Back Light

When a subject is lit from behind, this function compensates for back lighting so that the subject does not appear too dark.

- Press the [Home (♠)] button → touch Manual → Back Light (stab.
- 2 Touch the desired submenu item.



Icon	Description
R OFF	Off: Disables the function.
R F≱	On: Backlight compensation brightens the subject.



Back lighting causes the subject to be darker than the background

It typically occurs when:

- The subject is in front of a window.
- The person you want to record is wearing white or shiny clothes and is placed against a bright background. The person's face is too dark to distinguish his/her features.
- The subject is outdoors and the background is overcast.
- The light sources are too bright.
- . The subject is in front of a snowy background.



Focus

The camcorder usually focuses on a subject automatically (auto focus). When you turn the camcorder on, focus is always set to automatic. You can also set the focus manually.

- 1 In STBY mode, touch the Video recording mode (2) tab.
- Press the [Home (♠)] button → touch Manual → Focus () tab.
- 3 Touch the desired submenu item.



Icon	Description
[AF]	Auto: In most situations, it is better to use the automatic focus feature, as it lets you concentrate on the creative side of your recording.
[m?]	Manual: You may need to focus manually under conditions in which automatic focusing is difficult or unreliable. To adjust the focus, place and hold your finger on the ເ√ for a nearer subject, and on the c∞ tab for a farther subject. The nearer or farther icon (∜ / ∞) appears when focus adjustment reaches the end. The camcorder applies the adjusted value right after you touch the c√ or c∞ tab.



- The Auto Focus (AF) setting is useful when you operate the zoom function because you might not be able to keep accurate focus after the zoom ratio has been changed.
 - In the manual focus setting menu screen, you can access auto focus by touching the AF () tab on the screen. You can return to manual focus by touching the manual focusing tabs.
 - When the camcorder exits from Manual mode or switch to the photo recording mode, the Focus function is automatically set to Auto.

Super C.Nite

You can adjust shutter speed when recording a slow moving object, or record a brighter image in dark places without a compromise in colors.

- 1 In STBY mode, touch the Video recording mode () tab.
- 2 Press the [Home (♠)] button → touch Manual → Super C.Nite (♠) tab.
- 3 Touch the desired submenu item.



Icon	Description
GEF.	Off: Disables the function.
Ð	Normal: The shutter opens for 1/60 of a second in the normal mode and automatically switches to open for 1/30 of a second in a dark place. Use this function to get bright images in a dark place.
SURER	Super: The shutter opens for 1/15 of a second regardless of surrounding conditions. Use this function to get bright images in a darker place.



The images may not seem smoothly because the camcorder has recorded them with the low shutter speed when using Super C.Nite.

Self Timer

When the self-timer is enabled, there is a time delay of 10 seconds before recording starts. You can take photos of yourself.

- 1 In STBY mode, touch the Photo recording mode () tab.
- 2 Press the [Home (♠)] button → touch Manual → Self Timer (♠) tab.
- 3 Touch the desired submenu item.



Icon	Description
്8 _{FF}	Off: Disables the function.
৩ 10	On: There is a time delay of 10 seconds after you press the [Recording Start/Stop] button.



- The camcorder automatically turns the Self Timer function off after it has been used once. You must turn it on each time you want to use it.
- When the camcorder exits from Manual mode, the Self Timer function is automatically set to **Off**.

Cont. Shot

The Continuous Shot function lets you capture up to eight photos in rapid.

- 1 In STBY mode, touch the Photo recording mode () tab.
- 2 Press the [Home (♠)] button → touch Manual → Cont. Shot (♣) tab.
- 3 Touch the desired submenu item.



	Description
₽ FF	Off: The camcorder records only one photo image.
A	On: When you press the [Recording start/stop] button, the camcorder can take up to 8 photos in one second.



- When an error occurs (Card Full, etc.) during continuous shot, the recording stops and an error message appears.
- When the Cont. Shot is On, the photo resolution is fixed to 2M 1920x1080.
- When the camcorder exits from Manual mode, the Cont. Shot function is automatically set to **Off**.

