

VN-C205 FIXED DOME NETWORK CAMERA

JVC

FIXED DOME NETWORK CAMERA

VN-C205

INSTRUCTIONS



JVC

For Customer Use:



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

Model No. VN-C205

Serial No. _____

Safety Precautions

FOR USA AND CANADA

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: 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.

WARNING (FOR EUROPE):

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.

- This installation should be made by a qualified service person and should conform to all local codes.
- This installation shall be in accordance with the National Electrical Code, ANSI/NFPA 70.
- The unit is to be powered by a DC 12 V or an AC 24 V power supply.
 The AC 24 V power supply should conform to the following : Class 2 only (For USA), Isolated power supply only (For Europe).
- Any Mention in this manual of Alarm inputs/ outputs have not been evaluated by UL to be used for Burglar Alarm Functionality.

These are general **IMPORTANT SAFEGUARDS** and certain items may not apply to all appliances.

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)



S3125A

Introduction

Thank you for purchasing this product.
(These instructions are for VN-C205U.)

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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Settings

(VN-C205U Setup Tool)

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Settings

(V.Networks Controller)

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Operation

(V.Networks Controller)

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Operation

(Web Browser)

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Introduction

Characteristics

- **The camera uses a high-resolution**
380,000 pixel, high-Sensitivity CCD to realize high picture quality with horizontal resolution of 540 TV lines.
- **Frame Rate**
Supports a maximum frame rate of 30 fps when resolution is 640 x 480 in the JPEG compression format.
- **Supports Multicast**
Support for multicast enables sending of an image data to multiple PCs on the network at one time without lowering the frame rate.
- **Built-in CF (Compact Flash) Slot**
Interface with alarms and enables storage of a recording file in the CF card. Please purchase the CF card separately.
- **Motion Detection Feature**
Enables output of alarm upon detecting motion of images within a specified area.
- **Built-in Web Server**
Enables browsing using the Internet Explorer.

Operating Precautions

- To save energy, turn off the power supply of the system when not in use.
- This camera is intended for indoor use. It cannot be used outdoors.
- Do not install or use the camera in the following locations.
 - Places exposed to rain or water
 - Places containing vapor or oil soot, such as kitchens
 - Places exceeding the operating ambient temperature range (0° to 40°)
 - Places where corrosive gases are generated
 - Places nearby radiation or X-rays as well as sources of strong radio waves or magnetism
 - Places subject to vibration
 - Places with excessive dust
- Insufficient ventilation may cause the camera to malfunction. Be careful not to block ventilation around the camera.
This camera radiates heat from its surfaces (top panel facing ceiling and side panel). Do not install at a location that may trap heat, such as near the walls.
- Do not install at a location that may expose the camera directly to cool air, such as nearby the air outlet of air conditioners. This may cause moisture to condense within the dome cover.
- Dew condensation may occur when there is a drastic change in the ambient temperature of the camera, hence causing a malfunction. When the camera is installed at such locations, turn on the power after allowing it to dry for a few hours.
- Do not point the camera lens at a strong light source such as the sun. Doing so may cause the camera to malfunction.
- This camera contains a built-in AGC circuit. As a result, gain increases at dark places and screen may appear grainy. This is not a malfunction.
- When an equipment that generates a strong magnetic field, such as transceivers, is used near this camera with the AGC turned on, beat noises may appear in the image. When using a transceiver, therefore, place it at least 3 m away from this camera.
- If this camera or cable connected this unit is used near a location where strong electrical or magnetic waves are generated (eg. radios, TVs, transformers, monitors, etc.), noise interference may occur in the image or its color may be affected.
- When this camera is used in the White Balance (ATW) mode, the colors captured may differ slightly from the actual colors due to the operational principles of the auto-tracking white balance circuit. This is not a malfunction.

- When shooting a bright object (eg. lamps, etc.), white vertical streaks may appear on the object on the screen. This is a phenomenon (smear phenomenon) normal to CCDs (solid-state image pickup devices) and is not a malfunction.
- The dome cover is hemispherical in shape, and therefore images tend to be distorted at the edges of the hemisphere. The edges of the hemisphere is masked for this camera. When the camera is tilted and pointed in the horizontal direction, therefore, edges of the hemisphere may enter the angle of view, hence causing the upper end of the screen to appear dark and the image to go out of focus.
- When shooting an object that is near a light source (eg. lightings) or with a large difference in brightness, ghosting may occur on the screen. This phenomenon is due to the characteristics of the dome cover and built-in lens and is not a malfunction.
- Ensure to use the Converter Unit that has been supplied.
- Certain Hubs/switches that are equipped with the SNMP feature may come with a broadcast or multicast control function. Proper viewing of multicast images created by this camera may not be possible if this function is enabled.
- Do not touch the dome cover with your hand. This may dirty the cover and cause the image quality to deteriorate.
- To clean the camera.
 - Do so upon turning off the power.
 - Use a lens cloth (or paper) to remove dirt from the dome cover. The camera may acquire dirt over a short period of time, depending on the environment of use.
When there is excessive dirt, wipe using a lens cloth (or paper) upon wetting it in a neutral detergent diluted with water.
- If the D/N switch is turned on, the mode changes automatically to black and white in dark places. As the sensitivity increases, the image may look grainy and white spots may appear. When changing modes, bright portions of image may be emphasized but this is not a failure of the camera.
- The unit is to be powered by a DC 12 V or an AC 24 V power supply.
The AC 24 V power supply should conform to the following : Class 2 only (For USA), Isolated power supply only (For Europe).
- The rating label is displayed on the underside of the body.
- JVC will not be liable for any damage resulting from the camera dropping due to incomplete installation by not following the installation instructions. Take caution when performing installation.
- Before starting an important recording, be sure to perform a test recording in order to confirm that a normal recording is possible.
- We do not accept liability for the loss of a recording in the case of it becoming impossible to record due to a problem in the video camera, VCR or video tape.
- We do not accept liability for any damage to the camera in cases when it is dropped because of incomplete installation due to not observing the installation instructions correctly. Please be careful when installing the camera.
- **Read Me**
Please read through the "Read Me" file in the CD-ROM together with this instruction manual.
- Image sending may be affected when this is done on a network where multicast transmission devices are connected, or on networks for which there is transmission of voluminous broadcast data. When this occurs, ensure to employ a system design that separates the camera from other multicast or broadcast devices by making use of a switching valve or VLAN with a multicast control function.
- When using the local recording feature with a CF card, turning off the power during local recording may damage the file. To prevent damage of the file, make use of a UPS (uninterruptible power supply).

Warning

Install at places that are strong enough to support the camera weight.

Install this camera at places that are strong enough to support its weight upon taking into consideration the vibration force during high-speed rotation as well as its mass (approx. 1.0 kg). For ceiling materials that are weak, such as overlay plywood and plaster boards, reinforce by applying reinforcements (veneer plywood). If reinforcement is inadequate, image on the monitor screen may be blurred due to vibrations. In the worst scenario, it may even fall and cause serious injuries if there is someone underneath.

Introduction


Operating Precautions (Continued)

How to Use This Manual

Characters and symbols used in this manual

Caution Points to pay attention to during operation.

Note Details for reference, such as functions or constraints during use.

 Pages or items to refer to.

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Operating Environment

PC Specifications

OS	: Windows 2000 Professional (SP1 or later) Windows 2000 Server (SP1 or later) Windows XP Home Edition (SP1 or later) Windows XP Professional (SP1 or later)
CPU	: Equivalent to or higher than Pentium 3, 500 MHz (Pentium4, 3.2 GHz recommended)
Memory	: 128 MB and above (1 GB recommended)
Hard Disk Space	: 20 MB and above
Display and Video Card	: 1024 x 768 pixels or higher, true color (24 bit or 32 bit) *VRAM 8MB and above (256 MB and above recommended)

LAN Environment

- 10BASE-T/100BASE-TX networks mutually connected by IEEE802.3-compliant Hubs.

CF Card

- Refer to Page 19 for a list of tested CF cards.

Notes

- General users of Windows XP or restricted users of Windows 2000 are not allowed to add/delete V.Networks or change snapshot and recording settings.
- The PC specifications above are only reference values for smooth operation of this application, and are not meant to guarantee operation of this application. Even if the PC satisfies the technical requirements, problems may occur depending on its usage.

Caution

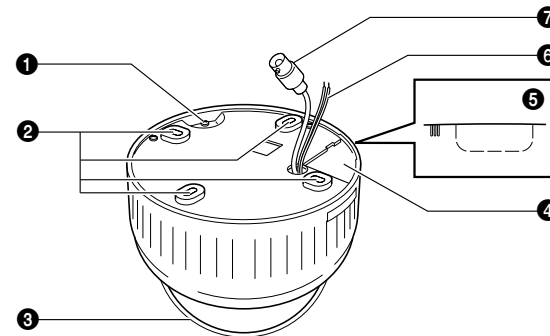
If the OS specifications of the PC to be used are higher, they precede those described above.

Latest Updates

To upgrade the software version or obtain any other latest information, please visit the following website:
<http://www.jvc-victor.co.jp/english/pro/vnetworks/index-e.html>

Name and Function of Parts

Camera




1 Safety cable mounting hole

This hole is mounted to the ceiling slab or channel. (Safety cable not included.)

Caution

To avoid unforeseen accidents, attach the safety cable. Otherwise, there is nothing to prevent the camera from falling should it come loose.

2 Mounting holes

These holes are used to mount the camera body to the ceiling. When using a 4 inch square electrical box, the 2 holes diagonally across are used to fix the box in place. ( Page 21)

3 Dome Cover

The dome cover is fragile. Take care when handling it.

4 Plate for depressing cables


5 Cable extraction hole

This hole is used to extract cables from the side of the camera without opening holes in the ceiling.

6 Input Power cable

To input DC 12 V or AC 24 V power. The AC 24 V power supply should conform to the following : Class 2 only (For USA), Isolated power supply only (For Europe).

7 Video signal output connector (BNC)

This BNC connector outputs a composite video signal. Connect this to the video input connector of a video monitor, switcher, etc. ( Page 23)
Output is restricted signal in the NTSC format only.

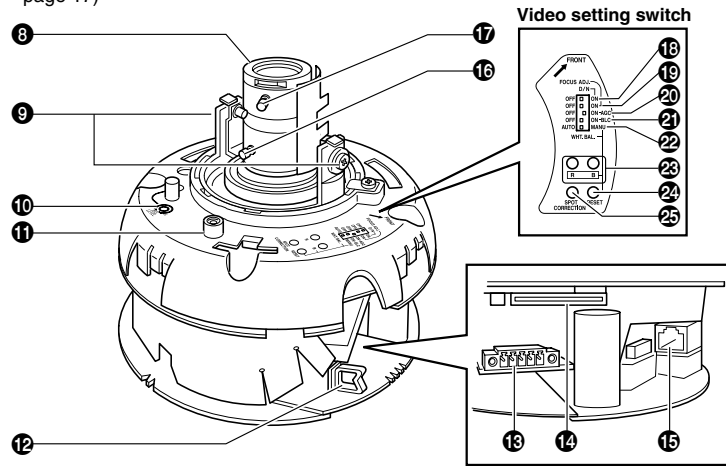
Introduction

Name and Function of Parts (Continued)

Body Surface

View when the dome cover is removed.

For instructions on removing the dome cover, see step 4 of "Mounting the Camera to the Ceiling". (☞ page 17)



8 Head

For adjusting the lens, focus, or camera angle. (☞ page 23 to 24)

9 Tilt lock screws

Use when adjusting the angle of view of the camera. (☞ Page 23)

10 [IRIS LEVEL] Iris level adjustment

For adjusting the level of the automatic aperture control lens. This adjustment only needs to be made when required. Use this to accommodate particular shooting conditions.

	Turning direction of level
To darken image	Counterclockwise (L side)
To brighten image	Clockwise (H side)

Note

- When adjusting the iris level, set the AGC switch to "OFF". Otherwise, when the level is turned too far toward L, the AGC function activates increasing sensitivity and the picture may look uneven.

11 MONITOR terminal (RCA pin)

For connecting a monitor when mounting the camera for adjusting the lens or determining the camera angle. (High impedance)

12 Wire clamp

When pulling out the cables from the side of camera unit without opening a hole on the ceiling, arrange the all the cables by bundling them into this wire clamp.

13 [ALARM IN/OUT] Alarm Input/Output Terminals

Terminals for alarm input and output. (☞ Page 18)

14 CF card Slot

Insert the CF card. (☞ Page 19)

15 [10BASE-T/100BASE-TX] 10BASE-T/100BASE-TX Terminal

This is a 10BASE-T/100BASE-TX terminal. It is used for connecting to the network via LAN cables. (☞ Page 20)

Pin No.	Signal Name	
1	Alarm Output	Alarm Output 1
2		Alarm Output 2
3	Alarm Input	Alarm Input 1
4		Alarm Input 2
5	GND	

16 Focal length adjustment ring

Use the fastening screw adjustment ring to set the image size and fix it with fastening screw. (☞ Page 24)

17 Focus ring

Use the fastening screw adjustment ring to set the focus and fix it with fastening screw. (☞ Page 24)

Video setting switch

18 [D/N - ON/OFF] Easy Day & Night switch

To capture a subject with continually changing brightness (day/night), set this switch to "ON". The camera automatically captures the image in color when the subject is bright, and in black and white mode when it is dark. (Default setting: OFF)

Caution

The Easy Day & Night feature on this camera uses a sensitized black and white mode unlike other black and white surveillance cameras that use infra-red lighting.

19 [FOCUS ADJ. - ON/OFF] focus adjustment switch

When adjusting the focus during installation, setting this switch to "ON" will open the iris. (Default setting: OFF) (☞ page 24)

20 [AGC - ON/OFF] Auto-gain control switch

Setting this switch to "ON" automatically increases the sensitivity even when the brightness of the subject is insufficient. (Default setting: ON)

21 [BLC - ON/OFF] Backlight Compensation switch

Setting this switch to "ON" opens the iris even in backlight conditions, making the subject easier to view. (Default setting: OFF)

22 [AUTO/MANU] White Balance Automatic/Manual switch

For selecting whether to adjust the white balance automatically or manually. (Default setting: AUTO)

23 [R/B] Manual WHITE adjustment button

This button is pressed when manually adjusting the white balance. This feature is enabled when the "MANU" is selected using 22 [AUTO/MANU] switch. Press the B button to increase the blue tint and decrease the red tint.

24 [RESET] Manual WHITE reset button

When this button is pressed, the value of the white balance adjusted manually is reset to the default value.

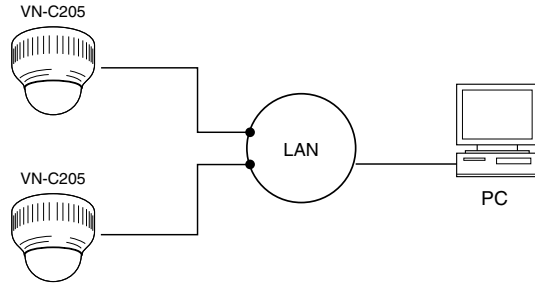
25 [SPOT CORRECTION] White-spot correction button

When this button is pressed, white spots are corrected. For instructions on correcting white-spots, see "About White-spot correction". (☞ page 26)

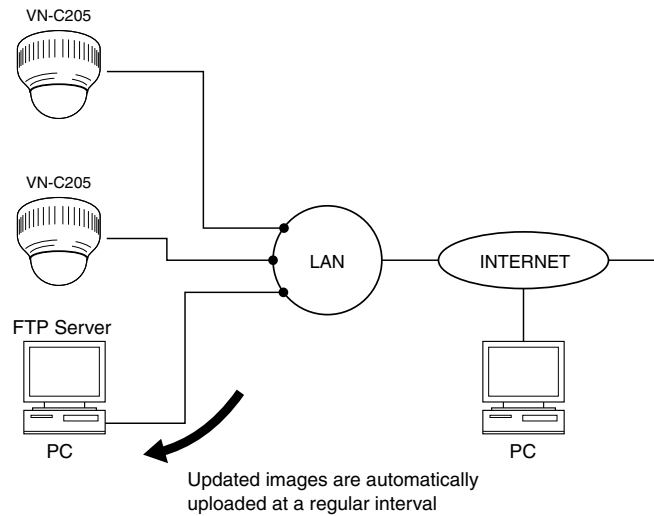
Preparation

Connection Examples

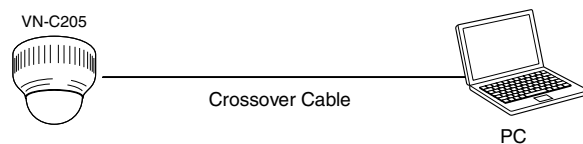
LAN Connection



Internet Connection



Peer-to-Peer Connection



Preparation Procedure

Set the camera in the following procedure.

Step 1 Connection/Installation

Firstly, make a hole in the ceiling, followed by connecting the input power cable, LAN cable or alarm signal cable to the terminal of this camera. Next, attach the camera to the ceiling. Do not forget to attach the safety wire.

Page 14



Step 2 Network Settings

Install the software, set the network for this camera as well as using the "VN-C205U Setup Tool", and register the connected camera with the "V.Networks Controller".

Page 27



- In a system where more than 1 VN-C205 is used, turn on the power for a VN-C205 first, followed by setting the camera until "2-3 Setting IP Address for this Camera Using the 'VN-C205U Setup Tool' " is completed. Upon doing so, turn on a second camera and perform setting in the same way. Perform the same procedure for subsequent cameras.
(Page 22)

Step 3 Setting Using the V.Networks Controller

Perform settings for Image Quality and Alarm using the "V. Networks Controller" software that has been installed.

