS)	16.6

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment “FAIL”, otherwise judgment “PASS”

Power Good Time Test

The screenshot shows a software window titled "Test Function" with a "Cancel" button highlighted. The test function selected is "[01] Power Good Time Test". The parameters are as follows:

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(mS)	500.0
Go-NoGo Lower(mS)	100.0

lxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment "FAIL", otherwise judgment "PASS"

P.G. Ring Times Test (The times of Power Good signal surge form Low to High)

Test Function

OK
Cancel
Help

[01]P.G. Ring Times Test

Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(Times)	1
Go-NoGo Lower(Times)	1

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment "FAIL", otherwise judgment "PASS"

Hold-On Time Test

Define: Turn off the power supply and record the time as zero, SM-268 will monitor the o/p voltage Vb of power supply, if it fall to the Vref, then record the time of being used.

Test Function

OK
Cancel
Help

[01]Hold-On Time Test
▼
Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(mS)	800.0
Go-NoGo Lower(mS)	16.6

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment “FAIL”, otherwise judgment “PASS”

Power Fail Time Test

Test Function

[01]Power Fail Time Test
Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(mS)	100.0
Go-NoGo Lower(mS)	0.8

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment "FAIL", otherwise judgment "PASS"

P.F. Ring Times Test (The times of Power Good signal surge from High to Low)

Test Function

OK
Cancel
Help

[01]P.F. Ring Times Test

Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Go-NoGo Upper(Times)	1
Go-NoGo Lower(Times)	1

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100

Notice: If the value is not in the range of you have set, judgment "FAIL", otherwise judgment "PASS"

Over Power Protect Test

Test Function

OK
Cancel
Help

[01]Over Power Protect Test
▼
Up
Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Step Time(mS)	0
Go-NoGo Upper(W)	300.0
Go-NoGo Lower(W)	180.0

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100
Upper(V)							5.50
Lower(V)							4.50
Step Current(A)		0.10	0.10	0.010	0.010	0.10	0.000
End Current(A)		20.00	40.00	1.000	1.000	20.00	2.000

Notice: If the value is not in the range of you have set, judgment "FAIL", otherwise judgment "PASS"

Wait...

Define: The test state is kept and without any change until press the “ON” button in the panel of SM-268 or Space Key in PC keyboard. The o/p voltage, ripple & noise, viber and others test items can be ran in the period.

ixNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100
Go-NoGo Upper(V)		12.50	5.50	5.50	12.50	3.50	5.50
Go-NoGo Lower(V)		11.50	4.50	4.50	11.50	3.00	4.50

Notice: If the value is not in the range of you have set, judgment “FAIL”, otherwise judgment “PASS”

Short Protect Test

Define: Short the o/p circuit of power supply, if the power supply shut down and the o/p voltage is lower than the Vx voltage you set, then judgment “PASS”, otherwise “FAIL”.

Test Function

[01]Short Protect Test

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Vx Check	+12V

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100
Go-NoGo Upper(V)							5.50
Go-NoGo Lower(V)							4.50

Ps Off Test

Define: Execute the operation of Ps Off when the power supply is working, if the +5Vsb o/p voltage is Ok and the others o/p voltage is less than the Lower voltage, judgment "PASS", otherwise "FAIL".

Test Function

OK
Cancel
Help

[01]Ps Off Test
Up Down

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0

IxNo = 1	Edit	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Load Current(A)		10.00	22.00	0.600	0.600	11.00	0.100
Go-NoGo Upper(V)							5.50
Go-NoGo Lower(V)							4.50

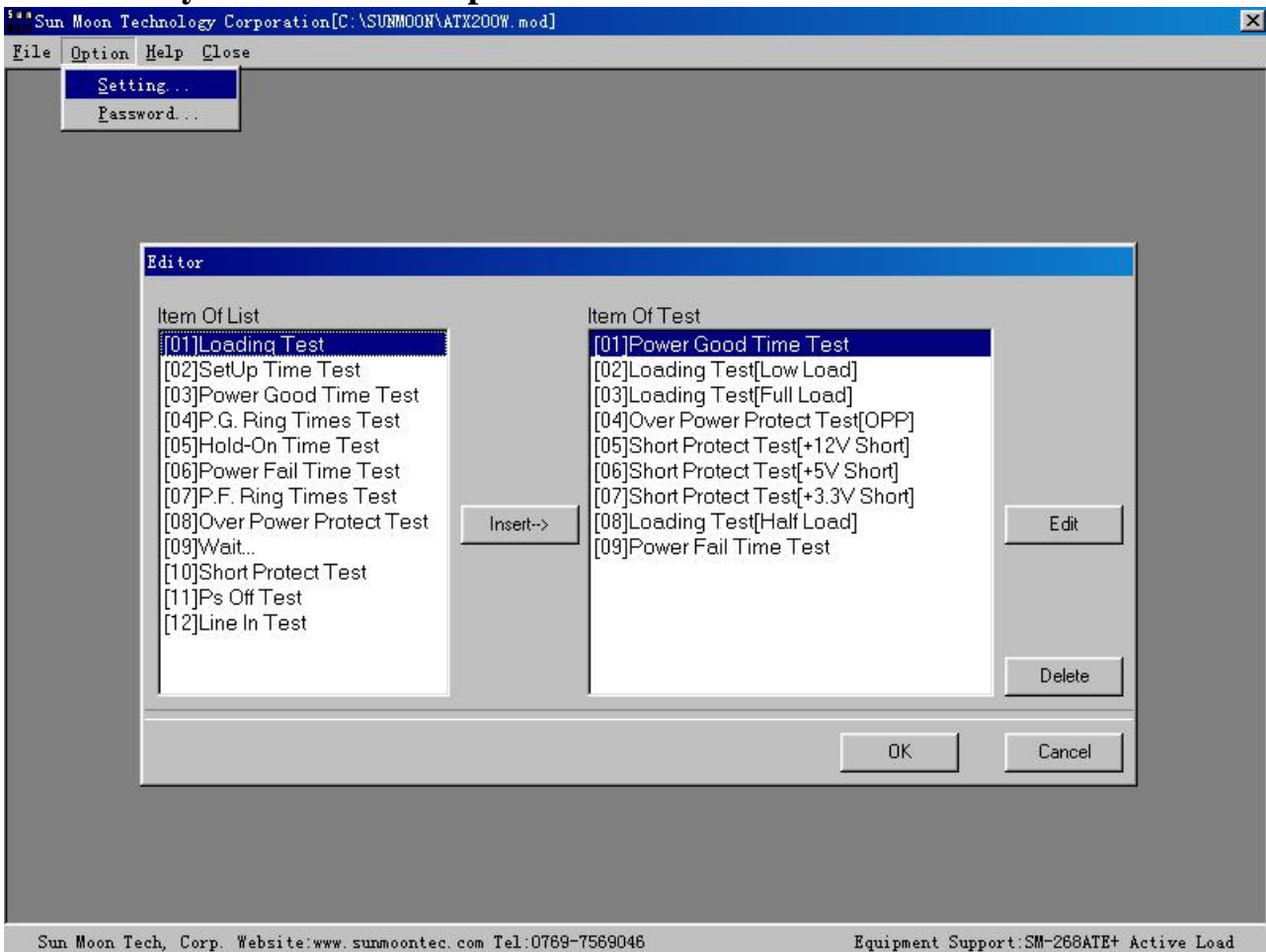
Line In Test (test with difference line voltage)

Define: Select the AC line voltage, and execute the next test with the line voltage , which have be selected, until the next “LINE In Test” item.

Remark	
i/p Source Voltage(V)	230.0
i/p Source Frequency(Hz)	60.0
Select	In-1

Select : Select the AC line channel .

4-3 Set the system & common parameter & Password



Run [Setting...] injunction and Setting.

- Test Condition (Set the common injunction)
- Load List (Set the upper & lower of o/p voltage)
- Pick Status (Set the system)

Test Condition (Set the common injunction)

Vx Name	+VA	+VB	-VC	-VD	+VE	+VF
Meter String	+12V	+5V	-5V	-12V	+3.3V	+5VSB
Down Voltage(V)	8.00	3.00	3.00	8.00	3.00	3.00
Reset Voltage(V)	0.10	0.10	1.00	1.00	1.00	1.00

Model Name: Set the Power Supply Model.

The text will be printed in the “Model No.” table, and be showed in the Auto Test zoom.

Serial Number: Set the current serial number of Power Supply.

The value will be increased automatic based on the initial number.

Time Reference Voltage(V): Set Reference voltage(Vref)

Max Down Retry Time (Sec.): Set the Max wait time. Namely the Max time between shut off and restart. Unit: second

Steady Time (Sec.): Remained time at each test item. Unit: Second

Power Down Mode: If the power supply is ATX ,then choose “ATX power”, otherwise choose “AT power”.

Short Check Mode: Choose the short check mode.

After Shorted: Check the o/p voltage after short

In Shorting: Check the o/p voltage as short

Input Select: Choose the mode of I/P source mode

Meter String: Set the Meter string

You may type any text you want to set. The text will be showed & printed in the test report.

Down Voltage(V): Vref for judge the power supply is shun down or turn on.

Reset Voltage(V): Discharge Vref.

The ATE judge whether the power supply shut down according to the discharge Vref. If the o/p voltage of power supply is lower than the Vref, then judgment is “shut down” and the next test item will be ran.

Load List

Setting Condition								
Test Condition		Load List						Pick Status
Ix	Function	+12V	+5V	-5V	-12V	+3.3V	+5VSB	
I1	Amp	10.00	22.00	0.600	0.600	11.00	0.100	
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50	
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50	
I2	Amp	8.00	18.00	0.500	0.500	9.00	0.100	
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50	
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50	
I3	Amp	4.00	9.00	0.250	0.250	4.50	0.100	
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50	
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50	
I4	Amp	2.00	4.50	0.125	0.125	2.25	0.100	
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50	
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50	
I5	Amp	0.00	0.00	0.000	0.000	0.00	0.000	
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50	

If the data you typed is not in the range of system, the interface will be popped. You may refer to it and have any change.



Pick Status (Set the system data)

Serial Number

Auto-Increase: The serial number will be increased automatic, though the test result is Fall or Pass.

When All Item = Pass. Auto-Increase: The serial number will be increased automatically if all the test items is Pass.

Don't Auto-Increase: Not any change.

Print Format

Detail: Print the test items & data & result.

