



FIXED IP DOME CAMERA (Vandal Resistant)
FIXED MEGAPIXEL IP DOME CAMERA (Vandal Resistant)

VN-V225VPU **READ ME FIRST**
VN-X235VPU

LST0849-001B

VN-X235VPU is a high definition surveillance camera that uses high resolution CCD sensors with 4 times the pixel count of VN-V225VPU.

Thank you for purchasing this JVC product. Before operating this unit, please read the instructions carefully to ensure the best possible performance.

■ **This manual contains the basic instructions for using this unit.** Please refer to [INSTRUCTIONS (Setting)] (pdf) and [INSTRUCTIONS (Installation)] (pdf) in the CD-ROM supplied with this product for description on the detailed usage of this unit.

For the latest information, please refer to the "README" file in the CD-ROM supplied with this product. The supplied CD-ROM includes [INSTRUCTIONS (Setting)] (pdf), [INSTRUCTIONS (Installation)] (pdf), [API Guide] (pdf), [VSIIP Guide] (pdf) and [Search tool], [White Spot Correction Tool].

■ **How to read this READ ME FIRST**

- JVC holds the copyright to this manual. Any part or all of this manual may not be reproduced without prior consent from the company.
- Windows is a registered trademark of Microsoft Corporation in the U.S.
- Product names of other companies described in this manual are trademarks or registered trademarks of the respective companies. Symbols such as "®", "™" and "©" are omitted in this manual.
- Design, specifications and other contents described in this manual are subject to change for improvements without prior notice.

■ **The latest version**

Please visit V.NETWORKS web site to check the latest firmware at <http://www.jvc-victor.co.jp/english/products-e.html>

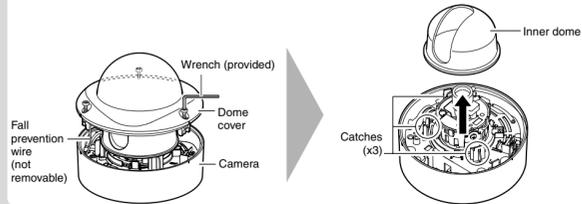
(The latest firmware can be found on V.NETWORKS → download page)

Installation

Mounting the Camera

Setting Up the Camera

- 1 Remove the dome cover with the wrench provided (Screws x3)
- 2 Grab the inner dome and remove it from the catches (x3)



Mounting the Camera

Mount the camera to the ceiling or wall.

To mount on a wall, perform the same procedures below but replace the word "ceiling" with "wall".

- 1 Use the provided template to make a ø30 mm (1-1/8 inch) hole in the ceiling.
- 2 Mount the fall prevention wire that connects the camera to the ceiling.

* Fall prevention wire is not provided. Prepare a wire with due consideration of the length, strength, pull factor and material (insulative).

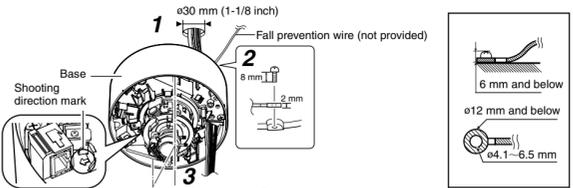
- 1 Unscrew the mounting screw for the fall prevention wire beneath the camera and mount the fall prevention wire.
- 2 Mount the fall prevention wire to a strong location.

3 Mount the camera to the ceiling

Pull out the cables from the ceiling and the cables from the camera towards the lens as shown, face the (♣) mark in the shooting direction, then mount the camera to the ceiling. To mount on a wall, mount the camera such that the (♣) mark is facing upwards.

* Screws for mounting the camera are not provided. Use the appropriate type of screws according to the material of the location for mounting.

■ **Fall prevention wire**



Note:
 • To mount the camera using electrical box or piping, please refer to (≡ [INSTRUCTIONS (Installation)]) in the bundled CD-ROM.

