

# *User's Manual*



*Monitoring Application for iPad<sup>®</sup>, iPod<sup>®</sup>, and iPhone<sup>®</sup>*

Rev. 2.0



## I. Requirements

1-1. iViewer rev. 2.0 supports iOS 6.0. You should upgrade your operating system on the following devices:

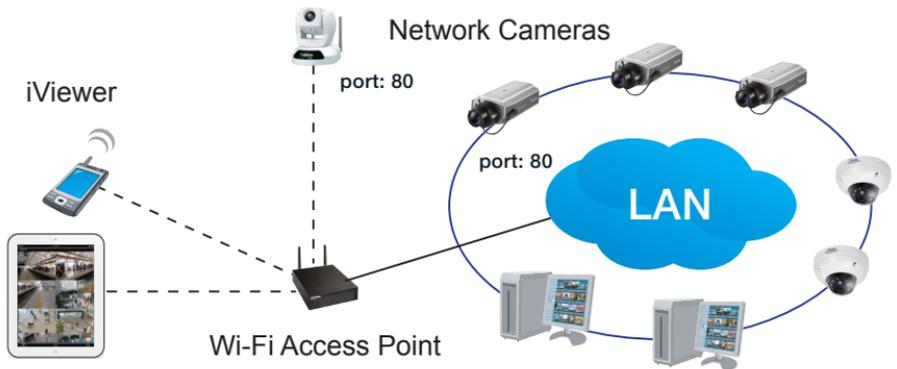
iPhone 4S, iPhone 4, iPhone 3GS, iPad (3rd generation), iPad 2, and iPod touch (4th generation).

1-2. An established **VAST**, **ST7501**, or **VIVOTEK's NVR** deployment consisting of multiple network cameras, where the VAST or ST7501 servers can be accessed via a public IP or DNS service. The corresponding VAST and ST7501 software must be of a revision number **1.5.2.8** or later.



1-3. Network cameras have already been configured via VAST, ST7501 software, or VIVOTEK's NVR station, namely, "inserted" into the managed list of cameras of the above software.

1-4. The iViewer rev. 1.3 and above supports direct connections with network cameras when their IPs are known to the user. However, video playback can only take place if the past videos were recorded on the VAST/ST server or NVR station. The iViewer currently does not support video playback from the cameras' SD card.



#### IMPORTANT:

If you connect via Internet to a VAST/ST server, NVR station, or cameras behind a firewall or router,

- **When connecting to a VAST/ST server or NVR station-**  
If a VAST/ST server or NVR station is located behind a firewall or router, configure port forwarding or "bypass tunnel," by mapping TCP port "**3454**" (for access to VAST) on the router to your VAST/ST server or NVR station. Enter the server's public IP and port "**3454**" on the iViewer configuration pane.
- **When connecting to individual cameras -**  
If an individual camera is located behind a firewall or router, configure port forwarding or "bypass tunnel," by mapping TCP port "**80**" (camera's default for HTTP). Enter the camera's public IP and port "**80**" on the iViewer configuration pane.

Please consult your network administrator or the documentation that came with your firewall or broadband router.

- Below are typical TCP ports for access to individual network cameras

Network General settings:

HTTPS = 443

FTP = 21

Streaming:

HTTP = 80

Secondary HTTP = 8080

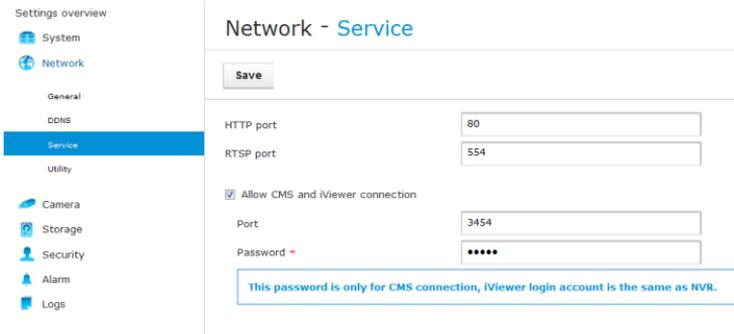
RTSP = 554

RTP for video = 5556

RTCP for video = 5557

RTP for audio = 5558

- By default, the smallest resolution stream will be selected for display. In most cases, it is the no. 3 for 3 stream models, or no. 3 for 4 stream models. If you change the video stream on a "full-view" view cell, the stream selection will automatically be saved into the layout configuration.
- To establish a connection with the NR8401, you need to enable the connection on a web console via **Network > Service**. Select the "Allow CMS and iViewer connection" checkbox, and enter the same password as that you use for login to NVR console.



