AVerMedia

EzRecorder 310
ER310

English

# User Manual

Table of Contents

Thank you for purchasing EzRecorder 310. Please read this user manual carefully to ensure proper use of this product. We recommend you to keep it for future reference.

Chapter 1   In the Box

Please confirm that the package contains the following items. If any of the package contents are missing or damaged, please contact the distributor immediately.
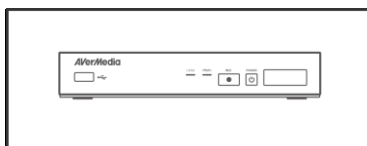
EzRecorder 310
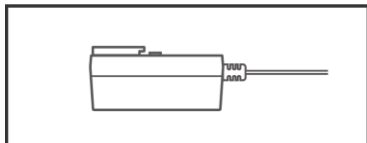
Power adapter

Power adapter outlet module

HDMI cable

IR blaster cable
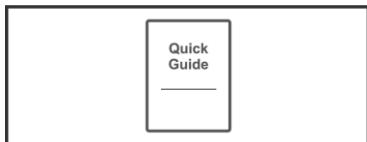
Quick guide
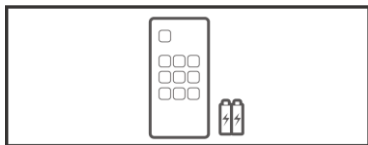
Remote control (batteries included)

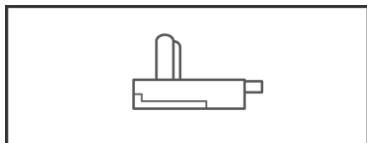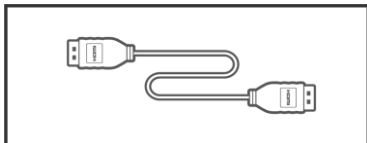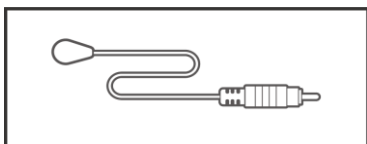- The accessories that come with the package may slightly vary depending on different sales regions.
- EzRecorder 310 is made for recording and capturing media materials that are legally owned or licensed by the user only. Any violation of copyrights or other intellectual property rights is not allowed.
- AVerMedia regularly releases the latest version of firmware for EzRecorder 310. Having the latest firmware enhances the functionality of EzRecorder 310. To download the latest firmware file, please go to www.avermedia.com and then enter the model name in Product Search field. For firmware info, refer to Product Information (p.48).

Chapter 2   Parts and Ports

2.1 Control Panel

The button panel found on the front of the unit provides quick access to commonly used functions.
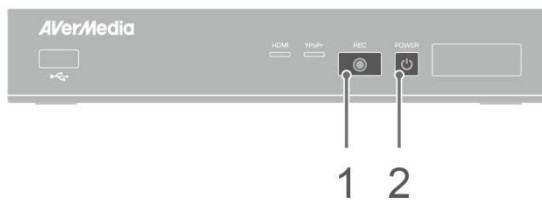
| 1	REC ⊙	**Record** Press to start / stop recording. Hold down the button for four seconds to force shut down EzRecorder 310.
2	POWER ⏻	**Power** Press to turn the unit on.

2.2 Infrared Sensor

When using the remote control, aim it at the infrared (IR) sensor located at the front panel of the unit. The remote control must be held at an angle within 30 degrees perpendicular to the IR sensor to function correctly. The distance between the remote control and the sensor should not exceed 6 meters (20 feet).

AVerMedia®
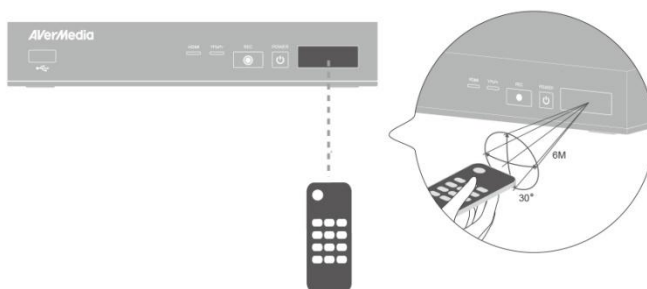
2.3 LED Indicator

The LED indicators on the front of the unit show the device's status.
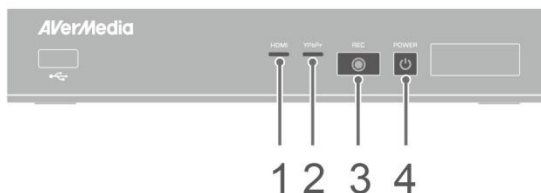
1	HDMI source LED indicator	2	YPbPr source LED indicator
3	Record status LED indicator	4	Power status LED indicator

Status	Source	Record	Power
Powered on			Solid green
Ready to record/snapshot	Solid green		Solid green
Recording	Solid green	Breathing	Solid green
Take a snapshot	Flashes red once	Flashes red once	Flashes red once
Unable to record/snapshot	Solid green		Flashes green continuously
No source			Flashes green continuously
Source is available	Solid green		
Powering off	Solid green		Flashes green continuously
Pass-through ON when powering off	Solid orange		
Recording paused	Solid red	Solid red	Solid red
Finishing recording	Solid green	Flashes red continuously	Solid green

Condition	Source	Record	Power
Storage space is low	Solid green	Glows at a slow pace	Solid green
Device is not ready			Flashes green continuously
no storage/ no signal/ protected content			Flashes green continuously
Accepting a remote control command			Flashes green once

2.4 Connection Ports
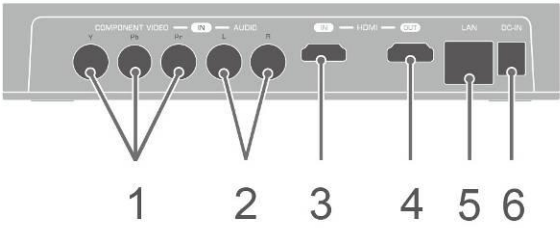
2.4.1 Front View

1   USB slot

- USB slot is for external hard drive storage device connection as well as for firmware upgrade via storage device.
- USB hub is not supported.
- There will be no function or reply when connecting EzRecorder 310 to the computer via USB.

2.4.2 Rear View

1	Component video input		4	HDMI output
2	Audio L/R input		5	LAN port
3	HDMI input		6	DC-IN

Chapter 3   Installation and First-Time Setup

3.1 Hardware Installation

Please follow the steps below to properly connect EzRecorder 310 to your set-top box (STB) and TV.

- Before making the connections, make sure to set STB's video output to "Component" and adjust its output resolution to 1080i or below. Then power your STB off.
- If you would like to install internal hard drive, install it before making the connections.
- Make sure that the cables are firmly connected and that neither of the cables are loose. If any of the cables are loose or disconnected, there may be a loss of signal or screen color problems.

Step 1
## Connecting EzRecorder 310 to Your Set-top Box

Connect one end of the an HDMI cable or a component video cable to the rear of EzRecorder 310 and the other end to the **HDMI** or **COMPONENT VIDEO OUT** (red, green, and blue) port on your STB.
If you are using a component cable for video, you'll need a composite cable for audio. Connect one end of the composite audio cable to the **AUDIO IN** port on the rear of EzRecorder 310 and the other end to the **AUDIO OUT (red and white)** port on the STB.
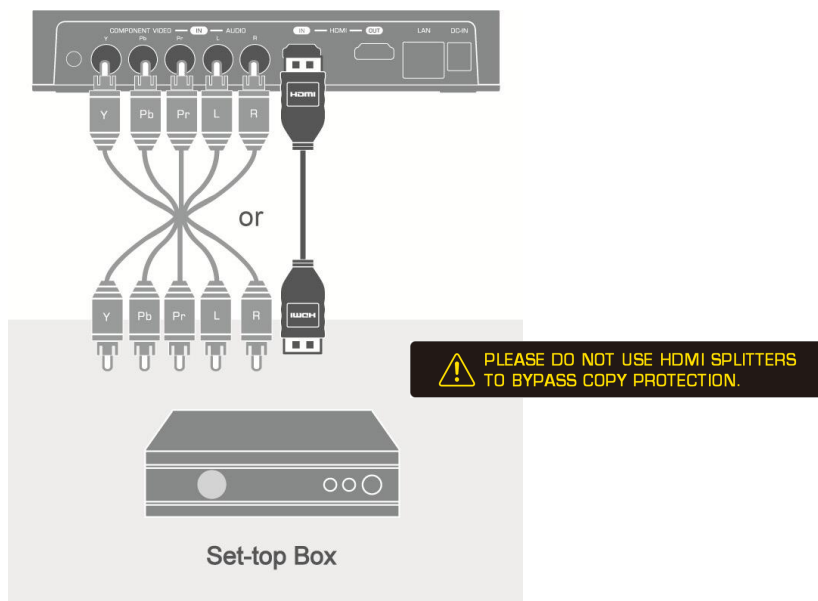
Step 2
Connecting EzRecorder 310 to Your TV

Take another HDMI cable and connect one end to the **HDMI OUT** port on the rear of EzRecorder 310 and the other end to the **HDMI I N** port on your TV.
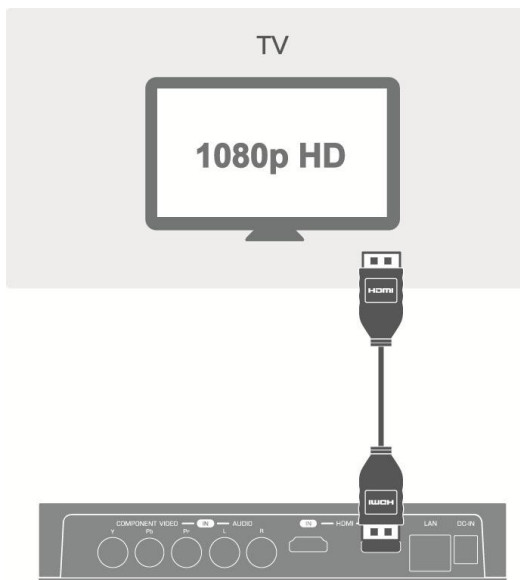
Step 3
**Connecting IR Blaster Cable**

Step 3-1:

Use a soft cloth to gently clean and remove any dust on the infrared (IR) sensor of your STB.

