

You can update your card by downloading the new Update software by going to the **Support>Firmware** link at www.cobaltdigital.com. Download “Firmware Update Guide”, which provides simple instructions for downloading the latest firmware for your card onto your computer, and then uploading it to your card through DashBoard™.

Software updates are field-installed without any need to remove the card from its frame.

The table below lists released software versions and describes the corresponding functions additions, improvements and/or corrections.

Software Version (Date)	Description
Rev 2.113 (9/23/2021 – present) All 9970-QS models All BBG-1070-QS models	<p>Corrections:</p> <ul style="list-style-type: none"> Fixes rare cases where some DashBoard card controls may fail to work with cards in DashBoard-controlled Cascade multi-card usage. (Pre-existing condition) Fixes and alerts to cases where user text burn-ins, exceeding the width of a PiP, could cause video corruption artifacts. Added UI status indicator/message shows if insertion is OK or if exceeding allowed space. <p>Improvements:</p> <ul style="list-style-type: none"> Adds bootloader revision check upon firmware uploads.
Rev 2.088 (11/27/2019 – 9/23/2021) All 9970-QS models All BBG-1070-QS models	<p>Corrections:</p> <ul style="list-style-type: none"> Fixes cases where changing PiP layout (or disabling a PiP) on multiviewer output could induce a momentary loss of SDI output (video “hit”). PiPs can now be changed or disabled/enabled with no SDI output errors. <p>Improvements:</p> <ul style="list-style-type: none"> Enhanced Presets page with additional presets controls added.
Rev 2.067 (8/13/2018 – 11/27/2019) All 9970-QS models All BBG-1070-QS models	<p>Improvements:</p> <ul style="list-style-type: none"> Reduces internal messages written to device system logs. This improves log access in the case engineering support using and viewing logs is ever required.
Rev 2.061 (8/3/2018 – 8/13/2018) All 9970-QS models All BBG-1070-QS models	<p>Corrections:</p> <ul style="list-style-type: none"> Fixes closed captioning ident text burn-in limitations (previous Known Issue). Closed captioning can be burned into any of PiPs 1 thru 5. <p>Improvements:</p> <ul style="list-style-type: none"> Adds backwards-compatibility with Reflex IP protocol (as originally documented) as well as supporting latest new commands and/or syntax.
Rev 2.046 (6/8/2018 – 8/3/2018) All 9970-QS models All BBG-1070-QS models	<p>Corrections:</p> <ul style="list-style-type: none"> Fixes issue with user graphic insertion. The first Cb sample in each row of the overlaid graphic could be incorrect depending on the alpha value of the first sample in that row of the image. Practically speaking this could cause a visual artifact on the left side of the overlaid graphic. The artifact could be more or less visible depending on the background/scene content. Corrects mis-calibration of DashBoard audio level meters (bars). Full red = 0dBFS; Red/yel point = -10 dBFS; Yel/green point = -20 dBFS. Fixes instance where CVBS input could not be used on inputs B thru E. <p>Improvements:</p> <ul style="list-style-type: none"> Reduction in openGear frame traffic for reporting card parameter updates. Adds support for several rear modules that were previously reported as Unknown. Adds support for Spanish and Norwegian characters on the Idents/Character Burners. <p>Known Issues:</p> <ul style="list-style-type: none"> Closed captioning ident text burn-in can only be used on PiP 1.
Rev 1.247 (2/21/2017 – 6/8/2018) All 9970-QS models All BBG-1070-QS models	<p>Additions:</p> <ul style="list-style-type: none"> Adds support for Cascade Config mode, providing multi-card network connection allowing cascade chain network-connected -QS cards/units to communicate with each other and expose settings and attributes from all of the units within the chain. In this setup, each unit will “see” the other cards in the network chain connection, with access to PiP controls for all PiPs from any card within the chain. (New 9970-QS and BBG-1070-QS v1.8 Product Manuals are released that describe using this standard feature.) <p>Known Issues:</p> <ul style="list-style-type: none"> Timecode burn-in will only appear in 24-hour (“military”) format regardless of DashBoard mode setting. All other attributed such as NTP/user, timecode localization, and graphic attributes controls function as expected.
Rev 1.244 (12/27/2016 – 2/21/2017) All 9970-QS models All BBG-1070-QS models	<p>Corrections:</p> <ul style="list-style-type: none"> Fixes potential video artifacts when receiving 23.98/24 fps film rates. (BBG-1070-QS only) Fixes cases where, depending on value being entered, front panel interface may not allow desired user IP address value to be entered.