Cable Connection

For safety reasons, turn on the power only after all the connections are completed. When power is supplied to the camera, the [STATUS] indicator lights up. The indicator lights up in orange during startup and turns green when startup is complete.

1 Connect the alarm cable

Connect the alarm cable to an external device, such as a sensor or buzzer.

Alarm cable to use (Recommended shield cable)
• Length of 50 m or shorter
• UL1007, UL1015 or equivalent products
• AWG#22 to AWG#18 or equivalent products

2 Connect to audio cable (Recommended shield cable)

* To use the PoE power supply, connect to a PoE-compatible device and supply the power from the LAN cable.

Note:
 • When using a heater unit (sold separately: KA-ZH215U), PoE power supply does not work for the heater unit (KA-ZH215U). Be sure to use an AC 24 V power supply.

- Connecting to HUB : Use a straight cable
- Connecting to a computer : Use a cross cable

LAN cable to use
• STP (Recommended shield cable)
• Length of 100 m or shorter
• Category 5 and above

4 Connect the power cable

Power can be supplied to this unit either by connecting to an AC 24 V power supply or using PoE. (To use PoE ≡ [3 Connect the LAN cable])

- Note:**
- The power supply cable includes cable of the same color as the alarm cable. Check properly before connecting.
 - Make sure that power is supplied using only one of the above methods at any one time. Connecting simultaneously using the power cable and to PoE via a LAN cable may cause the camera to break down or malfunction.
 - By default the IP addresses of all the cameras are set to 192.168.0.2. If the power of multiple cameras within the same LAN environment are turned on at the same time, the IP addresses of the cameras overlap, thus preventing proper access. As such, make sure to turn on the power of the cameras one by one and set the IP addresses such that there is no overlapping.

■ **Type of cable**

Type	Color	Signal Name		
Alarm cable	Black (shielded cable)	Red	Alarm input 1	
		Brown	Alarm input 2	
		Orange	Alarm output 1	
		Yellow	Alarm output 2	
		Black	GND	
Audio cable	Brown (shielded cable)	White	MIKE IN	
		Yellow	GND	
		Black (shielded cable)	White	LINE OUT
		Yellow	GND	
Power cable	Red (unshielded cable)	AC 24 V Power Supply		
	Black (unshielded cable)			

■ **Power cable Connection distance when using 2-core VVF cable (Reference values)**

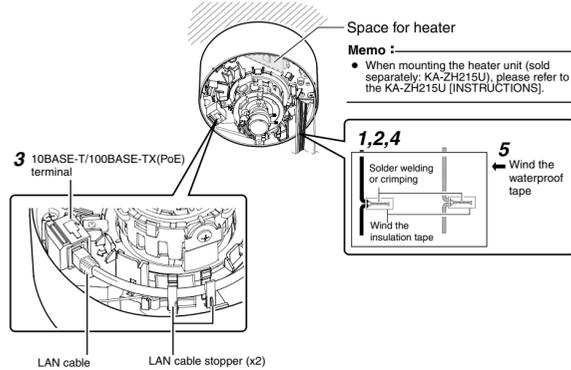
Conductor diameter (mm)	ø1.0 and above	ø1.6 and above	ø2.0 and above
Maximum connection distance (m)	130	340	540
Maximum connection distance (m) with Heater (KA-ZH215U)	40	120	180

Caution

The rated power of this product is AC 24 V, 50 Hz/60 Hz. Make sure to use it with the correct voltage. Be sure to use an AC 24 V supply that is insulated from the primary power source. Supplying a power beyond the rated value may result in failures, smoke or fire. If the camera breaks down, turn off the power and contact our service center immediately. When a power beyond the rated value is supplied, the internal components may be damaged even if no abnormality is found on the appearance and operation of the camera. Please send to your nearest JVC dealer immediately for servicing (charged separately).

5 Wind the waterproof tape

Note:
 • For cables that are not used, be sure to wrap the ends individually with insulating tape.



