

# DocCAM 20 HDBT Ceiling-Mounted Document Camera

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## Current Release

### DocCAM 20 HDBT 1.3.0

December 20, 2019

#### New Features

- If you restore factory defaults, the camera now requires an initial setup step to make the administrative controls and other functionality available. In this initial step, you must set the admin password. This is also required for initial access to cameras that ship with this version of firmware. See [Initial Set-Up Procedure](#). After completing the initial setup, you have the option of enabling streaming and other disabled features. At this time, setting the admin password is the only task in the initial setup procedure.

*Note: You can operate the camera with the remote even if no password is set.*

#### Improvements

- Security improvements include changes to the default settings for:
  - HTTP access is disabled. To connect using HTTPS, type `https://` followed by the IP address. Because Vaddio uses self-signed certificates, your browser will present warning messages indicating that you are trying to access an unsafe website; however, this is a secure connection to the camera and traffic will be encrypted.
  - Streaming is disabled.
  - Telnet access is disabled.
- Telnet commands to set hostnames and other user-definable strings now accept hyphens.
- The Telnet command `network settings get` now includes the camera's hostname in the information it returns.
- The Telnet command `camera ccu get` now returns all camera ccu settings if no parameter is specified.
- Telnet commands now recognize the appropriate ranges of values for various camera settings, such as iris.
- Occasionally, the camera could lose its HDBaseT connection if it remained in standby for extended periods. This has been fixed.
- The web interface presents a notification if a configuration cannot be imported from another DocCAM camera due to incompatible hardware versions.

#### Notes

- If controlling this camera with any of the following devices, the device may require a firmware update to be able to control the camera via IP.
  - PCC Premier
  - AV Bridge MATRIX PRO
  - AV Bridge MatrixMIX
  - OneLINK Bridge

## Release History

### DocCAM 20 HDBT 1.2.0

September 27, 2019

#### New Features

- When static IP addressing is selected, the administrator can specify a DNS server.
- Added the `no_wait` parameter to the `camera zoom set` command. This parameter returns the command prompt immediately, while the requested camera movement is still in progress.

#### Improvements

- In some cases, the camera reported its zoom position inaccurately after a very small change in zoom level. This has been fixed.
- Exporting the camera's configuration to an Android device now works properly.
- If a custom home preset was stored while the camera was in manual focus mode, and the home preset was subsequently cleared, attempting to select the home preset could generate an error message. This has been fixed.
- The ranges for iris and gain values have been corrected in the Telnet command `camera ccu set`.
- The speed parameter has been removed from the Telnet command `camera zoom`, as it is not valid on this camera.

### DocCAM 20 HDBT 1.1.0

July 22, 2019

#### New Features

- Added initial public REST API.
- Support for UVC proxying from a OneLINK Bridge to enable far-end control when used with some third-party soft codec clients like Zoom that support UVC standards.
- Added support for DNS Service Discovery.
- Added support for RTMP streaming. This is configured in the admin web interface and can be enabled/disabled in both the admin and the user web interface.
- Telnet command to allow streaming enabled status to be toggled: `streaming ip enable toggle`.
- Telnet command to recall and store CCU scenes: `camera ccu scene { recall { factory <1 – 6> | custom <1 – 3> } | store custom <1 – 3> }`
- Telnet command to control or query LED status: `camera led { get | off | on }`.

#### Improvements

- In the admin web interface, various camera behavior settings have moved from soft DIP switches to the General tab of the System page.
- Video Output Resolution is now selected in the admin web interface through a simplified drop-down menu on the General tab of the System page.
- Added support to the web interface for long press right clicking on iOS devices.
- One Push White Balance can now be executed through the camera's admin web interface.
- In the event that IP streaming stops working properly and a reboot is needed, the admin web interface prompts the user to reboot the camera.
- On receiving a reboot instruction, the DocCAM camera now ensures your most recent configuration changes have been saved successfully before rebooting.
- Improved stability when changing IP streaming settings.
- Iris gain is now shown in dB values in web interface.
- TLS v1.1 protocol is no longer supported; more recent protocols continue to be supported.
- Improved handling of HDBaseT hot-plug events.
- Improved camera behavior during lengthy camera operations.
- Improved camera behavior when an operator rapidly and repeatedly cancels and restarts camera operations.

