BC820v2

IP Box camera with Day/Night

Installation Manual

TKH GROUP SECURITY SOLUTIONS

Note: To ensure proper operation, please read this manual thoroughly before using the product and retain the information for future reference.

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BC820v2
Installation Manual v1 (173101-1)
AIT55

Brand names

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Liability

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Although considerable care has been taken to ensure a correct and suitably comprehensive description of all relevant product components, this manual may nonetheless contain errors and inaccuracies. We invite you to offer your suggestions and comments by email via t.writing@tkhsecurity.com. Your feedback will help us to further improve our documentation.

How to contact us

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Contents

1 About this manual

What's in this manual

This manual gives you the information you need to install the BC820v2 camera. It tells:

- How to mount the camera
- How to mount the lens
- How to connect the camera
- How to power the camera

Who this manual is for

These instructions are for all professionals who will install the BC820v2.

What you need to know

You will have a better understanding of how the BC820v2 works if you are familiar with:

- Camera technologies
- CCTV systems and components
- Hazardous environments and ATEX/IECEx regulations (EX models)
- Ethernet network technologies and Internet Protocol (IP)
- Windows environments
- Video, audio, and contact closure transmissions
- Video compression methods

Before you continue

Before you continue, read and obey all instructions and warnings in this manual. Keep this manual with the original bill of sale for future reference and, if necessary, warranty service. When you unpack your product, make sure there are no missing or damaged items. If any item is missing, or if you find damage, do not install or operate this product. Ask your supplier for assistance.

Why specifications may change

At TKH Security, we are committed to delivering high-quality products and services. The information given in this manual was current when published. As we continuously seek to improve our products and user experience, all features and specifications are subject to change without notice.

We like to hear from you!

Customer satisfaction is our first priority. We welcome and value your opinion about our products and services. Should you detect errors or inaccuracies in this manual, we would be grateful if you would inform us. We invite you to offer your suggestions and comments via t.writing@tkhsecurity.com. Your feedback helps us to further improve our documentation.

2 Safety and compliance

This chapter gives the BC820v2 safety instructions and compliance information.

In This Chapter

2.1 Safety

The safety information contained in this section, and on other pages of this manual, must be observed whenever this unit is operated, serviced, or repaired. Failure to comply with any precaution, warning, or instruction noted in the manual is in violation of the standards of design, manufacture, and intended use of the module. TKH Security assumes no liability for the customer's failure to comply with any of these safety requirements.

Trained personnel

Installation, adjustment, maintenance, and repair of this equipment are to be performed by trained personnel aware of the hazards involved. For correct and safe use of the equipment and in order to keep the equipment in a safe condition, it is essential that both operating and servicing personnel follow standard safety procedures in addition to the safety precautions and warnings specified in this manual, and that this unit be installed in locations accessible to trained service personnel only.

Safety requirements

The equipment described in this manual has been designed and tested according to the **UL/IEC/EN 60950-1** safety requirements. For compliance information, see the EU Declaration of Conformity, which is available for download at www.tkhsecurity.com/support-files.

Warning: If there is any doubt regarding the safety of the equipment, do not put it into operation.

This might be the case when the equipment shows physical damage or is stressed beyond tolerable limits (for example, during storage and transportation).

Important: Before opening the equipment, disconnect it from all power sources.

The equipment must be powered by a SELV[1] power supply. This is equivalent to a Limited Power source (LPS, see UL/IEC/EN 60950-1 clause 2.5) or a "NEC Class 2" power supply. When this module is operated in extremely elevated temperature conditions, it is possible for internal and external metal surfaces to become extremely hot.

1. SELV: conforming to IEC 60950-1, <60 Vdc output, output voltage galvanically isolated from mains. All power supplies or power supply cabinets available from TKH Security comply with these SELV requirements.

Optical safety

The following optical safety information applies to BC820v2 models with SFP interface.

This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. This optical equipment contains Class 1M lasers or LEDs and has been designed and tested to meet **IEC 60825-1:1993+A1+A2** and **IEC 60825-2:2004 safety class 1M** requirements.

Warning: Optical equipment presents potential hazards to testing and servicing personnel, owing to high levels of optical radiation.

When using magnifying optical instruments, avoid looking directly into the output of an operating transmitter or into the end of a fiber connected to an operating transmitter, or there will be a risk of permanent eye damage. Precautions should be taken to prevent exposure to optical radiation when the unit is removed from its enclosure or when the fiber is disconnected from the unit. The optical radiation is invisible to the eye.

Use of controls or adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

The installer is responsible for ensuring that the label depicted below (background: yellow; border and text: black) is present in the restricted locations where this equipment is installed.

EMC

This device has been tested and found to meet the CE regulations relating to EMC and 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. These limits are designed to provide reasonable protection against interference to radio communications in any installation. The equipment generates, uses, and can radiate radio frequency energy; improper use or special circumstances may cause interference to other equipment or a performance decrease due to interference radiated by other equipment. In such cases, the user will have to take appropriate measures to reduce such interactions between this and other equipment.