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Step 4 Operating Using the V.Networks Controller

The "V. Networks Controller" can also be used to perform recording/playback operations.

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Step 5 Operating Using a Web Browser

Operation is possible via a web browser.

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Preparation (Step 1 Connection/Installation)

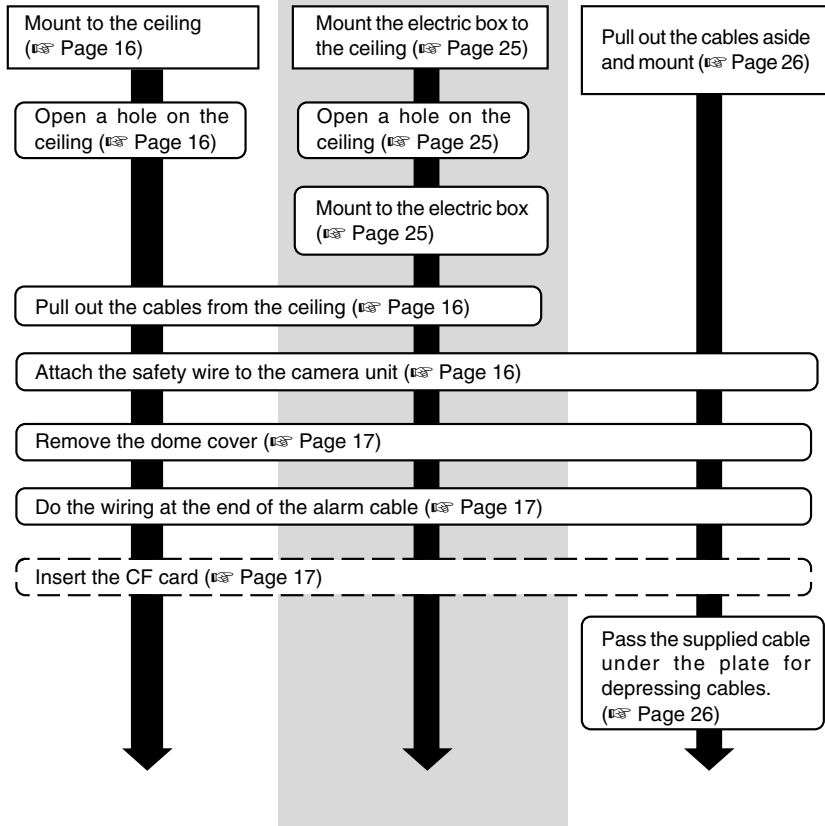
1-1 The flowchart of installation work for camera

Getting Started

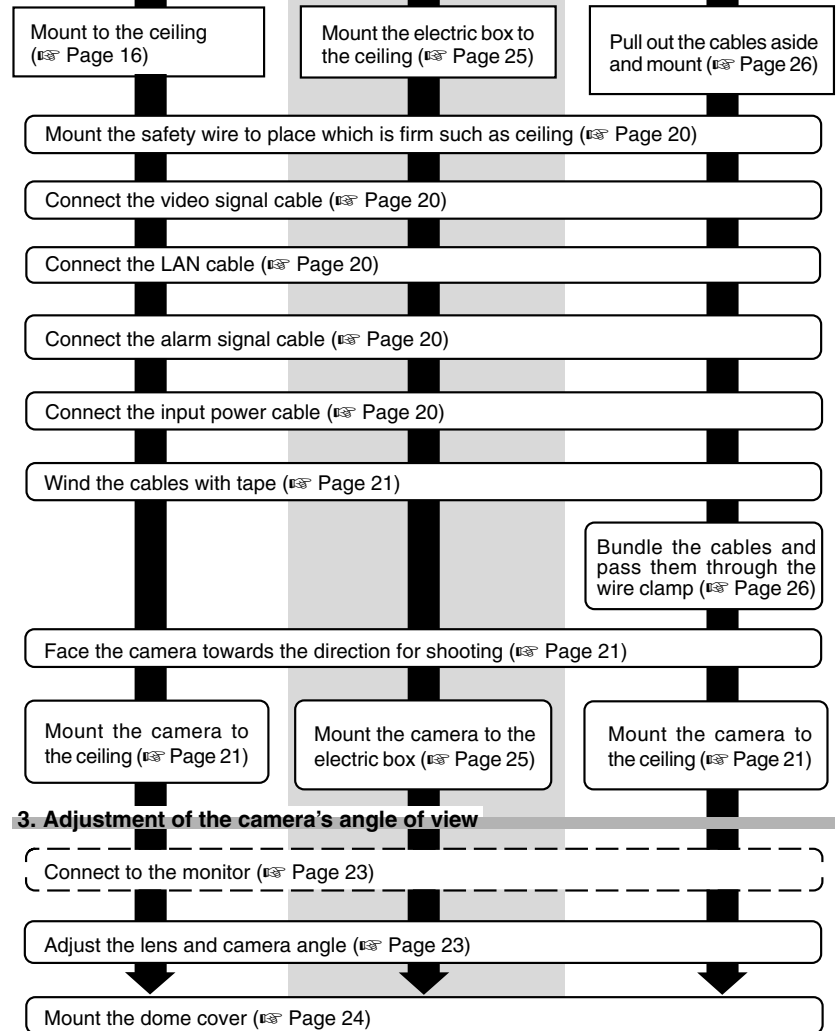
Caution

Attachment of an embedded cover in the ceiling (recess bracket) may be mandatory in certain regions. If this is so, ensure that the embedded cover (recess bracket) is securely attached before installing the camera. (Page 16)

1. Preparation



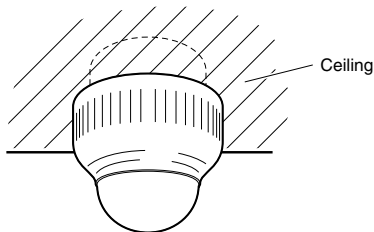
2. Installation



Preparation (Step 1 Connection/Installation)

1-2 Mounting the Camera to the Ceiling

Cautions



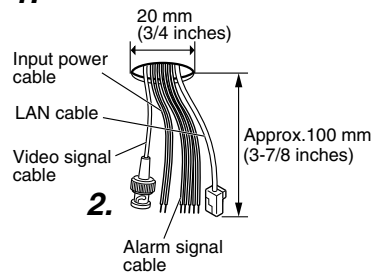
Embedded Cover in Ceiling (recess bracket)

- Attachment of an embedded cover in the ceiling (recess bracket) may be mandatory in certain regions. If this is so, ensure that the embedded cover (recess bracket) is securely attached before installing the camera.
- Please refer to the instruction manual for the cover in use for details on installation of the embedded cover (recess bracket).
- For more detail, please contact the JVC.

1. Preparations

Open hole in ceiling, connect cables and mount camera to ceiling.

1.



1. Open a hole in the ceiling.

Use the template and open a hole in the ceiling for the cables.

Note

There is no need to open a hole in the ceiling when using the cable extraction hole on the side of the camera. (Refer to step 4. on page 17)

2. Pull out the cables from the ceiling.

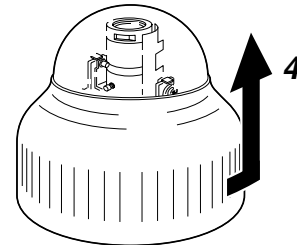
Before connecting, pull out the input power cable and video signal cables about 100 mm (3-7/8 inches) from the ceiling.

3. Attach the safety cable to the camera. (Safety cable is not included)

Attach the safety cable to the back of the camera.

Cautions

- To avoid unforeseen accidents, attach the safety cable.
- Select a suitable safety cable based on length, strength, location, material (insulation property), etc.
- Always use the M2.6 x 6 screws mounted on the unit.



4. Remove the dome cover.

Turn the dome cover anticlockwise and remove it as shown in the diagram.

* When pulling out the cables to mount the camera, press the perforations of the dome cover with finger to open the hole for pulling out the cables. (Page 9)

5. Do the wirings for the alarm cable

Remove the terminal block of the alarm cable from the camera unit and do the wirings. (Page 18)

6. Insert the CF card into the camera unit

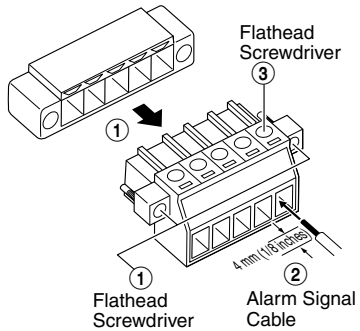
Insert the CF card into the camera unit when necessary. (Page 19)

Preparation (Step 1 Connection/Installation)

1-2 Mounting the Camera to the Ceiling (Continued)

1. Preparations (Continued)

■ Connection to Alarm Input/Output Terminal



Connect the alarm input/output terminals to external devices such as sensors and buzzers.

- ① Loosen the screws on both edges of the terminal block using a flathead screwdriver, followed by dismantling it as shown in the left diagram.
- ② Strip the coating of the alarm signal cable by about 4mm (1/8 inches) before inserting it into the terminal.
- ③ Turn the screw on the side to fasten the alarm signal cable.

* Connect the alarm terminal according to step 4 of "2 Installation." (Page 20)

Note

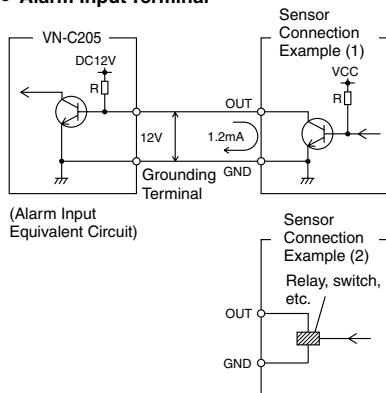
Cable Specifications

- 50 m or shorter in length
- UL1007, UL1015 or equivalent
- AWG#22 to AWG#18 or equivalent

Caution

Due to external noise, the cable may not function properly even when the cable length is less than 50 m. In this case, use a shielded cable or take measures such as keeping the cable away from the noise source.

● Alarm Input Terminal



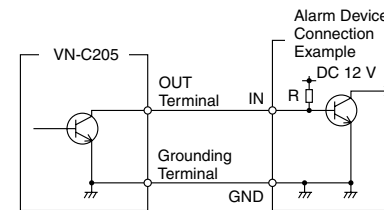
(Alarm Input Equivalent Circuit)

Connect this terminal to an infrared, door or metallic sensor, or to a manual switch.

Input Requirements

- No-voltage relay or NPN open collector input
- The polarity of input detection can be selected via software
- Make/Break/Toggle (at least 250 ms)
- Circuit current at low-level: 1.2 mA
- Voltage applied at high level: 12 V

● Alarm Output Terminal



(Alarm Output Equivalent Circuit)

Connect this terminal to alarm devices such as an annunciator, indicator, lamp or buzzer.

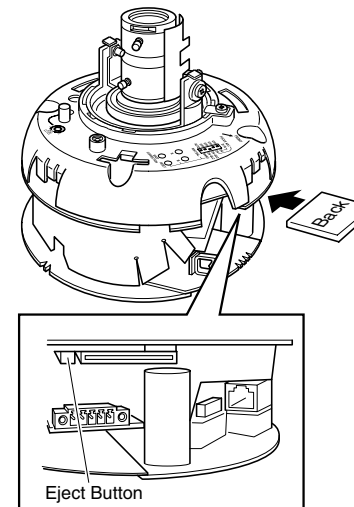
Output Requirements

- Equivalent to NPN open collector output (Set output logic using the controller)
- Allowed applied voltage: DC12V and below
- Allowed input current: 50 mA
- Momentary output: 1 to 5000ms (Set duration using the controller)

Caution

Connect the grounding terminal of VN-C205 to the GND terminal of the alarm device.

■ Inserting the CF card



Insert CF card in the direction as indicated in the diagram

- Press once if the eject button is protruding
- Insert the CF card all the way until you hear a "click" sound

* When removing the card, ensure that the power of the camera is turned off before pressing the eject button.

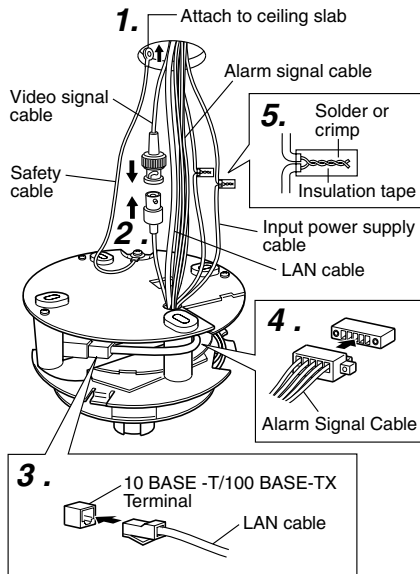
<List of Tested CF Cards>

- San Disk (Industrial)
 - 128MB (SDCFBI-128-201-80)
 - 256MB (SDCFBI-256-201-80)
 - 512MB (SDCFBI-512-201-80)
 - 1024MB (SDCFBI-1024-201-80)

Preparation (Step 1 Connection/Installation)

1-2 Mounting the Camera to the Ceiling (Continued)

2. Installation



1. Attach the safety cable to the ceiling slab. (Safety cable not included)

Attach the safety cable that has already been attached to the camera to the ceiling slab or channel. Make sure that the wire is attached securely.

2. Connect the video signal cable.

Connect the coaxial cables (BNC) to the video signal output connector (BNC).

Cable	Maximum length (No cable compensator)
RG-59	200m (650 ft)
RG-6	350m (1140 ft)
RG-11	450m (1470 ft)

3. Connect the LAN cable

Pass the LAN cable coming out from the ceiling under the plate for depressing cables, connect it to the 10BASE-T/100BASE-TX Terminal of the camera unit.

Caution

The use of a crossover cable may not be supported by certain LAN boards on some rare occasions. As such, please check your LAN board specifications before connection.

Note

When using 100 BASE-TX, ensure to use a Category 5 (or higher) cable.

4. Connect the alarm terminal

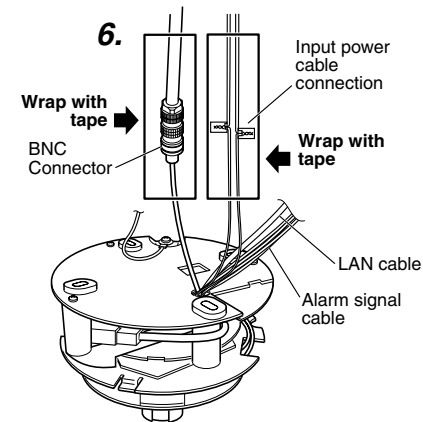
Connect the alarm cable wired in step 5 of Preparations (☞ page 17) to the alarm terminal of camera unit. Pass the cable under the plate for depressing cables same as step 3 before connecting.

5. Connect the input power supply cable.

Connect the cable protruding from the ceiling to the input power cable. (☞ Page 22)

Note

The input power cable uses materials similar to those of machinery wiring, so wrap the cable with insulation tape to prevent it from becoming damaged when mounting the camera. Use durable wiring for the input power cable.



6. Wrap insulation tape around cables.

As shown in the diagram to the left, wrap insulation tape around the input power cable connection and BNC connector. Insert the cables into the hole in the ceiling.

Note

Wrapping the wires with insulation tape improves handling as well as reducing interference.

7. Point the camera in the direction you wish to capture.

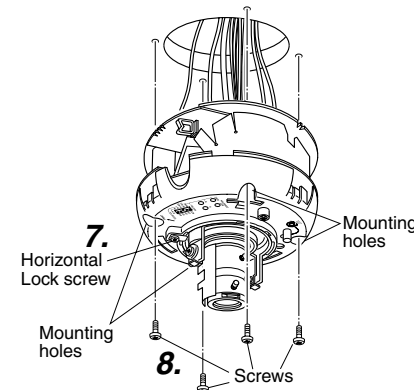
Point the camera so that the Horizontal Lock screw is facing the direction you wish to capture. The camera can be adjusted $\pm 60^\circ$ horizontally to either side of the Horizontal Lock screw.

8. Mount the camera to the ceiling.

Use M4-sized (No. 8) screws/bolts or wood screws ($\phi 4.1\text{mm}$, 1/8 inches) to secure the camera in four places when mounting to the ceiling or wall.

Caution

Tighten all screws securely. Otherwise the camera may come loose and fall.



Preparation (Step 1 Connection/Installation)

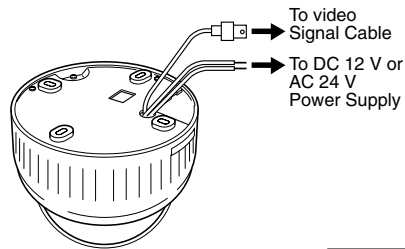
1-2 Mounting the Camera to the Ceiling (Continued)

2. Installation (Continued)

■ Connection of the Input Power Cable

Be careful of the following items when connecting the cables.

- Turn OFF the power supply to all components before making connections.



■ **DC 12 V or AC 24 V Input power cable**
Connect the DC 12 V or the AC 24 V power supply to the DC 12 V/AC 24 V terminals on the terminal board. To prevent connection errors or a cable disconnection, we recommend the use of lug plates for the connections. The following table shows the connection distances and connection cables provided that 2-conductor VVF cables (vinyl-insulated vinyl sheath cables) are used.

