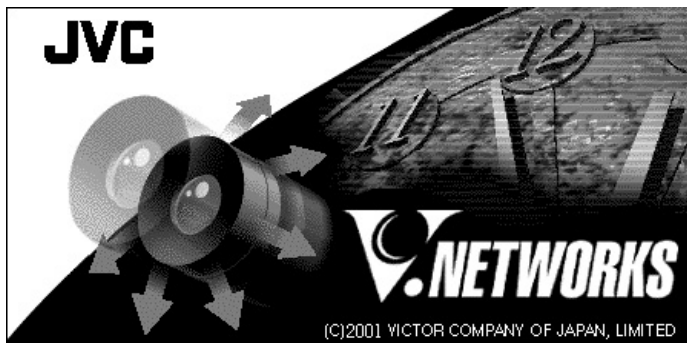


JVC[®]

V.NETWORKS

VN-C30U



INSTRUCTIONS

This instruction manual is printed on recycled paper.

Thank you for purchasing the JVC VN-C30U. To gain maximum benefit from this product, read this instruction manual carefully before use and retain it for future reference.

The serial number is very important for maintaining quality of your product. At the time of purchase, check to see that the serial number is correctly printed on the top of the unit and that the serial numbers on the unit and warranty match.

For Customer Use:

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

Model No. **VN-C30U**

Serial No. _____

LHT0005-001D

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.

PORTABLE CART WARNING
(symbol provided by RETAC)



S3125A

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.

Safety Precautions



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.

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

■ **Keep away from moisture**

Fire or electrical shock can result from the presence of moisture. Spillage can occur from objects containing water (flower vases, flower pots, cups, cosmetics, pharmaceuticals, etc.) and should not be placed on top of this device.

■ **Do not touch**

Do not touch lines (antenna wires, phone lines, etc.) connected to this device or power plugs during a thunder storm because this can result in electrical shock.

- When installing this device, maintain a space of 10cm or more between this device and the wall. Also keep other devices at a distance to ensure good radiation. Internal heat can result in fire.
-

Cautions

- Do not install this device in locations such as the following.
To avoid the possibility of fire or electrical shock, do not install this device in locations such as the following.
 - Where there is excessive humidity or dust.
Do not install where there is excessive humidity or dust.
Avoid locations with oil smoke or steam.
 - Locations where temperatures are high.
Do not install in locations where temperatures are extremely high due to direct contact with sunlight or proximity to a heater.
- Do not connect or disconnect the power cord or plug with wet hands because this can result in electrical shock.
- Do not place heavy objects on top of this device.
Loss of balance could cause falling and result in injury or damage.
- Do not stand on this device.
This could cause overturning and result in injury or damage. Use special caution with children.
- Use only the specified accessories.
Use only the accessories specified in the instruction manual with this device. The use of other accessories can result in fire or electrical shock.
- Have your local dealer perform an internal inspection once every three years.
Accumulated dust inside this device can eventually result in fire or malfunction if not removed periodically. It is more effective to have this inspection performed before the rainy season and when humidity is high. Consult your local dealer concerning the inspection fee.
- About CD-ROM handling
Do not bend or fold CD-ROMs.
- The power IN jack is exposed, so use caution to avoid shorting with metal objects, etc., when connecting and disconnecting the power cable.
- Do not allow children with the carton and bags used for packing because this could result in suffocation.

Cautions

- This instruction manual may not be reproduced in part or in its entirety.
- Use caution to avoid infringing the copyrights of others during use.
- Please note that this company does not assume any responsibility in the case of any possible errors that may be found in this instruction manual.
- The contents of this instruction manual are subject to change without notice.
- When this product is discarded, always observe all applicable laws and regulations.

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The marks TM, ©, ®, etc., are not used in this instruction manual.

Any other company names and product names mentioned in this instruction manual are the trademarks or registered trademarks of the respective companies.

Before Recording or Saving Important Images

- Due to provisions of the copyright law, images recorded and saved from TV broadcasts and recorded tapes, etc., and recorded and saved images of printed materials such as posters, etc., cannot be used for any purpose other than personal enjoyment without the express written permission of the copyright holder.
- When recording important images, always make test shots beforehand to make sure that recording and display are correct. Also use caution concerning available hard disk capacity.
- Please note that compensation will not be paid in the case that normal recording and playback are not possible due to problems with this product or with the computer software, etc.

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About Upgrades

- New version of the software (VN-C30U) can be acquired via Internet. Download the software from the following.
Home page: <http://www.jvc-victor.co.jp/english/pro/vnetworks/>

Package Contents

This product includes all of the following items. If any item should be missing, please contact your local dealer.

- VN-C30U main unit
- VN-C30U Controller CD-ROM
- Instruction manual (this document)
- Additions to Instructions

Operating Environment

The environment described below is necessary for operation of the VN-C30U controller.

A PC running Microsoft Windows 95, 98, Me , NT(Service Pack 4 or higher) 2000(Service Pack 1 or higher), XP

- CPU
Pentium II 300 MHz or higher (Pentium III 500 MHz or higher recommended)
- Memory capacity
64 MB or more (128 MB or more recommended)
- Hard disk capacity
20MB or more
- Display and video card
640 x 480 pixels or more, High Color (1024 x 768 pixels or more, True Color recommended)
- 10BASE-T / 100BASE-TX
LAN board, connection cables
- Others
Windows Media Player Ver. 6.4 or higher
Internet Explorer Ver. 4.01 or higher

LAN Environment

- 10BASE-T or 100BASE-TX networks mutually connected by hubs, etc., that conform to IEEE 802.3 or IEEE802.3u.
- The VN-C30U and a PC can be connected directly by using a cross cable. (Although rare, the use of cross cables is not possible with some LAN boards.)
- When used with 100 BASE-TX, please use a CAT-5 cable.

Caution

- When using the MPEG image compression method, please use a computer conforming to the recommended specifications.
- When the basic software requires higher environments than described as operating environments for this software in INSTRUCTIONS, please follow these requirements firstly.
- With the VN-C30U the software listed below is not compatible for viewing the video images that are distributed in the Multicast mode. The VN-C30U controller that is provided with the VN-C30U should be installed. (Up to date as of Sept. 2003)
 - V.Networks controller Ver. 2.1 provided with the VN-A1U
 - V.Networks controller Ver. 1.1 provided with the VN-C10U/C11U
 - VN-S200U/S100U Ver. 3.6.0
 - VN-S400U Ver. 1.2
- The multicast video distribution is not supported in the MPEG mode. (The multicast video distribution is only available in the Jpeg mode.)

To ensure correct usage

- To save electricity, be sure to turn off the power to the system when not in use.
- This product is for indoor use. It cannot be used outside.
- The product cannot be used and should not be installed in the following locations.
 - Locations subject to rain or water.
 - Locations with hot air or oil vapors, such as in kitchens, etc.
 - Locations where the allowed ambient operating temperature (0° C – 40° C) is exceeded.
 - Locations with radiation, x-rays or where strong electrical or magnetic waves are generated.
 - Locations with vibrations.
 - Locations with much dust.
- Insufficient dissipation of heat from the unit may cause damage. Never block or obstruct the ventilation around the unit.
- When this product is used with AGC on, the sensitivity will be increased automatically in dark places, so the screen may flicker in some cases. This is not a malfunction.
- When this product is used with AWB on, in some cases the recorded colors may differ slightly from the natural colors due to the principle of the automatic tracking color balance circuit.
- When any bright object such as a lamp, etc., is photographed, white bands may appear above and below the bright object. This is called smearing, a phenomenon caused by the characteristics of the individual pixels, and is not a malfunction.
- The electronic shutter of this unit is set to 1/60 sec from the factory. When using the camera in locations with fluorescent light with a commercial frequency of 50 Hz, please switch the setting to 1/100 sec. (The sensitivity becomes slightly lower at the 1/100 sec. setting.)
- Do not touch the lens cover directly with hands. A dirty cover will result in reduced picture quality.
- When panning and tilting the VN-C30U, do not apply force to any part other than the body because this could result in damage or a malfunction.
- Use caution to avoid catching on the sensor insert button of the alarm input/output jack. In case this happens and disconnection from the alarm input/output jack occurs, return to the original location and use there.
- Cleaning
 - Turn OFF the power before cleaning.
 - Wipe dirt off the lens cover using lens cloth (or paper). Depending on the environment of use, dirt may accumulate in a short time. When very dirty, moisten the lens cloth (or paper) with a neutral detergent diluted with water.

VN-C30U Installation and Setup

Before starting installation and setup

It is necessary to set an IP address for each VN-C30U unit. Use the following procedure for the setup of each unit. (If the power is not turned on, the installation of multiple VN-C30U can be performed at one time.)

1. Install the VN-C30U

※ In case of installation in a location where the power cannot easily be turned on, complete steps 2 - 5 before step 1.

2. Connect the VN-C30U to the network, and set MODE SW as outlined on the next page.

(The power to the VN-C30U should be ON.)

3. Set the VN-C30U IP address.

※ When setting the VN-C30U IP address, be sure to contact the network administrator for assignment or approval. When installing the second and following units, reboot the PC and then return to step 2.

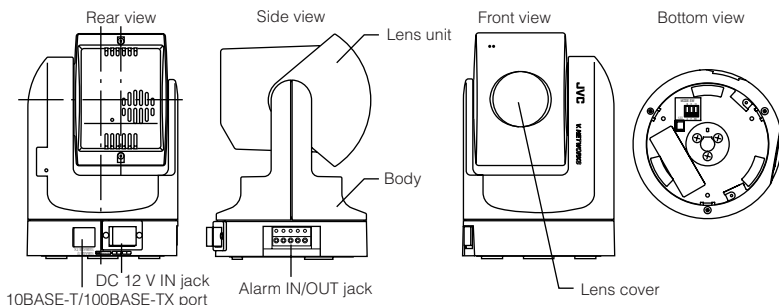
4. Enable the VN-C30U IP address.

(Turn the VN-C30U power off and then on again.)

5. Register the connection point.

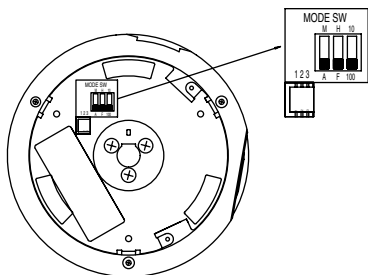
※ This registers the VN-C30U IP address data in the PC.

Names of VN-C30U parts



Connection to Ethernet

VN-C30U can be connected to both 10BASE-T and 100BASE-TX network. To ensure this, the factory setting is set to Auto Negotiation. However, depending on the used HUB, the unit may fail to work at this setting. For this reason the LAN connection setting switch "MODE SW" is provided on the bottom of the VN-C30U main unit. If VN-C30U cannot be connected or motion image are not smooth, change the settings of the "MODE SW" switch as shown below to find the appropriate condition.