Any interruption of the shielding inside or outside the equipment could make the equipment more prone to fail EMC requirements.

Non-video signal lines must use appropriate shielded Cat 5 cabling (S-FTP), or at least an equivalent. Ensure that *all* electrically connected components are carefully earthed and protected against surges (high voltage transients caused by switching or lightning).

ESD

Electrostatic discharge (ESD) can damage or destroy electronic components. *Proper precautions should be taken against ESD when opening the equipment.*

RoHS

Global concerns over the health and environmental risks associated with the use of certain environmentally-sensitive materials in electronic products have led the European Union (EU) to enact the Directive on the Restriction of the use of certain Hazardous Substances (RoHS) (2011/65/EU). TKH Security offers products that comply with the EU's RoHS Directive.

Product disposal

The unit contains valuable materials which qualify for recycling. In the interest of protecting the natural environment, properly recycling the unit at the end of its service life is imperative.

When processing the printed circuit board, dismantling the lithium battery calls for special attention. This kind of battery, a button cell type, contains so little lithium, that it will never be classified as reactive hazardous waste. It is safe for normal disposal, as required for batteries by your local authority.

2.2 Protection against overvoltage

Note: The following instructions must be observed for outdoor installations.

The installer is responsible for protection of the camera against overvoltage.

These international standards apply (equivalent standards may also be used):

- IEC 60364-4-44 Electrical installations of buildings - Part 4-443: Protection against overvoltages of atmospheric origin or due to switching.
- IEC 60364-5-53 Electrical installations of buildings - Part 5-534: Devices for protection against overvoltages
- IEC 62305 Protection against lightning – All parts

The information below can be used to determine the required measures.

Transient overvoltage immunity test level

The equipment installed in this outdoor enclosure, including camera and power supply, is tested for application in an industrial environment. The transient overvoltage immunity is tested according IEC 61000-6-2 and IEC 61000-4-5 for industrial levels.

- For AC power ports the test level is 2kV Line to Earth and 1kV Line to Line.
- For signal ports the test level is 1kV Line to Earth. (no Line to Line test required)

Overvoltage Category according IEC 60950-22

Mains-operated outdoor equipment shall be suitable for the highest Overvoltage Category expected in the installation location. The Overvoltage Category for outdoor equipment can be higher than for indoor equipment. This outdoor enclosure and the internal camera equipment is designed for overvoltage category II.

The installer is required to provide additional protection to reduce the overvoltage if the equipment is subject to transient overvoltages exceeding those for Overvoltage Category II.

It is permitted to include protection components within the outdoor equipment. Components used to reduce the Overvoltage Category, Surge Protection Devices (SPD), shall comply with the requirements of IEC 61643-series or equivalent standards.

NOTE: The Overvoltage Category of outdoor equipment is normally considered to be one of the following:

- if powered via the normal building installation wiring, Overvoltage Category II;
- if powered directly from the mains distribution system, Overvoltage Category III;
- if at, or in the proximity of, the origin of the electrical installation, Overvoltage Category IV.

Protection against lightning strikes (direct and indirect)

Additional protection is also required for protection against direct or indirect lightning strikes according the IEC 62305 series standards, or equivalent standards.

Consideration shall be given to the following:

- The use of properly earthed air-termination rods for pole-mounted or high-mounted cameras
- Avoid wiring loops
- Locate protection devices close to the protected equipment (within 0.5 m)
- Keep wiring to protection devices short.

2.3 Cautions

Handle the camera carefully

Do not abuse the camera. Avoid bumping and shaking. The camera can be damaged by improper handling or storage.

Do not disassemble the camera

To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Consult technical support if a camera is suspected of malfunctioning.

Do not exceed the ratings given in the Technical Specifications

Make sure that the power source is appropriate before you plug in and operate the unit. Use the unit under conditions where the temperature remains within the range given in the Technical Specifications of this product. You can download the BC820v2 datasheet at www.tkhsecurity.com/support-files.

Do not expose indoor models to moisture

The indoor camera model is designed for indoor use or use in locations where it is protected from rain and moisture. Turn the power off immediately if the camera is wet and ask a qualified technician for servicing. Moisture can damage the camera and also create the danger of electric shock.

Do not use strong or abrasive detergents to clean the camera

Use a dry cloth to clean the camera when it is dirty. If the dirt is hard to remove, use a mild detergent and wipe gently. To clean the lens, use lens tissue or a cotton tipped applicator and ethanol. Do *not* clean the lens with strong detergents.

Never face the camera towards the sun

Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects, as this can damage the camera.

2.4 Compliance

The EU Declaration of Conformity for this product is available for download at www.tkhsecurity.com/support-files.

3 Product overview

This chapter introduces the BC820v2 models and their features.

