



USB Mass Production Tool

USB 2K User Manual

v1.2

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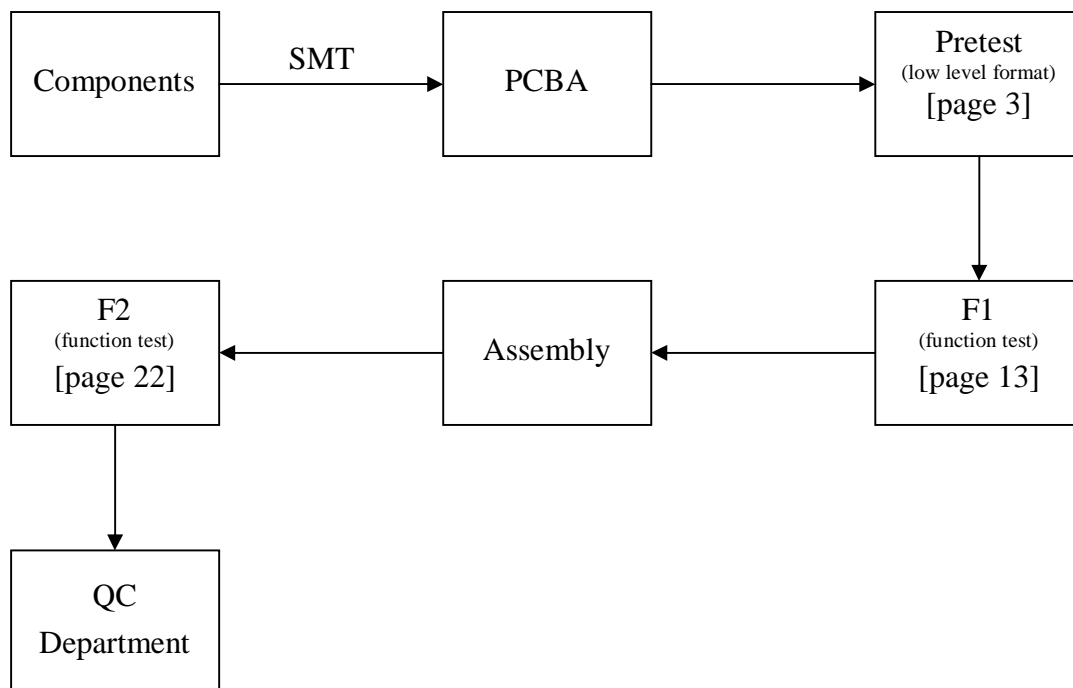
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A. Production Flowchart

A1. Masked Type Controller IC

Masked type controller IC means, that the firmware cannot be updated. (eg: PS2134 / PS2136) The only way to update the firmware is to replace the controller. The production flow for these type controller IC solution is as followed.

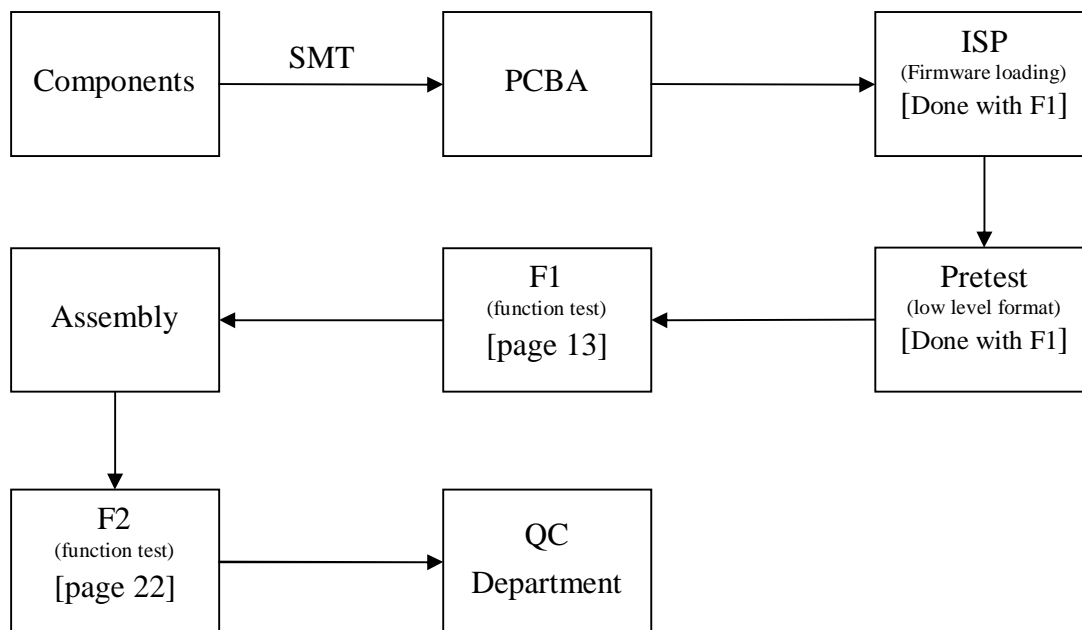


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A2. Flash Type Controller IC

Flash type controller IC means, the firmware **CAN** be updated. (eg: PS2044 / PS2231)
Should the firmware need to be updated, it can be done through USB port with special software provided. The production flow for these types controller IC solution is as followed.