- A : Auto Negotiation
- M : Manual
- F : Full Duplex
- H : Half Duplex
- 100 : 100BASE-TX
- 10 : 10BASE-T

The maximum data rate for sending from VN-C30U is 4Mbit/s, but it may not be possible to obtain smooth MPEG live images in the Half Duplex mode. We recommend to select one of the following mode;

- (1) 10BASE-T Full Duplex
- (2) 100BASE-TX Full Duplex
- (3) Auto Negotiation

(In the (3) Auto Negotiation mode, it is recommended that the HUB, etc., to which VN-C30U is connected be a device for which the link can be established in the above-mentioned condition (1) or (2).)

Installation and setup

1. Installation

Use the optional bracket (Model VN-BK30) for installation.

Make the power and network connections after completion of the installation work.

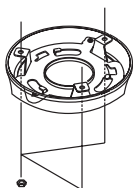
Caution

Install in a location with sufficient strength to prevent falling.

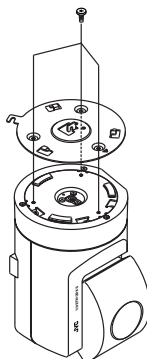
VN-C30U units can only be installed as shown in the diagram below, or inverted. Do not install facing sideways.

Tilted installation is not possible.

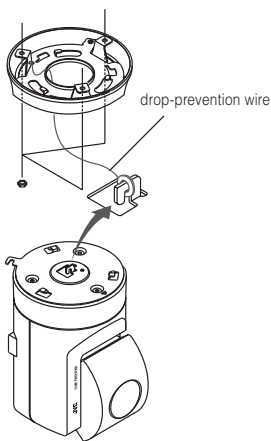
- ① Attach the ceiling fixer with the ▽ hole pointing toward the front of the camera.



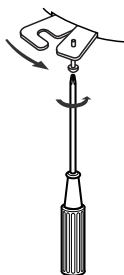
- ② Mount the camera body fixer on the VN-C30U.



- ③ Attach the drop-prevention wire of the ceiling fixer to the camera body fixer.



- ④ Mount the VN-C30U on the ceiling fixer by rotating clockwise, then tighten the screw of the camera body fixer.



2. Connecting to the network

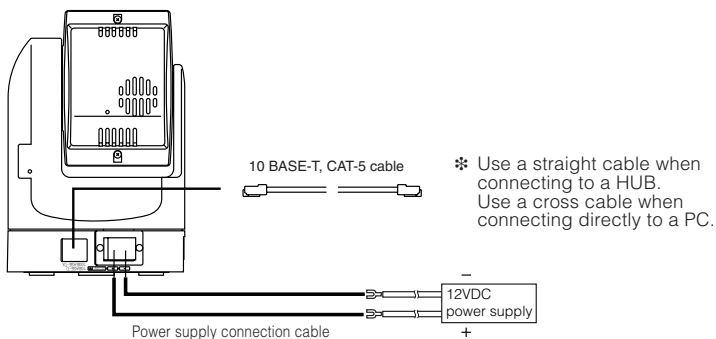
Turn on the power of the VN-C30U unit.

Caution

- After the power for VN-C30U is turned on, there will be about 20 seconds until VN-C30U becomes ready to be connected with the PC. This is not a defect.
- At the factory, DHCP is set enabled for VN-C30U.
- About the DHCP function
JVC does not recommend operating VN-C30U with this function enabled because a different IP address may be assigned upon the renewal of the leasing contract. The DHCP function of VN-C30U is designed for simplifying the installation and setting procedures.

Note

- For connecting VN-C30U with the factory settings, either one of the environments described below is required.
- Environment where no DHCP server exists. (The IP address of VN-C30U is set to Factory Default, 192. 168. 0. 2)
- Environment where a DHCP server exists, which clearly defines the allotted IP address and MAC address.



● **About the power supply connection cable**

- Length: 30m(98 feet) or less.
- Recommended model: UL1007, UL1015 or equivalent cable with wire equivalent to ID AWG #20 or lower number.

Caution to be observed when a DHCP Server is not installed in the LAN.

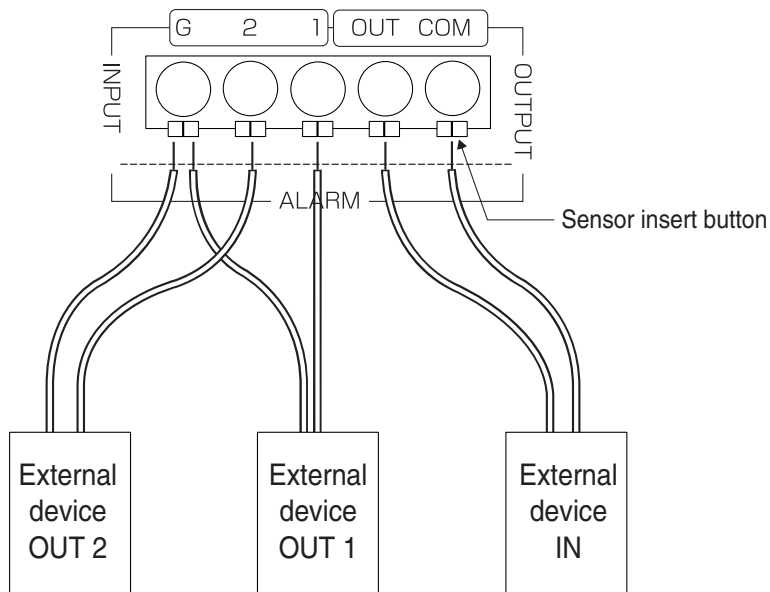
If multiple units are installed in the same LAN environment and the power is turned ON at the same time, duplication of IP addresses will occur and correct access will not be possible. Always turn the power on for only one unit at a time. Once duplication of IP addresses has occurred (and after confirming that only one VN-C30U exists in the same LAN environment), wait a while (10 minutes or longer), or turn off the power of all the network devices on the same LAN environment, before turning the power ON again. If this is not done, it may not be possible to access the VN-C30U.

Caution

VN-C30U unit is intended to be supplied by a Listed Direct Plug-In Power Unit marked "Class 2" and rated from 11 to 15 V dc, 2 to 2.5 A.

3. Alarm IN/OUT connection

Connect external devices to the alarm IN/OUT as shown below.



● Cable connection and disconnection

Press the sensor insert button when connecting and disconnecting cables. After connecting or disconnecting, make sure the sensor insert button returns to its original position.

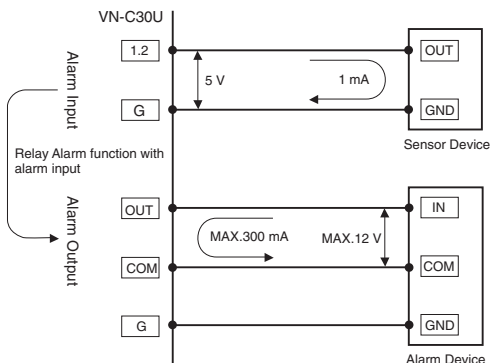
● About the alarm IN/OUT connection cables

- Length: use cables with a length of 50 m(164 feet) or less.
- Recommended model: UL1007, UL1015 or equivalent cable with wire equivalent to AWG #22 - AWG #18.

Caution

External noise may affect the alarm working properly even with a cable length of 50m(164 feet) or less. In such cases, it is necessary to either change to the use of shielded cable to prevent influence by noise or to change the wiring route to avoid passing close to the source of the noise.

VN-C30U Summary of Alarm Input / Output Functions



Interface condition of Alarm Input Terminal

Non-voltage, relay "a" contact input

Or non-contact, semiconductor "a" contact input

Or NPN open-collector input

Active low level, latch/momentary(500 ms or more)

Circuit current 1 mA at low level, applied voltage 5 V at high level.

Examples of Sensor Devices

Infrared sensor, door sensor, metal sensor, manual switch, etc.

Interface condition of Alarm Output Terminal

Equivalent to NPN open-collector output

(The output logic is set by the Setup Tool software)

Allowable input voltage: 12 V DC or less

Allowable current drain: 300 mA or less

Momentary(2-5000 msec)output

(The time is set by the Setup Tool software)

Examples of Alarm device

Alarm, indicator, light, buzzer, etc.

Note:

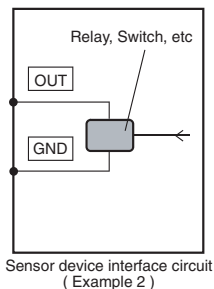
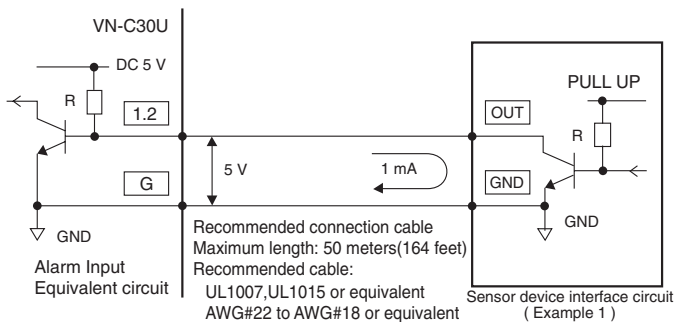
The types of relay contact mechanisms are expressed as "a" contact, "b" contact, "c" contact, etc.

"a" contact: The contact is normally"Open" and is "Closed" when an event occurs.

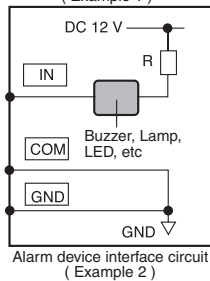
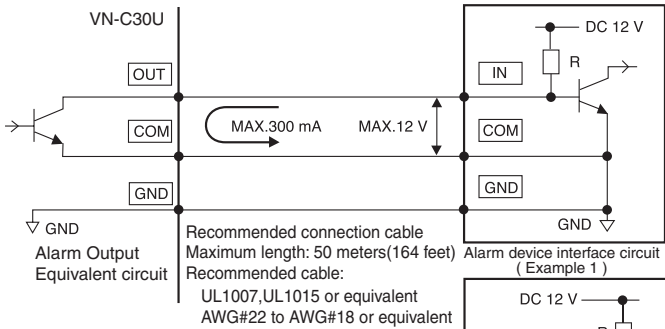
"b" contact: The contact is normally"Closed" and is "Open" when an event occurs.

"c" contact: The contact status is inverted when an occurs.

