

**FIXD IP DOME CAMERA**

## VN-V225U

**FIXD MEGAPIXEL IP DOME CAMERA**

## VN-X235U

LST0930-001A

VN-X235U is a high definition surveillance camera that uses CCD sensors with 4 times higher resolution than VN-V225U.

Thank you for purchasing this JVC product.

Before operating this unit, please read the instructions carefully to ensure the best possible performance.

**■ This manual contains the basic instructions for using this unit.**

Please refer to [INSTRUCTIONS (Setting)] (pdf) and [INSTRUCTIONS (Installation)] (pdf) in the CD-ROM supplied with this product for description on the detailed usage of this unit.

For the latest information, please refer to the "README" file in the CD-ROM supplied with this product.

- The supplied CD-ROM includes [INSTRUCTIONS (Setting)] (pdf), [INSTRUCTIONS (Installation)] (pdf), [API Guide] (pdf), [VSIIP Guide] (pdf), [Search tool], and [White Spot Correction Tool].

**■ How to read this READ ME FIRST**

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- Design, specifications and other contents described in this manual are subject to change for improvements without prior notice.

**■ The latest version**

Please visit V.NETWORKS web site to check the latest firmware at

<http://www.jvc-victor.co.jp/english/products-e.html>

(The latest firmware can be found on V.NETWORKS → download page)

## Installation

### Mounting the Camera

This manual describes procedures for "direct mounting to the ceiling or the wall". For details on how to "embed the camera into the ceiling", "mount the camera with the cable pulled out from the side" and other procedures, refer to [INSTRUCTIONS (Installation)] (pdf) in the supplied CD-ROM.

**Note:**

- Be sure to put on protective glasses to protect your eyes from falling objects when mounting the camera to the ceiling.
- To mount the camera using an electrical box, please consult the dealer shop from which the camera is purchased or any nearby JVC Service Centers.

**Preparation**

※ To mount the camera to a wall, perform the same procedures below but replace the word "ceiling" with "wall".

**1 Use the supplied template to open a hole in the ceiling (ø35 mm), and pull out the cables from the hole**

Pull out the fall prevention wire, LAN cable, power cable, alarm cable, and audio cable that are attached to the ceiling slab from the hole. (Fall prevention wire is not provided)

**Note:**

- Take note of the length, strength, pull and material (insulation) of the fall prevention wire.
- The inner diameter of the ring section of the fall prevention wire to be mounted to the camera should be between ø3.1 mm and ø5.5 mm, and the outer diameter not larger than ø9 mm.

**2 Turn the dome cover in the anti-clockwise direction to remove it**

To prevent damage to the dome cover, a protection sheet is affixed.

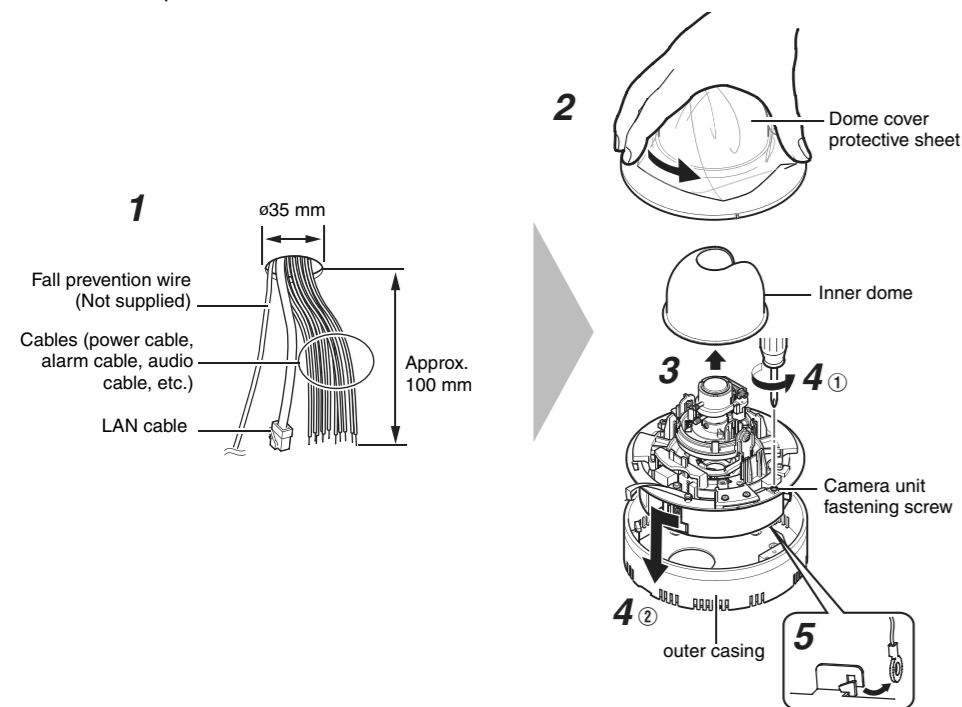
**3 Grasp the inner dome and remove it from the catches (x2)**

**4 Remove the outer casing**

- 1 Loosen and remove the fastening screw from the camera body using a screwdriver
- 2 Turn the camera unit in the anti-clockwise direction to remove the outer casing

**5 Remove the attached fall prevention wire**

Remove the fall prevention wire that is attached to the camera unit.



