OCTAVUE®

BY GSD GROUP

Securing Your World.

USER MANUAL

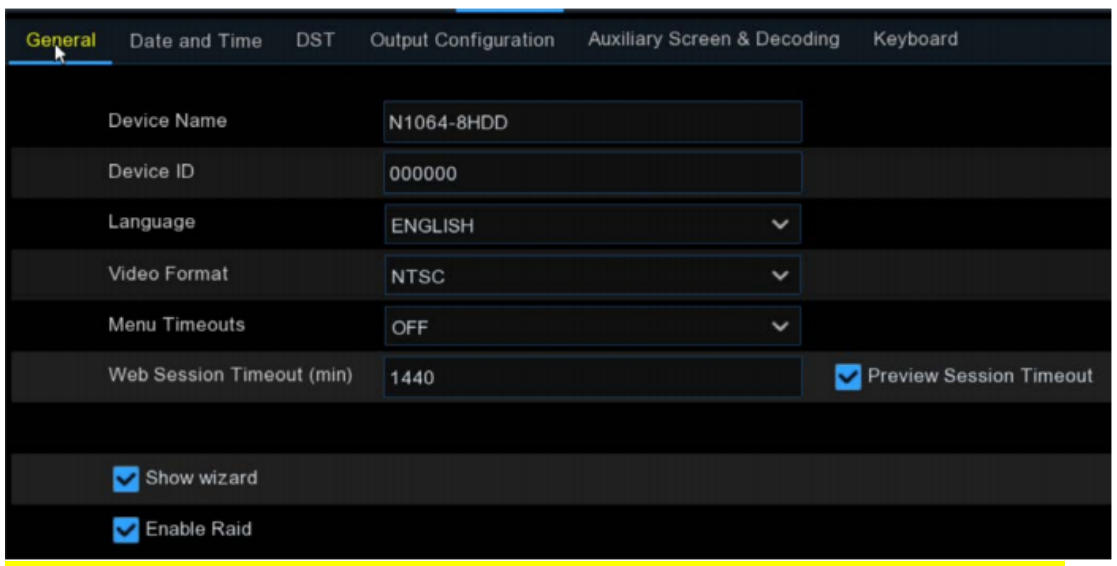
RAID SETUP

RAID

The RAID function has a high requirement on hard disk performance. To ensure long-term stable operation and reliability of RAID, it is recommended that you use enterprise-class hard disks (including brand, model, and capacity) for RAID creation and other configurations. If surveillance-class or desktop-class hard disks are used, data security may be affected. The company shall not be liable for the data loss or data damage caused thereby. Currently, only the 8-bay and 16-bay models support the RAID function.

Enabling RAID

Choose **Main Menu > System > General** to open the general setting page. Select Enable Raid to enable the **RAID** function, and then save the configuration. The configuration will take effect after the system is restarted.



Note: After the RAID function is enabled, the NVR does not support ESATA and NAS.

Creating RAID

You can create **RAID** either in one click or manually. For one-click creation, **RAID5** is created by default. For manual creation, **RAID0**, **RAID1**, **RAID5**, **RAID6**, and **RAID10** are supported. You can create different types of **RAID** in accordance with the actual number of hard disks to be accessed.

