

Spectra Enhanced Series

This document describes the features, operational issues, and major fixes for the new Spectra Enhanced Series IP-PTZ dome cameras. Review each section to determine if an upgrade is warranted for your installation. For additional information on the camera (including the latest updates to documentation, product specifications, and software downloads), visit the Pelco Web site at www.pelco.com.

NOTE: For technical issues, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international).

2.13.4.6 Release

New Features and Improvements

- Add the ability to upload a PKCS12 certificate for TLS security.

Major Fixes

- Corrected an issue with the SD card losing recording after a power failure.
- Corrected a problem with the camera failing to give a proper error message when an invalid certificate is uploaded.

2.13.3.8 Release

New Features and Improvements

- Added compliance with California's new SB-327 cybersecurity law aimed at preventing unauthorized access to Internet-connected devices. The camera now requires an administrator account to be created the first time it boots. Without such an account, the camera will not stream video and will fail most API requests.

NOTE: In order to upgrade this firmware from v.2.13.2 or another previous version, users must first create an administrator account on the camera prior to the upgrade.

Major Fixes

- Corrected an issue causing an inability to download the log from Spectra Enhanced.
- Corrected a problem with the PTZ Preset Tour home preset missing the home image.

2.13.2.4 Release

Major Fixes

- Corrected an issue with SSL: Self Signed Certificates should use SHA256 signatures.
- Corrected a problem with PTZ patterns. If a PTZ pattern was cleared twice, it was deleted completely and couldn't be recorded over again.
- Corrected an issue with zones in Google Chrome dragging the image instead of the zone.

- Corrected a problem with not being able to create Preset Tours.
- Corrected an issue causing an error on the page when changing the admin password to an existing user.

2.13.1.3 Release

New Features and Improvements

- Added the new Pelco logos and removed references to Schneider Electric in the code.

2.13.0.17 Release

New Features and Improvements

- Added the ability to record audio and metadata with locally recorded video.
- Added generation of ONVIF events related to local recording.
- Added improved cybersecurity.
- Added ONVIF T compliance.

Major Fixes

- Corrected an issue with the Web Client not loading pages properly after creating a new user.
- Corrected a problem preventing the ability to zoom out on the PTZ Positioning page.
- Corrected an issue causing the IPv6 address to not display in the Web Client after disabling and re-enabling.
- Corrected a problem with the Web UI not providing a meaningful error message to appear when the user tries to record a MJPEG stream.
- Corrected an issue causing alarm dwell time not to save on the Sources page.

2.12.1.1 Release

Major Fixes

- Corrected an issue with portions of stream preset descriptions not being localized.
- Corrected an issue causing the Sabotage Analytic to not work as designed.
- Corrected a problem with disabling streams in the web client not denying streams to be pulled through VLC Media Player.
- Corrected a problem causing selecting “Enable on Secondary” in the Primary stream to not enable the disabled Secondary stream.

2.12.0.8 Release

New Features and Improvements

- Added cybersecurity improvements:
 - Added the ability to set TLS (formerly SSL) to “Required” in the Web Client which disables HTTP access.
 - Added Web Client controls to allow and block IPv6 addresses.
- Added zoom speed enhancements:
 - Added the ability to allow a user to configure the maximum zoom speed.

Major Fixes

- Corrected a problem with the panoramic view in Two Camera Tracking web pages flashing between showing video and a gray box.
- Corrected a problem with setting 802.1x to EAP-TTLS/EAP-MSCHAPV2.
- Corrected an issue with Edge Storage and not being able to pull clips from the camera.

2.11.1.7 Firmware Release

New Features and Improvements

- Added support for integrating VideoXpert with Pelco Camera Link functionality.
- Added the ability to update firmware from the Web Client.
- Added updated default image quality settings.

Major Fixes

- Corrected an issue causing the Spectra Enhanced zoomed position to change slightly after a preset was saved.
- Corrected an issue causing audio to lag one to two seconds behind live and recorded video.
- Corrected an issue with the Normal default contrast settings to improve the contrast level of images.
- Corrected a problem with Tooltips for RTP Settings, a Simple Motion Detection Warning, and some handler names not being localized.
- Corrected an issue causing Pelco Camera Link to not resume after restarting the cameras.
- Corrected an issue with running Pelco Camera Link and the Fuzz application reporting errors relating to rejected move requests.
- Corrected a problem with Pelco Camera Link preventing the zoom on the Operation page from drawing in all directions from the center of an initial click.
- Corrected an issue with too many core files to limit the number of core files that can be saved.
- Corrected an issue causing a problem with granular control of zooming in and out on old pages using a Chrome or Edge browser.
- Corrected a problem with the web client getting into a “Not Found” state where it was unusable.
- Corrected a problem with Exponential PTZ Control Type causing the PTZ speed to always remain slow.

