ONSIP OD101

speco technologies®

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1. Product Overview

1.1 Introduction to the *ONSIP OD101*

ONSIP OD101 is an embedded network video decoder. ***ONSIP OD101*** takes a digital signal (sources provide by IP camera or DVS) from a network, and converts it to an analog video signal.

When ***ONSIP OD101*** is connected to more than one camera, it can cycle between the images provide by them. This function is called "Poll function".

Video Resolution	Yes/No
D1	Yes
CIF	Yes
HalfD1	Yes
QCIF	Yes
VGA	Yes

Table 1-1 Video resolution support by ***ONSIP OD101***

1.2 Features

- Decoding for H.264
- Small size, low power, convenient installation
- PC-independent operation, high stability and efficiency, robustness against virus
- High video quality and resolution, high fidelity
- Automatic reconnection in case of network failure
- Strong Poll function, 32 targets available and accessible to configure each stalling time
- OSD presents the name of the destination target while polling
- Status information, high availability of the working state from every device

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1.3 Network Topology

Category	Sub-Category	Details
Video	Compression	H.264
	Resolution	NTSC (30 frames/sec Max.) : 704x480, 640x480, 704x240, 352x240, 176x112 PAL/SECAM (25 frames/sec Max.) : 704x576, 640x480, 704x288, 352x288, 176x144
Audio (Bi-directional)	Up	PCM 64 Kbps
	Down	ADPCM 32 Kbps (G.726)
Network	Interface	RJ-45, 10/100 Mbps, PoE (802.3af)
	Access network	Static, DHCP, PPP/PPPoE
	Application	IPv4, TCP/IP, ARP, DHCP, RTSP
I/O	RS-485	Connection of PTZ controller
	Mic/Line In	1 V p-p output for amplified speaker
	Line Out	For temporal use in installation
Power Supply	CVBS output	Power over Ethernet (IEEE802.3af)
	PoE	12V DC adapter
Upgrade		Firmware upgrade over IP network
Administration		Remote administration over IP network
Security		ID and Password protection and IP filtering for restricting administrative
Time management	Sync to PC	Synchronize to PC
	Manual	Manual time setting
	Internet Time Server	Synchronize to Time Server
	DLS	Daylight Savings

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1.4. Applications of ONSIP OD101

• IP surveillance (buildings, stores, manufacturing facilities, parking lots, banks, government facilities,
  military, etc..
• Real time Internet broadcasting
• Remote monitoring (hospitals, kindergartens, traffic, public areas, etc..)
• Teleconference (Bi-directional audio conference)
• Remote Learning
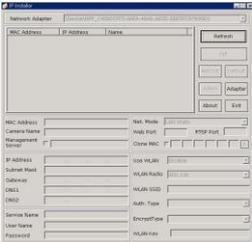• Weather and environmental observation

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2. Operating Instructions

2.1 Package Contents

Open the package and check if you have the followings:

Contents	Description	Remarks
ONSIP OD101	ONSIP OD101 main unit	
CD	Software & User's Guide	
Quick Reference Guide	Quick installation guide	

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2.2. Product Preview

ONSIP OD101	ONSIP-Installer
H.264 Decoder	PC software to allocate an IP address

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2.3. Physical description

2.3.1. External View

Figure 2-1. External view of ONSIP OD101
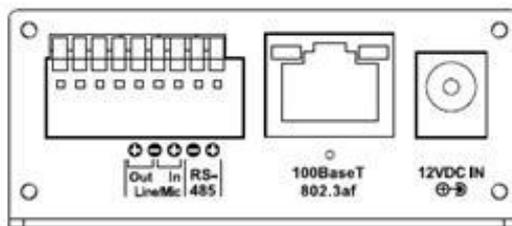
2.3.1. Front and Rear

Figure 2-2. Front   Figure 2-3. Rear

2.4. Functional Description

Category		Content	Misc.
RJ-45	PoE	Standard PoE (IEEE802.3af)	10/100Base-T
12VDC input	Adapter	Max. 5W	0.5A ~ 2.5A
Video output	CVBS	BNC	
Audio	In	Line Level (1Vpk) and micro phone	Configuration in administration tool
	Out	Line Level (1Vpk)	
RS-485	Master	PTZ connection	Terminated

• **100Base-T**
 100Mbps Ethernet connector (RJ-45) with PoE standard (802.3af). 2 LEDs on the Ethernet connector show the status of Decoder as the following:
- **Status LED (Dual Color - Red/Green)** : It will be lit in green or red depending on the status.
  ① Green : Green color indicates that the product is in normal operation mode. Continuous green indicates that data transmission is possible. Blinking green means that someone is connected to ONSIP OD101.

