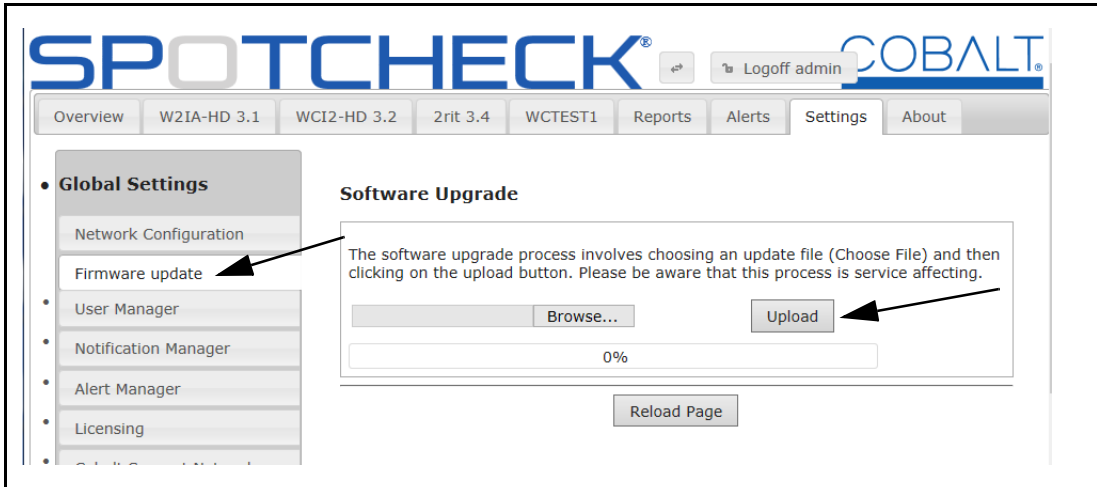Upgrade SpotCheck® as follows:

1. Click on the firmware link and download the firmware to a computer accessible on your SpotCheck control (cmd) network.

2. On a SpotCheck control/monitor computer, browse to SpotCheck and go to **Settings > Firmware update**. Browse to the upgrade file and click **Upload**. The progress bar shows the upload completion status.

Note: The file downloaded may have an icon appearing as a .zip file. Do **not** expand the file; import it collapsed as-is to SpotCheck.

Firmware Version (Date)	Description
2.3.5 (4/7/2017 – present)	**Corrections:** • Fixes Alert Management System in which a user alert email may not always be sent. Note that if alerts are being constantly sent, the email rate will occur every two minutes. • Fixes cases when trying to access a Windows share for BXF files, if a BXF folder had spaces in the folder name, the files within the folder would not be imported into SpotCheck. **Additions:** • System tab now includes Engine Restart and System Reboot buttons. (These allow remote web access to restart and reboot functions, and are typically used under direction of Product Support. Engine Restart will result in about a 10 second lapse in video/audio processing. System Reboot may take up to 10 minutes to reboot, with a corresponding lapse in processing.) • Added factory support tools. In liaison with users, these tools offer enhanced licensing, as-run editing, and mount test functions. **Known Issue** • If a stream is consistently experiencing errors, SpotCheck may restart, resulting in an approximate 10-second loss of captured data. The SpotCheck system log will log these events as a "Maintenance" event.
2.2.1 (1/3/2017 – 4/7/2017)	**Additions:** • Adds an as-run editor that, in conjunction with Support, the creation of custom descriptors. (This tool is not exposed in basic user controls. Consult Support for more information.) **Improvements:** • Improves performance of OTA scanning function (applicable to SpotCheck using RF (OTA) transport streams).
2.1.38 (12/5/2016 – 1/3/2017)	**Additions:** • Adds manual database backup and restore user functions (available only while logged in as Admin). This allows loudness data to be backed up and restored to/from an attached USB drive or to/from a Windows share. **Improvements:** • Adds firmware upgrade progress bar (percentage completed), which appears when upgrade firmware is being uploaded to SpotCheck.