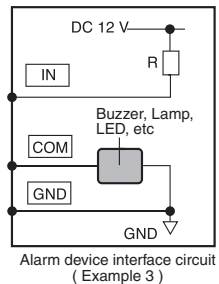
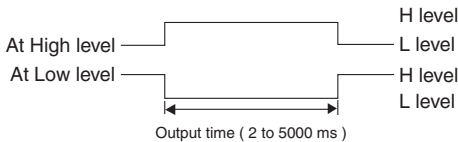
VN-C30U Examples of Alarm Input Terminal Interface



VN-C30U Examples of Alarm Output Terminal Interface



Note: Alarm setup menu of the V.NETWORKS setup tool
When an alarm device with a similar structure to interface circuits shown here is connected, the OUT terminal of VN-C30U varies as shown below according to the output port setup.

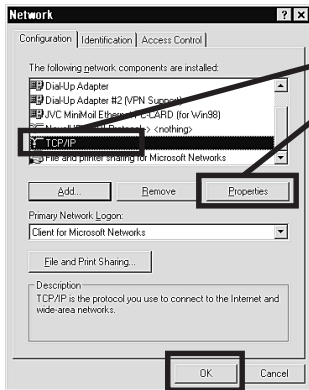


4. Changing the IP Address of the PC

Note

Under a DHCP environment and also if the IP address to be allotted to [V.Networks] is already known, skip this section.

Display the network settings panel by selecting **Settings** from the **Start** button, then selecting **Control Panel** and **Network**, in that order.

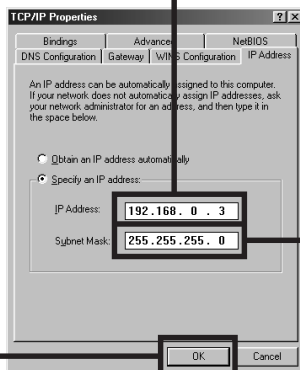


① Select the TCP/IP item, then click on Properties.

② Before making a change, always make a note of the original IP address. Change the IP address to **192. 168. 0. 3**.

Set the subnet mask to a value suitable for the setting operation. If the value is unknown, check with the network administrator.

③ Click on **OK** and then reboot the PC.



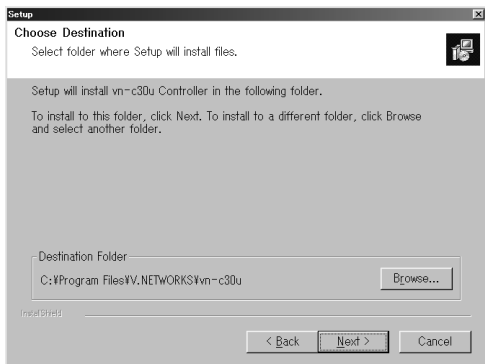
5. Installing the software

5-1 Installing the controller software

Load the VN-C30U Controller CD-ROM into the CD-ROM drive.

The setup program is in the \JVC folder on the CD-ROM.

Execute **\JVC\Setup.exe** and follow the displayed instructions to setup the software.



5-2 Installing the V.NETWORKS Setup Tool

Execute the \JVC\setup\Setup.exe file on the CD-ROM, and then complete the installation as directed by the messages on the screen.

6. Setting the V. NETWORKS Setup Tool

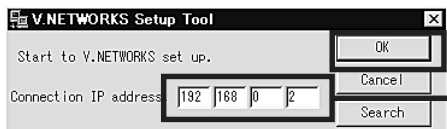
When installation is completed, select **Start - Program - V.NETWORKS** to invoke the **VN-C30U Setup Tool**.

Caution

- After the power for VN-C30U is turned on, there will be about 20 seconds until VN-C30U becomes ready to be connected with the PC. This is not a defect.
- At the factory, DHCP is set enabled for VN-C30U.
- About the DHCP function
JVC does not recommend operating VN-C30U with this function enabled because a different IP address may be assigned upon the renewal of the leasing contract. The DHCP function of VN-C30U is designed for simplifying the installation and setting procedures.

Note

- For connecting VN-C30U with the factory settings, either one of the environments described below is required.
- Environment where no DHCP server exists. (The IP address of VN-C30U is set to Factory Default, 192. 168. 0. 2)
- Environment where a DHCP server exists, which clearly defines the allotted IP address and MAC address.



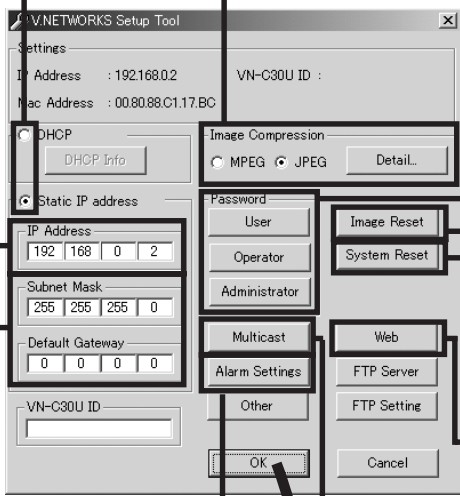
Enter the VN-C30U IP address. The factory default IP address **192. 168. 0. 2**.

Select whether to use DHCP.

Select the compression method for the camera image. For details on the setting, see page 25.

Change to an IP address assigned or approved by the network administrator. (192. 168. 0. 2 is used as an example in the diagram.)

Set the subnet mask to a value suitable for the setting operation. If the value is unknown, check with the network manager.



For setting of password, see page 33.

Resets the image.

Resets the VN-C30U unit.

See page 34.

For alarm settings, see page 28.

See page 35.

The camera ID corresponds to the identification code located on the VN-C30U body. Only alphanumeric can be entered.

The user does not participate directly.

Normally, consecutive numbers such as CAM00001, CAM00002..... will be set.

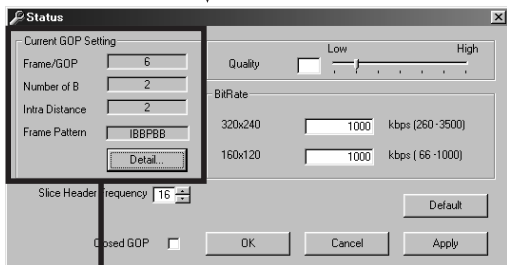
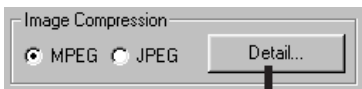


Settings are updated at the time when "OK" is clicked.

6-1 Setting the Image Compression Method

VN-C30U allows selection of either the MPEG1 compression or the JPEG compression. (Hereafter, MPEG1 will be referred to as MPEG in this manual.) On the V.NETWORKS Setup Tool screen, select MPEG or JPEG in the "Image Compression" area, and then click the **Details** button to set the details for the compression method.

■ When MPEG is selected



This is to select the data structure for the intra-frame compression of the image data. Group of Pictures (GOP) denotes a group that contains at least one frame of the image (I picture) frames of the data of the in-frame compression that becomes the source of the intra-frame compression. Press the **Details** button and select GOP. If the bit rate is the same, the image quality will be higher when there are more B frames and as the delay time becomes large for the composition of the final lines of the frame, this setting is recommended for recording.

frame/GOP	Number of B	Intra Distance	Frame Pattern
01	0	1	I
02	1	1	IB
02	0	2	IP
03	2	1	IBB
03	0	3	IPF
04	3	1	IBBB
04	1	2	IBFB
04	0	4	IFPP
05	0	5	IFPPP
06	2	2	IBBPBB
06	1	3	IBFBPB
06	0	6	IFPPPP
16	3	4	IBBPBBPB...

GOP consists of three types of pictures, namely I, P and B.

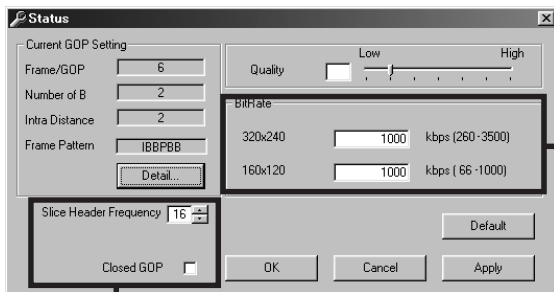
I picture: Image composed only by the in-frame compression data.

(Data size: Large)

P picture: Image compressed by referencing past picture data.

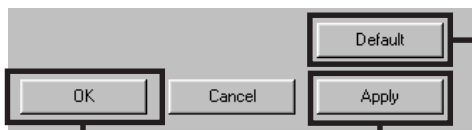
(Data size: Medium)

B picture: Image with data compressed by using past and future I or P pictures. (Data size: Small)



Slice Header Frequency
Normally use with the setting at 16.
Closed GOP
When set to ON, individual GOPs are created. Normally use with OFF selected.

Setting the bit rate
320 x 240 can be set within the range of 260 kbit/s - 3500 kbit/s, and 160 x 120 can be set within the range of 66 kbit/s - 1000 kbit/s. However, the lower limit value may fluctuate a little depending on the relevant image. If you want to know the exact lower limit value for the relevant image, make the recording and perform the following calculation.
Recording file's number of frames/30 = Recording time
File capacity (kbyte) x 8 bit/Recording time = The bit rate (bit/s) of the acquired image

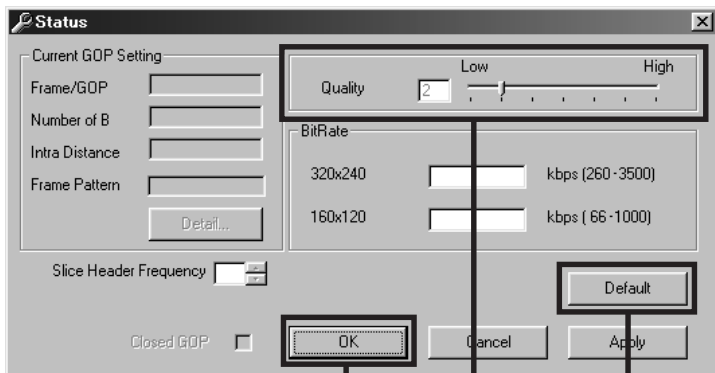
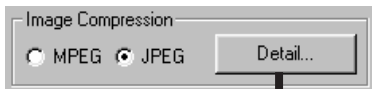


Resets settings to the factory default settings.

Makes the changes to settings valid.
Returns to the V.NETWORKS Setup Tool screen.

Makes the changes to settings valid.
Detailed settings are displayed.
When the settings of other items are changed, click the Apply button.

■ When JPEG is selected



Makes the changes to settings valid. Returns to the V.NETWORKS Setup Tool screen.

Resets settings to the factory default settings.

The compression rate is inversely proportional to the picture quality. The frame rate is proportional to the compression rate.

