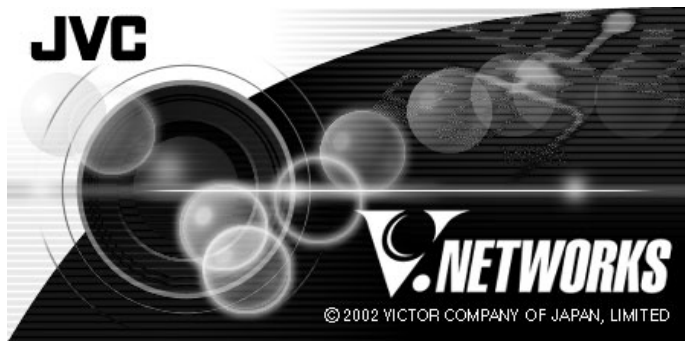


# JVC®

## NETWORK ENCODER

---

# VN-A1U



## ***INSTRUCTIONS***

Thank you for purchasing the JVC VN-A1U.  
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 bottom of the unit and that the serial numbers on the unit and warranty match.

## 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)



S3126A

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.

### **Warning**

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

# PRECAUTIONS FOR SAFE AND PROPER USE

## To ensure safety

- **Always observe the following to ensure correct and safe usage of this device.** Read Safety Precautions thoroughly before using this device. The safety precautions contain important information and should always be observed. After reading, store in a readily available location for future reference.

## Regarding Symbol Indications

Numerous symbols are employed as indication in the precautions for safety, precautions for handling, and in the indication to the products. These are designed to prevent in advance any possible infliction of injury on you and other individuals and the damage of properties through the proper use of the product. The symbols and meanings are shown below. Grasp the contents of the symbols completely before reading this manual.



**WARNING**

This represents the contents in which the probabilities for death or serious injury are assumed if this symbol indication is ignored and the product is erroneously handled.



**CAUTION**

This represents the contents in which the probabilities for injury to be inflicted are assumed and the contents in which material damages to be sustained are assumed if this symbol indication is ignored and the product is erroneously handled.

## Examples of Symbol Indications



This symbol informs you of the presence of the contents that demands caution (including danger and warning). Specifically prohibited contents (caution against electric shock in case of the left symbol) are illustrated in the symbol.










This symbol informs you of prohibited actions. Specifically prohibited contents (prohibition of disassembly in case of the left symbol) are illustrated in the symbol and its vicinity.



This symbol informs you of the contents that forces you to take some action or gives you some guidelines or instructions. Specific contents of instructions (unplug the power cord from the outlet in case of the left symbol) are illustrated.

---

# 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 <sup>TM</sup>, ©, ®, 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 versions of the software (VN-A1U) 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-A1U main unit
- CD-ROM  
{V.Networks Controller, Instructions manual (This document)}
- Read Me First



# Operating Environment

The environment described below is necessary for operation of the VN-A1U. A PC running Microsoft Windows 98, Me, XP Home Edition, NT 4.0 Workstation (Service Pack 5 or higher), NT 4.0 Server (Service Pack 5 or higher), 2000 Professional (Service Pack 2 or higher) or XP Professional.

- CPU Pentium II 300 MHz or higher  
(Pentium III 500 MHz or higher is recommended)
- Memory capacity 64 MB or more  
(128 MB or more is recommended)
- HDD space 20 MB or more
- Display and video card 640 x 480 pixels or more, High Color  
(1024 x 768 pixels or more, True Color is recommended)
- 10BASE-T/100BASE-TX LAN board, connection cables
- Others Internet Explorer Ver. 4.0 or higher  
CFA compliant CompactFlash cards (When using the CF)

## CAUTION

When the basic software requires higher environments than described as operating environments for this software in INSTRUCTIONS, please follow these requirements firstly.

CFA compliant CompactFlash cards have a  mark on them.

## LAN environment

- 10BASE-T or 100BASE-TX networks mutually connected by hubs, etc., that conform to IEEE 802.3 or IEEE802.3u.
- The VN-A1U 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.

## 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.
- 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.
- The date and time setups are backed up by a lithium battery, which is built into the unit. When the backup becomes unavailable, the lithium battery should be replaced. Please contact the person in charge of professional camera at your nearest JVC-authorized service agent.
- Before turning off the VN-A1U's power, be sure to use the setup tool to deactivate the [Advance]-[Time Lapse Recording] and the [Trigger Recording]-[Before Trigger] in the [Recording Settings]. Not doing so may result in damage to the CompactFlash Card.



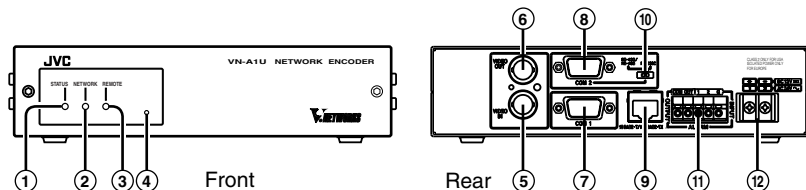
# VN-A1U Setup

## Before starting setup

It is necessary to set an IP address for each VN-A1U unit. Use the following procedure for the setup of each unit. (If the power is not turned on, the installation of multiple VN-A1U can be performed at one time.)

1. Install the VN-A1U
  - \* 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-A1U to the network.  
(The power to the VN-A1U should be ON.)
3. Set the VN-A1U IP address.
  - \* When setting the VN-A1U 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-A1U IP address.  
(Turn the VN-A1U power off and then on again.)
5. Register the connection point.
  - \* This registers the VN-A1U IP address data in the PC.

# Names and functions of VN-A1U parts



## ① Status indicator

Blinks in green during normal operation.

## ② Network indicator

No connection status	: Lighting in red
10 Mbit/s linked status	: Lighting in orange
10 Mbit/s communicating status	: Blinking in orange
100 Mbit/s linked status	: Lighting in green
100 Mbit/s communicating status	: Blinking in green

## ③ Remote indicator

Lights in green when the unit is capable of being remotely controlled by an external device through COM1 (7) or COM2 (8).

Turned off when the RS-422/485 signal from the device connected to COM2 (8) can be output to the camera connected to COM1 (7).

## ④ Factory reset switch

Pressing and holding this switch for more than 2 seconds resets all settings to the factory defaults with the exception of the clock setting.

## ⑤ Composite video input

BNC connector to be connected to the composite video output connector of the camera.

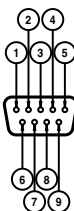
## ⑥ Composite video output

BNC connector to be connected to the composite video input connector of the monitor, switcher, etc.

## 7 COM1 port

RS-422/485 remote control terminals. Remotely controlling the externally connected camera is possible using separate software.

Pin No.	Signal
1	RX+
2	RX-
3	TX-
4	TX+
5	NC
6	NC
7	NC
8	NC
9	NC



For details on the COM1 and COM2 ports software, please contact the person in charge of professional cameras at your nearest JVC-authorized service agent.

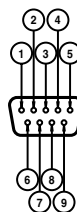
Please confirm the pin assignment before connecting the external equipment.

## 8 COM2 port

RS-232C or RS-422/485 remote control terminals. Two remote control modes can be selected using separate software.

- Remote mode : Enables the remote control of the externally connected camera with RS-232C.
- Through mode : Reception of RS-422/485 control signal from a switcher and its output to a camera externally connected to COM1.

Pin No.	Content	
	When RS-422/485 is selected	When RS-232C is selected
1	RX+	NC
2	RX-	RD
3	TX-	TD
4	TX+	High
5	GND	GND
6	NC	NC
7	NC	High
8	NC	CTS
9	NC	NC



## 9 10BASE-T/100BASE-TX port

## 10 COM2 port control signal select switch

Selection of the control signal at the COM2 port from RS-232C and RS-422/485. The factory setting is "RS-232C".

## 11 ALARM INPUT/OUTPUT terminals

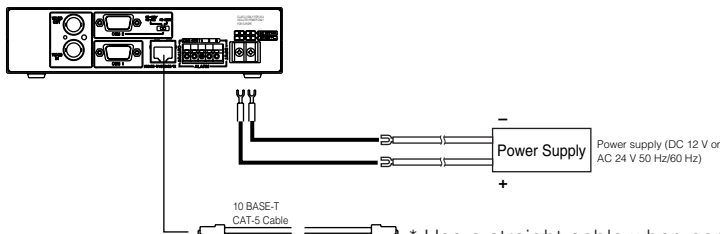
## 12 Power supply terminals

# Setup

## 1. Connecting to the network

- Turn on the power of only one VN-A1U unit.  
When network connection is completed and the power is turned on, the VN-A1U unit will be connected to the network at the following IP address.

**Factory default IP address: 192. 168. 0. 2**



\* Use a straight cable when connecting to a HUB. Use a cross cable when connecting directly to a PC.

### • About the power supply connection cable

- Length: Should be 30 m (98 feet) or less.
- Recommended cable type: UL1007, UL1015 or equivalent cable with a power capacity higher or equivalent to an AWG#20.

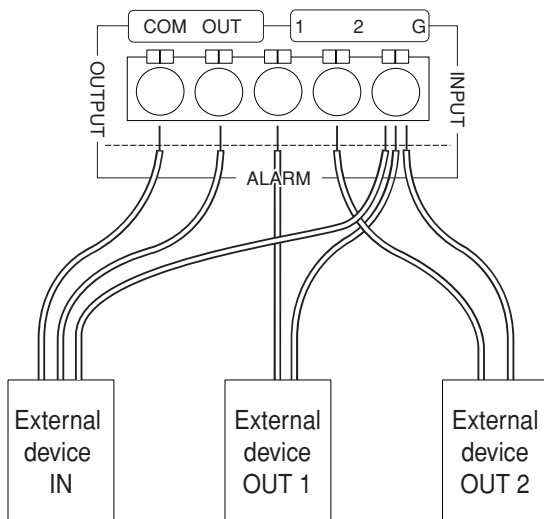
## CAUTION

When shipped from the factory, the IP address of all VN-A1U units is set to 192.168.0.2. Consequently, 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-A1U 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-A1U.



## 2. Alarm IN/OUT connection

Connect external devices to the ALARM INPUT/OUTPUT 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.

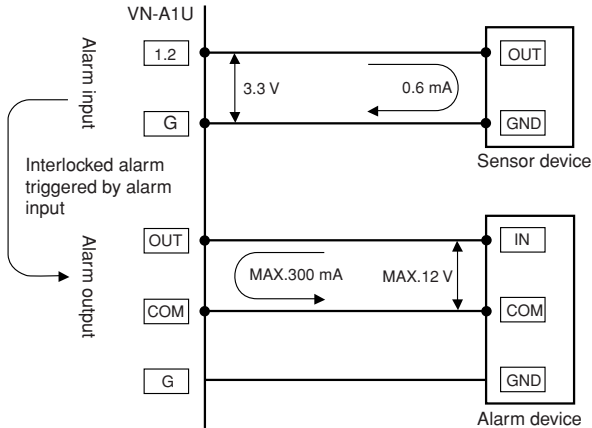
### ● About the alarm IN/OUT connection cables

- 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 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.

## ● Summary of alarm input/output functions



### Interface condition of ALARM INPUT terminals

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 at Low level: 0.6 mA. Applied voltage at High level: 3.3 V.

### Sensor devices

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

### Interface condition of ALARM OUTPUT terminals

NPN open-collector output or equivalent (The output logic is set by the Controller.)

Allowable input voltage: 12 V DC or less

Allowable current drain: 300 mA or less

Momentary (2 to 5000 ms) output (The time period is set by the Controller.)

### Examples of alarm devices

Alarm, indicator, lamp, buzzer, etc.

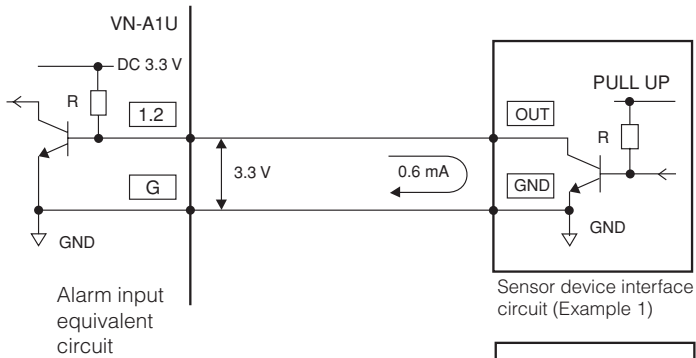
\* The types of relay contact mechanisms are expressed as “a” contact, “b” contact, “c” contact, etc.

“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 every time an event occurs.