Step 3-2:

Connect the IR blaster cable to the IR BLASTER port on the rear of the device. Make sure you snap the cable securely in place.

Step 3-3:

Peel off the sticker on the back of IR emitter and stick the IR emitter right to the STB IR sensor window. To make sure it is properly attached, use your thumb to secure the emitter with a little pressure for at least 3 seconds.
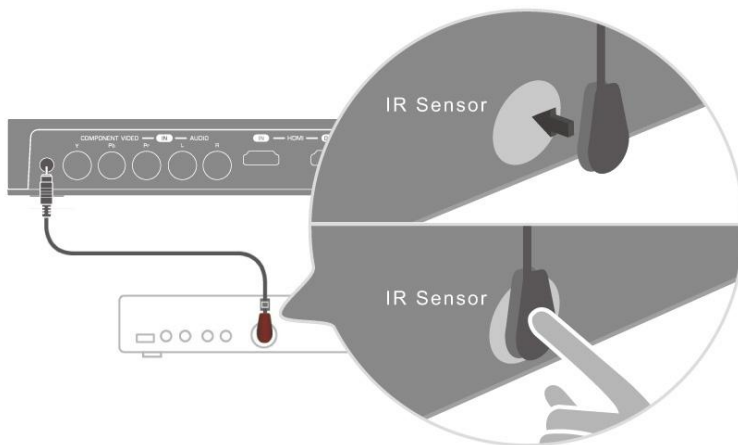
The location of IR sensor window on STB varies. To find the exact location of the IR sensor, refer to the guide that comes with your STB.

Step 4
Powering on Your STB

Power on your STB.

Step 5
Installing the Power Adapter

Slide the power adapter outlet module into the groove on the power adapter.

Step 6
Connecting the Power Adapter

Connect the power adapter connector to the **DC-IN** port on the rear of the device. Then plug the power adapter to a wall outlet.

Step 7
Powering on EzRecorder 310

Press the power button on the front panel of the device.

Or

Aim the remote control at the infrared sensor located on the front panel of the device. Then press **POWER** on the remote.

The LED indicator then lights up green, indicating that the device is on.
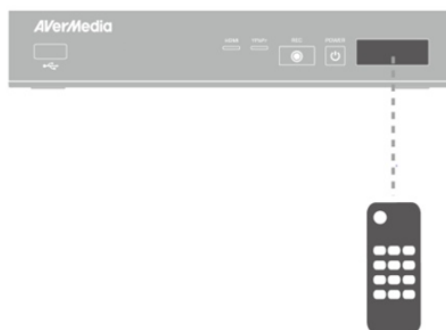
Step 8
Check Video on TV Screen

Turn on your TV and make sure the screen is properly displayed.

If your TV is not displaying video properly, please check the followings:
- Make sure that your TV is set on the correct input source (COMPONENT IN). Switch video input by pressing the input selection button ("Input"/"Source"/"TV/AV") on the TV remote control.
  Supported resolutions vary depending on the TV model in use. For details, please refer to the guide that comes with your TV.
- Check video output settings of your STB.
- Power off EzRecorder 310 and then make sure that the device is connected properly and with the proper cables.
- If there is still no video signal on TV, refer to FAQ at www.avermedia.com for further troubleshooting.

3.2 Storage Device Installation

EzRecorder 310 supports 2.5 inch internal hard drive (HDD) and external USB hard drive. You can choose to save the videos and snapshots either to an internal hard drive or an external USB drive.

3.2.1 Internal HDD Installation

- It is highly recommended to use a new unformatted hard drive or a hard drive formatted as NTFS file system. The supported maximum storage capacity of the hard drive is 2 TB.
- Before installing or removing the internal HDD, please disconnect the power supply from EzRecorder 310 to avoid data loss.
- Removing internal HDD immediately after powering-off may cause personal injury due to heat. Please wait until the HDD cools down completely (it takes approximately 10 minutes) before any attempt to remove it.

Step 1
Removing the HDD Lid

Use your fingertip to flip open the HDD lid, located on the bottom of EzRecorder 310. Lift off the lid and set it aside.
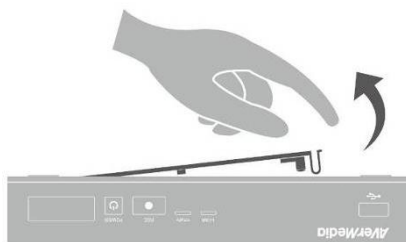
Step 2
Measuring HDD Height

Use a ruler to measure the height of your HDD (7 mm, 9.5 mm, or 12.7 mm).
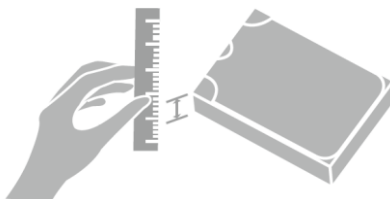
Step 3
Adjusting the Rotary Knob

Adjust the rotary knob attached to the inner side of the lid to fit the height of your HDD.

The default position of the rotary knob fits HDD with 9.5 mm height. If you use a 7 mm HDD, rotate the rotary knob to the other direction. For a 12.7 mm HDD, you need to remove the rotary knob using a screwdriver.
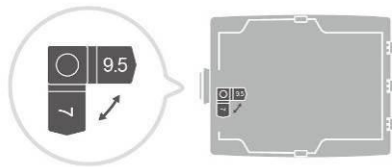
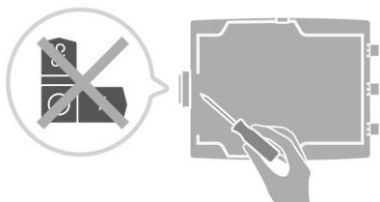The device with measurement marked on the inner HDD lid may vary by region. Please read the instructions according to the device purchased.
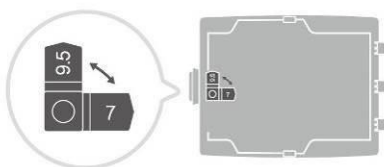
Using a 7 mm HDD: **Using a 9.5 mm HDD:**

Using a 12.7 mm HDD:

Step 4
Inserting the HDD

Place the HDD on the slot with the sticker-side facing up and the HDD connector end facing the SATA connector.
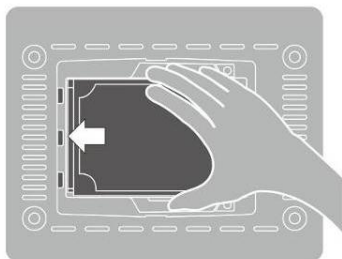
Align and insert the HDD connectors all the way into the SATA connectors attached to the slot. Push in firmly to secure them.
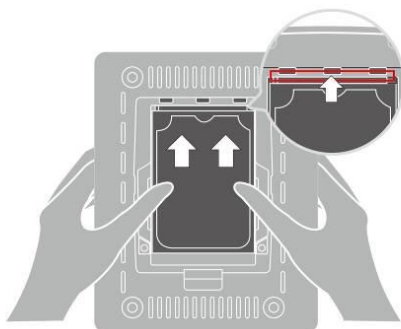
Step 5
Replacing the HDD Lid

Place the HDD lid back and snap it into place.
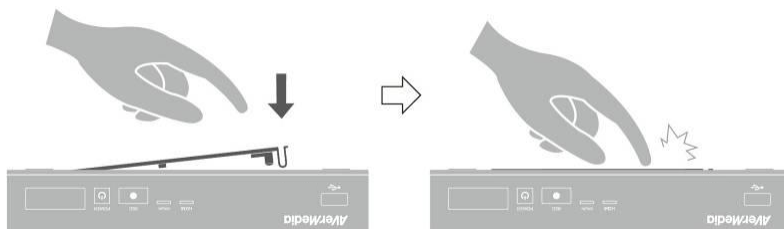
- If your hard drive is not detected, keep the hard drive connected and restart EzRecorder 310 or format current drive to NTFS file system (please download the free application of "HP USB Storage Format Tool" from the FAQ of AVerMedia website). If problem remains unsolved, refer to FAQ at www.avermedia.com for further troubleshooting.
- It is common to have a hard drive with a slightly decreased capacity after formatting.

3.2.2 USB Storage Device Insertion

Connect your portable USB hard drive to the USB port on the front of EzRecorder 310.

- It is highly recommended to use an NTFS-formatted internal hard drive.
  If you would like to use an external hard drive, do not remove your portable USB hard drive before an incoming schedule starts; otherwise, the scheduled task may fail to start.
- If you connect another hard drive to EzRecorder 310, please go to **Menu > Settings > Disk Management > Storage Destination** to re-select desired storage destination for both recorded files and snapshots.
- To avoid data loss, please safely remove your external storage device before unplugging it from EzRecorder 310 (See p.31 for details).

3.3 Setup Wizard

When the first time you power on EzRecorder 310 unit, the setup wizard appears. The following steps guide you through the initial configuration process.

- Make sure to install internal hard drive or external USB storage device beforehand.
- For the first-time initialization, a short duration of black screen (approximately 20 seconds) is followed by an AVerMedia logo. The blinking green status light indicates that EzRecorder 310 **is** starting up. Please wait until the welcome screen appears.

