



Introduction of PRO3000 HDD Integrated Tester



This machine is a professional customized version for Apple HDD integrated equipment. Easy to operate, can perform a fast various operation on the HDD. With 4.3 inch LCD, intuitive interface, can be used on the iPhone 4s to iPhone 6p and iPad 2 to iPad 6 and other products of the HDD. Can quickly extract data, write, check, erase. One machine complete the all operation to a HDD, etc. Function.

- 1 **A key read FW data:** a click can start the fast extraction. Extract complete screen will display the corresponding commonly used FW, including serial number, country, Generally completed within 5 seconds;
- 2 **A key write FW data:** a click can write your extract FW data or modified FW data, generally 4 seconds to complete;
- 3 **Quick FW data modification:** the serial number, nationality, model, Bluetooth address code, WIFI address code. The interface will show the FW information extracted or modified last time. Can be done on this basis, a change can be carried out under a HDD, the screen has the same buttons as the computer keyboard layout, maximum compliance with your habits;
- 4 **Support Automatic build FW data:** can automatically construct the FW data whether 32bit and 64bit. so, find source data HDD become unnecessary;
- 5 **Either 32bit or 64 bit models:** source data HDD can be any type and any capacity, so, specially source data HDD is unnecessary, restore HDD before is unnecessary. In other words, HDD restored or empty is same to this machine;
- 6 **100% repair HDD Error:** can repair the error caused by HDD in restore process, can fast recovery engineering capacity HDD to normal capacity;
- 7 **Quick erase HDD:** support from iPhone 4 8GB HDD to the 128GB HDD of iPhone 6p. Support auto detect HDD when placed or take out, that is, after the HDD placed not need to click touchpanel, a automatic operation will be start;
- 8 **Quick check whether HDD ok:** can make a quick detection to the HDD, include model and theoretical capacity and the actual capacity and whether ok. Support auto detect HDD functional when placed or take out, that is, after the HDD placed not need to click touchpanel, a automatic operation will start. greatly improve the efficiency of the HDD check;



Supporting HDD No.

Small outline HDD			
8GB	H2JTCG8T22MBR	32GB	H2JTEG8UD2MBR
	THGBX2G6D1JLA01		H2JTEG8UD3MBR
16GB	THGBX2G7D2JLA01		H2JTEG8PD1MMS
	THGBX2G7B2JLA01		SDMALBB4-032G
	THGBX3G7D2KLAoC		SDMBLBBB4-032G
	THGBX3G7D2KLFOC		SDMILBCF2-032G
	H2JTDG8UD1MBR		SDMDLBCB4-032G
	H2JTDG8UD2MBR		SDMILBDF2-32G
	H2JTDG8UD3MBR		KLEBG4GWCA
	H2JTDG8UD1BMS		KLEBG8FWCA
	H2JTDG8UD2BMS	64GB	THGBX2G9D8JLA01
	H2JTDG8UD3BMS		THGBX2G9B8JLA01
	SDMALBB2-016G		THGBX3G9D8KLAoC
	SDMBLBBB2-016G		THGBX3G9D8KLFOC
	SDMDLBCB2-016G		THGBX4G9T8KLFOC
	KLEAG4FWCA		THGBX4ToT4KLFOE
	KLEAG2GWCA		H2JTFG8YD1MBR
32GB	THGBX2G8D4JLA01		H2JTFG8YD2MBR
	THGBX2G8B4JLA01		H2JTFG8YD3MBR
	THGBX3G8D4KLAoC		H2JTFG8YD1BMS
	THGBX3G8D4KLFOC		H2JTFG8YD2BMS
	THGBX4G8T4KLFOC		H2JTFG8YD3BMS
	H2JTEG8VD1BMR		H2JTFG8PD1MMS
	H2JTEG8VD2BMR		SDMALBB8-064G
	H2JTEG8VD3BMR		SDMBLBBB8-064G
	H2JTEG8UD1MBR	SDMILBCF4-064G	
Large outline HDD		SDMDLBCB8-064G	
		SDMILBDF4-64G	
		SDMALBBD-96GB(96GB)	
		SDMDLBCB8-064G	
		16GB	THGVX1G7D2GLAo8
H2DTDG8VD1MYR	THGBX4ToT8KLFOC		
H2DTDG8UD1MYR	THGBX4ToT8KLFOE		
32GB	THGVX1G8D4GLAo8	H2JTGG8PD1MMS	
	H2DTEG8VD1MYR	SDMILBCF8-128G	
	H2DTEG8YD1MYR	SDMILBDF8-128G	
64GB	THGVX1G9D8GLAo8		
	H2DTFG8YD1MYR		