2.11.0.7 Firmware Release

New Features and Improvements

- Added support for Pelco Camera Link, a new technology that enables two Pelco camera products to work together: Spectra Enhanced and Optera. This feature is available at the Camera Web UI and allows you to set up the two cameras so that you can take advantage of the benefits of both cameras (e.g. the panoramic views of Optera and the ability to zoom for great detail with Spectra Enhanced). You need to use the latest firmware for both cameras and establish a link between the cameras.
- Added support for Firewall Configuration in the Web Client. This security feature allows a camera administrator to allow or deny computers at specific IP addresses access to the camera. There are three modes for this option:
 - Off: Firewall Configuration is not enabled.

- Allow: The administrator must specify all of the IP addresses that are allowed to access the camera.
- Deny: The administrator must specify all of the IP addresses that are denied access to the camera.

Major Fixes

- Corrected an issue with the Web Client with several screens not being localized for supported languages.
- Corrected a problem with control of zoom in and out on old Web Client pages using the Chrome and Edge browsers.
- Corrected an issue with general error messages not being specific enough to point out invalid scan options.
- Corrected a problem with the Web Client getting into a “Not Found” state where it was unusable.
- Corrected an issue with trying to start local recording with ONVIF Profile G.
- Corrected an issue causing the camera to ask to save when leaving the Handler page even though the information had already been saved.
- Corrected a problem with Exponential PTZ Control Type causing the PTZ speed to remain slow when it should have sped up.

2.10.0.13 Firmware Release

New Features and Improvements

- Improved cybersecurity including checking of user names and passwords for security, the ability to require authentication to view a video stream, and verification of the valid firmware PPM files prior to firmware being upgraded.
- Added Smart Compression bitrate feedback with long-term rate control. Smart Compression lowers bandwidth and storage requirements. Pelco’s Smart Compression Technology dynamically analyzes motion occurring within live video in real-time, to intelligently compress the information you don’t need, while retaining details with clear quality in the areas that are important in the scene.
- Added on-screen display enhancements including the option for text to appear black-on-white or white-on-black and the ability to set the opacity level.
- Added enhanced control for managing local recordings. SD cards can now be formatted and recordings can be exported through the camera web interface.
- Added the ability to create and execute eight configurable PTZ patterns and eight configurable scans to the web UI.
- Added Kapsch support to NTCIP 1205 functionality.
- Added support for the 64GB and 128GB Sandisk Extreme PLUS Micro SD cards.

Major Fixes

- Corrected an issue causing OSDi overlays to blink and flash.
- Corrected a problem with OSDi text getting corrupted when multiple OSDi strings overlap.
- Corrected an issue with the OSDi and Smart Compression pages not appearing in languages other than English.
- Corrected a problem causing local recording to sometimes fail stating that files exist on an SD card, even though they don’t. The web client now allows for SD card formatting to fix cards in a bad state.
- Corrected a problem with the web UI allowing users to attempt to save an analytics behavior without drawing a region first.

- Corrected a problem with the web UI to make sure that users set up a Preset before attempting to set up an Analytic Profile.
- Corrected a problem causing Simple Motion Detection to not remain enabled with current and future analytics profiles.
- Corrected an issue with the Event Viewer only showing one event related to Sabotage instead of two.

2.9.0.4 Firmware Release

New Features and Improvements

- Cameras now support, and are compliant with, the NTCIP 1205 standard.

Major Fixes

- Updated localizations for the RTP, Smart Compression and OSDi pages.
- Corrected an issue causing the camera to fall out of focus if the camera was zoomed to a magnification factor greater than 10x when a user restored imaging settings.
- Corrected an issue preventing the camera from retaining its IPv6 address if a user disabled IPv6. When re-enabling IPv6, the camera will now restore a previously set IPv6 address and settings.
- Corrected an issue preventing users from modifying and triggering alarms in Endura.
- Corrected an issue causing the camera to generate self-signed certificates with an already-expired date.
- Improved the accuracy of zoom values shown in OSDi overlays.
- Corrected an issue occasionally causing recording gaps of less than 2 minutes when the camera had run for an extended period of time.
- Corrected an issue causing negative SetVelocity values to be returned positive when calling GetVelocity.
- Corrected an issue preventing Digital Sentry recorders from displaying video from the camera when set to certain framerate values.

