

V1.5.0 is a firmware feature release for the SQ series of digital audio mixers.

**Note** Refer to the Allen & Heath web site [www.allen-heath.com](http://www.allen-heath.com) for:

- The latest information on SQ Series products
- The Allen & Heath support Knowledgebase

**Note** Firmware files are included in this archive as \*.bin files. Ensure you have the correct file for the SQ model you are updating.

File:               **SQ-5** = SQ-5UPG\_1\_5\_0r3883.bin  
                      **SQ-6** = SQ-6UPG\_1\_5\_0r3883.bin  
                      **SQ-7** = SQ-7UPG\_1\_5\_0r3883.bin

**Note** Format your USB device using the SQ mixer format utility. Not all USB devices will be compatible with the SQ mixer. Use the device only for the SQ mixer once you have formatted it and checked it to work correctly with the mixer.

**Note** SQ-Drive audio recording and multitrack playback require the USB storage device to support high sustained transfer rates. Not all USB devices will guarantee flawless performance. For best results, it is recommended that an external HDD or SSD is used rather than a USB 'stick' drive.

**Note** USB streaming is compatible with Mac / Windows PC computers. SQ is Core Audio compliant and will work with macOS 10.12 (Sierra) or later. Windows ASIO™/WDM drivers must be installed prior to use with a Windows computer. Check [www.allen-heath.com](http://www.allen-heath.com) for the latest SQ Windows drivers and installation guide.

**Note** Firmware V1.2.0 introduced optional extras for SQ. The 'Tube Stage' preamp included in firmware V1.1.0 will need to be added to SQ units by registering the unit and obtaining a unique key from [shop.allen-heath.com](http://shop.allen-heath.com). More information can be found on the website and in the reference guide.

**Note** The term used to describe the optional additional processing for SQ was changed in firmware V1.3.1 from 'Upgrades' to 'Add-Ons'.

**Note** Due to changes in patching and the structure of saved files, scenes and shows created with V1.0.0 are not compatible with later firmware releases. When updating the SQ firmware from V1.0.0, all current settings will be reset, and all existing saved data (Scenes/Shows/Libraries) will be incompatible. This is not the case when updating from any subsequent version of firmware.

**Note** As of V1.3, SQ-MixPad and SQ4You apps are 64bit only. For wireless control of the SQ with older 32bit devices, firmware should not be updated beyond V1.2.2.

## V1.5.0

### **Additional Features:**

New add-ons available: Bucket Brigade Delay, Echo, Hypabass

'Channel RTA' added for PEQ and GEQ

48kHz USB option (USB-B and SQ-Drive)

Record/playback up to 32 channels to/from SQ-Drive

Record only patched channels to SQ-Drive

USB Meters screen

DCA Spill function including 'Spill On Sel' option

Additional DCA options for Global and Scene recall filters

HPF/LPF options on PEQ

Input channel HPF slope options

'Safe' Patching switch option

1-to-1 block patching on I/O screen

Show channel delay in Milliseconds, Samples, Meters or Feet (with air temperature variable)

Higher resolution control for channel delays

FX Screen follow Sel option

Current Mix/DCA Spill displayed on-screen

NRPN Fader Law 'Audio Taper' option

Auto network IP address assignment

Support for V2 Dante Option Card

SQ-MixPad additions – Full RTA support, 3 instances, New Routing screen, Online AMM control, Online insert setup, Online scene management, Safe patching, Offline Scene and Library management, Offline 'share' function, 'URL Hook' added

New soft control additions – DCA Spill (SoftKey, Soft Rotary Key, Footswitch), SQ-Drive Arm/Rec/Stop, FX Mute (Soft Rotary Key)

**Improvements:**

- ID-1577: Updates to De-Esser add-on including new filters
- ID-1546: Patchable talkback output (post 'Talk' key)
- ID-1497: Default name added to factory libraries
- ID-1696: Soft Control option lists sorted alphabetically
- ID-1033: SQ-Drive – store recorded channel name in file metadata
- ID-1011: Indication of used socket in I/O screen
- ID-1394: I/O screen – local AES output socket control enabled
- ID-954: Use reset key with pan control for L-C-R switching
- ID-1758: 'Next Scene:' persistent through mix config change
- ID-1675: SQ-Drive - Current track remains selected after 'Play Single'
- ID-1655: Soft Rotary Keys set to mute now indicate Mute Group/DCA muting
- ID-1654: Soft Rotaries set to FX parameter correctly illuminate when available
- ID-1564: Tie Lines patched to ME now contain identifiers
- ID-1498: PAFL and Talkback settings included in Role resets
- ID-1550: DynEQ/MultiBD – removed possibility to control a non-visible parameter
- ID-1527: Pending ganging changes discarded on any change to mixer config
- SQ4You-190: Group wheel indicator added when a channel is muted
- SQ4You-192: Channels can be controlled whilst muted

