

## **Wi-Fi IP-camcorder Defender Multicam WF-10HD**

**Thank you for purchasing our Defender HD Wi-Fi video camera!**

Before using the device, read attentively this manual and keep it for the whole period of usage.



**UNPACKING**

Carefully unpack the device, make sure that no parts have been left in the box. Check the device integrity and check for absence of any free-moving parts. If the device was damaged during transportation, contact the company that carried out the transportation; if the device does not operate, contact the seller immediately.

**WARNING!**

Do not switch on the device immediately after bringing it to a warm place from outside, if the environmental temperature is below zero! The unpacked device should be kept at the indoor temperature for at least 4 hours.

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## 1 INTRODUCTION

Wireless multi-functional Wi-Fi video camera may be used as a wireless IP camera (to broadcast video through Internet and by accessing it directly), as a video camera, a car DVR, a web camera with USB interface, a photo camera, and a card reader. The camera stream may be viewed via a built-in wireless access point (without internet connection) and via a free application called “Unieye” for both Android and iOS device or via cloud service at “<http://www.ustream.tv>” (using internet connection) that required an internet browser with “Flash” technology support or via free application called “Ustream” for Android and iOS devices. “Unieye” application allows the user to change camera settings, stream voice from a mobile device to the camera, view simultaneous broadcast of up to four cameras, record videos and photos to the memory card and watch videos and photos that are stored on the memory card, using any mobile device.

Note: Some functions of “Unieye” application may not work with some devices, if such mobile device does not support h.264 video codec.

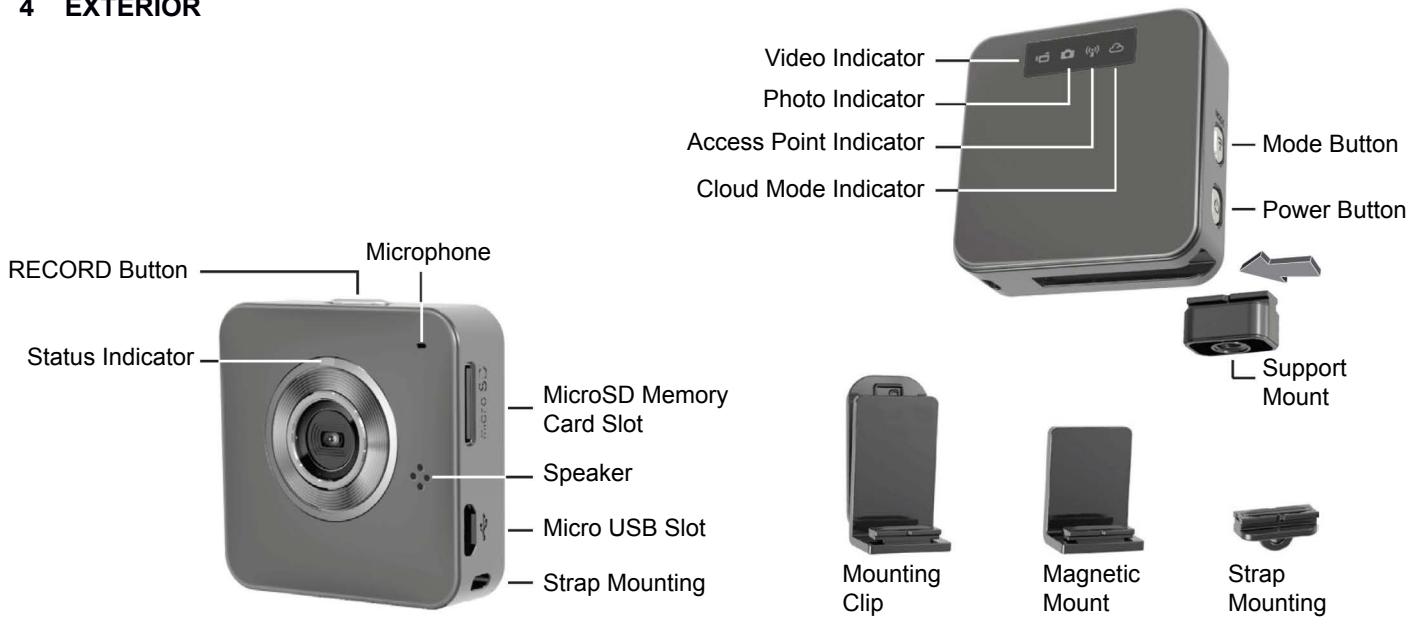
## 2 SAFETY PRECAUTIONS

- To avoid risk of electric shock do not open the camera and do not repair it by yourself.
- Keep the camera away from foreign particles into the holes.
- Keep the camera away from excessive humidity, liquid, dust, vibration, mechanic loads, exposure of high temperatures (higher than +50C) and direct sunlight. Do not leave or set up the camera in premises with excessive humidity and dust.
- The device may be used and stored at temperatures between +5 °C and +40 °C where moisture condensation does not occur.
- Do not use the gasoline, alcohol or other solvents to clean the device as they may damage the painted cover of the camera. To clean the camera use soft dry cloth.
- If the camera does not work, unplug the cable immediately and contact the store, where you bought the camera.

## 3 PACKAGE CONTENTS

- Camera - 1 pc.
- MicroUSB cable — 1 pc.
- Power adapter - 1 pc.
- Windshield mount - 1 pc.
- Mounting clip - 1 pc.
- Magnetic mount - 1 pc.
- Strap mount - 1 pc.
- Support mount- 2 pcs.
- Camera support - 1 pc.
- Strap - 1 pc.
- Operation manual - 1 pc.
- Warranty - 1 pc.


## 4 EXTERIOR



## 5 CHARGING THE DEVICE



To charge the camera, connect it to the power supply or computer USB port. If the camera was off and the battery was completely discharged, it will automatically switch to “Charging” mode; the camera will automatically shut down when charging will be completed. If the camera did not switch to “Charging” mode automatically, press and hold button, until the camera switches to this mode. While in “Charging” mode, the Indicator lights at the back panel will sequentially flash red, while the status indicator will continuously flash red along with the other lights.

## 6 TURNING THE DEVICE ON

- If the camera is connected to power supply and the indicator lights are not on, then you need to switch the device to “Charging” mode before turning it on (see “CHARGING THE DEVICE” section)
- If the camera is not connected to power supply or is currently in “Charging” mode, hold  button, until the device switches to “Access Point” mode. While in this mode the device will start a wireless access point that is built into the camera and the access point indicator will flash green. When the access point will start and be ready for connection, the camera might not respond to button signals or respond with a delay.

Note: Holding the  button for a prolonged period will force shut down the camera.

## 7 TURNING THE DEVICE OFF


- If the camera is connected to power supply, hold the  button until the camera switches to “Charging” mode (see “CHARGING THE DEVICE” section)
- If the camera is not connected to power supply, hold the  button until the indicator lights go out.

### 7.1 Automatic shut down

- If the camera is currently in “Charging” mode, then, after charging is complete, the device will automatically shut down.
- If the camera is idle for 5 minutes and is using internal battery as main energy source in any mode, except Cloud mode, it will shut down automatically.


