Users Guide

v.1.1

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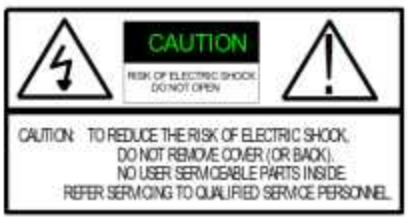
1. SAFETY INFORMATION

WARNING

Read the user's guide before operating the unit.

Failure to follow these safety instructions could result in fire, electric shock, or other injury or damage to the unit or other property.

Important Safeguards



DO NOT leave in your vehicle, as exposure to excessive heat or cold could affect the performance and/or reduce the life of the battery.

DO NOT disassemble, open, crush, bend, deform, puncture, shred, microwave, incinerate, paint, or insert foreign objects into the unit or sync cable.

DO NOT use the unit if it has been damaged.

DO NOT use the sync cable in rain, near wash basins, or in other wet locations.

DO NOT spill any food or liquid on the sync cable. If the sync cable gets wet, unplug from the unit and allow it to dry thoroughly before using again. Damage to the sync cable caused by contact with liquid is not covered under warranty.

DO NOT attempt to dry the unit or sync cable with an external heat source, such as a microwave oven or hair dryer.

DO NOT force a connector into a port. Check for obstructions in the port. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.

WARRANTY

This product is guaranteed against manufacturing defects for one (1) year from the original date of purchase. In the event of such defects during this period is to repair or replace the defective part or product with a comparable part or product at the manufacturer's sole discretion. Except for such replacement, the sale, or other handling of this product is without warranty, condition or other liability even though the defect or loss is caused by negligence or other fault.

Damage resulting from use, accident, or normal wear and tear is not covered by this or any warranty. The manufacturer assumes no liability for any accident, injury, death, loss, or other claim related to or resulting from

the use of this product. In no event shall the manufacturer be liable for incidental or consequential damages relating to or resulting from the use of this product or any of its parts.

2. GETTING STARTED

Contents

Camera

Cradle

RJ45 Network Cable (1m)

Power Adapter (12V 1A)

Viewer and Storage System Requirements

1. Windows compatible computer with the following specifications:
   a) Operating System: Windows 7 or higher recommended
   b) Processor: Intel Core i5 or higher recommended
   c) Memory (RAM): 4GB or higher recommended
   d) Display with 1152 x 864 resolution. 1280 x 1024 or higher recommended
2. Router connection is required

3. INTRODUCTION

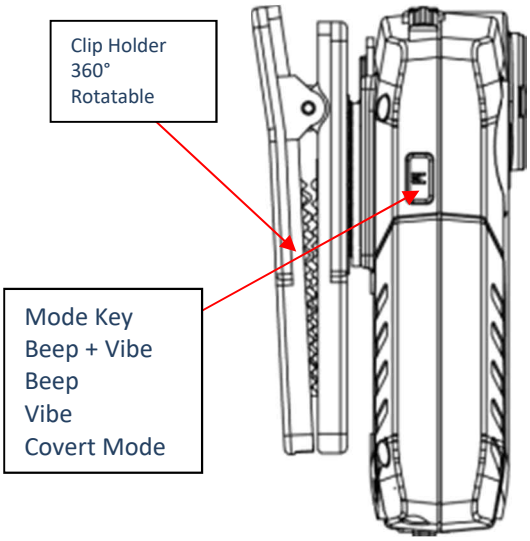
BWC is a small, wearable recorder that can be used to capture HD video and audio. All the recorded files can be downloaded to the back office server for storage, retrieval and management by the administrator.

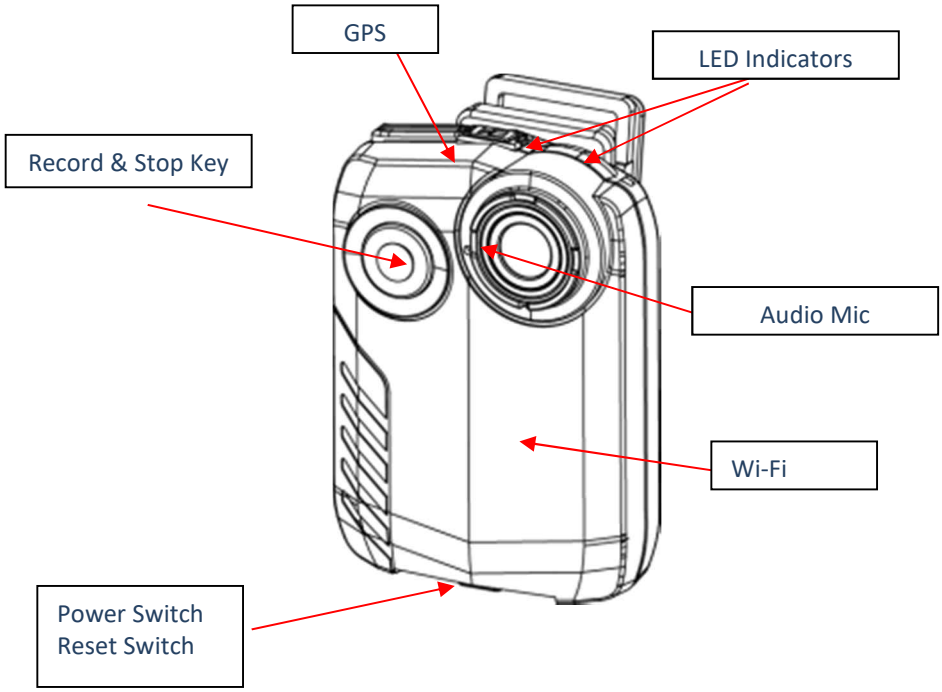
Camera and Cradle Specifications

Camera Specification		
Video	Video Resolution (Recording Speed)	1920x1080 30P, 1280x720 60P, 1280x720 30P, 720x480 30P
	Video Compression	H.264
	Encoding rate	1920x1080 12 Mbps, 1280x720 6 Mbps, 720x480 4 Mbps
	Encoding rate to	HD 4.3GB/one hour recording (8 Mbps VBR)
	recording size ratio	HD 3.2GB/one hour recording (6 Mbps VBR)
	Video Container	MP4
	Date and Time	Embedded Video Frame
	External Camera Port	Micro USB 10P connector
Lens	Viewing Angle	Horizontal 107° / Diagonal 133°
Audio	Resolution	128 Kb/s
	Encoding Format	AAC
	Sampling Rate	at least 44.1 KHz
	Mute	Yes
Recording	Pre-Event Recording Time	off, 5, 10, 30sec
	Recording Time	4~5 hours subject to configuration
	Sleep mode (or Power-saving mode)	Recording not available. File upload not available.
		Pre-event not available
		Camera is placed into Cradle
Battery	Battery Capacity	Li-ion polymer / 1,800 mA
	Battery Life	Recording time 4-5 hours - Subject to configuration
		Standby(Sleep Mode) - 5 hours (48 hours)
	Approximate Battery Life	at least 300 charging cycles
	Charging Time	2.5 hours
General	Time Sync	Server time sync
		GPS time sync
		Normal(Using RTC in Camera)
	GPS	For Time Sync and Location Data
	Video Transfer Type	Wired IP Network Download
		802.11 Wi-Fi Auto Download (for PRO)
	Status Indicator	2pcs dual color LED, Beep, Vibrate
	Indication Mode	Beep + VIB + LED

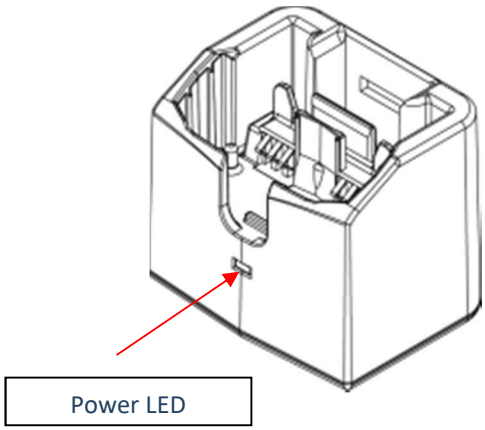
		Beep + LED
		VIB
		Covert
	Storage	Built-in 32GB Micro SD Card (MLC Class 10)
Wi-Fi		Yes
Bluetooth		Yes
Environmental	Ingress Protection(IP) Rating	IP65 compliant
	Temperature	Operating: -20 to 50 °C
		Survival: -30 to 75 °C
	Humidity	5 to 95 % RH
	Dimension	mm: 58(W)mm x 82.5(H)mm x 23(D)mm
		inch: 2.28” x 3.25” x 0.91”
	Weight	120g
	Operating Temperature	-20℃ ~ 60℃ (-4℉ ~ 140℉)
	Mount	Rotatable Belt Clip
		Belt clip
Cradle	Interface	RJ45, 10/100Mbps Ethernet
	LED Indicator	Green to show the power status of cradle
	Weight	104g
	Power	DC 12V or PoE (48V)

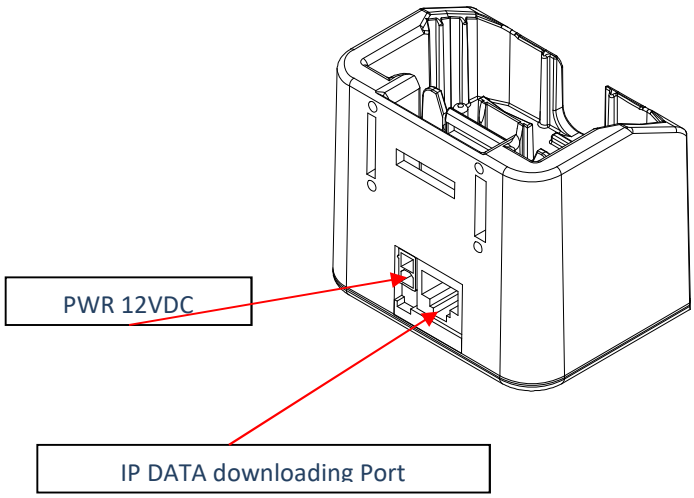
Camera Functions





Cradle and Functions





Viewer and Storage Program Features

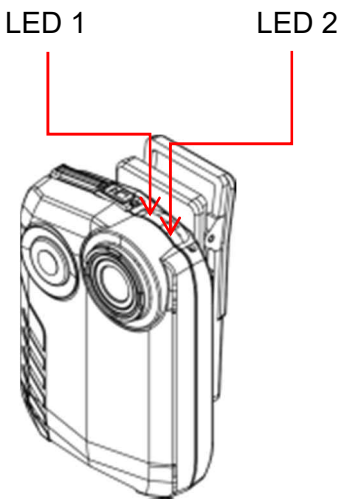
The program is designed to help users to manage the recorded data.

