

B Series—Waterproof Model

NCB-543W User Manual V4.0





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1 Introduction

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.

1.1 The package includes

- ✓ IP Camera * 1
- ✓ IP Camera Utility CD *1
- ✓ 5V Power Adapter *1
- ✓ Stand of plastic * 1
- ✓ Cable * 1

NOTE: If you select the device with wifi function, it has built-in wifi module and transmitting antenna in package.

1.2 Function and Features

- ✓ The video is compressed by MJPEG. There are VGA/QVGA/QQVGA three video resolutions optional. User can change some parameters according to their demands to satisfy his own visual prefer.
- It adopts the TCP/IP network protocols and has inner web server. Users can browse video through IE and other browsers. Data is transferred through one port; it is easy for user to do the network setting.
- ✓ Infrared LED for night vision covers 25m area, to realize 24 hours monitoring.
- ✓ Provide IP66 waterproof grade, more suitable for outdoors application.
- ✓ Support 802.11b/g protocol, can build up wireless monitoring.
- ✓ Supports UPNP, port forwarding automatically on the router.
- ✓ Motion detection can find alarm.
- ✓ Alarming record can be sent by email, FTP server. It also sends alarm info to the alarm server.
- ✓ Support mobile phone to view
- ✓ Support three level of user authority.
- ✓ Support upgrading online.
- \checkmark A free DDNS provided by manufacturer, and written in the device.
- ✓ Manufacture provides free software, support Multi-view, Long time recording, video replay etc.



1.3 Technical Parameters

ltem	Sub Item	Description	
	Sensor	CMOS sensor	
	Total of pixel	300k	
Image	Minimum	IR on 0 Lux	
Capture	illumination	IR OII, O Lux	
	Lens	f=4.0mm, F=2.0, Fixed Iris	
	IR_CUT	Support IR and color filter change automatically	
Assistant	Lighting	36pcs 850nm Infrared LEDs, 25m distance	
A331310111	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	
	Basic Protocol	TCP/IP、UDP/IP、HTTP、SMTP、FTP、DHCP、	
Network	Basic Protocol	DDNS、UPNP、NTP、PPPOE	
	Other Protocol	802.11b/g	
	Video control	support	
	Motion Detection	support	
	Triggered Actions	Email/FTP /send message to alarm server	
Other	User Setting	Three levels	
Features	Date/ Time Setting	support	
	Upgrade	Upgrade from network	
	DDNS	A free DDNS provided by manufacturer	
	Weight	610g	
	Main body	185mm(L)*75mm(W)*80mm(H)	
	Power	DC 5V	
Physical	Power consumption	<6W	
Index	Operating		
	temperature	-20℃~ 50℃	
	Operating		
	temperature	10% ~ 80% non-condensing	
	OS Supported	Microsoft Windows 98/2000/XP/Vista etc.	
Software (DC	Drawasi	Internet Explorer6.0 and Above or Compatible	
Software(PC Side)	Browser	Browser, Firefox, Safari etc.	
Sidej	Application	IPCMonitor.exe	
	Software		



2 Appearance and interface

2.1 Appearance



2.2 Interface of Equipment





3 Visit IP Camera from LAN

3.1 Lan connection



Figure 3



3.2 Search and set the ip address of the ip camera

Run "BSearch_en.exe" in the CD, the setting interface as figure 4.

cal PC informatio	n	Device information:	
etwork adapter:	Realtek RTL8139/810x Far 🛩	Device name:	002dgct
IP address:	192.168.1254	Sys. FirmwareVer.	21.37.2.37
Subnet mask:	255.255.255.0	App, FirmwareVer	
Gatevvay,	192.168.1.1	IP config:	Set IP automatically
DNS1:	202.96.134.133	IP address(j):	192 . 168 . 1 . 178
DNS2	202.96.128.166	Subnet mask(U):	255 . 255 . 255 . 0
And the second		Gateway(G): 3	192 . 168 . 1 . 1
vice list:	8 pcs-	DNS1(D):	202 . 96 . 134 . 133
No. Devic 1 002dg	eName DeviD ot 00B80000EE90	Http port(P):	1025
	choose	Authentication: Account for watch Password for watch	
		<u>0</u>	Update(F5)
<	,	pc and device	ly used within LAN, e is within the same subnet. user can update device inform