Note: Video recording and broadcasting video stream never cause the device to become idle.

## 8 FORCED SHUT DOWN AND RESET


- If the camera does not respond or if the camera incorrectly responds to user actions, please, perform force shut down. This may be done by holding (3 to 5 seconds)  button, until the indicator lights go out.

- In order to reset all the setting to default and reboot the system, hold the RECORD+MODE button (for 4-5 seconds) until all the device indicator lights flash green simultaneously for a few times. WARNING! All the setup data, settings, passwords, etc. will be reset.

## 9 “VIDEO” AND “CAMERA” MODES

To operate these modes, please, insert the microSD memory card into the camera (the size of the memory card should not exceed 64GB, class 6 microSD, formatted with FAT32 file system). To turn the camera on, use the  button. To start recording video or taking pictures press “RECORD” button. To switch between the modes press “MODE” button. If you encounter any difficulties, please see the following sections: [“BUTTON ASSIGNEMENTS”](#), [“OPERATION MODES AND INDICATOR SIGNALS”](#).

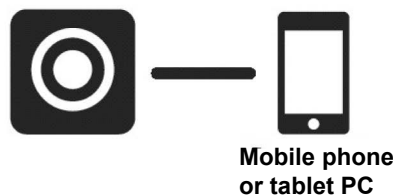
### 9.1 Cycle video recording (car DVR mode)

When the camera is in the  “Video recording” mode, you can start cycle video recording by pressing and holding (4-5 seconds) the “RECORD” button, until the “Video” and status indicator lights will start flashing with orange. This function allows recording video by fragments (files), 3 minutes long each. When the memory card is full, the system will automatically delete the oldest file, in order to continue recording. This mode works best if you wish to use your camera as a car DVR. The recorded video will automatically be turned by 180° degrees, since the camera that has been installed on the car windshield using a windshield mount will be held upside down. In order to align the camera directly toward the road, use the screen of a mobile device that has been hooked up to the camera in “Access Point” mode (see [“ACCESS POINT” MODE](#) in [ACCESSING STREAMING VIDEO FROM THE CAMERA WITHOUT INTERNET](#) section).

## 10 “ACCESS POINT” MODE (ACCESSING STREAMING VIDEO FROM THE CAMERA WITHOUT INTERNET)

“Access Point” mode is used to connect a mobile phone or tablet that support Wi-Fi 802.11n to the camera through the built in wireless access point.

### “Access Point” mode



Access to the camera is carried out through a free application called “Unieye” for both Android and iOS operating systems. “Unieye” application allows you to change camera settings, stream voice from the mobile phone to the camera, simultaneously view video streams from multiple (up to four) cameras, record video and take pictures using a memory card, as well as view the recorded video and pictures that have been saved to the memory card on the screen of a mobile device.

Before using “Access Point” mode, please install “Unieye” free application through “Google Play” or “Apple Store” services.

QR Codes for quick access to “Unieye” download pages:



Google Play



Apple Store

Each camera has unique identifier ( U2-xxxxxxx). The password is not required in order to connect using the default settings but nevertheless it is recommended to set a password for camera access through the “Setup” tab of the “Unieye” application.

**Note.** If you forgot the built-in access point password, reset the camera settings to default (see “[FORCED SHUT DOWN AND RESET](#)” section).

The sequence of actions that are required to connect with the camera depends on the operating system of the mobile phone or tablet, since iOS does not allow applications to connect to wireless networks without user, while Android allows doing the same.

There may be some differences from the instructions below and the actual menus, depending on the type of device and operating system version.

## 10.1 Accessing the camera and viewing video stream

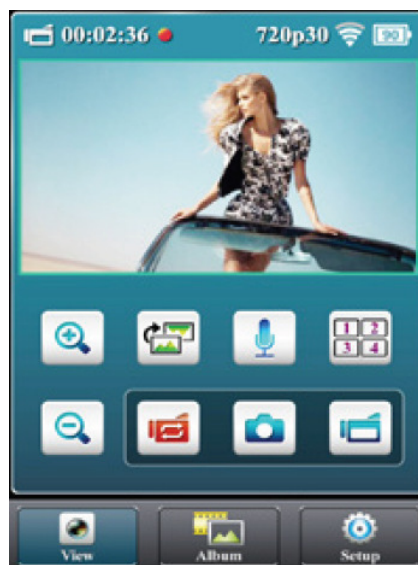
### 10.1.1 For iOS device users.

In order to connect to the camera, iOS users have to do the following:

1. Switch the camera to “Access Point” mode, using the MODE button (the should be green and should not flash)
2. Using the mobile device or tablet go to “Setup” → “Wi-Fi” and connect to the wireless network created by the camera.
3. Start the “Unieye” application and press the button with camera identifier.


**Note.** If the application have already been launched, it is important to close it (stop application) and launch it again.

4. The camera streaming window will start.



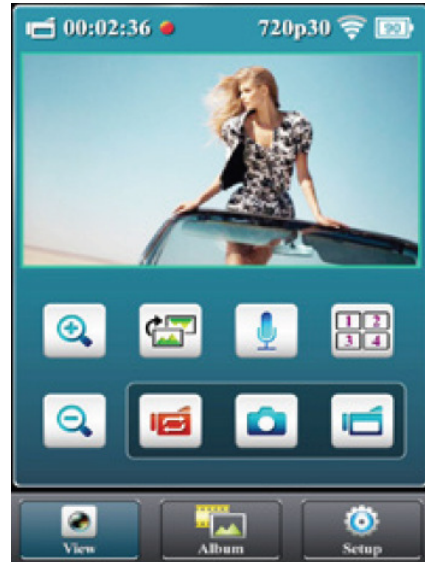
### 10.1.2 For Android device users.

In order to connect to the camera, Android users have to do the following:









1. Switch the camera to “Access Point” mode, using the MODE button (the ) should be green and should not flash)
2. Turn mobile phone or tablet Wi-Fi connection on.
3. Start the “Unieye” application and press the button with camera identifier.


**Note.** If the list of access points does not contain your camera, click the “Refresh” button, located at the bottom of the screen.

4. The camera streaming window will start.









## 10.2 Unieye software functions

Button	Application
	Zoom in
	Zoom out
	Rotate the image by 180°
	Stream the voice from a mobile device to the camera. In this case, camera microphone will be turned off.
	Simultaneous stream viewing from multiple cameras (up to 4) <b>Note:</b> Not applicable for iOS.
	Cycle video recording. Video will be recorded by segments (files), 3 minutes each. When the memory card is full, the camera will delete the oldest file to continue recording. <b>Note.</b> microSD card has to be inserted into the camera.
	Take photos and save them to microSD card. <b>Note.</b> microSD card has to be inserted into the camera.
	Record video to microSD card. <b>Note.</b> microSD card has to be inserted into the camera.

At the "Album" tab of the "Unieye" application you may see, delete (button ) and upload to the mobile device your video and photos that have been saved by the camera to the memory card.