● Alarm input interface circuits

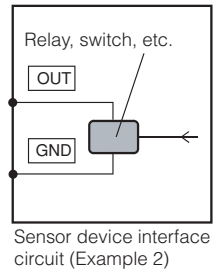


**Recommended connection cable**

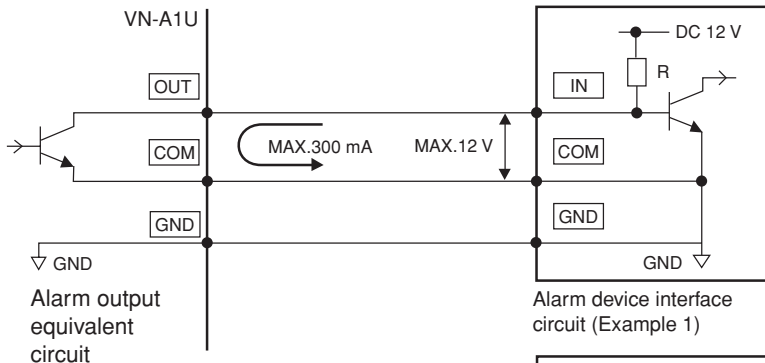
Length : 50 meters (194 feet) or less

Recommended cable type :

UL1007, UL1015 or equivalent cable, which is equivalent to a wire specification of between AWG#22 and AWG#18.



● **Examples of alarm output interface**

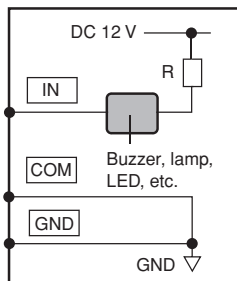


**Recommended connection cable**

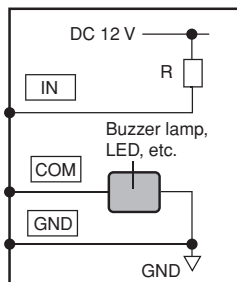
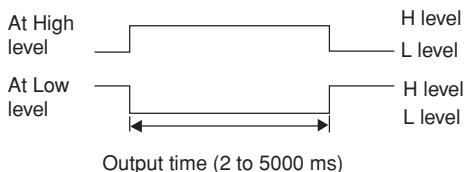
Length : 50 meters (194 feet) or less

Recommended cable type :

UL1007, UL1015 or equivalent, which is equivalent to a wire specification of between AWG#22 and AWG#18.



\* Alarm setup menu of the V.NETWORKS Setup Tool  
When an alarm device with a similar structure to the interface circuits shown here is connected, the OUTPUT signal level of the VN-A1U varies as shown below according to the output port setup.

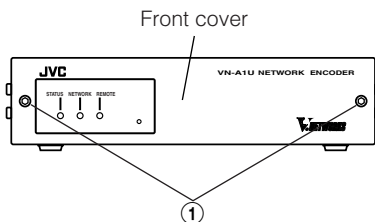


### 3. Installation of the CompactFlash card

The images before and after a detection of motion can be saved in the CompactFlash card (max. 512 MB capacity).

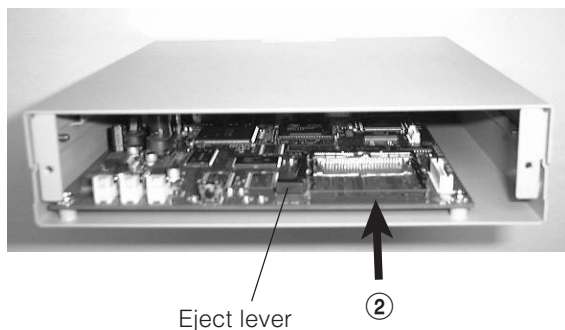
#### 3-1 Removing the front cover

Remove the two screws ① and remove the front cover.



#### 3-2 Inserting/removing the CompactFlash card

Insert the CompactFlash card horizontally into the insertion slot ②.  
To remove the CompactFlash card, pull the eject lever up and push it.



#### CAUTION

- The CompactFlash card should be purchased separately.
- Be sure to set the power switches of the devices off before connecting anything to them.

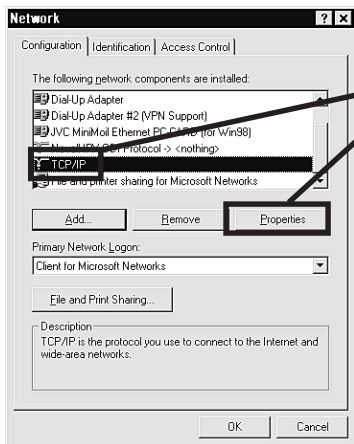
## 4. Setting the VN-A1U IP address

### 4-1 Changing the IP address of the PC

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

#### NOTE

Under a DHCP environment and also if the IP address to be allotted to [V.Networks] is already known, skip 4-1 [Changing the IP Address of the PC].



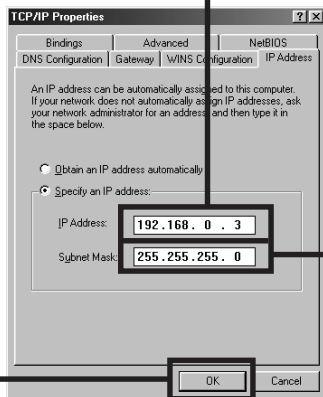
① Select the TCP/IP item, then click on **Properties**.

② Before making a change, always make a note of the original IP address.

Change the IP address to:  
**192. 168. 0. 3**

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

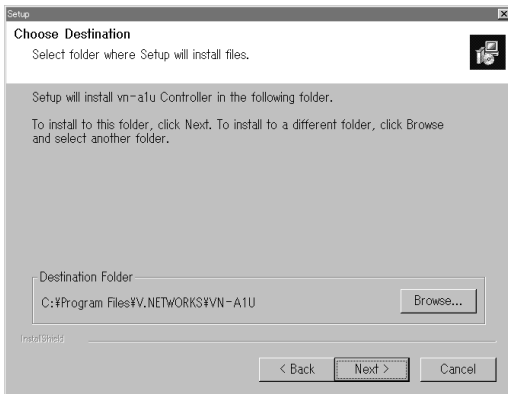
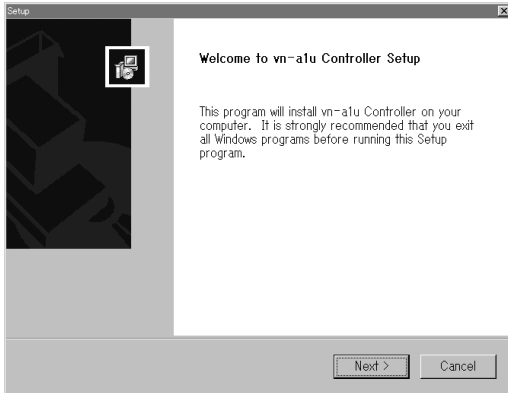
Set the **Subnet Mask** to a value suitable for the setting operation. If the value is unknown, check with the network administrator.



## 5. Installing the software

### 5-1 Installing the controller software

Load the V.Networks 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. Setup of the V.Networks Setup Tool

When installation is completed, select **Start - Program - V.NETWORKS** to invoke the **vn-a1u Setup Tool**.

### CAUTION

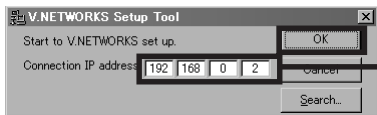
- After the power for VN-A1U is turned on, there will be about 20 seconds until VN-A1U becomes ready to be connected with the PC. This is not a defect.
- Factory-set IP address  
When shipped from the factory, DHCP is set to invalid, and the IP address is set to "192.168.0.2".
- About the DHCP function  
JVC does not recommend operating VN-A1U with this function enabled because a different IP address may be assigned upon the renewal of the leasing contract. The DHCP function of VN-A1U is designed for simplifying the installation and setting procedures.

### NOTE

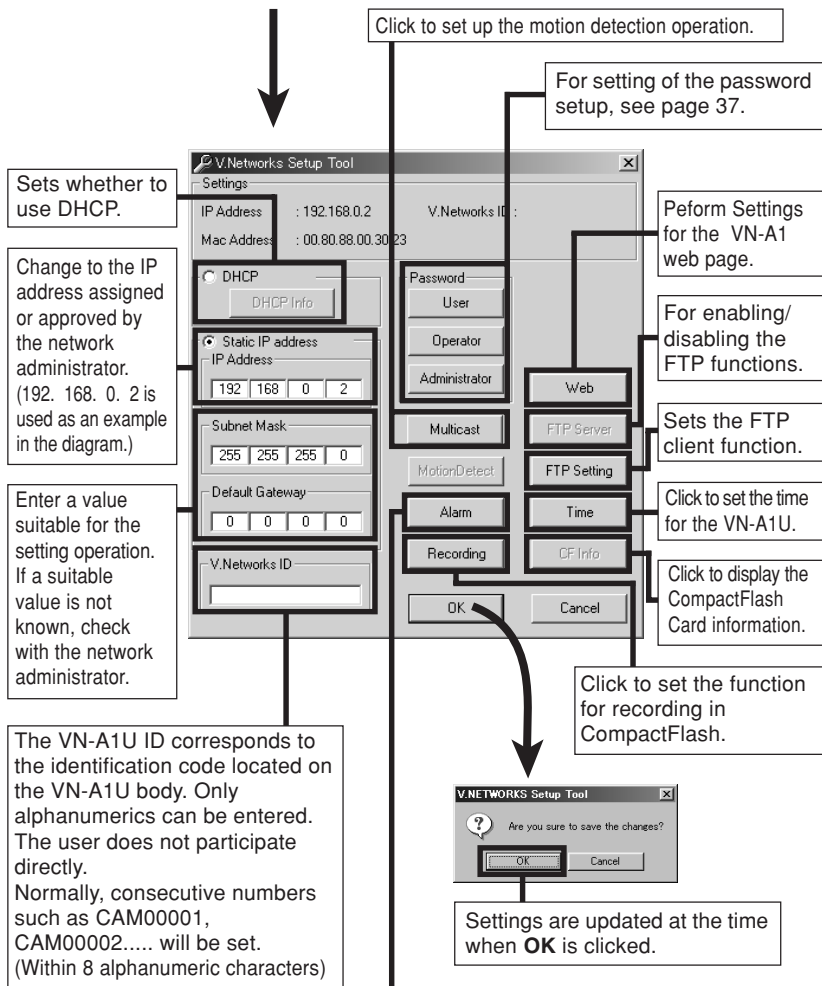
For connecting VN-A1U with the factory settings, either one of the environments described below is required.

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





Enter the IP address of the VN-A1U to be set up.  
The factory-set IP address is: **192.168.0.2**



For the alarm settings, see page 33.

## 6-1 Motion detection setting

The VN-A1U incorporates a motion detection function and its parameters can be setup by the user.

The motion detection is based on the error between the reference image and current image.

Click the **MotionDetection** button in the **V.NETWORKS SetupTool** window to display the **MotionDetection** window as shown below.

### NOTE

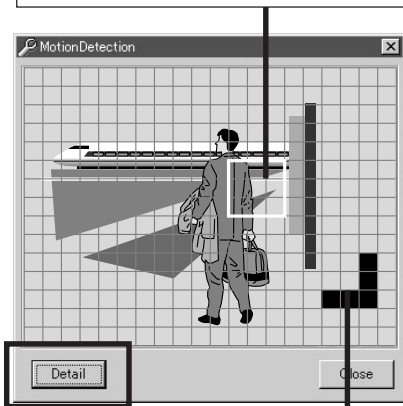
It is necessary to set up "Alarm" - "Motion Detection Alarm" in the V.NETWORKS Setup Tool in order to activate the Motion Detection.

### Detection area setup method

Set the motion detection area by clicking and dragging using the left button of the mouse.

The squares indicate the minimum area units.

A set area can be canceled by clicking and dragging using the right button of the mouse. The maximum number of squares composing the area that can be selected is "20 x 15 = 300".



Display the motion detection details setup window.

The squares in which a motion is detected are displayed in red.

### CAUTION

The display is in red only when the motion detect alarm is activated. For details, please see 6-5, "Alarm Setting."

\* With the factory setting, the motion detect alarm is not activated.

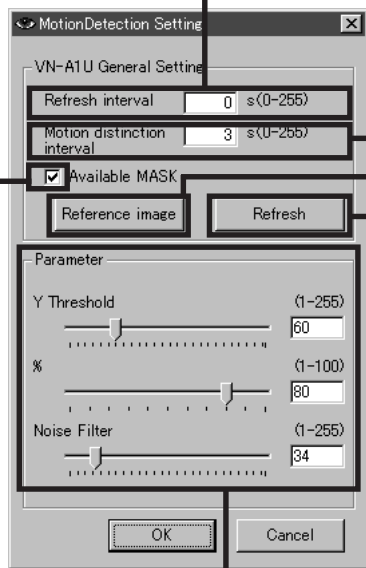
When the **Detail** button is clicked the **MotionDetection Setting** window is displayed as shown below.