  ② Red : Continuous or blinking red indicates that hardware is in abnormal condition.

> Red/Green LED will be lit with red momentarily and it will be lit with green after a while when power is applied into Decoder.

- **LINK/LAN LED (Orange)**
It will be lit with orange color when network cabling is all right. Blinking orange color indicates that normal data transmission is under way. Off state indicates that there is trouble with the network connection.
 • **DC 12V: Power input for supplying 12V DC power.**

> **Caution: If ONSIP OD101 is powered by PoE, do not plug in DC Jack with active DC power into DC power connector.**

 • **Video output (CVBS)**
Video output from IP camera video.

 • **Audio in (MIC/LINE IN)**
 Connect external audio source or microphone.

 • **Audio out (Line Out**)
 Connect speakers with built in amplifier. Audio from remote site is output through Line out in bi-directional audio mode.

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• **Factory Default Switch**

A switch provided for returning the product to factory default state. Press the switch for a few seconds while power is applied.
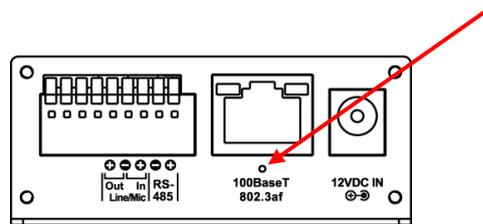
Figure 2-5. Factory Default Switch

| CAUTION | **Restoring the factory default will erase all settings.** |

3. Getting Started

3.1. PC Requirement

First of all, you should set up the ONSIP OD101 such as IP address using the ONSIP installer software and administration tool using Internet Explorer. Minimum requirement of the PC is described below:

	Recommended	Remark
CPU	Pentium III or above	
Main Memory	512MB or above	
Operating System*	Windows XP	
Web Browser	Internet Explorer 6.0 or above	
Network	100 Base-T Ethernet	

* Operating Systems supported: Windows 2000 Professional, Windows XP / Vista / 7

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3.2. IP address configuration

1. Connect PC and ONSIP OD101 to network.
    1)   Prepare a PC to run programs for the installation and video connection
         (PC is needed to assign IP address to ONSIP OD101)
    2)   In the case of using PoE, connect the PC and ONSIP OD101 to the network using one of the
        following ways.
        If your LAN Switch does not support standard PoE, connect ONSIP OD101 as shown in
        dotted line in Figure 3-1. The DC power is applied through DC adapter.
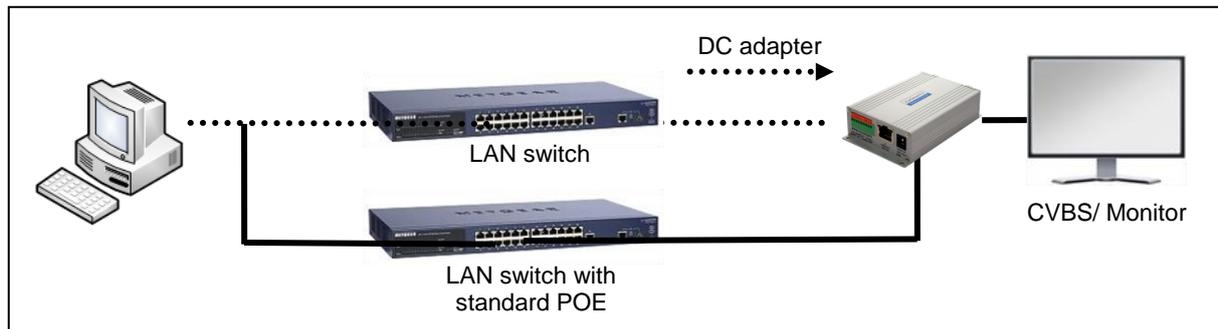
Figure 3-1. Power and network connection

2. Install "ONSIP installer" and set IP parameters on ONSIP OD101

Insert the CD provided with product into the PC. Install ONSIP Installer

ONSIP installer Ver. **3.0.1 or later** is needed in the configuration.