B. System Requirement

The following is the minimum system requirement for production computers.

- Pentium III 300MHz Processor or above
- 256MB or above RAM
- Microsoft Windows 2000 SP4 or Windows XP SP2 operating system
- USB 2.0 USB ports
- 5MB free hard disk space

Note : Phison strongly recommend using Windows 2000 SP4 as the production computer operating system.

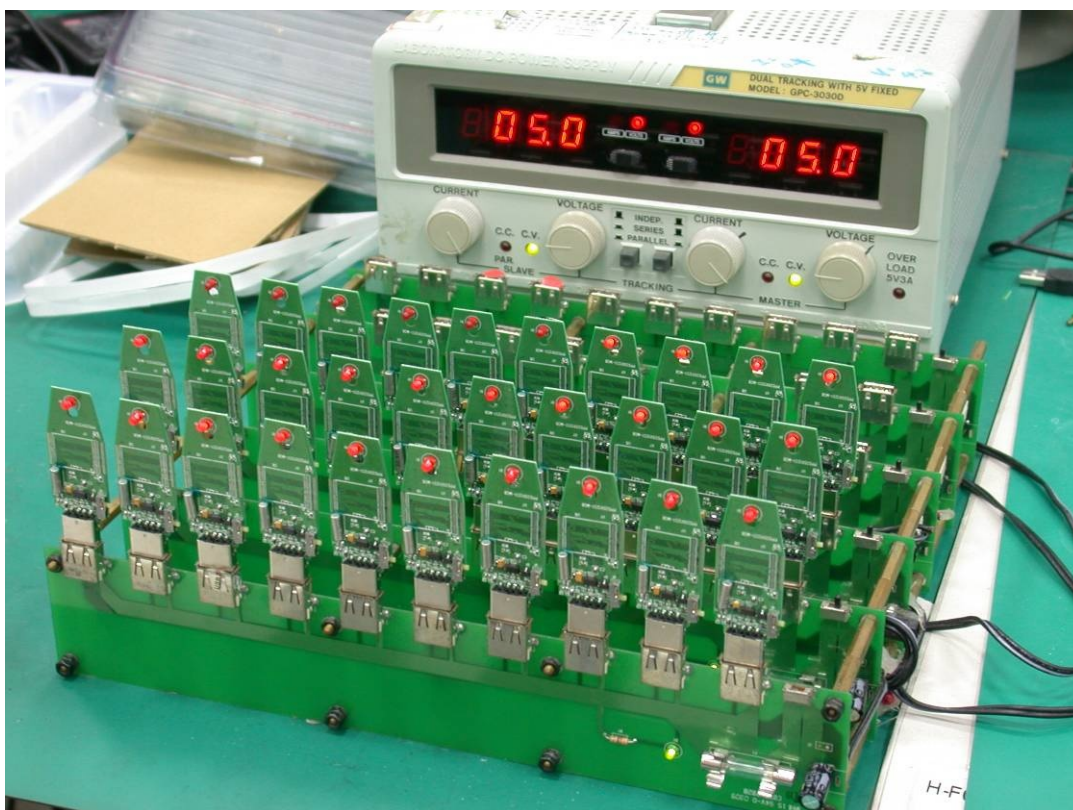
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C. Pretest (Low Level Format)

For Mask Type Controller IC Solution Only.

After SMT process and PCBA had been made, the first step is to do “Pretest” (low level format). In doing the “Pretest” procedure, you **only need to provide 5V power** and there is no need to connect to a computer. You can use a hub of any kind or buy the production tool (as shown below) from Phison.



- Note :**
- (a) The pretest process will automatically gets started (LED start blinking) only when **Brand New Flash** memory is used and 5V power provided.
 - (b) If pretest passes, the LED will stop blinking and dimmed. If pretest fails, the LED will stay ON and no blinking.