Set the motion detection parameters in this window.

Each parameter is set to the luminance value per area (8 x 8 = 64-pixel array) as a target value.

Set the intervals for updating the reference image.

When "0" is set, the reference image will be updated automatically after the motion has not been detected for a certain period of time.



Motion detection is identified when a motion lasts for a longer period than the period specified here.

Click to display a reference image.

Click to force the reference image to be updated.

Check to set the area outside the set area as the motion detection area.

Sets the motion detection threshold values.

**Y Threshold** : Threshold of the difference in luminance with respect to the reference image.

**%** : Threshold of the percentage of pixels exceeding the Y threshold among the 64 pixels in an array. When this is set to "50", 50% of the 64 pixels (32 pixels) becomes the actual threshold value.

**Noise Filter** : Threshold of the average luminance level with respect to the reference image. Increasing this value helps to reduce erroneous motion detection due to noise, etc.

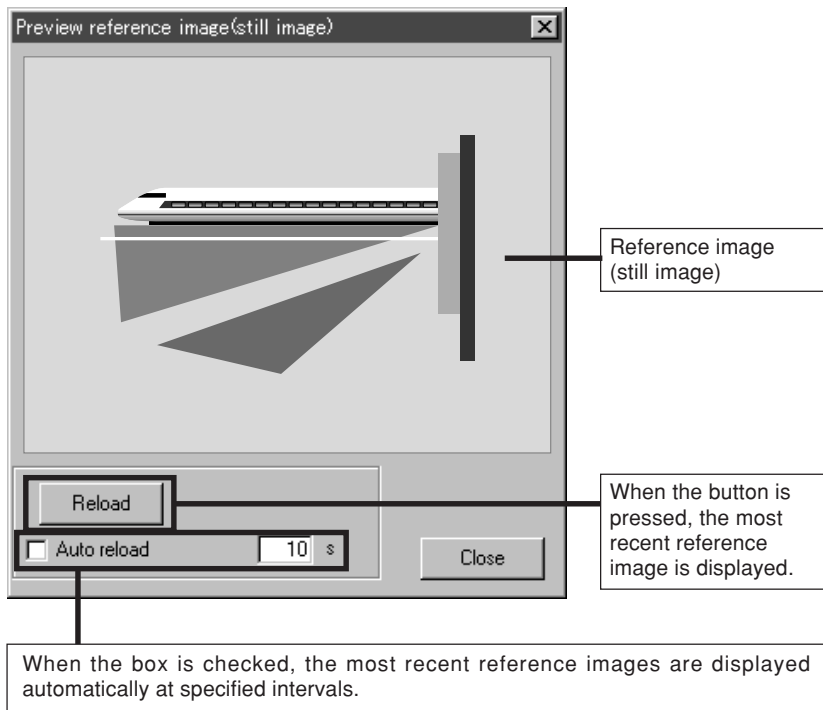
## CAUTION

Motion detection sensitivity varies depending on the image size.

(Larger the size, more sensitive: 640 x 480 > 320 x 240 > 160 x 120)

It is recommended that the motion detection sensitivity is set using the actual image size for accurate setting.

When the **Reference image** button is clicked, a reference image is displayed to compare with the motion detection result.  
(Refer to the diagram below.)

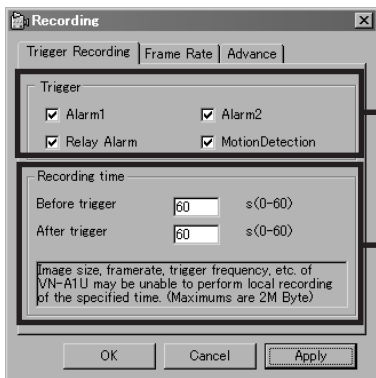


The motion detection is not a feature to prevent theft, fire, etc. Even if an accident should occur resulting in damage, we do not accept any liability.

## 6-2 Recording setting

When a CompactFlash card is installed, the VN-A1U can record images according to various trigger conditions. (Henceforth, it is called "local recording".)

Click the **Recording** button in the **V.NETWORKS Setup Tool** window to display the **Recording** window as shown below.



Set the condition for triggering recording.  
Check the desired boxes to enable them.

Set the recording time before and after triggering.  
Every time a triggering occurs, CompactFlash Card records an image for the period specified here.

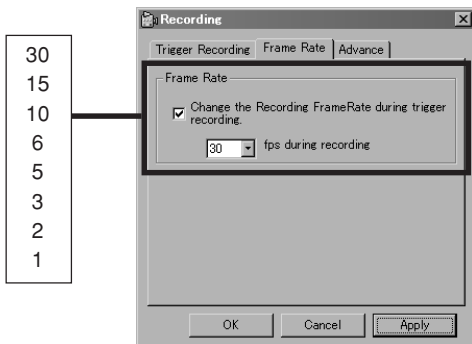
### CAUTION

- The maximum recording time is determined according to the recording frame rate and image size. With certain image compression rates and objects, it may sometimes not be possible to record images for the specified period of time.
- The frame rate of local recording is approximately 1/2 or 1/3 of live images displayed on the PC monitor.
- Make sure to cancel "Advance" - "Time Lapse" and "Trigger Recording" - "Trigger" (Alarm 1, Alarm 2, Relay Alarm and Motion Detection) in the V.NETWORKS Setup Tool before turning off the power of VN-A1U.  
If these setting are not canceled, the CompactFlash card may be damaged.

### NOTE

When the compression rate is 2 and the recording frame rate is 30 fps, the total recording time before and after recording is:  
Image size 640 x 480 : Approx. 4 seconds including before and after triggering.  
Image size 320 x 240 : Approx. 8 seconds including before and after triggering.  
Image size 160 x 120 : Approx. 16 seconds including before and after triggering.

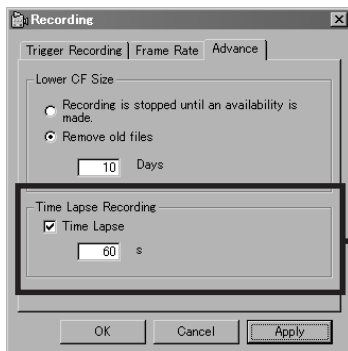
## Set the frame rate for triggered recording.



### CAUTION

Although a file of Trigger Recording is made for every event, files are combined into one file when the trigger occurs continuously and the recording time is continued.

## Advance



Check this box to record still images at a certain interval.

By setting the recording triggering described above, it is possible to record time-lapse images in normal circumstances, and to record images at the specified intervals and frame rate in the case of a trigger event. (Setting range: 1 to 3600 seconds)

\* The Recording Setting when the CompactFlash card is not loaded is invalid.

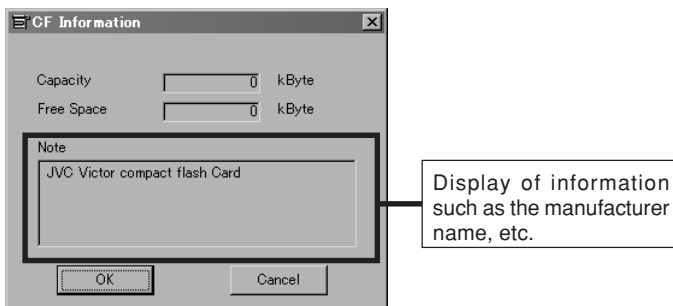
### CAUTIONS

- CompactFlash makes only Trigger Recording when Trigger Recording and Time Lapse Recording occur simultaneously. The Trigger Recorded images are not included in Time Lapse Recording.
- A file in CompactFlash is divided automatically not to exceed 64Mbyte.
- "Remove Old Files" function under "Recording" - "Advance" in V.NETWORKS Setup Tool is for the files recorded at 640 x 480 or 320 x 240 image size only and cannot be used for the files recorded at 160 x 120 image size.

### 6-3 CF information

The information on the CompactFlash card installed in the VN-A1U can be displayed.

Click the **CF Info** button in the **V.NETWORKS Setup Tool** window to display the **CF Info** window as shown below.

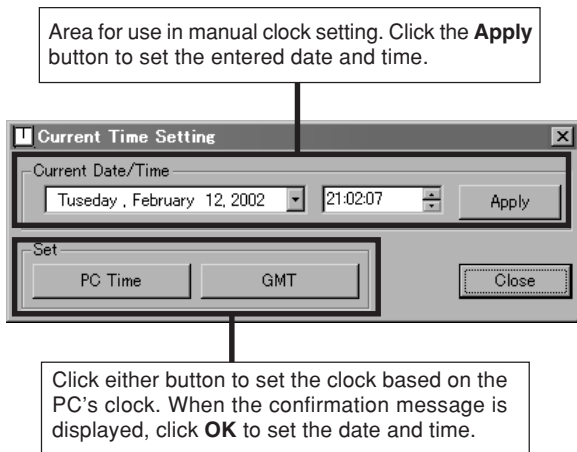


## 6-4 Current time setting

Set the internal clock of the VN-A1U.

The clock can be set either based on the PC's clock or manually. The date and time data recorded in the CompactFlash card is the data based on this clock.

Click the **PC Time** button in the V.NETWORKS Setup Tool window to display the following window.

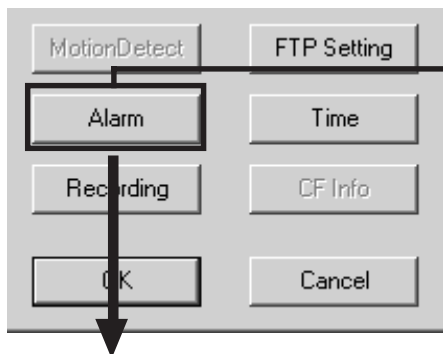




## 6-5 Alarm setting

### ALARM DISTRIBUTION FUNCTION

When there is an input to an ALARM INPUT terminal or a motion is detected, the VN-A1U functions for transmitting the information to the clients (V.Networks controllers) through the network. This function can be set up using the V.NETWORKS Setup Tool.



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

**Alarm Settings**

**Alarm1**

- OFF
- ON
- Alarm Output

**Alarm2**

- OFF
- ON
- Alarm Output

**MotionDetection**

- Alarm Outpi
- ON
- Alarm Output

**Out port setting.**

- OFF
- ON
- Output value:  Low  High
- ms
- Initialization:  ON  OFF

**Relay Alarm**

- Use Relay Alarm
- Alarm1
- Within  min.  s.
- Alarm2
- Use relay alarm
- Alarm Output

**Retry (1 to 3)**

Times

**Alarm force output**

Output the Alarm out port complying with currentsettings.

In **Alarm 1**, **Alarm 2** and **Motion Detection**, select **OFF** or **ON** for the input to each terminal. When **ON** is selected, also check the **Alarm Output** if the alarm signal should be output.

Alarm1  
 OFF  
 ON  
 Alarm Output

Alarm2  
 OFF  
 ON  
 Alarm Output

MotionDetection  
 Alarm Output  
 ON  
 Alarm Output

Relay Alarm  
 Use Relay Alarm

Alarm1

Within  min.  s.

Alarm2

Use relay alarm  
 Alarm Output

In **Relay Alarm** setup to set an alarm or motion detection input received after an Alarm 1, Alarm 2 or motion detection input has been received, to be identified as an interlocked alarm.

Check **Use Relay Alarm** and specify the alarm occurrence sequence and the time interval between alarms. If the alarm signal is to be output in the case of an interlocked alarm, check the **Alarm Output** checkbox.

## 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. The operation of Alarm 2 itself will not be executed.



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.

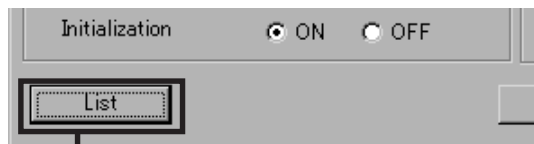
❖ Set the values of Out port setting in accordance with the device to which the output is to be sent.



**Retry** is used to set the number of times the clients (V.Networks controllers) are notified of the occurrence of an alarm input. (The number of times can be set to 1, 2, or 3.)

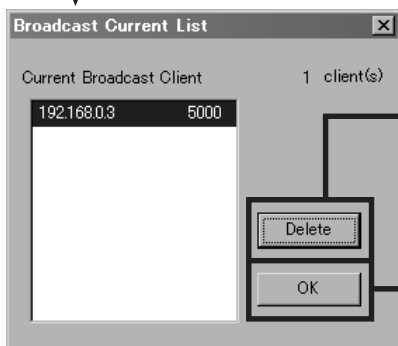
In a LAN environment, Alarm notifications may fail. It is for that reason that the alarm notification count can be set to up to 3 times. However, even when the alarm notification count is set to more than 1, the specified operation performed by the clients (V.Networks controllers) is only once.

