N7405JV INSTRUCTION MANUAL IP CAMERA



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1 Introduction

This 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.

1.1 The package includes

- ✓ IP Camera * 1
- ✓ IP Camera Utility CD *1
- ✓ 5V Power Adapter *1
- ✓ Mounting Stand* 1
- ✓ LAN Cable * 1

1.2 Function and Features

- ✓ There are three video resolution options: VGA, QVGA, and QQVGA. You can change parameters according to their demands and to satisfy their visual preferences. The video utilizes MJPEG format for compression purposes.
- The built-in microphone enables you to monitor the audio at the site and also supports two-way intercom function. You can also connect to an external speaker for added audio enhancement.
- This IP camera utilizes TCP/IP network protocols and also has an inner web server allowing you to view video through IE or other browsers. Data is transferred through one port making it is easier for the user to configure network setting.
- ✓ Supports 802.11b/g protocol for wireless monitoring.
- ✓ Supports UPnP allowing for port forwarding automatically with any router.
- \checkmark The motion detection option can be modified for most environmental situations.
- ✓ Infrared LED's for night vision, covers a 5m area to enable 24 hour monitoring.
- ✓ Supports mobile phone remote viewing
- ✓ Supports three levels of user authority.
- ✓ Supports upgrading online.
- ✓ The IP Camera has a label the lists the Device ID and DDNS for easy reference to view the video during the setup process.
- ✓ Software is included which supports Multi-view, Long time recording, and video replay.

1.3 Function and Features

ltem	Sub Item	Description
	Sensor	CMOS sensor
Image	Total of pixel	300k
Capture	Minimum illumination	IR on,0 Lux
	Lens	f=3.6mm, F=2.0, Fixed Iris
Accietant	Lighting	Twelve 850nm Infrared LED's - 5m range
Assistant	Lighting Control	Auto control
	Resolution	640*480(VGA)/320*240(QVGA)/160*120(QQVGA)
	Compression	MJPEG
Video and	Frame rate	30fps
Audio	Bit rate	128kbps ~ 5Mbps
	Image Rotation	Mirror /Flip
	Audio Compression	ADPCM
Network	Basic Protocols	TCP/IP、UDP/IP、HTTP、SMTP、FTP、DHCP、 DDNS、UPNP、NTP、PPPOF
Network	Other Protocol	802 11b/g
	Video control	Supports
	Dual way audio	Supports
	Motion Detection	Supports
Other	Triggered Actions	Email/ETP/ send message to alarm server
Other	User Setting	Three levels
i eatures	Date/ Time Setting	Supports
	Upgrade	Upgrade from network
	DDNS	Free DDNS provided by manufacturer
	Ethernet	10Base-T/100base-TX
Hardware	Audio In	Internal microphone
Interface	Audio Out	Audio Line-out interface x 1
	Weight	120g
	Main body	48mm(L)*85mm(W)*110mm(H)
	Power	DC 5V
Physical	Power consumption	<6W
Specs	Operating	
	temperature	-20°C~50∘C
	Operating Humidity	10% ~ 80% non-condensing
	OS Supported	Windows 98/2000/XP/Vista/ Win 7
Software	Browser	IE 6.0 and Above or Compatible Browsers: Firefox, Safari etc.
(FC Slue)	Application Software	IPCMonitor

2 Appearance and Interface

2.1 Appearance





LED Status Indicator: flashes to indicate it is connected to a wired network; rapid flashing (2~3 times per second) indicates it is connected to a wireless network.

2.2 Equipment interface





3 Connect to IP Camera Over a LAN

3.1 LAN connection



Figure 3

3.2 Search and set the IP address of the IP camera

Run "BSearch_en.exe" from the included support CD, the setting interface is shown in figure 4.

etwork adapter:	Realtek RTL8139/810x Far ⊻	Device name:	002dgct
IP address:			Contraction of the second s
Subnet mask:	192.168.1254 255.255.255.0	Sys FirmwareVer App FirmwareVer P config:	21 37 2.37 0.0.4.18 Set IP automatically
DNS1:	202.96.134.133 202.96.128.166	IP address(): Subnet mask(<u>U</u>): Gateway(<u>G</u>):	192 . 168 . 1
vice list: No. Devicet 1 002dgot	Name DeviD 00880000EE90	DNS1(D): Http port(P): Authentication: Account for watch Password for watch	202 , 96 , 134 , 133 1025 🔹
<	>	Tips: 1> This tool is only pc and device 2> Only the leaf u	y used within LAN, s is within the same subnet. user can update device informa

Figure 4

Operation Steps:

- 1) Click "Search (F3)
- 2) Choose the device
- 3) Change the IP address of the IP camera according to the IP Config (section 3)

information in the Device Information section above. The numbers in the red circle should be set to coincide with the user's network.

