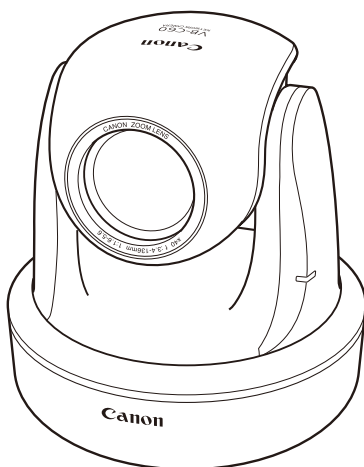


NETWORK CAMERA**VB-C60****Start Guide****ENG**

Be sure to read *Start Guide* and *Operation Guide* before using. In particular, be sure to read the "Safety Precautions" section and use the camera correctly. Keep this guide in a readily accessible location for future reference.

Introduction

Thank you for purchasing Canon Network Camera VB-C60/VB-C60B (hereafter referred to as VB-C60).

The only difference between VB-C60 and VB-C60B is the exterior color.

This *Start Guide* describes the initial settings and mounting method of the VB-C60. The detailed procedures for using the VB-C60 are explained in the *Operation Guide* provided on the bundled Setup CD-ROM. Read these guides carefully before using the VB-C60 to ensure that you make the best possible use of this product. Also, be sure to read "Safety Precautions" in this guide.

For the latest information on this product (firmware, bundled software, operation manuals, operating environment, etc.), visit our website.

For the latest information, please refer to Canon Web Site.

Disclaimer

To the full extent permitted by laws and regulations, neither Canon Inc. nor any of its subsidiaries or affiliates shall be responsible for any financial losses that may be incurred as a result of the loss of recorded information or images, regardless of the internal or external cause of the loss.

EXCEPT AS SET FORTH IN THE LIMITED WARRANTY ACCOMPANYING THE CAMERA AND WITHOUT DETRACTING FROM ANY RIGHTS A CONSUMER MAY BE ENTITLED TO, AND TO THE FULL EXTENT PERMITTED BY LAWS AND REGULATIONS: (1) NEITHER CANON INC. NOR ANY OF ITS SUBSIDIARIES OR AFFILIATES MAKE ANY WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE MATERIAL IN THIS MANUAL OR WITH REGARD TO THE USE OF THE CAMERA INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES AS TO MARKETABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, OR NON-INFRINGEMENT AND (2) NEITHER CANON INC. NOR ANY OF ITS SUBSIDIARIES OR AFFILIATES SHALL BE LIABLE FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE RESULTING FROM THE USE OF THIS MATERIAL OR THE CAMERA.

Notes on Network Security

The user is responsible for the network security of this product and its use.

Take appropriate network security measures to avoid security breaches.

To the full extent permitted by laws and regulations, neither Canon Inc. nor any of its subsidiaries or affiliates shall be liable for any losses, direct, incidental or consequential damages, or liabilities that may be incurred as a result of network security incidents such as unauthorized accesses.

<Network Security Recommendations>

- Change the password of the camera periodically.
- Change the HTTP or HTTPS port number of the camera.
- Limit access to the camera by network devices.

Copyright

Videos, images or sounds recorded with your VB-C60 may not be utilized or published, without consent of copyright holders, if any, except in such a way as permitted for personal use under the relevant copyright law.

Notes

1. All rights reserved.
2. The contents of this guide are subject to change without any prior notice.
3. This document has been prepared with utmost attention to accuracy. If you have any comment, however, please contact the Customer Service Center indicated on the back cover.
4. Canon shall assume no liability for any outcome of using this product, regardless of Items 2 and 3 above.

Notes on privacy and publicity rights regarding the utilization of video/audio

When using the VB-C60 (for video or audio recording), it is the responsibility of the users to take all care to protect privacy and avoid any violation of publicity rights. Canon shall have no liability whatsoever in this regard.

Reference

- Please be sure to gain approval of the building management office before installing a camera, if copyrighted architectural structures or copyrighted premises are appear in the frame.

Legal Notice

In some countries or regions, monitoring via a camera is banned by the law or regulation, and the law or regulation depends on the country or region. Before using the VB-C60, confirm the law or regulation of the country or region where the camera is used.

Trademark Notice

- Canon and the Canon logo are registered trademarks of Canon Inc.
- Microsoft Windows and Microsoft Internet Explorer are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
- Windows is legally recognized as the Microsoft Windows Operating System.
- Other brands or product names in this guide are trademarks or registered trademarks of their respective companies.



Warning

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

Notes on Use of Bundled Software RM-Lite (Disclaimer)

Malfunction, failure of RM-Lite or other factors may cause problems, such as recording failure, recorded data corruption or loss. Canon shall have no liability whatsoever for any loss or damages incurred by the user as a result of such problems.

Notes on License Agreement for Bundled Software


See the following files in the BundledSoftware folder inside the LICENSE folder of the bundled Setup CD-ROM for information regarding the license agreement for bundled software.

Software Type	File Name
VB Initial Setting Tool, VBAdmin Tools	VBTools.txt
Network Video Recording Software RM-Lite	RM-Lite.txt

European Union (and EEA) only.



These symbols indicate that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC), the Battery Directive (2006/66/EC) and/or your national laws implementing those Directives.

 This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE) and batteries and accumulators. Improper handling of this type of waste could have a possible impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE.

Your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about the recycling of this product, please contact your local city office, waste authority, approved scheme or your household waste disposal service or visit www.canon-europe.com/environment.

(EEA: Norway, Iceland and Liechtenstein)

MPEG-4

NOTICE ABOUT THE MPEG-4 VISUAL STANDARD: THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD ("MPEG-4 VIDEO") AND/OR (ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL AND COMMERCIAL USES AND ADDITIONAL LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpeg-la.com).

This product is licensed under AT&T patents for the MPEG-4 standard and may be used for encoding MPEG-4 compliant video and/or decoding MPEG-4 compliant video that was encoded only (1) for a personal and non-commercial purpose or (2) by a video provider licensed under the AT&T patents to provide MPEG-4 compliant video. No license is granted or implied for any other use for MPEG-4 standard.

Open Source Software

The product (VB-C60 and bundled RM-Lite Viewer) contains Open Source Software modules. See OpenSourceSoftware.pdf on the bundled Setup CD-ROM for details. Each module's license conditions are also available in the License folder on the same Setup CD-ROM.

Software under GPL and LGPL

If you would like to obtain the source code under GPL/LGPL, please contact the dealer where you purchased the product, or a sales agent.

Security Export Control

This product is subject to security export control. Therefore, to export or carry it overseas may require an authorization by governmental agencies.



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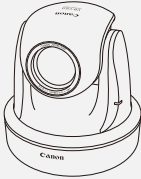
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Checking of Bundled Items

This product comes with the following items. If any item is missing, contact the store where you purchased the product.

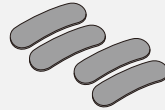
1. VB-C60 or VB-C60B Camera



2. Power connector



3. Rubber feet (4 pcs)



4. Setup CD-ROM



5. Start Guide (This document)

6. Warranty Card

Content of Setup CD-ROM

DOC	: Folder containing operation manuals other than this document, notes, and others*
APPLICATIONS	: Folder containing the installers for bundled software (two installers specified below)*
VBToolsInstall.exe	: Installer for VB Initial Setting Tool and VBAdmin Tools*
RMLiteInstall.exe	: Installer for Network Video Recording Software RM-Lite*
LICENSE	: Various license folder
BundledSoftware	: Folder containing license terms for the software built into the camera*
OpenSourceSoftware	: Folder containing license terms for the software bundled with the camera*
SOUND	: Folder containing sample audio files

* Check our website for the latest versions of bundled software and operation manuals.

* For the latest information, please refer to Canon Web Site.



Note

VB-C60B is a black model. Use VB-C60B if you want to install the camera using the optional indoor dome housing (→ P. 1-21). You can reduce the reflection of the lens ring (periphery) inside the shooting window of the camera.

Operation Manuals

The VB-C60 comes with *Start Guide* (this document) and *Operation Guide* included in the Setup CD-ROM.

Start Guide (This Document)

The safety precautions to be followed when using the VB-C60, types of bundled software, operating environment, mounting method, initial setting of the camera, etc., are explained.

Operation Guide (VBC60OG_E.pdf)

This document explains the basic setup procedure for the VB-C60, how to use VAdmin Tools and VB-C60 Viewer, troubleshooting, etc. *Operation Guide* can be found on the Setup CD-ROM. References to *Operation Guide* will be given as follows.

Example: →"Setting Menu" in *Operation Guide*

Also, Setup CD-ROM contains the RM-Lite (→ P. 1-7) of the simplified recording software. The following operation manuals are available for RM-Lite.

Administrator's Manual (RM10AM_E.pdf)

This document explains the items to note when using RM-Lite, as well as operating environment requirements, system configuration, installation and setup methods, and other details on how to use the software. Be sure to read this document.

Viewer Operation Guide (RM10VOG_E.pdf)





This document explains a basic operation of the RM-Lite viewer. For the detailed operating procedures of the viewer, see *Administrator's Manual*.

How to Read This Document

The screenshots used in the *Start Guide* and *Operation Guide* are mainly from Windows Vista and Windows 7. Unless otherwise specified, the same screens apply for other operating systems.

Symbols Used for Safety Precautions

The symbols used in this document are explained. This document uses the following symbols to indicate the important information the user should know in order to use the product safely. Be sure to observe these items.

Symbol	Meaning
 Warning	Inappropriate handling against the instruction accompanied by this symbol may result in death or injury. Be sure to observe this precaution to use the product safely.
 Caution	Inappropriate handling against the instruction accompanied by this symbol may result in injury. Be sure to observe this precaution to use the product safely.
Note	Inappropriate handling against the instruction accompanied by this symbol may result in property damage. Be sure to observe these precautions.
 Note	This symbol indicates other action or item that requires attention.
 Tip	Supplementary information or a reference to the operation is explained. Users are recommended to read these memos.

Safety Precautions

The following explains the items that must be observed when using the VB-C60.

If they are not observed, injury, death and/or property damage may occur. Read the following information carefully and observe the instructions without fail.

Important Warnings

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 AC adapter can be connected to VB-C60 from a standard AC power outlet. Please check your instruction manual to make sure that your VB-C60 is compatible with this adapter.

- **The socket-outlet should be installed near the equipment and should be easily accessible.**
- **Unplug the equipment from the wall outlet before cleaning or maintaining.**

FDA regulation

This Network Camera has not been evaluated by the Food and Drug Administration (FDA) for use as a medical device. When incorporated into a system with medical applications, FDA regulations may apply. Therefore, please consult your legal advisor to determine whether FDA regulations apply.



АЯ46

FCC NOTICE

Network Camera, Model Name: VB-C60

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the equipment and receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced radio/TV technician for help.**

Use of shielded cable is required to comply with class B limits in Subpart B of Part 15 of FCC Rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Canon U. S. A. Inc.

One Canon Plaza, Lake Success, NY 11042, U. S. A.

Tel No. (516) 328-5600

Canadian Radio Interference Regulations

This Class B digital apparatus complies with Canadian ICES-003.

Precautions for Installation

Warning

Do not install the product in the following places:

- Place receiving strong direct sunlight, near heat generating objects, or subject to high temperature
- Place near fire sources or flammable solvents (alcohol, thinner, etc.)
- Humid or dusty place
- Place subject to lamp black or steam
- Place subject to sea wind
- Narrow, sealed place

Fire or electric shock may result.

Note

For installation or inspection of the VB-C60, consult/request the store where you purchased the product.

- Wire the VB-C60 power supply, network, or other cables safely and securely according to the relevant regulations such as technical standards for electrical installations.
- When installing the VB-C60, select a ceiling surface, etc., capable of withstanding the total weight of the camera and all options used (Recessed Mounting Kit), provide sufficient reinforcements and use the bundled safety wire if necessary.
- To prevent injuries and equipment damage due to falling items, periodically check the brackets and screws for rusting and loosening.
- Installation in a place subject to significant vibration is not recommended, because it may cause the equipment to malfunction.
- Do not hold the camera head when carrying the network camera.
- Do not install the VB-C60 on an unstable or inclined surface.