In This Chapter

3.1 Models

The BC820v2 is available as:

- a standard box style camera with RJ-45 network connector
- a standard box style camera with SFP interface

BC820v2

Note: Lens sold separately

HD IP box camera with H.264 and Day/Night

- 1/2.7" Progressive scan CMOS imager
- Multiple resolutions: 1080p/720p
- H.264 and MJPEG compression
- Two-way audio
- Day/Night with IR cut filter
- 24 Vac / 12 Vdc / 24 Vdc / 802.3af PoE
- microSD support
- ONVIF Profile S compliant
- Programming Interface (HTTP API) support
- Alarm I/O (1 output, 1 input)
- HTTPS, 802.1x, IPv6, QoS
- IP Address filter
- SNMP v1/v2/v3
- Tampering alarm
- Video Motion Detection
- Wide Dynamic Range, Backlight Compensation
- Privacy masks
- Analogue output

BC820v2-SFP

Note: Lens sold separately

HD IP box camera with H.264, Day/Night and SFP interface

In addition to the features above:

- SFP Interface

3.2 Description

The BC820v2 is a full-featured fixed IP camera providing high-quality high-definition images.

Multistream high definition

BC820v2 cameras have quad-stream capability (triple-stream in WDR 2 shutter mode) for simultaneous streaming of combinations of H.264 streams with one MJPEG stream. The MJPEG stream can be allocated to any configured resolution format (limited to 1080p). Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. Full frame rate, full-HD 1080p streaming with a D1 second stream or dual 720p streaming is possible.

Open standards

Multiple options are available to easily integrate the BC820v2 to a video management system. In support of open standards, these cameras are compliant with the ONVIF Profile S specification and the Programming Interface (HTTP API). The BC820v2 seamlessly integrates with any Pan/Tilt station by offering free configurable commands issued to the PT station through the serial data interface.

Day/Night

The BC820v2 provides automatic day/night functionality with configurable thresholds, for use in low-light situations. Under poor lighting conditions, the camera automatically becomes infrared-sensitive by removing the IR-cut filter. This ensures that even in minimal light the camera still produces clear images.

Backlight compensation

Backlight compensation enhances image visibility in difficult lighting conditions. In situations where the observed object is unclear due to being underlit or overlit (such as in a hallway entrance with many windows), backlight compensation improves image exposure by using the light near the object as a reference.

Wide dynamic range

The BC820v2 provides two modes for wide dynamic range. The first mode uses different gain ratios for differently illumined areas to bring details in the darker areas of an image without saturation in the brighter parts. The second mode uses a two-shutter mechanism which applies two different exposure settings to capture both darker and lighter areas with excellent details. The resulting image is the optimal aggregation of both exposures.

Privacy masks

With privacy masks you can cover parts of the image. By concealing areas with sensitive or personal information you can prevent these from appearing on a monitor or in recorded video.

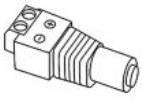
Power source choices

The BC820v2 can be powered by 12 Vdc, 24 Vdc, 24 Vac, or over the network with 802.3af-compliant PoE sources.

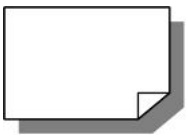
3.3 Package contents

Note: Lens sold separately

BC820v2H3/BC820v2H3-SFP

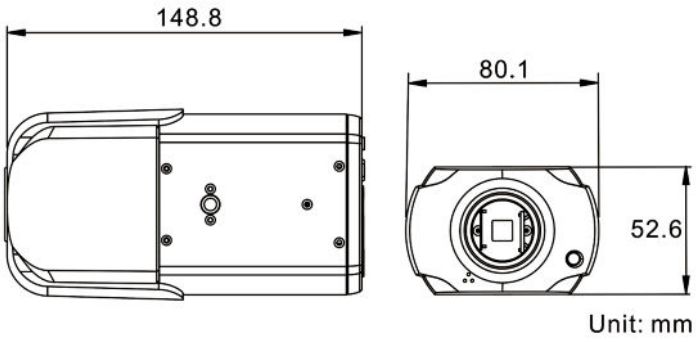


Power connector



Quick Start Guide

3.4 Dimensions



4 Install the camera

In This Chapter

4.1 Mount the lens

Lenses for the BC820v2 camera series are sold separately.