**Issues fixed:**

- ID-1749: Unused FX Sends removed from CH to All Mix
- ID-1661: SoftKey SQ-Drive controls disabled when USB-B mode is active
- ID-1620: MIDI NRPN's using MSB/LSB equal to 0x7F respond correctly
- ID-1569: Incorrect name could be displayed in USB scene delete pop-up
- ID-1555: 'Add-on unavailable' pop-up displays correctly when using SQ-MixPad 'Push'
- ID-1535: SLink option card displays 'I/O card fitted' icon correctly on initial boot
- ID-1595: Shutdown process could trigger SQ-Drive playback if paused
- ID-1563: I/O screen channel name correct after channel library recall
- ID-710: Changing playback files could generate audio artefacts in recording

**Known issues – SQ-Drive:**

Loss of power or unplugging a device during multi-track or stereo record may result in the current recording being lost.

**Known issues – Firmware update whilst connected via USB-B:**

When connected via USB-B, SQ may not install firmware correctly from a USB device. Disconnect the USB cable before attempting an update.

**Known issues – Firmware update does not install on both images:**

The SQ has a main image and back-up image for stability and redundancy. If an update has been carried out, and the SQ boots into an older firmware, the update should be carried out again to ensure both images are running the same version.

**Known issues – Audio not passing when attempting to load an unavailable add-on:**

When loading a show which uses an add-on not available in the installed firmware, a default processing unit will be loaded, but audio will not pass until the processing has been switched out. This can happen when a show saved on newer firmware is loaded into an SQ running older firmware.

**Known issues – Incorrect sync with MixPad when Mixer Config is changed:**

Adjusting the Mixer Config on the desk will cause issues in the SQ-MixPad I/O Patch screen until the app has been disconnected and reconnected. For this reason, SQ-MixPad should only be connected after Mixer Config settings have been applied at the desk.

**Known issues – Loaded MixPad Offline show not copied when updating on PC/Mac:**

When updating the SQ MixPad app on a PC or Mac, the show loaded in Offline mode is not automatically copied across to the new version. Best practice is to store the currently loaded show before updating, then install the new version of MixPad and recall the show being worked on *before* uninstalling the older version.

**Known issues – Dante V2 option card:**

'Hot plugging' (removing and/or fitting whilst the SQ is powered on) or rebooting a Dante V2 option card can result in loss of communication with preamps in DT units. It is recommended therefore, that the option card is installed and setup before connecting the rest of the Dante network to guarantee correct operation.

## Previous Versions

### V1.4.4 Maintenance release

- ID-1501: Factory reset could cause incorrect marking of scene storage location states.

### V1.4.3 Maintenance release

- ID-1558: Channel Name and Colour now update throughout system on library item recall
- ID-1552: Members no longer removed from gang after MixPad push and scene recall
- ID-1559: Surface Master fader correctly linked to MixPad when in GEQ Fader Flip
- ID-1553: 'Hall Choral HF' FX Preset 'Ref Detail' value corrected
- ID-1562: Fixed V1.4.2 FPGA image which caused unwanted noise on some units

### V1.4.2 Maintenance release

- ID-1528: Added labelling to MultiBD4 LM band
- ID-1543: Multiple DAW methods added to SysEx naming via DAW Control Driver
- ID-1532: CH to All Mix now works on ganged channels
- ID-1529: MultiBD 'Link' and 'Rel' functions fixed
- ID-1540: DynEQ4, and MultiBD metering corrected
- ID-1526: PEQ Library HPF recall corrected
- ID-1525: Subnet mask for static address can be edited
- ID-1523: Input gangs now function with 12 members

### V1.4.1 Maintenance release

- ID-1504: Insert state correctly translated from previous firmware revisions
- ID-1508: USB libraries can be transferred when there is no stored user library on console
- ID-1492: DynEQ master trim meter level corrected
- ID-1493: MultiBD3 and MultiBD4 master trim meter corrected
- ID-1426: SoftKey and Footswitch Scene Recall scene list updates correctly