Malfunction may result.

Precautions for Use

Warning

- If smoke, abnormal noise, heat, odor or any other abnormality is detected, immediately stop using the camera and contact your nearest Canon dealer.

Continuing to use the product may result in fire or electric shock.

- Do not disassemble or modify the camera.
- Do not put water or other liquid in the camera or splash or otherwise wet the camera.
- Do not put foreign objects in the camera.
- Do not use sprays of flammable gases near the camera.
- When the camera is not used for a long period, disconnect the LAN cable, external power supply and power connector for AC adapter (optional) from the camera.

Fire or electric shock may result.

Note

- Do not use this camera for medical devices and other systems that affect human life.

Delayed or missing image transmission may occur depending on the PC and network environment, and thus high image transmission accuracy cannot be assured.

Canon will assume no liability for any accident or damage resulting from use of the VB-C60 in the aforementioned devices or systems.

- Do not capture the sun, halogen lamps and other very bright light sources or subjects.
- Do not apply strong impact or vibration to the VB-C60.

Malfunction may result.

This installation should be made by a qualified service person and should conform to all local codes.

Notes on Use of Motion Detection, Stream for Recording and Bundled Recording Software RM-Lite

Note

- Avoid using Motion Detection, Stream for Recording or recording software RM-Lite for surveillance where very high level of reliability is constantly required.

These are support functions for monitoring. They do not guarantee monitoring with very high accuracy, however, as they might not work as accurately as expected under certain conditions. Canon will assume no liability for any accident or damage resulting from use of these functions.

Precautions for Use of Optional AC Adapter PA-V17

Warning

- Do not use any AC adapter or AC cable other than the dedicated AC adapter or AC cable.
- Do not put heavy objects on the power cable.
- Do not pull, forcibly bend, scratch or modify the power cable.
- Do not cover or wrap the AC adapter (optional) with a cloth or thick cotton blanket.

Fire or electric shock may result.

Be sure to read the operation manual for PA-V17 before use.

Notes on Cleaning

Warning

- Do not use alcohol, thinner, benzene or any other flammable solvent.

Fire or electric shock may result.

Maintenance

Turn off the power before cleaning the camera (→ P. 2-6).

■ Cleaning of Exterior

1. Dampen a soft cloth with water or diluted neutral detergent and wipe the soiled areas gently.
2. Wipe with a dry cloth.

■ Cleaning of Lens

Use a commercial lens cleaner to remove soiling on the lens surface.

- Auto focus may not work properly if the lens surface is dusty or dirty.
- Scratches on the lens surface may result in undesirable images.

■ Maintenance for Indoor Dome Housing (Optional)

A soiled dome case is a cause of poor image quality, so clean the dome periodically.

1. Remove the dome by referring to steps 9 and 10 (→ P. 2-24) of the dome housing installation procedure.
2. Dampen a soft cloth with water or diluted neutral detergent and wipe the soiled areas gently.
3. Wipe with a dry cloth.
4. Install the dome by referring to steps 9 and 10 (→ P. 2-24) of the dome housing installation procedure.

To prevent injuries and equipment damage due to falling items, periodically check the brackets and screws for rusting and loosening.

For checkups, please contact the dealer where you purchased the product.

■ Maintenance for Ceiling Mount Cover (Optional)

To prevent injuries and equipment damage due to falling items, periodically check the brackets and screws for rusting and loosening.

For checkups, please contact the dealer where you purchased the product.



Before Use

The following explains the features of this camera, bundled software, operating environment, and name and function of each part.



Features of VB-C60

The VB-C60 is a compact network camera integrating camera and server features.

■ Optical 40x Zoom Lens with Auto Focus and Pan and Tilt functions

Equipped with a lens with optical 40x zoom (digital 4x), VB-C60 achieves video monitoring in wide-ranging applications including in indoor locations such as stores and offices, as well as in outdoor areas such as parking lots and plant facilities. Also, the auto focus function and the pan and tilt functions that let you move the camera in left/right and up/down directions allow for easy adjustment of viewing angle at the time of installation. These functions are also convenient when the camera is operated remotely to monitor the condition.

■ High Quality Video of Moving Subjects

The VB-C60 utilizes a progressive-scan CCD to allow for the capture of noise-less, high quality video of moving subjects.

■ Capturing Color Images at 0.7 lux and Day/Night Automatic Switching

The camera can capture color images at the minimum subject illumination of 0.7 lux (1/30 sec.) Also, the day/night automatic switching function* (→"Day/Night" in *Operation Guide*) automatically switches the camera between the color mode during daytime when sufficient light is available and the black & white mode during nighttime when it is dark, in order to support video monitoring in locations where illumination changes.

* Before enabling day/night automatic switching, thoroughly check the operation.

■ Simultaneous Distribution of JPEG and MPEG-4

Video compression adopts JPEG/MPEG-4 to achieve high image quality/high frame rate of up to 30 frames per second*¹ in VGA (640 x 480). Up to 30 clients*² can view the same video simultaneously.

*¹ Note that the frame rate may drop depending on the performance of the viewer PC, number of clients connected at the same time, network load, etc.

*² In MPEG-4, up to 10 clients can be connected at the same time.

■ Multi-Streaming

In JPEG, image can be distributed in three sizes (640 x 480, 320 x 240, 160 x 120) at the same time.

■ Smart Shade Control

When the background is bright and the subject is difficult to see, you can change the contrast of dark areas to make the subject clearer. Unlike the backlight compensation, blown out of the background can be prevented because bright areas are not controlled. These processes are implemented by the dedicated hardware in the camera, so drops in image quality can be reduced and system load can be decreased compared to when the conventional shade control is used. See "Setting the Smart Shade Control" (→ *Operation Guide*).

■ Image Stabilizer

This function compensates for shaking of image due to vibration when the camera is installed on the ceiling, on a pole, etc. See "Camera Control" (→ *Operation Guide*).

* It does not work against significant vibration exceeding a certain level or momentary vibration. When Image Stabilizer is used, the image quality drops and the viewing angle becomes smaller.

■ Install-Free VB-C60 Viewer

This camera has a built-in VB-C60 Viewer, so its data can be viewed using a browser. Accordingly, there is no need to install a PC application. Also, three levels of user privileges can be set, including [Administrator], [Authorized Users] and [Guest Users].

■ Selectable Metering Modes for Various Shooting Conditions

Images can be captured by switching the metering mode* to one of three options, including [Center-weighted], [Average] and [Spot], according to the shooting condition of the camera. See "Setting Exposure" (→ *Operation Guide*).

* Brightness (light quantity) of the subject is measured to adjust the exposure.

■ Upload and Sound Playback by Motion Detection Function

Change in video caused by movement of the subject is detected to upload the image and play sound.

■ Upload, E-mail Notification

Events generated by the motion detection function or an external input device are used as triggers to upload images temporarily recorded in the camera to the specified location via FTP/HTTP/SMTP (e-mail), or for a notification to be sent via HTTP/SMTP (e-mail).

■ Panorama Image Creation

The entire shooting range of the camera can be captured as a panorama image, which can then be registered in the camera and displayed on the viewer for visual camera control, preset setting, etc.

■ Two-Way Audio (Full Duplex)

A microphone or speaker with amplifier can be connected*¹ to the camera to transmit/receive audio (full duplex) via the viewer*². You can select a desired audio input mode from LINE IN and MIC IN by switching the setting on the Setting Page (→ P. 3-7).

*¹ Microphones and amplifiers are sold separately.

*² RM-Lite Viewer is the only viewer that supports two-way audio communication.
VB-C60 Viewer only supports audio reception.

■ Supporting Upright and On-the-ceiling Installation

You can install the camera in a stationary state (upright) on a table or on a ceiling* (on the ceiling) by changing the settings (→"Installation Conditions" in *Operation Guide*).

* The camera cannot be installed in locations exposed to direct sunlight, high temperature, high humidity, etc. (→ P. xv).

When installing the camera on a ceiling, use the optional indoor dome housing or ceiling mount cover (→ P. 1-21).

■ PoE

The VB-C60 supports Power over Ethernet (PoE*) technology, which enables simultaneous video/audio data transmission and power supply by simply connecting a PoE HUB and a single LAN cable (→P. 2-6). When connecting to a PoE HUB, you need not connect a power adapter to the camera or perform any power wiring.

* PoE stands for Power over Ethernet. The camera is compliant with the IEEE 802.3af standard set by the Institute of Electrical and Electronic Engineers.

■ Supporting Diverse Installation Applications

You can use the optional indoor dome housing or ceiling mount cover when installing the camera on a ceiling (→P. 1-21). The dome is available in two types: the **smoke** type that conceals the camera, and the **clear** type that protects the camera from dust, etc., while keeping the camera conspicuous.

■ Small-scale Video Monitoring by Simplified Recording Software RM-Lite

This product comes with a simplified version **RM-Lite** of the optional **Network Video Recording Software RM-64/RM-25/RM-9** (→P. 1-7). Video captured by up to four cameras can be recorded/displayed in real time, to achieve small-scale video monitoring.

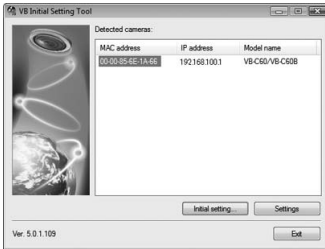
Bundled Software

The VB-C60 comes with the software specified below.

For the latest information, please refer to Canon Web Site.

VB Initial Setting Tool (→ P. 2-10)

Perform initial settings of the camera. Install it from Setup CD-ROM (→P. 2-4). Users other than Administrators need not install this tool.



VBAAdmin Tools (→"Overview of VBAAdmin Tools" in *Operation Guide*)

This tool lets you create panorama images with the camera and use these images to visually set the view range and presets. VBAAdmin Tools are for setting motion detection and for displaying logs taken by the camera. Install it from Setup CD-ROM (→P. 2-4). Users other than Administrators need not install this tool.



Note

To use the camera with VB-C300 and VB-C50 series of VBAAdmin Tools, install VBAAdmin Tools for VB-C50 series first, then install VB-C300, and finally install VBAAdmin Tools bundled with this camera.



Tip

VB Initial Setting Tool can also be used with the VB-C300 and VB-C50 series.

VB-C60 Viewer (→"Overview of VB-C60 Viewer" in *Operation Guide*).

VB-C60 Viewer is for displaying video captured by this camera and controlling the camera. On the Setting Page of this camera, you can set three types of user authorities including [Administrator], [Authorized User] and [Guest User] and restrict the control privileges of [Authorized User] and [Guest User]. VB-C60 Viewer is already built into the camera and need not be installed beforehand (→P. 2-4).

Only JPEG images can be displayed. To display MPEG-4 video, install and use RM-Lite Viewer (→ P. 1-8).



Network Video Recording Software RM-Lite

(→ *Administrator's Manual*)

The camera is bundled with RM-Lite, which is a simplified version of the optional "Network Video Recording Software RM-64/RM-25/RM-9" (→ P. 1-23). RM-Lite consists of the following two software.

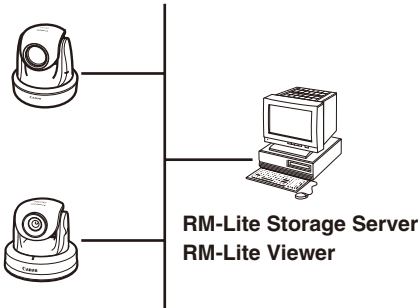


Software Configuration of RM-Lite

Type	Overview	License
RM-Lite Storage Server	Up to four cameras can be registered to record video.	1 license
RM-Lite Viewer	Recorded video saved in the storage server can be played or live video (JPEG/MPEG-4) can be displayed as it is captured by the camera. Up to four cameras can be registered for the viewer.	1 license

RM-Lite Storage Server and RM-Lite Viewer can be installed in and run on the same PC.