Conductor diameter (mm)		φ1.0 mm (AWG18)	φ1.6 mm (AWG14)	φ2.0 mm (AWG12)
Maximum extension	DC 12 V	20 m (60 ft)	70 m (220 ft)	110 m (360 ft)
	AC 24 V	70 m (220 ft)	180 m (590 ft)	280 m (910 ft)

Cautions

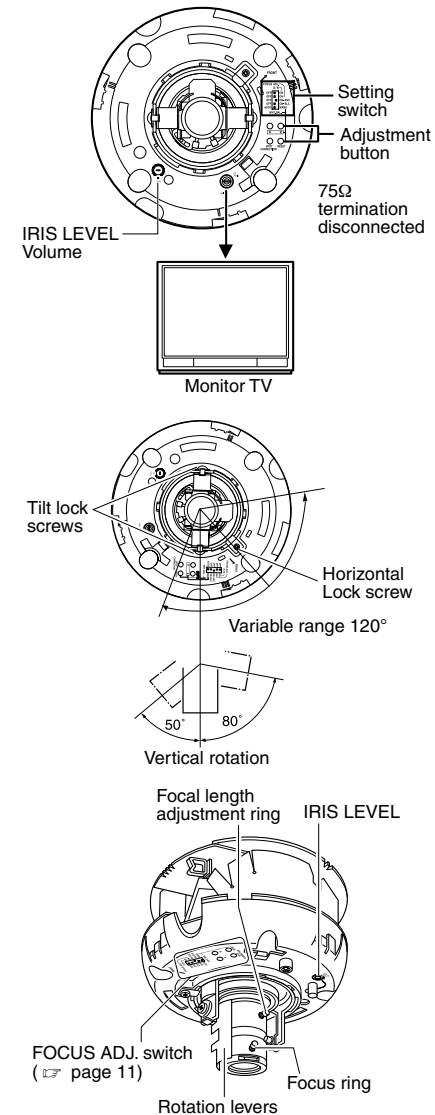
- If thin cables are used (i.e. with a high resistance), a significant voltage drop will occur when the unit is at its maximum power consumption. Either use a thick cable to restrict the voltage drop at the camera side to below 10%, or place the power supply near to the camera. If voltage drop occurs during operation, the performance will be unstable.
- Do not allow input from both a DC 12 V and AC 24 V power supply at the same time.
- When using a DC 12 V power supply, ensure that the polarities of the cable are correct.
- The AC 24 V power supply should conform to the following:
For USA : Class 2 only
For Europe : Isolated power supply only

Note

Connecting multiple VN-C205 Cameras

- In a system where more than 1 VN-C205 is used, turn on the power for a VN-C205 first, followed by setting the camera until "2-3 Setting IP Address for this Camera Using the 'VN-C205U Setup Tool' " is completed. Upon doing so, turn on a second camera and perform setting in the same way. Perform the same procedure for subsequent cameras.
- Default IP address setting for all VN-C205 cameras is 198.168.0.2. When the power for multiple cameras are turned on at one time under a single LAN environment, therefore, proper access may not be established due to IP address redundancy. Do not turn on the power of more than 1 camera at the same time.
 - When IP address redundancy occurs, ensure that only one VN-C205 exists under a single LAN environment, and wait for some time (at least 10 minutes). In some cases, the power for all network devices under the same LAN environment may have to be turned off and on again to enable access to VN-C205.

3. Adjustment of the camera's angle of view



1. Connection for Adjustment of the Camera

The MONITOR terminal is used when making various adjustments to the camera at installation.

The power to the camera body must be ON when adjustments are performed.

2. Adjusting the Lens and Camera Angle

Camera angle, zoom and focus are adjusted.

● Horizontal rotation (adjustable range: 120°)

- ① Loosen the horizontal LOCK screw.
- ② Holding the both tilt lock screws, rotate horizontally.
- ③ Tighten the horizontal LOCK screw.

● Vertical rotation (adjustable range: +80°, -50°)

- ① Loosen the tilt lock screws.
- ② Holding the rotation levers, rotate vertically.
- ③ Tighten the tilt lock screws.

● Image inclination (adjustable range: ±15°)

Manipulate the rotation levers to adjust the inclination of the image.

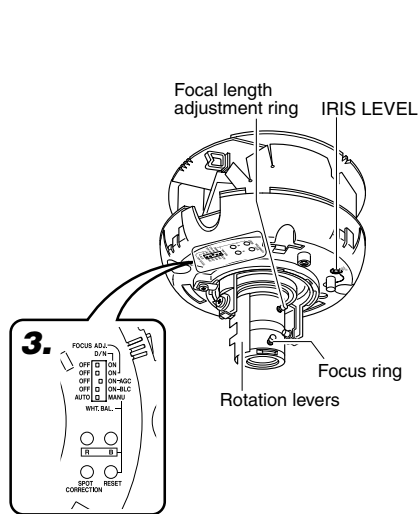
● Adjusting the iris level

This adjustment only needs to be made when required. (page 10)

Preparation (Step 1 Connection/Installation)

1-2 Mounting the Camera to the Ceiling (Continued)

3. Adjustment of the camera's angle of view (Continued)



● Adjusting the focal length

- ① Turn the securing screw of the focal adjustment ring counterclockwise.
- ② Adjust the focal length.
- ③ Turn the securing screw clockwise to secure the focal adjustment ring.

● Adjusting the focus

Adjust using the focus ring.

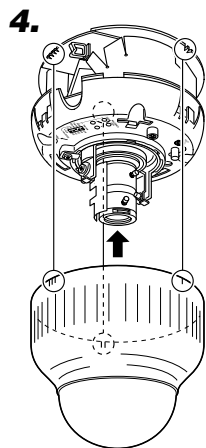
- ① Set the FOCUS ADJ. switch to "ON". The aperture is opened, decreasing the depth of field, making it easier to adjust the focus.
- ② Adjust the focus.
- * Repeat steps 1 to 3 of "Adjusting the image size" and "Adjusting the focus".
- ③ After adjustment is complete, set the FOCUS ADJ. switch to "OFF".

3.Settings related to video

Perform the settings using "Video setting switch" (☞ page 11) if necessary.

Note

Settings related to video can only be performed using "Video setting switch" on the camera unit. Changes cannot be performed via the network.



4.Attach the dome cover

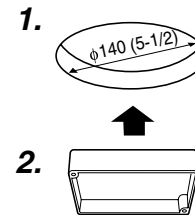
Set the dome cover to the unit by aligning the 3 marks on the camera and dome cover (I, II and III). Be sure a click is heard.

CAUTION

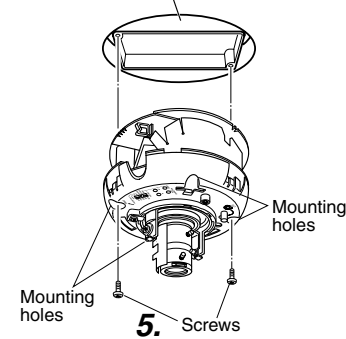
Be sure that the dome cover is firmly attached. Improper attachment could result in the cover dropping down.

1-3 When installing the Camera to the electrical box

The camera can be mounted directly onto an electrical box.



4 inch square electrical box



1. Open a hole in the ceiling.

Open a 140mm (5-1/2 inches) hole in the ceiling.

2. Mount the electrical box.

The camera can be mounted on a 4-inch square electrical box.

For instructions on mounting the electrical box, ask your dealer.

3. Follow steps 2 to 6 of mounting the Camera to the Ceiling (Preparations)

(☞ page 16)

4. Follow steps 1 to 7 of mounting the Camera to the Ceiling (Installation)

(☞ page 21)

5. Mount the camera to the electrical box.

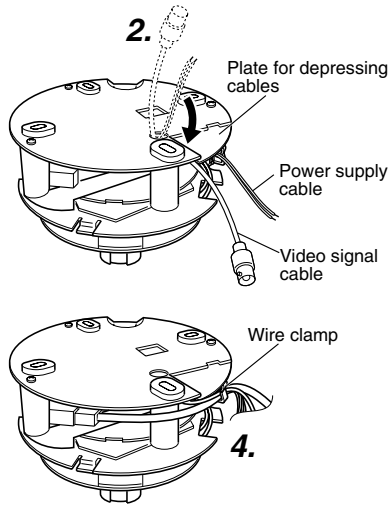
Secure the camera to the electrical box using two mounting holes.

6. Follow "Mounting the Camera to the Ceiling (Adjustment of the camera's angle of view)".

(☞ page 23)

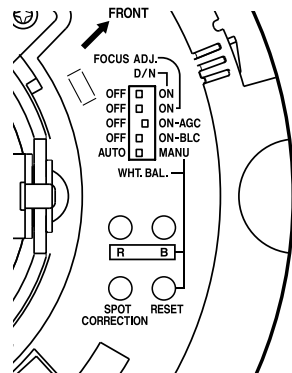
Preparation (Step 1 Connection/Installation)

1-4 Pull out the cables aside and mount



1. Follow steps 3 to 6 of mounting the Camera to the Ceiling (Preparations) (☞ page 16)
2. Pass the input power cable and video signal output cable provided with the camera unit under the plate for depressing cables.
3. Follow steps 1 to 6 of mounting the Camera to the Ceiling (Installation) (☞ page 20)
4. Bundle all the cables into the wire clamp
Bundle the cables coming out from the ceiling (Video signal cable, Input Power cable, LAN cable and alarm signal cable etc.) into the wire clamp.
5. Follow steps 7 to 8 of mounting the Camera to the Ceiling (Installation) (☞ page 21)
6. Follow "Mounting the Camera to the Ceiling (adjustment of the camera's angle of view)". (☞ page 23)

1-5 White-spot correction



As a general characteristic unique to CCDs, white-spots may appear on the screen with age. In order to reduce this phenomenon, this unit is equipped with a white-spot correction feature.

Switch on the camera power supply and wait for at least 30 minutes.

1. Remove the dome cover.
2. Cover the lens surface using a black sheet of paper, etc. so that light does not enter the lens.
3. Press and hold the SPOT CORRECTION button on the unit for more than 2 seconds.

* White-spot correction will start. Correction may take several seconds for completion.

Notes

- Maximum correction: less than 16 to 32 spots
- The white-spot correction feature of this unit does not guarantee the correction of all white spots. Depending on the characteristic of white spots, correction may not be possible.
- When performing white-spot correction, accurate data may not be achieved in case of highly detailed pixels since correction is made using the information of surrounding pixels.
- The result of white-spot correction is maintained until the next correction is performed.

Settings (Step 2 Network Settings)

2-1 Installing the Software

To operate this camera, you will have to install the necessary software according to the following procedure from the CD-ROM supplied.

Installing the V.Networks Controller

1. Execute "Setup.exe" in the [JVC] folder.
2. Follow instructions on the screen to install the software.
3. If installation is successful, the → "V.Networks Controller" icon will be displayed in the [Start] → [Programs] [V. NETWORKS] folder.

Installing the VN-C205U Setup Tool

1. Execute "Setup.exe". This is located inside the [Setup] folder of the [JVC] folder.
2. Follow instructions on the screen to install the software.
3. If installation is successful, the → "VN-C205U Setup Tool" icon will be displayed in the [Start] → [Programs] [V. NETWORKS] folder.

Settings (Step 2 Network Settings)

2-2 Setting PC's IP Address [Windows XP]

Upon installing the camera, set the IP address of the PC that is used to operate this camera.

For Windows XP, set according to the following procedure.

(For Windows 2000, Page 30)

Note

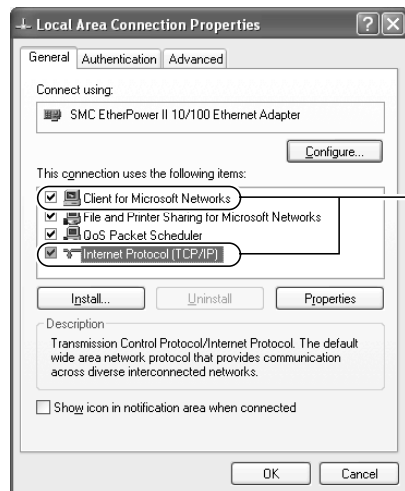
Under a DHCP environment and when the IP address assigned to V. Networks is already known, it will not be necessary to perform 2-2 "Setting PC's IP Address" as the PC's IP address is automatically acquired from the DHCP server.

1. Click .

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

2. Select the network for which the PC that operates this camera is connected to.

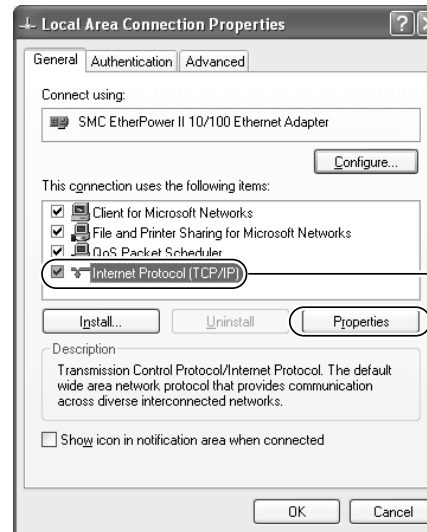
- Right-click to select [Properties].



Note

Select "Install (N) ..." if [Client for Microsoft Networks] or [Internet Protocol (TCP/IP)] is not displayed.

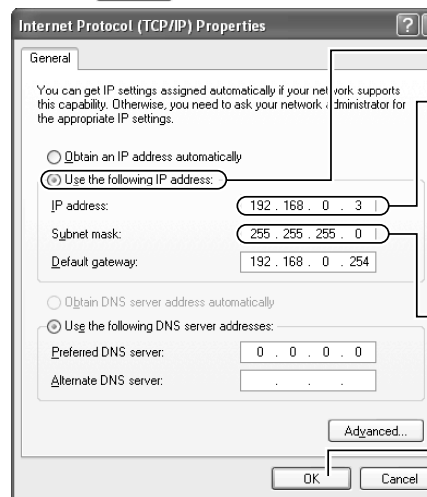
3. Select [Internet Protocol (TCP/IP)] and click [Properties].



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

② Click [Properties].

4. Select [Use the following IP address], set the [IP address] and [Subnet mask] and click .



① Select [Use the following IP address].

② Set [IP address] to 192.168.0.3.

Notes

- Make sure to note down the original IP address before changing.
- Do not use the same IP address elsewhere within the same network environment.

③ Set Subnet mask to an appropriate value. Ask the network administrator if necessary.

④ Click [OK].

5. Click on the [Local Area Connection Properties] screen.

Settings (Step 2 Network Settings)

2-2 Setting PC's IP Address [Windows 2000]

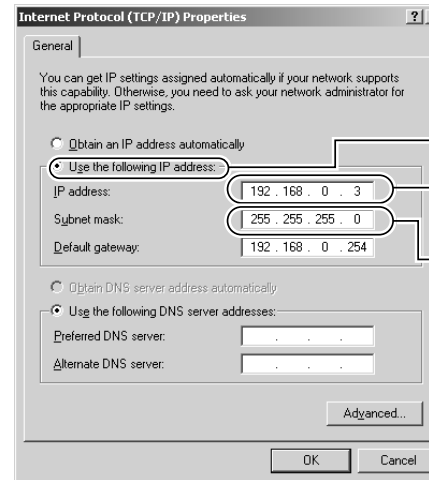
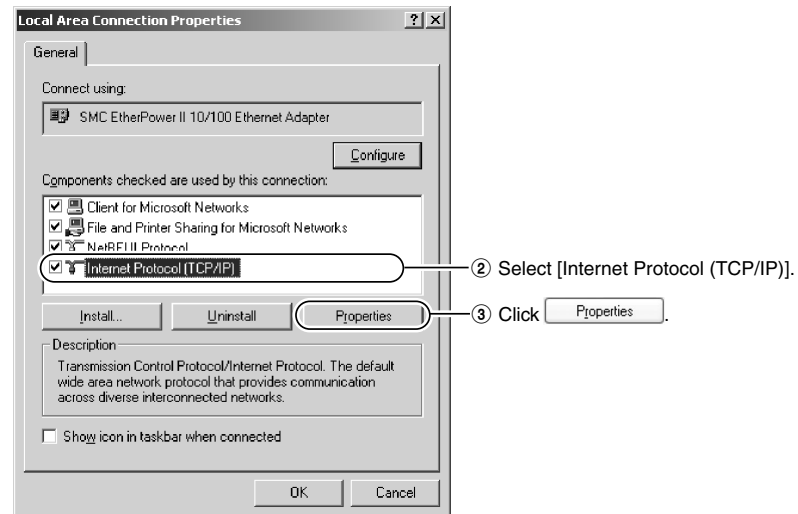
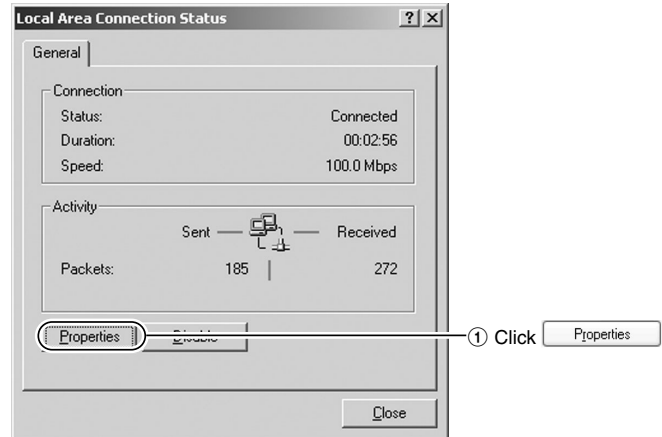
Upon installing the camera, set the IP address of the PC that is used to operate this camera. For Windows 2000, set according to the following procedure.