Compression rate	(1) - (7)
Image quality	(High) - (Low)
Frame Rate	(Low) - (High)

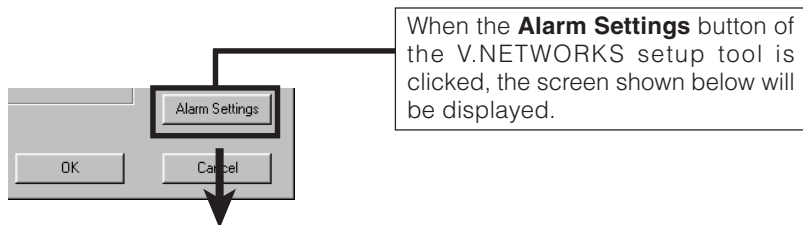
Caution

It may take longer to display an image when the compression is changed from MPEG to JPEG. This is because of operational environment, and not a malfunction.

6-2 Alarm Setting

Alarm function

This function is to receive or send an alarm signal from/to alarm input/output over network. Use the V.NETWORKS setup tool for the fundamental settings.



When the **Alarm Settings** button of the V.NETWORKS setup tool is clicked, the screen shown below will be displayed.

The screenshot shows the 'Alarm Settings' dialog box with the following configuration:

- Alarm1**
 - OFF
 - ON
 - Alarm Output
 - Go to a preset position (value: 1)
 - FTP (value: 1 min.)

- Alarm2**
- OFF
- ON
 - Alarm Output
 - Go to a preset position (value: 3)
 - FTP (value: 3 min.)
- Out port setting**
- OFF
- ON
 - Output value: Low High
 - Initialization: ON OFF
 - Value: 100 ms
- Relay Alarm**
- Use Relay Alarm
 - Alarm1: [dropdown menu]
 - Within: 2 min. 30 s.
 - Alarm2: [dropdown menu]
 - Use relay alarm
 - Alarm Output
 - Go to a preset position (value: [dropdown menu])
- Retry (1 to 3): [dropdown menu] 1 Times
- Alarm force output**
- Output the Alarm out port complying with current settings.
- [Alarm Output button]

Buttons at the bottom: List, OK, Cancel, Apply.

In the “**Alarm 1**” and “**Alarm 2**” settings, select either OFF or ON which selects whether or not the input signal to the alarm input terminal is effective. When ON is selected, the following settings should be followed when the alarm signal is input.

[Alarm Output]

When the alarm signal is triggered, an alarm signal is output.

✱ It is necessary to set the “Output Port Setting” in advance to ON. See page 31.

[Go to the preset position]

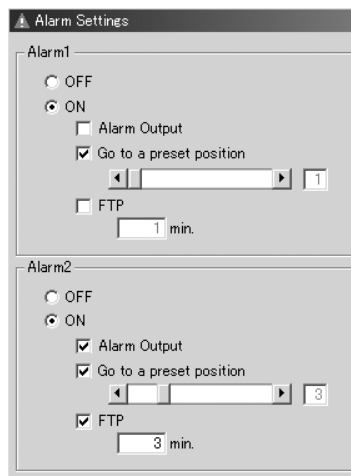
When the alarm signal is triggered, the camera and lens move to the position specified in the memory.

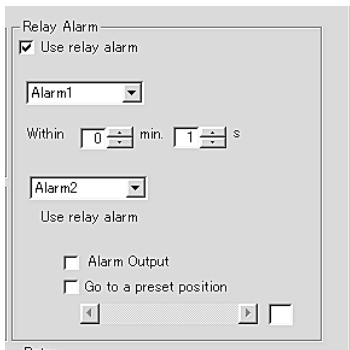
✱ It is necessary to carry out the settings for “Changing the position memory” in advance. See page 56.

[FTP]

When the alarm signal is triggered, the JPEG still image will be uploaded to the FTP server.

✱ It is necessary to carry out the settings for the “FTP setting” in advance. See page 36.





When the Alarm 1 and Alarm 2 receive signals in sequence, use the **Relay Alarm** Function to make the different settings from the above mentioned Alarm 1 and Alarm 2 settings.

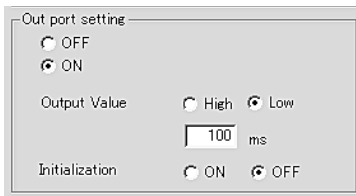
Place a check beside **Use Relay Alarm** and specify the alarm occurrence sequence and the time interval.

When a relay alarm is generated, the alarm output and movement of the camera to the preset position can be controlled using check boxes and scrollbars.

Caution

When Relay Alarm is set, following alarm operations will not activate.

Example: If relay alarm is generated in the order of Alarm 1 → Alarm 2, the operating mode becomes: Operation of Alarm 1 → Operation of relay alarm, and operation of Alarm 2 itself will not be executed.



Out port setting

OFF
 ON

Output Value High Low

100 ms

Initialization ON OFF

Out port setting includes the following settings:

OFF/ON: Determine whether or not an alarm is to be output.

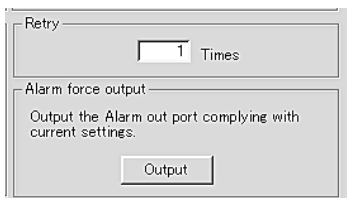
Output Value: Determine whether the High or Low signal will be output when an alarm occurs. Enter the time for continuous signal output of selected output value (High or Low) in the text box below.

Example : High 100ms

The High signal will be output for 100ms. After that, the output value will change to Low.

Initialization: Determine whether or not the alarm signal will be output one time when the power is turned on.

❖ Set the values of Out port setting in accordance with the device to which the output is to be sent.



Retry

1 Times

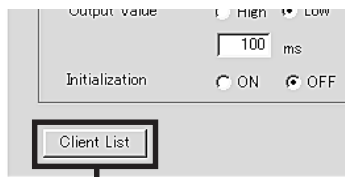
Alarm force output

Output the Alarm out port complying with current settings.

Output

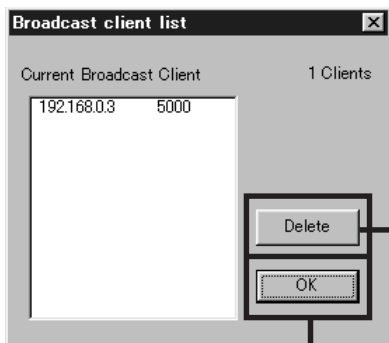
Retry: Determines the number of retries (1 - 3) to be made when alarm input arrives. Depending on the LAN environment, alarm retry may fail. To prevent this, it is possible to set the number of alarm retry attempts to 3 times. However, even when set to multiple times the client (VN-C30U controller) will only operate once.

Alarm force output: Press the Output button for compulsory alarm output from the camera alarm Out port in accordance with the current alarm Out port settings. This can be used for checking devices connected to the output port.



The list of alarm broadcast client (IP address and port number) currently registered in the camera can be displayed by pressing **Client List**. The PCs that satisfy the following conditions are displayed.

- The VN-C30U controller has been started and is connected to the VN-C30U subject to setup.
- Checks are placed at **Settings** and **Alarm Reg.**



PCs can be deleted from the broadcast client list by selecting the IP address and pressing **Delete**.

Return to Alarm Setting window by pressing **OK**.

Caution

Once the PC is deleted from the Broadcast client list, the alarm does not function.

6-3 Setting the Password

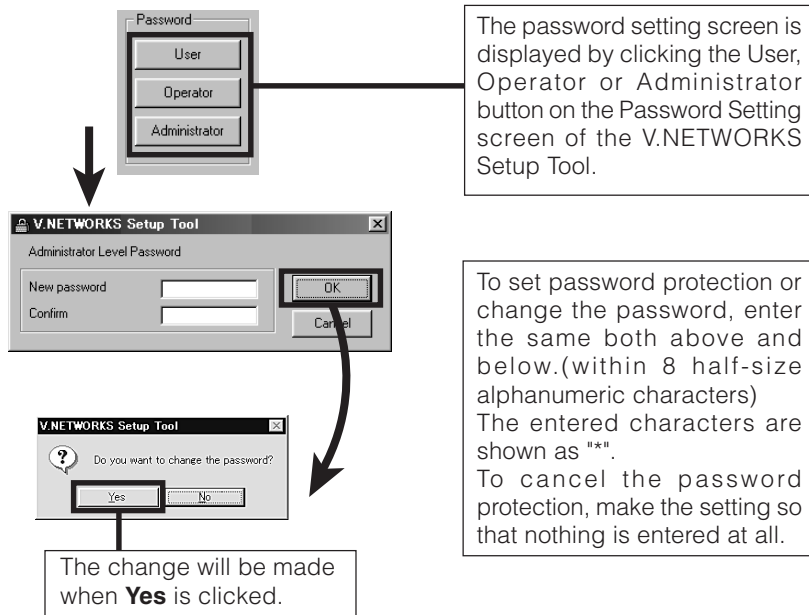
Password function

An access protection using a password is provided to regulate connecting PCs (users). Password setting and cancellation is performed by the V.NETWORKS setup tool. Passwords for User, Operator and Administrator can be set for each of the privilege levels.

Privilege Level	Contents of Access Rights
User	Can view the images.
Operator	Can perform all the operations allowed by the VN-C30U.
Administrator	Can perform all of the above and make all the settings allowed by the Setup Tool.

Caution

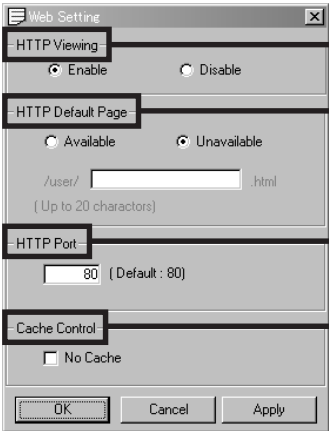
Never forget the current password because the current password setting cannot be changed unless it matches the password setting.



For a VN-C30U for which password protection is set, the password requesting screen appears. If the Administrator password does not match, it will not be possible to perform the VN-C30U setup. The password will not be requested in the condition in which only the password for user or operator is set and the administrator password has not been set.

6-4 Web Settings

When the “Web” button of the V.NETWORKS Setup Tool is clicked, the Web Setting screen will be displayed as shown below.



The screenshot shows the 'Web Setting' dialog box with four sections highlighted by boxes and callouts:

- HTTP Viewing:** Contains radio buttons for 'Enable' (selected) and 'Disable'. Callout: "Select whether to enable or disable a still picture or a movie picture for browsing with a Web browser."
- HTTP Default Page:** Contains radio buttons for 'Available' and 'Unavailable' (selected). Below is a text field with '/user/' and '.html' and a note '(Up to 20 charactors)'. Callout: "Select whether to enable the setting of the HTTP default page. If [Available] is selected, specify an html file for the default page."
- HTTP Port:** Contains a text field with '80' and '(Default : 80)'. Callout: "Set the port number."
- Cache Control:** Contains a checkbox for 'No Cache' which is unchecked. Callout: "There are a few types of proxy server that caches CGI and the above setting cannot be properly done. In such a case, select [No Cache]."

At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons.

