

Vortex Firmware Release Notes

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The Vortex firmware provides all of the audio processing functions and system code for the Vortex EF2280 product, the Vortex EF2241 product, the Vortex EF2211 product, the Vortex EF2210 product, and the Vortex EF2201 product.

Vortex firmware version 2.5.4 adds telephony support for India. This is the only change from the previous version (2.5.3).

This version of the Vortex firmware works on EF2280's after hardware revision D. This version of the Vortex firmware will not work on EF2280's of hardware revision D or earlier (where Revision D is defined as a Vortex unit that has an "ASPI" logo on the front panel of the unit); those units must use the latest 2.4.x version instead. This version of the firmware works on all hardware revisions of the EF2241, EF2211, EF2210 and EF2201. Version 2.1.0 was the first release to support the EF2241. Version 2.2.0 was the first release to support the EF2201. Version 2.3.0 is the first release to support the EF2211 and EF2210.

For more information as to the difference between a Rev. D EF2280 and a Rev. F EF2280, please see the [Vortex Firmware Compatibility](#) page. If you are reading these notes outside of Conference Composer, this page is only located within the Conference Composer Help File.

Conference Composer 2.8.0 is required to support all of the features in this firmware release. Vortex devices with 2.5.3 firmware can still be used with older versions of Conference Composer as follows. Conference Composer 2.3.x is needed for EF2211 and EF2210 support, and also has some useful enhancements for use with the other Vortex devices. Conference Composer 2.0.8 or later should be usable with an EF2280. Conference Composer 2.1.15 or later should be usable with an EF2201. Of course, support for newer features may be missing if an older version of Conference Composer is used with a newer version of firmware.

Upgrade Instructions

Full upgrade instructions are included in Conference Composer under the Common Operations folder of each Vortex device. However, the brief instructions below may be sufficient for those already familiar with the Vortex firmware upgrade process.

If you are upgrading firmware older than 2.02, please read the instructions in Common Operations folder of Conference Composer and follow them. This will ensure that any user settings you have stored in the device will be preserved after the upgrade.

If you have an EF2280 hardware revision F (which should have a Polycom logo on the front panel), you should upload the bootloader (bootload-2.5.4.efb) and the EF2280 application firmware (ef2280-2.5.4.efb). Technically, the bootloader does not need to be upgraded if it is version 2.4.0 or later, so you may skip that step if you wish to save some time.

If you have EF2280 hardware revision D (which should have an ASPI logo on the front panel), the 2.5.3 firmware is not supported on that platform. Instead, you should upload the 2.4.3 EF2280 application firmware (ef2280-aspi.efb).

If you are upgrading an EF2241, EF2211, EF2210, or EF2201, upload both the bootloader (bootload-2.5.4.efb) and either the EF2241 application firmware (ef2241-2.5.4.efb), the EF2211 application firmware (ef2211-2.5.4.efb), the EF2210 application firmware (ef2210-2.5.4.efb), or the EF2201 application firmware (ef2201-2.5.4.efb). Technically, the bootloader does not need to be upgraded if it is version 2.4.0 or later, so you may skip that step if you wish to save some time.

Release 2.5.4

March 28, 2007

New Features

Added telephony support for India. The full list of supported countries and their corresponding integer codes (for the COUNTRY command) are as follows.

- Unknown (0)
- North America (1)
- Australia (2)
- Europe (3)
- France (4)
- Hong Kong (5)
- Japan (6)

- Singapore (7)
- New Zealand (8)
- United Kingdom (9)
- South Africa (10)
- China (11)
- Korea (12)
- Malaysia (13)
- Israel (14)
- Mexico (15)
- India (16)

This feature only affects Vortex devices that include a telephony interface (EF2241, EF2211, and EF2201).

Bug Fixes

- There were no bug fixes in this release.

Release 2.5.3

February 25, 2005

New Features

Added telephony support for three new countries: Malaysia, Israel, and Mexico. The full list of supported countries and their corresponding integer codes (for the COUNTRY command) are as follows.

