

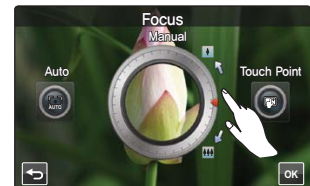
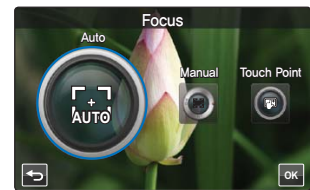
Focus

The camcorder usually focuses on a subject automatically (auto focus). When the camcorder is turned on, auto-focus will always be set. You can also manually focus a subject depending on the recording conditions.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “Focus” → touch the desired submenu item.
2. Touch the (OK) tab to complete the setting.
3. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Auto:** Focus is set automatically.
- **Manual** (🔧): You can set focus manually when difficult to set focus with a function of auto focus. Drag the focus dial toward the desired direction on the LCD screen to adjust the setting values.
- **Touch Point** (👆): You can set focus by touching the specific point of the subject on the LCD screen. (Available only in video record mode)

Focusing manually during recording

This camcorder automatically focuses a subject from close-up to infinity. However, the correct focus may not be obtained depending on the recording conditions. In this case, use the manual focus mode.

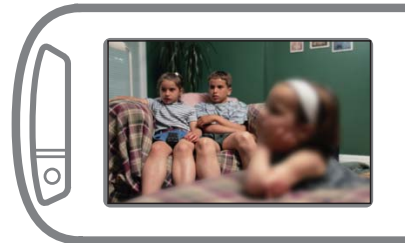
Focusing in a nearer subject

Drag toward 📷.



Focusing on a further subject

Drag toward 📺.



Situations to set focus manually

- A picture containing several objects, some close to the camcorder, others further away.
- A person enveloped in fog or surrounded by snow.
- Very shiny or glossy surfaces like a car.
- People or objects moving constantly or quickly like an athlete or a crowd.

advanced recording

Using the touch point

Using the Touch Point function, you can focus on a small section of the picture.

Focus on the particular point by touching the desired point. The Touch Point function is available only in the video record mode. “Magic Touch” in the photo record mode is available as the same function. ↪page ??



To activate the touch point with a long touch

You can activate the touch point by pressing the particular point for about 2 seconds on the LCD screen in the record STBY mode.



- 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.
- When the Touch Point function is enabled, you can touch the AF (AF) tab on the LCD screen to set the “Focus” to “Auto.”

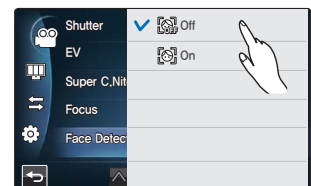
Face Detection

Your camcorder detects a subject’s face and automatically adjusts the brightness and image quality to the optimized conditions. Record faces more vividly.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Menu (MENU) tab → “**Face Detection**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↵) tab.



Submenu items

- **Off**: Disables the function.
- **On** (📷): Detects faces automatically for the optimal recording conditions.

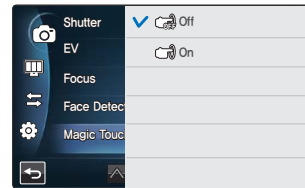
Magic Touch

Simply touch the area on the LCD screen that you want to focus on when taking a photo. You can capture clearer photos as the magic touch function optimizes the focus and white balance for the point you touch.

PRECHECK!

Select the Photo record (📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Menu (MENU) tab → “**Magic Touch**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off**: Disables the function.
- **On**(👉): You can simply touch the subject shown on the LCD screen that you would like to focus on. The brightness will also be adjusted for the optimized value.

🔍 To activate the Magic Touch with a long touch

- You can activate the magic touch function by pressing and holding the particular point for about 2 seconds on the LCD screen in the record STBY mode.
- To capture the photo, press the **PHOTO** button after focusing or simply touch the point to focus and hold for 2 seconds with a finger.



To disable the magic touch function, touch the AF (AF) tab on the LCD screen, then “**Focus**” is set to “**Auto**.”

advanced recording

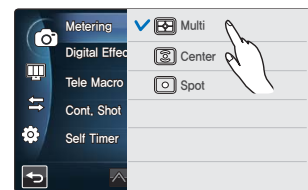
Metering

The metering mode refers to the way in which a camcorder measures the quantity of light. The brightness and lighting of your photos will vary depending on the metering mode you select.

PRECHECK!

Select the Photo record (📷) mode by pressing the **MODE** button. → page ??

1. Touch the Menu (MENU) tab → “**Metering**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Multi** (☒): Meters the light by calculating the amount of light from different areas in the frame. Suitable for normal capturing.
- **Center** (☒): The amount of light metered on the center of the frame influences the whole screen. Suitable for capturing persons as the subject occupies a large portion of the frame.
- **Spot** (☒): Measures only the center of the screen and determines aperture. Use this function when there is a severe brightness difference between background and objects.

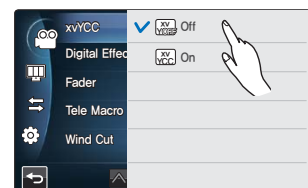
xvYCC

Using the xvYCC function, you can record a video with the extended colors by expanding a color space. A video of colorful flowers or deep blue sea can be recorded in virtual colors.

PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. → page ??

1. Touch the Menu (MENU) tab → “**xvYCC**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off**: Disables the function.
- **On** (xvYCC): Records images with vivid and various colors.



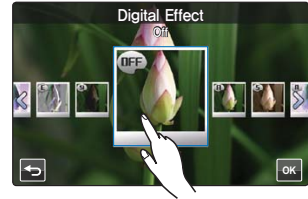
Digital Effect

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

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Menu (MENU) tab → “Digital Effect” → touch the desired submenu item.
 - You can move to the desired item by touching the </> tab.
2. Touch the (OK) tab or selected submenu item again to complete the setting.
3. To exit the menu, touch the Return (↩) tab.



Submenu items



Off (🚫)
Without any Digital Effect, a normal, natural image is displayed during recording or playback.



Negative (🔄)
This mode reverses the colors, creating a negative image.



Art (🎨)
This mode helps adjust for facial imperfections.



Emboss (🔍)
This mode creates three-dimensional image.



Sepia (🌊)
This mode gives the image a reddish brown look.



Silhouette (🖤)
This mode makes a object or scene with black outlines and featureless interior.

advanced recording

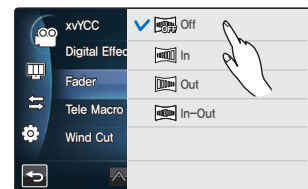
Fader

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.

PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. → page ??

1. Touch the Menu (☰) tab → “**Fader**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off**: Disables the function
- **In** (📹): As soon as you start recording, it will fade in.
- **Out** (📹): When the recording is done, it will fade out.
- **In-Out** (📹): When you start or stop recording, the fader will be function accordingly.

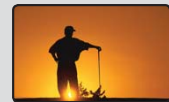
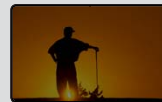
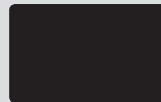
Recording a video with Fade effect

Fade in

Press the **Recording start/stop** button when “**Fader**” is set to “**In**.”

Recording starts with a dark screen and then the image and sound are faded in.

Fade In (Approx. 3 seconds)



Fade Out (Approx. 3 seconds)

Fade out

Press the **Recording start/stop** button when “**Fader**” is set to “**Out**.”

Recording stops as the image and sound are faded out.

Fade in-out

Press the **Recording start/stop** button when “**Fader**” is set to “**In-Out**.”

Recording starts with a dark screen and then the image and sound are faded in. Recording stops as the image and sound are faded out.



This function is disabled after being used one time.

Tele Macro

Using the Tele Macro function, you can get close up images which were created by focusing on a small portion of a large object at a wide angle. It is useful to get close up images of flowers or insects etc.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “Tele Macro” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.

Submenu items

- **Off:** Disables the function.
- **On** (👁): You can focus on a small portion of a large object at a wide angle.



- When recording in Tele Macro mode, the focus speed may be lowered.
- Use a tripod (not supplied) to prevent hand shake in the Tele Macro mode.
- Avoid shadows when recording in the Tele Macro mode.
- As the distance to the subject decreases, focusing area narrows.
- When you can not get proper focus, use the **Zoom (W/T)** button or **Zoom (W/T)** lever to adjust the focus.
- It is the most effective to use the Tele Macro function between 1 cm and 50cm.

Cont. Shot

This function allows you to capture photos in succession to give you more photo-taking opportunities when recording moving subjects.

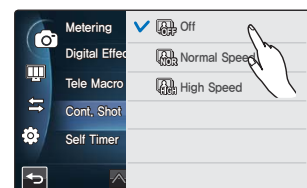
PRECHECK!

Select the Photo record (📷) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “Cont. Shot” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.

Submenu items

- **Off:** Records only one photo image.
- **Normal Speed** (📷): You can take photos continuously while you press and hold the **PHOTO** button. The recordable number of the photos depends on the photo's resolution and the memory space.
- **High Speed** (📷): Press the **PHOTO** button to continuously capture 18 photos for about 2 seconds.



- When an error occurs (internal memory full, etc.) during continuous shot, the recording stops and an error message is displayed.
- When “Cont. Shot” is set to “High Speed” the photo resolution is fixed to 1920x1080.
- When taking photos with a long-touch, the continuous shot is not available even if “Cont. Shot” is set to On.

advanced recording

Wind Cut

Using the Wind Cut function, you can reduce wind noise when recording sound from the built-in microphone.

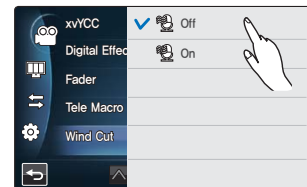
PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**Wind Cut**” → touch the desired submenu item.
2. To exit the menu, touch the Return (⏪) tab.

Submenu items

- **Off:** Disables the function.
- **On (🔊):** Reduces wind noise when recording sound from the built-in microphone.



Using the Wind Cut function also removes some low-frequency sound with the wind noise.

Zoom MIC

You can focus on the sound in the near or from a distance as the zoom microphone's sensitivity is based on the zoom setting of the camcorder. For example, when zooming in the bird on the tree branch, the internal zoom microphone automatically zooms in the sound so that you can record a bird's chirpings.

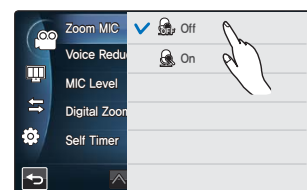
PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**Zoom MIC**” → touch the desired submenu item.
2. To exit the menu, touch the Return (⏪) tab.

Submenu items

- **Off:** Disables the function.
- **On (🔊):** The internal zoom microphone depends on the optical zoom setting.



Use of the built-in zoom microphone

Audio pitch can be adjusted according to the use of the optical zoom. You can record the vivid audio as coming closer because the zooming-in increases the audio recording level of the internal microphone.



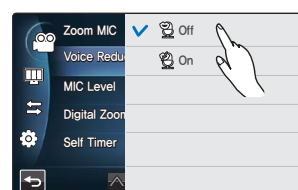
Voice Reduction

When you are recording a scene, you are naturally close to the internal microphone so that the recorded video may have your voice captured, which is inevitable and unnecessary. Unnecessary noise like your voice occurring around the internal microphone can be reduced by the Voice Reduction technology.

PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**Voice Reduction**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off**: Disables the function.
- **On** (🗣️): Removes your voice from recording

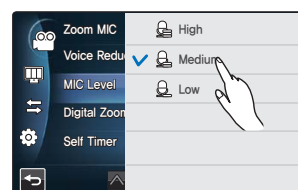
MIC Level

Using the MIC Level function, which will pick up sounds more clearly and accurately, you can adjust the audio volume levels.

PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**MIC Level**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **High**(🔊): Adjust the MIC volume at the highest level.
- **Medium**(🔊): Adjust the MIC volume at the medium level.
- **Low**(🔊): Adjust the MIC volume at the lowest level.

advanced recording

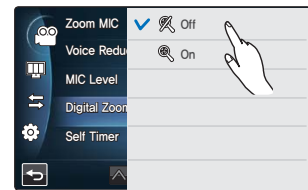
Digital Zoom

The optically magnified images by the lens can be electronically magnified up to maximum 180 times.

PRECHECK!

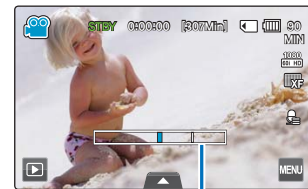
Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**Digital Zoom**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off:** Disables the digital zoom function and only optical zoom (and intelli-zoom) is available.
- **On (🔍):** Enables higher zoom magnification.



The right side of the bar shows the digital zooming zone. The zooming zone appears when you move the zoom lever.



- The resolution and quality of the image magnified by the digital zoom may deteriorate as the optically magnified image is electronically magnified.
- You cannot magnify the image with the digital zoom while taking the photos.

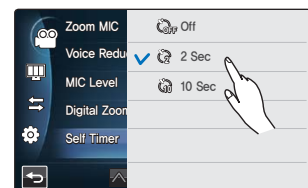
Self Timer

When the self-timer is enabled, there is a time delay for 2 to 10 seconds before recording starts. You can record or take photos of yourself.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “**Self Timer**” → touch the desired submenu item.
2. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off:** Disables the function
- **2 Sec (🕒):** There is a time delay for 2 seconds when you press the **Recording Start/Stop** or **PHOTO** button.
- **10 Sec (🕒):** There is a time delay for 10 seconds when you press the **Recording Start/Stop** or **PHOTO** button.



The self-timer is enabled only before recording starts. (This function is disabled after used for one time.)

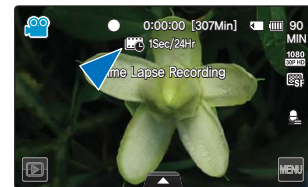
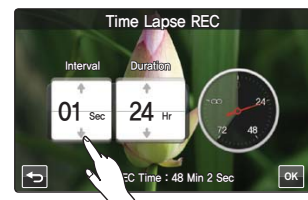
Time Lapse REC

Using the Time Lapse feature, you can program your camcorder to create a time lapse video by recording a series of frames over a set period of time with a set time interval between each frame. The Time Lapse feature lets you create time lapse videos of blooming flowers and similar subjects.

PRECHECK!

Select the Video record (📹) mode by pressing the **MODE** button. →page ??

1. Touch the Menu (MENU) tab → “Time Lapse REC.”
2. Touch the “Interval” or “Duration” and drag up or down to set the value.
3. Touch the (OK) tab to complete the setting.
4. To exit the menu, touch the Return (↩) tab.
5. After setting the Time Lapse REC mode, press the **Recording start/stop** button.
 - Then the Time Lapse recording starts.
 - During the interval recording, the videos and photos are recorded with 1080/30p of resolution and super fine quality.



Submenu items

- **Off:** Disables the function.
- **On (📹):** Enables the interval recording function. Images are automatically captured one by one frame at the specified interval or the duration, and stored in the storage media.
 - Interval: One by one image is captured at the set interval.
01 Sec → 03 Sec → 05 Sec → 10 Sec → 30 Sec
 - Duration: Total time from start to end of the recording.
24 Hr → 48 Hr → 72 Hr → ∞ (Unlimited)

advanced recording

Example of Time Lapse Recording

The Time Lapse Recording function records image frames at the predefined interval over the total recording time to produce a time-lapse video.

For example, the Time Lapse Recording is useful for filming in the following situations:

- Blooming flowers
- A bird building a nest
- Clouds rolling by in the sky

(The time lapse video file appears with the Time Lapse REC (📹) icon.)