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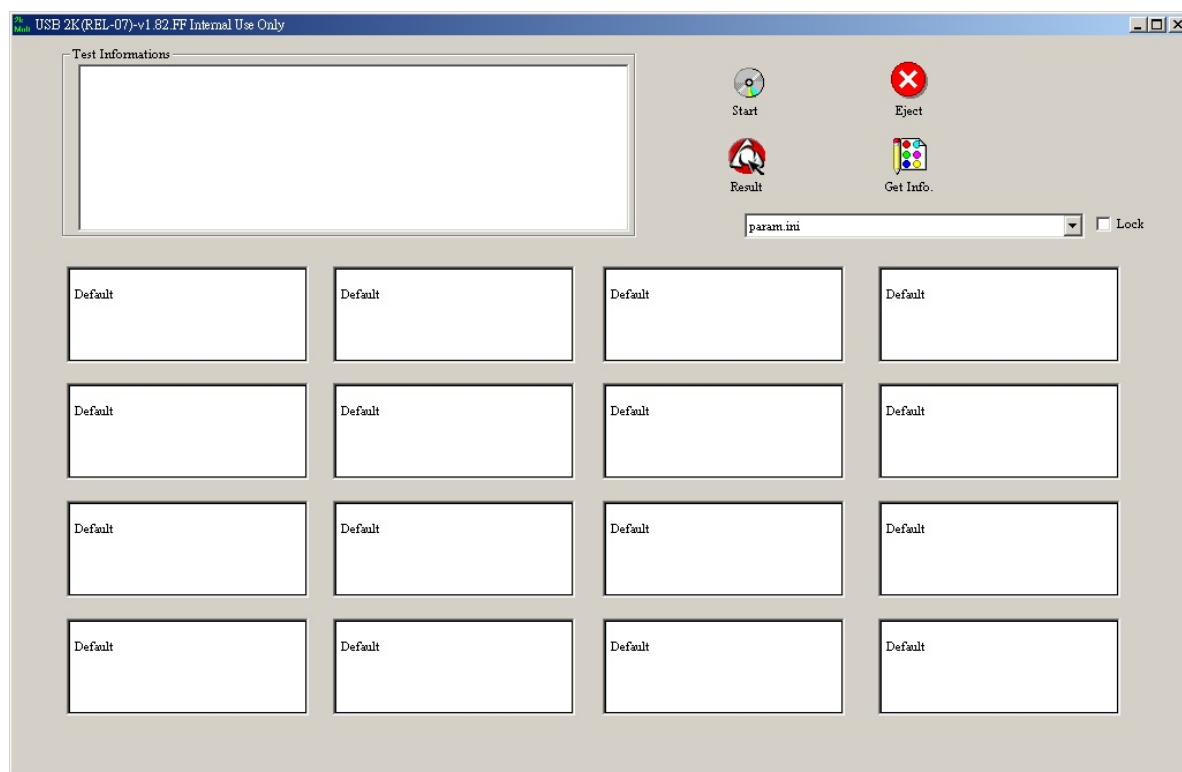
D. Setting up “F1.ini” File with ParamEdt

The main purpose of this file is, allowing you to enter customised information, such as Manufacture Name and Product Name of your choice. Some of these information will show when plugging in the device to a computer, others may store in the registry.

You must set up a correct “F1.ini” file before proceed with production process.

Please refer the “ParamEdt User Manual”.

E. Main Testing Window



Start Start testing.

Eject Safe remove the devices. ***It is not necessary to use this function.*** You can unplug the testing devices directly. Just make sure the testing procedure is finished.

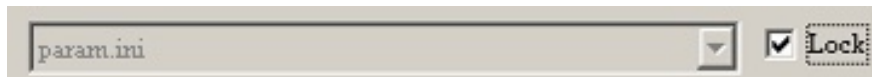
Result When testing fail, click “Result” to see what the problem was.

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GetInfo. Read back the information of the device. Information such as firmware information, Manufacture name, Product name, Serial number...etc.

Lock Once testing starts, the “LOCK” function will automatically active. The lock function will lock the parameter file selected, and ensure once testing starts, it will not be changed.



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F. Start F1 Testing

F1. What had been tested

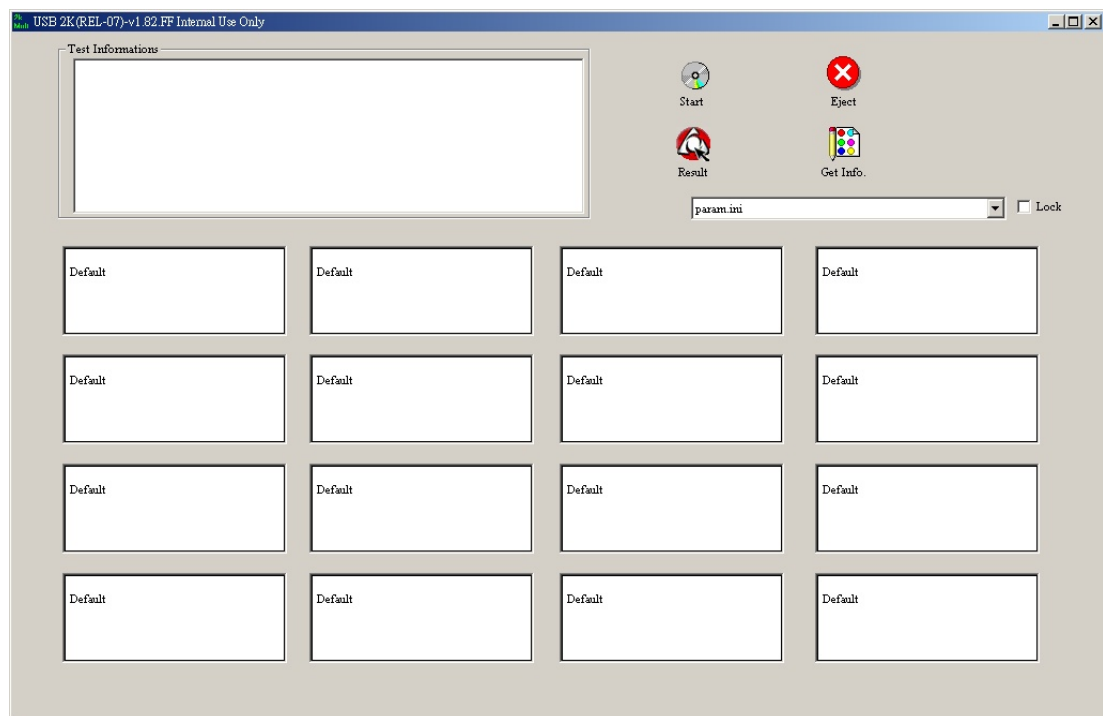
During F1 test, the following testing procedures/steps will be carried out. If any of the follow tests failed, will result in failing the test, and AP will show “RED” box to indicate.

