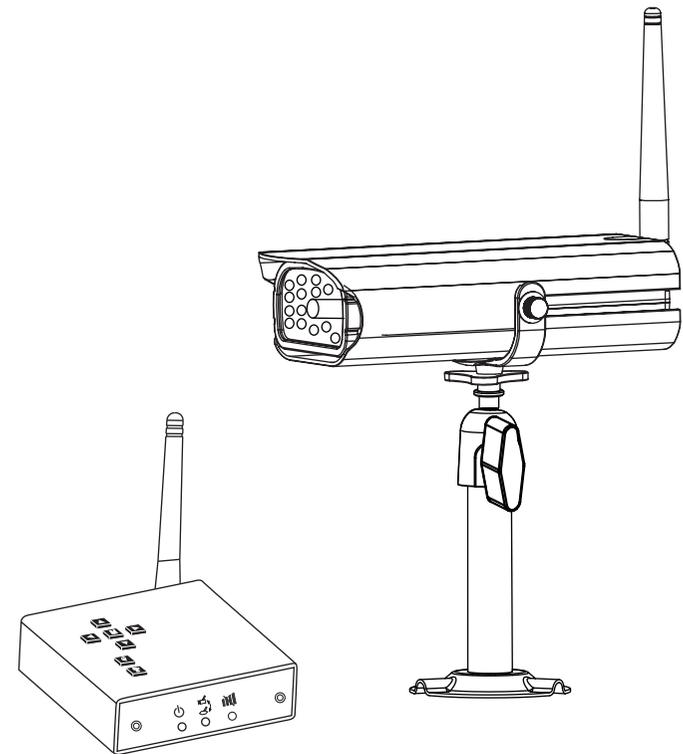


User's Manual

Model No.: 3035119

Digital Wireless Surveillance Kit



PLEASE READ CAREFULLY AND SAVE

This manual contains important information about this product's operation. If you are installing this product for others, you must leave this manual -or a copy- with the end user.

Contents

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Safety Precaution and Hazard Notice / FCC Warning / Disposal
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Connecting to TV
 Step1: Connecting Devices
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Connecting to PC
About Digital Wireless Technology
Trouble Shooting
Product Specification

What You Get

(1) Digital Wireless Color Camera
(1) Wireless Receiver
(1) Wireless Camera Stand
(1) 5V AC/DC Adaptor for Camera
(1) 5V AC/DC Adaptor for Receiver
(2) Antenna for Camera and Receiver
(1) A/V Cable
(1) USB Cable
(1) Screw bag
(2) Manual
(1) Installation Software CD

Product Specification

RF Specification		
RF Frequency	2400MHz~2483.5MHz	
Modulation	GFSK	
Spread Spectrum	Frequency Hopping	
Anti Interference	Clean Channel Dynamic Select	
Selectable Camera Channel	4	
Data Rate	2Mbps	
Channel Bandwidth	2MHz	
Transmission Range	200 metres / 600 Feet in open space	
Image Specification		
Output Image Resolution	640 x 480 (VGA) / 320 x 240 (QVGA)	
Image Processing	Motion JPEG	
Exposure	Auto	
White Balance	Auto	
System Specification		
	Camera	Receiver
Operating voltage	5V 1A	5V 1A
Current Consumption	650mA max	300mA max
Low Light Sensitivity	1 ~ 8 Lux	
Low Light solution	24 IR LEDs / 1 EDS	
Picture Sensor	Micron MT9V011 1/4" Color CMOS	
Lens	F3.6mm H: 53° V: 40°	
Output Jack		PC OUT: USB 1.1 or above TV OUT : 3.5mm phonejack
Weight	Camera:240g	Receiver:120g
Dimension	Camera:164×64×42mm	Receiver:85×81×27mm
Operating Temperature	-10°C to +50°C	
Operating Voltage	100~240V / 60 or 50 Hz	

System Requirement

- 1GHz or faster processor
- Microsoft® Windows® XP with Service Pack 2 or 3 or Windows Vista®
- 1GB of RAM recommend for Windows Vista
- 1.0GB of available hard-disk space for recording
- Color monitor with 16-bit color video card
- 1,024x768 monitor resolution at 96dpi or less.
- Microsoft DirectX 9 compatible display driver
- CD-ROM drive
- USB port 1.1 or above
- Digital Wireless Camera and Receiver kit with USB connectivity

WELCOME,
Dear user, thanks for purchasing this product.
Much investment in time and effort has gone into its development,
We now presenting you ZERO interference digital wireless security camera
and it is our hope that it will bring you many years of trouble-free peace-in-mind service.
Please read this user manual carefully before installing or using these units.