**Cable Connection**

For safety reasons, turn on the power only after all the connections are completed.

**1 Align the shooting direction with the shooting direction mark (φ), followed by mounting the outer casing to the ceiling**

**2 Mount the supplied fall prevention wire on the camera unit to the fastening hook**

**3 Mount the fall prevention wire that connects the camera and the ceiling to the camera unit**

**4 Connect the alarm cable**

Connect the alarm cable to an external device, such as a sensor or buzzer.

**Alarm cable to be used (shielded cable recommended)**

- Length of 50 m or shorter
- UL1007, UL1015 or equivalent products
- AWG#22 to AWG#18 or equivalent products

**5 Connect the audio cable (shielded cable recommended)**

**6 Connect the LAN cable**

※ To use the PoE power supply, connect to a PoE-compatible device and supply the power from the LAN cable.

- Connecting to HUB : Use a straight cable
- Connecting to a computer : Use a cross cable

**LAN cable to use**

- STP (shielded cable recommended)
- Length of 100 m or shorter
- Category 5 and above

**7 Connect the power cable**

Power can be supplied to this unit either by connecting to an AC 24 V power supply or using PoE.

(For details on the use of PoE ⇒ [6 Connect the LAN cable])

**Note:**

- The power cable includes cable of the same color as the alarm cable. Check properly before connecting.
- Make sure that power is supplied using only one of the above methods at any one time. Connecting simultaneously using the power cable and to PoE via a LAN cable may cause the camera to break down or malfunction.
- By default the IP addresses of all the cameras are set to 192.168.0.2. If the power of multiple cameras within the same LAN environment are turned on at the same time, the IP addresses of the cameras overlap, thus preventing proper access. As such, make sure to turn on the power of the cameras one by one and set the IP addresses such that there is no overlapping.

**■ Cable Types**

Type	Color	Signal name		
Alarm cable	Black (Shielded cable)	Red	Alarm input 1	
		Brown	Alarm input 2	
		Orange	Alarm output 1	
		Yellow	Alarm output 2	
		Black	GND	
Audio cable	Pink (Shielded cable)	White	Microphone input	
		Yellow	GND	
		Black (Shielded cable)	White	Line output
		Yellow	GND	
Power cable	Red (Unshielded cable)	AC 24 V Power Supply		
	Black (Unshielded cable)			

**■ Power cable: Connection distance when using a 2-core VVF cable (reference values)**

Conductor diameter (mm)	ø1.0 and above	ø1.6 and above	ø2.0 and above
Maximum connection distance (m)	130	340	540

**Caution**

The rated power of this product is AC 24 V, 50 Hz/60 Hz. Make sure to use it with the correct voltage.

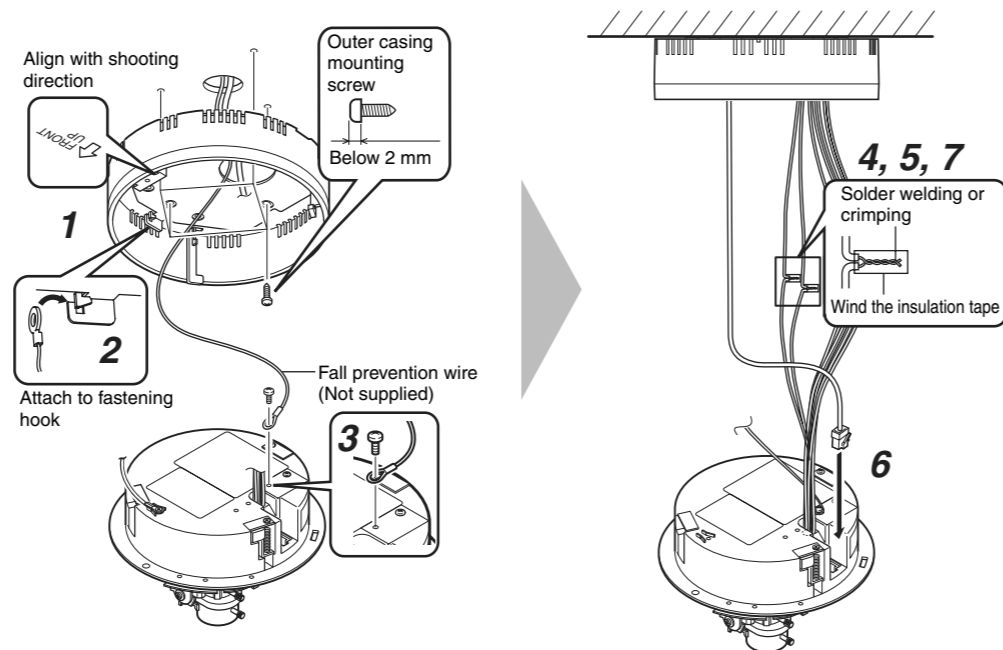
Be sure to use an AC 24 V supply that is insulated from the primary power source.

