



Navigating Through the DVR Software

- **Using a USB Mouse**

A 3-button (left/right/scroll-wheel) USB mouse can also be used with this DVR. To use a USB mouse:

1. Plug USB mouse into one of the USB ports on the DVR front panel.
2. Mouse will automatically be detected. If mouse not detected, see your provider's recommended device list. The buttons on the mouse correspond to:
 - Left Button
 - > Single-Click: Select a menu component such as a button or an input field. This is similar to pressing the ENTER button on the IR Remote/front panel controls.
 - > Double-Click: Switch between single screen and multi-screen mode in Preview/Playback mode.
 - > Click and Drag: Click and drag the Left mouse button to control the pan/tilt of a PTZ camera as well as vary the position of digital zoom area and camera OSD. Can also set alarm areas.
 - Right Button
 - > Single-Click: Shows pop-up menu in preview interface. Exit to return to the previous menu.







- **Using the Soft Keyboard**

When a mouse is used to perform a task on the DVR, click on a text input field to bring up the soft keyboard, shown in Figure 12.



Figure 12, Soft Keyboard


The soft keyboard buttons represent the following:

-  **Switch to Uppercase:** Switch to uppercase input
-  **Switch to Lowercase:** Switch to lowercase input
-  **Symbols:** Switch to symbols input
-  **Backspace:** Delete the character in front of the cursor
-  **Enter:** Confirm selection
-  **ESC:** Exit Soft Keyboard

Live Feed (Live View)













NOTE: "Live Feed" and "Live View" are used interchangeably in the interface and this manual.

- **Watching a Live Feed**

Live Feed mode is automatically started after the DVR boots up. It is also at the very top of the menu hierarchy, thus hitting the onscreen Return  button multiple times will take the display to Live Feed mode. Also, right clicking the mouse will exit to the previous screen.

- **Live Feed Icons**

There are multiple icons on each display in Live Feed mode to indicate different camera status and settings:

-  **Event:** Indicates video loss or tampering, motion detection, and/or sensor alarm.
-  **Record:** Indicates the current channel is recording. The recording may have been started from a schedule and/or triggered from motion or alarm.
-  **Enable Manual Record**
-  **Disable Manual Record**
-  **Instant Playback:** Instant playback the record in last five minutes.
-  **Audio On:** Enable audio for selected display.
-  **Audio Off:** Disable audio for selected display.
-  **Capture:** Capture images for the selected display.
-  **PTZ Control:** Enable PTZ control mode for the selected display.
-  **Digital Zoom:** Zoom the selected area to the full screen.
-  **Image Settings:** Enter image setting menu for selected display.
-  **Close:** Exit current setting and return to previous mode.

NOTE: Status for video loss is only valid for analog cameras. Event icons will be displayed only when armed, except for the video loss alarm.

- **Operating the Live Feed**

In Live Feed mode, adjust the settings for individual cameras by left-clicking on the desired display with the

mouse. The selected display will be surrounded by a green border, as shown in Figure 66.

The adjustable settings for each display include:



Figure 66, Live Feed Mode

- Manual Record
Enable/disable manual record by clicking the icon for a selected display.
- Instant Playback
Click the Instant playback icon to show the record in last five minutes. If no record is found, it means there is no record during the last five minutes

- **Digital Zoom Mode**

Enable digital zoom on the selected channel. Once enabled, the regular feed will be shown in the lower right corner while the zoomed in view will be shown on the full screen. Change the zoomed in region by moving the red rectangle in the regular feed window, as shown in Figure 69. Right click to return to Live Feed mode.



Figure 69, Digital Zoom





- **Image Settings**

Set the image mode and parameters such as brightness, contrast, saturation, and hue for selected display.

1. Select display.
2. Click the Image Settings icon to display the Image Settings menu (analog camera is shown in Figure 70).



Figure 70, Image Settings Menu

3. For analog cameras, select a preset mode based on the situation: Standard, Indoor, Dim Light, or Outdoor.
4. Adjust brightness , contrast , saturation , and hue  by dragging the corresponding icon. The effect will be displayed immediately on the screen.
 - Click Default to restore the default settings.
 - If the same settings can be applied in other channels, click the Copy button to display a Copy to box and check the corresponding checkbox. Click OK button to save and go back to Image Setting menu. Click Cancel to exit without saving.
 - Click OK to save the settings and return to the Live Feed mode.
5. For IP cameras, only Customize is supported. Adjust brightness, contrast, saturation, and hue by dragging the corresponding icon. Click the OK button to save the settings and go back to the Live Feed mode.

