

## Release Notes and Update Instructions

# RoboSHOT 20/40 UHD Professional PTZ Camera

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## Current Release

### RoboSHOT® 20/40 UHD 3.0.0

March 31, 2025

#### New Features

- Added support for 256 camera presets via CLISH

#### Improvements

- Improved some CLISHcommand help.
- Improved CLISH hint and range for chained preset recall.
- Improved VISCA Over IP implementation.
- Improved data import functionality.
- Various infrastructure updates.

## Release History

### RoboSHOT® 20/40 UHD 2.7.0

September 3, 2024

#### New Features

- Added button to copy stream URL directly from the web UI.
- Introduced a new CLISH 'info' command to query product and room label information.
- Added a show/hide button for entering passwords in the web UI.
- Added support for passwordless login over Telnet.
- Added support for preset buttons 7 and 8 on newer remotes.
- Introduced a toggle for displaying MAC/IP addresses on the web UI OSD.
- Option to leave the camera video feed on while entering and exiting standby mode.

#### Improvements

- RTMP streaming settings now allow more streaming services to be added.
- Improved clarity and stability in Telnet sessions.
- Improved accuracy of the CLISH command for retrieving HDBT link settings.
- Various infrastructure updates and cosmetic improvements to the web UI.

### RoboSHOT® 20/40 UHD 2.6.0

February 21, 2023

#### New Features

- You can now send Command Line Interface SHell (CLISH) commands using SSH as a secure alternative to Telnet. SSH access is disabled by default, and can be enabled on the device's Security page.
- The camera now provides the option to return to its last known PTZ position when coming out of standby. The new setting is available on the System page's General tab.

#### Improvements

- When coming out of standby, the camera now goes directly to its expected position (the user-defined home preset or last known PTZ position, depending on settings) without first moving to the factory default home position.
- Improved support for VISCA-over-IP with some codecs. This feature is experimental. Please contact Vaddio technical support if you encounter issues using it.
- The manual focus and focus near buttons on the remote did not behave as expected for cameras using IR channels 2 and 3. This has been fixed.

#### **RoboSHOT 20/40 UHD 2.5.1**

March 18, 2022

#### Improvements

- Manufacturing improvements.

## RoboSHOT 20/40 UHD 2.5.0

November 15, 2021

### New Features

- An anti-flicker filter is now available for cameras using 50 Hz mains power. The setting is on the web interface's System page, General tab.

### Improvements

- After the camera was reset to factory defaults using the rotary switch, the camera's resolution setting was incorrect. This has been fixed.
- When the camera was used with a OneLINK Bridge, power-cycling the OneLINK Bridge could result in the IP stream containing video but no audio. This has been fixed.
- RTMPS streaming has been fixed.
- In a RoboTRAK system, the camera could stop tracking properly. This has been fixed.

## RoboSHOT 20/40 UHD 2.4.0

July 2, 2021

### Improvements

- The camera could periodically lose its network connection very briefly. This has been fixed.
- On DHCP-enabled devices, it was possible to have more than one gateway address listed. This has been fixed.
- RS-232 (VISCA) pan/tilt inquiries could sometimes return incorrect information or error codes. This has been fixed.
- In some cases, the web interface did not correctly reflect the video mute state after the camera received an RS-232 (VISCA) command. This has been fixed.
- The range of zoom values available for the `camera zoom set CLISH` command was not correct. This has been fixed.
- On older RoboSHOT 20 UHD cameras with DIP switches, the camera ID setting (IR channel) reverted to camera 1 after a firmware update, regardless of switch settings. This has been fixed.

## RoboSHOT 20/40 UHD 2.3.0

November 30, 2020

### New Features

- You can now create programmed sequences of shots using the preset chains feature.
- We have placed a link to the company's standard privacy notice on this product's Help page and on the Initial Device Set-Up page. This product does not record or save audio or video files, and it does not store any identifying information other than what you may choose to enter on the Room Labels page of the web interface. However, the device's IP address is considered "personally identifiable information" for the purposes of the privacy notice. This information is stored for display to the user, but not otherwise shared or transmitted.
- Added VISCA-over-IP support. This feature is experimental. Please contact Vaddio technical support if you encounter issues using it.