In **Alarm force output**, pressing the **Output** button causes the camera's alarm output terminal to output a signal according to the current alarm output port setup. This function can be used to check the devices connected to the output port.



The list of alarm broadcast client (IP address and port number) currently registered in the VN-A1U can be displayed by pressing **List**. The PCs that satisfy the following conditions are displayed.

- The V.Networks controller has been started and is connected to the VN-A1U subject to setup.
- Checks are placed at **Settings** and **Alarm Reg.** (Refer to page 55)



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

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

### CAUTION

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

## 6-6 Setting the password

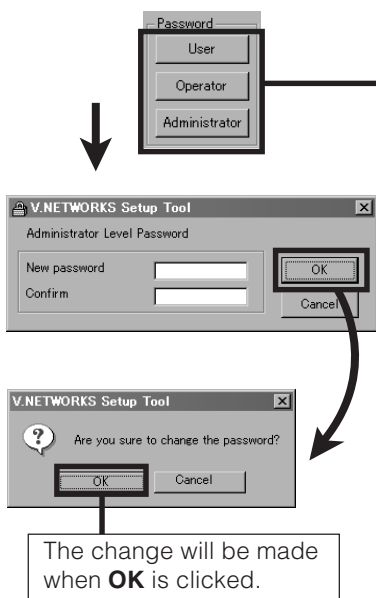
### Password function

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 V.NETWORKS controller.
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.



The change will be made when **OK** is clicked.

The password setting screen is displayed by clicking the **User**, **Operator** or **Administrator** button on the Password Setting screen of the V.NETWORKS Setup Tool.

To set password protection or change the password, enter the same both above and below. (within 8 alphanumeric characters) The entered characters are shown as "\*" .

To cancel the password protection, make the setting so that nothing is entered at all.

For a VN-A1U 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-A1U setup. A password will not be requested when the lower level password(s) has been set but the higher has not been set.

(Password level: User < Operator < Administrator)

## 6-7 Web

Perform settings for the VN-A1U Web page. Click the **Web** button on the V.Networks Setup Tool to display the Web setting window shown below.

The screenshot shows a 'Web Setting' dialog box with the following elements:

- HTTP Default Page:** Two radio buttons, 'Available' (selected) and 'Unavailable'. Below them is a text field containing '/user/defaultpage.html' and a note '(Up to 20 characters)'.
- HTTP Port:** A text field containing '80' and '(Default: 80)'.
- Cache Control:** A checkbox labeled 'No Cache' which is checked.
- Buttons:** 'OK', 'Cancel', and 'Apply' buttons at the bottom.

① Select whether to enable the setting of the HTTP default page. If [Available] is selected, specify an html file for the default page.

② Set the port number.

③ 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].

- It is possible to enhance the level of security by changing the default port number (80) of VN-A1U HTTP server (1 through 65535). 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-e.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.
- If a CompactFlash card is not inserted, the HTTP default page function does not operate.

## 6-8 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.



Select whether to enable or disable the FTP server function.

- The FTP server name is fixed to [Administrator] and also use the password for the administrator.
- The user area for FTP depends on the available capacity of the CompactFlash card.
- 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-A1U IP address when "aaa.html" is referred to.)
- Folders cannot be created in the VN-A1U FTP server. Only uploading, deleting and renaming of files are possible.
- If a CompactFlash card is not inserted, the FTP Server function does not operate.

## 6-9 FTP client function

This function uploads images (still images) in the VN-A1U periodically to an existing FTP server.

This makes possible an image distribution service from a server and a significant increase in the number of clients to whom images are distributed.

### FTP Setting window (VN-A1U)

- [FTP] [Available] : Check to disable the FTP function.  
[Not Available] : Check to enable the FTP function.
- [Username] : Enter the user name for use for authentication by the FTP server.
- [Password] : Enter the password for use for authentication by 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, images will be uploaded in the default folder.
- [Upload Interval] : Enter the interval for image uploading to the FTP server.  
[disconnect everytime] : Check this box to disconnect the connection after every image uploading.  
\* This makes it necessary to establish the connection before the next uploading of an image.



## [Error recovery]

### [On connect Error]

Select the operation to be performed in the case of an error related to the TCP connection or FTP authentication.

- [Retry forever] : The connection will be retried until the VN-A1U is turned OFF.
- [\*min. retry] : The connection will be retried for the specified period.

### [On transfer error]

Select the operation to be performed in the case of a file transfer error during an image uploading.

- If [Stop Uploading] is checked : The FTP function of the VN-A1U 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-A1U is not disabled in case of a transfer error. In this case, uploading of the latest image 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 internal clock of the VN-A1U and 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.

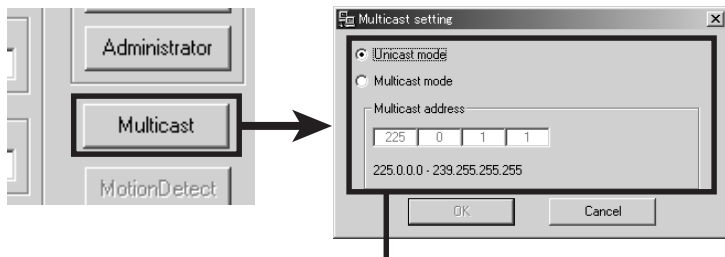
## [OK] button:

When the FTP operation is enabled, clicking this button saves the settings made in this window and starts the FTP operation with the above settings. When the FTP operation is disabled, clicking this button does not save the settings made in this window.

## 6-10 Multicast (applicable only to the VN-A1U's program Ver. 2.0 or later)

Allows the broadcasting mode setting of the images to be distributed from the VN-A1U.

In the Unicast Mode, when the number of client PCs connected to the VN-A1U is increased, the frame rate of the distributed video images will become degraded. In such a case, set the broadcasting mode to the Multicast Mode in order to minimize any deterioration of the frame rate due to the increased number of client PCs.



To distribute the images in multicast, set this to the Multicast Mode. After setting to the Multicast Mode, enter the correct multicast address between 225.0.0.0 and 239.255.255.255. (When setting the multicast address, please confirm it with the network administrator.)

### CAUTIONS ON MULTICAST SETTING

- When setting to Multicast Mode, do not connect more than one VN-A1U for which the same multicast address is registered to the same network.
- To view VN-A1U 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.
- In the Multicast Mode, even if the connections of all the client PCs are lost, the hub LED indicating the packet transmission/reception will keep blinking\* for a while. This is because the image data is still transmitted from the VN-A1U for approx. 1 minute, even after all of the client PCs are disconnected. This is not a malfunction.  
\* The indicating method may differ depending on the type of hub used.
- When the Multicast Mode is activated, access via a narrow band environment such as dial-up access will not be possible. (Set to the Unicast Mode if required.)

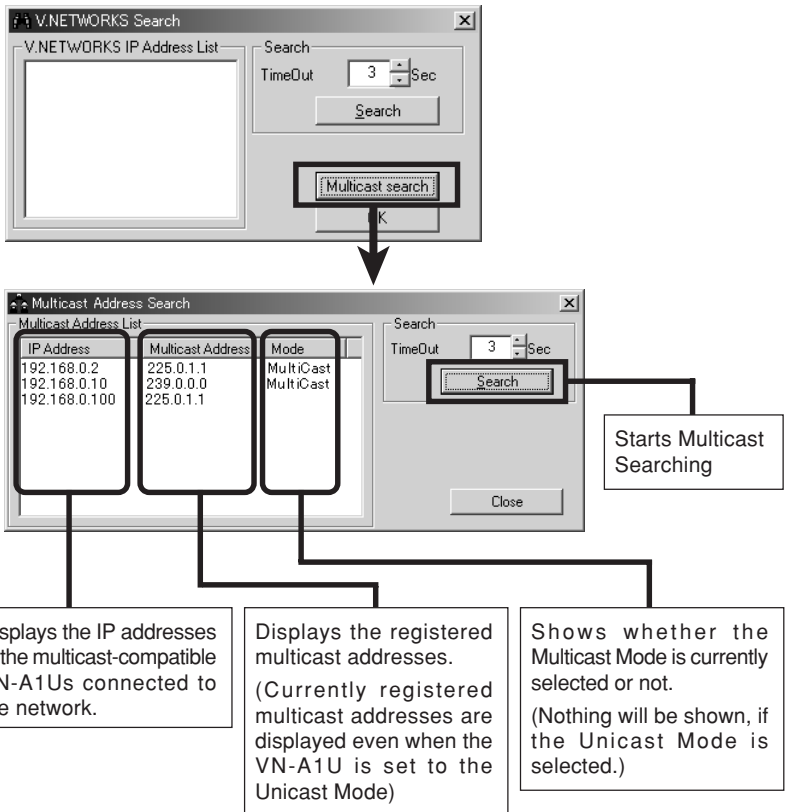
## ● Multicast Search

Used to check the setting of the multicast address of the VN-A1Us connected to the network.

(\*Only the VN-A1Us that are compatible with the multicast mode will be displayed in the list.)

Click the **Search** button to display the IP addresses, multicast addresses, and the broadcasting modes of each VN-A1U device connected to the network that is compatible with the multicast mode.

Set the **Time Out** duration used for searching between 0 and 30 seconds.



## 6-11 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-A1U is reset.

## 6-12 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 1 (page 16). After setting of all the VN-A1U units is completed, proceed with the next procedure.

### 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.

### 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 Start **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.

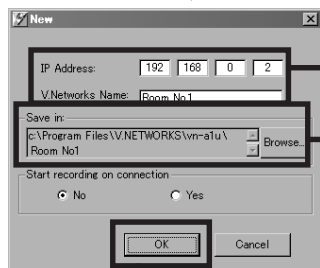
## 7. Registering connection points

Start the V.Networks controller (VN-A1U connection software: vn-a1u.exe), open the **File** menu, select **New** and register the connection point.

### NOTE

For connecting VN-A1U with the factory settings, either one of the environments described below is required.

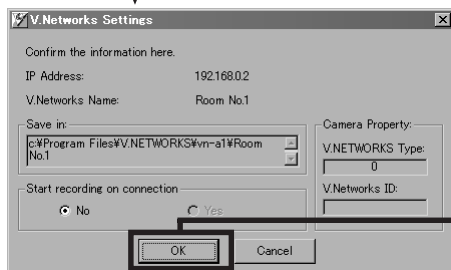
- Environment where no DHCP server exists.
- Environment where a DHCP server exists, which clearly defines the allotted IP address and MAC address.



Enter the IP address and name of the VN-A1U connection point. (192.168.0.2 is used as an example in the diagram.)

The folder "VN-A1U Name" will be created automatically in the folder specified here. Recorded files will be saved here. (Refer to page 59 recording function.)  
"Start recording on connection" determines whether or not recording will start automatically upon the connection of VN-A1U.

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



Click **OK** to complete the registration.



# Controller Software Operation

## Starting connection and changing connection points

Refer to Software Installation on page 23 for the installation procedure. When the V.Networks controller (vn-a1u.exe) is executed, a logo will be displayed and then the following screen will appear.



Connection points can be selected from this pulldown menu.

- \* The V.Networks Controller enables connection to a VN-A1U, VN-C1U, VN-C2U, VN-C3U or VN-C30U (JPEG only) unit.
- \* 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 VN-A1U rarely makes the system reset.

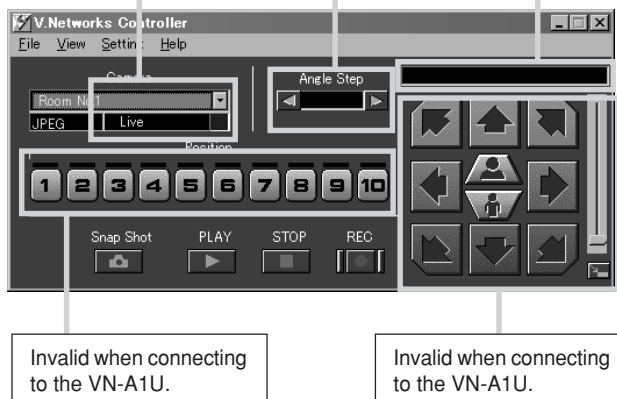
# Controller 1

After a connection point is selected, you will find the names of currently connected VN-A1U.

The name of the VN-A1U currently connected to and the controller operation mode are indicated. During viewing the images, Live View is displayed.

Invalid when connecting to the VN-A1U.

Invalid when connecting to the VN-A1U.



Invalid when connecting to the VN-A1U.

Invalid when connecting to the VN-A1U.

\* Each V. NETWORKS to be connected has a different screen display. Please refer to the instruction manual of the appropriate V.NETWORKS.

