



uniview tec
850 Freeport Parkway Suite 100
Coppell, TX 75019
888-288-7644
tech@unviewsales.com

RECORDING STORAGE

The goal of video surveillance is to capture an incident. Preservation of this recording for retrieval is paramount. uniview tec systems have several means of safekeeping and managing video storage. This is accomplished through Camera Storage, Allocating Recording Space, RAID Hard Drive configurations and expanded storage with a Disk Enclosures.

CAMERA STORAGE

Almost all of uniview tec cameras support onboard storage with a micro SD card. This storage has two functions. It is a secondary means of storage, as well uniview tec supports Network Replenishment. Network Replenishment allows the NVR to recover missing recording if data-transmission between the camera and NVR is lost and regained. Refer to [TN1007](#) for complete information on this topic. As secondary recording, if the NVR fails or is stolen, recent recoding would be accessible from the cameras. How much video is backed up is determined by factors such as SD card size and camera encoding settings. For example a 256GB SD card in a 4MP camera will keep about 10 days video recording.

ALLOCATING RECORDING SPACE

NVR storage available to each camera can be individually adjusted. Less important cameras could be limited so that the remaining storage is available to more important cameras, giving them longer recording times.

This is setup in the NVR menu. Allocate Space is found under Storage. Adjusting Max Recording Space will limit available recording space. To estimate storage space use the calculator found in Guard Tool. This is available under [Client Software on our website](#).

Storage	Allocate Space
Recording Schedule	
Snapshot Schedule	
Array	
Hard Disk	
Disk Group	
▶ Allocate Space	
Advanced	

Allocate Space	
Select Channel	D6 (IP Camera 06)
Used Recording Space(GB)	293
Used Image Space(GB)	0
Disk Group	Disk Group 1
Disk Capacity	2774 GB free of 2774 GB
Group Capacity	2774 GB free of 2774 GB
Max Recording Space(GB)	0
Max Image Space(GB)	0

RAID – STORAGE

When multiple hard drives (HDD) are installed, RAID Arrays can be setup for recording protection. In a RAID configuration if a HDD fails the other HDD(s) will rebuild the data. This should be setup prior to configuring the recording settings in the NVR.

RAID 0

Two or more HDD's are used as one large storage device. This is the default configuration in the NVR's. Since all HDD's are used for storage, there is no data protection.

RAID 1

A minimum of two HDD's are needed and must be setup in pairs. The video recording on HDD one is mirrored on HDD two. If one HDD fails the second HDD will still have the video recording. The biggest drawback of this RAID is the total storage is decreased by 50%.

RAID 5

A minimum of three HDD's are needed and there is no maximum. One HDD is used for data protection and the video recording is distributed across the other HDD's. Total storage is decreased by one HDD. One HDD can fail and when the failed drive is replaced the system will rebuild the missing data. **This is the most commonly used because it offers data protection with the least reduction in total storage.**

RAID 6

A minimum of four HDD's are needed. Two HDD's are used for data protection and the video recording is distributed across the other HDD's. Total storage is decreased by two HDD's. Two HDD's can fail and when the failed drives are replaced the system will rebuild the missing data. This offers the best protection but total storage is reduced by two HDD's.

THE FOLLOWING RAID's SHOULD ONLY BE CONSIDERED WHEN A LARGE NUMBER OF HARD DRIVES ARE USED

RAID 10

This is RAID 1 and RAID 0. A minimum of four HDD's are needed and must be done in pairs. The video recording on HDD one is mirrored on HDD two. The video recording on HDD three is mirrored on HDD four. The two groups are then used together. The resulting total useable storage is decreased by 50%.

RAID 50

This is RAID 5 and RAID 0. A minimum of six HDD's are needed. They must be installed in groups of three. In each group one HDD is used for data protection and the video recording is distributed across the other HDD's. Total storage is decreased by one HDD in each group. One HDD can fail in each group and when replaced the system will rebuild the missing data.

RAID 60

This is RAID 6 and RAID 0. A minimum of eight HDD's are needed. They must be installed in groups of four. In each group two HDD's are used for data protection and the video recording is distributed across the other HDD's. Total storage is decreased by two HDD's in each group. Two HDD's can fail in each group and when replaced the system will rebuild the missing data.

For additional information about RAID's Wikipedia is a good source as well as our support group

https://en.wikipedia.org/wiki/Standard_RAID_levels

https://en.wikipedia.org/wiki/Nested_RAID_levels#RAID_10

For a list of which RAID configurations are supported refer to NVR specification sheets.

DISK ENCLOSURE

Larger uniview tec NVR's support adding significant additional external storage with Disk Enclosures. For compatibility contact our support group or sales.

