



V.NETWORKS VN-C2WU

INSTRUCTIONS This instruction manual is printed on recycled paper.

Thank you for purchasing the JVC VN-C2WU. To gain maximum benefit from this product, read this instruction manual carefully before use and retain it for future reference

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

For Customer Use:

Enter below the Model No. and Serial No, which are located on the rear of the cabinet. Retain this information for future reference.

Model No.

Serial No.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOIS-TURE.

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

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

Pour cause de changements de conception, les données indiquées dans ce mode d'emploi peuvent être sujettes à des modifications sans préavis.

for USA





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 equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules.

Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

INFORMATION (FOR CANADA) RENSEIGNEMENT (POUR CANADA)

This Class A digital apparatus meats all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigances du Réglement sur le matérial brouilleur du Canada.

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

- O VN-C2WU main unit
- Ferrite core
- O Instruction manual (this document)



The environment described below is necessary for operation of the VN-C2WU.

A personal computer running the following WWW browser software: WWW browser software that is compatible with JavaScript or Frame. Netscape 4.0 or higher, or Internet Explorer 4.0 or higher, is required.

CPU performance and memory capacity should be the recommended values for the WWW browser software used. To ensure the smooth display of animated images on a large screen, these values should be even larger than those recommended.

Also, images from the camera will not be correctly displayed in the 256-color mode, etc.

 In the case of Internet Explorer, an environment in which JAVA can be executed correctly is necessary.

LAN environment

The VN-C2WU operates as a web browser using HTTP protocol.

Access linking by host name is possible with an environment able to use DNS (Domain Name System).

— Caution —

The standard used for connection to the VN-C2WU is 10BASE-T.

The VN-C2WU and a personal computer can be connected directly at 1: 1 by using cross cables. (Although rare, the use of cross cables is not possible with some LAN boards.)

To ensure correct usage

- **OWhen installing, avoid the following.**
 - Locations subject to rain and water.
 - Locations where the ambient temperature exceeds the range of 0 to +40 °C.
 - Locations with vibration.
 - · Locations with excessive dust, oil or gas.
- ○When this product is used with AGC on (camera setting: Auto), sensitivity will be increased automatically in dark places and the screen may flicker in some cases. This is not a malfunction.
- ○When the color balance of this product is used with the camera setting at Auto, in some cases the recorded colors may differ slightly from the natural colors due to the principle of the automatic tracking color balance circuit.
- ○When any bright object such as a lamp, etc., is photographed, white bands may appear above and below the bright object. This is called smearing, a phenomenon caused by the characteristics of the individual pixels, and is not a malfunction.



Before starting installation and setup

It is necessary to set an IP address for each VN-C2WU unit. Use the following procedure for the setup of individual units. (If the power is not turned on, the installation operation can be performed at one time.)

1. Install the VN-C2WU.

※ Only in cases of installation in a location where the power cannot easily be turned on, complete steps 2 to 4 before installing.

- 2. Connect the VN-C2WU to a network. (With the VN-C2WU power turned on.)
- 3. Set the VN-C2WU IP address.

When setting the VN-C2WU IP address, be sure to contact the network manager for assignment or approval.

4. VN-C2WU access test.

% This test is performed after any change to confirm the IP address.

Names of VN-C2WU parts



Installation and Setup

1. Installation

Use the optional bracket for installation.

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

Caution –

To prevent the unit from falling, mount only on areas with sufficient strength. VN-C2WU can be installed as shown in the diagram below, or inverted. Do not install the unit sideways.





(1) Attach the fixer to the ceiling, etc.

(2) Mount the cover on the fixer.



(3) Mount the VN-C2WU on the fixer.

2. Connecting to a network (Ethernet, Fast Ethernet through Auto negotiation HUB).

Turn on the power of only one VN-C2WU unit.

When network connection is completed and the power is turned on, the VN-C2WU unit will be connected to the network at the following IP address.



Caution -

All VN-C2WU units are set to the same IP address at the factory; therefore, if the power of multiple VN-C2WU units is turned on at the same time, correct access will not be possible. Always turn the power on for only one unit at a time. If duplication occured, perform the proper processing, wait for 10 min. or more or turn off the power of all units on the network and then turn the power on again; otherwise, correct access will not be possible.