Caution

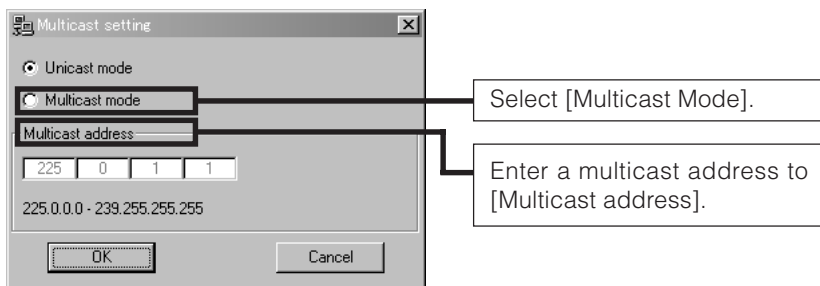
- It is possible to enhance the level of security by changing the default port number (80) of VN-C30U HTTP server (1 through 65535 excluding 20 and 21). With this number changed, it can be accessed with a Web browser by entering “http://192.168.0.2:12345” or “http://192.168.0.2:12345/index.html” (in the case of the port number, 12345). If you have forgotten the port number, refer to [Setup Tool].
- The default page refers to the page displayed when the IP address is specified (for example, “http://192.168.0.2/”) in a Web browser. Even with this function enabled, if the specified file does not exist, the message, “404: Not Found” will be displayed when “http://192.168.0.2/” is entered.

6-5 Multicast Setting

Selecting [Multicast Mode] allows VN-C30U to send the same image data to multiple recipients on the network at one time without lowering the frame rate.

- In a narrowband environment, for example, of dial-up connection, select [Unicast Mode].
- Multicast cannot be set for MPEG1.

1. Start up [V.Networks Setup Tool] and select [Multicast]. The [Multicast Setting] screen is displayed.



Multicast

- A multicast address can be set from 225.0.0.0 through 239.255.255.255. Do not set the same multicast address for different devices on the same system.
- To view VN-C30U images in the multicast mode through a router, an operating environment or a router setting is required as follows:
 - ① The router supports IGMP Ver. 2 and is synchronized with the starting and stopping of multicast transmission. And the route setting can be dynamically changed.
 - ② If the router does not support IGMP Ver. 2, a static route for multicast must be set to the router.

6-6 FTP Setting

This function uploads the VN-C30U images (JPEG still images) periodically to an existing FTP server.

This makes possible an image distribution service from a server and greatly increases the number of clients to whom images may be distributed.

FTP Setting

FTP

Available Not Available

Username: (1-16 characters)

Password: (0-32 characters)

FTP Server IP Address:

FTP Port: (Normally port 21)

FTP Folder: (0-64 characters)

Upload Interval: s (0-84600) disconnect everytime

Error recovery

On connect error

Retry forever

10 min. Retry. (1-600)

On transfer error

Stop Uploading

Filename

vnetworks .jpg (1-32 characters)

Timestamp (ex.2002-01-23-01-23-45-678.jpg)

NTP Setting

NTP Server IP address:

Time zone: GMT

Adjust Time: Every day(s) hour(s)

OK Cancel Apply

[FTP]

- [Available]: Check to enable the FTP function.
- [Not available]: Check to disable the FTP function.

[Username]

Enter the user name to be used in authentication with the FTP server.

[Password]	Enter the password to be used in authentication with the FTP server. (The entered characters are displayed as “*”).
[FTP Server IP Address]	Enter the IP address of the upload destination FTP server.
[FTP Port]	Enter the upload destination FTP port number.
[FTP Folder]	Enter the upload destination folder name in the FTP server. If this is not entered, the images will be uploaded in the default folder.
[Upload Interval]	<p>Enter the interval for image uploading to the FTP server.</p> <ul style="list-style-type: none"> ● [disconnect every time] Check this box to disconnect the connection after every image uploading. * <u>This makes it necessary to establish a connection before the next time an image is uploaded.</u>
[Error Recovery]	<ul style="list-style-type: none"> ● [On connect error] Select the operation to be performed in case of an error related to the TCP connection or FTP authentication. <ul style="list-style-type: none"> • [Retry forever]: The connection will be retried until the VN-C30U is turned OFF. • [Retry in every * min]: The connection will be retried for the specified period. ● [On transfer error] Select the operation to be performed in case of a file transfer error while images are uploading. <ul style="list-style-type: none"> • If [Stop Uploading] is checked: The FTP function of the VN-C30U is disabled automatically in case of a transfer error. * To resume the FTP operation, check [Available] in [FTP]. • If [Stop Uploading] is not checked: The FTP function of the VN-C30U is not disabled in case of a transfer error. In this case, upload will be retried at every uploading interval.

[Filename]

- **[*.jpg]**

Enter the file name to be assigned to the uploaded image. (The latest image will overwrite this file.)

 - * As the images are uploaded in the same file names, the FTP server retains only one image file.
- **[Timestamp]**

When this is selected, the images will be uploaded by acquiring the current time from the NTP server (see below) and by naming the image file according to the current time data, in the format of “YYYY-MM-DD-HH-MM-SS-xxx”.

 - * As the images are uploaded in different file names, the FTP server will retain the same number of image files as the number of uploaded images.
 - * The current time has to be downloaded from the NTP server. As for the settings of the NTP server, refer to the “NTP Setting” described below.
- **[NTP Setting]**
 - * This setting is necessary only when the file name is specified in the Timestamp format.
- **[NTP Server IP Address]:**

Enter the IP address of the NTP (Network Time Protocol) server.
- **[Time Zone]:**

Set the Time Zone.
- **[Adjust Time]:** Specify the interval period for acquiring the correct time data from the NTP server for use in correcting the time error.

<Apply> button

When the FTP operation is enabled, clicking this button starts the FTP operation with the settings made in this window.

When the FTP operation is disabled, clicking this button does not save the settings made in this window.

Note:

- An NTP server is required for the NTP setting.
- We recommend using an FTP server. Without it, the time returns to the initial value, January 1, 1900, when the power is turned off. In a situation wherein an FTP server cannot be used, set the time appropriately when the power is turned on again.
- With Windows XP Home Edition and Windows XP Professional, NTP sever functions become enabled when they are installed in the standard procedure.
- For Windows 2000, follow the procedure below to enable NTP server functions.

1. Set the value for the following registry to "1." (The default value is "0.")

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters\LocalNTP

Registry editing is a highly risky operation. Safety measures should be taken beforehand, e.g. creating registry backups. JVC shall not be held liable for any loss caused by registry editing.

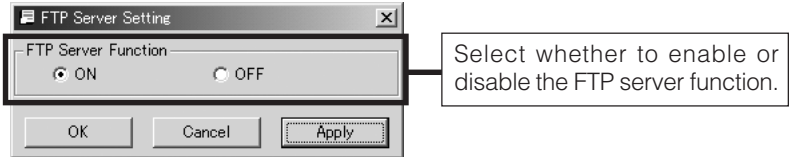
2. Restart the Windows Time Service.

This can be done by opening [Administrative Tools] in [Control Panel] and selecting [Services], [Windows Time] and [Windows Time Properties].

6-7 FTP Server

Using FTP client software, HTML pages, GIF and JPEG images can be uploaded.

Click the **FTP Server** button on the V.Networks Setup Tool to display the FTP Server setting window shown below.

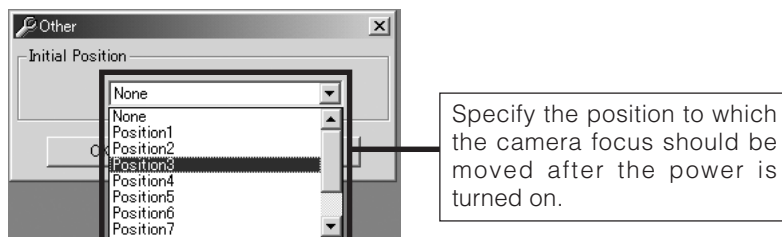


- The FTP server name is fixed to [Administrator] and also use the password for the administrator.
- The allotted FTP user area is approximately 90 K bytes, however since this unit's file system is generated dynamically, the actual storable capacity may be less than this in certain cases.
- All uploaded folders are stored directly under the [user] folder. It can be accessed as in "http://192.168.0.2/user/aaa.html" with a Web browser. ("192.168.0.2" denotes the VN-C30U IP address when "aaa.html" is referred to.)
- Folders cannot be created in the VN-C30U FTP server. Only uploading, deleting and renaming of files are possible.

6-8 Others

Turn on the power and carry out the initial operation. Then set the position to which the camera and lens should automatically be moved.

❖ It is necessary to carry out the settings for “Changing the position memory” with the VN-C30U controller software. (See page 56, “Changing the position memory”.)



6-9 Making the set IP address valid

When the IP address is changed, the pan and tilt mechanism will work and the IP address becomes valid after the VN-C30U is reset.

6-10 Special Notes on the V.NETWORKS Setup Tool

Caution

The V.NETWORKS Setup Tool is software that is only required when the setup is performed. Therefore, please uninstall the software following completion of the setup unless there is special reason for leaving it on the PC. When setting the second or following units, reboot the PC and then return to 2 (page 15). After setting of all the VN-C30U units is completed, proceed with the next procedure.

Search function

The **Search** button is used to find the V.NETWORKS IP addresses currently connected to the network.

When **Search** button is pressed, the search screen will be displayed. When **Search** button is pressed, a list of the V.NETWORKS IP addresses currently connected to the network will be displayed. Timeout is used to set the search time and can be set to 0 - 30 sec.

Caution

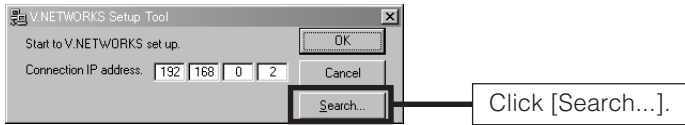
When your own PC and a V.NETWORKS of a different subnet are connected on a LAN, connection will not be possible even if the search is successful.

In such cases, change to an appropriate IP address on your PC and then try connection.

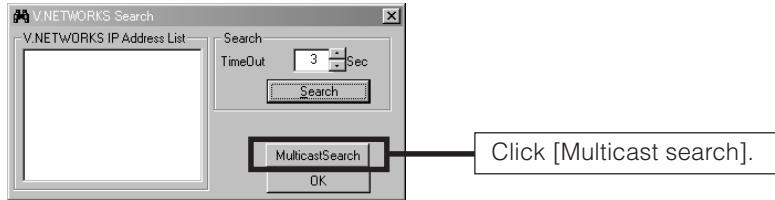
6-11 Multicast Address Search

VN-C30U multicast addresses on the network can be searched.

