



EH1116H-4⁺

16CH Embedded Hybrid DVR

Quick User Guide



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WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK. DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

INFORMATION

For more information, please refer to the user manual in the software CD.

I. Package Contents



If there is any damage, shortage or inappropriate item in the package contents, please contact with local dealer

- | | |
|---|--|
| (1) EH1116H-4 ⁺ DVR unit | (6) Power adaptor |
| (2) Remote controller(batteries are included) | (7) Power Cord (*The power cord may vary according to the local electricity system.) |
| (3) Quick Installation Guide | (8) SATA cable |
| (4) Software CD (Manual is included) | (9) DVI cable |
| (5) Screws for internal HDD installation | |

Optional Accessories



IR extended cable



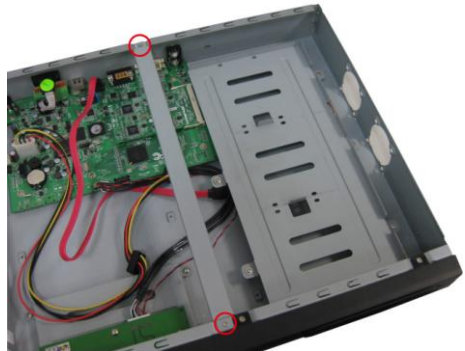
USB optical mouse

II. Hardware Installation

A. Install the hard disk

Follow the illustrated instructions below to install the hard disk:

1. Loosen all screws(2 side and back) and push the cover backward and lift.
2. Loosen the screws of holder in order to take out the hard disk rack.



3. Loosen all the screws of hard disk plate.



4. The hard disk plate can be installed 3 hard disks. User can choose the position and place the hard disk on it.

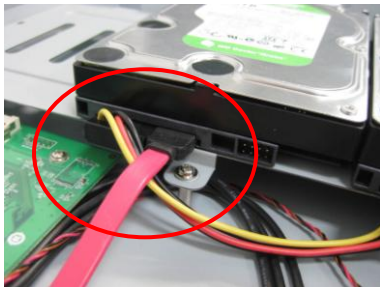
[Note] Do Not install the hard disk at left position space on hard disk plate.



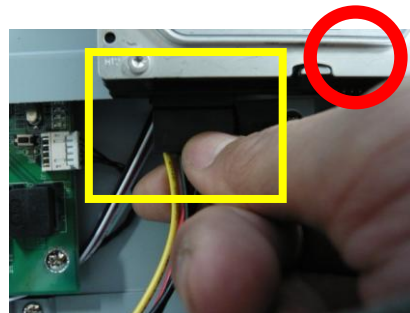
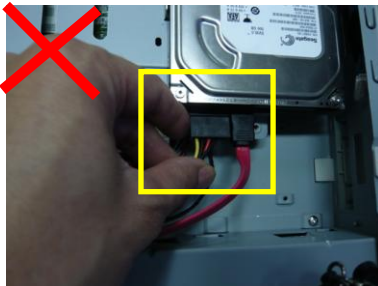
5. Turn the plate and hard disk over carefully and 6. Then, place the hard disk plate within hard disk screw the hard disk on the plate. If hard disk cannot match to the screw hole, then, you may adjust the hard disk position to match the screw hole.



7. Plug the SATA cable into SATA connector on the PC board if necessary. Then, connecting the power cable and SATA cable into hard disk.



When user remove power cable from hard disk, please **DO NOT** pull the power cable straight way. Please pull out the power cable by moving power connector to left and right side and slowly pull out the power cable from hard disk.



