TOSHIBA
Storage Diagnostic Tool
Version 1.11.5824 (20161006)

User's Manual
Version 03

About Trademarks

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Contents

Explanation of marks in this document

Describes functions, restrictions, and matters for reference.

Information

Describes additional instructions and notes.

Note

Revision History of Storage Diagnostic Tool

Version	Revision Date	Description
01	December 2016	Initial version
02	January 2017	Add of N300 and CANVIO for Smartphone
03	February 2017	Change of Supported Toshiba Storage

Safety Precautions

This section lists important precautions which users of our product(s) (and anyone else) should observe in order to avoid injury to human body and damage to property and to ensure safe and correct use of our products. Please be sure that you understand the meanings of the labels and graphic symbols described below before you move on to the detailed descriptions of the precautions, and comply with the precautions stated.

Explanation of Labels

NOTICE
Indicates practices that may cause property damage[1] and other problems, but not personal injury

1. Property damage is defined as damage to a customer's or third party's machines and equipment.

Explanation of Graphic Symbols

$\bigcirc$ **Prohibited**	$\bigoplus$ **Instructions**
Indicates prohibited actions.	Indicates actions that must be undertaken for safety purposes.

General Use

NOTICE

Prohibited	Do not remove the drive from your system while the system is powered on. It may cause damage to the drive.
Prohibited	Do not change any configuration files of this application. To do so could harm your system.
Instructions	If your system or the TOSHIBA Storage Diagnostic Tool is terminated abnormally while TOSHIBA Storage Diagnostic Tool is running, your system or the drive may be damaged or data may be lost. Please backup your data before you use the TOSHIBA Storage Diagnostic Tool.

Use of Diagnostic Scan and Zero Filling Function

NOTICE

Prohibited	Do not power off while the Diagnostic Scan or Zero Filling function is running as this could corrupt the drive or your system.
Prohibited	Do not run the Diagnostic Scan or Zero Filling function on a battery driven system. Be sure to supply power to the system via the AC adapter.
Instructions	Be sure to backup of your data before running Zero Filling function because data overwritten by Zero Filling function cannot be recovered.
Instructions	If your system or the TOSHIBA Storage Diagnostic Tool is terminated abnormally while Zero Filling function is running, the drive may be in the password protection state or the password lock state. If the drive is in the password protection state or the password lock state, please contact a support center.

1. Introduction

This manual describes the procedure for using the TOSHIBA Storage Diagnostic Tool software application (hereinafter "Diagnostic Tool"). The Diagnostic Tool is a software for the diagnostic scan of TOSHIBA External HDD, Internal HDD and Internal SSD (hereafter "TOSHIBA Storage"). Please read carefully the DISCLAIMER and Safety Precautions section before using the Diagnostic Tool.

The Diagnostic Tool provides the following features:

- **Diagnostic Scan**
  Scans all or part of the TOSHIBA Storage for read errors

- **Zero Filling Function**
  Overwrites the whole user data area with zeros data pattern on the TOSHIBA Storage.

2. System Requirements

Diagnostic Tool requires the following hard- and software requirements to be operated:

a)   Supported Toshiba Storage

External Drive	Series	Parts Number (P/N)
USB3.0 Hard Drive	CANVIO CONNECT	HDTC7******* / HDTC8*******
	CANVIO PREMIUM	HDTW1*******
	CANVIO BASICS	HDTB3*******
	CANVIO READY	HDTP2*******
	CANVIO SLIM	HDTD1******* / HDTD2*******
	CANVIO ALU / CANVIO^{TM} ALUMY	HDTH3*******
	CANVIO DESK	HDWC1******* / HDWC2*******
	CANVIO for Desktop	HDWC3*******
Wireless Portable Hard Drive	CANVIO AeroCast	HDTB3*******
Wireless Solid State Drive	CANVIO AeroMobile	HDTQ1*******
Storage for Smartphone & PC	CANVIO for Smartphone	HDWS105EW3AA

