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Disk Total Solution

DISK Checker

User Guide



Index

Thank you for purchasing MYUNG's Disk Checker.
Before using the product, please fully aware of user guide.

Instruction	01
Product Information	
1. 1. Components and Exterior Description	02
2. Major functions and Specifications	03
Functions	
1. Device Information	04
2. SMART Log Check	05
3. Surface Test	07
4. Security Erase	08
5. SMART Log Clear	10
6. Version	13
Appendix SMART Attribute	14
Certificate of Warranty	17

Instruction

- Disk Checker's User Guide and Firmware can be changed without any notice to improve the product's performance
- Do not copy, pirate and modify Disk Checker and User Guide.
- We are not guaranteed to take the responsibility of any loss, malfunction and accident caused by the user's mishandling.
- We are not guaranteed to take the responsibility of any loss, malfunction and accident caused by the user's inappropriate use and modification.
- Do not give unreasonable shock and insert foreign substance. This behavior may cause problems. We are not guaranteed to take the responsibility of any loss, malfunction and accident caused by the user's inappropriate use and modification.
- However, we provide repair and exchange services on defective product for One-year for free.
- All rights of the product's Hardware and Firmware belongs to Myung Information Technologies Co., Ltd. When a person or persons makes illegal copies and/or distribute this information, the person or persons may receive a compensation suit and also a criminal penalty by the law of protection of intellectual property right.
- Using Disk Checker is regarded to understand instruction and agree on it.

Components



Disk Checker 1ea

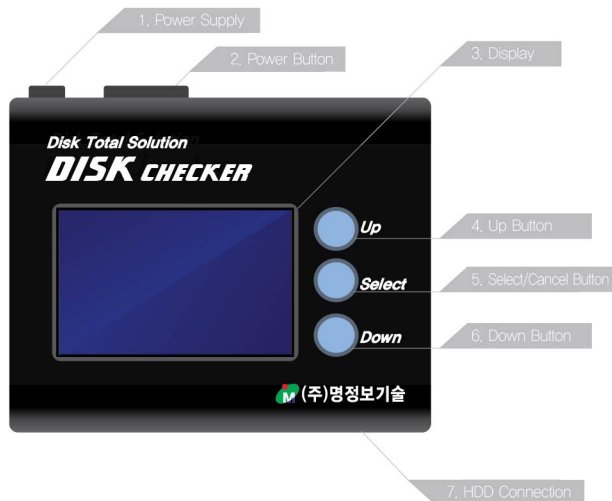


Adaptor 1ea



User Guide 1ea

Main Buttons



1. Power Supply 2. Power Button 3. Display 4. Up Button
5. Select/Cancel Button 6. Down Button 7. HDD Connection

Major Functions

1 Device Information

Check Disk Model No., Serial No., Full Capacity, Entire LBA Value, SMART Support Possibility, Security Support Possibility

2 SMART Log Check

Read SMART Log Value and determine the disk status (Non-defective/Defective)

3 Surface Test

Progress disk's reading test and check whether the disk is physically damaged or not.

4 Security Erase

Erase all data in the disk's whole area including HPA.

5 SMART Log Clear

Initialize SMART Log Value.

6 Version

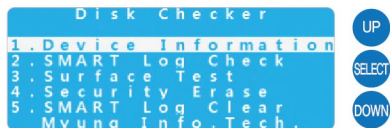
Check Hardware and Firmware version.

Specification

Size (mm)	Width	108.5	Model	Disk Checker V1
	Length	92.5	KC certification No.	MSIP-REM-MJT-DISKCHECKER
	Height	29.5	Released date	2014. 11.
Weight (g)	w/ Adaptor	663.5	Country of Origin	Rep. of Korea
	w/o Adaptor	249	Manufacturer	Myung Information Technologies Co.,Ltd.
Power		12V / 3.5A	Quality Warranty	One-Year (for free)
Interface		SATA I, II, III	Tel	1577-1377

1. Disk Information

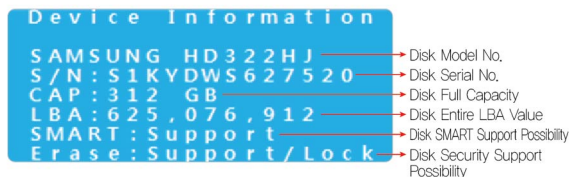
How to operate



Power On → Main Menu → 1, Device Information → **SELECT**

Function

Check Disk Model No., Serial No., Full Capacity, Entire LBA Value, SMART Support Possibility, Security Support Possibility



At screen, push **SELECT** Button one time, it will return to Main Menu

Terms

- * LBA: Logical Block Addressing
- * S.M.A.R.T: Self-Monitoring, Analysis and Reporting Technology
- * 1GByte=1,024MByte=1,048,576KByte=1,073,741,824Byte

2. SMART Log Check

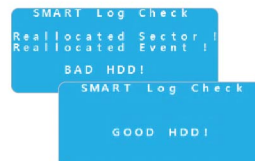
How to operate



Power ON → Main Menu → DOWN → 2, SMART Log Check → **SELECT**

Function-1

Read SMART Log value from the disk and determine the status (Non defective/defective)



The result will be classified as GOOD/BAD HDD

Push **SELECT** one more time, display Disk's SMART Information.