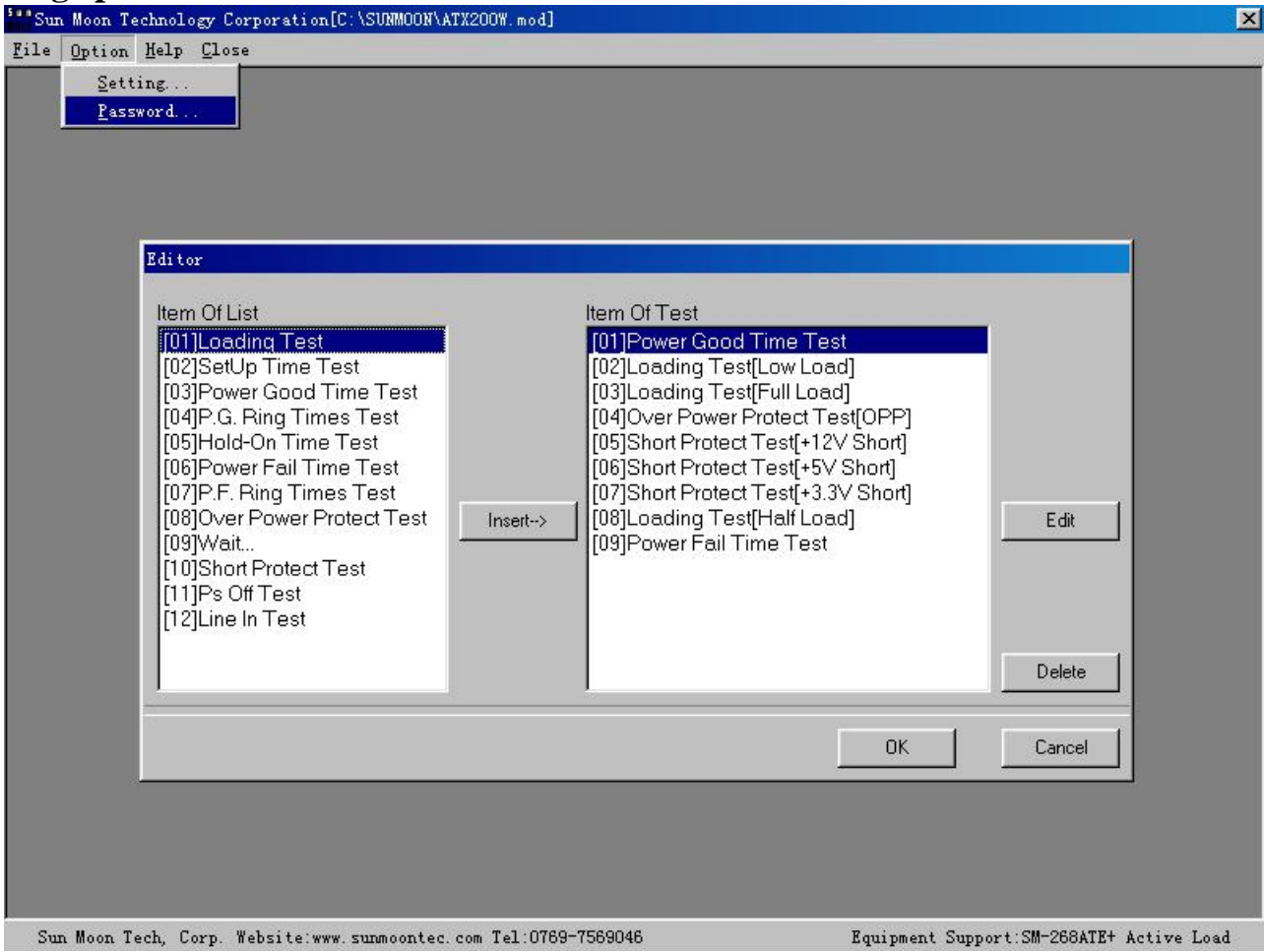
Simple: Print the test result only.

Auto-Save Result File: If you need to store the result of tested, select it. The data will be stored automatically and named the title with Serial Number.

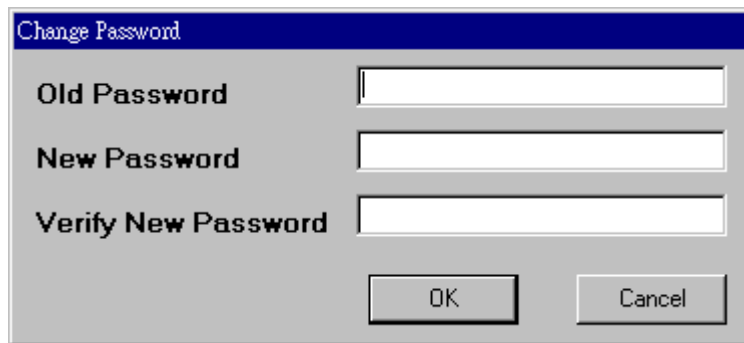
User's COMPANY Name [Title]: The Name will be printed in the report.

Customer Name: The Name will be printed in the report.

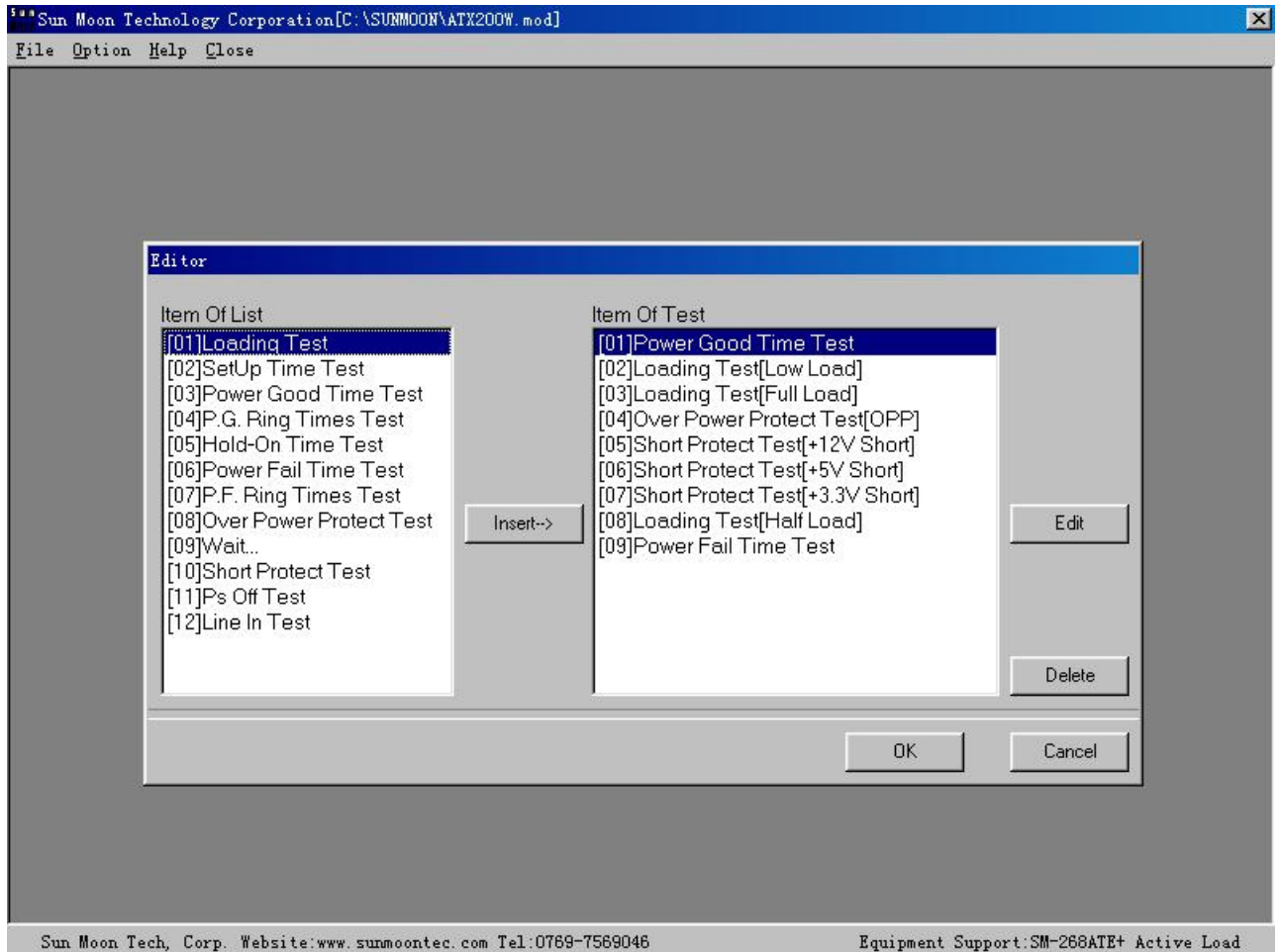
Change password



Run [password] injunction, the window will be popped as following:



4-4 Test Item

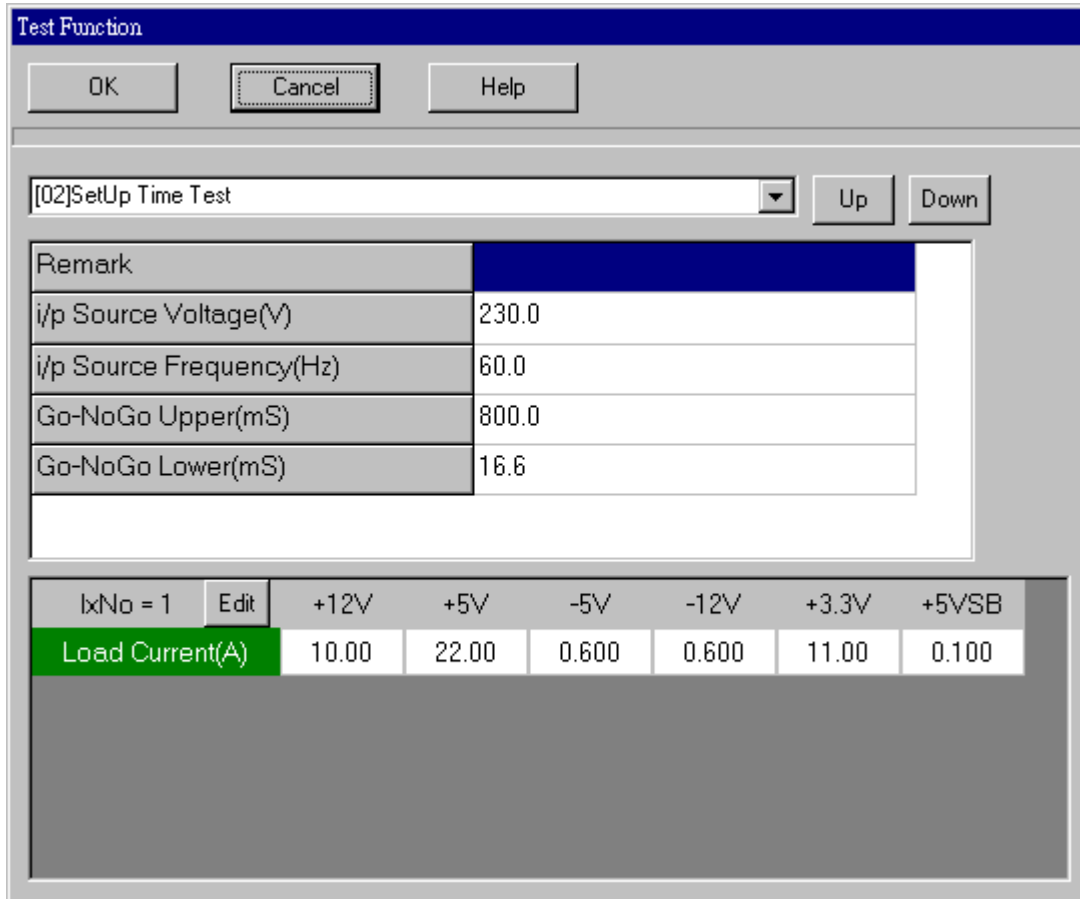


Item Of Test:

Select the item from the [Item of List], press the [Insert] button, the item then be inserted into the [Item of Test].

If you want to delete any item from the [Item of Test], select it and press the button of [Delete].