1 Main Interface

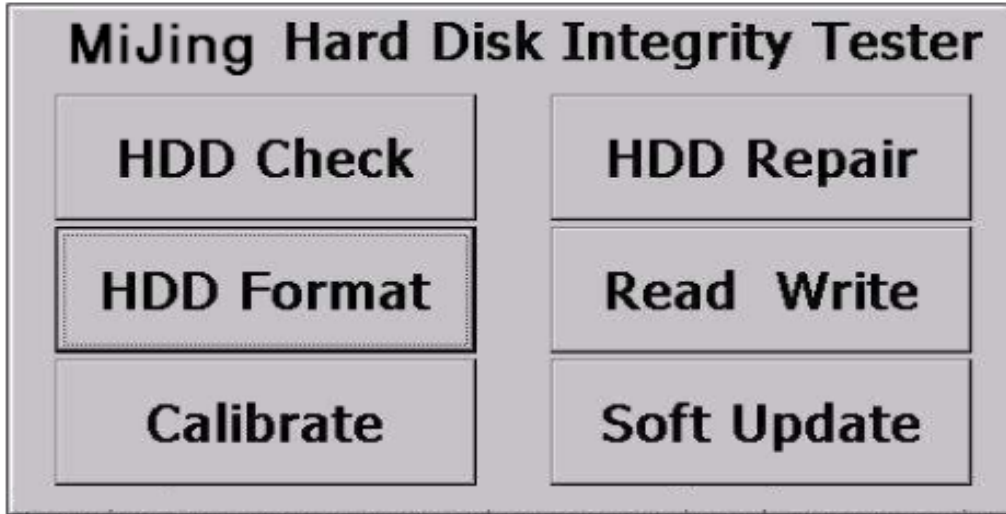


Fig.12 Main Interface

- 1.1 Read Write:**Click will open the FW data read and write interface,can do a quickly FW data read and write and modify ,support 32bit and 64bit HDD;
- 1.2 HDD Check:**Click will open the HDD check interface, can do a quickly check to HDD;
- 1.3 HDD Repair:**Click will open the Repair and Expansion Interface,the interface can repair a variety of error when restore caused by the HDD data damage and recovery engineering capacity of the HDD to the normal capacity;
- 1.4 HDD Format:**Click will open the HDD Fomat interface,in the interface can do a erase to the HDD ,it is namely recovery HDD storage as the factory default storage,can solve the restore error caused by HDD data error;
- 1.5 Calibration:**Click will open the touch screen calibration interface,calibration can be make it more sensitive when click the touch screen;
- 1.6 Soft Update:**Click to open the software update interface,can quickly update the software version of the machine