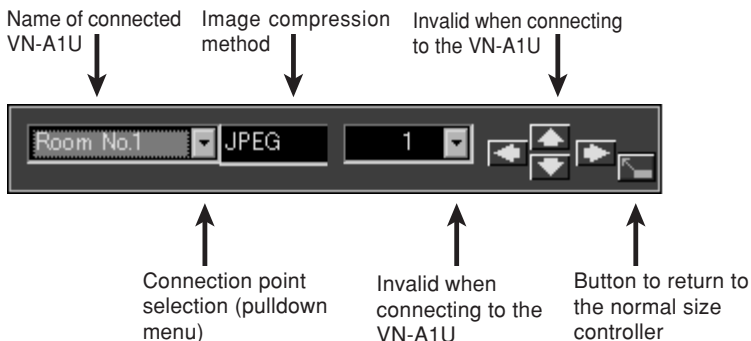
## Controller 2



The V.Networks 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 63.

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

## Smaller Controller





## Controller 3

If the cursor is briefly positioned over the VN-A1U name, a balloon display of VN-A1U names will be displayed.

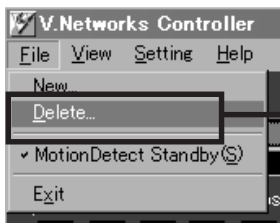


The V.Networks Controller has a function for recording and playing back the image of the connected VN-A1U image for a certain period of time.  
For details, see “Recording function” on page 59.

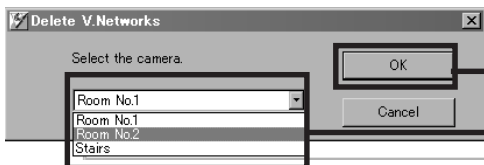
## Creating a new connection points

Refer to “7. Registering of connection points” on page 45.

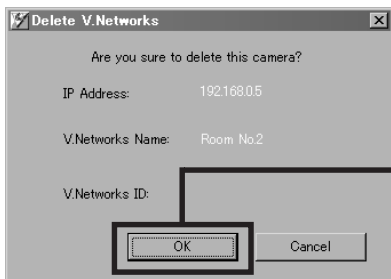
## Deleting connection points



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



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

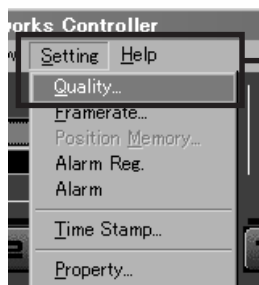


Make sure the desired point is being deleted, and then click **OK**.

### CAUTION

The connection point cannot be recovered once it is deleted.

# Image quality adjustment

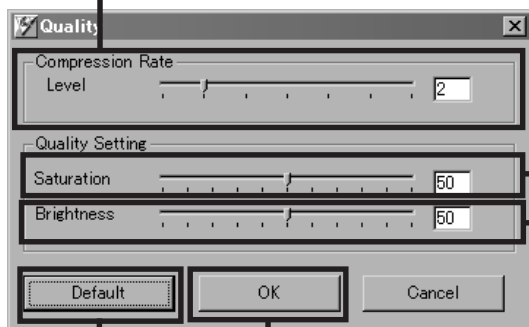


Select **Settings** from the menu and then select **Quality**.

## ■ Image setup

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.

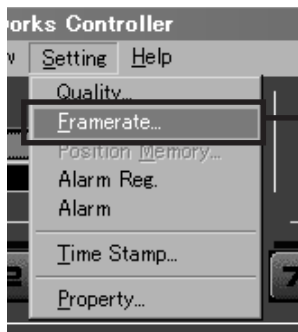


The setting will be effective.

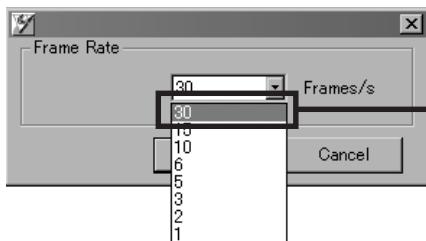
This adjusts the image brightness.

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

## Setting the frame rate



Select **Settings** from the menu and then select **Framerate**.



This is to set the upper limit of transmission frame rate from VN-A1U.

### CAUTION

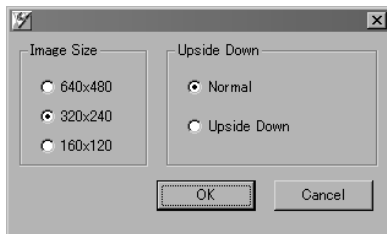
The actual frame rate depends on the operational environment (PC specifications, image compression, network infrastructure, etc.) and may be different from the transmission frame rate. In practice, the higher transmission frame rate is set up, the more bandwidth is required. Therefore, try to set the lower transmission frame rate if relatively low bandwidth is available for VN-A1U.

# 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.



## 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.

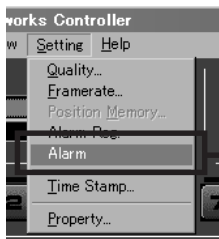
### Display the motion detection information.

When checked : The area where motion is detected is displayed in colors. (Squares are also displayed at the same time.)

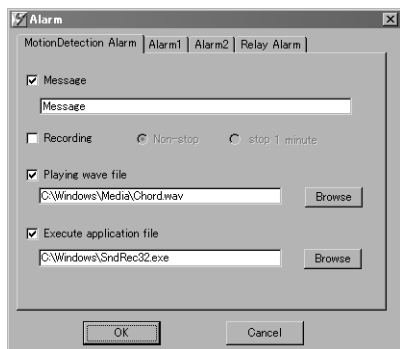
If unchecked : The motion detection information is not displayed.

# Alarm setting

This operation sets the operations that the VN-A1U executes upon receipt of the four kinds of alarm signals.



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



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.

**With [MotionDetection Alarm], [Alarm 1] and [Alarm 2], the operations to be executed upon reception of the three kinds of alarm signals from the VN-A1U can be set by checking the following checkboxes.**

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**

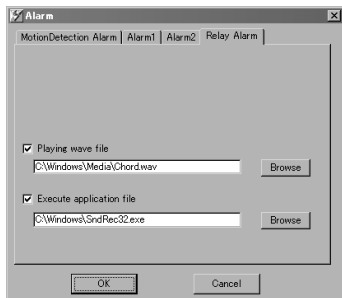
Start recording the images.

- **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

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 MotionDetection Alarm, Alarm 1, Alarm 2 and/or Relay Alarm setting of V.NETWORKS setup tool (refer to page 33), and
  - 2) Check (✓) Alarm reg.
- When relay alarm has been set, the second alarm operations is not performed.

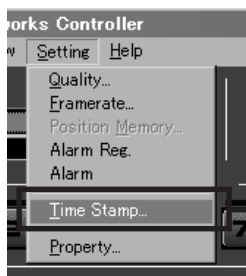
**Example** : When the Relay Alarm occurs in the sequence of Alarm 1 → Alarm 2, alarms operate in the sequence of Alarm 1 → Relay Alarm and Alarm 2 does not operate at all.



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

# Time stamp setting

The timestamp function displays the date and time held by the VN-A1U.



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.

Sets the color of the characters of the time stamp and the background color.  
● **Transparency** ... The background becomes transparent.

## 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**

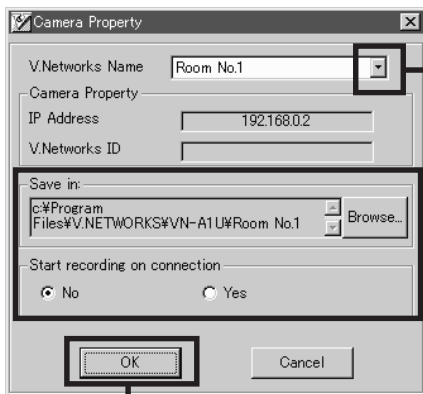
(hour:minute)

## Changing property

The information related to connections and setting when the connection was first defined can be changed. (However, it is only the VN-A1U information in the offline mode that can be changed.)



Select **Setting - Property**.



Select the camera for which the properties should be changed from the **V.Networks 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-A1U onto automatically created folder with "VN-A1U 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.



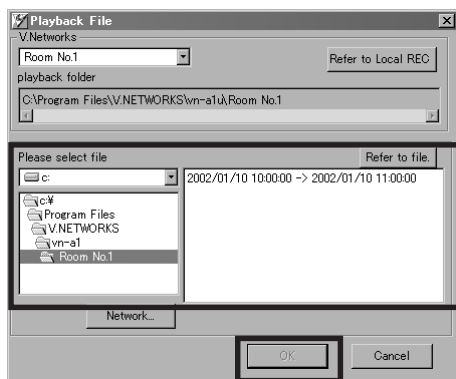
Press the **STOP** button to stop recording. "REC" disappear.

- 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 attempt to change the contents of the folder specified as the recorded file save destination. If operations such as changing of the file name are done, normal playback may become impossible.

# Playback function



Click the **PLAY** button.

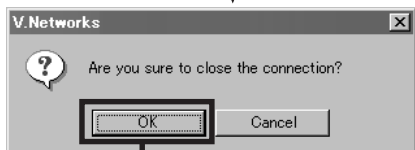


Select the file that you want to playback from the storage destination of the recorded file.

The filename becomes the start-to-stop times of the recording.

To delete a file, click the right button of the mouse on the file and use the displayed pop-up menu.

Click the **OK** button.



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

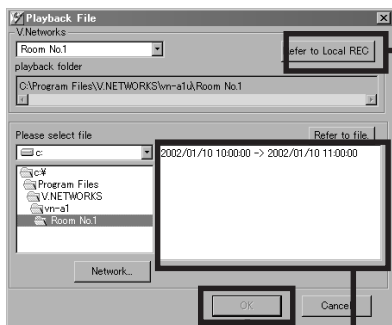
When the **OK** button is clicked, the connection to the camera is disconnected and the playback picture screen appears.

## Local recording playback

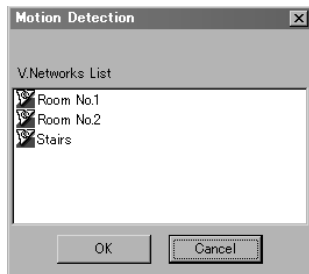
The V.Networks controller is capable of playing back the moving images that are recorded locally by a registered VN-A1U.



Click the **PLAY** button.

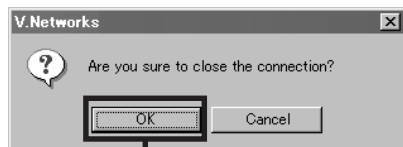


Click **Refer to Local REC** and select the VN-A1U to be played.



Select the file to be played. The files are named according to the recording start time and stop time. File loading in the PC can be cancelled by clicking the right button of the mouse and using the displayed pop-up menu.

Click **OK**.



This window is displayed only during camera image viewing.

Click **OK** to disconnect the camera and display the recording playback window.

## CAUTION

It is impossible to start transferring the local recording files when any settings for local recording is enabled.

When the file transfer is required, please click the "Advance" button and cancel "Time Lapse" under "Time Lapse Recording" tab and all "Trigger" under "Trigger Recording" tab.

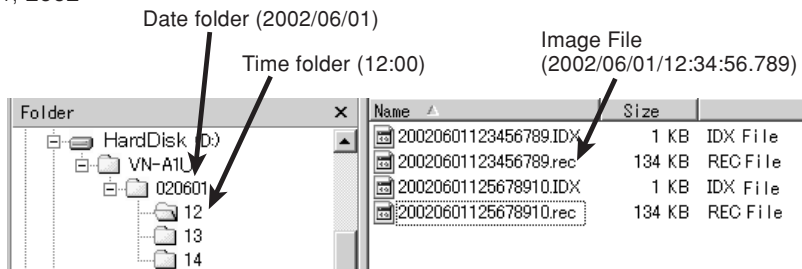
## CAUTION

The approximate time for transferring the recorded files from CompactFlash card to PC is 30 seconds for 2MB file, 10 minutes for 32 MB file and 20 minutes for 64MB file. It is recommended to connect the CompactFlash card directly to PC for recording large files.

The image files that are locally recorded to the CompactFlash card of the VN-A1U may be copied to the PC's hard disk by attaching the CompactFlash card to the commercially available PC Card Adapter and inserting this into the PC Card Slot of the PC. Since the locally recorded image files can be handled in the same way as the usual movie files, they may also be played back after being copied onto the PC's hard disk by using the Controller.

(\* For details, refer to "Movie file storage and playback function".)

Images stored to the CompactFlash card are recorded in the following format. (Example) File created at 12 hours 34 minutes 56 seconds 789 ms on June 1, 2002




## NOTES:

\* As the ".rec" file and the ".IDX" file are paired, when deleting them, delete both files together as a pair using Windows Explorer, etc. When copying the images to a PC and playing them back using the PC, an ".IDX" file is not necessary. (It is not possible to delete such files using the Controller.)

