

K.2 Loudspeaker Firmware Update 1.2.0 FAQ

FAQ

Q: Why do I need to update my K.2 loudspeaker?

A: When played at excessive levels with audible distortion, K10.2 models may experience a critical low frequency driver failure with no amplifier protection to alert the user. The unit may also overheat, with the potential to damage the rest of the loudspeaker. This issue is remedied by updating the firmware from version 1.0.8 or 1.1.0 to version 1.2.0. With this update, if a failure occurs the amplifier will power off voltage to both drivers and allow the user to complete a listening test to determine if the loudspeaker requires service. Owners of K12.2 and K8.2 will also benefit from amplifier protection improvements in the new firmware, and are encouraged to update their loudspeakers as well.

Q: Will the firmware update change the sound or performance of my K.2 loudspeaker?

A: The sound and performance of your K.2 loudspeaker is not altered by updating to v1.2.0, but more advanced DSP limiting settings have been updated for handling excessive distorted levels for extended periods of time. Using your K.2 loudspeaker normally for long durations with occasional clipping or limiting should not affect performance at all with the firmware update.

Q: How do I update to the current version of firmware?

A: A video describing the entire update process can be seen here: https://www.qsc.com/live-sound/products/loudspeakers/powered-loudspeakers/k2-series/k2_firmware/

A: Written instructions describing the process can be found here: https://www.qsc.com/resource-files/productresources/sp-k/k.2/q_spk_k2_firmwareupdate_tn.pdf

Q: How long does it take to update my K.2 loudspeakers?

A: Update time will vary by computer, quality of USB cable being used, and model of K.2 loudspeaker. Please allow up to 10 minutes for a K.2 loudspeaker to update completely, and monitor the status bar if additional time is still remaining for the update to complete.

Q: Can I load the firmware again if my loudspeaker is accidentally shut off during the first attempt?

A: It's important to not remove power from your K.2 loudspeaker during the update process. If your loudspeaker loses power or is shut off during an update, it will revert back to its previous firmware version. When powered back on, the K.2 Updater program will recognize it as still requiring an update, and it may take longer to complete the update process.

Q: Can I use the Updater Tool with computers using Microsoft Windows 7 ?

A: The Updater Tool works with Microsoft Windows 10. If you are using Microsoft Windows 7, you must install the following driver before installing the Updater Tool: Android_Gadget_CDC_driver.

Q: How do I know if my K.2 loudspeaker is distorting?

A: The loudspeaker will produce an unwanted fuzzy, gritty, rattling, and/or buzzing sound.

Q: What can cause my K.2 loudspeaker to distort?

A: Distortion occurs when a gain stage (channel input or output) is clipping heavily, squaring off the peaks of the sound waves, and created a harsh/raspy sound to the audio that was otherwise clear. If your audio source, mixer input, mixer output, or K.2 loudspeaker input shows signs of extended clipping (typically by red LED or indicator), then you should readjust the gain in your system to encounter less frequent clipping or loudspeaker limit indication. For more information on gain staging, please review this article: <https://www.sweetwater.com/insync/gain-staging/>

Q: What is Protect Mode 4?

A: K.2 loudspeakers have multiple "protection modes" for a service center to reference if there is a potential fault in a unit. Protect Mode 4 informs the user that the loudspeaker may be being driven to critical thermal failure, and has been protected in order to halt further damage. Once the Protect 4 message is displayed, complete the test sequence on the rear user interface to determine if your unit requires service. Protect Mode 4 does not mean that your loudspeaker or amplifier is damaged, but that a test needs to be completed in order to verify the status of the woofer.

Q: What do I do if my K.2 loudspeaker shows Protect Mode 4 after it has been updated?

A: If the amplifier recognizes Protect Mode 4, you will be prompted by the K.2 loudspeaker rear user interface to test the loudspeaker with an internal low-frequency tone that is only audible through the woofer. You can either continue with the test or power the loudspeaker down. If you power down the loudspeaker without doing the test, it will prompt to run the Protect Mode 4 test tone during the next power up. This will repeat until you complete the test and confirm if the loudspeaker produces an undistorted tone. If the test tone can be heard in the

woofer, complete the test by following the rear user interface instruction, return to use, and check the gain staging of your signal chain so that you are not sending distorted signal into your K.2 loudspeaker. If you do not hear a test tone from the woofer, discontinue use of that loudspeaker, and contact your local QSC service center for repair assistance.

Q: What does a pure sine wave used for testing the K.2 woofer sound like?

A: The Protect Mode 4 test tone is a low frequency sine wave that can only be heard through the woofer in a K.2 loudspeaker. The test results should sound pure and undistorted. Here is an example (actual tone may vary): <https://www.youtube.com/watch?v=s8QyRXgAWQ4>

Q: What should I do if I do not see “Protect Mode 4” on the K.2 loudspeaker LCD after the firmware update?

A: No further testing is required and you are okay to use your loudspeaker normally.

Q: How do I confirm the firmware update completed correctly?

A: Once your K.2 loudspeaker has rebooted and you have power-cycled the unit, use the knob to scroll to SETTINGS, press the ENTER button, and your current firmware version will be shown at the top of the screen. If it shows “1.2.0.3200” or greater then you have successfully updated to the current version.

Q: What happens if my loudspeaker does not appear in the updater app?

A: First, try a different USB Micro cable (not a phone charging cord). If it still does not appear, unplug your USB cable from the loudspeaker, close the updater app, turn off your K.2 loudspeaker, re-launch the updater app, plug the USB cable back into the loudspeaker, and power on your K.2 loudspeaker. If the K.2 loudspeaker still does not appear in the updater app, please contact your local QSC service center to assist in performing the update.

Q: What type of cable is required to perform the update?

A: A USB “A-Type” to “Micro USB-B cable is necessary to perform the update. A Micro USB charger cable may not work because only the power pins are connected and not the data transfer pins.

Q: I’m at a gig and I just learned about the update. Should I update my K.2 loudspeakers now?

A: Use caution when performing a firmware update at a gig. QSC recommends completing the update with ample time to test that your equipment is working properly before use at an event.

Q: How do I contact QSC for service assistance?

A: Support specialists can be contacted via the online service portal at <https://qscprod.force.com/selfhelpportal/s/> or by phone at toll free: (800) 772-2834 (USA only) or +1 (714) 754-6173.

Q: My loudspeaker has experienced Protect Mode 4 multiple times, but passes the test mode and returns to normal use. What should I do?

A: Contact QSC or your local service center for assistance if you experience Protect Mode 4 multiple times during operation of the loudspeaker.

Q: My loudspeaker already sounds distorted with low levels of audio. Will this firmware update fix that issue?

A: No. The firmware update will not remedy any pre-existing damage that may already be present on the loudspeaker. You should contact QSC or your local service center for repair assistance as the issue is unrelated to this firmware update.