2 Read and Write

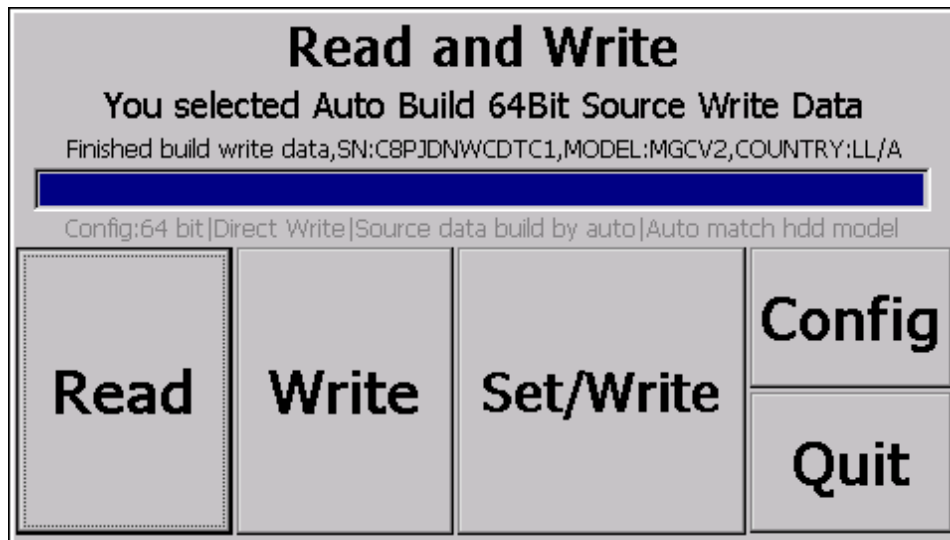


Fig. 2 FW read and write

Click the **Read Write** button in main interface, enter the '[FW read and write and modify interface](#)', as shown above. The interface module can independently complete the extraction FW data from HDD, Write, Modify. And can automatically match the parameters of each HDD model.

Note: when the interface opened first time after this machine power on, the machine have not the accord FW data, so **Write** and **Set/Write** button is gray for prohibit the operation.

2.1 Use instructions :

2.1.1 Read: Place HDD correctly, of course this so-called master HDD must have a complete FW information. Click the

Read button to start the extraction process, the extraction process will be completed in a few seconds.

2.1.1.1 If the HDD has a complete FW data, after extract completion, the Serial Number, Model and Nantional will be displayed on the top of the screen. The Bluetooth and WIFI information will completely display when open the **Set/Write** interface module;

2.1.1.2 If you don't ready to modify the FW information, placed the HDD you ready to write, and click **Write** button, then, Write can be completed, this is commonly used for small capacity HDD to '[large capacity HDD upgrade application](#)';

2.1.1.3 If need to modify the FW information, click **Set/Write** button, will open the modify interface module. and can change SN, MODEL, etc..

2.1.1.4 This FW data will always exist in this machine before shutdown, or re extracted master data or modified the FW data;

2.1.2 Write: Place HDD correctly, and has extracted the corresponding master data:

2.1.2.1 Click the **Write** button, then, start the process of writing, writing will finished usually in a few seconds;

2.1.2.2 For the '[large-capacity-upgrading application](#)', after completing the extraction, can use this FW data write to the large capacity HDD directly, there is no need to modify any information;

2.1.2.3 For each click of the write button, is written the data that has been modified or the data that extracted last time.

2.1.3 Set/Write: Place HDD correctly, and has extracted the corresponding source data:

2.1.3.1 Click **Set/Write** button, open the '[FW information modify interface module](#)'. After the completion of the modification, click the **Enter** button on the interface, that will start the process of writing directly. then, the modified data be written to the HDD;

2.1.3.2 This modified data is always exist in the machine before it shutdown or re-extracted a master data;



2.1.4 Config: Click this button will open the [‘interface module for read and write settings’](#), including the current

HDD **Bit-width** accord the HDD that used product and whether format before write,etc Click will quit from this interface,but the master FW data from extraction or modificatied is always exist in machine uness shutdown;

2.2 Possible errors and solutions:

- 2.2.1 The Extraction Speed:**Different HDD model be a different speed.But the reaction in the following situations will probably represent the different causes;
- 2.2.2** While the master HDD have a normal FW data,the general extraction time will be completed less than 6 seconds,This is normal;
- 2.2.3** When the master HDD data is incomplete or does not exist, in order to increase the compatibility,the machine will do a comprehensive scan,so a note information will display [‘Data abnormal,resetting para,next will operated normal ,about need 12-35s,wait...’](#) extraction time will be longer,and mabye display a note information that [‘could not find data’](#) in the last tip;
- 2.2.4** When the master HDD is empty, it does not contain any data, the machine in order to increase the compatibility will be to do a comprehensive scan,extraction time will be longer, and could not find information system in the last tip;
- 2.2.5** The currently selected **Bit-Width** mismathed the currenty extracting HDD. Such as the choice of 32bit **Bit-Width** but is a extraction of 64bit data HDD, extraction time will be longer, and a note information of [‘could not find information’](#) will display untill last time;
- 2.2.6** The HDD that extracting currently have a normal FW data, but it’s parameters mismathed the default parameters of the machine,Extraction time will be longer, but about 30 seconds later,will re extraction a correctly FW data.