Viewer and Storage Program Functions

- Search video data by conditions (Name, ID, Date/Time)
- Delete downloaded video data
- Playback
- Download video data from the camera
- Delete video data in the camera

- Change the IP address (camera)
- Configuring the camera

4. Camera Operating Procedures



LED Operation

LED 1

- Recording : Flashing Red (1 second intervals)
- Mute : Flashing Red (300ms intervals)

LED 2

- Standby : Solid Green
- Charging : Solid Red
- Charge Complete : Solid Green (No LED indication while charging if the power is off)

Basic Operation

When LED, vibration and beep modes are enabled. (Default mode)

Record: Press the Record & Stop button once to start recording (1 short beep + 1 short vibration + LED1 flashing Red with 1 second intervals)

Stop: Press and hold the Record & Stop button for more than 2 second to stop recording (2 short beeps + LED2 solid Green+ Vibration)

Audio Mute: Press and hold the Mode button for more than 2 seconds (LED1: Flashing Red with 300ms intervals)
NOTE: Enable only during operation. Mute will disable automatically at the end of the recording.

Status Check

SD Card Error: 3 beeps (300ms) every 3 seconds repeated 3 times, LED1continuously flashes alternating Red and Green.

SD Card Full: Occurs when 2GB of disk space remains. 3 beeps (300ms) every 3 seconds repeated 3 times, LED1 continuously flashes Amber.
When the SD card is full, the recording will stop andLED1 will turn solid Amber.

Low Battery: When the battery is less than 3.55V. 3 beeps every 300ms repeated 3 times, LED2 continuously flashes Red every 3 seconds repeated 5 times.

Full Battery: When charging is complete, LED2 turns solid Green.

Data Transmission: LED1 turns solid blue. No beeps. (did not apply yet)

Disk Format: LED1 turns solid Red.

GPS On: Blink LED1/second (50ms)

Command Transfer Setting: LED1 flashes once to 500ms speed (Green)

Setting Connection or Device Access: LED1 flashes Green every 500ms.

1 beep will occur if the unit is charging on the cradle and connected to the network.

If power is not supplied to the cradle, the green LED indicator on front of the cradle is off and turns solid Green when the power is established.

****Factory Default: Simultaneously press and hold the Record and Mode button for 2~3 seconds.**

5. Installation Steps for Programs

Storage Program

Step 1

Run the BWC Storageinstaller.exe

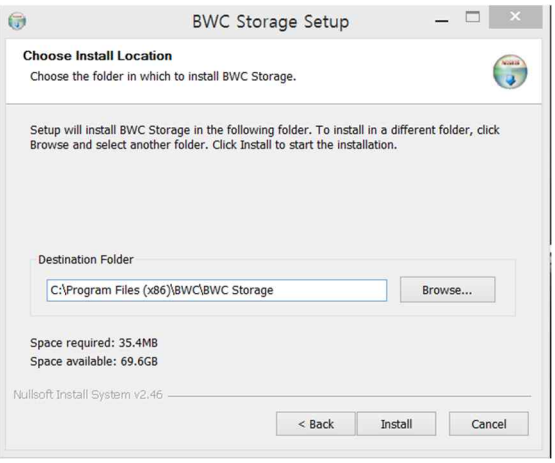
BWC Storage ver 1.0.0 Installer.exe

Step 2

Click the “Next” button.

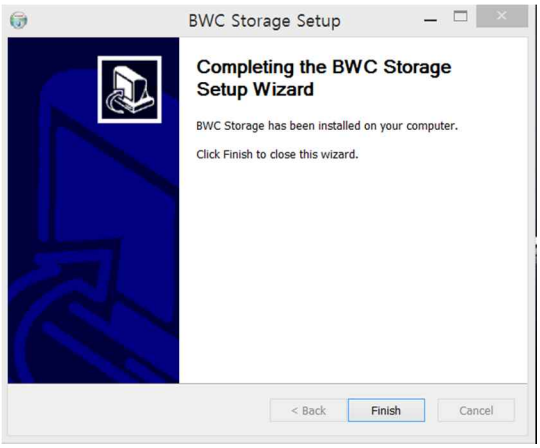
Step 3

Click the “Install” button.



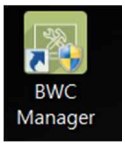
Step 4

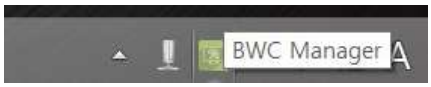
Click the “Finish” button.

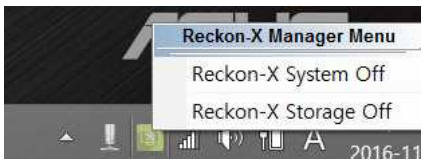


Step 5

To open the Storage program, double click the Manager icon on the desktop to start the program. Find the Storage icon in the taskbar and right click the mouse to access the menu settings.







Viewer Program

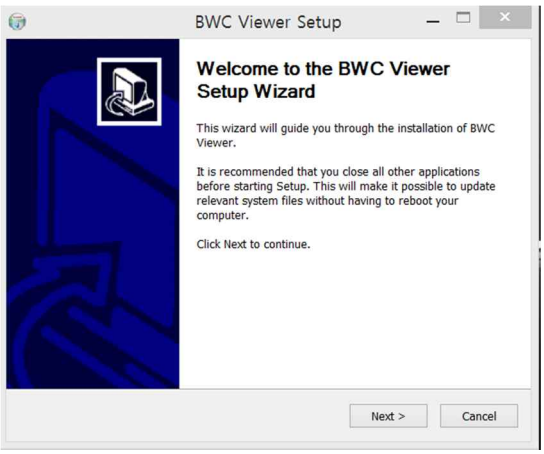
Step 1

Run the BWC Viewerinstaller.exe

BWC Viewer ver 1.0.0 Installer.exe

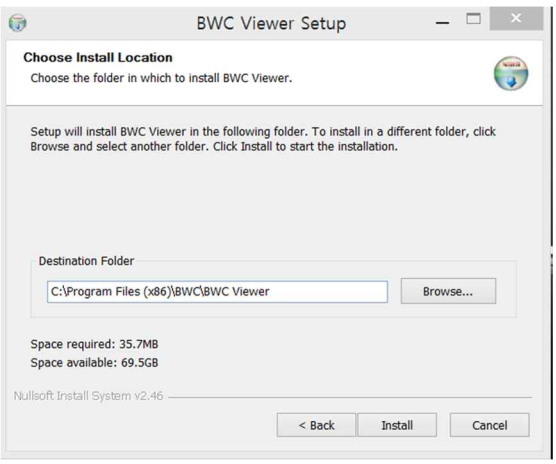
Step 2

Click the “Next” button.



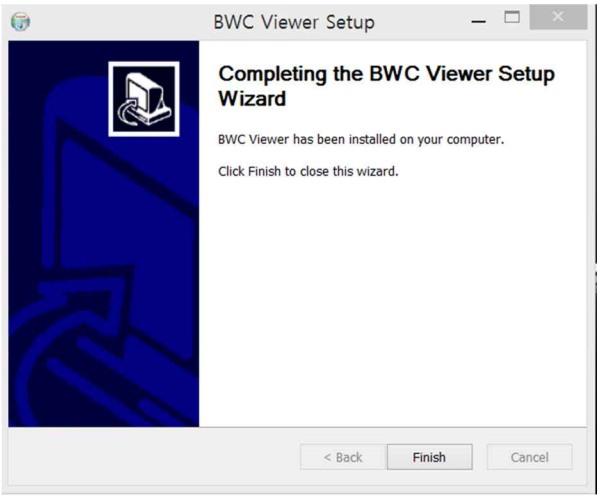
Step 3

Click the “Install” button.



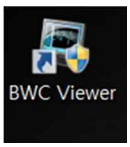
Step 4

Click the “Finish” button.



Step 5

To open the Viewer program, double click the BWC Viewer icon on the desktop to start the program.

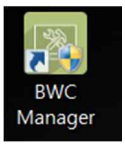


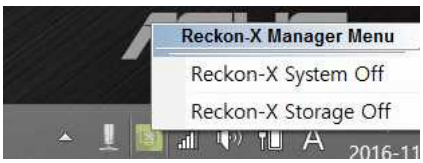
6. Program Operating Procedures

Starting the Storage program

The user must check their IP address first. (ex. 192.168.0.5)

Right click the icon and select “Run as Administrator” to start the Storage program.