1. Click **Start**.

- Select [Settings] and click [Properties].

2. Double-click [Network and Dial-up Connection].

3. Double-click [Local Area Connection].



4. Click **OK**.

Settings (Step 2 Network Settings)

2-3 Setting IP Address for this Camera Using the "VN-C205U Setup Tool"

Set the IP address for VN-C205 using the "VN-C205U Setup Tool" that has been installed.
(This "VN-C205U Setup Tool" only allows connection of VN-C205.)

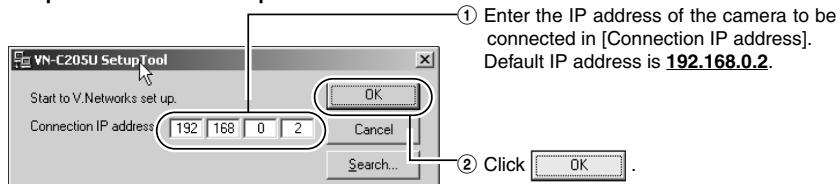
Cautions

- Upon turning on the power of this camera, it may take about 60 seconds before it can be connected to the PC.
- At the factory, DHCP is enabled for VN-C205.
- Using DHCP
JVC does not recommend operating VN-C205 with the DHCP function enabled because a different IP address may be assigned upon the renewal of the leasing contract. The DHCP function of VN-C205 is included with the aim to simplify installation/setting procedures.

Note

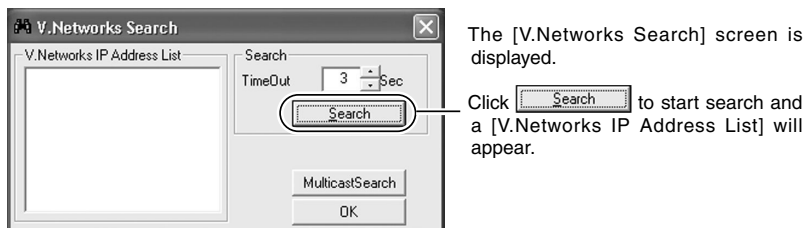
To connect to a VN-C205 for which DHCP has been enabled, the DHCP server must exist in an environment where the assigned IP address and MAC address are clearly defined. If the DHCP server is not found, it will automatically start up using the static IP address after 60 seconds.

1. Select [Start] → [Programs] → [V.NETWORKS] → [VN-C205U Setup Tool] to start up the "VN-C205U Setup Tool".



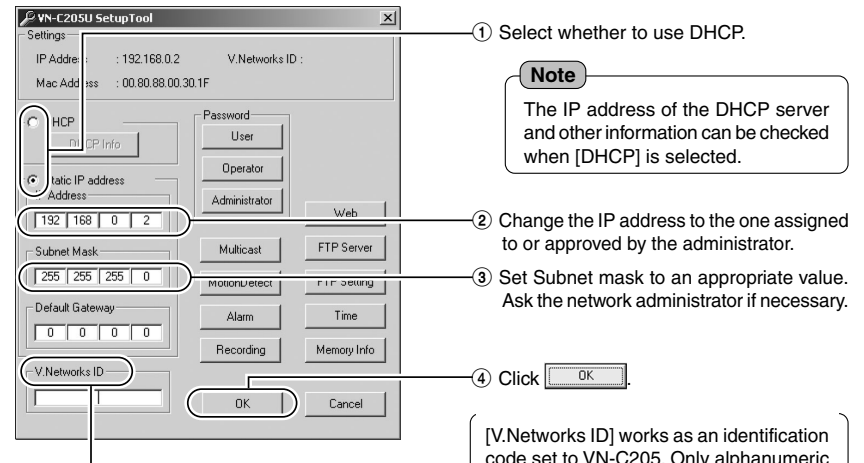
Notes

To view the IP address of the connected camera, click "Search".



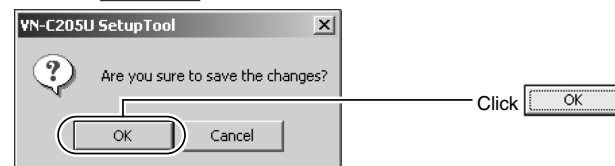
- [TimeOut] is for setting the time for searching (1 to 30 seconds). If no IP address is displayed upon searching, change the value to a longer time and search again.
- If the [V.Networks] on the LAN has a different subnet from that of the PC, connection may not be possible even if the IP address of the camera is found via search. Change the IP address of the PC to an appropriate value and connect the camera.

2. Check settings.



For other settings, see next page

3. Click **OK**.



4. Start up the "V.Networks Controller".

(see Page 56)

Note

Upon clicking OK, VN-C205 will be automatically reset and the set values will be enabled.

Note

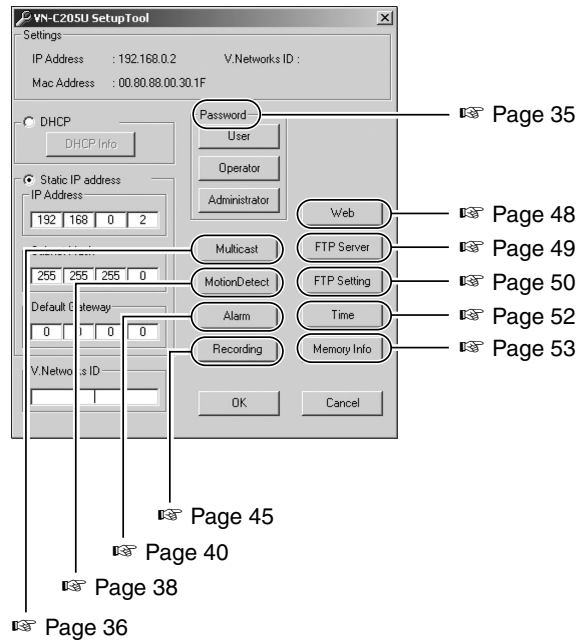
In a system where more than 1 VN-C205 is used, turn on the power for a VN-C205 first, followed by setting the camera until "2-3 Setting IP Address for this Camera Using the 'VN-C205U Setup Tool'" is completed. Upon doing so, turn on a second camera and perform setting in the same way. Perform the same procedure for subsequent cameras.

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool"

Perform setting of details other than the IP address using the "VN-C205U Setup Tool" that has been installed.

1. Select [Start] → [Programs] → [V.NETWORKS] → [VN-C205U Setup Tool] to start up the "VN-C205U Setup Tool".



2. Refer to the relevant pages (☞) for setting of other details.

2-4 Other Settings Using the "VN-C205U Setup Tool" (1. Password Setting)

PCs (users) connected to this camera are regulated via an access protection function which requires a password entry.

Passwords can be set or canceled using the "VN-C205U Setup Tool".

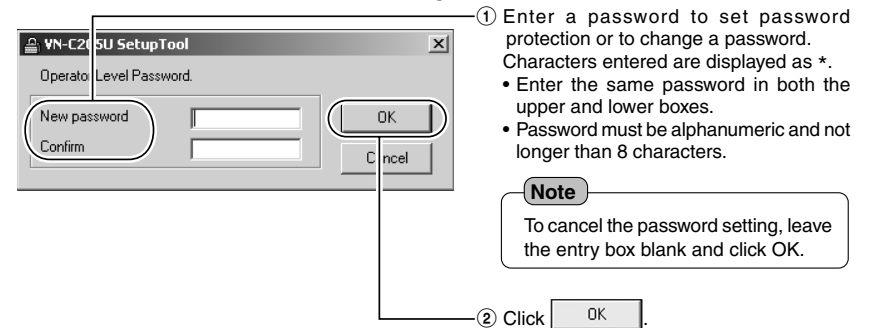
A different password can be set for each of the 3 authorization levels, namely user, operator and administrator.

Authorization Level	Allowed Access
User	Viewing of motion images only
Operator	All operations using the V.Networks Controller
Administrator	All of the above and all settings using the VN-C205U Setup Tool

Note

Do not forget the passwords as canceling or changing of passwords is not possible unless the current and correct password is entered.

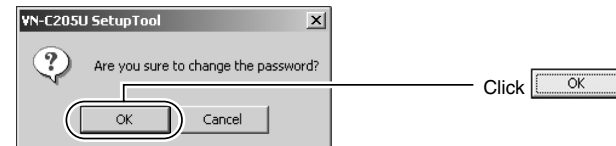
1. Start up the "VN-C205U Setup Tool", followed by selecting [User], [Operator] or [Administrator] under [Password] setting.



Note

To cancel the password setting, leave the entry box blank and click OK.

2. The following confirmation screen will be displayed.



Notes

- For a password-protected VN-C205, a password request screen will be displayed.
- VN-C205 setup will not be possible unless the correct administrator password is entered.
- Security level increases in the order from user to operator to administrator. Password protection will not be valid if a password is assigned only to a lower level but not to a higher one.

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (2. Multicast)

Selecting Multicast mode allows VN-C205 to send the same image data to multiple PCs on the network at one time without lowering the frame rate.

1. Start up the "VN-C205U Setup Tool" and select [Multicast].

The [Multicast Setting] screen will be displayed.

1 Select [Multicast Mode].

2 Select the mode for acquiring images.

Normal : Set to Normal when using a narrow bandwidth network.

High Speed : A maximum transmission rate of 30 fps is possible for 640 x 480 images.

Notes

- Images are divided into IP fragments when set to High Speed.
- Do not set to High Speed for narrow bandwidth networks.
- Maximum data transmission capacity is 8Mbps. Even when High Speed is selected, a maximum rate of 30 fps may not be possible for 640 x 480 images depending on the image size.
- The MTU (Maximum Transmission Unit) sizes during image acquisition are as follows.

Transmission Mode	MTU Size (Bytes)
Normal	1430 Bytes
High Speed	1500 Bytes

Multicast

- Set the multicast address within the range between 225.0.0.0 to 239.255.255.255. Do not set the same multicast address for different devices on the same system.
- To view VN-C205 images in the multicast mode through a router, either the following operating environment or router setting will be required.
 - ① The router supports IGMP Ver2 and is synchronized with the starting and stopping of the multicast transmission, and the router settings can be dynamically changed.
 - ② If the router does not support IGMP Ver2, a static route for multicast must be set to the router.
- When there are multiple cameras on the same subnet that are set to the multicast mode, set up a network using a Hub that supports the IGMP snooping feature.

It is possible to search for the multicast address of a VN-C205 that is connected to the network.

1. Start up the "VN-C205U Setup Tool".

Click Search...

2. The [V.Networks Search] screen is displayed.

Click MulticastSearch.

3. The [Multicast Address Search] screen is displayed.

1 Select Search.
Start search.

4. The search result is displayed.

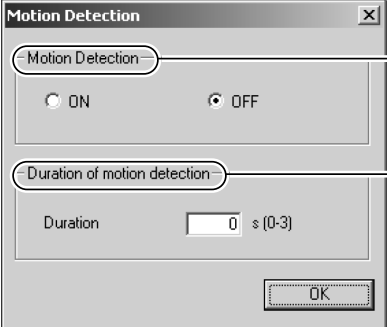
Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (3. Motion Detection Setting)

For setting the motion detection function, which activates the alarm when there is motion in the camera image. Perform the following procedure to set area for motion detection.

1. Start up the "VN-C205U Setup Tool", select [Alarm Setting] and set [Motion Detection] to "Available". (Page 44 "Other Trigger")

2. Select [Motion Detect] under [VN-C205 Setup Tool].

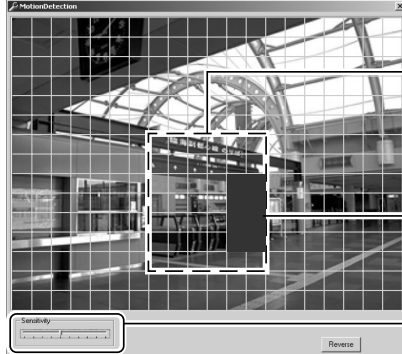


① Select "ON" to turn on the motion detection feature.

② For setting the time interval for defining a motion. When there is intensive motion throughout the entire screen, lengthening the time interval will help to prevent false detection. (Set value: 0 to 3)

3. Perform area setting.

Image of the position that is selected as the Fixed area in ② of Step 2 will be displayed.



① Click and drag the mouse to select the detection area. To cancel the detection area (displayed in yellow), right-click and drag the mouse.

Area for which motion is detected will be displayed in red.

② For setting the sensitivity level of motion detection. Drag towards the right to increase and left to decrease the sensitivity level.

Notes

- The area display position only serves as a guide. Ensure to perform operation check.
- Each screen is divided into 300 (20x15) blocks. Adjust the zoom ratio of the lens such that the object for which motion is to be detected is at least the size of multiple blocks.

Cautions

- Flickering lights may cause false detections in motion when the camera is connected.
- When brightness varies due to the use of the auto iris function or lighting conditions, this may be detected as motion. In this case, it is recommended that the detection time be set to a value other than "0".
- Note that the motion detection function is not designed to prevent theft or fire. It may not function properly under certain object or setting conditions. We shall not be responsible for any accident or losses incurred.

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (4. Alarm Setting)

This section describes procedures for alarm setting.

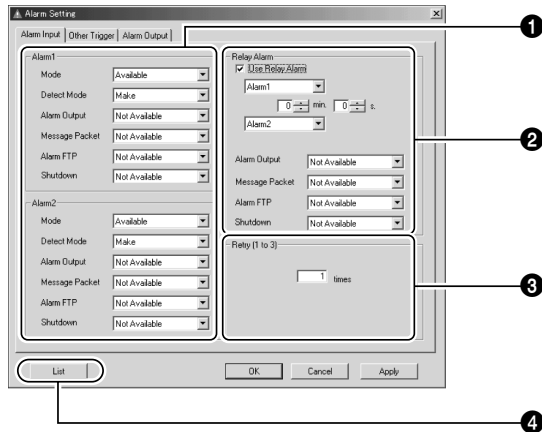
Alarm Input

- When there is an input of signals to the alarm input terminal on the ceiling mount. (☞ Page 18 "Alarm Input Terminal")
- When motion is detected. (☞ Page 38 "Motion Detection Setting")

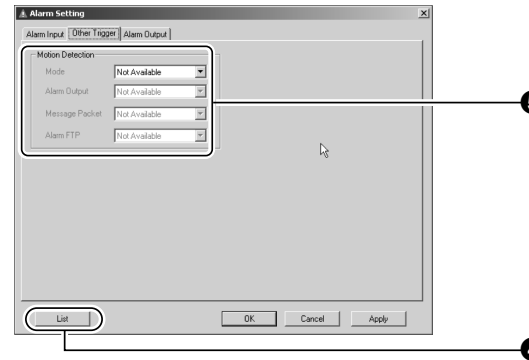
Operation when an alarm input is activated

- Output signals are sent from the alarm output terminal on the ceiling mount. (☞ Page 19 "Alarm Output Terminal")
- Alarm packets are sent to the PC. (☞ Page 42 "Message Packet")
- Images are uploaded to the FTP server. (☞ Page 50 "FTP Client Setting").
- Quits all operations. (☞ Page 42 "Shutdown")

1. Start up the "VN-C205U Setup Tool" and select [Alarm].

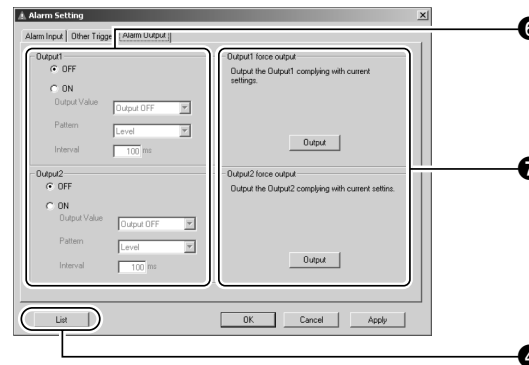


2. Click the [Other Triggers] tab on the [Alarm Setting] screen.



3. When setting is complete, click **Apply** followed by **OK**.

4. Click the [Alarm Output] tab on the [Alarm Setting] screen.



5. When setting is complete, click **Apply** followed by **OK**.

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (4. Alarm Setting) (Continued)

Alarm Input

Item	Function/Set Value	Initial Value
1 Alarm 1/Alarm 2	This section describes setting procedures for alarm input.	—
Mode	For selecting whether to enable or disable the input signals. Set Values : Available, Not Available	Not Available
Detect Mode	For selecting the method for detecting input signals. Make : Detect input signals at the "Make" contact point. Break : Detect input signals during "Break". Toggle : Detect input signals at both "Make" and "Break".	Make
Alarm Output	For selecting whether to output from the alarm output terminal when there is alarm input. Not Available : Do not output from the alarm output terminal. Alarm Output 1 : Send output from the Alarm Output 1 terminal. Alarm Output 2 : Send output from the Alarm Output 2 terminal. Note <ul style="list-style-type: none"> Unless the alarm output in the "Alarm Output" tab is enabled, this function will not be activated even if alarm output is selected in the alarm input settings. (Page 44) 	Not Available
Message Packet	For setting whether to send alarm packets to the PC when there is alarm input. Not Available : Do not send alarm packets. Available : Send alarm packets.	Not Available
Alarm FTP	For operation according to the [Alarm FTP] in the FTP Client feature when there is alarm input. Please refer to FTP Client Settings (Page 50) for details on alarm FTP. Set Values: Available, Not Available	Not Available
Shutdown	Set to "Available" to quit all operations upon alarm input. Using this Shutdown function enables operations of this camera to end safely even during recording into CF cards. Not Available : Do not shut down. Available : Shut down. Note <ul style="list-style-type: none"> When this is set to "Available", all alarm input except alarm output and message packets will be disabled. 	Not Available

Item	Function/Set Value	Initial Value
2 Relay Alarm	Set here to enable the relay alarm function, which is activated when 2 alarms are received within a preset time interval. The sequence and time interval for the alarm input can be specified. When [Alarm Output] is selected, alarm signal output will be sent to the alarm output terminal on the ceiling mount according to the output port settings. Notes <ul style="list-style-type: none"> A second alarm input enables this relay alarm function, and alarm will not be activated for this second input. Unless the alarm output in the "Alarm Output" tab is enabled, this function will not be activated even if alarm output is selected in the alarm input settings. (Page 44) 	Not Available
<ul style="list-style-type: none"> Alarm Output Message Packet Alarm FTP Shutdown 	* Please refer to the [Alarm 1/2] item for details on the set values.	*Please refer to the [Alarm 1/2] item for the initial values.
3 Retry (1 to 3)	For setting the no. of times alarm notification is to be sent to the "V.Networks Controller". (Set Value: 1 to 3) Note <ul style="list-style-type: none"> Alarm notification may fail, depending on the LAN environment in use. If it fails, set the value for alarm notification to "3". In this case, alarm by the "V.Networks Controller" itself is set off only once. 	1
4 List	Press here to display the IP address of the PCs to which an alarm notification is sent. ("Distribution Address List" Screen) To delete a distribution address, select the IP address to delete, followed by pressing the Delete button. Notes <ul style="list-style-type: none"> The list allows setting of up to 10 addresses. Message packets will not be sent out when there are 11 or more addresses. 	—

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (4. Alarm Setting) (Continued)

■ Other Triggers

Item	Function/Set Value	Initial Value
6 Motion Detection <ul style="list-style-type: none"> • Mode • Alarm Output • Message Packet • Alarm FTP 	For setting alarm operations when motion is detected within the area specified in the motion detection settings. *Please refer to the [Alarm 1/2] item for details on the set values.	— *Please refer to the [Alarm 1/2] item for the initial values.