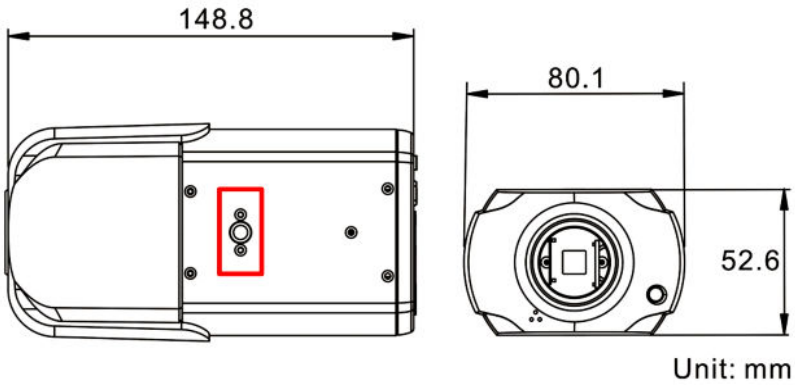
To mount a lens onto the camera

1 Remove the sensor cover from the camera.
2 Attach the lens to the camera.

Mounting the lens

4.2 Mount the camera

Using the WM04 accessory, the BC820v2 can be installed directly on a wall or ceiling, provided the surface has sufficient strength to support the camera. The mounting bracket screws directly into the screw hole shown in the figure below. No tools are required. There are screw holes on the top and bottom of the camera.



Screw hole highlighted in red

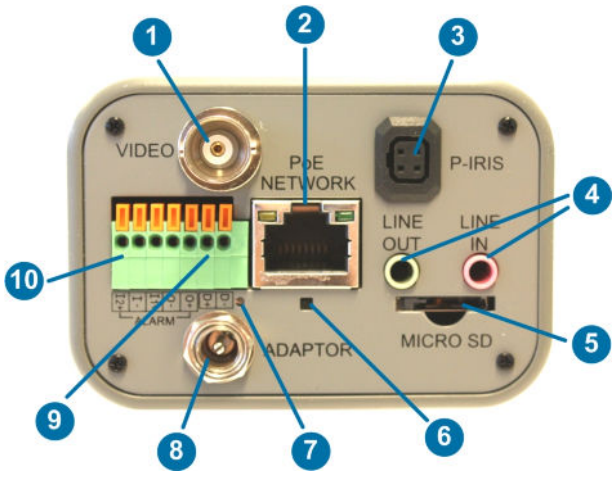
Mount the camera with WM04 wall mount

5 Connect the camera

To get the camera up and running, you need to connect it to power and the network. The connectors are located on the back panel of the camera body. The back panel also has connectors for audio, data and alarms.

In This Chapter

5.1 Back panel

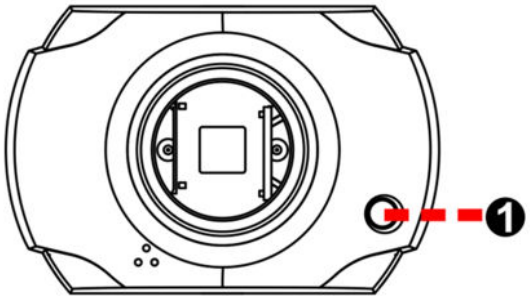


BC820v2 back panel

	Feature	Description
1	Video (BNC connector)	For analogue video output.
2	Network connector (RJ-45) and LEDs	For network/PoE connection and activity indication.
3	P-Iris	P-Iris lens connection.
4	Audio I/O	Two-way audio transmission.
5	microSD Card slot	Insert the microSD card into the card slot to store videos and snapshots. Do not remove the microSD card when the camera is powered on.
6	Reset button	With the camera powered up, use a proper tool to push and hold the reset button for at least 20 seconds. All settings, including the camera's IP address, are reset to the original factory settings.
7	Power LED	For power connection indication (green light).
8	Power (12 Vdc/ 24 Vdc / 24 Vac)	For power connection.
9	Data (RS-485)	6. D+ 7. D-
10	Alarm I/O	1. Alarm In 2 + 2. Alarm In - 3. Alarm In 1 + 4. Alarm In - 5. Alarm Out +

5.2 Light sensor

A light sensor is used to detect the ambient light for the Day/Night switching function. The light sensor is located at the front of the camera. The location and definition of the light sensor is as given below.



	Feature	Description
1	Light sensor	Ambient light detection for Day/Night switching function

5.3 Power the camera

The BC820v2 supports 24 Vac / 24 Vdc / 12 Vdc via terminal block and Power over Ethernet (802.3af PoE). The BC820v2 consumes 3.8 W of power.

To power the BC820v2 with DC 12 V / DC 24 V / AC 24 V

1 If necessary, insert the leads from your power source into the supplied power connector, as indicated by the connector labelling.
2 Insert the power connector plug into the ADAPTOR connector on the back panel.
3 Plug the power supply into a mains outlet.

To power the BC820v2 with Power over Ethernet (PoE)

- Connect the NETWORK RJ-45 connector on the back panel of your BC820v2 to an appropriate network switch.
  Powering with PoE requires that IEEE 802.3AF Power Sourcing Equipment (PSE) is available on the network.
- Use Cat 5 Ethernet cable up to 100 m in length.
  Connect to a hub or switch with straight-through cable.
  Use crossover cable to connect directly to a PC.

5.4 Connect to network

Category 5 Ethernet cable is recommended for network connections. For the best transmission quality, do not exceed a cable length of 100 metres.