Firmware Version (Date)	Description
2.0.7 (10/4/2016 – 12/5/2016)	**Additions:** • Adds support for BXF (Broadcast Exchange Format) as-run data. • Adds System Shutdown UI button (available only while logged in as Admin). (This feature allows specific control under the direction of Cobalt Support.) **Note:** This release (along with subsequent future releases) requires a Cobalt Support Level Agreement (SLA) license to be uploaded to SpotCheck prior to uploading this firmware version (upload will be rejected if SLA license is not installed). See "Licensing Management and Upgrades" in SpotCheck Product Manual for license uploading. Contact Cobalt Support for any further information.
Note: SpotCheck® with version 1.x.x firmware cannot be directly upgraded using the normal field upgrade procedure (shown above). In order to upgrade to versions 2.0 and greater, a Service Level Agreement (SLA) is necessary. Contact sales@cobaltdigital.com for more information on securing an SLA. If you already have an SLA and would like to upgrade, contact support@cobaltdigital.com for details.	
1.7.104 (12/21/2015 – 9/30/2016)	**Corrections:** • Fixes error in which alert emails were not always sent as expected. Note: Alert email notifications are sent in 10-minute intervals. If an alert stays active, a notification will be repeatedly sent every 10 minutes. If a single event occurs and ceases within this window, the notification will be sent at the end of the correlated 10-minute interval. • Includes minor improvements.
1.7.77 (1/8/2015 – 12/21/2015)	**Corrections:** • Fixes error where, if SupportNet was disabled using button, a re-enable button did not appear to subsequently re-enable SupportNet. (Performing this upgrade is not required if SupportNet is not currently being used, or expected to be used.)
1.7.76B (12/2/2014 – 1/8/2015)	**Corrections:** • Fixes error where API library for ASI driver was not latest, possibly resulting in no ASI connection to SpotCheck. (If ASI transport stream interface is not being used, this upgrade is not necessary.)
1.7.76 (9/23/2014 – 12/2/2014)	**Corrections:** • Revised EBU R128 graphing mode to use absolute values instead of relative to -23 LUFS scale, centered at -23 LUFS. Both EBU R128 and ATSC modes now use absolute loudness scales.
1.7.74 (9/22/2014 – 9/23/2014)	**Corrections:** • Revised R128 handling/protocols to conform with latest released standard. **Improvements:** • Adds support for various non-standard descriptors. • Improves handling of teletext vs ac3 for dvb streams. • Adds support for teletext subtitling. • Adds LRU range steps in half a db for EBU R128 standards
1.7.68 (7/21/2014 – 9/22/2014)	**Corrections:** • Fixes ASI interface inoperability issue in 1.7.64 and includes all other released corrections, improvements, and additions.
1.7.64 (7/2/2014 – 7/21/2014)	**Corrections:** • Fixed issue where lo-res (proxy) transcoder could stop processing audio after several days of operation. **Known Issue** • This version may result in ASI interface inoperability. The version listed above includes the correction here and corrects this known issue. If installed, please upload the version listed above.
1.7.57 (3/19/2014 – 7/2/2014)	**Corrections:** • Fixed issue wherein if zoomed-in closer than 24 hours, as-run data was not always visible in program plot. **Improvements:** • Improved operating stability when receiving unusually heavily corrupted transport streams (such as caused by poor OTA reception). • Improved closed-captioning handling including improved checking of packet length and CEA608 parity bit checks. • Improved support for date rollover in as-run files that do not have expected, customary rollover dates at midnight (24:00). This fixes issues with some as-run formats that had resulting omissions of as-run data between 24:00 and 04:00. **Additions:** • Added support for a crispin automation format.

