



**KX-NS Step by Step Guide**  
**KX-NTV / KX-HDV430**

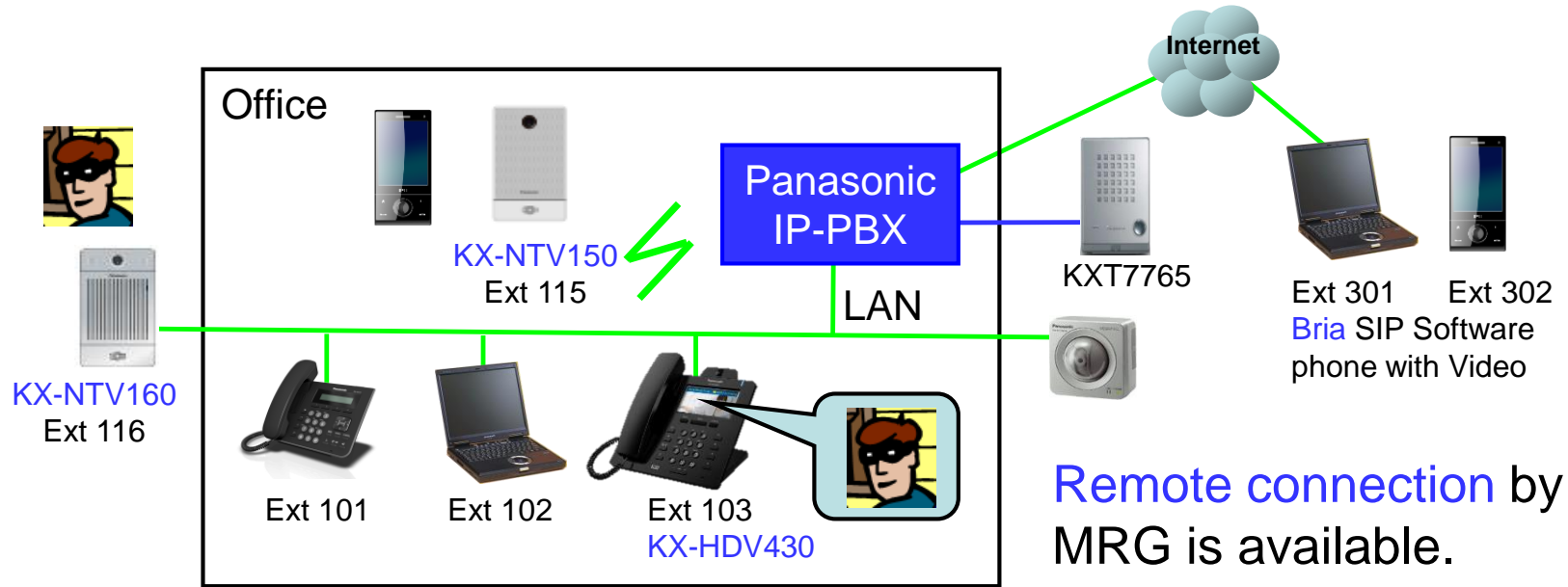
**September 29, 2016**

Panasonic System Networks  
PBX SE team

Specifications are subject to change without notice.

# 1. Introduction

PBX, phone and security camera can be provided by Panasonic.  
Other major PBX maker do not have security camera.



## 2. Basic Specifications

KX-NTV150 : Communication SIP Camera

- PoE / **Wi-Fi** (\*)
- Built-in Speaker and Microphone
- Call button

(\*) AC Adaptor KX-A239 is required.



KX-NTV160 : SIP based Video Doorphone

- PoE only
- Built-in Speaker and Microphone
- Call button
- IP-Grade : **IP43**



# 3. Requirement

KX-NS300/500/700/1000 version 4.3 or later with DSP

Version 4.2 can be used for demo only.

KX-NTV does NOT work with other PBX including SIP server.

Video call of KX-NTV is available with only following phones.

KX-HDV430

SIP software phone Bria by CounterPath for PC, tablet or smart-phone

(Other SIP video phones such as Grandstream are not recommended.)

Phone	Protocol	Virtual card	AK for KX-NS
KX-NT	MGCP	V-IPEXT card	KX-NSM5xx
KX-HDV / KX-NTV	SIP	V-SIPEXT card	KX-NSM5xx
3 <sup>rd</sup> party SIP phone	SIP	V-SIPEXT card	KX-NSM7xx

<http://www.counterpath.com/bria/>

KX-NTV supports H.264. But X-Lite by CounterPath supports H.263.