Supplying a power beyond the rated value may result in failures, smoke or fire. If the camera breaks down, turn off the power and contact our service center immediately.

When a power beyond the rated value is supplied, the internal components may be damaged even if no abnormality is found on the appearance and operation of the camera. Contact our Service Center immediately to arrange for an inspection (charged separately).

**Note:**

- For cables that are not used, be sure to wrap the ends individually with insulating tape.
- For safety reasons, turn on the power only after all the connections are completed.



**Mounting the Camera Unit**

**1 Insert the hooks (x2) of the outer casing into the holes (x2) of the camera unit**

**Note:**

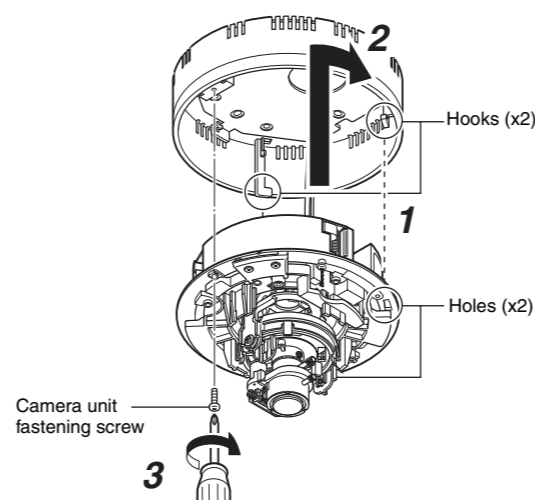
- Pay attention to prevent cables from being caught by the outer casing.

**2 Turn the camera unit in the clockwise direction**

**3 Fasten the camera unit by tightening the fastening screw on it**

**Note:**

- The camera will not be secured just by turning it in the clockwise direction. Be sure to fasten it with the camera unit fastening screw.



### Adjusting Images

This section describes procedures for adjusting the video image while checking the actual image on the monitor.

Before touching the body of the camera, make sure that you touch the metal surface of the [MONITOR] terminal to discharge any static electricity from your body. The static electricity may cause the camera to malfunction.

**1 Connect the [MONITOR] terminal to the test monitor**

**2 Set the [MONITOR OUT] selection switch to "N" or "P", then turn on the power or press the [RESET] button shortly (less than 2 seconds)**

- The camera reboots. (approximately 1 minute)
- During rebooting, the [STATUS] indicator lights up in orange.
- Set to "N" when connecting to an NTSC monitor, and set to "P" when connecting to a PAL monitor.

**3 Adjust the shooting direction of the camera**

Adjust the pan, tilt and rotation controls of the cameras to face the lens towards the subject.

**Memo :**

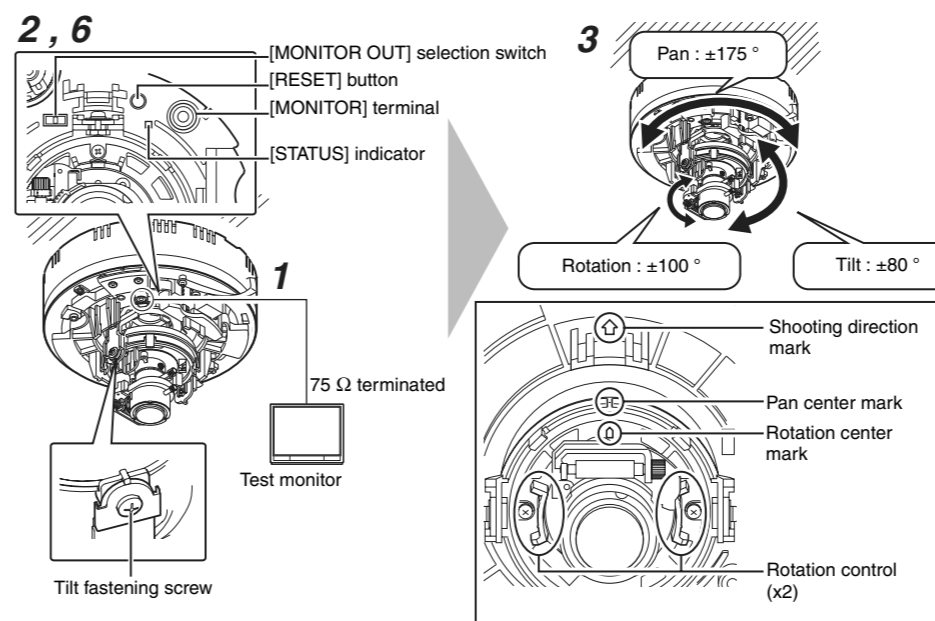
- Rotate the lens in the pan and rotation directions ±175° and ±100° respectively from the positions aligned with the camera's shooting direction mark, pan center mark and rotation center mark. Be sure to hold the rotation control and adjust the rotation without holding the lens section.
- After adjusting the field angle, tighten the tilt fastening screw to secure the camera so that its field angle does not go out of alignment.