Internal Drive	Series	Model Number on the label (The part number printed on the bottom of packaging box)
2.5-inch Internal Hard Drive	L200	HDWJ1** (HDWJ1***ZSTA)
3.5-inch Internal Hard Drive	E300	HDWA1** (HDWA1***ZSTA)
	P300	HDWD1** (HDWD1***ZSTA)
	X300	HDWE1** (HDWE1***ZSTA)
	N300	HDWQ1** (HDWQ1**EZSTA) HDWN1** (HDWN1**EZSTA)
2.5-inch Internal Hybrid Drive	High-Performance Hybrid Drive H200	HDWM1** (HDWM1***ZSTA)
2.5-inch Internal Solid State Drive	Solid-State Drive PC Upgrade Kit	THNSNH***GBST (HDTS2***ZSTA)
	PC Internal Solid-State Drive Q Series Pro	HDTS3** (HDTS3***ZSTA)
	Q200 EX	HDTS6** (HDTS6**ZSTA)
	Q300	HDTS7** (HDTS8***ZSTA) / HDTS8** (HDTS8***ZSTA)
	Q300 Pro	HDTS4** (HDTS4***ZSTA) / HDTSA** (HDTSA***ZSTA)

Note: An asterisk mark (*) is an alphanumeric character.

b) Supported Hardware
- Computers that satisfy the requirements of an OS listed as Supported Operating System below.
- Interface: USB 3.0 / USB 2.0 / Serial ATA

c) Disk Space
4.92 MB of available disk space

d) Supported Operating Systems
- Windows$^®$ 10 Version 1507 / 1511 (32 bit / 64 bit)
- Windows$^®$ 8.1 (32 bit / 64 bit)
- Windows$^®$ 7 (32 bit / 64 bit) with SP1

e) Screen Resolution
32 bits color and greater than 800 x 600 pixels

Information	● When DPI size is set at more than 100%, the Diagnostics Tool application window may not be displayed properly.

Note	● Power management controls need to be disabled while the Diagnostics Tool is running in case the system is in a Stand-By or Hibernate mode.

3. Diagnostic Tool Usage

3.1. Preparing the Diagnostics Tool

Save the "ToshibaStorageDiagnosticTool.exe" to a folder on your computer.

⚠️ **Note**	• Requires username and password of administrator account in order to be saved by a general user.

3.2. Starting the Diagnostic Tool

You can start the Diagnostic Tool application by the following ways:

⚠️ **Note**	• Requires username and password of administrator account in order to be started by a general user.

1) Double-click the *"ToshibaStorageDiagnosticTool.exe"*.

2) Select language and click *"OK"*.

3) Review the "*End User License Agreement*" using the scroll bar. If you agree with it, click "*I Accept*".

4) Finish.

4. Summary
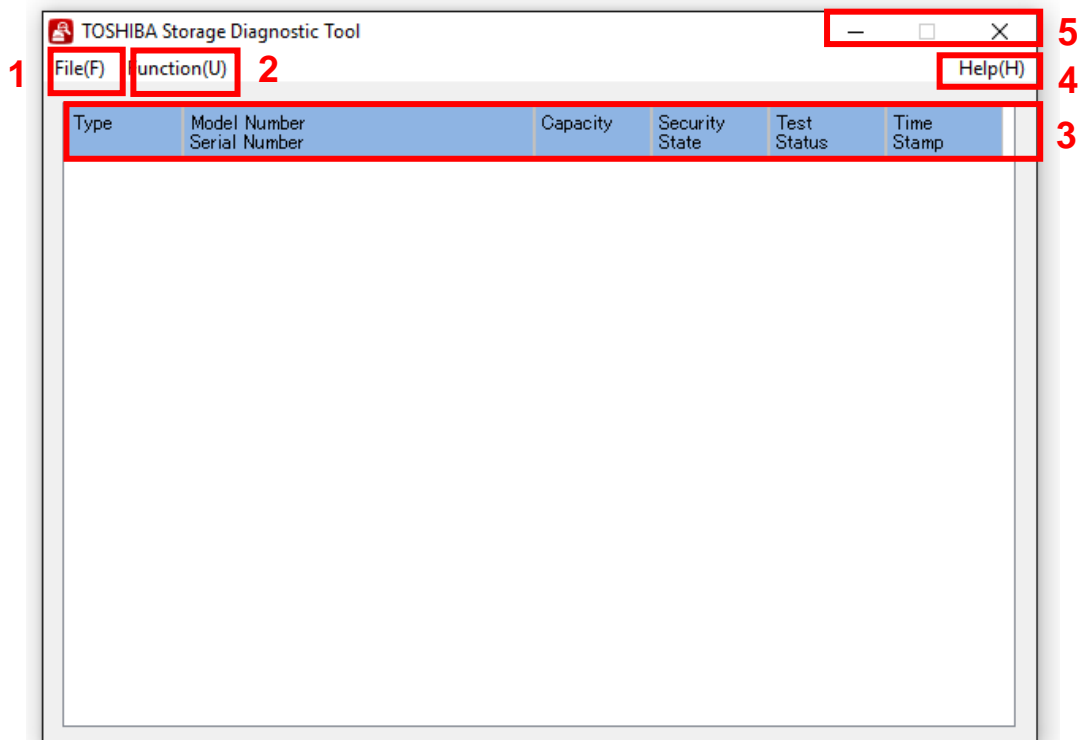
1) File (F)
Refresh	: Refresh of Drive.
View Log	: Displays log file (diag_result_log.txt).
Exit	: Closes Diagnostic Tool application.