NOTE: The Image setting menu can also be entered by going to Menu > Cameras Setup > Image, as shown in Figure 71. The steps are similar to the Live Feed icon setting steps. If the same settings can be applied in other channels, click the Copy button to copy it to other channels.

Playback

Playing Back a Recording

Recorded files can be played back using the Playback Interface by first searching for recordings.

- **Understanding the Playback Interface**

It's important to understand how to use the Playback Interface to efficiently navigate through recorded files. To access the Playback Interface, shown in Figure 101, go to MENU > PLAYBACK > RECORD.



Figure 101, Playback Interface




Figure 102, Playback Menu

Figure 102 shows some of the main features of the Playback Interface, which include:

- **Channel Selector:** Select the channel to search for recordings on.
 - **Calendar:** Select the date to search for recordings on.
 - **Timeline:** Select the time to search for recordings on.
 - **Preview:** Shows a preview of the selected recording.
 - **Playback Controls:** Controls for playback of the selected recording.
 - **Clip Backup Tools:** Tools to backup clips from a recording.
 - **Clip Playback Controls:** Controls for playback of marked clip.
 - **Full Screen:** Enter full screen playback mode
- **Searching for Recorded Files**

To search for recorded files using the Playback Interface:

 1. Enter the Playback menu, shown in Figure 102, by going to MENU > PLAYBACK > RECORD.
 2. Select the channel to search for recordings on.
 3. Select the date to search for recordings on using the calendar. The system date is shown on the left of the calendar. Change the month and year of the calendar by clicking the left and right arrows next to the month and year. Dates with recordings in the selected month and channel are displayed in light blue. Dates without recordings are light gray. The active selected date is lighted up with a green box.

4. Click on the desired date that is highlighted in light blue to search for recordings. If recordings exist, the timeline will be filled with blue bars to designate recorded files. The playback marker, indicated by a green vertical line will automatically jump to the beginning of the earliest recordings for the selected date. The marker can be moved to any other location by clicking on the desired position on the blue bars or drag it.
5. Select  in the Playback Controls to start playback of the recording.

- **Playback Controls**

After finding the recordings to play back, use the Playback Controls to navigate through the recording.



Play Forward Button: Button to playback recording.



Play Reverse Button: Button to playback recording in reverse.



Speed Down Button: Button to decrease play speed.



Speed Up Button: Button to increase play speed.



Mute Button: Button to enable and disable audio in playback mode.



Add Default Tag: Button to add default tag.



Add Customized Tag: Button to add customized tag and input tag name.



Edit Tag: Button to check, edit and delete tag(s).



Enter/Exit Full Screen Mode: Button to enter into and full screen mode.

- **Playing Back Recorded Files**






1. Search and select recording to play back in the Playback Interface.
2. Click the Play Forward button to begin playback of selected recording and the Pause button to pause playback.
3. Slow down or speed up the playback speed by clicking the Speed Down/Speed Up button.
4. Click  to zoom in/zoom out the timeline and select the exactly time.
5. Click the Full-Screen button to enter full-screen playback mode, shown in Figure 103.



Figure 103, Full-Screen Playback Mode

6. Clicking  will return to the original playback mode.
7. Click the Mute button to turn on and off audio during playback.
8. Click  to enable digital zoom. Once enabled, the regular recorded feed will be shown in the lower right corner while the zoomed in view will be shown on the full screen. The zoomed in region may be changed by moving the red rectangle in the regular recorded feed window.
9. Click  to add tag and manage it.
10. Click 

- **Playing Back Multiple Channels**

Recordings may be played back from multiple channels simultaneously.

1. Search and select recording to playback in the Playback Interface.
2. Enter Full Screen mode, shown in Figure 103, by clicking the Full Screen button.
3. In Full-Screen mode, select additional channels to play back by clicking the checkbox next to the desired camera in the Channel Selector panel. Playback will begin simultaneously on the selected channels.

4. Stop playback on any channel by un-checking the checkbox next to the channel.
5. Select recording in Full Screen mode by double clicking the date on the calendar.

NOTE: Up to 16 channels can be played back at the same time, depending on DVR model.

- **What To Do if "No Resource" Message Appears** — A "No Resource" message signifies that there is not enough bandwidth to support the number of cameras streaming video at the resolution being used.