Figure 4

Operation Steps:

- 1) Click "Search (F3)
- 2) Choose the device
- 3) Change the ip address of the ip camera according to the information in the red frame on the left. The numbers in the red circle should not be the same.
- 4) Put the user name and password into "Authentication" (*By default, the user name is: admin, password is: 123456*).
- 5) Click "Update"
- 6) After successfully update, click "Search (F3)", choose the device and click "Browse (F4)". Then you may view the ip camera, like figure 5.

NOTE:

- If you don't know how to fill out the content of "IP config", you could also tick the "Set IP automatically" to get the IP address from the router automatically.
- 2) If you have the firewall software in your PC, when you run the BSearch_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.
- 3) The default ip address is 192.168.0.178 and default http port is 80.



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

Figure 5

3.3 Visit IP Camera

http://www.wansview.com

We suggest using IE kernel browser to view the video (it can provide more functions), but user need to install Player before viewing the video. Click "download and install player (first use)" link, it will popup dialogue box as Figure 6, click Run, it will automatically download player and install.

File Dov	vnload - Security Warning 🛛 🔀
Do you	u want to run or save this file?
	Name: DVM_IPCam2.exe Type: Application, 149 KB From: 192.168.0.139 Run Save Cancel
1	While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not run or save this software. <u>What's the risk?</u>

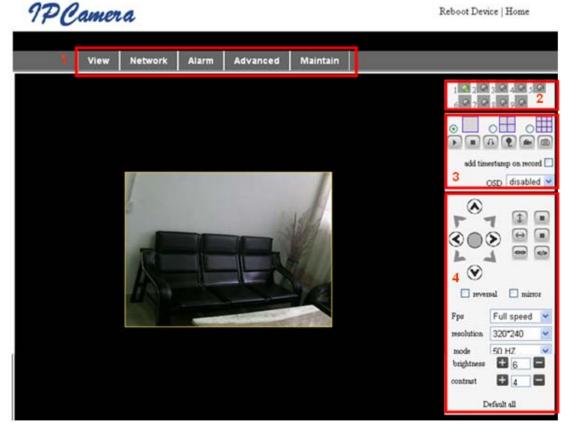
Figure 6

3.3.1 Video Play Area

After install the plug-ins, click "Mode 1 to view" link in Figure 5 to view the video (video as Figure 7).









1) Main Menu

The main menu includes the function setting of different submenu

2) Status Displaying Area

In right up corner, it is the status displaying area, to show the 9 devices' status:

- if not connected, button is gray
- if connected, button is green
- If wrong connected, button is yellow
- If alarm , button is red

3) Multi Channel displaying area

If users add multi channel (refer to 5.3.2), when shift to 4-Ch, 9-CH, and it will automatically show other devices. You select one device, and you can operate it by these keys: play, stop, and record, control Pan/tilt, etc.



These buttons mean start video, stop, monitor, talk, record and snapshot.

P.S.: If you want to click this button to record the video, please go to advanced—Other Settings to set the Record Path first. Please see below figure8.



Other Settings		
Status LED Mode	Open Indicator LED 💌	
PTZ settings		
Decoder Rate:	4800 🗸	
Path Set		
Record Path	D:\My Documents Browse.	



4) PT and video control

In Pan/Tilt control area, user can control the position according to the arrow sign: up, down, left, right, middle, horizontal cruise, vertical cruise, and stop etc.



Means open IO output and Close IO output.

User can also set the device frame rate, resolution, brightness, contrast and other parameters. Note : For this model, no Pan/Tilt, Alarm I/O function, but you can control other camera when use multi-view.

