

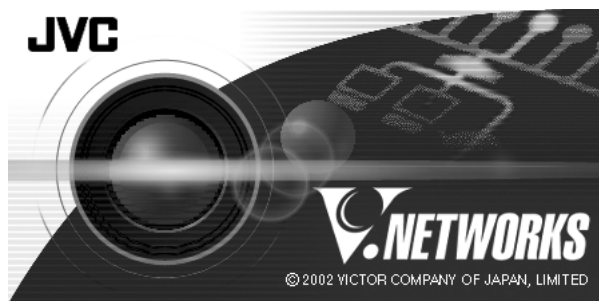
# JVC®

## V.NETWORKS

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# VN-C10

## READ ME FIRST



**For Customer Use:**

Enter below the Serial No. which is located on the body. Retain this information for future reference.

Model No. **VN-C10** \_\_\_\_\_

Serial No. \_\_\_\_\_

This READ ME FIRST is made from 100 % recycled paper.

LWT0083-001B

## IMPORTANT SAFEGUARDS



1. Read all of these instructions.
2. Save these instructions for later use.
3. All warnings on the product and in the operating instructions should be adhered to.
4. Unplug this appliance system from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
6. Do not use this appliance near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
7. Do not place this appliance on an unstable cart, stand, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the appliance. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the appliance and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the appliance on a bed, sofa, rug, or other similar surface.  
This appliance should never be placed near or over a radiator or heat register. This appliance should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
9. This appliance should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company. For appliance designed to operate from battery power, refer to the operating instructions.
10. This appliance system is equipped with a 3-wire grounding type plug (a plug having a third (grounding) pin). This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
12. Do not allow anything to rest on the power cord. Do not locate this appliance where the cord will be abused by persons walking on it.
13. Follow all warnings and instructions marked on the appliance.
14. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
15. Never push objects of any kind into this appliance through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the appliance.
16. Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
17. Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power cord or plug is damaged or frayed.
  - b. If liquid has been spilled into the appliance.
  - c. If the appliance has been exposed to rain or water.
  - d. If the appliance does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to normal operation.
  - e. If the appliance has been dropped or the cabinet has been damaged.
  - f. When the appliance exhibits a distinct change in performance - this indicates a need for service.
18. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
19. Upon completion of any service or repairs to this appliance, ask the service technician to perform routine safety checks to determine that the appliance is in safe operating condition.

PORTABLE CART WARNING  
(symbol provided by RETAC)



# Safety Precautions

## FOR USA AND CANADA

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### Information for USA

This device complies with part 15 of the FCC Rules. Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Due to design modifications, data given in this instruction book are subject to possible change without prior notice.

### WARNING:

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

### AVERTISSEMENT:

**POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER L'APPAREIL A L'HUMIDITE OU A LA PLUIE.**

### INFORMATION (FOR CANADA) RENSEIGNEMENT (POUR CANADA)

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Class A est conforme à la norme NMB-003 du Canada.

### Information for Europe Warning:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Thank you for purchasing this product.**

**(These instructions are for VN-C10U.)**

**Before beginning to operate this unit, please read the instruction manual carefully in order to make sure that the best possible performance is obtained.**

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### Others

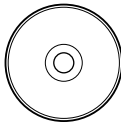
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# Introduction

## Features

- VN-C10 uses a 1/3-inch CCD with 380,000 pixels, enabling monitoring of high quality images.
- For the compression method, in addition to the standard JPEG, VN-C10 supports MPEG4 for a wide range of bit rates.
- Equipped with an image recording function by motion detection and alarm input.
- VN-C10 has a design similar to other CCTV monitoring cameras, allowing peripheral equipment for such cameras to be also used for VN-C10.
- With a built-in Web server, VN-C10 supports Internet Explorer and Netscape.
- Multicast function. (Only for JPEG)

## Items Included

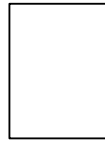


CD-ROM

(The PDF instruction manual inside)



Read Me First



Warranty Card



Service Information Card

## How to Use This Manual

### Characters and Symbols used in this Manual

#### Caution

Operational points special attention should be paid to, because of, for example, danger involved.

#### Note

Functional or operational tips.



Pages or items to refer to.

※ In no case, shall JVC be held liable for any loss or damage to the customer or for any claim from any third party arising from using this software.

For the purpose of improving the product, the software specifications are subject to change without prior notice.

The product names that appear in this document are brand names or registered trademarks of each relevant company. Marks and symbols such as <sup>TM</sup>, ® and © do not appear in this document.

**To see the content of the PDF instruction manual inside the supplied CD-ROM, it is required that the Adobe Acrobat Reader is installed in the PC.**

## Introduction

### Required Operating Environment

#### PC Specifications

OS	: Windows 2000 (Service Pack 1 or higher) Windows XP Home Edition Windows XP Professional
CPU	: Pentium III 500 MHz or higher (1 GHz or higher recommended)
Memory Capacity	: 128 MB or more
Hard Disk Space	: 20 MB or more
Display/Video Card	: 1024 X 768 pixels or more, True Color (24 bits or 32 bits)

#### LAN Specifications

- 10 BASE-T/100 BASE-TX network connected with IEEE802.3 hubs.

#### Note

The PC specifications above are only for a reference purpose. They are not meant to guarantee a smooth operation of the application software. Depending on the usage of the PC, there may be cases where problems occur even if the PC satisfies the technical requirements.

#### Caution

If the OS specifications of the PC to be used are higher, they precede those described above.

### Upgrading the Application

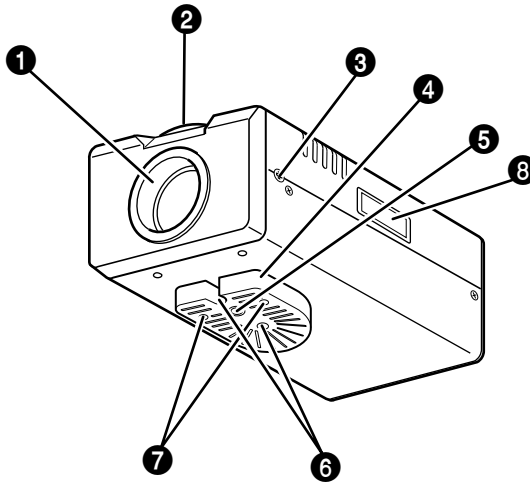
For information on upgrading the application, visit the following website.  
<http://www.jvc-victor.co.jp/english/pro/vnetworks/index-e.html>