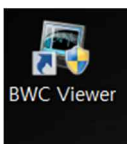




* Storage program has to be **ON** at all times when using the Viewer program.

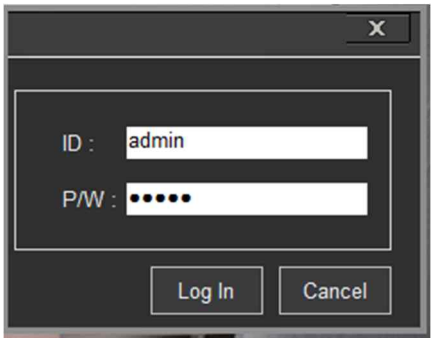
Starting the Viewer program

Right click the icon and select “Run as Administrator” to start the Viewer program.



Input ID and Password

ID: admin
P/W: admin



System Configuration.
*** Make it sure the device is properly connected before starting operation.**

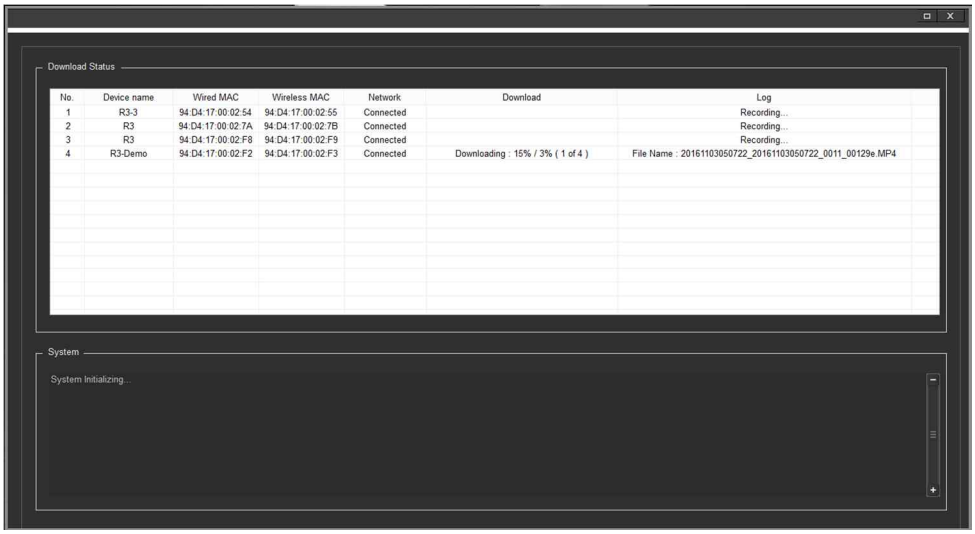
*****This section is for the Storage Program*****

Storage Screen Configuration

Used to check Network settings and the status between the Storage and Viewer programs.

To access the Reckon-X Storage menu settings, right click the icon in the taskbar

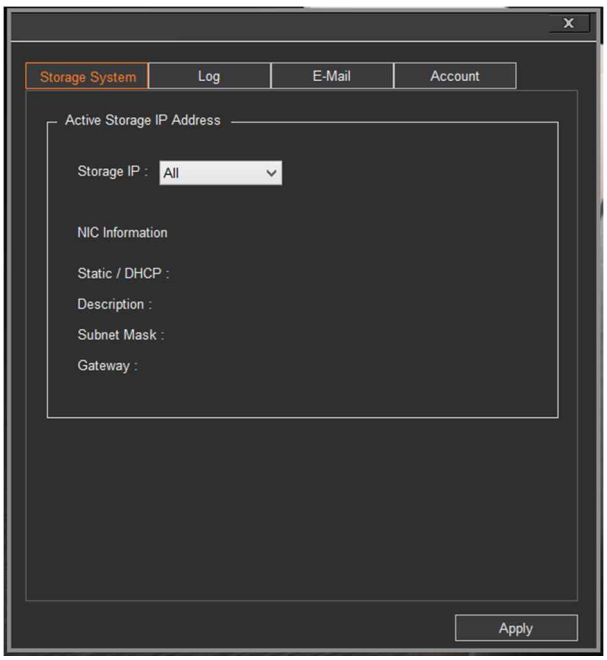
The following is the window to show the data downloading status of each device.



NOTE: ID and PW are required to change the settings and to close the storage program.

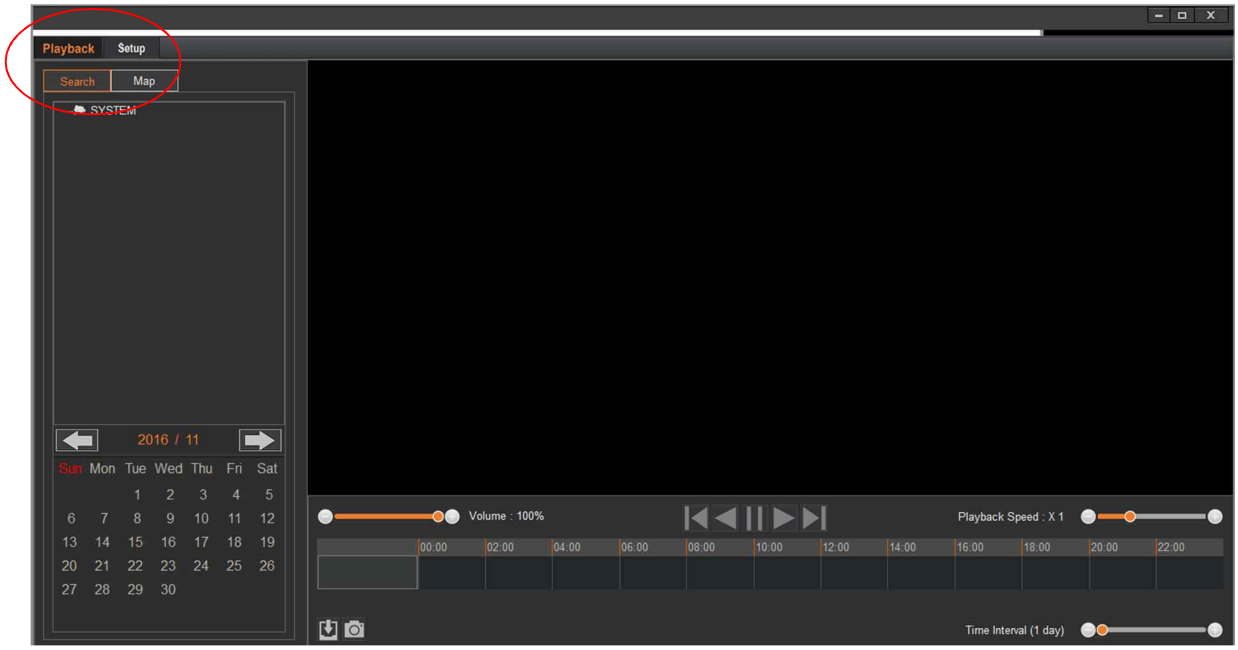
ID: admin
P/W: admin

The following is the window to show the storage setting.



*****This section is for the Viewer Program*****

Viewer Screen Configuration



Playback Tab

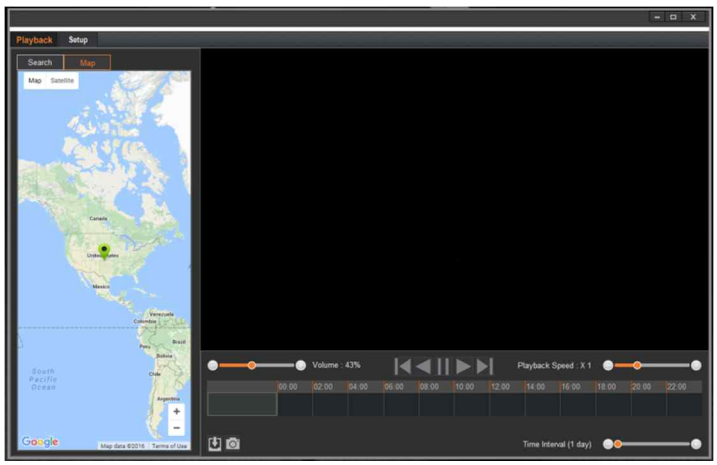
- Shows the selected BWC with recorded file
- To search and download the video data

