

GENSTAR Storage Calculator

Ver. 1.0.1

In order to calculate the storage requirement of a GENSTAR NVR, we use the BitChange calculator. The BitChange Calculator can be found at GanzSecurity.com/Support/Resource Center/Tools and Calculators

The BitChange calculator offers three optional calculations;

1. Calculate Record Size Parameters:

- a. Bitrate: The camera(s) bitrate is set in the NVR. (See below for location of bitrate)
- b. Record Time: The require retention time may be in days, or in hours and minutes.
 - i. *If recording continuously: Calculate by number of days.*
 - ii. *If recording on motion: Calculate by number of hours, and or minutes.*
- c. Channel No.: The number of channels or IP cameras in use.

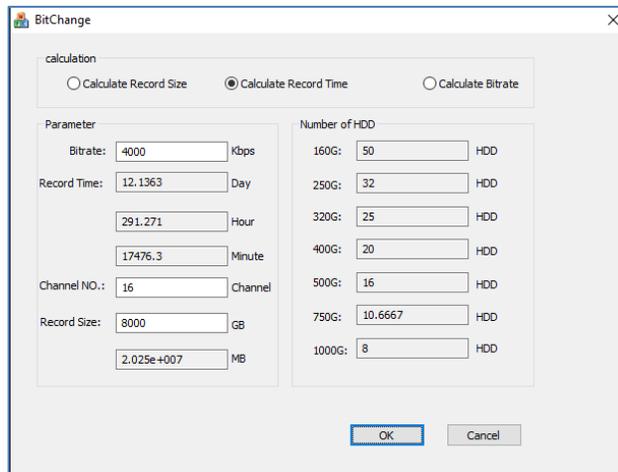
Number of HDD	160G	250G	320G	400G	500G	750G	1000G
123.596	79.1016	61.7981	49.4385	39.5508	26.3672	19.7754	

2. Calculate Record Time Parameters:

- a. Bitrate: The camera(s) bitrate is set in the NVR. (See below for location of bitrate)
- b. Channel No.: The number of channels or IP cameras in use.
- c. Record Size: Expected HDD storage size in use.
 - i. *Note: If known, use expected HDD size after applied formatting.*

GENSTAR Storage Calculator

Ver. 1.0.1

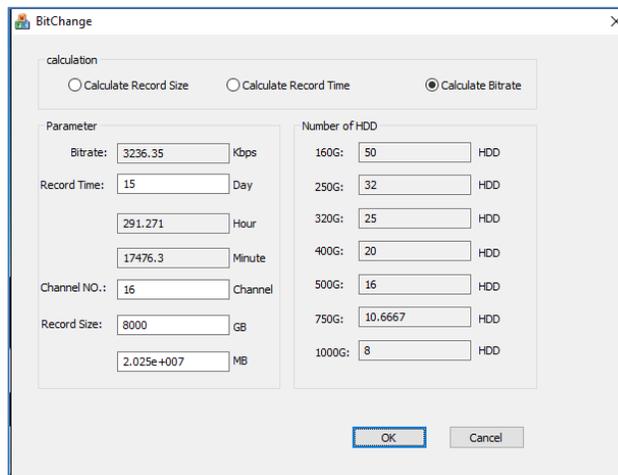


The screenshot shows the BitChange calculator window with the following settings:

- calculation: Calculate Record Size, Calculate Record Time, Calculate Bitrate
- Parameter:
 - Bitrate: 4000 Kbps
 - Record Time: 12.1363 Day, 291.271 Hour, 17476.3 Minute
 - Channel NO.: 16 Channel
 - Record Size: 8000 GB, 2.025e+007 MB
- Number of HDD:
 - 160G: 50 HDD
 - 250G: 32 HDD
 - 320G: 25 HDD
 - 400G: 20 HDD
 - 500G: 16 HDD
 - 750G: 10.6667 HDD
 - 1000G: 8 HDD