- (a) Write some testing data to the flash memory.
- (b) Read back the data copied from flash memory and compare with original data.
- (c) Delete test data copied in flash memory
- (d) Write customise data to “Info. Block”. (customise data from “param.ini” file)

F2. Begin Testing

Before you start testing, please make sure that you had set up “param.ini” file correctly and successfully.

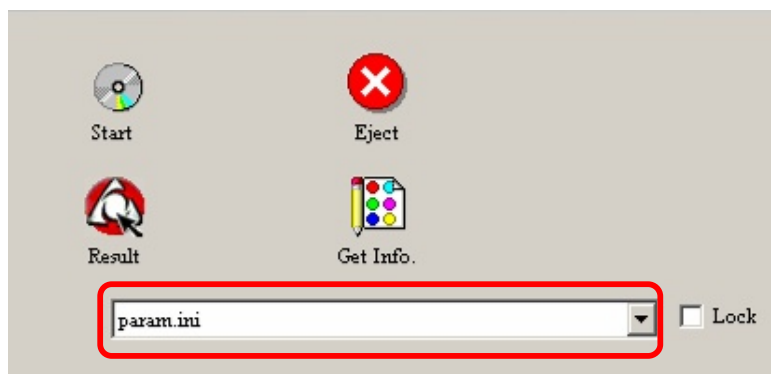
Step 1 Start the F1 testing program (F1_XX_vXXX.exe), you should see the main window as shown below.



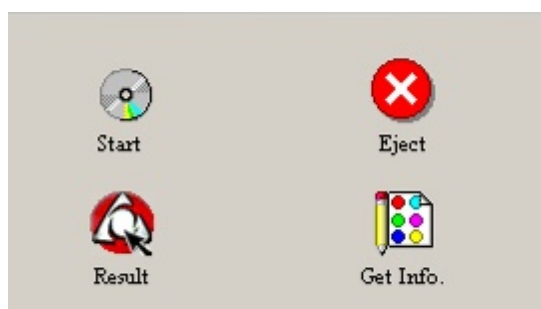
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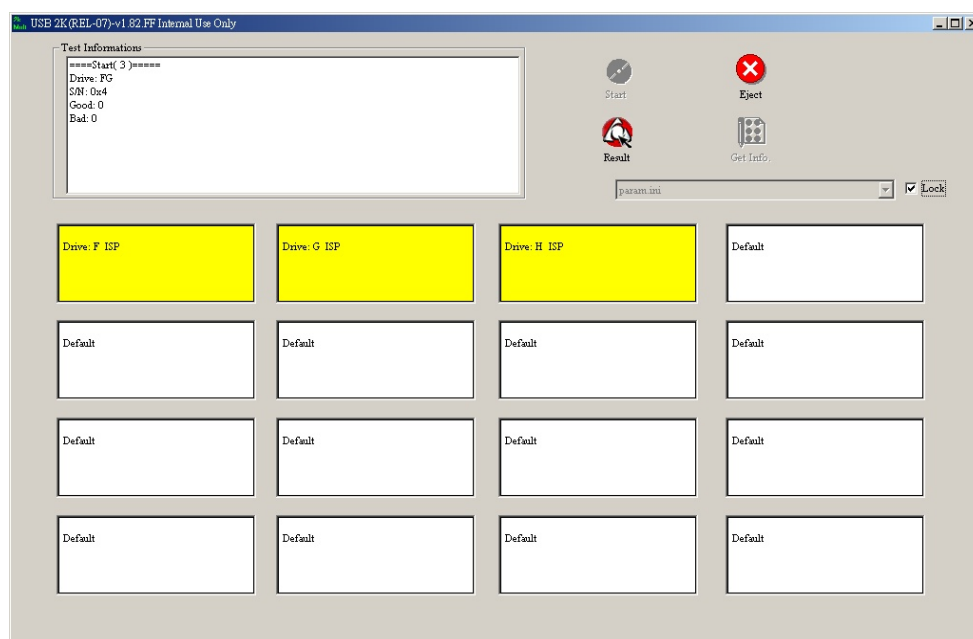
Step 2 Select the correct testing file.



Step 3 Plug in devices (USB Flash Disks) and make sure all devices had been recognized by operating system, then click “Start” to begin testing.



Step 4 The boxes will turn yellow, meaning that the testing had begun.