- In some cases, the web interface did not load properly if the computer had recently accessed another Vaddio device at the same IP address. This has been fixed.
- IR address DIP switch behavior now more closely reflects documentation.
- Various cosmetic improvements to the web UI.

## **DocCAM 20 HDBT 1.0.2**

July 9, 2018

### New Features

- HTTPS access to the camera is now supported and the HTTPS certificate can now be configured from the admin web interface.
- HTTP access to the camera can now be disabled by an admin. When this is disabled, HTTPS must be used to connect to the web interface.
- Telnet commands for setting or getting the camera's gamma values: `camera ccu { set gamma [<value>] | get gamma }`.
- Serial command to retrieve the camera's IP address: `[81 09 08 4E 00 00 FF]`.
- Soft DIP in admin web interface to turn off the camera's LED during standby instead of displaying its normal standby color.

### Improvements

- TLS v1.0 protocol is no longer supported; more recent protocols continue to be supported.
- Main navigation bar of the web interface now has tooltips when collapsed.
- Improved internal firewall settings.
- Added ability to configure maximum packet size (MTU) for IP streaming.
- Added new streaming infrastructure with fix for TCP connections to the IP stream causing failures during extended streaming sessions.
- Updated default camera resolution from 720p/59.94 to 1080p/60.
- Improved several items relating to increased HDBaseT performance.

### Notes

- If the camera's custom Home preset takes an extremely long time to execute (>45 seconds), the camera may not fully exit standby. Changing settings so the home preset will have a faster recall speed will resolve the issue.

## **DocCAM 20 HDBT 1.0.1**

April 16, 2018

### New Features

- Administrator can rename the camera's browser tab title in web interface.
- Added ability for the administrator to disable the camera's Telnet server through the web interface.
- Telnet control commands for absolute position control: `camera zoom { get | set [<value>] }`.

### Improvements

- Interoperability improvements with Internet Explorer® 9 through IE11.
- Moved soft DIP switches to camera settings in the admin web interface.
- Enhanced support for USB joystick control.
- Updated system time zone data.
- Improved ability via Telnet control to allow finer detailed setting for zoom position.
- Fix for IP streaming failure when the stream is accessed with at least one consumer specifying the default port number and at least one not specifying it.

## **DocCAM 20 HDBT 1.0.0**

October 20, 2017

### Notes

- Initial Release.

## Initial Set-Up Procedure

Recent security improvements to Vaddio products have changed the way you interact with this product when you set it up for the first time.

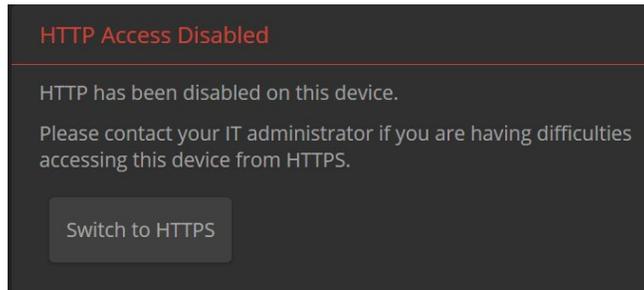
### What's new

- The product now defaults to the more secure HTTPS protocol, rather than HTTP.
- You must set the admin password using the web interface. Until the admin password is set and any other initial tasks are completed, the control and administrative interfaces are not available.
- You will not be able to open a Telnet session to this product until you set the password using the web interface.
- You will need to set the admin password again if you restore factory defaults.

**Refer to the product's manual for specific instructions to discover its IP address and access its web interface.**

### Connect using HTTPS

Before the product is configured, HTTP access is disabled. To access the web interface, type `https://` followed by the IP address. Otherwise, you may encounter this message:



Switch to HTTPS if you see this message.