2) Function (U)
Start/Stop Diagnostic Scan	: Goes to the Diagnostic Scan screen (See 6. Diagnostic Scan).
Start/Stop Zero Filling	: Goes to the Zero Filling screen (See 7. Zero Filling).

3) Drive Information   : Displays Drive Information (See 5. Drive Information).

4) Help (H)
About this tool	: Displays version of the Diagnostic Tool application.
End User License Agreement	: Displays End User License Agreement.

5) Title Button
_ (Minimize)	: Minimizes the Diagnostic Tool application.
X (Exit)	: Closes the Diagnostic Tool application.

5. Drive Information

Displays the list of all available drives on your system.

1) **Type**   : Displays Interface of Drive.
2) **Model Number**   : <External Hard Drive>
    Displays Model Name of the External Hard Drive (Model Number of Internal Hard Drive).
    <Internal Hard Drive / Internal Hybrid Drive / Internal Solid State Drive>
    Displays Model Number of Internal Hard Drive.
3) **Serial Number**   : Displays Serial Number of the Drive.
4) **Capacity**   : Displays Capacity of Drive [*1.]
5) **Security Status**   : Displays Security Status (Unlocked, Locked, Frozen or Blank).
6) **Test Status**   : Displays the test result of the Diagnostic Scan or the Zero Filling.
    Displays the ratio of task while the Diagnostic Scan or the Zero Filling is running.
7) **Time Stamp**   : Displays the end time of the Diagnostic Scan or the Zero Filling.
    Displays the start time of task while the Diagnostic Scan or the Zero Filling is running.

*1 One Gigabyte (1GB) means 10^9 = 1,000,000,000 bytes and one Terabyte (1TB) means 10^{12} =1,000,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2^{30} =1,073,741,824 bytes and 1TB = 2^{40} = 1,099,511,627,776 bytes, and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, setting, software and operating system and other factors.
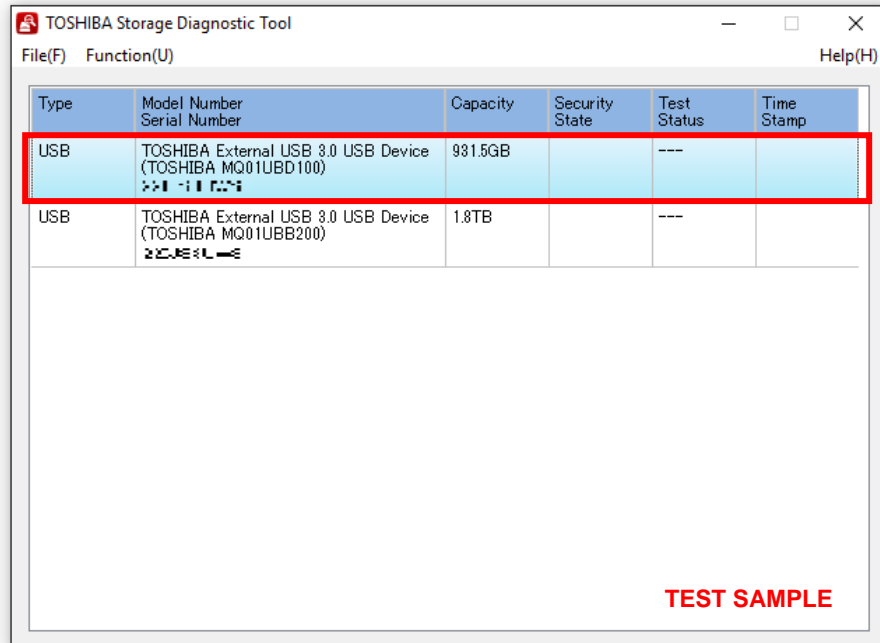
6. Diagnostic Scan

The Diagnostic Scan can scan all or part of the TOSHIBA Storage for read errors.
There are two kinds of the Diagnostic Scan: Quick Scan and Full Scan.
The Quick Scan runs self-test routine on one part of the drive. Typically, it takes several minutes to complete a Quick Scan.
The Full Scan runs self-test routine on the whole drive. Typically, it may take several hours or more to complete a Full Scan. The result of executing the Diagnostic Scan can be viewed in "*Test Status*".