Search

- Search video files

Map

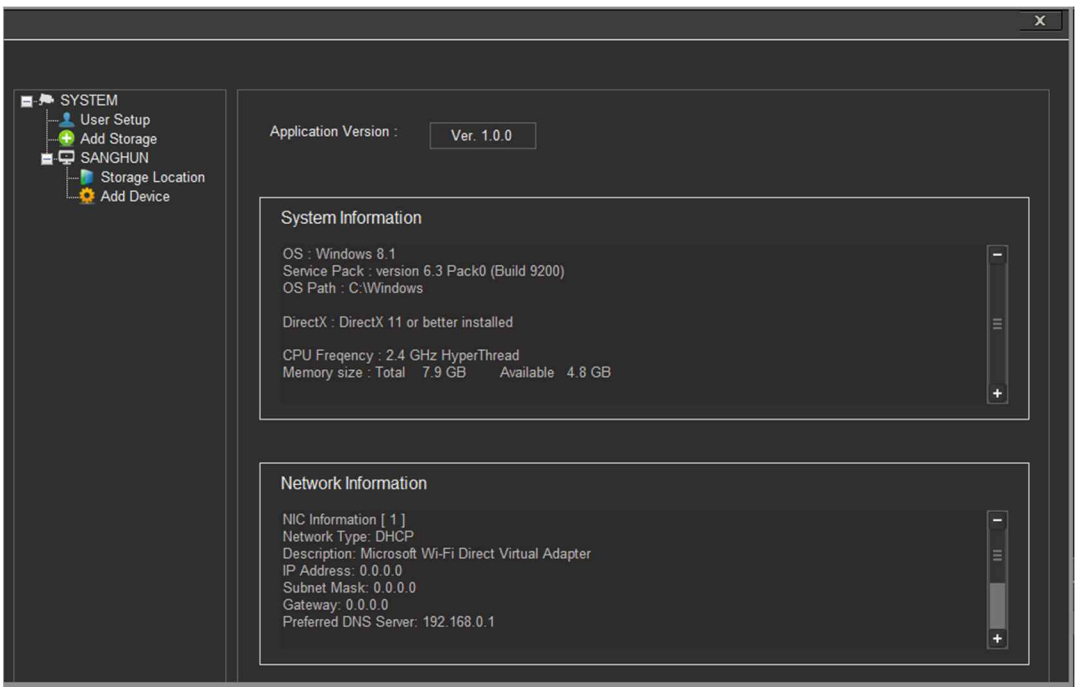
- Current or recorded location using GPS data



Setup Tab

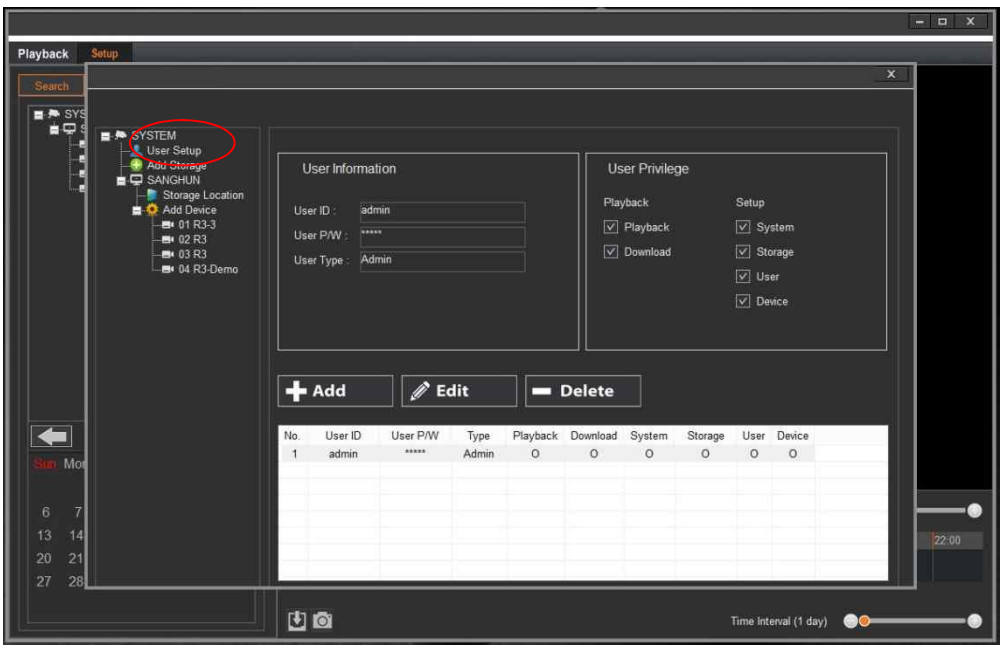
- **To set the System and Storage**
- User info and privilege
- Device setup

- Storage info setup



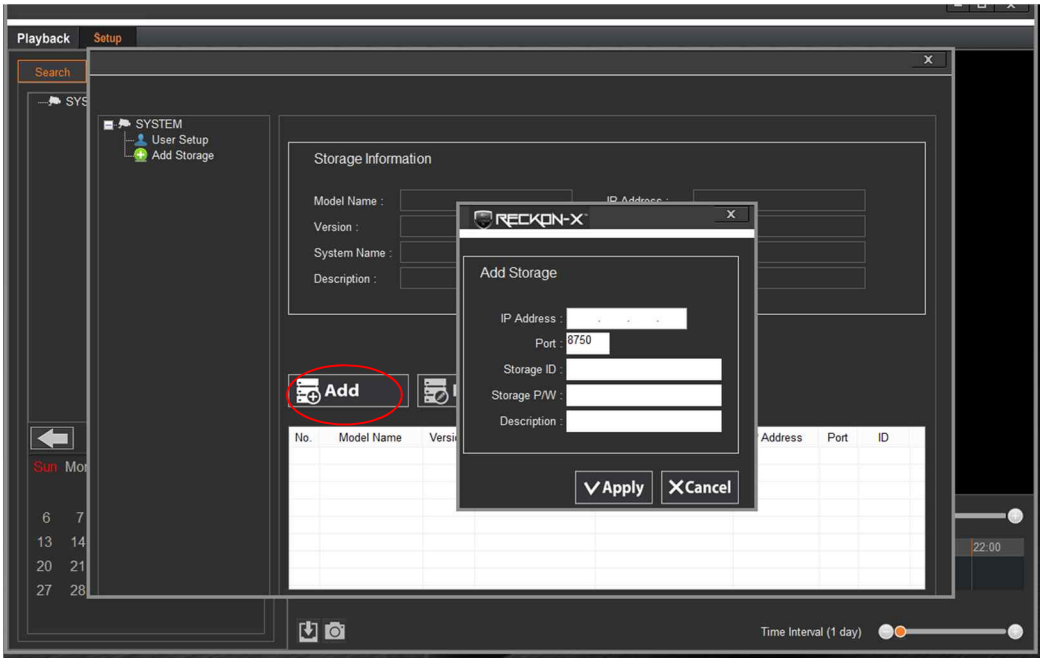
Setting the User Account

1. Click "User Setup"
2. User's can be configured differently depending on each user's privileges.
   (Adding or deleting users, setting privileges for Playback, Download, System, Storage and Device).

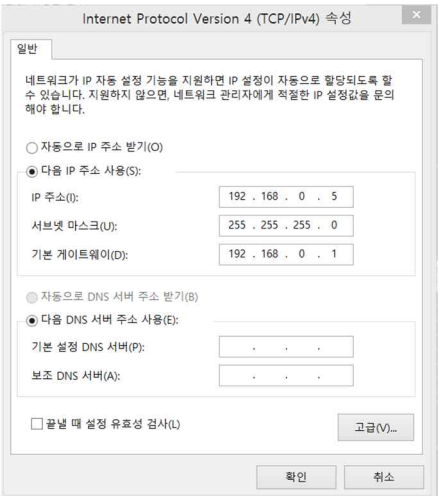


Storage Setup

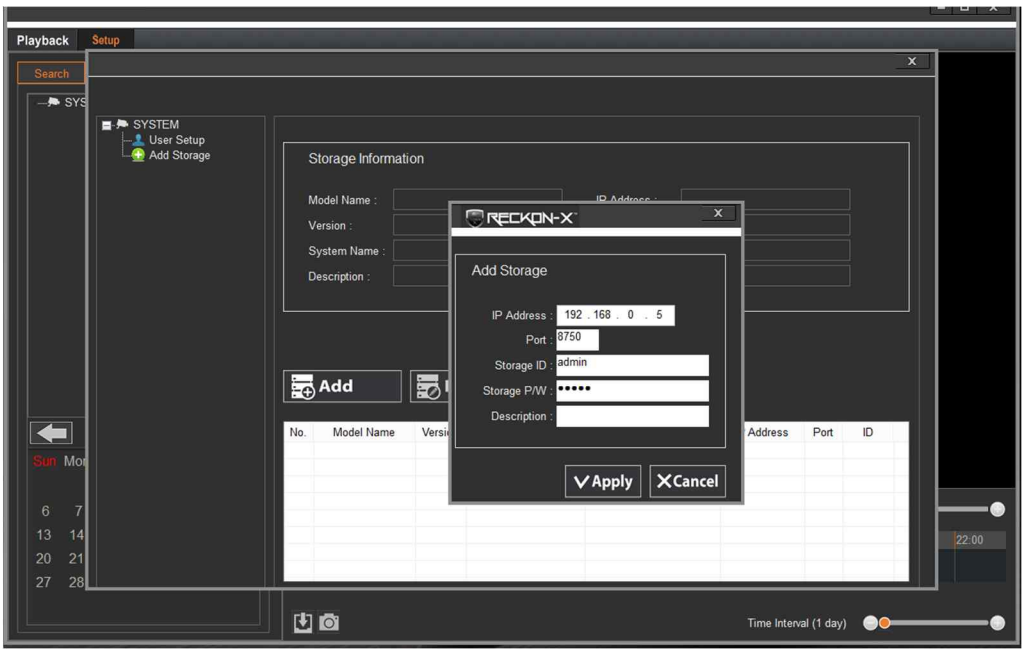
1. Click "Add Storage".
2. Click the "Add" button to pull up the Add Storage window.