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## Operating Precautions

- VN-C10 is designed for indoor use. For outdoor use, prepare a proper housing to cover and protect the camera.
- The product should not be installed or used in the following locations.
  - Locations subject to rain or water.
  - Locations with hot air or oil vapors such as in kitchens, etc.
  - Locations where the allowed ambient temperature (0 °C to 40 °C) is exceeded.
  - Locations exposed to X-ray radiation or where strong electrical or magnetic waves are generated.
  - Locations where corrosive gas is generated.
  - Locations with vibrations.
  - Locations with excessive dust.
- If VN-C10 and the cables connected to VN-C10 are installed at a location where strong electrical or magnetic waves are generated, near a radio, TV set, transformer, motor etc., the quality of image and color may be affected.
- If a high-intensity object (such as a lamp) is shot, the image on the screen may have vertical lines (smear) or blur (blooming) at its periphery. This is a characteristic of the CCD, and is not a defect.
- Clean the unit with the power turned off. Use a soft cloth like cotton flannel to wipe out dirt. Do not use paint thinner or benzine as a cleaning agent as this may cause melting or tarnishing of the unit surface. If dirt is persistent, use a cloth soaked with water-diluted mild detergent and then wipe it with a dry cloth.
- Because the cable holders of the terminals could come loose, perform cable connection carefully and securely.
- Insufficient dissipation of heat from the unit may cause damage. Use the unit at a well-ventilated location. In particular, do not block the unit's cooling-fan ventilation opening.
- In a narrowband environment, for example, of dial-up connection, smooth running of MPEG4 images cannot be obtained. This is due to the product design, therefore not a defect.
- When this product is installed in an NAT environment, MPEG4 images cannot be viewed. This is due to the product design, therefore not a defect. (This product uses a network protocol called RTP for transmitting MPEG4 images. Generally, an NAT router cannot carry out NAT translation of RTP packets properly.)
- Certain hubs and switches equipped with SNMP functions have a broadcast or multicast control function. If the function is enabled, multicast images created by this product may not be viewed properly.
- To save electricity, turn off the power to the system when not in use.
- **As local recording images are saved to the volatile memory of the product, the images are deleted if the power is turned off.**

(Front, top and side views)



### ❶ Lens mount

The mount for attaching a lens. Either a C-mount or a CS-mount lens can be used.

### ❷ Back-focus adjustment ring

The ring for adjusting back-focus and changing the mount method. For adjusting back-focus or changing the mount method, loosen the back-focus locking screw (❸) by turning it counterclockwise and, after the operation, fix it by turning it clockwise. At the factory, VN-C10 is optimized for attaching a CS mount lens.

### ❸ [BF LOCK] locking screw

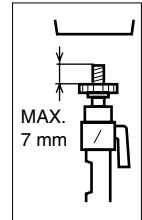
This serves to fix the back focus-adjustment ring.

### ❹ Bracket for camera mounting.

At the factory, the bracket is attached on the bottom of the camera. According to the installation condition, this can be attached at the top. Use the screws (❷) for attaching the bracket to the camera.

### ❺ Screw hole (1/4-20UNC)

For attaching the camera to a fixer or a pan/tilt unit. The screw length must not exceed 7 mm. If a longer screw is used, the internal parts of the camera may be damaged.



### ❻ Fall-preventive holes

For installing the camera securely, use these holes to prevent it from falling off.

### ❼ Screws for the bracket (x 2: M2.6 X 6 mm)

Screws of the length of 6 mm should be used. A longer screw may damage the internal parts.

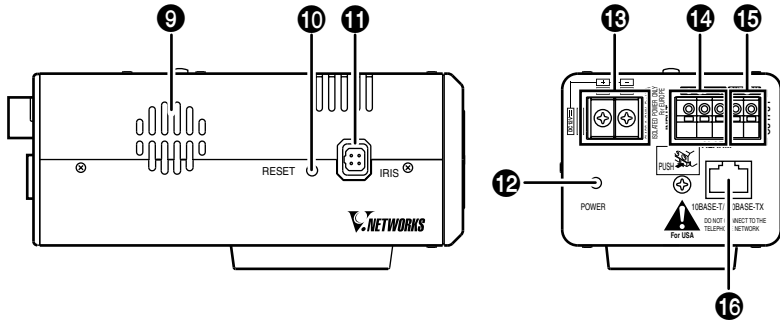
### ❽ [MAC address]

Physical address unique to the unit. Cannot be changed.



## Controls, Connectors and Indicators (continued)

(Side and rear views)



### 9 Ventilation opening

For the internal cooling fan. Install the camera in a way that does not cover the opening.

### 10 [RESET] button

Press this button to reset VN-C10. If this button is held down for 2 seconds or longer, the values set with [V.Networks Setup Tool] return to those set at the factory, and VN-C10 restarts.

### 11 [IRIS] terminal

For connecting with a DC IRIS lens.  
(A video iris lens cannot be connected.)

### 12 [POWER] indicator

This indicator starts blinking when the power is turned on. When the camera is ready for network connection, this becomes steady on. If the indicator blinks while the camera is in use, check the camera and/or the network equipment.

### 13 [DC 12 V/AC 24 V] Power terminal

For connecting to a DC 12 V or AC 24 V, 50 Hz/60 Hz, power source. (☞ Page 13)

### 14 [ALARM INPUT] terminals

For connecting with an external alarm equipment.

### 15 [ALARM OUTPUT] terminals

For connecting with an external alarm equipment.

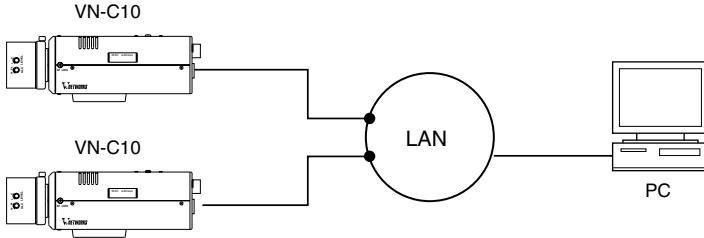
### 16 [10 BASE-T/100 BASE-TX]

For network connection with a LAN cable.  
(☞ Page 14)

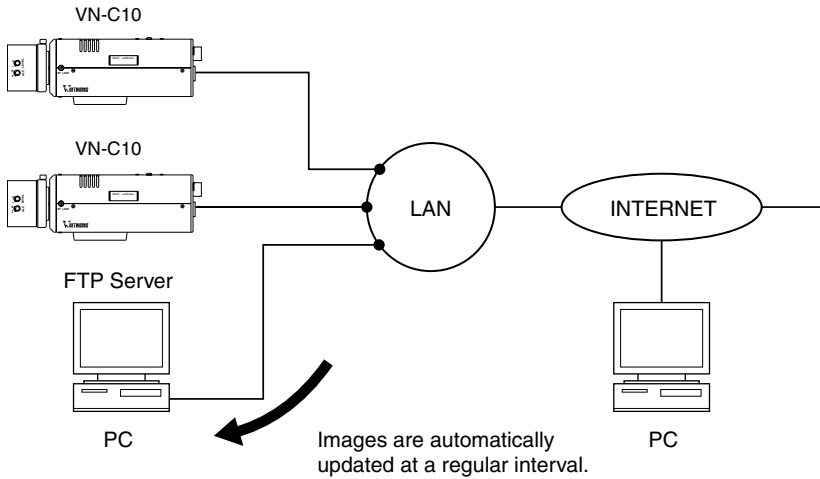
# Preparations

## Connection Examples

### LAN Connection



### Network Connection



### Peer-to-Peer Connection



## Preparation Procedure

Set the camera in the following procedure.