Important Safety Precautions

Please read before installing and using this product

Damages caused by non-compliance with this operating manual will void the warranty! We will not assume any liability for damages to items or persons caused by improper handling or non-compliance with the safety notices! Any warranty claim will be null and void in such cases.

1. Do not drop, puncture or disassemble the camera or receiver; otherwise the warranty will be voided.
2. Avoid all contact with water, and dry hands before using.
3. Never tug on the power cords. Use the plug to unplug it from the wall outlet.
4. Do not expose the camera or receiver to high temperature or leave it in direct sunlight. Doing so may damage the camera or cause camera temporary malfunction.
5. Use the devices with care. Avoid pressing hard on the camera or receiver body.
6. For your own safety, avoid using the camera or power off the camera when there is a storm or lightning.
7. Remove the power adapter during long periods between usages.
8. Use only the accessories and power adapters supplied by the manufacturer.
9. To meet the regulations pertaining to parental responsibility, keep the devices out of the reach of infants.
10. Check power cables, do not get crushed or damaged by sharp edges whenever the devices are in operation.



FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules.

Operation is subjected 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.



Products with CE Marking comply with EMC Directive (2004/108/EC); Low Voltage Directive (73/23/EEC); R&TTE(1999/5/EC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:
 EMC: EN 301 489
 LVD: EN 60950
 Radio: EN 300 328

FCC/CE WARNING

This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC rules and ETSI (EN) 300 328. These limits are designed to provide reasonable protection against harmful interference in residential installations. 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 interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Move the equipment away from the receiver.
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for additional suggestions.

You are cautioned that any change or modifications to the equipment not expressly approved by the party responsible for compliance could void their authority to operate such equipment.

Disposal

If the camera system no longer functions or can no longer be repaired, it must be disposed of according to the valid statutory regulations. Disposal of spent batteries / accumulators:

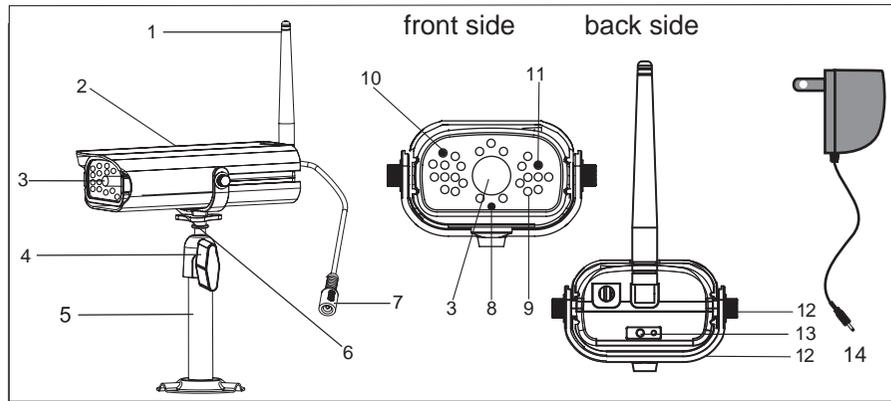
You are required by law (Battery Ordinance) to return all spent batteries and accumulators. Disposing of spent batteries/accumulators with common household waste is prohibited! Batteries/accumulators that contain hazardous substances are marked with the symbols on the side. These symbols indicate that it is prohibited to dispose of these batteries/ accumulators in the household waste.

The abbreviations for the respective heavy metals are: Cd= cadmium, Hg= mercury, Pb= lead. You can return spent batteries and accumulators that can no longer be charged to the designated collection points in your community, outlets or wherever batteries or accumulators are sold. Following these instructions will allow you to fulfill the legal requirements and contribute to the protection of our environment!