Step 1

Selecting Language

When the welcome page appears, use ▲/▼ to select your preferred language. Press **OK** to confirm.
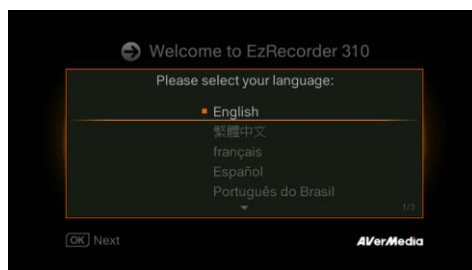
Step 2
A/V Pass-Through

It is advised to turn **ON** A/V pass-through**.**
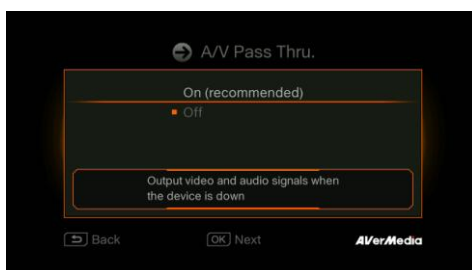
Step 3
Reminder

Make sure an NTFS-formatted hard drive is connected or installed to the device.

Check the connection of network.

Press **OK** to start setup.

A router which supports DHCP IP network is recommended. Also, refer to Ch. 6.2 for manual connection setup.
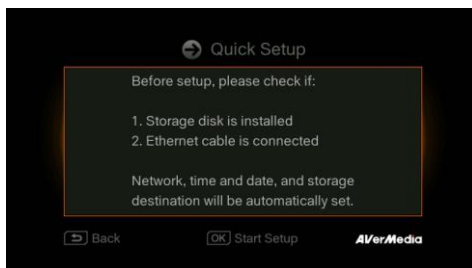
Step 4
Connecting to a Network

Network setup is for automatic Time, Time Zone, DST adjustments.

If you have not connected to a valid network, a result of failed network connection will be shown. You can skip this step now and set it up later at **Menu** > **Settings** > **Date and Time**. See page 44 for details.

Press **OK** to continue.

Press ↰ to go back to the previous page.
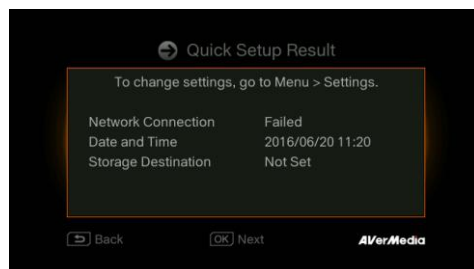

Step 5
Installing a Storage Device

If you have already installed your storage device beforehand, skip to **Step 6**.

If you have not yet installed any storage device, install it before continuing the setup process.

* To install an internal HDD, disconnect the power supply from EzRecorder 310 beforehand to avoid data loss.

* If you want to install an internal HDD, you can skip this step and exit the Setup Wizard. The previous settings will be saved and you can go back to **Menu > Settings > Disk Management > Storage Destination** later to select desired storage destination.

Then press ↰ to go to the previous screen or press **OK** to continue.
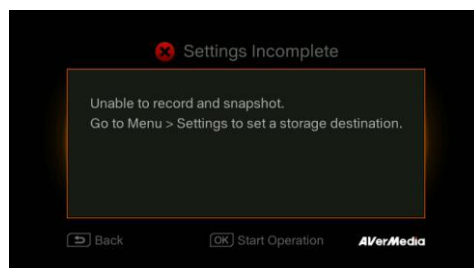
Step 6
Finishing Setup Wizard

Once a NTFS-formatted hard drive is connected, a Settings Complete notice will be shown.

You can start to record and take snapshot right away. Press **OK** to exit the wizard and start using EzRecorder 310.
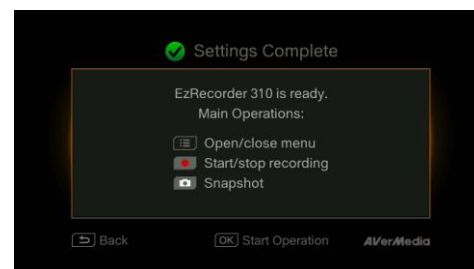
- Unplug EzRecorder 310 from the power supply before installing an internal HDD.
- Sometimes the connection test in Wizard will appear to be failed even though you have connected the Ethernet cable to EzRecorder 310. Go to **Menu** > **Settings** > **Network** to set the network manually.

3.4 IR Learning Setup

- IR Learning is a process that enables EzRecorder 310 to memorize infrared (IR) command sequence from your STB remote control. Once you have the IR Learning completed, EzRecorder 310 can control your STB for scheduled recording. (See **Schedule List** section on p.37 for details).
- Before IR Learning, make sure you plug in the IR blaster cable and power on your STB.

Step 1

Go to **Menu** > **Settings** > **IR Device**. Make sure the IR blaster cable is properly plugged in and press **OK** to continue.
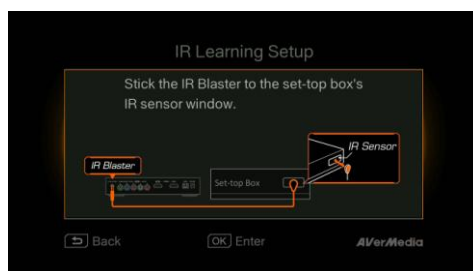
Select your region from the list and press **OK** to confirm. Next, select a STB and press **OK**. Then skip to **Step 4**.

or

If your STB is not on the list, Select "Add" and press **OK** to start the IR Learning process (See Step 2 and 3 below).
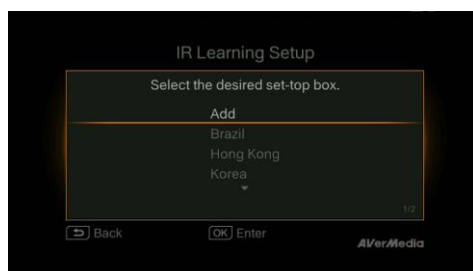
IMPORTANT:

If the IR Learning fails, please try "IR Learning (Exception)" and then follow the on-screen instruction.
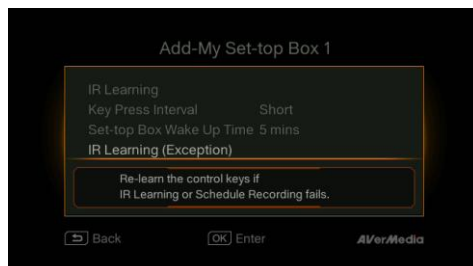
Step 2

Follow the on-screen instruction and then press **OK**.

Step 3

Press "1" on your STB remote control.

Step 4

Press [F1] to verify the key learning result. Check if the channel number displayed on background screen is corresponding to the learned key.
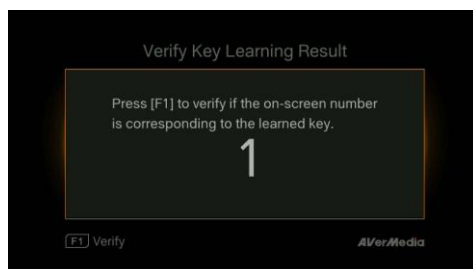
If the STB does not change the channel correctly, press [F2] to re-learn a key.

*If your STB still fails to change channel accordingly, make sure you enter a valid channel number.

When this step is complete, press [F3] to move on to the next key.

Step 5

Repeat **Step 3** and **Step 4** until you complete all key learning and verification.

*Skip unavailable keys on the remote control.

*The keys indicated with ✓ are verified ones.

After "Power" key is learned and verified, the STB will power off. Restart the STB and press **F3** to complete the IR Learning process.
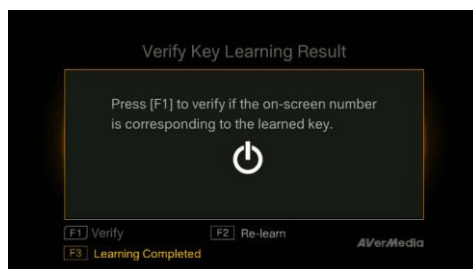
3.5   Supported Resolutions

EzRecorder 310 supports Component (YPbPr) and HDMI input resolutions as follows:

HDMI / Component (YPbPr)
480i/576i
480p/576p
720p (50 & 60Hz)
1080i (50 & 60Hz)
1080p (50 & 60Hz)

EzRecorder 310 records the exact display resolution under most circumstances. Exceptions can only be found when the input resolution is set as 1080p:

Source Resolution	Display Resolution	Recorded Resolution
1080p (60 fps)	1080i (60 fps)	1080p (30 fps)
1080p (50 fps)	1080i (50 fps)	1080p (25 fps)

Estimated recording duration for different video quality settings:

1080p

Video Quality / Storage Capacity	Optimal (20 Mbps)	Good (18 Mbps)	Maximum Recording Length (15 Mbps)
1 TB	100 hrs	110 hrs	125 hrs
2 TB	200 hrs	220 hrs	250 hrs

720p

Video Quality / Storage Capacity	Optimal (20 Mbps)	Good (15 Mbps)	Maximum Recording Length (10 Mbps)
1 TB	100 hrs	125 hrs	200 hrs
2 TB	200 hrs	250 hrs	400 hrs

1080i

Video Quality / Storage Capacity	Optimal (15 Mbps)	Good (12 Mbps)	Maximum Recording Length (10 Mbps)
1 TB	125 hrs	150 hrs	200 hrs
2 TB	250 hrs	300 hrs	400 hrs

480i (576i) / 480p (576p)

Video Quality / Storage Capacity	Optimal (7.5 Mbps)	Good (5 Mbps)	Maximum Recording Length (3 Mbps)
1 TB	250 hrs	400 hrs	650 hrs
2 TB	500 hrs	800 hrs	1300 hrs

*Recording with higher video quality takes up more disk space.

Chapter 4   The Remote Control

The descriptions below show the deployment of the keys on the remote control.

#	Button	Description
1	POWER	Press to turn the unit on / into stand-by mode.
2	MENU	Press to access the main menu. Press again to exit.
3		Press the navigation keys to move among options. Press **OK** to confirm a selection. Press **OK** to mark/ unmark segment in post- editing.
4	RECALL	Press to play the latest recorded file or view the last captured image.