2.3 Possible errors when extraction:

- 2.3.1** If you click the **Read** button,there a buzzer long beep beep beep sound, and a note information [‘Not detected HDD’](#)in the LCD interface.This means a normal HDD information is not detected. This phenomenon indicates that the HDD may not be put in properly place, or it’s pad poor contact to socket , or it’s only a half of capacity or the HDD has been physical damaged;
- 2.3.2** if the extraction progress bonuced back and forth in about 3/5 or 1/3 position, and in the final buzzer three consecutive long beep beep sound and at the LCD interface [‘verifly failure, please check the HDD placed...’](#).This situation is generally the HDD is not in place or the HDD itself a defaced welding inventory;
- 2.3.3** if the extraction process progress bar in about 2 / 5 stops, and in the final buzzer three consecutive long beep beep sound and at the interface tips [‘read failed, please check the HDD place’](#).This indicate read process read a wrong information return by HDD.In this case,the corresponding storage area of the HDD is damaged or is in conflict with the preset parameters of the machine;

2.4 Possible errors in writing process:

- 2.4.1** If you choose the **Bit-Width** is 32-bit (64 bit), but current writing HDD that only be used in 64 bit (32bit) applicatioin,the interface will display a note information that [‘The Model Mismatch..’](#).Typical representative,such as: the current **Bit-Width** is 64bit, but writen to a HDD model such as [‘THGBX1G7D2GLA’](#) that only by used in 32bit product;
- 2.4.2** If the write process interface display a information [‘read and write failed, please check the HDD place...’](#),this indicates that the write process received the error return information from HDD.Generally,is between the HDD and the adapter does not light contact or HDD pad is dirt.It will normal when you re placed the HDD;



3 Configuration for Read and Write

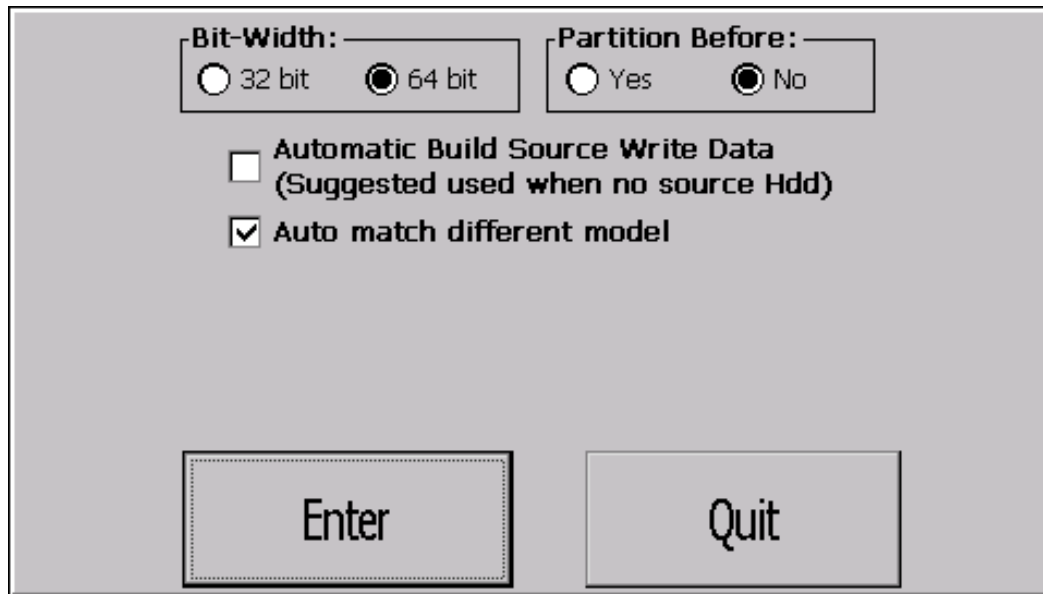


Fig. 3 Configuration Interface for Reading and Writing

Click the [Config](#) button on the [read and write interface](#), enter '[the configuration interface](#)', as shown above. This interface option is configured variety modes about read and write, these option is adjusted only in the click of the [Enter](#) button.