■ Alarm Output

Item	Function/Set Value	Initial Value
6 Output 1/ Output 2 Output Value	This section describes the setting procedures for alarm output. Set Values : ON, OFF Select the alarm output method. Output OFF : Output alarm signals when the Alarm Output 1 or Alarm Output 2 terminal is connected to the GND terminal. Output ON : Output alarm signals when the Alarm Output 1 or Alarm Output 2 terminal and the GND terminal are disconnected from each other.	OFF —
Pattern	Level : Continue output of alarm signals throughout the alarm input process. Momentum : Output alarm signals only at the specified time. Specify time using the Return Interval item.	—
Interval	For setting the output interval when the Output Pattern item is set to Momentum. This is disabled when the Output Pattern item is set to Level.	—
7 Output 1 force output/ Output 2 force output	Upon pressing the Output button, alarm signal output will be sent from the alarm output terminal on the ceiling mount. This is used for checking the alarm operation. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note</p> <ul style="list-style-type: none"> • Output is disabled when the Output Pattern item is set to "Level". </div>	—

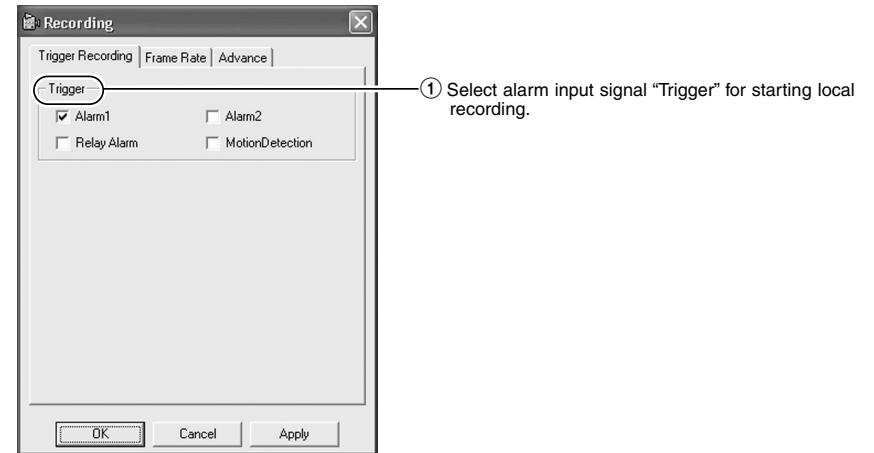
2-4 Other Settings Using the "VN-C205U Setup Tool" (5. Recording Setting)

This function is used to perform settings for local recording, which records camera images to the CF card when the alarm is activated. Please purchase the CF card separately. (Page 19)

- When an alarm is activated, recording can be performed via "local recording", where camera images are saved into a CF card, or via the V.Networks Controller, where these are saved into the hard disk of the PC. (Page 67)

1. Start up the "VN-C205U Setup Tool" and select [Recording]. To make new values effective, click on [Apply], followed by [OK].

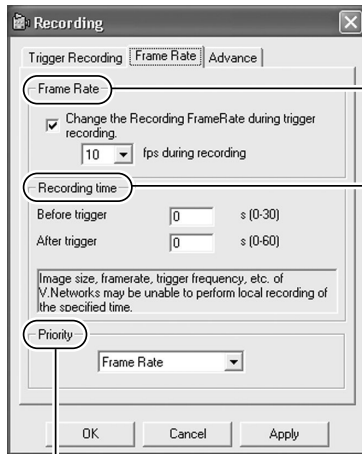
• Setting the [Trigger Recording] screen



Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (5. Recording Setting) (Continued)

● Setting the [Frame Rate] screen



② To set the frame rate for local recording, select "Change the Recording Frame Rate during trigger recording", followed by selecting the frame rate accordingly. Default frame rate is set at 10 fps. A frame rate of 10 fps for recording will be used when this box is not checked. (Set values: 30, 15, 10, 8, 6, 5, 4, 3, 2, 1)

Note

During local recording to CF cards, the frame rate is also dependent on the performance of the CF card in use. When the size of each recording file exceeds 8 MB (equivalent to a frame rate of 30 fps over a duration of about 8 seconds when the size of each image is 33 KB), frames may be dropped.

③ For setting the recording time. This can be set up to 30 seconds before and 60 seconds after the alarm input.

Cautions

- [Before trigger] and [After trigger] values cannot be set to "0" at the same time.
- Due to the memory capacity of VN-C205, recording time set for [Before trigger] and [After trigger] may differ from the actual maximum recording time.

(Example)

At a resolution of 640 x 480 (10 fps) when the size of each image is 40 KB, the actual maximum recording times are as follows:

- Without CF card** : 5 seconds before trigger / 10 seconds after trigger - 0 seconds before trigger / 15 seconds after trigger
- With CF card** : 20 seconds before trigger / 60 seconds after trigger

④ For setting the priority.
Frame Rate : Priority is given to frame rate settings.
Recording Time : Frame rate is automatically adjusted such that recording can be performed according to the specified recording time.

● Setting the [Advance] screen



⑤ For setting the recording action when the memory capacity of the CF card is full. One of the following actions can be selected. (Internal memory capacity is 8 MB.)

- Stop recording until an availability is made in the CF card.
- Remove old files that have exceeded a specific number of days. (If the number of days is set to "0", files will be deleted starting with the oldest one.)

Caution

- When record setting that exceeds the recording capacity is performed with [Remove old files] set to "0 days", recorded files will not be retained. To retain the files, change the value for [Remove old files] or alter the record settings.

Notes

Recording time

While maximum recording time varies with the recording frame rate and image size, recording over a specified length of time may not be possible depending on the compression level and object.

Recording files

A trigger-recording file is created each time a trigger occurs. If successive triggers occur over a continuous period of time, these will be recorded into 1 file. The maximum size of each recording file is 80 MB. Recording will stop upon exceeding 80 MB.

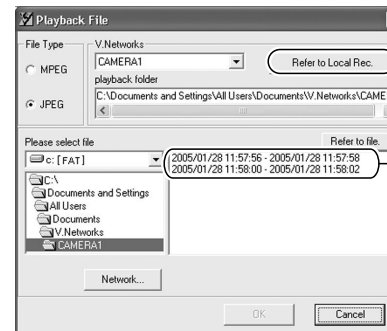
Caution

Loading local recording images to the PC

Rec files containing local recording images may also be uploaded automatically to the FTP server. (Page 50, "Rec File")

Perform the following procedure to load local recording images to the PC.

For saving local recording to the PC, follow the procedure below.



① Select [Refer to Local Rec.].

② Select the file to load.

③ Right-click on the selected file and select [Download to PC].

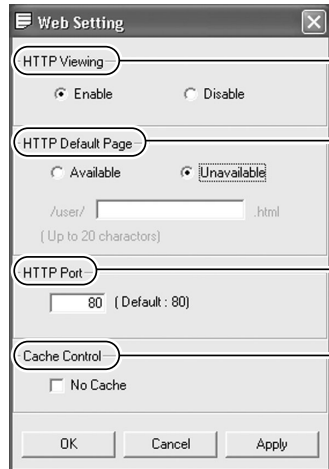
To obtain information on whether local recording has started, check the [Trigger] box on the [Recording] screen, followed by setting [Message] in [Alarm Setting] of the V.Networks Controller. (Page 63)

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (6. Web)

A designated html file can be set as the default page for the web browser using this setting.

1. Start up the "VN-C205U Setup Tool" and select [Web].



The screenshot shows the "Web Setting" dialog box with the following fields and annotations:

- HTTP Viewing:** Radio buttons for "Enable" (selected) and "Disable". Annotation: "Specify settings for viewing using the web browser. When "Disable" is checked, viewing of images from other PCs will be disabled."
- HTTP Default Page:** Radio buttons for "Available" and "Unavailable" (selected). Below is a text field for the file path: "/user/ [] .html" with a note "(Up to 20 characters)". Annotation: "Set the use of a default HTTP page. Specify the html file to be used as the default page when the [Available] box is checked."
- HTTP Port:** A text field containing "80" with "(Default : 80)" next to it. Annotation: "Set the port number."
- Cache Control:** A checkbox for "No Cache" which is unchecked. Annotation: "The proxy server may cache cgi on some rare occasions, and setting may not be successfully performed. In this case, check "No Cache"."

Buttons at the bottom: OK, Cancel, Apply.

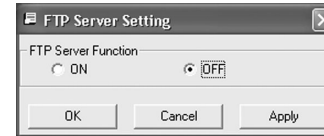
Cautions

- It is possible to increase the security level by setting the HTTP server port number of this camera to a value other than the default value of 80 (value can be set between 1 to 65535. However, 21 and 554 cannot be used).
Upon changing the HTTP port number, access from the web browser by entering `http://192.168.0.2:12345` or `http://192.168.0.2:12345/index.html` (when the port number is changed to 12345). If you have lost track of the HTTP port number, check using the setup tool provided.
- Default page refers to the page displayed upon specifying the IP address such as `http://192.168.0.2` at the web browser.
Even when this feature is set to "Enabled", an error message indicating "404: Not Found" will be displayed when `http://192.168.0.2` is entered if the html file specified here does not exist. Be sure to enter correctly.
- **Displaying still images uploaded to the /user folder**
Still images in the /user folder can be displayed by creating a web page containing the following:
``
(xxxx refers to the file name of the still image)

2-4 Other Settings Using the "VN-C205U Setup Tool" (7. FTP Server)

HTML pages or gif and jpeg images can be uploaded to this camera by using the FTP Client software.

1. Start up the "VN-C205U Setup Tool" and select [FTP Server].



Set the FTP Server Function to "ON" or "OFF".

Notes

- The FTP user name is fixed as "Administrator". Use the administrator level password as the FTP password.
- About 256 KB is allocated as the FTP's user area.
- All uploaded files will be placed under the /user folder.
Access from the web browser is possible by entering `http://192.168.0.2/user/aaa.html`. (192.168.0.2 is the IP address for this camera when referring to aaa.html that is stored in the FTP.)
- Folders cannot be created on the FTP server of this camera. Only uploading, deletion and renaming of files are possible.

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (8. FTP Client Setting)

VN-C205 is equipped with a "FTP Client" feature that uploads still images to the existing FTP server on a regular interval. This feature enables simultaneous image monitoring by many clients (from many locations).

1. Start up the "VN-C205U Setup Tool" and select [FTP Setting].

The [FTP Setting] screen will be displayed.

- 1 **Continuous FTP**
Check [Available] to enable the FTP feature.
- 2 **Trigger FTP**
 - **Rec File**
*.rec files containing local recording images will be uploaded automatically to the FTP server.
 - **Alarm FTP**
For uploading still images (JPEG) to the FTP server when there is an alarm input.
For detailed settings, refer to the alarm FTP upload settings. (Page 51)

Notes

- Uploading starts automatically when a rec file is created.
- To delete a rec file, following the [Lower Memory Size] setting on the recording setting screen.
- When there is not enough free space in the CF card or built-in memory of VN-C205 to create a Rec file, the [Rec file] setting will not be executed. To enable the [Rec file] setting, it is recommended that the [Remove old files] setting under [Lower Memory Size] setting is set to [0].
- Uploading of still images will temporarily stop when uploading of Rec file starts.

- 3 **Username**
Enter the user name to use for verification with the FTP server. It can be set as "anonymous".
- 4 **Password**
Enter the password to use for verification with the FTP Server. Characters entered are displayed as " * ".
- 5 **FTP Server IP Address**
Enter the IP address of the FTP server at the upload destination.
- 6 **FTP Port**
Enter the FTP port number at the upload destination.
This is normally set to "21".
- 7 **FTP Folder**
Enter the folder name on the FTP server at the upload destination.
Images will be uploaded to the default folder when this is left blank.
- 8 **Upload Interval**
Specify the upload interval at which images are uploaded to the FTP server.
(Set value: 0 to 65535)
If "Disconnect every time" is selected, connection with the FTP server will be cut off upon uploading of each image.
- 9 **Error recovery (Connection error)**
Specify a recovery action when an error occurred with the TCP connection or FTP verification of VN-C205.
Retry forever : Recovery attempt is repeated until the power for VN-C205 is turned off.
*** mins. Retry** : Recovery attempt is repeated for a specified duration.
Set value (*) 1 to 600 mins
(Transfer error)
Specify a recovery action upon occurrence of a file transfer error while uploading the images.
Disable FTP : Disable the FTP function automatically.

Note

To resume operation, set 1 [Continuous FTP] to "Available".

10 Filename

*.jpg : Check this item to upload file with the name that appears in the position indicated as " * ".

Note

Files are always overwritten with the latest ones and therefore only 1 image file will be stored in the FTP server.

Timestamp : Upload the time of the internal clock in VN-C205 as the file name.

Notes

- Ensure to set to the correct time on the Time Setting screen.
- All image files uploaded are stored in the FTP server.

11 Alarm FTP Upload Setting

Specify the method for uploading still images via the alarm FTP.

- Upload Interval** : Set the time interval for uploading JPEG images to the FTP server when there is an alarm input.
Set value: 0 to 60 seconds
- Before trigger** : Set the time interval for uploading images before an alarm input.
Set value: 0 to 5 seconds before trigger
- After trigger** : Set the time interval for uploading images after an alarm input.
Set value: 0 to 60 seconds after trigger

Settings (Step 2 Network Settings)

2-4 Other Settings Using the "VN-C205U Setup Tool" (9. Time Setting)

This section describes how to set the standard time for VN-C205. NTP can also be used for this function.

1. Start up the "VN-C205U Setup Tool" and select [Time].

There are 2 methods of setting, depending on whether NTP is to be used.

When NTP is not used

① Set the date and time.

② Allows reference of PC time.

When NTP is used

① Enter the IP address of the NTP server to be used.

② Set the time zone.

③ Set the time interval for acquiring the current time from the NTP server.

Notes

- When using NTP, an NTP server will be required.
- When the time is changed during local recording, local recording time may not be correctly counted and recording for the specified number of seconds may not be obtained.
- Even upon selecting the NTP server and applying the settings, you will have to set the time again when the power is turned on if the NTP server cannot be used.
- The NTP server function is enabled by default upon standard installation of Windows XP Home Edition and Windows XP Professional.
- For Windows 2000, perform the following setting to enable the NTP server function.

1. Set the following registry value to "1". (Default: "0")
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters\LocalNTP

Note that registry editing is a highly risky operation.
Editing operations shall be performed at your own risk. Please store backups of the registry as a safety measure. JVC shall not be held liable for any accident that arise from this operation.

2. Restart the Windows Time Service (= Stop and start again).
Open the [Properties] for Windows Time Service from [Services] under [Administrative Tools].

2-4 Other Settings Using the "VN-C205U Setup Tool" (10. Memory Information)

It is possible to check the memory capacity of VN-C205.