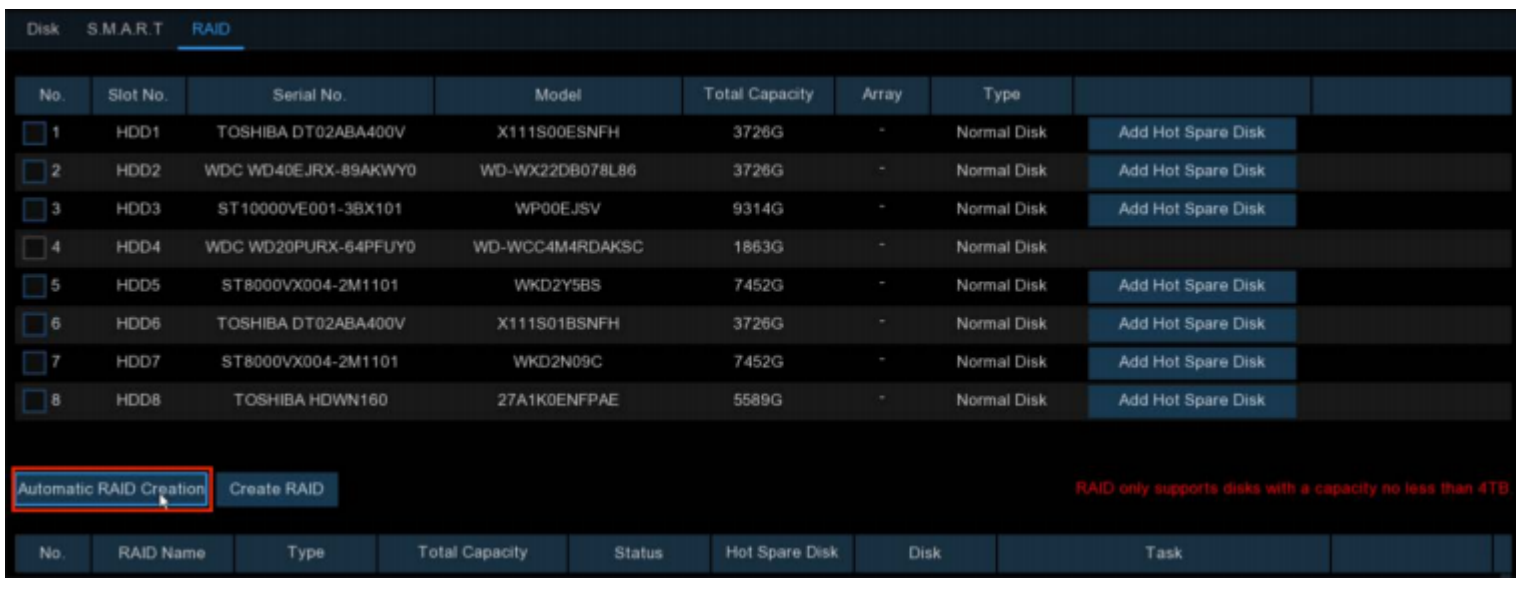
Hard Disk Quantity for RAID Creation

RAID Type	Hard Disk Quantity
RAID0	≥ 2
RAID1	2
RAID5	≥ 3
RAID6	≥ 4
RAID10	4 or 8

Note: The capacity of a single hard disk used for RAID creation is not less than 4 TB or an installed hard disk with a capacity less than 4 TB, it cannot be selected for RAID creation.

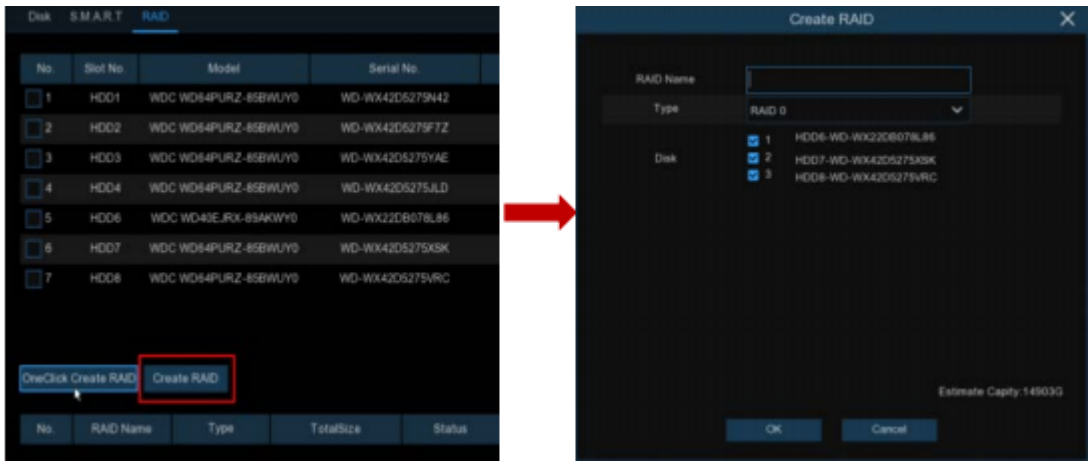
(1)Automatic RAID Creation

Through one-click configuration, the device can quickly create RAID and virtual disks. RAID5 is created by default in one-click configuration, and at least four hard disks should be installed.