## 4. Table of Contents

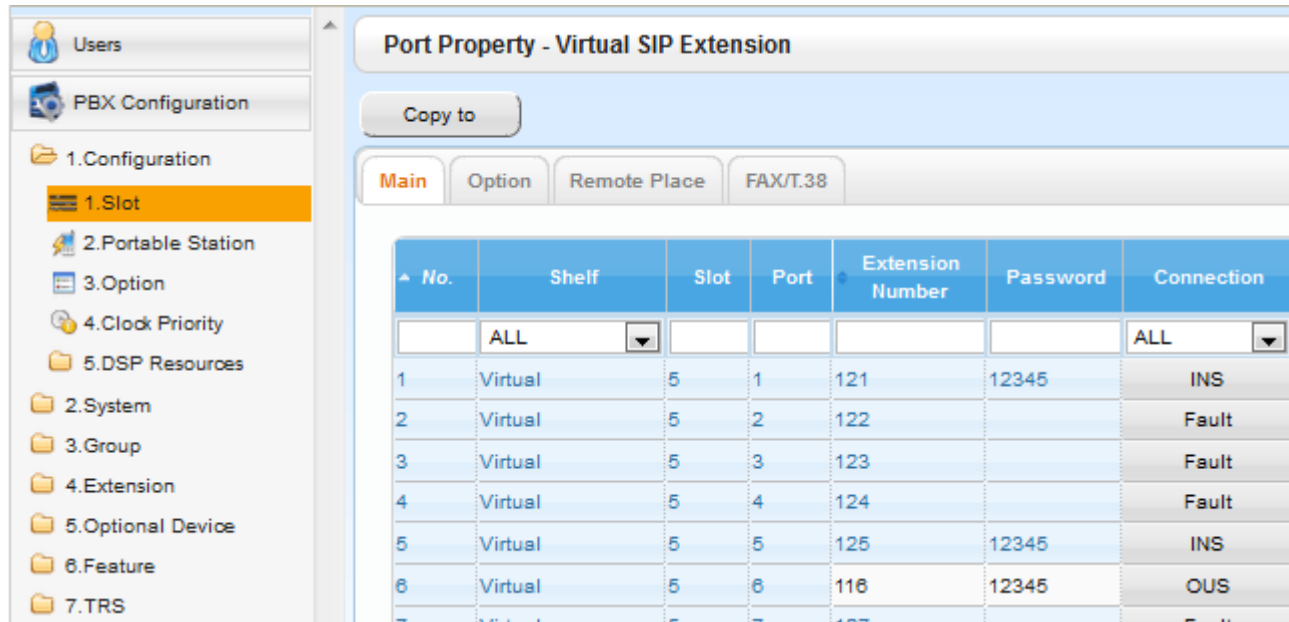
Chapter	Contents
1	KX-NS programming
2	KX-NTV : Initial setup
3	KX-NTV : SIP registration and video
4	KX-HDV430 programming
5	Bria
6	KX-NTV : Maintenance

# Chapter 1

## KX-NS Programming

# 11. Make SIP Account for KX-NTV.

See step by step guide No.12 for details.



**Port Property - Virtual SIP Extension**

Copy to

Main Option Remote Place FAX/T.38

No.	Shelf	Slot	Port	Extension Number	Password	Connection
	ALL					ALL
1	Virtual	5	1	121	12345	INS
2	Virtual	5	2	122		Fault
3	Virtual	5	3	123		Fault
4	Virtual	5	4	124		Fault
5	Virtual	5	5	125	12345	INS
6	Virtual	5	6	116	12345	OUS
7	Virtual	5	7	127		Fault

# Chapter 2

## KX-NTV : Initial Setup



# 21. Initialize KX-NTV.

If KX-NTV has been already registered to other PBX, it is required to initialize. Keep pressing reset button for 30s.