### Step 1 Connection and Installation

Attach a lens and connect the power cable, a LAN cable and an alarm etc. Then, install the camera to a fixer, etc. Fix a wire securely for preventing the camera from falling off.

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### Step 2 Setting the Network

Install the software [V.Networks Controller], and set the network for the PC and VN-C10. Also perform the setting with [V.Networks Setup Tool] and registration of the connected camera with [V.Networks Controller].

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※ If multiple PCs are in use, first turn on the power for one PC and proceed to Other Settings with V.Networks Setup Tool. Only then, turn on the power to a second PC and go on to Other Settings with V.Networks Setup Tool. Repeat the procedure for other PCs. Refer to the PDF instruction manual inside the supplied CD-ROM.

### Step 3 Adjusting the Camera

Adjust the back-focus while checking images.

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### Step 4 Setting with V.Networks Controller

Set image quality and alarm, etc. by using [V.Networks Controller] which has been installed.

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### Step 5 Operations with V.Networks Controller

Now the camera is ready for recording and playback, etc. with [V.Networks Controller].

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### Step 6 Operations with a Web Browser

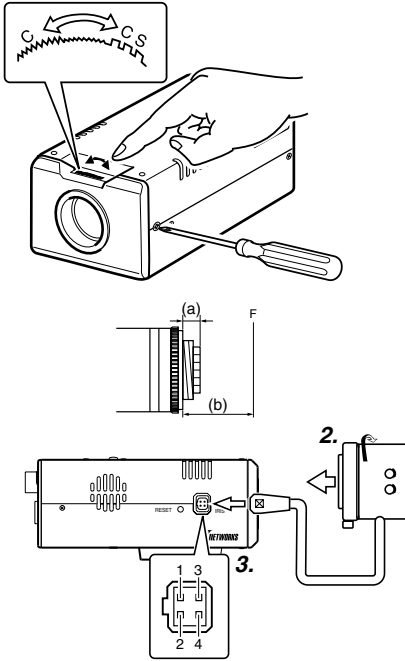
The camera is ready for Web operations.

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# Preparations (Step 1 Connection and Installation)

## Attaching a Lens

Attach a lens in the following procedure.



**1.** Before attaching a lens, check the mount method of the lens.

VN-C10 is set for CS-mount at the factory. For attaching a C-mount lens, loosen the back-focus locking screw using a screwdriver and turn the back-focus adjustment ring to change the mount method accordingly with a finger or a pointed tool like a screwdriver.

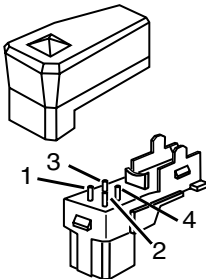
To attach a lens, observe the length shown as (a). Do not use a lens with a length longer than (a) as it may cause damage to the internal parts of the camera and proper lens attachment would not be possible.

Lens	Flange-back distance (b)	Length (a)
C-mount lens	17.526mm	10 mm max.
CS-mount lens	12.5mm	5.5 mm max.

**2.** Attach the lens to the camera securely by turning it clockwise.

**3.** In the case of a DC IRIS lens, connect the lens cable to the socket while examining the pin arrangement.

### 4-Pin Plug

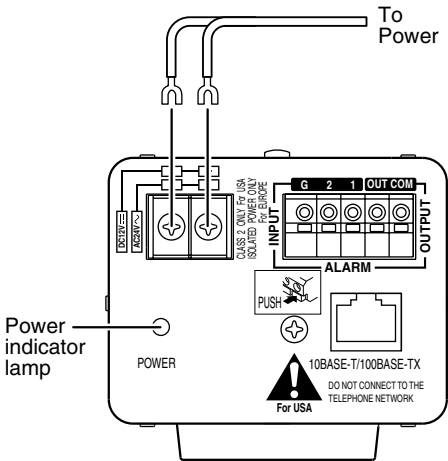


Pin No.	Lens	DC IRIS Lens (Without a built-in EE amplifier)
1		Damping ⊖
2		Damping ⊕
3		Driving ⊕
4		Driving ⊖

## Connecting the Power Cord

### Connect the camera to DC 12 V or AC 24 V.

The power indicator is lit when the power is turned on.



### Power Cord

- Do not connect the power cord to DC 12 V and AC 24 V at the same time.
- Use a lug plate to securely connect the power cord to the power terminals and avoid misconnection or loose connection.
- For DC 12 V connection, ensure that the polarities, positive and negative, are correctly oriented.
- For DC 12 V connection, the ripple voltage should not exceed 50 mV.

### Cable to Use

- Length: 30 m maximum
- UL1007, UL1015 or equivalent
- AWG #20 or equivalent, or higher

## WARNING

Connect with the appropriate power-supply voltage. The rated voltage for VN-C10 is DC 12 V or AC 24 V, 50 Hz/60 Hz. If a voltage exceeding the rating is supplied, malfunction, or in the worst case, fuming or fire, may be caused.

For AC 24 V, ensure that the primary side is insulated with the secondary one.

### For a system with multiple VN-C10s

In a system where more than one VN-C10 are used, turn on the power for a VN-C10 first and proceed the setting to Other Settings with V.Networks Setup Tool. Only then turn on the power for a second one and go on to Other Settings with V.Networks Setup Tool. Repeat the procedure for the other cameras. Refer to the PDF instruction manual inside the supplied CD-ROM.

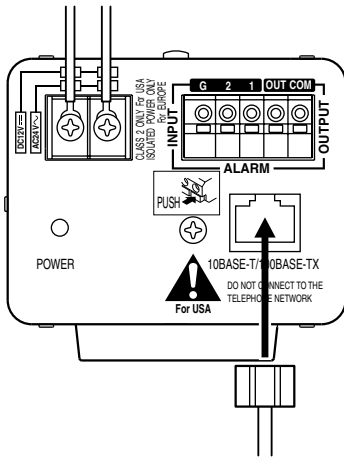
### Note

The IP address of VN-C10 is set to "198.168.0.2" at the factory. Proper access cannot be established due to IP address redundancy if the power is turned on for multiple cameras at one time under a single LAN environment. **Do not turn on the power for multiple cameras at the same time.** If an IP address redundancy occurred, ensure that only one VN-C10 exists on a single LAN environment and wait for some time (at least 10 minutes). Or turn off the power once for all network equipment and turn it on again for proper access to VN-C10.

## Preparations (Step 1 Connection and Installation)

### Connecting a LAN Cable

Connect the camera to a hub or a PC by using a LAN cable.



- **For hub connection**  
Use a straight cable.
- **For PC connection**  
Use a cross-over cable.

#### Caution

There are a few types of LAN board for which a cross-over cable cannot be used. Check the specifications of the LAN board to be used before performing connection.