- 4) Enter the user name and password into "Authentication" (*By default, the user name is: admin, password is: 123456*).
- 5) Click "Update"
- 6) After successfully updating, click "Search (F3)", choose the device and click "Browse (F4)". Then you can view the IP camera, as shown in Figure 5.

NOTE:

- 1) If you don't know how to manually configure the "IP Config", you can also check the "Set IP automatically" box to get the IP address from the router automatically.
- 2) If you have a firewall set up on your PC a window may pop-up to ask "whether you want to block this program or not", you should choose not to block.
- 3) The default IP address is 192.168.0.178 and default http port is 80.

IP CAMERA / NET CAMERA	Language: English
1PCamera	Welcome to visit the IP Camera! Please select a visit mode: <u>Mode 1 to view</u> (For the browser with IE kernel) Notice <u>Download</u> and install Player(first use) <u>Mode 2 to view</u> (For FireFox, Safari Browser etc.) <u>Mobile view</u>



3.3 View IP Camera Video Feed

We suggest using Internet Explore to view the camera video feed (it provides more function capability) but you will need to install the Player software first. Click the "Download and install player (first use)" link, a dialogue box will open, as shown in Figure 6, click "Run" and it will automatically download Player and install it.

Do you	want to run or save this file?	
	Name: DVM_IPCam2.exe	
	Type: Application, 149 KB	
	From: 192.168.0.139	
	Run	iave Cancel
-		
	While files from the Internet can be usef	ul, this file type can

Figure 6

3.3.1 Video Display

After installing the software, click the "Mode 1 to view" link as shown in Figure 5 to view the camera video feed (see Figure 7).



Figure 7

1) Main Menu

The main menu includes the function settings of the submenus

2) Status Display

The status display is in the upper right corner, it can show the status of up to 9 devices:

- if not connected, button will be shown as gray
- if connected, button will be shown as green
- If incorrectly connected, button will be shown as yellow
- If alarm is activated, button will be shown as red

3) Multi Device display area

If multiple devices are added and shifts to 4-Ch or 9-CH (refer to section 5.3.2, the additional devices will automatically be shown. You can select one device, and operate it using these keys: Play, Stop, and Record, Control Pan/Tilt, etc.

These buttons allow you to: start video, stop video , monitor audio, broadcast audio, record, and take snapshot.



Note: If you want to record video click this button ^[11], please go to Advanced—Other Settings to set the Record Path first. Please see Figure 8 below.

Path Set		
Record Path	C:\Documents and Settings\All Users\Documents	Browse

Figure 8

You can also set the device frame rate, resolution, brightness, contrast and other parameters.

Note: This particular model does not have Pan/Tilt or Alarm I/O function, but you can control additional cameras that have these functions using the Multi-view feature of the IP Camera software.

4 Connect to IP Camera Over a WAN

4.1 WAN (Wide Area Network) connection



Figure 9

4.2 Port forwarding

To view an IP Camera's video feed from a WAN, you **must** enable port forwarding on the router that the camera connects to. A Netgear router is used as an example below:

S M A R T	AR WIZARD rout Wire	Please select the service type Port Forwarding Port Triggering	
 Set Password Router Upgrade Advanced Wireless Settings Wireless Repeating Function Port Forwarding / Port Triggerint WAN Setup Choose port LAN Setup Choose port Cogar Ports - Custom Services 		Service Name Server IP Address Age-of-Empire 192, 168, 1 Address # Service Name Start Port End Port Server IP Address Edit Service Delete Service 2 Add Custom Service Service Ports - Custom Services	
Service Name IP Service Type TCP Starting Port 1025 Ending Port 1025 Server IP Address 192 Apply	Input IP camera port #	Service Name Service Type Starting Port Ending Port Server IP Address 192, 168, 1, 178	
	E.e.	10	

Figure 10

Setting Procedure:

- 1) After logging in to the router interface, choose "Port Forwarding"
- 2) Choose "Add custom Service"
- 3) Input IP camera port.
- 4) Input IP camera IP address, click "Apply" (the http port and IP address should be the same as in Figure 4 which can be set manually or automatically)

Note: Different routers have different settings for port-forwarding; please consult your router manual for instructions on how to enable port-forwarding.

After port-forwarding is enabled, you can view the IP Camera video feed over a WAN.