- Time lapse recording mode is released once recording has been finished. To start another Time Lapse Recording, repeat steps 1-5.
- 30 captured images compose a video of 1 second length. Since the minimum length of a video to be saved by your camcorder is one second, the interval defines how long the time lapse recording should be taken. For example, if you set the interval to “30 Sec,” time lapse recording should be taken for at least 30 minutes to record a minimum video length of 2 seconds (60 images).
- Once the time lapse recording finishes recording for its total recording time, it switches to the standby mode.
- Press the **Recording start/stop** button if you want to stop the time lapse recording.
- Audio is not recorded during time lapse recording.
- When a video recording fills up 1.8GB of storage memory, a new recording file is automatically started at that point.
- When the battery charge was exhausted during the time lapse recording, it saves recording up to that point and switches to standby mode. After a while, it displays a warning message, then turns off automatically.
- When the memory space of the storage media is insufficient during the time lapse recording, it switches to the standby mode after saving the recording up to its maximum.
- When a time lapse recording starts, the “**Time Lapse Recording**” message blinks on the screen and it appears that the screen has stopped. This is a normal operation; do not remove the power source or memory card from the camcorder.
- We recommend using the AC power adaptor for a time lapse recording.

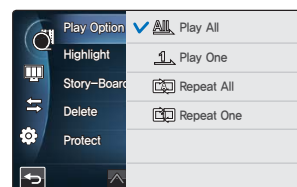
Play Option

You can set a specific playback style according to your preference.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Video play (📺 / 📺) mode. →page ??

1. Touch the Menu (MENU) tab → “Play Option” → touch the desired submenu item.
2. To exit the menu, touch the ↵ tab.



Submenu items

- **Play All** (▶▶): Plays video clips in succession starting from the selected video to the last one, then returns to the thumbnail index view.
- **Play One** (▶): Plays the selected video only and returns to the thumbnail view.
- **Repeat All** (▶▶): Repeats playing all the video clips until the Return (↵) tab is touched.
- **Repeat One** (▶▶): Repeats playing the selected video only until the Return (↵) tab is touched.

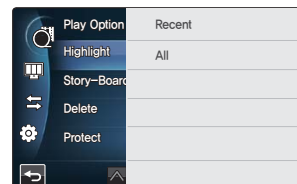
Highlight

This camcorder shows a section of the recorded video(s) at random.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Video play (📺 / 📺) mode. →page ??

1. Touch the Menu (MENU) tab → “Highlight” → touch the desired submenu item.
2. To exit the menu, touch the ↵ tab.



Submenu items

- **Recent** (📺): Shows a section of the videos that were created within the last 24 hours.
- **All** (📺): Shows a section of all video files.

Highlight playback time to the recording time for a video

Time recorded	Highlight playback time
Less than 5 sec.	Full playback
5 to 30 sec.	Plays 5 seconds.
30 sec. to 5 min.	Plays 5 seconds of each 30 second section.
5 min. to 10 min.	Plays 11 seconds of each 2 minute section.
Over 10 min.	Plays 15 seconds of each 3 minute section.



If you execute the Highlight function in the date thumbnail display, all the files in the selected date set appear on the LCD screen.

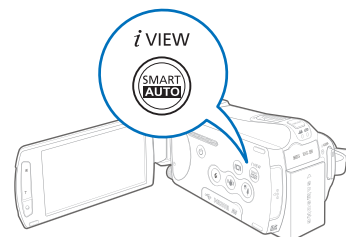
advanced playback

*i*VIEW

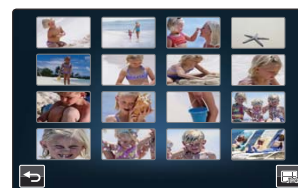
This function provides a preview of a storyboard to be printed, giving you a digest of a recorded video so you don't need to review the entire video.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Video play (▶/▶) mode. →page ??



1. Press the *i*VIEW button.
2. Touch the desired video.
 - 16 i-Frame images appear on the LCD screen.
 - The images from the video are selected arbitrarily, and comprise the preview of the storyboard to be printed.
 - When a thumbnail is selected among 16 i-Frame images, playback starts from the thumbnail.
3. To save the storyboard image on the storage media, touch the Story-board print (🖨️) tab → “Yes.”
 - You can find the saved storyboard image in the photo thumbnail view. →page ??



- **The *i*VIEW function may not show all 16 i-Frame thumbnails in the following case:**
 - The recorded video is too short. To extract 16 i-Frame thumbnails from a video, its recorded time should be longer than 8 seconds.
- The *i*VIEW function is not available in the following case.
 - The thumbnail is displayed in the date (📅) 3x1.

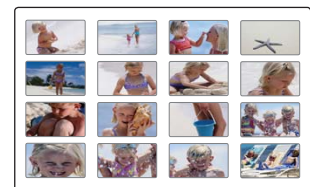
Story-Board Print

Using Storyboard Printing, you can make a digest image of a video that summarizes its story. This function captures 16 still images arbitrarily from the selected video and makes up one still image of 16 splits you can save into the storage media. It presents a quick overview of your video, helping you to understand the whole narrative of the video.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Video play (📺/📺) mode. →page ??

1. Touch the Menu (☰) tab → “Story-Board Print.”
2. Touch the desired video → “Yes.”
 - The printed storyboard images files appears on the LCD screen for a period of time.
 - The images are selected arbitrarily, and comprise a storyboard of one still image with 16-split still frames.
 - You can also find the saved storyboard image in the photo thumbnail view. →page ??



- **The Story-Board Print function is not available in the following conditions:**
 - If free space available on the storage is insufficient.
- **The storyboard printing may not show all 16 i-Frame thumbnails in the following case:**
 - The recorded video is too short. To extract 16 i-Frame thumbnails from a video, its recorded time should be longer than 8 seconds.

Slide Show Start

You can view a photo slide show with a background music.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the photo (📷) mode. →page ??

1. Touch the Menu (☰) tab → “Slide Show Start.”
 - The (▶) indicator is displayed. The slide show starts from the current selected photo.
2. Touch the Return (⏪) to stop the slide show.



advanced playback

Slide Show Option

Using the slide show option, you can play back the slide show in various ways.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Photo play (📷) mode. →page ??

1. Touch the Menu (MENU) tab → “Slide Show Option.”
2. Touch the desired item or drag up or down to set the value.
3. Touch the (OK) tab to complete the setting.
4. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Music:** You can turn the built-in background music on or off. This camcorder has 7 tunes of background music by default, stored in the boot-up flash memory. Starting a slide show begins to play back 7 background music in shuffle mode.
- **Interval:** Photos play back continuously in the set slide show interval (1sec or 3sec).
- **Effect:** This effect enables next photo to appear from the top, bottom, left or right.

File Info

You can see the image information for all images.

PRECHECK!

Select the Play (▶) tab on the LCD screen to select the Video play (📹) or Photo play (📷) mode. →page ??

1. Touch the Menu (MENU) tab → “File Info.”
2. Touch the desired file to view the file information.
 - The information of the selected file appears.
3. To exit the menu, touch the Return (⏪) tab.



- File Info is available only in the menu when the thumbnail is displayed in 3x3 and 4x4.
- When the thumbnail is displayed in the data (📊) 1x1, touch the information (i) tab to display the file information.

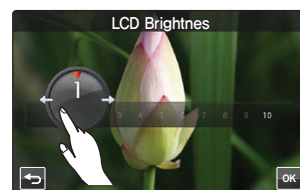


system setting

LCD Brightness

This camcorder's LCD brightness is optimized at the delivery from the factory, however, you can adjust the LCD brightness according to the ambient environment.

1. Touch the Menu (MENU) tab → Display setting (LCD) → “**LCD Brightness.**”
2. Drag the control bar to left or right to adjust the setting values, then touch the (OK) tab.
 - You can set values for LCD brightness between 0 and 10.
3. Touch the (OK) tab to complete the setting.
4. To exit the menu, touch the Return (RETURN) tab.

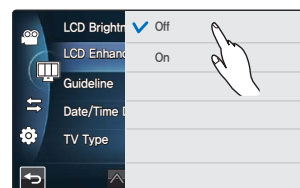


- If the surrounding is too bright, adjust the brightness of the LCD screen.
- Adjusting the LCD screen does not affect the image being recorded.
- Brighter LCD screen consumes more power.

LCD Enhancer

You can view the clear and detailed images on the LCD screen in the bright outside.

1. Touch the Menu (MENU) tab → Display setting (LCD) → “**LCD Enhancer.**”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (RETURN) tab.



Submenu items

- **Off:** Disables the function.
- **On:** Enables the LCD enhancer.



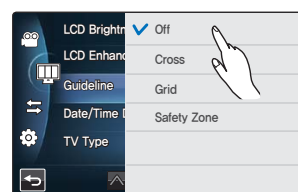
The recorded video is not influenced by the use of LCD enhancer while recording.

system setting

Guideline

Guideline displays straight line patterns on the LCD screen that can help you set the image composition when recording images. The camcorder provides 3 types of guidelines.

1. Touch the Menu (MENU) tab → Display setting (LCD) → “**Guideline.**”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (RETURN) tab.



Submenu items

- **Off**: Disables the function.
- **Cross** (☒): Placing the subject at the center cross point puts the subject in the middle of the frame.
- **Grid** (☒☒): For recording multiple subjects. Putting subjects at or near the grid cross points creates a balanced composition.
- **Safety Zone** (☒☒): Positioning subjects within the Safety Zone rectangle ensures they will be recorded.

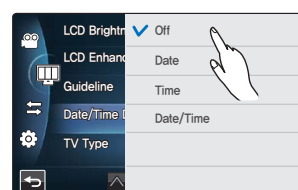


- Positioning a subject at the cross point of a guideline provides a balanced composition.
- Guidelines are not recorded.

Date/Time Display

You can set the date and time to appear on the LCD screen.

1. Touch the Menu (MENU) tab → Display setting (LCD) → “**Date/Time Display.**”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (RETURN) tab.



Submenu items

- **Off** : Current date/time information is not displayed.
- **Date** : Displays the current date.
- **Time** : Displays the current time.
- **Date & Time** : Displays the current date and time.

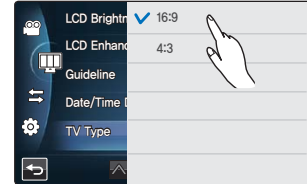


- The date/time will read “**JAN/01/2010 12:00 AM**” in the following cases:
 - When the built-in rechargeable battery is depleted.
- This function depends on “**Date Type**” and “**Time Type**” setting. ↪page ??

TV Type

You can set the screen ratio of the TV to connect with the camcorder.

1. Touch the Menu (MENU) tab → Display setting (TV) → “TV Type.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (RETURN) tab.



Submenu items

- **16:9**: Select when connecting to the wide TV (16:9).
- **4:3**: Select when connecting to the normal TV (4:3).

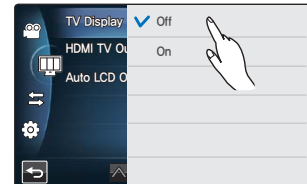


This function is available only when the camcorder is connected to TV with a video/audio cable. When the camcorder is connected to TV with an HDMI cable, this function is disabled because TV output type is automatically set.

TV Display

You can enable or disable the On Screen Display (OSD) that appears on the TV screen when connecting your camcorder to a TV.

1. Touch the Menu (MENU) tab → Display setting (TV) → “TV Display.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (RETURN) tab.



Submenu items

- **Off**: The OSD (On Screen Display) menus are only shown on the LCD screen.
- **On**: The OSD menus are shown on the LCD screen and the TV screen as well.



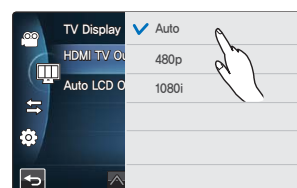
The thumbnail display and demo screens are shown on the TV even if you set “TV Display” to “Off.”

system setting

HDMI TV Out

You can set the HDMI video output to match the TV you have connected.

1. Touch the Menu (MENU) tab → Display setting (☰) → “HDMI TV Out.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (↩) tab.



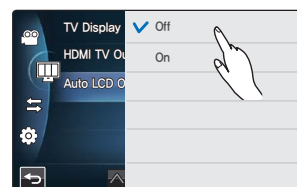
Submenu items

- **Auto** : The video signals are output in the same format as the recorded file.
- **480p** : The recorded file is output in the 720x480p format. Use this setting only when connecting to a regular TV which supports the progressive scan at the SD (Standard Definition) level by using the HDMI jacks.
- **1080i** : The recorded file is output in the 1920x1080i format. Use this setting only when connecting to an HDTV.

Auto LCD Off

You can set the LCD screen to be darkened automatically when there is no user interaction for a period of time to prevent power consumption.

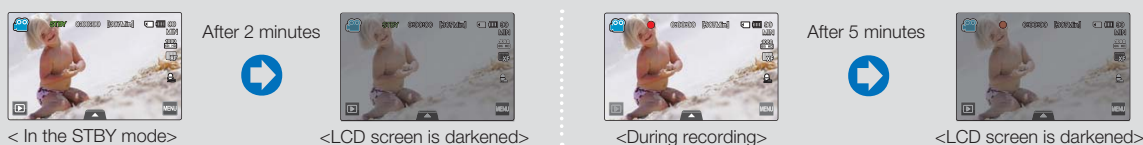
1. Touch the Menu (MENU) tab → Display setting (☰) → “Auto LCD Off.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (↩) tab.



Submenu items

- **Off** : Disable the function.
- **On** : When the camcorder is idle for more than 2 minutes in the STBY mode, or for more than 5 minutes when recording a video, the power saving mode starts by dimming the LCD screen.

For example, LCD screen is automatically darkened.

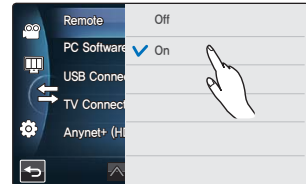


- When this “Auto LCD Off” function is enabled, you can press any button on the camcorder to return LCD brightness to normal.
- **Auto LCD Off will be disabled in the following cases:**
 - If the AC power adaptor is connected.
 - While the Demo function is in operation.

Remote

You can set to operate the camcorder with the supplied remote control.

1. Touch the Menu (MENU) tab → Connectivity setting () → “Remote.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return () tab.



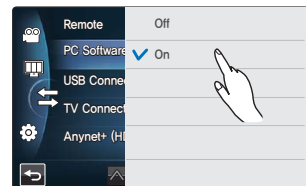
Submenu items

- **Off:** The remote control can not operate the camcorder.
- **On:** The remote control can operate the camcorder.

PC Software

If you set PC Software to On, you can simply use the PC software by connecting the USB cable between the camcorder and your PC. You can download the stored video and photo images on the camcorder to your PC's hard disk. Editing video/photo files is also available using the PC software.

1. Touch the Menu (MENU) tab → Connectivity setting () → “PC Software.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return () tab.



Submenu items

- **Off :** Disables the function.
- **On :** The built-in editing software launches when the camcorder is connected to the PC.



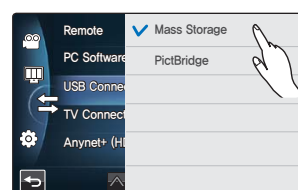
- **The PC Software function is not available in the following condition:**
 - If “USB Connect” is set to “PictBridge”
 - To enable the PC Software function, set “USB Connect” to “Mass Storage,” in the system setting menu option. →page ??
 - The PC Software is compatible with the Windows OS only.

system setting

USB Connect

You can transfer data to a PC or print photos directly by establishing the USB connection.

1. Touch the Menu (MENU) tab → Connectivity setting () → “USB Connect.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return () tab.



Submenu items

- **Mass Storage** : Connect to a PC to transfer videos or photos. ↳page ??
- **PictBridge** : Connect to a PictBridge printer to print photos directly (when using the PictBridge function). ↳page ??