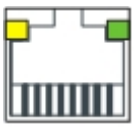
To connect through a hub or switch

- Connect one end of a straight through Cat 5 cable to the RJ-45 connector of the All-in-One cable and the other end of the cable to the network switch.

To connect directly to a PC

- Connect one end of a crossover Cat 5 cable to the RJ-45 connector of the All-in-One cable and the other end of the cable to the PC.

Refer to the following figure to determine whether you have established an Ethernet connection.



Ethernet socket LEDs green/yellow

Green on/off : 100/10 Mbit

Yellow on/blink : link OK, active

Yellow off/flash : link down, TX attempt

5.5 Connect audio

The BC820v2 can be used to provide a two-way audio channel.

To connect audio

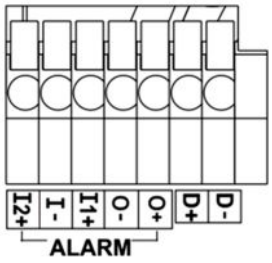
- Connect the audio input and output cables to the LINE IN and LINE OUT connectors on the back panel of the camera.
  For the location of the audio connectors, see section *Back panel.*

To configure audio settings

1 Log on to the web interface of the camera.
  For instructions on how to do this, see section *Log on to the camera*.
2 On the **Streaming** menu, click **Audio**.
3 Select one of the following options:
  - Full-duplex (Talk and listen simultaneously)
  - Half-duplex (Talk or listen, not at the same time)
  - Simplex (Talk only)
  - Simplex (Listen only)
  - Disable

5.6 Connect alarm I/O

The camera equips one relay input and one relay output for alarm application. Refer to the alarm pin definitions below to connect alarm devices to the IP camera as necessary.



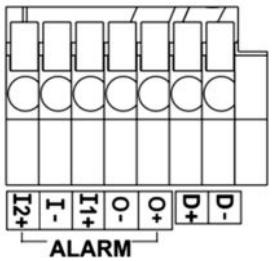
1. Alarm In 2 +
2. Alarm In –
3. Alarm In 1 +
4. Alarm Out -
5. Alarm Out

To configure the alarm settings

1 Log on to the web interface of the camera.
  For instructions on how to do this, see section *Log on to the camera*.
2 In the **System** menu, go to the **Events** webpages and configure the alarms as desired.

5.7 Connect data

The RS-485 connector is the interface for connecting with the pan and tilt positioning system of the camera. With RS-485 support, the IP camera is capable of working with a Pan Tilt Head for pan and tilt control. Before implementing pan/tilt control, make sure that the Pan Tilt Head is correctly connected to the IP camera's RS-485 port.



6. D+
7. D-

5.8 microSD Card

BC820v2 cameras support a microSD card (up to 64 GB) for storing event-triggered and scheduled recordings. For the location of the microSD card slot, see section *Back panel*.

On the Storage Management page of the web interface, administrators can view capacity information of the microSD/SDHC card and a recording list with all the recording files that are saved on the memory card. Administrators can also format the SD card and implement automatic recording cleanup. For more information, see the User Manual.

Note: Format the microSD/SDHC card when using it for the first time. Formatting is also required when a memory card already used on one camera is transferred to another camera with a different software platform.

Important: TKH Security advises to use high-grade, highly-durable SD cards. Note that SD cards are limited to the number of write cycles ranging from 1000 (off-the-shelf high-grade card MLC or TLC NAND) to 100.000 (4 GB industrial SLC NAND). Intensive usage will eventually wear out the card. The number of write cycles times the capacity of the SD card gives you the total amount of data that can be written to the card in its life time. A 32 GB microSDHC with 2000 write cycles, for example, can write 64 TB before it should be replaced.

6 Access the camera

The webpages of the BC820v2 offer a user-friendly interface for configuring the settings of the unit and viewing live video images over the network. This chapter explains how to connect to the built-in web server.

In This Chapter

6.1 System requirements

You can log on to the web interface of your BC820v2 unit from a PC which is on the same subnet as the unit. The browsing PC must meet the system requirements given in the table below and the browser must support ActiveX controls. Make sure that your PC has a good network connection.

Item	System requirement
Personal computer	**Minimum** 1. Intel® Core™ i5-2430M @ 2.4 GHz 2. 4 GB RAM
	Recommended 1. Intel® Core™ i7-870 @ 2.93 GHz 2. 8 GB RAM
Operating system	Windows 7 or higher
Web browser	Internet Explorer
Network card	10Base-T (10 Mbps), 100Base-TX (100 Mbps) or 1000Base-T (1000 Mbps) operation
Viewer	ActiveX control plug-in for Microsoft IE

6.2 Connect via web browser

To connect to the unit via your web browser

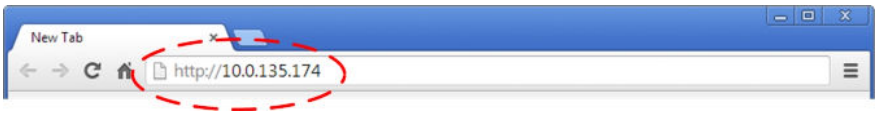
1 Open your web browser.