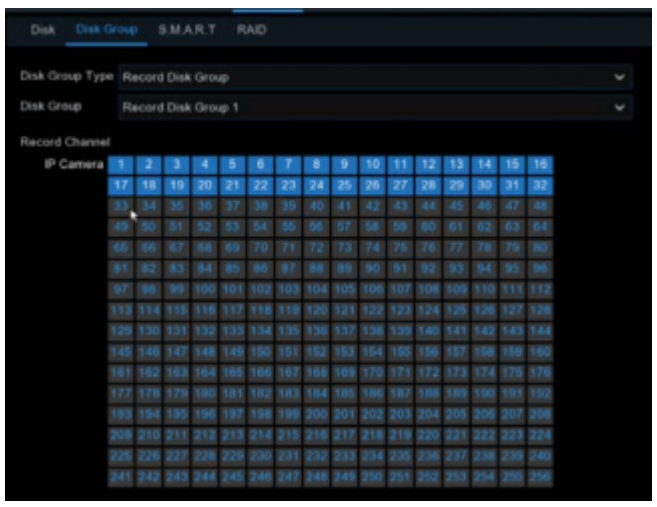


(2)Creating RAID Manually

To create RAID manually, click **Create RAID** to open the **Create RAID** page. Set the RAID name, select the RAID type, select the hard disks, and click **OK** to create the RAID. After the RAID is created, format the RAID.

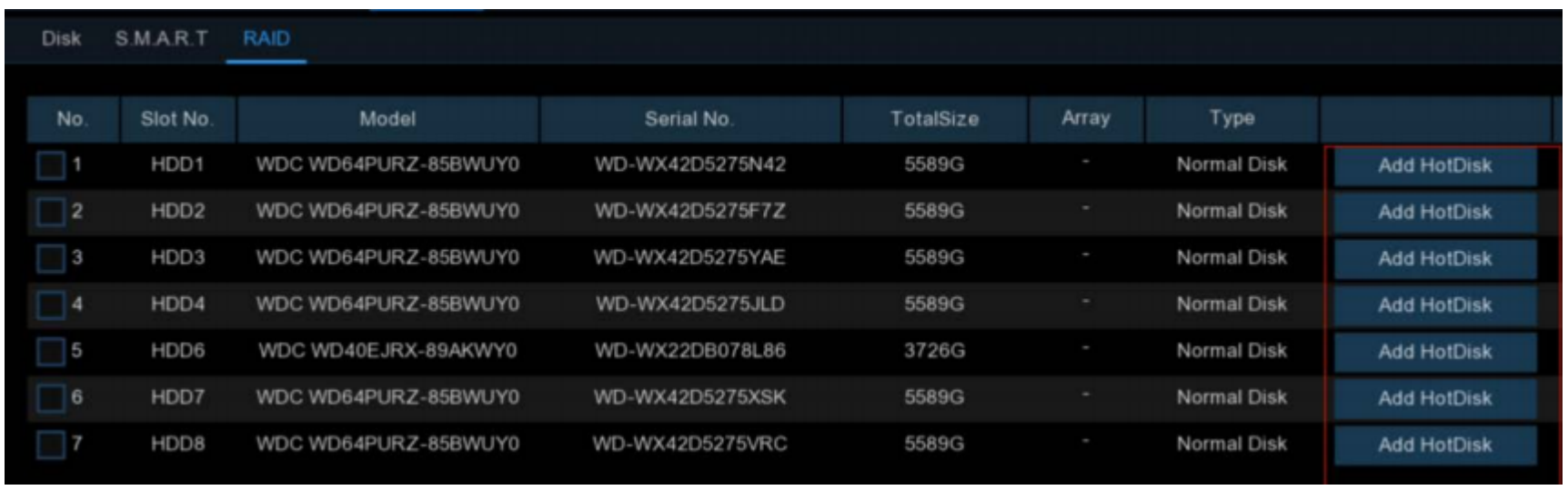


To enable the RAID for normal use, you need to format the RAID first. After RAID formatting is completed, open the disk group configuration page, select the disk group and recording channels, and ensure that camera recording is normal.