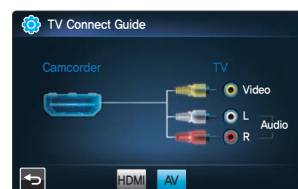


Before connecting a USB cable, check whether the current USB mode is appropriate for the function to be used.

TV Connect Guide

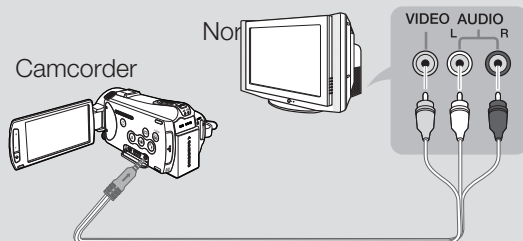
You can view the TV Connect Guide before you connect the camcorder to your TV set.

1. Touch the Menu (MENU) tab → Connectivity setting () → “TV Connect Guide.”
2. Touch the desired submenu item.
 - TV Connect Guide appears depending on the selected submenu items.
 - Refer to the TV Connect Guide when connecting your camcorder with other external devices.
3. To exit the menu, touch the Return () tab.



<When connecting the Audio/Video cable>

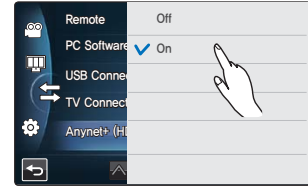
When connecting to the normal TV with the supplied Audio/Video cable.



Anynet+ (HDMI-CEC)

This camcorder supports Anynet+. Anynet+ is an AV network system that enables you to control all connected Samsung AV devices with an Anynet+ supported Samsung TV remote control.

1. Touch the Menu (MENU) tab → Connectivity setting () → “Anynet+ (HDMI-CEC).”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return () tab.
 - When the camcorder is connected to the Anynet+ supported TV, you can operate some functions of the camcorder using the TV’s remote control.



Submenu items

- **Off:** Disables the function.
- **On:** The Anynet+ function is enabled.



- When you turn on the camcorder that is connected to an Anynet+ supporting TV with an HDMI cable, the TV (Anynet+ supported) is automatically turned on. If you do not want to use this Anynet+ function, set the “Anynet+ (HDMI-CEC)” to “Off.”
- For details on the Anynet+ (HDMI-CEC) function, refer to the user manual of Samsung’s Anynet+ supported TV.

system setting

Storage Type (HMX-S15/S16 ONIY)

You can record videos and photos on the internal memory or a memory card, so you should select the desired storage media before starting recording or playback. →page ??

Storage Info

This function shows you the storage information of the selected storage media, such as used and available memory space, etc.

PRECHECK!

Insert a memory card in the camcorder before viewing the storage information.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Storage Info.”
2. Touch the desired submenu item. (HMX-S15/S16 only)
 - Used memory space, available memory space for use, and the recordable time depending on the selected video resolution appears.
3. To exit the menu, touch the Return (↩️) tab.



Submenu items (HMX-S15/S16 only)

- **Internal Memory:** Displays the storage information of the internal memory.
- **Card:** Displays the storage information of the memory card.

Format

Use this function if you want to delete all files completely or to correct problems on the storage media.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “**Format.**”
2. Touch the desired submenu item. (HMX-S15/S16 only)
 - A message appears asking for your confirmation.
3. Touch the “**Yes.**”
 - The format is executed with a message.
4. To exit the menu, touch the Return (↩️) tab.



Submenu item (HMX-S15/S16 only)

- **Internal Memory:** Formats the internal memory.
- **Card:** Formats the memory card.



- Do not remove the storage media or perform any other operation (such as turning off the power) during formatting. Also, be sure to use the provided AC power adapter, as the storage media may be corrupted if the battery becomes exhausted during formatting.
- If the storage media becomes corrupted, format it again.

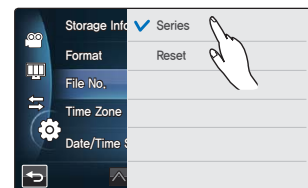


- **Do not format the storage media on a PC or other device.** Make sure to format the storage media on this camcorder.
- A memory card with the protection tab set to lock will not be formatted. →page ??
- If there is no storage media inserted, it can not be selected. Then it will be dimmed on the menu.

File No.

File names (numbers) are assigned to recorded images according to the selected numbering option.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “**File No.**”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (↩️) tab.



Submenu items

- **Series :** Assigns file numbers in sequence even after you replace or format the storage media or delete all files. Each file is given with a unique file number that allows convenient image management on a PC.
- **Reset :** Resets the file number to 0001 after formatting or deleting all files or inserting a new memory card.



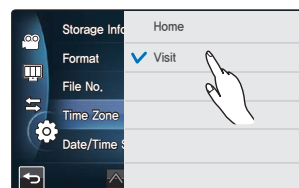
When you set “**File No.**” to “**Series.**” each file is assigned with a different number so as to avoid duplicating file names. It is convenient when you want to manage your files on a computer.

system setting

Time Zone

You can easily set the clock to the local time when using your camcorder while traveling.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Time Zone” → “Visit”
2. Select the time zone by dragging the globe to left or right on the LCD screen, then touch the (OK) tab.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Home** : The clock will be used according to your setting on the Date/Time Set menu. Select it when using this camcorder for the first time or when returning the clock to your hometown date/time setting.
- **Visit** : When you visit a different time zone, it allows you to use the local time without changing your hometown time setting. The clock will be adjusted in accordance with the time difference between the two locations.



🔍 Cities used to set the time zone

Cities	Time zone	Cities	Time zone
London, Lisbon	+00:00	Adelaide	+09:30
Rome, Paris, Berlin, Stockholm, Madrid, Frankfurt	+01:00	Guam, Sydney, Brisbane	+10:00
Athens, Helsinki, Cairo, Ankara	+02:00	Solomon Islands	+11:00
Moskva, Riyadh	+03:00	Wellington, Fiji	+12:00
Teheran	+03:30	Samoa, Midway	-11:00
Abu Dhabi, Muscat	+04:00	Honolulu, Hawaii, Tahiti	-10:00
Kabul	+04:30	Alaska	-09:00
Tashkent, Karachi	+05:00	LA, San Francisco, Vancouver, Seattle	-08:00
Calcutta, New Delhi	+05:30	Denver, Phoenix, Salt Lake City	-07:00
Kathmandu	+05:45	Chicago, Dallas, Houston, Mexico City	-06:00
Almaty, Dacca	+06:00	New York, Miami, Washington D.C., Montreal, Atlanta	-05:00
Yangon	+06:30	Caracas, Santiago	-04:00
Bangkok	+07:00	Buenos Aires, Brasilia, Sao Paulo	-03:00
Hong Kong, Beijing, Taipei, Singapore, Manila	+08:00	Fernando de Noronha	-02:00
Seoul, Tokyo, Pyongyang	+09:00	Azores, Cape Verde	-01:00

Date/Time Set

By setting the date and time, you can display the date and time of the recording during playback. ↪page ??

Date Type

You can set the display type for the date set according to the selected option.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Date Type.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (↩️) tab.



Submenu items

- **2010/01/01** : The date is displayed in the order of year/month (two-digit)/date.
- **JAN/01/2010** : The date is displayed in the order of month/date/year.
- **01/JAN/2010** : The date is displayed in the order of date/month/year.
- **01/01/2010** : The date is displayed in the order of date/month (two-digit)/year.

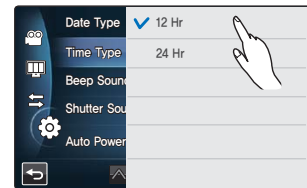


This function depends on “Date/Time Display” setting. ↪page ??

Time Type

You can set the display type for the time set according to the selected option.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Time Type.”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (↩️) tab.



Submenu items

- **12Hr** : Displays the time information in 12 hour units.
- **24Hr** : Displays the time information in 24 hour units.



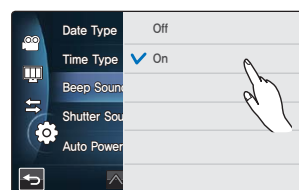
This function depends on “Date/Time Display” setting.

system setting

Beep Sound

This setting allows operations such as touching tabs and buttons on the screen to be signaled by a beep.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Beep Sound”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Off** : Disables the function.
- **On** : You will hear a beep sound when operating buttons or tabs such as the **Power** (⏻) button or **recording start/stop** button.



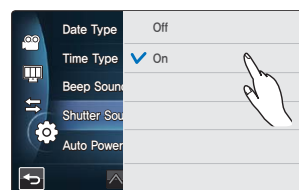
The Beep Sound is canceled in the following cases:

- During recording, playing
- When the camcorder has a cable connection. (AV cable, Mini HDMI cable, etc.)

Shutter Sound

You can turn the shutter sound on or off when pressing the **PHOTO** button.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Shutter Sound”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Off** : Disables the function.
- **On** : You will hear the shutter sound when operating the **PHOTO** button.



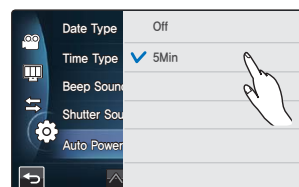
The Shutter Sound is not heard in the following conditions:

- In case of using the **PHOTO** button during video recording.
- When the camcorder has a cable connection. (AV cable, Mini HDMI cable, etc.)

Auto Power Off

You can set your camcorder to automatically turn off if it is idle for 5 minutes without an operation. This function will prevent unnecessary power consumption.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Auto Power Off”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Off** : Disable the function.
- **5 Min** : The camcorder turns off if idle for 5 minutes without an operation.



- **Auto Power Off does not work in the following situations:**
 - When the camcorder has a cable connection. (HDMI cable, component/AV cable, USB cable, AC power adaptor, etc.)
 - While the Quick On STBY function is in operation.
 - While the Demo function is in operation.
 - While in recording, playing (except pause), photo slide show.
- To operate the camcorder again, press the **Power** (⏻) button.

system setting

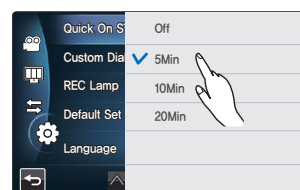
Quick On STBY

When you are going to record frequently for an extended time, use the Quick On STBY function. In standby mode, closing the LCD screen will commence the Quick On STBY mode to reduce energy consumption. Once you are ready to record again, this function enables to the camcorder to come on quickly from the power saving mode.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Quick On STBY”

2. Touch the desired submenu item.

3. To exit the menu, touch the Return (⏪) tab.
 - In the standby mode, closing the LCD screen will soon execute the Quick On STBY mode, and then the camcorder turns off after the selected time setting.



Submenu items

- **Off** : In the standby mode, closing the LCD screen turns off the camcorder.
- **5 Min** : In the standby mode, closing the LCD screen will soon execute the Quick On STBY mode, and then the camcorder turns off after 5 minutes.
- **10 Min** : In the standby mode, closing the LCD screen will soon execute the Quick On STBY mode, and then the camcorder turns off after 10 minutes.
- **20 Min** : In the standby mode, closing the LCD screen will soon execute the Quick On STBY mode, and then the camcorder turns off after 20 minutes.

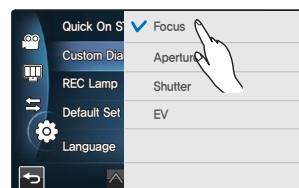


- Turning off the camcorder after use is always recommended to reduce the energy consumption, however, you can effectively use the Quick On STBY function for the frequent shooting conditions in the specified time schedule.
- The mode indicator keeps blinking in the Quick On STBY mode.
- **The Quick On STBY mode is not available in the following conditions:**
 - When the LCD screen is open.
 - When a video cable (Mini HDMI, AV) or the USB cable is connected to the camcorder.
 - When operating the buttons on the camcorder.

Custom Dial

You can simply set the custom dial as one of the frequently used functions (Focus, Aperture, Shutter, Exposure Value) during recording. Only one function can be assigned to the custom dial.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Custom Dial”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



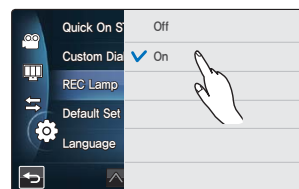
Submenu items

- **Focus:** Focus is assigned to the custom dial.
- **Aperture:** Aperture is assigned to the custom dial.
- **Shutter:** Shutter is assigned to the custom dial.
- **Exposure Value:** Exposure value is assigned to the custom dial.

REC Lamp

You can check the recording lamp status while recording videos or photos.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “REC Lamp”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Off:** Turns off the recording lamp.
- **On:** Turns on the recording lamp on the front of the camcorder while recording. You can recognize if the recording is in progress with recording lamp.

system setting

Default Set

You can restore all menu settings to the default conditions.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → **“Default Set”**
 - A message appears asking for your confirmation.
2. Touch **“Yes”** if you want all the settings return to the default.
 - The Time Zone screen appears after all settings return to the default.
3. Set the date and time again. ↪ page ??



- Do not turn off the power while using this function.
 - Initializing the camcorder settings to factory defaults does not affect recorded images.
-

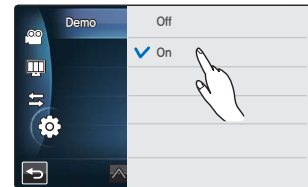
Language

You can select a desired language to display the menu and messages. ↪ page ??

Demo

Demo mode automatically shows you the major functions that are included with your camcorder so that you may use them more easily.

1. Touch the Menu (MENU) tab → Other setting (⚙️) → “Demo”
2. Touch the desired submenu item.
3. To exit the menu, touch the Return (⏪) tab.



Submenu items

- **Off:** Disables the function.
- **On:** Enables the Demo function.

Using the Demo function

The Demo mode is canceled in the following cases:

- If the LCD screen is touched.
- If any button is operated (**Recording start/stop**, **Display** (|□|), **SMART AUTO**, **MODE**, **PHOTO**, etc.) However, the camcorder will enter the Demo mode automatically after 5 minutes in STBY mode if it is idle for 5 minutes without an operation. If you don't want the Demo function to start, set “Demo” to “Off”.



The Demo function does not operate in the following case:

- If “Auto Power Off” is set to “5 Min”(uses the battery as main power), the Auto Power Off function will turn the camcorder off before Demo can run. ↪️page ??

editing video clips

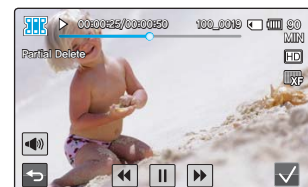
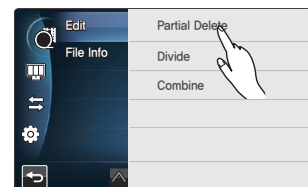
DELETING A SECTION OF A VIDEO (PARTIAL DELETE)

You can delete a section of a video. As the partial delete function is to edit the original video file, store the original video file separately before starting this function.

PRECHECK!

- Insert a memory card. ↪page ??
- Set the appropriate storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📺/📺) mode. ↪page ??

1. Touch the Menu (MENU) tab → “Edit” → “Partial Delete.”
2. Touch the desired video to edit.
 - The selected video is displayed as paused.
3. Select the start point to delete using the playback related tabs, then touch the (☑) indicator at the start point.
 - Playback related tabs: ▶/⏸/⏪/⏩/⏴/⏵/⏶/⏷
 - Drag the playback progress bar to left or right on the LCD screen to directly move to the desired point.
 - The (▲) indicator appears at the start point.
4. Select the end point to delete using the playback related tabs, then touch the (☑) indicator at the end point.
 - Drag the playback progress bar to left or right on the LCD screen to directly move to the desired point.
 - The (▲) indicator appears at the end point.
5. Touch the Cut (✂) tab.
- The message to confirm is displayed.
6. Touch “Yes.”
 - The selected section will be deleted.



