
Dear users, the configuration for this camera is professional, so please read the user manual carefully before using the camera.

IP Camera

(L series)

User manual

2013-01 V1.0

Statement

If the user manual can not help you to solve the problem, please call our technology center for solutions. We will update the content for the new functions without notice.

Notice

1、 Installation Environment

-  Keep away from the places for high-temperature, heat source and direct sunlight;
-  Keep away from water and when get wet, cut off the power immediately.
-  Avoid using at damp environment; the reference range for operation humidity is below 85%RH.
-  Avoid using in overheating and too cold environment, the reference range for operation temperature is $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$
-  Please install it horizontally or wall mounting, avoid strenuous vibration place and not put other equipments onto the item

2、 Transport and Handling

-  The package is well-designed to ensure the security during the delivery, so please do not change the package at random.
-  Do not move the ip cameras from overheated to supercooled condition frequently, otherwise it will frost and shorten the service life.
-  Do not move the item when is power on, otherwise the main board might be damaged.



Notice:

1. Please check the power supply before it is working
2. Be careful not to bang the camera or subject it to strong impacts or shocks.
3. Do not directly touch the optical components for the image sensor, if necessary, please place a clean and moistened cloth with alcohol and wipe the dirt gently; When not in use, please place the dust cover on to the item to protect the image sensor.
4. Do not aim the camera directly into the sun or at other intense light sources that could affect the image quality (it is not the problem for the ip camera), also shorten the service life for the image sensor.
5. Keep away from laser when it is working, otherwise the image sensor can be damaged.
6. If the equipment is not working properly, please contact the store or the service center, do not disassemble or modify the equipment in any way. (Problems caused by unauthorized modification or repair should be at your own risk.)

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1 Product introduction

1.1 Product summary

Thank you for choosing our company's L series IP camera, the IP Camera combines a high quality digital video camera with network connectivity and a powerful web server to bring clear video to your desktop from anywhere on your local network or over the Internet. It is very suitable for family, shops, office building and so on.

Main features for L series:

- ◆ The video is compressed by MJPEG. There are VGA/QVGA/QQVGA three video resolutions optional. User can changes some parameters according to their demands to satisfy his own visual prefer;
- ◆ Infrared LED for night vision covers 5m area, to realize 24 hours monitoring;
- ◆ Support 802.11b/g/n protocol, can build up wireless monitoring;
- ◆ Support AP mode, the PC and mobile phone can be directly connected to the camera by WiFi, don't need the router;
- ◆ Support motion detection, send alarm information by email and FTP;
- ◆ Support mobile phone to view;
- ◆ Built in web server, all data is transferred through one port; it is easy for user to do the network setting;
- ◆ Manufacture attached a label at the bottom of each IP Camera, it include DDNS. When IP Camera is connected to the internet, this URL can be used to visit the device;
- ◆ Manufacturer provides free software, support Multi-view, long time recording, video playback etc;

1.2 Package for typical production

Type \ Accessory	Power adaptor	CD	Cable	Bracket	Stand of plastic	Antenna
 PTZ camera	5V	√	√	√	√	√

 Cube camera	5V	√	√	√	√	Built-in
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Notice:

- ◆ Please check carefully if all listed items are included in the package, if anything missing, please contact vendor in time.

2 Installation guide

2.1 AP connection

Power on the camera (Please check carefully output voltage of power adapter, don't insert incorrect adapter, otherwise it will damage the camera), after 2 minutes, the camera works normally. You can use PC or mobile phone to connect directly the camera by WiFi, as Figure 1.



Figure 1

- 1) Turn WLAN on in PC, and search available SSID, if searched [AP SSID in device label](#), then you can connect it, [default password is 123456789](#).
- 2) After connecting the camera, it will assign IP address to PC(PC wifi IP address need to be set to obtain automatically).
- 3) Open browser in PC, enter IP address of camera(AP default IP address is [192.168.9.1](#)) then you can visit the camera(refer to 2.2).

Note: Please check the user manual of mobile phone software when you connect to the camera by mobile phone.