**Note:**

- Moving the camera when it has exceeded the adjustment range may cause its performance to deteriorate.
- As the tilt and rotation range of this unit is wide, part of this unit may be reflected in the shooting screen depending on the field angle and direction.
- Do not hold the lens section when adjusting the camera direction. The lens section may be damaged if you apply force to it.

**4 Adjust the image size**

Loosen the fastening screw of the zoom adjustment ring, move the ring to the left and right to adjust the image size. After adjustment is complete, move the fastening screw toward the direction of the lens (direction of the subject), and tighten accordingly.



**5 Roughly adjust the focus**

- 1 Lift the focus adjust gear knob, and insert the catch into B in the diagram.
  - The gear is disengaged.

**Note:**

- To prevent the gear shaft from breaking when the gear is opened too far out from B, remove the gear shaft from the bearing (C in diagram). In this case, re-insert the shaft back into the bearing and return it to the original position before using.

- 2 Loosen the fastening screw of the zoom adjustment ring, move it to the left and right to adjust the focus.

**6 Fine adjust the focus**

- 1 Press the [RESET] button for at least 2 seconds but less than 5 seconds.
  - The camera enters the focus adjust mode and the [STATUS] indicator blinks in green and orange alternately.
  - The image is sharpened with the opening of the aperture.
  - The center of the image is enlarged. (VN-X235U only)
  - After adjusting the focus, press the [RESET] button for at least 2 seconds but less than 5 seconds to cancel the focus adjust mode.

- 2 Shoot the subject.
- 3 Fine adjust the focus.
  - Return the catch to A in the diagram, and then rotate the focus adjust gear knob to adjust the focus to the optimum position.

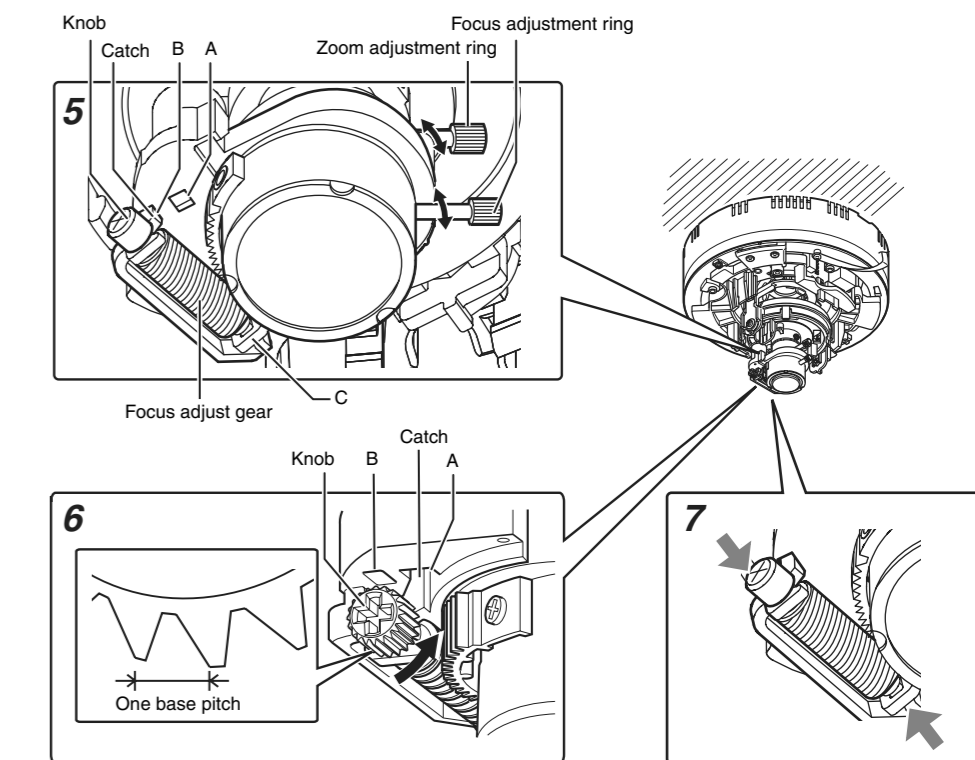
- 4 Rotate the focus adjust gear knob about one base pitch in the direction of the arrow in the diagram.
  - This is to correct the focus shift when mounting the dome cover.

- 5 Remove the protective sheet, hold the dome cover over the lens and check the focus. After checking, replace the protective sheet on the dome cover.