8. Screw the holder on the DVR unit.



9. Push the cover forward and secure the cover



10. You may now connect all the cables and power on the DVR unit.

B. Device Connection

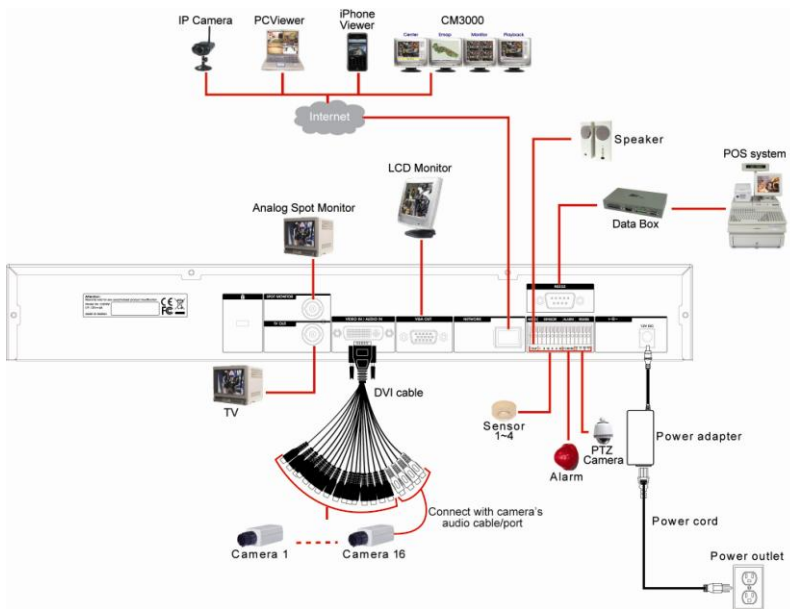


Pen drive and external hard disk must be FAT32 format.

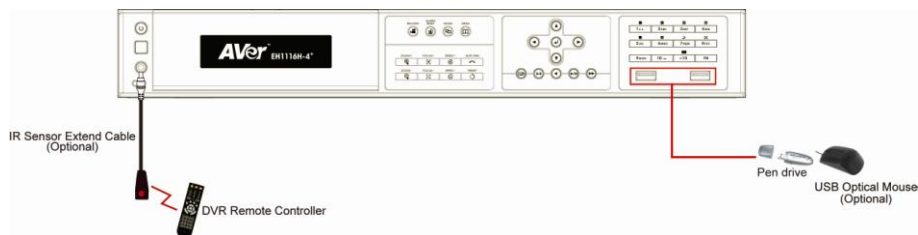


- All connected devices have its own power supply is necessary.
- 1.3 MP with H.264/MPEG4/ MJPEG on the first 4 channels and 2.3MP with MJPEG on the 1st channel for IP cam connection.
- EH1116H-4⁺ supports IP camera in first 4 channels.

The back panel of the DVR unit, user can connect up to 16 cameras in combination of analog and IP camera. The DVR unit also can connect 4 sensor devices, 1 alarm devices, and output video to a LCD monitor. Follow the illustration below to make the connection:



For backup recorded video, plugging the pen drive or external hard disk through USB port that are located at front panel of DVR unit, and then, use the bundled software enables user to transfer, playback and segment the video. Follow the illustration below to make the connection:



III. Using the DVR System for the First Time

1. Connect the mouse to DVR unit (through USB port).
2. Connect all necessary external devices.



DVR unit doesn't supply the power to connected external devices.

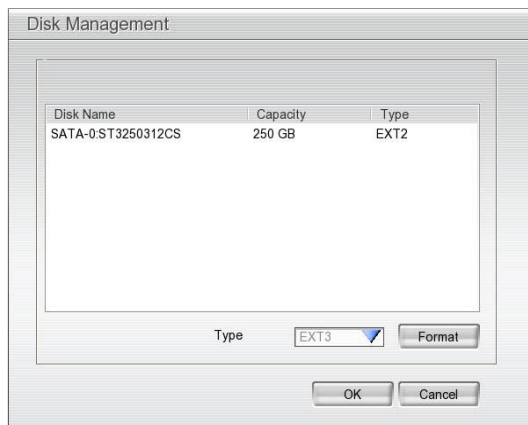
3. Plug the power to turn on the DVR unit.
4. Please wait for a while until start up process is completed. And then, the preview screen will show up on surveillance screen.



5. **Format hard disk:** If the hard disk is first time installed in the DVR unit, please format the hard disk. Following the below steps to format the hard disk.