1. Start up the "VN-C205U Setup Tool" and select [Memory Info].

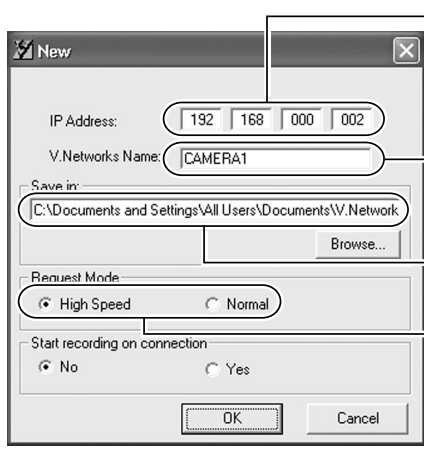
① Check the available memory space.
(The built-in memory capacity of this camera is about 8000 KB.)

Settings (Step 2 Network Settings)

2-5 Registering Connected Camera Using the "V.Networks Controller"

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

1. Select [Start] → [Programs] → [V. NETWORKS] →  [V.Networks Controller] to start up the "V.Networks Controller".
2. Select [File] and [New].
3. The [New] screen will be displayed.



① Enter the [IP Address].

Note
In a DHCP environment, enter the IP address that is assigned to this camera by the DHCP server.

② Enter the [V.Networks Name]. Do so by using a name convenient for subsequent selection, such as the installation location or number. (1 to 40 characters)

③ A folder with the name entered in ② will be created inside the folder specified here, and recorded files will be stored here.

④ Select the mode for acquiring images.

Normal :
Client will send requests for each image to VN-C205.
Set to Normal when using a narrow bandwidth network.

High Speed:
Images will be automatically sent from VN-C205 at the specified frame rate. A maximum transmission rate of 30 fps is possible for 640 x 480 images.
When sending out images to multiple clients at the same time, however, transmission at a rate of 30 fps for 640 x 480 images will not be possible.

Notes

- Images are divided into IP fragments when set to "High Speed".
- Images will be sent at the frame rate set at VN-C205. When setting the frame rate to "High Speed", do so upon ensuring that this does not impose excessive burden on the network. (☞ Page 61)
- Do not set to high speed for narrow bandwidth networks.
- Maximum data transmission capacity is 8 Mbps. A maximum rate of 30 fps may not be possible for 640 x 480 images depending on the image size.
- The MTU (Maximum Transmission Unit) sizes during image acquisition are as follows.

Transmission Mode	MTU Size (Bytes)
Normal	1430 Bytes
High Speed	1500 Bytes

4. Connect to VN-C205.



Note


To connect to a VN-C205 for which DHCP setting is possible, either one of the following environments will be required.

- Environment where no DHCP server exists.
- Environment with a DHCP server that clearly defines the IP and MAC addresses assigned to VN-C205.

Settings (Step 3 Setting Using the V.Networks Controller)

3-1 Starting Up V.Networks Controller

The installed "V.Networks Controller" can be used to monitor camera images. In addition, recording/playback operations and setting of frame rate for camera images are also possible.

1. Select [Start] → [Programs] → [V. NETWORKS] →  [V.Networks Controller] to start up the "V.Networks Controller".



- 1 Select the camera to connect to from the pull-down menu for the camera.



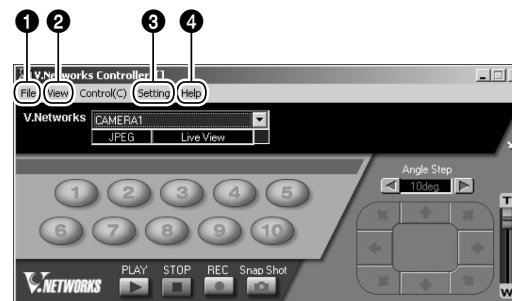
- 2 Live images from the camera will be displayed.

Notes

- Enter the correct password if a password has been set.
- This controller can be connected to VN-C1, VN-C2, VN-C3, VN-C30 (JPEG only), VN-A1, VN-C10 (JPEG and MPEG), VN-C655 and VN-C625 as well VN-C205.

3-2 Features that Allow Setting Using the V.Networks Controller

The V.Networks Controller can be used to perform settings for image size and alarm.



- | | |
|--|---|
| <p>1 File</p> <ul style="list-style-type: none"> New : Creates a new file if the camera is connected for the first time. Delete : Deletes a file. Motion Detection Standby : Select the camera for which the Motion Detection Standby function is to be enabled. Exit : Exits the controller. <p>2 View</p> <ul style="list-style-type: none"> Image Size : Sets the image display size.
JPEG : 640 x 480
320 x 240 <p>Upside Down: Displays the image inversely.</p> | <p>Alarm Setting : For setting alarm actions for each alarm. (☞ Page 62)</p> <p>Time Stamp : For setting the date and time display of a stored file. (☞ Page 64)</p> <p>Property : For changing information of cameras that are not currently connected. (☞ Page 65)</p> |
| <p>Note</p> <p>The video output is not inverted.</p> | <p>4 Help About : For checking the version of the V.Networks Controller.</p> |
| <p>3 Setting</p> <ul style="list-style-type: none"> Quality : For setting the compression rate. (☞ Page 60) Frame rate : For setting the number of camera images to send per second. (☞ Page 61) Alarm Reg : Alarm operation will be enabled if this item is checked. | |

Settings (Step 3 Setting Using the V.Networks Controller)

3-3 Motion Detection Standby

The "Motion Detection Standby" function enables automatic connection upon receiving notifications on detected motion from VN-C205 when the V.Networks Controller has been started up.

1. Select [File] and [Motion Detection Standby].



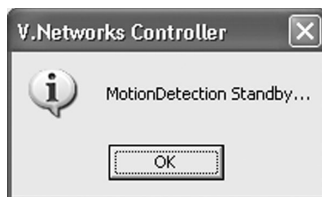
2. Select a camera.



① Select the camera for which the Motion Detection Standby function is to be enabled.

① Click .

3. Click .



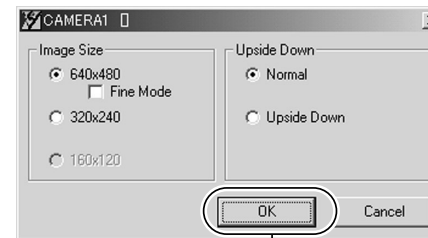
3-4 Image Size and Inversion

The "V.Networks Controller" can be used to set the size of the motion image window as well as to invert an image.

1. Select [View].



2. Specify [Image Size] and [Upside Down] settings.



Notes

- Setting to the Fine mode enables display of image details. Images of moving objects shot in this mode may be blurred, but this is not a malfunction.
- Fine mode can only be used with the 640 x 480 resolution.

Click .

Notes



Right-click on the motion image window to change the settings. Set the image size.

- VN-C205 does not support the 160 x 120 setting.

Displays the MAC address, IP address, model and firmware version.

When is checked, a grid for the motion detection area will appear and the detection area will be displayed in red.

Operations (Step 3 Setting Using the V.Networks Controller)

3-5 Image Quality Setting

The "V.Networks Controller" can be used to perform image quality settings such as compression level and white balance.

1. Select [Setting] and [Quality].

2. Change the set values.

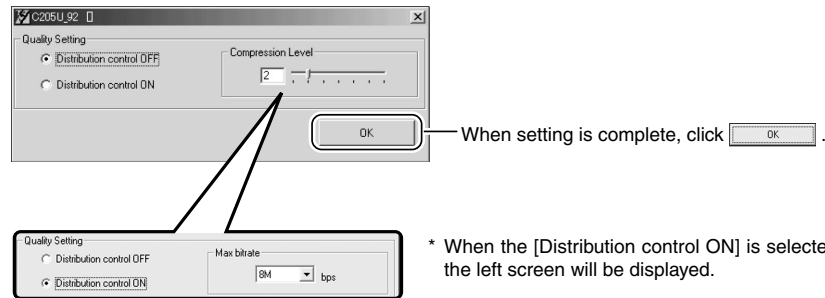


Image Quality Setting

Item	Function/Set Value	Initial Value
Distribution Control	Set the maximum transmission control.	OFF
OFF	Setting of compression level is possible when this is set to "OFF", and images will be sent out at the specified compression level. The smaller the value, the lower the compression level and hence a higher image quality. However, data volume will also increase. Set Value: 1 to 7	2
ON	Setting of bit rate is possible when this is set to "ON", and the compression level of images will be automatically adjusted according to the specified bit rate before they are sent out. Set value: 32 kbps to 8 Mbps	—

Note

- It will be necessary to establish connection again upon setting to enable display at the correct frame rate.

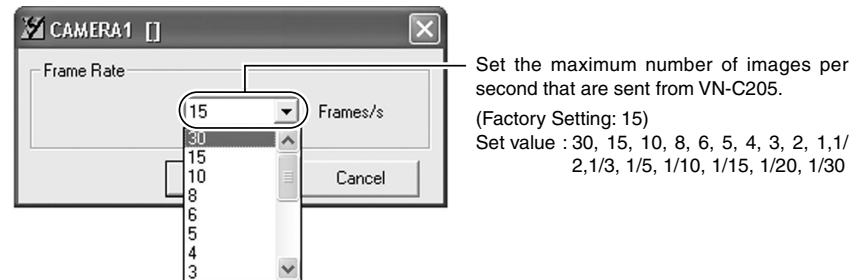
3-6 Frame Rate

The "V.Networks Controller" can be used to set a maximum value for the frame rate, which indicates the number of live image updates per second.

1. Select [Setting] and [Frame rate].



2. Set the [Frame Rate].



Note

The actual number of frames received and displayed per second is dependent on factors such as PC performance, compression level of images and the LAN environment. In the case of a LAN environment where multiple operations are being performed at one time (particularly when the network traffic is heavy), reduce the number of frames to be transmitted.

Caution

Frame rate for local recording cannot be set using this function. To set the frame rate for local recording, make use of the "VN-C205U Setup Tool" (Page 46).

Settings (Step 3 Setting Using the V.Networks Controller)

3-7 Alarm Setting

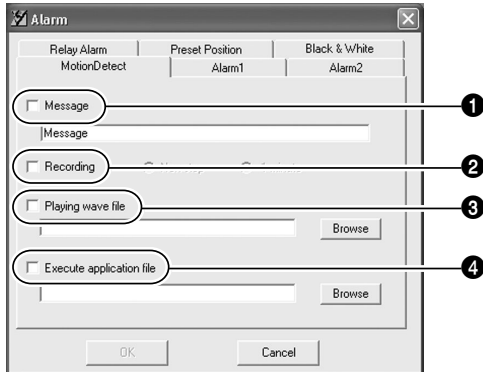
The "V.Networks Controller" can be used to set the action to be taken when an alarm signal is received.

1. Select [Setting] and [Alarm Setting].



2. Change the set values. (For description of each function, see next page)

Setting may be performed for the [Motion Detection], [Alarm 1], [Alarm 2], [Relay Alarm].



3. When setting is complete, click .

1 Message

Message entered in the textbox will be displayed when there is an alarm input.
(Up to 100 single-byte characters)

2 Recording

Starts recording when there is an alarm input.
Non-stop : Recording continues until the Stop button is pressed.
1 minute : Recording stops after 1 minute.

Notes

- The [1 minute] mode is used for conserving hard disk space.
- In this mode, recording stops after 1 minute even if recording has already started before the alarm input.

3 Playing wave file

Plays back a designated Wave file when there is an alarm input. Click the [Browse] button to specify a file.

Note

Alarm actions may be delayed due to PC performance if a large Wave file (.wav) is selected.

4 Execute application file

Executes a designated program when there is an alarm input. Click the [Browse] button to specify a program.

Notes

Alarm Operation

The following settings are required for the operation of the set alarm.

1. [Alarm Reg] is checked. This item is located under the [Setting] menu of the "V. Networks Controller". (see Page 57)
2. All alarm settings in the [Alarm Setting] of the "VN-C205U Setup Tool" are enabled. (see Page 40)

Relay Alarm

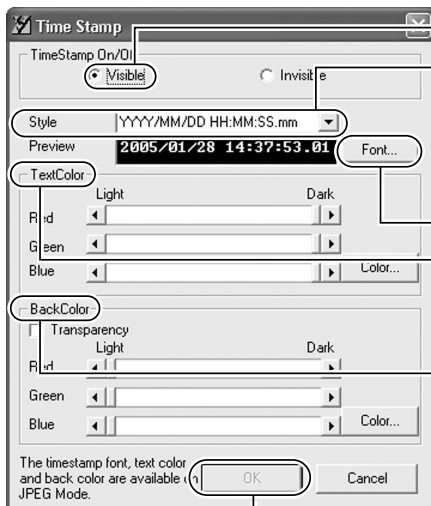
When the Relay Alarm function is enabled, subsequent alarms will not be activated.

Settings (Step 3 Setting Using the V.Networks Controller)

3-8 Time Stamp

The "V.Networks Controller" can be used to set the time stamp that displays date/time on camera images. The displayed time/date will be recorded.

1. Select [Setting] and [Time Stamp].



- 1 Select [Visible].
- 2 Select the display style in [Style]. Year, month and day are represented as "YYYY", "MM" and "DD" respectively. Hour, minute and second are represented as "HH", "MM" and "SS". Millisecond is represented as "mm".
- 3 Select the display [Font].
- 4 Set the [Text Color].
- 5 Set the background color.
- 6 Click .

Note

- Left-click on the motion image or playback window while holding down the [Shift] key at the same time. The time stamp will appear where the mouse was clicked.

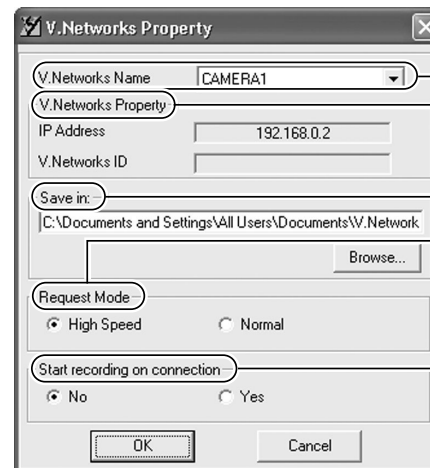
3-9 Changing Registered Information

The "V.Networks Controller" can be used to change information such as the preset connection method for a camera.

1. Select [Setting] and [Property].



2. Perform setting.



- 1 Change the camera.
- 2 Recorded files will be stored in the folder specified here.
- 3 Select the mode for image acquisition. *For details, refer to Page 54.
- 4 Set whether to [ON].

3. When alteration is complete, click .

Caution

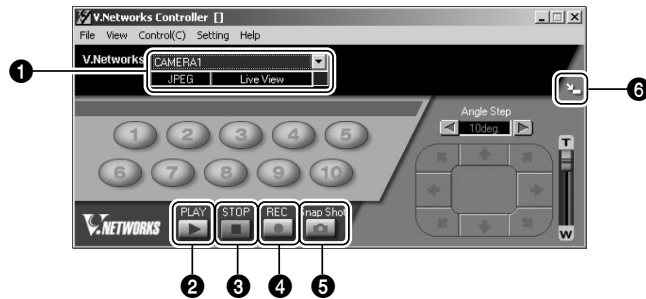
Information cannot be changed for a camera that is currently connected.

Operations (Step 4 Operation Using the V.Networks Controller)

4-1 Features that Allow Operation Using the V.Networks Controller

The "V.Networks Controller" can be used to select a camera as well as record/play back camera images.

(The controller screen is identical to other V.Networks versions, and there are functions that cannot be operated from VN-C205)



1 CAMERA

Displays the name of the connected camera. You can also select the connected camera using (pull-down menu).

2 PLAY

For selecting and playing back video files saved in . Use also this button to make a selection when playing back files recorded during an alarm.

3 STOP

Stops recording.

4 REC

Starts recording when this is selected. Recorded files are saved under the name as shown in . During recording, a [Recording] and [REC] indicator will appear in and on the displayed image respectively.

5 Snap Shot

For registering and saving only 1 frame of the displayed image.

6 Size

For reducing the display size of the [V.Networks Controller] screen. (See diagram below)

Reduced Screen



4-2 Record/Stop

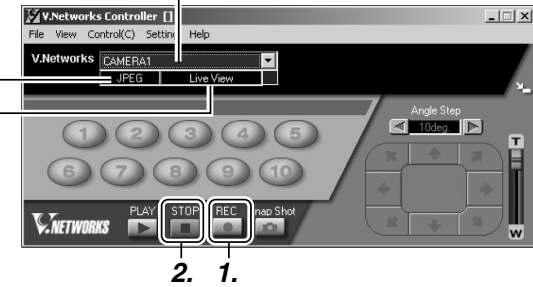
The "V.Networks Controller" can be used to save camera images to a file.

1. Click the [REC] button.

Connected Camera
(Saved in a folder under this name)

Recording Format

[REC] Indicator



(Motion Image Window)



2. Click the [Stop] button.

Stops recording and the [Recording] and [REC] indicators will disappear. (Click the [Snap Shot] button to record only 1 frame of the displayed image. (Page 71)

Notes

- Avoid recording continuously for an extended period of time. Attempt to play back files recorded over an extended time may cause playback failure on some PCs due to insufficient memory.
- Do not change the name of the record file. Doing so may cause playback to fail.

Operations (Step 4 Operation Using the V.Networks Controller)

4-3 Playback

Files saved upon "REC" using the "V.Networks Controller" can be selected and played back.