2.8.1.5 Firmware Release

Major Fixes

- Corrected an issue causing a firmware upgrade from version 2.6 to 2.8.0.5 to render the camera un-discoverable and its web interface inaccessible.
- Corrected an issue causing the camera's web interface to become inaccessible after streaming/recording to Digital Sentry.
- Corrected an issue causing VideoXpert to report a false gap in recorded video.

2.8.0.5 Firmware Release

Improvements and Features

- Added support for enhanced controls and options for configuration of an On-Screen Display (OSDi).
 - Added the ability to configure zones, which are text identifiers for specific PTZ locations. Zone text can be configured to appear as an On-Screen Display when PTZ is near the configured zone.

- Added a Web Client page to configure RTP settings, including multicast addresses and ports and TCP Maximum Transfer Unit (MTU).
- Added Smart Compression settings, including four compression levels and the ability to select Dynamic GOP.

Major Fixes

- Corrected an issue preventing use of the On Screen Display and Image Overlay at the same time.
- Corrected an issue preventing the Focus Mode button from showing the correct status when changing Optimized Focus Mode.
- Corrected an issue with the Snapshot Viewer Download button not having a string appear in Italian.
- Corrected an issue preventing the Max Exposure Time slider from functioning properly.
- Corrected an issue causing FPGA to hang during startup.

2.6.0.6 Firmware Release

After upgrading, you will not be able to downgrade to firmware versions earlier than 2.5.x.

Improvements and Features

- Added support for new low-light models.
- You can now assign labels to presets. Preset labels appear in the camera overlay.

Major Fixes

- Corrected an issue preventing blanked regions created with Freeze Frame enabled from taking affect during preset transitions within a tour.
- Corrected an issue causing Window Blanks to lose some options or settings when a user changed the camera's Focus Mode.
- Corrected an issue causing the camera to display transitions in a tour when Freeze Frame was enabled.
- Focus Near and Focus Far functions are no longer swapped on the Window Blanking page.
- Corrected an issue causing simple motion detection to be enabled by default.
- Corrected an issue preventing users from setting alarm source dwell times to values greater than 2.5 seconds.

2.5.1.1 Firmware Release

Improvements and Features

- Under the Focus Page of the camera's web UI is a new set of "Focus Mode" selection radio buttons. Users will now be able to select between Standard Focus and Alternate Focus modes. Alternate Focus Mode is intended for use in indoor casino environments.
- Improved the functionality for "Link Speed" settings on the "General Networking" page of the web UI. Now, setting the link speed to 100Mbps (or any value other than "Auto") will not disable auto-negotiation, but rather limits the maximum rate to 100 Mbps when negotiating the link speed; the duplex mode for the 100 Mbps setting is now automatically negotiated as well. The "Auto" setting now negotiates link speeds without a predetermined maximum limit.
- Added ONVIF support for Analytics configuration and events, including Simple Motion Detection.
- Added support for Version 1.3 of the ONVIF Advanced Security Specification.
- Incorporated "Traffic Shaping" page within the camera's web UI. From this page, you can control and limit network traffic bursts coming from the camera; adjusting your camera's Traffic Shaping settings may help reduce video frame loss resulting from spikes in network traffic.

Major Fixes

- Corrected an issue preventing POE+ from negotiating power correctly with a managed switch such as Cisco 2960 or Dell 7024P and accept LLDP.
- Corrected an issue preventing the multicast address from changing when changing the IP address of the camera.
- Corrected an issue causing the Video Configuration page to load with an error and an inability to switch to from 50fps by 4:3 mode to 60fps by 16:9 mode.
- Corrected an issue with ONVIF Profile G playback in which the fractional seconds were incorrect and playback played at 1fps.
- Corrected an issue causing D6220 cameras to appear twice in VideoXpert.
- Corrected an issue preventing users from manually changing the white balance setting.
- Corrected an issue preventing tour settings from working properly after upgrading to firmware version 2.4.05.
- Corrected an issue causing poor focus when running D6220 cameras with a Dallmeier control interface.
- Corrected an issue causing the D6220 cameras to slow down and exhibit latency up to 10 seconds for both live view and when responding to PTZ commands. Updated the interface to reflect two modes for relay operation: pulse and trigger. The updated modes and greater specificity in relay control correct for an issue preventing relays from functioning if the pulse count was set to 0.
- Corrected an issue occasionally preventing the camera from restarting after a power cycle.
- Corrected an issue where image thumbnails for Preset Tours were sometimes not displaying.