- The deleted section of the original video can not be recovered.
- 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 not edit files that the protected (Ⓢ) indicator is written on. Cancel the protect function first. ↪page ??
- Touch the Return (⏪) tab to cancel the partial deletion or restart this function.
- The Partial Delete function is not available in the following conditions.
 - If the recorded time of a section to delete is less than 3 seconds.
 - If the total recorded time of a video after partial deletion is less than 3 seconds.
 - If the remaining section of the memory space is less than 15MB.
 - Videos recorded or edited by other devices.

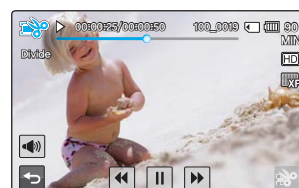
DIVIDING A VIDEO

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 important recordings separately.

PRECHECK!

- Insert a memory card. ↪page ??
- Set the appropriate storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📺/📺) mode. ↪page ??

1. Touch the Menu (MENU) tab → “Edit” → “Divide.”
2. Touch the desired video to edit.
 - The selected video is displayed as paused.
3. Search the point of division by touching playback control tabs.
 - Playback control tabs: ▶/⏸/◀/▶/◀/▶/◀/⏸
 - Drag the playback progress bar to left or right on the LCD screen to directly move to the desired point.
4. Touch the Pause (⏸) tab at the point of division, then touch the Cutting (✂) tab.
 - A message appears asking for your confirmation.
5. Touch “Yes.”
 - The selected video is divided into two video clips.
 - The second clip of the divided video is displayed as the last thumbnail.
 - After the division, you can partially delete a unnecessary section or combine with other videos.



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 not divide files that are protected (🔒) indicator is written on. Cancel the protect function first. ↪page ??
- **The divided video may drift before or after the division point by approx. 2 seconds.**
- **The Divide function is not available in 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.**
 - Videos recorded or edited by other devices.
 - Photos cannot be divided.
- The division function does not work if available space on the storage is insufficient. Delete unnecessary videos.

editing video clips

COMBINING VIDEOS

You can combine two different videos. As this function edits the original file, make sure to back up important recordings separately.

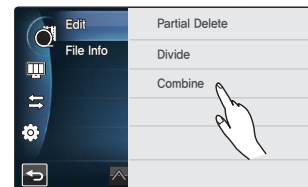
PRECHECK!

- Insert a memory card. ↪page ??
- Set the appropriate storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📺/📺) mode. ↪page ??

1. Touch the Menu (MENU) tab → “Edit” → “Combine.”

2. Touch the video thumbnails to be combined.

- The (✓) indicator and the order number are displayed on the selected videos. Touching the video thumbnail toggles the image between being selected (✓) or not selected.
- The (✓) indicator does not appear if there is a different resolution between selected videos files.

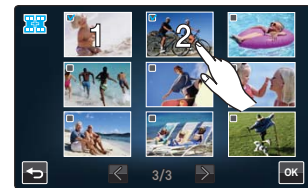


3. Touch the (OK) tab.

- A message appears asking for your confirmation.

4. Touch “Yes.”

- The selected video files are combined in the chosen order and stored as one video.
- The thumbnail of the first video will appear in the combined video.



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



- You can not combine files with the protect (🔒) indicator is written on. Cancel the protect function first. ↪page ??
- The original video will not be preserved.
- **The combine function is not available in the following conditions:**
 - Videos in different resolution formats (Videos recorded at “Resolution: 1080/60i(XF)” and “Resolution: 720/60p” cannot be combined.
 - The file size of the combined videos cannot exceed 1.8 GB.

file management

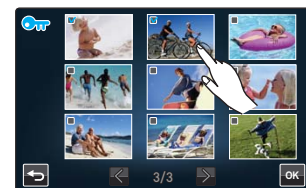
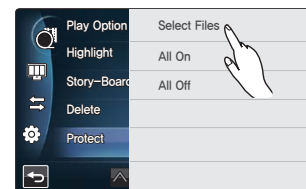
PROTECTION FROM ACCIDENTAL ERASURE

You can protect important recordings from accidental erasure. The protected videos and photos are not deleted unless they are formatted or the protection is canceled.

PRECHECK!

- Insert a memory card. ↪page ??
- Set the appropriate storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📺/📺) or Photo play (📷) mode. ↪page ??

1. Touch the Menu (MENU) tab → “Protect” → touch the desired submenu item.
 - The corresponding message to the selected option appears.
2. Touch “Yes.”
 - The protection is set to on or off.
 - The (🔒) indicator appears on the protected file.



Submenu items

- **Select Files:** Protects individual images. Touch the images to protect from erasure. The (✓) indicator is displayed on the selected images. Touching the thumbnail image toggles the image between being selected (✓) or not selected. Touch the (OK) tab.
- **All On:** Protects all images.
- **All Off:** Releases the protected images all at once.



- You can also operate this function in the full and single image display mode.
- If the write protection tab on the memory card is set to lock, you cannot set this function. ↪page ??

file management

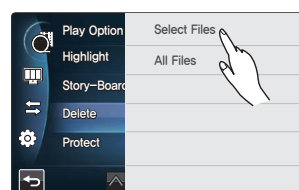
DELETING FILES

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

PRECHECK!

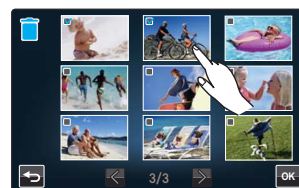
- Insert a memory card. ↪page ??
- Set the appropriate storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📺 / 📺) or Photo play (📷) mode. ↪page ??

1. Touch the Menu (☰) tab → “Delete” → touch the desired submenu item.
 - The corresponding message to the selected option appears.
2. Touch “Yes.”
 - The selected image is deleted.



Submenu items

- **Select Files:** Deletes individual images.
 - Touch the images you want to delete.
 - The (✓) indicator is displayed on the selected images.
 - Touching the thumbnail image toggles the image between being selected (✓) or not selected.
 - Touch the (OK) tab.
- **All Files:** Deletes all images.



- 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.



- To protect important images from accidental erasure, activate the image protection function in advance. ↪page ??
- You can not delete protected files. Cancel the protect function first. ↪page ??
- If the write protection tab on the memory card is set to lock, you cannot delete the images. ↪page ??
- You can also operate this function in the full and single image display mode.
- 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.

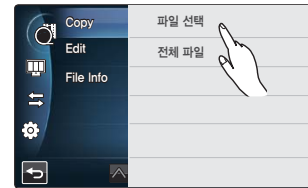
COPYING FILES (HMX-S15/S16 ONLY)

Videos and photos stored in the internal memory can be copied to the external flash memory card. Copying to the memory card does not delete originals in the internal memory.

PRECHECK!

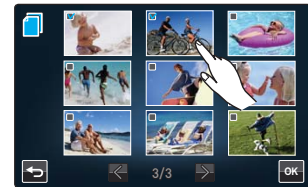
- Insert the memory card in your camcorder. ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Video play (📹 / 📺) or Photo play (📷) mode.
↪page ??

1. Touch the Menu (☰) tab → “Copy” → touch the desired submenu item.
 - The corresponding message to the selected option appears.
2. Touch “Yes.”
 - The selected images are copied.



Submenu items

- **Select Files:** Copy individual images.
Touch the images you want to copy.
The (✓) indicator is displayed on the selected images.
Touching the thumbnail image toggles the image between being selected (✓) or not selected.
Touch the (OK) tab.
- **All Files:** Copy all images.



Do not eject a memory card or power off while copying files stored 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.
- If the write protection tab on the memory card is set to lock, you cannot copy the images.
↪page ??
- You can not copy a file if the memory card has insufficient free space. Remove unnecessary files before proceeding. ↪page ??
- The copy function does not work if battery charge is insufficient. It is recommended to use AC power to continue power supply during the copying.

wireless network connection and configuration

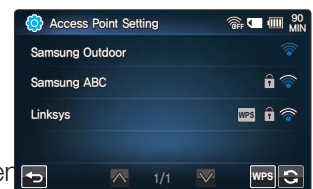
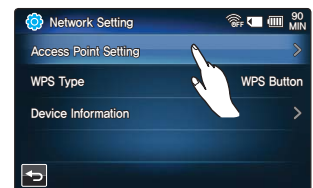
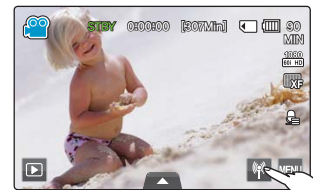
AUTO CONNECTING TO THE NETWORK

You can connect to the network using an AP (access point) in the wireless network service area.

PRECHECK!

Select the record (👤/📷) mode by pressing the **MODE** button. ↪ page ??

1. Touch the Network (📶) tab → **“Settings”** → **“Access Point Setting.”**
 - The camcorder will automatically scan for APs available in the network.
 - To reload the AP device list, touch the Refresh (🔄) tab.
2. Touch the desired AP.
 - The camcorder will be connected to the network if using an unsecured AP.
 - If selecting WPS AP, touch the WPS (WPS) tab in the next screen and press the WPS button corresponding to the AP device or enter the PIN number in the AP device, which will be activated on the screen. You can change the WPS Type if necessary. ↪ page ??
 - If selecting a secure AP, proceed with the next step.
3. Configure the network settings.



Submenu items

- **Authentication:** Select an authentication type according to your AP setting.
- **Data Encryption:** Select an encryption type according to your AP setting.
- **Network Key:** Enter the password and touch the (OK) tab. For typing in characters, refer to page ??.
- **IP Setting:** The default is Auto. For manual setting of the IP, refer to page ??.

4. Touch the (OK) tab.
 - The camcorder will connect to the network via the selected AP.
 - You can check the signal strength in the top right corner of the screen.

AP Information

	WPS(WiFi Protected Setup) AP The camcorder will automatically connect to the wireless network with safety and ease.
	Secured AP It will connect to the wireless network using the assigned password and IP setting.
	Ad-hoc AP It will connect to the network using a mobile terminal that supports wireless communication.
	Signal strength Displays the strength of the wireless signal from the AP device.

Signal Strength

	Not connected
	Very weak
	Weak
	Normal
	Very strong



- The wireless network connection may not be stable depending on the connected AP.
- The farther the distance is from the AP device, the longer it takes to connect to the network.
- If there is an electric device using the same frequency range near the camcorder, you may experience wireless interference.
- If an AP device is named in other than English, it will not be displayed in the AP list or you may see a corrupt font of the name.
- For the network settings and the password, contact the network administrator or the service provider.
- If you are prompted to get authenticated in a separate process, you may experience a disconnected network. If this is the case, please contact the service provider.
- The number of the passwords available may differ, depending on the encryption type.
- You may not be able to connect to the wireless network, depending on the ambient circumstances.
- The AP search may find a printer that supports wireless network, but you can not use the found printer for connecting to the network.
- If your camcorder is connected to the TV using the Audio/Video cable, it can not connect to the network.
- The wireless connection may cost you a fee under the contract made between you and the service provider.
- Channels available for the networking differ according to the region (country).
- Some countries may restrict wireless networking under the local radio regulation laws. You are recommended to use your camcorder inside the country where you purchased it.

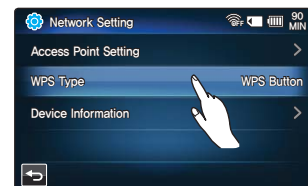
WPS CONNECTION METHOD

Configure the WPS connection settings. If selecting WPS AP, you can select to press the WPS button or enter the WPS PIN number.

PRECHECK!

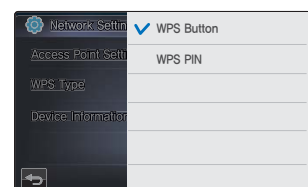
Select the record (📹/📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Network (📶) → “Settings” → “WPS Type” and touch the desired item.
2. To exit the setup screen, touch the Return (⏪) tab.



Submenu items

- **WPS Button:** Press the WPS button for the AP device to connect to the network.
- **WPS PIN:** Enter the PIN number for the AP device to connect to the network.



wireless network connection and configuration

MANUAL NETWORK CONNECTION

By typing in the IP address, you can connect to the network via an AP (access point) in the wireless network service area.

PRECHECK!

Select the record (👤/📷) mode by pressing the **MODE** button. ↪page ??

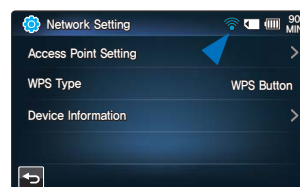
1. Touch the Network (📶) → **“Settings”** → **“Access Point Setting”** → **“IP Setting”** → **“Manual.”**
 - The IP setup screen appears.

2. Touch each item and enter the desired value.

Submenu items

- **IP:** Provide the static IP address.
- **Subnet Mask:** Provide the subnet mask.
- **Gateway:** Provide the gateway.
- **DNS Server:** Provide the DNS address.

3. When completed, touch the (OK) tab.
 - The camcorder will connect to the network via the selected AP.



- For more information about the network settings, contact the network administrator or the service provider.
- The network settings may differ according to the network condition.
- Do not try to connect to a network that you have no permission to access.
- Use a fully charged battery while you are using the network service.

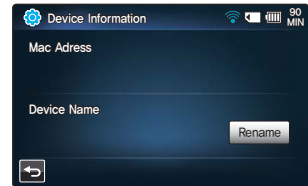
DEVICE INFORMATION

Register your information in advance so that your camcorder can be found by other device with ease.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. →page ??

1. Touch the Network (📶) → “Setting” → “Device Information” → “Rename.”
 - The virtual keyboard appears.
2. Touch the input bar and enter your name.
3. When completed, touch the (OK) tab.



Using the virtual keyboard

You can use the virtual keyboard to enter your information and settings.
Touch the desired character and numeric. When completed, touch the (OK) tab.



◀ / ▶	Move the cursor
↑	Case-sensitive & change the symbol
123	Numerics and symbols
Space	Space
←	Clear the last character
OK	Complete your input



You can enter the information in English alone regardless of the language settings.

using the wireless network

PLAYING VIDEOS/PHOTOS ON THE TV SCREEN

You can play the videos and photos in the camcorder on the TV screen via the network. This is possible only by using a TV that features DMP(Digital Media Player) or DMR(Digital Media Renderer) based on DLNA.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Network (📶) → **“Play on TV.”**
 - The camcorder will be connected to the network via the last connected AP.
 - If no AP is ever connected, the camcorder will scan for APs available. ↪page ??
2. Touch the desired device.
 - To reload the device list, touch the Refresh (🔄) tab.
3. Touch the HD (📺), SD (📺) or Photo (📷) tab.
 - The thumbnail of videos or photos will appear.
 - The videos and photos in the thumbnail will be displayed only in 4x3.
 - Use ⏪ / ⏩ to move to the previous or next page.
4. Touch the desired video or photo.
 - The selected videos or photos will be played on the TV screen but they are just displayed in the corresponding image on the LCD.
 - Play the selected video and move to the video thumbnail.
 - As the slide show of the photos will be repeated permanently, tap Return (⏪) to stop the show.
5. To end **“Play on TV,”** touch the Exit (✕) tab.



- For connecting from the TV to the AP, refer to the user manual of the TV.
- Connect between camcorder and AP wirelessly while connect TV and AP in cables.
- You can play on the TV screen only those videos and photos that were recorded by the camcorder.
- The network connection range between the camcorder and the TV may differ depending on the AP.
- This is applied only to DNLA-certified DMP(Digital Media Player) or DMR(Digital Media Renderer).
- If the camcorder is turned off abnormally (ex: removing the battery) while you are playing a video or photo on the TV, the TV considers that it is still connected to the camcorder.
- Depending on the size of the video or photo to share, it may take longer to connect to the TV and display the file on the TV.
- This function is not enabled if no video or photo is recorded by the camcorder.

SHARING THE VIDEOS/PHOTOS

You can play the videos and photos in the camcorder on the TV screen via the network. This is possible only by using a TV that features DMP(Digital Media Player) or DMR(Digital Media Renderer) based on DLNA.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. →page ??