– Continued on next page –

Software Version (Date)	Description
Rev 1.229 (9/26/2016 – 12/27/2016) All 9970-QS models All BBG-1070-QS models	Corrections: <ul style="list-style-type: none"> Fixes cases where multiple PIP Quickset operations sometimes would not be honored. Fixes case where NTP clock time displayed could drift. Removes external UDM display choices from burn-ins where UMD choices were inapplicable. Fixes cases where closed captioning burn-in might not stay correlated with input video when input video was moved to a different PIP location.
Rev 1.205 (7/1/2016 – 9/26/2016) All 9970-QS models All BBG-1070-QS models	Additions: <ul style="list-style-type: none"> Video inputs C thru E now support SMPTE 425 Level B in addition to existing SDI and CVBS support. Adds Output Preview function that provides the display of regularly-sampled screen captures in the card DashBoard page. This provides for remote-access program video input content/presence confidence monitoring via the card's DashBoard display without needing collocation with the card or its input or output video signals.
Rev 1.192 (3/18/2016 – 7/1/2016) All 9970-QS models All BBG-1070-QS models	Corrections: <ul style="list-style-type: none"> Fixes potential Dashboard dropout and loss of communication with card when closed captioning present on input sources (observed only in very long-term uninterrupted use). Improvements: <ul style="list-style-type: none"> Audio source can be selected to follow full screen select. Adds SNMP support and MIB file download. Adds error count/OK time reset button for SDI inputs. Border size can now be specified per-PIP. Border color can now be explicitly set to be controlled by event action setup or by Image Video protocol. UMD text color can now be explicitly set to be controlled by event action setup or by Image Video protocol. Adds brightness controls for audio meter overlays. Adds additional PIP border colors.
Rev 1.184 (1/19/2016 – 3/18/2016) All 9970-QS models All BBG-1070-QS models	Corrections: <ul style="list-style-type: none"> Corrects condition where DashBoard remote control for card/device could in some cases not initialize upon initial power-up. Improvements: <ul style="list-style-type: none"> Reticule color can be set from 0-100% white in 10% increments. UMD source can be set independently for each PIP. Enables support for XDS overlay
Rev 1.148 (9/16/2015 – 1/19/2016) All 9970-QS models All BBG-1070-QS models	Corrections: <ul style="list-style-type: none"> Corrects potential CAN bus timeout issue which could cause Dashboard dropouts with card could lose communication with DashBoard remote control. (This error does not affect card signal processing.) Improvements: <ul style="list-style-type: none"> Utah Router UMD fetch can now be selected per-PIP (previously function was all on or all off for all PIPs).
Rev 1.140 (8/21/2015 – 9/16/2015) All 9970-QS models All BBG-1070-QS models	Additions: <ul style="list-style-type: none"> Adds closed captioning burn-in. UMD and Ident text, in addition to static user burn-in, can be set to display running closed captioning text sourced from CC channels 1 thru 4. DNS can be specified for card IP address set to static mode. Improvements: <ul style="list-style-type: none"> Adds PIP Clone utility which allows any PiP to be set up, and then have any or all attributes copied (cloned) over to any or all other PiPs. This greatly speeds up setup, and helps ensure all PiPs are set in a consistent manner. Provides an expanded GPI Setup page which allows defining virtual GPIs in addition to dedicated-wired GPIs, and also allows triggering via edge triggered states.
Rev 1.84 (1/9/2015 – 8/21/2015)	Corrections: <ul style="list-style-type: none"> CVBS inputs now displays valid status instead of "Unlocked" in Input Status fields. Additions: <ul style="list-style-type: none"> Adds support for SD-SDI inputs with V bit transition on lines 10-19. (Previous firmware would only lock to SD-SDI with V bit transition on line 20.) Adds dedicated time-of-day clock overlay. Clock can be NTP synced or set by user. Improvements: <ul style="list-style-type: none"> Web UI status/controls now mirror those in Dashboard. Adds support for ImageVideo control of tally lamps. Known Issues: <ul style="list-style-type: none"> While center-origin graticule insertions (such as rectangles and center-cross) are anchored and repositioned proportionally with PIP resizing, custom insertions such as Horizontal and Vertical Lines may not be repositioned proportionally within highly modified PIP sizings. (This issue predates this release and may be apparent on earlier releases.)
Rev 1.80 (12/5/2014 – 1/9/2015)	Corrections: <ul style="list-style-type: none"> Fixes rare cases where rapid excursions of PiP sizing/positioning controls could cause PiP video freeze or corruption (this defect was exposed in rigorous release testing and not likely to be experienced in practical use). Fixes rare cases of video corruption when card receives a mix of 23.98p and 23.98psf sources. Additions: <ul style="list-style-type: none"> Adds a Protocols tab for defining router address and related parameters.