Using the Art Film modes

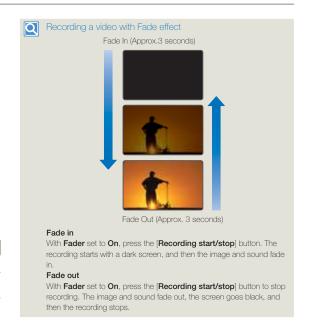
Fader

You can give your recording a professional look by using special effects such as fade in at the beginning of a sequence or fade out at the end of a sequence.

- 1 In STBY mode, touch the Video recording mode () tab.
- Press the [Home (♠)] button → touch Art Film → Fader () tab.
- 3 Touch the desired submenu item.



	Description
· III ·	Off: Disables the function.
(4 10)	On: When you start or stop recording, the recording fades in or fades out accordingly.





- The camcorder automatically turns the Fader function off after it has been used once. You must reset it each time you want to use it.
- When the camcorder sets the Art Time Lapse mode or exits from the Art Film mode, the Fader function is automatically set to Off.

Using the Art Film modes

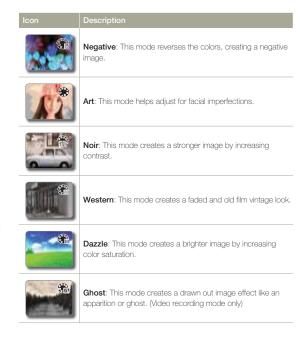
Digital Effect

Using the Digital Effect function gives your recording a creative look.

- 1 Press the [Home (♠)] button → touch Art Film → Digital Effect (🏶) tab.
- 2 Touch the desired submenu item.
 - You can view the hidden items by dragging the LCD screen left or right or touching the



Icon	Description
OFF	Off: Without any Digital Effect, a normal, natural image is displayed during recording or playback.
	Black & White: This mode changes the image to black and white.
E	Sepia: This mode gives the image a reddish brown look.



You can also apply random digital effects easily by shaking the camcorder in the Art Film and Art Time Lapse modes. You do not need to set the Digital Effect function manually. →page 96

Using the Art Time Lapse mode

Using the Art Time Lapse function, you can set the camcorder to add emotion and something different experience on a dry and boring time lapse video

- 1 In STBY mode, touch the Video recording mode (2) tab.
- Press the [Home (♠)] button → touch Art Time Lapse.
- 3 Touch the desired menu.



- 4 Touch the MENU (MENU) tab.
- 5 Touch the desired submenu.

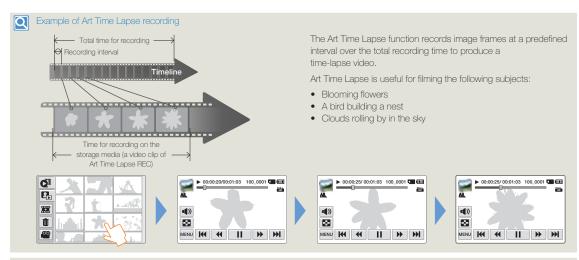


- 6 Touch the desired submenu item.
- 7 After setting the Art Time Lapse mode, press the [Recording start/stop] button.
 - The Art Time Lapse recording starts.

- In Art Time Lapse mode, you can record videos in 1920x1080/ 30p resolution only.
- Press the [Recording start/stop] button if you want to stop the Art Time Lapse mode.