Settings overview

- System
- Network
- General
- Utility
- Camera
- Storage
- Security
- Alarm
- Logs

### Network - Service

HTTP port

RTSP port

Allow CMS and iViewer connection

Port

Password

**This password is only for CMS connection, iViewer login account is the same as NVR.**

## Knowing Buttons in iViewer

Icon	Name	Function	Location
	Configuration	1. Displays the software revision. 2. Provides a link to technical support.	Live
	Layout	Opens the Layout page	Live
	Media Source	Opens the Media Source page for adding cameras to the current configuration.	Live
	Device list	Displays the Camera and Server device list for adding cameras.	Live
	Back to Live view	Returns to Live view when in the Playback mode	Playback
	Return	Returns to previous page.	Configuration pages
	Expand the list	Expands the device list	Layout > Device
	Hide the list	Retrieves the device list	Layout > Device
	Add All	Adds all cameras in queue to layout	Layout > Device
	Add	Click to add devices (single cameras, VAST server, or video server)	Media Source page
	Remove	Remove a camera from a view cell	Layout > Device
	Edit device	Edits device information, such as address, access port, or credentials. .	Media Source page
	Remove device	Removes an existing device.	Media Source page
	Device Information	This icon displays while editing device information	Media Source page

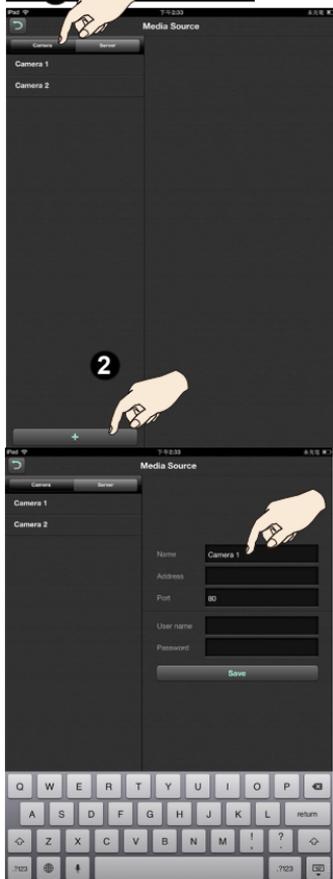
Icon	Name	Function	Location
	PTZ	Enters the PTZ mode	Enlarged view cell
	Playback	Opens the Playback roller selector	Enlarged view cell
	Playback Time	This icon is shown when playing the past recording.	Enlarged view cell
	Snapshot	Takes a snapshot of the current screen	Enlarged view cell
	Configuration	Enters the camera configuration screen	Enlarged view cell



### IMPORTANT:

Since wireless connection and video streaming consume considerable power, you should leave the iViewer when you are not watching the live view. Press the Home button to leave the iViewer.

## II. Getting Started and Basic Operation



Starting Up

2-1. iViewer is acquired through the App Store, and is started by a double tap on its icon.

2-2. You will enter the **Live** view window.

On initial setup, you should tap the **Media Source**  button on the lower center of the screen to enlist cameras or servers.

2-3. You will enter the **Media Source** window.

2-3-1.

**If you are adding individual cameras:**

Tap on the Camera tab. You may then single tap in each entry field including, **Camera name**, **Address**, **Port**, **User name**, and **Password**, and enter necessary information. By default, Stream #3 is selected for its lower resolution and frame rate, e.g., 176x144 and 5fps, and is recommended.

When done, click the **Save** button to recruit the camera, and repeat the process to add more cameras.

A keypad will prompt whenever you tap on an entry field.

The cameras enlisted will be listed on the left panel. It is recommended to create a comprehensive camera name for each camera for easy of identification.

Limitation on entry:

Camera/Server name: 16 (iPhone), 32 (iPad) numeric and alphabetic characters.