1) Display the list of all available drives on your system. In the Drive list, click the drive that you want to scan.

2) Click "*Function (U)*" and click "*Start/Stop Diagnostics Scan*".
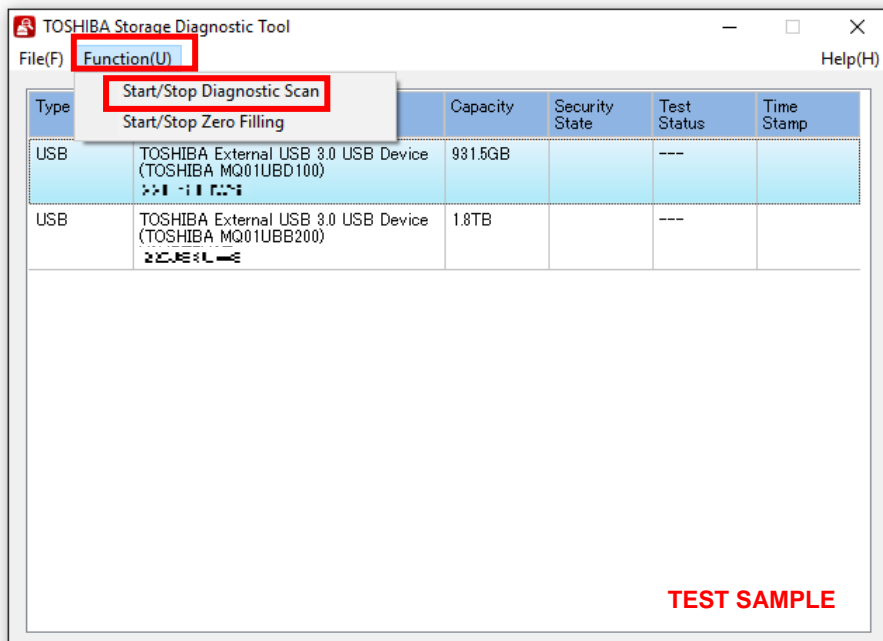
3) Select "**Quick Scan**" *or* "**Full Scan**" then click "**Yes**" to scan the selected drive.

・Quick Scan   : Check this option to run self-test routine on one part of the selected drive.
・Full Scan   : Check this option to run self-test routine on all of the selected drive.
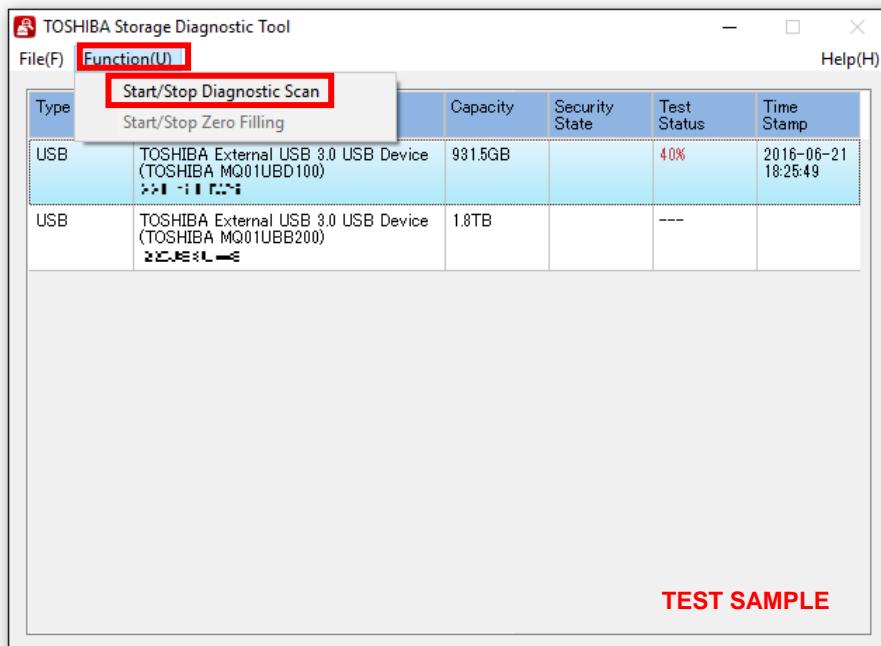   Full Scan will be displayed the estimated required time.
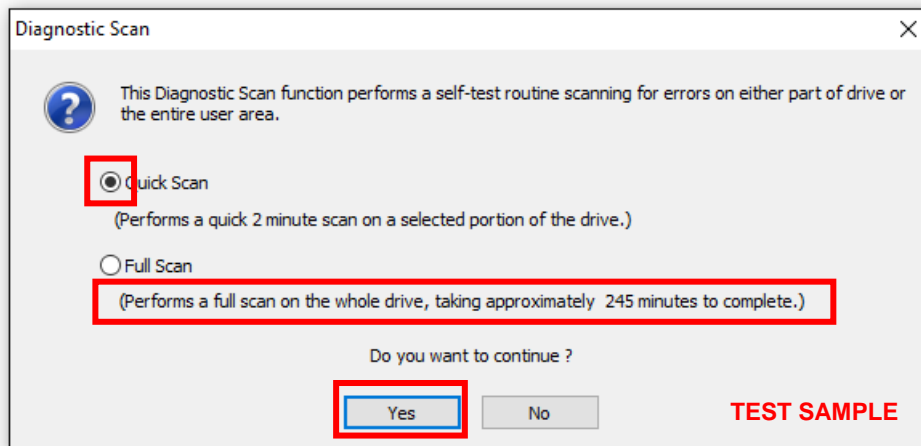
ⓘ **Information**	● Full Scan time may exceed the estimated required time depending on the operating conditions.