1. Touch the Network (📶) → “Share.”
 - The camcorder will be connected to the network via the last connected AP.
 - If no AP is ever connected, the camcorder will scan for APs available. →page ??
2. Enjoy the videos and photos in the camcorder on the TV screen via the network. →page ??
 - To exit the sharing, touch the Return (⏪) tab.



What is DLNA (Digital Living Network Alliance)?



DLNA enables you to share multimedia contents by connecting all home appliances in a network. With DLNA, you can transfer and play videos and photos under wireless connection between home networking devices such as TV or PC and your camcorder.



- Connect between camcorder and AP wirelessly; connect between TV and AP in cables.
- You can play on the connected device only those videos and photos that were recorded by the camcorder.
- The network connection range between the camcorder and the selected device may differ depending on the AP.
- This is applied only to DNLA-certified DMP(Digital Media Player) or DMR(Digital Media Renderer).
- If the camcorder is turned off abnormally (ex: removing the battery) while you are playing a video or photo on the select device, the device considers that it is still connected to the camcorder.
- It may take a longer time to transfer videos or photos to the device, depending on the network connection and the file size.
- The sharing function is not enabled if no video or photo is recorded by the camcorder.

using the wireless network

SAVING THE VIDEOS/PHOTOS TO THE PC

You can save the videos and photos in the camcorder to the PC via the network.

PRECHECK!

Select the record (📹/📷) mode by pressing the **MODE** button. ↪page ??

1. Touch the Network (📶) → **“Backup to PC.”**
 - The camcorder will be connected to the network via the last connected AP.
 - If no AP is ever connected, the camcorder will scan for APs available. ↪page ??
2. Touch the desired device.
 - To reload the device list, tap Refresh (🔄) tab.
3. Touch the HD (📺), SD (📷) or Photo (📷) tab.
 - The thumbnail of videos or photos will appear.
 - The videos and photos in the thumbnail will be displayed only in 4x3.
 - Use ⏪ / ⏩ to move to the previous or next page.
4. Touch the video or photo to save to the PC.
 - The selected video or photo will be marked with ✓ on the screen. Each time you touch the file, it will be selected and deselected alternatively.
5. Touch the (OK) tab.
 - To cancel saving the files, touch the Cancel.
6. To end **“Backup to PC,”** touch the Exit (✕) tab.



- You can play only those videos and photos that were recorded by the camcorder.
- The network connection range between the camcorder and the selected device may differ depending on the AP.
- This function is enabled only in Kies.
- If the camcorder is turned off abnormally (ex: removing the battery) while you are playing a video or photo on the select device, the device considers that it is still connected to the camcorder.
- It may take a longer time to transfer videos or photos to the device, depending on the network connection and the file size.
- This function is not enabled if no video or photo is recorded by the camcorder.










TRANSFERRING VIDEOS AND PHOTOS BETWEEN CAMCORDERS

You can transfer videos or photos to and from other camcorder of the same type as yours.

PRECHECK!

Select the record ( / ) mode by pressing the **MODE** button. ↪page ??

To transfer your videos/photos to other camcorder

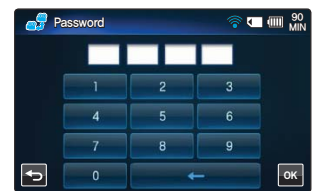
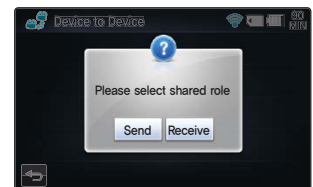
1. Touch the Network () → “**Device to Device.**”
2. Touch the “**Send.**”
 - A password for your camcorder will be created and displayed automatically, which will wait for connection to other camcorder.
3. Select your camcorder from the search list of other camcorder.
 - The name of your camcorder is the one that you entered in the Device Name. ↪page ??
4. If prompted to enter the password on the screen of other camcorder, enter the 4 digits that was created on your camcorder.
 - When the connection is made, the video or photo selection area will be displayed on your camcorder.
5. Touch the HD (), SD () or Photo () tab.
 - The thumbnail of videos or photos will appear.
 - The videos and photos in the thumbnail will be displayed only in 4x3.
 - Use  /  to move to the previous or next page.
6. Touch the video or photo to transfer to other camcorder.
 - The selected video or photo will be marked with  on the screen. Each time you touch the file, it will be selected and deselected alternatively.
7. Touch the () tab.
 - To cancel the transfer while in progress, touch the Cancel.
8. To end the “**Device to Device**” transfer, touch the Exit () tab.



using the wireless network

To receive videos/photos from other camcorder

1. Touch the Network (📶) → “Device to Device.”
2. Touch “Receive.”
 - Search for the target camcorder.
 - If the target camcorder is not displayed in the search list, touch the Refresh (↻) tab to search again.
3. Touch the target camcorder in the search list.
4. Enter the password and touch the (OK) tab.
 - The password will be displayed on the screen of the camcorder that sends videos or photos.
 - The camcorder will start transferring videos or photos.
5. To end the “Device to Device” transfer, touch the Exit (✕) tab.



- The device-to-device transfer uses wireless ad-hoc communication for this purpose.
- If your camcorder was used as a receiver, remove the connection before you can use it as a sender.
- The network connection range between camcorders may differ depending on the wireless ad-hoc network condition.
- If connection between my camcorder and the other one is terminated abnormally, my camcorder considers that it is still connected and displays the disconnection after a certain amount of time.
- It may take a while to send or receive the videos or photos according to the wireless ad-hoc network condition and the file size.
- You can send or receive only those videos and photos that are recorded by the camcorder.
- This function is not enabled if no video or photo is recorded by the camcorder.

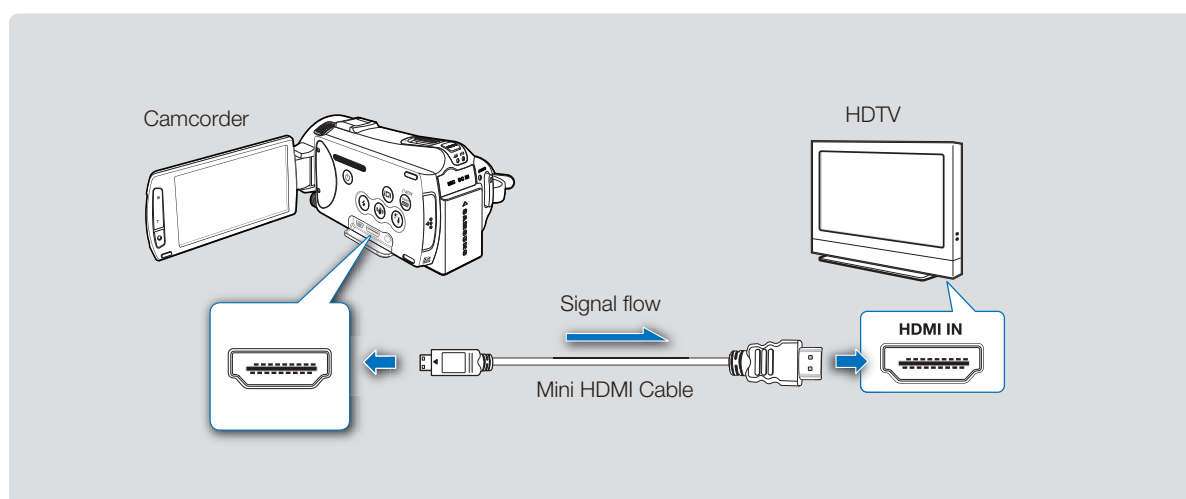
connecting to a TV

CONNECTING TO A HIGH DEFINITION TV

You can enjoy High Definition (HD) quality videos recorded in HD resolution using an HDTV. This camcorder supports HDMI output to deliver high-definition video transfer.

PRECHECK!

- Check if there is a HDMI input jack on your TV.
- Use the AC power adaptor to connect the camcorder with the TV.
- Select “**HDMI TV Out**” according to the type of TV connected with the camcorder. → page ??



Using a mini HDMI cable

1. Connect the camcorder to a TV with a Mini HDMI cable.
 - Turn on the camcorder, then connect a Mini HDMI cable. If not, the camcorder may fail to recognize the connected TV.
2. Set the TV's input selector to enable the TV to recognize the connected camcorder.
 - Refer to the TV's instruction manual to see how to select the TV input.

connecting to a TV

Understanding the HDMI cable

HDMI (High Definition Multimedia Interface) is a compact audio/video interface for transmitting uncompressed digital data.

What is Anynet+ function?

You can use the same remote control for devices that support the Anynet + function. You can use the Anynet + function if the camcorder is connected with an HDMI cable to an Anynet+ supported TV. For more information, refer to the Anynet+ support TV's user manual.



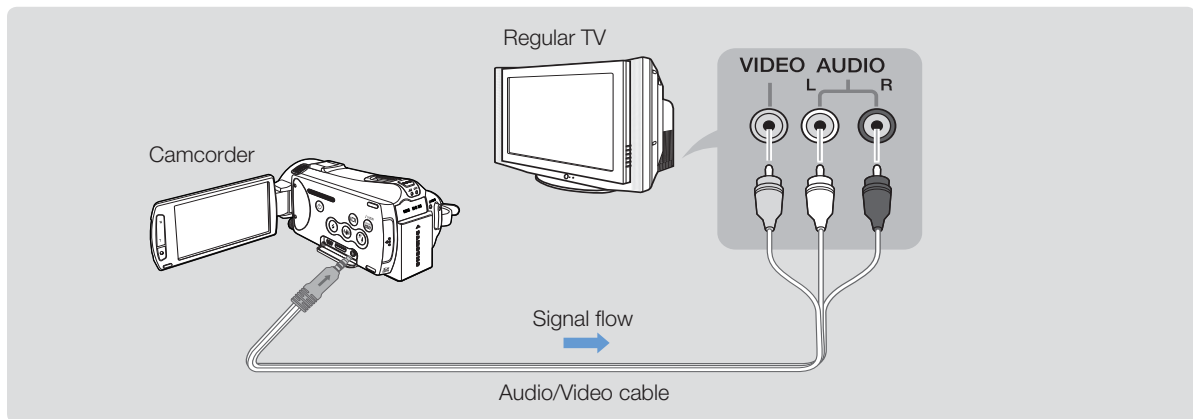
- Videos recorded using the HD camcorder will playback on an HDTV in the original resolution you set in the camcorder. Video recorded in SD quality cannot play back on an HDTV in the HD quality. For example, videos recorded in HD quality (resolution of 1080/60i, 1080/30p, 720/60p) play back in HD quality while the videos recorded in SD quality (resolution of 480/60p) play back in SD quality.
 - This camcorder is provided with the “**TV Connect Guide**” menu function. If you try to connect the camcorder to a TV (without using the user manual), use the “**TV Connect Guide**” menu function. ↪page ??
 - Only a C to A type Mini HDMI cable can be used with this camcorder.
 - The HDMI jack on the camcorder is provided for the output usage only.
 - If the Anynet+ supported TV is connected with the camcorder, turning on the camcorder may turn the TV's power on. (Anynet+ function) If you don't want this function, set “**Anynet+ (HDMI-CEC)**” to “**Off.**” ↪page ??
 - Use only the HDMI 1.3 cable when connecting to the HDMI jack of this camcorder. If the camcorder is connected with other HDMI cables, the screen display may not work.
-

CONNECTING TO A REGULAR TV

You can enjoy images recorded with your camcorder on a regular TV that supports standard definition. This camcorder supports the composite output for standard definition video transfer.

PRECHECK!

Use the AC power adaptor to connect the camcorder with the TV.



Connecting an Audio/Video cable for the composite output

1. Connect the camcorder to a TV with an Audio/Video cable.
 - Turn on the camcorder, then connect a Audio/Video cable. If not, the camcorder may fail to recognize the connected TV.
2. Set the TV's input selector to enable the TV to recognize the connected camcorder.
 - Refer to the TV's instruction manual to see how to select the TV input.



- Check the connection status between the camcorder and TV, TV screen may not deliver the right video information if connected incorrectly.
- When connecting to TV using the Audio/Video cable, match the colors between the cables and the corresponding jacks.
- Video input may be green depending on a TV. In this case, connect the yellow plug of the Audio/Video cable to the green jack of the TV.
- When the camcorder is connected a TV with more than one cables, the output signal is followed in the order of priority.
 - HDMI → Audio/Video (composite) output
- This camcorder is provided with the “**TV Connect Guide**” menu function. If you try to connect the camcorder to a TV (without using the user manual), use the “**TV Connect Guide**” menu function.
↳ page ??
- If the TV has one audio jack (mono input), connect the yellow plug of the Audio/Video cable to the video jack, white plug to the audio jack and leave the red plug alone.
- Do not use excessive force when connecting the cable.
- Images recorded with high-definition image quality (1080/60i, 1080/30p or 720/60p) are played back with standard definition image quality.

connecting to a TV

VIEWING ON A TV SCREEN

You can enjoy the enjoy widescreen videos on a HDTV (or a regular TV) after recording videos using the camcorder.



1. You see video from the camcorder on your TV if the connection status is set correctly. ↪pages ??~??
 - The TV jacks are connected with the right cables?
 - Input source list is correctly set to view the playback from the camcorder?
2. Select the playback mode on your camcorder and start to playback videos. ↪page ??



- Adjust the volume to a moderate level. If the volume is too high, the video information may include noise.
- If the “**TV Display**” is set “**Off**,” the TV screen does not include the OSD (On Screen Display) menus. ↪page ??

Playback on a TV

Set “**TV Type**” according to the screen ratio of a TV connected with the camcorder. ↪page ??

Recording ratio	Wide (16:9) TV	4:3 TV
Images recorded in a 16:9 ratio <ul style="list-style-type: none">• Video images• Photo images• Photo capture images		

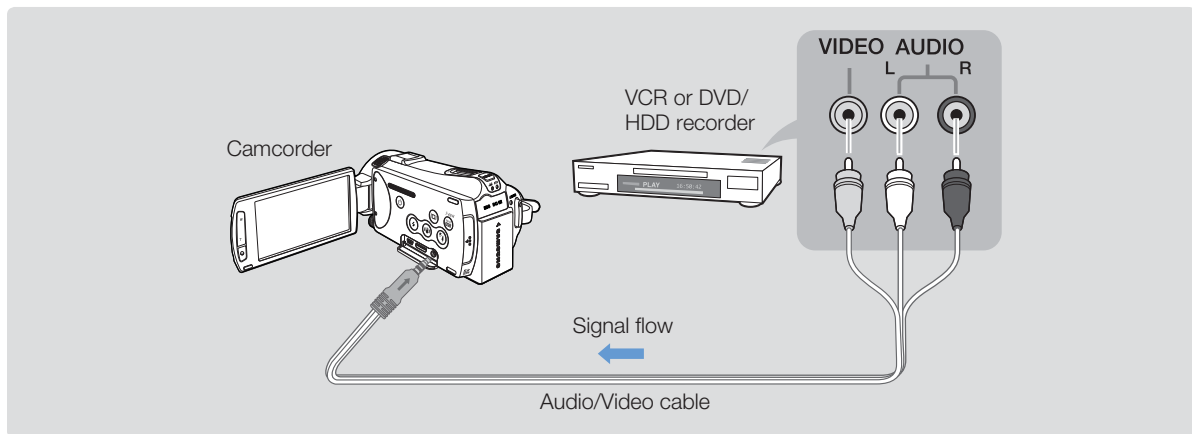
dubbing videos

DUBBING TO A VCR OR DVD/HDD RECORDER

Videos recorded in this camcorder can be dubbed to a VCR or DVD/HDD recorders.

PRECHECK!