Maximum Resolution/Maximum Number of Channels

DVR Model	Maximum Number of Channels	@ Maximum Resolution
DS-7204HGHI-SH	4 channels	1080p
DS-7208HGHI-SH	8 channels	1080p
DS-7216HGHI-SH	16 channels	1080p
DS-7308HQHI-SH	8 channels	1080p
DS-7316HQHI-SH	16 channels	1080p
DS-9008HQHI-SH	8 channels	1080p
DS-9016HQHI-SH	16 channels	1080p

DVR Output Comparison Chart

	Programmable Video			HDMI/VGA Sync or Independent	Max. Output Resolution	Max Split Windows	Loop Out	Spot Video Output No.	Audio Port No.	H.264+ Decoding	H.265 Decoding	Decoding Capability
	HDMI	VGA	BNC									
DS-7204HGHI-SH	1	1	N/A	Sync	1920 x 1080/60 Hz	3 x 3	N/A	N/A	1 in/1 out	No	No	1 up to 1080p
DS-7208HGHI-SH	1	1	N/A	Sync	1920 x 1080/60 Hz	4 x 4	N/A	N/A	1 in/1 out	No	No	2 up to 1080p
DS-7216HGHI-SH	1	1	N/A	Sync	1920 x 1080/60 Hz	5 x 5	N/A	N/A	1 in/1 out	No	No	2 up to 1080p
DS-7308HQHI-SH	1	1	Yes	Independent	1920 x 1080/60 Hz	4 x 4	N/A	N/A	4 in/1 out	No	No	2-ch (up to 10-ch 1080p ²)
DS-7316HQHI-SH	1	1	Yes	Independent	1920 x 1080/60 Hz	4 x 4	N/A	N/A	4 in/1 out	No	No	2-ch (up to 16-ch 1080p ²)
DS-9008HQHI-SH	1	1	Yes	Independent	1920 x 1080/60 Hz	5 x 5	N/A	N/A	8 in/2 out	No	No	10-ch (up to 18-ch 5 MP ²)
DS-9016HQHI-SH	1	1	Yes	Independent	1920 x 1080/60 Hz	5 x 5	N/A	N/A	16 in/2 out	No	No	18-ch (up to 32-ch 5 MP ²)

One or more of the following procedures may help free up resources:

- > Lower Output Resolution
 - A. Go to Menu > System Configuration > General > Display.
 - B. Select a low output resolution.
 - C. Press Apply button.
- > Lower Recording Resolution
 - A. Go to Menu > Recording Configuration > Parameters.
 - B. Select Main Stream tab to configure the main stream parameters.
 - C. Select the camera to configure in the Camera drop-down list.
 - D. Select the Recording Mode to configure.

- Select stream type in the Stream Type drop-down list.
- Select lower camera resolution in the Resolution drop-down list.

E. Click the Apply button to save the settings.

F. Repeat steps to set other cameras.

NOTE: See "Configuring Settings for Recordings," 72.

• Smart Search

To locate motion detection events easily and accurately in the playback progress line, analyze a certain area (scene) dynamically, and to get all of the related motion detection events that occurred in this area.

NOTE: Smart Search is available for single-channel playback only.









1. Enter the playback interface and play the video.
2. Move mouse into the video window and drag an area for motion detection analysis .Use the  button to clear the entire area and the  button to choose the full screen area.
3. After selecting the area, click  to search for motion detection events from the long time line. Timeline turns red when motion detection events happen.
4. Move the green vertical line to go to a scene, or click  and  to move between neighboring events.
5. Press  to launch Smart Playback. Periods with events will play normal speed, periods without events will play others will play fast speed.
6. To use Smart Search in Full Screen mode (Figure 103), click  to display  tool bar.
Playing Back Tags
7. Enter the Tag interface, shown in Figure 104, by going to Menu > Playback > Tag.



Figure 104, Tag Playback Interface


8. Select channel on the Channel drop-down list.
9. Select Tag Keyword or All tag type.
10. If Keyword tag type selected, type keywords into Keyword area.
11. Select start time and end time.
12. Select the pre-play and post-play time.
13. Click Search button and the tag recordings found will be listed in Result interface.
14. Click  (or double click tag) to play; it will be displayed in the Playback interface as shown in Figure 105.



Figure 105, Tag Playback

15. Drag the timeline to the place to play.
16. Click  to enable or disable the audio.
17. Click  to play back the pictures in Full Screen mode
18. Click  to edit the tag name.
19. Click  to delete the tag.

Backup

Backing Up Video Clips

Video clips can be backed up to various devices such as USB flash drives, USB HDDs, or a DVD writer.

- **Selecting Video Clips**

Video clips can be selected for backup in the Playback Interface using the controls found in the Mark Clip for Export panel, shown in Figure 106.