\* Files recorded to the CompactFlash Card using the VN-A1U's Version 1.0 software cannot be played back or deleted via the network using the Version 2.0 software. In this case, play or delete the files by mounting the CompactFlash Card to the PC using the PC Card Adapter.

## 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 V.Networks Controller can save any one moment in the displayed image as a still image file in the JPEG format.



Click the **Snap Shot** button.



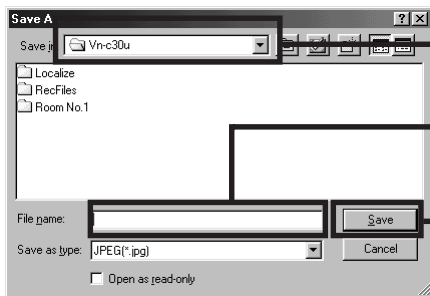
Snapshot display is possible.

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.

Click **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 V.Networks controller screen.



## **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 V.Networks Controller.

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

**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)

## **CAUTION**

The motion jpeg files (\*.mjp) recorded by other kinds of standard controller (like a VN-C3U controller) can not be played back with this V. Networks Controller.

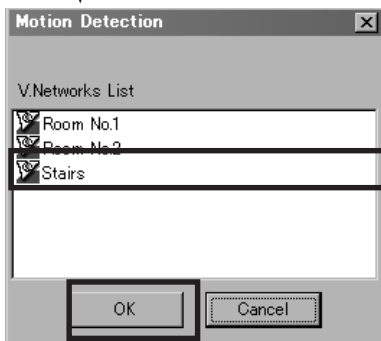
Please use the "File Converter" and convert into the new format (\*.rec) prior to playing back.

You can download the "File Converter" form the V. Networks Web site at <http://www.jvc-victor.co.jp/english/index-e.html>.

## Motion detection standby



Open the **File** menu and select **MotionDetect Standby**.



Select the **VN-A1U** with which motion detection is to be enabled.

Click **OK**.



Click **OK** to initiate the motion detection standby. When the V.Networks controller is active and it receives a motion detection notification from a VN-A1U unit, the controller connects automatically to the VN-A1U.

With VN-A1U Version 3, it has become possible to view images and to perform various controls and settings of operations configurations via the web browser. This manual has been compiled in order to describe this new facility, which is the “Control via Web Browser”. However, The image up-down inversion function is unavailable via the web browser. Also, the display and setting of motion detection is not supported.



## Operations with a Web Browser

### Operating environment

The environment described below is necessary for operation of the VN-A1U through a web browser.

The PC needs to satisfy the operational environment (page 11), which is described in a separate volume of the manual.

#### **A personal computer running the following web browser:**

- Web browser that has compatibility with Java Script and Frame:  
Netscape Ver. 4.x or 6.x, Internet Explorer Ver. 4.x, 5.x or 6.x is required.
- For the CPU performance and memory capacity requirements, refer to the values recommended for the web browser in use.  
To obtain smooth moving image displays on a large screen, a web browser capacity above the recommended value is required.  
Camera supplied images will not be displayed correctly in the 256-color mode.
- When Internet Explorer is used, an electronic environment that enables the correct execution of Java (Microsoft VM) is required.

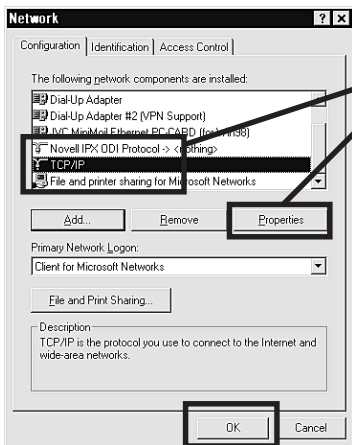
#### **LAN Environment**

- The VN-A1U unit functions as a web server based on HTTP protocol. Access linkage using a host name is possible if the environment allows the DNS (Domain Name System) to be used.
- It is possible to connect a VN-A1U unit and a PC in a direct 1:1 connection by using a cross cable. (Certain LAN boards do not allow the use of a cross cable, though this is a very rare case. Be sure to check your LAN board.)

# 1. Setting the IP address of the VN-A1U

## 1-1 Changing the IP address of the PC

Select the [Start] button then select [Settings] – [Control Panel] – [Network] to display the [Network] settings panel.

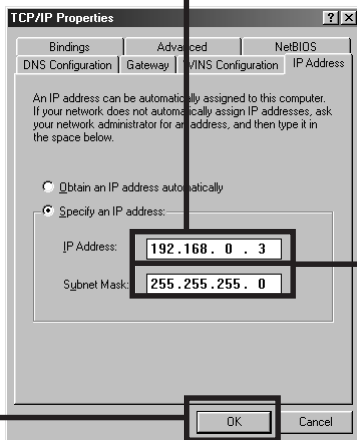


① Select item “TCP/IP” then click on <Properties>.

② Before making a change, always make a note of the original IP address. Change the IP address to: 192.168.0.3

Set [Subnet Mask] to a value suitable for the setting operation. If a suitable value is unknown, check with the network administrator.

③ Click on <OK> and then restart the PC.



# Web Page Illustrations Used in This Manual

Hereafter, the figures entitled VN-A1U Page show a display of the web page data of the VN-A1U (including images captured by the cameras) by the web page display function of the web browser.

Due to this mechanism, the format and character font of the displayed web pages may be variable depending on the types and settings of the web browser in use. Should the operation be hindered due to a lack of any of the screen display items that should be displayed, adopt measures for displaying all items by resizing the window, etc.

The figures in this manual are based on Netscape web page displays.

## **When the browser in use is Netscape**

- When a moving image of the VN-A1U is displayed, the web page display cannot be updated by changing the Netscape window size. In this case, click on the <Update> button on the Netscape window to update the web page display.

## **When the browser in use is Internet Explorer**

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

## 1-2 Changing the internal settings

Start the web browser.

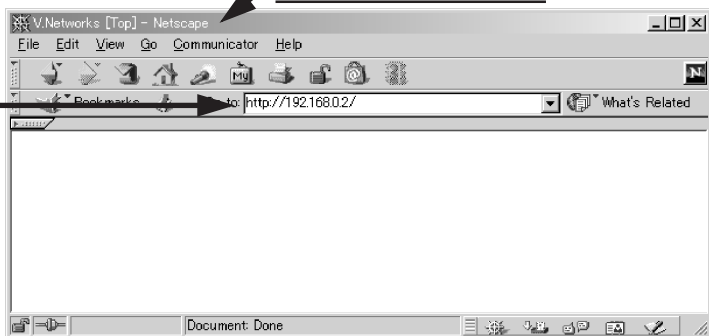
In the web browser, specify the factory-set web page address of the VN-A1U. (Direct specification of the factory-set web page address enables the web browser to display the VN-A1U Top Page.)

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

### Caution

If a proxy server is set for accessing the Internet, a direct specification may not be permitted. In this case, change the proxy setting to permit direct address specification.

Display with Netscape



### Note:

- In this manual, the terms "**Top page**" and "**Home page**" are used as described below:

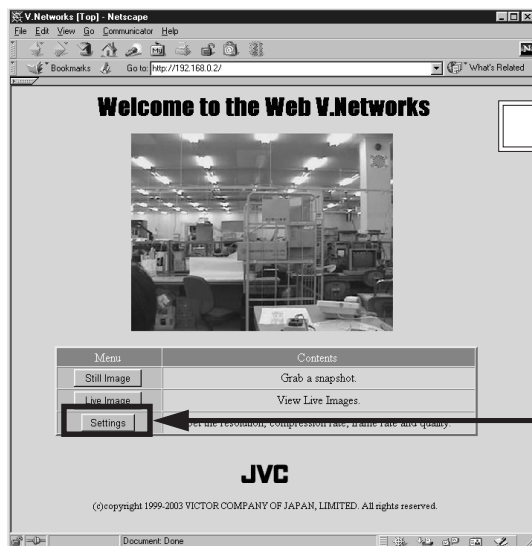
**Top page** : Indicates "index-e.html"

- Home page** :
- If the default page (See page 74) is set to valid, the specified html page is indicated.
  - If the default page is set to invalid, "index-e.html" is indicated.

The VN-A1U Top page appears.

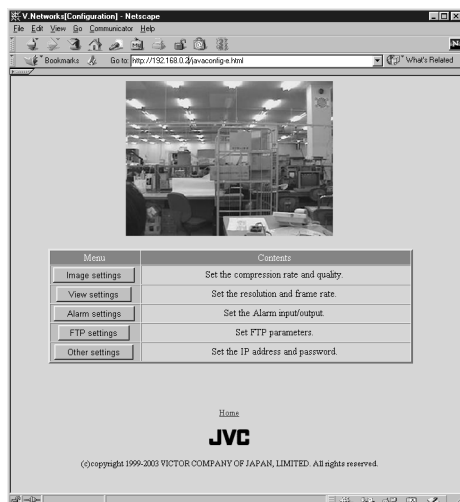
## CAUTION

The background changes to blue when the image mode of the VN-A1U is set to the MPEG mode.



VN-A1U Top page

Click on <Settings>.



VN-A1U Settings page

The setup consists of changing the contents of **[Other Settings]**. (The same setup is also available using the Setting tool provided with the standard controller.)

Other		Settings	
DHCP	<input type="radio"/> Available <input type="radio"/> Not available		
IP Address	192.168.0.2		
Subnet Mask	255.255.255.0		
Default Gateway	0.0.0.0		
Host Name	<input type="text"/> within 8 character		
MAC Address	00:80:88:00:30:23		
Program Version	Version 3.0		
Password (within 8 characters)	User Level	<input type="text"/>	(confirm)
	Operator Level	<input type="text"/>	(confirm)
	Administrator Level	<input type="text"/>	(confirm)
Cache Control	<input type="checkbox"/> No Cache		
FTP Server Function	<input type="radio"/> Available <input type="radio"/> Not available		
	<input type="radio"/> Available <input type="radio"/> Not available		
Default Page	/user/ <input type="text"/> .html within 20 character		
HTTP Port	00080 (Normally Port 80)		
Click "Apply" button to enable the above settings.			
<input type="button" value="Apply"/>			

VN-A1U Settings page **[Other Settings]**

## Items in **[Other Settings]**

### **[DHCP]**

Select whether to use DHCP.

### **[IP Address]**

To change to the IP address assigned to or approved for the network administrator

### **[Subnet Mask]**

Similarly to the IP address, to set the value assigned to or approved for the network administrator

### **[Default Gateway]**

To set the IP address of the default gateway

If this is not used, set "0.0.0.0".

### **[Host Name]**

To specify the host name using up to 8 alphanumeric characters

This should be set when access linkage using a host name is required in an environment allowing the use of the DNS (Domain Name System). The host name is displayed in the title bars of sub-windows including the control windows.

Do not specify anything when the host name is not used or unknown.

### **[MAC Address]**

A physical address proper to each product.

\* This cannot be changed.



- [Program Version]** Program version of the firmware in the VN-A1U unit.  
\* This cannot be changed.
- [Password]** To set the password using up to 8 alphanumeric characters.  
The same password should be entered twice at each level for confirmation.
- [Cache Control]** With a very small number of proxy servers that caches cgi, the pan/tilt control may not function correctly. In this case, inhibit the Cache operation by checking the cache box.
- [FTP Server Function]** Set whether FTP Server is valid/invalid.  
If this is set to valid, it will be possible to upload various user HTML pages, GIF and JPEG image files, etc. to this unit using common FTP client software.  
\* Uploaded files will all be placed directly under the "/user folder" directory.  
Access from a web browser can be done by inputting the URL such as http://192.168.0.2/user/aaa.html  
(When accessing "aaa.html" stored on FTP, the "192.168.0.2" denotes the IP address of this machine.)  
\* The FTP user name is fixed as "Administrator".  
For the FTP password, use the administrator level password.

## **CAUTION**

- The user area for FTP depends on the available capacity of the CompactFlash card, however since this unit's file system is generated dynamically, the actual storable capacity may be less than this in certain cases.
- Folders cannot be created on this FTP server. Only file upload/delete/rename are possible.

**[Default Page Setup]**

If “invalid”, it will be set to the regular VN-A1U Top Page.  
If “valid”, the HTML file you set will be used as the default page.

\*Default Page refers to the page that is displayed when only the IP address is specified.

**CAUTION**

Even if the function is “valid”, if the HTML file specified here does not exist then a message such as “404: Not Found” will be displayed by the browser when “http://192.168.0.2/” is specified, so make sure that the setting is made correctly.