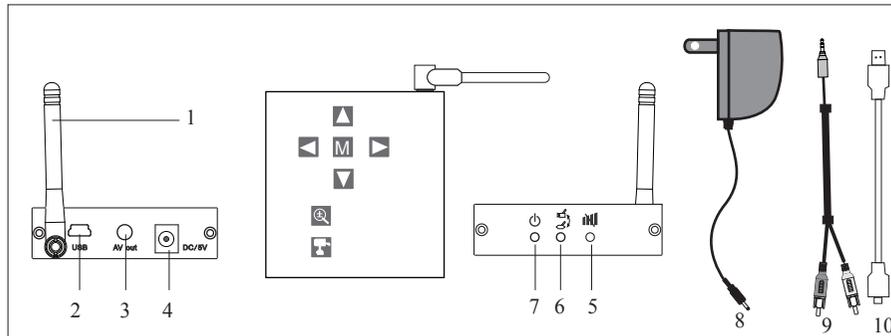
Knowing Devices Parts

Camera



- | | | |
|------------------------|----------------------|--------------------------------------|
| 1. Antenna | 6. Microphone | 11. Link LED |
| 2. Sunshield | 7. Power Jack | 12. U holder / U holder screw |
| 3. Camera Lens | 8. EDS | 13. Cam Pair |
| 4. T-bolt | 9. IR LED | 14. Power adaptor |
| 5. Camera Stand | 10. Power LED | |

Receiver



- | | |
|----------------------------|-----------------------------------|
| 1. Receiver antenna | 6. Pairing LED |
| 2. USB port | 7. Power LED |
| 3. A/V out | 8. Power supply |
| 4. DC Power | 9. Phone jack to RCA cable |
| 5. Signal LED | 10. USB to USB Cable |

Trouble Shooting

Before requesting service, please make the below checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, please contact us.

Problem	Possible Causes	Remedies
System Message shows "NO Signal"	No power supply to corresponding camera(s)	First identify the channel number, find the corresponding camera. If camera power status indicator (RED LED) lights off, check power adapter and power cable connection.
	Channel is not paired with camera yet	First identify the image missing camera, draw the camera near receiver then pair the camera to desired channel. See Page 12 {Pairing Camera} for detail. Once pairing completed and camera is picking up by the receiver, camera Status Indicator (GREEN LED) will light up.
	Service out of range	Draw the camera near the receiver.
	Signal been blocked	If possible, remove major obstacles in between camera and receiver. Or relocate the camera to proper location.
Low signal or unstable signal	Camera antenna connection loss	Secure antenna to camera body tightly.
	Antenna directional limitation	Adjust camera antenna and receiver position.
	Signal been blocked	If possible, remove major obstacles in between camera and receiver. Or relocate the camera to proper location.
	Strong radio signal near by	Keep WIFI router away from the camera and/or receiver.
Channel(s) disappear during auto / manual Scan or QUAD display	Strong electromagnetic interference near by	Keep working motors (hair dryer / heat fan / air conditioner / water pump) or microwave oven away from the camera and/or receiver.
	Scan channel(s) been set OFF	Go to menu; enable the channel(s). See Page 10 {Setting Auto / Manual Scan Sequence} or detail.
Dim / over bright image at night time	Low light vision distance too short / too far.	Ideal low light vision distance is from 9 feet / 3 metres to 24 feet/ 8 metres. Adjust the camera to have camera view fit in this distance.
Blank TV screen shows [USB PC Camera Mode] only	USB Cable is plugged on	Connecting to TV, always use 5V power adaptor to power up the receiver. Leave USB cable unplugged PRIOR to TV connection.
Receiver Function Buttons no response		

About Digital Wireless Technology

About 2.4GHz Digital Wireless Signal

This innovative digital wireless solution integrates advance Frequency Hopping Spread Spectrum (FHSS) technology. This technology greatly reduce the interference that comes from other devices using the same radio frequency (2.4GHz), e.g. WIFI, Bluetooth, Zigbee, cordless phone...etc. You now can enjoy a more pleasant wireless surveillance quality without flicking and noisy image. However, weaker signal (lag or still image) can be observed yet from time to time, depending on the environment where the system is installed.

Complied with FCC part 15.247, ETSI (EN) 300 328, audio / video signals transmitted out about or over 600 feet / 200 metres in line of sight should be supported. Line of sight installation, though, is usually not a common practice. Factors affecting transmission include microwave ovens or other high frequency electromagnetic waves. Reinforced concrete walls, large scale metal products and metal furniture should not be located near the camera or the receiver. Water creates an obstacle and should not be placed near. Human bodies such as a person passing through may cause unstable signal quality

How to improve the wireless signal quality?