3. IP Address: Input your storage's IP address. (Check the IP address of your PC. The following is the example.)

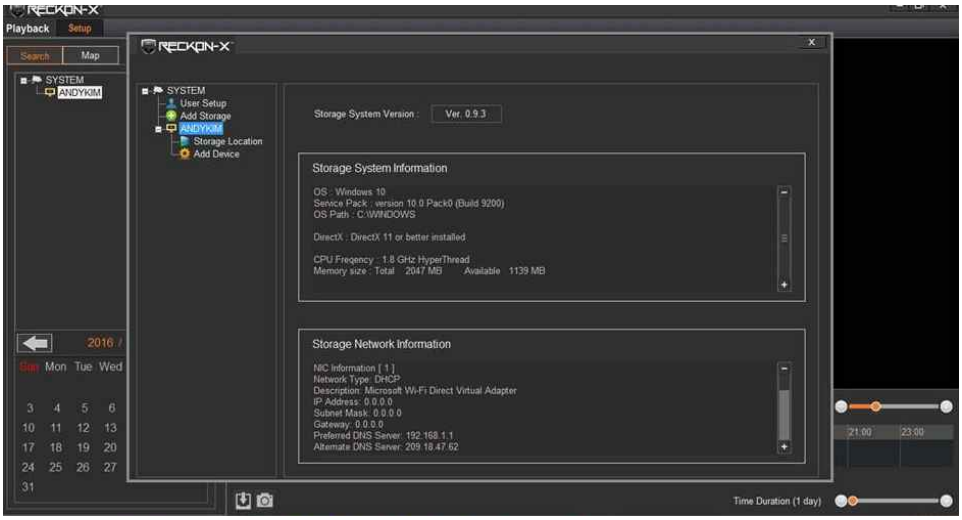


4. Enter Storage ID and PW (Default: admin/admin).



5. Click the “Apply” button.

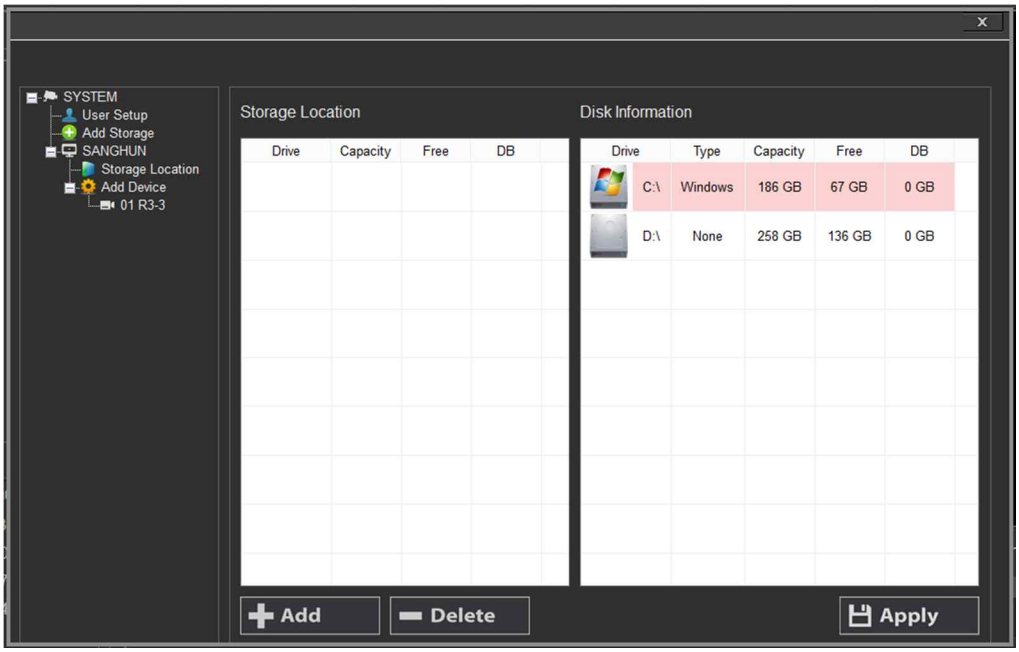
NOTE: If the storage is added correctly, the storage list will appear in the directory.



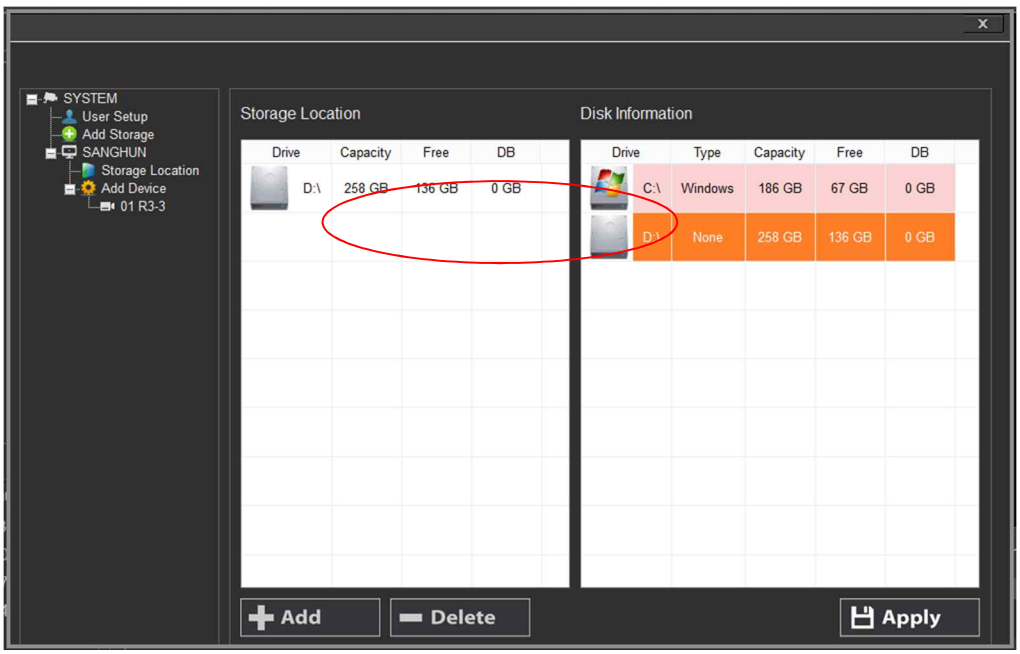
Setting Storage Location

1. Set the download location for your device.
2. Disk information: your system information (C:/ or D:/ or E:/ etc…).

3. Storage location: set the storage location from the Disk information side and then click "add" button.



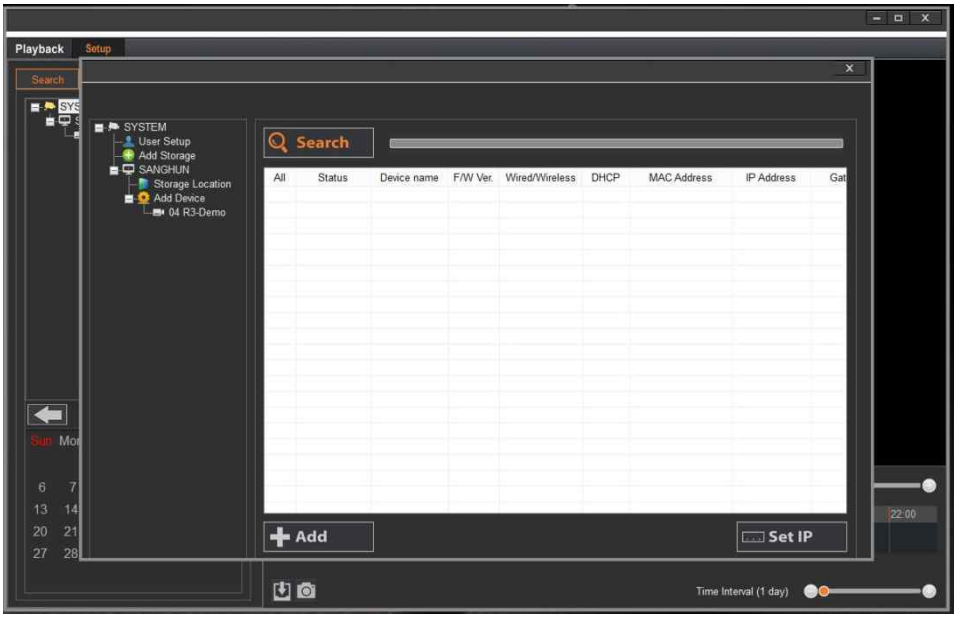
4. Selected storage will appear in the Storage Location.