Processes after connection

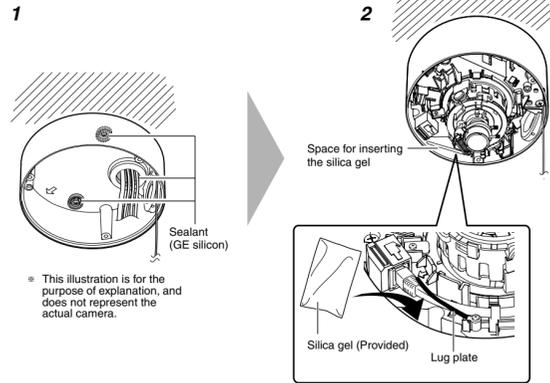
Fill up the piping hole and mounting hole with sealant and insert the silica gel.

- 1 Use sealant (GE silicon) to fill up the mounting holes (x2) to which the piping hole and screws are mounted

Note:
 • Please make sure the holes are completely sealed up. Water or moisture may seep in and fog up the lens and dome cover.

2 Insert the silica gel (provided)

Note:
 • Please make sure that rain does not seep into this unit when mounting on rainy days.
 • Be sure to use the silica gel (provided). Failure to do so may fog up the camera lens and dome cover.
 • If field angle is not adjusted immediately after mounting the camera, insert the silica gel (provided) after adjustment. The silica gel (provided) will lose its effectiveness if it is exposed to the air for a long time.



Adjusting Images

When the camera is mounted, adjust the image settings while looking at the actual image. Before touching the body of the camera, make sure to touch the metal surface of the [MONITOR] terminal to discharge the static electricity from your body. The static electricity may cause the camera to malfunction.

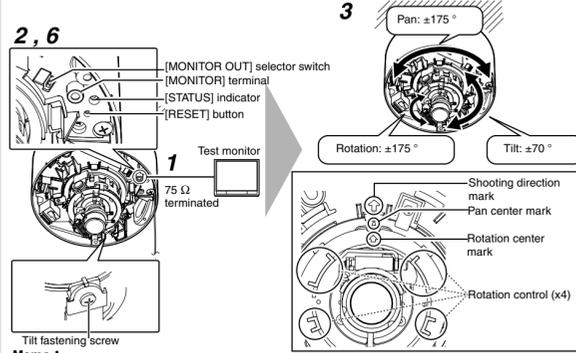
1 Connect the [MONITOR] terminal to the test monitor

2 Set the [MONITOR OUT] selector switch to "N" or "P", turn on the power or press and hold the [RESET] button for less than 2 seconds

- The camera reboots. (approximately 1 minute)
- During the restart, the [STATUS] indicator lights up in orange.
- Set to "N" when connecting to a NTSC monitor or set to "P" when connecting to a PAL monitor.

3 Adjust the shooting direction of the camera

Adjust the camera for pan, tilt and rotation, and face the camera towards the subject.



Memo:
 • Rotate both pan and rotation ±175° from the positions aligned with the camera's shooting direction mark, pan center mark and rotation center mark. Be sure to hold the rotation control and adjust the rotation without holding the lens section.
 • After adjusting the field angle, tighten and secure the tilt fastening screw so that the field angle will not be misaligned.
Note:
 • Moving the camera when it has exceeded the adjustment range may cause its performance to deteriorate.
 • As the tilt and rotation range of this unit is wide, part of this unit may be reflected in the shooting screen depending on the field angle and direction.
 • Do not hold the lens section when adjusting the camera direction. The lens section may be damaged if you apply force to it.

4 Adjust the image size

Loosen the fastening screw of the zoom adjustment ring, move the ring to the left and right to adjust the image size. After adjusting, fasten the screw with pressing it slightly toward the lens direction (toward the shooting direction).

5 Roughly adjust the focus

- 1 Lift the focus adjust gear knob, and place the catch into B in the diagram
 - The gear is disengaged.