<KX-NTV150>



<KX-NTV160>

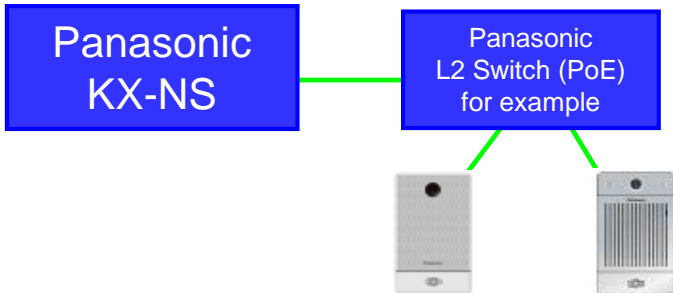


## 22. Connect KX-NTV to PoE L2-Switch.

Connect KX-NTV150/160 to KX-HTS through PoE L2-Switch.  
KX-NTV150/160 gets IP address.

(KX-NTV is not registered as SIP extension automatically.)

- Wait until yellow LED starts flashing.
- LED : Red (15s) -> Off (10s)-> Red (20s) -> Yellow Flash

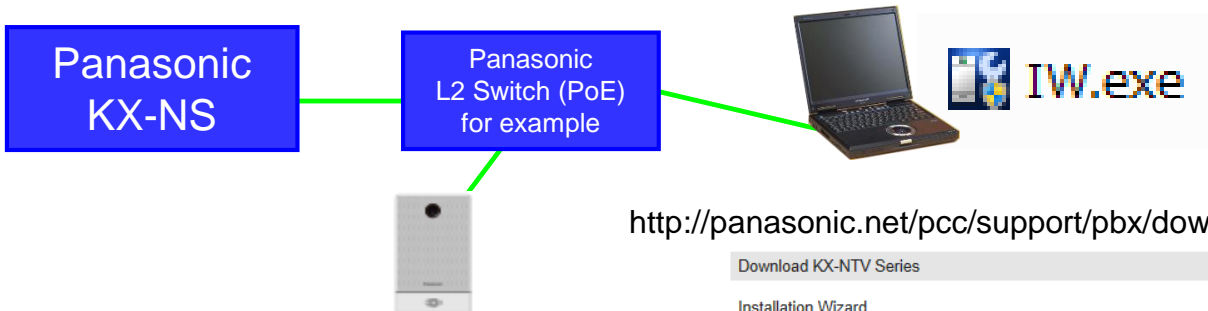


## 23. Find IP address of KX-NTV using IW.exe.

Installation Wizard

Search

#	MAC	IP Address	Model	Firmware Version
1	00-02-D1-3D-F7-41	192.168.0.153	KX-NTV160	0101a
2	E8-B1-FC-B5-5E-32	10.75.70.127	ST7501	1.11.0.1



<http://panasonic.net/pcc/support/pbx/download/ntv/index1.html>

### Download KX-NTV Series

#### Installation Wizard


Category	Name	Size
Application	▶ IW_v1.02.zip	2.52MB
Manual	▶ Installation Wizard User's Manual	

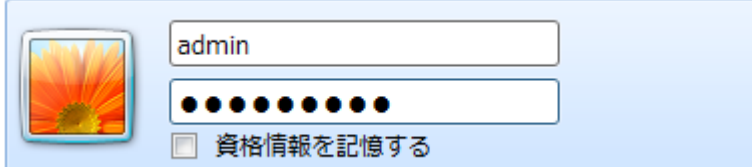
## 24. Log-in using Internet Explorer.

Log-in to KX-NTV.

ID = admin

Password = adminpass

 http://192.168.0.153



The login form is a light blue rectangular box. On the left is a square icon of a sunflower. To its right are two input fields: the top one contains the text 'admin', and the bottom one contains ten black dots representing a password. Below the password field is a checkbox with the Japanese text '資格情報を記憶する' (Remember credentials).

If web browser is [Internet Explorer](#), add-in module is installed automatically as camera viewer.



# 25. Connect KX-NTV150 by Wi-Fi.

**Panasonic**

Home Client settings **Configuration**

**Network > Wireless**

**System**

**SIP**

**Media**

**Network**

General settings

Wireless

☒ Enable WiFi

**WLAN configuration**

SSID KX-HTS

Wireless mode Infrastructure

Security WPA-PSK

pre-shared key

KX-HTS



Remove LAN and  
connect AC Adapter.



IW.exe

Confirm IP address of KX-  
NTV150 again.

# Chapter 3

## KX-NTV : SIP & Video

# 31. Log in to KX-NTV for SIP registration.

**Panasonic**

Home Client settings **Configuration** Language

SIP > SIP Settings

System

SIP

General settings

SIP Settings

Media

Network

Security

PTZ

**SIP Settings**

Phone Number	116
Registrar Server Address	192.168.0.101
Registrar Server Port	5060
Proxy Server Address	192.168.0.101
Proxy Server Port	5060
Service Domain	192.168.0.101
Authentication ID	116
Authentication Password	.....