2 Type the IP address of the BC820v2 in the address bar, and then press ENTER.

The factory-set IP address of the BC820v2 is in the 10.x.x.x range. It is printed on a sticker on the unit.

If your network configuration is correct you are directed to the login page of the unit.

Note: A hard reset sets the IP address of the camera to its factory-default setting.



Type the IP address of the BC820v2 in the address bar of the browser

6.3 Find the unit with Device Manager

Device Manager is a Windows-based software tool that you can use to manage and configure TKH Security IP cameras and video encoders. The tool automatically locates these devices and offers you an intuitive interface to set and manage network settings, configure devices, show device status, and perform firmware upgrade.

To install Device Manager

1 Download the latest version of Device Manager at www.tkhsecurity.com/support-files.

2 Double-click the setup file.

3 Follow the installation steps to install the software.

To connect to the unit via Device Manager

1 Start Device Manager

The network is scanned and detected devices appear in the *List View* pane.

2 If multiple network adapters exist, select the appropriate adapter to scan the network that you wish to connect to.

3 To refresh the *List view* pane, click the **Rescan now** button.

4 Use the tabs in the *Tree View* pane to define the scope of your search.

5 Click the column headings in the *List View* pane to sort devices by type, IP address, or name.

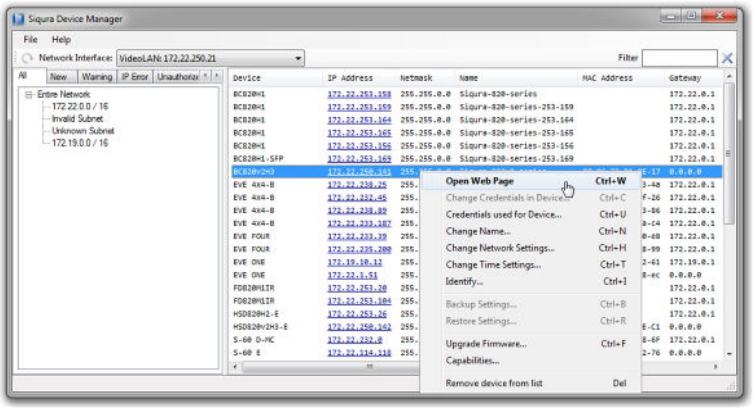
6 Use the *Filter* box, to search for a specific series or model.

7 To connect to the webpages of the BC820v2, double-click its entry in the device list,

- or -

Right-click the entry, and then click **Open Web Page**.

The login page of the BC820v2 is opened in your web browser.



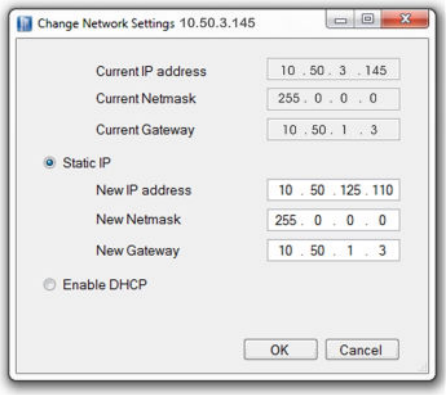
Connect to a device via Device Manager

6.4 Change network settings with Device Manager

With Device Manager, you can directly change the network settings of the BC820v2.

To assign a static IP address

1. Go to the list of detected devices, and then right-click the entry for the BC820v2.
2. Click **Change Network Settings**.
3. In *Change Network Settings*, click **Static IP**.
4. Provide the camera with an appropriate IP address, netmask, and gateway address for the desired network configuration, and then click **OK**.
5. In the pop-up window indicating that you have successfully changed the settings, click **OK**.
6. Wait one minute, and then rescan the network.
7. To access the webpages of the BC820v2, double-click its entry in the list of found devices.



Assign a static IP address

To assign a DHCP server

1 Record the BC820v2's MAC address (see the *Serial no.* column in Device Manager) for future identification

2 In the list of detected devices, right-click the device with the network property that you would like to change.

3 Click **Change Network Settings**.

4 In *Change Network Settings*, click **Enable DHCP**, and then click **OK**.

5 In the pop-up window indicating that you have successfully changed the settings, click **OK**.

6 Wait one minute, and then rescan the network.

You can identify the device by its MAC address.

7 To access the webpages of the BC820v2, double-click its entry in the list of found devices.

Note: A DHCP server must be installed on the network in order to provide DHCP network support.

6.5 Log on to the unit

Users with a valid account for the BC820v2 can log on to the unit.

To log on

1 In the *Authentication* box, log on with the account that was created for you.

User name and password are case sensitive.

The default user name set at the factory for the BC820v2 is "Admin" with password "1234".