3. Setting the VN-C2WU IP address

3-1 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.



About the web pages mentioned in this instruction manual

From the following page, all the screens expressed as VN-C2WU pgae are contained in VN-C2WU and displayed by the web page browse and display function of the WWW browser software.

Therefore depending on WWW browser software and its settings, the formats and fonts may be different from the screens of VN-C2WU page, in this manual.

In this manual, all the screens of VN-C2WU are displayed by the web page browse and display function of Netscape.

3-2 Changing internal settings

Start the WWW browser software.

Specify the factory-set VN-C2WU web page address in the browse location in the WWW browser software. (When the factory-set IP address is specified, the WWW browser software will display the VN-C2WU top page.)



Display of the VN-C2WU top page.



The Settings page is displayed.



Scroll so that all of "Other Settings" can be seen.

Setup is performed by changing the "Other Settings" contents.

Other Settings	5	Settings		
IP Address	192.168.0.2			
Subnet Mask	255.255.255. 0 VN-C2WU			J Settings page "Other settings"
Defautl Gateway	0. 0. 0. 0			
Host Name	within 8 characters			
MAC Address	00.BB.BB.00.01.FE			
Program Version	Version 1.1			
Power Frequency	• 50 Hz	C 60 Hz		
	User Level	(confirm)		
Password (within 8 characters)	Operator Level	(confirm)		
A dministrator Level		(confirm)		
Pan/Tilt Position	🔽 Auto Refresh			
c	Click "Apply" button to enable the above settings.			

Other Settings

[IP address]

Change to an IP address assigned or approved by the network administrator.

[Subnet mask]

Like the IP address, the subnet mask is assigned or approved by the network administrator.

[Default Gateway]

Set the default Gateway IP address. 0.0.0.0 means the gateway is not used.

[Host name]

• Specify using up to 8 letters. Only in the environment to use DNS (Domain Name System) and make the access link by host name. Except for this environment, do not specify anything.

[MAC address]

This is the unique physical address of the product.

※ Cannot be changed.

Other Settings

[Program version]

The version of the VN-C2WU main unit firmware.

※ Cannot be changed.

[Power Frequency]

This setting reduces the amount of flicker under fluorescent lighting. Set to 50Hz or 60Hz in accordance with the power frequency at the installation location.

[Password]

Specify using up to 8 letters. Enter (re-enter) the same password two times in each level for confirmation purposes.

[Auto Refresh]

Specify Pan/Tilt position display in the (Control page) and (Configration page) is automatically refreshed or not.

Password function

An access protection using a password is provided to regulate connecting PCs (users) connected to the VN-C2WU. This access protection function has three levels to match the access levels. The pages that can be accessed at each of these levels are as shown below.

(Refer to page 22 for the VN-C2WU web page configuration.)

Password level	Accessible page		
User level	Still Image page and Live Image page.		
Operator level	The above pages and (Pan/Tilt) control page.		
Administrator level	The above pages and Settings page.		

Caution -

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

Other Settings		Settings		
IP Address	192.168.0.2			
Subnet Mask	255.255.255. 0			
Defautl Gateway	0. 0. 0. 0			
Host Name	within 8 characters		VN-C2WU S	ettings page "Other Settings"
MAC Address	00.BB.BB.00.01.FE	l		J
Program Version	Version 1.1			
Power Frequency	© 50 Hz	C 60 Hz		
	User Level		nfim)	
Password (within & characters)	Operator Level	(00	nfirm)	
	A dministrator Level	(00	nfirm)	
Pan/Tilt Position	🔽 Auto Refresh			
c	lick "Apply" button to enable th	e above settings.		
		[Press Apply b	outton to enable the setting.
192.11	58 . 0 [JavaScript Application] Are you sure to RESET the camera to enable th	e changes?		
		Check the ne If there is no	w IP address a mistake in the	igain. entry, click on OK.

- Caution -

The confirmation screen shown above will appear when the IP address, subnet mask, host name and power frequency settings are changed. When OK is clicked in this confirmation screen, the VN-C2WU main unit internal preset operation will be performed and the IP address, etc., will be changed. The Factory set (Default) IP address of 192.168.0.2 will become invalid, and the connection to the VN-C2WU will be no longer possible. When the WWW browser software is not operated for a certain time, a message indicating that connection is not possible will appear as a result of IP address change.