If you need to edit the test item, select it and press [Edit] button, the [Test Function] interface will be popped as following:



Press [OK] button after you complete the edit, and any change will be stored, otherwise press [Cancel].

You may press the button of [Up] or [Down] to select the item you want to edit, or press the button of [▼] for selection.

In the interface of [Test Function], press [Edit] button for setting the current & voltage.

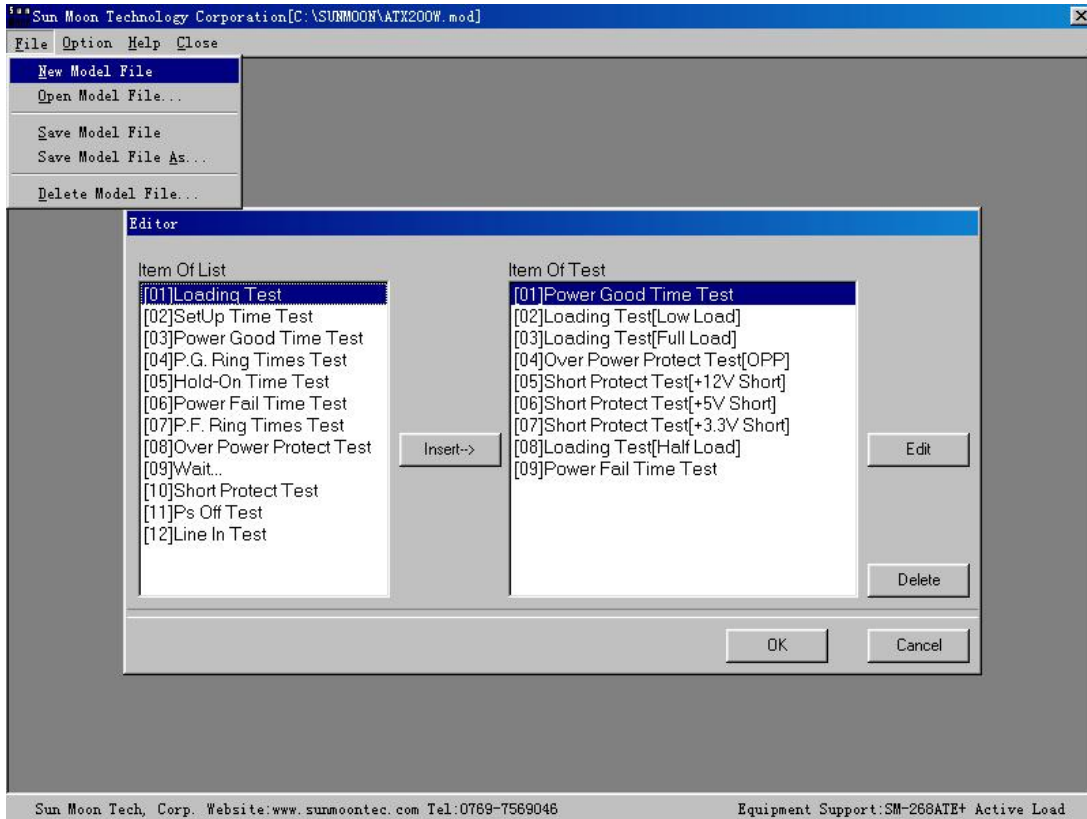
Ix Select							
Ix	Function	+12V	+5V	-5V	-12V	+3.3V	+5VSB
1	Amp	10.00	22.00	0.600	0.600	11.00	0.100
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50
2	Amp	8.00	18.00	0.500	0.500	9.00	0.100
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50
3	Amp	4.00	9.00	0.250	0.250	4.50	0.100
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50
4	Amp	2.00	4.50	0.125	0.125	2.25	0.100
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50
5	Amp	0.00	0.00	0.000	0.000	0.00	0.000
	V-Hi	12.50	5.50	5.50	12.50	3.50	5.50
	V-Lo	11.50	4.50	4.50	11.50	3.00	4.50

Press [OK] for storage as the set is complete, otherwise press [Cancel].

4-5 File modify

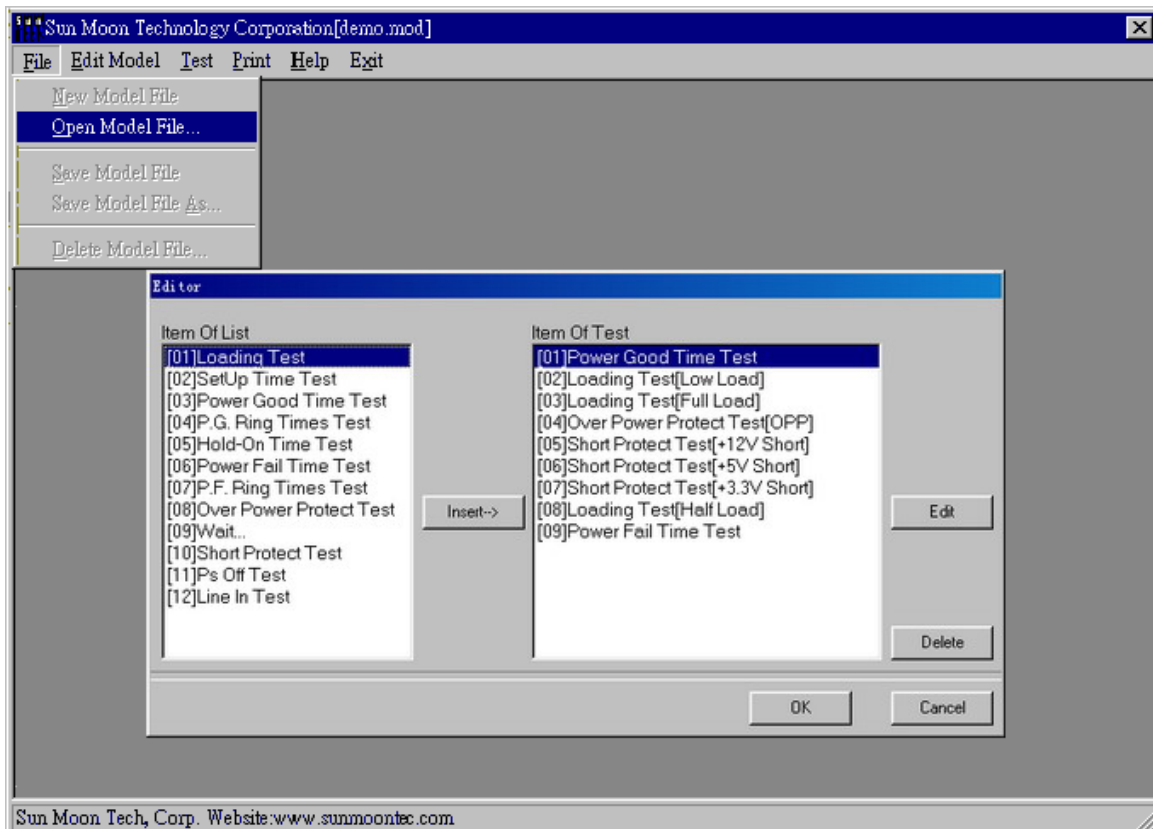
Constitute the New model File

Run [New Model File] injunction if you need to establish a new file for a new model. A file named demo.mod will be created automatically. If you want to rename it , please refer to the content of “**save as new model file**”.



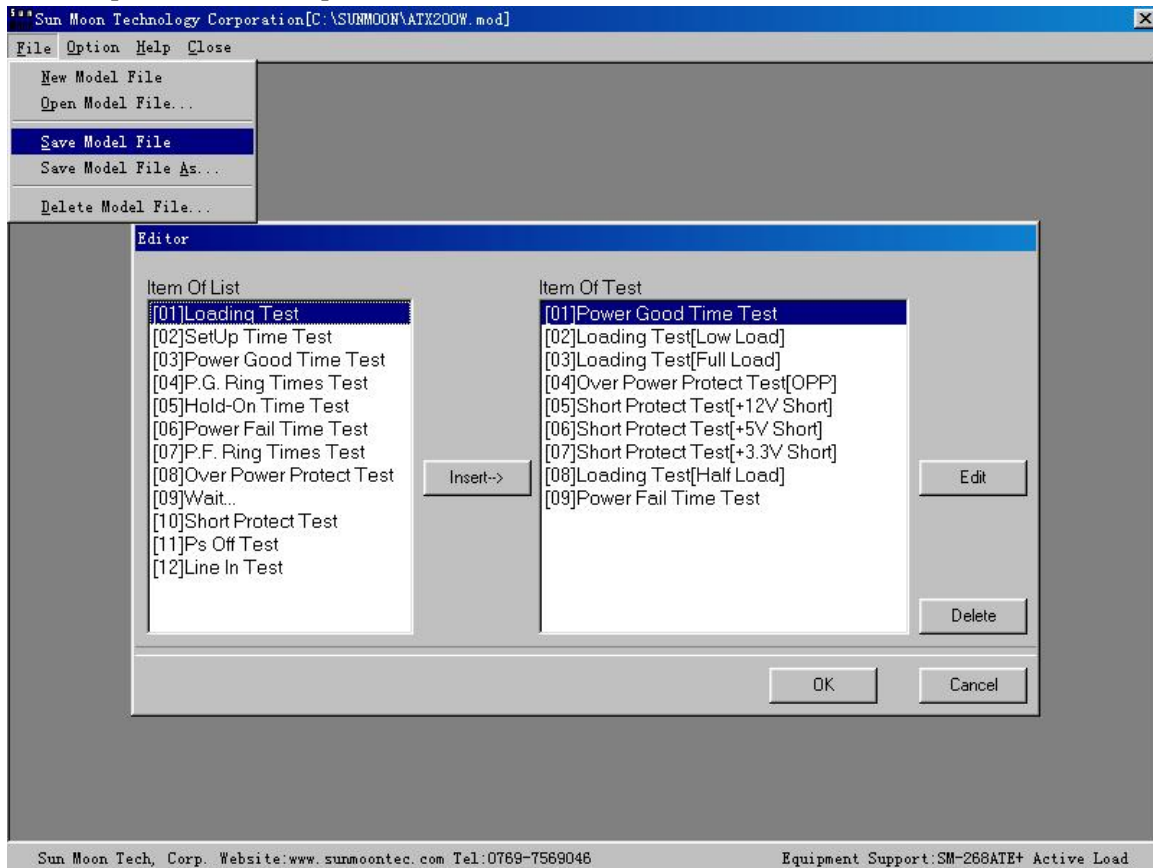
Open Model File

Run [Open Model File] in [File], the Model file will be opened.