2.4.0.5 Firmware Release

Improvements and Features

- Added support for specialized window blanking options (e.g. Smear Color, Pixelate Color, and so on) in this release.
- Added support for changing frame rates in Digital Sentry using the ONVIF driver in Quick Setup.
- Added support for a 320 x 240 resolution.
- Added support in the ONVIF API for running "SetRelayOutputSettings" and "SetClientCertificateModel."

Major Fixes

- Corrected an issue that prevented the retrieval of presets on the recording server when integrating with Milestone Systems using the ONVIF API.
- Corrected an issue that required users to change the camera resolution in the Web client before they could switch to H.264/JPEG/MJPEG and change the camera resolution with a Milestone VMS.
- Corrected an issue that occurred on the Video Configuration page, which caused the Primary and Secondary video stream names to be removed when SaveAllSettings was selected.
- Corrected an issue using Google Chrome, which prevented users from drawing and then re-sizing analytic zones.
- Corrected a local recording error message.
- Corrected an issue that occurred when installing the camera on a network using IPV6, which caused the Web interface to display only the auto IP address and prevented the Web client from displaying the settings provided by the IPv6 switch.
- Corrected an issue that prevented users from modifying a Motion Detection Zone inside an Endura workstation.
- Corrected an issue that required transparent overlays to be either PMP or BMP files, and fit within the minimum and maximum height and width.
- Corrected an issue that prevented users from changing the frame rate through the Genetec Config tool.
- Corrected an issue that occurred when using Firefox in the Russian language, which caused some page elements to exceed the page boundary on some pages of the Web client.
- Corrected an issue where switching a camera between two Endura networks caused it to no longer have a system manager (SM) state on any Endura network.
- Corrected an issue where the default MediaProfiles did not include PTZConfiguration.

2.2.0.5 Initial Release

New Features and Improvements

- Up to 1920 x 1080p resolution at up to 60 images per second with SureVision 2.0 and 130 dB WDR
- Up to 450 degrees per second pan and tilt
- Full functionality using Power over Ethernet (HPoE and PoE+)
- Low latency for improved pan and tilt driveability
- Defog mode provides three levels of fog removal with the image for improved image quality
- Vivid mode can be turned on/off to drastically improve the image contrast and color saturation
- Electronic Image Stabilization (EIS)
- 16 Preset Tours, 256 dome presets, 32 window blanks
- Full suit of built-in analytics including AutoTracker, Adaptive Motion Detection, Abandoned Object, and more
- 2 simultaneous video streams: dual H.264 or H.264 and scalable MJPEG
- ONVIF Profile-S and Profile-G conformant
- Local storage through 32 GB Micro SD card (not supplied)

Operational Issues

- When integrating with Milestone Systems using the ONVIF API, you cannot retrieve presets on a recording server.
- In order to switch to H.264/JPEG/MJPEG and change the camera resolution with a Milestone VMS, the change must be made first in the web client.

- Specialized window blanking options (e.g. Smear Color, Pixelate Color, etc.) are not supported in this release.
- Changing frame rates in Digital Sentry using the ONVIF driver in Quick Setup is not supported in this release. However, you can change camera resolution when you configure the camera in Quick Setup.
- In the Video Configuration page, selecting SaveAllSettings removes the Primary and Secondary video stream names.
- Using Google Chrome, you cannot draw and then re-size analytic zones.
- When installing the camera on a network using IPV6, the web interface displays only the auto IP address; the web client does not display settings provided by your IPV6 switch.
- Transparent overlays must be either PMP or BMP files and fit within the minimum and maximum height and width.
- Currently, you are unable to change the video frame rate through the Genetic Config tool.
- The camera does not currently support the ONVIF Device API, "SetRelayOutputSettings" and "SetClientCertificateMode" operations.
- The default ONVIF Media Profile does not include a PTZConfiguration. However, the PTZConfiguration can be added to the Media Profile.
- QuickTime fails to load on Chrome browsers. Currently you cannot view the primary stream using QuickTime.

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