Note:
 • If the gear is moved outwards from B, the shaft of the gear may shift. For details on how to return the gear to the original position, refer to (≡ [INSTRUCTIONS (Installation)]) in the supplied CD-ROM.

- 2 Loosen the fastening screw of the focus adjustment ring, move it to the left and right to adjust the focus.

6 Fine adjust the focus

- 1 Press the [RESET] button for more than 2 seconds but less than 5 seconds.
 - The camera enters the focus adjust mode and the [STATUS] indicator blinks in green and orange alternately.
 - The image is sharpened with the opening of the lens iris.
 - The center of the image is enlarged. (VN-X235VPU only)
 - After adjusting the focus, press the [RESET] button for more than 2 seconds but less than 5 seconds to release the focus adjust mode.

2 Shoot the subject

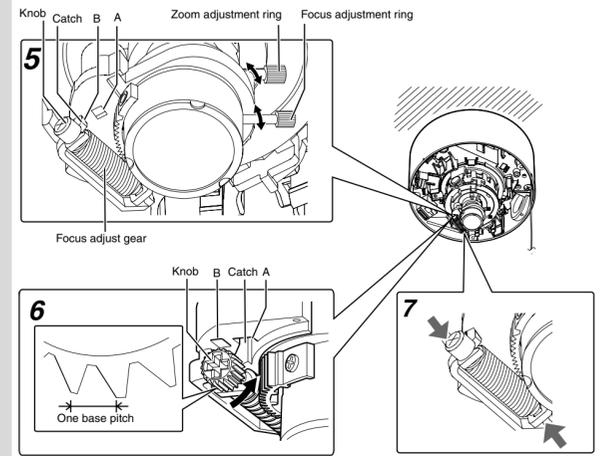
- 3 Fine adjust the focus
 - Return the catch to A in the diagram, and then rotate the knob to adjust the focus to the optimum position.

- 4 Rotate the focus adjust gear knob about one base pitch in the direction of the arrow in the diagram.
 - This is to correct the focus shift when mounting the dome cover.

- 5 Hold the dome cover over the lens and check the focus

- 7 Hold and press the focus adjust gear between your fingers in the direction of the arrows in the diagram, and tighten the fastening screw of the focus adjustment ring

- 8 Set the [MONITOR OUT] selector switch to "OFF", then press the [RESET] button shortly (less than 2 seconds)
 - The camera restarts, and the focus assist mode is released.

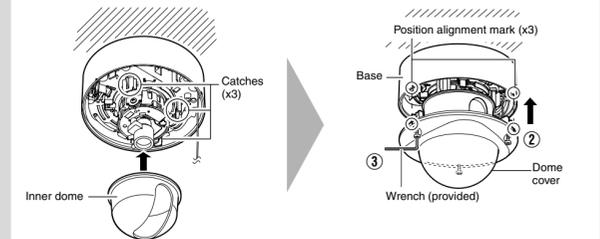


Mounting the Dome Cover

- 1 Mount the inner dome to the catches (x3)

2 Mount the dome cover

- 1 Remove and clean any dust or dirt on the dome cover.
- 2 Align the base with the position alignment marks (x3) on the dome cover and mount the dome cover.
- 3 Tighten and secure the dome cover fastening screws (x3).



Note:
 • Check that the silica gel (Provided) has been inserted before mounting the dome cover.
 • Ensure that the dome cover is secured. Insecure mounting may increase humidity, fog up the camera or the cover may drop.
 • When the cover is removed again after mounting the dome cover, check the field angle and re-adjust the focus and field angle if necessary.
 • Make sure that the fall prevention wire of the dome cover is not caught between the dome cover and the base. Otherwise, the anti-dust and waterproof function may not work properly.

Continued

Setting

IP Address Settings

This section is a description based on Windows XP.