**7 Hold and press the focus adjust gear between your fingers in the direction of the arrows in the diagram, and tighten the fastening screw of the focus adjustment ring**

**8 After setting the [MONITOR OUT] selection switch to "OFF", press the [RESET] button shortly (less than 2 seconds)**

- The camera restarts, and the focus assist mode is released. (approximately 1 minute)



**Mounting the Dome Cover**

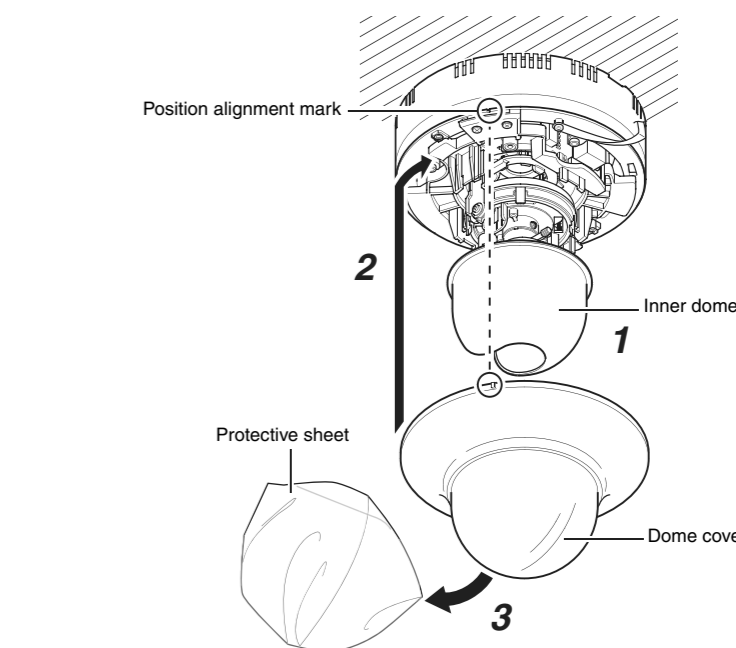
After setting is complete, mount the dome cover.

**1 Mount the inner dome to the catches (x2)**

**2 Mount the dome cover**

- 1 Remove and clean any dust or dirt on the dome cover.
- 2 Align the camera with the position alignment mark on the dome cover, and mount the dome cover.

**3 Remove the protective sheet**



**Note:**

- When the cover is removed again after mounting the dome cover, check the field angle and re-adjust the focus and field angle if necessary.
- Check to ensure that the dome cover is firmly mounted. The cover may fall off if it is not properly mounted.

## Setting

### IP Address Settings

This section is a description based on Windows XP.

#### IP address setting procedure

Follow the procedure below to configure the IP address of the camera.

##### Step1 IP address setting at the computer

Set the IP address of the computer that is used for configuring the camera settings.

##### Step2 Internet Explorer settings

Configure the Internet Explorer settings in order to establish connection between the computer and the camera.

##### Step3 Connecting the camera to the computer

Connect the computer to the camera.

##### Step4 IP address setting for the camera

Set the [IP Setting] item on the [Basic Settings1] screen to "DHCP Disable" or "DHCP Enable".

#### Step1 IP address setting at the computer

The default setting of the camera is A static IPB (DHCP client function disabled). After starting up the camera, the system is started with the following IP address. Set the IP address of the computer for setting to enable communication with the following. (For example, 192.168.0.100 for IP address and 255.255.255.0 for subnet mask)

IP address : 192.168.0.2  
Subnet mask : 255.255.255.0  
Default gateway : None

#### IP address setting at the computer

Set the computer to an IP address that enables communication with the camera.

##### Click [Start]

Select in the sequence of [Control Panel]–[Network Connection]–[Local Area].

##### Windows Vista :

- Select in the sequence of [Settings]–[Control Panel]–[Network and Sharing Center]–[Manage network connections].

#### The computer on which Internet Explorer is launched automatically selects the connected network

- Right-click and select [Properties].
- Check to ensure that the [Client for Microsoft Networks] and [Internet Protocol(TCP/IP)] check boxes are selected.

##### Windows Vista :

- Check to ensure that the [Microsoft Network Client] and [Internet Protocol Version 4(TCP/IPv4)] check boxes are selected.

#### Select [Internet Protocol(TCP/IP)] and click [Properties]

##### Windows Vista :

- Select [Internet Protocol Version 4(TCP/IPv4)] and click [Properties]

#### Set the IP address

- Select [Use the following IP address].
- Specify the [IP address]. (For example, use 192.168.0.100 when the camera is in its default settings)

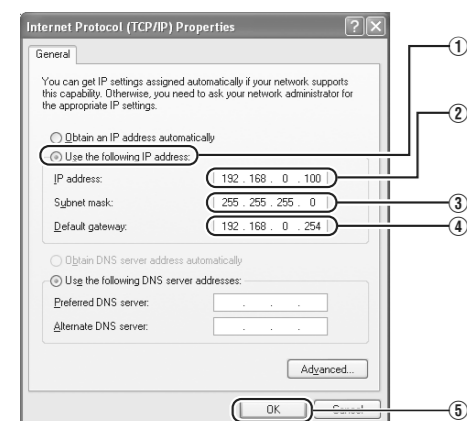
##### Memo :

- Make sure that you take note of the original IP address before altering.
- Ensure that a duplicate IP address is not specified within the same network environment.