2.2 Wired connection to LAN

- ✚ Power on the IP camera, connect IP camera to router by network cable, meanwhile, connect computer to the same router, example of figure 2.



Figure 2

- ✚ Insert CD to computer driver, double click "LSearch_en.exe" in the CD, run the software, click "Search", select the device searched, click "Browse" to open browser, it will pop up user login dialog, enter default user name([admin](#)) and password([123456](#)) to login the camera as figure 3.

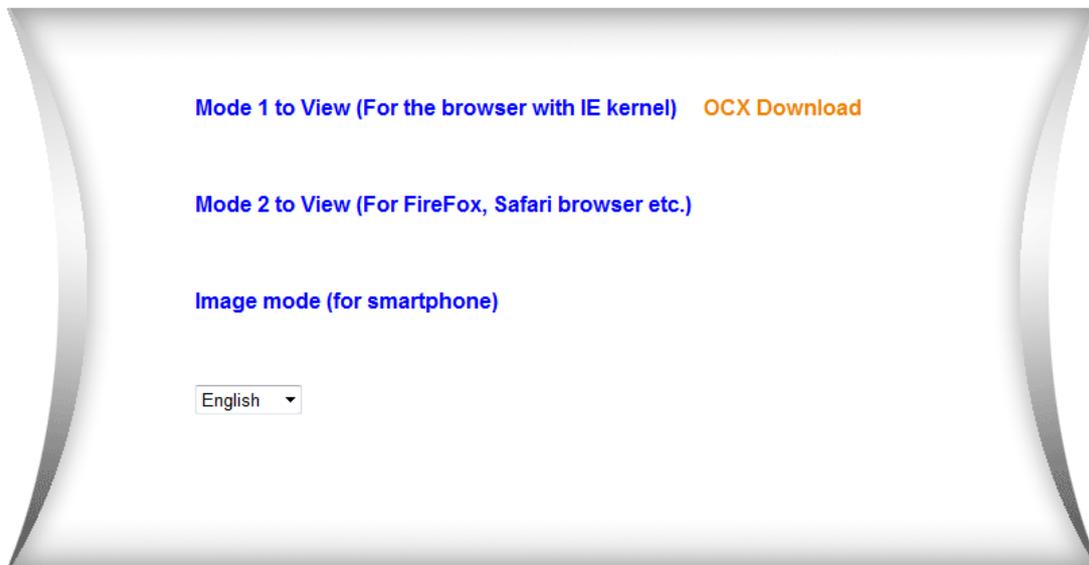


Figure 3

We suggest using IE kernel browser to view the video ([it can provide more functions](#)), but user needs to install video player before viewing the video. Click "[OCX Download](#)" to download OCX and install it.

Notice:

- ◆ If you installed the firewall software in your PC, when you run the LSearch_en.exe, it may pop up a window to say "whether you want to block this program or not", then you should choose not to block.
- ◆ You can hold on reset button on the camera for 10 seconds to restore factory default if you forget user name and password, during the process, don't disconnect the power, otherwise the camera maybe damaged.

2.3 WIFI connecting to LAN

You can connect the camera with router by wireless connection, as figure 4.



Figure 4

Before connecting router by wifi, please connect them as chapter 2.2 to Login camera and enter wifi setting, and then operate as the following step, example of figure 5.

Wireless Lan Settings				
Wireless Network List	ID	SSID	MAC	
	1	Sste	00:26:f2:24:7e:c4	
	2	CAM6602	00:23:02:03:66:02	
	3	object	6c:e8:73:ad:05:f8	
	4	abct	e0:05:c5:ca:19:36	
	5	song001	38:83:45:c2:a4:ba	
	6	yfb-test2	b0:48:7a:59:d0:c2	
	7	QC-YYY	00:1e:58:f3:78:57	
	8	owen	ec:88:8f:58:95:66	
	9	CAM	00:0a:eb:56:fe:70	
	10	ABC	5c:63:bf:7a:0c:86	
	11	LIFE	f4:ec:38:32:15:78	
	12	GCB-xay	74:ea:3a:28:33:62	
<input type="button" value="Scan"/>				
Using Wireless Lan	<input checked="" type="checkbox"/>			
SSID	<input type="text" value="owen"/>			
WI-FI Channel	<input type="text" value="6"/>			
Network Type	<input type="text" value="Infra"/>			
Authetication	<input type="text" value="WPA2-PSK Personal (TKIP)"/>			
Share Key	<input type="text"/>			
<input type="button" value="Submit"/> <input type="button" value="Refresh"/>				