Icon	Description
િક	Normal: Set to record frames at an interval that you define. • Interval: An image of a scene is captured once every 0.1, 0.5, 1, 3, or 5 seconds.
Gos	Jumping: Set to record a jumping time lapse video at interval that you define. Interval: An image of a scene is captured once every 0.1, 0.5, 1, 3, or 5 seconds.
Ē	Zooming: Set a zoom effect for a time lapse video. Interval: An image of a scene is captured once every 0.1, 0.5, 1, 3, or 5 seconds. Zoom: Adds the zoom in/out effect to a time lapse video.
9	Panning: Set a panning effect for a time lapse video. Interval: An image of a scene is captured once every 0.1, 0.5, 1, 3, or 5 seconds. Direction: Adds the panning effect (left/right/up/down) to a time lapse video.
Ē	Zooming + Panning: Set a zoom and panning effect to add them simultaneously. Interval: An image of a scene is captured once every 0.1, 0.5, 1, 3, or 5 seconds. Direction: Adds the panning effect (left/right/up/down) to a time lapse video. Zoom: Adds the zoom in/out effect to a time lapse video.
ම	Night: Set the night motion for a time lapse video.

Using the Art Time Lapse mode





- During Art Time Lapse recording, the Super C.Nite function does not work.
 - Art Time Lapse recording is released once recording has been finished. To start another Art Time Lapse mode, repeat steps 1 to 7.
 - 30 captured images compose a video of 1 second length. Since the minimum length of a video that your camcorder can save is one second, the interval defines the total minimum recording time for the Art Time Lapse mode. For example, if you set the interval to 5 Sec, you need to set the recording time for the Art Time Lapse mode to at least 3 minutes to record a minimum video length of 1 second (30 images).
 - . The Art Time lapse function lets the camcorder record up to 72 hours until you stop recording or turn the camcorder's power off.
 - · You cannot pause recording during Time lapse recording.
 - Audio is not recorded during Art Time Lapse recording.
 - The maximum video file size is 1.8GB. When a video file exceeds 1.8GB, a new video file is created automatically.
 - · We recommend using the power adaptor instead of the battery for Art Time Lapse.
 - If the battery charge is exhausted during Art Time Lapse recording, the camcorder saves recording up to that point and switches to standby mode. After a while, it displays a warning message, and then turns off automatically.
 - . If the storage media becomes full during Art Time Lapse recording, the camcorder switches to the standby mode after saving the recording up to the maximum memory available.

Playback/Editing

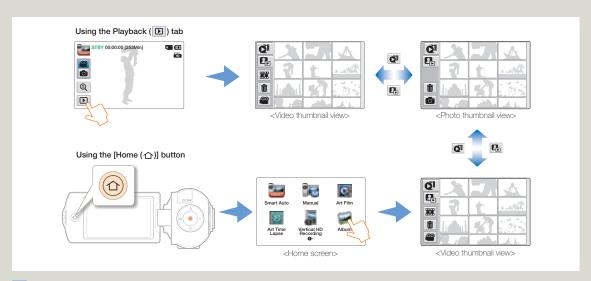
Learn how to play back and edit videos and photos.

Viewing videos or photos in playback mode	56
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Starting the playback mode

You can switch to the playback mode by selecting Album on the Home screen. You can also switch the operation mode directly into the playback thumbnail display by touching the Playback () tab on the LCD screen.

- The most recently created file is highlighted in the thumbnail view.
- The camcorder selects the thumbnail display options based on the standby mode that was last used. However, you can choose the video or photo thumbnail view display options by touching the Video thumbnail view () or Photo thumbnail view () tab on the LCD screen.



- You can choose the thumbnail display type you want by selecting **Thumbnail** in the Settings menu. → page 96
 You can switch the playback mode to the recording mode by pressing the [**Recording start/stop**] button.

Playing back videos

You can preview recorded videos in the thumbnail view, find and play your desired video directly.

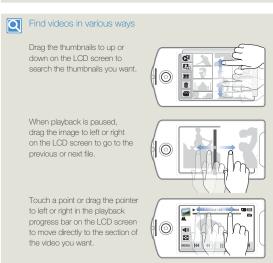
- 1 Select the video playback mode. →page 56
- 7 Touch the thumbnail of the desired video clip.
 - The camcorder plays the video you selected.
 - If you select a video tagged as Like It, the Like It (4) icon on the LCD screen appears. The color of the Like It icon is changed while playing back the tagged scenes for 8 seconds.