LED becomes green after registration.

## 32. Assign Destination of Call Button.

Video is displayed automatically **after call is answered**.

**Panasonic**

Home Configuration Language

SIP > General settings

System

SIP

General settings

SIP Settings

Media

Call button outgoing number

☒ Basic mode

Outgoing number 102

☐ Advanced mode

General settings



KX-NTV115  
Ext 115



SIP Software phone  
Ext 111



KX-NTV160  
Ext 116



KX-HDV430  
Ext 102



# 33. Reference : Group Call

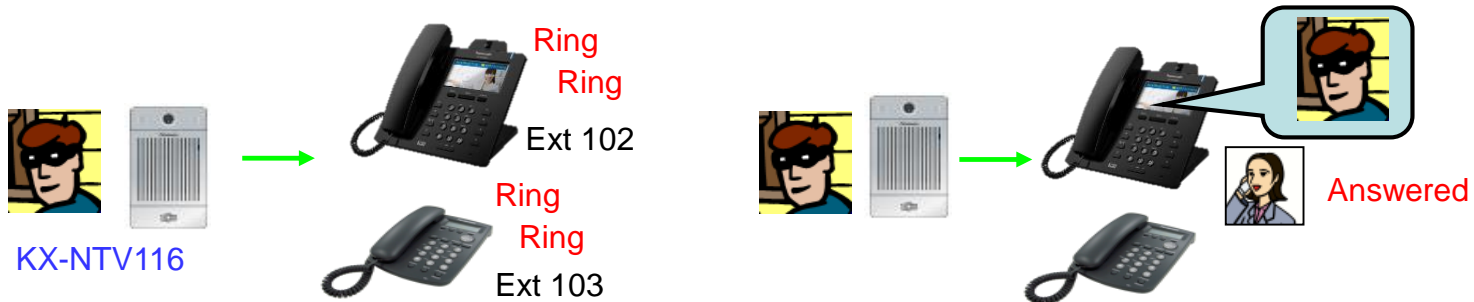
If the destination is extension number for group, group call is also available.

**SIP > General settings**

Call button outgoing number

☒ Basic mode

Outgoing number 601



# 34. Adjust General Settings.

## <KX-NTV150>

Home Client settings **Configuration**

**SIP > General settings**

Call button outgoing number

☒ Basic mode

Outgoing number

☐ Advanced mode

General settings

Call ring duration  second

Call duration  second

☐ Video monitor before answer

☐ Ringbacktone after finish video monitor

☐ Indication of call status when receiving call

## <KX-NTV160>

Home Client settings **Configuration**

**SIP > General settings**

Call button outgoing number

☒ Basic mode

Outgoing number

☐ Advanced mode

General settings

Call ring duration  second

Call duration  second

☐ Video monitor before answer

☒ Ringbacktone after finish video monitor

☒ Indication of call status when receiving call

Default of call ring duration is 30s. This is too long for demo.

KX-HDV430 can call KX-NTV150 without tone by above programming example.

# 35. Adjust Video for KX-HDV430 display.

**Panasonic**

Home Client settings **Configuration** Language

**Media > Video**

System

SIP

**Media**

Image

Video

Audio

Network

Stream

Video settings for stream 1 (RTSP)

Video settings for stream 2 (SIP)