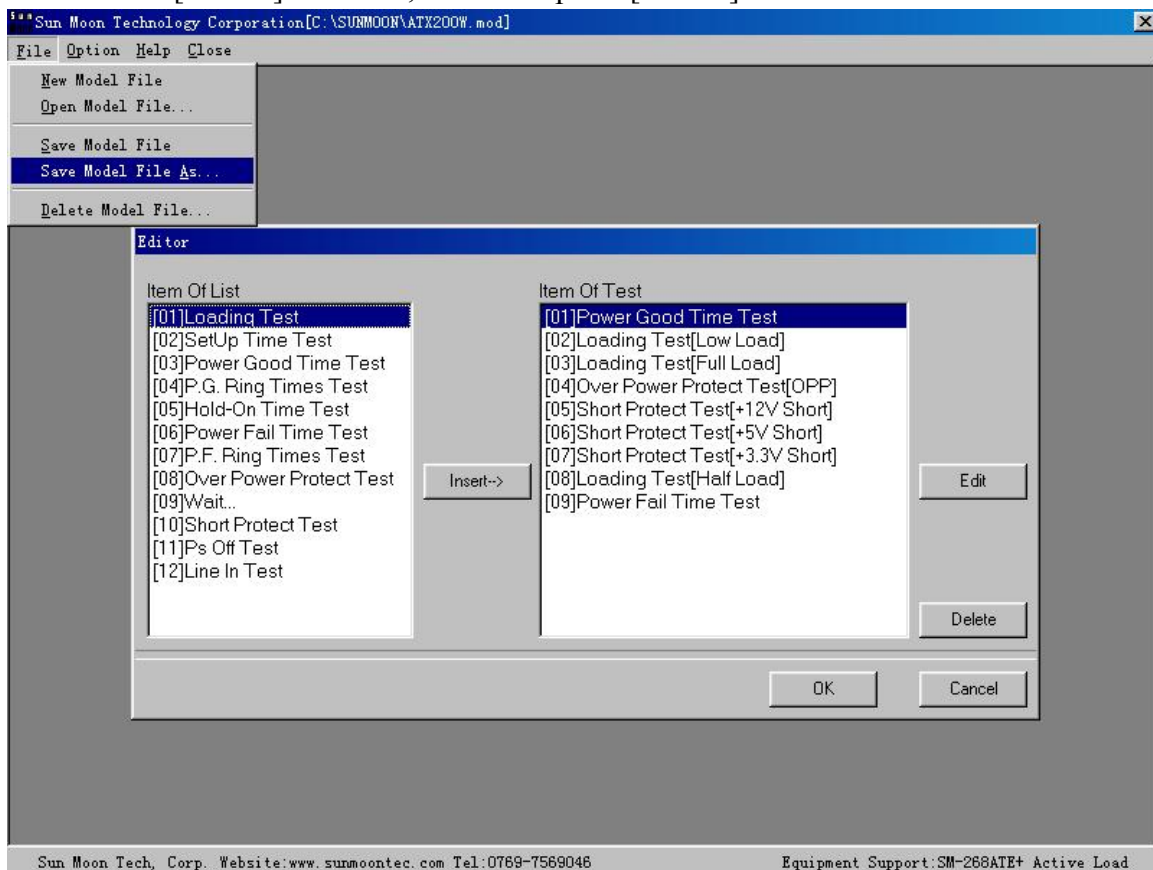
Save Model File

Run [Save model file] and the model file will be saved.



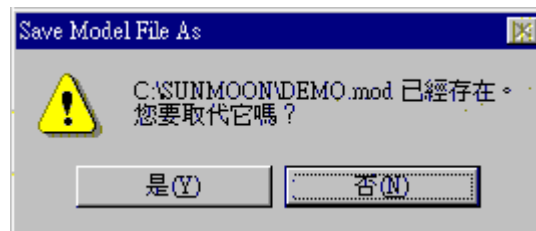
Save Model File As

Run [Save Model File As], the interface will be popped as following. You can save it as new file. Press [Ensure] to save it, otherwise press [Cancel].



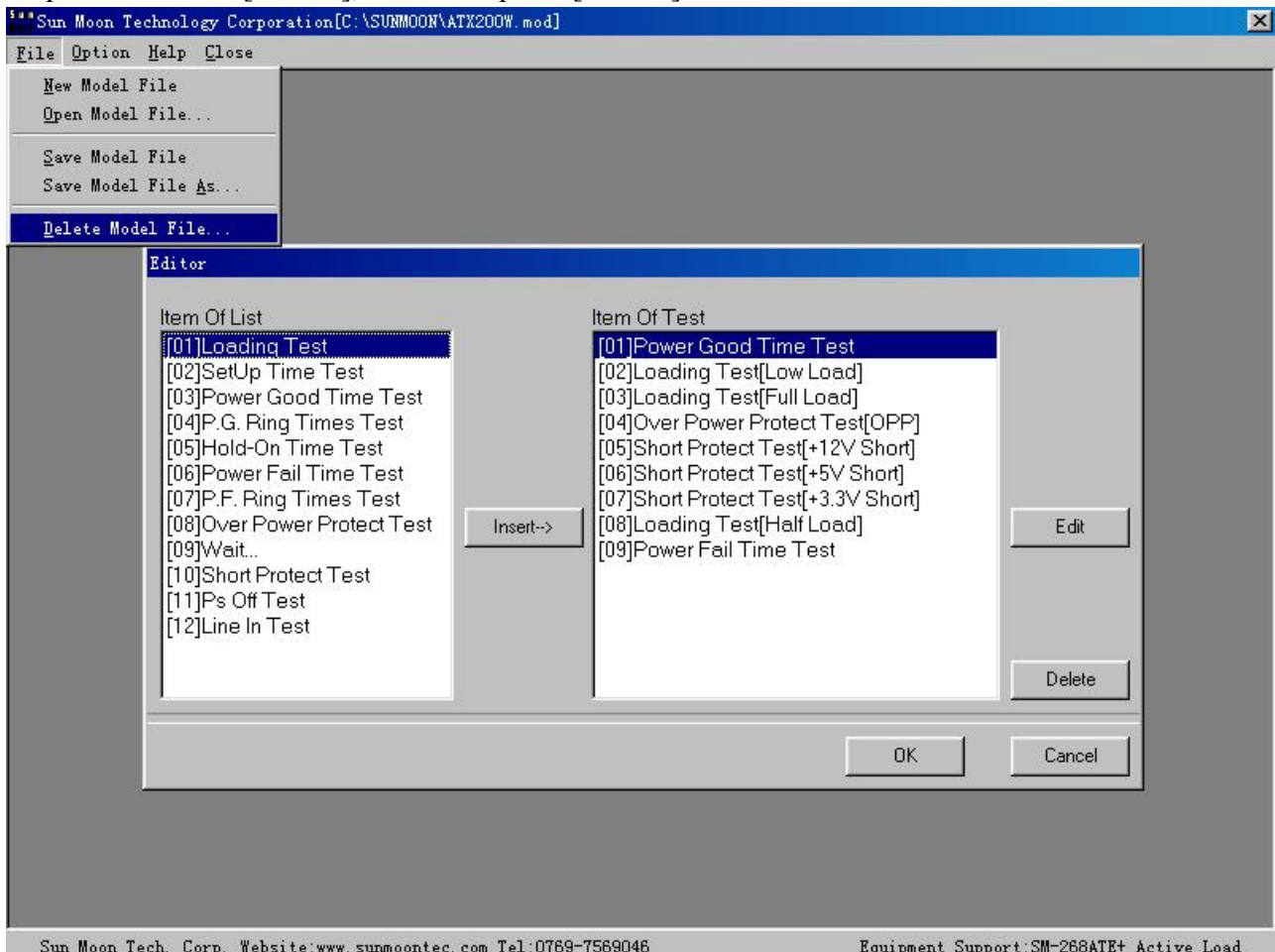


If you want to save a file, but another is existed with the same drive symbol, path and name, the interface will be popped as following. Press [Yes] to replace it, and [No] to cancel.



Delete Model File

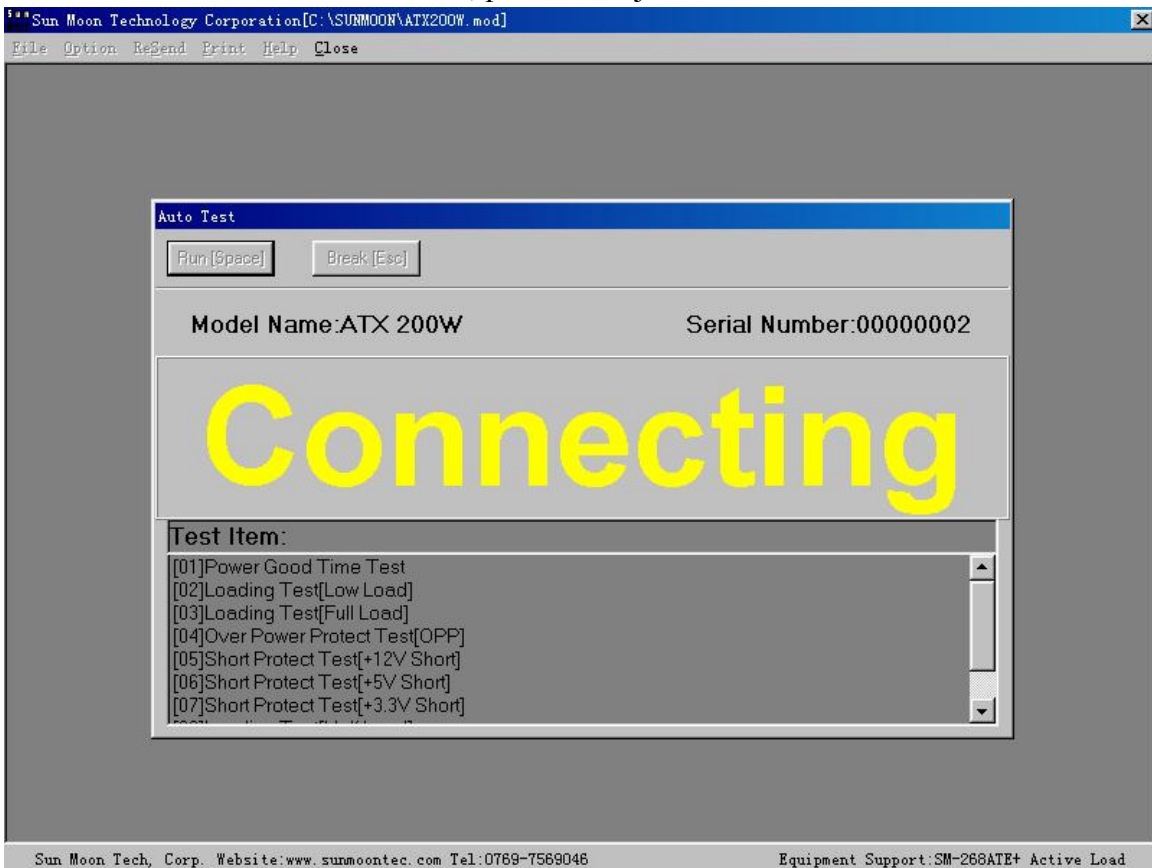
Run [Delete Model File], the interface will be popped as following. You may delete any file if press button of [Ensure], otherwise press [Cancel].