- Before formatting hard disk, please stop recording.
 - While formatting hard disk, the CPU usage will be near to 100% and might slow down the DVR system response.
- a. Click **Setup** and enter the password (If this is the first time, enter the default password [admin]). The default ID [admin]).
 - b. Click **System** → **Add**



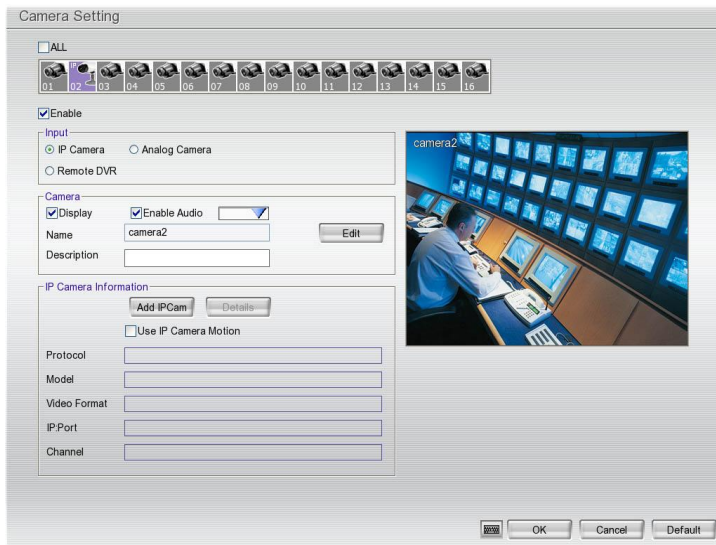
- c. Select the hard disk from list.
 - d. Click **Format** button and click **Start** to begin formatting
 - e. When formatting is done, click **OK**.
6. **Adjust time and date:** Setup the DVR system date and time in order to have correct recording time and date. Following the below steps to setup date and time:
- a. Click **Setup** and enter the password (If this is the first time, enter the default password [admin]. The default ID [admin]).
 - b. Select **System**.
 - c. In **Date and Time Setting**, click **Setting** button of **System Date and Time**.
 - d. Select the Year and Month by click arrow button, click on the date to select the date. And adjust the time, and then, click **OK**.
7. **Connecting the cameras:** DVR supports IP and Analog camera.
- **Analog camera**
- a. Connect the analog camera video cable to video cable.
 - b. Click **Setup** → **Camera**
 - c. Select camera channel and mark **Enable** to enable the channel.
 - d. Select **Input** as Analog Camera.
 - e. In **Camera** section, mark **Display** to allow the live video of camera to display on surveillance screen. And then, enter the **Name** and **Description** of the channel. Mark **Enable Audio** to record the sound. For example: The camera 1 is connected with audio channel 2, then, user needs to select audio channel 2 as camera 1's audio channel (audio connection refer to **Device Connecting** section).
 - f. Adjust the bright, contrast, hue, and saturation of the camera.
 - g. Click **OK**.

■ IP camera

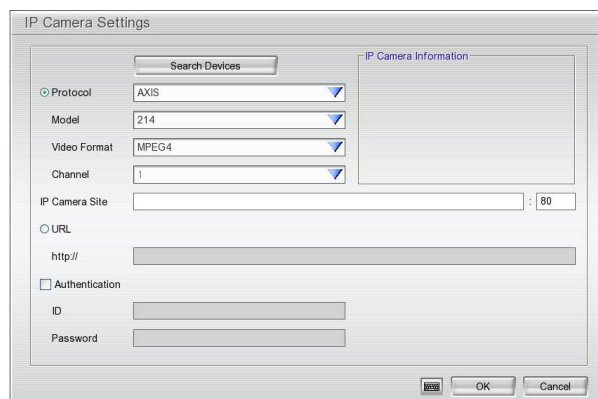


- EH1116H-4⁺ only supports first 4 channels (CH1~4) for IP camera.
- 1.3 MP with H.264/MPEG4/ MJPEG on the first 4 channels and 2.3MP with MJPEG on the 1st channel for IP cam connection.

- a. Click **Setup** → **Camera**.



- b. Select camera channel (1~4) and mark **Enable** to enable the channel.
- c. Select **Input** as IP Camera.
- d. In **Camera** section, mark **Display** to allow the live video of camera to display on surveillance screen. Then, enter the **Name** and **Description** of the channel.
- e. In **Camera Information** section, click **Add IPCam** for detail setting.