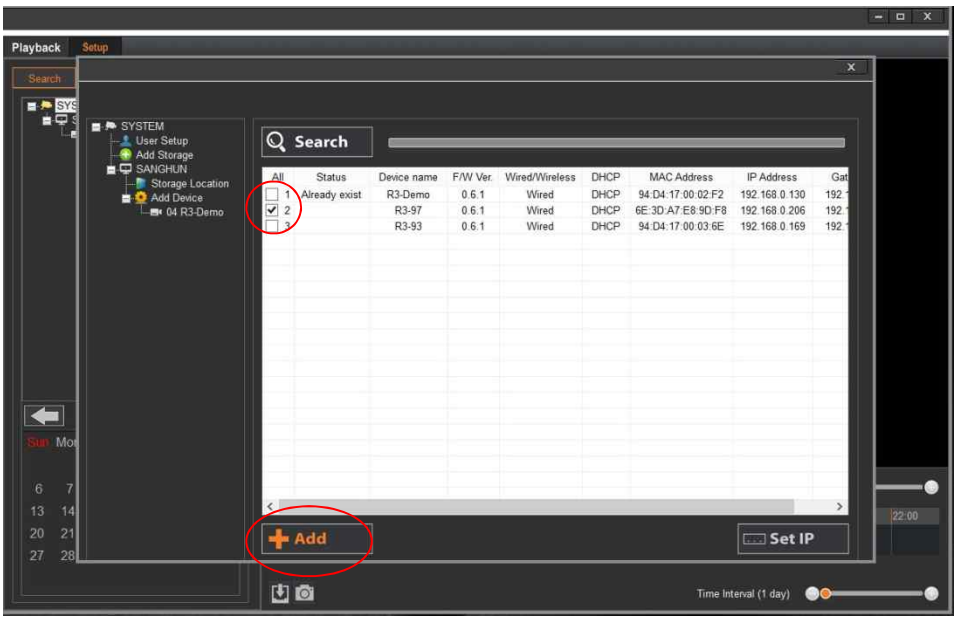
Adding the Device

Within Storage find Add Device

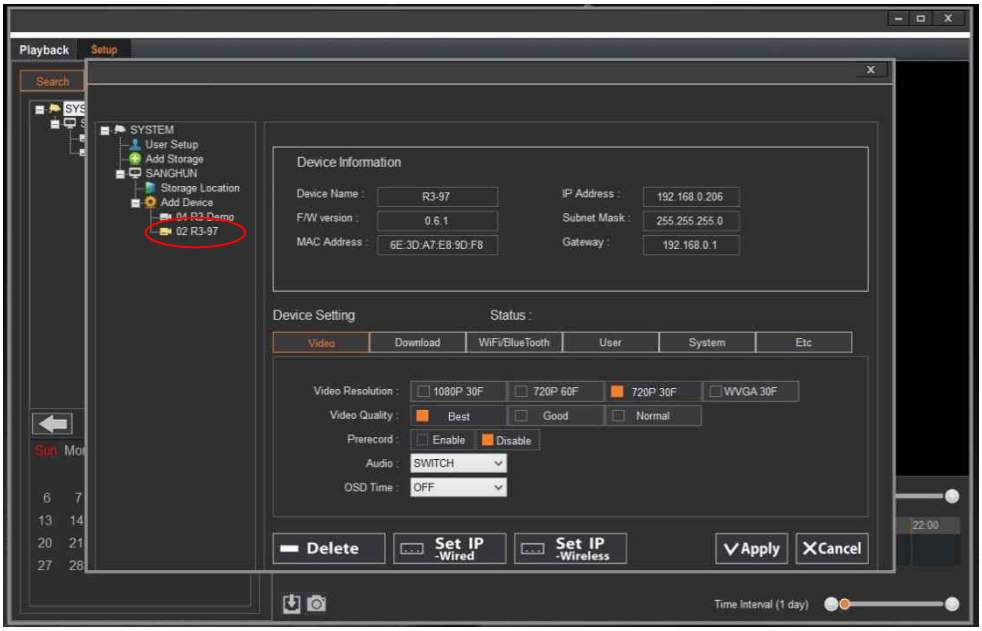
1. Click "search" button to find the connected device.



2. Check the box and click the “Add” button.

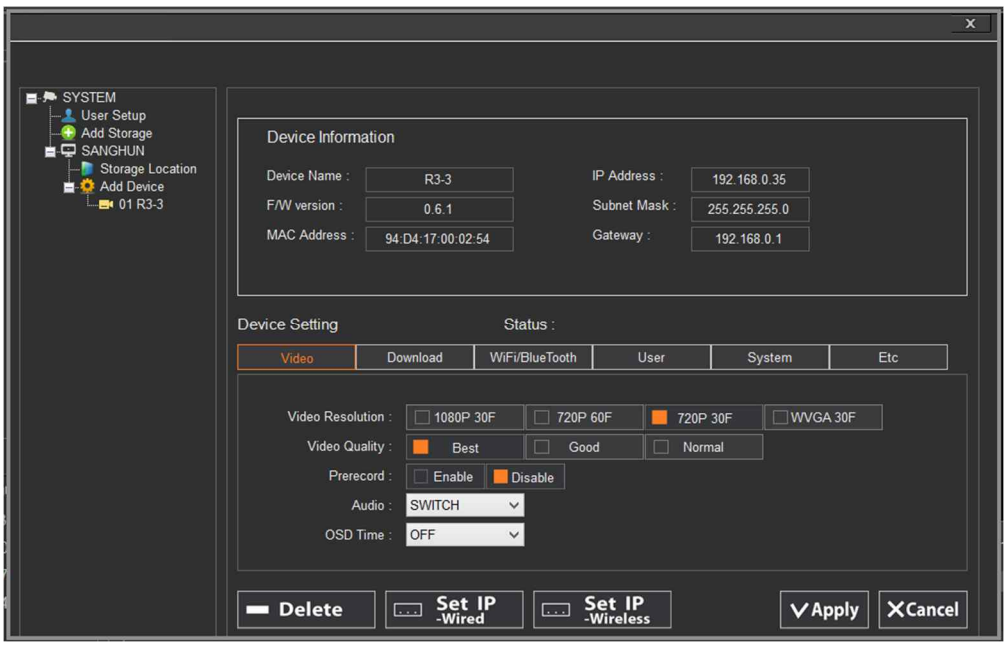


3. Verify the added device in the directory (under Add Device).

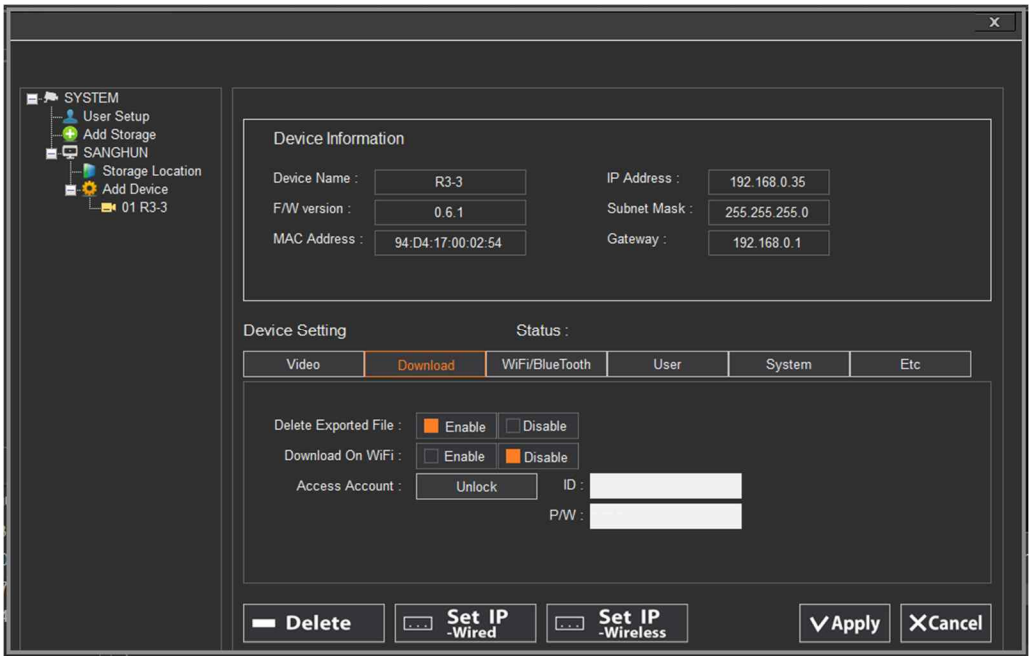


Device Setting (video, download, Wi-Fi and Bluetooth, system and etc)

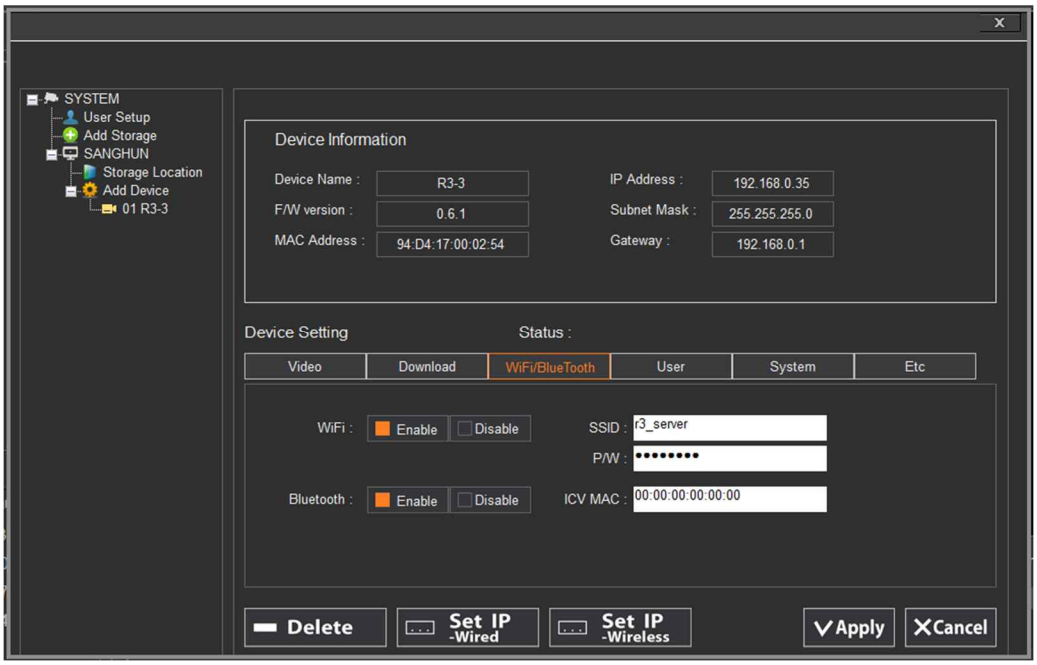
1. Video: Resolution/Pre-record/Audio/OSD time.