4 Visit IP Camera from WAN

4.1 Wan connection

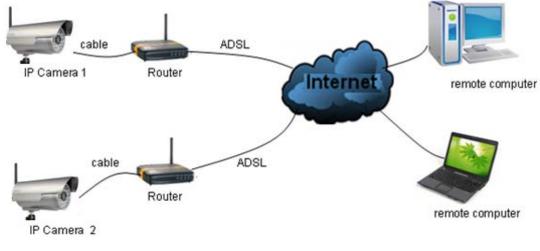


Figure 9

4.2 Port forwarding

If visit IP Camera from WAN, you **must** do port forwarding on the router. Take Netgear router for example.



http:/	//www.woneview.com
nup:/	//www.wansview.com

NETGEAR SMARTWIZARD Wire		· · · · · · · · · · · · · · · · · · ·	
Set Password Router Upgrade Advanced Wireless Repeating Function Port Forwarding / Port Triggerint WAN Setup LAN Setup	Basic Settings Does Your Internet Connect Ores No Internet Service Provider port Cogm	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	

Ports - Custom Services

Ports - Custom Services

Service Name	IP Input IP camera port #	Service Name	IP Input IP camera IP address
Service Type		Service Type	
Starting Port	1025 (1~65534) 3	Starting Port	1025 (1~65534) 4
Ending Port	1025 (1~65534)	Ending Port	1025 (1~65534)
Server IP Address	192 168 1	Server IP Address	192 168 1 178
F	Apply Cancel		Apply Cancel

Figure 10

Operation Steps:

- 1) After login the interface of the router, 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 figure 4 which set by you own)

Note: Different router has different settings for port-forwarding; please kindly follow your router guide to do the port-forwarding.

After the port-forwarding is done, you could view the IP Camera from WAN now.

4.3 DDNS

Manufacture's DDNS

You could also use the manufacturer DDNS to view the device as long as your port-forwarding succeeds.

4.3.1 Manufacturer's DDNS

Device manufacturer has provided a free DDNS. User can find it in network menu, like figure 11.

	_		
Manufacture's Domain	Γ	002alcn.nwsvr.com	



4.3.2 Third Party DDNS

User can also use third part DDNS, such as <u>www.dyndns.com</u> User must apply a free domain name from this website and fill the info into the below blanks (Figure 12) and save the settings. Then the domain name can be used.

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

Figure 12

Note: 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: <u>http://btest.dyndns.biz:81</u>. *While manufacturer DDNS is no need to add PORT.*

5 Other Settings

5.1 Network Setting

5.1.1 Basic Network Setting

The user can also enter the Basic Network Settings to set the IP address except using the search software. See below Figure 13.

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 device is with WIFI, enter the Wireless LAN Setting, just as below Figure 14 shown, 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. Put in the password and click "Set", then the WIFI setting is finished.



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

- Note1: When the device is connected both WIFI and wired, it will firstly connect to the wired network, if it can't connect to it, then it will change to connect to the wifi. The IP address and port is the same, either wireless or wired network.
- Note2: Before you do the configuration of wireless as shown above; please make sure the device is connected to the network via network cable. After settings succeed, please reboot the device and wireless function takes effect.

5.1.3 ADSL Setting

User could enable the ADSL Dialup according to the below Figure 15 (The ADSL provider will assign the user name and password to you when you apply for ADSL service.) Connect the device directly to the ADSL modem and it is connected to the Internet.

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

Figure 15

5.1.4 UPnP Setting

If you enable UPNP, once the IP camera is connected into the LAN, it will communicate with the router in the LAN to do the port-forwarding automatically.

Below Figure 16, tick "Using UPNP to Map Port" and the setting are completed. You could check the UPNP succeeds or not in the interface of System Maintenance.

	UPnP Settings
Using UPnP to Map Port	

Figure 16

Before using UPNP function, please make sure the router's UPNP function has been triggered. Not all the routers support UPNP perfectly. Please test if the router works well



with the equipment, if not, we would suggest you to disable this function and do the port-forwarding manually.