3-3 Restore to the original PC IP address

Using the same procedure as described in item 3-1, select Settings from the Start button, then select Control Panel and Network, in that order. Next, restore to the original IP address and reboot the PC in accordance with the messages.

4. VN-C2WU connection test

This test confirms whether or not each VN-C2WU web page can be displayed with the WWW browser software using the set IP address or DNS host name.

(Refer to page 20 for the VN-C2WU web page configuration.)

Caution -

In some cases, direct specification is not possible when a proxy server has been set for Internet access. In such cases, contact the network administrator and change the settings.

Also contact the network administrator and make necessary settings regarding DNS address for using DNS.



Enter the User Name and Password.

Username and Password Required	
Enter username for index-e.html at 192.168.0.2 :	
User Name: Password: OK Cancel	Enter a password. It is not necessary to enter a user name.
In order to assure quick display of the VN-C2WU v register a browse location (URL : Uniform Resource L Use Bookmarks with Netscape or Favovites with Inter	web page from the WWW browser being used, i ocator) is recommended. net Explorer for this registration.





The following is a diagram of the configuration of the VN-C2WU internal URL (web pages).



Top page: http://*****index_e.html. (***** is the URL of the VN-C2WU.) The purpose of this page is to link to each of the VN-C2WU web pages.

Welcome to the Web V.Networks	VN-C2WU top page Still image When browsing is started.
Memu Contents Still Hrage Grink a margholt. Use image View Line Images. Control II De Pau/Tit and P control. Memory. Set the resolution, compression rate, frame rate and quality. Settings LVCC (a)soppright 1999-3000 VICTOR COMPANY OF JAPAN, LIMITED. All inghts reserved.	
Buttons to link each page. (use a singal click)	

Still image page: http://*****still_e.html. (***** is the URL of the VN-C2WU)

This page is to display a still image when browsing is started. To update the image, use the Reload or Refresh function of the WWW browser software. To save the image being displayed, use the Save as... function of the WWW browser software.



Live image page: The URL will be changed automatically by the WWW browser software.

Netscape Internet Explorer http://*****/spush_e.html http://*****/jave_e.html.

(***** is the URL indicated by the VN-C2WU)

This page is to display live images. The camera images are updated automatically and displayed as live images.

Caution –

The Save as... function of the WWW browser software cannot be used with this page so do not attempt to save. The Save as... function cannot be used for the entire web page so do not attempt to save.

Caution -

Server push images are cached in the browser; therefore, operation of the browser may become sluggish after continuous use for an extended time period. In such cases, set caching by the browser to off.

Server Push Mode (320 x 240)



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Control page: The URL will be changed automatically by the WWW browser software.

Netscape Internet Explorer http://*****/spushcontrol_e.html

http://****/javacontrol_e.html.

(***** is the URL of the UN-C2WU)

This page is to control Pan/Tilt operations and to operate the position memory. The images are updated automatically and displayed as live images.

— Caution -

Perform the Pan/Tilt operations after all images have been loaded into the web browser.



Pan/Tilt control

Pan / Tilt
Pan/Tilt Angle
Pan/Tilt Can be controlled with the 8 Pan/Tilt
operation buttons.
The amount of movement for each operation of
Pan/Tilt Angle.

The Pan/Tilt position display is as shown in the illustration.



The current Pan/Tilt angle step is displayed here. Angles (integer value) can be changed by entering value and clicking on the Apply button.

Position memory movement





Position memory setting



Settings Page: The URL will be changed automatically by the WWW browser software.

Netscape Internet Explorer http://*****/spushconfig_e.html

http://*****/javaconfig_e.html.

(***** is the URL of the VN-C2WU)

This page is to make the camera image related settings and connection (setup) related settings. (The images are updated automatically and displayed as live images.)

