

CD820 Series

Compact Network Fixed Dome Camera

Installation Manual



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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CD820
Installation Manual v4 (121508-4)
AIT55

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1 About this manual

What this manual covers

This manual describes how to install the CD820, Siquira's compact fixed dome IP camera. For configuration and operation instructions, refer to the User Manual. For the Technical Specifications, refer to the CD820 datasheet. Download the latest version of the datasheet and all related manuals from www.siquira.com.

Who should read this manual

This manual is intended for technicians involved in the installation of CD820 cameras.

What you should already know

To be able to install and connect the CD820 properly, you should have adequate knowledge and skills in the following fields.

- CCTV systems and components
- Installing electronic devices
- Electrical wiring and low-voltage electrical connections
- Ethernet network technologies and Internet Protocol (IP)
- Windows environments
- Web browsers
- Video, audio, and contact closure transmissions
- Video compression methods

Before you start

We advise you to read and observe all instructions and warnings in this manual before you continue. Keep this manual with the original bill of sale for future reference and warranty service. When you unpack your product, check for missing or damaged items. If any item is missing, or if damage is evident, do not install or operate this product. Contact your supplier for assistance.

Why specifications may change

At Siquira, 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 CD820 safety instructions and compliance information.

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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. Siqura 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.siqura.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 SELV¹ 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 Siqura comply with these SELV requirements.

Power source and temperature ratings

Verify 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 CD820 datasheet at www.siqura.com.

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 statement



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) (2002/95/EC). Siqura offers products that comply with the EU's RoHS Directive. The full version of the Siqura RoHS statement can be viewed at www.siqura.com.

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 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 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.

2.3 Compliance

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

3 Product overview

This chapter introduces the CD820 and its features.

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3.1 Models

CD820F1



Compact fixed dome IP camera

- Multiple resolutions: 1080p/720p
- 1/2.7" Progressive scan CMOS imager
- 3.6 mm fixed lens
- Quad-stream H.264 and MJPEG video
- ONVIF compliant
- Audio - mic input
- Compact surface mount design
- Ruggedised construction
- 12 Vdc / 802.3af PoE
- IP66 Ingress protection rating

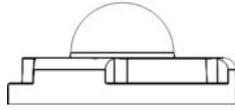
CD820F2



Compact fixed dome IP camera

- Multiple resolutions: 1080p/720p
- 1/2.7" Progressive scan CMOS imager
- Quad-stream H.264 and MJPEG video
- 2.8 mm fixed lens
- ONVIF compliant
- Audio - mic input
- Compact surface mount design
- Ruggedised construction
- 12 Vdc / 802.3af PoE
- IP66 Ingress protection rating

3.2 Package contents



CD820 camera



Plastic anchors (x3)



Self-tapping screws (x3)



Rubber washer (x3)



Security TORX



Connectors (waterproof solution)

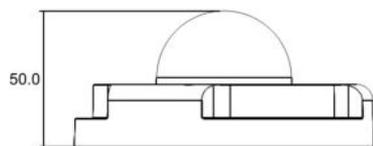
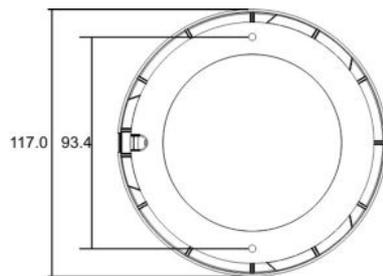


Quick Start Guide

Note: The supplied self-tapping screws are mainly for softer substrate/material installations such as wood. For other installation environments such as cement walls, pre-drill the holes and use plastic anchors before fastening the supplied self-tapping screw to the wall.

3.3 Dimensions

The CD820 dimensions are provided in millimetres in the figures below.



Unit: (mm)

CD820 dimensions in millimetres

3.4 System requirements

You can get access to the CD820 camera from a standard web browser which supports ActiveX controls. The browsing PC must meet the system requirements given in the table below.

Item	System requirement
Personal computer	Intel Pentium M, 2.16 GHz (or higher) or Intel CoreTM2 Duo, 2.0 GHz (or higher)
	At least 2 GB RAM
Operating system	Windows 7
Web browser	Internet Explorer
Network card	10Base-T (10 Mbps) or 100Base-TX (100 Mbps) operation
Viewer	ActiveX control plug-in for Microsoft IE

3.5 System compatibility

To ensure system compatibility, you are advised to download the latest CD820 firmware at <http://www.siqura.com>.

4 Cable connection

Read the instructions provided in this chapter thoroughly before installing the CD820 camera.

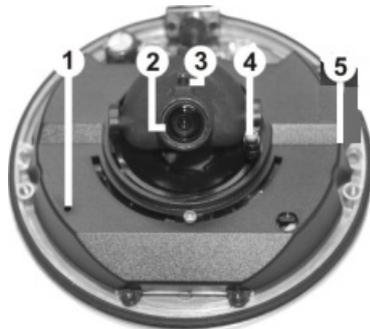
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4.1 Camera

Under the CD820 camera's outer cover, installers can physically adjust the angle and lens settings as well as access the reset button.

Important: The lens is factory focused for a wide depth of field when the housing cover is in place. The CD820's lens is focused to compensate for the slight shift in focus that is caused by the clear bubble. In the event that the focus needs to be adjusted, loosen the focus screw, refocus the lens, verify that the camera is still in focus with the housing cover in place, and then tighten gently. Do not over tighten!