Camera/Server address: 128

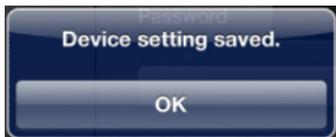
Camera/Server port: 5 numeric

Camera/Server Password: 64



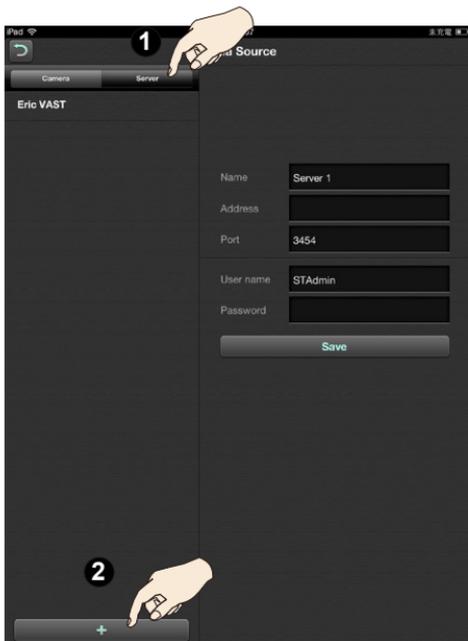
Due to the screen size, on a iPhone or iPod, the configuration options are listed on a succeeding page.





The iViewer will try the initial connection, and when successful, a message will prompt as shown.

Cameras thus configured will be auto matically added to the view cells on the Layout screen.



### 2-3-2.

**If you are adding a VAST/ST server or NVR station:**

Tap on the **Server** tab.

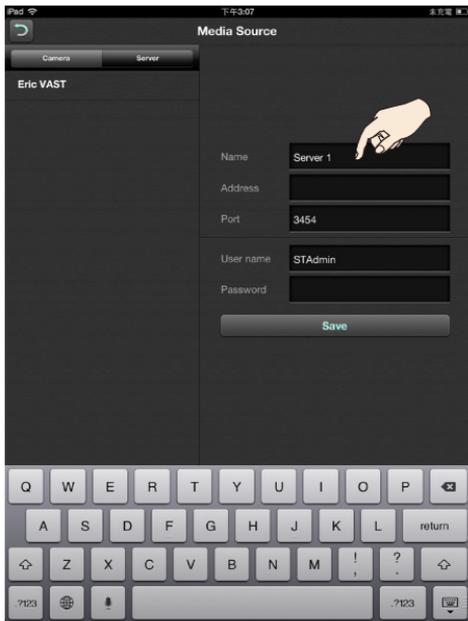
Tap on the Add **+** button.

You may then single tap in each entry field including, **Server name**, **Address**, **Port**, **User name**, and **Password**. Enter login information for access to a VAST, ST-7501 server, or an NVR station.

When done, click the **Save** button to recruit the server, and repeat the process to add more.

A keypad will prompt whenever you tap on an entry field.

All cameras managed by the server will be available in the Server queue. You may then place them onto the iViewer Layout pages.



2-3-3.

After you configured all cameras and servers, tap on the **Return**  button to turn to the Live window.



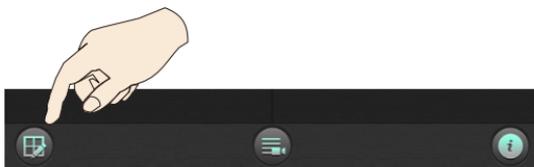
#### NOTE:

When inserting cameras, ensure that you start from the first screen. There are dots above the Dock showing the number of available live view screens and your current position. There are 12 screens available, and each can contain 6 camera view cells. iViewer provides view cells to contain video feeds from up to 72 cameras.

You may mistakenly move to a different screen by swiping your finger tip across the screen.

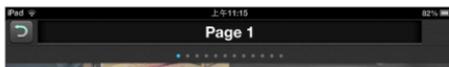


2-4. Enter the **Layout** page by a single tap.



2-4-1.

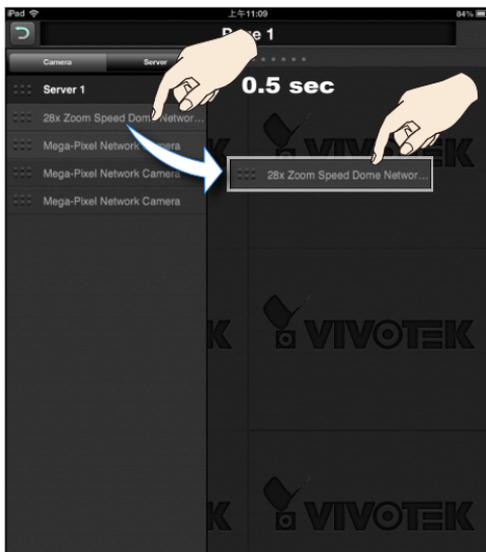
When in the **Layout** page, tap on the **Device list**  button.