3. Calculate Bitrate Parameters:

- a. Record Time: The require retention time may be in days, or in hours and minutes.
 - i. *If recording continuously: Calculate by number of days.*
 - ii. *If recording on motion: Calculate by number of hours, and or minutes.*
- b. Channel No.: The number of channels or IP cameras in use.
- c. Record Size: Expected HDD storage size in use.
 - i. *Note: If known, use expected HDD size after applied formatting.*



The screenshot shows the BitChange calculator window with the following settings:

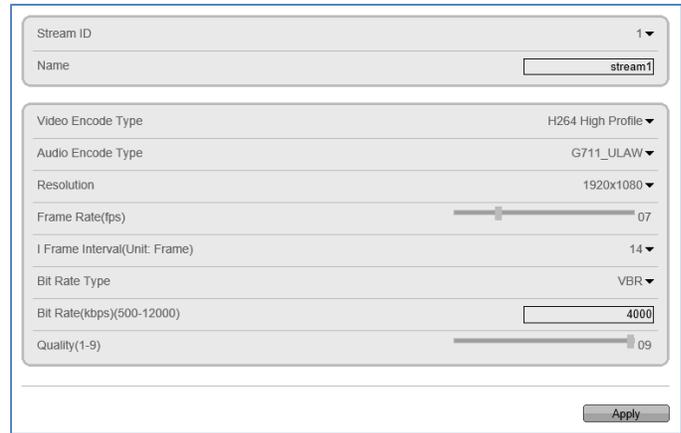
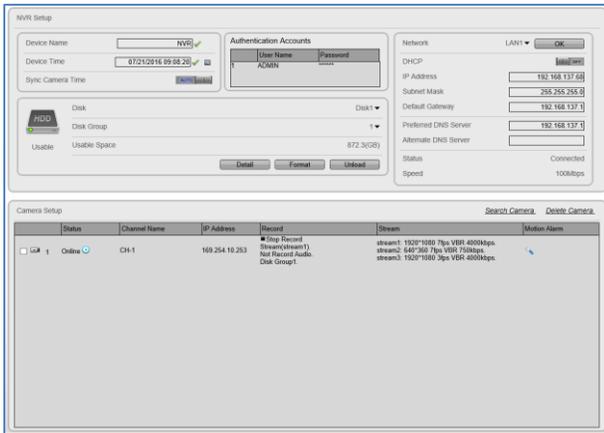
- calculation: Calculate Record Size, Calculate Record Time, Calculate Bitrate
- Parameter:
 - Bitrate: 3236.35 Kbps
 - Record Time: 15 Day, 291.271 Hour, 17476.3 Minute
 - Channel NO.: 16 Channel
 - Record Size: 8000 GB, 2.025e+007 MB
- Number of HDD:
 - 160G: 50 HDD
 - 250G: 32 HDD
 - 320G: 25 HDD
 - 400G: 20 HDD
 - 500G: 16 HDD
 - 750G: 10.6667 HDD
 - 1000G: 8 HDD

4. The camera bitrate can be found in two locations from the NVR menu options.

- a. Quick Setup Tab: Found along the top row of available tabs in the main NVR screen
 - i. Select the Quick Setup tab to access primary NVR functions.
 - ii. The bottom window section will list the "Camera Setup"
 1. Select a camera stream to see that cameras stream settings.
 2. The Camera bitrate can be found toward the bottom of the settings.
 - a. The bitrate type and measure is adjustable from here.

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- b. Camera Setup: Clicking in the top right corner offer the NVR setup, and CAM Setup.
 - i. Select the CAM Setup to access the camera setup functions.
 - ii. The top right panel lists the available cameras.
 1. Select a camera from the camera panel.
 - iii. The bottom panel lists the available camera functions.
 1. The Camera bitrate can be found under the “Stream” settings.
 - a. The bitrate type and measure is adjustable from here.