5.1.5 DDNS Setting

Please refer to the content in 4.3.

5.1.6 MSN Setting

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

Figure 17

User needs to apply for a MSN account for this device first, for example: test1@hotmail.com. Please put this MSN account and its password as above Figure 17. Then put your MSN account, for example: friend1@hotmail.com, into the 'MSN Friends List. Then 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 get the WAN ip address of this ip camera. But please make sure test1@hotmail.com and friend1@hotmail.com should be MSN friends before you do the settings.

5.2 Alarm Settings

5.2.1 Alarm Setting

1) Alarm Detect

User can select the motion detection. If there is any motion, it will detect the motion and trigger the alarm. In the motion detect sensibility, the larger the figure, the more sensitive.

As showed in Figure 18, if any external alarm detector is connected, user will be able to tick "Alarm Input Armed". If the external alarm detector is an always on switch alarm, please choose "open". If the external alarm detector is always off switch alarm, please choose "close".



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 O Schedule(NOTICE:set the correct 'Device Clock')Device Clock		
Submit Refresh		

Figure 18

2) Alarm Action

All kinds of alarm modes:-

- a) IO interface for alarm signal output: when relay is switched on, the external alarm will begin to alarm.
- b) Send alarm info by email.
- c) Send the site pictures to the FTP server, user can also set the break time between two pictures.
- d) Send alarm info to the alarm server.

3) Scheduler

Device will trigger alarm in scheduled time. User can set schedule time to be "all the time". Before you set "Schedule", please go to Date and Time settings to set the correct time for the item, 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			
O All time OSchedule(NOTICE:set the correct 'Device Clock')Device Clock			
Day 0 1 2 3 4 Sun Mon Image: Superstandard Super	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		

Figure 19

5.2.2 Mail Service Setting

	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



The device will send alarm email to you. You only need to fill out the blanks with your email address as shown in Figure 20. After the setting, please click save and test to check if it works properly. If it is properly set, user can tick to enable "Report Internet IP by mail". After every restart, the device will send its Internet IP address to user's email address.

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

When alarming, device will snap and send the image to FTP server, please make sure the FTP setting is correct. Above Figure 21 of FTP setting for your reference, after the setting is finished, click "Test" to test your settings are correct or not.

After correct setting FTP server, you can use "upload Image Periodically" function. Even no alarm, device can also send the snap image to FTP periodically.

In order to use FTP function, user should apply username and password on the FTP server first. And please apply some storage, and the authority to write and create sub-category into it.

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 have connected to alarm server. The alarm message format as follow:

GET /api/alarm.asp?

username=username&



```
userpwd=password&
```

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

Alarm server needs developing by user. User can extend other functions on this server, like SMS, MMS alarm, and mobile phone etc.

5.3 Advanced

5.3.1 User Setting

There are three levels of authority; they are Administrator/Operator/Visitor. Administrator have the highest authority, it can do any change to the settings. Operator account only can operate the IP camera, can't do changes to the settings. Visitor account only can watch the video, can't do any operation to the IP camera. *By default, the administrator's user name is admin, password: 123456*.

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

Figure 23	Figure	23
-----------	--------	----

Multi-Device Settings anonymous(192.168.0.247) 002alcl(192.168.0.67) 002abyc(192.168.0.239) Device List in Lan 002aqvc(192.168.0.241) Refresh The 1st Device This Device The 2nd Device None The 3rd Device None None The 4th Device 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

5.3.2 Multi Device Setting



Figure 24

As Figure 24, User can maximum add 9 devices to view the device simultaneously. Click refresh button to check the device in the LAN. When click the device, will popup setting dialogue box and input the device info, as figure 25 and click save. After that, must click submit button to save.