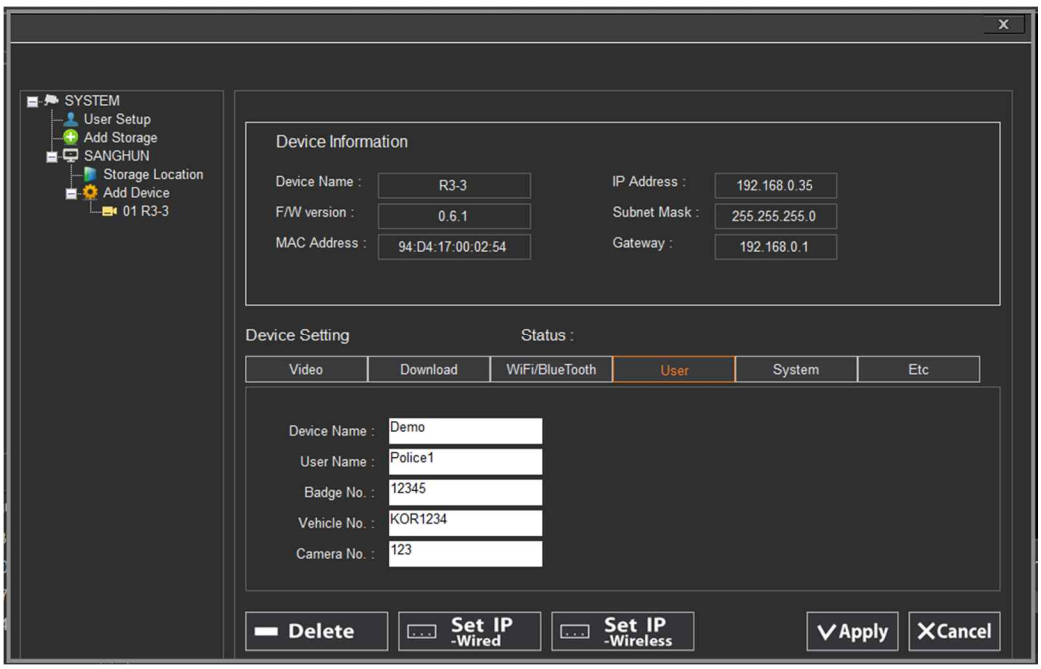
2. Download: Delete Exported File/ Download on Wi-Fi and Access Account.



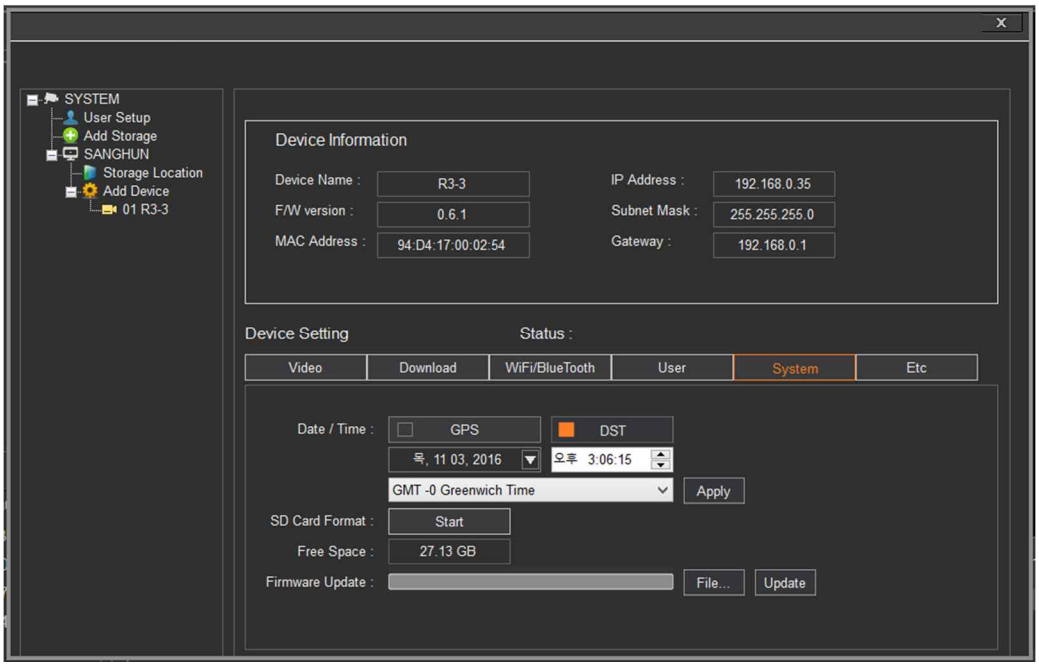
3. Wi-Fi and Bluetooth. (This is only for integration with In-Car Video System)



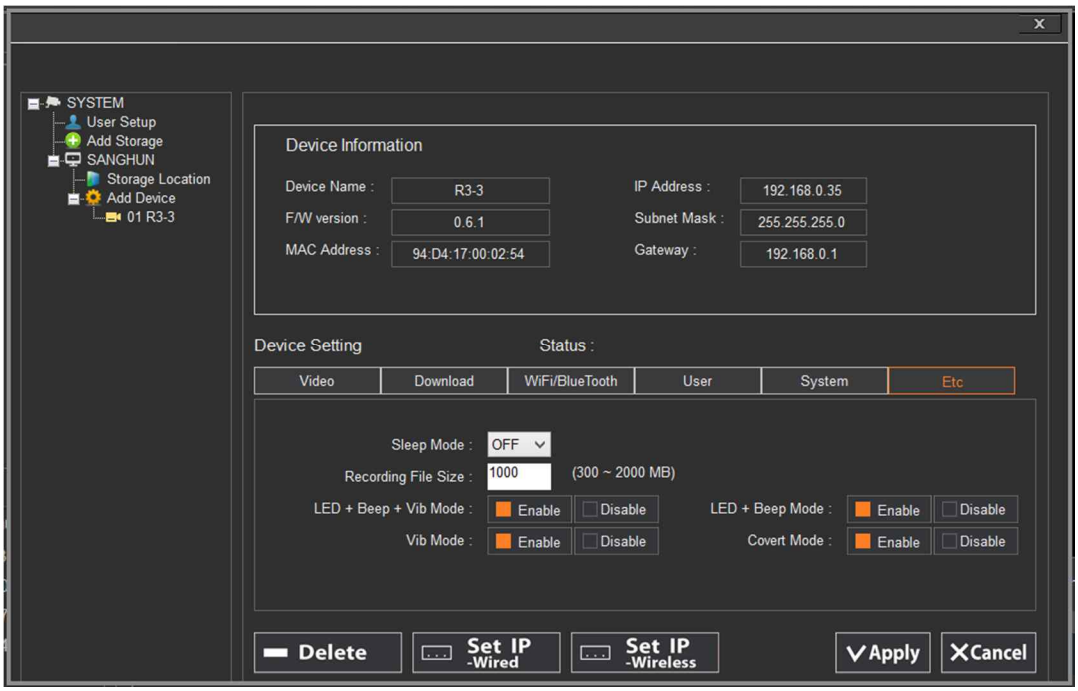
4. User info.



5. System: Data and Time/SD Card Format/Free Space Check/Firmware Update.
DST (Day Light Saving Time)



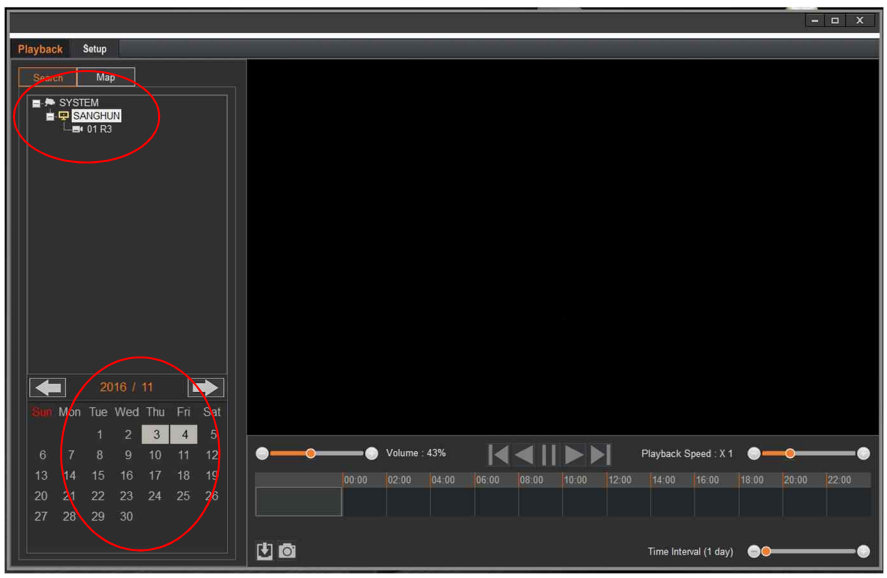
6. Etc: Sleep mode/File size/Beep and Vibration/LED brightness.



Playback

Within Playback the Search tab will be found.