Chelmontal/Configuration) Naticape File Site Site Site	VN-C2WU settings page
Bestands & Locator (http://132108.02/postcor/get/ml Image in the second intervence in the second intervence in the second intervence	Hyper link to other pages
	Live image.
Current pecifies. Paie-900 / Tille-9000 Auen Maanal Auto Mappy Image Belling Image Belling Compression Rate Midda Transe Rate 30 9.0 Other Balance 000 50.0 Opailty From 6.00 50.0 Opaint 100 100 Opaint From 6.00 50.0 Opaint From 6.00 50.0 Opaint From 6.00 50.0 Opaint From 6.00 50.0	VN-C2WU data display area The current Pan/Tilt position is always displayed. Warning messages for the various operations are also displayed.
Apply Default Other Stratege Problemes 192-108 - 0 - 2 Share Mark 55-255 - 55 - 0	The buttons used for the image and connection (setup) related settings are located here. Refer to the next page for details.
Default Gaterary 0.0.0.0 Fiet Name with a 1 denotes MA.C Address 0 DEB 58 000 FE	
Preprint version Version 1:1 Prever Frequency C 50 Bz C 60 Hz User Level Condition Operator Level Condition Administrator Level Condition	
Pear/Titl Pearlien Paur Title Pearlien Cists "Apply" button to enable the shore settings Apply	
(Oropyingle 199-2000 VICTOR COMPANY OF JAPAN, LIMITED. All nights reserved.	

Camera Auto/Manual Settings

				VN-C2WU settings page (Auto/manual settings)
Camera		Setting		
Auto/Manual	Auto	Apply		
			٦	
	Manual :	"Quality" in "Image Quality Setting" such		
		as Saturation and Color Balance can be		
		manually set.		
	Auto :	"Quality" in "Image Quality Setting" can be		
		automatically set.		
		Select Auto or Manual depending on		
		operational environment.		
		Click Apply after selecting Auto or		
		Manual		
		Wallual.		

Image Quality Setting

Image Resolution	Setting		VN-C2WU settings page (Image Quality setting)		
Emme Boto					
	Samution 013 0.100 Color Balance 050 0.100		Also effective when Auto is set.		
Quality	Indutors *** 0.00 Contrast *** 0.00 Data *** 0.00				
	Epona 0:00 Click "Apply" button to enable the above settings Apply	8.			
	Default				
Clickin setting (Defau	g Default returns all of the is to the factory set values ilt values).	After making Apply to char internal settir	each setting, click nge the VN-C2WU ngs.		

Image Quality menu

[Resolution]

Three different image sizes are available: 640 x 480, 320 x 240 and 160 x 120.

[Compression Rate]

The compression ratio has an inversely proportional relationship to image quality but increasing the compression ratio increases the number of frames that can be displayed per second.

Compression ratio	Low	Medium	High
Image quality	High	Medium	Low
No. of frames	Low	Medium	High

[Frame Rate]

Frame rate sets the upper limit for the number of image frames sent from the VN-C2WU per second. (fps is the abbreviation for frames per second)

Caution –

If the frame rate is not set to 1fps or less in the band below 10Mbps, the pan/tilt operations may not be possible from the control page in some cases. (ISDN 64k, 128k, analog 56k, etc., are pertinent.)

- Caution –

The number of frames actually sent and displayed per second depends on the performance of the personal computer and WWW browser software, and on the LAN environment, etc. When communication interference from processing being performed by other users is anticipated (especially in environments where the load on the network is relatively heavy), it is advisable to set a low value for the frame rate.

Quality

Image Sensor can be used when Camera Auto/Manual Setting is set to Manual. (Excluding the "Saturation" and the "Color Balance".)

Images can be adjusted by changing the detail items.

Item	Effect
Saturation	Adjustment of the color saturation. Also effective when Auto is set. (The larger the setting value, the greater the color saturation.)
Color Balance	Adjustment of the tone. Also effective when Auto is set. (50 is the median value. Decreasing the setting value emphasizes red and increasing the setting value emphasizes blue.)
Brightness	Adjustment of the image brightness. (The larger the setting value, the greater the brightness.)
Contrast	Adjustment of the contrast. (The larger the setting value, the stronger the contrast.)
Gain	Adjustment of the gain of the internal amp. (Increase the setting value when light is insufficient.)
Exposure	Adjustment of the exposure time. (The smaller the setting value, the lighter the image.)