**[HTTP Port]**

It is possible to change the port number of the HTTP Server on this unit to a number other than the default port 80 to raise the level of security. (Selectable range: 1-65535)  
If the HTTP Port is changed, access from web browser will be done as follows:  
http://192.168.0.2:12345/ or http://192.168.0.2:12345/index.html  
(Example when Port 12345 is selected)  
When you don't know or forget the HTTP Port number, use the provided Setup tool to check it.

**Password protection**

Access protection using a password is provided with the VN-A1U to restrict other connecting browsers (users). The access protection function provides three security levels, each of which is allowed to access the kinds of pages as shown in the following table.  
(For the configuration of the VN-A1U web pages, see page 78.)

Level	Access Permission
User	Image pages only.
Operator	Web pages other than the configuration pages.
Administrator	All web pages

**CAUTION**

- Never forget the current password for it cannot be canceled or changed unless it matches the password set at the administrator level.
- Even when the user or operator level password is set, the password will not be asked for unless the administrator level password is set.

Other Settings

**DHCP**  Available  Not available

**IP Address** 192.168.0.2

**Subnet Mask** 255.255.255.0

**Default Gateway** 0.0.0.0

**Host Name**  (within 8 characters)

**MAC Address** 00:80:88:00:30:23

**Program Version** Version 3.0

**Password (within 8 characters)**

User Level  (confirm)

Operator Level  (confirm)

Administrator Level  (confirm)

**Cache Control**  No Cache

**FTP Server Function**  Available  Not available

**Default Page** /user/  limit within: 20 characters

**HTTP Port** 00080 (Normally Port 80)

Click <Apply> button to enable the above settings.

Apply

VN-A1U Configuration page  
[Other Settings]

Click on <Apply> to update the settings.

192.168.0.2 - [JavaScript Application]

Are you sure to RESET the camera to enable the changes?

OK Cancel

Confirm the changed IP address again. Click on <OK> if the entry is correct.

## CAUTION

The confirmation window above is displayed after [IP Address], [Subnet Mask], [Default Gateway] and/or [HTTP Port] have been changed. When <OK> in this window is clicked, the VN-A1U unit is reset internally to update the IP address, etc. As this renders the IP address before change (factory-set value) ineffective, the connection to the VN-A1U is disconnected. The screen indicates that a connection cannot be established after the web browser has not been used for a while. This is a result of the change in the IP address. (Changing the port number results in the same action.)

### 1-3 Restoring the IP address of the PC

In the same way as section 1-1, select [Start] – [Settings] – [Control Panel] – [Network] to display the [Network] settings panel and change [TCP/IP Properties] to the original IP address that has been noted previously.

After the change, restart the PC by following the displayed instruction message.

## 2. VN-A1U access test

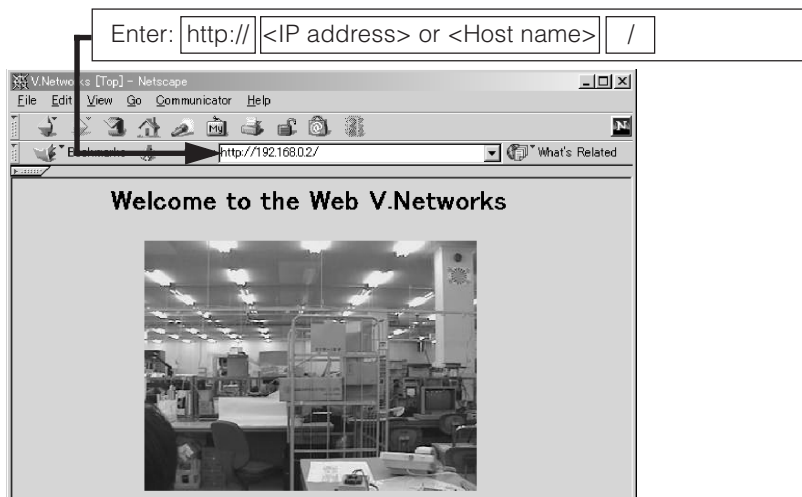
This test confirms that the VN-A1U web pages may be browsed and displayed via the web browser using the set IP address or DNS host name.

(For the configuration of the VN-A1U web pages, see page 78.)

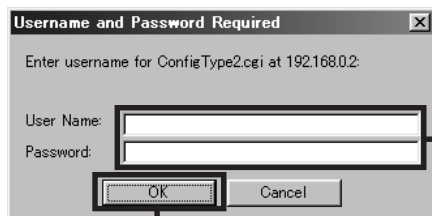
### CAUTION

If a proxy server is set for accessing the Internet, web pages may not be directly specified. In this case, change the proxy setting to permit direct address specification.

Also, when the DNS is used, contact the network administrator to update the information related to the DNS address setting, etc.



The [User Name and Password Entry] request window appears (for access authorization).



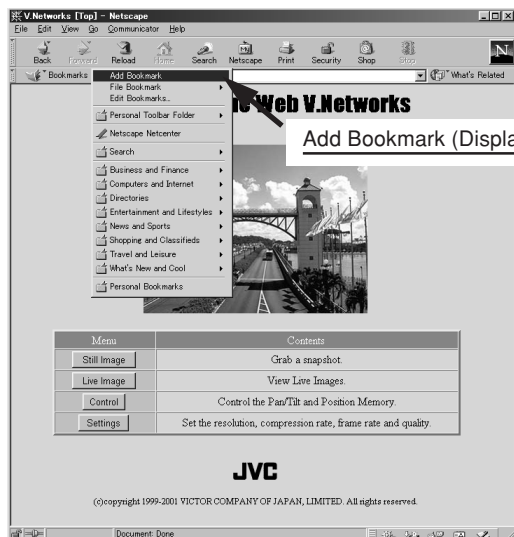
The user name is not used.  
For the password, enter the one of  
the three passwords that have  
been set.

Click on <OK>.

### It is recommended to register the browsing information connection location (URL: Uniform Resource Locator).

To speed up the display of VN-A1U web pages from your web browser, it is recommended to register the URL information during the access test using the set IP address or DNS host name.

The registration uses “Bookmark” of Netscape or Internet Explorer. While a VN-A1U web page is displayed, perform the operation using the web browser’s menu to add the page to the “Bookmark”.



Add Bookmark (Display with Netscape)



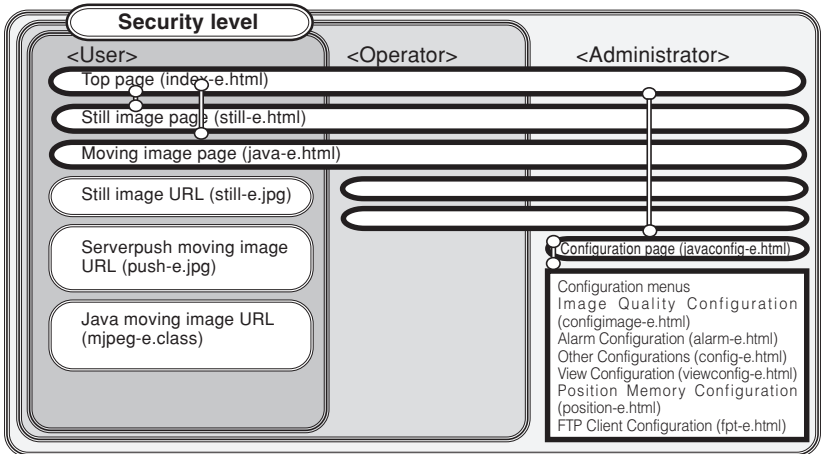
# VN-A1U Web Pages

– Display Items and Operation Description –

The configuration of URLs inside the VN-A1U is as shown below.

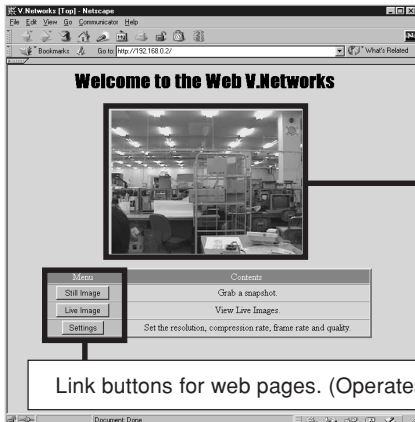
## CAUTION

Authorization of access (Security) right is required in the access of any URL.



**Top page:** [http://\\*\\*\\*\\*/index-e.html](http://****/index-e.html) (\*\*\*\*: URL indicating the VN-A1U)

This page is intended to provide links to other VN-A1U web pages.



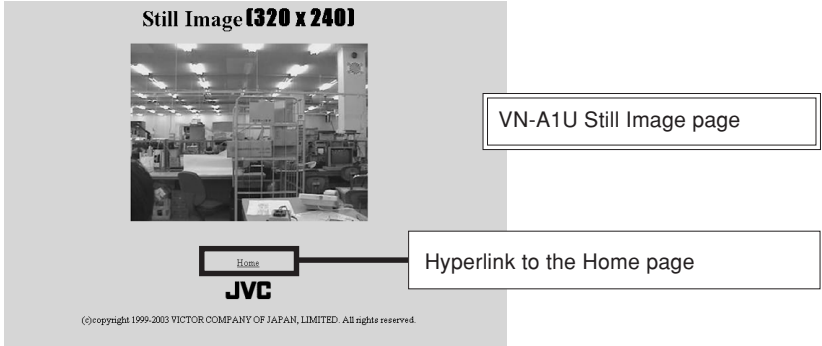
VN-A1U Top page

VN-A1U still image  
The camera image at the moment browsing starts is displayed.

Link buttons for web pages. (Operates with single clicks.)

**Still Image Page:** [http://\\*\\*\\*\\*\\*/still-e.html](http://*****/still-e.html) (\*\*\*\*\*: URL indicating the VN-A1U)

This page displays only still images. The initial image is the camera image at the moment browsing starts. To update the image, perform the “Reload” or “Update” operation on the web browser. To save the image being displayed, perform the “Save As” operation on the web browser.

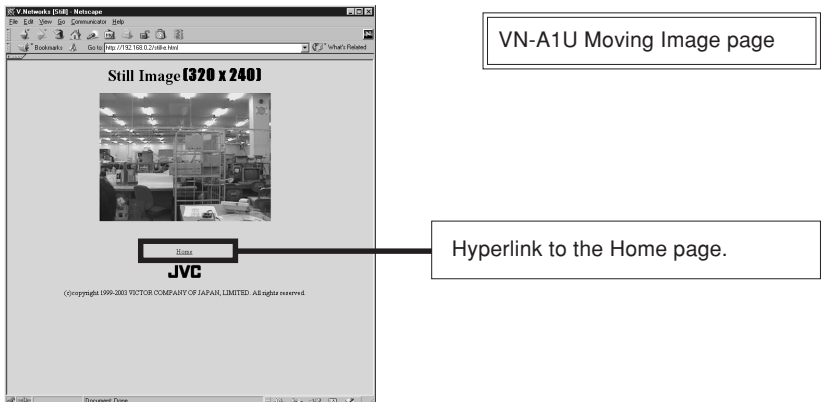


**Moving Image Page:** [http://\\*\\*\\*\\*\\*/java-e.html](http://*****/java-e.html) (\*\*\*\*\*: URL indicating the VN-A1U)

This page displays only moving images. The displayed image is the camera image that is being updated automatically.

**CAUTION**

Do not attempt to save images in this page for it has not been compiled assuming the use of the “Save Image As” function of the web browser. Also do not attempt to save the entire web page for it has neither been compiled assuming the use of the “Save As” function.



## Configuration Page: [http://\\*\\*\\*\\*/javaconfig-e.html](http://****/javaconfig-e.html) (\*\*\*\*: URL indicating the VN-A1U)

This page is used for settings related to images and connections (setup).  
(A camera image updates automatically to be displayed as a moving image.)

The screenshot shows a Netscape browser window with the address bar displaying `http://192.168.0.2/javaconfig-e.html`. The main content area contains a large video window showing a camera feed of a control room. Below the video is a table with two columns: 'Menu' and 'Contents'. The 'Menu' column lists 'Image settings', 'View settings', 'Alarm settings', 'FTP settings', and 'Other settings'. The 'Contents' column provides descriptions for each menu item. A 'Home' button is located below the table. The JVC logo and copyright information are at the bottom of the page.

Menu	Contents
Image settings	Set the compression rate and quality.
View settings	Set the resolution and frame rate.
Alarm settings	Set the Alarm input/output.
FTP settings	Set FTP parameters.
Other settings	Set the IP address and password.