At the "Setup" tab of the "Unieye" application you may change the camera settings.

Setting	Description
 ID/Password	The name of the camera and the password, used to access the Access Point mode.
 Date and time	Settings for camera system time.
 Sound	Turn on or turn off sound signals that serve to notify about errors or changes of camera status.
 TV-system	The frequency of light setting, used to compensate for the twinkling on the video.
 Format SD card	Micro-SD memory card formatting.
 Default	Reset the camera settings to default.

After the settings have been changed it is necessary to press the "Save" button to bring them to effect.

### 10.3 Viewing multiple streams from multiple cameras simultaneously, using "Access Point" mode (without internet connection)

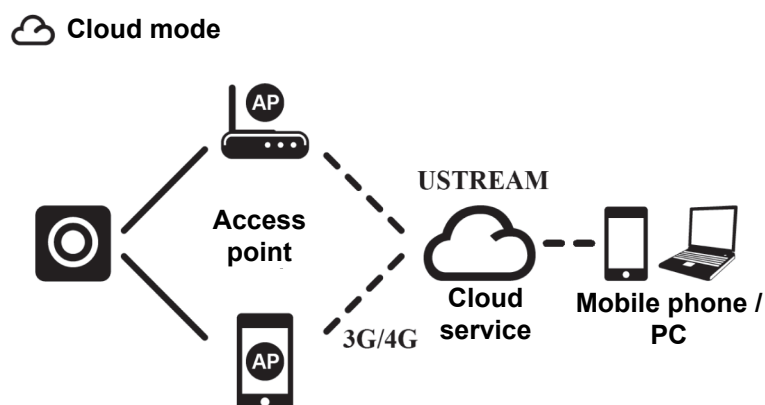
In order to view streams from multiple cameras at the same time through "Access point" mode, you have to connect to one of the cameras using the "Unieye" application (see ["ACCESS POINT" MODE \(ACCESSING STREAMING VIDEO FROM THE CAMERA WITHOUT INTERNET\)](#) section), then, turn on all other cameras (up to three) and wait for them

to initialize (see [TURNING THE DEVICE ON](#) section), press the button . Follow the on-screen instructions that will appear on the screen of the mobile phone or tablet.

In order to control one of the 4 cameras, click on one of the video streams and enter your username and password, used to access the camera, in the appeared window (if the password was not set, press OK; do not enter any information in username and password fields).

## 11 CLOUD MODE (VIDEO STREAMING VIA INTERNET)

Cloud mode is used to view video stream from the camera using "http://www.ustream.tv" web-service using an internet browser that supports Flash technology, or using a free "Ustream" application for Android and iOS devices. USTREAM service and the mobile applications are used to create and view video streams through the internet. In order to connect the camera to cloud service you will need a wireless access point that supports Wi-Fi 802.11n standard.



Before using the cloud mode set the access point that will be used to access the Internet in the camera settings, set up account information that will be used by the camera to access the service "http://www.ustream.tv". It is also recommended to install free "Ustream" application on the mobile phone, using "Google Play" or "Apple Store" services.

QR Codes for quick access to “Ustream” download pages:



Google Play

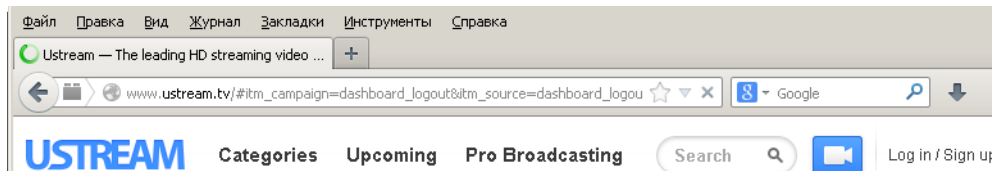


Apple Store

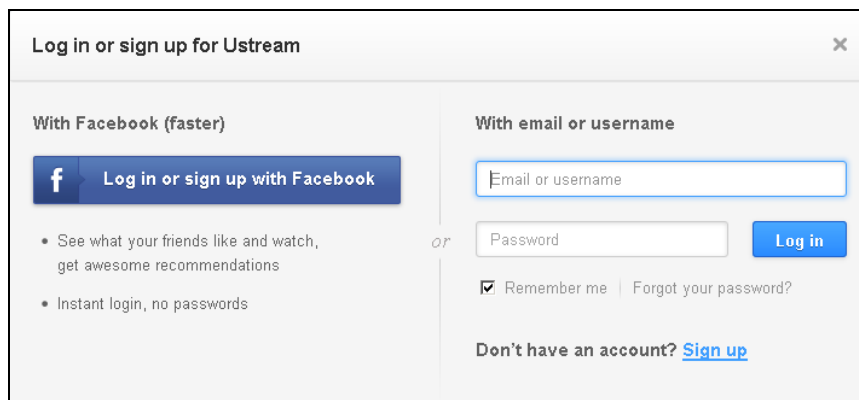
**Note.** The camera supplier is not responsible for “Ustream” application and “http://www.ustream.tv” service functioning, since it belongs to the third parties. If you encounter any difficulties, refer to customer support and help section of this service. In near future the camera will support other cloud services.

### 11.1 Registration at the USTREAM server

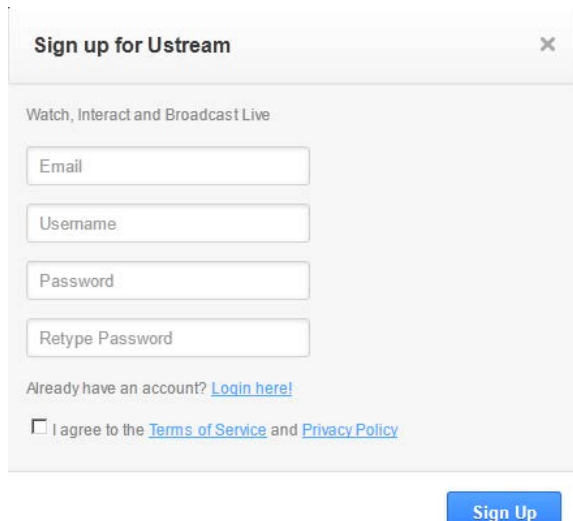
1. Open the internet browser at the “http://www.ustream.tv” web-page.



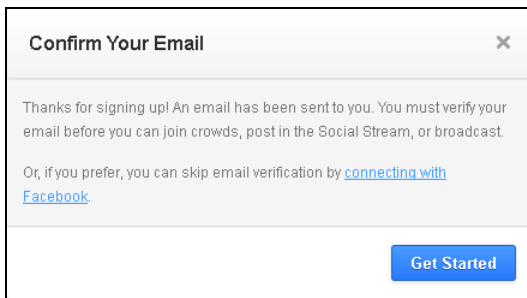
2. Click at the “Log in / Sign up” field.



3. In the appeared window click the “Sign up” field.




- In the appeared window called “Sign up for Ustream” fill in all the fields, flag “I accept the terms...” and click “Register” button.