Setting Hot Spare Disks

To ensure RAID security, when RAID is in degraded status, the system can automatically carry out RAID rebuilding. Therefore, it is recommended that hot spare disks be configured. On the RAID configuration page, select an idle hard disk, click the **Add HotDisk** button, and confirm the hot spare disk setting. (Hot spare disks are public disks and can be used by all created RAIDs.)

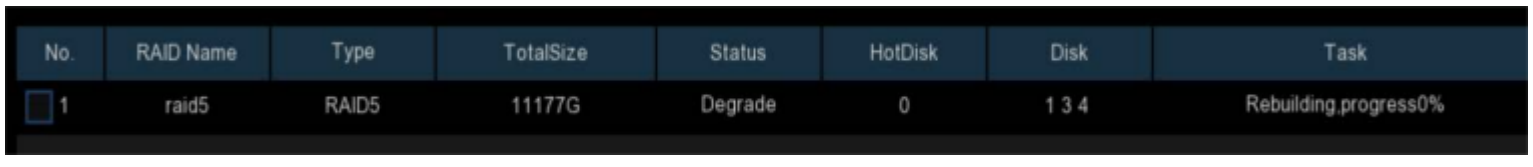


Rebuilding RAID

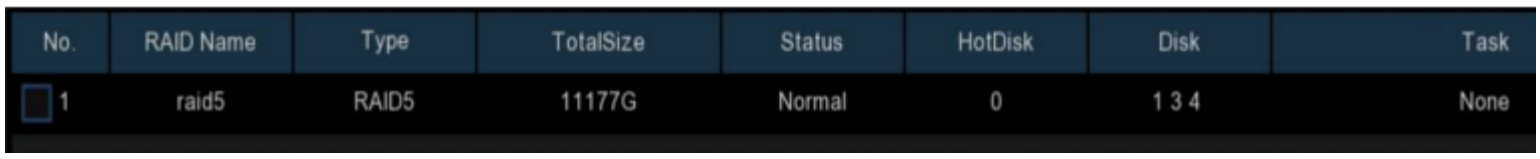
The operational status of a RAID includes normal, degraded, and offline. To give full play to RAID advantages and ensure the security and reliability of data storage, you can maintain the disks in a timely manner by viewing RAID status. For a RAID, when there is no physical disk loss, the RAID is in normal status; when the number of physical disks lost exceeds the threshold for the RAID type, the RAID is in offline status; when the actual situation is between the two cases, the RAID is in degraded status. When a RAID is in degraded status, it can be restored to normal status through RAID rebuilding.

(1)Rebuilding RAID Automatically

Automatic RAID rebuilding requires that the device should be configured with hot spare disks in advance and the hot spare disk capacity should be not less than the capacity of the smallest disk of the RAID. If the above conditions are met, when a hard disk in a RAID is lost or damaged, the hot spare disk is activated and considered as a candidate disk for the RAID, and then the automatic rebuilding task is started. For example, RAID5 consists of hard disks 1, 2, and 3, and hard disk 4 has been configured as a hot spare disk. Hard disk 2 fails in operation, and the system does not detect it. Therefore, RAID5 is in degraded status, and hard disk 4 is immediately activated and considered as a candidate disk. Then, the rebuilding process is started.