IP address setting procedure

Follow the procedure below to configure the IP address of the camera.

Step1 IP address setting at the computer

Set the IP address of the computer that is used for configuring the camera settings.

Step2 Internet Explorer settings

Configure the Internet Explorer settings in order to establish connection between the computer and the camera.

Step3 Connecting the camera to the computer

Connect the computer to the camera.

Step4 IP address setting for the camera

Set the [IP Setting] item on the [Basic Settings1] screen to "DHCP Disable" or "DHCP Enable".

Step1 IP address setting at the computer

Camera at factory default is set to "DHCP Disable" (DHCP client function is Off), it will activate under the following IP address after startup. Set the computer to an IP address that enables communication with the following. (For example, set the IP address to 192.168.0.100 and subnet mask to 255.255.255.0)

IP address : 192.168.0.2
Subnet mask : 255.255.255.0
Default gateway : None

IP address setting at the computer

Set the computer to an IP address that enables communication with the camera.

1 Click [Start]

Select in the sequence of [Control Panel]–[Network Connection]–[Local Area].

Windows Vista:

Select in the sequence of [Settings]–[Control Panel]–[Network and Sharing Center]–[Manage network connections].

2 The computer on which Internet Explorer is launched automatically selects the connected network

Right-click and select [Properties].
Check to ensure that the [Client for Microsoft Networks] and [Internet Protocol(TCP/IP)] check boxes are selected.

Windows Vista:

Check to ensure that the [Microsoft Network Client] and [Internet Protocol Version 4(TCP/IPv4)] check boxes are selected.

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

Windows Vista:

Select [Internet Protocol Version 4(TCP/IPv4)] and click [Properties]

4 Set the IP address

1 Select [Use the following IP address].

2 Specify the [IP address]. (For example, use 192.168.0.100 when the camera is in its default settings.)

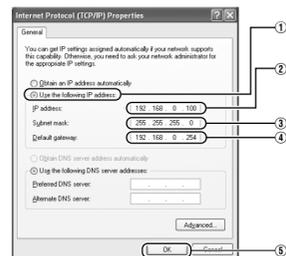
Memo :

Make sure that you take note of the original IP address before altering.
Ensure that a duplicate IP address is not specified within the same network environment.

3 Set [Subnet mask] to a value that is appropriate for the setting operation. Consult the network administrator if you have any queries. (Use 255.255.255.0 when the camera is in its default settings.)

4 When a [Default gateway] is present, make use of the corresponding IP address (e.g., 192.168.0.254).

5 Click [OK].



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

Step2 Internet Explorer settings

1 Launch the Internet Explorer on the computer

2 If proxy settings are enabled in the Internet Explorer, follow the steps below to disable the proxy of the Internet Explorer

Select in the order of [Tool]–[Internet Options]–[Connections]–[LAN Setting], followed by deselecting the check for [Use a proxy server for your LAN] under [Proxy Server] of the [Local Area Network (LAN) Settings] window.

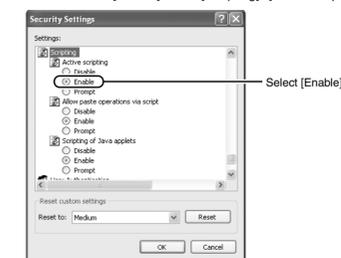


3 If the active script of the Internet Explorer is disabled, follow the steps below to enable it

Select [Trusted sites] under [Tool]–[Internet Options]–[Security]. Upon doing so, the [Sites...] button directly below becomes active. Click this button, deselect the check in the displayed window, and add the following web site to the zone.

http://192.168.0.2 (When the camera is in its default settings)

Next, select [Trusted sites] under [Tool]–[Internet Options]–[Security], and press the [Custom Level] button. Select [Enable] under [Scripting]–[Active script] of the [Security Settings] window that is opened.