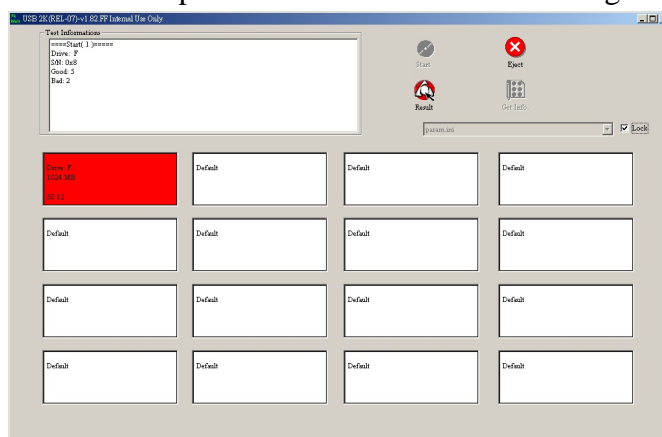
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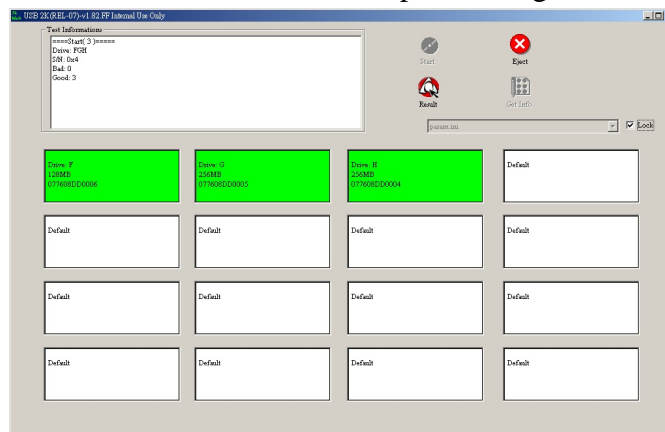
- Step 5** For some controller IC solution and/or if you had tick “Preformat” in the parameter setting. During testing, a message window may appear and ask you to unplug all devices and then re-insert them again. Remove all devices from USB port and re-insert them again. Make sure all devices had been recognized by operating system, then click “OK” to continue testing.



- Step 6** When testing finishes, the boxes will turn either “RED” or “Green”. Red box means that particular device had failed testing.



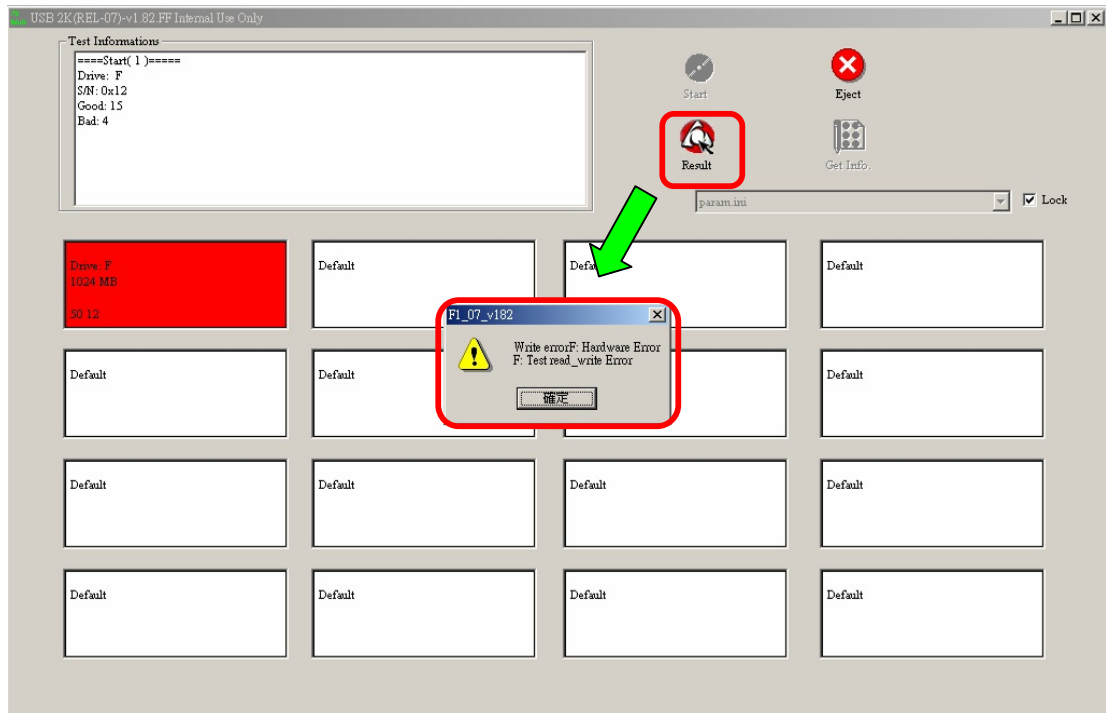
Green box means that the device had pass testing.



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Step 7 You can click “Result” to see what was the reason of the failure device(s).



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G. Setting up “F2.ini” File with ParamEdt

The main purpose of this file is to check if the customised information and firmware related information are correctly set up in F1 testing. Since this process is for double checking purpose, therefore, you should fill in the “Expected Information” from F1.

You must set up a correct “F2.ini” file before proceed with F2 testing process.

Please refer the “ParamEdt User Manual”.

H. Start F2 Testing

H1. What had been tested

During F2 test, the following testing procedures/steps will be carried out. If any of the follow tests failed, will result in failing the test, and AP will show “RED” box to indicate.