Figure 5

Enter the Wireless LAN Setting, click the “Scan” button, it will show you all the wireless networks detected in the Wireless Network List column. Select one of them and tick “Using Wireless Lan”, then the relevant data of the selected wireless network will be shown in the following blanks. Input the password and click “Submit”, then the WIFI setting is finished. Unplug the cable, then you can connect to router by wifi.

Notice: When the device is connected both WIFI and wired, it will firstly connect to the wired network. If the camera enables DHCP to obtain IP address automatically, so the IP address is not same in wired connection and wifi connection, recommend to set fixed IP address for the camera.

2.4 Connecting to WAN

You should connect the LAN network to WAN first and do the port forwarding, connect as figure 6.

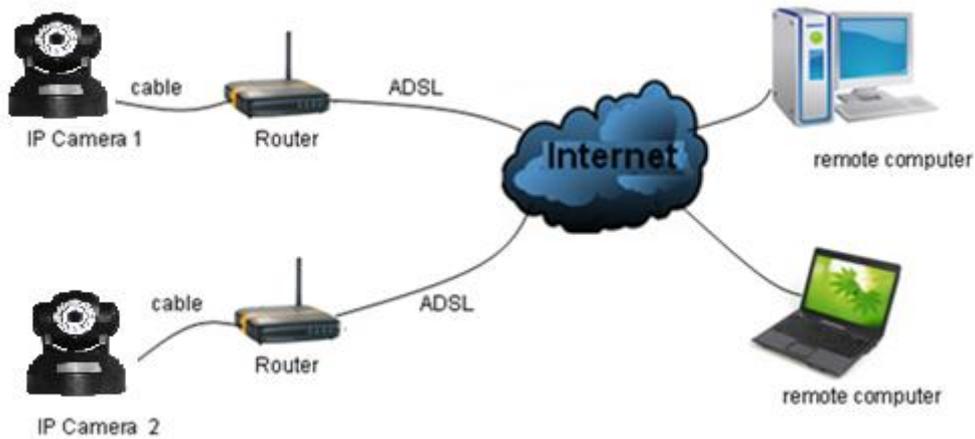


Figure 6

If visit IP Camera from WAN, you **must** do port forwarding on the router. Example of figure 7.

NETGEAR SMARTWIZARD router Wizard

Basic Settings

Does Your Internet Connect

Yes

No

Internet Service Provider

Please select the service type

Port Forwarding

Port Triggering

Service Name: Age-of-Empire

Server IP Address: 192.168.1.178

Ports - Custom Services

Service Name: IP

Service Type: TCP/UDP

Starting Port: 1025

Ending Port: 1025

Server IP Address: 192.168.1.178

Figure 7

Operation Steps:

- 1) After login the interface of the router, choose "Port Forwarding"
- 2) Choose "Add custom Service"
- 3) Input IP camera http port
- 4) Input IP address of IP camera, click "Apply"

After finishing the port forwarding, you can use WAN IP address of router and http port of camera to visit the camera by remote computer as figure 6.

Notice: because the routers are different, so the interface and setting method of router

are also different, how to do the port forwarding for various routers, please refer to the user manual of your router or consult with router manufacturer.

3 Operation of IE browser

3.1 View video

After installing the plug-ins, click “Mode 1 to view” as Figure 3 to view the video (video as Figure 8).