Follow the sequence below for setting the IP parameter
i)   Run ONSIP installer > Select Network Adapter >OK
ii)   Click ① in ONSIP installer window.> Double click on ② > Fill in ④ > make a selection in ⑤ >
         Fill the parameters in ⑥
iii)   Click on ⑨ to apply the settings.
iv)   You can connect to admin page by clicking on ⑩.
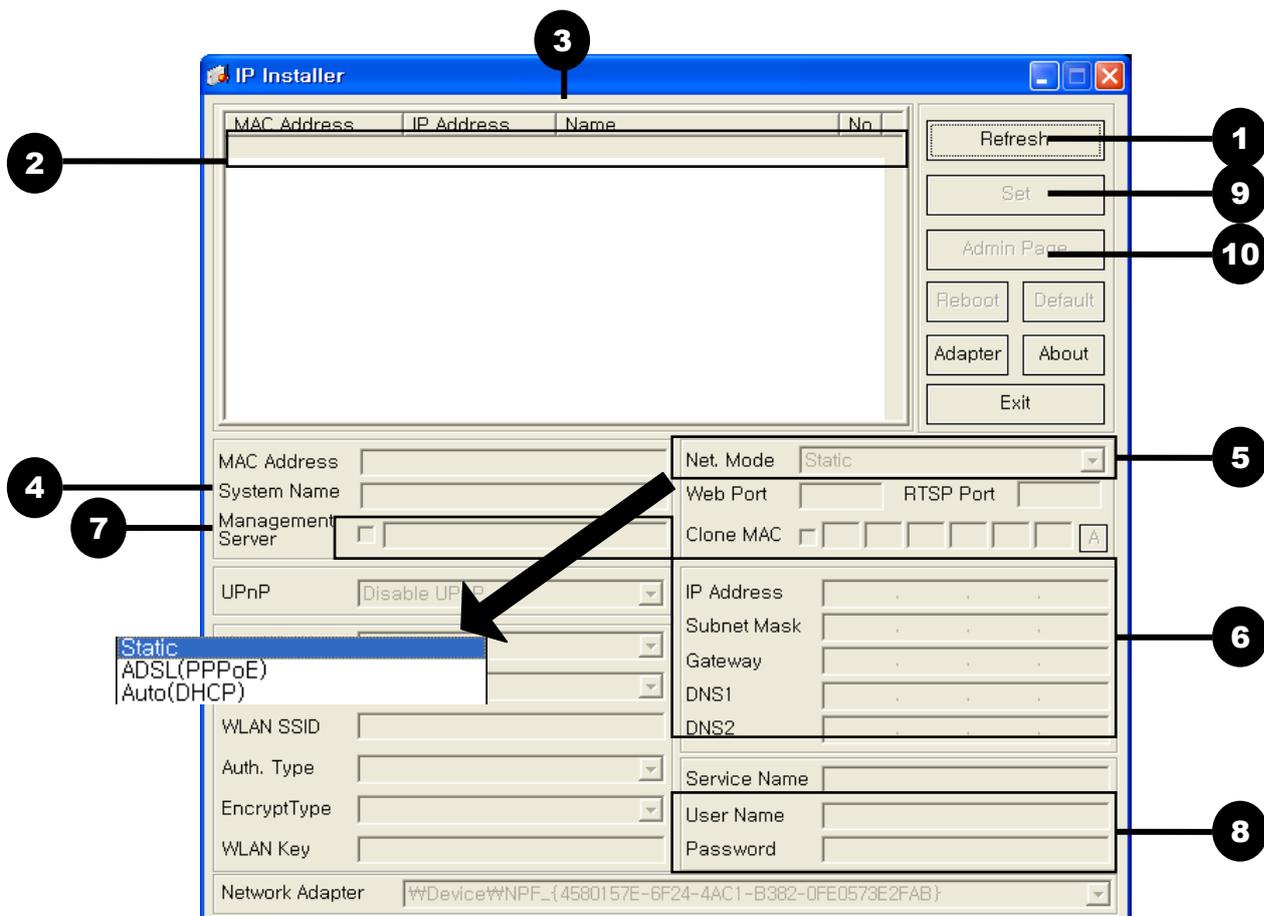
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Figure 3-2. IP installer

Click on the field in ③ for sorting and rearranging the list.

Select network mode that best suits from the drop down list in ⑤. You can choose either Static or ADSL and Auto (DHCP), respectively. If ADSL and Auto are selected, the fields in ⑥ is deactivated.

In case of ADSL, fill the User Name and Password in ⑧ with the values provided by your ISP.