2 Click **Log In**.

CAUTION: MAKE SURE THAT YOU CHANGE THE DEFAULT ADMIN PASSWORD AT THE FIRST LOGIN. TO KEEP THE ACCOUNT SAFE, CREATE A STRONG, COMPLEX PASSWORD. THIS HELPS TO PREVENT UNAUTHORISED ACCESS FROM PEOPLE WHO TRY TO USE THE DEFAULT ACCOUNT.

To create a strong password

- Use at least eight characters
- Do not include your real name, user name, company name, or other personal information
- Do not use complete words that can be found in a dictionary
- Use a random combination of the following letters, numbers, punctuation marks, and special characters: a-z, A-Z, 0-9, ! # $ % & ' - . @ ^ _ ~

6.6 Install Viewer

The first time you access the webpages of the camera, you may be prompted about the installation of Viewer. This add-on is required to view camera images in the webpages. The Viewer installation file is named `install.cab`. It does not give rise to any security risks. You can install it safely.

Important: You are strongly advised to remove a previous installation of Viewer from your computer before you initially access the camera over the network or when you encounter an "A new version is available" message. For more information, see *Appendix: Delete the existing Viewer software*.

Note: Make sure that the security settings of your web browser permit the use of ActiveX controls. For more information on how to modify these settings, see *Appendix: Set up Internet Security*.

To install the Viewer software

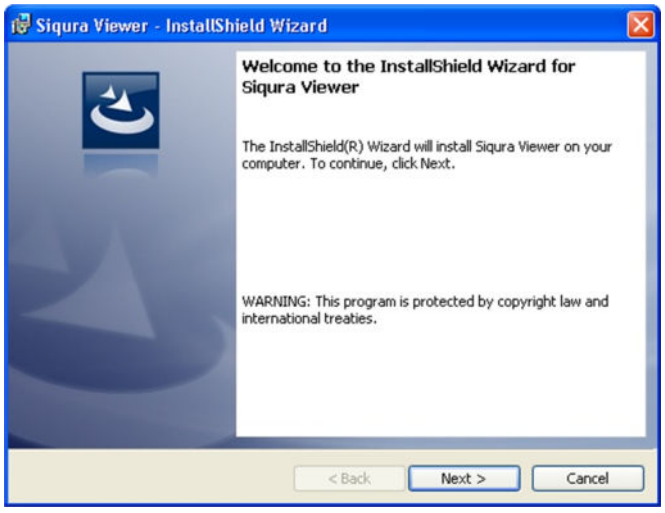
1 When prompted about the ActiveX control installation, allow the Viewer installation wizard to make changes to your computer.

2 In the initial screen of the installation wizard, click **Next**.

A progress bar is displayed while the application is being installed.

3 When installation is complete, click **Finish**.

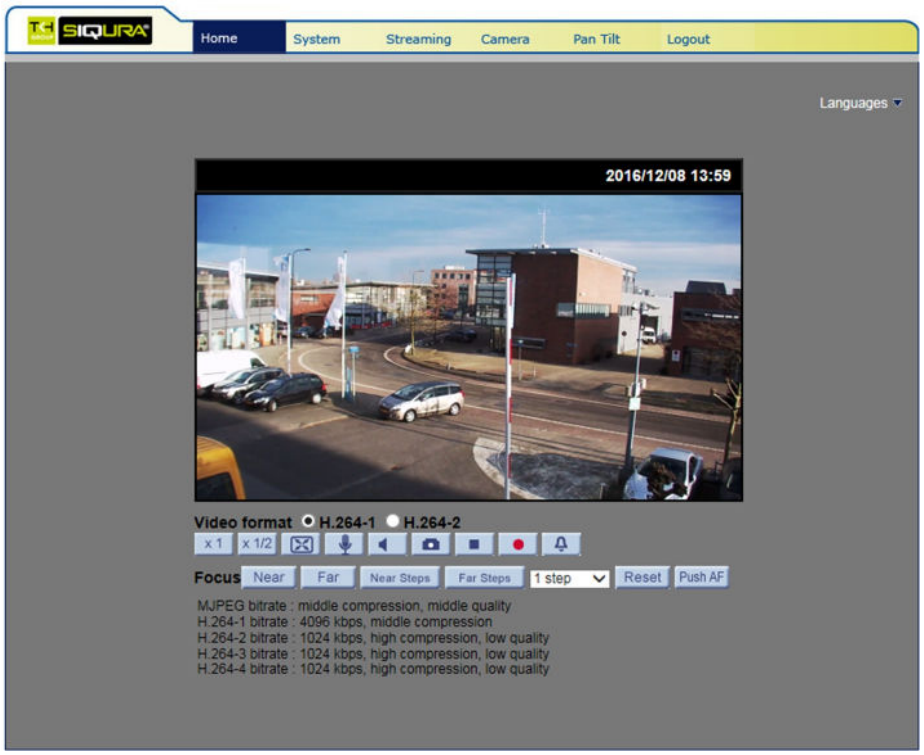
The camera's web interface is displayed.