☒ H.264

Frame size: 640x360 ▼

Maximum frame rate: 30 fps ▼

Intra frame period: 1 S ▼

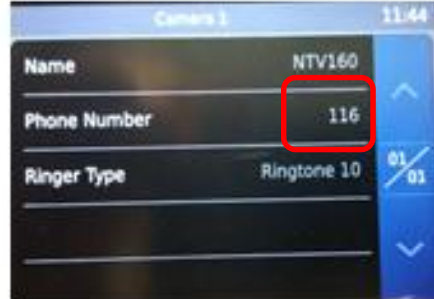
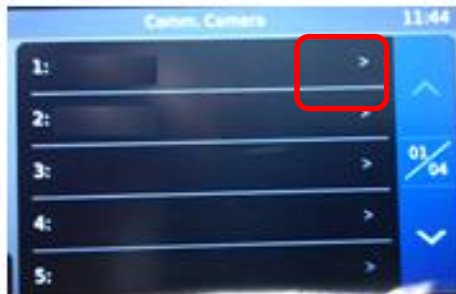
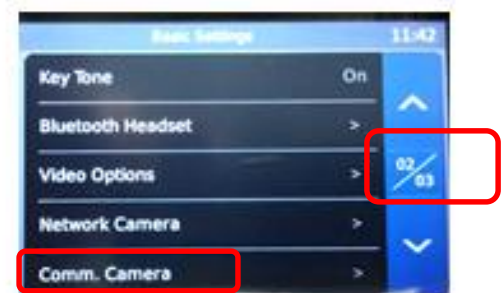
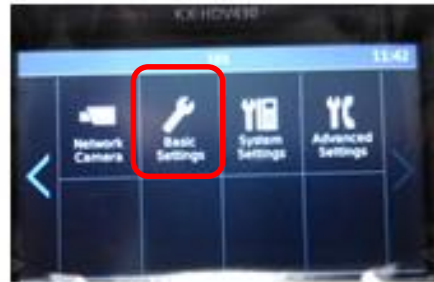
# Chapter 4

## KX-HDV430

# 41. Assign KX-NTV as Camera.

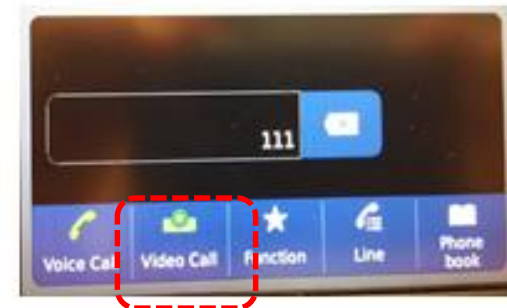
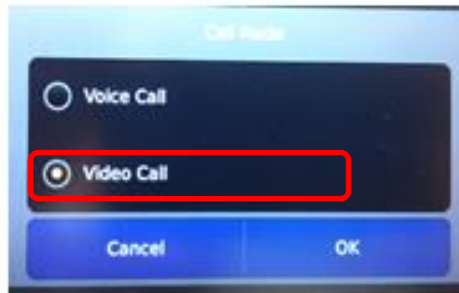
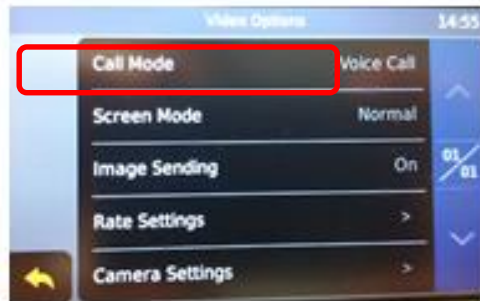
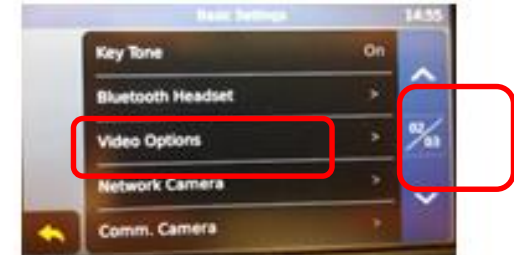
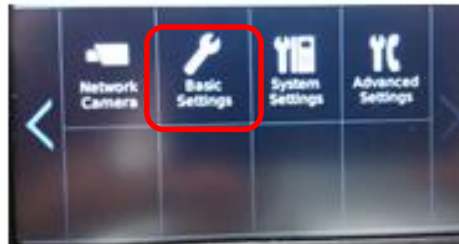
Video can be displayed automatically before KX-HDV430 answers the call from KX-NTV, if extension number of KX-NTV is assigned.

KX-HDV430 answers the call from KX-NTV automatically at technical point of view in order to start video communication if this feature is enabled by KX-HDV430. Voice from KX-HDV430 is muted until “Off hook” manually. This feature cannot be used for group call because one of KX-HDV430 answers the call.