3.3. Administration Tool configuration

There is a way of connecting to the Decoder admin mode. Type in the connection address of the product in the address field of the Internet Explorer as followings:

http://[IP address of the product], **Example: http://172.16.43.244**

Default ID and Passwork are "**admin**" and "**1234**".
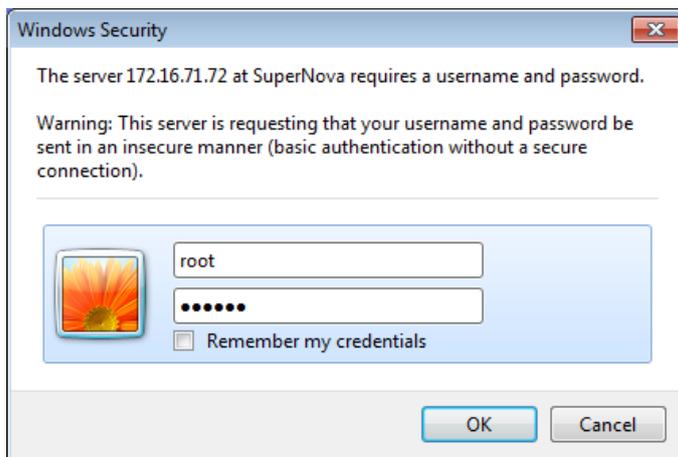
Figure 3-3. Log-in window

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3.3.1. Basic Setup
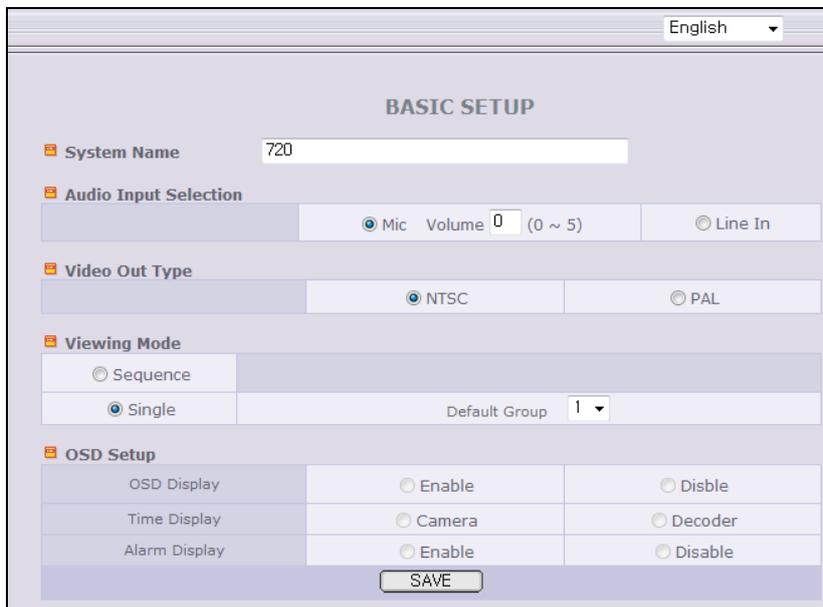
Figure 3-4 Basic Setup

Field/Button	Sub Field /Button	Description
System name		Input, edit and save the name of *ONSIP OD101* here (support input English, letter and character). *ONSIP OD101* name will be shown in the [Search List] window.
Audio input selection	Mic	When you use microphone, you should check the radio button and volume.
	Line-in:	When you use external audio signal, check it.
Video format		Choose different output standard to matching different monitor. If user's monitor is NTSC monitor, he should choose the output format "NTSC". (ONSIP OD101 default output format is "NTSC")
Viewing mode	Sequence	When you want to see each channel sequentially.
	Single / Default group	When you want to see group such as split screens.
OSD setup	OSD	You can select Enable or Disable.
	Time	You can select Camera or Decoder.
	Alarm	You can select Enable or Disable.
Save		Save the set-up parameters when parameters settings are finished.

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3.3.2. Network Configuration

Setup the network parameters appropriately in accordance with your network environment. Many of the parameters in this page are same as those set up by "**ONSIP-Installer**".