Configuration Example of Installation on Same PC



For RM-Lite, following cameras can also be registered and used.

Supported cameras	VB-M40, VB-M600VE, VB-M600D, VB-M700F, VB-C500VD/VB-C500D, VB-C60, VB-C300, VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi
-------------------	---

Note

To add RM-Lite Viewer, purchase **RM-Lite Additional Viewer License** (optional).

Key Functional Limitations of RM-Lite and RM-64/RM-25/RM-9

Features		RM-Lite	RM-64/RM-25/RM-9
Connecti on to camera	Max. number of cameras	4	64/25/9
Storage Server	Recording formats	JPEG only	JPEG, MPEG-4, H.264
	Max. recording frame rate	5 fps	30 fps *1
	Recording schedule	Weekly schedule recording	Weekly schedule recording Special Day schedule recording
	Recording mode	Continuous recording Manual recording	Continuous recording Sensor recording Motion detection recording Intelligent function recording Audio detection recording Manual recording
	Max. storage period	12 weeks	99 weeks
Viewer	Number of simultaneous video windows	8 or less is recommended.	32 or fewer per layout
	Layout sequence feature *2	No	Yes

*1 The operational limits apply depending on the number of cameras, Storage Server performance, hard disk capacity, and network load.

*2 The layout sequence feature is a function for changing Viewer layouts at a specified interval.

You cannot connect to RM-Lite Storage Server from RM-64/RM-25/RM-9 Viewer.

Note

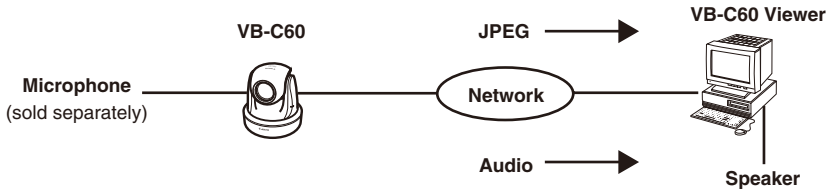
For details on the usage and functional imitations of RM-Lite, see *Administrator's Manual*.

Comparison of Two Viewers

The VB-C60 has two viewers. The key differences are specified below.

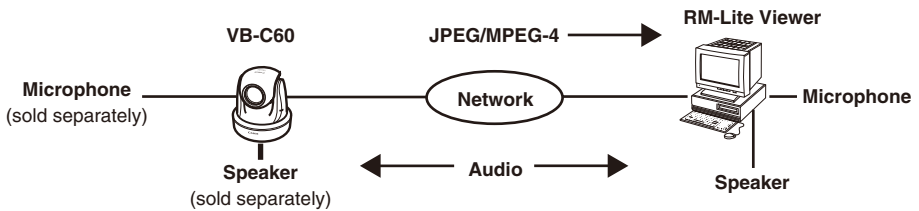
Viewer type	Live video display	Audio
VB-C60 Viewer	JPEG	Receive audio from the VB-C60 (one-way communication)
RM-Lite Viewer	JPEG/MPEG-4	Transmit/receive audio (two-way communication)

Audio Reception of VB-C60 Viewer (One-way Communication)



Audio from the microphone connected to the VB-C60 can be listened to from the viewer speaker.

Audio Reception of RM-Lite Viewer (Two-way Communication)



Audio can be transmitted/received between the VB-C60 and viewer.



Tip

PC, speaker and microphone are sold separately.

Operating Environment

For the latest information, please refer to Canon Web Site.

VB Initial Setting Tool, VBAdmin Tools, VB-C60 Viewer

1

Before Use

OS	Windows XP Home Edition/Professional SP3 32bit Windows Server 2003 Standard SP2 32bit Windows Server 2003 R2 Standard SP2 32bit Windows Vista Ultimate/Business/Enterprise/Home Premium SP1 32/64bit Windows Vista Ultimate/Business/Enterprise/Home Premium SP2 32/64bit Windows 7 Ultimate/Professional/Enterprise/Home Premium 32/64bit Windows 7 Ultimate/Professional/Enterprise/Home Premium SP1 32/64bit Windows Server 2008 Standard SP1 32/64bit Windows Server 2008 Standard SP2 32/64bit Windows Server 2008 R2 Standard 64bit Windows Server 2008 R2 Standard SP1 64bit
Web browser	Internet Explorer 6.0/7.0/8.0/9.0 32bit* * JavaScript and cookies must be enabled.
Viewer display	1024 x 768 or more* * Set the dpi setting to 96 dpi (standard) or 120 dpi (expanded 120%).
Audio	If the camera's audio feature is used, the PC's audio support feature is required.

Network Video Recording Software RM-Lite

CPU	Intel XEON 3060 2.4 GHz, Intel Core 2 Duo 2.4 GHz or higher, or an Intel CPU of equivalent class that meets the following requirements. Clock: 2.4 GHz or higher L2 cache: 4 MB or higher Core count: 2 or more
OS	Windows Server 2003 R2 Standard SP2 32bit Windows Vista Ultimate/Business/Enterprise/Home Premium SP2 32/64bit Windows 7 Ultimate/Professional/Enterprise/Home Premium SP1 32/64bit Windows Server 2008 Standard SP2 32/64bit Windows Server 2008 R2 Standard SP1 64bit
Memory	2 GB or more
Hard disk	200 MB of disk space is required for installation (additional 500 MB is required if .NET Framework 3.5 SP1 is not installed) The hard disk drive for the recording data should have a capacity of 1 GB or greater.
Viewer display	1280 x 1024 resolution or higher 16-bit colors or greater
Audio	To use the camera's audio function or enable audio alert for event notification when the viewer is used, the PC's audio support feature is required.



Tip

The optional RM-64/RM-25/RM-9 does not support Windows Vista Home Premium and Windows 7 Home Premium.

Notes on Use When the [Windows Firewall] Function is Enabled

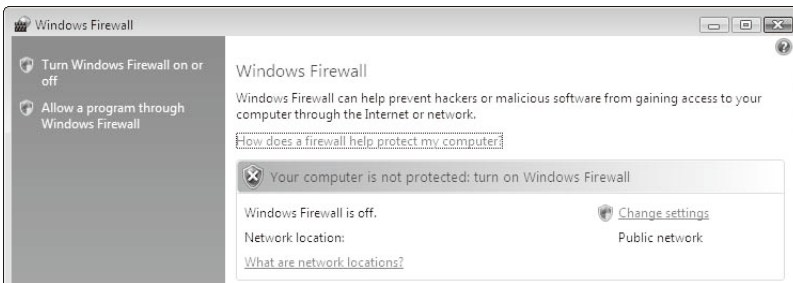
When VB Initial Setting Tool is started, the [Windows Security Alert] dialog box may appear.

If the [Windows Security Alert] dialog box appeared, click [Unblock].

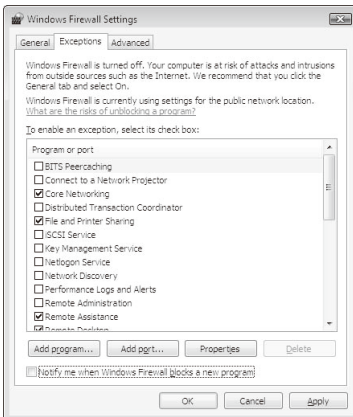
Once this button is clicked, this warning dialog box will no longer appear.

If the [Windows Security Alert] dialog box is not displayed, the warning function of the Windows firewall may be disabled. Follow the procedure below to add [VB Initial Setting Tool] as an exception to the Windows Firewall.

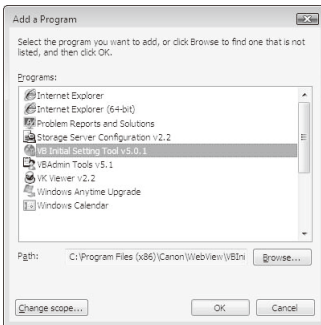
1. Click [Control Panel] and select [Windows Firewall]. If you are using Windows Vista/Windows Server 2008, also click [Allow a program through Windows Firewall].



2. Click the [Exceptions] tab, and then click the [Add program...].



3. The [Add a Program] dialog box appears. Click to select [VB Initial Setting Tool], and then click [OK].



Notes on Use with Windows Server 2003/Windows Server 2008

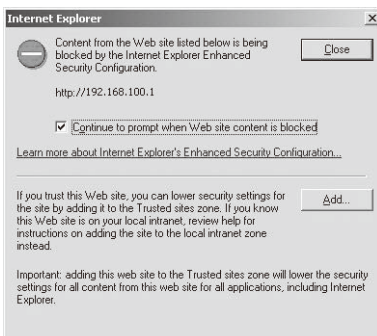
■ Registering the Camera's Top page as a Trusted Site

In Windows Server 2003 and Windows Server 2008, the security level for Internet sites and intranet sites on Internet Explorer is set to [High] by default.

Accordingly, when you access the top page, VB-C60 Viewer or Setting Page of the camera, a content block dialog box appears and the page is not displayed correctly.

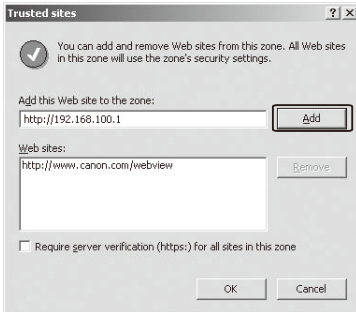
To display the page correctly, follow the procedure below to register it as a trusted site.

1. When the camera's top page is accessed via Internet Explorer, the following dialog box appears. Click [Add].



2. The [Trusted Sites] dialog box appears.

Clear the [Require server verification (https:) for all sites in this zone] check box, if currently selected.



3. Enter the IP address of the camera under [Add this Web site to the zone], and then click [Add].

For details on registering trusted sites, click the [Learn more about Internet Explorer's Enhanced Security Configuration...] in the dialog box in Procedure 1 and see the displayed overview.

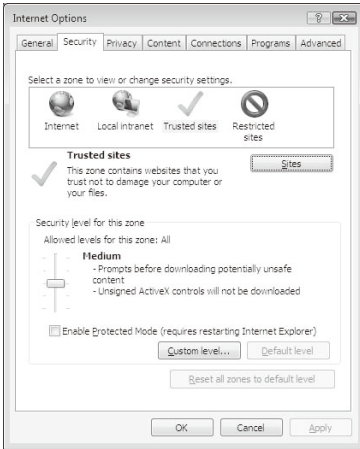
Note that even when the contents block dialog box does not appear, Java script is sometimes disabled under the standard security setting and Setting Page and operations of VB-C60 Viewer may still be limited. Registering the page as a trusted site automatically enables the Java script settings. Perform the necessary registration.

If the contents block dialog box does not appear, you can follow the procedure below to display the [Trusted Sites] dialog box.

1. Click [Tools] on the Internet Explorer screen, select [Internet Options], the [Internet Options] dialog box appears.
2. Click the [Security] tab.

3. Click and select [Trusted Sites], and click [Sites].

The [Trusted Sites] dialog box appears.



This completes the process of registering the camera's top page as a trusted site.

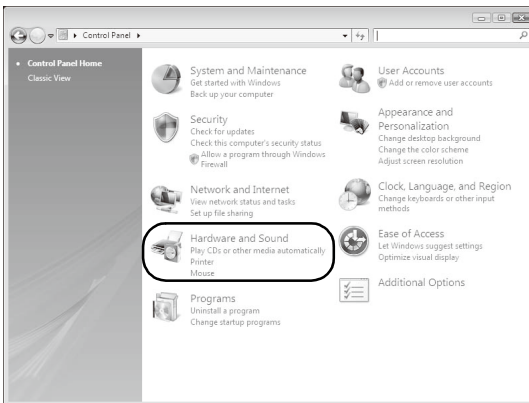
Notes on Use with Windows Server 2008

■ Enabling the Sound Function to Use Audio

In Windows Server 2008, the sound function is disabled by default.