## Improvements

- Camera behavior settings previously presented on the DIP Switches tab of the System page are now on the General tab.
- Enhanced compatibility with the new Vaddio Device Controller.
- After updating firmware, the Telnet enabled/disabled status shown in the web interface could become out of sync with device behavior. This has been fixed.
- The permitted range of gain values in the camera ccu get command has been corrected.

## RoboSHOT 20/40 UHD 2.2.0

February 7, 2020

### New Features

- The RoboSHOT 20 UHD camera's rotary switch now includes a setting to restore factory defaults on the next power cycle. The DIP switches on older RoboSHOT 20 UHD cameras are no longer used for this function.

### Improvements

- CLISH commands to set hostnames and other user-definable strings now accept hyphens.
- In some cases, firmware updates could fail. This has been fixed.
- In some cases, it was not possible to log in to the web interface after updating a camera that had been using a factory default password. In this situation, the web interface now prompts for initial device set-up.

## RoboSHOT 20/40 UHD 2.1.0

December 16, 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 [Error! Reference source not found.](#) 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.*
- When static IP addressing is selected, the administrator can specify a DNS server.
- Added CLISH command `camera ptz-position {{pan | tilt | zoom} <position> [no_wait]}` to specify multiple-axis movements to absolute positions. The optional `no_wait` parameter allows the command to return the command prompt immediately, while the requested camera movement is still in progress. The command `camera ptz-position get` returns the camera's current pan, tilt, and zoom positions.

## 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.
- The CLISH command `network settings get` now includes the camera's hostname in the information it returns.
- The CLISH command `camera ccu get` now returns all camera ccu settings if no parameter is specified.
- The top speeds for Global Preset Non-Tri-Sync Speeds have been reduced to provide better control in certain conferencing applications.
- CLISH 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.
- Exporting data to an Android device now works properly.

## 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
  - RoboTRAK
  - AV Bridge MATRIX PRO
  - AV Bridge MatrixMIX
  - OneLINK Bridge
- (RoboSHOT 20 UHD) Factory defaults cannot currently be restored using the camera's DIP switches. Other methods (rotary switch, web interface, or CLISH command) can be used.

## RoboSHOT 20/40 UHD 2.0.0

August 30, 2019

### New Features

- Added support for chained presets (preset macros). Chains are defined in the admin web interface and can be started from both the admin and non-admin web interface. A new CLISH command, `camera chained-preset { recall | stop } <chain>` provides start/stop control.
- Added CLISH command `camera ptz-position {{pan | tilt | zoom} <position> [no_wait]}` to specify multiple-axis movements to absolute positions. The optional `no_wait` parameter allows the command to return the command prompt immediately, while the requested camera movement is still in progress. The command `camera ptz-position get` returns the camera's current pan, tilt, and zoom positions.
- Added support for long press right-clicking on iOS devices.
- Added CLISH command `camera icr { get | on | off }` to control the camera's IR cut filter. When the filter is on, the video image is black and white.

### Improvements

- (RoboSHOT 40 UHD only) The previously unused Position E on the rotary switch now enables software control of video output resolution. When the switch is set to software control mode, the administrator sets video resolution via the web interface, on the General tab of the System page.
- Added an obfuscation feature for the RTMP stream key in the web interface.
- In the admin web interface, various camera behavior settings have moved from soft DIP switches to the General tab of the System page.