3 To stop playback and return to the thumbnail view, touch the Thumbnail view (►) tab.







Do not power off or eject the memory card during photo playback. Doing so may damage the recorded data.

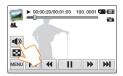


- It may take some time to start playback, depending on the size and quality of the selected video.
 - The camcorder may not play back the following video files: - A video recorded on another device.
 - A video whose file format is not supported by the camcorder.
 - You can use various playback options during the video playback.
 - You can set playback settings using the Video Play Option menu.
 - You can play back the recorded videos on a TV or PC. ⇒pages 80~82, 86~92
 - If you touch the MENU (MENU) tab or press the [Home (1)] button during playback, the video playback is paused and the menu screen appears.

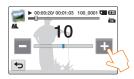
To adjust the volume during video playback

You can hear the sound through the internal speaker of the camcorder while the video is playing back on the LCD screen.

1 Touch the Volume () tab on the LCD screen.



7 Touch the 7 tab to increase or decrease audio

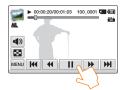




- The sound level is adjusted between 0~19. When the level is at 0, you cannot hear sound.
- When the camcorder is connected to a TV, you will not hear the sound from the speaker on the camcorder.

Playback/Pause/Stop

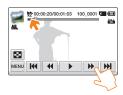
- Playback and pause alternate when you touch the Playback)/Pause () tab during playback.
- Touch the Thumbnail view () tab to stop playback and return to the thumbnail.



Search playback

During playback, each touch of the Reverse search (◀)/Forward search () tab increases the playback speed:

• RPS (Reverse Playback Search)/FPS (Forward Playback Search) rate: x2 → x4 → x8 → x2



Skip playback

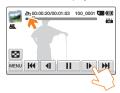
Touch the Reverse skip ()/Forward skip () tab during playback.

- Touching the Forward skip () tab plays the next video.
- Touching the Reverse skip (() plays the beginning of the scene. If reverse skip (K) is touched within 3 seconds from the start of the file, the previous video plays.
- Place and hold your finger on the Reverse skip (()/Forward skip () tab to search for a video quickly. When you lift off your finger, the selected video plays.

Slow playback

When playback is paused, touching the Reverse slow ()/Forward slow () tab reduces the playback speed:

Reverse/forward playback slow rate: 1/x2 → 1/x4 → 1/x8 → 1/x2



Frame by frame playback

When playback is paused, touching the Reverse frame advance () /Forward frame advance () tab makes playback go reverse or forward one frame at a time.

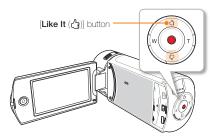


 Touch the Playback () tab to play back in normal speed. You can hear sound only when the playback is in normal speed.

Tagging great moments during playback

You can tag good scenes during playback to enjoy the only scenes tagged as Like It (4).

- 1 Select the video playback mode. →page 56
- 7 Touch the thumbnail of the desired video clip.
- 3 Press the [Like It (4)] button every great moment during playback.



• The camcorder tags the scene as Like It ()



4 To stop playback and return to the thumbnail view, touch the Thumbnail view () tab.



- The camcorder tags a scene between before 3 seconds and after 5 seconds when pressing the [Like It (4)] button.
 - When the Like It function completes, the Like It (4) icon on the LCD screen disappears after 3 seconds.
 - To skip boring parts of a video and enjoy exciting parts, you can combine the tagged scenes sequentially →page 64

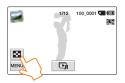
Viewing photos

You can view recorded photos by using various playback functions.

- 1 Select the photo playback mode. →page 56
- 7 Touch the thumbnail of the desired photo.
 - The camcorder displays the photo you selected in full screen.



3 To return to the thumbnail view, touch the Thumbnail view (**■**) tab.



Do not power off or eject the memory card during photo playback. Doing so may damage the recorded data.





Drag the thumbnails to up or down on the LCD screen to search the thumbnails you want.