To receive audio with VB-C60 Viewer, follow the procedure below to enable the sound function.

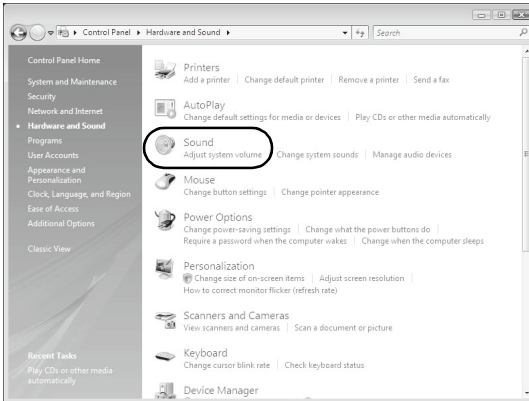
1. Click [Control Panel] and select [Hardware and Sound].



**Tip**

If [Control Panel] is displayed in a classic view, double-click [Sound].

2. Click [Sound].



3. The message, [Audio Service Not Running] appears. Click [Yes].



4. The [Sound] dialog box appears. Click the [Playback] tab to confirm that an audio device has been installed. (If no audio device is installed, check the manual for your PC.)

Notes on Use with Windows Vista or Later

The following restrictions apply when the VB-C60 is used with Windows Vista or later operating systems.

Video Storage Folder

Do not specify the Windows folder or Program Files folder on the system drive as the folder for storing snapshots and specified video files. Images and videos cannot be saved in these folders.

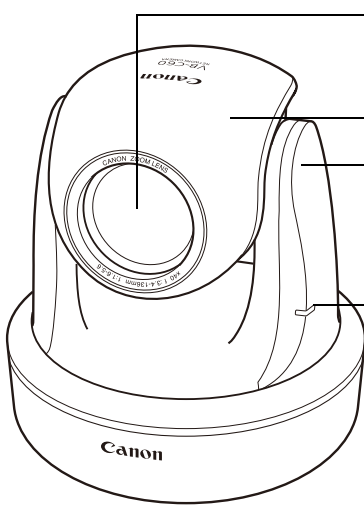
Shadow Backup Function

The shadow backup function cannot be used.

If a setting file of RM-Lite was accidentally deleted, for example, the file cannot be restored using the shadow backup function.

Name and Function of Each Part

Front



Lens

AF Zoom Lens with 56°, Horizontal Viewing Angle and Optical 40x Zoom

Camera head

Head arm

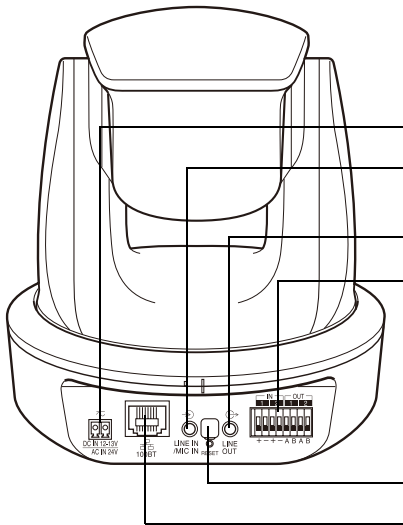
LED

The blue LED turns on.

- On - Power is turned on, Camera is rebooted
Normal use condition
- Off - [Turn Off] is selected
See "Installation Conditions" (→ *Operation Guide*).

* Even when [Turn Off] is selected, the LED still turns on for several seconds when the power is turned on or the camera is rebooted, and then turns off.

Back



Power connection terminal (→ P. 2-9)

Audio input terminal, Used as both LINE IN and MIC IN (→ P. 3-7)

Audio output terminal, LINE OUT (→ P. 3-7)

External device input/output terminals (→ P. 3-5)

Reset switch

Turn on the power while pushing this switch using a sharp object. Continue to push the switch for 5 seconds or more to restore all factory settings except for the date and time.

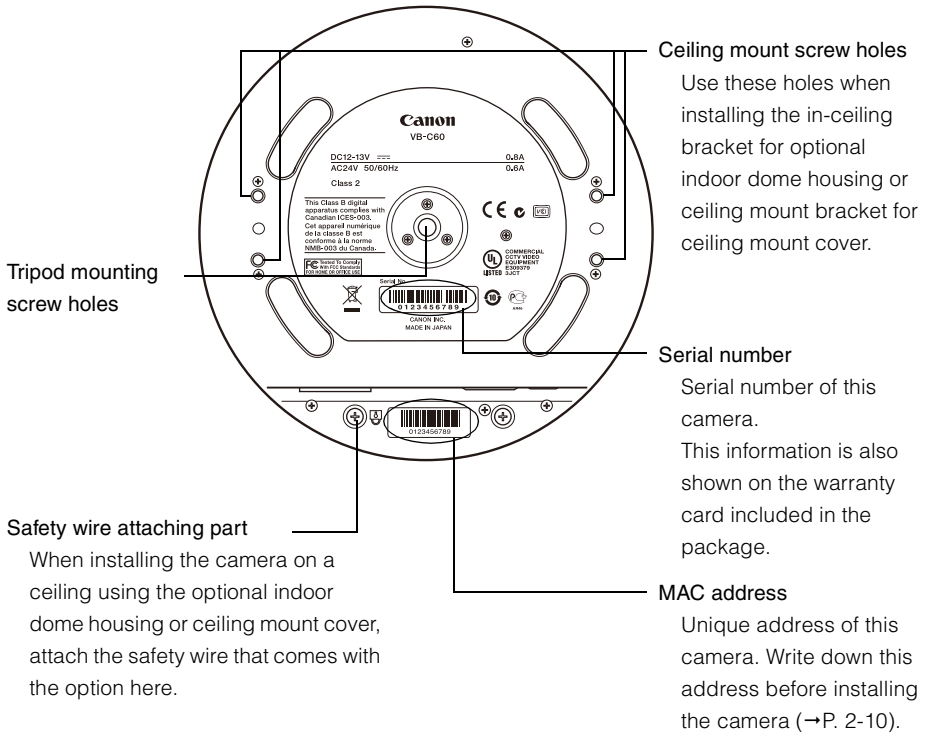
100BT LAN connector

Conforming to 100Base-TX

PoE power supply (conforming to the IEEE 802.3af standard)

Bottom

The serial number and MAC address required in network setting are specified at the bottom of the camera. Write down these information before installing the camera.



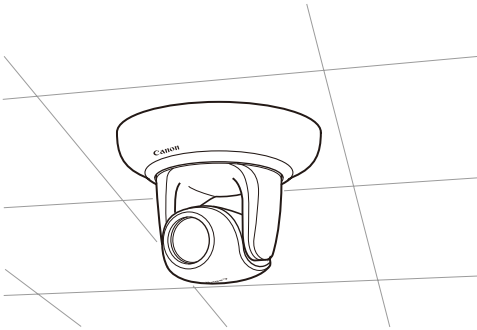
Optional Items

Purchase optional items separately as necessary.

Ceiling Mount Cover SS60-S-VB/SS60-B-VB

The ceiling mount cover is a dedicated option of VB-C60. Two colors of silver (SS60-S-VB) and black (SS60-B-VB) are available, which are designed for use with the silver model and black model of this camera, respectively.

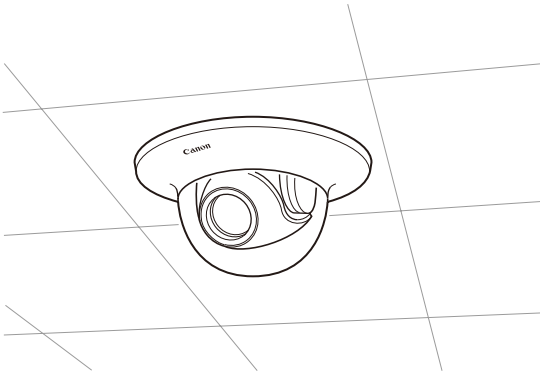
Use example



Indoor Dome Housing VB-RD51S-C/S

The indoor dome housing is a dome housing for indoor use designed exclusively for VB-C60. The dome is available in two colors: clear (VB-RD51S-C) and smoke (VB-RD51S-S). The housing can be embedded flush with the ceiling to provide a neat installation.

Use example



The figure shows a clear dome.

Smoke (VB-RD51S-S)

- The transmission factor is approx. 50%.
- The minimum subject illumination is 1.4 lux (1/30 sec., color) in the day mode and 0.4 lux (1/30 sec., black & white) in the night mode (→P. 3-3).

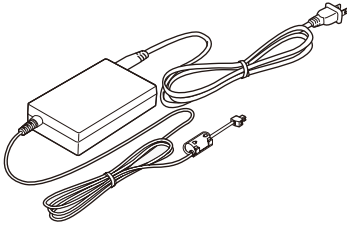


Note

- If you are using the dome housing, use VB-C60B (black model). Reflection of the lens ring, etc., can be reduced.
- When the dome housing is used, the viewing angle widens slightly.

AC Adapter PA-V17

Use this adapter when a PoE HUB or external power supply is not used.



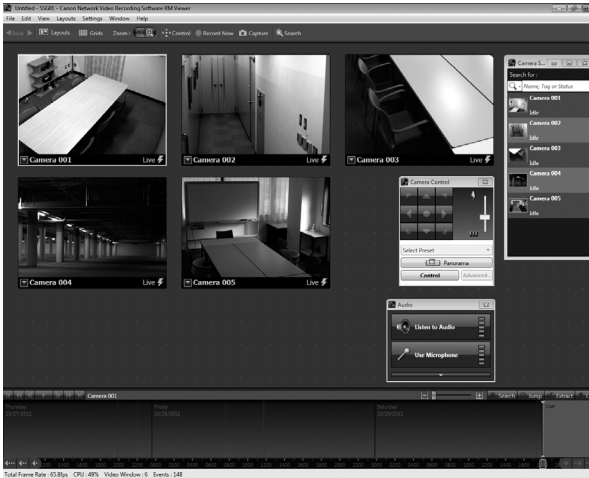
RM-Lite Additional Viewer License

RM-Lite Additional Viewer License is an additional license for installing RM-Lite Viewer in multiple PCs. You need to purchase the license if you want to view video captured by the camera using RM-Lite Viewer from multiple sites.

Network Video Recording Software RM-64/RM-25/RM-9

High-functional monitoring & recording software that achieves simultaneous monitoring of multiple sites.

Example of RM-64/RM-25/RM-9 Viewer screen



Tip

- The VB-C60 can also be used with Network Video Recorder VK-series v2.0 or later. However, the RM-series and VK-series are not compatible with each other.
- This camera comes with RM-Lite, which is a simplified version of RM-64/RM-25/RM-9 (→P. 1-7). Up to four cameras can be registered and used.



Initial Setting and Installation of Camera

The following explains how to install the camera.

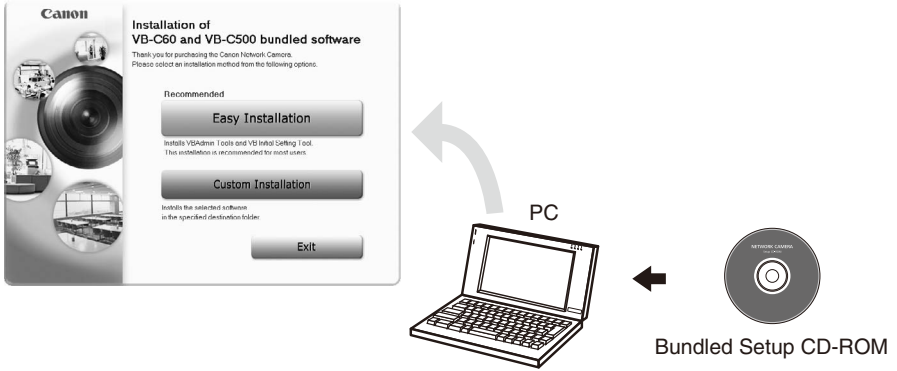
First, install the necessary software from the bundled Setup CD-ROM. Next, connect the camera to the network and perform initial setting of the camera. Check the image using VB-C60 Viewer, and then install the camera.