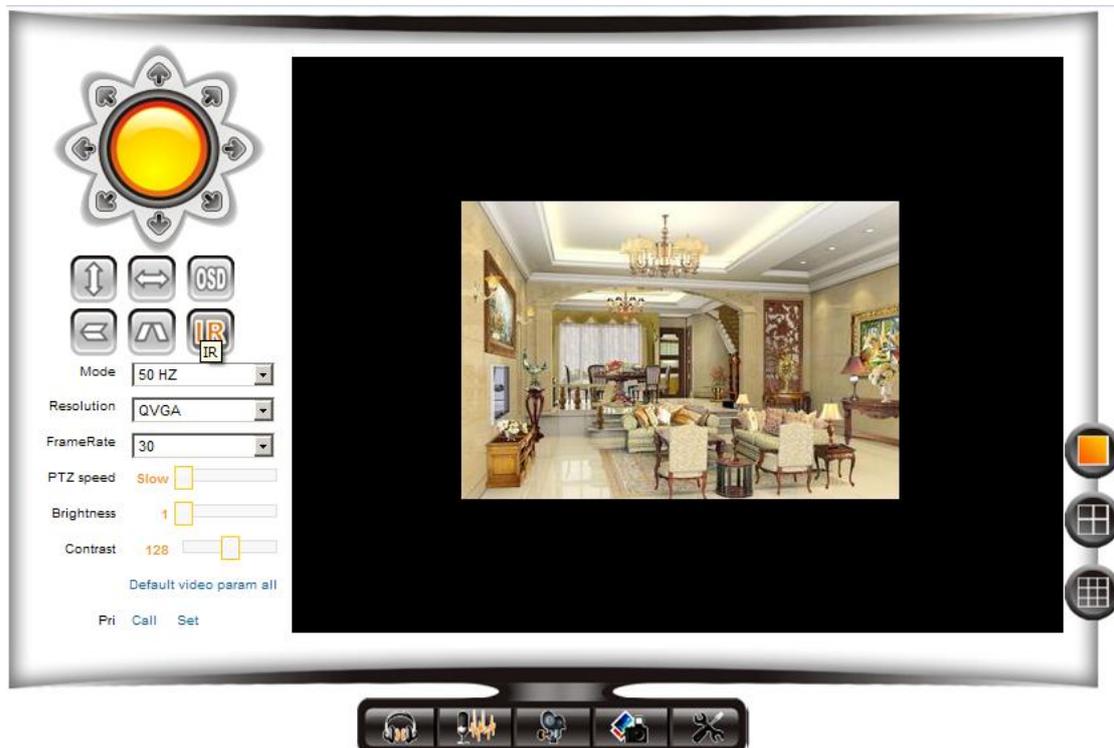


Figure 8

1) Audio, Talk, Record, Snapshot

You can click     these buttons to perform audio, talk, record and snapshot functions.

Note: about recording path, click  button to enter setting interface, you can set it in “Local Recording Path”, as figure 9.

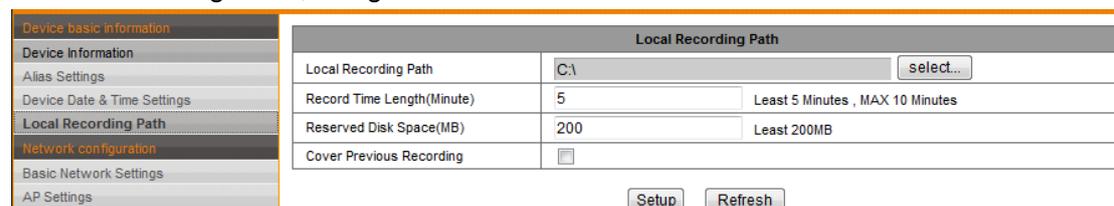


Figure 9

2) Multipicture change button

If you add multi-devices in chapter 3.4.2 “multi-device setting”, it will connect other device to display pictures automatically when changing to 4, 9 split screen. In playing video area, you can select a picture to control audio, talk, record, snapshot and PTZ control etc.

3) Viewing control area

You can control PTZ moving, picture reversal and mirror etc. when viewing video, and can adjust picture parameters, includes resolution, brightness etc.