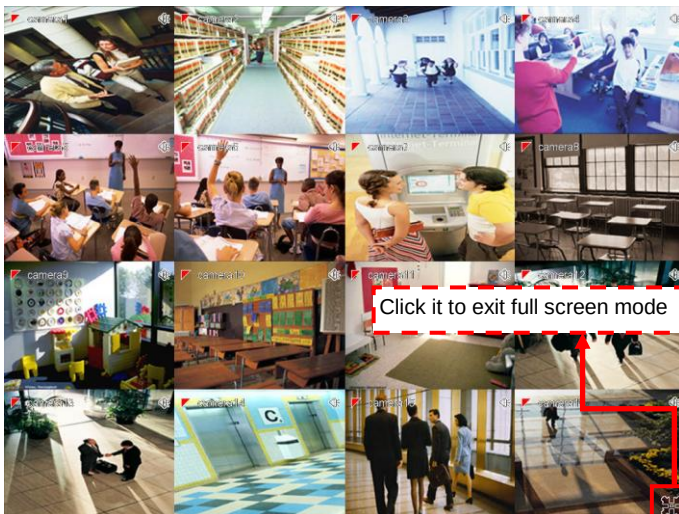
- f. In **IP Camera Setting** window, click **Protocol** radio button, and then, select **Protocol**, **Mode**, and **Video Format**. User also can click **Search Devices** button to find the IP cameras that can be detected on your LAN network.
- g. Enter IP address in **IP Camera site** column or enter the **URL** of IP camera.
- h. Enable **Authentication** and enter **ID** and **password** if IP camera's access authority is required.
- i. Click **OK** to save the setting.
- j. When the IP camera has connected, user should see the camera information of **Protocol**, **Model**, **Video Format**, **IP port**, and **Channel**.
- k. To connect another IP camera, follow the above steps.

IV. Familiarizing the Buttons in Preview Mode



Name	Function
(1) Exit	- Reboot: To restart the DVR system. It is required to enter the password - Power Off: To shut down the DVR system. It is required to enter the password. - Login: Using different ID to login to DVR system. - Cancel: To return to DVR application.
(2) Split Screen Mode	Select from 6 different split screen types to view all the camera, or one camera over the other or alongside on a single screen. It also allows you to switch and view different camera number.
(3) Record	Start/stop video recording.
(4) EMap	Display the map in each area, and the location of camera/ sensor/ relay and the warning.
(5) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(6) Setup	Configure the system settings.
(7) PTZ	Access PTZ control panel.
(8) Preview	Switch to Preview mode. This allows you to view live camera display.
(9) Playback	Switch to Playback mode. This allows you to view the recorded video file.

Name	Function
(10) Status bar	Display the current date, time, hard disk free space, and system temperature.
(11) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(12) Snapshot	Capture and save the screen shot in *.jpg format.
(13) Event log	Show the record of activities that take place in the system.
(14) AutoScan	Start/Stop video screen cycle switch.
(15) Full screen	View in full screen. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon.



When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

(16) Alarm	Alert and display warning info. Administrator and user level both can reset alarm status.
(17) Virtual Keyboard	Click to enable virtual keyboard.

V. Familiarizing the Buttons in Playback Mode

Click **Playback** button at the lower right corner of Preview UI to switch to Playback mode.



Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
i The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.	
(4) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the reduce speed from 64x, 32x, 16x, 8x, 4x, 2x, 1x, 1/2x, 1/4x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2X, 4X, 8X, 16X, 32X, or 64X.

Name	Function
(4) Playback Control Buttons	Next: Go to the next frame. End: Go to the end of the recorded video file.
(5) Date	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
	The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.
(6) Preview	Switch to Preview mode.
(7) Playback	Switch to Playback mode to view the recorded video file.
(8) Status bar	Display the recorded date, time and play speed.
(9) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(10) Export	Export includes Snapshot, Output Video Clip, and Backup function. ■ Snapshot: Capture and save the screen shot in *.jpg format. ■ Output Video Clip: Save the segmented file in *.dvr format to external USB storage device. ■ Backup: Save the playback file to USB device or DVD disk
(11) Segment	Keep a portion of the recorded video. 1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click Segment to set the begin mark. 2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click Segment to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again. 3. Click Export button → Output Video Clip to save the video segment to the USB storage device.
(12) Full screen	View in full screen. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon on screen. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or All.

Name	Function
(14) Bookmark	Mark a reference point when reviewing the recorded video file to which you may return for later reference. 1. Click Bookmark button 2. In the Bookmark dialog box, you may do the following: - Add to create the new reference mark in the bookmark list. - Edit to change the mark description. - Delete to remove the selected reference mark in the list. - Delete All to remove all the reference marks in the list. - Exit to close Bookmark dialog box. 3. Select and click one in the bookmark list to review the file.
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Event Search function.
(16) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss).
(17) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.



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