- (a) Compare firmware information and customised data.
- (b) Write some testing data to the flash memory.
- (c) Read back the data copied from flash memory and compare with original data.
- (d) Delete test data copied in flash memory

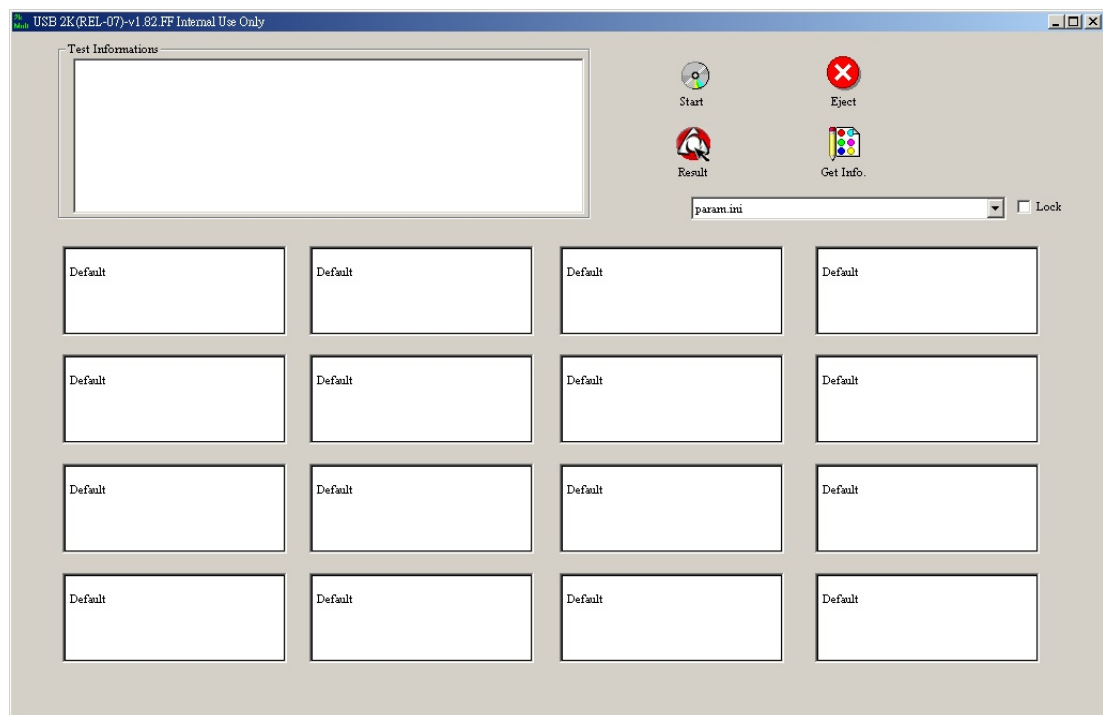
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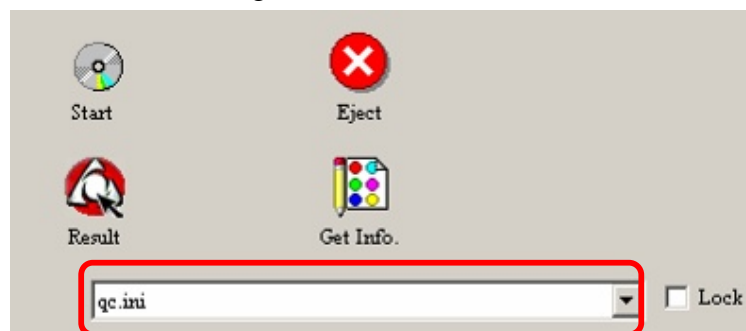
H2. Begin Testing

Before you start testing, please make sure that you had set up “qc.ini” file correctly and successfully.

Step 1 Start the F2 testing program (F2_vXXX), you should see the main window as shown below.



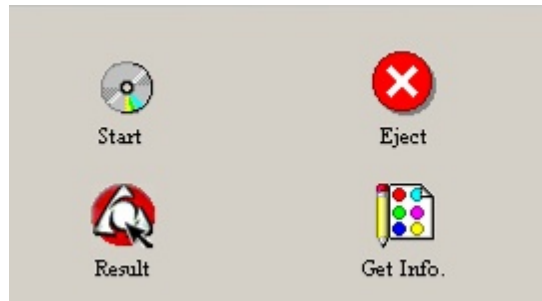
Step 2 Select the correct testing file.



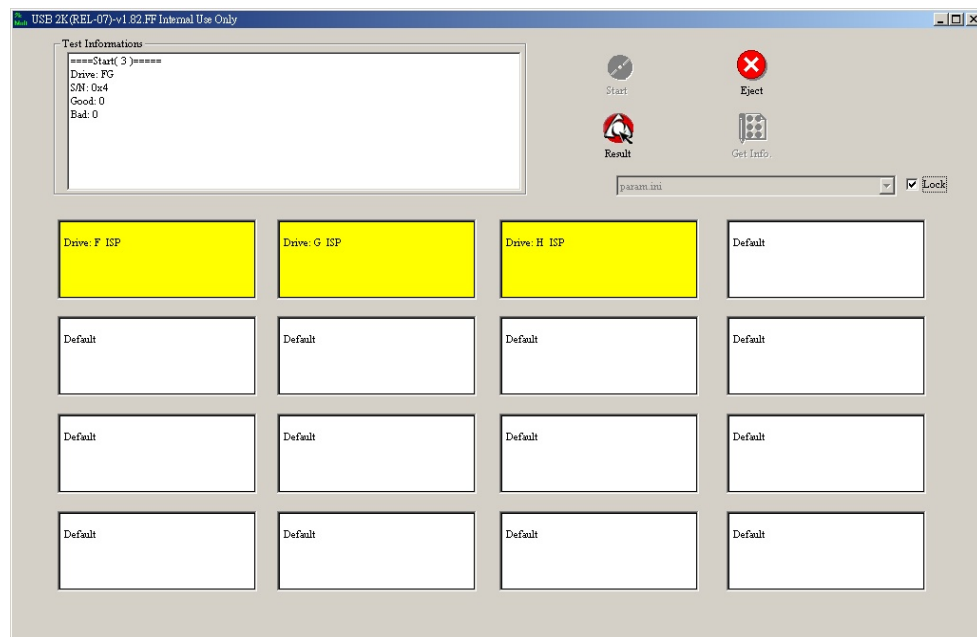
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Step 3 Plug in devices (USB Flash Disks) and make sure all devices had been recognized by operating system, then click “Start” to begin testing.