#### Note

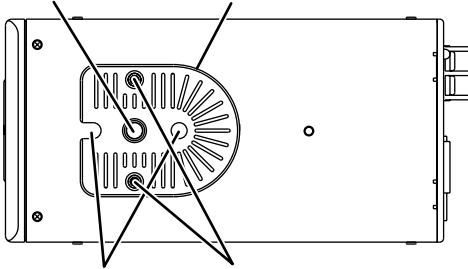
For 100 BASE-TX, use a CAT-5 cable.

## Installing the Camera

### Fall-Preventive wire

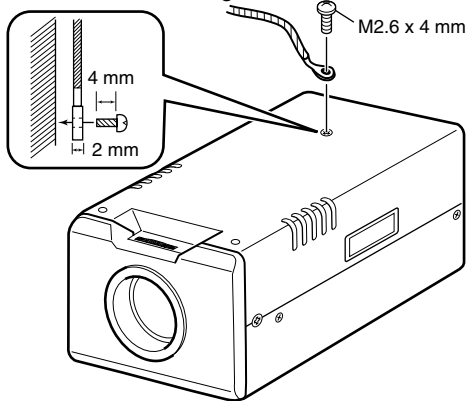
For attaching the camera to a fixer or a rotating platform, use the screw hole of the mounting bracket.

Camera mounting screw hole      Camera-mounting bracket



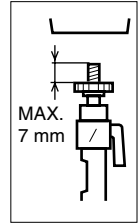
Fall-preventive holes      Screws for the bracket  
[x 2: M2.6 x 6 mm]

Securing wire



### Caution

- The length of the screw for mounting the camera must not exceed 7 mm. Do not use a longer screw as it may damage the internal parts of the camera.
- In the factory setting, the bracket is attached on the top of the camera. For attaching it at the bottom, remove the two screws fixing the bracket.



### Caution

For fixing the bracket, screws of the length of 6 mm should be used. Do not use a longer screw as it may damage the internal parts of the camera.

### [Fall Prevention]

### WARNING

- Special care is required if the camera is installed on a wall or ceiling. You should not attempt to install it by yourself as it may cause injury or an accident. This installation work should be carried out only by qualified and experienced personnel.
- When the camera is attached to a fixer or a pan/tilt unit, use the holes for fall prevention to secure it.
- To prevent the camera from falling off, secure it to a secure and stable structure such as a ceiling slab or a channel by using a wire.
- Ensure that the length, strength, routing and material (insulation) of the securing wire to be used are appropriate.
- To attach the securing wire, use the black screw on the top side of the camera.
- For fixing the wire, a screw of M2.6 X 4mm should be used. Do not use a longer screw as it may damage the internal parts of the camera.


# Preparations (Step 2 Setting the Network)

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## Installing the Software

For operating VN-C10, install the software from the CD-ROM, which is supplied with the camera in the following procedure.

### Installing V.Networks Controller

1. Select [Setup.exe] found in the [JVC] folder.
2. Proceed by following the instructions shown on the screen.
3. If the installation is successfully executed, the [V.Networks] icon is created in [Programs] of the Windows [Start] menu.  [vn-c10u Controller] is displayed in [V.Networks].

### Installing V.Networks Setup Tool

1. Open the [JVC] folder and then the "setup" folder inside. Select [Setup.exe].
2. Proceed by following the instructions shown on the screen.
3. If the installation is successfully executed, the [V.Networks] icon is created in [Programs] of the Windows [Start] menu.  [vn-c10u Setup Tool] is displayed in [V.Networks].

### Installing DirectX 8.1 and Codec

[DirectX 8.1] and ISO MPEG4 Codec are required for viewing MPEG4 images with VN-C10. If the version currently installed in the PC is older, install the version 8.1 by following the procedure below.

#### Installing Codec

Select [WMPCD8.exe] and install Codec by following the instructions shown on the screen.

#### Installing DirectX 8.1

1. Click [Start] and select [Run]. And enter [dxdiag] in the box and click [OK].
2. If the version is older, select [DX81NTeng.exe] and follow the instructions on the screen.



## Setting the PC's IP Address for Windows XP

After attaching the camera, proceed to set the IP address of the PC by which the camera is operated.

With Windows XP, follow the procedure below to set the IP address.

(For Windows 2000,  Page 19)

### Note

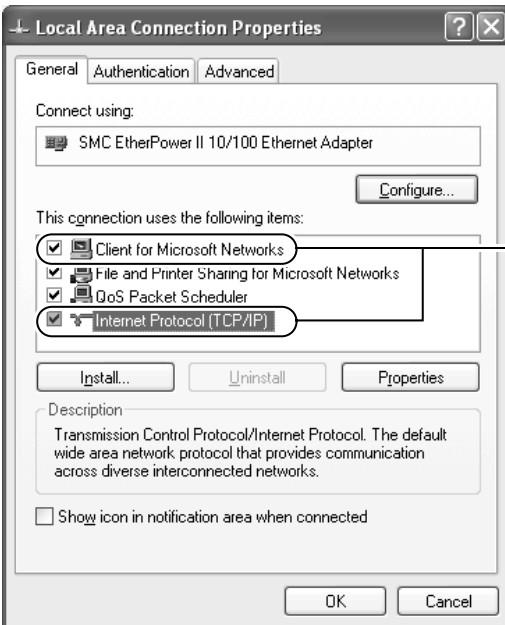
Under a DHCP environment and also if the IP address to be allotted to [V.Networks] is already known, skip Setting the PC's IP Address.

### 1. Click .

- Right-click [My Network] and select [Properties].

### 2. Select the network connected to the PC by which VN-C10 is operated.

- Right-click to select [Properties].



Ensure that [Client for Microsoft Networks] is selected .

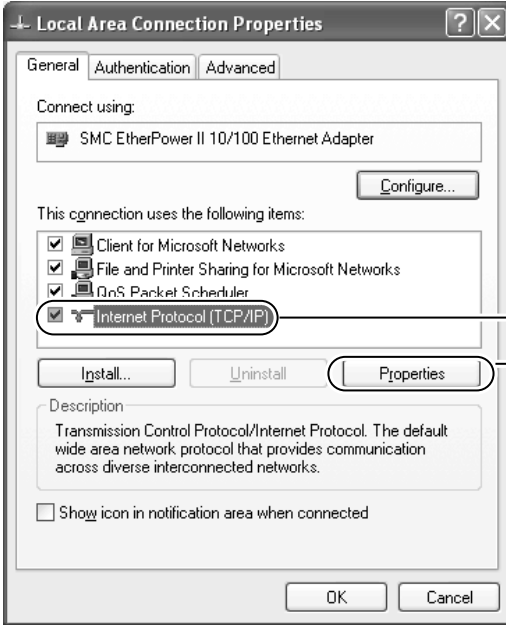
### Note

If either [Client for Microsoft Networks] or [Internet Protocol (TCP/IP)] is not displayed, select [Install ...].