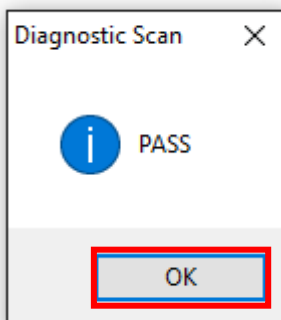In "**Test Status**", displays ratio of scanning task.
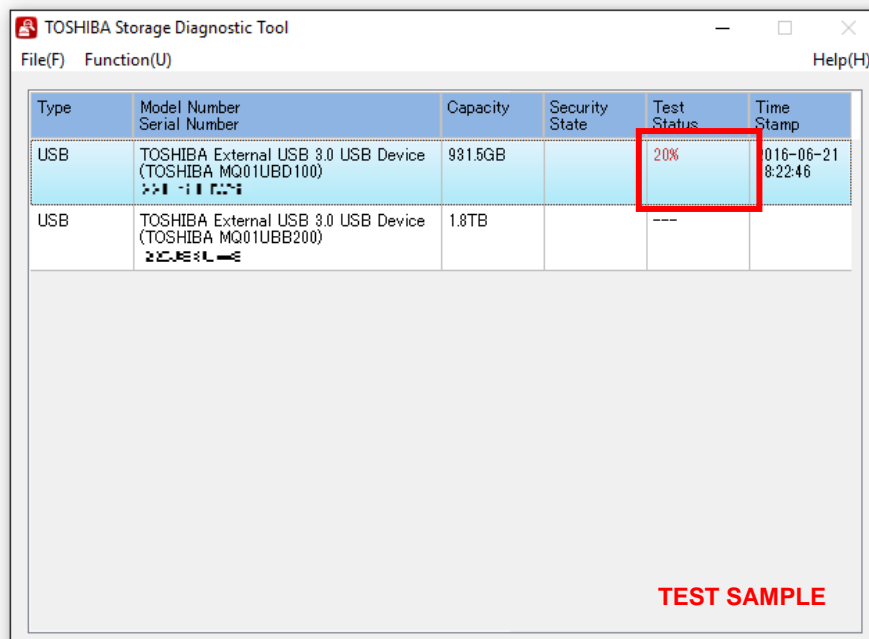
4) During execution of the scan, if you would like to stop the scan process, click "***Start/Stop Diagnostics Scan***".