Be sure to set the IP address before installing the camera.

Flow of Setup

Step 1 Install the software

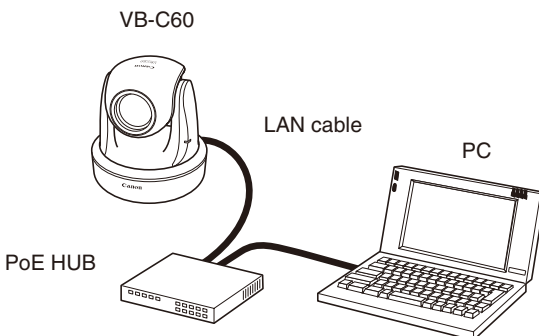
Insert the bundled Setup CD-ROM in the PC and install the necessary software (→ P. 2-4).



Step 2 Connect the camera to the network

Connect the VB-C60 and PC to the network (→P. 2-6).

If a PoE HUB or Midspan is used, consult your Canon sales representative.

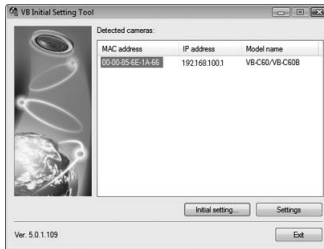


The figure shows a connection example via a PoE HUB.

Step 3 Perform initial setting of the camera

Start VB Initial Setting Tool and perform initial setting of the camera (→ P. 2-10).

Check the image using VB-C60 Viewer (→ P. 2-13).



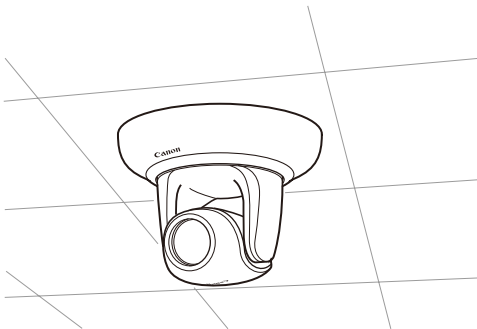
VB Initial Setting Tool window



VB-C60 Viewer

Step 4 Install the camera

The camera is installed. Make sure the camera is installed securely (→ P. 2-15).



In the figure, the ceiling mount cover (optional) is used.

Step 1 Install the Software

Install the Necessary Software

Install the necessary software from the bundled Setup CD-ROM (→P. 1-5).

Software for Initial Setting and Management of the Camera

Type	Overview
VB Initial Setting Tool	This software is used to perform initial setting of the camera (→ P. 2-10). Users other than Administrators need not install this tool.
VBAdmin Tools	This software is used to manage the camera (→Chapter 2 in <i>Operation Guide</i>). Users other than Administrators need not install this tool.

⇒ Install it by executing VBToolsInstall.exe in the APPLICATIONS folder of Setup CD-ROM.

Recording Software

Type	Overview
Network Video Recording Software RM-Lite	This software is used to display/record camera images. It consists of the storage server and the viewer (→ P. 1-7).

⇒ Install it by executing RMLiteInstall.exe in the APPLICATIONS folder of Setup CD-ROM.



Note

Use RM-Lite Viewer if you want to display MPEG-4 video from the camera. Only JPEG image can be displayed using the built-in VB-C60 Viewer.

In-Camera Software (Need Not be Installed)

Type	Overview
VB-C60 Viewer	This software is used to display camera images. Because the software is already built into the camera, it needs not be installed (→ P. 1-7).

Install **VB Initial Setting Tool** required in the initial setting of the camera.

1. Insert the bundled Setup CD-ROM in the CD-ROM drive of the PC, and perform the following procedure.
 - (1) After confirming that all other applications have been closed, click the [Start] menu → and then select [My Computer].
 - (2) Double-click the displayed CD-ROM icon → APPLICATIONS Folder → and then click VBToolsInstall.exe.



2. The initial screen appears. Click to select the installation method.

[Easy Installation]: VB Initial Setting Tool and VBAdmin Tools are installed.

[Custom Installation]: The user can select and install desired software.



3. When the installation is complete, an icon appears on the desktop.



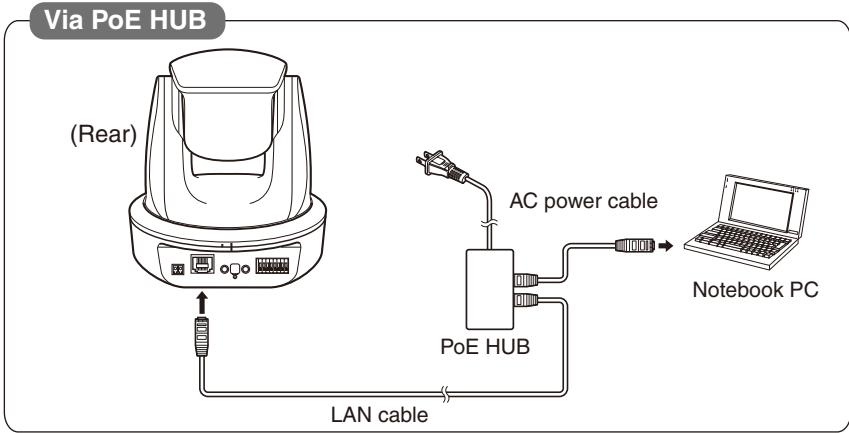
This completes the installation.

Step 2 Connect the Camera to the Network

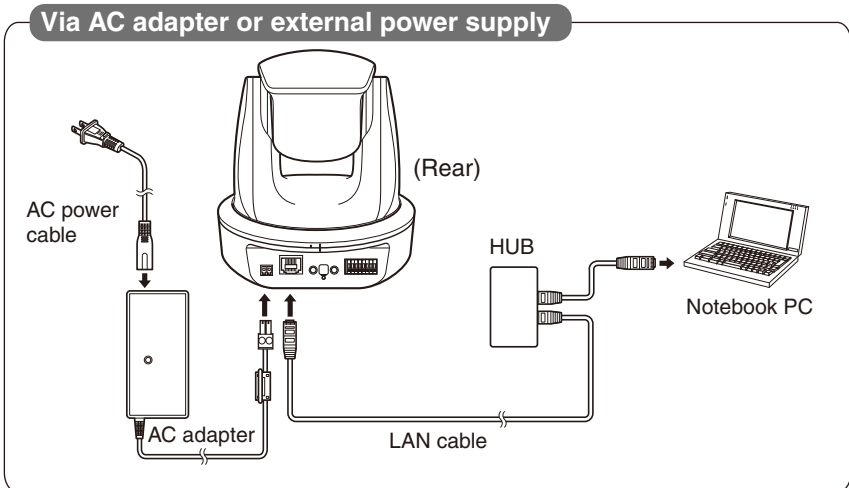
Connect the Camera to the Network and Turn On the Power

Here, an example of connecting one camera to a PC via a HUB is explained.

VB-C60 has built-in PoE (Power over Ethernet). The power can be supplied to the camera, via a LAN cable, from a PoE HUB conforming to IEEE 802.3af.



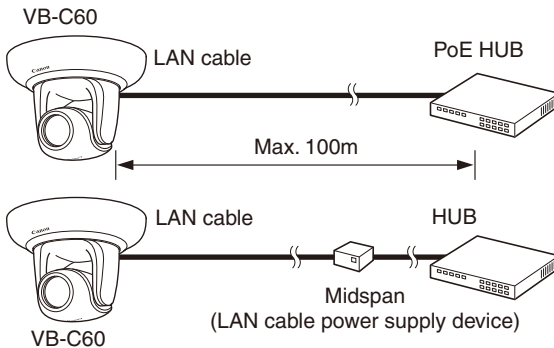
If an optional AC adapter or external power supply is used, connect it as shown in the figure below. For details, see "Use of External Power Supply" (→ P. 2-9).



The figure shows an AC adapter (optional).

Note

- For details on PoE HUB and Midspan, check with your Canon sales representative.
- For the operating methods and other details of a PoE HUB or Midspan, see the operation manual or other documentation that comes with the applicable device.
- For the LAN cable connecting the camera and a PoE HUB, use a cable of Category 5 or higher of a length not more than 100m.
- If the camera is connected to a switching HUB, changing the connection while the camera is operating may disable communication due to the learning function of the HUB. Do not change the connection while the camera is operating.
- An AC adapter (optional) can also be connected to the camera while the power is supplied from a PoE HUB. In this case, the PoE power is given priority while the power is supplied from the PoE HUB and the power from the AC adapter (optional) is not used. Once the PoE power is cut off, the power is automatically supplied from the AC adapter (optional).



* Midspan (LAN-cable power supply) is a device that supplies power to the camera via a LAN cable, just like a PoE HUB.

This camera has no power switch.

If the power is supplied to this camera by the PoE via a LAN cable, disconnect and connect the LAN cable from/to the HUB receiving the power, to turn the power [ON]/[OFF].

If an AC adapter (optional) or external power supply is used, disconnect and connect the power plug of the AC adapter (optional) or external power supply, to turn the power [ON]/[OFF].

Tip

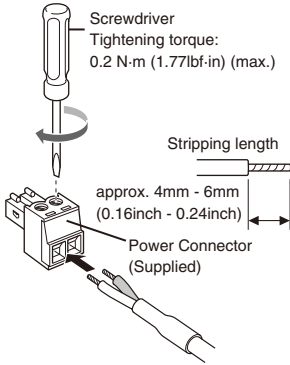
When the power is turned on, the camera head position is initialized automatically.

Note

- **Never touch the camera head during the initialization of. It may disable correct initialization or cause malfunction.**
 - **When turning off the power and then turning it back on, wait for at least 5 seconds before turning on the power. If the power is turned on too quickly, the camera may not operate correctly. Also, when disconnecting/connecting the power connection, be sure to observe the instructions provided in "Precautions for Use of Optional AC Adapter PA-V17" (→P.xvii) in "Safety Precautions".**
-
- **The current may be limited for each port depending on the PoE HUB used. However, the camera may not operate correctly when the current is limited. If the camera malfunctions, do not limit the current.**
 - **The total current consumption of ports may be limited depending on the PoE HUB used. If multiple ports are used, the ports may not operate correctly. Check the operation manual for the PoE HUB you are using.**

■ Use of External Power Supply

An AC adapter, 12-VDC input or 24-VAC input can be used as an external power supply. Connect the supplied power connector (→ P. x) as shown in the figure below.



Use a 12-VDC or 24-VAC power supply insulated from 100 VAC.

12 VDC can be connected in a non-polar condition. Use the power supply within the following voltage range.

- 24 VAC: Voltage fluctuation 24 VAC \pm 10% or less
(50 or 60 Hz \pm 0.5 Hz or less)
Current supply capacity per camera 1.0 A or more
- 12 VDC: Voltage fluctuation 12 VDC \pm 10% or less
Current supply capacity per camera 1.5 A or more

* If a 12-VDC battery power supply is used, be sure to connect a resistor of 0.5 to 1.0 Ω /20 W or more to the power line.

* Use double-insulated devices for the external power supply.

Recommended Power Cable of VB-C60 [Reference]

Cable (AWG) conductor size (Φ mm, Φ inch)	#24 (0.52 mm) (0.020inch)	#22 (0.65 mm) (0.026inch)	#20 (0.82 mm) (0.032inch)	#18 (1.03 mm) (0.041inch)	#16 (1.30 mm) (0.051inch)
Maximum cable length, 12 VDC (m, ft)	5 (16.4)	9 (29.5)	14 (45.9)	23 (75.4)	32 (105.0)
Maximum cable length, 24 VAC (m, ft)	11 (36.1)	18 (59.0)	29 (95.1)	46 (151.0)	64 (210.0)

Use a UL cable (UL-1015 or equivalent) for wiring 12 VDC or 24 VAC.