The camera supports 16 preset points, you can set one place as preset point when moving the PTZ to a place, also can call the preset point when the camera move to another place, so the camera can return to set place.



Note:  button can control work mode of IR LED. IR LED may have auto, forced close two mode, the IR LED will power on or off according to environment light in auto mode; the IR LED always power off in forced close mode.

4) Setting device parameters



Click  button to enter setting interface, you can set all parameters of the camera described in chapter 3.2 to 3.5. Only administrator can login to set these parameters.

3.2 Device information

3.2.1 Device status

The user can obtain “Device firmware version”, “Web UI version”, “Alias”, “AP MAC” etc.

3.2.2 Device alias setting

The user can name the camera, example for home, office etc.

3.2.3 Device date and time setting

You can enable “Sync with NTP Server” when the device was connected to WAN, but need to select correct time zone where the camera is located, otherwise need to select “Sync with PC time”.

Device date&Time Settings	
Device Clock Time	Thursday, January 17, 2013 02:17:02
Device Clock Timezone	(GMT +08:00) Beijing, Singapore, Taipei
Sync with NTP Server	<input checked="" type="checkbox"/>
Ntp Server	time.nist.gov
	<input type="checkbox"/> Sync with PC Time

Figure 10

Remark: Please carefully check the camera time, so it can be sure the alarm accuracy.

3.2.4 Local recording path

The camera will be automatically create a file folder named “Record files” when the user

don't set "local recording path" and launch recording directly, and then save recording file to the folder, as figure 11.

Local Recording Path	
Local Recording Path	C:\ <input type="button" value="select..."/>
Record Time Length(Minute)	5 <small>Least 5 Minutes , MAX 10 Minutes</small>
Reserved Disk Space(MB)	200 <small>Least 200MB</small>
Cover Previous Recording	<input type="checkbox"/>

Figure 11

3.3 Device web setting

3.3.1 Basic network settings

The user can also enter the Basic Network Settings to set the IP address except using the search software "LSearch_en.exe". See below Figure 12.

Basic Network Settings	
Obtain IP from DHCP Server	<input type="checkbox"/>
IP Addr	192.168.0.111
Subnet Mask	255.255.255.0
Gateway	192.168.0.1
DDNS Server1	8.8.8.8
DDNS Server2	202.96.128.166
Http Port	80

Figure 12

Remark: The router connected to camera need to enable DHCP when the user uses "obtain IP from DHCP server"; the routers enable DHCP by default.

3.3.2 AP settings

Example of chapter 2.1, the user can directly connect to the camera by mobile phone and laptop with WiFi. The label with default **AP SSID** was stuck to bottom of the camera, the default password is **123456789**. The user can change the SSID and password, but the password must be 8 or above characters and digitals.

AP Settings	
SSID	CAM48FE
Password	●●●●●●●●

Figure 13

3.3.3 Wireless wifi settings

Please refer to chapter 2.2.

3.3.4 Manufacturer's DDNS setting

Manufacturer puts a label of DDNS at the bottom of each IP Camera, it is unique, the manufacturer has established a DDNS system, and allotted a DDNS to every device, the user only enter the website into browser, and then view it from remote PC, example of figure 14.

Manufacturer's DDNS	
Manufacturer's Domain	002olfh.nwsvr.com

Figure 14

3.3.5 Third party DDNS setting

User can also use third party DDNS, such as www.dyndns.com. User must apply a free domain name from this website and fill the info into the below blanks (Figure 15) and save the settings. Then the domain name can be used.

Third Party DDNS Settings	
Third Party DDNS Service	DynDns.org(dyndns) ▾
DDNS User	btest
DDNS Password	••••••••
DDNS Host	btest.dyndns.biz
DDNS Status	Errors in Network Communication

Figure 15

Notice: Using the third party domain name, if the http port is not 80, the port number should be adding to the domain name with colon. Example: <http://btest.dyndns.biz:81>. Don't enter port number when you use manufacturer's DDNS.