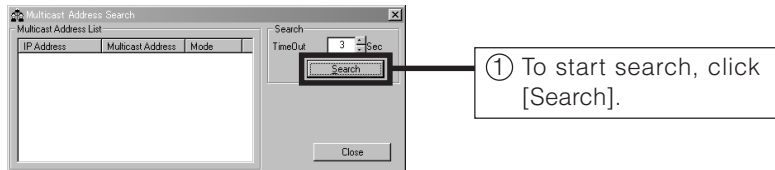
1. Start up [V.Networks Setup Tool]. Select [Search].



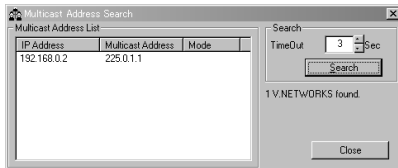
2. The [V.Networks Search] screen is displayed.



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



4. The search result is displayed.



Restoring a work PC IP address

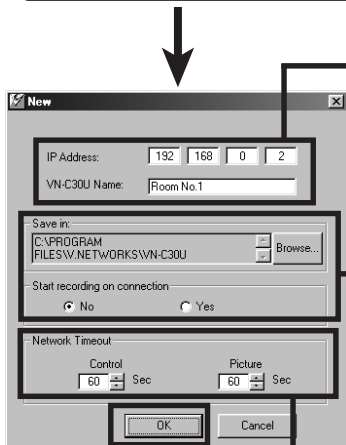
Using the same procedure as in 4-1, select **Settings** from the **Start** button, then select **Control Panel** and **Network**, Change to the original TCP/IP properties setting that you made a note and then restore a work PC IP address. After restoration is completed, follow the messages of OS and reboot the PC.

7. Registering connection points

Start the VN-C30U controller (vn-c30u.exe). Select **New** from the **File** item in the menu and then specify the connection point.



Enter the IP address and name of the VN-C30U connection point. (192.168.0.2 is used as an example in the diagram.)



The folder "VN-C30U Name" will be created automatically in the folder specified here. Recorded files will be saved here. (Refer to page 62 concerning recording.)

"Start recording on connection" determines whether or not recording will start automatically upon the connection of VN-C30U.

See the next page.

Set the Network time-out (seconds). Set a long Network time-out in case the image does not display correctly when connecting to the network.

Start recording on connection:
 No Yes

Network Timeout:
Control: 60 Sec
Picture: 60 Sec

OK Cancel

Clicking the **OK** button displays the setting confirmation screen.

Confirm the information here.

IP Address: 192.168.0.2
VN-C30U Name: Room No.1

Save in: C:\PROGRAM FILES\NETWORKS\VN-C30U\Room No.1
Camera Property:

Start recording on connection:
 No Yes

Network Timeout:
Control: 60 Sec
Picture: 60 Sec

Version: 1.5
VN-C30U ID: CAM0001

OK Cancel

Click **OK** to complete the registration.

Controller Software Operation

Starting connection and changing connection points

Refer to Software Installation on page 21 for the installation procedure.

When the VN-C30U controller (vn-c30u.exe) is executed, a logo will be displayed and then the following screen will appear.



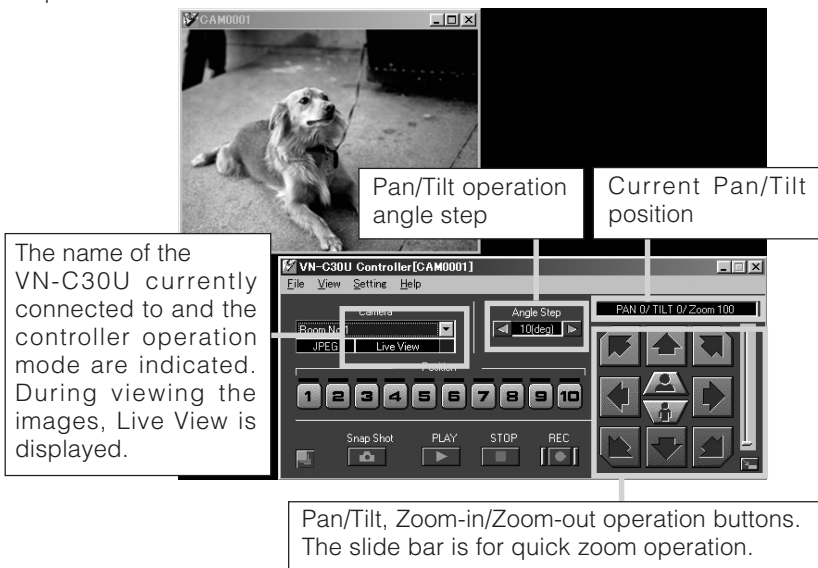
Connection points can be selected from this pulldown menu.

- * In the case of a connection point provided with a password, you are asked to enter the password. To connect, enter the password for operator or administrator use.

When electric noise or broken packets are detected on the network, the camera rarely makes the system reset. In this case, the Pan/Tilt position moves to the origin(Pan:0deg/Tilt:0deg).

Controller 1

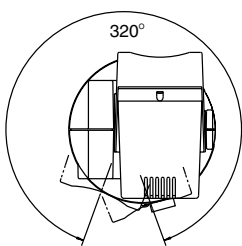
After a connection point is selected, you will find the names of currently connected VN-C30U, the Pan/Tilt operation angle step and the current Pan/Tilt position.



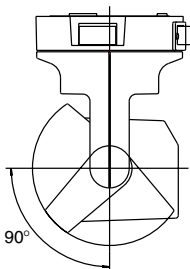
The Pan/Tilt operation angle step of connected VN-C30U can be changed by clicking on the left and right (◀ ▶) buttons.

Pan/Tilt position can be changed with the Pan/Tilt operation buttons (8 buttons).

Zoom in/Zoom out is performed by one step for each click of zoom button. If you keep pressing the button, Zoom in/Zoom out can be performed continuously.

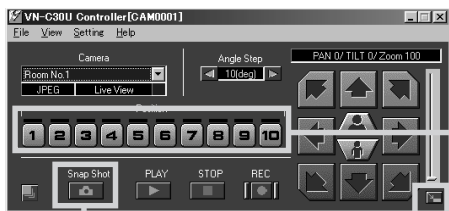


Pan range



Tilt range

Controller 2

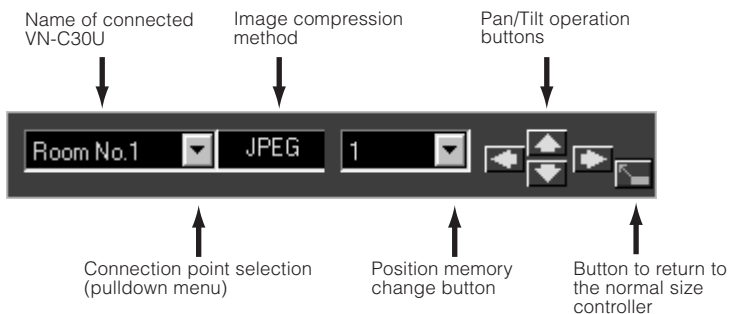


The VN-C30U controller has the Snapshot function. This function allows you to capture still images or save them onto the hard disk. For details, refer to "Snapshot function" on page 64.

The VN-C30U controller has the position memory function (up to 10 positions). By pressing this button, the current position is changed to the already memorized position. Refer to "Changing position memory" on page 56 concerning changing the contents of the position memory.

The size of VN-C30U controller can be smaller by pressing this button. It is possible to switch between the normal and smaller controller.

Smaller Controller



Caution

During the position memory operation, the images may pause for a few seconds. This is because the position correction function is automatically being operated and this is not a malfunction.

Convenient Function

When double-clicking in the window, the clicked position is brought to the center of the image. (Only when JPEG image format is selected.)



Caution

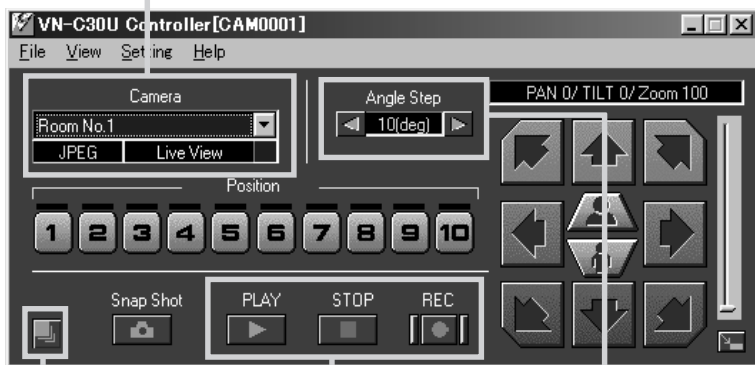
It is not possible to move beyond the Pan/Tilt limits but this is not a malfunction.

Caution

During the Pan/Tilt operation, the images may pause for a few seconds. This is because the position correction function is automatically being operated and this is not a malfunction.

Controller 3

If the cursor is briefly positioned over the VN-C30U name, a balloon display of VN-C30U names will be displayed.



The VN-C30U controller has the recording and playback function. For details, refer to page 62 and 63.

Pan/Tilt operation angle step can be set by clicking the value and directly enter any value. After entering (changing) the value, press the Enter key.

When Placing the mouse cursor at the edge of the window the arrows \leftrightarrow \updownarrow \nwarrow allow the size of the image to be changed as desired (the size of the image captured from VN-C30U does not change). This button returns the changed size of the window to the original size. (Only when MPEG image format is selected.)

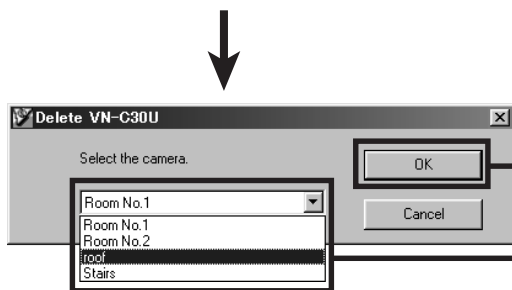
Creating new connection points

Refer to "Registering connection points" on page 44.

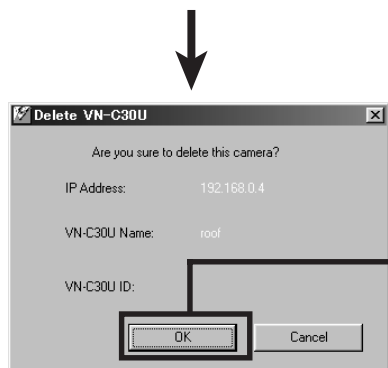
Deleting connection points



Select **File** from the menu and then select **Delete**.



Select a connection point to be deleted and then click on **OK**.

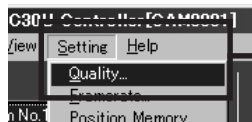


Make sure the desired point is being deleted, and then press **OK**.

Caution

The connection point cannot be recovered once it is deleted.