4.3 DDNS

You can also use the manufacturer's DDNS to access the camera as long as port-forwarding is configured.

4.3.1 Manufacturer's DDNS

The device manufacturer has provided a free DDNS. You can find it in the Network menu, as shown in Figure 11.

Manufacture's	DDNS
manuacture s	DDING

Manufacture's Domain	002alcn.nwsvr.com



4.3.2 Third Party DDNS

You can also use a third part DDNS service, such as <u>www.dyndns.com</u>. User must apply for a free domain name from this website, enter the information for it and save the settings (see Figure 12). The domain name can then be used.

DDNS Service	DynDns.org(dyndns) 👻
DDNS User	btest
DDNS Password	
DDNS Host	btest.dyndns.biz

Figure 12

Note: Using a third party domain name, if the http port is not 80, the port number must be added to the domain name following a colon. Example: <u>http://btest.dyndns.biz:81</u>. With the manufacturer-supplied DDNS there is no need to add the PORT number.

5 Other Settings

5.1 Network Setting

5.1.1 Basic Network Setting

You can also enter the Basic Network Settings to set the IP address without using the search software. See Figure 13 below.

Network Settings		
Obtain IP automatically		
IP Addr	192.168.0.139	
Subnet Mask	255.255.255.0	
Gateway	192.168.0.1	
DNS Server	192.168.0.1	
Http Port	80	

5.1.2 WiFi Setting

If the camera is using a WiFi connection, enter the Wireless Settings as shown in Figure 14 below. Click the "Scan" button, it will show you all detected wireless networks in the Wireless Network List box. Select one of them and check "Using Wireless LAN", then the relevant data of the selected wireless network will be shown in the adjacent fields. Enter the "Share Key" access password and click "Set", the WiFi access configuration is now completed.

Wireless Settings		
Wireless Network List	ChinaNet-TbkR[00255e1e5d08] infra WPA/WPA2-PSK wifi[001e58f37857] infra WPA/WPA2-PSK netview[002586697046] infra WPA/WPA2-PSK Scan	
Using Wireless Lan		
SSID	wifi	
Encryption	WPA2 Personal (AES) 💌	
Share Key	8939038200	

Figure 14

- Note 1: When the device is connected to both WiFi and wired networks, it will first try to connect to the wired network, if it doesn't succeed then it will try to connect to the WiFi. The IP address and port setting for both wireless and wired network should be the same.
- Note 2: Before you configure a wireless network as shown above; please make sure the camera is connected to the network via a network cable. After configuration is successful, please reboot the camera and the wireless function will take effect.

5.1.3 ADSL Setting

User can enable ADSL Dialup according to the Figure 15 below (the ADSL provider will assign a user name and password to you when you apply for ADSL service). Connect the camera directly to the ADSL modem and it will be connected directly to the Internet.

ADSL Settings		
Using ADSL Dialup		
ADSL User	szlgview@163.gd	
ADSL Password	•••••	

Figure 15

5.1.4 UPnP Setting

If UPnP is enabled, and the IP camera is connected to the LAN, it will communicate with the LAN router and set up port-forwarding automatically.

In Figure 16 below, check "Using UPnP to Map Port" and the setting is completed. You can check if the UPnP works or not in the System Maintenance interface.

UPnP Settings		
Using UPnP to Map Port		

Figure 16

Before using the UPnP function, please make sure the router's UPnP function has been initialized. Not all routers support UPnP completely. Please test if the router works with the equipped IP camera, and if not, we suggest you disable this function and configure port-forwarding manually.

5.1.5 DDNS Setting

Please refer to the content in section 4.3.

5.1.6 MSN Setting

MSN Config		
User	test1@hotmall.com	
Password		
MSN Friends List	friend1@hotmall.com	

Figure 17

You will need to have, or apply for, an MSN account for this device first, for example: test1@hotmail.com. Please enter this MSN account and its password, as shown in Figure 17 above. Then enter your own MSN account, for example: friend1@hotmail.com, in the 'MSN Friends List. On your friend1@hotmail.com MSN list, you can see test1@hotmail.com is online. You just send "URL?" to test1@hotmail.com and you will receive the WAN IP address of that IP camera. But please make sure test1@hotmail.com and friend1@hotmail.com are setup as MSN friends before you enter the settings.