3.3.6 UPnP settings

If you enable UPnP, once the IP camera is connected into the LAN, it will communicate with the router in the LAN and do the port-forwarding with open port of router automatically. In figure 16, you only tick "Using UPnP to Port Mapping" to finish the setting.

UPnP Settings	
Using UPnP to Port Mapping	<input checked="" type="checkbox"/>

Figure 16

Before using the UPnP function, please make sure the router's UPnP function has been enabled. Not all the routers support UPnP perfectly. Please test if the router works well with the equipment, if not, we suggest you to disable this function and do the port-forwarding manually.

3.4 Alarm Settings

3.4.1 Alarm service setting

If user need to monitor a fixed area, when there is any motion, it will detect the motion

and trigger the alarm. In the motion detect sensibility, the smaller the value, the more sensitivity.

After triggering the alarm, you can adopt several alarm mode in armed time, example of figure 17.

- Link to the Preset when alarming: need to set preset point of the camera;
- Send alarm info by email (a email include a picture); every alarm trigger a email;
- Send the snap to the FTP server, user can also set the interval time between two pictures.

Device only triggers alarm when it detects any motion in armed time. User can set schedule time to be “all the time”, also assign the armed time. Before you set “Time Schedule”, please go to Date and Time settings to set the correct time for the item.

Alarm Service Settings	
Motion Detect Armed	<input checked="" type="checkbox"/>
Motion Detect Sensitivity	5 <small>The Smaller The Value, The More Sensitivity</small>
Alarm Trigger Event	
Link to the Preset when alarming	3
Send Mail Notification When Alarm	<input checked="" type="checkbox"/>
Upload Image When Alarm	<input checked="" type="checkbox"/>
Upload Interval (Seconds)	1
Alarm Armed Time	
Time Schedule	<input checked="" type="checkbox"/>
Select All	<input checked="" type="checkbox"/>
Day	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun	
Mon	
Tue	
Wed	
Thu	
Fri	
Sat	

Figure 17

3.4.2 Mail Service Setting

When it detects alarming, it can send email to your appointed email box, but you need to set email service parameters correctly. Example of figure 18, click “Submit” to save these parameters, and then you can click “Test” to check if the setting is successful.

Mail Service Settings	
Sender	AP CAM
SMTP Server	smtp.gmail.com @gmail.com
SMTP Port	465
Need Authentication	<input checked="" type="checkbox"/>
SSL	TLS
SMTP User	apcam
SMTP Password	••••••••
Receiver 1	ipcam@gmial.com
Receiver 2	
Receiver 3	
Receiver 4	
	<input type="button" value="Test"/> Please set at first, and then test.

Figure 18

3.4.3 FTP Service Setting

When alarming, the device will snap local picture and send them to FTP server, but need to set the FTP setting correctly. As figure 19, after the setting is finished, click “Test” to check your settings are correct or not.

FTP Service Settings	
FTP Server	192.168.0.56
FTP Port	21
FTP User	test
FTP Password	•••••
Upload Interval (Seconds)	1 Blank or 0 means 'Upload the picture from time to time'
	<input type="button" value="Test"/> Please set at first, and then test.

Figure 19

Notice: For using the FTP function, you need to apply a user with authority that you can write and create submenu and some memory space.

3.4.4 Alarm log

You can inquire when the device performs alarm in alarm log.

Alarm Log	
motion alarm 2013-01-30 11:34:54	
motion alarm 2013-01-30 11:34:04	
motion alarm 2013-01-30 11:32:14	
motion alarm 2013-01-30 11:29:00	
motion alarm 2013-01-30 11:22:04	
motion alarm 2013-01-30 11:18:17	
motion alarm 2013-01-30 11:17:30	
motion alarm 2013-01-30 10:53:42	
motion alarm 2013-01-30 10:52:00	
motion alarm 2013-01-30 10:50:53	
motion alarm 2013-01-30 10:49:50	

Figure 20

3.5 User and device setting

3.5.1 Multi-device Setting

As Figure 21, User can add maximum 9 devices to view video simultaneously. Click “refresh” button to check the device in the LAN. When click a device, will popup setting dialogue and enter the device info, and click “Add” to add device. After that, must click “Setup” button to save device.