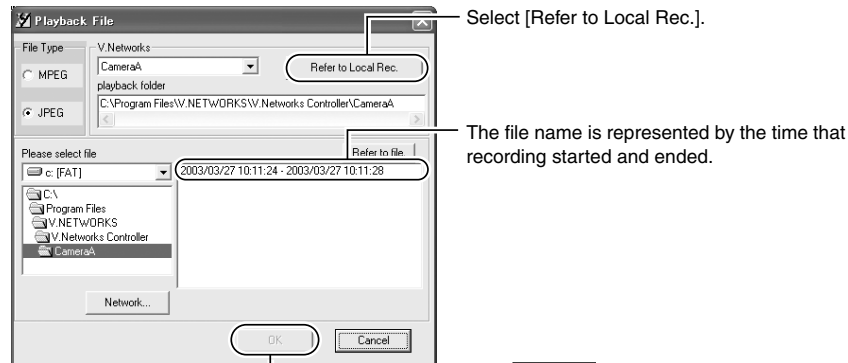
(Playback of a file and display of motion images cannot be performed at the same time.)

1. Click the [PLAY] button.



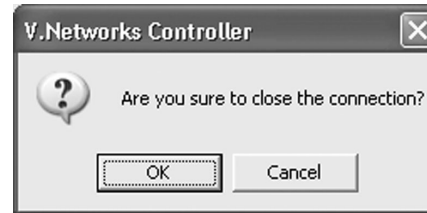
[PLAY] button

2. Select the file to play back on the [Playback File] screen, followed by clicking .
To play back local recording files, click [Refer to Local Rec.] to select a file.



Click .

3. Click .



4. The [Playback] screen is displayed.



Sliderbar

- Moves towards the right as playback time progresses.
- It can be dragged using the mouse.

[Stop] button
[Pause] button
[Play] button

Operations (Step 4 Operation Using the V.Networks Controller)

4-4 Cautions on Record/Play Functions

Record/Playback Time

- Do not record or play back a file that exceeds 2 GB using the "V.Networks Controller". Random access to data beyond 2 GB is not possible with standard Windows applications.

Reference: Approximate recording time for 2 GB data
(At frame rate of 5 fps)

Image Size	Data Size Per Image	Approximate Recording Time
320 x 240	Approx. 15 KB	6 hours
640 x 480	Approx. 50 KB	2 hours

4-5 Snapshot

The "V.Networks Controller" can be used to save video images currently displayed or playback images as still image files.

- Click the [Snap Shot] button.



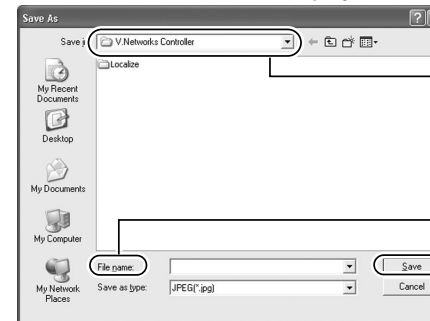
[Snap Shot] button

- The [Snap] screen will be displayed.



- 1 Select [File] and [Save].

- The [Save As] screen is displayed.



- 1 Specify a folder for saving the file.

- 2 Enter a File name.

- 3 Click [Save] to save the snapshot.

Note

Other Viewer Software

- Still image files that are saved using VN-C205 can also be displayed on other conventional viewer software. However, inverted images will not be reversed. In addition, the color reproduced may also differ.

Operations (Step 5 Operating Using a Web Browser)

In addition to the controller software supplied, web browsers can also be used to view still/motion images as well as to perform various settings.

5-1 Operating Environment

The following environment will be required to view/operate VN-C205 using a web browser.

The PC in use shall also meet requirements on the operation environment stated in this manual (Page 8).

PCs installed with the following web browsers

- Internet Explorer 5.x or 6.x.
 - For CPU performance, required memory space and other values, please refer to the recommended values by the respective web browser in use.
- In order to enable smooth display of motion images on a large screen, it will be necessary to ensure adequate allowance as compared with the recommended values by web browsers. In addition, images of the installed camera cannot be properly displayed using 256 color modes.

Caution

Operation using the web browser requires an environment that enables proper running of Java. Please refer to our web site for details.

<http://www.jvc-victor.co.jp/english/pro/vnetworks/index-e.html>

LAN Environment

- VN-C205 functions as a web server that makes use of a HTTP protocol. Access linking by host name will be possible as long as the environment allows use of a DNS (Domain Name System).
- It is possible to establish a 1-to-1 connection between the PC and VN-C205 using a crossover cable. (Although rare, the use of crossover cables may not be possible with some LAN boards. Be sure to check before using.)

Notes

Web Page Images

Web page screens in this manual are web page data inside VN-C205 (including images shot using the installed camera) which are displayed using the web page browsing/display function of the browser.

As such, the format of web pages and fonts displayed may vary according to the type of browser and settings.

In the event that items on the screen are not fully displayed, hence causing problems during use, display all items such as by resizing the window.

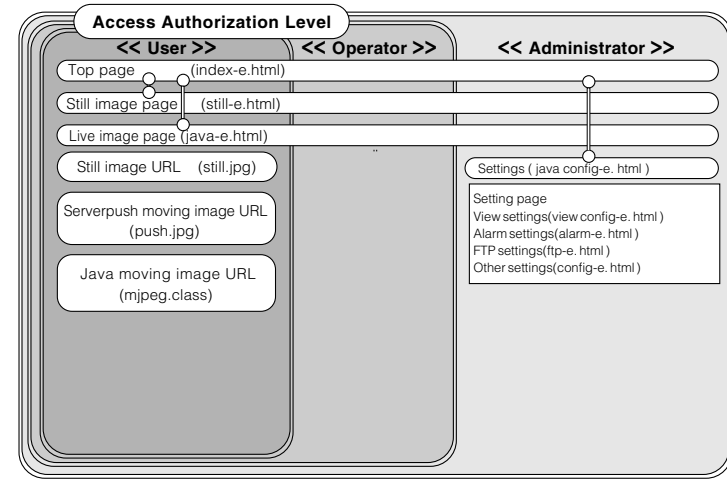
Description in this manual is based on the web page browsing/display screen of Internet Explorer.

Password

Upon changing a password, the password confirmation screen may appear, which requires you to enter the new password twice. When this screen appears, enter the same password twice.

5-2 Access Authorization Level

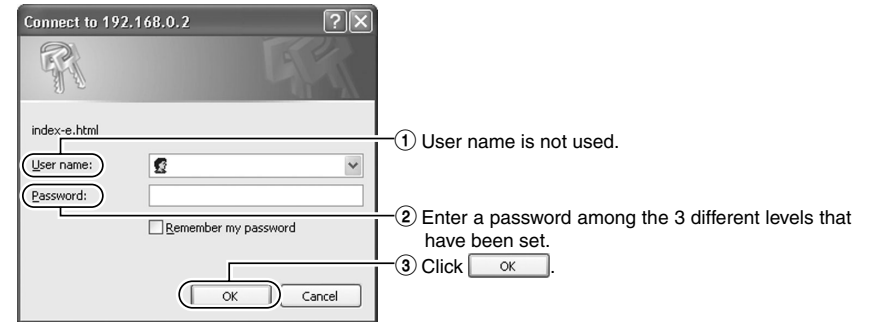
The configuration of URLs (web pages) in VN-C205 is illustrated as follows.



Front Page: http://*****/index.html ("*****" represents the URL of VN-C205)
This page provides links to the various web pages of VN-C205.

Authentication of Access Authorization

When there are authenticated passwords, a message requesting entry of user name and password (access authorization authentication) will appear.



Note

It is recommended that you register a URL (Uniform Resource Locator). To speed up display of VN-C205 web pages using your web browser, register the URL information during the access test using the set IP address or DNS host name. This is represented by [Favorites] in Internet Explorer. To register, use the [Add to Favorites] item in the operation menu of the web browser when a VN-C205 web page is displayed.

Operations (Step 5 Operating Using a Web Browser)

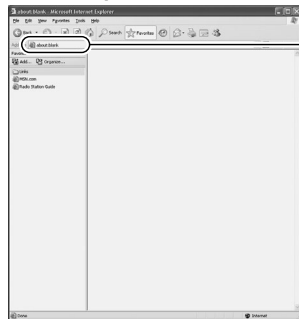
5-3 Starting Up the Web Browser

Specify the default web page address of VN-C205 as the page to view using the web browser. (Upon entering the factory setting of the IP address, the web browser will display the front page of VN-C205.)

Note

You may not be able to specify the IP address directly if a proxy server is set for accessing the Internet. In this case, change the proxy settings to enable direct specification.

1. Start up the web browser.



"http://192.168.0.2/index-e.html"

Note

The terms "Top Page" and "Home Page" are defined as follows in this manual.

Top Page : Refers to /index-e.html

Home Page : • Refers to the specified html page when the default page feature is enabled.
• /index-e.html will be used when the default page is disabled.

2. The Top page will be displayed.



Still Image of VN-C205
Camera image at the point when browsing starts is displayed.

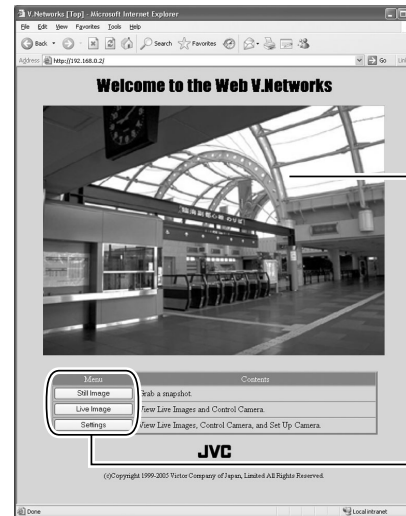
Link buttons to various web pages.
(Click once to jump to these pages.)

- Still Image (Page 84)
- Live Image (Page 85)
- Settings (Page 75)

5-4 Setting Using the Web Browser

Web browsers can be used to set the IP address, image quality or FTP.

1. Display the Top page.

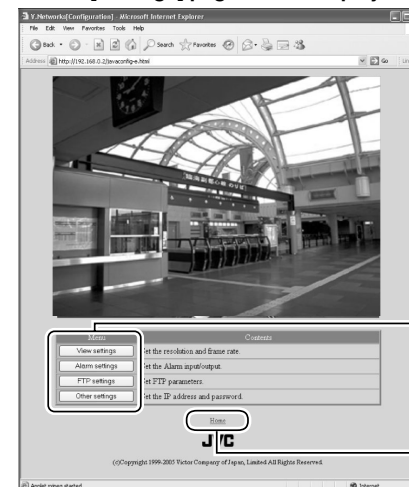


Still Image of VN-C205
Camera image at the point when browsing starts is displayed.

Click .
(Click once to jump to these pages.)

Top Page

2. The [Settings] page will be displayed.



Note

Web browsers do not support the function to invert images.

- View settings (Page 79)
- Alarm settings (Page 80)
- FTP settings (Page 82)
- Other settings (Page 76)

Hyperlink to Home Page

Operations (Step 5 Operating Using a Web Browser)

5-4 Setting Using the Web Browser (1. Other Settings)

Other settings:

http://*****/config-e.html ("*****" represents the URL of VN-C205)

Setup can be performed by specifying details for items in [Other Settings].
(This is also possible using the "VN-C205U Setup Tool" supplied.)

The screenshot shows a web browser window titled "http://192.168.0.2 - V:\Networks\Other Settings] - Microsoft I...". The page contains a form with various settings. Numbered callouts point to the following items:

- 1: DHCP (radio buttons for Available/Not available)
- 2: IP Address (text field: 192.168.0.2)
- 3: Subnet Mask (text field: 255.255.255.0)
- 4: Default Gateway (text field: 0.0.0.0)
- 5: Host Name (text field with "within 8 characters" note)
- 6: MAC Address (text field: 00:80:88:00:30:1F)
- 7: Program Version (text field: Version 00.01)
- 8: Password (within 8 characters) (text field with confirm buttons for User, Operator, and Administrator levels)
- 9: Cache Control (checkbox for No Cache)
- 10: FTP Server Function (radio buttons for Available/Not available)
- 11: Default Page (text field: /user/...html within 20 characters)
- 12: HTTP Port (text field: 80 (Normally Port 80))
- 13: NTP settings (text fields for Server IP Address, Time Zone, and Adjust interval)

At the bottom of the form is a "Save" button. An arrow points from the text "Click [Save] to update settings." to this button.

Description of Items in [Other Settings]

Item	Meaning
1 DHCP	Select [Available] when DHCP is used.
2 IP Address	Change the IP address to the one assigned or approved by the network administrator. (*This can only be altered when DHCP is not used.)
3 Subnet Mask	As with IP address, set subnet mask to a value as instructed or approved by the network administrator. (*This can only be altered when DHCP is not used.)
4 Default Gateway	Specify the IP address for the default gateway. Specify as 0.0.0.0 if this is not used. (*This can only be altered when DHCP is not used.)
5 Host Name	Specify up to 8 single-byte alphanumeric characters. Specify when access linking is performed using a host name in an environment that enables use of a DNS (Domain Name System). This is also displayed in the title bar of each subwindow. Do not enter if this is not used or unknown.
6 MAC Address	This is a physical address unique to the product. Alteration is not possible.
7 Program Version	This is the firmware version of the VN-C205 camera. Alteration is not possible.
8 Password (Within 8 characters)	Enter password for VN-C205 up to 8 single-byte alphanumeric characters.
User Level	Enter the User level password.
Operator Level	Enter the Operator level password.
Administrator Level	Enter the Administrator level password.
9 Cache Control	There may exist a small number of proxy servers that cache cgi. In this case, check "Disable cache".
10 FTP Server Function	Specify whether the FTP server function is enabled or disabled. When this function is enabled, uploading of various user html pages or GIF/JPEG images to VN-C205 will be possible using conventional FTP client software. * All uploaded files will be placed under the /user folder. Access from the web browser is possible by entering http://192.168.0.2/user/aaa.html . (When referring to aaa.html that is stored in the FTP, 192.168.0.2 is the IP address of VN-C205.) * The FTP user name is fixed as "Administrator". Use the Administrator Level Password as the FTP password.
11 Default Page	Usually, the top page of VN-C205 is specified. When this function is available, the specified html file will be used as the default page. * Default page refers to the page that is displayed when only the IP address is specified. Displaying Still Images that are Uploaded to the /user Folder Still images in the /user folder can be displayed by creating a web page containing the following: <code></code> (xxxx refers to the file name of the still image)
<p>Note</p> <p>Even when this feature is enabled, an error message indicating "404: Not Found" will be displayed when http://192.168.0.2 is entered if the html file specified here does not exist. Be sure to enter correctly.</p>	

Operations (Step 5 Operating Using a Web Browser)

5-4 Setting Using the Web Browser (1. Other Settings) (Continued)

Description of Items in [Other Settings]

Item	Meaning
① Default Page (Continued)	
Available/Not Available	Set to "Available" when using the default page function and to "Not Available" when not in use.
File Name	Enter the html file name that is to be used as the default page.
② HTTP Port	
	To enhance the security level, set the HTTP server port number of VN-C205 to a value other than the default value of 80. (Specify any value within the range of 1 to 65535, except for 21 and 554.) Upon changing the HTTP port number, access the page via the web browser by entering http://192.168.0.2:12345/ or http://192.168.0.2:12345/index.html. (When the port number is changed to 12345.) If you have lost track of the HTTP port number, check using the setup tool supplied.
③ NTP Settings	
	This is used to perform setting for the NTP (Network Time Protocol) server.
Available/Not Available	Set to "Available" when using the NTP function and to "Not Available" when not in use.
Server IP Address	Enter the IP address of the NTP server.
Time Zone	The local time will be derived from the Greenwich Time.
Adjust interval	An accurate time will be acquired from the NTP server according to the specified interval to adjust the time to a correct value.

Note

- Password Protection
VN-C205 is equipped with an access protection feature using a password to restrict browsers (users) that are connected. The access protection function is divided into 3 levels according to the authorization levels. Pages that can be accessed (browsed) for each authorization level are as follows. (Refer to Page 73 for the configuration of web pages in VN-C205.)

Authorization Level	Allowed Access
User Level	Still or motion image pages only
Operator Level	Web pages except the Settings page
Administrator Level	All web pages

Cautions

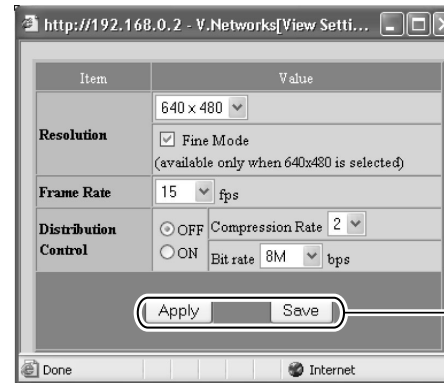
- Unless a correct Administrator level password is entered, password settings cannot be undone or changed. Please make sure that you do not forget the password.
- If passwords are only set for the User and Operator levels and not for the Administrator level, password entry will not be requested.
When the IP address, subnet mask, host name or HTTP port settings are changed, a confirmation screen indicating "Are you sure to reset to enable the changes?" will appear. Upon clicking [OK] on this confirmation screen, VN-C205 will be reset internally and settings such as the IP address will be changed. The IP address before change (factory setting) will be disabled and connection to VN-C205 will be cut off upon the reset operation.
When the web browser is left unoperated for some time, a message will appear indicating that connection cannot be established. This is due to the change in the IP address. (The same message will also appear when the port number is changed.)

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5-4 Setting Using the Web Browser (2. View Setting)

View Setting window:

http://*****/viewconfig-e.html ("*****" represents the URL of VN-C205)



Click **Save** to apply settings and to save the set values.

Click **Apply** to apply settings without saving the set values. These settings will be cleared upon turning off the power of VN-C205, and the previous settings will be restored.