- In the appeared window called “Confirm Your Email” press the “Get Started” button. Open the mailbox that you have entered within the “Sign up for Ustream” window and wait for e-mail from “Ustream” service. Follow the link that will be sent to you via e-mail in order to confirm your e-mail address.

## 11.2 Setting up the camera

- Switch the camera to "Access Point" mode using the MODE button.
- Connect to the camera via “Ustream” application (see [“ACCESS POINT” MODE in ACCESSING STREAMING VIDEO FROM THE CAMERA WITHOUT INTERNET](#) section).
- Go to “Setup” tab.
- Enter the account and password of the active account at the USTREAM service in the appropriate fields. If you want the camera to create a new account on the USTREAM server

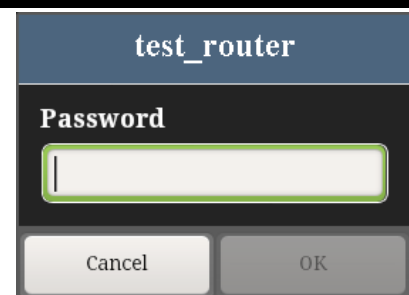
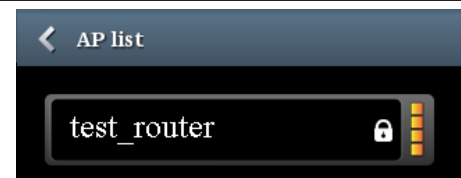
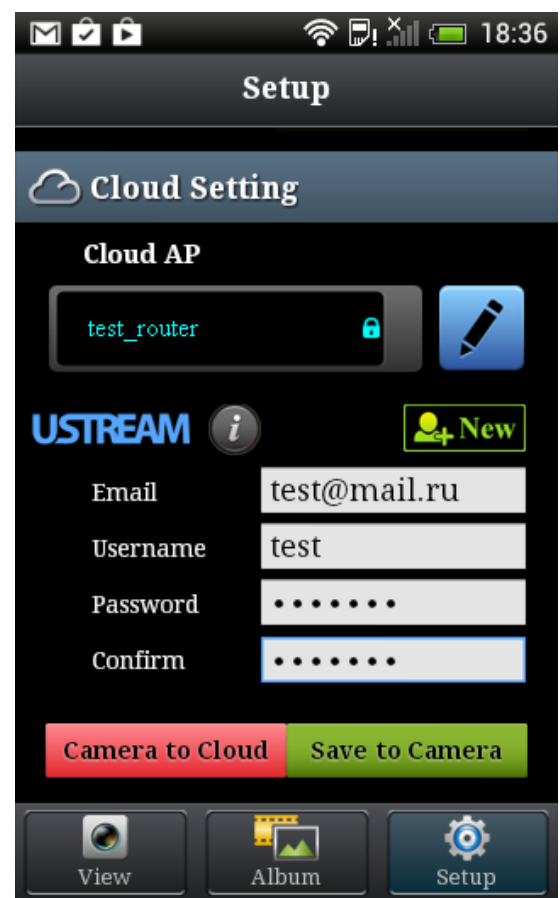
automatically, press the button  and enter your e-mail, account, password and password confirmation (you may only enter Latin symbols and numbers from 0 to 9). If in the process of creating a new account the system will find out that the login and e-mail information already exist in the database. then the camera will be unable to connect to the Ustream service, therefore, it is recommended to create new accounts using the [Registration at the Ustream server](#) section instructions.

- Press the “Save” button.

**Note.** When operating multiple cameras use different accounts at the USTREAM server for each camera, since the camera does not have the option to choose a channel.

- Click on the field under “Access Point”.
- Select wireless access point from the appeared list. This point will be further used by the camera to access the internet.
- Enter the access point password and click “OK”.
- Return to the Setup tab and press the “Save” button.

If you are setting up the parameters to switch the camera to cloud mode for the first time, use the “Connect the service” button within the “Unieye” application. At this point the camera will start to automatically connect to a Wi-Fi access point, while the Unieye application will shut down.





During the camera initialization the indicator for cloud mode and status indicator will flash with orange quickly. When the camera will establish connection with the cloud service and will start streaming video, the cloud mode and status indicator lights will start to flash with green light slowly. Next time (if the access point has been connected, the account has been created and the camera has at least once already been successfully connected to streaming through cloud service) when you need to switch the camera to cloud again, you can simply use the “MODE” button.

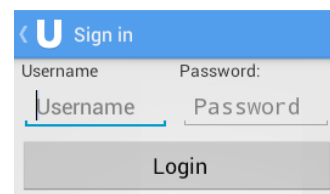
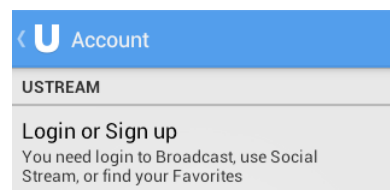
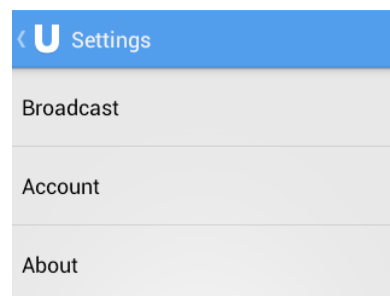
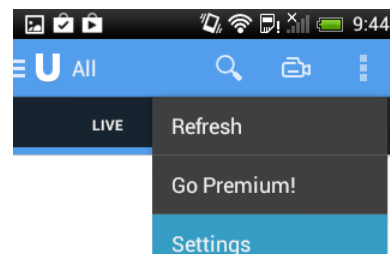
If the camera was unable to connect with the access point or with the cloud service, the cloud mode and status indicator lights will start flashing with red color slowly and the camera will produce a sound signal. In a few seconds the camera will switch to “Access point” mode. Connecting to the camera via “Unieye” application at this point will allow you to see the message that will indicate what caused the error. The message might not indicate the cause correctly. For instance, if the camera is blocked from incoming connections through 80 and 443 ports, the message will show that the account login and password at the USTREAM server are incorrect. However, the nature of the message does not change: the camera cannot connect to the cloud service. For possible types of errors and solutions see [TROUBLESHOOTING](#) section.

### 11.3 Viewing video stream from camera through cloud service, using Android mobile device with “Ustream” application



There may be some differences between the instructions below and the actual location of menu items, depending on the type of device and depending on the version of the installed operating system, however, the nature of these settings will not change.

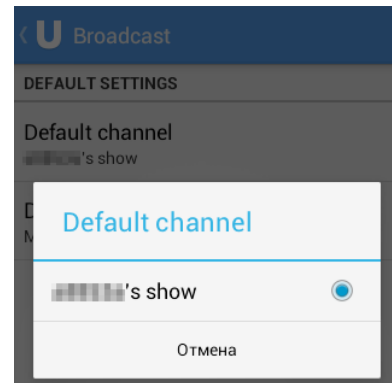
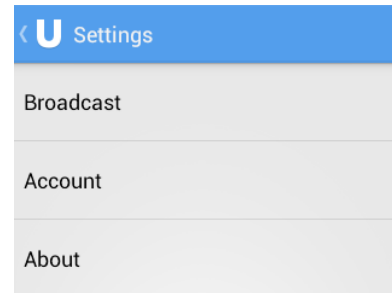
#### 11.3.1 Authentication

1. Launch the “USTREAM” application for Android.
2. Press the  or  button and select “Settings” in the appeared menu.
3. In the appeared window go to “Account” tab.
4. Click on “Login or Sign up” field in the appeared tab.
5. Enter account username and password that are used by the camera to access “USTREAM” service in the appeared window (the exact username and password that were used to set up the camera) and press “Login” button.