- 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.
- Disabled TLS v1.1 protocol. More recent protocols continue to be supported.
- Improved camera behavior during lengthy camera operations.
- Executing several pan, tilt, or zoom commands using absolute positions in quick succession could generate error messages. This has been fixed.
- 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.
- In some cases, the camera reported its zoom position inaccurately after a very small change in zoom level. This has been fixed.
- Some parameters were incorrectly stored in CCU scenes and in presets stored with color information. This has been fixed.
- In some cases, if the Color Bar Generator setting was enabled when resolution or color space was changed, color bars would not be generated although the web interface still showed the setting enabled. This has been fixed.
- (RoboSHOT 40 UHD only) In some cases, genlock initialization could generate errors while the camera was booting. This has been fixed.
- (RoboSHOT 40 UHD only) Occasionally, changing the camera ID (IR1/IR2/IR3) soft DIP switches repeatedly and quickly could cause the web interface to become unresponsive for several seconds, leading to the information in the web interface potentially not reflecting the camera's current state. This has been fixed.
- Occasionally, the camera booted without video on the display outputs. This has been fixed.
- Occasionally, the tilt motor did not initialize properly after a firmware update. This has been fixed.
- (RoboSHOT 20 UHD only; this issue did not occur on RoboSHOT 40 UHD) Floating-point values are now handled properly by the `camera zoom set` command.
- Improved out-of-range error messages for CLISH commands specifying movements by absolute position.
- The RS-232/VISCA command `CAM_Freeze` now behaves as expected.

### **RoboSHOT 40 UHD 1.0.1**

January 4, 2019

#### Improvements

- Changes made to improve manufacturability.

### **RoboSHOT 40 UHD 1.0.0**

December 5, 2018

#### Notes

- Initial Release.

### **RoboSHOT 20 UHD 1.3.0**

November 16, 2017

#### New Features

- Added support for RTMP streaming.
- Added codec compatibility mode for Polycom® Group Series Codecs.
- Added codec compatibility mode for Cisco® SX-20 and SX-80 series codecs. (For SX-20 codecs, Vaddio recommends the codec's firmware be updated to latest CE-series firmware for best operation).
- Added 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 ability to forward IR commands over the HDBaseT connection.
- 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.
- Added ability for the administrator to disable the camera's Telnet server through the web interface.
- Added public REST API.
- Added support for DNS Service Discovery.
- Added advanced streaming settings for enhanced compatibility with VPN environments.
- Added ability to import configurations from previous versions of software.
- Added ability to rename the browser tab title in the web UI.
- Added one-push white balance function to the web UI.
- Added ability to configure MTU setting for IP streaming packets.
- Added `camera led` CLISH command to enable/disable the front LED.
- Added CLISH command to enable/disable IP streaming: `[streaming ip enable get | on | off |toggle ]`
- Added a serial command for retrieving the camera's IP address: `[81 09 08 4E 00 00 FF]`.

#### Improvements

- Discontinued support for DES and 3DES cyphers and TLS v1.0 protocol. More recent cyphers and protocols continue to be supported.
- Improved firewall settings.
- Improved support for USB joystick control.
- Custom CCU scenes can now be reset from the web interface.
- Restored lighting behavior for HDBaseT port and other HDBaseT link performance improvements.
- Updated time zone information.
- Interoperability improvements with Internet Explorer™ 9 through IE11 and recent Chrome releases.
- Added soft DIP switch controls for:
  - Codec Control Mode.
  - Disabling the front LED.
  - Allowing the front LED to be turned off during standby.
  - Preventing DIP switch changes while the device is in standby.
- Updated syntax for `network ping count` CLISH command.
- Absolute pan, tilt, and zoom position control via CLISH commands.
- Added `gamma` to the `camera ccu` CLISH command: `camera ccu {get | set} gamma`
- Various IP streaming improvements.

#### Notes

- If previously selected time zone is deprecated during a time zone information update, the settings for the camera will default back to UTC.

## RoboSHOT 20 UHD 1.2.0

September 21, 2016

#### New Features

- Support for AV Bridge MatrixMIX and PCC MatrixMIX.

#### Improvements

- Updated HDBaseT parameters for enhanced interoperability.
- Improvements for IP streaming.
- Enhancements for color space handling for 4K video in RGB mode.
- Improved gamma control handling over serial connections..
- Various cosmetic web updates.

## **RoboSHOT 20 UHD 1.1.1**

November 8, 2016

### Improvements

- Internal update to assist in production requirements.