### Expect a security warning from your browser

Different browsers will respond with different messages and options. Your browser will probably present a message indicating one of these things:

- The connection is not private
- The site is not secure
- The site is not trusted
- The site poses a security threat

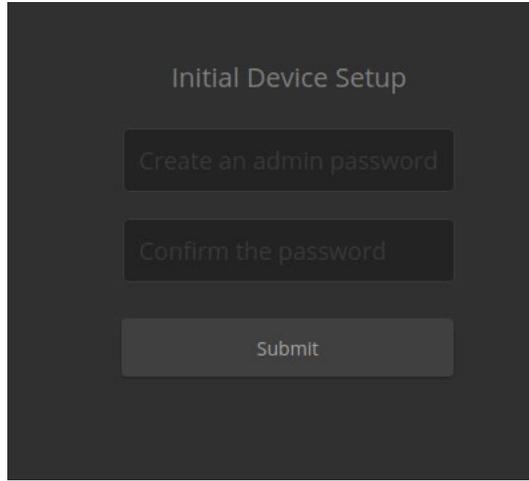
This is because the certificate (the product's website security credential) is self-signed rather than being issued by an external certificate authority. Despite the security warning, this is a secure connection to the camera and traffic will be encrypted.

*To proceed to the product's web interface, you will need to make the selections that your browser's security message discourages.* The security warning page may present an option to learn more, view details, or go to the "Advanced" page. When you select the applicable option, your browser provides a button or link to continue to the IP address you entered, with a reminder that it may be unsafe. Select this option.

After you have accessed the product's web interface once, your browser remembers its IP address and will not present the security message again.

## Device set-up

The first time the product's web interface is accessed, it presents a landing page for initial set-up tasks. You will also encounter this page after restoring factory defaults. After you complete the initial set-up, you will be able to work with the product.



The image shows a dark-themed web interface for 'Initial Device Setup'. It contains three input fields: 'Create an admin password', 'Confirm the password', and a 'Submit' button.

Create and confirm the admin password, and complete any other required tasks such as accepting agreements. Then select Submit. The main administrative web interface opens.

In the administrative web interface, you can configure product security features to conform to the IT policies for your environment. Except where otherwise noted, these settings are on the Security page.

- Create a user password – Allow password-protected, non-administrative access to the operator's web interface.
- Enable guest access – Allow non-administrative access to the operator's web interface without requiring a login.
- Choose whether to expire idle sessions – By default, the web interface automatically logs you out after 30 minutes of inactivity.
- Enable HTTP access – Enable connections to the product's web interface using the less-secure HTTP protocol.
- Enable Telnet access – This is disabled by default.
- Enable streaming – This is disabled by default. You can enable it on the Streaming page.

## Firmware Update Instructions – DocCAM 20 HDBT

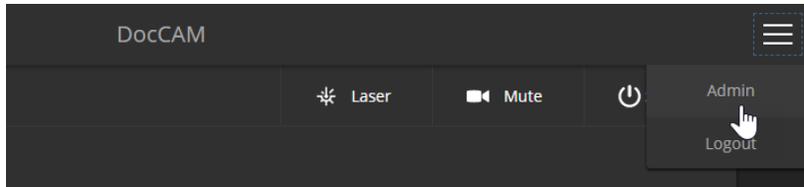
### Requirements

- Network access to the camera.
- The web interface's admin password.
- The .p7m firmware file for the camera – download this from <https://www.legrandav.com/>. It is available on the product page's Resources tab.