Image quality • Lens adjustment



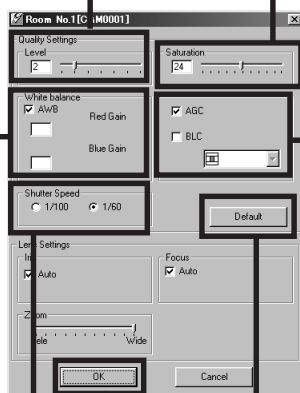
Select **Setting** from the menu and then select **Quality**.

■ Image quality adjustment

The compression rate is inversely proportional to the image quality. As the value gets smaller, the image quality increases but the data size becomes larger.

Color saturation adjustment
As the value gets higher, saturation gets stronger.
A small value makes it weaker.

When AWB is checked, the auto-white balance function will operate. When the checkmark is removed from AWB, manual white balance adjustment becomes possible by means of the R Gain/B Gain slide bar.



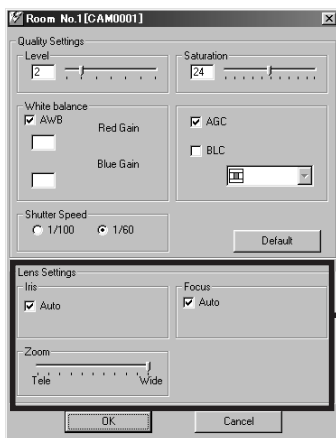
- When AGC is checked, internal amp gain is automatically adjusted in accordance with the brightness of the surroundings.
- When BLC is checked, the backlight compensation function is activated. From the pull-down menu, the metering area can be specified. (Select between 5 types.) Brightness is automatically adjusted with the specified metering area (shaded area) acting as reference.
*When AGC is not checked, BLC cannot be checked.

The setting will be effective.

Set at 1/60 in the case of normal recording. In regions with fluorescent light with a commercial frequency of 50 Hz, please switch the setting to 1/100. Set to 1/60 in 60 Hz regions. This will reduce flickering caused by fluorescent light.

Clicking **Default** returns the image quality to the factory default settings.

■ Lens setting



The current condition of the lens is shown in the window. The lens moves when the setting items are operated.

When Auto is selected for Focus or IRIS, the slide bar becomes inoperative. When Manual is selected, the slide bar can be operated.

Advice

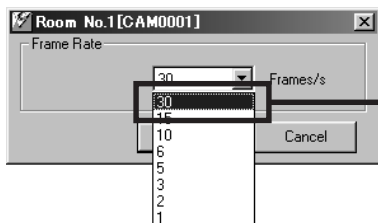
For locations where many people are passing by or operation of zoom at Tele, we recommend to select Manual Focus in order to prevent continuous auto focusing.

Frame Rate Setting

The frame rate can only be set for JPEG images. It is fixed at 30 Frame/s in the case of MPEG images.



Select **Setting** from the menu and then select **Frame Rate**.



This is to set the upper limit of transmission frame rate from VN-C30U.

Caution

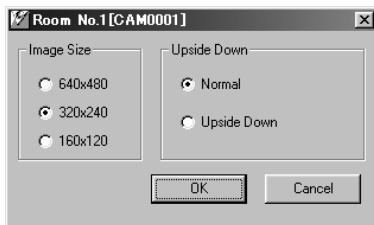
The actual frame rate depends on the operational environment (PC specifications, image compression, network infrastructure, etc.) and may be different from the transmission frame rate. In practice, the higher transmission frame rate is set up, the more bandwidth is required. Therefore, try to set the lower transmission frame rate if relatively low bandwidth is available for VN-C30U.

Changing resolution and inverting the image



Select **View** from the menu.

The resolution can be selected from 160 x 120, 320 x 240 or 640 x 480. Depending on the installation, select Normal or Upside Down.

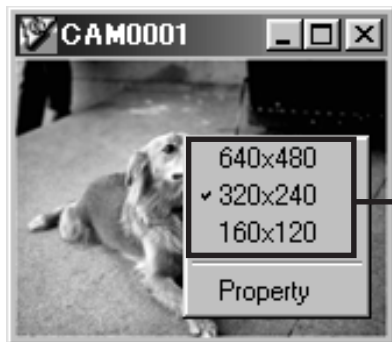


Caution

640 x 480 cannot be selected for MPEG images. Upside Down is not possible either.

On-screen resolution change

The resolution can also be changed on the screen with the following procedure.



Click the right button of the mouse on the screen and select one of the following: 160 x 120, 320 x 240 or 640 x 480.

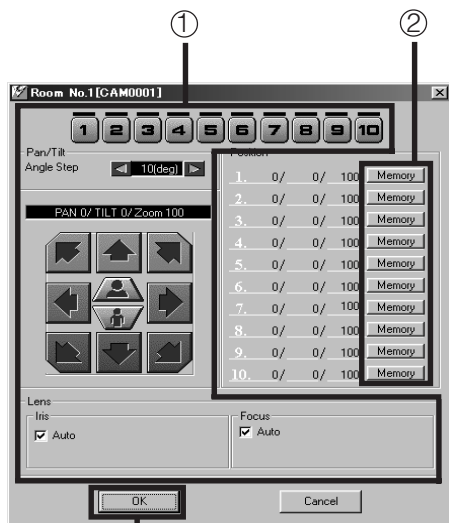
Clicking Properties displays the MAC address, IP address, unit name, program version, and storage destination.

(The pull-down menu is not displayed in the case of MPEG compression.)

Changing position memory



Select **Setting** from the menu and then select **Position Memory**.



Procedure for **Position memory change**

- ① Use the position memory buttons, Pan/Tilt/Zoom setting and lens setting to set the status in position memory.
- ② Press one of these memory buttons in which the status set in step ① is to be memorized.
- ③ Press **OK** to close the position memory setting window.

Caution

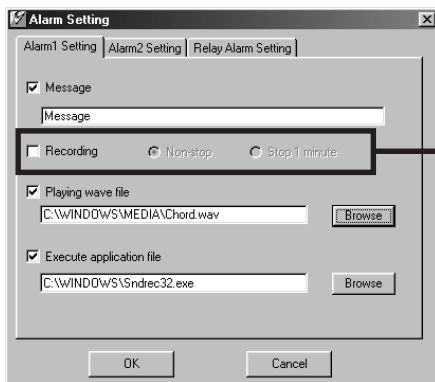
When the zoom scroll bar is set to the Tele end, the lens position may not be the same after changing its position.

Alarm setting

The alarm settings determines the actions to be performed when an alarm signal is received from Alarm 1 or Alarm 2 input of VN-C30U.



Select **Setting** from the menu, then select **Alarm** Settings.



Select Non-Stop or Stop in 1 minute after the recording starts, Stop in 1 minute is used for saving space on the hard disk. When Stop in 1 minute is selected, normal recording specified on the controller software also stops in 1 minute after the alarm is received.

There are four functions as follows:

- **Message**

Pop-up the message entered in the text box.

(There is a limit on how many characters that can be displayed.)

- **Recording**

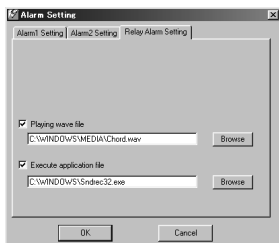
Start recording the images.

- **Playing wave file**

Play a specified wave file . Any wave files can be specified from the Browse button.

- **Execute application file**

Execute a specified application file. Any execute (.exe) files can be specified from the Browse button.



Relay alarm setting

When relay alarm setting is performed using the V.NETWORKS Setup Tool, this window becomes active.

The program to be executed and the wave file to be played back when a relay alarm is generated can be set in advance.

(For these items, please see the previous page.)

Caution

- When a large wave file (*.wav) is selected, the alarm operation may be delayed depending on the PC specifications. Try to select a relatively small wave file.
- In order to enable the Alarm 1, Alarm 2 and/or Relay Alarm setting it is necessary to
 - 1) Select "ON" in Alarm 1, Alarm 2 and/or Relay Alarm setting of V.NETWORKS setup tool (refer to page 29),
 - and
 - 2) Check (✓) Alarm reg.
- When relay alarm has been set, the second alarm operations is not performed.

Example: When the Relay Alarm occurs in the sequence of Alarm 1 → Alarm 2, alarms operate in the sequence of Alarm 1 → Relay Alarm and Alarm 2 does not operate at all.

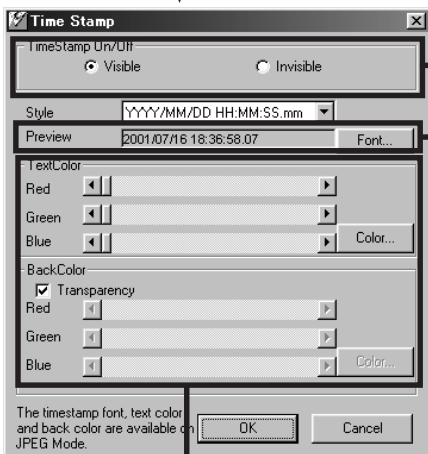


To enable the Alarm 1, Alarm 2 and/or Relay Alarm settings, it is necessary to check (✓) **Alarm Reg.**

Time stamp setting



Select **Setting** from the menu and then select **Time Stamp**.



Sets whether the time stamp should be displayed or not. When Visible is checked, the date and time are displayed superimposed on the camera image.

During playback, the date and time of the recording are displayed.

❖ In the MPEG mode, the time stamp is only displayed in the title bar.

In the MPEG mode, selection of Font is disabled.

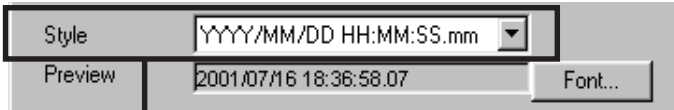
Sets the color of the characters of the time stamp and the background color.

- Transparency ... The background becomes transparent.

❖ In the MPEG mode, selection of color is disabled.

Changing the time stamp display position

On the screen, hold down the Shift key and click the left button of the mouse at the position where time stamp is to be displayed.



Any of the following 7 display styles can be selected.

YYYY/MM/DD HH:MM:SS.mm

(year/month/date hour: minute: second. millisecond)

YYYY/MM/DD HH:MM:SS

(year/month/date hour: minute: second)

DD/MM/YYYY HH:MM:SS

(date/month/year hour: minute: second)

MM/DD/YYYY HH:MM:SS

(month/date/year hour: minute: second)

MM/DD HH:MM:SS

(month/date hour: minute: second)

HH:MM:SS

(hour: minute: second)

HH:MM

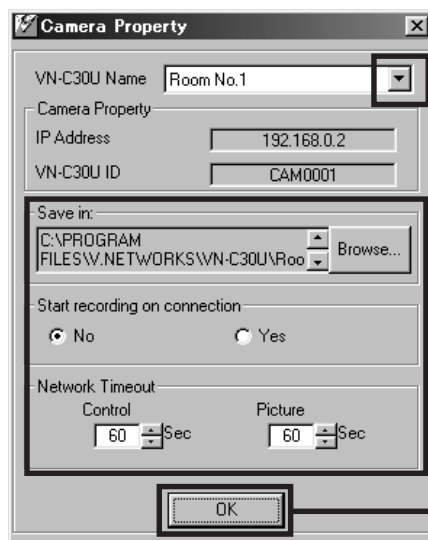
(hour:minute)

Changing Property

The information related to connections and setting when the connection was first defined can be changed. (However, it is only the VN-C30U information in the offline mode that can be changed.)