### 11.3.2 Setting up channel name

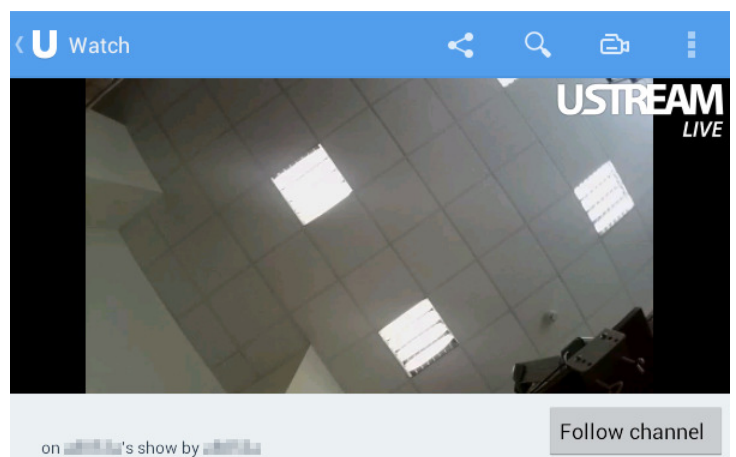
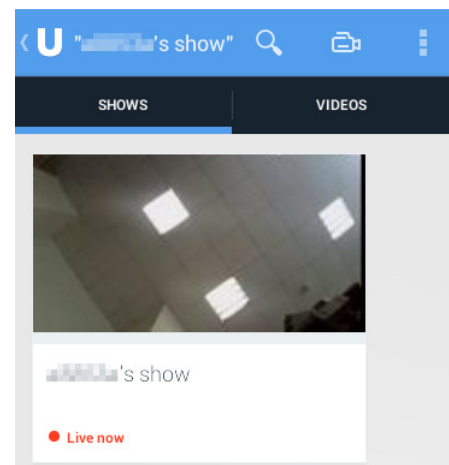
1. Press the  or  button and select “Settings” in the appeared menu.
2. Go to “Broadcast” tab and click the “Default channel” field. There you will see a list of channels. If switching the camera to “Cloud” mode caused it to automatically create an account and channel, then, the list will contain only one channel called “<name of account>’s show”.




### 11.3.3 Searching for channel and viewing the stream

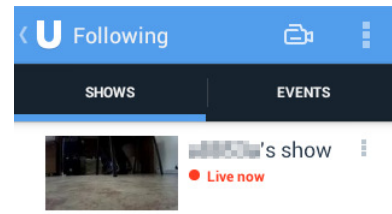
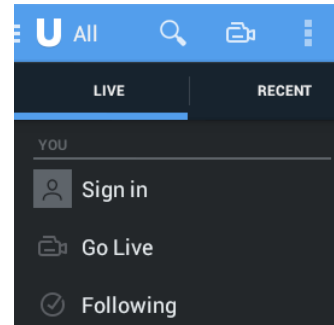
1. Enter the channel name in the field .
2. Open the “Shows” tab in the appeared window.
3. Select the channel from the list. Video streaming will then open.

If the screen automatically displays “This show is offline” title, then, the streaming is off.



### 11.3.4 Saving the channel under the “Following” list for quick access

1. For quick access to the channel in future you may save it in the “Following” list by pressing the “Follow channel” button.
2. In order to open the “Following” list, press the button .
3. Select “Following” item within the appeared panel.
4. Open the “Shows” tab in the appeared window.





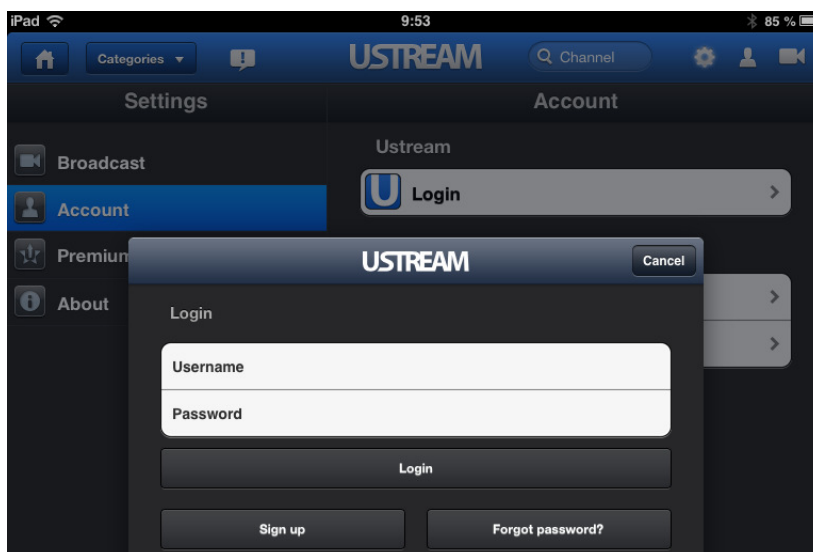
**Note.** The camera supplier is not responsible for “Ustream” application and “http://www.ustream.tv” service functioning, since it belongs to the third parties. If you encounter any difficulties, refer to customer support and help section of this service. In near future the camera will support other cloud services.

### 11.4 Viewing video stream from camera through cloud service, using iOS mobile device with “Ustream” application


There may be some differences between the instructions below and the actual location of menu items, depending on the type of device and depending on the version if the installed operating system, however, the nature of these settings will not change.

#### 11.4.1 Authentication

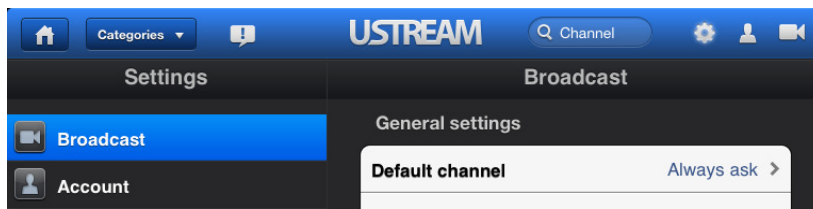
1. Launch the “USTREAM” application.
2. Open the settings window by pressing the  button.
3. Go to “Account” tab.
4. Click on “ Login” field.
5. Enter account username and password that are used by the camera to access “USTREAM” service in the appeared window (the exact username and password that were used to set up the camera) and press “Login” button.