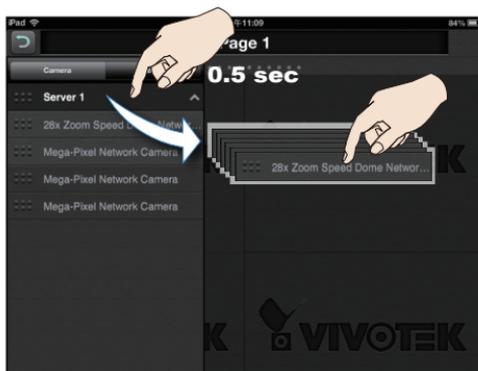


2-4-2.

All individual cameras or cameras under a VAST or NVR server will be listed. You can place your finger tip on one camera for **0.5 second** until it becomes afloat, and then drag it to a view cell you prefer.

Video servers and individual cameras will be listed in the Camera pane.





You can also select the entire server by placing your finger on the Server entry. All cameras under the server will be placed into view cells.



You can also use the **Select all** button to automatically place all cameras into view cells. Cameras will be inserted following the alphabetical order.

Note that you do not need to save the layout. When done with layout, tap the **Return**  button on the upper left of the screen to return to the Live window.



The cameras that have already been inserted will be placed at a lower position on the list, while those that have not been inserted will be displayed in a lighter color, and at a higher position on the list.

Not inserted yet.

Inserted.



This is the message when all cameras in queue have been successfully added.



## NOTE:

- You can not register cameras of duplicate names onto the layout page.
- You can not modify the connection parameters of connected cameras. If parameters have been changed, e.g., IP address, you need to remove, and then insert the camera again.

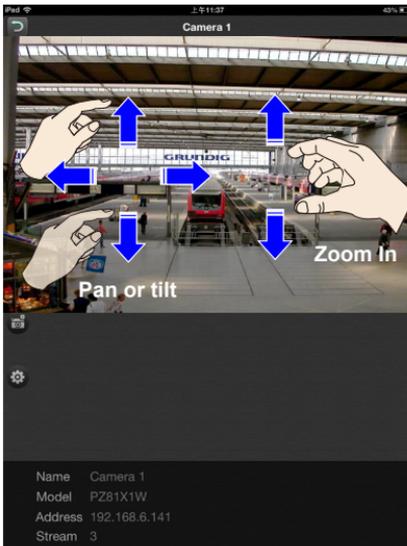
2-5. Double tap on a camera view cell opens a full view window. Double tap on a Full View window returns you to the Live window.

Four functional buttons are available on the screen:

2-5-1.  **PTZ:** provides zoom, pan and tilt control for cameras that come with PTZ mechanisms, such as a speed dome camera.

Tap on the button to enable the PTZ functions. The button will turn blue. 

Tap on the button again to disable the PTZ functions.



Use your fingers to exert PTZ control to move to a different field of view, or zoom in/out on a view. Swipe your finger to the opposite direction of your target to move to it.

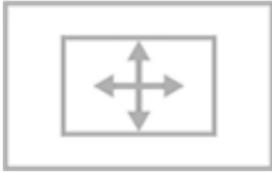


## NOTE:

For fisheye cameras, use the PTZ button  to enable PTZ control in a Regional or Panoramic view.

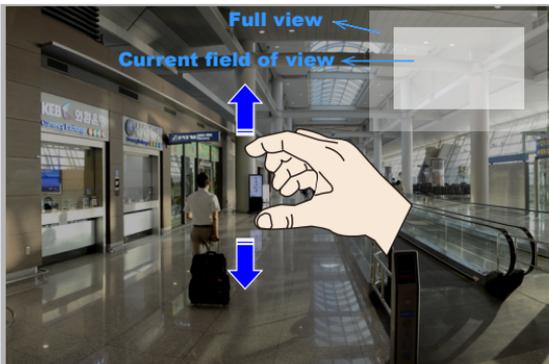


When in a fisheye Panoramic view, swipe to the left or to the right to change the field of view.