This completes the network connection.

Step 3 Perform Initial Setting of the Camera

Perform Initial Setting of the Camera

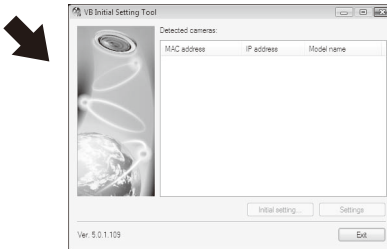
Set the network for the VB-C60 using VB Initial Setting Tool.

1. Launches VB Initial Setting Tool.

Double-click the [VB Initial Setting Tool] icon on the desktop or click the [Start] menu, click [Programs] → [WebView Livescope] → [VB Initial Setting Tool].



Double-click the icon on the desktop.



2. VB Initial Setting Tool automatically detects the camera connected to the network, and displays the MAC address, IP address and model name of the camera.

Click to select the MAC address, and then click the [Initial setting] button.



The factory default IP address is as follows.

192.168.100.1

The MAC address is specified on the label attached to the bottom of the camera (→ P. 1-20).

Note that VB Initial Setting Tool cannot exceed the subnet mask.

- Enter the user name "root" and default password "VB-C60," and then enter the IP address and subnet mask you want to set.

If the default gateway is not set, clear the [Enter a default gateway address] check box. When the setting is complete, click [OK].



Note

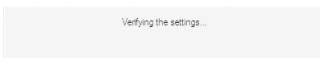
There may be cautionary information that should be heeded depending on your operating environment. See "Notes on Operating Environment" (→ P. 1-13) before you perform initial setting.



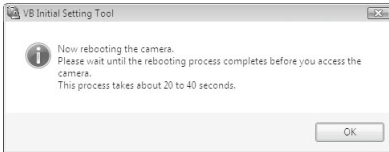
Tip

- The factory setting Administrator password is "VB-C60". Be sure to change the password for security reasons. See "Administrator Password" (→ *Operation Guide*).
- The MAC address of this camera is specified at the bottom of the camera (→ P. 1-20).
- The factory setting IP address is **192.168.100.1**. Set a proper IP address according to the environment in which the camera is used.
- For the IP address, subnet mask and gateway address to be set, contact your Network Administrator.

- The progress of setting is shown in a window.



5. Click [OK].



Note

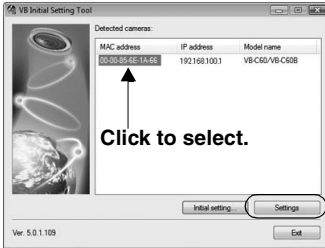
- To obtain an IP address from the DHCP server, first you need to set an address using VB Initial Setting Tool, which enables to communicate with the PC for setting. Then, change the [IP Address Setting] for LAN to [Auto (DHCP)] in [Network] in the Setting page. See "LAN" (→ *Operation Guide*).
- The camera will stop issuing IP address assignment requests in 20 minutes after its power is turned on, after which VB Initial Setting Tool can no longer be detected. In this case, turn on the camera again.

This completes the initial setting.

Check the Video Captured by the Camera

When the initial settings are complete, check camera images using VB-C60 Viewer. At this time, set the network options on the PC according to the IP address and subnet mask set in the camera.

1. Click the MAC address of the camera whose operation you want to check, and then click [Settings].



2. The web browser starts and the top page of the camera is displayed. Click [VB Viewer] of [VB-C60 Viewer].



Note

- There may be cautionary information that should be heeded depending on your operating environment. See "Notes on Operating Environment" (→ P. 1-13) before you perform initial setting.
- To open the Setting Page using the [Detailed Settings] button, do not change the HTTP port of the camera from 80. For information on setting the HTTP port number, see "HTTP Server" in *Operation Guide*.

3. The viewer starts and video captured by the camera is displayed.

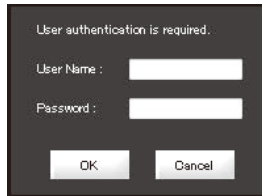
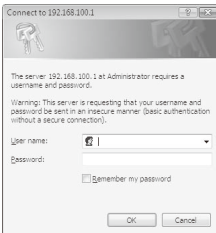


Note

- Clicking [Setting Page] or [Admin Viewer] on the top page of the camera displays each user authentication window.

The factory setting user name and password are as follows:

User name: root Password: VB-C60



Authentication Window Accessed via Setting Page Authentication Window Accessed via Admin Viewer

- Be sure to change the administrator password for security reasons. See "Administrator Password" (→ *Operation Guide*).
- To display both JPEG and MPEG-4 video, install and use RM-Lite Viewer (→P. 1-8).
- Where video can be transmitted to is not limited by the factory settings, etc. To use the camera for surveillance purposes, etc., be sure to set the [Access Control] options on the Setting Page. See "Setting User Access Privileges (Access Control)" (→ *Operation Guide*).

Tip

- For information on how to use VB-C60 Viewer, see *Operation Guide*.
- When [Setting Page] is clicked, various options can be set. See "Accessing the Setting Menu" (→ *Operation Guide*).

This completes the video check process.

Step 4 Install the Camera

Note on Use before Installing the Camera

Be sure to install the camera after setting the IP address (→P. 2-10).

Note

- The camera will stop issuing IP address assignment requests 20 minutes after its power is turned on and the detection of VB Initial Setting Tool will be disabled. Before installing the camera, set the IP address and check the operation by referring to "Perform Initial Setting of the Camera" (→ P. 2-10).
- The unique MAC address of this camera is specified at the bottom of the camera (→ P. 1-20). It is recommended to write down the MAC address before installing the camera.

Note

For installation or inspection of the VB-C60, consult/request the store where you purchased the product.

- **Wire the VB-C60 power supply, network, or other cables safely and securely according to the relevant regulations such as technical standards for electrical installations.**
- **When installing the VB-C60, select a ceiling surface, etc., capable of withstanding the total weight of the camera and all options used (Recessed Mounting Kit), provide sufficient reinforcements and use the bundled safety wire if necessary.**
- **To prevent injuries and equipment damage due to falling items, periodically check the brackets and screws for rusting and loosening.**
- **Installation in a place subject to significant vibration is not recommended, because it may cause the equipment to malfunction.**
- **Do not hold the camera head when carrying the network camera.**
- **Do not install the VB-C60 on an unstable or inclined surface.**

Malfunction may result.

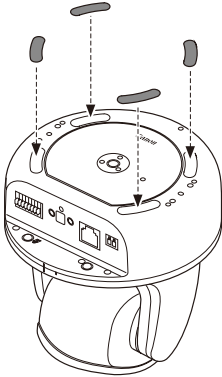
Installing in the upright position

Note

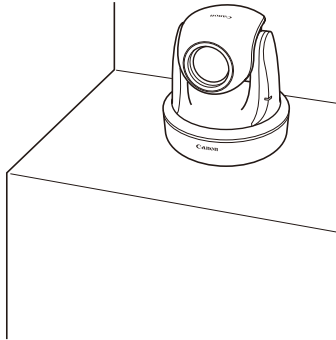
For this camera, the image position is set by assuming on-the ceiling installation. To reverse the video upside down, change the direction under "Mounting Method" in the "Camera" setting group on the Setting Page. See "Installation Conditions" (→ *Operation Guide*).

■ Installing on a Flat Surface

Install the rubber feet.

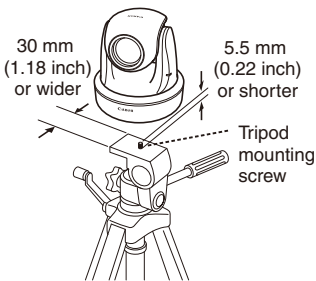


Use the camera by placing it on a flat, stable surface.



■ Using a Tripod

Screw holes are provided at the bottom of the camera for installing a tripod.



Note

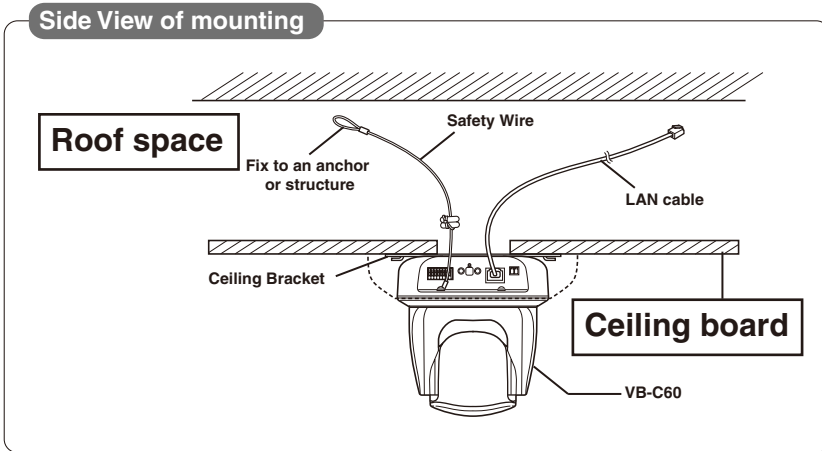
Be sure to use a tripod whose mounting screws are shorter than 5.5 mm. If a tripod whose mounting screws are 5.5 mm or longer is used, the camera may be damaged. Also, use a tripod base with a diameter of 30 mm or more.

Installing on a Ceiling Using the Ceiling Mount Cover SS60-S-VB/SS60-B-VB (Optional)

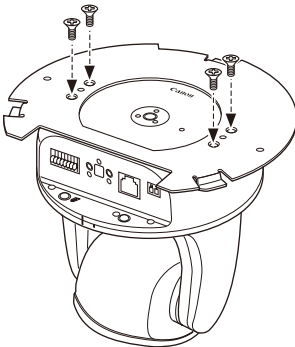
Follow the procedure below to install the camera on a ceiling. Make sure the camera is installed securely.

Note

Carefully read the precautionary information in "Note on Use before Installing the Camera" (→ P. 2-15) and heed the instructions.



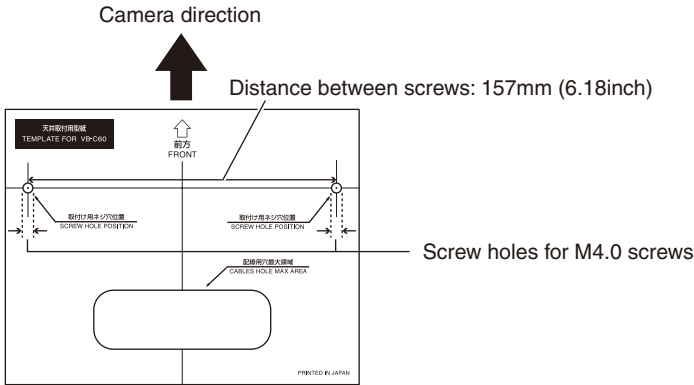
1. Install the ceiling mount bracket and camera using four supplied screws.



Step 4 Install the Camera

2. Use the bundled template to determine the installation position of the camera.

Determine the positions of mounting screw holes and wiring hole by considering the orientation of the camera, and mark the positions using a pencil, etc.



3. Drill the mounting screw holes (2 locations) and wiring hole in the ceiling using a drill, etc.

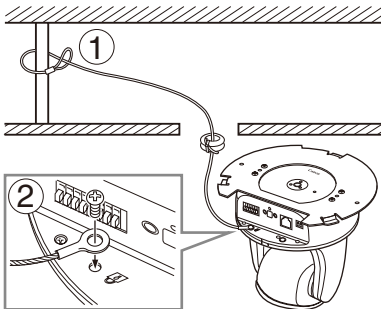
Note

If an AC adapter (optional) is used, the wiring hole should be large enough for the ferrite cores on the cable to pass.

4. Secure the safety wire.

Securely attach the safety wire to an anchor or structure.

After securing the ceiling end, secure the camera end of the safety wire using a screw supplied with the camera.