5	●	Press to start/stop recording.
6	▶	Press to start playing the selected file. Press to play the file at normal (1x) speed when slow motion, rewind, or fast-forward is active.
7	STOP ■	Press to stop the playback/ recording.
8	REW ◀◀	Press to rewind (2x, 4x, 8x, 16x, 32x).
9	PAGE- ◀	Press to return to the previous page.
10	QUALITY ★	Press to display the video/ snapshot quality adjustment screen. Press again to exit.
11	F1	Press to safely remove external hard disk in Menu. (Follow the on-screen instruction)
12	F2	(Follow the on-screen instruction)
13	F3	(Follow the on-screen instruction)
14	SOURCE ⊡	Press to switch between Component and HDMI sources.
15	INFO ⓘ	Press to display onscreen information, including mode, source and audio sources.
16	BACK ↩	Press to exit the current page and return to the previous page.
17	◻	Press to take a snapshot during video playback.
18	❚❚	Press to pause the playback. Press **OK** or ▶ to resume playback. Press to pause the recording.
19	SLOW ▶	Press to play the video in slow motion (1/2x). Press again to enter frame- by-frame mode (See p.27 for details).
20	FF ▶▶	Press to fast-forward (2x, 4x, 8x, 16x, 32x).
21	PAGE+ ▶❚	Press to go to the next page.
22	DELETE 🗑	Press to delete the selected files.
23	DISK INFO ◑	Press to display the disk information. Press again to hide it.

Chapter 5   Basic Operation

This chapter guides you to instantly record video, capture images, and play the recorded video.

Recording and snapshot functions are only available if the storage destination is properly setup.

OSD Menu	Descriptions

Descriptions

Instant Recording

Method 1:

Step 1:

- Press 🔴 on the remote control.

Step 2:

- Use ▲/▼ to select desired recording length. Then press **OK** to activate instant recording. To stop recording before finished, press 🔴 again or ⬛.

  *If the instant recording task conflicts with a scheduled task, a warning message will appear. Choose "Keep task above" to continue with the current instant recording until an incoming scheduled task starts; choose "Skip task above" to continue with current instant recording and skip the scheduled task.
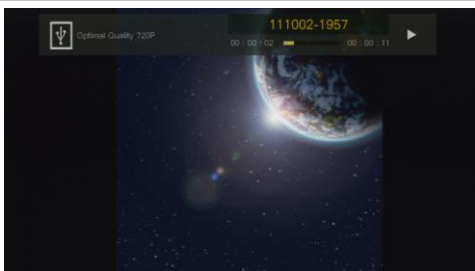
Method 2:

- Press the Record button (🔘) on the front panel of the unit.

  *If you choose this way to activate an instant recording, the current instant recording immediately starts, but ends when an incoming scheduled task starts.

0 hour and 34mins remaining
REC length: 30mins
Cancel   Start recording

Quick Snapshot

- Press 📷 to capture current image.

Instant Playback

- Press 👁 (RECALL) to play the last recorded file or view the last captured image.

- Press ⏹ (STOP) to stop the playback.

Image Capture During Video Playback

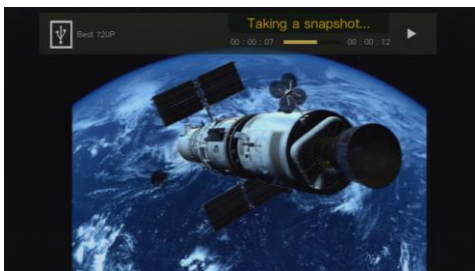**Method 1:**

- Press 📷 to capture current image.

Method 2:

<u>Step 1</u>:

- Press ▶ (SLOW) to play the video in slow motion (1/2x). Press ▶ (SLOW) again to view the video frame by frame.

  or

- Press ⏸ to pause the playback. Press ⏮ (PAGE-) to go to previous frame; press ⏭ (PAGE+) to go to next frame.

<u>Step 2</u>:

- Press 📷 to capture your desired image.

Recording / Snapshot Settings Adjustment

Step 1:

Press ★ (QUALITY) to display the Recording/Snapshot

Settings adjustment screen.

Step 2:

Use ▲/▼ to select "Recording Settings" or

"Snapshot Settings" and press **OK**.

Step 3:

Use ▲/▼ to select desired option and press
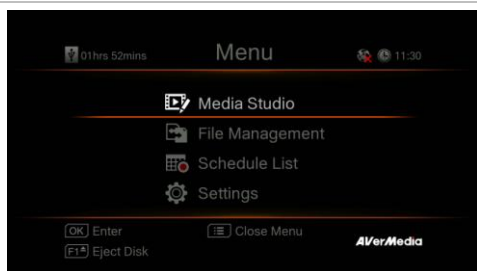
OK to confirm.

Step 4:

Press ↩ (BACK) to exit.

Disk Information

- Press ◐ (DISK INFO) to display the disk information.

  Press again to hide it.

Main menu

- Press ≡ (MENU) to call up the main menu.
- Press ≡ (MENU) or ↩ (BACK) to exit the menu.

Chapter 6   The OSD Menu Display

Under the menu, you can check and manage both your recorded videos, snapshots, and customize your preferences.

1 Remaining Time for Recording	3 Current Time
2 Network Connection	

OSD Menu	Descriptions
	Basic Operation - Press ☰ (MENU) to bring up the menu. - Press ☰ (MENU) or ↩ (BACK) to exit the menu. - Use ▲/▼ to make selection on the menu and **OK** to enter a submenu. - In the submenu, use ▲/▼ to make selection and **OK** to confirm. Press ↩ (BACK) to return to the previous page.

6.1 Media Studio

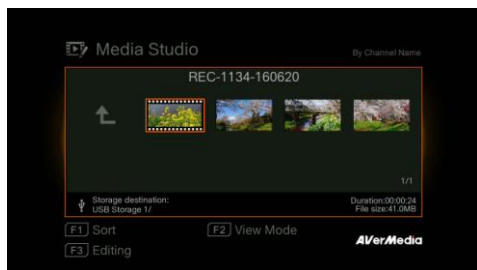You can check both recordings and snapshots captured by EzRecorder 310 in "Media Studio".

Capture Format:

Video	MP4 (Codec: H.264 format with AAC audio)
Image	JPEG

> It is recommended that you view only videos and snapshots that are recorded by EzRecorder 310. Attempt to open files taken by other equipment (such as a camera) on EzRecorder 310 is very likely to fail.

OSD Menu	Descriptions

Navigating

- Use the navigation keys ◄/►/▲/▼ to select among items.
- Press **F1** to sort the files by file name, file size, or file format.
- Press **F2** to switch between list mode and thumbnail mode.
- Press ▶| (PAGE+) to go to the next page.
- Press |◄ (PAGE-) return to the previous page.
- Press ☰ (MENU) to directly access the main menu.

Video Playback

- Press ▶ or **OK** to start playing the selected video.
- Press ‖ or **OK** to pause the playback.
  Press ▶ or **OK** to resume playback.
- Press **F1** to toggle among different playback modes (No Repeat/ Loop/ Auto Rewind).
- Press ▶ (SLOW) to play the video in slow motion

(1/2x).

- Press ![REW] to rewind at 2x, 4x, 8x, 16x, 32x speed.

- Press ![FF] to fast forward at 2x, 4x, 8x, 16x, 32x speed.

- Press ◄ to skip backward 10 seconds.

- Press ► to skip forward 30 seconds.

- Press ![play] to play the file at normal (1x) speed when slow motion, rewind, or fast-forward is active.

- Press ![STOP] to stop the playback.

- Press ![INFO] to display the playback information, including storage disk, recording resolution, duration, elapsed and remaining time, and file name.

**Time Seek During Video Playback**

<u>Step 1</u>:

- Press ▲/▼ during playback to enter time seek mode. Press **OK** or ![play] to exit time seek mode and resume playback.

* This function allows you to jump to a particular playback time while playing recorded video.

<u>Step 2</u>:

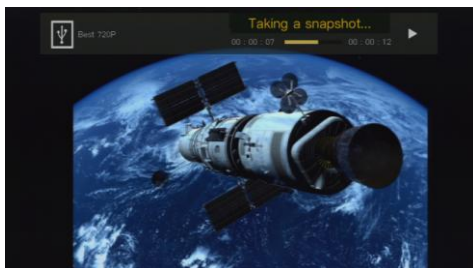- Use ◄/► to move among options and ▲/▼ to adjust the value. Press **OK** to go to the specified time and resume playback.

Image Capture During Video Playback

Method 1:

- Press 📷 to pause and capture current image.
- Press ▶ or **OK** to resume playback.

Method 2:

Step 1:

- Press ▶ (SLOW) to play the video in slow motion (1/2x). Press ▶ (SLOW) again to view the video frame by frame.

  or

- Press ⏸ to pause the playback. Press ⏮ (PAGE-) to go to previous frame; press ⏭ (PAGE+) to go to next frame.

Step 2:

- Press 📷 to capture your desired image.

Snapshots Viewing

- Press ▶ or **OK** to view the selected image. Press ⏹ (STOP) return.
- Press ⊕ (INFO) to display the image information, including storage disk and file name.

USB Storage Device Removal

In order to avoid data loss, it is highly recommended to safely remove your external storage device. Please follow the steps below:

Method 1:

Step 1:

Press ☰ ^{MENU} to bring up the menu.

Press :≡ to bring up the menu.

Step 2:

Press **F1** to remove it.

Method 2:

Step 1:

Press ◉ on the remote control.

Step 2:

Select the partition.

Step 3:

Press **F2** to remove it.

6.1.1 Post-Edit Recorded Videos

This section shows you how to cut and merge recorded videos by EzRecorder 310.

OSD Menu	Descriptions

Select a Video

Select the file you would like to edit by using the navigation keys ◄/►/▲/▼.
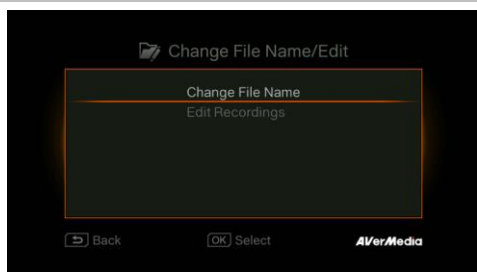
Edit

Press **F3** to edit the selected video.