Multi-Device Settings	
Device List In LAN	WIFICAM(192.168.0.111)
	<input type="button" value="Refresh"/>
The 1st Device	This Device
The 2nd Device	WIFICAM(192.168.0.144)
The 3rd Device	WIFICAM(192.168.0.111)
The 4th Device	None
The 5th Device	None
The 6th Device	None
The 7th Device	None
The 8th Device	None
The 9th Device	None
Attention: If you want to access the device from internet, be sure the host and port that you set can be accessed from internet.	
<input type="button" value="Setup"/> <input type="button" value="Refresh"/>	

Figure 21

3.5.2 User Settings

Users Settings		
User Authority	User	Password
Administrator	<input type="text" value="admin"/>	<input type="text"/>
Operator	<input type="text"/>	<input type="text"/>
Visitor	<input type="text"/>	<input type="text"/>
<input type="button" value="Setup"/> <input type="button" value="Refresh"/>		

Figure 22

3.5.3 PTZ settings

PTZ Settings	
Disable Preset	<input type="checkbox"/>
Call the Preset after reboot	<input type="button" value="Disable"/>
PTZ Speed	<input type="button" value="Mid"/>
Cruise Turns	<input type="button" value="Always"/>
<input type="button" value="Setup"/> <input type="button" value="Refresh"/>	

Figure 23

Note: When you set cruise turns all the time, the camera will automatically stop after cruising one hour.

3.5.4 Maintain

Upgrade Device Firmware	
Restore Factory Settings	<input type="button" value="Restore Factory Settings"/>
Reboot Device	<input type="button" value="Reboot Device"/>
Upgrade Device Firmware	<input type="text"/> <input type="button" value="Browse"/> <input type="button" value="Upgrade"/>
Upgrade Device Embedded Web UI	<input type="text"/> <input type="button" value="Browse"/> <input type="button" value="Upgrade"/>

Figure 24

Click “Restore factory settings”, it will pop up a dialog to ask you if restore factory settings, the camera will restore factory settings and reboot after you confirmed.

There are two types software in the camera, one is device firmware, another is Web UI, and you can upgrade them respectively.

4 Visiting device by other software

4.1 Other web browser

Except IE browser, you can visit the camera by Firefox, Safari, Chrome, Opera browser etc., please select “Mode 2 to view”.

4.2 Mobile phone software

For more information, please see the user manual for mobile phone in attached CD, or download the latest software and user manual in our website.

4.3 Centralization Control

IPCMonitor is a free software offered by factory, several devices on LAN and WAN can be browsed at the same time. The software also supports snapshot, video record, scheduled record, alarming and so on. The interface is as figure 25.