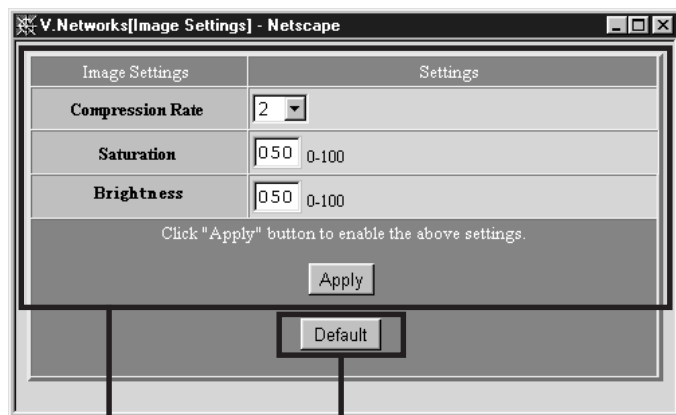
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Transferring data from 192.168.0.58

Click on the desired setting button to display a sub-window for the setting item.



## [Image Quality Configuration] window



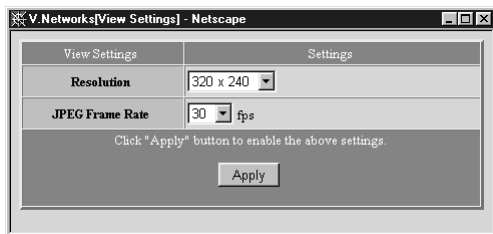
Click on <Default> to reset all of the settings in the image quality-related menu to the factory-set values.

Image quality-related setting items.

After setting the desired items, click on <Apply> to make the settings valid.  
See the following table for a description of each item.

Item	Effect
<b>Compression Rate</b>	The compression rate is inversely proportional to the image quality. When the compression rate is small, the image quality can be improved but the data quantity increases.
<b>Saturation</b>	This adjusts the development of colors. Increasing this value increases color saturation.
<b>Brightness</b>	This adjusts the brightness of the picture. Increasing this value increases the brightness.

## [View Configuration] window



Item	Effect
<b>Resolution</b>	Select the image size from "640 x 480", "320 x 240" and "160 x 120". When [Compensate aspect ration when 160 x 120 selected.] is checked, the image size of the "160 x 120" display becomes actually 160 x 112.
<b>JPEG Frame Rate</b>	Select the maximum number of frames transmitted from the VN-A1U per second.

### CAUTION

- The actual number of frames transmitted or displayed per second is dependent on the performance of the PC, type of web browser and LAN environment. In case communication faults involving the processing of other users are expected (particularly when the network environment is usually subjected to a relatively heavy load), it is recommended to set the frame rate to a lower value.
- Be sure to adjust [JPEG Frame Rate] in consideration of the number of simultaneous accesses to the unit. If its processing capability is exceeded, it will be impossible to perform correct operations including the web page display, movement and button operations.

## [Alarm Configuration] window

This window sets the action to be performed when an alarm signal is input.

The screenshot shows a Netscape browser window titled "V.Networks[Alarm] - Netscape". The main content area contains a configuration table with the following structure:

Alarm Type	On/Off	Settings
Alarm In	Alarm 1 <input type="radio"/> On <input checked="" type="radio"/> Off	Alarm Out: No
	Alarm 2 <input type="radio"/> On <input checked="" type="radio"/> Off	Alarm Out: No
	Relay Alarm <input type="radio"/> On <input checked="" type="radio"/> Off	Alarm 1 triggered prior to another within 00 min 01 sec. (1sec - 59min 59sec) Alarm Out: No
Alarm Out	<input type="radio"/> On <input checked="" type="radio"/> Off	Momentum: 0100 msec (1-5000)
		Value: <input type="radio"/> High <input checked="" type="radio"/> Low
		Power on Init: No

Click "Apply" button to enable the above settings.

Apply

### Alarm 1 or 2

**[On/Off]** Check [On] when using the corresponding alarm input (1 or 2) and check [Off] when not using it.

**[Settings]** An alarm input enables the camera movement to one of the positions stored in the position memory and an alarm signal output.

- **[Alarm Out]**

When "Yes" is selected, the alarm output outputs the signal set in [Alarm Out] below in the case of an alarm input.

## Relay Alarm

When alarm signals are input one after another with an interval of a few seconds, an interlocked alarm input can be identified and enable another operation.

## Alarm Out

**[Enable/Disable]** Check [Enable] to use the alarm output and [Disable] to not use it.

**[Configuration Items]** These items are used to set the signal output from the alarm output terminal.

- **[Momentum]**  
Set the time period for which the alarm output is to be continued.
- **[Value]**  
Select whether the [High] or [Low] level signal is output as the alarm output.
- **[Power on Init]**  
Select whether or not the alarm signal is output from the alarm output of VN-A1U at the moment it is turned ON.

\* Set the alarm output according to the output destination device.

\* After completing alarm configurations, be sure to confirm that the alarm operations are performed as intended.

## [FTP Client Configuration] window

### ● FTP client function

This function uploads the VN-A1U images (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	Settings
<b>FTP Function</b>	<input type="checkbox"/> Available Upload Interval <input type="text" value="00060"/> sec (0-86400 sec) Filename <input checked="" type="radio"/> <input type="text" value="vnetworks"/> .jpg (1-32 characters) <input type="radio"/> Timestamp (ex.2001-06-07-17-34-12-653.jpg)
<b>Username</b>	<input type="text" value="anonymous"/> (1-16 characters)
<b>Password</b>	<input type="text"/> (0-32 characters)
<b>Host IP Address</b>	<input type="text" value="0. 0. 0. 0"/>
<b>FTP Port</b>	<input type="text" value="00021"/> (Normally Port 21)
<b>FTP Folder</b>	<input type="text"/> (0-64 characters)
<b>Connection</b>	<input type="checkbox"/> disconnect every time
<b>Error Recovery</b>	On connect error <input checked="" type="radio"/> Retry forever <input type="radio"/> Retry for <input type="text" value="010"/> min (1-600 min)
	On transfer error <input type="checkbox"/> Stop Uploading
Click "Apply" Button to enable the above settings.	
<input type="button" value="Apply"/>	

### [FTP Function]

●[Available]: Check to enable the FTP function.

### ●[Upload Interval]

Enter the interval for image uploading to the FTP server. (It is possible to upload earliest by setting this item at 0 second.)

- [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-mmm”.

\* 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.

**[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 “\*”).

**[Host 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.

**[Connection]**

- [Disconnect every time]
 

Check this box to disconnect the connection after every image uploading.

\* This makes it necessary to establish a connection before the next time an image is uploaded.

**[Error Recovery]**

- [On connect error]
 

Select the operation to be performed in case of an error related to the TOP connection or FTP authentication.

- [Retry forever]: The connection will be retried until the VN-A1U 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.

  - If [Stop Uploading] is checked:
 

The FTP function of the VN-A1U is disabled automatically in case of a transfer error.

\* To resume the FTP operation, check [Available] in [FTP function].
  - If [Stop Uploading] is not checked:
 

The FTP function of the VN-A1U is not disabled in case of a transfer error. In this case, upload will be retried at every uploading interval.

### <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.



# Link of VN-A1U Images

– Pasting VN-A1U output images on separately created web pages –  
Images (still and moving images) captured using the VN-A1U can be incorporated and displayed on web pages created by the user.

## Displaying a Still Image :

Create a web page including the following description to display the still image in the web page.

```
<IMG SRC="http:// ***** /still-e.jpg">  
(****: URL indicating the VN-A1U)
```

## Displaying a Moving Image :

A moving image can either be a Serverpush image or a Java image.  
The image type should be selected according to the compatibility conditions of the web browser (or by adjusting the web page.)

### Display by Serverpush image

Create a web page including the following description to display the moving image in the web page of a Serverpush-compatible web browser (i.e. Netscape).

```
<IMG SRC="http:// ***** /push-e.jpg">  
(****: URL indicating the VN-A1U)
```



## Display of a Java applet image

Create a web page including the following description to display a moving image in the web page of a Java-compatible web browser (i.e. Internet Explorer, etc.).

```
<APPLET CODE="mjpeg-e.class"WIDTH=640 HEIGHT=480  
CodeBase="http:// ***** /"> </APPLET>  
(****: URL indicating the VN-A1U)
```

### CAUTION


- Both the displayed still images and moving images are displayed in the image sizes and compression rates set in the configuration. If the web browser is set to disable Java execution, images may not be displayed correctly.
- If passwords are set, Java moving images cannot be displayed unless it has previously been authenticated. (Restriction with Internet Explorer)
- The values of "WIDTH" and "HEIGHT" should be identical to those set in the image size setting of the VN-A1U.

### CAUTION

- If the browser in use is Netscape Ver. 4.06 or older, it is required to update the Java Plug-in to Ver. 1.1 or higher in order to browse and display moving images. Java Plug-in is available in web sites such as <http://java.sun.com/getjava/>, etc.
- Under certain environments, image reloading may be repeated when the [Pan/Tilt/Zoom] control window is displayed. This is not a malfunction, however.



# 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"><li>• It is possible to delete the folder used to save images. Check to make sure the folder exists.</li><li>• It is possible for the disk to become full. Check the available capacity of the disk.</li></ul>
<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 message "CF card is not inserted" is displayed when running the Set-up Tool or Web setting page.</p>	<ul style="list-style-type: none"><li>• If a CompactFlash card is not inserted: Correctly insert a CompactFlash card referring to the procedure on page 21.</li><li>• If a CompactFlash card is already inserted: Check if the card insertion procedure was correct. (Refer to page 21.) Please be careful as CompactFlash card cannot be inserted while the power is on.</li><li>• In any case, please make sure that the CompactFlash card you are using is a CFA compliant CompactFlash card. (CFA compliant CompactFlash cards have a  mark on them.)</li></ul>

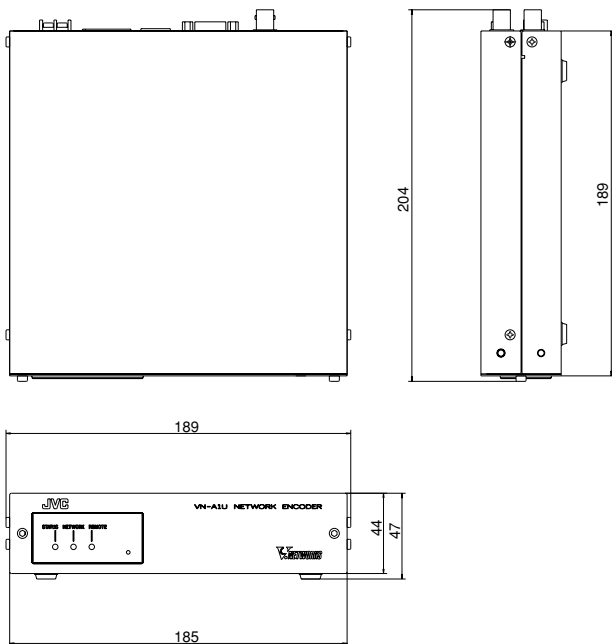
<p>The colors are not satisfactory.</p>	<ul style="list-style-type: none"> <li>• Check the color adjustments of the display or video card. The colors displayed by different PC display monitors and video cards will differ to some degree. Improvement is sometime possible by adjusting the color settings of the display monitor. Depending on the video card, colors can sometimes be adjusted using Screen Properties (click the right mouse button on the desktop.)</li> <li>• 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.</li> </ul>
<p>The image size and position change spontaneously.</p>	<p>When one VN-A1U unit is connected to several PCs, the last PC to operate and set the VN-A1U unit will have priority.</p>
<p>VN-A1U 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-A1U or the connection may be broken.</p>



# Specifications

Video input	Composite video x 1 (75 $\Omega$ , 1 Vp-p), NTSC/PAL automatic detection
Video output	Composite video x 1 (75 $\Omega$ , 1 Vp-p)
LAN standard	IEEE802.3, IEEE802.3u standards
Communication protocol	UDP/IP, TCP/IP, ICMP, ARP, FTP, DHCP, HTTP
Image compression	JPEG
Output image format	640 x 480, 320 x 240, 160 x 120 pixels
Alarm input	Non-voltage a contact input.NPN open collector input Low level. latch/momentary (500 ms or more)
	Low level circuit current 0.6 mA High level impressed voltage 3.3 V
Alarm output	NPN open collector output (allowable impressed voltage: 12 V; allowable input current: 300 mA)
Network interfaces	RJ-45 (Category 5), 10BASE-T/100BASE-TX (Auto Negotiation)
Remote control interfaces	COM1: RS-422/485 control COM2: RS-232C control or RS-422/485 COM2 $\rightarrow$ COM1 through mode.
Internal memory	2 Mbyte
Extension memory slot	CompactFlash card slot (Max. 512 Mbyte)
Internal clock backup battery	CR2032
Power supply voltage	12 V DC or 24 V AC, 50/60 Hz
Power consumption	700 mA
Operating temperature	0°C to 40°C
Weight	Approx. 1,100 g

## Dimensions (Unit: mm)





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