If possible, remove obstacles in between camera and receiver that might reflect the signal. These could include furniture, cabinets, and walls. If you feel the wireless signal is not good enough, place the receiver at a new angle or readjust its position to make an improvement. Or simply relocate the camera closer to the receiver.

Why Image Compression?

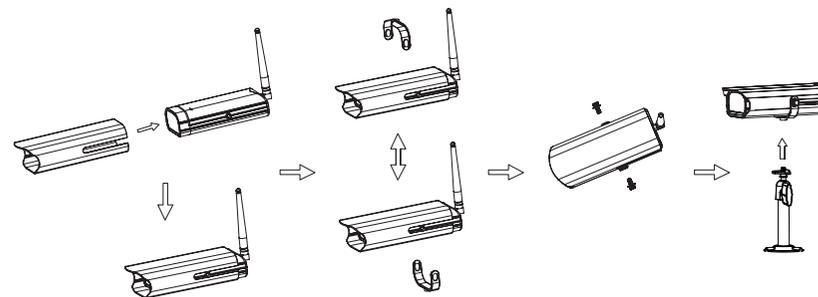
In order to provide a private and interference free wireless service, this digital wireless solution works on a 2Mb narrow hopping band. Different from traditional 2.4GHz analog signal, this digital wireless signal is compressed and presented as Motion JPEG (MJPEG) format. By digitalizing and compressing the raw analog data, the bandwidth is used more efficiently and securely. Consequentially, you might observe an indent image line on a larger display monitor or plasma TV.

How to improve the image quality?

On QVGA size (ZOOM, zoom IN), pixel scattering is unavoidable. However, you can try to zoom out the image to VGA size. By doing so, more pixels can be scattered on the monitor. To have the best display performance, 32 inch or smaller monitor / TV is suggested.

Getting Start

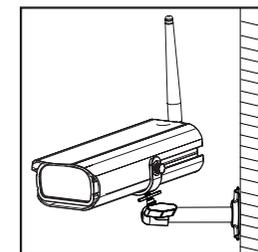
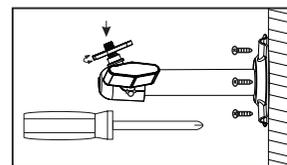
Step1: Hardware Set Up



Camera Assembly / Adjustment

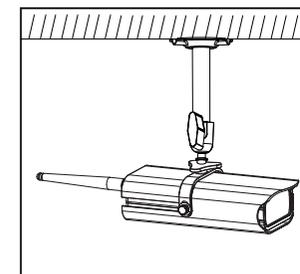
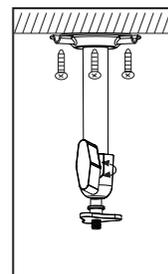
- Loosen U holder screws; slide the sunshield to ideal position.
- U bracket can be installed on camera top side for ceiling mount.
- Secure U holder with screws when done.
- Adjust camera for proper view angle. Secure the stand with T-bolt when done.

Camera Wall Mounting



- Secure camera stand on the wall
- Secure camera U holder to the stand.
- Adjust proper view angle then secure the joint with T-bolt.

Camera Ceiling Mounting



- Secure camera stand on the Ceiling
- Flip camera U holder to camera top, then secure U holder to camera.
- Adjust proper view angle then secure the joint with T-bolt.

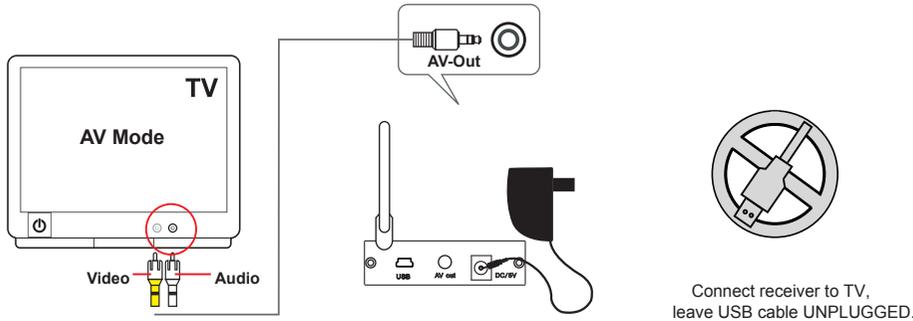
Connecting to TV

Step1: Connecting Devices

Set up Camera

- Secure the Antenna to the camera
- Connect power cable to camera DC IN.
⚠ 5V DC adapter ONLY.
- Plug on power adapter to wall outlet
- Camera now is ready to use