Additional-INFO

GOOD Disk status is good.

BAD Immediately stop using the disk and use other disks. If working, please backup your important data promptly.

2. SMART Log Check

Function-2

Display Disk SMART Log Value

SMART ID	Log VALUE	Check INFO
001:	9999	- L
005:	0	CL
009:	2	- -
192:	0	- L
194:	27	- L

Push **UP**, **DOWN** Button to check SMART Log list.
Cursor at Back and push **SELECT** one time, it will return to Main Menu.

Additional - INFO

Each INFO has the meaning below:

--	Not Important None	C-	Important None
-L	Not Important The smaller the better	CL	Important The smaller the better
-H	Not Important The bigger the better	CH	Important The bigger the better

Consult Appendix for each ID value information

Caution

- The result of, it can be different from those of other companies.
- Please consider the result as a reference

3. Surface Test

How to operate

Disk Checker		UP
1. Device Information		SELECT
2. SMART Log Check		DOWN
3. Surface Test		
4. Security Erase		
5. SMART Log Clear		
Mvung Info. Tech.		

Power On → Main Menu → **DOWN** → **DOWN** → 3. Surface Test → **SELECT**

Function-1

progress reading test of the disk

Surface Test	
Total LBA	1, 111, 111, 111 → Entire LBA
Current LBA	6, 102, 330 → Currently being tested LBA
Bad 000	1 : 04 : 57

→ The number of BAD Block detected
Mark as "Max" when more than 999
While working, push SELECT Button more than two seconds,
the operation will stop and return to the result screen to show
the result up to now.

Caution

- If Security Lock is set for the disk, there will be a warning message to unlock. If this message is printed, the operation will not be progressing any more. Disk Lock, occurred by this product, will disappear when rebooting while the disk is connected.
- If the disk is separated while operating, it may recognize whole disk area as Bad Block.
- This test should be progressed in a fixed environment. Bad Block can increase by external shock.

4. Security Erase

How to operate

```
Disk Checker
1. Device Information
2. SMART Log Check
3. Surface Test
4. Security Erase
5. SMART Log Clear
Myung Info. Tech.
```

Power ON → Main Menu → **DOWN** → **DOWN** → **DOWN** → 4. Security Erase → **SELECT**

Function-1. Operating Check

Before erasing all data, check whether to progress or not.
If choosing Erase, Disk Erase will start.

```
Security Erase
Will be lost all data
Continue?
Back Erase
```

Function-2. Operating Check

Completely erase all data on the disk's whole area.

```
Security Erase
Status : Normality
Time : 1h 40m 01s
⬅️ ⬆️ ⬇️ ⬅️
Don't turn off Power
```

→ Disk Status
- Normality
- Abnormality
→ Elapsed time

- Disk is disconnected from the product while operating.
- Disk does not support Security Erase function

4. Security Erase

Function-3. Abnormality

```
Security Erase
Status : Abnormality
Time : 1h 48m 02s
Disk Error
Please Check
Your Device!
Don't turn off Power
```

When an error message is shown, reset or push **SELECT** Button to return to Main Menu and operate the function again please.

Function-4. Completion

```
Security Erase
Erase Completed!
Time : 1h 48m 02s
⬅️ ⬆️ ⬇️ ⬅️
Select: Menu
```

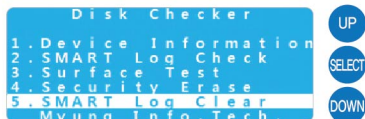
When disk erase completed, **SELECT** Push select button to move Main menu

Caution

- If the disk is disconnected, while Security Erase is not completed, Disk Lock will be set, thus, the user cannot use the disk as normal, Disk Lock, occurred by this product, will disappear when rebooting while the disk is connected.
- Please be aware that when Security Erase operated, it is not possible to recover data.
- We are not guaranteed to take responsibility of erased data.

5. SMART Log Clear

How to operate



Power ON → Main Menu → **DOWN** → **DOWN** → **DOWN** → **DOWN**

→ 5. SMART Log Clear → **SELECT**

Initialize SMART Log value of the disk

Function-1. Check manufacturer



Choose the manufacturer of disk to initialize SMART Log Value

Caution

- SMART Log Clear Function does not initialize all SMART Log Value and does not affect the disk's performance
- Even if disks are from the same manufacturer, it does not support all models.
- Manufacturers which are out of the list does not support this function.

5. SMART Log Clear

Function-2.. Check HDD Model No

WD



- If the label is blue, it is very likely to be "1. Marvell" Model.
- Does not support this function on models which are out of the list.