3.1 Use instructions:

3.1.1 The Bit-Width: Include **64bit** and **32bit** radio options. This option is required and then to be used to operate the HDD model to maintain consistency, otherwise it will appear in the HDD read and write error. Default to **64bit** options;

3.1.1.1 32bit product: iPhone 4s, iPhone 5, iPhone 5c, iPad 2, iPad 3, iPad mini1;

3.1.1.2 64bit product: iPhone 5s, iPhone 6, iPhone 6p, iPad 4, iPad 5, iPad 6, iPad mini2, iPad mini3.

3.1.2 Partition Before: Contains two radio option, default is **No** option, as follows:

3.1.2.1 Yes: before the data writing, do a simple partitions on the HDD, partition accomplished after will began writing. This option is mainly used to the HDD that appear a error when restore or make a HDD form engineering capacity to it's normal capacity. Of course, when you don't want to use this machine '[HDD Format Interface Module](#)' for the HDD formating operation alone, you can do as this, you can choose this option, you can save a lot of time;

3.1.2.2 No: write FW data directly, and ignore the HDD whether if have a restore error or data error. To the HDD that has been formatted with '[HDD Format Interface Module](#)' of the machine, choose this option can save time.

3.1.2.3 For most of the HDD, if this HDD had not reported the errors about HDD when restore, you can choose **No** option and direct write;

3.1.2.4 If used for the ID Unlock, you should choose the **No** option for retain the data of the user.

3.1.3 Automatic build source write data: This option is only recommended used when there is not a source master data HDD, the default is non-selected. Such as check this option:

3.1.3.1 In [Read and Write Interface Module](#), click the read button, the machine will automatically build a FW data according current **Bit-Width**, and not read from HDD that placed in socket;



- 3.1.3.2** The automatically builded FW data has the feature:Serial number and WIFI MAC and Bluetooth MAC randomly generated, but ensure WIFI and Bluetooth MAC address does not repeat;
- 3.1.3.3** The current FW data types by builded automatically depends on the selected **Bit-Width** in [config interface module](#),if 32bit then build the 32bit FW,64bit vice versa;
- 3.1.4** **If need extracte data from the master HDD:**Uncheck this option.If this option is switch from checked to unchecked, the source write data by builded automatically will be immediate failure.click the read button will read the data from a master HDD in socket adapter;
- 3.1.5** **Automatic match different model parameters:** This option is used for match the master data HDD model and the written HDD model,default is selected.

4 FW Modification

SN: 888888000000 MD: ME505 RG: LL/A Return Clear

WM: DA:EF:DE:AF:E2:BE BM: DA:EF:DE:AF:E2:BF

1 2 3 4 5 6 7 8 9 0

Q W E R T Y U I O P

A S D F G H J K L

Z X C V B N M

Color:Black Type1 Enter Quit

Fig 4 FW modification

Click the [Set/Write](#) bottom in the [Read and Write interface](#),open the '[FW Information Modify interface module](#)', as shown above. Click the [Enter](#) button will save the modified information and exit this interface and automatically start writing process. Click the [Quit](#) button will maintain the FW information unchanged and exit.

4.1 Each component annotation:

- 4.1.1** **SN:** Current Serial Number;
- 4.1.2** **MD:** Current Model;
- 4.1.3** **RG:** Current Country;
- 4.1.4** **WM:** Current WIFI mac address code;
- 4.1.5** **BM:** Current Bluetooth mac address code;
- 4.1.6** **Return** button:Equivalent to the PC keyboard '←' key;
- 4.1.7** **Clear** button:Clear the contents of the currently selected edit box;
- 4.1.8** Open the interface module,each column shows the contents of current FW information.