Select **Setting - Property**.



Select the camera for which the properties should be changed from the **VN-C30U Name** designations pull-down menu. **Camera property** and **Save in** cannot be changed.

It is possible to make the settings as when the properties were first created. Following these changes, click the **OK** button to complete the changing of properties.

Recording function

This function is to continuously record the images of connected VN-C30U onto automatically created folder with "VN-C30U Name."



Press the "**REC**" button.

※The recorded file is saved in the folder specified when the initial setup was performed.



Blinks red during recording.

"**Recording**" is displayed when recording starts.



In the JPEG mode, the "**REC**" characters are displayed in the upper right corner of the window.



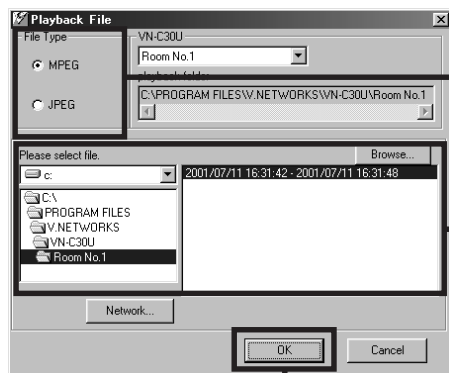
Press the **STOP** button to stop recording. "REC" disappear.

- Avoid continuous recording for a long period of time. When playing back a file recorded by continuous recording for a long period of time, the memory of the computer may become insufficient, and playback may not be possible.
- Never change the saved files and their name, otherwise all the saved images may not be correctly playback.

Playback function



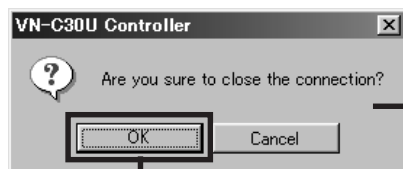
Press the **PLAY** button.



Select the file type for the image data.
(MPEG or JPEG)

Select the file that you want to playback from the storage destination of the recorded file.
The filename becomes the start-to-stop times of the recording.

Click the **OK** button.



This window only appears during viewing of the image from the camera.

When the **OK** button is clicked, the connection to the camera is disconnected and the playback picture screen appears.

Playback picture screen



Closes the playback picture screen.

During playback, the slide bar moves toward the right in accordance with the playback time.

By dragging the slide bar with the mouse, the file can be played back as desired.

Clicking **Stop** stops the playback and returns to the first image.

Clicking **Pause** pauses the playback.

Clicking **Play** starts the playback.

Snapshot function

The VN-C30U controller allows you to capture a still image and save it as a still picture file.

If the VN-C30U is operating in the JPEG mode, the file will be saved in the JPEG format, and if it is operating in the MPEG mode, it will be saved in the MPEG format.

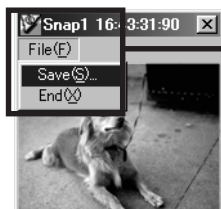


Click the **Snap Shot** button.

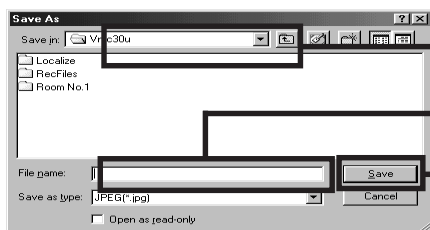


Snapshot display is possible.

Up to 16 images can be shown as snapshot display. When 16 snapshots are displayed, a beep sound is heard if you click the **Snap Shot** button at this time.



If you select **File - Save** from each of the snapshot display menus, the Save dialog box is displayed.



Specify the location.

Enter the file name.

Press **Save** to save the file.

Caution

- Saved images can be displayed with ordinary viewer software. However, inverted images cannot be displayed inverted. Colors may also differ from those seen on the VN-C30U controller screen.
- Do not start other image viewing application while the VN-C30U Controller Software is active. This is particularly important with Windows 95 as it may cause a failure in saving snapshots. In this case, use the recording function to save images.

Limitatin of Recording and Playback

It is not possible to randomly access 2 Gbyte or larger file on the normal Windows application. Do not record or playback 2 Gbyte or larger file with VN-C30U Controller.

For recording 2 Gbyte or larger file, please use Multi Camera Browser (VN-S100U/S200U).

Approximate recording hours in capacity of 2 Gbyte is as follows;

- JPEG Mode(Recording capacity mainly depends on the image size setting.)
 - 160 x 120 : 20 hours
 - 320 x 240 : 6 hours
 - 640 x 480 : 2 hours(Recording at 5 Frame/s, each single image is approx. 5 kbyte at 160 x 120, 15 kbyte at 320 x 240 and 50 kbyte at 640 x 480)
- MPEG Mode(Recording capactiy mainly depends on the bit rate setting.)
 - 0.5 Mbit/s : 9 hours
 - 1.0 Mbit/s : 4.5 hours
 - 1.5 Mbit/s : 3 hours

Troubleshooting

<p>An IP address changed with the V.NETWORKS Setup Tool has been forgotten.</p>	<p>The Search button of the V.NETWORKS Setup Tool can be used to acquire the IP addresses of V.NETWORKS cameras connected to the network.</p> <p>If the desired information cannot be found by viewing the vsetup file, this must be handled as a repair. Please consult your local dealer.</p>
<p>Recording is not possible.</p>	<ul style="list-style-type: none">• It is possible to delete the folder used to save images. Check to make sure the folder exists.• It is possible for the disk to become full. Check the available capacity of the disk.
<p>The password set with the password protection function has been forgotten.</p>	<p>The disabling of the password protection function is handled as a repair. Please consult your local dealer.</p> <p>For safety, be prepared to show proper identification.</p>
<p>Time is required for cancellation when "Connecting..." is displayed.</p>	<p>Once the connection operation starts, cancellation is not possible for a period of several seconds.</p>

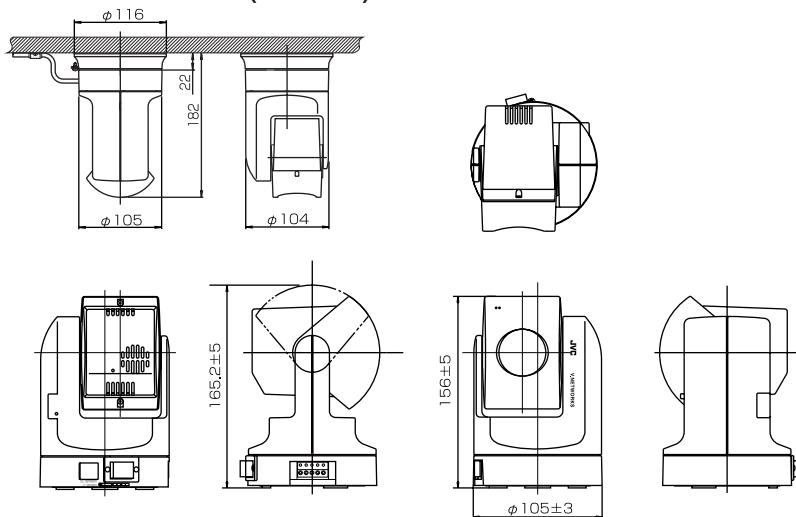
<p>The colors are not satisfactory.</p>	<ul style="list-style-type: none"> • Check the color adjustments of the display and video card. The colors displayed by different PC display and video cards will differ to some degree. Improvement is sometime possible by adjusting the color settings of the display. Depending on the video card, colors can sometimes be adjusted using Screen Properties (click the right mouse button on the desktop.) • Switching to True Color (24-bit) display Colors are sometimes not natural at the High Color (16-bit) or lower setting. It is recommended that you use True Color. • Adjusting White balance Colors can also be changed by adjusting manual White balance from the image quality adjustment screen. • When different light sources have been used (for example, when alternately using sunlight outdoors and fluorescent lighting indoors.) time is sometimes required for auto white balance to start operating. • Depending on the subject, the colors may appear to vary slightly in some cases. This is not a malfunction.
<p>The image size and position change spontaneously.</p>	<p>When one VN-C30U unit is connected to several PCs, the last PC to operate and set the VN-C30U unit will have priority.</p>

<p>Out of focus.</p>	<p>The autofocus sometimes does not operate correctly in dark places and when blank surfaces such as walls are photographed. In such cases, focus manually.</p> <p>The auto focus function is not able in principle to be focused precisely onto an object with a horizontal stripe pattern.</p> <p>The focus may be off slightly when manual focus is used at the TELE position, but this is not a malfunction.</p>
<p>VN-C30U connection is not possible or the connection has been broken.</p>	<p>When there are multiple occurrences of broadcasts, collisions, etc., or when the network status is not normal, it may become impossible to connect the VN-C30U or the connection may be broken.</p>
<p>When display of moving MPEG images is not smooth.</p>	<p>When the computer's specifications or the bandwidth of the network is insufficient, the live images may appear as in slow motion or frames may drop out, etc. (This is not a malfunction.)</p>
<p>The VN-C30U controller does not start up.</p>	<p>When using the snapshot utility supplied with the CANOPUS's video card, the dll file name will cause conflicts, and normal operation of the VN-C30U controller may be prevented. Use the VN-C30U controller in the condition in which the snapshot utility supplied with the video card has been closed.</p>

Specifications

LAN standard	IEEE 802.3, IEEE 802.3u standards
Communication protocol	UDP/IP, TCP/IP, HTTP, FTP, ICMP, ARP
Image Sensor	1/4-inch, 380,000-effective pixels CCD
Lens	15:1 zoom lens, f = 4.1 mm - 61.5 mm, F 1.4 - 2.4
Minimum object distance	0.8 m
Pan/tilt operation angle	Pan: 320 ° Tilt: 90 °
Image compression	JPEG, MPEG1
Output image format	640 x 480, 320 x 240, 160 x120 pixels
Alarm input	Non-voltage a contact input.NPN open collector input Low level. latch/momentary (500 ms or more) Low level circuit current 1 mA High level impressed voltage 5 V
Alarm output	NPN open collector output (allowable impressed voltage: 12 V; allowable input current: 300 mA)
Power supply voltage	DC 12 V
Power consumption	2.0 A (max.)
Operating temperature	0° C – 40° C
Weight	Approx. 800 g.

External dimensions (Unit: mm)





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