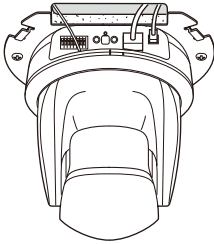
Note

If the ceiling is made of concrete or otherwise the wiring hole cannot be opened, secure the wiring to an appropriate position.

- Affix the camera on the ceiling.
- Connect to the camera the LAN cable guided through the wiring hole.

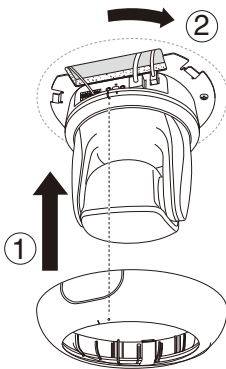
If an AC adapter (optional) or external power supply is used, connect the power connector to the camera.

If necessary, connect cables to the external device input/output terminals and audio input/output terminals (→ P. 3-5).



- Install the ceiling mount cover.

Align the (O) mark on the ceiling mount cover with the (I) mark on the rear of the camera, and turn the cover clockwise until the (I) position to install the cover.



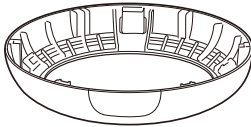
Note

Confirm that the ceiling mount cover is securely attached.



Tip

If the ceiling is made of concrete or otherwise the cables cannot be stored in the ceiling, or if the cables cannot be accommodated within the ceiling mount cover, bend the cutout section of the ceiling mount cover using nippers, etc., to create a cutout through which to guide the cables. In this case, connect the cables after installing the ceiling mount cover.



8. When the installation is complete, reboot the camera to initiate the camera position. See "Rebooting" (→ *Operation Guide*).

This completes the installation.

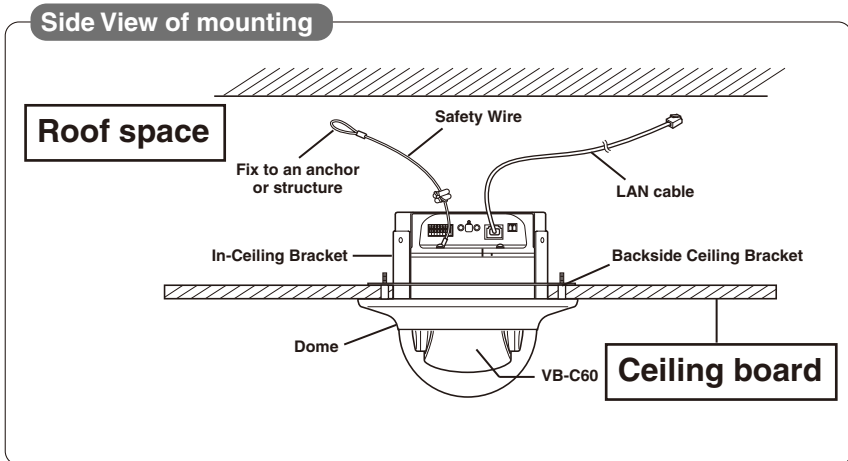
Installing on a Ceiling Using the Indoor Dome Housing VB-RD51S-C/S (Optional)

Follow the procedure below to install the camera on a ceiling using the indoor dome housing.

Determine the installation position, direction, etc. by referring to the external view of the indoor dome housing (→P. 3-2).

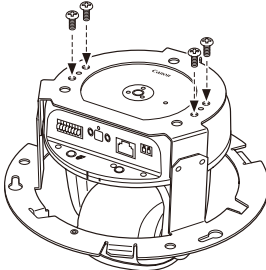
Note

- Carefully read the precautionary information in "Note on Use before Installing the Camera" (→ P. 2-15) and heed the instructions.
- If you are using the dome housing, use VB-C60B (black model).



1. Install the camera and in-ceiling bracket using four screws.

Use the screws that came with the indoor dome housing.

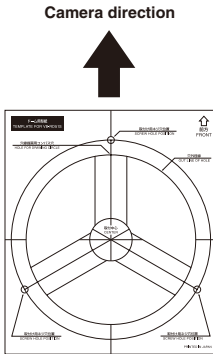


Step 4 Install the Camera

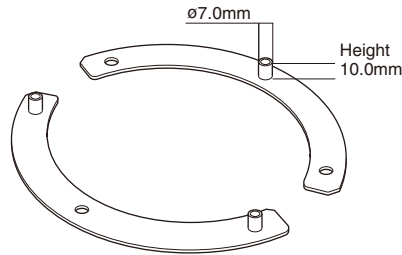
2. Determine the installation position of the camera.

Apply the bundled template onto the dome to determine the hole positions for backside ceiling bracket and in-ceiling bracket, and mark the positions using a pencil, etc.

Template bundled with the dome



Backside ceiling bracket



3. Open in the ceiling the holes (3 locations) for installing the backside ceiling bracket, as well as a hole for in-ceiling bracket.



Note

After the holes have been opened, be careful not to let shavings, etc., enter the dome when the indoor dome housing is installed.

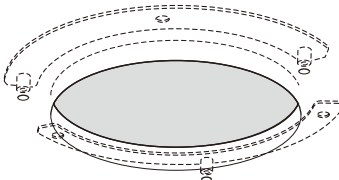
4. Install the backside ceiling bracket in the ceiling.

Access from inside the ceiling and insert the projections of the backside ceiling bracket into the holes opened in step 3.

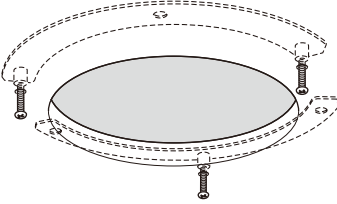


Tip

It is recommended that the backside ceiling bracket be temporarily secured with double-sided adhesive tape, etc., so that the backside ceiling bracket will not separate when the dome is secured later on.



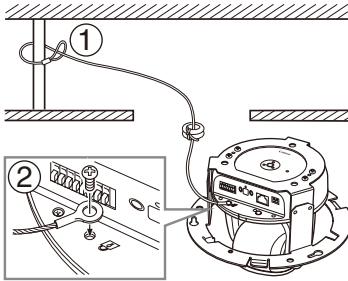
5. Loosely tighten the screws.



6. Secure the safety wire.

Securely attach the safety wire to an anchor or structure.

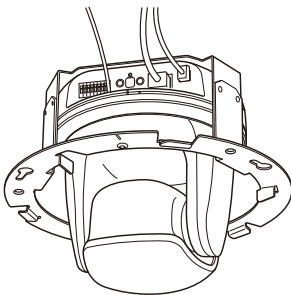
After securing the ceiling end, secure the camera end of the safety wire using a screw supplied with the camera.



7. Connect to the camera the LAN cable guided through the wiring hole.

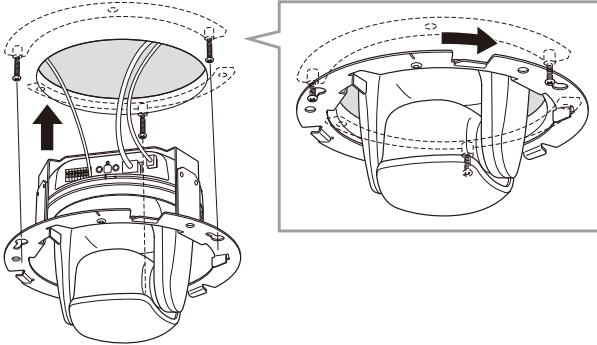
If an AC adapter (optional) or external power supply is used, connect the power connector to the camera.

If necessary, connect cables to the external device input/output terminals and audio input/output terminals (→ P. 3-5).



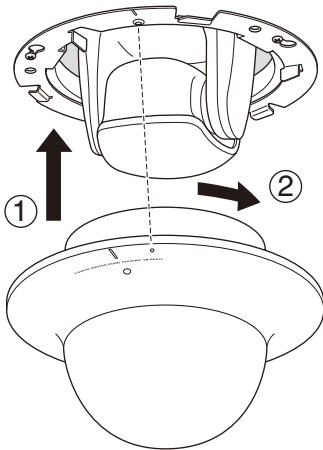
8. Install the in-ceiling bracket to the ceiling.

Hook the in-ceiling bracket on the screws that were loosely secured in step 5, turn the bracket clockwise, and then securely tighten (affix) the screws.

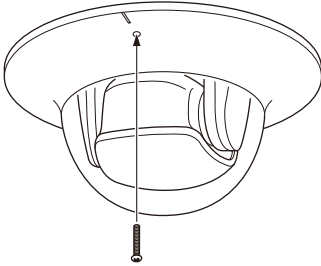


9. Install the dome.

Align the (O) mark on the dome with the mark (I) on the in-ceiling bracket, and turn the bracket clockwise until the (I) mark on the dome to align the mounting screw hole with the specified position.



10. Install one screw to prevent the dome from turning.



11. When the installation is complete, reboot the camera to initialize the camera position. See "Rebooting" (→ *Operation Guide*).

**Tip**

If the LED is on, light may reflect on the dome and enter the image. In this case, set the LED setting to [Turn Off] See "LED Setting" (→ *Operation Guide*).

This completes the installation.



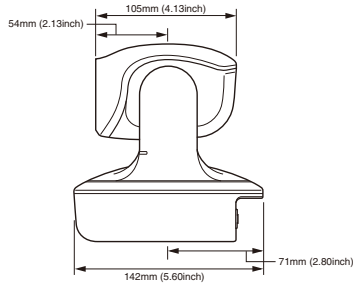
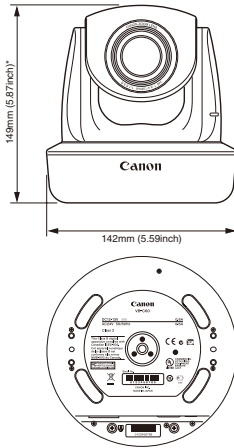
Appendix

This section explains the external dimensions, specifications, external device input/output terminals, audio input/output terminals, etc.



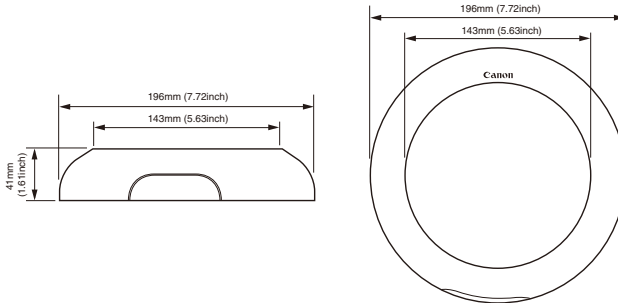
External Dimensions

VB-C60/VB-C60B

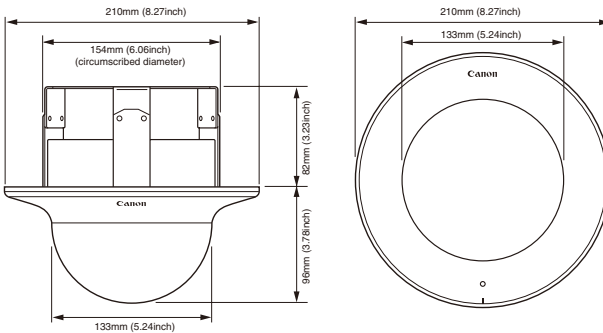


* The rubber foot thickness is not included.