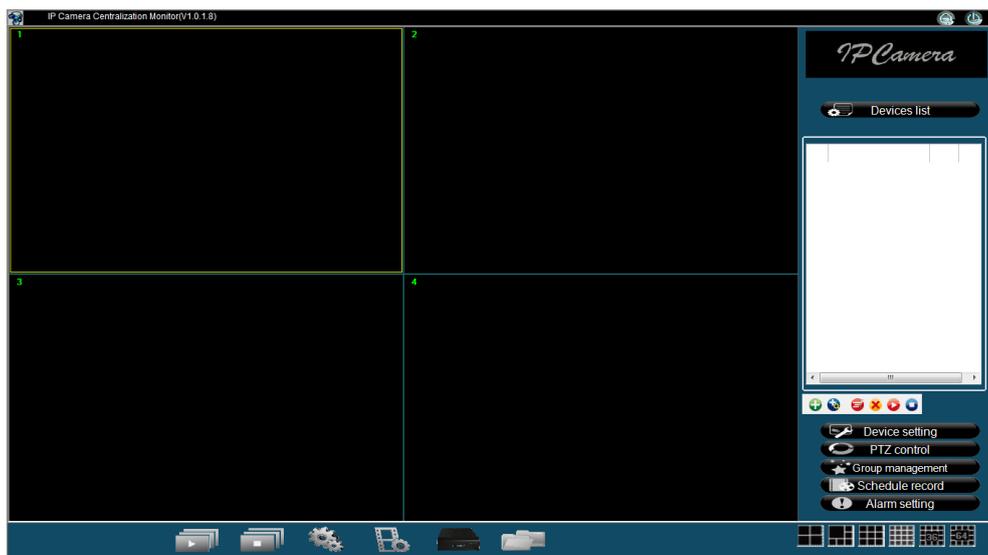


Figure 25

For more information, please refer to the <<IPCMonitor User Manual>> in CD.

5 Product family for L series

5.1 VGA Cube camera

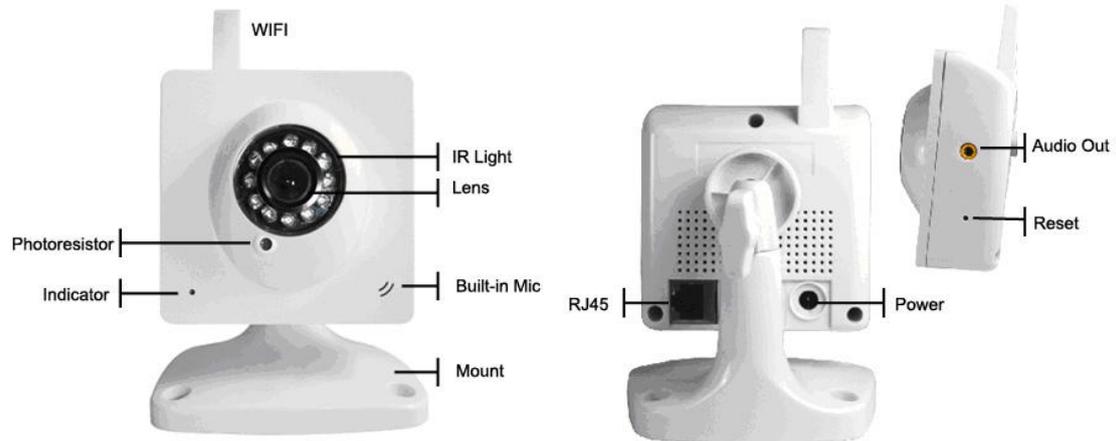


Figure 26

The camera adopts 300K pixels CMOS sensor, 3.6mm lens, built in MIC, 12 pieces IR LED, audio out socket. It uses 5V power adaptor.

5.2 VGA PTZ camera (Model A)



Figure 27

The camera adopts 300K pixels CMOS sensor, 3.6mm lens, built in PTZ and MIC, 11 pieces IR LED, audio out socket. It uses 5V power adaptor.

Appendix: L series IP camera parameters comparison list

Product Function		
Video compression	MJPEG	
Resolution	VGA/QVGA/QQVGA	
Max. Framerate	30FPS	
Audio compression	ADPCM	
Main software function	<ul style="list-style-type: none"> ➤ Support HTTP, DHCP, IEEE 802.11b/g/n, NTP, FTP, SMTP, P2Pprotocol etc; ➤ Support motion detection; ➤ three level of user authority; ➤ PTZ preset point ; ➤ support upgrading online 	
Lens	3.6mm	
Pan/Tilt	Tilt 100°Pan 350°	N/A
Night vision	11pcs IR LED, 8m distance	12pcs IR LED, 8m distance
Wi-Fi	Yes	
Audio	Built in MIC, audio out	
Power supply	5V, power consumption<6W	
Work condition	-10°C~ 50°C under 85%RH	
Body size	111*103*127mm	106*96*150mm

Statement:

1. If you have any questions of the manual, please contact our technical support.
2. This manual will be updated periodically; the company reserves the right without prior notice.

6 FCC STATEMENT

1. 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.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 try to correct the interference by one or more 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 that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.