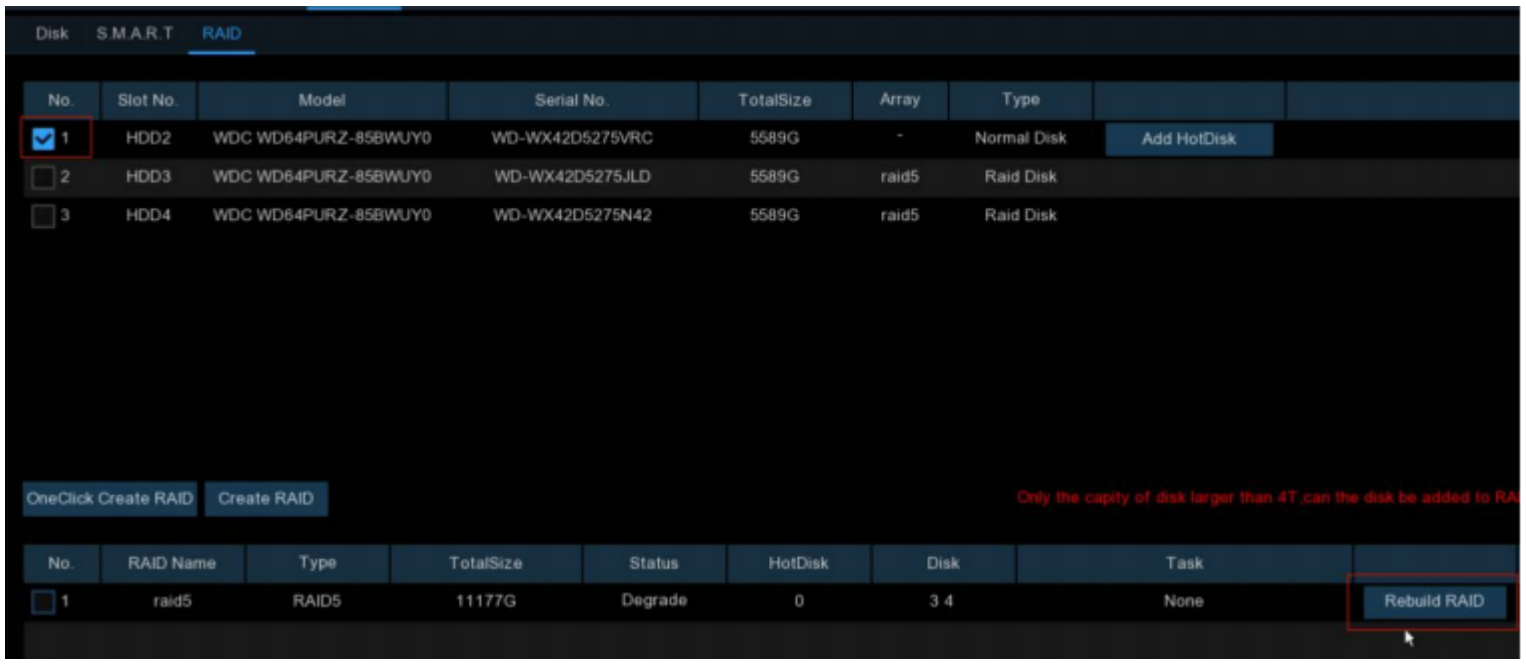


Note:1.After rebuilding is completed, the RAID is restored to normal status. 2.After automatic rebuilding is completed, you need to insert a normal hard disk and set it as a hot spare disk to ensure that the automatic rebuilding process can be started normally the next time an exception occurs.