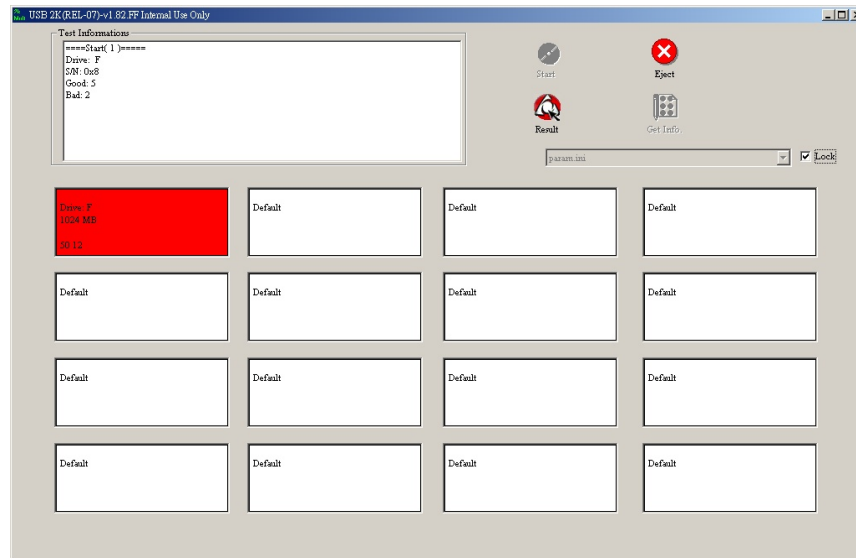
Step 4 The boxes will turn yellow, meaning that the testing had begun.



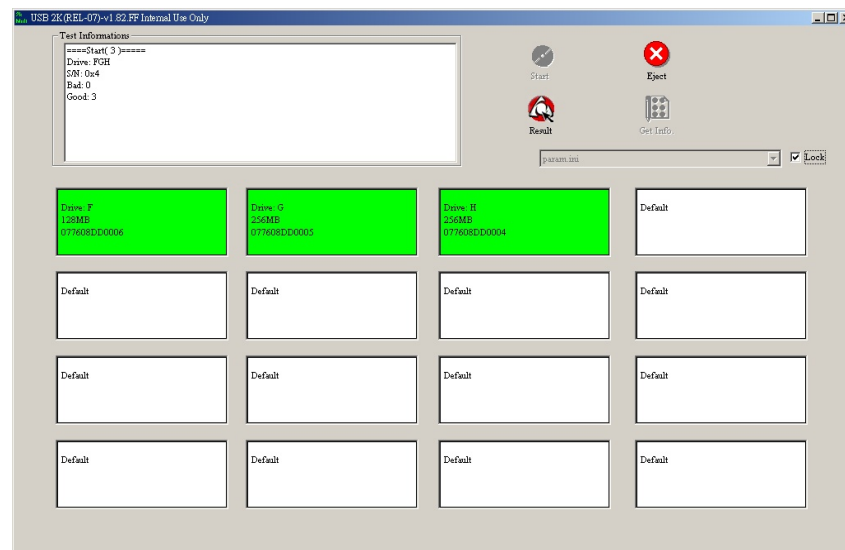
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Step 5 When testing finishes, the boxes will turn either “RED” or “Green”.
Red box means that particular device had failed testing.