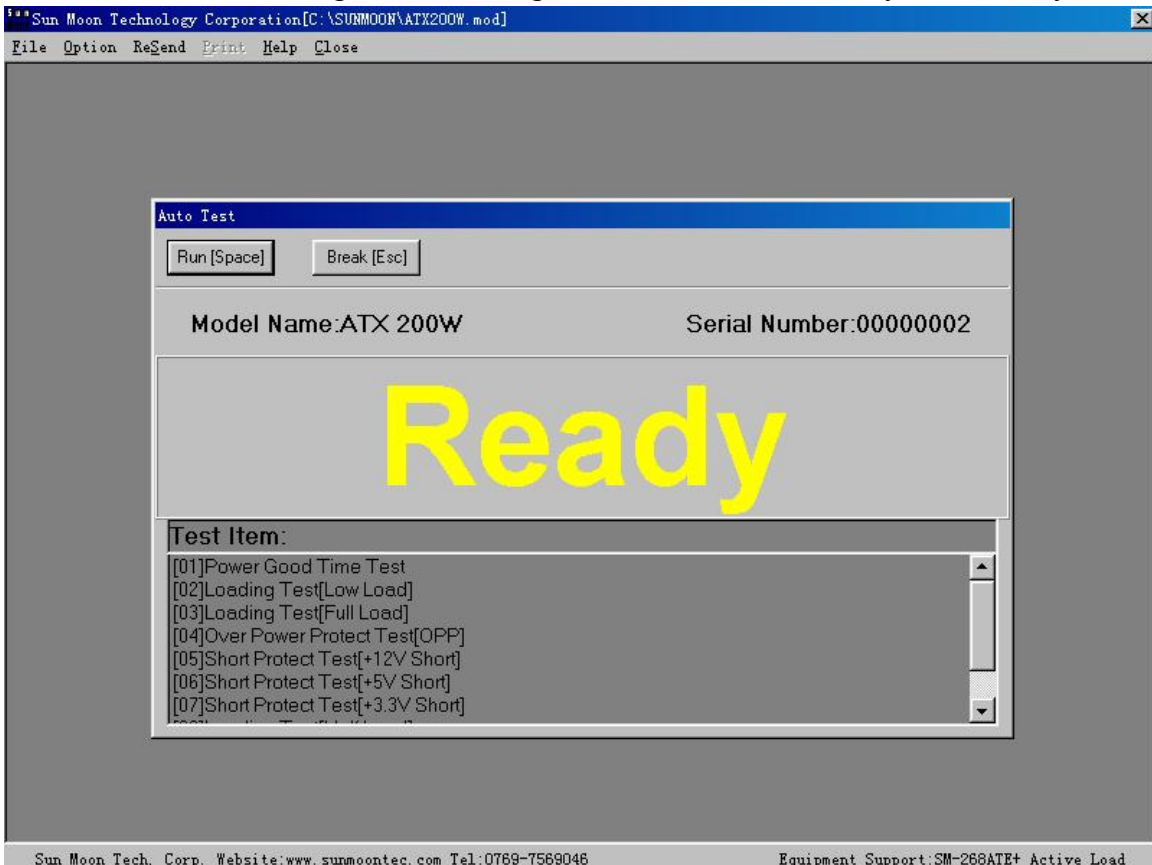


5 Injunction in Test table

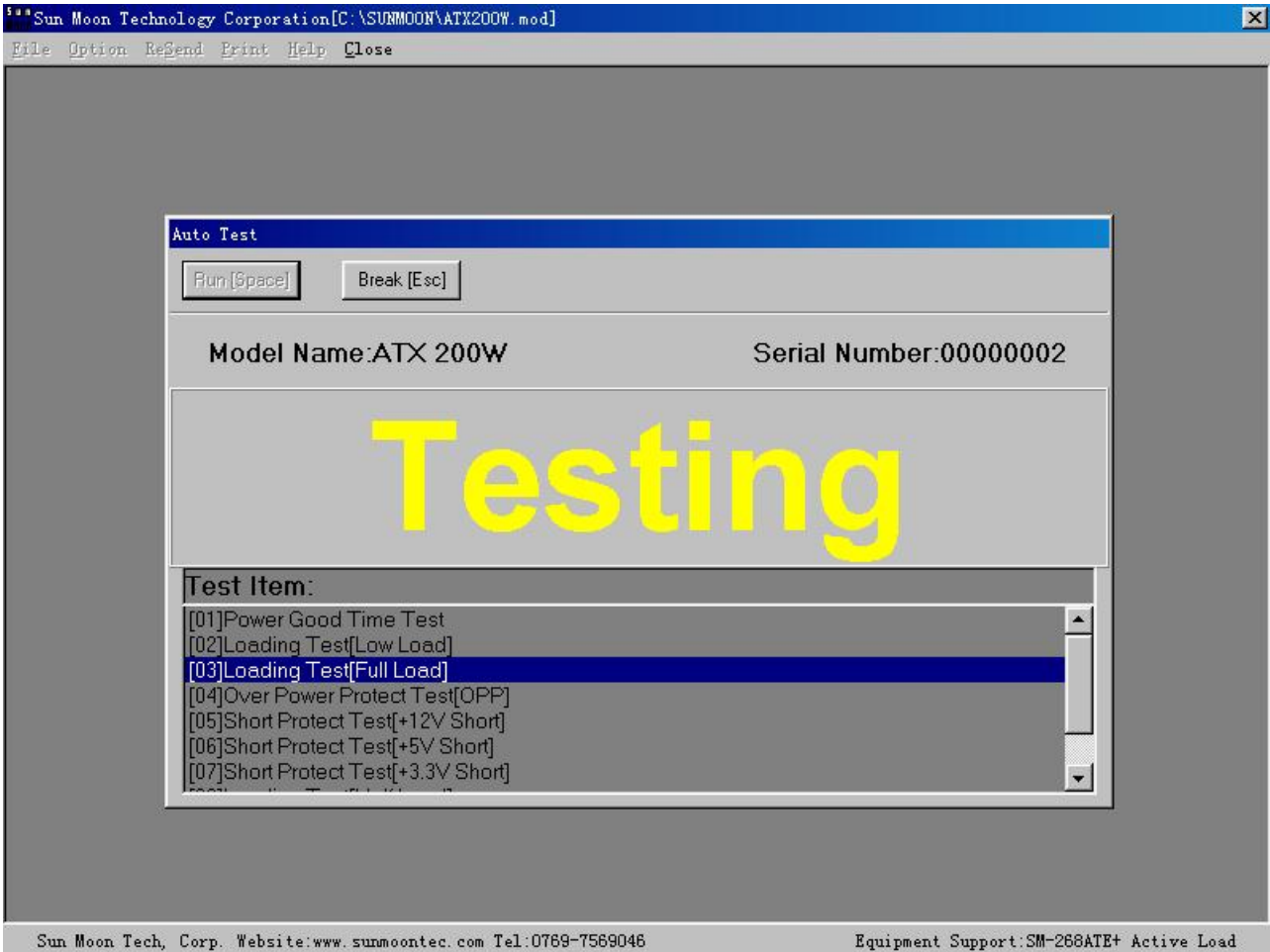
Run [Test] , the interface will be popped as following. The SM-268 is linked with PC, and the test information is transformed to SM-268, please wait just a moment.



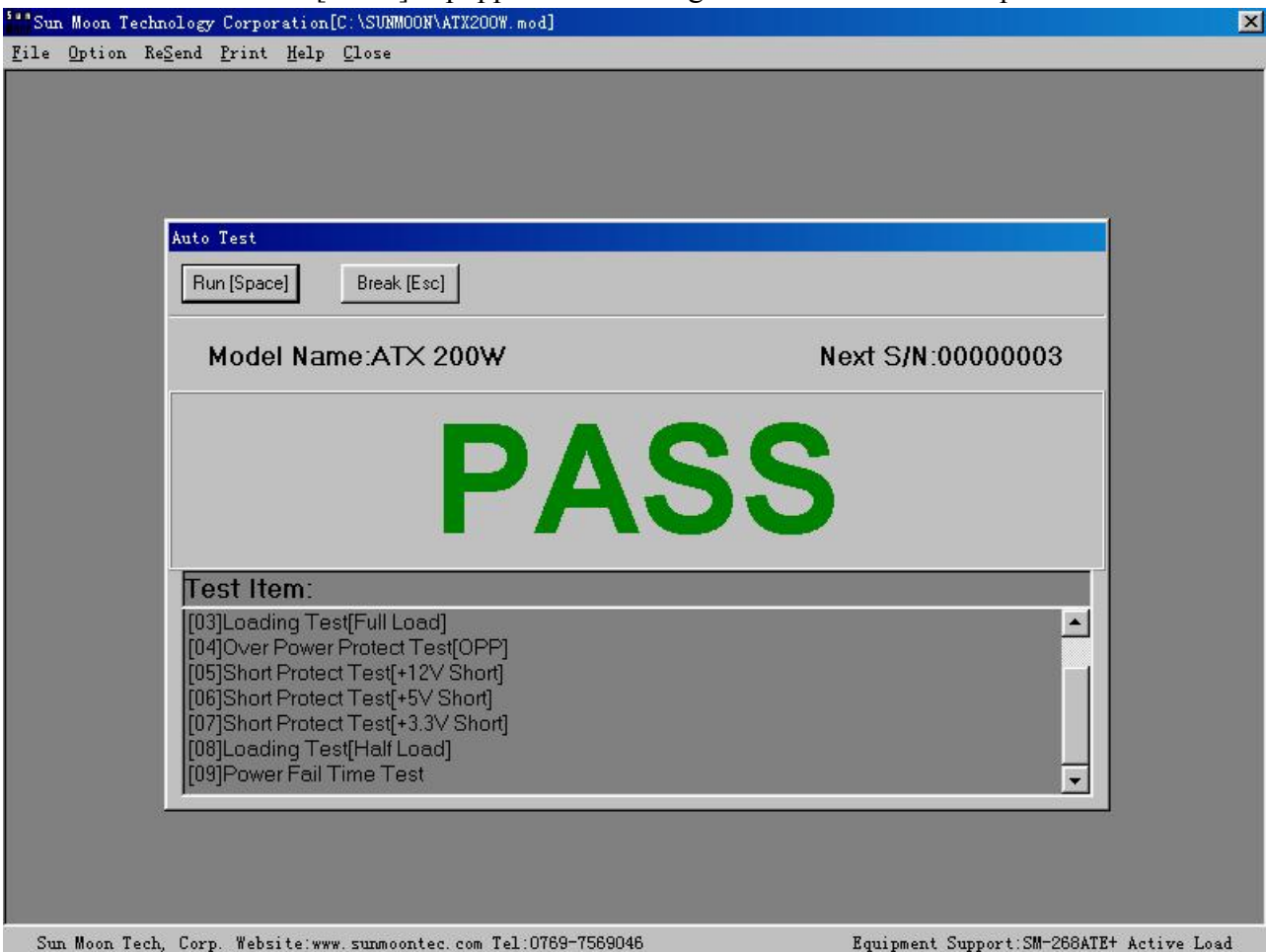
The interface will be changed as following after serial seconds. The system is ready to test.