Drag the image to left or right on the LCD screen to go to the previous or next file.





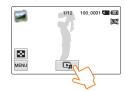


- Loading time may vary depending on the size and quality of the photo you selected.
- Your camcorder may not play back the following photo files normally:
 - A photo recorded on another device.
 - A photo with a file format not supported by this camcorder. (One that does not conform to DCF standards.)

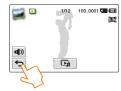
Viewing a slide show

You can view a photo slide show with background music.

- Touch the Slide show () tab during photo playback.
 - The slide show starts from the current selected photo.
 - To pause the slide show, touch the LCD screen anywhere.



2 To stop the slide show, touch the Return () tab.





- All photos are played back depending on the slide show option function. →page 97
- You can adjust the background music's volume level using the Volume (
) tab.

Zooming during photo playback

You can magnify a playback image.

- 1 Touch the desired photo.
- 2 Adjust the magnification with the [T/W] button.
 - Magnification starts from the center of the photo.
 - You can zoom in from X1.1 to X8.0.
- 3 Drag the LCD screen up/down/left/right to view the area you want on the magnified photo.



4 To cancel, touch the Return () tab.



- Photos recorded on other devices or those edited on a PC cannot be magnified.
- While the playback zoom is in use, the other images cannot be selected.

Delete

You can erase your recordings one by one or all at once.

- 1 Select the video or photo playback mode. →page 56
- 7 Touch the Delete () tab on the thumbnail view.



- 3 Touch thumbnails.

 - To delete all the files, touch the Select all (\P) tab. The selection (\checkmark) indicator appears on all the thumbnails.



- 4 Touch the ok tab.
 - · A message appears asking for your confirmation.
- 5 Touch Yes.
 - The camcorder deletes all the files having the selection (
 indicator.



- · Deleted images cannot be recovered.
- Do not eject a memory card or power off while deleting videos recorded on the storage media. Doing so may damage the storage media or data.



- You can also operate this function in the full and single image display mode.
- To protect important images from accidental erasure, activate the image protection function in advance.

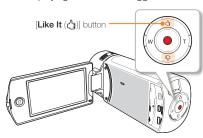
 □page 65
- You cannot delete protected files. Cancel the protect function first.
 →page 65
- If the write protection tab on the memory card is set to lock, you cannot delete the images. →page 17
- The delete function does not work if battery charge is insufficient. It is recommended to use AC power to continue power supply during the deletion.

Like It

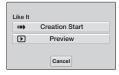
You can extract the exciting scenes tagged as 'Like It' from a video and create one file with them. You can also delete the tags from a video tagged as 'Like It'.

Like It Create

- 1 Select the video playback mode. →page 56
- 2 Press the [Like It (إ)] button on the video thumbnail view or while playing back a video tagged as Like It (♠).



3 Touch the desired submenu item.



Item	Description
Creation Start	Combines the tagged scenes sequentially, saves and locates it as a video at the last file position on the video thumbnail view.
Preview	Previews the tagged scenes sequentially.



- On the video thumbnail view, the camcorder combines the tagged scenes from all videos tagged as 'Like It' and creates one file. In the video single view, the camcorder creates one file from a tagged video.
- On the video thumbnail view, the camcorder can create one file from videos in the same resolution format.
- While previewing the scenes tagged as 'Like It', you cannot drag the progressive bar on the LCD screen.

Like It Delete

- 1 Select the video playback mode. ⇒page 56
- 2 Touch a thumbnail tagged as Like It (♣).
- 3 Touch the MENU (MENU) tab → Like It Delete.



- 4 Touch Yes.
 - The camcorder will delete all tags from the video.



This function is available in the video single view only.

Protect

You can protect important recordings from accidental erasure. The protected videos and photos cannot be deleted unless you format the memory card or cancel the protection.

- 1 Select the video or photo playback mode. →page 56
- 2 Touch a thumbnail to protect.
- 3 Touch the MENU (MENU) tab → Protect.