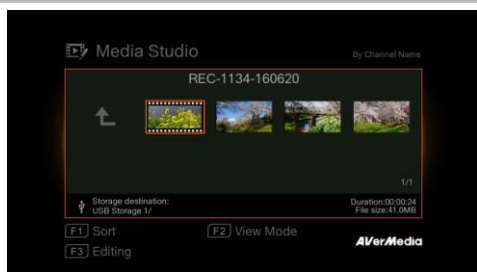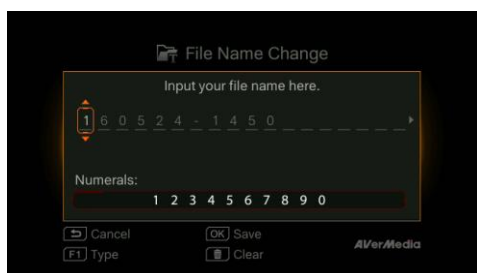**Change File Name**

Input your file name by using the navigation keys ▲/▼ to select characters, numerals or symbols. Use the navigations keys ◄/► to go to the next/ last character.

Press **F1** to switch between characters, numerals and symbols.

Press ↶ (BACK) to go back to cancel the change you made.

Press **OK** to save the edited file name.

Press 🗑 (DELETE) to clear all.

How to Edit

An instruction on how to edit a video will be displayed, press **OK** to start editing.

Edit Mode

You can cut and recombine your selected video in Edit Mode.

To cut the video, you will need to create one or more segments within the video.

Step 1:

To locate a scene, use direction keys or ▶ to search the scene.

You can also use navigation keys ▲/▼ to search scene by specific hour, minute, and second on the left hand side of the screen.

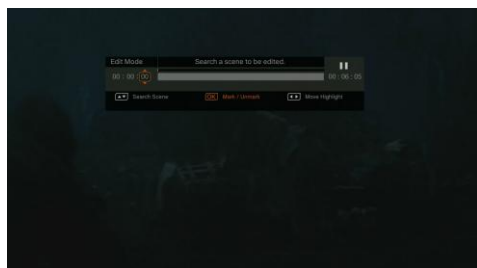Press **OK** to mark or unmark the scene.

Step 2:

Repeat **Step 1** so as to create a segment.

Press **OK** to keep or delete the segment.

Press **F1** to switch between **Search Scene** and **Segment** search.
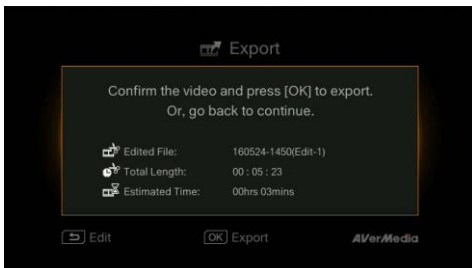
Press **F2** to clear all marks you made on the video.

Press **F3** to export the video.

Preview

EzRecorder 310 automatically recombines the segments you choose to keep during editing.
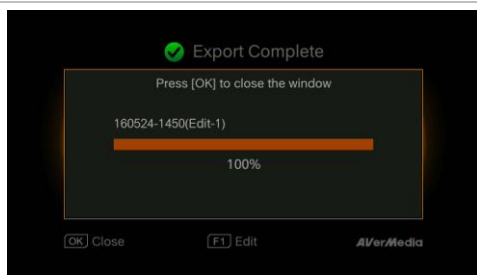

Export

The estimated time varies by different storage disks. Refer export time to the actual use of your storage disk.

Press **OK** to export the video.

Press ↩ to continue editing.
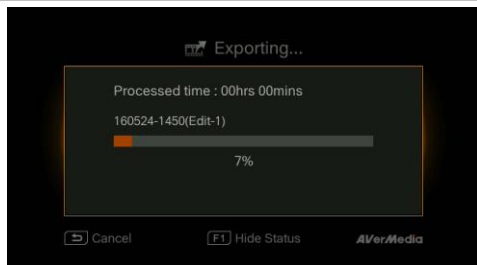
OSD Menu	Descriptions
	Exporting… The bar in the middle shows the progress of video exporting and estimated time. Click on [↩] to cancel exporting. Click on [F1] to hide the exporting information.
	Exit Press **OK** to exit from the editing mode. Press ↩ (BACK) to exit Press F1 to continue editing.

6.2 File Management

File Management allows you to manage videos and images captured by EzRecorder 310. You can copy files between internal hard drive and external USB storage device, and delete unwanted files. Please note that only video and image files captured by EzRecorder 310 are supported.

File Management User interface:

1	A list displaying files located on the **internal hard disk**

2	A set of editing tools

3	A list displaying files located on the **USB disk**

4	Information display area

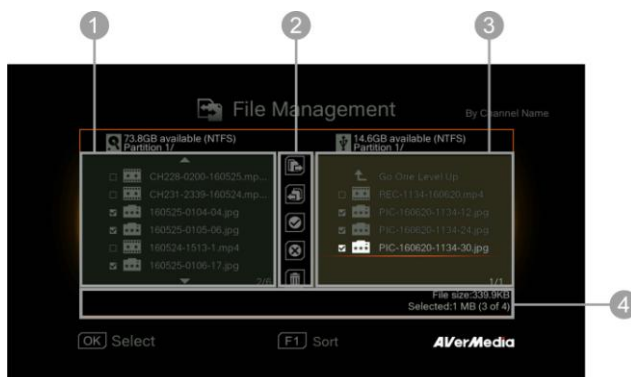**Descriptions on Editing Tools:**

#	Buttons	Descriptions
1		Copy files to USB disk
2		Copy files to internal hard disk
3		Select all
4		Deselect all
5		Delete

OSD Menu	Descriptions
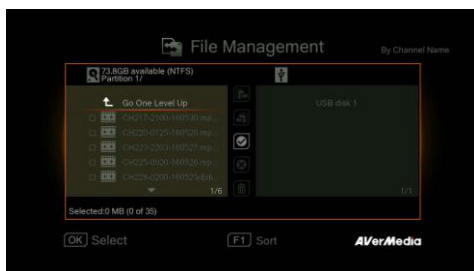
Navigating

- Use ▲/▼ to select and **OK** to enter the folder in which you save the recordings and snapshots.
- Use ▲/▼ to select "Return" and press **OK** to go one level up.
- Press **F1** to sort the files by file name, file size, or file type.
- Press ▶▮ to go to the next page.
- Press ◀▮ return to the previous page.
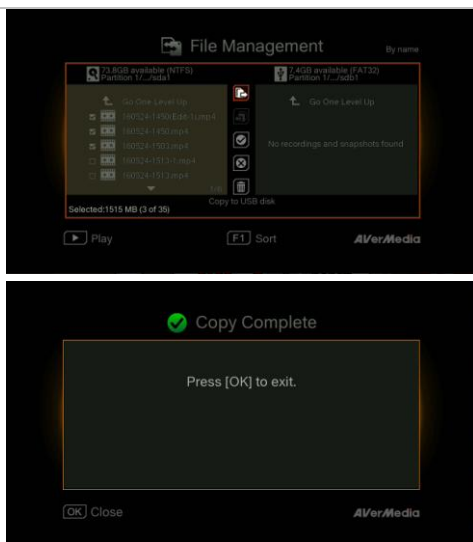
Copying Files from Internal HDD to USB Disk

<u>Step 1</u>:

- On the left-side list, use ▲/▼ to highlight the file that you want to copy to USB disk. Press **OK** to select / unselect an item.

- Select ⊘ and press **OK** to select all files.

- Select ⊗ and press **OK** to deselect all files.

<u>Step 2</u>:

- Select 📇 and press **OK** to copy selected file(s) to USB disk.

- Press ↩ BACK to cancel copying the files in a progress.

<u>Step 3</u>:
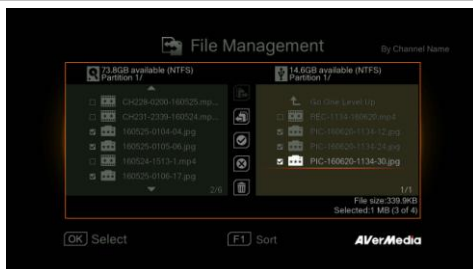
- Press **OK**.

Deleting Files

<u>Step 1</u>:

- Use ▲/▼ to highlight the file(s) that you want to delete. Press **OK** to select/unselect an item.

- Select ⊘ and press **OK** to select all files.

- Select ⊗ and press **OK** to deselect all files.

<u>Step 2</u>:

- Select 🗑 and press **OK** to remove

the file from the list.

AVerMedia®
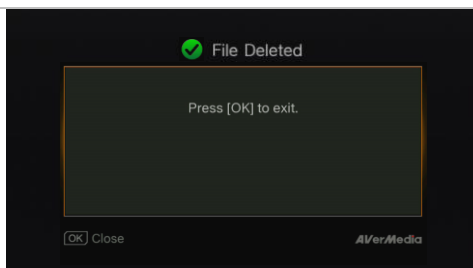
or

Press 🗑 on the remote and then press **OK** to remove the file from the list.

- Press ↺ (BACK) to cancel copying the files in a progress.

Step 3:

- Press **OK**.

ℹ️ A single file size that exceeds 4 GB is not allowed to be copied from NTFS-formatted HDD to FAT32-formatted USB storage device. To solve this problem, please format your USB storage device to NTFS file system or use a NTFS formatted USB storage device.

6.3 Schedule List

Schedule List allows you to create a list of preset recording schedules. To ensure Schedule List functions properly, please check the followings.