## Preparations (Step 2 Setting the Network)

### Setting the PC's IP Address for Windows XP (continued)

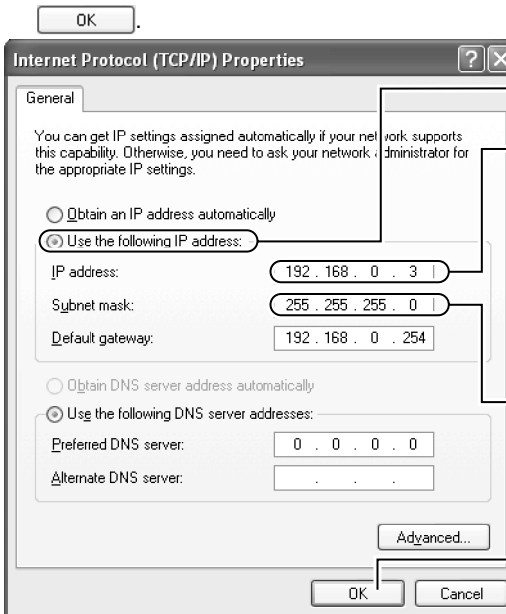
#### 3. Select [Internet Protocol (TCP/IP)] and click [Properties].



① Select [Internet Protocol (TCP/IP)].

② Click [Properties].

#### 4. Select [Use the following IP address] to set [IP Address] and [Subnet Mask] and then click



① Select [Use the following IP address].

② Set [IP Address] to "192.168.0.3".

③ Set [Subnet Mask] to an appropriate value according to the operating environment. Ask the network administrator if necessary.

④ Click [OK].

#### 5. Click [Close] in [Local Area Connection Properties].

## Setting the PC's IP Address for Windows 2000

After attaching the camera, proceed to set the IP address of the PC by which the camera is operated.

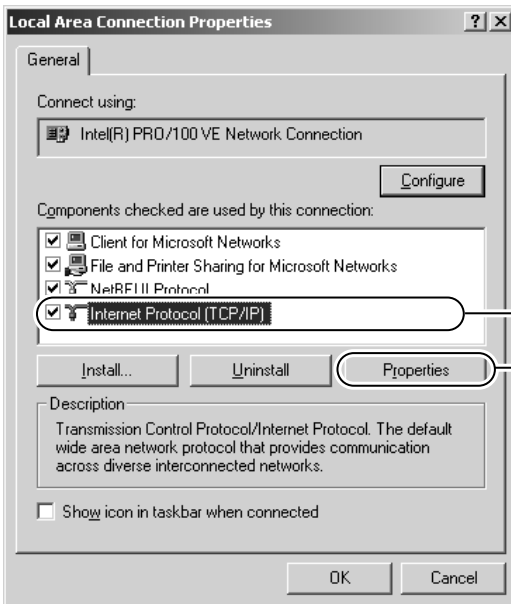
With Windows 2000, follow the procedure below to set the IP address.

**1. Click [Start].**

Select [Settings] and click [Control Panel].

**2. Double-click [Network and Dial-up Co...].**

**3. Double-click [Local Area Connection].**



① Select [Internet Protocol (TCP/IP)].

② Click [Properties].

## Preparations (Step 2 Setting the Network)

### Setting the PC's IP Address for Windows 2000 (continued)

#### 4. Click [IP Address] in [TCP/IP properties].

Internet Protocol (TCP/IP) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address: 192 . 168 . 0 . 3

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 0 . 254

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server: . . . . .

Alternate DNS server: . . . . .

Advanced...

OK Cancel

- ① Select [Use the following IP Address].
- ② Set the IP address to “192.168.0.3.”
- ③ Set [Subnet mask] to an appropriate value according to the operating environment. Ask the network administrator if necessary.

#### 5. Click .

## Setting the IP Address for VN-C10 with V.Networks Setup Tool

Set the IP address for VN-C10 by using the installed [V.Networks Setup Tool].  
(With this [V.Networks Setup tool] only VN-C10, not other models, can be connected.)


### Caution

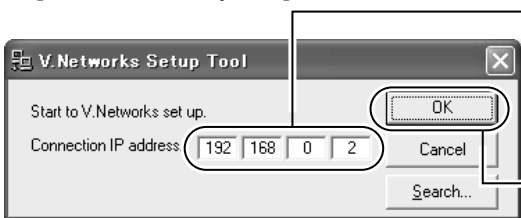
- After the power for VN-C10 is turned on, there will be about 20 seconds until VN-C10 becomes ready to be connected with the PC. This is not a defect.
- At the factory, DHCP is set enabled for VN-C10.
- About the DHCP function  
JVC does not recommend operating VN-C10 with this function enabled because a different IP address may be assigned upon the renewal of the leasing contract. The DHCP function of VN-C10 is designed for simplifying the installation and setting procedures.

### Note

For connecting VN-C10 with the factory settings, either one of the environments described below is required.

- Environment where no DHCP server exists.
- Environment where a DHCP server exists, which clearly defines the allotted IP address and MAC address.

1. Select [Start], [Programs], [V.NETWORKS] and then  [vn-c10u Setup Tool] to start up [V.Networks Setup Tool].

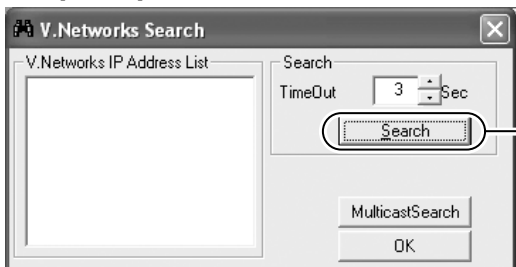


① Enter the IP address of the camera to be connected to [Connection IP Address]. The IP address is set to **192.168.0.2** at the factory.

② Click .

### Note

Click [Search] to see the IP address of the connected camera.



The [V.Networks Search] screen is displayed.

To start search, click [Search]. [V.Networks IP Address List] is displayed.

- [TimeOut] is for setting the time for searching (0 to 30 seconds).  
If no IP address is displayed by searching, change the value to a longer one and then search again.
- If [V.Networks] on LAN has a different subnet from that of the PC, connection cannot be established even if the IP address of the camera can be searched and found. Reconnect the camera after changing the IP address of the PC accordingly.

## Preparations (Step 2 Setting the Network)

### Setting the IP Address for VN-C10 with V.Networks Setup Tool (continued)

#### 2. Confirm the settings.

The screenshot shows the V.Networks Setup Tool window. Callout 1 points to the DHCP checkbox, which is unchecked. Callout 2 points to the IP Address field, which contains '192.168.0.3'. Callout 3 points to the Subnet Mask field, which contains '255.255.255.0'. Callout 4 points to the OK button at the bottom of the window.

① Select whether to use DHCP.

**Note**

- With DHCP selected, the IP address of the DHCP server etc. can be checked.

② Change the IP address to the one allotted, or approved, by the network administrator.

③ Set the subnet mask to an appropriate value according to the operating environment. Ask the network administrator if necessary.