– Continued on next page –

Software Version (Date)	Description
Rev 1.74 (11/18/2014 – 12/5/2014)	<p>Additions:</p> <ul style="list-style-type: none"> • Adds new QuickSet layout controls that allow precise PiP positioning based on defined multi-column layouts (such as a 4x4, 16:1 grid), with PiP positioned as a function of cell location within a row-column matrix. These layout grids support cascading using multiple, daisy-chained 9970-QS card for layouts exceeding the base 5-split of a single 9970-QS card. • Adds new Low-Latency Mode which allows automatic bypass of framesync for aligned sources. • Adds new ARC controls. <p>Improvements:</p> <ul style="list-style-type: none"> • Improved HDMI output stability when using 3G video. <p>Known Issues:</p> <ul style="list-style-type: none"> • With a CVBS input present on any of the PiP inputs IN A thru IN E, the card Status pane will display Unlocked for a CVBS input even though the input has been recognized and is being properly utilized.
Rev 1.62 (9/9/2014 – 11/18/2014)	<p>Additions:</p> <ul style="list-style-type: none"> • Adds new preset layout templates, including 5-PIP template Presets for base quint-split setup (previous version required custom layout mode to set up a quint-split layout). <p>Improvements:</p> <ul style="list-style-type: none"> • GPI Setup page simplified to use direct control of PiP border color and tally lamp enable/disable using manual assert settings, or control directed by up to five GPI inputs. <p>Note: Cards using this firmware version require DashBoard™ version 6.0 or greater. This is due to the added user interface controls which can only be accommodated with version 6.0 or greater. While cards with this firmware version will appear in the frame Basic Tree View in DashBoard, the card controls will not be accessible in earlier DashBoard versions. For a free download of the latest DashBoard version, please go to www.cobaltdigital.com, and select Products > Software Control > DashBoard™, and then select the version applicable to your computer.</p>
Rev 1.35 (6/30/2014 – 9/9/2014)	<p>Corrections:</p> <ul style="list-style-type: none"> • Fixes issue where audio selected PiP input audio may not be routed to output. • Fixes issue when custom layout mode is selected, resizing the image could result in bounding box border being resized with the active video image correspondingly being resized. • Fixes issue where audio from a PiP input receiving a 1080psf format would not be passed to the output embedded audio. • Adds device stability improvements.
Rev 1.32 and earlier	<ul style="list-style-type: none"> • Initial releases