Click "***Yes***" to stop the scan process.
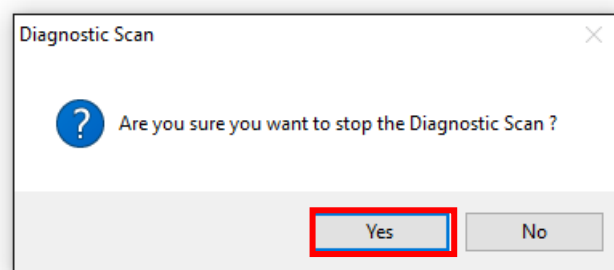
5) "***PASS***" or "***Error detected.***" is displayed when the scan is terminated normally. "***ABORT***" is displayed if you stop the scan process, and click "***OK***" to finish.
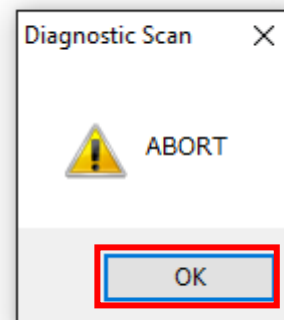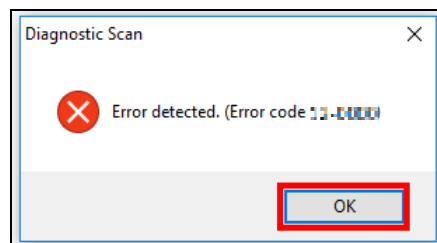
7. Zero Filling Function

The Zero Filling function overwrites the whole user data are with zero data pattern on the selected drive.
This process takes longer, and the completion time depends on the capacity and the condition of the drive.
Please make sure to back up your necessary data before starting the Zero Filling process.

<table>
<tr><td rowspan="2">

Information

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● Zero Filling function does not work with the system drive.
● Zero Filling function isn't available on drive that the Diagnostic Tool stored.
● Zero Filling function does not work with the password protection state or the password lock state.

</td></tr>
<tr><td>

Type	Model Number Serial Number	Capacity	Security State	Test Status	Time Stamp
USB	TOSHIBA External USB 3.0 USB Device (TOSHIBA MQ01UBD100)	931.5GB	Locked	---	

</td></tr>
</table>
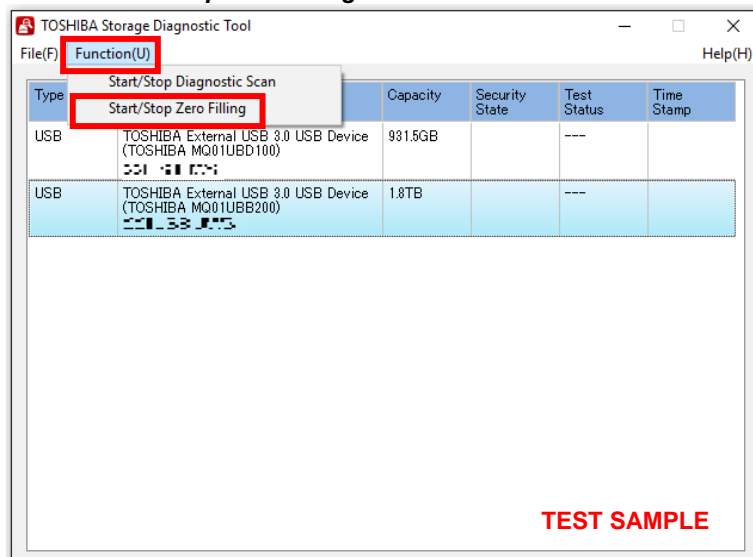
<table>
<tr><td>

Note

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● Remove the password protection or the user password on the drive before running the Zero Filling function. (For information on how to remove the user password on the drive, refer to your system's user manual.)
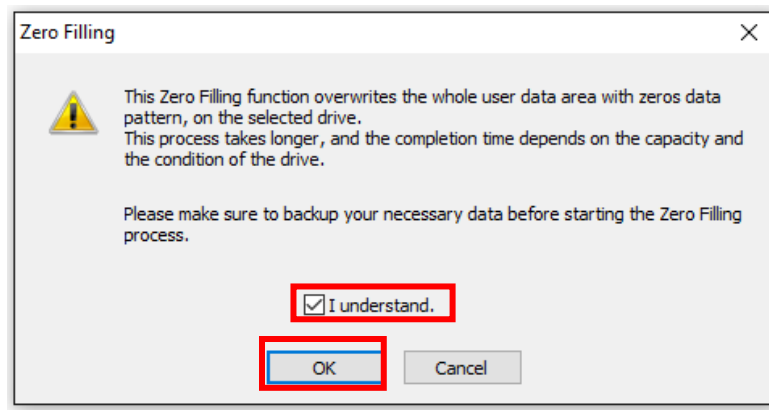
</td></tr>
</table>