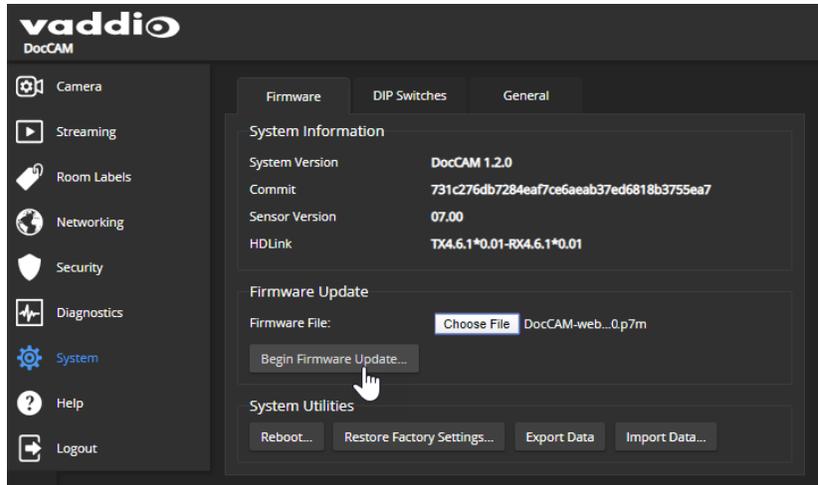
### Step-By-Step Process

Note: Your camera's web interface will display different model and firmware information from the screen shots in this document. The process for updating firmware is the same for all cameras in the RoboSHOT family.

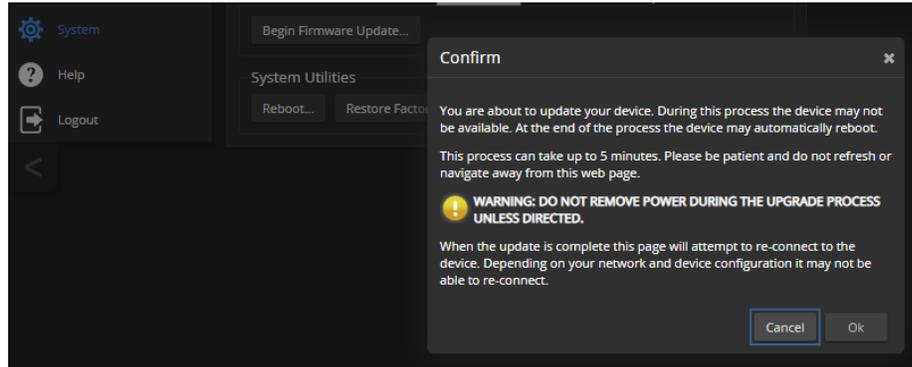
1. Enter the IP address for the camera into the address bar of a web browser.  
*You can obtain the IP address for the camera using the remote. Aim at the camera and press the Data Screen button. The connected display shows the camera's IP address.*
2. Log in as admin.



3. Navigate to the System page. Your camera's System page may present different information than shown in the screen shot.
4. Select Choose File, then browse to the downloaded firmware and select it. The filename ends with .p7m.
5. Select Begin Firmware Update.



6. Read and understand the information in the Confirm dialog box. It's dull, but it could save you some time and aggravation.



7. Select Continue. A progress message box opens and the indicator light on the front of the camera turns yellow. If the update process presents warnings or error messages, read them carefully.
8. The camera reboots when the update is complete.

### Caution

**The camera must remain connected to power and to the network during the update. Interrupting the update could make the camera unusable.**

This update can take up to 5 minutes to complete; the pop-up message window will identify the progress of the update.

While you're waiting, you could try the following:

- Embrace the boredom! Measure the room dimensions by counting the ceiling tiles.
- Decide what you would name a new planet, in case you discover one. Be prepared!
- Think about what super-power you would like to have. Do you have a super-power already?

After the update is complete, the System page will display the new firmware version under System Information. Enjoy that 'New Firmware Smell'!

**If the update procedure is interrupted for any reason the product may need to be returned to Vaddio for updating. If the update does not seem to run, DO NOT TURN OFF THE PRODUCT OR UNPLUG IT. CALL TECH SUPPORT IMMEDIATELY.**

**If you have any questions, call Vaddio Technical Support: (+1) 763-971-4428 or 1-800-572-2011**

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