Figure 3-5 Network Configuration

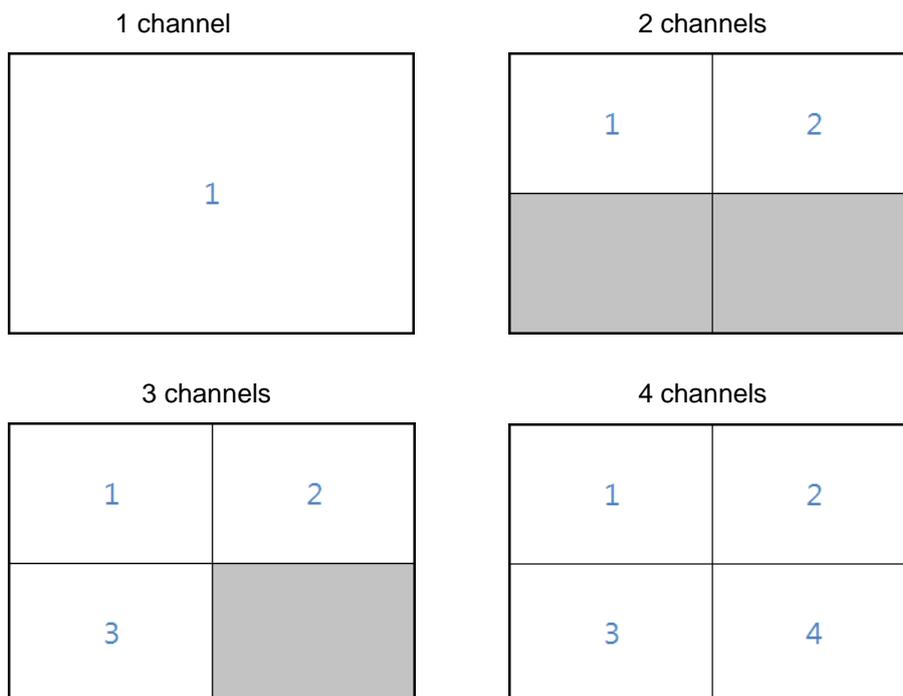| Field/Button	Sub Field /Button	Description
IP Assign Type		The network types supported by the products are LAN(fixed IP), PPPoE, and DHCP(automatic IP allocation)
	Static IP Setup	When the network environment is fixed IP, select 'LAN' in the network type, and input the IP address, Subnet Mask, Gateway, DNS1 and DNS2. Ask your network administrator or ISP for the information. DNS2 is used when DNS1 does not work.
	PPPoE Setup	When the network environment is PPPoE and IP address is assigned automatically, select 'PPPoE' in the network type. Next, fill in the 'User Name' and 'Password' fields with the values given by your ISP.
	DHCP Setup	When the DHCP server assigns IP address automatically, select 'DHCP' in the network type. Select this mode in case of Cable Modem. Refer to **[ONSIP-installer user's guide]** for "Host name and domain for Cable Modem
	Clone MAC	Refer to **[ONSIP-installer user's guide]** for "Clone MAC"
Port Change		Each port should have a number below 65535.

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	HTTP	HTTP port is used for the connection to the admin page. Default is 80.
IP Filtering	You can restrict the access to the admin page from IP addresses beyond certain IP address range.	
	Restrict Administrator Access	Check at this box to restrict log on to the admin page.
	Base IP Address	Input IP address of the PC which is intended to be used for log on to admin mode.
	Using External SMTP Server	If you are using external mail server, fill in the fields with proper parameters.
	Use TLS	Check at this box to use SSL log on to the SMTP server.
DDNS	You can register the product to the Speco DDNS server for a name service.	
Save	Save the set-up parameters when parameters settings are finished.	

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3.3.3. Group setup

Setup the display group. Group can setup up to 16 groups and a group can setup up to 4 channels.