When in a fisheye Regional view, zoom in, place your finger tip on the screen, and then drag your finger across the screen in any direction to change the field of view.

**PIP (Picture in Picture):** provides PiP control for cameras that do not have the PTZ mechanisms. (such as a field of view from a fixed lens camera). Once zoomed in, you can move the focus by finger-swiping in all directions, zoom in/out to explore the regions within a wide angle of view. You can zoom in on a view cell without using the PTZ button.



You need to zoom out to the full extent before you can swipe the screen to move to the live view of another camera.

If using a camera that does not have the PTZ mechanisms, tapping the button will bring up the following message.



2-5-2.  **Playback:** searches and plays recorded video footages on a VAST, ST7501 server, or an NVR station. Use the time roller to select the time when the recording took place. Click on the **Playback** button to retrieve past videos.

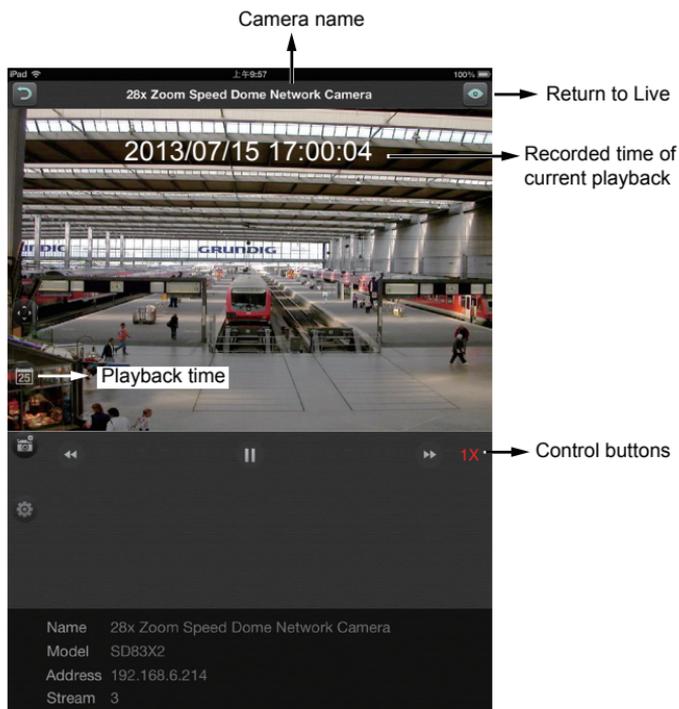


### IMPORTANT:

The presumption is that you already know a recorded video does exist for a specific point in time, and by a specific camera.

The **Playback** window provides control over the selected video footage. You can tap on the forward and backward buttons several times to increase or decrease the playback speed.

Tap on the **Playback time**  button to return to the Time Selection roller. Tap on the **Live**  button to return to the Live View window.



Note the following when using the Playback function:

1. You can also use your fingers to zoom in/out on the Playback screen. See the description for PiP on the previous page.
2. For a fisheye camera, you can select a different display mode during the playback, such as 1R or 1P.
3. The Snapshot function also applies in the Playback window.

2-5-3.  **Snapshot:** saves the current view as a jpeg.

2-5-4.  **Camera Configuration:** Click this button to change the video stream for the current view cell. If using a fisheye camera, you can change the display mode into the 1R (Regional) or 1P (Panoramic) mode. Note that the rest of fisheye's display modes are currently not supported.



If you change the video stream for the full view window here, that only takes effect for the full view window. The smaller view cells on the Layout page will still display the smallest-resolution streams.

#### View Type:

- 1O:** The original circular view. Note that you **can not** exert the PiP function in this mode.
- 1R:** The Regional view. You can perform PTZ functions in this mode using finger moves to move to a different view area, or zoom in/out on a view area.
- 1P:** The Panoramic view displays a long stripe of an all round view. You can rotate the image horizontally using finger swipes.



Rotate your iPad to view a live video in a portrait or landscape orientation. The video rotates accordingly for both multi- and single-cell displays.