[Other Settings]

Other Settings	:	Settings		
IP Address	192.168. 0. 2			
Subnet Mask	255.255.255. 0			
Defautl Gateway	0. 0. 0			
Host Name	within 8 characters			
MAC Address	00.BB.BB.00.01 FE			
Program Version	Version 1.1			
Power Frequency	• 50 Hz	C 60 Hz		
	User Level	(confirm)		
Password (within 8 characters)	Operator Level	(confirm)		
	Administrator Level	(confirm)		
Pan/Tilt Position	🔽 Auto Refresh			
Costs # A motor function to an effective scheme activities				
Once repping outcome of enable the above settings.				
Apply				

VN-C2WU settings page (Other Settings)

Most of the items are set during installation and setup. Refer to page 10 for details.



The still or live mages of VN-C2WU can be pasted and displayed in a separate web page you have created.

Displaying still image:

A still image can be displayed by creating a web page with the contents described below.

shows the URL indicated by the VN-C2WU.

Displaying live images:

Two methods can be used for live images: the Serverpush method and the Java method.

It is necessary to use one of these methods in accordance with the WWW browser software compatability.

Displaying with Serverpush

Live images can be displayed with Serverpush-compatible WWW browser software (Netscape) by creating a web page with the contents described below.

***** indicates the VN-C2WU IP address.

Displaying with Java

Live images can be displayed with Java-compatible WWW browser software (Internet Explorer, etc.) by creating a web page with the contents described below.

<APPLET CODE="mjpeg.class"WIDTH=640 HEIGHT=480> CodeBase=http:// ****** / "></APPLET> ****** indicates the VU-C2WU IP address.

Caution

The resolution, compression rate, etc., of both the still and live images browsed and displayed (in a separate web page are) in accordance with the previously set setting values.

Also, correct display may not be possible if Java execution is disabled with the WWW browser software.

Caution -

When a password has been set, animated images cannot be displayed with JAVA without prior confirmation.



Out of focus	Use the following procedure to adjust the focus.
	 Set both the pan and tilt positions to zero (0) degrees. Remove the lens cover. Loosen the screws fastening the lens
	block.
	Caution: For safety, turn off the power before loosening the lens block screws.
	 4. Display an VN-C2WU image with the WWW browser software. (Animated images can be displayed with the WWW browser software.) 5. Slowly rotate the lens block until the focus is correct. 6. Tighten the lens block screws. 7. Firmly attach the lens cover, making sure the cutouts in the lens cover and case are aligned.
	Lens block Mount so that the notches are aligned
	Lens cover

The new VN-C2WU IP address has been forgotten.	Unknown IP addresses are handled as re- coveries or repairs. Contact your local deal- er.
The password set with the pass- word protection function has been forgotten.	Cancellation of the password protection function is handled as a repair, so contact your local dealer. For safety, please show personal identification at that time.
The colors are unsatisfactory.	 Check the color adjustment of the displaymonitor and video card. Colors will differ slightly depending on the video card and display monitor used with the personal computer. Improvement is sometimes possible by adjusting the color setting of the display monitor. Depending on the video card used, the color can sometimes be adjusted with Screen Properties (click the right mouse button from the Desktop). Switching to True Color (24-bit) display Natural color reproduction is difficult at a setting of High Color (16-bit) or less. The use of True Color balance Color balance can be changed using VN-C2WU Setting Page → Image Quality Menu → Color Balance.

The colors are unsatisfactory.	 Try changing Camera Auto/Manual Setting on the VN-C2WU Setting Page from Auto to Manual and then back to Auto. When using a different light sources for re- cording (For example, when moving back and forth between outdoors under sunlight and in- doors under fluorescent lighting.) In some cases, time is required for the auto tracking white balance to start operat- ing. In this case, the white balance can be star- ted rapidly by temporarily changing the setting from Auto to Manual and then checking.
Image size and position change spontaneously	Whena single VN-C2WU unit is accessed by multiple operators and managers, the last setting made is the one that will be valid.



LAN standard Communication protocol Image sensor Minimum focusing distance Pan/Tilt angles	: IEEE 802. 3 standard : TCP/IP, HTTP : 1/3 inch, 300,000 pixels CMOS image sensor e : 1.0 m : Pan : 100°
Output image format Power voltage Power consumption Operating temperature Mass (weight)	Tilt : 80° : 640 X 480, 320 X 240, 160 X 120 pixels : DC 5 V : 1.4 A (max) : 0 to 40°C : Approx. 260 g

External dimensions (unit: mm)