● Make sure to complete the IR Learning process via **Menu** > **Settings** > **IR Device**.
   Once you have the IR Learning is complete, EzRecorder 310 automatically powers on your STB before recording, and then tunes into specific channel to record your scheduled program.
   If the IR Learning process is not complete, keep your STB ON and make sure to tune to the channel that you want to record from prior to task execution.

● Disable the "Standby/Power-saving" function on your STB.

● Some STBs go to standby mode instead of completely power off after pressing the power key. Follow the instructions below to check if your STB still outputs signal after powering it off. If this happens, keep your set-top box ON before recording.

Step 1:   Power off STB.

Step 2:   Make sure all cables and devices are firmly and well connected. Then power on EzRecorder 310.

Step 3:   Check if the following screen appears:

Y

> N o component input signal.
> Check the followings:
> 1. Cables are properly connected.
> 2. Set-top box is ON.
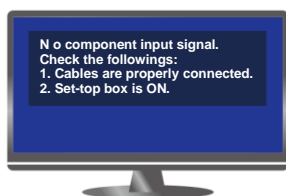
STB does not output signal after powering off:
Your STB automatically powers on and then tunes into specific channel before the scheduled start time. After the task completes, the device automatically power off. However, if your STB is on before recording, it remains on after the task completes.

STB still outputs signal after powering off (Black screen appears):
Keep your set-top box ON before recording. Your STB automatically tunes into specific channel before the scheduled start time. After the task completes, the STB remains on.

N

To avoid recording failure, stay tuned on the channel that you want to record when recording is in progress.

OSD Menu	Descriptions
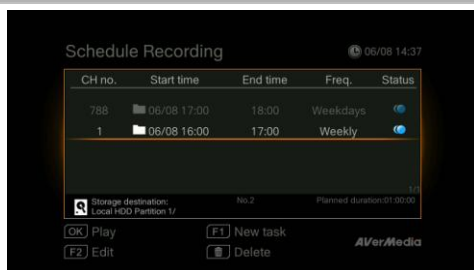
Navigating

- Use ▲/▼ to select among preset schedules.

- Press ▶❘ to go to the next page.

- Press ❘◀ return to the previous page.

- Press ☰ to directly access the main menu.

Creating a New Schedule

Step 1:

- Press **F1** to add a new schedule.

Step 2:

- Enter the desired channel number.

  If "." (decimal point) is skipped in IR Learning process, you can enter up to 3 digits. For example, to enter channel "1", key in "001", "01"
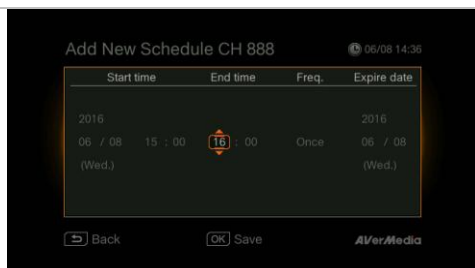
or "1".

If "." (decimal point) is learned in IR Learning process, you can enter up to four decimal places. For example, to enter channel "98.7693", enter "98.7693-" or "098.7693". To enter channel "21.1", enter "21.1----" or "000021.1".

Press **OK** to confirm.

Step 3:

- Use ◄/► to move among options and ▲/▼ to set start date and time, end time, frequency, and expire date.
  * A scheduled series recording task is valid for three months by default.

Step 4:

- Press **OK** to save setting and exit.

  or

  Press ↩ (BACK) to abort this operation.

Deleting a Schedule

Step 1:

- Use ▲/▼ to select a schedule from the list. Press 🗑.

Step 2:

- Press **OK** to delete the selected schedule.
  or
  Press **F1** to delete all the complete scheduled tasks from the list.

Editing a Schedule

Step 1:

- Use ▲/▼ to select a preset schedule from the list.

Step 2:

- Press **F2** to edit an existing schedule.
* Only incoming schedule can be edited.

Scheduled Task Status:

The status icon indicates the current state of scheduled task.

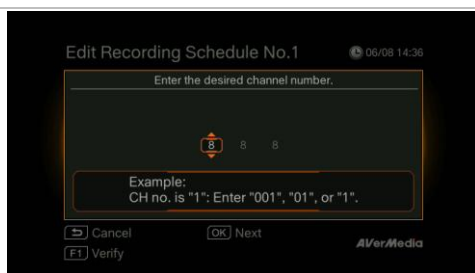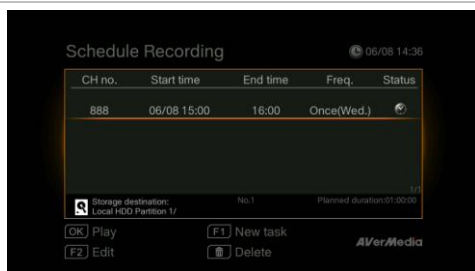| #	Icon	Status
1		**Task Completed** Recording task(s) is/are successfully completed
2		**Task Failed** Recording task(s) is/are failed *Please checkthe followings: - The recording information is correct - The disk space is sufficient - The signal is not lost
3		**Task Unfinished** Recording task(s) is/are not finished due to interruptions. The recorded clip(s) is not complete *Please checkthe followings: - The recording information is correct - The disk space is sufficient - The signal is not lost during recording
4		**Series Recording** Series recording tasks
5		**Upcoming Task** Task that is on the queue

*Failed or unfinished tasks are marked with ⓘ. Select the schedule and press **OK** on the remote control to see more information.
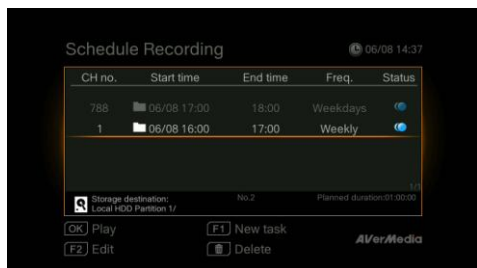
OSD Menu	Descriptions
	Series Recording Step 1: - Schedule with 🔵🔵 on "Status" column indicates series recording (Daily/Weekly/ Weekdays/ Weekends). - Use ▲/▼ to select a series recording schedule from the list. Then press **OK** to check the series recording schedule list.
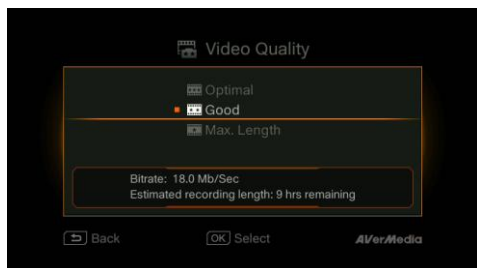
Step 2:

- Use ▲/▼ to select among schedule items.

- Press [PAGE+ ▶I] to go to the next page.

- Press [PAGE- I◄] return to the previous page.

Video Quality Adjustment

Step 1:

Press [QUALITY ★] to display the Recording/Snapshot

Settings screen.

Step 2:

Use ▲/▼ to select "Video Quality" and press

OK.

Step 3:

Use ▲/▼ to select desired option and press **OK**

to confirm.

Step 4:

Press [BACK ↩] to exit.

- To automatically power on EzRecorder 310 after you power on your STB, enable the auto-power on function via **Menu > Settings > Power Management**.
- If you manually add a new STB via **IR Device** and your STB fails to wake up before a scheduled task starts, go to **Menu > Settings > IR Device > STB Wake-up Time** and make sure that the wake-up time is set to 5 minutes.
- To watch the recorded programs, go to **Menu > Media Studio.**

6.4 Settings

You can customize your preferences in "Settings".
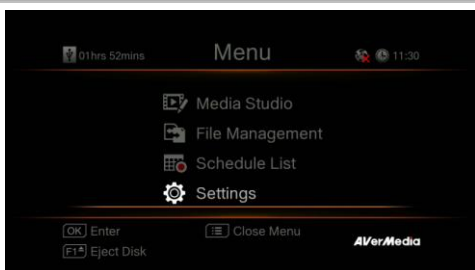
OSD Menu	Descriptions
	Basic Operation - Use ▲/▼ to select a preferred category. Press **OK** to make a selection. - Press ^{BACK} � to return to the previous page. - Press ^{MENU} ☰ to directly access the main menu. - Press **F1** to safely remove the storage device.
	Language Use ▲/▼ to select your preferred language. Press **OK** to confirm.
	Network Settings Use ▲/▼ to move among options. Press **OK** to confirm. Before setup, please make sure the Ethernet cable is well connected.
	Auto Setup (Recommended): It is recommended to use Auto Setup to automatically obtain IP and DNS addresses.
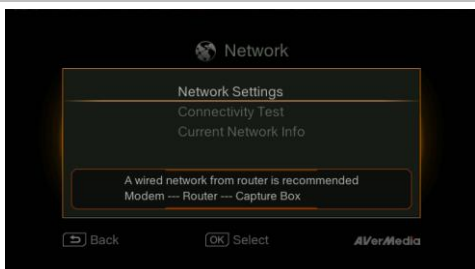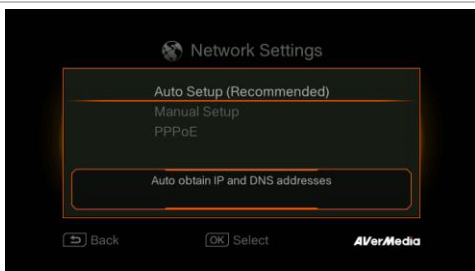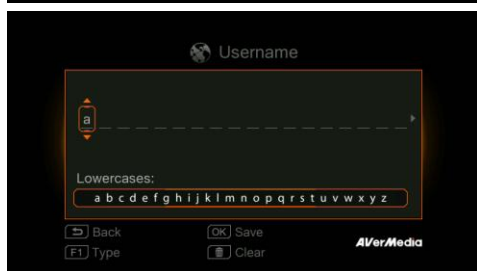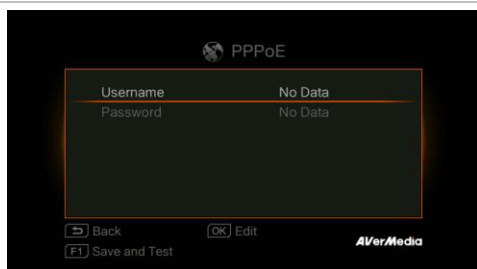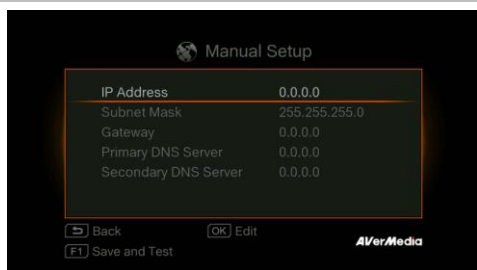
Manual Setup:

Use Manual Setup to manually configure IP and DNS addresses.