Seagate



- Does not support this function on models which are out of the list.

Hitachi



- Does not support this function on models which are out of the list

Samsung



- Choose models which are stated on HDD Label.
- Does not support this function on models which are out of the list.
- ex) **HD501LJ** (500GB/7200rpm/16M) REV. A



Function-3. Check progress

Before initializing Disk's SMART Log Value, double-check to progress.
If agreed, start to initialize Disk's SMART Log Value



5. SMART Log Clear

Function-4. Not support disks

```

SMART Log Clear
Not Support
Please Check
Your Device!
Select : Menu
    
```

This message comes up when Disk Checker does not support the disk. In this case, try again with the same manufacturer but different model. If the message again, then Disk Checker does not support SMART Log Clear function to the models.

Function-5. Completion

Before initializing SMART Log Value, double-check to progress. If agreed, progressing SMART Log Value initialization.

```

SMART Log Clear
Process All Complete
Select : Result
    
```



Push Select button to check the result

Function-6. Check the result

SMART Log ID	001	003	004	005	007	Back
	0	0	5	0	0	
	→	→	→	→	→	
	0	0	0	0	0	
	→	→	→	→	→	
	0	0	0	0	0	
	→	→	→	→	→	
	0	0	0	0	0	

Value before initialization

Value after initialization



Push Up/Down Button to check SMART Log list

Cursor at Back, push One time, it will return to Main Menu

6. Version

How to operate

```

Disk Checker
6. Version
Myung Info. Tech.
    
```

UP

SELECT

DOWN

Power ON → Main Menu → → → → → → 6. Version →

How to check Product Information

Checking Disk Checker's version and used Hardware and Software information

```

Version
Disk Checker V1
PCB Ver : DCP-1001
F/W Ver : DCF-A1002
    
```

→ Version

→ Hardware and Software information

Appendix. SMART Attribute

ID	Attribute name	ID	Attribute name
1	Read Error Rate	199	UltraDMA CRC Error Count
2	Throughput Performance	200	Multi-Zone Error Rate [34]
3	Spin-Up Time	200	Write Error Rate (Fujitsu)
4	Start/Stop Count	201	Soft Read Error Rate or
5	Reallocated Sectors Count	202	Data Address Mark errors/TA Counter Increased
6	Read Channel Margin	203	Run Out Cancel
7	Seek Error Rate	204	Soft ECC Correction
8	Seek Time Performance	205	Thermal Asperity Rate (TAR)
9	Power-On Hours (POH)	206	Flying Height
10	Spin Retry Count	207	Spin High Current
11	Recalibration Retries	208	Spin Buzz
12	Power Cycle Count	209	Offline Seek Performance
13	Soft Read Error Rate	210	Vibration During Write
171	SSD Program Fail Count	211	Vibration During Write
172	SSD Erase Fail Count	212	Shock During Write
174	Unexpected power loss count	220	Disk Shift
177	Wear Range Delta	221	G-Sense Error Rate
179	Used Reserved Block Count Total	222	Loaded Hours
180	Unused Reserved Block Count Total	223	Load/Unload Retry Count
181	Program Fail Count Total	224	Load Friction
182	Erase Fail Count	225	Load/Unload Cycle Count
183	SATA Downshift Error Count	226	Load 'In'-time
184	End-to-End error / IOEDC	227	Torque Amplification Count
185	Head Stability	228	Power-Off Retract Cycle
186	Induced Op-Vibration Detection	230	GMR Head Amplitude
187	Reported Uncorrectable Errors	230	Drive Life Protection Status
188	Command Timeout	231	Temperature/SSD Life Left
189	High Fly Writes	232	Endurance Remaining/Available Reserved Space
190	Airflow Temperature (WDC)	233	Power-On Hours
191	G-sense Error Rate	234	Average erase count AND Maximum Erase Count
192	Power-off Retract Count	235	Good Block Count AND System(Free) Block Count
193	Load Cycle Count	240	Head Flying Hours
194	Temperature resp. Temperature Celsius	240	Transfer Error Rate (Fujitsu)
195	Hardware ECC Recovered	241	Total LBAs Written
196	Reallocation Event Count	242	Total LBAs Read
197	Current Pending Sector Count	250	Read Error Retry Rate
198	Uncorrectable Sector Count	254	Free Fall Protection

Memo.

❧ Certificate of Warranty ❧

아래와 같이 보증 합니다.

1. This Product is made through strict quality control and inspection,
2. When the user faces malfunction of the product, repair or replacement of the product is free of charge within the warranty period,
3. However, even within the warranty period, the user may be charged for the malfunction if caused by the user's inappropriate use,
4. When the user repairs, please submit this Certificate of Warranty,
5. Certificate of Warranty will not be reissued,

Product		Warranty Period	
Model no.			
Serial No.			
Sales Date	20 . . .		
Customer Address			
Name		Tel	