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

Figure 25

5.3.3 Other settings

Other Settings			
Status LED Mode	Open Indicator LED 💌		
PTZ settings			
Decoder Rate:	4800 🗸		
Path Set			
Record Path	D:\My Documents Browse		

Figure 26

Note: the settings for the status light and pan/tilt are not suitable for this item

5.4 Maintain

5.4.1 Device Information

Device Info		
Device ID	002buzj	
Device Firmware Version	21.25.2.27	
Device Embeded Web UI Version	0.0.3.18	
MAC	00:00:11:01:03:11	
Alarm Status	None	
Third Party DDNS Status	DynDns Succeed http://zhou000000.dyndns.biz:10543	
UPnP Status	UPnP Failed: Errors in Chat with UPnP Device	
MSN Status	No Action	



5.4.2 Time Setting

If the device is connected to the Internet, you enable the NTP server to correct the time and select the right time zone. Or you should use the PC's time to correct its time.

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 28

5.4.3 Firmware upgrade

The device runs 2 kinds of programmer, one is system firmware, the other is application firmware. They could be upgraded separately.

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

Figure 29

5.4.4 Restore Factory Default

Click "Restore Factory Default", it will pop up a dialogue to confirm if you really want to restore the factory default. After confirmation, the system will restore the factory default and reboot.

5.4.5 User browsing Log

After enter the log interface, you could view who and when the device is visited.

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

Figure 30



6 Centralization Control

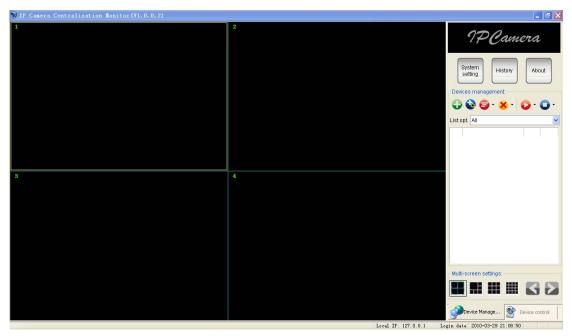


Figure 31

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 snap, video record, alarm and so on. The below Figure 31 is the interface.

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

7 FAQ

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

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

2) Slowly browse speed

This equipment adopts MJEPG compression format, it needs large network bandwidth, the narrow bandwidth will affect the browse speed. The typical bandwidth uses situation as below:

640x480@10fps: 4.0 Megabits \sim 5.0 Megabits 320x240@30fps: 1.2 Megabits \sim 1.6 Megabits

3) Color difference

The default is infrared lens, when visit outdoor or strong infrared light scenes, there are color differences, the color is not accordance to the real scenes. User can change it to color lens to solve this problem, but color lens can only use under the daylight situation.

4) Can't find equipment via search software after connect to LAN

Make sure the equipment and PC is in the same LAN; if install firewall software, please close it and try again.

5) Can find equipment via search software, but can't visit

If the IP address of IP camera and PC is not in the same Network Segment, you should change them on the same Network Segment before visit. Network Segment is the first three number of IP address. If the IP address of PC is 192.168.0.100, so it can only visit the equipment which IP address is between 192.168.0.1~192.168.0.255.

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

Make sure the DNS setting is same as your PC, as below Figure 33, in the search tool, the DNS 1 and DNS 2 on both side should be same.

Local PC informatio	n:	Device information:	
Network adapter:	Realtek RTL8139/810x Far 💌	Device name:	002alcn
IP address:	192.168.0.175	Sys. FirmwareVer.	21.25.2.27
Subnet masic	255.255.255.0	App. FirmwareVer.	0.0.3.18
Gateway:	192.168.0.1	IP config.	Set IP automatically
DNS1:	192,168,0,1	IP address([):	192 . 168 . 0 . 78
DNS2		Subnet mask(U):	255 . 255 . 255 . 0
(m) + m (m))	Gateway(G):	192 . 168 . 0 . 1
Device list:	1 pcs-	DNS1(D):	192 . 168 . 0 . 1

Figure 32