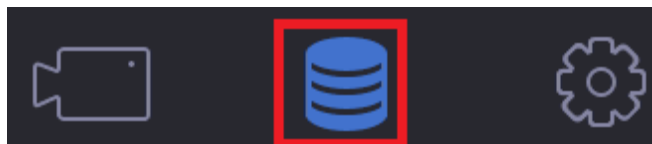


GUI 4.0 - Recording Guide

To set up a recorder ready for recording, you need to first go into the storage menu to ensure our Recorder has an HDD installed and is ready to go.

If your recorder hasn't come with a HDD, make sure you have installed one first before beginning this step.



Under the Storage Menu, and in Storage Device we can see any connected HDD's, their overall Capacity and the current Free Space. Recorders are set to Overwrite automatically so even if the free space is 0GB there's no need to worry. You can also see the Status in case there's any issues.

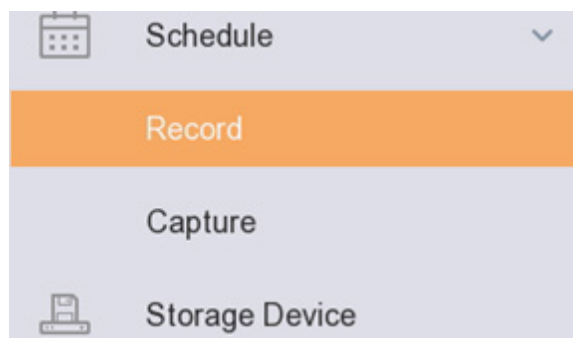
+ Add		Init	Repair Database	Total C...465.77GB			Free ... 447.00GB		
<input type="checkbox"/>	Label	Capacity	Status	Property	Type	Free Space	Group	Edit	Delete
<input type="checkbox"/>	2	465.77GB	Normal	R/W	Local	447.00GB	1	-	x

Any newly connected Hard Drives will usually need to be formatted by the recorder, this can be done by selecting them with the tick box on the left hand side and clicking 'Init' at the top, which stands for Initialise.



Repair Database is an option which can fix issues with existing footage missing from the recorder in playback or slowing operation. Again, select the HDD from the list and click Repair Database, depending on the size of the drive this can take some time but will operate in the background. It will prevent any playback of footage until its completed.

With our HDD in place and operating, the next thing to do is go to the Schedule menu and set up our channels to record.



In here we can select individual channels, and set how we wish them to record by adjusting the Schedule with different recording options.

Camera No. [D1] IPDome

Enable Schedule

Advanced

Continuous
 Event
 Motion
 Alarm
 M | A
 M & A
 POS Event
 None

	0	2	4	6	8	10	12	14	16	18	20	22	24	
Mon	[Continuous]													1
Tue	[Continuous]													2
Wed	[Continuous]													3
Thu	[Continuous]													4
Fri	[Continuous]													5
Sat	[Continuous]													6
Sun	[Continuous]													7

- Continuous – Continuous will record 24/7
- Event – Event will record on any camera events, including line crossing & motion detection
- Motion – Motion will just record on motion detection
- Alarm – Alarm will record on Alarm input triggers to the Recorder or Camera
- M | A – Motion or Alarm will record on either Motion Detection or Alarm Inputs
- M & A – Motion and Alarm will record if both Motion and Alarms trigger for the camera
- POS Event – Will record on configured POS Events with POS Integration to the recorder

You can have up to 8 individual Record Periods configured per day. These can either be selected using the options across the top and dragging and dropping on the Schedule.

Continuous
 Event
 Motion
 Alarm
 M | A
 M & A
 POS Event
 None

Or by clicking the Edit option and manually inputting time windows by unticking all day and putting times in for each day.

None



Edit			
Weekday	Mon		
All Day	<input checked="" type="checkbox"/>	Type	Continuous
Start/End Ti...	00:00-24:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous
Start/End Ti...	00:00-00:00	Type	Continuous

Copy Apply OK Cancel

At the top right we also get an option for 'Advanced'

Advanced

None Edit

This gives us access to options for Pre and Post Record settings, if we're recording on events, as well as enabling Record Audio if we have audio coming from a camera/channel. We can also choose if we're recording the Mainstream, Substream or Both Streams from a Camera. We would recommend using Mainstream for best resolution/quality of image. We are also able to set a 'Video/Picture Expiry Time'. This allows us to artificially limit how long a Recorder will record a channel for, rather than it just recording until the HDD's are full.