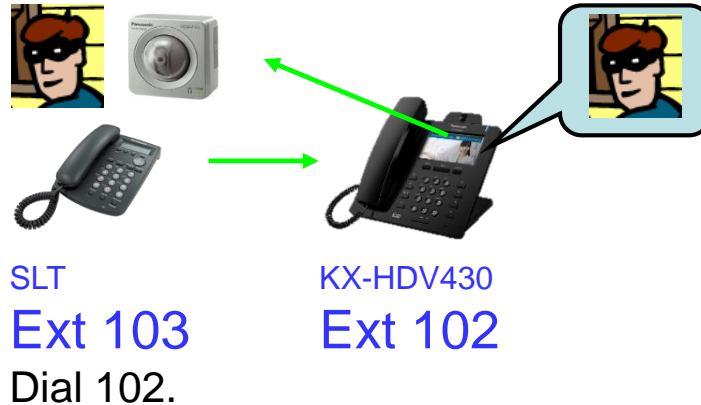
## 42. Enable Automatic Video Call.

Video call can be started automatically by off hook.  
It is not required to press <Video Call> button when calling.



## 43. Reference : Compatible IP Camera

When KX-HDV430 receives a call from other extension, paired IP camera can be displayed automatically.



WV-SC384B



WV-SPN311A



WV-SFN631L



WV-SC385



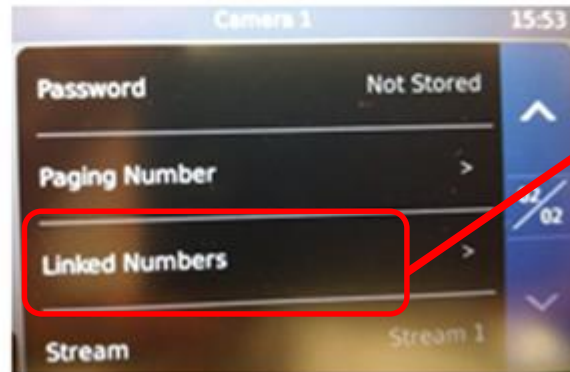
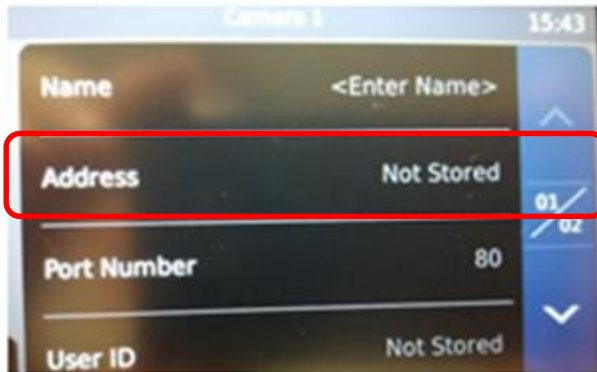
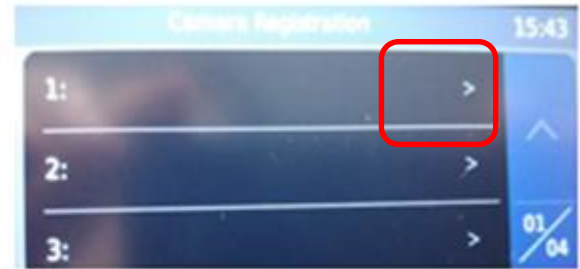
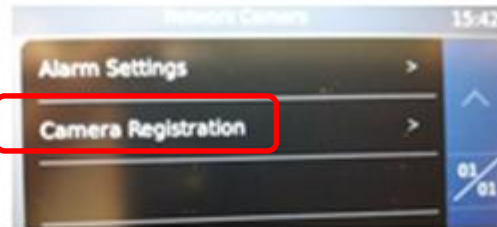
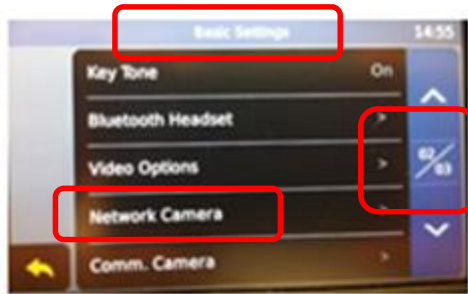
WV-SW458





# 44. Reference : Assign IP address of Camera.

IP address of camera and paired phone number can be assigned for 16 cameras.