#### 11.4.2 Setting up channel name

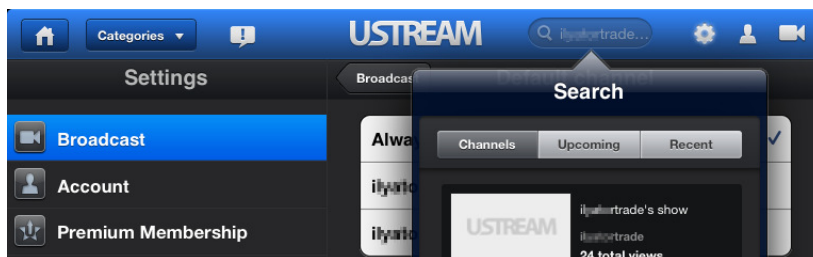
1. Go to “Broadcast” tab in the settings window .

- Click the “Default Channel” field and the channel list will show up. There you will see a list of channels. If switching the camera to “Cloud” mode caused it to automatically create an account and channel, then, the list will contain only one channel called “<name of account>’s show”.

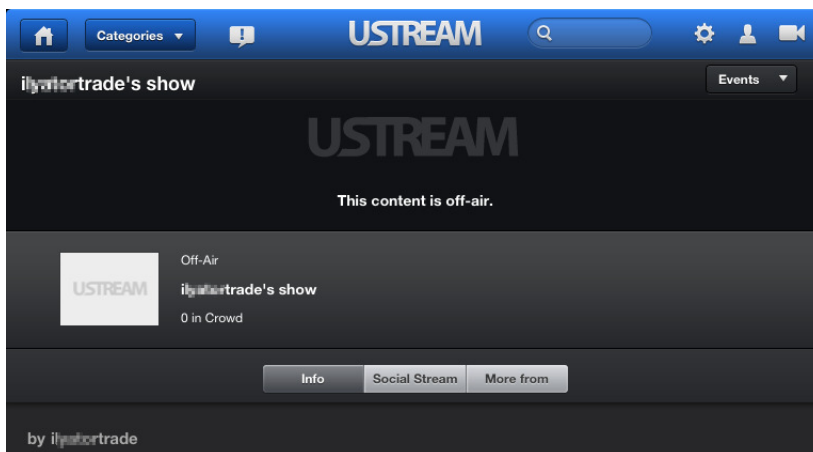


### 11.4.3 Searching for channel and viewing the stream

- Enter the channel name in the field .
- Open the “Shows” tab in the appeared window.
- Select the channel from the list.




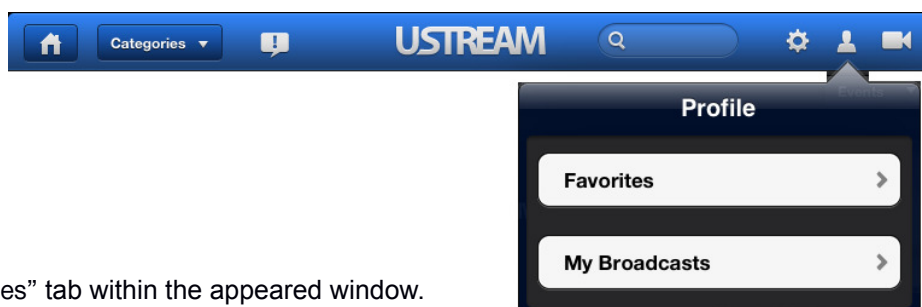
Video streaming will then open.



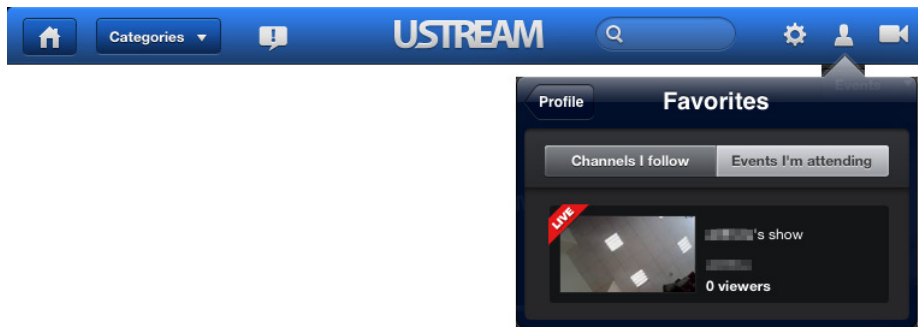
If the screen automatically displays “This show is offline” title, then, the streaming is off.

### 11.4.4 Saving the channel under the “Following” list for quick access

- The iOS version of the “Ustream” application is unable to save channels under the “Following” list for quick access in future. This option may be added on in further version of the application. At this time, in order to save channels under the “Following” list you may use “Ustream” application for Android or use the internet browser that supports Flash technology.
- In order to open the “Following” list, press the button .



- Select “Favourite” tab within the appeared window.



4. Open the “Channels | follow” tab in the opened “Favorites” tab.

**Note.** The camera supplier is not responsible for “Ustream” application and “http://www.ustream.tv” service functioning, since it belongs to the third parties. If you encounter any difficulties, refer to customer support and help section of this service. In near future the camera will support other cloud services.

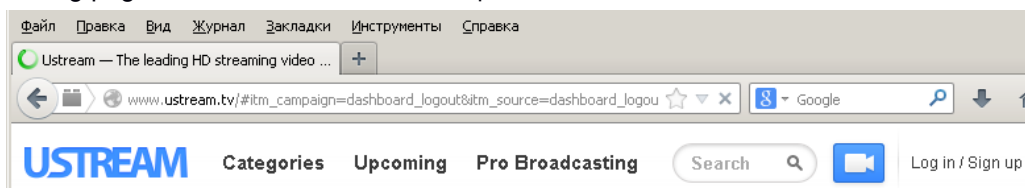
### 11.5 Viewing video stream from camera through cloud service, using PC, Laptop or mobile device internet-browser

**Note.** You will need a web browser that supports Flash technology. Unfortunately, many mobile phones and tablets do not support Flash technology.

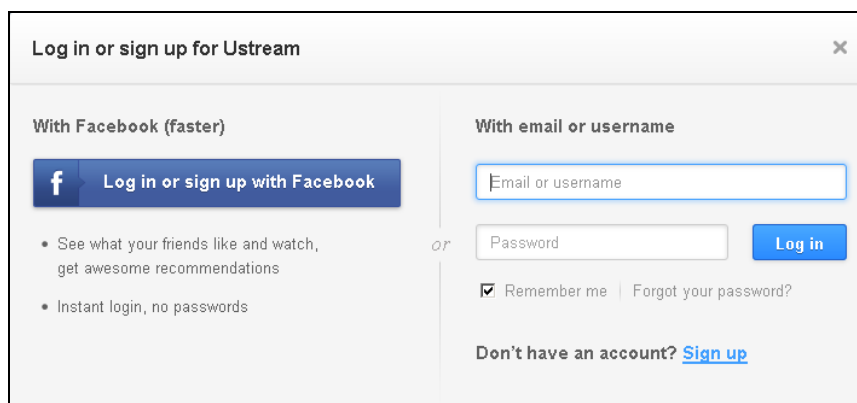
**Note.** The camera supplier is not responsible for “Ustream” application and “http://www.ustream.tv” service functioning, since it belongs to the third parties. If you encounter any difficulties, refer to customer support and help section of this service. In near future the camera will support other cloud services.