Item	Meaning	Initial Value
Resolution	Select either 640 x 480 or 320 x 240 for the image size. *Setting to the Fine mode enables display of image details. Images of moving objects captured in this mode may be blurred, but this is not a malfunction.	640 x 480
Frame Rate	For setting the maximum number of frames per second when sending out images from VN-C205. Set value : 30, 15, 10, 8, 6, 5, 4, 3, 2, 1, 1/2, 1/3, 1/5, 1/10, 1/15, 1/20, 1/30	15
Distribution Control	For performing settings related to distribution of images.	OFF
OFF	Distributes an image at a fixed compression level. (Set value: 1 to 7) The smaller the value, the higher will be the image quality.	2
ON	Adjusts the compression level automatically to enable distribution of images at the specified bit rate. (Set value: 32 kbps to 8 Mbps)	—

Cautions

- The actual number of frames transmitted and displayed per second are affected by the PC performance, web browser type as well as the LAN environment. When there is a possibility of communication failure with other user operations (particularly in an environment where network traffic is relatively heavy), set [Frame Rate] to a small value.
- Ensure to set [Frame Rate] according to the number of simultaneous access to VN-C205. Display of web pages and move/button operations may not function properly if the processing capacity of the camera is exceeded.

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Operations (Step 5 Operating Using a Web Browser)

5-4 Setting Using the Web Browser (3. Alarm Setting)

Alarm Setting window:

http://*****/alarm-e.html ("*****" represents the URL of VN-C205)

This page describes procedures for setting VN-C205 operation upon input of alarm signals.

Click **Save** to apply settings and to save the set values.

Click **Apply** to apply settings without saving the set values. These settings will be cleared upon turning off the power of VN-C205, and the previous settings will be restored.

■ Alarm In

For specifying the camera operation upon input of alarm signals.

1 IN1/IN2

On : Detect Mode
(Set value: Make, Break, Toggle)
: Alarm Out
(Set value: Not Available, OUT1, OUT2)
: Message Packet
(Set value: Available, Not Available)
: FTP
(Set value: Available, Not Available)
: Shutdown
(Set value: Available, Not Available)

Off : Do not use Alarm 1 and Alarm 2.

2 Relay Alarm

On : Alarm Out
(Set value: Not Available, OUT1, OUT2)
: Message Packet
(Set value: Available, Not Available)
: FTP
(Set value: Available, Not Available)
: Shutdown
(Set value: Available, Not Available)

Off : Do not use Relay Alarm.

■ Alarm Out

For performing setting related to output during an alarm activation.

3 OUT1/OUT2

On : Output Value
(Set value: ON, OFF)
: Pattern
(Set value: Level, Momentum)
: Momentum Interval
(Set value: 1 to 5000 milliseconds)

Off : Do not output alarm.

Notes

- Set output settings according to settings of the device for which alarm output is sent to.
- When alarm setting is complete, always check to ensure that the alarm is functioning correctly.

Operations (Step 5 Setting Using the Web Browser)

5-4 Setting Using the Web Browser (4. FTP Setting)

FTP Client Setting window:

http://*****/ftp-e.html ("*****" represents the URL of VN-C205)

Note

- What is an FTP Client?
It is a feature that uploads VN-C205 images (still images) to the existing FTP server at a regular interval.
By doing so, it is possible to make use of the server's image distribution services, thereby enabling distribution of images to a considerably larger number of clients.

Click **Save** to apply settings and to save the set values.

Click **Apply** to apply settings without saving the set values. These settings will be cleared upon turning off the power of VN-C205, and the previous settings will be restored.

Item	Meaning
1 FTP Function	For setting whether to use the FTP function.
Snap Shot FTP	Check this box when the function for uploading JPEG images to the FTP server is to be used regularly.
Upload Interval	Specify the time interval at which images are uploaded to the FTP server. (Set value: 0 to 65535 seconds)
Alarm FTP	Check this box to upload JPEG images to the FTP server when there is an alarm input.
Before trigger	Set the time interval for uploading images before an alarm input. (0 to 15 seconds before trigger)
After trigger	Set the time interval for uploading images after an alarm input. (0 to 60 seconds after trigger)
Upload Interval	Specify the time interval for uploading images to the FTP server when in the Alarm FTP mode. (0 to 60 seconds)
Filename (Still image FTP, Same as Alarm FTP)	Specify the name of the image file to upload.
*.jpg	File will be uploaded using the file name specified here. *Only 1 image file remains in the FTP server as images are uploaded as the same file name. (The old image will be overwritten by the latest image.)
Time stamp	Images are uploaded using a file name that indicates the current time of the internal clock in VN-C205 in the (YYYY-MM-DD-HH-MM-SS-mmm) format. *Images are always uploaded with a different file name and therefore all uploaded image files will remain in the FTP server.
2 User name	Enter the user name to use for verification with the FTP server. (1 to 16 characters)
3 Password	Enter the password to use for verification with the FTP server. (0 to 32 single-byte characters) (Displayed as "****")
4 Host IP Address	Enter the IP address of the FTP server at the upload destination.
5 FTP Port	Enter the FTP port number at the upload destination.
6 FTP Folder	Enter the folder name on the FTP server at the upload destination.
7 Connection	Set whether to disconnect every time upon uploading.
Disconnect everytime	Disconnect upon uploading each image. Connection will have to be re-established when uploading the next image. Specify a recovery action when errors related to FTP occur.
8 Error Recovery	Specify a recovery action when errors related to TCP connection or FTP verification occur.
On connect error	
Retry forever	Recovery attempt is repeated until the power for VN-C205 is turned off.
Retry Interval	Repeats recovery attempt within the specified time interval. (Set value: 1 to 600 mins)
On transfer error	Specify a recovery action upon occurrence of a file transfer error while uploading the images.
Stop Uploading	Disable the FTP function of VN-C205 automatically upon occurrence of a transfer error. To resume, enable the FTP function.

Operations (Step 5 Operating Using a Web Browser)

5-5 Viewing Still Images

Still Image Page:

http://*****/still-e.html ("*****" represents the URL of VN-C205)

This page can only be used to view still images. Camera image at the point when browsing starts is displayed. To update the image, use [Refresh] or [Reload] on the web browser. To save the displayed image, use [Save As] on the web browser.



5-6 Viewing Live Images

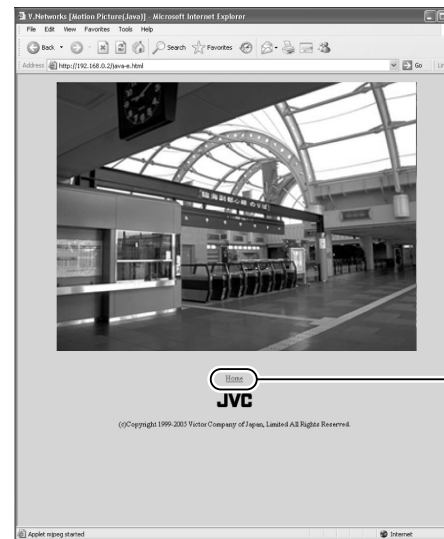
Live Image Page:

http://*****/java-e.html ("*****" represents the URL of VN-C205)

This page can only be used to view motion images. Camera images are automatically updated and displayed as a motion image.

Note

Do not use the [Save As] function as this page is not created to support the [Save As] function on the web browser. Similarly, do not use the [Save As] function for web pages as they also do not support this function.



Operations (Step 5 Operating Using a Web Browser)

5-7 Image Link

Output images of VN-C205 can be pasted onto a separately created web page. Images (still and motion) captured using VN-C205 can also be incorporated and displayed on a user-created web page.

Displaying a still image:

Still images can be displayed by creating a web page containing the following:

```
<IMG SRC="http://*****/still.jpg">
(Enter URL of VN-C205 in "****")
```

Displaying a motion image:

Motion images can be displayed by creating a web page containing the following:

```
<APPLET CODE="mjpeg.class" WIDTH=640 HEIGHT=480 CodeBase="http://****"/></APPLET>
(Enter URL of VN-C205 in "****")
```

Displaying still images uploaded to the /user folder:

Still images in the /user folder can be displayed by creating a web page containing the following:

```
<IMG SRC ="/user/xxxx">
(xxxx refers to the file name of the still image)
```

Notes

- Both still and motion images are displayed according to the preset image size and compression level values. If Java is disabled in the web browser, images may not be displayed properly.
- If a password has been set, password authentication will be necessary before display of motion images using Java is made possible. (This is an Internet Explorer restriction.)
- Ensure that the "WIDTH" and "HEIGHT" values are identical to the image size set in VN-C205.

Others

Troubleshooting

Symptom	Causes/Remedial Actions
Forgotten the VN-C205 IP address that was changed using the "VN-C205U Setup Tool".	<ul style="list-style-type: none"> Use the "Search" function in the "VN-C205U Setup Tool" to view the list of IP addresses for cameras connected to the network. (Page 32)
Unable to record.	<ul style="list-style-type: none"> Has the folder for saving images been deleted? Check to ensure that the folder exists. (Page 65) Is the hard disk of your PC full? Check the available hard disk space on your PC and delete unwanted files.
A long time is required to cancel an action when the "Connecting ..." message is displayed.	<ul style="list-style-type: none"> Once the connection is activated, it cannot be canceled within a few seconds.
Color is unsatisfactory.	<ul style="list-style-type: none"> Check the color adjustments of the monitor and video card. Is the color setting of your PC screen set to High Color (16 bits) or lower? If this is so, change it to True Color (24 bits) or higher. It will be difficult to achieve display of natural color tones using a setting that is lower than this. Adjust the White Balance. Adjust White Balance manually by switching the White Balance Automatic/Manual switch to MANU. (Page 11) When shooting scenes with different light sources (e.g. when alternately shooting outdoor scenes under the sunlight and indoor scenes under a fluorescent light), Auto White Balance may take some time to function. Hue may differ slightly according to different objects, but this is not a malfunction.
Image size and quality changes automatically.	<ul style="list-style-type: none"> When a VN-C205 is connected to multiple PCs, priority will be given to the PC for which VN-C205 operation /setting is last performed.
Connection to VN-C205 cannot be established or gets cut off.	<ul style="list-style-type: none"> When the network is loaded with frequent broadcasting or collisions, connection may not be established or may be cut off when errors occur with the network. Check the network status.
Unable to perform camera control or settings acquired are incorrect for a span of about 60 seconds after turning on the power.	<ul style="list-style-type: none"> About 60 seconds are required for initialization of the camera to complete upon turning on the power. To perform camera control or acquire settings, do so by allowing an interval of at least 60 seconds after turning on the power.

Others

Troubleshooting (Continued)

Symptom	Causes/Remedial Actions
Video images cannot be displayed smoothly.	<ul style="list-style-type: none"> Live images may appear in slow motion or loss of frames may occur when the PC specifications or network bandwidth is inadequate.
Forgotten the password upon enabling the password protection feature.	<ul style="list-style-type: none"> Repair services will be required to undo the password protection feature. Please consult your dealer for details. Please also note that you may be asked to produce identification cards for security reasons.
Video images are not displayed.	<ul style="list-style-type: none"> Is the camera connected to a DC 12 V or AC 24 V power supply? Check connection of the input power cable. (☞ Page 22) Is the LAN cable connected? Check connection of the LAN cable. (☞ Page 20)

Specifications

■ Camera

Image pickup device : 1/4-inch type, interline transfer CCD, 768 (H) x 494 (V)
Sync system : Internal
Scanning frequencies : 15.734 kHz (Horizontal), 59.95 Hz (Vertical)

White Balance : ATW/Manual (Switchable)
ATW : Color temperature range 2,300 K to 10000 K

Backlight compensation : ON/OFF (Switchable)
Easy Day & Night : ON/OFF (Switchable)

[Video Output]
Color System : NTSC
S/N : 48 dB (AGC: OFF, Typ.)

Horizontal resolution : 540 TV lines (Typ.)

Minimum object illumination : **(Color mode):**
 3.0 lx (50% output, AGC ON, Wide-end)
 1.5 lx (25% output, AGC ON, Wide-end)
(Black & White mode):
 2.0 lx (50% output, AGC ON, Wide-end)
 0.9 lx (25% output, AGC ON, Wide-end)

■ Lens

Focal length : 2.6 mm to 6 mm (variable)
Maximum aperture : F1.2 (Wide) to F1.8 (Tele)
Angle of vision : f = 2.6 mm
 82° (H) x 59° (V)
 f = 6 mm
 35° (H) x 26° (V)

Angle adjustment range : Horizontal : 120°
 Vertical : +80°, -50°
 Tilt : ±15°

■ **LAN Standard** : IEEE802.3, IEEE802.3u

■ **Communication protocol** : TCP, UDP, FTP, ICMP, ARP, DHCP, NTP, HTTP

■ General

Power supply : AC 24 V ~ 50 Hz/60 Hz
 DC 12 V

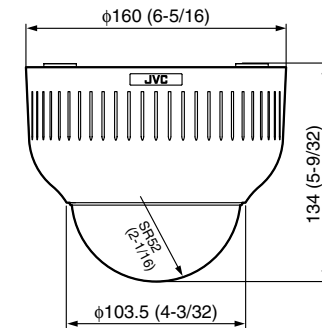
Power consumption : 0.8 A

Ambient temperature : 0°C to 40°C
Humidity : 20% to 85% RH (without condensation)

Mass : Approx. 1.0 kg

Accessories : Read Me First 1
 CD-ROM 1
 Warranty Card 1
 Service Information Card 1
 Template 1

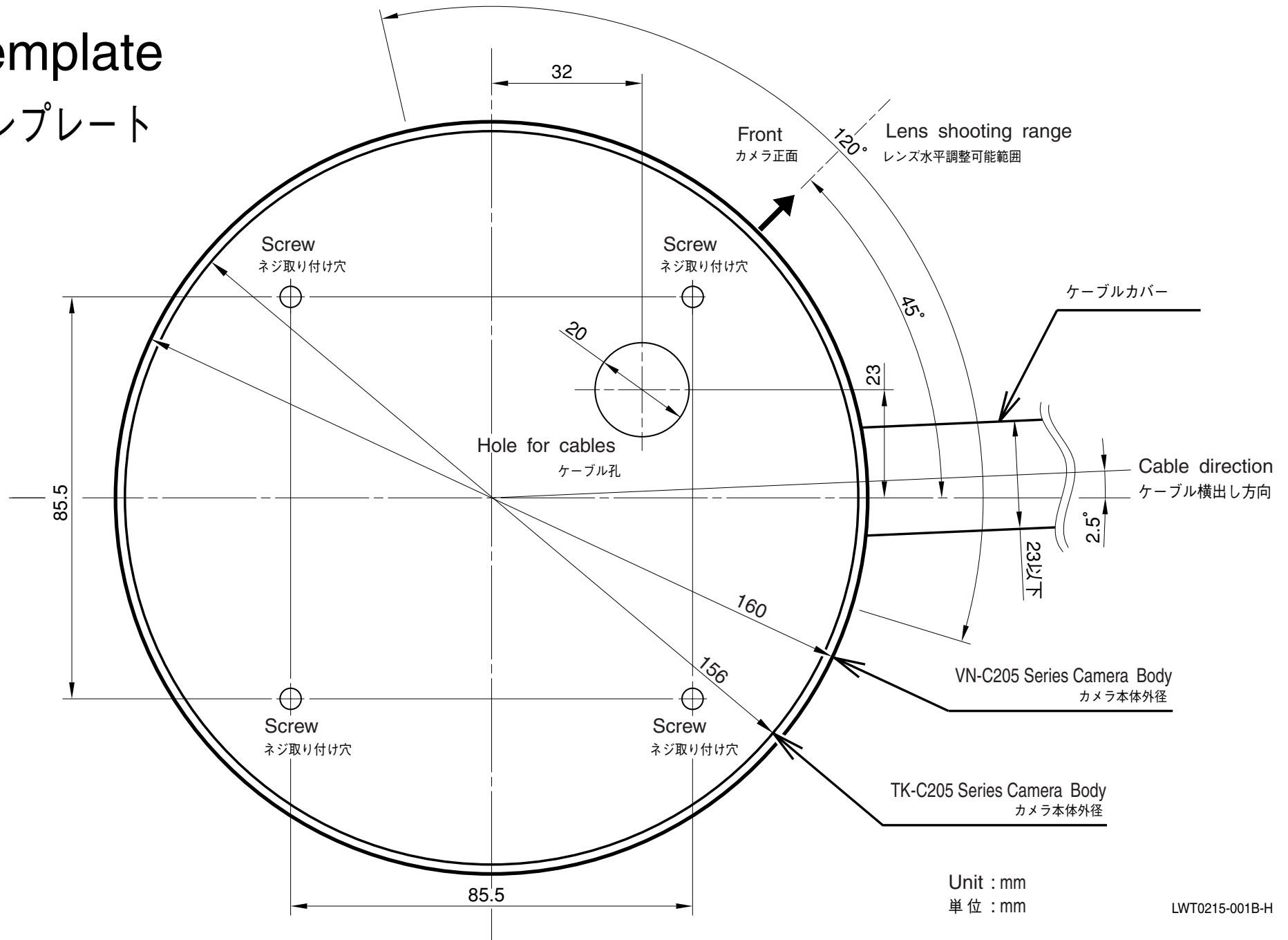
■ External Dimensions [Unit: mm (inches)]



* Specifications and appearance of this unit and related products are subject to change for product improvement without prior notice.

Template

テンプレート



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