STEP 1:

Use ▲/▼ to select an item for configuration. Press **OK** to confirm.

STEP 2:

Use ◄/► to move among options and ▲/▼ to select a number. Press **OK** to confirm.

Press **OK** to save the setting.

Press ↩ to cancel and return to the previous page.

STEP 3:

Press **F1** to save the settings and test the network connectivity.

PPPoE :

Use username and password provided by ISP for connection.

STEP 1:

Use ▲/▼ to select an item for configuration. Press **OK** to confirm.

STEP 2:

Use ◄/► to move among options and ▲/▼ to select a character.

Press **F1** to switch among capital letters, lower cases, numbers, or signs.

Press **OK** to save the setting.

Press ↩ to cancel and return to the previous page.

Press 🗑 to delete selected characters and the character to the right.
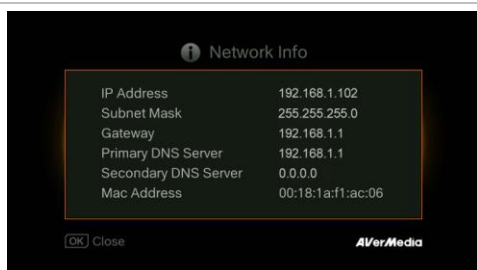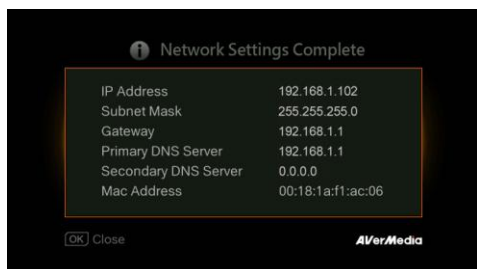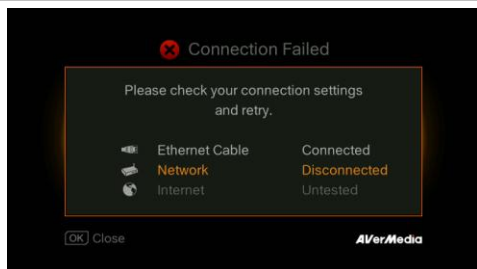
STEP 3:

Press **F1** to save the settings and test the network connectivity.

Network Connectivity Test

Select to test your network connectivity.

Please check the result and fix the problem indicated.

Press **OK** to confirm.

Once network setting is completed, a list of connection details will be displayed.

Press **OK** to confirm.

Current Network Information

This page displays the current status of your network connection.
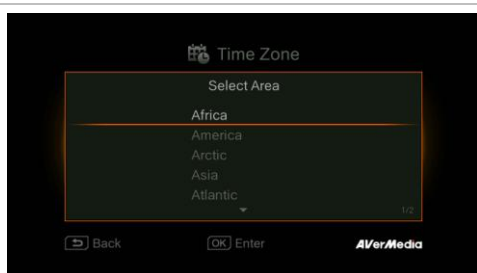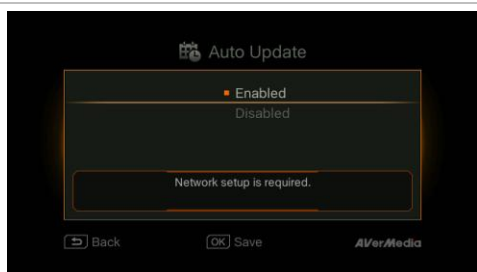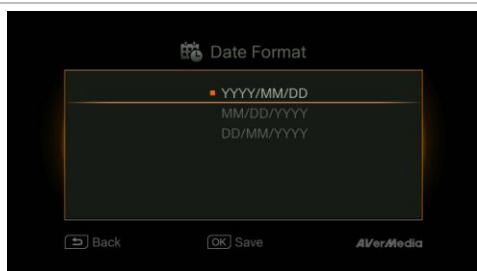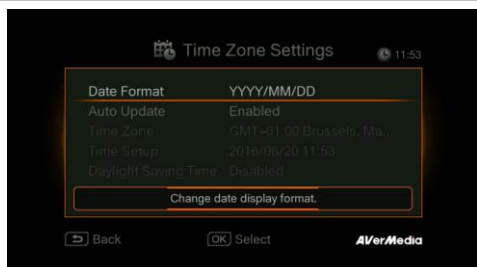
OSD Menu	Descriptions

Date and Time

Use ▲/▼ to select an item for configuration. Press **OK** to confirm.

Date Format

Use ▲/▼ to select a preferred date format. Press **OK** to confirm.

Auto Update

Use ▲/▼ to enable/disable automatic date and time update. Press **OK** to confirm.

*To use this function, a network connection is required.

Time Zone

STEP 1:

Use ▲/▼ to move among options and select your area. Press **OK** to confirm.

STEP 2:

Use ▲/▼ to move among options and select your time zone. Press **OK** to confirm.
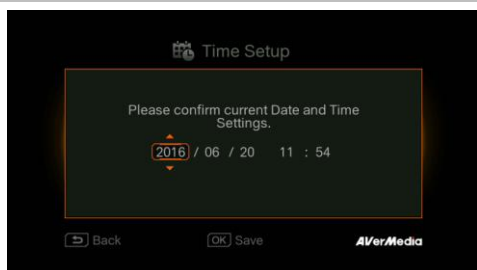
Time Setup

Use ◄/► to move among options and ▲/▼ to adjust date and time. Press **OK** to confirm.
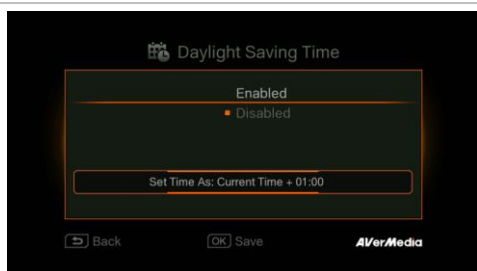
Daylight Saving Time

Use ▲/▼ to enable/disable Daylight Saving Time. Press **OK** to confirm.

*To use this function, a network connection is required.
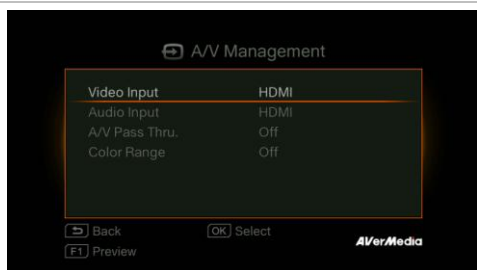
A/V Management

Use ▲/▼ to move among options. Press **OK** to confirm.

Press [MODE] to switch from component and HDMI input sources.
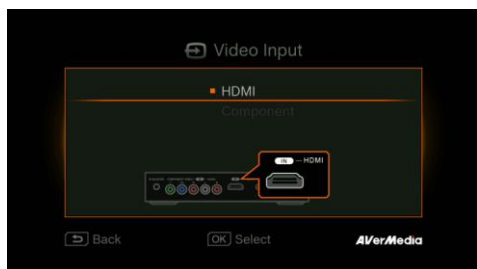
Video Input

Use ▲/▼ to toggle between various video input source options (Component / HDMI).

Press **OK** to confirm.

Audio Input

Use ▲/▼ to toggle between various audio input source options (HDMI / Audio L/R Stereo).

Press **OK** to confirm.
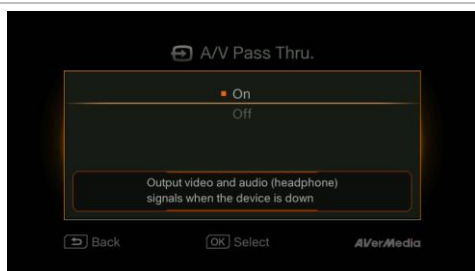
A/V Pass Through:

Use ▲/▼ to enable/disable A/V pass through. Press **OK** to confirm.
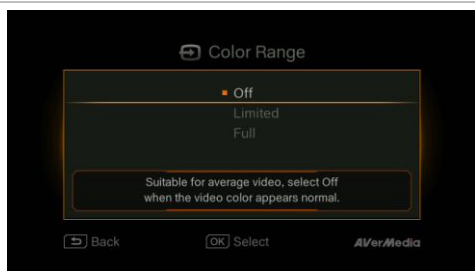
Color Range Setup

Use ▲/▼ to toggle between off, limited, and full. Press **OK** to confirm.
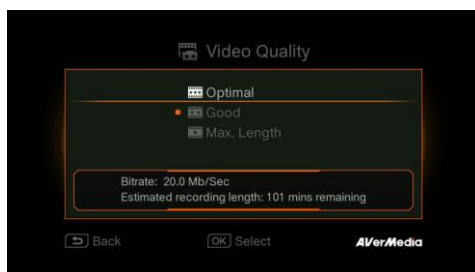
Recording / Snapshot

Video Quality

Use ▲/▼ to toggle among various video quality options (Optimal/Good/Maximum recording length). Press **OK** to confirm.
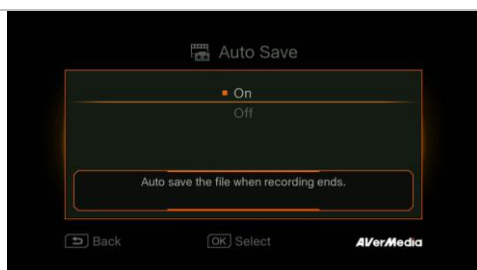
Auto Save

Use ▲/▼ to switch from enable or disable the Auto Save function.
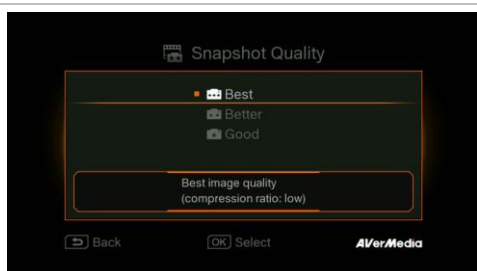
Snapshot Quality

Use ▲/▼ to toggle among various snapshot quality options (Best /Better/Good). Press **OK** to confirm.
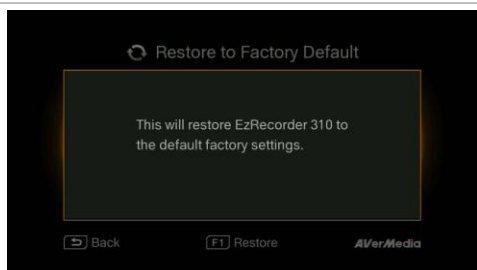
Restore to Factory Settings

Press **F1** to restore to original factory settings. Press ⤺ᴮᴬᶜᴷ to abort the operation and return to the previous page.