4 Touch the desired submenu item.

Item	Description
Off	Turns off protection on protected image.
On	Protects the selected image.





- You can operate this function in the single view only.
- If the write protection tab on the memory card is set to lock, you cannot apply this function. —page 17

Smart BGM Option

You can enjoy music during video playback. If the original sound in the video is big, the background music will be decreased naturally. On the other hand, if the original sound in the video is small, the background music will be increased naturally.

- 1 Select the video playback mode. →page 56
- 7 Touch a video thumbnail.
- 3 Touch the MENU (MENU) tab → Smart BGM Option.



4 Touch the desired submenu item.

Item	Description
Off	Turns off the background music.
On	Turns on the background music.



- This function is available in the video single view only.
- You can also apply background music easily by shaking the camcorder during playback. You do not need to set the Smart BGM Option function manually. —page 97
- You can change the desired background music in the Settings menu. ⇒page 96

Divide

You can divide a video into two, and easily delete a section you no longer need. As this function edits the original file, make sure to back up the original before dividing it.

- 1 Select the video playback mode. →page 56
- 7 Touch a video thumbnail.
- 3 Touch the MENU (MENU) tab → Divide.



- 4 Find the point of division by touching the playback control tabs.

 - Drag the playback progress bar left or right to move directly to the division point.



- 5 Touch the Pause (II) tab at the point of division → the Cutting () tab.
 - · A message appears asking for your confirmation.

6 Touch Yes.

- . The video is divided into two video clips.
- . The second portion of the divided video is displayed as the last thumbnail.
- After the division, you can partially delete unnecessary sections of the divided videos or combine them with other videos. ⇒page 67



↑ Do not eject a memory card or power off while editing a video recorded on the storage media. Doing so may damage the storage media or data.



- You can operate this function in the single view only.
 - You cannot divide files that display the protect icon (Om). Cancel the protect function first. →page 65
 - The beginning or end of the divided videos may drift by approx. 2 seconds before or after the division point.
 - The Divide function is not available under the following conditions: - If the total recorded time of the video is less than 6 seconds.
 - If you trying to divide sections without leaving 3 seconds at the beginning and the end.
 - If the remaining section of the memory space is less than 15MB.
 - When the number of files reaches 9999.
 - . This function is available in the video single view only.

Combine

You can combine two different videos. As this function edits the original files, make sure to back up the original files before combining them.

- 1 Select the video playback mode. →page 56
- 7 Touch the Combine () tab on the thumbnail view.



- 3 Touch the video thumbnails to combine in the order you want them combined.
 - the selected videos. Whenever you touch the video thumbnail, the selection (>>) and release alternate.
 - The checkbox on the video thumbnail does not appear if the video files have different resolutions.



- 4 Touch the **OK** tab.
 - A message appears asking for your confirmation.
- 5 Touch Yes.
 - The camcorder combines the video files you selected in the order you designated, and then stores the combined videos as a single video file.



Do not eject a memory card or power off while editing a video recorded on the storage media. Doing so may damage the storage media or data.



- You cannot combine the files that are protected (On). Cancel the protect function first. →page 65
 - · The original videos are not preserved.
 - The Combine function is not available under the following conditions:
 - If the Videos are in different resolution formats. For example, videos recorded at Video Resolution: Full HD 1080/60i and Video Resolution: HD 720/60p cannot be combined.
 - If the file size of the combined videos exceeds 1.8 GB.
 - If the remaining memory space on your memory card is less than
 - If a video file format is not supported by the camcorder.
 - When the camcorder is playing a video file.

File Info

You can see image information for each image.

- Select the video or photo playback mode. →page 56
- 7 Touch a thumbnail.
- 3 Touch the MENU (MENU) tab → File Info.
 - The information of the selected file appears.



4 To exit the menu, touch the Return (tab.

Wireless network (HMX-QF20 only)

Learn to connect to wireless local area networks (WLANs) and use functions.

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