4 If ActiveX controls and plug-ins of the Internet Explorer is disabled, follow the steps below to enable it

Click [Trusted sites] under [Tool]–[Internet Options]–[Security]. Select the [Custom Level] button to open the [Security Settings] window. Set all items under [ActiveX controls and plug-ins] in the opened window to [Enable]. Enable also [Allow Script-initiated window without size or position constraints] under [Miscellaneous].



5 Disable pop-up block

Connection of the camera cannot be established when pop-up block in the Internet Explorer is set to "Enable". Follow the steps below to set the pop-up block to "Disable".

Selecting [Tool]–[Pop-up Blocker]–[Turn Off Pop-up Blocker] permits all sites.
To allow only specific sites such as this unit, select [Tool]–[Pop-up Blocker]–[Turn Off Pop-up Blocker], followed by selecting [Tool]–[Pop-up Blocker]–[Pop-up Blocker Settings], which becomes active to open the [Pop-up Blocker Settings] window.
In the opened window, add the address of the camera as a permitted web site address.

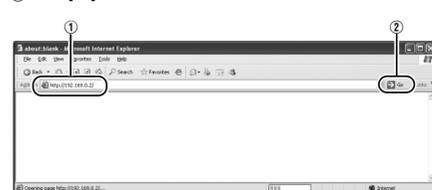
6 When plug-in tools such as the Yahoo or Google toolbar are included in the Internet Explorer, disable the pop-up block function of these plug-in tools as well

Step3 Connecting the camera to the computer

1 Launch the Internet Explorer

1 Enter the IP address of the camera. (http://192.168.0.2, for example)

2 Click [Go].



Memo :

If the proxy server settings for access to the Internet via the Internet Explorer is enabled, you may not be able to specify the IP address directly. In this case, change the proxy settings of the Internet Explorer.

To open the [Basic Settings1] page without going through the built-in viewer, enter the URL in the [Basic Settings1] page in the address field of the Internet Explorer.

VN-V225VPU:
http://192.168.0.2/cgi-in/v225display.cgi?v225basicmenu1.html
VN-X235VPU:
http://192.168.0.2/cgi-in/x235display.cgi?v235basicmenu1.html

After the [Security Settings] screen appears, press the [OK] button to proceed.

If the IP address is unknown

IP address settings cannot be changed by accessing via a computer when the IP address of the camera is unknown.

You can use the following method to identify the IP address.

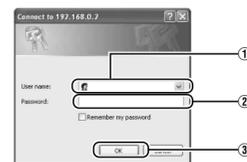
Search using the "Search tool" inside the "TOOL_E" folder of the supplied CD-ROM.
For details on "Search tool", please refer to the "README" file in the CD-ROM supplied with this product.

2 Enter the user name and password (login as administrator)

1 Enter the user name. This is set to "admin" by default.

2 Enter the password. This is set to "jvc" by default.

3 Click [OK].



Memo :

After the [Security Settings] screen appears, press the [Yes] button to proceed.

3 Built-in Viewer and the operator password entry screen appear

1 Enter the Operator Password. (default password is "jvc")

2 Click [OK].



Step4 IP address setting for the camera

1 Click [Details] of the Built-in Viewer



2 The [Basic Settings1] screen appears

1 Specify the [IP Setting].

When selecting "DHCP Disable":

Select "DHCP Disable" from [IP Setting] item of the camera, and specify a value in the [IP address], [Subnet Mask] and [Default Gateway] fields.

When selecting "DHCP Enable":

The default setting is "DHCP Disable" (DHCP client function is off).

To assign an IP address from the DHCP server, connect the camera to a LAN where the DHCP server exists.

For details on the IP address assigned to the camera, consult your network administrator.

2 Specify the [Time Zone].

3 Click [OK].



[Basic Settings1] screen

Note:

Set the DHCP server such that the same IP address is always assigned to the MAC address of the camera by the DHCP server. Connection may fail if the above setting is not performed.

3 A confirmation screen appears

Click [OK].