4.2 The use of various components:

Open the interface module, the default is first to modify the SN, so ,the input is to the SN edit box automatic.The functions use as follows:

- 4.2.1 The SN modifications:**click anywhere within the section,click the **Clear** button, the section content removed. The column is limited to no more than 12 characters. When the column has been accumulated to 12 characters, the input on the keyboard will be transferred to the Model column;
- 4.2.2 The Model modifications:** click anywhere within the section,click the **Clear** button, the temporary model removed. The column is limited to no more than 5 characters. When the column has been accumulated to 5 characters, the input on the keyboard will be transferred to the Country column;
- 4.2.3 The Country modifications:**click any location within the section,click the **Clear** button, the section content removed.The column is limited to no more than 4 characters, of which, the **'/'** character will be add in the third location automatically.
- 4.2.4 The WiFi code and Bluetooth code modifications:** click any location within the section,click the **Clear** button,the section content removed.At this time the keyboard is adjusted to the distribution of HEX input, the column is limited to no more than 17 characters. Among the character **':'** will be add in the appropriate location automatically.
- 4.2.4.1** In order to improve the efficiency of the machine,when modified WIFI code,Bluetooth address code is followed automatic superposition of WIFI address code. The last character of Bluetooth address code will be automatically modified with different character to the last character of WIFI address code , so that you may only enter the WIFI address code;
- 4.2.4.2** Bluetooth address code can be independently edit, and WIFI address code is no dependency relation to Bluetooth address code edit.
- 4.2.5 The Color Modifications:** Click the Color button that arrange in lower left corner of the interface, the color will switch to next, such as previous color is:**'Black Type 1'**,the first click will switch to the color:**'Black Type 2'**,second click will switch to color:**'Black Type 3'**,with the turn this cycle.Color categories are as follows:
- 4.2.5.1 Black:**
- iPad 5,iPhone 5s,iPadmini 2->**Black Type1**
 - iPhone 6,iPad 6, iPadmini 3->**Black Type2**
 - iPhone 5c->**Black Type3**
 - iPhone 4s,iPhone 5,iPad 3,iPad 4,iPadmini1->**Black Type4**
- 4.2.5.2 White:**
- iPad 5,iPadmini2,iPhone 5s,iPadmini3,iPhone 6->**White Type1**
 - iPhone 4S,iPhone 5,iPad3,iPadmini1->**White Type2**
 - iPhone 4s,iPhone 5,iPad3->**White Type3**
 - iPhone 4s,iPhone5,iPad3->**White Type4**
- 4.2.5.3 Cashmere:** iPhone 6->**Cashmere**
- 4.2.5.4 Golden:** iPhone 5s->**Golden Type1**
- 4.2.6** If you just need to modify the last few characters of the section, click any location within the section ,and click the **Return** button,bit by bit will be deleted from left to right;
- 4.2.7** Each section above need with the only length of characters it should have,otherwise the machine make the modifation is invalid and remain it is same as last time when write.