④ Click .

For other settings, refer to the PDF instruction manual inside the supplied CD-ROM.

[V.Networks ID] works as an identification code set to VN-C10. Only alphanumeric characters can be used. This ID does not directly affect the operation by the user. Normally, the ID should be set as "CAM00001," "CAM00002" etc.

#### 3. Click .



Click  to update the values.

#### **Note**

A new IP address becomes effective when VN-C10 is automatically reset.


#### 4. Start up [V.Networks Controller]. (Page 23)

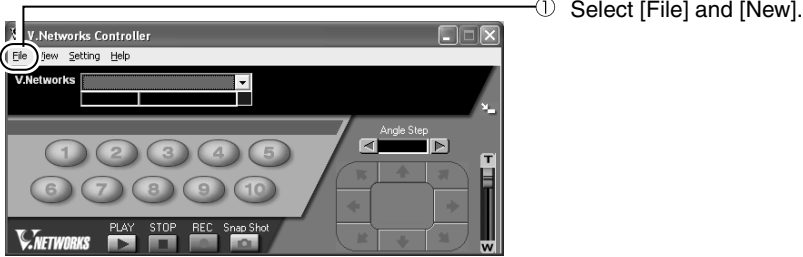
#### **Note**

In a system where more than one VN-C10 are used, turn on the power for a VN-C10 first and proceed the setting to Other Settings with V.Networks Setup Tool. Only then turn on the power for a second one and go on to Other Settings with V.Networks Setup Tool. Repeat the procedure for the other cameras. Refer to the PDF instruction manual inside the supplied CD-ROM.

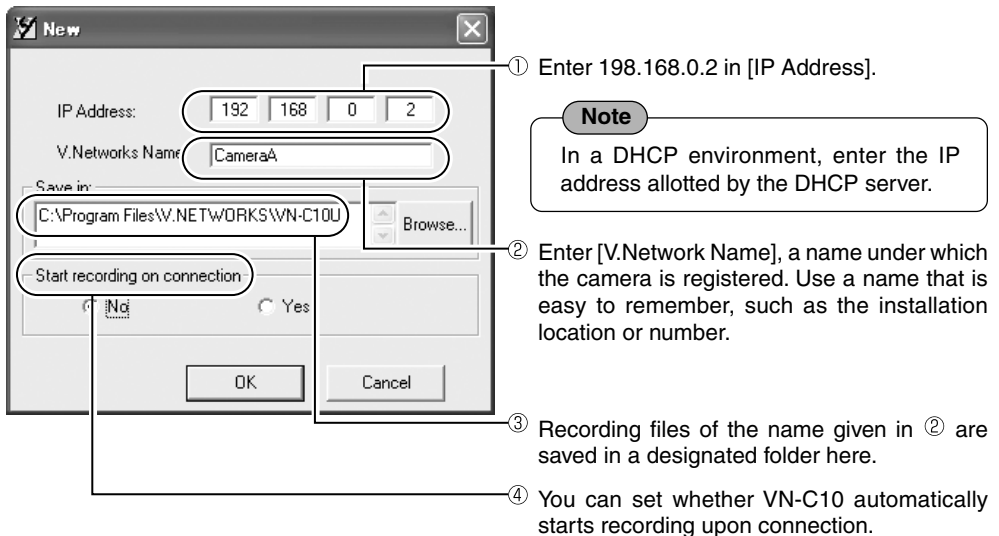
## Registering the Connected Camera with V.Networks Controller

The connected camera can be registered with the installed [V.Networks Controller].

1. Select [Start], [Programs], [V.NETWORKS] and then  [vn-c10u Controller] to start up [V.Networks Controller].



2. [New] is displayed.



### Note

For connecting VN-C10 with the factory settings, either one of the environments described below is required.

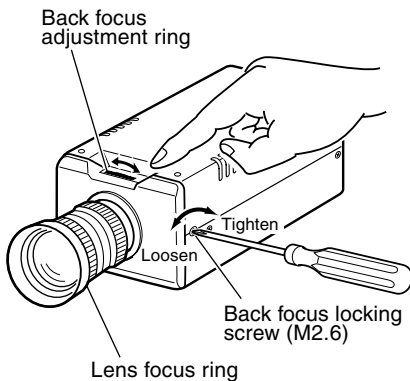
- Environment where no DHCP server exists.
- Environment where a DHCP server, which clearly defines the IP address and MAC address allotted to VN-C10, exists.

# Preparations (Step 3 Adjusting the Camera)

## Back-focus Adjustment

At the factory, back-focus is set at the point for the widest range of use for CS-mount. However, it is necessary to readjust back focus if a zoom or C-mount lens is used or if focus cannot be attained using the focus ring of the lens. To adjust, follow the procedures described below.

In order to adjust back-focus appropriately, use the iris adjustment function and an ND filter to release the lens iris before proceeding with the adjustment. (An ND filter acts to reduce the overall amount of light entering the lens equally over all wavelengths.)



### <For a fixed-focus lens>

If focus cannot be attained using the focus ring of the lens, adjust the back-focus as follows.

1. Loosen the back-focus lock screw by turning it counterclockwise with a Phillips screwdriver.
2. Aim the camera at the object or a spot of detail somewhere away from the object while checking the image on the PC screen.
3. Turn the back-focus adjustment ring to .
4. Turn the back-focus adjustment ring to optimize the focus.
5. Tighten the back-focus lock screw securely by turning it clockwise.

### <For a zoom lens>

If the image gets out of focus when zoomed in/out, adjust the camera as follows:


1. Loosen the back-focus locking screw by turning it counterclockwise with a Phillips screwdriver.
2. Aim the camera at the object or a spot of detail somewhere away from the object while checking the image on the PC screen.
3. Zoom in the lens and adjust the focus by turning the focus ring.
4. Zoom out the lens and adjust the focus by turning the focus ring.
5. Repeat steps 3 and 4 a few times.
6. Tighten the back-focus locking screw securely by turning it clockwise.



# Operations (Step 4 Setting with V.Networks Controller)

## Starting Up V.Networks Controller

With the installed Controller, camera images can be monitored. The settings for recording, replay and frame rate etc. can also be performed.

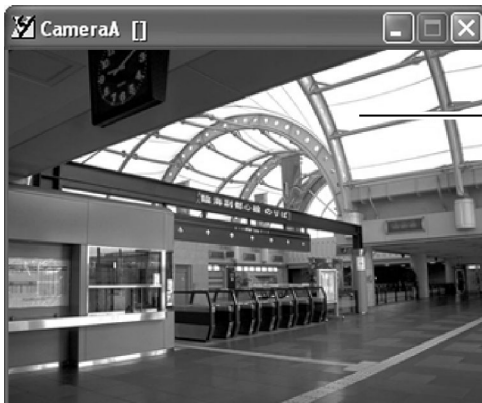
1. Select [Start], [Programs], [V.NETWORKS] and then  [vn-c10u Controller] to start up [V.Networks Controller].