Figure 3-6 Group Setup

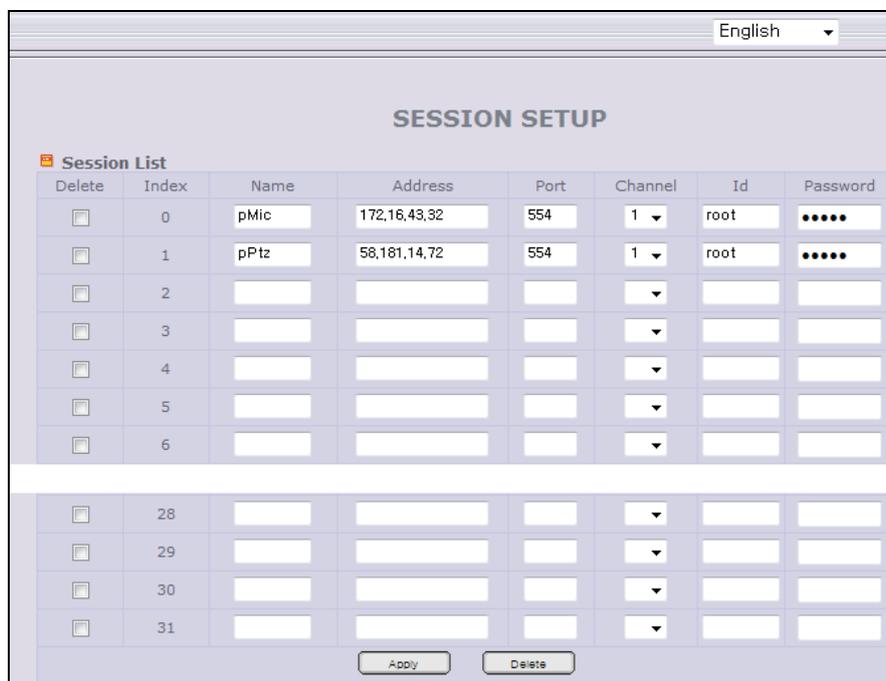| Field/Button	Sub Field /Button	Description
Group	Delete	Deletion of all channel parameters
	Index	Group number
	Channel 1~4	Assignment of each channel
	During	Waiting time from 10 sec. to 120 sec.
	Enable	You can select Enable or Disable.
Apply / Delete	Save the setup parameters or delete selected check-box on Delete	

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3.3.4. Session setup

Figure 3-7 Session Setup

Field/Button	Sub Field /Button	Description
Session	Delete	Deletion of all channel parameters.
	Index	Number of camera and video server lists.
	Name	Input the name.
	Address	IP address and domain name of encoder. Default list table are blank, support input Internet IP, LAN IP and Internet domain name. (Suppose an encoder domain name, the address blank must input like this "ipcam.vicp.net", do NOT input the "http://").
	Port	Input the http port number.
	Channel	Select the channel. IP camera and video server is channel 1. In case of 4 channels video server, select desired channel.
	ID/Password	Input the ID and Password. Default ID/PW is admin/1234.
Apply / Delete		Save the setup parameters or delete selected check-box on Delete.

Connecting decoders target list:

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3.3.5. User Admin & Time Setup

Figure 3-8 User admin. & Time setup

Field/Button	Sub Field /Button	Description
User Administration	Administrator Username	Admin ID. Default ID is "admin"
	Administrator password :	Admin password. The default password is "1234".
	Administrator Confirm Password	Enter the password once more to confirm the password.
Time Setup	Current Time	It shows you the current time kept in the product.
	Synchronize with an Internet Time Server	Synchronize the time kept in the product with the time kept in time server on the internet at the right. When the time server is out of the reach from the product, you can assign time server by filling in "**Specific Time Server"** field.
	Synchronize With this Computer Time	Synchronize the time kept in the product with the time in the PC.
	Set Manually	Set the time manually. Fill in the fields with desired formats.
SAVE		Save the set up parameters

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If you lost Administrator's ID and password, the only means of recovery is to reset the settings to factory default, but then you lose your previous settings.

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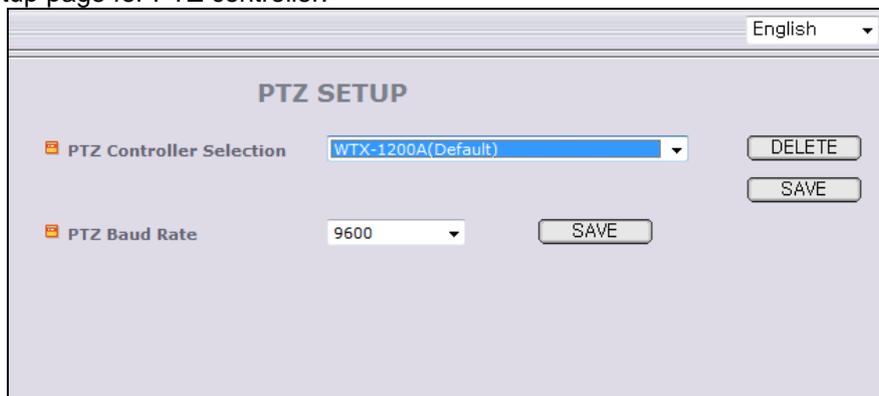### 3.3.6. PTZ setup

This is the setup page for PTZ controller.