- Videos are dubbed to the other recording device via analog data transfer. (composite connection) Use the supplied Audio/Video cable.
- Use the AC power adaptor to connect the camcorder with the TV.



1. Connect your camcorder to the recording device (VCR or DVD/HDD recorder) with the Audio/Video cable.
 - Connect your camcorder to the input jacks of the recording device.
 - If your recording device has an input selector, set it to the input mode.
2. Insert the storage device in the recording device.
3. Start the playback on your camcorder, and record it on the recording device.
 - Refer to the instruction manuals supplied with your recording device for details.
4. When dubbing is finished, stop the recording device, and the your camcorder.



- Videos recorded on this camcorder can be dubbed by connecting with the Audio/Video cable. All the recorded videos will be dubbed with SD (standard definition) image quality, regardless of the recording resolution (HD/SD).
- You cannot dub to a recorder with an HDMI cable.
- To copy an video recorded with HD (high definition) image quality, use the built-in software of your camcorder, and copy the images to your computer. ↪page ??
- Since dubbing is performed via analog data transfer, the image quality may deteriorate.
- To hide the screen indicators (such as a counter, etc.) on the screen of the monitor device connected, set "TV Display: Off." ↪page ??
- To record the date/time, display it on the screen. ↪page ??

printing photos

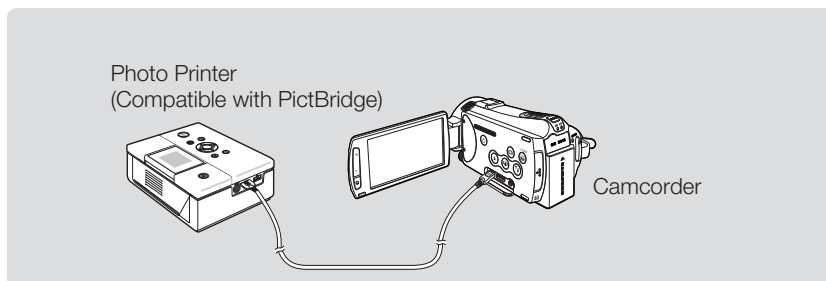
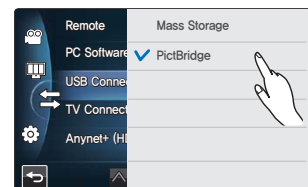
DIRECT PRINTING WITH A PICTBRIDGE PRINTER

You can print photos directly by connecting this camcorder to a PictBridge printer (Sold Separately) and a USB cable.

PRECHECK!

- Insert the memory card. ↪page ??
- Select the desired storage media. (HMX-S15/S16 only) ↪page ??
- Select the Play (▶) tab on the LCD screen to select the Photo play (🖨️) mode.

1. Touch the Menu (MENU) tab → Connectivity setting (🔌) tab → “USB Connect” → “PictBridge.”
2. Use a USB cable to connect your camcorder to the printer.
3. Turn your printer power on.
 - The photo thumbnails appear.
4. Touch the photos to print, then touch the Print (🖨️) tab.
 - The corresponding message appears.
5. Touch “Yes.”
 - The selected photo is printed.



To set the number of prints

Touch the decrease (+)/increase (-) tab to set the number of copies to print.

- The number of copies is set.

To cancel the print setting

Touch the Return (↩) tab on the LCD screen.

To stop printing after printing starts

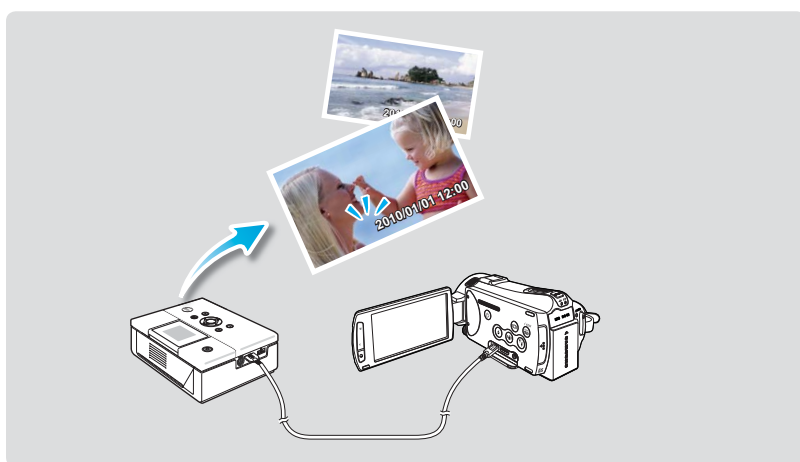
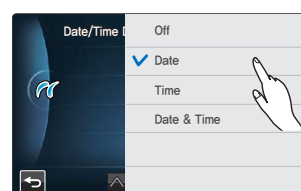
Touch “Cancel” on the screen.



- If the camcorder is connected to a printer while “USB Connect” is set to “Mass Storage,” the message “Fail USB Connecting Change ‘USB Connect’” appears. Set the “USB Connect” to the “PictBridge” then connect the USB cable again.
- Use the supplied USB cable.

To set the date/time imprint

1. In the printer mode, touch the Menu (MENU) tab →
“Date/Time Display.”
2. Touch the desired submenu item.
 - The selected date and time display option is set.
3. To exit the menu, touch the Return (RETURN) tab.
 - The selected date and time will be printed on the photos.



- The date/time imprint option may not be supported by all printers. Check with your printer manufacturer. The date/time imprint option cannot be setup if the printer does not support this option.
- PictBridge™ is a registered trademark of CIPA (Camera & Imaging Products Association), an image transfer standard developed by Canon, Fuji, HP, Olympus, Seiko Epson, and Sony.
- Use the AC power adaptor for your camcorder during PictBridge direct printing. Turning the camcorder off during printing might damage data on the storage media.
- Video images cannot be printed.
- Photos recorded on other devices cannot be printed.
- Various printing options are available depending on the printer. Refer to the printer's user manual for details.


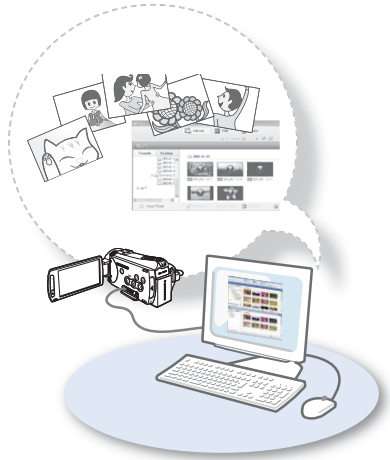

using with a Windows computer

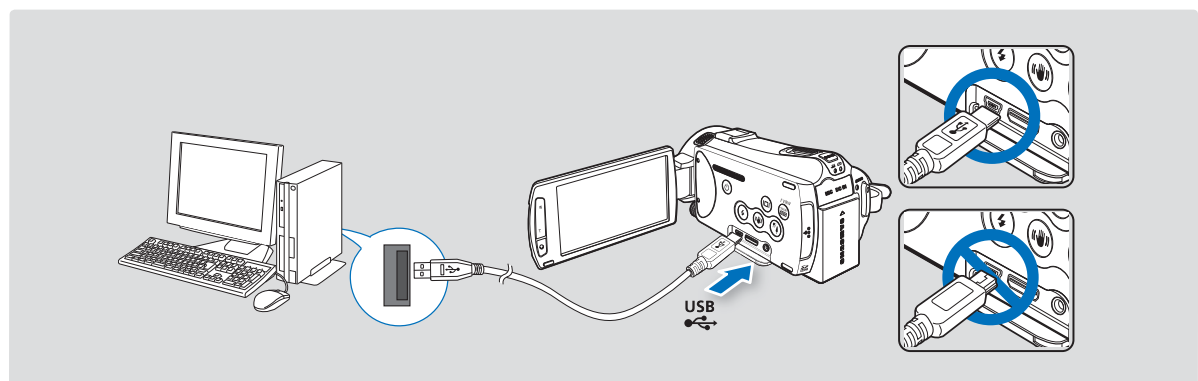
CHECKING YOUR COMPUTER TYPE

This chapter explains how to connect the camcorder to a computer using the USB cable. Read this chapter carefully and be free from your burden of handling two devices at the same time.

Check your computer type before using!!!

To view your recordings on a computer, you need to check your computer type first. Then, take the steps below according to your computer type.

 If you are using a Windows PC		 If you are using a Macintosh
<p>Connect your camcorder to the computer using the USB cable.</p> <ul style="list-style-type: none">• The built-in editing software, Intelli-studio runs on the PC automatically once the camcorder is connected to Windows computer. (When you specify “PC Software: On”). ↪page ??		<ul style="list-style-type: none">• The built-in software on your camcorder, ‘Intelli-studio’ is not Macintosh compliant.
<p>Play back or edit your recordings on the computer using the built-in Intelli-studio application. ↪page ??</p>		
<p>You can also upload your recordings to YouTube or other web sites using the Intelli-studio. ↪page ??</p>		



WHAT YOU CAN DO WITH A WINDOWS COMPUTER

You can enjoy the following operations by connecting your camcorder to your Windows computer by using the USB cable.

Main functions

- By using the built-in Intelli-studio editing software on your camcorder, you can enjoy the following operations.
 - Playing back recorded videos or photos. ↪page ??
 - Editing recorded videos or photos. ↪page ??
 - Uploading the recorded videos and photos to YouTube, Flickr, Facebook, etc. ↪page ??
- You can transfer or copy the files (videos and photos) saved on the storage media into your computer. (the mass storage function) ↪page ??

System requirements

The following requirements must be satisfied to use built-in editing software (Intelli-studio):

Items	Requirement
OS	Microsoft Windows XP SP2, Vista, or Windows 7
CPU	Intel® Core 2 Duo® 1.66 GHz or higher is recommended AMD Athlon™ X2 Dual-Core 2.2 GHz or higher is recommended (Notebook: Intel Core2 Duo 2.2GHz or AMD Athlon X2 Dual-Core 2.6GHz or higher recommended)
RAM	1 GB and above recommended
Video Card	nVIDIA Geforce 7600GT or higher Ati X1600 series or higher
Display	1024 x 768, 16-bit color or higher (1280 x 1024, 32-bit color recommended)
USB	USB 2.0
Direct X	DirectX 9.0c or higher



- System requirements mentioned above are recommendations. Even on a system that satisfies the requirements, operations may not be ensured depending on the system.
- On a slower computer than recommended, video playback may skip frames or operate unexpectedly.
- When the version of DirectX on your computer is lower than 9.0c, install the program with the version of 9.0c or higher.
- It is recommended to transfer the recorded video data to a PC before playing back or editing the video data.
- For doing this, a laptop computer requires higher system requirements than a desktop PC.

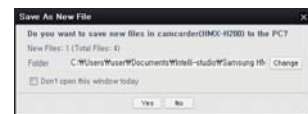
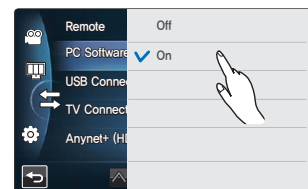
using with a Windows computer

USING THE Intelli-studio PROGRAM

Using the Intelli-studio program built-in your camcorder, you can transfer video/photo files onto your PC and edit them on your computer. Intelli-studio offers the most convenient way for you to manage the video/photo files by using the simple USB cable connection between the camcorder and your PC.

Step 1. Connecting the USB cable

1. Set the “**USB Connect: Mass Storage**” and “**PC Software: On.**”
 - You will find the default menu settings are set as the above.
2. Connect the camcorder and the PC with the USB cable.
 - A new file saving screen appears with the Intelli-studio main window.
 - According to your computer type, the corresponding removable disk window appears.
3. Click “**Yes,**” the uploading procedure will start. Click “**Yes**” to confirm.
 - If you do not want to save a new file, select “**No.**”



To disconnect the USB cable

After completing the data transfer, make sure to disconnect the cable in the following way:

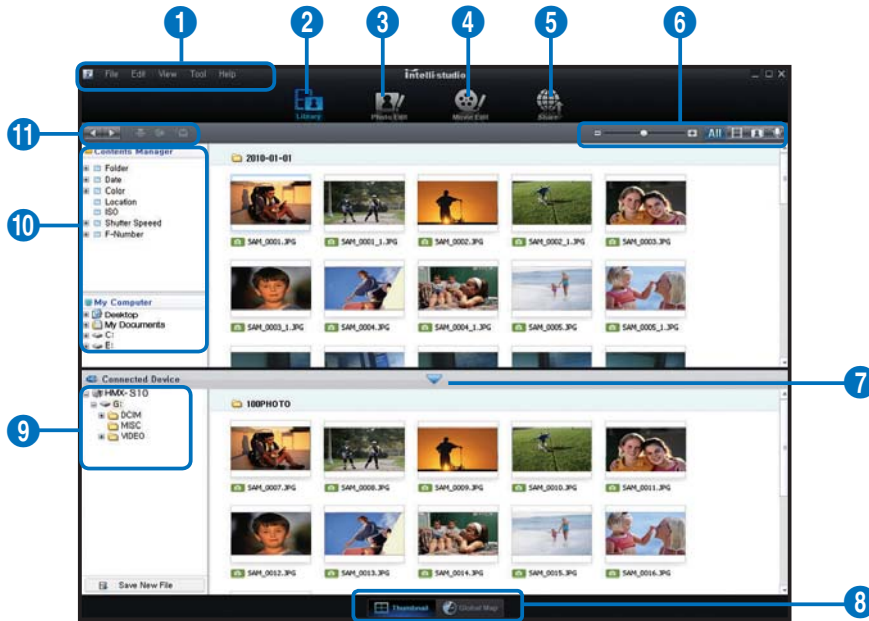
1. Click the “**Safely Remove Hardware icon**” icon on the taskbar.
2. Select “**USB Mass Storage Device,**” and then click “**Stop.**”
3. If the “**Stop a Hardware device**” window appears, click “**OK.**”
4. Disconnect the USB cable from the camcorder and PC.



- Use the provided USB cable. (Supplied by Samsung)
- Don't apply excessive force when inserting or extracting the USB cable into/from a USB jack.
- Insert a USB after checking the direction of its insertion is correct.
- We recommend using the AC power adaptor as the power supply instead of the battery.
- When the USB cable is connected, turning the camcorder on or off may cause the PC to malfunction
- If you disconnect the USB cable from the PC or the camcorder while transferring, the data transmission will stop and the data may be damaged.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the camcorder may not work properly. If this occurs, remove all USB devices from the PC and reconnect the camcorder.
- According to your computer type, the Intelli-studio program may not automatically run. In this case, open the desired CD-ROM drive that has the Intelli-studio program in My Computer and run iStudio.exe.

Step 2. About the Intelli-studio main window

When the Intelli-studio starts up, thumbnails of videos and photos are displayed in the main window.



1. Menu items
2. Switches to Library of the computer and connected camcorder.
3. Switches to Photo Edit mode.
4. Switches to Movie Edit mode.
5. Switches to Share mode.
6. Changes the size of thumbnails.
 : Displays all files (videos and photos).
 : Displays video files only.
 : Displays photo files only.
 : Displays voice files only.
7. Minimizes the connected device screen.
8. Displays videos and photos in various ways.
 Thumbnails: Displays video and photo thumbnails.
 Smart Album: Arrange multiple videos and photos by various classifications.

- Map View: Displays the location of shooting place with a map.
9. Select the connected device.
 10. Show directories of My Folder and My Computer
 My Folder: You can classify and manage videos and photos on your computer.
 My Computer: You can view videos and photos saved in the selected directory of your computer.
 11. Shortcut icons
 : Navigates files (previous and next).
 : Prints selected photo(s).
 : View location of selected photo(s) with GPS information.
 : Registers to My Folder.
 : Manages the registry of the selected photo.