- ① In the pull down menu, select the camera to connect.

### Caution

After the power for VN-C10 is turned on, there will be about 20 seconds until VN-C10 becomes ready to be connected with the PC. This is not a defect.



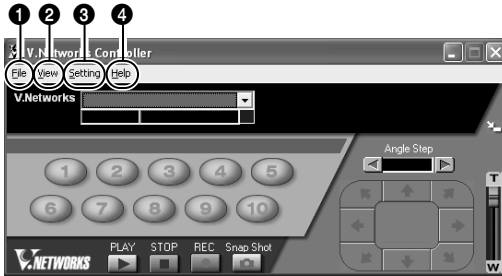
- ② Live images from the camera are displayed.

### Note

- If a password has been set, enter the correct password.
- This [Controller] can be connected to VN-C1, VN-C2, VN-C3, VN-C30 (only for JPEG), VN-A1 and VN-C10.

## Function Settings with V.Networks Controller

With [V.Networks Controller], settings for image size, alarm etc. can be performed.



### 1 File

- New : Creates a new file if the camera is connected for the first time.
- Delete : Deletes a file.
- Motion Detect Standby : For selecting the camera for which motion detection is enabled.
- Exit : Exits "Controller."

### 2 View

- Image Size : Sets the image display size.
  - JPEG : 640x480  
320x240  
160x120
  - MPEG4 : 320x240  
160x120
- Upside Down : Displays the image inversely. This function is used in the case that the camera is inversely installed. (Not available for MPEG4)

### 3 Setting

- Quality : Sets the compression rate and image quality.
- Framerate : Sets the number of frames transmitted per second.
- Alarm Reg : If this is selected , alarm operation will be enabled.
- Alarm : Alarm actions for each alarm can be set individually.
- Time Stamp : Sets display of the date and time of file saving.
- Property : Changes information on cameras not currently connected.

### 4 Help

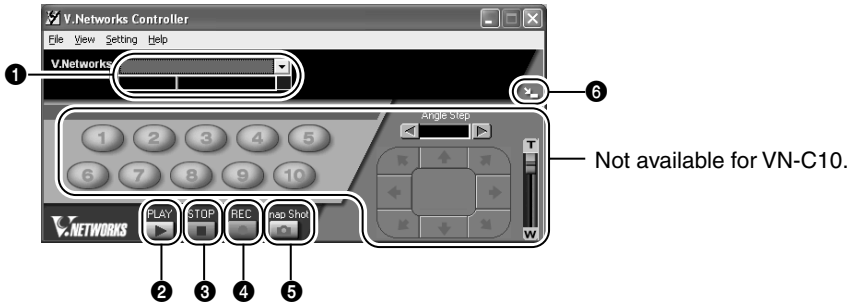
- About : For checking the version of [V.Networks Controller].

# Operations (Step 5 Operations with V.Networks Controller)

## Operations with V.Networks Controller

[V.Networks Controller] can be used to select the camera, record and playback the camera images etc.

(The Controller screens are identical with those for other V.Networks models. Certain functions are not available for VN-C10.)



### 1 Camera

Displays the name of the connected camera. It is also possible to select the camera using the pull down menu.

### 2 PLAY

Select the file saved in 4 and replay. Select this button too for replaying a recorded file with an alarm activated.

### 3 STOP

Stops recording.

### 4 REC

When this is selected, recording starts. The recorded files are saved under the name shown in 1. During recording, the display [Recording in progress] appears in 1. The display [REC] will also appear on the displayed image.

### 5 SNAPSHOT

Saves only one frame of the image being displayed.

### 6 SIZE

Reduces the size of the [V.Networks Controller] screen. (See below.)

### Reduced screen



For details, refer to the PDF instruction manual inside the supplied CD-ROM.

# Operations (Step 6 Operations with a Web Browser)

It is possible to view still/moving images and perform various settings via not only the provided [Controller] software but via a Web browser as well. However, note that MPEG4 files cannot be viewed with a browser. Also, the browser does not support the image inversion function.

## Required Operating Environment

The following environment is required for viewing and operating VN-C10 with a Web browser. **It is necessary for the PC to satisfy the technical requirements described in this instruction manual (☞ Page 6).**

**The PC must also satisfy the following Web browser conditions:**

- A Web browser compatible with JavaScript and frame, that is, Netscape Ver. 4.x or Internet Explorer Vers. 4.x, 5.x and 6.x.
- For the recommended CPU performance and required memory capacity, refer to the Web browser in use.  
For smooth display of large-screen moving images, specifications much better than those recommended are necessary.  
Images from the camera will not be displayed properly in the 256-color mode.
- For Internet Explorer, an environment where Java can be properly run (Microsoft VM) is required.

## LAN Environment

- VN-C10 can work as a web server that uses HTTP. Access linkage using a host name is possible if the environment supports DNS (Domain Name System).
- A direct connection of VN-C10 to a PC is possible using a cross-over cable. (Though rare, certain LAN boards do not allow the use of a cross-over cable. Be sure to check your LAN board.)

### Note

#### Web page images

Web page images shown in this document refer to Web page data within VN-C10, including images captured by the VN-C10 camera and displayed by a Web browser.

Depending on the type and settings of the Web browser, the page format and character fonts of the displayed Web pages may vary. Should the page contents fail to be displayed in total, try resizing the window, etc.

The illustrations in this manual are obtained from Internet Explorer display screens.

#### For Internet Explorer

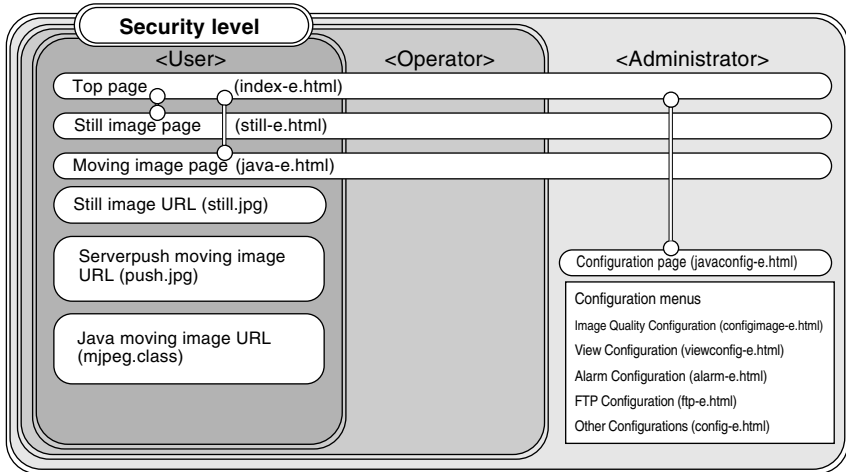
- After the password has been changed, the password authentication window may ask for the password twice. In this case, enter the same password twice.

#### For Netscape Navigator

- When a moving image from VN-C10 is displayed, the page content cannot be updated by changing the window size. In this case, click the [Update] button on the Netscape window to update the page display.