Figure 106, Mark Clip for Export Controls

- **Start/Stop Button:** Mark the starting/ending point for the video clip. Clicking Start will turn button into the Stop button.
 - **Save Button:** Save the selected video clip to the HDD.
 - **Clear Button:** Clear the selected video clip.
1. Enter the Playback Interface, shown in Figure 107, by going to Menu > Playback > Record.




Figure 107, Playback Menu

2. Search for the recorded files from which to select video clips (See Searching for Recorded Files on page 163). Video clips can only be selected in single playback mode.
3. Select the starting position of the video clip by clicking the desired location on the blue recordings bar.
4. Click the Start button.
5. Select the ending position of the video clip, the same as starting position.
6. Click  to zoom in/zoom out the timeline and select the exact time.
7. Click the Stop button.
8. The selected video clip time range will be shown at the bottom of the Playback Interface (Figure 108).

Clip Time: 10:57:00 – 10:57:55

Figure 108, Video Clip Time Range

9. Play the video clip using the Play button or use the arrow keys , which are shown below the timeline to progress through the video one second, minute, or hour at a time.
10. Click the Save button to save clip to the DVR. Clip must be first saved to the DVR before it can be backed up to an external USB storage device or DVD writer. Clicking the Clear button will remove the video clip.

- Repeat steps 2 to 10 to select additional clips. To backup video clips at this point, click the Clips Export button.

NOTES: The Play, Save, and Clear buttons are not available unless a completed video clip is selected. A completed video clip has a start and end point marked by using the Start and Stop button.

The Start button is not available when there is still a video clip that has not been saved or cleared.



- Backing Up Video Clips**

After video clips have been selected in the Playback Interface, back them up to an external USB storage device or DVD writer by going to the Export menu.

- Enter the Clips Export menu, shown in Figure 109, by first going to Menu > Playback. In the Playback menu, click the Clips Export button.



Figure 109, Clips Export Interface

- If video clips were successfully saved to the HDD using the Playback Interface, they will be listed in the Clips Export interface. The camera number as well as the time range and clip size would be listed.
- Select the video clips to back up by checking the checkbox next to the desired clips. Click  to play and review the clip. Video clips can be deleted by clicking  or by clicking the Delete button to delete the selected clips. Check the Channel No. box will choose all clips.
- Connect at least one USB storage device to the DVR. If the device is compatible with the DVR, it will automatically be detected. Select the backup device from the Device Name drop-down menu.
- If the available space on the storage device is adequate, select the Export button to begin backing up the selected clips.

- After clips have been backed up, click the Cancel button to return to the Playback Interface.

NOTE: If the USB storage device has not been properly initialized and formatted, click on the Format button to do so.

Formatting a storage device will permanently delete ALL files on that device.

There is **NO WARNING MESSAGE** after clicking the Format button to format the storage device. Proceed with caution and back up all critical data from the storage device before formatting.

- Backing Up Recorded Files**

Not only can video clips be backed up, full recorded files can also be backed up to a storage medium.

- Search for recorded files using the File Management menu (See "Searching for Recorded Files" on page 163).
- Select the files to back up by checking the box next to the file. Check the Channel No. box to select all files. The total required space will be shown next to Total size.
- Check the Merge files checkbox to export.
- Click the Export button; this will go to the Export menu, as shown in Figure 110.



Figure 110, Files Backup Menu

- In the Export menu, connect a USB storage device and click the Refresh button. If the device is detected, a list of its file contents as well as the available free space will be shown.

6. Delete files on the USB storage device to free up additional storage space by clicking the Delete button on the selected file. Format the device by clicking the Format button. Formatting will remove ALL files from the device.
7. When there is sufficient storage space for backup, click the Export button. A backup progress bar will be shown.
8. Click the OK button once backup has completed.

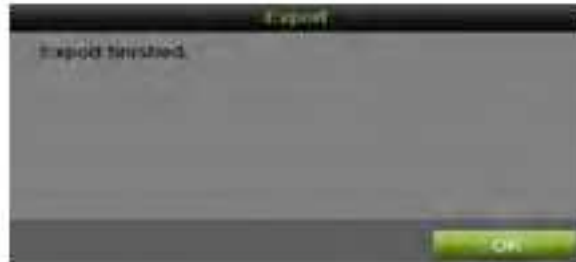


Figure 111, Export Finished Message

9. Click the Cancel button to return to the File Management menu.
10. Click Quick Export in the Record menu to export all the record files for the selected channel.