Viewer installation wizard

6.7 Focus adjustment

Once Viewer is successfully installed, the Home page of the camera is displayed as shown below.



Use the focus buttons on this page to focus the camera properly. For more information about the web interface of the camera, refer to the User Manual.

6.8 System compatibility

To ensure system compatibility, you are advised to download the latest BC820v2 firmware at www.tkhsecurity.com/support-files

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Appendix: Enable UPnP in Windows 7

With UPnP enabled in Windows, it is possible to see TKH Security devices in Windows Explorer. You can double-click a device to open its webpages.

To enable UPnP in Windows 7

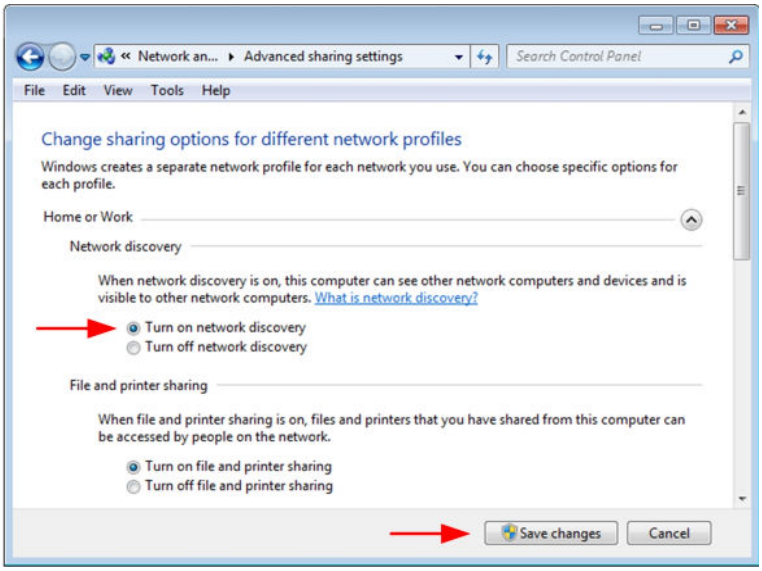
1 In *Control Panel*, click **Network and Sharing Center**.

2 In the left pane, click **Change advanced sharing settings**.

3 Under the relevant network profile, click **Turn on network discovery**.

4 Click **Save changes**

UPnP will now automatically start when you turn on your computer.



Enable network discovery

Appendix: Delete Viewer

Viewing camera images in the BC820v2 webpages requires Viewer software. We strongly advise you to remove a previous installation of Viewer from your computer before you access the camera over the network for the first time or when you encounter an "A new version is available" message.

To uninstall Viewer

1. On the Windows **Start Menu**, click **Control Panel**.
2. Click **Programs and Features**.
3. On the *Uninstall or change a program* page, select **Viewer** from the list of installed programs.
4. Click **Uninstall**.

Deleting the files in your Temporary Internet Files folder may improve your web browser performance.

To delete the Temporary Internet files

1. Open your web browser.
2. On the **Tools** menu, click **Internet Options**.
3. In the *Browsing history* section of the *General* tab, click **Delete**.
4. Select **Temporary Internet files**, and then click **Delete**.

Appendix: Set up Internet security

If ActiveX control (Viewer) installation is blocked, set the Internet security level to default or change the ActiveX controls and plug-ins settings.

To set the Internet Security level to default

1 Start Internet Explorer (IE).
2 On the **Tools** menu, select **Internet Options**.
3 Click the **Security** tab, and then select the (logo of the) **Internet** zone.
4 Under *Security level for this zone*, click the **Default Level** button.
5 Click **OK** to confirm the setting.
6 Close the browser window, and start a new session to access the BC820v2.

To modify ActiveX Controls and Plug-ins settings

1 Start Internet Explorer (IE).
2 On the **Tools** menu, select **Internet Options**.
3 Click the **Security** tab, and then select the (logo of the) **Internet** zone.
4 Under *Security level for this zone*, click the **Custom Level** button.
The Security Settings - Internet Zone dialog box displays.
5 Under *ActiveX controls and plug-ins*, set all items listed below to **Enable** or **Prompt**.
Note that items may vary from one IE version to another.
Allow previously unused ActiveX controls to run without prompt.
Allow Scriptlets.
Automatic prompting for ActiveX controls.
Binary and script behaviors.
Display video and animation on a webpage that does not use external media player.
Download signed ActiveX controls.
Download unsigned ActiveX controls.
Initialize and script ActiveX controls not marked as safe for scripting.
Run ActiveX controls and plug-ins.
Script ActiveX controls marked safe for scripting.
6 Click **OK** to accept the settings and close the *Security Settings* dialog box.
7 Click **OK** to close the Internet Options dialog box.
8 Close the browser window, and start a new session to access the BC820v2.

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