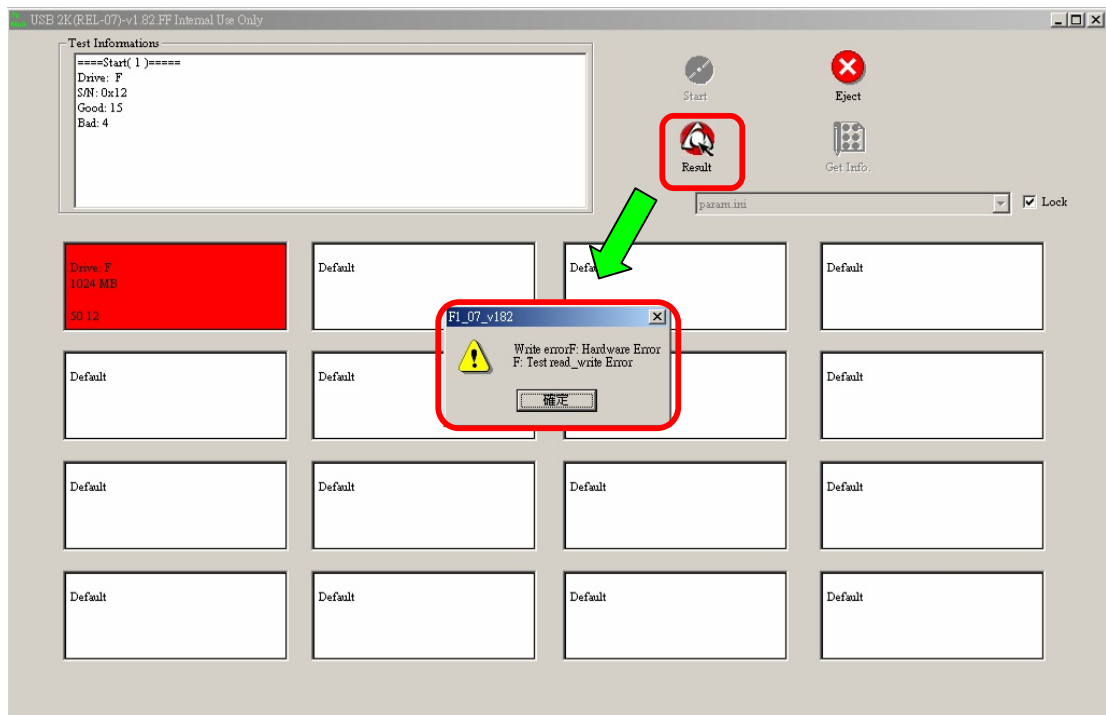
Green box means that the device had pass testing.



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Step 6 You can click “Result” to see what was the reason of the failure device(s).



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I. Appendix

I1. Default Values

| Mode | VID | PID | Manufacture Name | Product Name | Label(s) |
|------|------|------|------------------|--------------|-------------|
| 3 | 13FE | XX00 | (empty) | USB DISK 2.0 | USB DISK |
| 4 | 13FE | XX20 | (empty) | USB DISK Pro | UDISK PRO |
| 7 | 13FE | XX21 | (empty) | USB DISK Pro | UDISK PRO |
| 8 | 13FE | XX23 | (empty) | USB DISK Pro | UDISK PRO |
| 14 | 13FE | XX24 | USB | DISK CD | USB DISK CD |
| 21 | 13FE | XX27 | USB | DISK CD | USB DISK CD |

I2. Mode Description

- Mode 3 Normal Pen Drive** Total partition : 1 partition
- No software
 - See 1 Removable drive in "My Computer".
- Mode 4 Secure Pen Drive** Total partition : 2 partitions
- With security AP
 - See 1 Floppy drive and 1 Removable drive in "My Computer".
 - If password exist, will lock the Removable drive partition
- Mode 7 Secure Pen Drive** Total partition : 2 partitions
- With security AP
 - See 2 Removable drives in "My Computer".
 - Customer can change the partition sizes by themselves.
 - If password exist, will lock first removable partition.
- Mode 8 Secure Pen Drive** Total partition : 2 partitions
- With security AP
 - See only 1 Removable drive in "My Computer".
 - Customer can change the partition size by themselves.
 - If password exist, will lock the second removable partition.
 - Secure(private) partition can only be access when password exist.

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Mode 14 CD Autorun Total partition : 3 partitions

- Partition 1 CD-Rom partition
- Partition 2 HDD partition
- Partition 3 Removable partition
- See partition 1 & 3 in Windows 2000 / XP
- See partition 2 & 3 in Windows ME
- Partition 1 & 2 are read only partitions.
- Can only see two partitions at the same time.
- Autorun data are stored in partition 1 & 2.



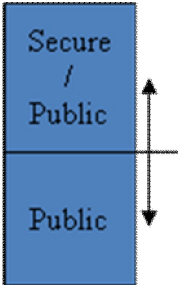
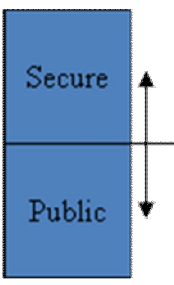
Mode 21 CD Autorun Total partition : 2 partitions

- Partition 1 CD-Rom partition
- Partition 2 Removable partition
- See partition 1 & 2 in Windows 2000 / XP
- Partition 1 is read only partition.
- Autorun data are stored in partition 1.
- Cannot autorun in Windows ME.

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I3. Mode Graphical Description

| | Mode 3 | Mode 4 | Mode 7 | Mode 8 |
|------------------------------------|---|---|---|---|
| Partition | 1 | 2 | 2 | 2 |
| Security Function | No | Yes | Yes | Yes |
| Partition Appearance | Removable | FDD + Removable | Removable + Removable | Removable |
| Appearance at the same time | 1 partition | 2 partitions | 2 partitions | 1 partition |
| Resize Partition | N/A | No | Yes | Yes |
| Diagrammatic |  |  |  |  |

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| | Mode 14 | Mode 21 |
|------------------------------------|---|---|
| Partition | 3 | 2 |
| Security Function | Yes | Yes |
| Partition Appearance | CD & Removable (2000/XP) or HDD & Removable (98/ME) | CD & Removable (2000/XP) or Removable (98/ME) |
| Appearance at the same time | 2 partitions | 1 or 2 partitions |
| Resize Partition | No | No |
| Advantage | Can autorun in all Windows OS. | No missing capacity. |
| Disadvantage | Need to explain to customer about missing capacity. | Can only autorun in Windows 2000 / XP. |
| Diagrammatic |  |  |