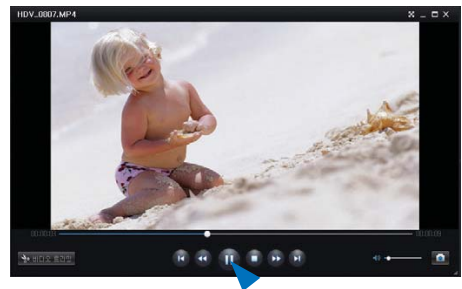
Intelli-studio is a program commonly used in Samsung camcorders or digital cameras. Some functions may not work depending on the purchased product.

using with a Windows computer

Step 3. Playing back the videos (or photos)

You can play back the recordings conveniently using the Intelli-studio application.

1. Run the Intelli-studio program. → page ??
2. Click the desired folder to display your recordings.
 - Video (or photo) thumbnails appear on the screen, according to the selected source.
3. Choose the video (or photo) that you want to play.
 - You can check the file information by moving the mouse on over the file.
 - Clicking on a video thumbnail once will show the video playback inside the thumbnail frame, allowing you to search for a desired video with ease.
4. Once you select the desired video (or photo), double-click to play back.
 - Playback starts and playback controls appear.



The following is the file format supportable in Intelli-studio:

- Video formats: MP4 (Video: H.264, Audio: AAC), WMV (WMV 7/8/9)
- Photo formats: JPG, GIF, BMP, PNG, TIFF

Step 4. Editing the videos (or photos)

With Intelli-studio, you can edit the videos or photos in various ways. (Change Size, Fine-Tuning, Image Effect, Insert Frame, etc.)

- To edit a file using the Intelli-studio, ensure to use a copy of the desired file saved in My Computer before clicking on the “Movie Edit” or “Photo Edit” icon.



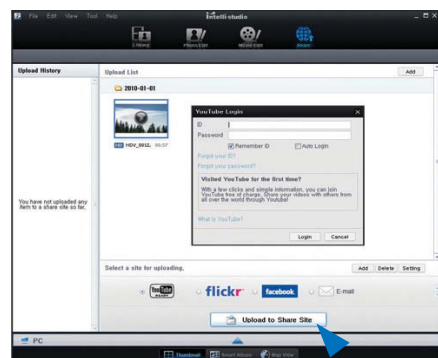
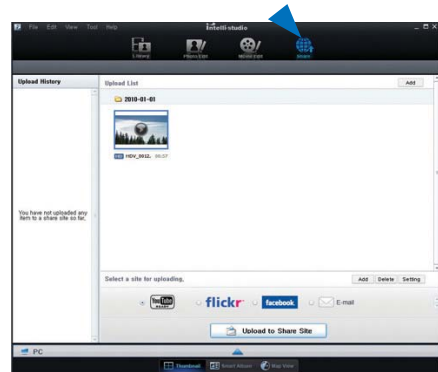
Step 5. Sharing the videos/photos online

Share your contents with the world, by uploading photos and videos directly to a web site with one click.

1. Select the desired videos or photos to share.
2. Click “Share” on the browser.
 - The selected file appears on the sharing window.
3. Click the web site you would like to upload files.
 - You can choose “YouTube,” “Flickr,” “Facebook,” or the specified web site you want to set for your uploading management.
4. Click “Upload” to start uploading.
 - A pop up window appears asking your ID and the password.
5. Enter your ID and the password to access.
 - Access to the web site contents can be limited depending on your web access environment.



- For more information about Intelli-studio use, see the Help Guide by clicking “Help.”
- When the Intelli-studio application is installed on a Windows computer, it will run faster after connecting the camcorder to your computer. Click the “Tool” → “Install Intelli-studio on PC” on the Intelli-studio screen.



flickr

- Flickr is an image and video hosting website, web services suite, and online community platform. In addition to being a popular website for users to share personal photographs, this service is widely used by bloggers as a photo repository.

- <http://www.flickr.com/>

facebook

- Facebook is a global social networking website that is operated and privately owned by Facebook, Inc. Users can add friends and send messages, and update their personal profiles to notify friends about themselves. Additionally, users can join networks organized by city, workplace, school, and region.

- <http://www.facebook.com/>

YouTube
READY

- YouTube is a video sharing website. Users can upload, view, and share personalized video clips. The San Bruno-based service uses Adobe Flash technology to display a wide variety of users-generated contents including video clips, TV clips and music videos, as well as amateur contents such as video blogging and short original videos.

- <http://www.youtube.com/>

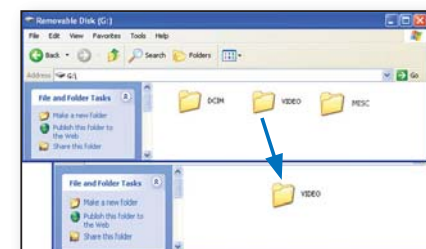
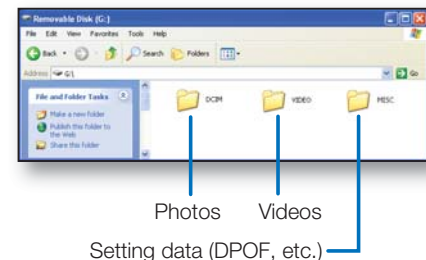
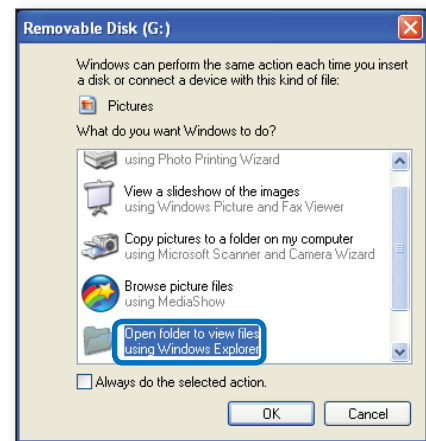
using with a Windows computer

USING AS A REMOVABLE STORAGE DEVICE

You can copy video or photo files recorded by the camcorder to a Windows computer by connecting the USB cable to the camcorder.

Viewing the contents of storage media

1. Check out the “**USB Connect: Mass Storage**” setting.
↳ page ??
2. Check out the “**PC Software: Off**” setting. ↳ page ??
3. Check out the storage media.
4. Connect the camcorder to the PC with the USB cable.
↳ page ??
 - The “Removable Disk” or “Samsung” window appears on the PC’s screen after a moment.
 - The removable disk appears when connecting a USB.
 - Select “Open folders to view files using Windows Explorer” and click “OK.”
5. The folders in the storage media appear.
 - Different file types are stored in different folders.
6. Select the desired folder (or files) to copy, then drag and drop it into the destination folder.
 - The folder (or files) is copied from the storage media to the PC.



- If the “Removable Disk” window does not appear, confirm the connection (↳ page ?? or perform steps 1 and 4 again).
- When the removable disk does not appear automatically, open the removable disk folder of My Computer.
- If the connected camcorder’s disk drive does not open or the context menu that appears when right clicking your mouse (open or browse) appears broken, your computer is suspected to be infected by Autorun virus. It is recommended to update the anti-virus software for its latest version.

Structure of folders and files on the storage media

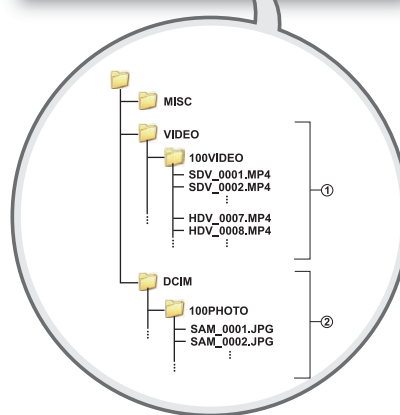
- The folder and file structure for storage media is as follows:
- The file naming follows DCF (Design rule for Camera File System).

Video file (H.264) ①

- The HD-quality videos have HDV_####.MP4 format.
- The SD-quality videos have SDV_####.MP4 format.
- The file number automatically increases when a new video file is created.
- A new folder is created when the number of files in a folder exceeds 9,999.
- The folder names are given in order of 100VIDEO, 101VIDEO. The maximum number of the folders is 999.
- The maximum of 9,999 files can be created in a storage media by using the camcorder.

Photo file ②

- As in video files, the file number automatically increases when a new photo file is created.
- The photos have SAM_####.JPG format.
- A new folder is created when the number of files in a folder exceeds 999~1,000.
- The folder names are given in order of 100PHOTO, 101PHOTO. The maximum number of the folders is 999.
- The maximum of 9,999 files can be created in a storage media by using the camcorder.



File format

Video files

- Video files are compressed in H.264 format. The file extension is “.MP4.”
- Refer to page ?? for the video resolution.

Photo files

- Photo images are compressed in JPEG (Joint Photographic Experts Group) format. The file extension is “.JPG.”
- Refer to page ?? for the photo resolution.



The name of a video file recorded by the camcorder should not be modified, since proper playback by the camcorder requires original folder and file naming convention.

troubleshooting

Before contacting a Samsung authorized service center, perform the following simple checks. They may save you the time and expense of an unnecessary call.






WARNING INDICATORS AND MESSAGES




Problems may occur because of the following reasons. Check the information and take corrective action.

Battery

Message	Icon	Informs that...	Action
Low Battery	-	The battery is almost discharged.	<ul style="list-style-type: none">• Replace with a charged battery or connect the AC power adaptor.
Check the authenticity of this battery	-	The battery can not pass authenticity check.	<ul style="list-style-type: none">• Check whether the battery is authentic and change to new one.

Storage media

Message	Icon	Informs that ...	Action
Internal Memory Full		There is not enough space to record on the internal memory.	<ul style="list-style-type: none">• Delete unnecessary files on the internal memory.• Back-up files to your PC or another storage media and delete files.• Use a memory card.
Insert card		There is no memory card inserted in the memory card slot.	<ul style="list-style-type: none">• Insert a memory card.
Card Full		There is not enough space to record on memory card.	<ul style="list-style-type: none">• Delete unnecessary files on the memory card.• Back-up files to PC or another storage media and delete files.• Change memory card to another one has enough free space.
Card Locked		The write protection tab on an SD or SDHC card has been set to lock.	<ul style="list-style-type: none">• Release write protection tab.
Card Error		The memory card has some problem and can not be recognized.	<ul style="list-style-type: none">• Change memory card with another one.

Message	Icon	Informs that ...	Action
Not Formatted		The memory card is not formatted.	<ul style="list-style-type: none"> Format the memory card using the menu.
Not Supported Format		The memory card may have been formatted by another device and may still have existing images on it.	<ul style="list-style-type: none"> The image format is not supported. Check the supported file format. Format the memory card using menu item.
Not Supported Card		The memory card is not supported in this camcorder.	<ul style="list-style-type: none"> Change the memory card with the one recommended.
Low Speed Card. Please record at a lower resolution.	-	The memory card does not have enough performance to record.	<ul style="list-style-type: none"> Record video at a lower resolution. Change memory card with a one.

Recording

Message	Icon	Informs that ...	Action
Write Error	-	Some problem occurred while writing data to storage media.	<ul style="list-style-type: none"> Turn the camcorder's power off and on for data recovery. If a file is not recovered, format storage media using menus after back-up important files to PC or another storage media.
Release the Smart Auto	-	You can not operate some functions manually when Smart Auto is activated.	<ul style="list-style-type: none"> Release Smart Auto function.
Recovering Data... Don't power off and keep card inside.	-	The file was not created normally.	<ul style="list-style-type: none"> Wait until data recovery is finished. Never turn off the power or eject memory card during recording.

troubleshooting

Recording

Message	Icon	Informs that ...	Action
The number of video files is full. Cannot record video.	-	The number of video files that can be stored is 9,999.	<ul style="list-style-type: none">• Delete unnecessary files on the storage media.• Back up files to your PC or another storage media and delete files.• Change with another card which has enough free space.• Set "File No." to "Reset."• Format the storage media.
The number of photo files is full. Cannot take a photo.	-	The number of photo files that can be stored is 9,999.	<ul style="list-style-type: none">• Delete unnecessary files on the storage media.• Back up files to your PC or another storage media and delete files.• Change with another card which has enough free space.• Set "File No." to "Reset."• Format the storage media.

Playback

Message	Icon	Informs that ...	Action
Cannot select different resolution	-	The files you want to combine have different resolutions.	<ul style="list-style-type: none">• It is not possible to combine the files that have different resolutions.
Read Error	-	Some problems occurred when reading data from the storage media.	<ul style="list-style-type: none">• Format the storage media using menus after backing up important files to a PC or another storage device.
Corrupted file	-	This file can not be read.	<ul style="list-style-type: none">• Format the storage media using menus after back up important files to a PC or another storage device.

USB

Message	Icon	Informs that...	Action
Fail Printer Connecting Change 'USB Connect'	-	A problem occurred when connecting the camcorder via USB to a printer.	<ul style="list-style-type: none"> • Check the USB cable. • Try the connection procedure again. • Switch "USB connect" function to "PictBridge."
Fail USB Connecting Change 'USB Connect'	-	A problem occurred when connecting the camcorder via USB to a PC.	<ul style="list-style-type: none"> • Check the USB cable. • Try the connection procedure again. • Switch "USB connect" function to "Mass Storage."
Ink Error	-	There is a problem with the ink cartridge.	<ul style="list-style-type: none"> • Check the ink cartridge. • Put a new ink cartridge in the printer.
Paper Error	-	There is a problem with the paper.	<ul style="list-style-type: none"> • Check the paper in the printer. If there is no paper, insert the paper.
File Error	-	There is a problem with the file.	<ul style="list-style-type: none"> • Your camcorder does not support this file format. • Try another file recorded on your camcorder.
Printer Error	-	There is a problem with the printer.	<ul style="list-style-type: none"> • Turn the printer's power off and on. • Contact the printer manufacturer's service center.
Print Error	-	A problem occurred during printing.	<ul style="list-style-type: none"> • Do not remove power source or eject memory card during printing.

troubleshooting

SYMPTOMS AND SOLUTIONS

If these instructions do not solve your problem, contact your nearest Samsung authorized service center.

Power

Symptom	Explanation/Solution
The camcorder does not turn on.	<ul style="list-style-type: none">• The battery may not be installed on your camcorder. Insert the battery to the camcorder.• The inserted battery may be discharged. Charge the battery or replace it with a charged one.• If you use the AC power adaptor, make sure it is properly connected to a wall outlet.
The power turns off automatically.	<ul style="list-style-type: none">• Is “Auto Power Off” set to “5 Min”? If no button is pressed for about 5 minutes, the camcorder is automatically turned off (“Auto Power Off”). To disable this option, change the setting of “Auto Power Off” to “Off.” ↪ page ??• The battery is almost exhausted. Charge the battery or replace it with a charged one.
Power cannot be turned off.	<ul style="list-style-type: none">• Remove the battery or unplug AC power adaptor, and connect the power supply to the camcorder again before turning it on.
The battery is quickly discharged.	<ul style="list-style-type: none">• The temperature is too low.• The battery is not fully charged. Charge the battery again.• The battery reached its lifespan and cannot be recharged. Use another battery.

Display

Symptom	Explanation/Solution
The TV screen or LCD display has distorted images or has stripes at the top/bottom or on the left/right.	<ul style="list-style-type: none">• It can occur when recording or viewing a 16:9-ratio image on a 4:3-ratio TV, or vice versa. For more details, see the display specification. ↪ page ??
Unknown image appears on the LCD screen.	<ul style="list-style-type: none">• The camcorder is in Demo mode. If you do not want to see Demo image, change the setting “Demo” to “Off.” ↪ page ??
Unknown indicator appears on the screen.	<ul style="list-style-type: none">• A warning indicator or message appears on the screen. ↪ pages ??~??
The afterimage remains on the LCD screen.	<ul style="list-style-type: none">• This occurs if you disconnect the AC power adaptor or remove the battery before turning the power off.
The image on the LCD screen looks dark.	<ul style="list-style-type: none">• Ambient light too bright. Adjust the brightness and angle of LCD.