## Access Authorization

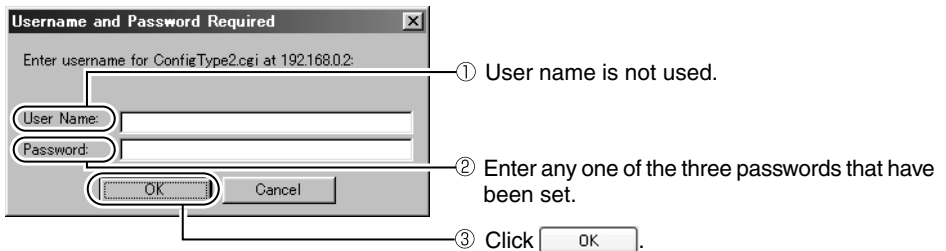
The structure of URLs within the VN-C10 is as shown below.



Top page: [http://\\*\\*\\*\\*\\*/index-e.html](http://*****/index-e.html) (\*\*\*\*\* represents the URL of VN-C10.)  
This page is intended for linkages to other VN-C10 web pages.

### Verifying access authorization

If passwords are set, the [User Name and Password] request window appears (for access authorization).



### Note

- It is recommended that you register the URL (Uniform Resource Locator).
- For speedy display of the VN-C10 web pages on your web browser, it is recommended that you register the URL information during the access test using the set IP address or DNS host name.
- For this purpose, use the [Favorites] function of Internet Explorer or, in the case of Netscape, [Bookmarks]. While the VN-C10 web page is displayed in the browser, use the [Add] function to bookmark the page.

# Operations (Step 6 Operations with a Web Browser)

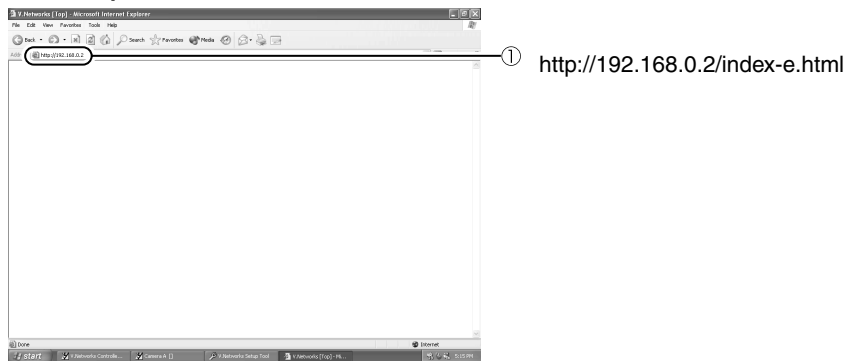
## Starting Up the Web Browser

Start up the web browser. Specify the factory-set web page address of VN-C10. (With the factory-set IP address entered, the web browser displays the VN-C10 top page.)

### Note

If a proxy server is set for accessing the Internet, there are cases in which the IP address cannot be directly specified. In this case, change the proxy setting so that the address can be entered.

### 1. Start up the Web browser.



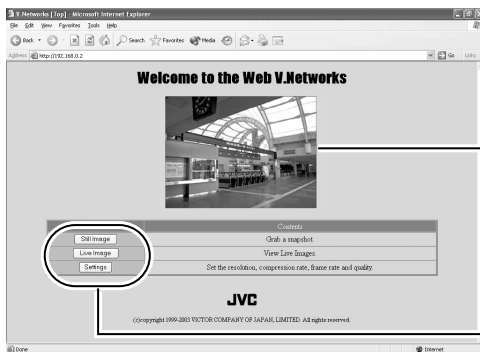
### Note

In this instruction manual, the [Top page] and the [Home page] are defined as follows:

Top page : The "/index-e.html" page

Home page : The specified page displayed when the default page function is enabled. When the function is not enabled, the [Top page] is displayed.

### 2. The VN-C10 top page appears.



VN-C10 still image

The image taken at the point when browsing starts is displayed.

Buttons linking to other web pages. (Click to jump to these pages.)

### Caution

If the image mode of VN-C10 is MPEG4, the blue screen appears.

**For details, refer to the PDF instruction manual inside the supplied CD-ROM.**

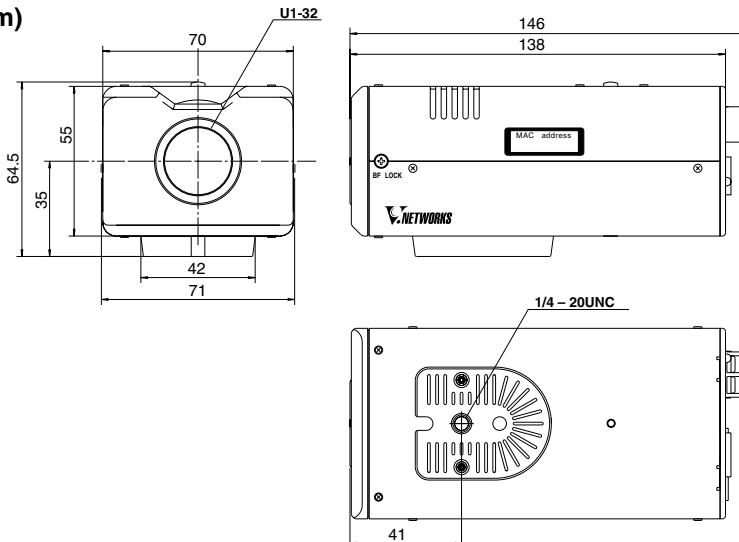
# Others

## Specifications

LAN standard	IEEE802.3 or IEEE802.3u
Communication protocol	TCP/IP, UDP, HTTP, FTP, ICMP, ARP, RTP, RTSP, DHCP, NTP
Image pickup device	1/3 type IT CCD
Available pixels	Approx. 380,000 pixels (768 (H) x 494 (V))
Video S/N ratio	50 dB (50 %, AGC OFF, Compression rate: 1)
Minimum required illumination	2.5 lx (50 %, F1.2, AGC ON)
Image compression	JPEG, MPEG4
Output image format	640 x 480, 320 x 240, 160 x 120 640 x 480 not available for MPEG4
Lens mount	C/CS mount
Alarm input	Non-voltage "A" contact input. NPN open collector input. Low level, latch/momentary (500 ms minimum) Low level circuit current: 0.6 mA High level impressed voltage: 3.3 V
Alarm output	NPN open collector output (allowable impressed voltage: 12 V, allowable input current: 300 mA)
Network interfaces	RJ-45 (Category 5) 10BASE-T/100BASE-TX (Auto-Negotiation)
Internal memory	8 MB
Power supply voltage	DC 12 V or AC 24 V, 50 Hz/60 Hz
Power consumption	1.2 A max.
Operating temperature	0 °C to 40 °C
Mass	Approx. 560 g

## External Dimensions

(Unit: mm)



● Design and specifications are subject to change without notice.

**VN-C10**

**V.NETWORKS**

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