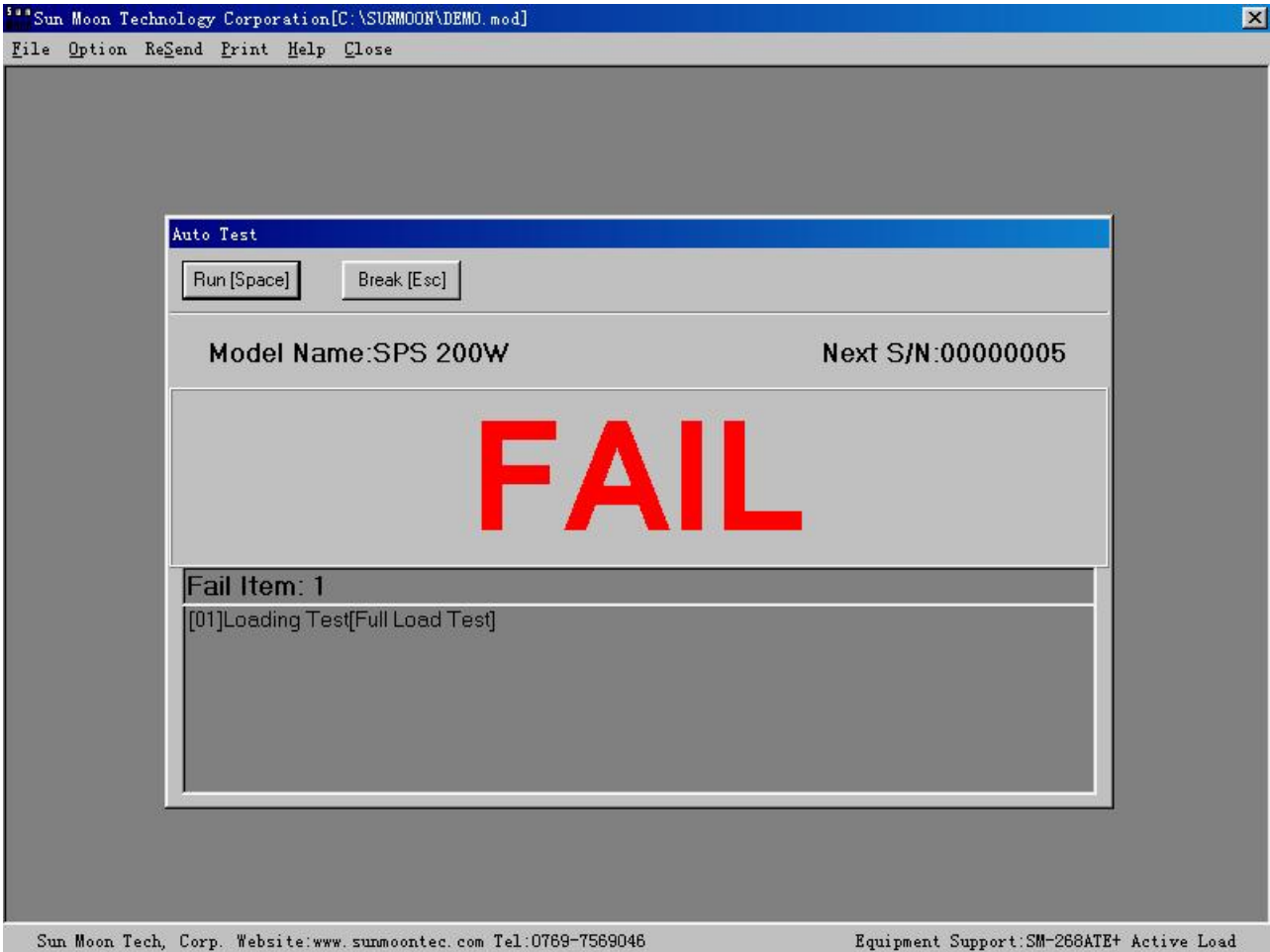
Press [Run] or Space in PC keyboard, test is beginning.(Press AC “ON” button in the panel of SM-268 is equal). The interface is changed as following:



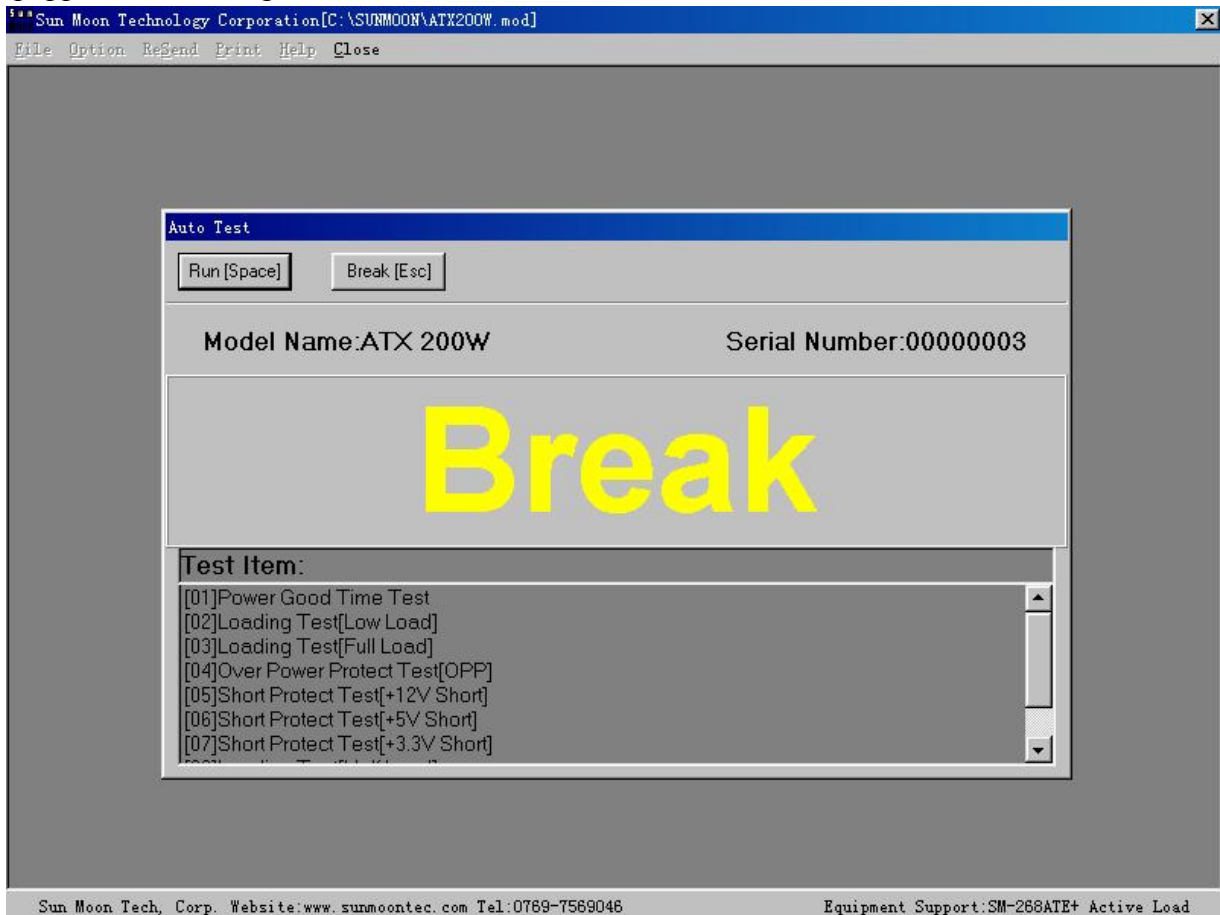
The interface of [PASS] is popped as following if all the test items are passed.



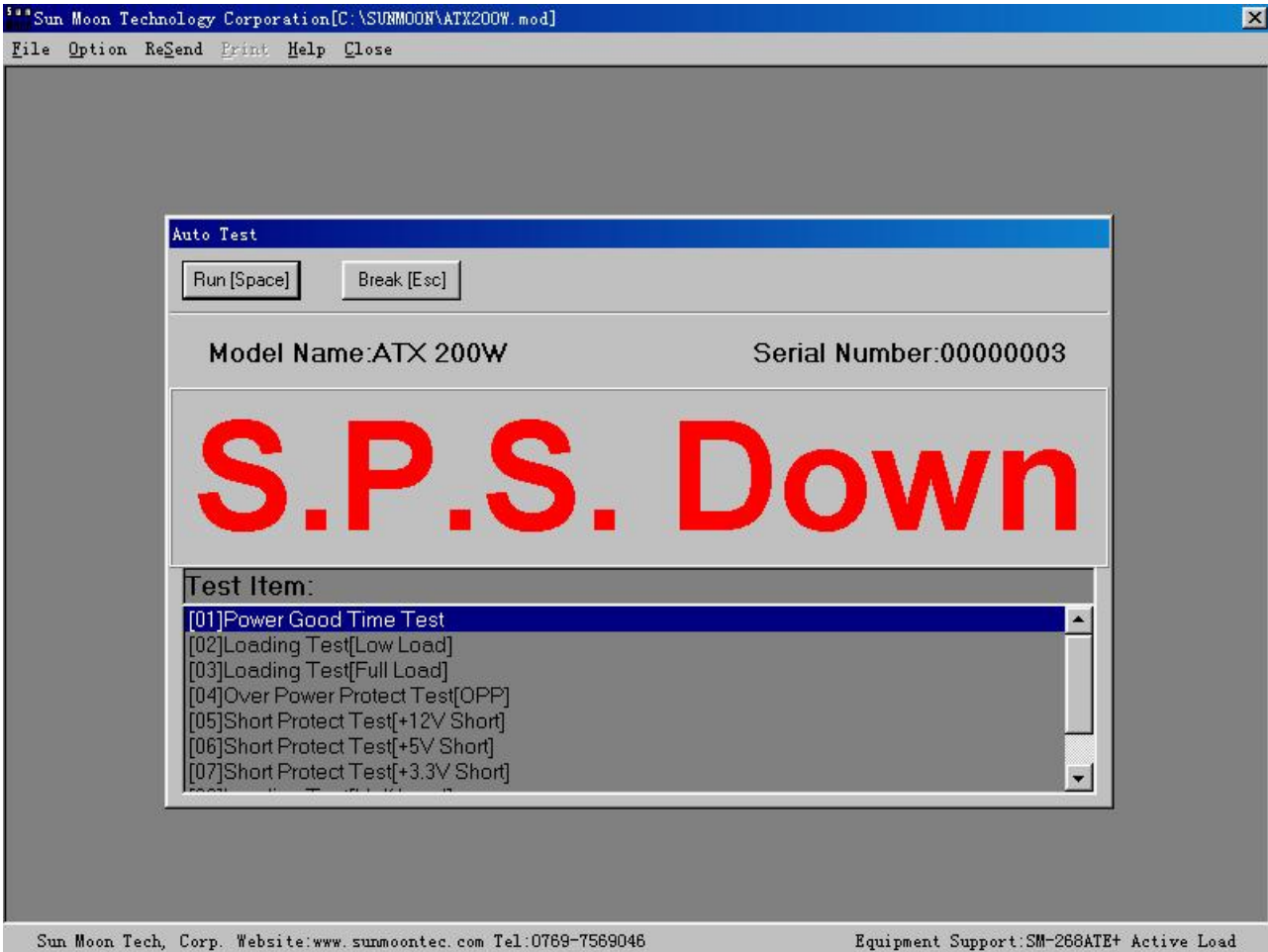
Otherwise the interface of [FAIL] popped as following:



The process will be paused if [Break] button or [Esc] key in keyboard is pressed, and the interface popped as following:



If the power supply couldn't start up at test, the interface will be popped as following:



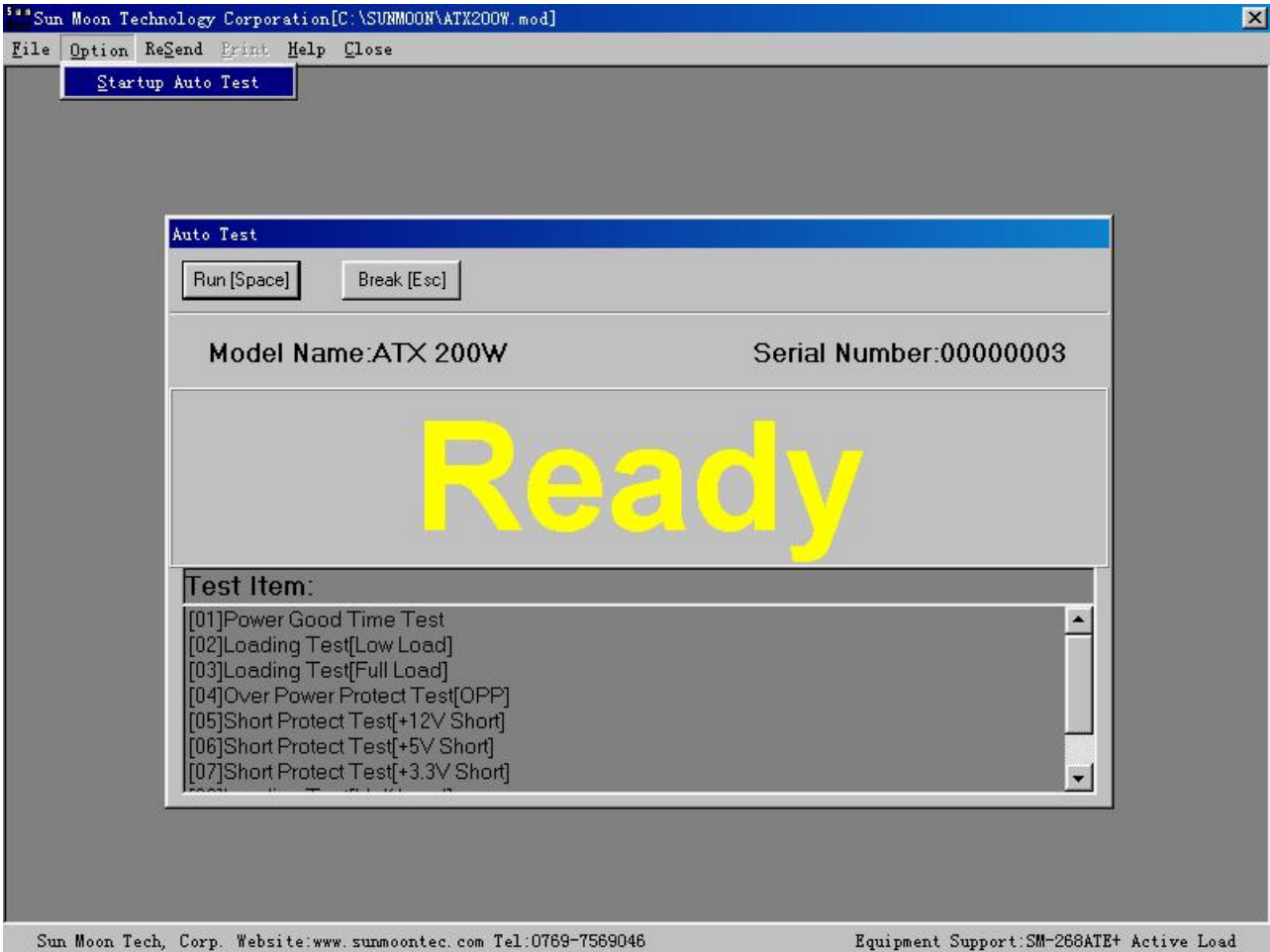
Please press [Run] button for again or test another power supply if it's happened.

5-1 File

Run [Open Model File] in [File] table, the test program will be selected and opened.

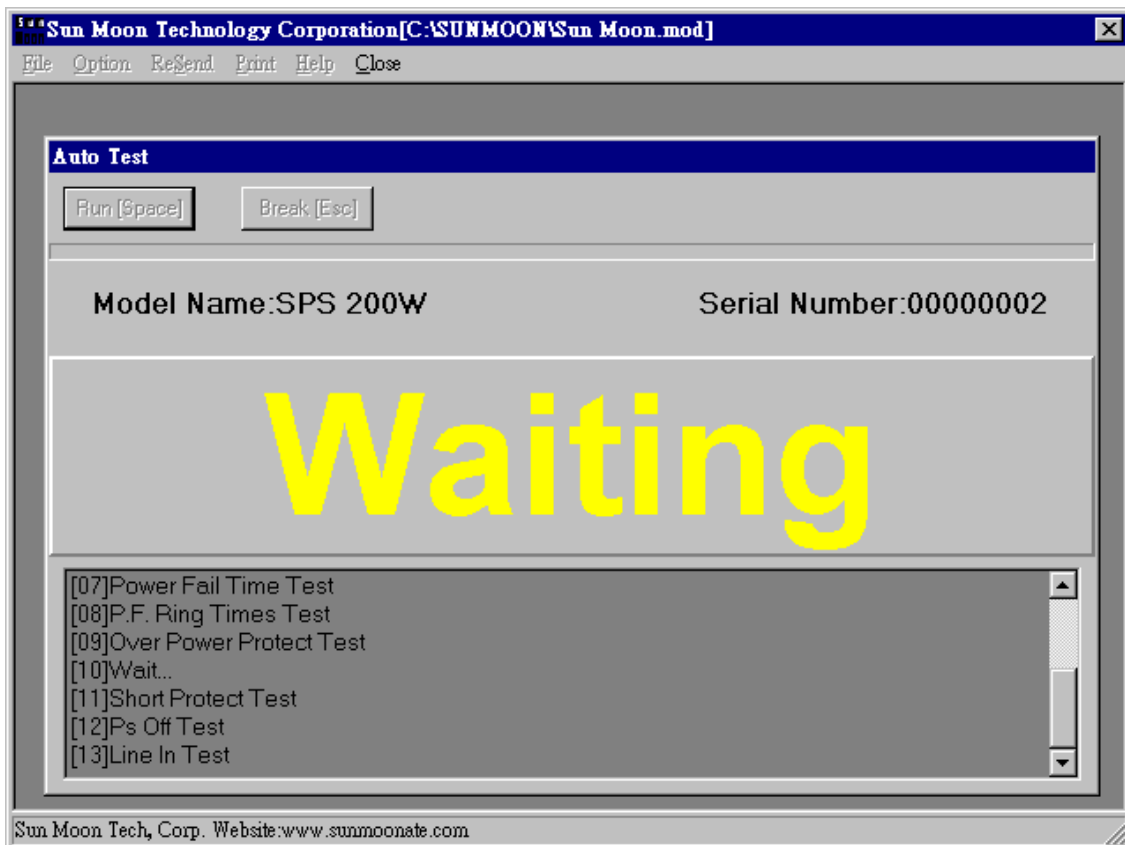
5-2 Option

Press [Option] , and select the injunction of [Startup Auto Test], it's a shortcut to run the test program.



5-3 ReSend

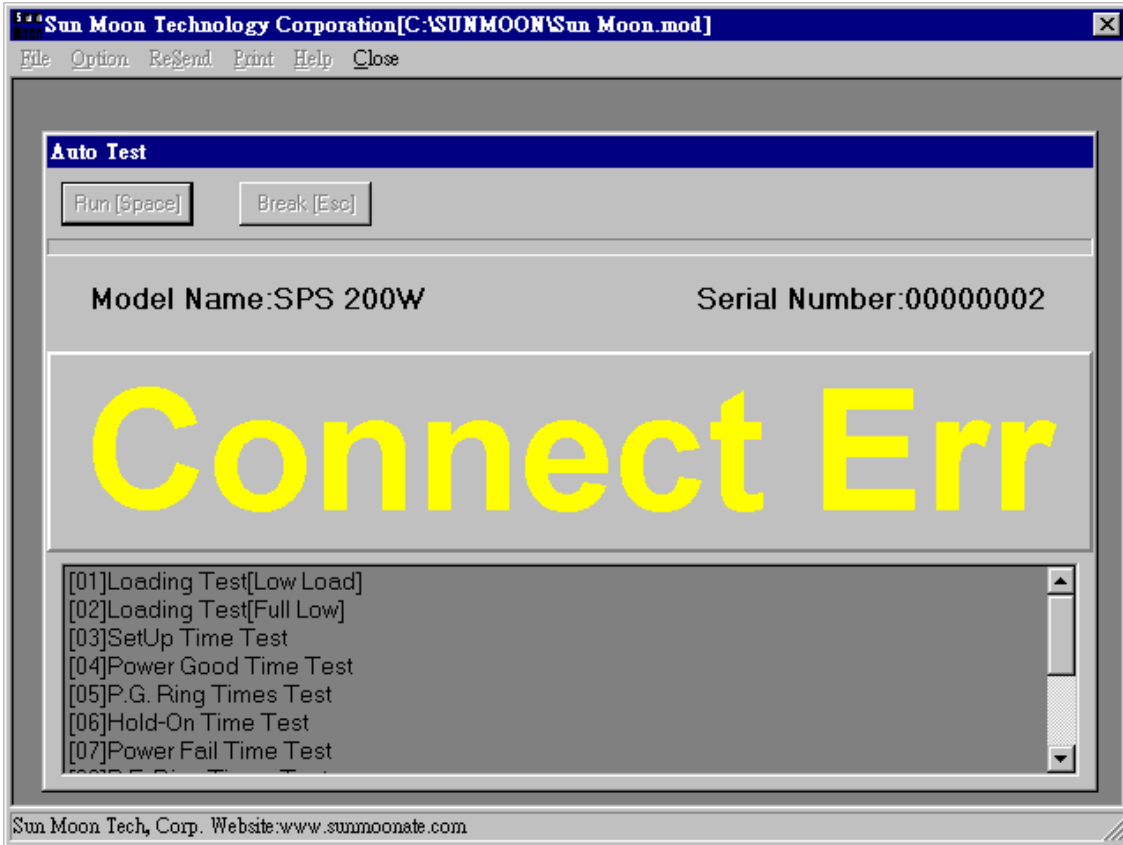
Run [ReSend] and the test data will be transformed to SM-268 again.



It will be changed with the state of write only several seconds, and ready to test.