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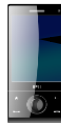


# Chapter 5

## Bria

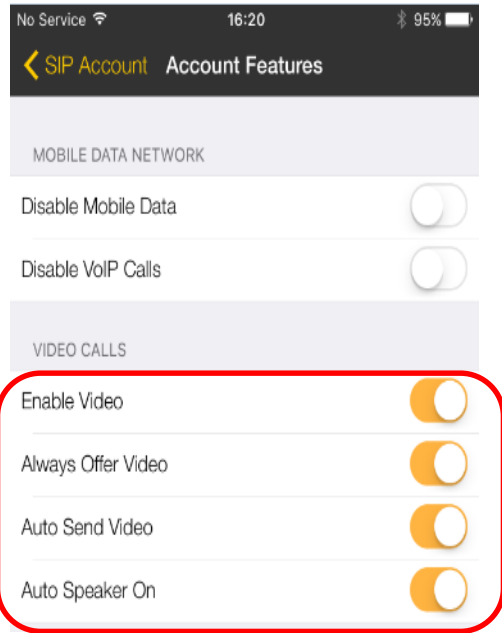
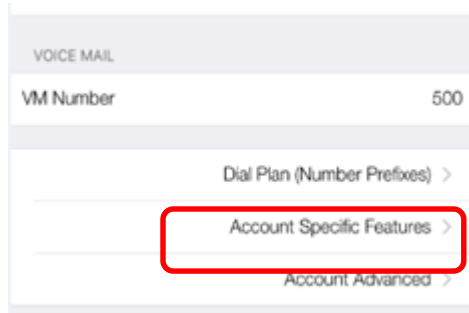


KX-NTV115  
Ext 115



SIP Software phone : Bria  
Ext 111

# 51. Enable Video Call.

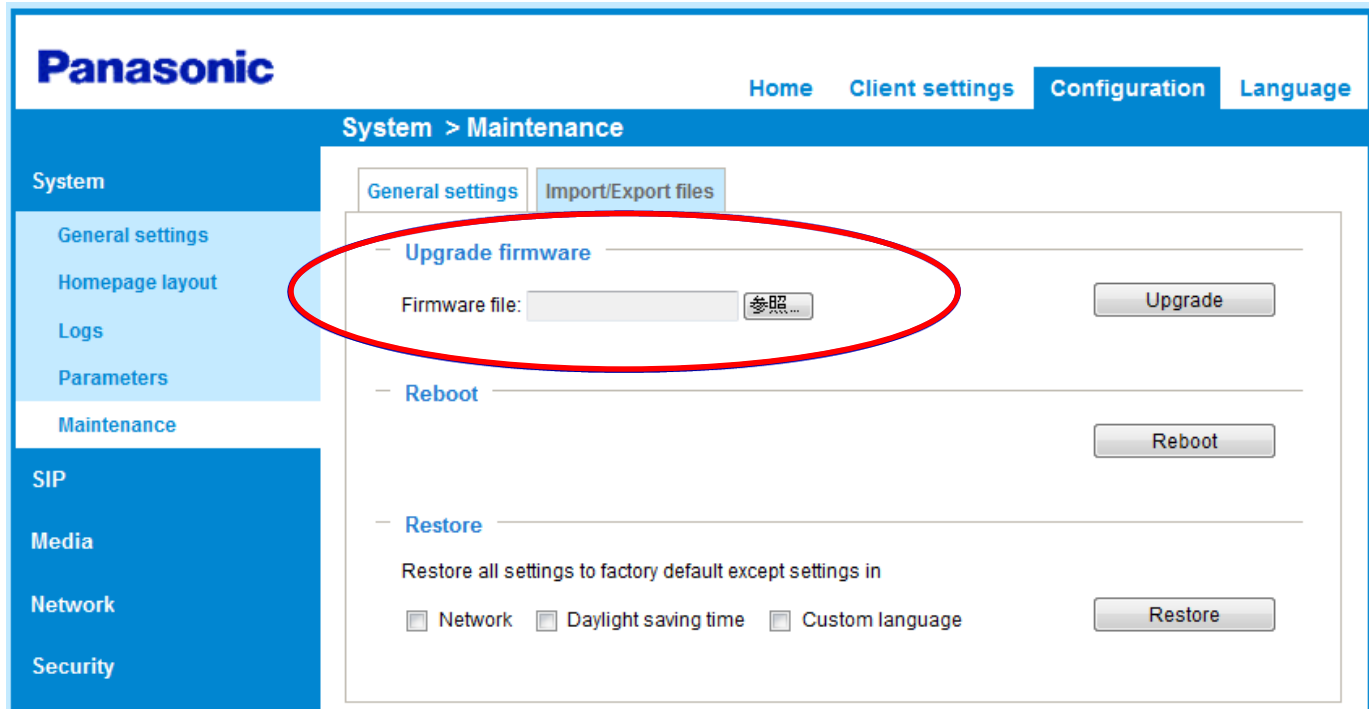


# **Chapter 6**

## **KX-NTV : Maintenance**

# 61. Firmware Update

Firmware update is available using web.  
Firmware update from PBX is not available.