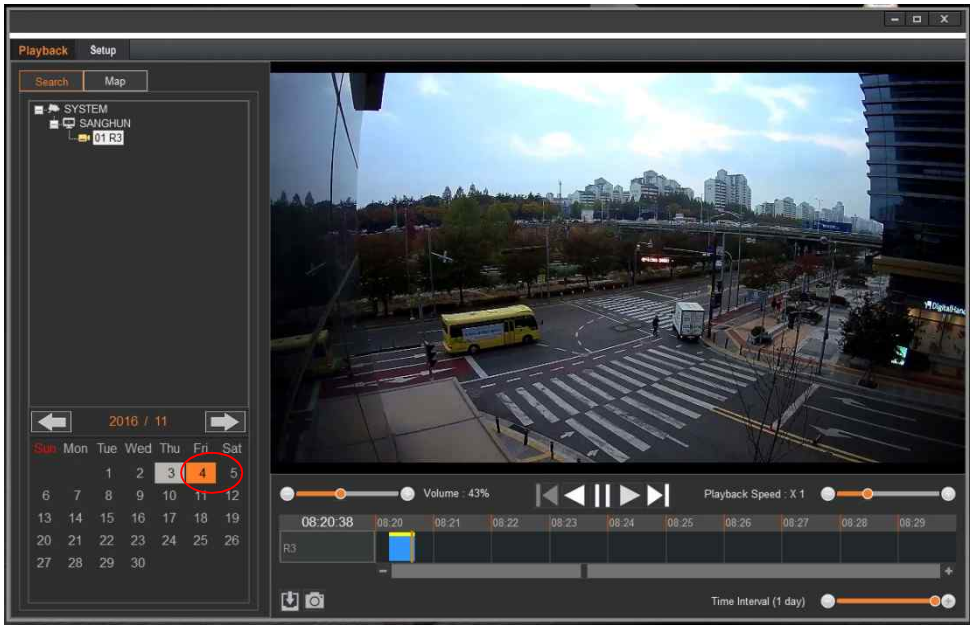
1. Select the camera which you want to play.
2. Recorded files will be highlighted on the calendar.



3. Select any of the highlighted dates on the calendar. Will change to orange and the timeline will become active.
4. Click the timeline or use the video playback buttons to view the recorded file.

- Play/Pause the video
- Stop the video
- First (move to the beginning of the video)

- Last (move to the end of the video)



** Play bar color:

Blue: Video recorded

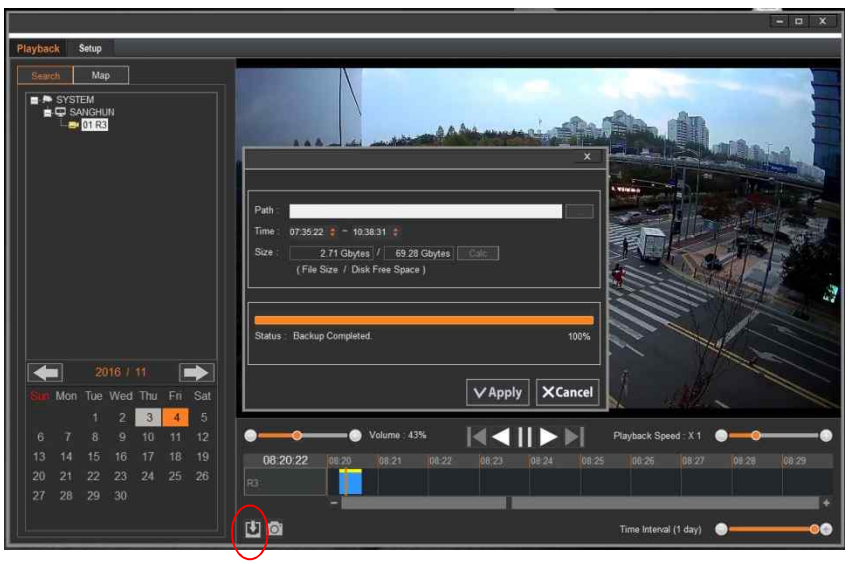
Yellow: Audio recorded

Red: Audio muted

Download

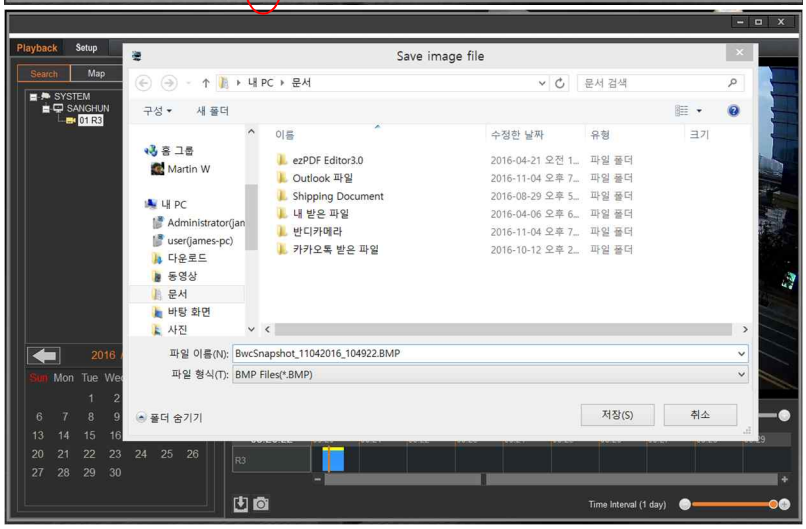
Original files will be downloaded to the selected storage location; Rx_Data folder.
ex. C:\Rx_Data\94D417000250\RxDB

To save a video within a specific time range, click to open and configure the download settings.
Click “Calc” button, then click “Apply” button.

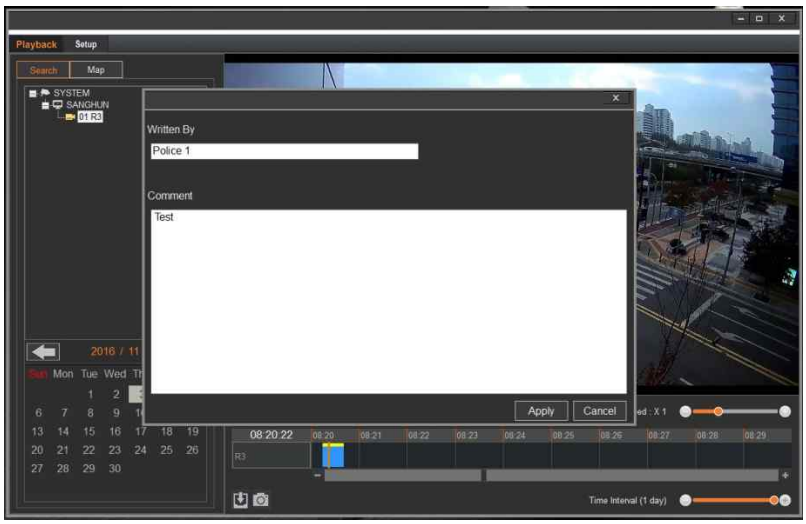


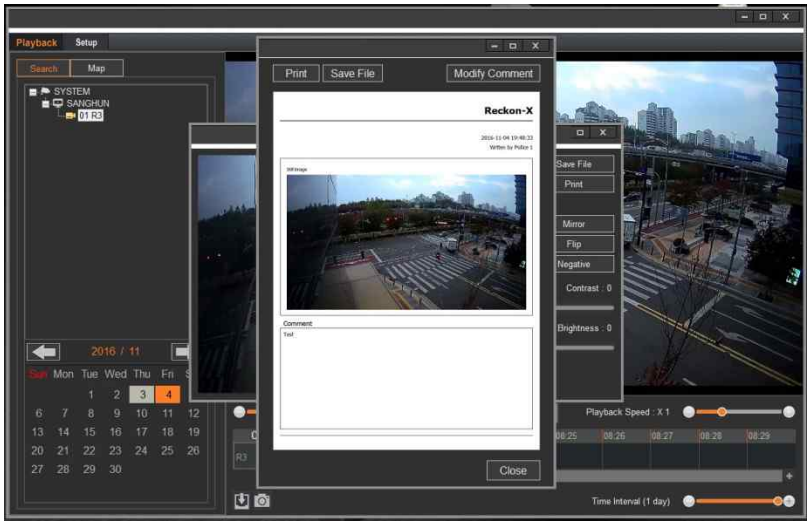
To capture an image, click to take a snapshot.

- Save File



- Print




Playback
Setup
Search
Map
SYSTEM
SANGHUN
01 R3
2016 / 11
Sun Mon Tue Wed Thu Fri
Print
Save File
Modify Comment
Reckon-X
Comment
test
Close
Save File
Print
Mirror
Flip
Negative
Contrast : 0
Brightness : 0
Playback Speed : X 1
08:25
08:26
08:27
08:28
08:29
Time Interval (1 day)

7. FCC/IC compliance statement

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

To comply with FCC RF exposure compliance requirements, please use the supplied belt clips provided by the manufacturer. This device must not be co-located or operation in conjunction with any other antenna or transmitter except complying with FCC multi-transmitter requirements.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Industry Canada Statement

This device complies with RSS-247 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Industry Canada Radiation Exposure Statement

To comply with IC RF exposure compliance requirements, please use the supplied belt clips provided by the manufacturer. This device must not be co-located or operation in conjunction with any other antenna or transmitter except complying with IC multi-transmitter requirements.

Déclaration d'exposition aux radiations

Afin de se conformer avec ces exigences de conformite d'exposition, s'il vous plait utiliser les clips de ceinture fournie fournies par le fabricant. Ce dispositif ne doit pas etre situe a proximite ou a l'exploitation en conjunction avec une autre antenne ou emetteur, sauf conforme aux exigences IC multi-emetteur.