The camera restarts using the new IP address. It takes about one minute for the camera to restart.

Memo :

Access from this computer may fail when the IP address of the camera is changed. To enable access to this unit from the same computer, alter the IP address of the computer accordingly.

When the display or configuration of the opened screen appears strange, check the computer settings using the following procedures.

1 Click [Start]–[Control Panel]–[Display] and open the [Display Properties] window

2 Click the [Settings] tab in the [Display Properties] window, followed by the [Advanced] button

3 Check that [DPI setting] in the [General] tab has become [Normal size(96DPI)]

4 Otherwise, change the setting to [Normal size(96DPI)] and reboot Windows

Setting Using Internet Explorer

Configure the picture quality setting, alarm setting and other settings using the Internet Explorer.
For details, please refer to [INSTRUCTIONS (Setting)] (pdf) in the supplied CD-ROM.

Operating the Built-in Viewer

With the built-in viewer, you can monitor JPEG and MPEG4 images and audio.

And on VN-X235VPU, you can perform PTZ operation and configure PTZ related settings.

For details, please refer to [INSTRUCTIONS (Setting)] (pdf) in the supplied CD-ROM.

Operating Environment

Recommended Computer Specifications

OS	: Windows XP (Professional or Home Edition) (SP2) Windows Vista Business (SP1)
CPU	: Pentium4 1.5 GHz or higher (VN-V225VPU) Pentium4 2 GHz or higher (VN-X235VPU)
Memory capacity	: 1 GB and above
Free hard disk space	: 512 MB or more
Display and video card	: 1024 × 768 pixels or higher (VN-V225VPU), 1600 × 1200 pixels or higher (VN-X235VPU), True Color (24 bit or 32 bit) VRAM 8 MB or more (256 MB and above recommended)
Web browser	: Internet Explorer XP : Version 6.0 Vista : Version 7.0

LAN Environment

- 10BASE-T/100BASE-TX network interconnected using devices such as an IEEE802.3-compliant switching hub.
- IEEE802.3af-compliant switching hub when PoE is used
- IGMPv2-compliant network when multicast is in use.

Memo :

To use MPEG4 images on the built-in viewer, install the open source codec "ffdshow". You can download "ffdshow" from the Internet. JVC is not responsible for any damages resulting from your use of open source software.

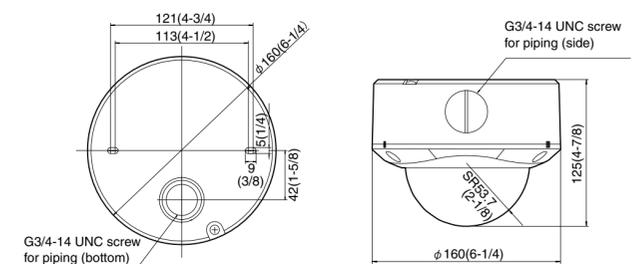
Specifications

Supply voltage	: AC 24 V 50 Hz/60 Hz or PoE (DC -48 V) AC 24 V 50 Hz/60 Hz (when KA-ZH215U is in use)
Current consumption	: AC 24 V 0.35 A, PoE 7.0 W AC 24 V 1.0 A (when KA-ZH215U is in use)
Mass	: Approx 1.3 kg (2.87 lbs)
Ambient temperature	: -10 °C to 50 °C (operation) 0 °C to 40 °C (recommended) When KA-ZH215U is in use : -30 °C to 50 °C (operation) -20 °C to 40 °C (recommended)
Ambient humidity	: 35 % RH to 90 % RH (without condensation)

Accessories

- SAFETY PRECAUTIONS
- Read Me First
- CD-ROM
- Warranty Card (For USA)
- Service Information Card (For USA)
- Template
- Wrench
- Silica gel

Dimension [Unit: mm (inch)]



* Specifications and appearance of this unit are subject to change for further improvements without prior notice.