The screenshot displays the Panasonic web interface for system maintenance. The top navigation bar includes 'Home', 'Client settings', 'Configuration', and 'Language'. The main header shows 'System > Maintenance'. On the left, a sidebar lists various system settings: 'System' (General settings, Homepage layout, Logs, Parameters, Maintenance), 'SIP', 'Media', 'Network', and 'Security'. The 'Maintenance' section is active, showing three options: 'Upgrade firmware', 'Reboot', and 'Restore'. The 'Upgrade firmware' option is highlighted with a red oval. It includes a 'Firmware file:' label, a text input field, a file upload icon, and an 'Upgrade' button. The 'Reboot' option has a 'Reboot' button. The 'Restore' option includes a description 'Restore all settings to factory default except settings in', three checkboxes for 'Network', 'Daylight saving time', and 'Custom language', and a 'Restore' button.

**Panasonic**

Home Client settings **Configuration** Language

System > Maintenance

System

- General settings
- Homepage layout
- Logs
- Parameters
- Maintenance

SIP


Media

Network

Security

General settings Import/Export files

— Upgrade firmware —

Firmware file:  

— Reboot —

— Restore —

Restore all settings to factory default except settings in

☐ Network ☐ Daylight saving time ☐ Custom language

# 62. System Initialize

System initialize is available using web.  
Or keep pressing reset button for 30 seconds.  
Red rapid flash for 30 seconds to Green flash

The screenshot shows the Panasonic web interface for System Maintenance. The left sidebar contains a menu with the following items: System, SIP, Media, Network, and Security. The 'System' menu is expanded, showing sub-items: General settings, Homepage layout, Logs, Parameters, and Maintenance. The 'Maintenance' sub-item is selected. The main content area is titled 'System > Maintenance' and has two tabs: 'General settings' and 'Import/Export files'. The 'General settings' tab is active. It contains three sections: 'Upgrade firmware', 'Reboot', and 'Restore'. The 'Restore' section is circled in red. It includes the text 'Restore all settings to factory default except settings in' followed by three checkboxes: 'Network', 'Daylight saving time', and 'Custom language'. A 'Restore' button is located to the right of these checkboxes. The 'Upgrade firmware' section has a 'Firmware file' input field with a file selection icon and an 'Upgrade' button. The 'Reboot' section has a 'Reboot' button.


Panasonic

Home Client settings Configuration Language

System > Maintenance

General settings Import/Export files

Upgrade firmware

Firmware file:   Upgrade

Reboot

Reboot

Restore

Restore all settings to factory default except settings in

☐ Network ☐ Daylight saving time ☐ Custom language Restore

# 63. System Data Back-up

System data can be saved.

The screenshot displays the Panasonic system configuration web interface. The top navigation bar includes 'Home', 'Client settings', 'Configuration', and 'Language'. The main header shows 'System > Maintenance'. On the left, a sidebar menu lists 'System', 'SIP', 'Media', 'Network', and 'Security'. Under 'System', there are sub-items: 'General settings', 'Homepage layout', 'Logs', 'Parameters', and 'Maintenance' (which is highlighted with a red oval). The 'Import/Export files' tab is selected under 'General settings'. The 'Export files' section contains five rows, each with a label and an 'Export' button. The 'Export configuration file:' row is circled in red. The 'Upload files' section below it has two rows, each with a text input field, a '参照...' (Reference) button, and an 'Upload' button.

Export files	
Export daylight saving time configuration file:	Export
Export SIP configuration file:	Export
Export language file:	Export
Export configuration file:	Export
Export server status report:	Export

Upload files	
Update daylight saving time rules:	<input type="text"/> 参照... Upload
Update SIP configuration file	<input type="text"/> 参照... Upload

**Thank you !**

# Revision

Date	No.	Change
Sept 16, 2015	All	First release
Nov 12, 2015	2 (Page 3)	AC Adaptor KX-A239 is required for Wi-Fi.
Sept 29, 2016	All	Revised for KX-HDV430 base.