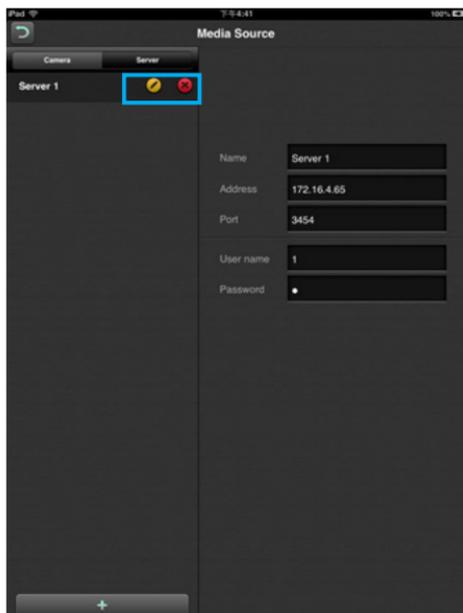


#### IMPORTANT:

1. The PTZ, Playback, Snapshot, and Configuration options discussed above only appear in a Full View window.
2. The PTZ function takes effect only if your cameras come with PTZ mechanical design, such as a speed dome camera.
3. The PiP function allows users to zoom in on an existing video feed and move along to different areas covered by the video feed.

## III. Other Functions

### 3-1. Editing an Existing Server or Cameras



Enter the Media Source page by tapping on the **Media Source**  button.

Tap on the Server tab, the Configuration page for existing servers will display.

Tap the **Edit**  button to change the existing information or use the **Delete**  button to remove a server.

If you remove a server, all cameras managed by it will disappear from the Live view window.

Note that the address and port number are not configurable. If the address and port number have changed for some reasons, you should remove the camera/server and then enlist them again.

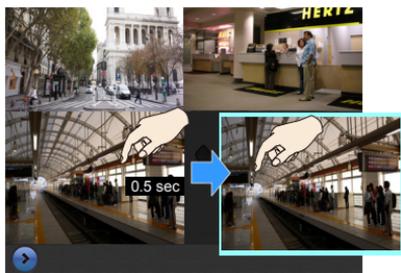
### 3-2. Renaming the Layout Page



Use the  button to enter the Layout page.

Double tap on the page title. A virtual keypad will prompt. You can then change the name of the layout page, e.g., from Page 1 to **Lobby 1**. When done, close the virtual keypad. Repeat the process to rename other layout pages.

### 3-3. Re-arranging the View Cells



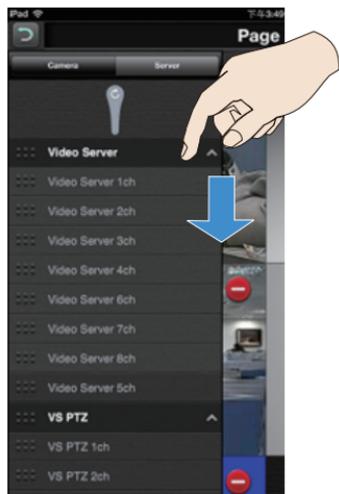
On the Layout page. Place your finger on a view cell for **0.5 second**. When it becomes afloat, drag it across the screen to a new location. You can also drag a view cell across layout pages by dragging it to the border of your current layout, and staying there for **one second**. You can then drag it to the neighboring page.

If the target view cell is already populated by another camera, dragging a view cell to it will swap their positions.

Note that the snapshot images on view cells are not constantly updated. They are updated only once a day.

If you remove a camera from a view cell using the **Delete**  button, the camera will still be listed on the device pane.

If you enlist new individual cameras to your device list, they will be automatically added to the unoccupied view cells. However, if you enlist new cameras to a VAST server, those cameras will not be added to the view cells.



If changes occurred to an existing server, e.g., adding or removing cameras, you can pull down the device entry for the system to reload the device data. The software will then retry the connection and refresh all information.

If problems still remain unsolved, you may remove the device and insert it again. This may occur if you upgraded your software from earlier iViewer.

## Credit Notice

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### NOTE:

Below are the limitations of the current release of software:

1. The Two Way Audio communication with cameras is currently not supported.
2. I/O triggers and notification from the cameras is not supported.
3. The iViewer does not run in the background when users leave the current session.
4. iViewer does not support login with a preset account and password.
5. iViewer does not support configuration backup and restore functions.
6. iViewer does not support video recording to iPhone and iPad.
7. iViewer does not support playback of videos recorded on cameras' SD cards.