Firmware Version (Date)	Description
1.7.40 (12/16/2013 – 3/19/2014)	**Corrections:** • E-mail reports are now properly filtered by audio program. **Improvements:** • Improved stability and response, especially when handling large data downloads such as transport stream file captures. • Adds support for tab delimited as-run formats. **Additions:** • Added availability of option LICENSE-AIRCHECK which provides for lo-res proxy file downloads of transport stream segments, allowing for much more manageable smaller files than uncompressed .ts files.E-mail reports are now properly filtered by audio program. • Added availability of option LICENSE-QUALITYCHECK which adds transport stream and program Alerts tab/display and Alert Manager which allows forwarding of these alerts to selected e-mail recipients. Also displays presence of CEA 608 and 708 closed captioning, including actual CC text. Allows CC text to be copied and pasted into text editors and e-mail. • Adds user setting to allow setting of loudness integration time for stream overview display. • Adds support for additional as-run formats PTCB and alternative Fastbreak format. • Adds support for DVB-T hardware. • Adds support for dual ATSC/QAM tuner cards. **Note:** Obtaining an updated Product Manual (V1.7A) is recommended for fully utilizing the added features and functionality in this release. Product Manual distribution for SpotCheck is reserved. Please go the SpotCheck web page on our web site and then to <u>Click here to request a SpotCheck® Product Manual</u>. An e-mail dialog appears in which you can provide substantiating information to receive the latest Product Manual as a pdf download.
1.6.91 (8/7/2013 – 12/16/2013)	**Corrections:** • E-mail reports now correctly rendered when using Microsoft® Outlook®. • Fixed error where total number of spots was incorrect if filtered by audio subprogram. • Fixed error to now show date report was generated for (instead of day after). **Improvements:** • Adds support for Dolby® Digital Plus™ codec. • Previous versions would not accept truncated file extension when firmware was downloaded via IE. This SpotCheck version will allow any subsequent upgrades to be uploaded with the ".gz" truncation as well as the normal ".tgz" extension. • Higher-resolution thumbnails now displayed on Overview page. • Improved rendering of as-run labels and shading (where applicable) for as-run spot graphing.
1.6.39 (7/19/2013 – 8/7/2013)	**Corrections:** • Fixed issue (typically applicable to SpotCheck-OTA) where if a lockup occurred due to a weak signal, the audio decoder could stop decoding audio samples. The decoder will now reset automatically and then continue decoding when the signal strength is acceptable to provide error-free data. • Increased OTA lock timeout to improve acquisition of reception for marginal signal strength cases. • Fixed e-mail graph rendering to show intended detail of graph plotting. **Improvements:** • Increases maximum allowed interval of 24 hours for Cursor-Defined Measurement tool. • Adds audio status of no audio (displayed as "-99") in addition to other status messages in Overview tab. ("Quiet" would previously be displayed whether an audio program was merely below target or actually was muted/silent.) • When a released firmware upgrade is available, provides an automatic notification (updated weekly) that is displayed on the Overview tab page. • Provides a condensed graphic overview/description of the items comprising custom audio measurements on the Audio Measurement tab page to be used an aid if using these controls. • Adds choice, in Notification Manager, to send daily e-mail reports listing all spots that ran on the previous day (sorted by time). (This feature works only for programs using as-run data.) **Note:** Obtaining an updated Product Manual (V1.6A) is recommended for fully utilizing the added features and functionality in this release. Product Manual distribution for SpotCheck is reserved. Please go the SpotCheck web page on our web site and then to <u>Click here to request a SpotCheck® Product Manual</u>. An e-mail dialog appears in which you can provide substantiating information to receive the latest Product Manual as a pdf download.

Firmware Version (Date)	Description
1.6.12 (7/9/2013 – 7/19/2013)	**Corrections:** • Fixed issue that prevented updates to IP Unicast streams that were already set up. • Fixed issue to now allow when scanning for OTA channels specifying a specific OTA tuner (e.g., "RF-2 Input") instead of always using "tuner 0". • Fixed issue to now allow a new channel scan for a subsequent OTA tuner if a previous OTA tuner was already set up with a channel. • Fixed metering error in MAC osx Safari that caused level meters to show incorrect values. • Fixed layout error on overview page when using IE9 or greater. • Fixed units on cursor-defined measurement tool to show true peak in dBFS for true peak indicator. • Fixed error in daily email reports where if a user selected the reports to be filtered for a single audio subprogram then no report would show up. Reports for single or multiple audio programs can now be produced as intended. • Change Program Add dialog to allow automatic entry of audio subprogram name (if desired) instead of forcing user manual name entry. If a custom user name is not manually entered, SpotCheck now adds the audio program with the video stream name-audioname format. • Fixed error preventing updates to transport streams that are configured with RF inputs. • Fixed issue where live overview data was not displayed if the main control interface was disconnected. Live overview data will now show up correctly even if the main control interface on a SpotCheck unit is not connected and is instead accessed through the media interface. • Graph cursors now show units as required by EBU-R128. • Live meters on overview page will show EBU scale (0LU at -23DBFS) if the audio programs measurement algorithm is set to EBU mode.
1.6.12 (7/9/2013 – 7/19/2013) (cont.)	**Improvements:** • Adds R128 Support for audio programs. • Adds custom measurement profiles and error thresholds for audio programs in addition to calibrated, non-configurable ATSC A/85 and EBU R128 modes. For each audio program added for a stream, a drop-down allows independent selection of fixed ATSC or EBU modes, as well as applying a custom user-configured threshold preset. The user preset is configured separately using a new added "Audio Measurement" tab. • Adds a live thumbnail/audio level meters pane which can be opened by clicking on a program when in the Overview pane. This pop-up pane also adds a Session tool in which pressing Reset starts and runs a timer and session showing running LUFS, true peak, LRA, and session duration. The session can be cleared and restarted by pressing Reset again. **Note:** Obtaining an updated Product Manual is strongly recommended for fully utilizing the added features and functionality in this release. Product Manual distribution for SpotCheck is reserved. Please go the SpotCheck web page on our web site and then to Click here to request a SpotCheck® Product Manual. An e-mail dialog appears in which you can provide substantiating information to receive the latest Product Manual as a pdf download.
1.5.2003 (6/14/2013 – 7/9/2013)	**Corrections:** • Fixed issue with graph not showing higher levels of detail after a program is changed or skips over existing data. • Fixed issue where daily detailed reports show empty data when as-run was selected for a program without as-run data. If a report using as-run data is attempted for a program without as-run data, a message is now displayed indicating as-run data is not present. • Fixed issues regarding retention and migration of audio streams after firmware upgrades. • Fixed browser support to include IE 9 and above running on Windows® 7. • Fixed minor plot navigation bugs. • Fixed migration issue where some audio data on earlier versions would not migrate, or if unit is restarted while migration was in process. **Improvements:** • Major enhancements to GUI navigation (including expanded mouse usage, span displayed indication, and stream capture tools). • New transport stream/program setup screens to simplify setup more clearly show transport stream/program correlation. • New status overview displays provide condensed, easier to assess views where multiple programs are handled by SpotCheck. • Enhanced Reports and Search tools providing more sorting/filtering selection choices. • Improved directory/folder structure for manual import and management of as-run files.
1.4.1139 (1/22/2013 – 6/14/2013)	**Improvements:** • Enhanced as-run support for files containing variable-width date fields (this is common in some forms of Titan files). • Enhanced as-run support for Nexio file formats. **Note:** Please contact Cobalt Support for details regarding latest enhancements of as-run support as it applies to your automation system and its integration with SpotCheck.