Product Information

This page provides information about this product, including product name, model no., and firmware version.
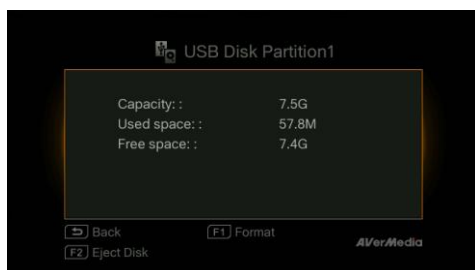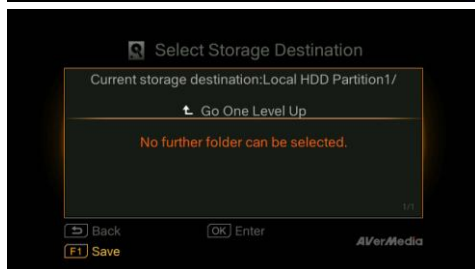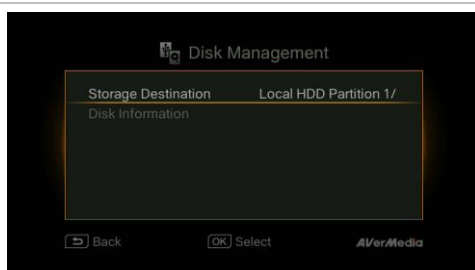
Disk Management

Storage Destination

<u>Step 1</u>:

Use ▲/▼ to select desired default storage disk for both recorded files and snapshots. Press **OK** to select a disk.

✅ indicates normal write speed of selected partition; ⚠️ indicates low write speed of selected partition. To make sure recording functions properly, it is highly recommended to select partition with normal write speed.

<u>Step 2</u>:

Use ▲/▼ to select a folder and press **OK** to confirm.

<u>Step 3</u>:
Press **F1** to save the setting.

Disk Information

This page displays the status of storage capacity of the disk.
Press **F1** to format the partition.
Press **F2** to eject the disk.

Firmware Upgrade

Follow the steps below to upgrade the firmware via USB storage device:

<u>Step 1</u>:

To download the latest firmware binary package, please go to www.avermedia.com, and then enter the model name in Product Search field. Firmware file is available on the product information page.

<u>Step 2</u>:

Extract the files by unzipping the package. Copy the firmware files to the root directory of your USB storage device, and then connect it to EzRecorder 310.

Step 3:

Press **F1** to start the firmware upgrade process. Press ^{BACK} � to abort the operation and return to the previous page.

Step 4:

EzRecorder 310 automatically detects whether a newer version of firmware is available for upgrade. Once the firmware upgrade process has completed, press **OK** to restart EzRecorder 310.

- The firmware upgrade process takes up approximately 3–5 minutes.
- Firmware upgrade requires at least 256 MB free space of the storage device (USB/HDD).
- If problems encountered during firmware upgrade, please clear all the data stored on your USB storage device and repeat the process above.
- NEVER power off the device or unplug the power supply during the firmware upgrade process. If the firmware upgrade is interrupted for any reason, the device may crash.

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Appendix A Troubleshooting

Hard Drive Problem	Actions
Hard drive not detected	**Make sure that the storage destination is properly set up.** Go to Menu > Settings > Disk Management > Storage Destination to set storage destination. **Make sure the hard drive is connected / installed and restart EzRecorder 310 (ER310).** **Make sure ER310 has stable power supply while recording or the recording mail fail. Failure of recording may stop ER310 from detecting hard disk.** **Format current drive to NTFS file system.** It is likely that the hard drive is not set to NTFS format. You can check the hard drive and reformat it by downloading HP USB Disk Storage Format Tool.
Unknown files are found on my hard disk after connecting to EzRecorder 310	ER310 will automatically generate files that help boost the operation. Files that have file name extension like '.avm_chk_tmp', '.avm_speed_test', '.hd_keepalive'aim at preserving hard disk speed as well as other crucial record. Please don't remove them.

Video Playback Problem	Actions
"No input signal" message appears on screen	**Make sure that all the cables are firmly connected.** **Power off ER310 and then make sure that the device is connected with the proper cables** (See 3.1 Hardware Installation for details).
Screen color appears abnormal using component input	Green screen color with buzzing noise: **Make sure that the red and blue connectors do not come loose.** Mono screen color: **Make sure that the red and blue connectors do not come loose.**

Unsuccessful recording of HDMI-input-videos	**ER310 supports all HDMI input except those in HDCP (protected video) form.**
Blacken screen using HDMI input	**If screen is blacken when using HDMI input, please try:** 1. Reconnect the HDMI cable from the input source device and also ER310. Also, connect to HDMI port 1 of your TV at all times. 2. Change HDMI cable and try again.
The recording is fast-forwarded or stopped when recording complicated video frames in HD resolution (720p or above)?	**When recording video in HD resolution (720p or above), fast-forward may be found due to the complicated video content. Follow the tips below to ensure good recording quality:** 1. Install a format tool. It is recommended that you format hard disk into NTFS format using HP USB Disk Storage Format Tool. Please find the link: http://download.cnet.com/HP-USB-Storage-Tool/3000-2094_4-1 Be sure to backup your data before start formatting. All data will be erased once the formatting process begins. 2. Lower video output resolution. Details can be found in ER310 user manual. Please refer to video output setting. 3. Lower ER310 video quality at Menu > Settings > Recording Settings. 4. Use another high- performance storage disk (For example, another NTFS hard disk).
Poor quality of captured video	**Check video output settings of your STB.** Set it to 1080p, 1080i or 720p as video output resolutions. If you only select 1080i, the screen resolution automatically goes to 480i when you play a video that supports 720p.
Stuttering local video playback	Try recording video again using another NTFS-formatted hard drive. When this problem occurs, it is recommended to play the videos on PC. Alternatively, you can record at a lower bit rate to solve this problem.
No A/V Pass Through when STB and TV ON	Make sure that your TV supports 1080p. Turn on A/V Pass through via Setting.

File Management Problems	Actions
Difficulty in locating files	**All files are named after the date and time they are recorded. In the file management, you can sort files out by its name, the time recorded, and the file size. Make sure the time zone is set correctly or manually setup to obtain correct file name.** For example, a video which recorded at 9:30 a.m., 15 of April, 2016 will be named as: 160415-0930 An edited recorded video will be named as : 160415-0930 (Edit-1) A videos that has been edited for the second time will be named as: 160415-0930 (Edit-2)
Difficulty in locating the folder on your PC/ laptop	**ER310 detects all kinds of folder that built in your hard drive; as a result, it is likely that the destination is set to a non-standard folder, for example, a hidden folder.** **If you cannot locate the folder that saves the recordings and snapshots, please check if:** 1. You have set the destination of recordings and snapshots to a standard folder, making sure that it is not hidden, locked, etc.. 2. You load the folder with a Microsoft Windows system. A Linux system does not read non-standard folder like a hidden folder.

Other Problems	Actions
Firmware upgrade turns out unsuccessful	**Solutions are as follows:** A. Power off ER310 if an internal storage disk is installed. Remove internal storage disk and power on ER310. Connect the USB to your ER310 to undergo FW upgrade. (*If you are using a SATA storage disk or the temperature of the hard disk appears high; please wait for 10 minutes for the hard disk to cool down.) B. Save the unzipped firmware file to the file root of your USB. C. To enable firmware upgrade, make sure a minimum space of 256 MB on your USB. D. The detection of firmware file may be disrupted by other files on your USB. It is recommended that you wipe the USB or reformat it to NTFS format. Reformat your USB by using HP USB Storage Format Tool: 1. Disconnect your USB from EzRecorder 310. Connect it to a computer. 2. Download HP USB Storage Format Tool at the following link: http://download.cnet.com/HP-USB-Disk-Storage-Format-Tool/3000-2094_4-10974082.html 3. Undergo HP USB Storage Format Tool. Select your USB and format it to NTFS format. Save the firmware file into the NTFS USB and reconnect it to ER310 to upgrade firmware.

Record protected content using a splitter

Legally, unless you have been duly licensed, we expressly request that you must NOT record unauthorized TV or movie contents, particularly content having anti-pirating protection mechanism (for example, HDCP) to prevent unauthorized recording.

If you have been duly granted a license to record authorized TV or movie contents, we think technically a splitter could be used with our product; however, our terms of product warranty does not apply to such use because we do not provide any splitter that third parties sell.

If your problem still persists, refer to FAQ at www.avermedia.com for further troubleshooting.