#### 11.5.1 Authentication

1. Open the following page in the internet browser: “http://www.ustream.tv”.




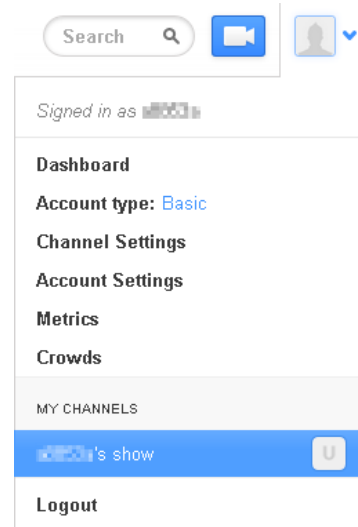
2. Click on the “Log in / Sign up” field.








3. Enter account username and password that are used by the camera to access “USTREAM” service in the appeared window (the exact username and password that were used to set up the camera) and press “Login” button.

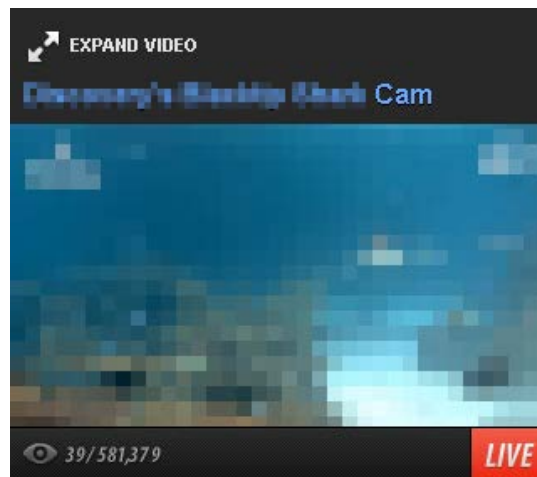
### 11.5.2 Setting up channel name

Point the mouse to the icon . In the appeared menu you will see the list of channels under the “MY CHANNELS” item. If switching the camera to “Cloud” mode caused it to automatically create an account and channel, then, the list will contain only one channel called “<name of account>’s show”.



### 11.5.3 Searching for channel and viewing the stream


1. Enter the channel name in the field  at the web page and click the button . You will then see a list of channels that will contain in their name a line that has been entered into the field .
2. Select the channel from the list. Video streaming will then open. If you see  instead of , then the stream is offline.




### 11.5.4 Saving the channel under the “Following” list for quick access

1. In order to quickly access the channel in future you may save it under the “Following” list by pressing the “Reading” button, while viewing the stream in full screen mode.

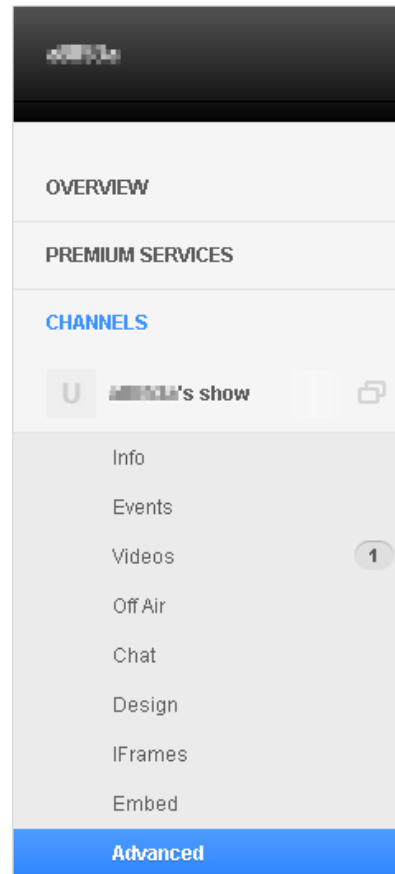
Note. At this moment the web-interface does not have the option to save channels under the “Following” list for the particular account, under which you have been authenticated. To save these channels in this manner use the “Ustream” application for Android.

2. In order to open the “Following” list, move the mouse cursor over the  icon and select “Crowds” from the appeared menu. A list of channels will then open. This list will contain the number of accounts that have been saved to the “following” list and the number of accounts that are currently viewing the stream at this moment.


### 11.5.5 Channel confidentiality

1. In order to close stream access for other users, move the mouse cursor over the  icon and select the “Channel Settings” menu item.
2. Select the channel that you would like to restrict access to on the left panel, within the opened page.
3. Open the “Additional settings” tab. Under the “channel confidentiality” set the flag for “Make the channel private” and press the “Save” button. The channels status will be changed within 10 minutes.


**Note.** Private channels cannot be found using the search function and are not displayed under the “Following” list, therefore you cannot view them through the “Ustream” mobile application. In order to view these channels use the internet browser that supports Flash technology.



### 11.5.6 Stream recording

1. In order to record the stream, move the mouse cursor over the  icon and select the “Channel settings” menu item.
2. Select the channel that you would like to record on the left panel, within the opened page.
3. Open the “Remote” tab and under “Console” section press the “Launch remote console” button.
4. Go to the “Recorder” within the opened window and press “Start recording” button.

### 11.5.7 Viewing recorded video

1. In order to view the recorded stream, move the mouse cursor over the  icon and select the “Channel settings” menu item.
2. Select the channel that you would like to view on the left panel, within the opened page.
3. Open the “Video” tab and press the “Play” button, located near the video that you would like to watch.

## 11.6 Using multiple video cameras with cloud mode (video streaming via internet)




In order to use multiple cameras simultaneously with the cloud mode, set them up in accordance with the [CLOUD MODE \(VIDEO STREAMING VIA INTERNET\)](#) section. Save the channels that the cameras use to stream video under the “Following” list of any account. This way you will be able to quickly switch between the streams from different cameras. One camera that is hooked up via cloud mode generates approximately 60Kbyte/second of outgoing traffic, therefore, the number of cameras that may be connected to the cloud service is only limited to the bandwidth of your internet connection that is used to stream the cameras.

## 12 “CARD READER” AND “WEB CAMERA” MODES

While connected to the computer USB port the camera may operate in the "Card reader" and "Web camera" modes. The "Card reader" mode is used to access the memory card. "Web camera" mode makes the microphone unavailable. To switch between the modes use the "MODE" button.

“Card reader” mode makes the “Video” indicator light go red. “Web camera” mode makes the “Video” indicator light go green.