- Set [Subnet mask] to a value that is appropriate for the setting operation. Consult the network administrator if you have any queries. (Use 255.255.255.0 when the camera is in its default settings.)

- When a [Default gateway] is present, make use of the corresponding IP address (e.g., 192.168.0.254).

- Click [OK].



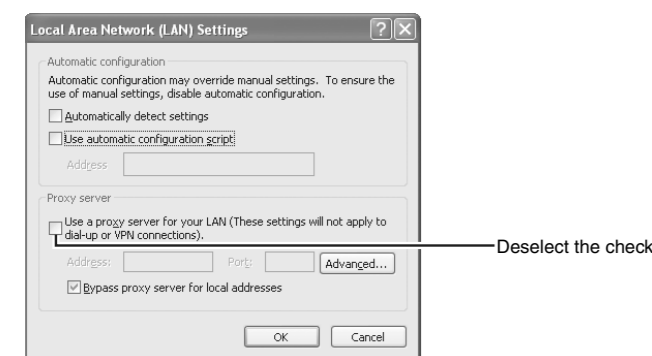
#### Click [OK] on the [Local Area Connection Properties] screen

#### Step2 Internet Explorer settings

##### Launch the Internet Explorer on the computer

#### If proxy settings are enabled in the Internet Explorer, follow the steps below to disable the proxy of the Internet Explorer

- Select in the order of [Tool]–[Internet Options]–[Connections]–[LAN Setting], followed by deselecting the check for [Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections)].

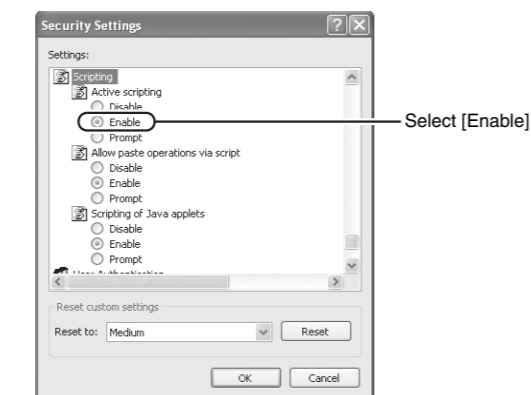


#### If the active script of the Internet Explorer is disabled, follow the steps below to enable it

- Select [Trusted sites] under [Tool]–[Internet Options]–[Security]. Upon doing so, the [Sites...] button directly below becomes active. Click this button, deselect the check in the displayed window, and add the following web site to the zone.

http://192.168.0.2 (factory default)

- Next, select [Trusted sites] under [Tool]–[Internet Options]–[Security], and press the [Custom Level] button. Select [Enable] under [Scripting]–[Active script] of the [Security Settings] window that is opened.



#### If ActiveX controls and plug-ins of the Internet Explorer is disabled, follow the steps below to enable it

- Click [Trusted sites] under [Tool]–[Internet Options]–[Security]. Select the [Custom Level] button to open the [Security Settings] window. Set all items under [ActiveX controls and plug-ins] in the opened window to [Enable]. Enable also [Allow Script-initiated window without size or position constraints] under [Miscellaneous].



#### Disable pop-up block

Connection of the camera cannot be established when pop-up block in the Internet Explorer is set to "Enable". Follow the steps below to set the pop-up block to "Disable".

- Selecting [Tool]–[Pop-up Blocker]–[Turn Off Pop-up Blocker] permits all sites.
- To allow only specific sites such as this unit, select [Tool]–[Pop-up Blocker]–[Turn Off Pop-up Blocker], followed by selecting [Tool]–[Pop-up Blocker]–[Pop-up Blocker Settings], which becomes active to open the [Pop-up Blocker Settings] window.

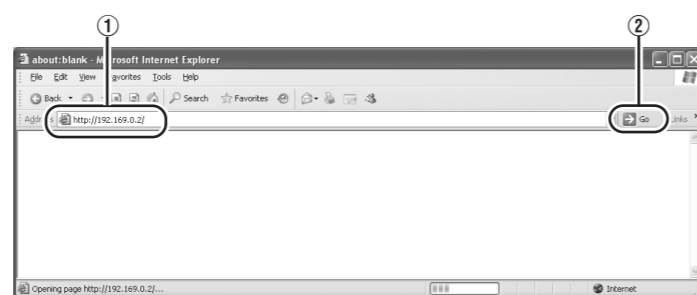
In the opened window, add the address of the camera as a permitted web site address.