5 HDD Check

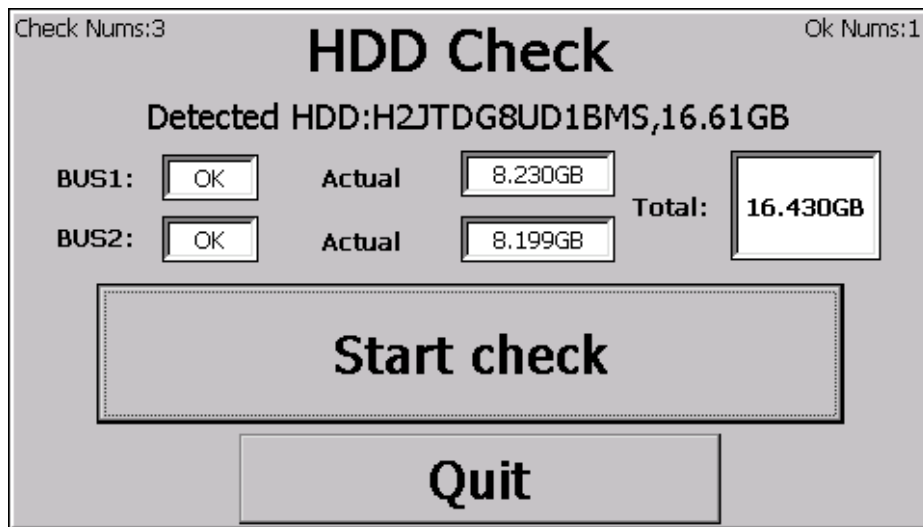


Fig 5 HDD Check Interface

Click the [HDD Check](#) button on the main interface, enter the [HDD check interface](#), as shown above.

5.1 Contents of the interface module:

- 5.1.1 The text shows in the upper left corner:** Indicate the cumulative amount of the HDD be checked, the number will be zero after shutdown;
- 5.1.2 The text shows in the upper right corner:** Indicate the cumulative amount of the HDD that by checked ok, the number will be zero after shutdown;
- 5.1.3 The top of the text:** Indicate the model and the capacity of the HDD that be detected currently;
- 5.1.4 BUS1 and BUS2 in the intermediate:** Representation of the actual capacity of two physical unit of HDD and the actual capacity of the total;

5.2 Instructions for the use of the interface:

- 5.2.1 Start Check:** Click this button will begin HDD checking, and in different buzzer sound prompt whether is good. This machine is judged to be bad for: not to identify the correct information of the existing HDD or the actual capacity of only half of the theoretical capacity;
- 5.2.2 Quit:** Click will exit the interface, but after the boot, statistics has measurement and good quality will save to shutdown before next time open the interface;
- 5.2.3 The interface with a automatic HDD check fuctional:** (old software vision to support the functionality required to upgrade hardware and software), namely automatic check suitable match are placed in the HDD or take the HDD off. Placed the HDD will automatically begin checking and buzzer sound prompts the HDD whether if a ok product.



6 HDD Format



Fig 6 HDD Format

Click the [HDD Format](#) button in the main interface, into the [HDD format interface](#), as shown above.

6.1 Description of the use of the interface:

- 6.1.1 **The text in the upper left corner of LCD:** Show the cumulative amount of the HDD be formatted, the number will be zero after shutdown;
- 6.1.2 **Start Format button:** Click start format the HDD placed in socket, progress bar indicating the progress of the current format, when format completed, there will be a sound of the buzzer for note;
- 6.1.3 **Quit button:** Click to exit the interface, the cumulative amount of formatting will display when open the interface next time;
- 6.1.4 The interface with a **Automatic Detect and Format HDD fuctional:** (old software vision to support the functionality required to upgrade hardware), namely automatic detection suitable match are placed in the HDD or take the HDD. Detection of the current adapter on the seat placed on the HDD will automatically begin to format.

6.2 The necessity of using this function:

- 6.2.1 A lot of times, a HDD data error will cause a variety of error when restore, and can not be processed by any software method. This phenomenon is not caused by physical damage to the HDD, and almost all of it is stored the wrong system data. Use this interface function can make the HDD to its original storage state like a new HDD same as the factory, can be 100% to repair all the restore error caused by HDD data in addition to physical damage.



7 HDD Repair



Fig 6 HDD data repair

Click the [HDD Repair](#) button on the main interface t, into the [HDD format interface](#), as shown above.

7.1 Description of the use of the interface:

- 7.1.1 To repair the variety of restore error of iPhone 5s or iPhone 6 or iPhone 6p caused by HDD data confusion;
- 7.1.2 Recovery the engineering HDD capacity to the actual capacity;
- 7.1.3 Eny processing finished,there with a buzzer sound for note.

7.2 Two instructions for the use of the interface:

- 7.2.1 **Start Repair:**put on your HDD,click the Start Repair button,will start the HDD data repair processing,due to the different capacity of HDD model and different treatment time;
- 7.2.2 **Dilatation:** put on your HDD, click Dilatation button,will start the HDD dilatation processing, due to the different capacity of HDD model and different treatment time.