Overview of the internal configuration of the CD820 camera

Feature	Description
1. Reset button	Press and hold this button for at least 20 seconds with an appropriate tool such as a small screwdriver or a paperclip, to restore the default settings (including network settings).
2. Pan screw	Loosen to adjust the pan angle.
3. Focus screw	Loosen to adjust the lens focus. Rotate the lens to the left and/or right to adjust the focus. Please note that under normal circumstances, the lens is factory focused and should not require adjusting.
4. Tilt screw	Loosen to adjust the tilt angle.
5. microSD card slot	Insert a micro secure digital (microSD) card for storing recordings locally

4.2 PoE cable connection

The CD820 uses Power over Ethernet (PoE), which requires that IEEE 802.3af PoE equipment is available on the network. The use of Cat 5 Ethernet cable is recommended for network connection. For the best transmission quality, limit the cable length to no more than 100 metres.

Connect one end of the Ethernet cable to the camera's RJ-45 connector and the other end of the cable to the IEEE 802.3af network switch or PC. The CD820 consumes 3.8W of power.

Note: In some cases, you may need to use an Ethernet crossover cable when directly connecting the CD820 to a PC.

4.2.1 RJ-45 connectors

A waterproof cable and RJ-45 connector are attached to the CD820 camera.

Follow the instructions in this section to complete the IP camera connection.



The CD820's waterproof RJ-45 connection

4.2.2 Ethernet cable connection

►► **To connect the CD820's Ethernet cable.**

- 1 Unpack the CD820 compact fixed-dome IP camera.
- 2 Use the security TORX tool to remove the housing cover.



Removing the housing cover

- 1 After connecting the Ethernet cable, replace the dome cover.

Cable connection

- 2 Run the Ethernet cable through the Waterproof RJ-45 Screw-On Plug.
- 3 Connect one end of the Ethernet cable to the RJ-45 dongle.
- 4 Completely tighten the sealing nut of the waterproof RJ-45 screw-on plug.
- 5 Connect the other end of the Ethernet cable to the Power Sourcing Equipment (PSE).



RJ-45 dongle

Note: For proper operation of the camera, use a waterproof PoE switch/hub.

5 Installation

The CD820 can be installed directly on a wall or ceiling, provided the surface has sufficient strength to support the camera.

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5.1 Hard-surface installation

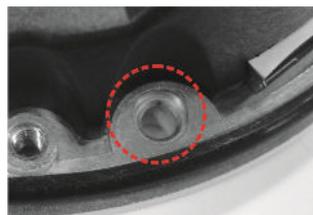
► To install the CD820 on a wall or hard ceiling

- 1 Unpack the CD820 compact fixed-dome IP camera.
- 2 Use the security TORX tool to remove the housing cover.



Removing the housing cover

- 3 Insert the rubber washers in both sides of the holes on the bottom plate of the camera.



Rubber washer position

- 4 Mark the position of the two screw holes.
- 5 Drill holes that are slightly smaller than the supplied 4 mm screw anchors.
- 6 Insert the anchors into the drilled holes.
- 7 Fasten the CD820 to the ceiling or wall with the supplied screws.
- 8 Connect the Cat 5 Ethernet cable to the RJ-45 connector. If necessary, connect the M8 audio connector to the audio source. For more information, see *Connect audio*.
- 9 After the dome body is mounted and the cable connected, type the IP address of the camera into an Internet Explorer 6.0 or higher web browser to access the camera's internal settings.

The default user name is Admin with 1234 as the default password.

The camera view should appear on the home page. For more information, consult the *CD820 & (I)FD820 Series - User Manual*.

- 10 Use the home page of the camera's web interface to check the position of the camera view.
- 11 If necessary, loosen the tilt or pan screws to adjust the camera's angle. See *Camera* for more information on the various screws under the camera's cover.
- 12 Gently tighten the angle screws and replace the dome cover.



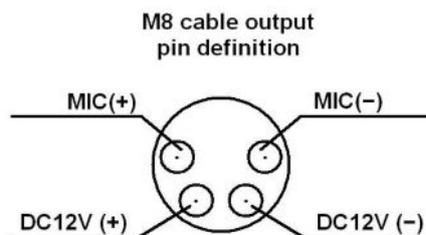
CAUTION: MAKE SURE THAT YOU CHANGE THE DEFAULT ADMIN PASSWORD AT THE FIRST LOGIN. TO KEEP THE ACCOUNT SAFE, CREATE A STRONG, COMPLEX PASSWORD. THIS HELPS TO PREVENT UNAUTHORISED ACCESS FROM PEOPLE WHO TRY TO USE THE DEFAULT ACCOUNT.

» **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, ! # \$ % & ' - . @ ^ _ ~

5.2 Connect audio

Users can connect an external microphone to the CD820 through a waterproof M8 connector. The CD820 offers Simplex listen-only audio. This allows audio to be received, so one site can listen to the other site.



M8 audio connector pin assignments

» **To enable audio in the CD820**

- 1 Connect the camera's audio connector to an external microphone.
- 2 In the internal web pages, go to **Streaming > Audio** to enable the audio feature. If necessary, refer to the *CD820 & (I)FD820 Series - User Manual* and follow the procedure to log on to browser-based interface to view the camera image.
- 3 Under Transmission Mode, click to select **Simplex (Listen only)**.
- 4 Click **Save**.

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