Firmware Version (Date)	Description
1.4.1124 (1/17/2013 – 1/22/2013)	**Corrections:** • Adds support for Nexio UTF-16 encoded files previously lacking. • 4x3 video now shows with correct aspect ratio on graphs. • Fixed wrong descriptor for some types of as-run files/formats which caused as-run files to be processed with incorrect date. • Instant reports now send emails when spots are too quiet as well as too loud. • Fixed processing to accommodate improperly formatted date in as-run files which could cause all subsequent spots to be advanced by one day. **Improvements:** • Enhanced graph GUI navigation allows easier navigation with less chance to "lose place" within displayed range. • Browser no longer needs manual refresh following a firmware upgrade. • Enhanced as-run file manager using multiple folders provides better organization, with improved correlation of as-run files to respective programs. • Expanded as-run file format support. • Adds h264 video decode support. • Added programs are automatically named per CVCT/TVCT parsing with the program's terrestrial ID and call letters (where CVCT/TVCT tables are included in stream). • Expanded failure log includes email fail and ATSC SST table errors, as well as routine logging of SpotCheck new file request transactions. • New dialog allows editing of settings for currently set-up transport streams.
1.3.1037 (12/12/2012 –1/17/2013)	**Corrections:** • As-run Exclude time ("spots less than...") is now correctly set in ms instead of µs. • Graph search does not erroneously highlight all spots as red when not sorted by LKFS. • Fixed graph rendering bug in IE when as-run file manager is clicked. **Improvements:** • New as-run support for more file formats. • Enabled physical power button support to gracefully shutdown unit. • Graph now shows numeric values for plotted lines when mouse hovers over plot. • Custom As-run Format Descriptors can now be deleted and shown by selecting **Global** > **As-run**. • mpeg2 decode speed improved. **Known Issues:** • Manual as-run file uploads will not work in IE; Firefox or Google Chrome must instead be used.
1.2.1006 (12/5/2012 – 12/12/2012)	**Improvements:** • Added as-run file support.
1.1.981 (12/3/2012 – 12/5/2012)	**Corrections:** • Allows as-run Files with long line lengths (> 255 characters) to be correctly processed. • Provides additional as-run file type support by default. • Per-stream settings timezone control now correctly updates the timezone setting as user-entered (previously, only as-run timezone was displayed). • Corrects condition causing crash if input stream with TEI errors had an error in the Payload length field.
1.1.973 (11/30/2012 – 12/3/2012)	**Corrections:** • Corrects loss of as-run processing when multiple programs are added and then deleted, and a program with as-run data is again added. • Removed erroneous display field "Current value" setting for the Gateway setting under "Network Configuration" Section of settings. • Corrected mis-reporting of available licenses where SPOTCHECK-LITE license was included in overall licensing complement. **Improvements:** • Graphing GUI **Scale** and **Show** (show parameters) button selections retained when a new program is now selected for graphing/monitoring. • User whose admin-privilege login has timed out is notified to log in again instead of silently failing with no user notification. • Additional as-run format support. **Additions:** • As-Run Descriptor dialog allows descriptor string to be pasted in request field to resolve as-run structure problems. **Note:** If required, a descriptor string (along with instructions) will be provided by Cobalt Support to resolve an as-run structure problem of parsing the data into corresponding fields. Currently, it is recommended to **only** use the As-Run Descriptor dialog under direction of Cobalt Support.