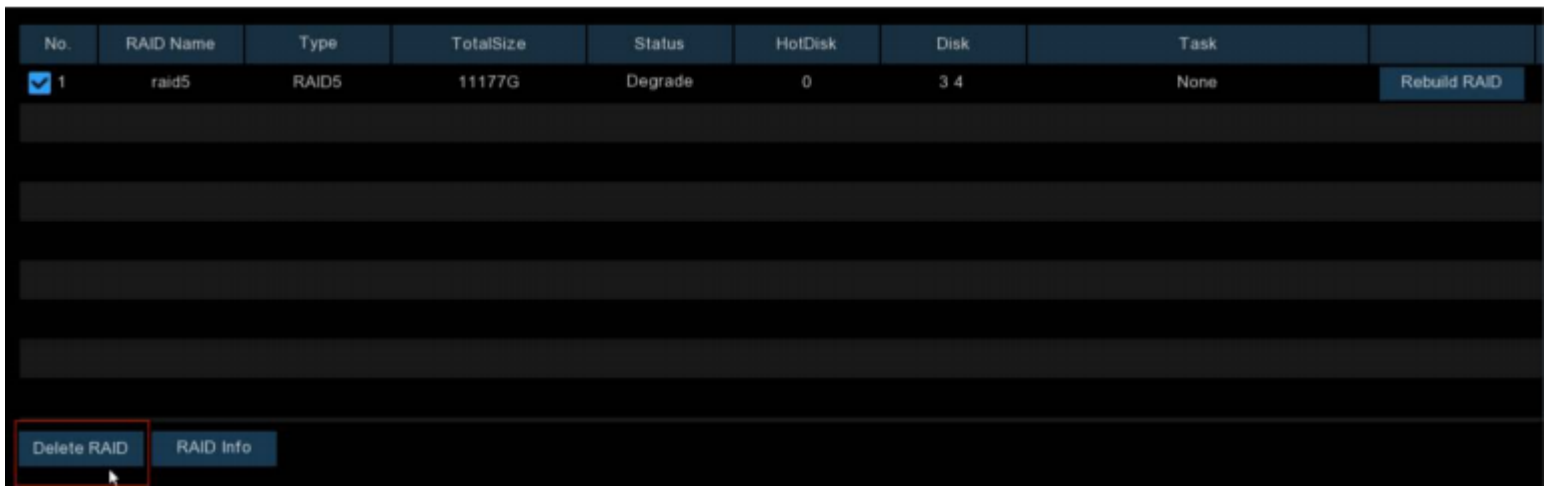
(2)Rebuilding RAID Manually

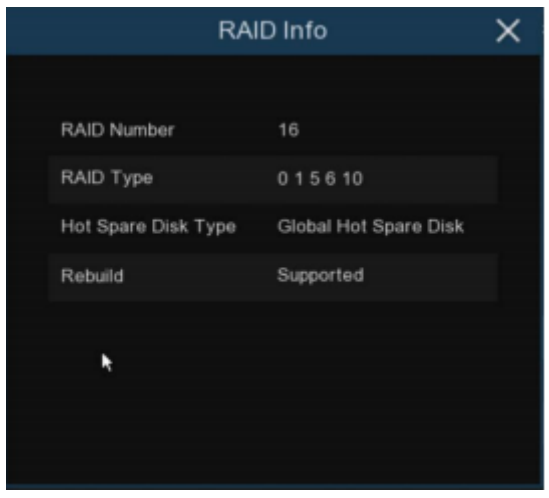
When a RAID is in degraded status, if it has no hot spare disk, automatically rebuilding cannot be implemented. You need to manually rebuild the RAID to restore it to normal status. On the RAID configuration page, select an idle disk, and click the **Rebuild RAID** button, verify the password, and then start RAID rebuilding. After the rebuilding is completed, the RAID is restored to normal status.



Deleting RAID

Select the RAID to be deleted, click the **Delete RAID** button, enter the administrator password, and click **OK** to delete the RAID.





Applicable to the following NVRs:

CGSD-NVRFNC4K-32NP-N
GSD-NVRFNC4K-64NP-N
GSD-NVRFNC4K-256NP-NP

COMPATIBLE HARD DRIVES:

BRAND	HARD DISK MODEL	TYPE	STORAGE CAPACITY	STORAGE TECHNOLOGY	HARD DISK FORMATTING	VIDEO PLAYBACK	FACE LIBRARY IMPORT DATA	LOG SEARCH
WESTERN DIGITAL GOLD	HUS726T6TALE6L4	ENTERPRISE CLASS (RAID)	6T	CMR	✔	✔	✔	✔
	WUS721010ALE6L4		10T	CMR	✔	✔	✔	✔
	WUS721010ALE6L4		22T	CMR	✔	✔	✔	✔
TOSHIBA	MG08ADA800E	ENTERPRISE CLASS (RAID)	12T	CMR	✔	✔	✔	✔
	MG07ACA12TE		14T	CMR	✔	✔	✔	✔
SEAGATE EXOS	ST6000NM019B	ENTERPRISE CLASS (RAID)	6T	CMR	✔	✔	✔	✔
	ST10000NM017B		10T	CMR	✔	✔	✔	✔
	ST14000NM000J		14T	CMR	✔	✔	✔	✔
	ST18000NM000J		18T	CMR	✔	✔	✔	✔

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gsdgroupinc.com

1 (866) 791-7020

sales@gsdgroupinc.com

180 Boul Bellerose Ouest,
Suite 100, Laval QC H7L 6A2

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