Figure 3-9 PTZ Setup

Field/Button	Sub Field /Button	Description
PTZ controller Selection		Choose the PTZ controller.
	Delete Button	Click on this button to delete. (Do not delete the default model.)
	SAVE	Save the set-up parameters when PTZ controller setting is finished.
PTZ baud Rate		Select this Baud rate to set the PTZ controller.
	SAVE	Save the set-up parameters when baud rate setting is finished.

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3.3.7. Upgrade & Reset

You can upgrade the device via the IP network.
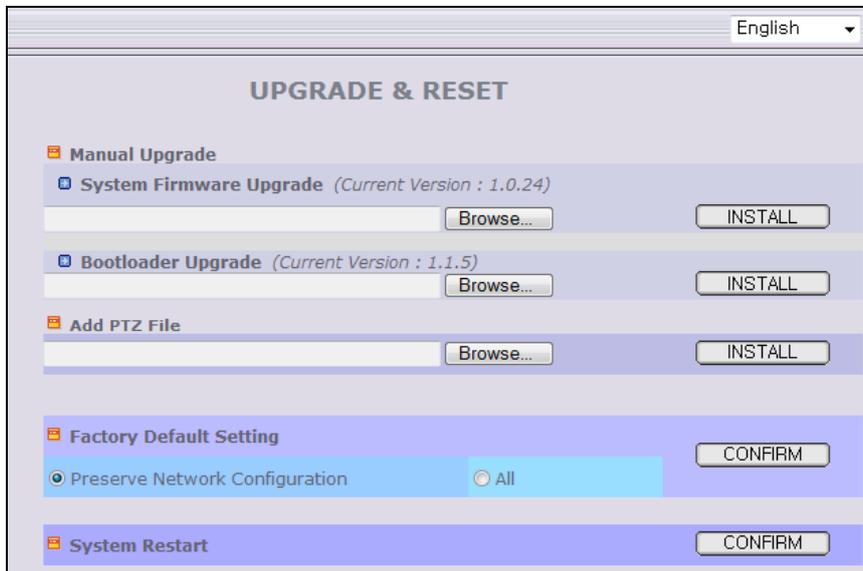
Figure 3-10 Upgrade & Reset

Contents of the upgradable system component should be downloaded from ONSIP's home page before the system upgrade is performed.

Field/Button	Sub Field /Button	Description
Manual Upgrade	Upgrade the system manually.	
	System S/W Upgrade	Upgrade the system software installed on the product via the network. System software needed for the upgrade can be downloaded from ONSIP's home page.
	Bootloader Upgrade	Upgrade the boot loader installed on the product via the network. Bootloader needed for the upgrade can be downloaded from ONSIP's home page.
Add PTZ File	Upgrade the PTZ script file for adding new PTZ controller.	
Factory Default Setting		Re-initialize the product to factory default state. By checking on a Radio button "Preserve Network Configuration", you can preserve the parameters for the network. Checking on "All", will return all the parameters to factory default state. **Once all the values are set to factory default state, the product should be set-up again using IP-Installer.**
System Restart		Perform remote reset by clicking on the **"CONFIRM"** button. *[Important] To apply upgraded contents, you should perform System Restart.* **All previous connections will be disconnected upon reset.**

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		Device does not resume the connections and the users must re-connect to the product manually.

Upgrading the device.

Unless otherwise instructed, the owners of the device are recommended to upgrade the system when upgraded firmware is released using manual upgrade procedure.

Followings are the procedure to apply for the manual upgrade

1) Save the upgrade system software to your PC. Upgrade software can be downloaded from ONSIP's home page or provided in CD.
2) Connect to the product in admin mode and select "Update & Reset" menu.

3) Click "Browse..." to find the files you want to use for upgrade. This will open a "Choose file" dialogue window. The file extension is "ief" for the case of system firmware.

4) When you've found the file, click "Open." This will select the file and close the "Choose file" dialogue window.

5) Click the "INSTALL" button. An alert message box will pop up. Click "OK" button then it will start uploading the file. This may take some time.

6) Upgrade completion message will appear after the system upgrade has been completed.

7) Reboot device by performing "System Restart".

8) After rebooting, log on to the product in admin mode again and click the "Status Report".

9) Check the version number and release date of the firmware.