5.2 Alarm Settings

5.2.1 Alarm Setting

1) Alarm Detect

Alarm Settings		
Alarm Detect		
Motion Detect Armed	Motion Detect Sensibility 5 💌	
Alarm Input Armed	✓ ⊙ Open ○ Close	
Alarm Action		
IO Linkage on Alarm		
Send Mail on Alarm		
Upload Image to FTP		
Enable Alarm Server		
Scheduler		
All time Schedule(NOTICE:set the correct 'Device Clock')Device Clock		
Submit Refresh		

Figure 18

If you select motion detection, and there is any motion, it will detect it and trigger an alarm. In Motion Detect Sensitivity, the larger the number selected the more sensitive the motion detection. *Note: For particular model there are no Alarm I/O functions.*

2) Scheduler

The camera device will trigger an alarm at a scheduled time. User can set the schedule to be "All Time" (all the time). Before you set the "Schedule", please go to Date and Time settings to set the correct date and time, as shown in Figure 19.

Alarm Detect	
Motion Detect Armed	Motion Detect Sensibility 5
Alarm Input Armed	☑ ⊙ Open ○ Close
Alarm Action	
IO Linkage on Alarm	
Send Mail on Alarm	
Upload Image to FTP	
Enable Alarm Server	
Scheduler	
All time Schedule	NOTICE:set the correct 'Device Clock')Device Clock
Day 0 1 2 3 4 Sun Mon Image: State sta	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
	Submit Refresh

Figure 19

5.2.2 Mail Service Setting

The camera will send an alarm email to you when an alarm is activated. You only need to enter your email address as shown in Figure 20. After entering the settings, click "Test" to confirm if it is working properly. You can check the "Report Internet IP by Mail" box to enable after a successful test. After every restart, the camera will send its Internet IP address to the assigned email address.

eMail Settings		
Sender	sendder@sohu.com	
Receiver 1	receiver@sohu.com	
Receiver 2		
Receiver 3		
Receiver 4		
SMTP Server	smtp.sohu.com	
SMTP Port	25	
Transport Layer Security Protocol	None 💌	
	Gmail only support TLS at 465 port and STARTTLS at 25/587 port.	
Need Authentication		
SMTP User	sender	
SMTP Password	•••••	
Test Please set at first, and then test.		
Report Internet IP by Mail		

Figure 20

5.2.3 FTP Service Setting

	Ftp Settings
FTP Server	192.168.0.56
FTP Port	21
FTP User	test
FTP Password	••••
FTP Upload Folder	/test
FTP Mode	PORT 💌
Test Please set at first, and then test.	
Upload Image Periodically	

Figure 21

In alarm mode, the camera will take a still image and send it to an FTP server. Please make sure your FTP settings are correct. See Figure 21 for reference. When all the information has been entered, click "Test" to see if the settings are correct.

After configuring an FTP server, you can use the "Upload Image Periodically" function. Even with no alarm, the camera will periodically send a still image to the FTP server.

In order to use the FTP function you should apply for a user name and password from the FTP server first. Also, please apply for data storage space and the authority to create sub-directories on the server.

5.2.4 Alarm Server

Alarm server	
Server Address:	192.168.0.78
Server Port:	1000
User Name:	test
Password:	••••

Figure 22

Please confirm if you will connect to an alarm server. The alarm message format is as follows:

GET /api/alarm.asp?

Username=username&

Usurped=password&

Rea=alarm type (1=Motion Detection, 2 =Alarm from Alarm in port) & io=0

You will need to develop and create the alarm server and you can extend other functions on this same server such as: SMS, MMS alarm, mobile phone, etc.

5.3 Advanced

5.3.1 User Settings

There are three levels of authority; Administrator, Operator and Visitor. Administrator status has the authority to make any setting changes. Operator can only operate the IP camera and can't change settings. Visitor status can only watch the video feed and can't operate the IP camera.

By default, the administrator's User Name is admin & the password is: 123456.

Users Settings			
User Password Group			Group
admin	•••••		Administrator 💌
user	••••		Operator 💌
guest	••••		Visitor 💌

5.3.2 Multi Device Setting

Multi-Device Settings		
Device List in Lan	anonymous(192.168.0.247) 002alcl(192.168.0.67) 002abyc(192.168.0.239) 002aqvc(192.168.0.241) Refresh	
The 1st Device	This Device	
The 2nd Device	None	
The 3rd Device	None	
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. Submit Refresh		

Figure 24

You can add a maximum of 9 devices to view simultaneously, as shown in figure 24. Click the "Refresh" button to verify the device is on the LAN. When you click a device, a configuration dialogue box will open. Enter the device info, as shown in Figure 25 and click "Save", afterwards, you must also click "Submit" to save.