1) On the Drive list, select the drive on which you want to run Zero Filling function.
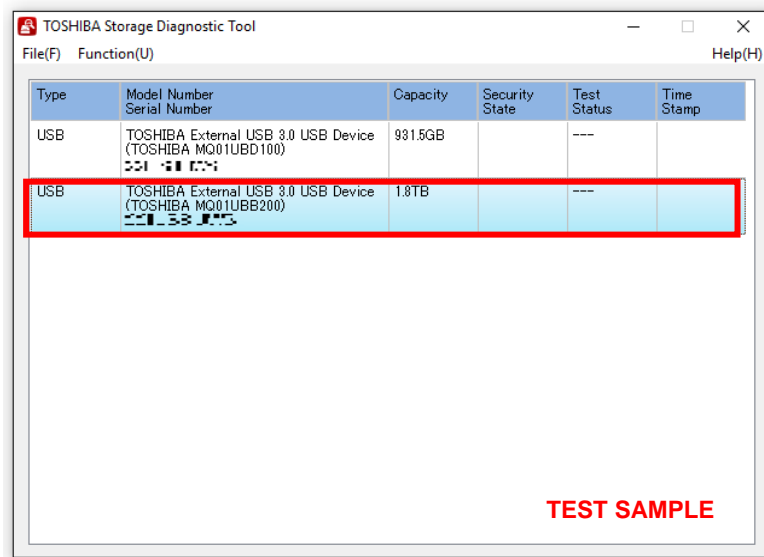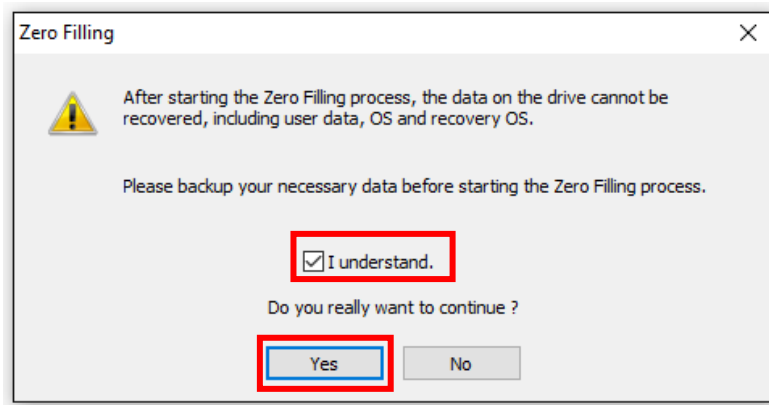

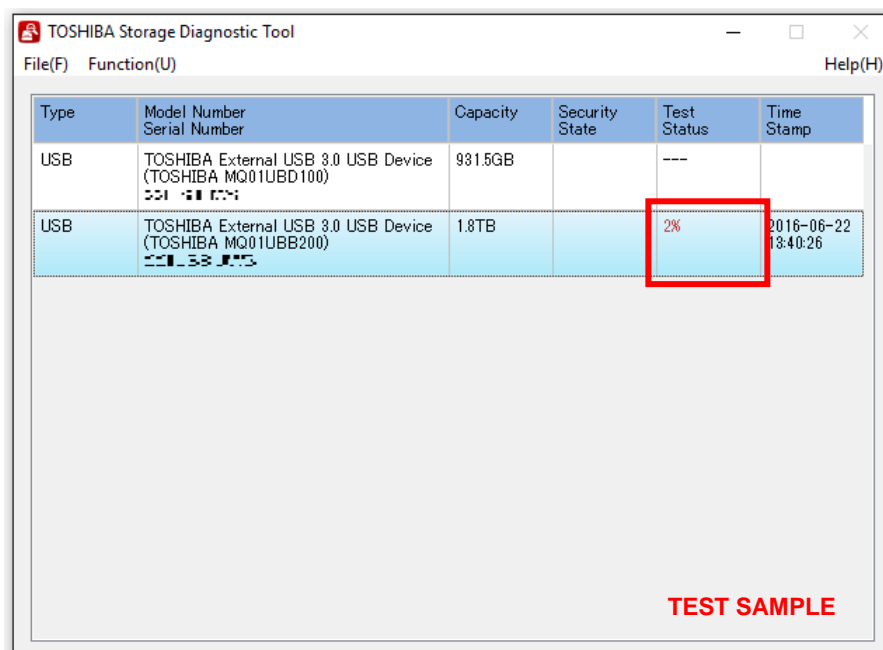2) Click "*Function(U)*" and click "*Start/Stop Zero Filling*".