### V1.4.0 Feature release

- New add-ons available: DeEsser, Multiband Compressors (MultiBD3/MultiBD4), Dynamic EQ (DynEQ4)
- Ganging
- Per-scene recall filters
- USB Scene and Library archiving
- Copy Paste Reset of Scenes and Per-scene recall filters
- IO Page socket control
- Sync Mode for SQ-MixPad connection
- MIDI NRPN control of Levels, Panning/Balance, Mutes, Assignments, SoftKeys
- Mono matrix option
- Preamp on surface option
- Processing screen follows surface option
- PEQ band follows screen option
- Name/Colour options in channel library
- HPF option in PEQ library
- New soft control additions – MIDI program changes, note on/off, Listen Level
- SQ-MixPad additions – Offline mode, follow SQ channel/mix options, PAFL setup, channel routing screen
- Support for DX32 modular expander added
- Global recall filters re-organised and extended
- SQ-Drive performance metering
- RTA peak band indication in GEQ Fader Flip
- Socket number displays on channel LCD display
- Channel and strip numbers added to strip assign
- Touch scrolling added to all on-screen lists
- ID-1201: Channel ms delay control improved
- ID-1227: Compressor parallel path Dry/Wet control improved
- ID-819: Channel mute time when engaging/disengaging PAD reduced
- ID-620: Fader calibration process no longer requires rebooting
- ID-720: Removed persistent metering when dSnake unit is disconnected
- ID-1008: Mixer shutdown gracefully closes SQ-Drive recording
- ID-1149: Reset Mix Settings button blocked correctly using user permissions
- ID-1044: Input patch filtered when preamp recall blocked
- ID-1266: SQ-Drive seek bar appears correctly on first launch of screen
- ID-1276: SQ-Drive recording to maximum length no longer lists two recordings in playback
- ID-565: Stereo insert left disconnects correctly when right send is repatched elsewhere

- ID-1390: Corrected issue with incorrect output patching when switching mix stereo/mono
- ID-894: Insert LED correctly displays status on scene recall
- ID-807: FX Library items now contain Dry/Wet levels when stored as insert
- ID-563: Insert point In/Out status persists when creating or editing
- ID-1307: Correction to stereo flag when sending mix channels to a ME system
- ID-364: Preamp surface control does not affect trim when Mix Ext In has no preamp available
- ID-1339: AR84 Tie Line patching now persistent after power cycle
- ID-1271: Routing screen now displays from LHS on opening
- ID-1287: Fixed inconsistency in AFL/PFL on LR when switching output AFL setting

### **V1.3.2** Maintenance release

- ID-1280: Incorrect skins displayed for the two units of DEEP compressor 'Peak Limiter 76'.

### **V1.3.1** Maintenance release

- SQ-MixPad additions – Control of DEEP compressor and GEQ plug-ins.
- ID-955: Fixed intermittent distortion on USB-B streaming on known systems with issues.
- ID-351: Reduced chance of dropout on USB-B streaming when using xHCI controllers.
- ID-730: Improved network buffer behaviour to better deal with bad connections to devices.
- ID-749: Reduced chance of desk freeze due to bad device connection on network.
- ID-1256: SQ-Drive – Multitrack and stereo playback meters display only on the relevant SQ-Drive playback window.
- ID-1247: SQ-Drive – Fixes for intermittent distortion on multitrack recordings.
- ID-1254: SQ-Drive – Loading a multitrack for playback no longer causes issues with stereo playback.
- ID-1255: SQ-Drive – Fixed issue where multitrack recording could stop seconds before the end of the file.
- ID-1203: DEEP Tube Stage Preamp metering now displays correctly when switching between stereo and mono channels.
- ID-1238: Solved issue with GUI layers being displayed out of sequence on screen.
- ID-1244: Solved issue where channels strips could display incorrectly when selecting mixes.
- ID-1252: Solved issue where channel name could be applied to incorrect channel when switching layers.