Advanced Parameters	
Record Audio:	<input checked="" type="checkbox"/>
Pre-Record:	5s
Post-Record:	5s
Stream Type:	Main Stream
Video/Picture Expiry Tim...	0

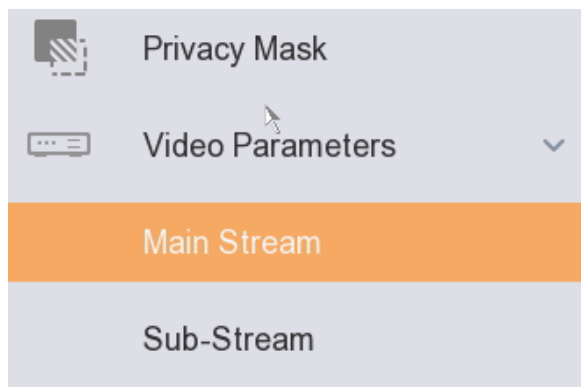
OK Cancel

With our Schedule set, the next part of the Recording Configuration is the Video Parameters of our individual channels. This allows us to define the exact parameters each camera will work for, to improve fidelity, frame rate or improve storage time by reducing the amount of data being captured to our HDD's.

To get to this menu we need to first go into the Camera menu, from the menus across the top



From here you need to go into Video Parameters on the Left-hand side



From here, we can choose between Mainstream and Sub-Stream. We'll start with Mainstream as this is the stream which is by default used for recording (And is the recommended record stream)

Encoding Parameters	Main Stream(Continuous)	Main Stream(Event)
Stream Type	Video	Video
Resolution	1920*1080(1080P)	1920*1080(1080P)
Bitrate Type	Variable	Variable
Video Quality	Medium	Medium
Frame Rate	Full Frame	Full Frame
Max. Bitrate Mode	Custom(32-16384)	Custom(32-16384)
Max. Bitrate(Kbps)	6144	6144
Max. Bitrate Range Recom...	3840-6400(Kbps)	3840-6400(Kbps)
Video Encoding	H.265	H.265
Enable H.265+	<input type="checkbox"/>	

Here we can choose our camera from the drop down at the top. We get the options for Mainstream Continuous and Mainstream Event, these relate to the streams the camera uses all the time, and when an event triggers respectively, allowing us to more narrowly refine our parameters between the two to save space/improve fidelity.

- Stream Type gives us the options between Video & Video & Audio. If our camera has audio, to hear audio in Live View, we need this set to Video & Audio in Mainstream and Substream.
To hear Audio in Playback, you need to enable Record Audio in the Advanced Schedule Settings as previously shown.
- Resolution allows us to choose between the different available resolutions to record on our channel.
- Bitrate Type relates to how the camera/recorder handles the incoming data. Variable is generally recommended as this will save storage space when compared with the other option, Constant.
- Video Quality allows you to define how busy/active a scene is which allows it to recommend a bitrate further down in the Menu. **Video Quality does not pertain to actual image fidelity and just means the recorder will make you set your Bitrate higher than you require if you set it Higher in a quiet scene.**
- Frame Rate is how many Frames per Second (FPS) a Camera will capture at. Real Time is 25FPS, but the maximum framerate is dependent on the capabilities of the Camera or Recorder if it's a DVR. Generally, we recommend 12FPS as the best balance between quality and storage saving as a setting.
- Max Bitrate Mode relates to how you input the Maximum Bitrate. Custom allows you to input a custom range in Kbps. General allows you to choose from a selection of Bitrates.
- Max Bitrate (Kbps) allows us to define the maximum amount of data the camera can send to the recorder. The higher this is, the more storage space it will use. Cameras require so much data depending on their other Record Settings
- Max Bitrate Range Recommended gives us a recommended range the recorder will generate according to the other parameters set in the Video Parameter Menu. Generally speaking we should always ensure that our Max Bitrate is set between this recommended range. If you're using H.265 we would recommend using a storage calculator instead. Hikvision now host an online version which can be found at: tools.hikvision.com/calculatorTool
- Video Encoding allows us to choose between H.264 and H.265. The latter will save on storage space and is recommended on any device that supports it.
- Enable H.264+/H.265+ will show as the respective + variant of H.264 or H.265 depending on what we've chosen for the Video Encoding setting. These are more intensive variants and will save more space but are not recommended for scenes with high levels of activity.

Substream looks very much the same, although only with a single selection of options, and much lower resolution options, as the Substream is intended for multi-screen live view and remote viewing to save on bandwidth.