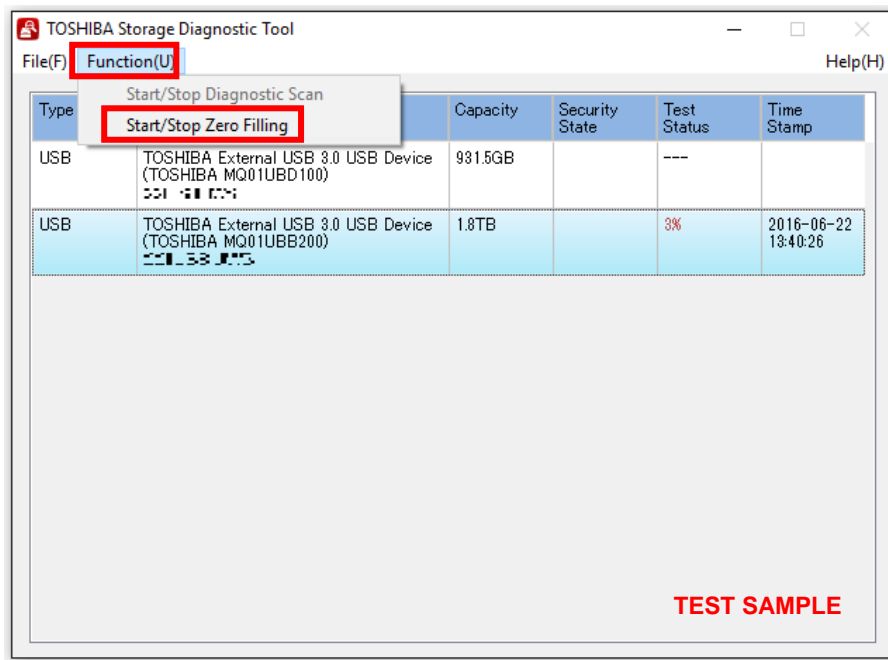3) If you accept the conditions, check "*I understand*" and click "*Yes*"

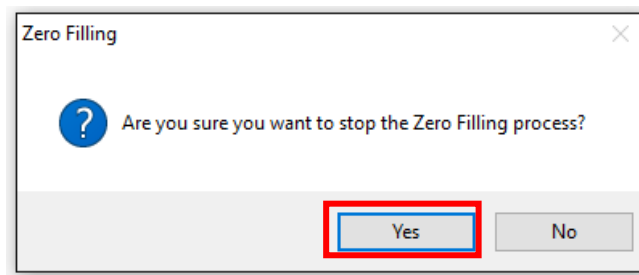4) If you accept the conditions, check "*I understand*" and click "*Yes*", and start Zero Filling function.

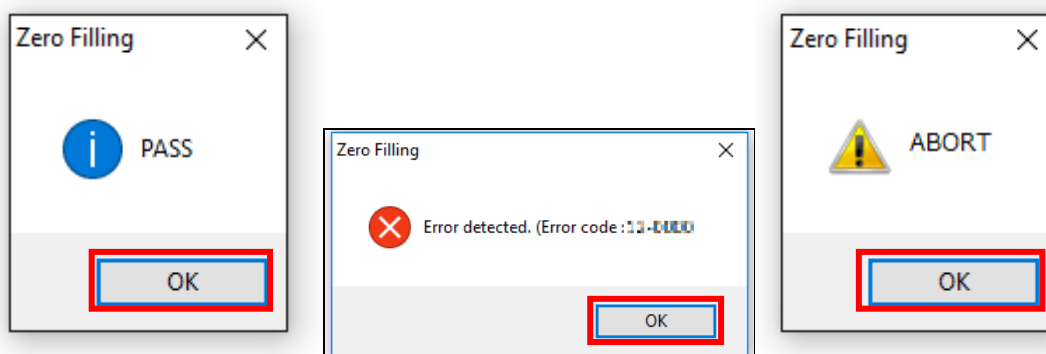

In "*Test Status*", displays ratio of Zero Filling task.

5) During execution of Zero Filling function, if you would like to stop Zero Filling function, click "*Start/Stop Zero Filling*".

Click "*Yes*" to stop Zero Filling function.

6) "*PASS*" or "*Error detected.*" is displayed when the scan is terminated normally. "*ABORT*" is displayed if you stop the scan process, and click "*OK*" to finish.

Need help?

Please visit TOSHIBA's Support Web site.
www.toshiba.eu/support/storage-devices/

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