Set up Receiver

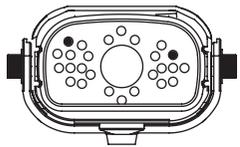


- Turn on TV and switch to AV mode.
- Connect AV cable Audio / Video jack to TV AV IN. (Yellow=Video, White=Audio)
- Connect AV cable headset jack to receiver AV OUT.
- Connect power cable to receiver DC IN.
⚠ DO NOT power up receiver using USB cable.
- Plug power adapter to wall outlet
- Receiver now is ready to use

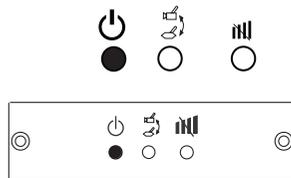
Wireless Connection LED Indicator

When wireless signal is well connected, LED indicators as shown:

Camera:



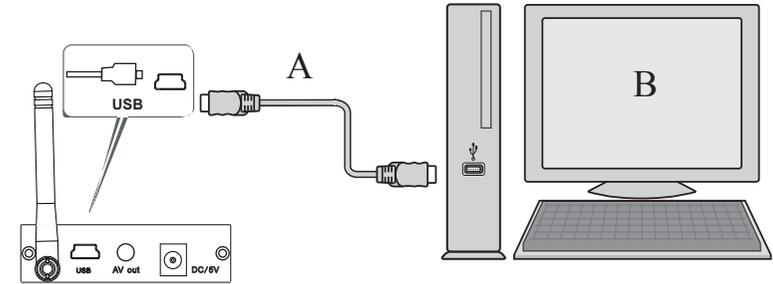
Receiver:



Connect to computer via USB

Step1: Steps to follow :

- 1.Install iSEC Guarding Software
- 2.Restart Windows
- 3.Connect Receiver
- 4.Launch iSEC Guarding

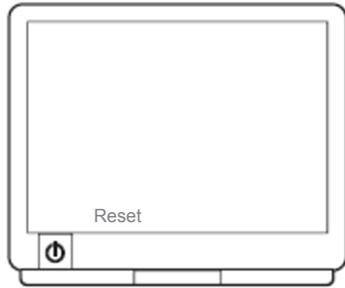


- Connect Receiver to PC USB port using USB cable.
- Launch [iSEC Guarding] software.

- ⚠ Using USB output will switch image and system control from receiver to PC. [iSEC Guarding] software installation CD is provided with the product. For detail, please refer to [iSEC Guarding Software Installation Guide].
- ⚠ Leave the A/V cable and 5V DC power adapter UNPLUGGED PRIOR to USB connection.