### 13 BUTTON ASSIGNMENT

Function	Button	Action	Sound
Force shut down		Press and hold(3-5 sec) until all the indicators go out.	
Switching on		<ul style="list-style-type: none"> <li>If the camera is connected to the power supply but the indicators are off, press until the camera switches to the "Charging" mode.</li> <li>If the camera is not connected to the power supply or is in the "Charging" mode, press until the camera switches to the "Access Point" mode.</li> </ul> <p><u>Note:</u> Pressing the button for longer than required will cause forced shut down.</p>	Single
Switching off		<ul style="list-style-type: none"> <li>If the camera is connected to the power supply, then press and hold until the camera turns to the "Charge" mode.</li> <li>If the camera is not connected to the power supply, then press and hold until the indicators are off.</li> </ul> <p><u>Note:</u> Pressing the button for longer than required will cause forced shut down.</p>	Double
Switching modes	MODE	<p>Short click</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li>To switch to "Charge" mode press the button.</li> <li>The "DVR" and "Photocamera" modes are not available if there is no memory card.</li> <li>The "Card Reader" and "Web Camera" modes are available if the camera is connected to the computer; other modes are not available.</li> </ul>	
Start recording (Photo camera mode shutter)	RECORD	Short click	Click
Start cycle recording	RECORD	<p>Press and hold (4-5 sec) until the indicators of "Video" and status flash orange.</p> <p><u>Note:</u> The recorded image will be rotated by 180°. Launching continuous recording through “Unieye” application will not cause the camera rotate the image by 180°.</p>	Click
Stop recording	RECORD	Short click	

Function	Button	Action	Sound
Reset	RECORD+MODE	Press and hold (4-5 sec) until all the indicators flash green a few times simultaneously.	Double
Automatic shut down		<ul style="list-style-type: none"> <li>If the camera is in the "Charge" mode, then upon charge completion it will shut down automatically.</li> <li>If the camera is idle for 5 minutes while operating from the built-in battery in any mode except the "Cloud" one, then it will shut down automatically.</li> </ul> <p><u>Note:</u> The video recording or transmission of video stream are not considered as idle status.</p>	Double

#### 14 OPERATION MODES AND INDICATOR SIGNALS

Mode	Sub-mode	Indication
Charging		The indicators on the rear camera panel flash red one by one and the red status indicator flashes red at the same time.
Access point		<ul style="list-style-type: none"> <li>If the access point indicator quickly flashes green, then the access point initializes.</li> <li>If the access point indicator slowly flashes green, the video stream from the camera is transmitted to the "Unieye" application.</li> <li>If the access point indicator is green, then the access point is initialized and is ready to be connected.</li> </ul> <p><u>Note:</u> In the "DVR" and "Photo Camera" modes the access point is on and until the camera is initialized it may not respond to the buttons or respond with delay.</p>
Access point	Video recording	<p><u>Note:</u> The MicroSD memory card should be inserted into the camera.</p> <ul style="list-style-type: none"> <li>If the "Video" indicator is green, then the camera is in the DVR mode.</li> <li>If the "Video" indicator and the status indicator slowly flash green, then the camera records video to the memory card.</li> <li>If the "Video" indicator and the status indicator slowly flash orange, then the camera records video to the memory card in the cycle recording mode.</li> <li>If the "Video" indicator and the status indicator quickly flash red three times and the camera makes sound, then the memory card is full or an error has occurred while recording to the memory card.</li> </ul>

Mode	Sub-mode	Indication
Access point	Photo camera	<p><u>Note:</u> The MicroSD memory card should be inserted into the camera.</p> <ul style="list-style-type: none"> <li>• If the "Photo" indicator is green, then the camera is in the photo camera mode.</li> <li>• If the "Photo" indicator and the status indicator slowly flash green, then the camera records still images to the memory card.</li> <li>• If the "Photo" indicator and the status indicator quickly flash red three times and the camera makes a sound signal, then the memory card is full or an error has occurred while recording to the memory card.</li> </ul>
Cloud mode		<ul style="list-style-type: none"> <li>• If the cloud mode indicator and the status indicator quickly flash orange, then the "Cloud Mode" is initializing.</li> <li>• If the cloud mode indicator and the status indicator slowly flash green, then the connection with the "Cloud Service" is set and the video stream is being transmitted.</li> <li>• If the cloud mode indicator and the status indicator slowly flash red and the camera makes sound, then the connection to the access point or the "Cloud Service" failed. Within several seconds the camera will turn to the "Access Point" mode and will be connected to it via the "Unieye" application you may see the error message.</li> </ul>
Card reader		The "Video" indicator and the status indicator are red.
Web-camera		The "Video" indicator and the status indicator are green. <u>Note:</u> In this mode the camera microphone is not available.

## 15 TROUBLESHOOTING

Issue	Solution
There is no sound signal while switching the camera on or off.	This problem will disappear by itself at some point.
The camera does not switch on.	If the battery is discharged, charge it.
The camera does not respond or responds improperly to user actions.	Force shut down the camera.
The camera does not record video/ photo.	<ul style="list-style-type: none"> <li>• There is no memory card or there is no free space on the memory card.</li> <li>• Eliminate the problem. If the memory card is not recognized by the camera, then format it using "Unieye" application.</li> </ul>
You forgot the password to the access point built into the camera.	Reset the camera settings to default.
There are issues with playing the video stream in the "Access Point" mode.	Place the mobile device closer to the camera.
The image from the camera twinkles	The "TV-System" option is set incorrectly.
Attempts to connect to the camera through the "Unieye" mode generates a message that the camera is already in use by another mobile phone	Turn the camera off, turn the phone off, turn the phone on and strictly follow the above instructions; try to connect to the camera once again.

Issue	Solution
Error while connecting to the "Cloud Service".	The access point that is used by the camera to access the internet is off. Switch it on.
	The name of the wireless network (SSID) or the password is incorrect. Enter the correct SSID and password.
	The camera is too far from the access point. Place the camera closer to the access point.
	The information on the account that is used to access the "Cloud Service" is has not been entered or is incorrect. Enter correct account information.
	There is no access to internet or the "Cloud Service" is not available. Eliminate the problems with the internet access and wait until the "Cloud Service" becomes available.
	If the "Cloud Service" is blocked by the firewall allow all outgoing connections or turn it off.

## 16 TECHNICAL SPECIFICATIONS

Camera view angle	100°
Resolution	1280x720 (HD720p)
Frames per second	30 FPS
Video format	mp4 (h.263), mjpeg
Photo format	jpeg
Audio codec	MPEG AAC Audio (mp4a)
Memory card	microSDHC up to 32 GB (at least class 6, FAT 32 formatted)
Approximate video duration	Up to 10 hours for 32 GB memory card
Approximate battery runtime	Up to 2 hours
Wi-Fi standard	802.11n (WPA2, AES)

Note. This data is for reference only. The producer reserves the right to change the product specifications at any time.

## 17 QUESTIONS, FEEDBACK AND RECOMMENDATIONS

If you have any questions, feedback or recommendations related to the product, please, let us know using the feedback form at: <http://eng.defender-global.com/support/hotline/>

The latest versions of manuals and firmware may be found at the following web page:

<http://eng.defender-global.com/products/multimedia/webcam/multicam-wf-10hd/>

Addresses of the service centres are listed the producer's website under the "Support" section:

<http://eng.defender-global.com/support/services/>