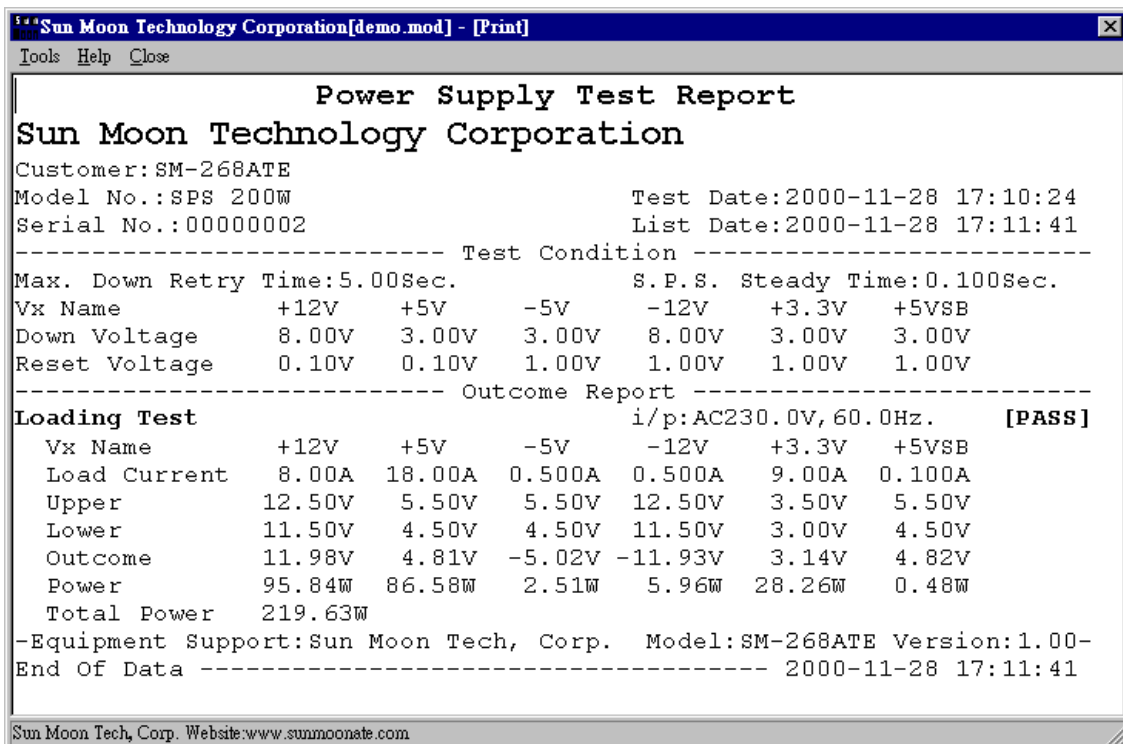
The interface will be popped as following if link fail. Please check the wire of RS-232C, and try

again.



5-4 Print

Press [Print] if all test items are completed, and the final result will be listed as following.



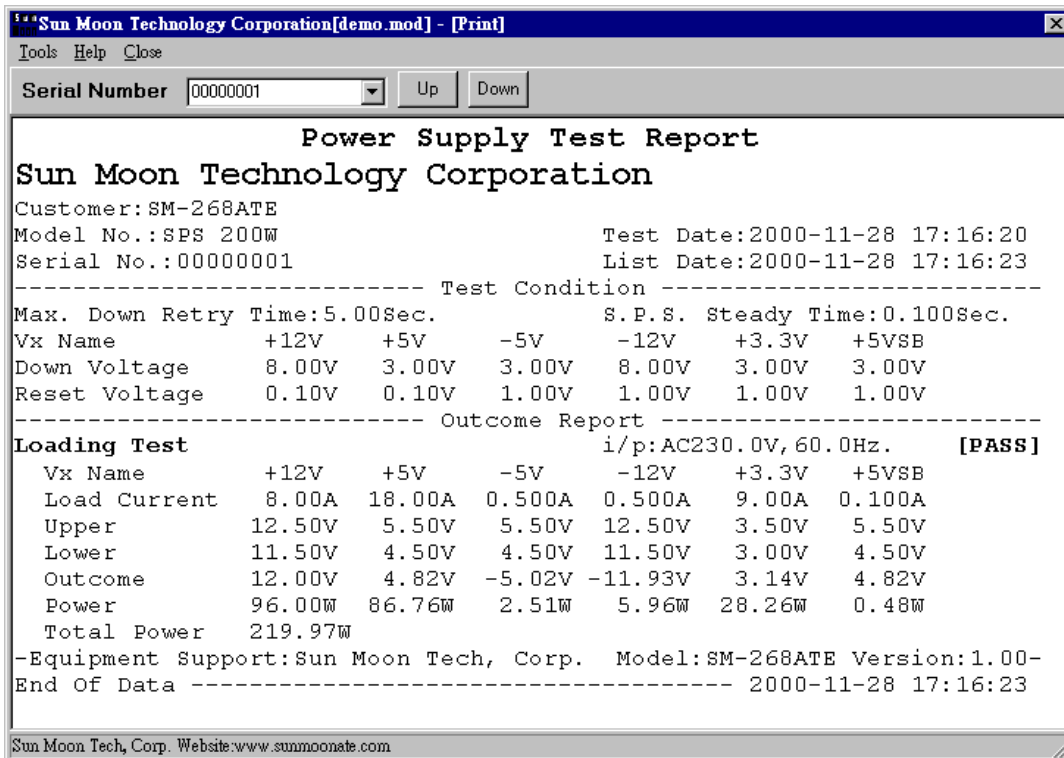
Press [Printer] in [Tools], and the data will be printed. The detail operation please refer to the content in “6-1 Tools”.

6 Print

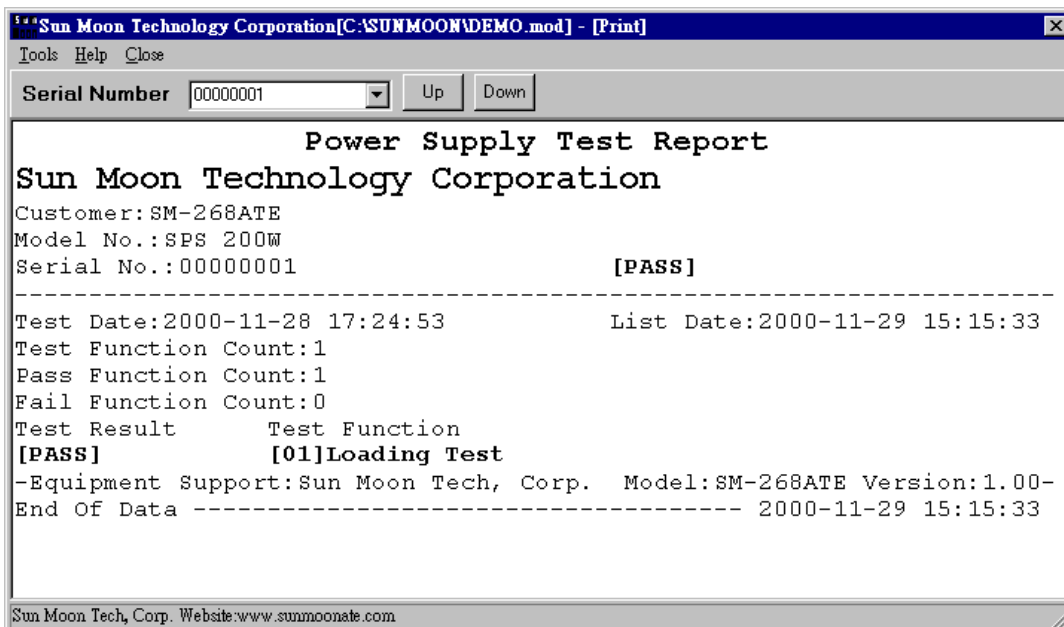
Enter the print zoom:

Run [Print] in the main interface, the window will be showed.

Notice: if you set the [Print Format] in [Pick Status] as [Detail], the report will be printed as following:



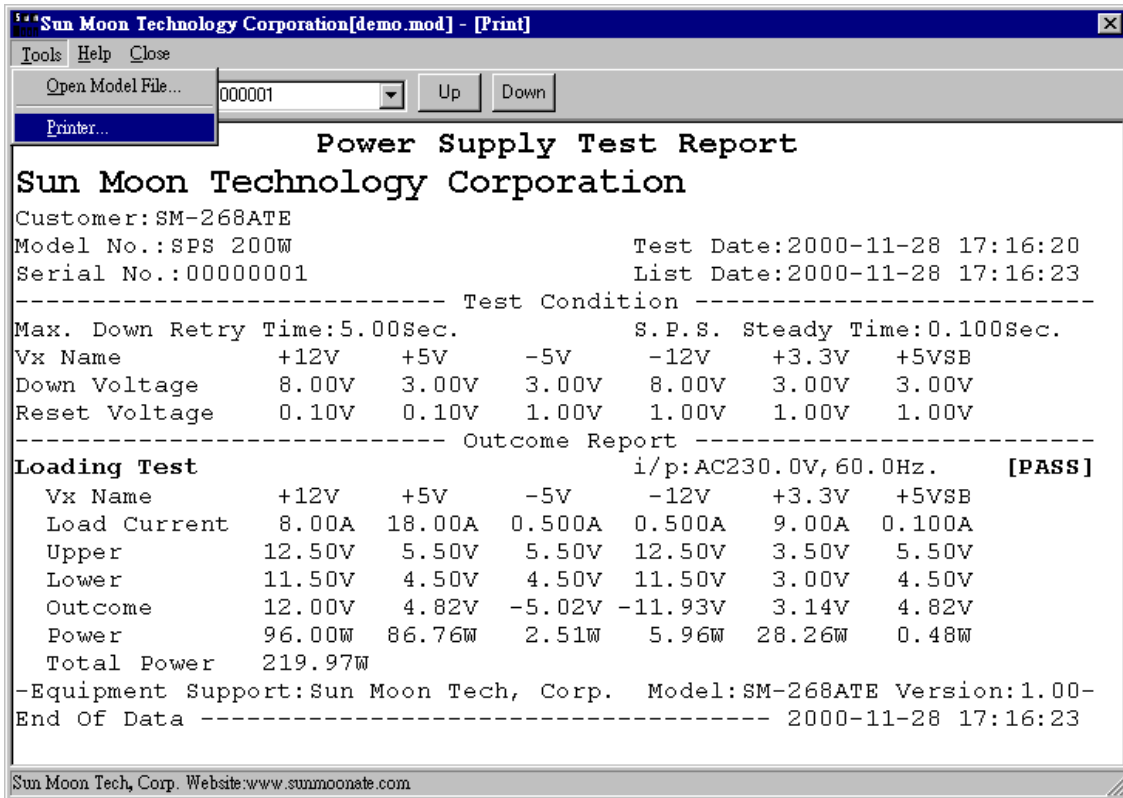
If you set the [Pick status] in [Print Format] as [Simple], the report will be printed as following:



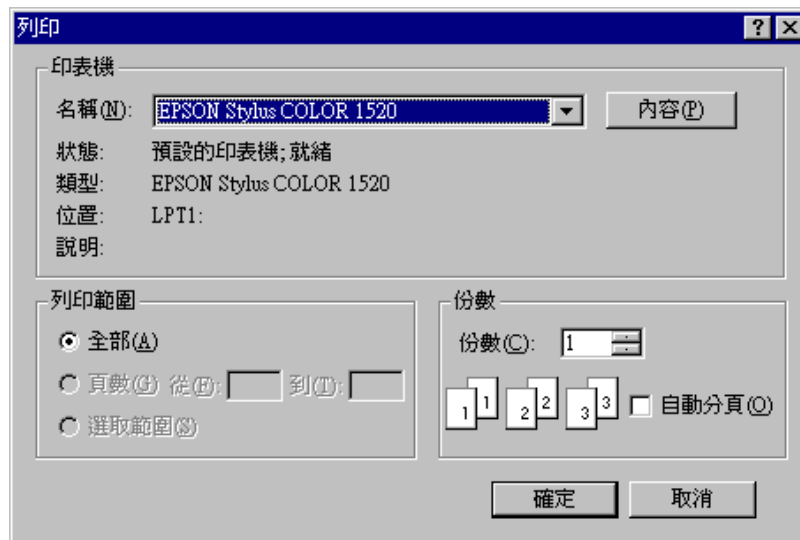
Press [Up] or [Down] to select the Serial Number of report, press button [▼] is equal.

6-1 Tools

Press [Open Model File] in [Tools] and select a file, run it.



Execute [Printer] injunction, the interface will be popped as following. Press [Content] to set you printer.





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