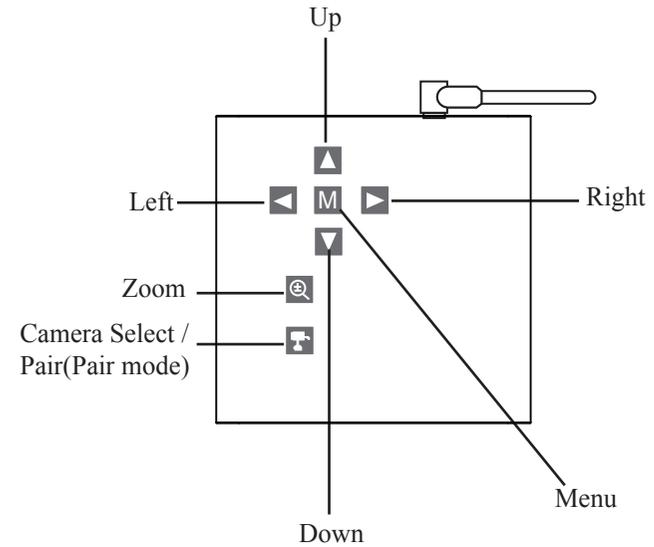
Reset



- A. Press 
- B. System will restore the original factory default settings

Step2: Basic Operation

Knowing Receiver Function Button



A. Pressing     (Up / Down / Left / Right),

In Zoom IN mode (ZOOM), pan and tilt the camera

In Menu mode, move between the selections

B. Pressing  (Menu Mode),

Enter / Exit Menu Mode

C. Pressing  (Zoom IN / OUT),

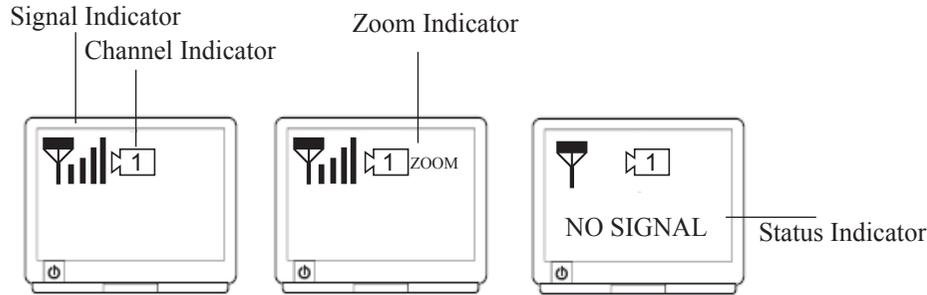
Zoom IN (ZOOM, QVGA size) or Zoom OUT (VGA size) the camera

D. Pressing  (Cam / Pair)

In View mode, manually select among available camera channels

In Pair mode, assign and pair private camera to specified channel

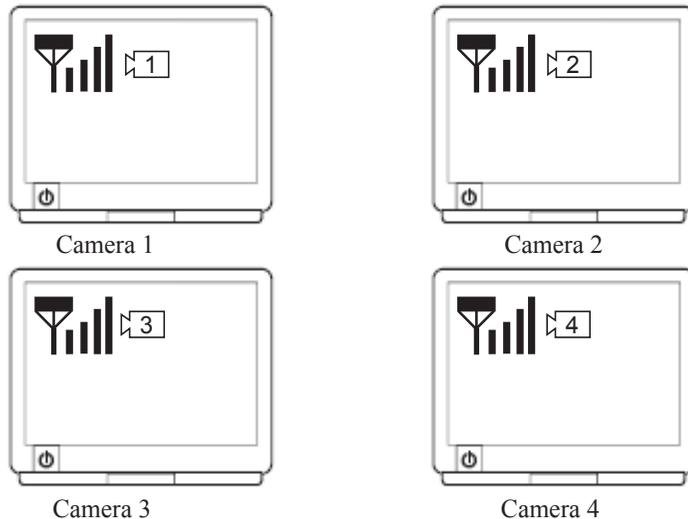
In the View Mode



A. Signal Indicator shows signal strength, more dots means stronger signal.

Signal Level	Indicator	Data Rate	VGA Frame Rate	QVGA Frame Rate
Perfect		1062~1280Kbps	5~10Fps	15~30Fps
Good		725~1062Kbps	3~5Fps	12~20Fps
Fair		543~725Kbps	2~4Fps	8~15Fps
Low		250~543Kbps	0~1Fps	0~4Fps
Zero		0~250Kbps	0Fps	0Fps

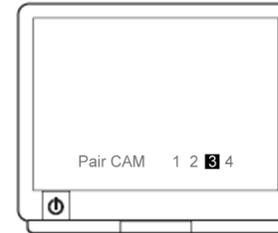
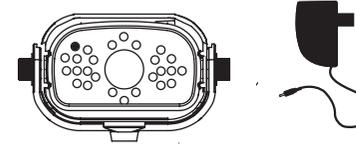
B. Channel indicator shows the current camera being picked up by the receiver
By pressing (Cam), you can manually switch among multi cameras.
Or you can set up auto scan in the Menu Mode.



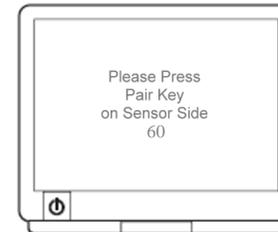
C. When System Message shows “NO SIGNAL”, it means Service out of Range.
Please refer to Trouble Shooting page.

Pairing Camera(s)

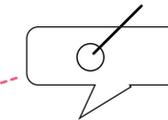
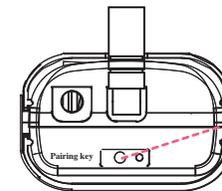
- This function is available for multi cameras users.
- It is highly recommended to pair the camera before hardware installation.
- Before pairing the camera, make sure camera is power ON, camera status indicator as shown:



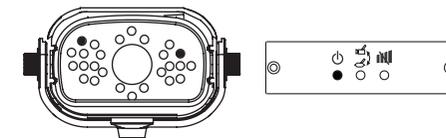
- A. Simply pair the camera by selecting the desired channel in Menu Mode.
B. Only assign one camera to one channel.
Channel memory will be overwritten if next camera is assigned to same channel.
C. Pairing new camera to channel 3, settings as shown:



- D. Press (Pair).
E. System will count down within 60 seconds, system message as shown:



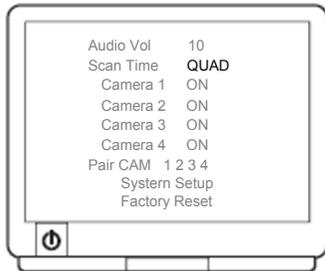
F. Within 60-seconds count down, press the Pair Key on the back of camera.



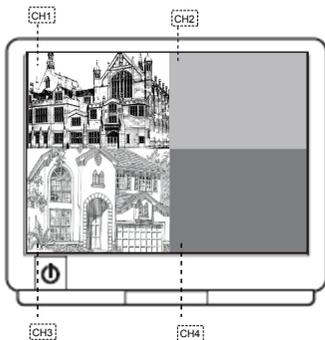
G. Once pairing completed, camera and receiver status indicators as shown.

Setting QUAD Display

- ⚠ This function is available for multi cameras user. Before setting QUAD display, make sure all cameras are paired to assigned channels. See [Advance Operation – Pair Camera] section as a guide.
- ⚠ QUAD display will be restored to one camera display every time after your press for manual scan.
- ⚠ To display properly, turn all available channels ON PRIOR to entering into QUAD mode.



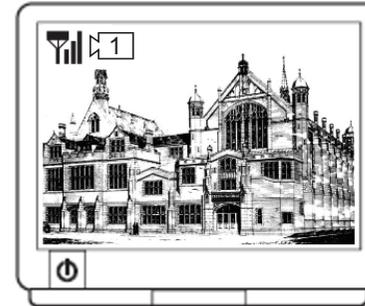
- A. Use ◀ ▶ to turn all available channels ON.
 B. Use ◀ ▶ to change Scan Time to QUAD



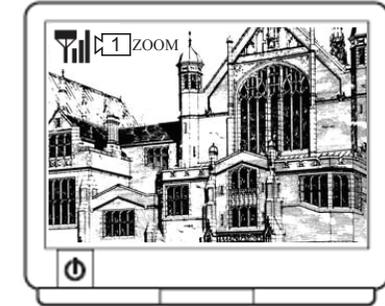
- C. QUAD display as shown. Unavailable channel will be displayed as blank screen.
- ⚠ To leave QUAD display, simply press ◀ ▶ ▲ ▼ to go to specific channel.
 ◀ = CAM4 ; ▶ = CAM3 ; ▲ = CAM1 ; ▼ = CAM2
 - ⚠ In QUAD display, speaker will be mute and [ZOOM] / [Pair] button functions are not available.

D. Zoom Indicator shows Zoom status

By pressing 🔍 (Zoom) on the receiver, you can switch between two resolutions.



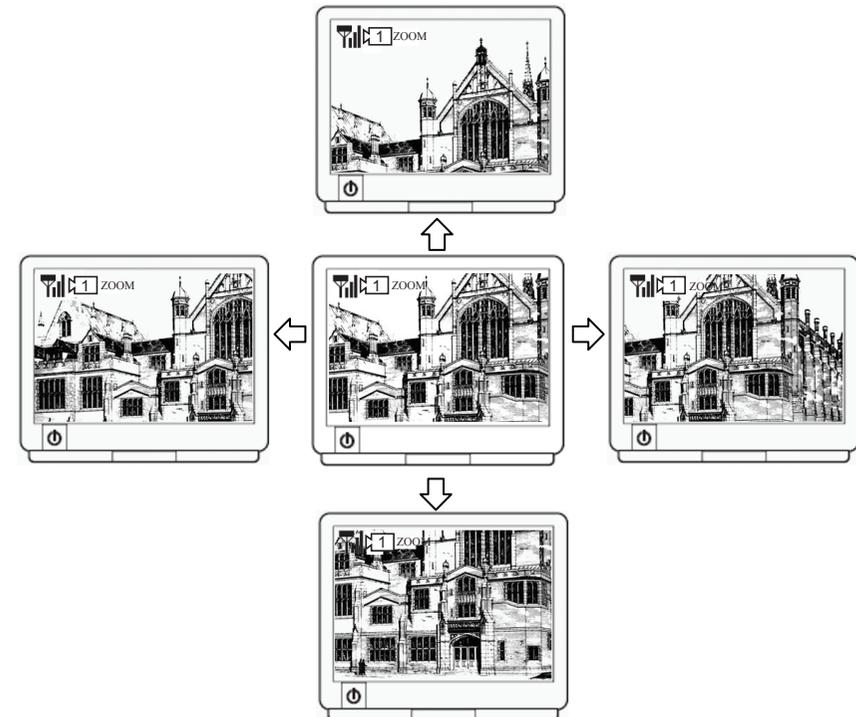
Zoom OUT (VGA)