Ceiling Mount Cover SS60-S-VB/SS60-B-VB (Optional)



Indoor Dome Housing VB-RD51S-C/S (Optional)



Main Specifications

VB-C60/VB-C60B		
Camera	Image sensor	1/4-inch CCD (primary color filter)
	Number of pixels	Effective pixels: 330,000 pixels
	Scanning method	Progressive scan
	Lens	Optical 40x zoom lens with AF (digital 4x)
	Focal length	f = 3.4 to 136.0 mm
	F-value	F1.6 (W) to F5.6 (T)
	Viewing angle	Horizontal viewing angle: 55.8° (W) to 1.5 (T) Vertical viewing angle: 43.3° (W) to 1.1 (T)
	Day/night capability	Automatic IN/OUT of infrared cutoff filter: Auto/manual
	Minimum subject illumination	Day mode : 0.7 lux (F1.6, color, 1/30 sec.) Night mode : 0.2 lux (F1.6, black & white, 1/30 sec.) The following values apply when the indoor dome housing VB-RD51S-S (smoke type) is used. Day mode : 1.4 lux (F1.6, color, 1/30 sec.) Night mode : 0.4 lux (F1.6, black & white, 1/30 sec.)
	Focus	Auto/One-shot AF/Manual/Fixed at infinity (for dome use)
	Focus range	Day mode : W 0.3 m to ∞ T 1.5 m to ∞ Night mode : W 0.5 m to ∞ T 1.8 m to ∞ (When infrared illumination is also used in the night mode: W 0.5 m to ∞ T 1.8 m to ∞)
	Shutter speed	1/1 to 1/8000 second
	White balance	Auto/One-shot/Presets/Manual
	Metering mode	Selectable from 3 modes (Center-weighted/Average/Spot)
	Exposure compensation	7 levels
	Smart Shade Control	7 levels (Function to control dark areas when the video has brightness difference)
	Image Stabilizer	O (electronic type)
	Pan angle range	340° (±170°)
	Tilt angle range	Upright: 115° (-25° to 90°) On the ceiling: 115° (-90° to 25°)
	Drive speed	Pan: Maximum 150°/second Tilt: Maximum 150°/sec.
Server	Video compression method	JPEG/MPEG-4 Simultaneous data distribution is possible.
	Video size	JPEG : 640 x 480/320 x 240/160 x 120 (Support for multiple sizes: Images of 3 different sizes can be delivered simultaneously) MPEG-4 : 640 x 480/320 x 240 (Fixed to 1 size)
	Quality	JPEG/MPEG-4: 5 levels (With JPEG, a desired level can be set for each size.)
	Frame rate	JPEG : 30 to 0.1 fps MPEG-4 : 30/15/10 fps
	Maximum frame rate	JPEG : Max. 30 fps (640 x 480)*1 MPEG-4 : Max. 30 fps (640 x 480)*1
	Number of clients that can be connected simultaneously	Up to 30 clients (MPEG-4: Up to 10 clients)
	Audio compression method	G. 711μ-law (64 kbps)
	Audio communication mode	Full duplex (two-way communication)
	Audio playback	O (Audio files can be played on the occurrence of a motion detection event or an external device input event.)*2
	Protocol	IPv4 : TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (client), DHCP (client), DNS (client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon's original protocol) IPv6 : TCP/IP, UDP, HTTP, FTP, SMTP (client), DNS (client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon's original protocol)
	IPsec	O
	Camera control	3 user levels can be set (Administrator/Authorized Users/Guest Users). User names and passwords for up to 50 users can be registered.
	Preset setting	Up to 20 locations
	View restriction	O (Function to limit the capture range of the camera (left/right, up/down, zoom))
	Connection restriction	Access restriction (user name and password)/IP address restriction (IPv4)/Restriction on number of clients that can connect simultaneously
	Motion Detection	O (Up to four detection areas can be set in the shooting window.)
	JPEG image upload	FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 4MB, Frame rate: max 10 fps.
Event notification	HTTP/SMTP (e-mail)	

*1 Note that the frame rate may drop depending on the performance of the viewer PC, number of clients connected at the same time, network load, etc.

*2 An optional speaker with amplifier is required to play audio.

- The specifications are subject to change without notice for purposes of improvement, etc.

Main Specifications

VB-C60/VB-C60B		
Interface	Network terminal	LANx1 (RJ45, 100Base-TX (Auto/Full Duplex/Half Duplex))
	Audio input terminal (Used as both LINE IN and MIC IN)	Φ3.5 monaural mini jack connector (LINE IN and MIC IN can be switched on the Setting Page)
	Audio output terminal (LINE OUT)	Φ3.5 monaural mini jack connector LINE OUTx1 (connected to a speaker with amplifier)
	External device I/O terminals	Input x 2 Output x 2
Others	Operating environment	Temperature: -10 to 50°C Humidity: 20 to 85% RH (non-condensing)
	Power supply	PoE: Supporting PoE power supply via a LAN connector (conforming to the IEEE 802.3af standard) Dedicated AC adapter: Optional PA-V17 (100 VAC) External power supply: Supporting 24 VAC/12 VDC (Supplied power connector is used; * non-polar type)
	Power consumption	When PoE is used: Approx. 9 W max. When dedicated AC adapter PA-V17 is used: Approx. 11 W max.
	Dimensions	142 mm x 142 mm x 149 mm (5.59 in x 5.59 in x 5.87 in) (W x D x H) *Camera only, excluding rubber feet
	Weight	Approx. 840 g (Approx. 1.852 lb)

AC adapter (option)	
Model	PA-V17
Input	100 VAC, 50/60 Hz
Output	13 VDC, 1.8 A (max.), temperature -10°C to 35°C, humidity 20 to 85% RH (non-condensing) When combined with the network camera
	13 VDC, 1.0A (max.), temperature -10°C to 45°C, humidity 20 to 85% RH (non-condensing)
Polarity	Black line side (-), white line side (+)
Dimensions	58 mm x 118 mm x 25 mm (2.28 in x 4.65 in x 0.98 in) (W x D x H) (excluding projections)
Weight	Approx. 215 g (0.474 lb) (excluding cables)

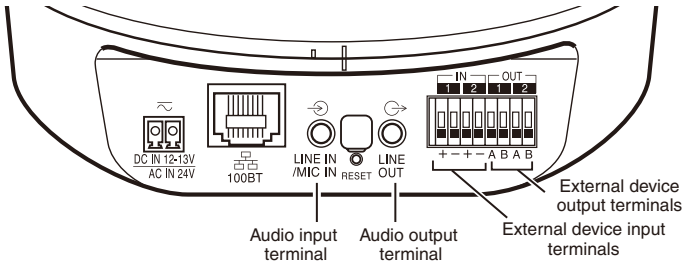
Indoor dome housing (optional)	
Model	VB-RD51S-C/S
Type	Clear type/smoke type
Network camera-mounting environments	Temperature -10 to 50°C, humidity 20 to 85% RH (non-condensing)
Dimensions	Φ210 mm (133 mm: dome) x 96 mm (H) * When in-ceiling part is included: 178 mm (H) Φ8.27 in (5.24 in: dome) x 3.78 in (H) * When in-ceiling part is included: 7.01 in (H)
Weight	Approx. 522 g

Ceiling mount cover (optional)	
Model	SS60-S-VB/SS60-B-VB
Type	Silver type/black type
Network camera-mounting environments	Temperature -10 to 50°C, humidity 20 to 85% RH (non-condensing)
Dimensions	Φ196 mm x 41 mm (H) Φ7.72 in x 1.61 in (H)
Weight	Approx. 271 g (Approx. 0.598 lb)

- The specifications are subject to change without notice for purposes of improvement, etc.

Input/Output Terminals

External device input/output terminals and audio input/output terminals are provided at the back of the camera.



External Device Input/Output Terminals

Two external device input terminals and two external device output terminals are available.

You can check the status of external device inputs and operate the external device outputs using VB-C60 Viewer or RM-Lite Viewer. See "Operating the External Device Outputs" and "Displaying the External Device Input Status" (→ *Operation Guide*).

■ External Device Input Terminals (IN1, IN2)

There are two sets of external device input terminals (IN1, IN2), where each set consists of two terminals. The - terminals are connected to the GND in the camera. Two-wire cables are connected to the + and - terminals to achieve electrical continuity or insulation between the two terminals for notification to the viewer.

Note

- For the sensors and switches to be connected, connect terminals that are electrically isolated from each power supply or GND.
- Do not push the external device input/output terminal buttons too strongly. The buttons may remain pushed-in.

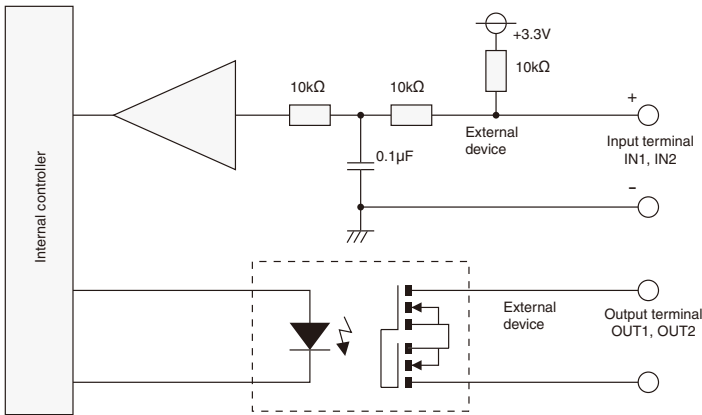
■ External Device Output Terminals (OUT1, OUT2)

There are two sets of external device output terminals (OUT1, OUT2), where each set consists of two terminals. Each terminal set has no polarity. The condition between the two terminals can be switched between connected and disconnected by controlling from the viewer. The output terminals are isolated from the internal circuits of the camera using optical couplers.

The loads connected to the output terminals should be used within the following ratings:

Ratings between output terminals: Maximum voltage 50 VDC
 Continuous load current 100 mA max.

■ Internal Connection Diagram



Tip

Applicable wire for external device cable

Single AWG No.28 to 22

Conductor size $\Phi 0.32$ to 0.65 (mm) (0.013 to 0.026 in)

Strip the cable by approx. 8 to 9 mm (0.315 to 0.354 in).

Audio Input/Output Terminals

One audio input terminal and one audio output terminal is available.

A microphone, speaker with amplifier or other audio input/output device can be connected to the camera to send/receive sound via the viewer. Use a Φ 3.5 monaural jack for connection with audio input/output devices.

■ Audio Input, Used as Both LINE IN and MIC IN (Monaural Input)

Connects the camera to a microphone. As for audio input of this camera, two types of microphones, LINE IN and MIC IN types, are supported. Note that the camera only has one audio input. Switch the input mode on the Setting Page. See "Audio Input" (\rightarrow *Operation Guide*). The factory setting is LINE IN.

When LINE IN is selected, a microphone with amplifier can be connected.

When MIC IN is selected, a dynamic microphone or capacitor microphone can be connected.

Input terminal: Φ 3.5mm mini jack (monaural)

- Dynamic MIC IN setting
Input impedance: $1.75\text{ k}\Omega \pm 20\%$
* Applicable microphone
Output impedance: 400Ω to 600Ω
- Capacitor MIC IN setting
Input impedance (microphone bias resistance): $2.2\text{ k}\Omega \pm 20\%$
Microphone power supply: Plug-in power (voltage: 1.8 V) method
* Applicable microphone
Capacitor microphone of plug-in power type
- LINE IN setting
Input level: 1 Vp-p max.
* Use a microphone with amplifier.

■ Audio Output Terminal LINE OUT (Monaural Output)

Connect the camera to the speaker with amplifier. Audio can be sent to the speaker from RM-Lite Viewer. Only the administrator can use this function.

Output terminal: Φ 3.5mm mini jack (monaural)

- Output level: 1 Vp-p max.
* Use a speaker with amplifier.



Note

- Switch the LINE IN/MIC IN setting on the Setting Page according to the microphone specification. See "Audio Input" (→ *Operation Guide*).
If a wrong input is used, the camera or microphone may be damaged. Be sure to set the correct input.
- The volume, sound quality, etc., may change depending on the characteristics of the microphone used.
- To send audio to speaker, use RM-Lite Viewer. Audio cannot be sent from VB-C60 Viewer (→P. 1-10).
- Video and audio sometimes may not synchronize.
- Audio may be interrupted depending on the performance of the PC used or the network environment.
- Video and audio can be transmitted to a maximum of 30 clients. If there are too many clients, audio may be interrupted.
- If anti-virus software is used, audio may be interrupted.
- Disconnecting/connecting the LAN cable interrupts the audio. Accordingly, reconnect the LAN connection on the viewer side.



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