#### When plug-in tools such as the Yahoo or Google toolbar are included in the Internet Explorer, disable the pop-up block function of these plug-in tools as well

#### Step3 Connecting the camera to the computer

##### Launch the Internet Explorer

- Enter the IP address of the camera. (E.g., http://192.168.0.2)
- Click [Go].



##### Memo :

- If the proxy server settings for access to the Internet via the Internet Explorer is enabled, you may not be able to specify the IP address directly. In this case, change the proxy settings of the Internet Explorer.
- To open the [Basic Settings1] page without going through the Built-in Viewer, enter the URL of the [Basic Settings1] page in the address field of the Internet Explorer.
  - VN-V225U : http://192.168.0.2/cgi-bin/v225display.cgi?v225basicmenu1.html
  - VN-X235U : http://192.168.0.2/cgi-bin/x235display.cgi?v235basicmenu1.html
- After the [Security Settings] screen appears, press the [OK] button to proceed.

#### If the IP address is unknown

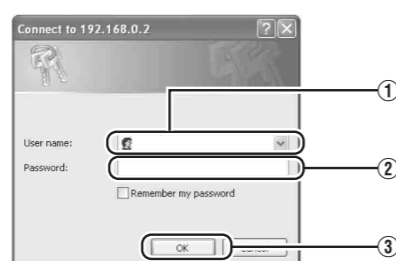
IP address settings cannot be changed by accessing via a computer when the IP address of the camera is unknown.

You can use the following method to identify the IP address.

- Search using the "Search tool" inside the "TOOL\_E" folder of the supplied CD-ROM.
  - For details on "Search tool", please refer to the "README" file in the CD-ROM supplied with this product.

#### Enter the user name and password (login as administrator)

- Enter the user name. This is set to "admin" by default.
- Enter the password. This is set to "jvc" by default.
- Click [OK].

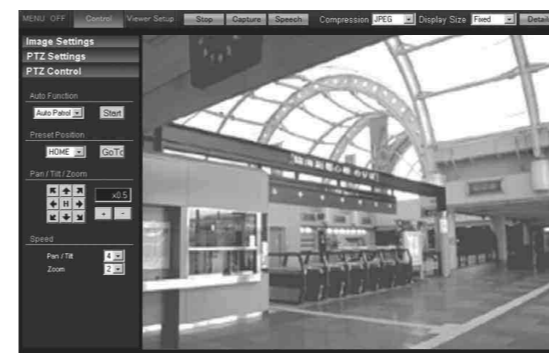


##### Memo :

- After the [Security Settings] screen appears, press the [Yes] button to proceed.

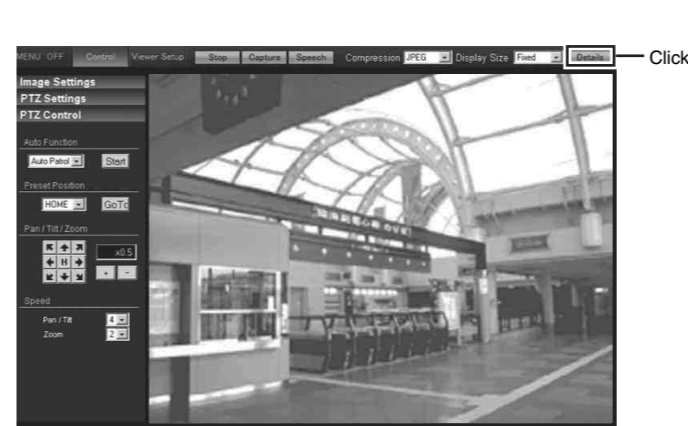
#### Built-in Viewer and the operator password entry screen appear

- Enter the Operator Password. (default password is "jvc")
- Click [OK].



#### Step4 IP address setting for the camera

##### Click [Details] of the Built-in Viewer



#### The [Basic Settings1] screen appears

- Specify the [IP Setting].

##### When selecting "DHCP Disable" :

Select "DHCP Disable" from [IP Setting] item of the camera, and specify a value in the [IP address], [Subnet Mask] and [Default Gateway] fields.

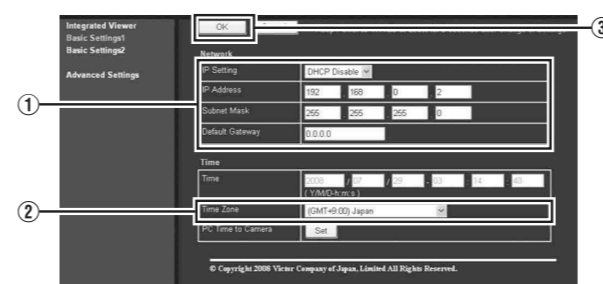
##### When selecting "DHCP Enable" :

The default setting is "DHCP Disable" (DHCP client function is off).