You can download system software of the device from ONSIP's homepage. http://www.ONSIP.com

Once the system is reset to the factory default state by system reset of the administrator, all the connection of the users might be disconnected. Since the connection is not recovered automatically, users should set up the connection manually with new connection information.

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3.3.8. Status Report

It shows you system records since the system started.

You can check the problems as well as the versions and event status of the whole system and modules.

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4. Troubleshooting

4.1. No power is applied

- In case of Standard PoE (Power over Ethernet)
  Power supply through standard PoE is possible only when the following conditions are met.
  1. Standard PoE is supported on the product.
  2. The LAN switch supports standard PoE.
  Make sure that both the product and the LAN switch support standard PoE (IEEE 802.3af)
- In case of DC adapter
  If PoE is not applied, the power and network connection should be made through separate cables. It is recommended to use DC adapter supplied by ONSIP for the feeding of the power. In case of replacing the DC power supply, make sure that the power supply meets with the power requirement of the product to prevent damage or malfunction.

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4.2. Cannot connect to the Video

Check the status of the network connection through PING test.
Try the following on your PC :

- Start > Run > Cmd > Ping IP address (Ex : Ping 172.16.42.51)
- If "Reply from ~" message is returned (① in the figure below), the network connection is in normal state. Try connection to the video again. If the problem persists, or refer to other trouble shooting notes.
- If "Request timed out" message is returned. (② in the figure below), the network connection or network setting is not in normal state. Check the network cable and settings.
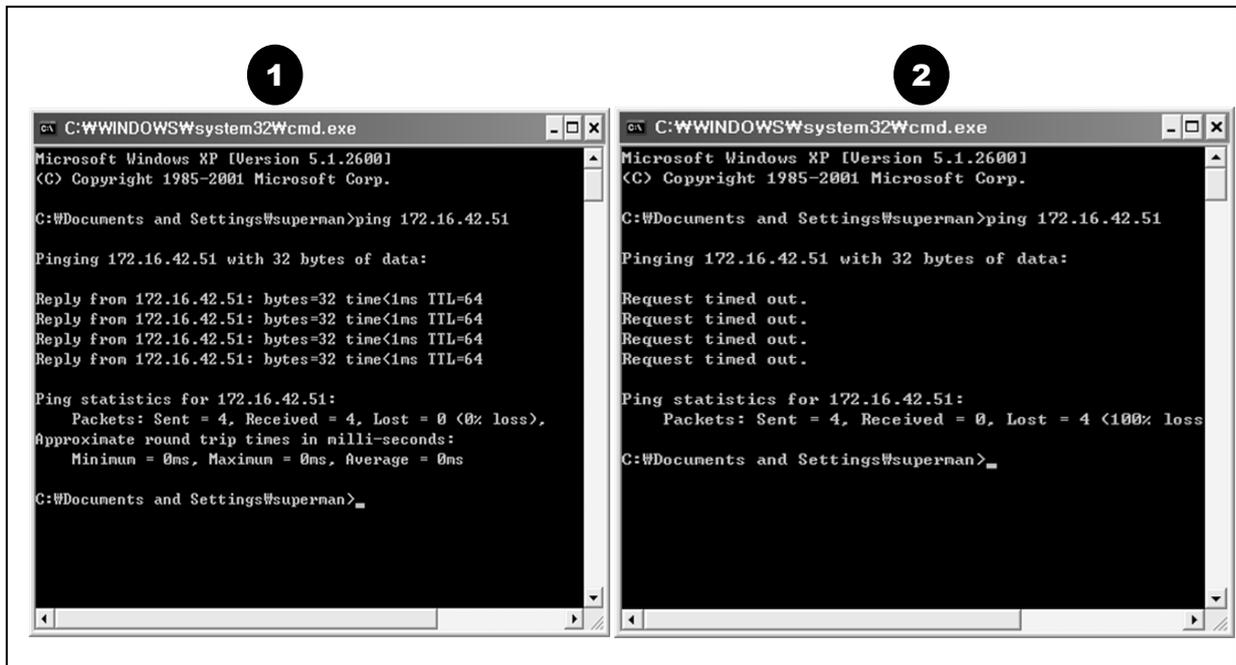
4.3. Technical Assistance

If you need any technical assistance, please contact your dealer. For immediate service please provide the following information.

1. **Model name**
2. **MAC address and Registration number**
3. **Purchase date**
4. **Description of the problem**
5. **Error message**

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