Zoom IN (ZOOM, QVGA)

E. Pan / Tilt

In Zoom IN mode (ZOOM), press ▲ ▼ ◀ ▶ to pan and tilt camera view.

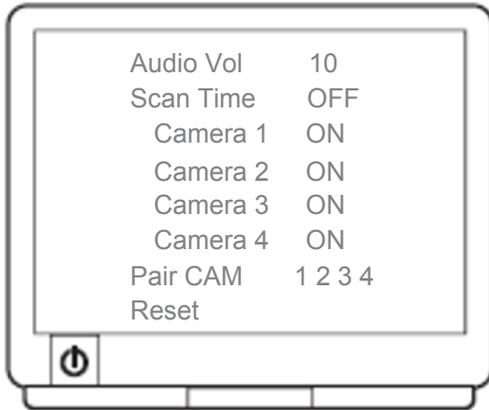


Step3: Advance Operation

Knowing the Menu

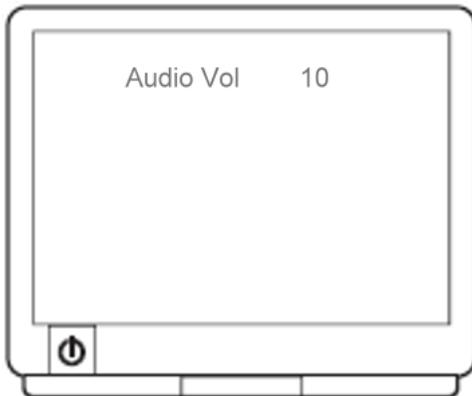
By Pressing **M** (Menu), you can enter / exit Menu Mode

You can Use **◀ ▶ ▲ ▼** (Left / Right / Up / Down) to select and change the settings.



Setting Audio Volume

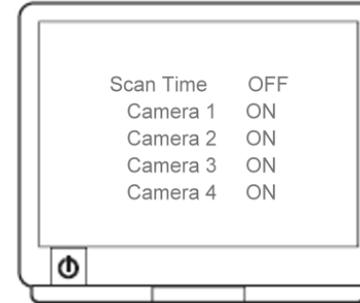
You can use **◀ ▶** (Left / Right) to change Audio Volume from 0 to 20.



Setting Auto / Manual Scan Sequence

⚠ This function is available for multi cameras user.

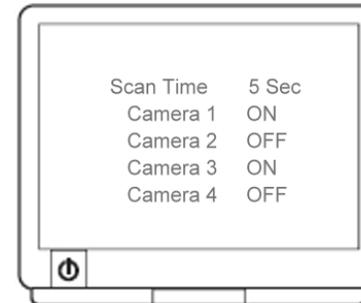
⚠ Scan Time will be turn off every time after your press **⏏** (Cam) for manual scan



- A. Use **◀ ▶** (Left / Right) to change Scan Time interval from OFF / 5 sec / 10 sec / 15sec.
- B. Default setting is OFF, system will not scan and camera display has to be manually assigned.

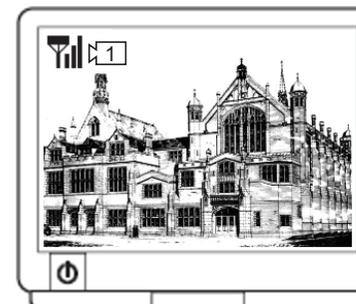
Skip Certain Camera(s) During Scan

⚠ Before setting Scan and Skip, make sure all cameras are paired to assigned channels. See next pages for detail.



- A. Simply set the skip camera(s) OFF by pressing **◀ ▶** (Left / Right).
- B. Skip Camera 2 and 4 during 5 seconds Scan Time interval, settings as shown:

TV Display as shown:



5 Seconds