To assign an IP address from the DHCP server, connect the camera to a LAN where the DHCP server exists.

For details on the IP address assigned to the camera, consult your network administrator.

- Specify the [Time Zone].
- Click [OK].



[Basic Settings1] screen

##### Note:

- Set the DHCP server such that the same IP address is always assigned to the MAC address of the camera by the DHCP server. Connection may fail if the above setting is not performed.

#### A confirmation screen appears

- Click [OK].
- The camera restarts using the new IP address. It takes about one minute for the camera to restart.

##### Memo :

- Access from this computer may fail when the IP address of the camera is changed. To enable access to this unit from the same computer, alter the IP address of the computer accordingly.

#### When the display or configuration of the opened screen appears strange, check the computer settings using the following procedures.

- Click [Start]–[Control Panel]–[Display] and open the [Display Properties] window
- Click the [Settings] tab in the [Display Properties] window, followed by the [Advanced] button
- Check that [DPI setting] in the [General] tab has become [Normal size(96DPI)]
- Otherwise, change the setting to [Normal size(96DPI)] and reboot Windows



## Setting Using Internet Explorer

Configure the picture quality and alarm settings using the Internet Explorer.

- For details, please refer to [INSTRUCTIONS (Setting)] (pdf) in the supplied CD-ROM.



## Operating the Built-in Viewer

With the Built-in Viewer, you can monitor the JPEG and MPEG4 images, and send or receive audio sound. For VN-X235U, you can perform PTZ operation and configure PTZ-related settings.

To use the Built-in Viewer, you have to enable the ActiveX and plug-in on the Internet Explorer.

- For details, please refer to [INSTRUCTIONS (Setting)] (pdf) in the supplied CD-ROM.

## Operating Environment

#### Recommended Computer Specifications

OS	: Windows XP (Professional or Home Edition) (SP2) : Windows Vista Business (SP1)
CPU	: Pentium4 1.5GHz or higher (VN-V225U) : Pentium4 2GHz or higher (VN-X235U)
Memory capacity	: 1 GB and above
Free hard disk space	: 512 MB or more
Display and video card	: 1024 x 768 pixels or higher VN-V225U : 1600 x 1200 pixels or higher VN-X235U : True Color (24 bit or 32 bit) VRAM 8 MB or more (256 MB and above recommended)
Web browser	: Internet Explorer XP : Version 6.0 Vista : Version 7.0

#### LAN Environment

- 10BASE-T/100BASE-TX network interconnected using devices such as an IEEE802.3-compliant switching hub
- IEEE802.3af-compliant switching hub when PoE is used
- IGMPv2-compliant network when multicast is in use

##### Memo :

- To use MPEG4 images on the Built-in Viewer, install the open source codec "ffdshow". You can download "ffdshow" from the Internet. We are not liable for any claims, losses, damages or other problems resulting from your use of the open source software.

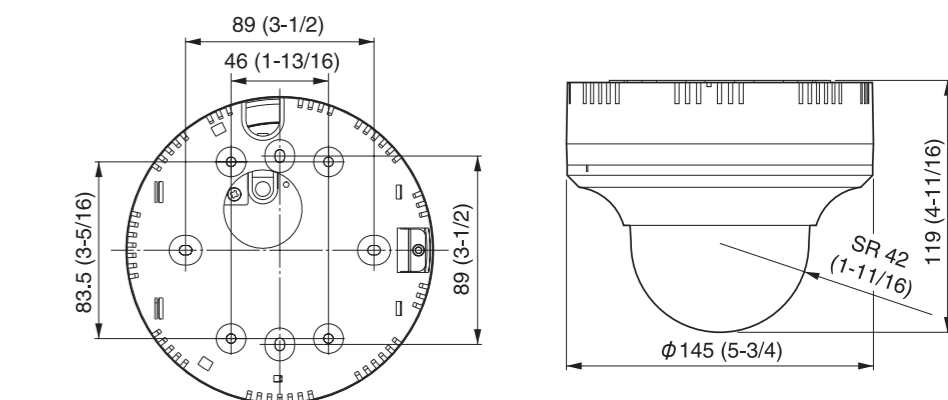
## Specifications

Supply voltage	: AC 24 V 50 Hz/60 Hz or PoE (DC -48 V)
Current consumption	: AC 24 V 0.35 A, PoE 7.0 W
Mass	: Approx. 750 g (1.65 lbs)
Surrounding temperature	: -10 °C to 50 °C (operation) 0 °C to 40 °C (recommended)
Ambient humidity	: 35 % RH to 90 % RH (without condensation)

#### Accessories

- Safety Precautions
- Read Me First
- CD-ROM
- Warranty Card (For USA)
- Service Information Card (For USA)
- Template

#### Dimension [Unit: mm (inches)]



\* Specifications and appearance of this unit are subject to change for further improvements without prior notice.