The 2nd Device	None
Alias	002alcl
Host	192.168.0.67
Http Port	80
User	admin
Password	•••••
	Save Remove

Figure 25

5.4 Maintain

5.4.1 Device Information

Device Info				
Device ID	002aaai			
Device Firmware Version	21.37.2.37			
Device Embeded Web UI Version	0.0.4.18			
MAC	00:01:02:03:02:03			
Alarm Status	None			
Third Party DDNS Status	3322 Succeed http://robbicam1.3322.org:10540			
UPnP Status	No Action			
MSN Status	No Action			

Figure 26

5.4.2 Time Setting

If the camera device is connected to the Internet, you can enable the NTP server to adjust the time and select the correct time zone or you can use your PC time setting to adjust the camera's time setting.

Date&Time Settings				
Device Clock Time	2010 - 3 - 29 20:08:20			
Device Clock Timezone	(GMT +08:00) Beijing, Singapore, Taipei 💌			
Sync with NTP Server				
Ntp Server	time.nist.gov			
Sync with PC Time				

Figure 27

5.4.3 Firmware upgrade

The device runs two kinds of software, one is system firmware, the other is application firmware. They can be upgraded separately.

Upgrade Firmware			
Upgrade Device Firmware	Browser Submit		
Upgrade Device Embeded Web UI	Browser Submit		

Figure 28

5.4.4 Restore Factory Default

Click "Restore Factory Default", and a dialogue box will open to confirm if you really want to restore to the factory defaults. After confirmation, the system will restore the IP camera to its factory defaults and then reboot.

5.4.5 User browsing Log

After entering the log interface, you can view by whom and when the device was visited.

	Log					
Mon	n, 2010-03-29	19:05:20	admin	192.168.0.175	access	<u>~</u>
Mon	n, 2010-03-29	19:43:33	user	192.168.0.175	access	
Mon	n, 2010-03-29	19:47:51	user	192.168.0.175	access	
Moi	n, 2010-03-29	19:49:02	guest	192.168.0.175	access	
Moi	n, 2010-03-29	19:57:40	admin	192.168.0.175	access	

Figure 29

6 Centralization Control



Figure 30

IPC Monitor software is provided with the camera, and with it, several devices on a LAN and/or WAN can be browsed at the same time. The software also supports snap, video record, alarm and other features. Figure 30 shows the program interface.

For more information, please refer to the IPC Monitor User Manual on the support CD.

7 FAQ

1) Incorrect power adapter will damage the equipment or power adapter

When connecting a power adapter, please check the voltage carefully, it should be a 5V adapter for this equipment.

2) Slow browsing speed

This equipment uses an MJEPG compression format, it needs a lot of network bandwidth, less bandwidth will affect browsing speed. Typical bandwidth requirements are:

640x480@10fps : 4.0 Megabits \sim 5.0 Megabits

320x240@30fps : 1.2 Megabits \sim 1.6 Megabits

3) Color difference

The default mode is infrared lens, when viewing outdoor or strong infrared light scenes, there may be color distortion where the colors displayed do not match the actual colors. You can switch to the color mode lens to solve this problem, but the color lens can only be used in daylight.

4) Can't find the camera via search software after connecting to LAN

Make sure the camera and PC are on the same LAN. If a firewall is being used, please close or suspend it and try again.

5) Can find camera via search software, but can't view video feed

If the IP address of IP camera and PC are not in the same Network Segment, you should configure them on the same Network Segment before trying to view the camera feed. The Network Segment is the first three numbers of the IP address. For example, if the IP address of your PC is 192.168.0.100, it can only view cameras with IP addresses between 192.168.0.1 and 192.168.0.99.

6) Can connect to camera via public IP address, but can't connect via manufacturer's domain name

Make sure the DNS setting in the search tool is the same as your PC settings; the DNS 1 and DNS 2 settings for both should be same.

Local PC Informatio		Device information.	
Network adapter:	Realtek RTL8139/810x Far 🔽	Device name:	002alcn
IP address:	192.168.0.175	Sys, FirmwareVer:	21.37.2.37
Subnet mask:	255,255,255,0	App. FirmwareVer.	0.0.4.18
Gateway,	192.168.0.1	IP config.	Set IP automatical
		IP address():	192 . 168 . 0 . 78
DNS1:	192.168.0.1	Subnet mask(U):	255 . 255 . 255 . 0
DNS2		Gateway(G):	192 . 168 . 0 . 1
Device list:	1 pcs	DNS1/Dr	192 168 0 1

Figure 31

8 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.

RF exposure statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.