## **RoboSHOT 20 UHD 1.1.0**

September 21, 2016

### New Features

- The camera has been updated to work with RoboTRAK.
- Default streaming settings have been changed to optimize streaming performance under most conditions.

### Improvements

- Cameras now reach the full 90° upward tilt stated in the technical specifications; however, the correction affects previously stored presets. Vaddio recommends checking existing presets and adjusting them as needed.
- In some cases, turning the video output resolution switch, pausing momentarily, and turning it again could cause errors. This has been fixed.
- In a few instances during testing, using the camera's web interface to enable its IP stream caused an associated PCC Premier to lose the stream for its local video output. This only happened if the camera was in an address book group currently selected as Control A or Control B. This has been fixed.
- The camera has now added the ability to forward IR to Vaddio camera extension systems which support it.

## **RoboSHOT 20 UHD 1.0.0**

July 25, 2016

### Notes

- Initial Release.

## Initial Set-Up Procedure

If you are updating from version 2.1.0 or earlier, you will need to set a password for the `admin` account immediately after completing the update. You may also need to change the security settings, as the default settings have changed.

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

To access the web interface, type `https://` followed by the IP address.

Before the product is configured, HTTP access is disabled. It can be re-enabled after you set the admin password.

Expect a security warning from your browser. The certificate (the product’s website security credential) is self-signed rather than being issued by an external certificate authority.

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

Despite the security warning, the HTTPS connection is secure and traffic is 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 may remember its IP address and not present the security message again.

Set the admin password. If there are other tasks on the page (such as reading and accepting policies and agreements), complete them also.

*Note: This page includes a link to the company’s standard privacy policy. This product does not record or save audio or video files, and it does not store any identifying information other than what you may choose to enter on the Room Labels page of the web interface. However, the device’s IP address is considered “personally identifiable information” for the purposes of the privacy policy.*

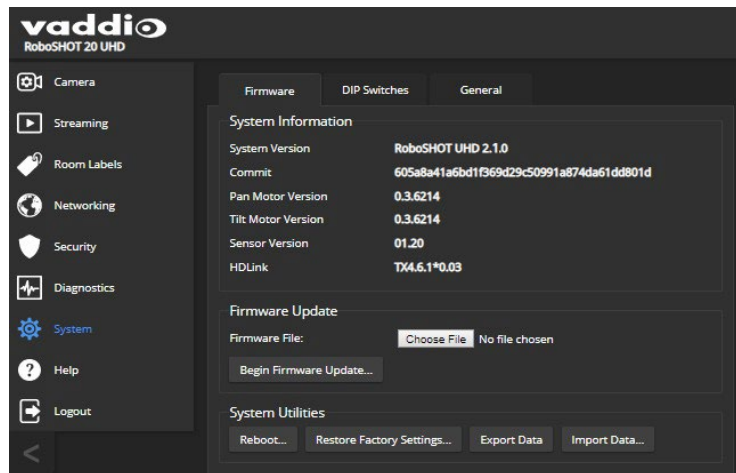
## Firmware Update Instructions – RoboSHOT 20/40 UHD

The process for updating firmware is the same for virtually all Vaddio products. *Your device's web interface may display different information from the screen shot in this procedure.*

### Caution

**The camera must remain connected to power and to the network during the update. Interrupting the update could make the camera unusable. If the update does not run, DO NOT DISCONNECT POWER. Call Vaddio Tech Support immediately: +1 763-971-4400 or 800-572-2011.**

1. Download the firmware file if you have not done so already.
2. Access the device's web interface and log in as `admin`.
3. On the System page, select Choose File and select the file you downloaded. Then select Begin Firmware Update.



4. Read the Confirm dialog box, then select Continue. You will be prompted to log in again when the process is complete.

This update can take up to 5 minutes to complete. While you're waiting, you could try the following:

- Make a list of things to do while the firmware update finishes. (Your list could even include making a list of things to do while the firmware update finishes.)
- Decide how to decide.
- Be as recursive as you want.

After the update is complete, the System page will display the new firmware version under System Information. Enjoy that new-firmware smell!

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