### **V1.3.0** Feature release

- Support of SLink and Waves cards added
- Support for DX164-W added
- New add-ons available: DEEP 16T, 16VU, Mighty, Opto and Peak Limiter 76 compressors. Proportional, DiGi and Hybrid GEQ's.
- New Listen bus with patchable outputs
- Master fader 'Listen Level' mode
- Reset Mix Settings roles
- Tie Line patching
- Input Patch Libraries
- External In to PAFL
- Patchable PAFL output
- User permissions
- Compressor 'Ducker Mode' added
- Extra Soft Rotary options including MIDI, assignable Soft Rotary key functions, plus the addition of displayed values and display using the 'View' key
- Touch and drag control of PEQ
- SQ-MixPad additions – User permissions, I/O Patching, FX parameter and SigGen control.
- ID-1002: USB drives with file systems other than FAT can now be formatted by the SQ mixer.
- ID-831: SQ-Drive - extended file type support for .wav files.
- ID-1007: SQ-Drive – added error reporting for drive faults and invalid formats.
- ID-222: Improved/increased touch areas for on-screen buttons and parameters.
- ID-914: AMM strip colour matches channel colour.
- ID-384: SQ-Drive – faster show storage.
- ID-930: AMM Scene Safe icon could be incorrect after reboot.
- ID-932: Audio present on left side of a stereo output when setting output balance to hard right.
- ID-925: Scale and acceleration of Soft Rotary controls improved.
- ID-919: Stereo playback from SQ Drive could occasionally become distorted after a Show recall or power cycle.
- ID-454: PAFL Follow Mix behaviour corrected when changing the setting after selecting a mix to PAFL.
- ID-1108: Signal on SLink channels 17-24 could have reduced level when in dSnake mode.
- ID-1114: SQ-Drive – corrected stop button and seek position behaviour when stopped.
- ID-1035: SQ-Drive – corrected seek position behaviour during playback.
- ID-1021: SQ-Drive – correctly display elapsed and remaining times whilst paused.

- ID-1032: SQ-Drive – continue track playback whilst a new track is selected.
- ID-466: SQ-Drive – multiple improvements including wrap-around (play all) behaviour, current track display, and appearance of controls.
- ID-772: USB source now correctly stored with show.
- ID-606: Soft Rotary displays now correctly update when changing names.
- ID-479: LF and HF Width rotary control now updates illumination correctly to show when shelf mode has been engaged or disengaged.
- ID-641: Corrected Soft Rotary key illumination when used for Pad or Polarity.
- ID-921: Soft Rotary set to main level has persistent display when no channel is selected.

### **V1.2.2** Maintenance release

- Support for SQ Dante card added.

### **V1.2.0** Feature release

- D-Classic Automatic Mic Mixing added.
- Support for DX-Hub.
- 'Chorus' and 'Noo Phaser' FX units added.
- Assignable Channel Colours.
- Factory Processing Libraries added.
- Input to PAFL source point selection added.
- ID-839: Fix UDP port numbers to allow port forwarding.
- ID-784: Match Frequency and Width values on PEQ screen to hardware.
- ID-739: Add categories to FX Library.
- ID-447: Enable selection of 'Processing' or 'Routing' screen key before selecting channel.
- ID-852: Channel settings recalled incorrectly when changing channel stereo status
- ID-812: Stereo width changes can cause issues when switching channels back to mono
- ID-804: AR/AB units can dropout or enter update mode
- ID-803: Static IP settings not updating correctly
- ID-723: Changing gate sidechain source from 'self' on SLink input channel mutes audio
- ID-726: Selecting PAFL on SQ-MixPad changes 'Sel' on surface
- ID-721: 'PAFL Follow Mix' does not work in 'Fader Flip' mode
- ID-468: Master fader does not update when level changed on SoftRotary
- ID-437: Next scene does not update after scene name change
- ID-634: Surface can freeze with bad connection to SQ-MixPad app

### **V1.1.0** Feature release

- 'Tube Stage' DEEP Preamp model added.
- Support for SQ-MixPad app added.
- ID-536: Library closes on recall.
- ID-478: Unassign button added to Insert screen.
- ID-626: PAFL of mix channels sourced pre-delay.
- ID-702: Group routings non-persistent.
- ID-290: Secondary Remote Audio Units enumerated correctly.
- ID-686: AR84 supported as only connected device.
- ID-713: Fix for DX preamp control.
- ID-616: Provision of firmware updates to AR Remote Audio Units.
- ID-722: I/O patching now shows 'live' patching to non-preamp connections.
- ID-714: Input fader now updates correctly when mixing to group.

### **V1.0.1** Maintenance release

- ID-704: I/O screen updates to improve usability.
- ID-537: Confirmation before deleting or overwriting libraries added.
- ID-626: PAFL of mix channels now sourced pre-delay.
- ID-619: Open stereo channel routed to GEQ caused noise on boot.
- ID-486: Corrected preamp control logic when switching mono to stereo or stereo to mono.
- ID-567: Resetting Main LR routing caused fader/audio mismatch.
- ID-461: Channel names now updated on stereo SQ-Drive screen.

### **V1.0.0** Initial firmware release for SQ mixers.