Recording

Symptom	Explanation/Solution
Pressing the Recording start/stop button does not start recording.	<ul style="list-style-type: none"> • Press the MODE button to set the Video record mode. ↪page ?? • There is not enough free space to record on the storage media. • Check if memory card is not inserted or write-protect tab is set to lock.
The actual recording time is less than the estimated recording time.	<ul style="list-style-type: none"> • The estimated recording time may vary depending on content and features used. • When you record an object that moves fast, the actual recording time may be shortened.
The recording stops automatically.	<ul style="list-style-type: none"> • There is no more free space for recording on the storage media. Back up important files on your PC and format the storage media or delete the unnecessary files. • If you make recordings or delete files frequently, the performance of the storage media will be deteriorated. In this case, format the storage media again. • If you use the memory card with low writing speed, the camcorder automatically stops recording the videos and the corresponding message appears on the LCD screen.
When recording a subject illuminated by bright light, a vertical line appears.	<ul style="list-style-type: none"> • This is not a malfunction.
When the screen is exposed to direct sunlight during recording, the screen becomes red or black for an instant.	<ul style="list-style-type: none"> • This is not a malfunction.
During recording, the date/time does not display.	<ul style="list-style-type: none"> • “Date/Time Display” is set to “Off.” Set the “Date/Time Display” to On. ↪page ??
You cannot record a photo image.	<ul style="list-style-type: none"> • Set your camcorder to the Photo record mode. ↪page ?? • Release the lock on the write-protection tab of the memory card if any. • The storage media is full. Use a new memory card or format the storage media. ↪page 75 Or remove unnecessary images. ↪page ??
The shutter sound is not heard when you record a photo image.	<ul style="list-style-type: none"> • Set “Shutter Sound” to “On.” • During dual recording, the Shutter Sound is not heard. • When the Mini HDMI cable or Audio/Video cable is connected to the camcorder, the Shutter Sound is not available.

troubleshooting

Recording

Symptom	Explanation/Solution
The beep sound is not heard.	<ul style="list-style-type: none">• Set “Beep Sound” to “On.”• Beep sound is temporarily off while recording videos.
There is a time difference between the point where you press the Recording start/stop button and the point where the recorded video starts/stops.	<ul style="list-style-type: none">• On your camcorder, there may be a slight time delay between the point when you press the Recording start/stop button and the actual point where the recorded video starts/stops. This is not an error.
Horizontal stripes appear on the images.	<ul style="list-style-type: none">• This occurs when recording images under a fluorescent lamp, sodium lamp, or mercury lamp. This is not a malfunction.

Storage Media

Symptom	Explanation/Solution
Memory card functions are not operable.	<ul style="list-style-type: none">• Insert a memory card into your camcorder properly. ↪page ??• If you use a memory card formatted on a computer, format it again directly on your camcorder. ↪page ??
Image cannot be moved or deleted.	<ul style="list-style-type: none">• Release the lock on the write-protect tab of the memory card (SDHC/SD memory card), if any. ↪page ??• You cannot move or delete the protected images. Release the protection of the image on the storage media. ↪page 96
You cannot format the memory card.	<ul style="list-style-type: none">• Release the lock on the write-protect tab of the memory card (SDHC/SD memory card), if any. ↪page ??• The memory card is not supported on your camcorder or card has some problems.
The data file name is not indicated correctly.	<ul style="list-style-type: none">• The file may be corrupted.• The file format is not supported by your camcorder.• Only the file name is displayed if the directory structure complies with the international standard.

Adjusting the image during recording

Symptom	Explanation/Solution
Focus does not adjust automatically.	<ul style="list-style-type: none"> • Set “Focus” to “Auto.” ↪page ?? • The recording conditions are not suitable for auto focus. Adjust the focus manually. ↪page ?? • The lens is dusty on the surface. Clear the lens and check the focus. • Recording is being made in a dark location. Use a light to brighten the area.
The image appears too bright or flickering, or changes in color.	<ul style="list-style-type: none"> • This may occur when you make a recording under a fluorescent sodium or or mercury lamp. Cancel “iSCENE” to avoid or minimize this phenomenon. ↪page ??
Image’s color balance is not natural.	<ul style="list-style-type: none"> • White balance adjustment is required. Adjust to the proper “White Balance.” ↪page ??
The subject passing by the frame appears very quickly.	<ul style="list-style-type: none"> • This is called the focal plane phenomenon. This is not a malfunction. Because of the way the image device (CMOS sensor) reads out video signals, the subject passing by the frame rapidly may appear to bend, depending on the recording condition.

Playback on your camcorder

Symptom	Explanation/Solution
Playback (play/pause) function does not work.	<ul style="list-style-type: none"> • Image files recorded using another device may not be played on your camcorder. • Check out the memory card compatibility. ↪page ??
Photo images stored on a storage media are not displayed in the actual size.	<ul style="list-style-type: none"> • Photo images recorded on other device may not appear in the actual size. This is not an error.
Playback is interrupted unexpectedly.	<ul style="list-style-type: none"> • Check if the AC power adaptor or battery back is properly connected and secure.

troubleshooting

Playback on other devices (TV, etc.)

Symptom	Explanation/Solution
You cannot view the image or hear the sound from the connected device.	<ul style="list-style-type: none">• Make sure that the connection cable is connected to the proper jack.
The image appears distorted on a TV.	<ul style="list-style-type: none">• This phenomenon is caused by connecting to the TV with 4:3 aspect ratio.
You cannot view the image or hear the sound from a TV connected using the HDMI cable.	<ul style="list-style-type: none">• Images will not be output from the HDMI jack if the material is copyright protected.

Connecting/Dubbing with other devices (Recorder, PC, Printer, etc.)

Symptom	Explanation/Solution
You cannot dub correctly using the HDMI cable.	<ul style="list-style-type: none">• You cannot dub images using the HDMI cable.
You cannot dub correctly using the Audio/Video cable.	<ul style="list-style-type: none">• The Audio/Video cable is not connected properly. Make sure that the A/V cable is connected to the proper jack, i.e. to the input jack of the device used for dubbing images from your camcorder. ↳page ??
The PictBridge printer cannot be made using a PictBridge printer.	<ul style="list-style-type: none">• Your printer may not print images edited on a computer or recorded using other device. This is not an error.

Connecting to a computer

Symptom	Explanation/Solution
The computer does not recognize your camcorder.	<ul style="list-style-type: none"> • Disconnect the USB cable from the computer and camcorder, restart the computer, then connect it again correctly.
Cannot play a video file properly on a PC.	<ul style="list-style-type: none"> • A video codec is needed to play the file recorded on your camcorder. Install the software provided with your camcorder. ↪page ?? • Make sure you insert the connector in the correct direction, and connect the USB cable to the USB jack on your camcorder firmly. • Disconnect the cable from the computer and camcorder, restart the computer. Connect it again properly. • To play back an HD video file, a computer with better specification is required. Check a computer with recommended specification. ↪page ??
Intelli-studio does not function properly.	<ul style="list-style-type: none"> • Exit the Intelli-studio application, and restart the Windows computer.
Intelli-studio is not performed.	<ul style="list-style-type: none"> • Set PC Software to On in the Settings menu or install Intelli-studio in the computer. ↪pages ??, ??
The image or sound on your camcorder is not played on your computer properly.	<ul style="list-style-type: none"> • Video playback or sound may stop temporarily depending on your computer. The video or sound copied to your computer is not affected. • If your camcorder is connected to a computer that does not support Hi-speed USB (USB2.0), the image or sound may not be played correctly. The image and sound copied to your computer are not affected.
The playback screen is paused or distorted.	<ul style="list-style-type: none"> • Check the system requirements to play a video. • Exit other all applications running on the current computer. • If a recorded video is played on your camcorder connected to a computer, the image may not play smoothly, depending on the transfer speed. Please copy the file to your PC, and then play it back.

troubleshooting

Overall operations

Symptom	Explanation/Solution
The date and time are incorrect.	<ul style="list-style-type: none">Has the camcorder been left unused for a long period of time? The backup built-in rechargeable battery may be discharged. ↳ page ??

Menu items that cannot be used at the same time

Symptom	Cannot use	Because of the following settings
Menu items are grayed out	“iSCENE”	“Aperture : Manual,” “Shutter : Manual”
	“Aperture: Manual”	“Shutter : Manual,” “iSCENE”
	“Shutter: Manual”	“Aperture : Manual,” “iSCENE”
	“Video Resolution,” “Fader”	“Time Lapse REC”
	“Photo Resolution”	“Cont. Shot : High Speed”

- You cannot select grayed items in the current recording/playback mode.
- There are some functions you cannot activate simultaneously.
The list shown above shows examples of unworkable combinations of functions and menu items.
- Menu and quick menu cannot be used in Smart Auto mode.
- The following functions cannot be used during video recording:
- Only quick menu is available during video recording.
- The following functions are automatically set to Off or Auto mode in the Smart Auto mode: “iSCENE”, “Shutter”, “Digital Effect”, “Tele Macro”, etc.
- In the Smart Auto mode, your camcorder automatically chooses the appropriate camcorder settings based on a detected type of scene. Most settings are automatically adjusted in Smart Auto mode. And so, to set or adjust functions on your own, release the Smart Auto mode first.

maintenance & additional information

MAINTENANCE

Your camcorder is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years.

Cautions when storing

- For safekeeping of the camcorder, turn off the camcorder.
 - Remove the battery and AC power adaptor. ↪pages ??, ??
 - Remove the memory card. ↪page ??

LCD screen

- Do not push it too hard or knock it on anything.
- While using the camcorder, the surface around the LCD screen may heat up.
- If you leave power on for a long time, the surface around the LCD screen becomes hot.
- A LCD screen is manufactured by the advanced precise technology and has more than 99.99% of valid pixels. Despite the fact, black or bright spots (red, blue, white) may rarely appear in the center for one spot and in the surround for up to two spots. These spots that can be normally occurred during manufacturing process do not affect the recorded images.

Lens

- Use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloth or your fingers.
If necessary, wipe gently with lens with a paper.
 - Mold may form if the lens is left dirty.
 - If the lens looks dim, turn off the camcorder and leave it for about 1 hour.



When there is dew condensation, put the camcorder aside for a while before using

- What is dew condensation?
Dew condensation happens when a camcorder is moved to a place where there is a significant temperature difference from the previous place. The Dew condenses on the external or internal parts of the camcorder, and on the reflection lens. When this happens, it may cause a malfunction or damage to the camcorder when using the device with the power on while there is dew condensation.
 - What can I do?
Turn the power off and detach the battery, and leave it in a dry area for 1~2 hours before using it.
 - When does the dew condensation occur?
When the device is relocated to a place with a higher temperature than the previous location, or when using it in a hot area suddenly, it will cause condensation.
 - When recording outside in cold weather during the winter and then using it in indoors.
 - When recording outside in hot weather after being indoors or inside a car where the A/C was running.
-

maintenance & additional information

USING YOUR CAMCORDER ABROAD

- Each country or region has its own electric and color systems.
- Before using your camcorder abroad, check the following items.

Power sources

The provided AC adaptor features automatic voltage selection in the AC range from 100 V to 240 V. You can use your camcorder in any countries/regions using the AC power adaptor supplied with your camcorder within the AC 100 V to 240 V, 50/60 Hz range.

Use a commercially available AC plug adaptor, if necessary, depending on the design of the wall outlet.

Viewing videos recorded with HD (high definition) image quality

In countries/regions where 1080/60i is supported, you can view the images with the same HD (high definition) image quality as that of the recorded images. You need an **NTSC**-system-based and 1080/60i compatible TV (or monitor) with an HDMI or component/Audio/Video cable connected.

Viewing videos recorded with SD (standard definition) image quality

To view images recorded with SD (standard definition) image resolution, you need an **NTSC**-system-based TV with audio/video or component input jacks, and an component/Audio/Video cable connected.

On TV color systems

Your camcorder is an **NTSC**-system-based camcorder.

If you want to view your recordings on a TV or to copy it to an external device, it must be an **NTSC**-system-based TV or an external device and have the appropriate Audio/Video jacks. Otherwise, you may need to use a separate video format transcoder (NTSC-PAL format converter).



The format transcoder is not provided by Samsung.

NTSC-compatible countries/regions

Bahamas, Canada, Central America, Japan, Korea, Mexico, Philippines, Taiwan, United States of America, etc.

PAL-compatible countries/regions

Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.



You can make recordings with your camcorder and view pictures on the LCD screen from anywhere in the world.

specifications

Model name	HMX-S15BN/HMX-S16BN	
System	Video signal Picture compression format Audio compression format Image device Lens Focal length Filter Diameter	NTSC H.264 (MPEG-4.AVC) AAC (Advanced Audio Coding) 1/2.3", 5M Pixel CMOS F1.8 ~ F3.3, 15x Optical Zoom (18x Intelli Zoom), 10x Digital Zoom (video recording only) 4.8mm ~ 72mm Ø46
LCD screen	Size/dot number LCD screen method	3.5" Wide Touch LCD / 1.1M Pixel TFT LCD
Connectors	Composite output HDMI output Audio output USB output	1Vp-p (75 Ω terminated) C type connector -7.5 dBs (600 Ω terminated) USB 2.0
General	Power source Power source type Power consumption (Recording) Operating temperature Storage temperature Storage media External dimensions (WxHxD) Weight Internal MIC	DC 5 V, Lithium Ion battery 3.7 V Lithium Ion battery, Power supply (100 V ~ 240 V) 50/60 Hz 3.5W (LCD on) 0 °C ~ 40 °C (32 °F~104 °F) -20 °C ~ 60 °C (-4 °F ~ 140 °F) Internal memory (SSD) (HMX-S15/S16 only), Memory card (SD/SDHC) (optional) Approx. 66.3 mm (2.61 inches) x 69.5 mm (2.74 inches) x 130.0 (5.12 inches) Approx. 415g (0.91lb, 14.64oz) (Except for Lithium Ion battery) 2-channel stereo, Zoom microphone

※ These technical specifications and design may be changed without notice.

warranty

SAMSUNG LIMITED WARRANTY

SAMSUNG Electronics America Inc. (SEA), warrants that this product is free from defective material and workmanship.

SEA further warrants that if product fails to operate properly within the specified warranty period and the failure is due to improper workmanship or defective material, SEA will repair or replace the product at it's option.

All warranty repairs must be performed by a SEA authorized service center. The name and address of the location nearest you can be obtained by calling toll free: 1-800 SAMSUNG (1-800-726-7864).

Labor

90 days carry-in

Parts

1 year

On carry-in models, transportation to and from the service center is the customer's responsibility.

The original dated sales receipt must be retained by the customer and is the only acceptable proof of purchase.

It must be presented to the authorized service center.

EXCLUSIONS (WHAT IS NOT COVERED)

This warranty does not cover damage due to accident, fire, flood and/or other acts of God; misuse, incorrect line voltage, improper installation, improper or unauthorized repairs, commercial use, or damage that occurs in shipping.

Exterior and interior finish, lamps, and glass are not covered under this warranty.

Customer adjustments which are explained in the instruction manual are not covered under the terms of this warranty.

This warranty will automatically be voided for any unit found with a missing or altered serial number. This warranty is valid only on products purchased in the United States and Puerto Rico.

Some States do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.



If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center Samsung Electronics America, inc.

1-800-SAMSUNG (726-7864)
www.samsung.com/us



RoHS compliant

Our product complies with “The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment”, and we do not use the 6 hazardous materials- Cadmium(Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr +6), Poly Brominated Biphenyls (PBBs), Poly Brominated Diphenyl Ethers(PBDEs)- in our products.