- Unknown (0)
- North America (1)
- Australia (2)
- Europe (3)
- France (4)
- Hong Kong (5)
- Japan (6)
- Singapore (7)
- New Zealand (8)
- United Kingdom (9)
- South Africa (10)
- China (11)
- Korea (12)
- Malaysia (13)
- Israel (14)
- Mexico (15)

This feature only affects Vortex devices that include a telephony interface (EF2241, EF2211, and EF2201).

Bug Fixes

- Limited the automixer hold time and decay time (AMHOLD and AMDECAY) so that their minimum values are 2 ms.
- Fixed issue that caused the FLASH command to not go back offhook when the flash time (FLASHT) was less than approximately 200 ms.

Release 2.5.2

August 26, 2004

Bug Fixes

- Fixed issue with incorrect telephony parameters being set when the country code was set to China or Korea.

Release 2.5.1

March 10, 2004

New Features

- Added telephony support for South Africa, China, and Korea.
- Added support in the EF2241 for the quick install bundle

Release 2.5.0

September 15, 2003

New Features

- Added AGC on line inputs.
 - Added LAGC command.
 - Added LAGCMAX command.
 - Added LAGCMIN command.
 - Added LAGCRATE command.
 - Added LAGCLINK command.
- Added Input Gain Faders. The analog input gain sections (GAINI) should be used for calibration only. The addition of faders is useful for volume control of an input that is already calibrated. They only apply to the mic/line and line inputs and are implemented in the digital domain.
 - Added FADERI command.
- Added Gain, Fader, and Mute groups for the mic inputs and line inputs. This consists of adding commands to set the gain, fader gain, and mute parameters of all the mic inputs or all the line inputs as a group. The intent was to make it easier to configure Vortex devices when issuing RS-232 commands by hand.
 - Added GAINGIL command.
 - Added GAINGIM command.
 - Added MUTEGIL command.
 - Added MUTEGIM command.
 - Added FADERGIL command.
 - Added FADERGIM command.
- Changed output gain drivers to apply attenuation in codecs instead of digitally. This results in better SNR when the outputs are attenuated.
- Added VTX -- Vortex Mode
 - Added VTXMODI command.
 - Added VTXMODO command.
- Added telephony support for New Zealand.
- Added REFGAIN command for control of AEC reference output gains similar to the output gains for the other analog outputs.
- Added "Signal Generator" option to "Inputs" menu of front panel LCD.
- Default value of AGC rate (AGCRATE) in factory presets changed from 1 dB to 3 dB. It is our experience that 3 dB gives better performance in most situations.
- Default value of frequency of all parametric EQs in factory presets changed from 20 Hz to 1 kHz. The new value is much more realistic.

Bug Fixes

- NVPSWD? now returns an ERROR#004 if NVLOCK is enabled.
- Muted WM0 to Output 1 crosspoint in preset 0 of the EF2210.
- Muted WM0 to Output L crosspoint in preset 0 of the EF2241.
- Fixed default AGC max gain setting for input 1 on the EF2210 and EF2211. It was set to 0 dB, and has been changed to 3 dB.

Release 2.4.3

August 1, 2003

New Features

- Added a new scheduling subsystem for more evenly distributing the processing load.
- Changed the telephony interface for international homologation.

Release 2.4.2

June 11, 2003

New Features

- North America
- Australia
- Europe
- France
- Hong Kong
- Japan
- Singapore

This feature only affects Vortex devices that include a telephony interface (EF2241, EF2211, and EF2201).

Bug Fixes

- Fixed a bug which caused the noise cancellation to be disabled if the acoustic echo cancellation was disabled. This bug was introduced in firmware version 2.4.0.

Release 2.4.1

May 22, 2003

Bug Fixes

- Improved responsiveness of the AGC to loud signal levels.

Release 2.4.0

March 19, 2003

New Features

- Lower delay versions of the acoustic echo canceller were added, which reduce overall system delay to approximately 13 ms on mic channels when the AEC or noise canceller is enabled.
- Added LCD menus for the Automixer Reference (enable/disable and bias settings).

Bug Fixes

- Fixed a bug that could cause audio dropouts on EFBUS signals going to EF2201s in a system with an EF2280 or EF2241 at device ID 7.
- Fixed a bug that could corrupt some macro settings when macros or presets are deleted.
- Fixed the behavior of GAINIT and GAINOT so that they act the same as other gain commands when out of range gains are applied.
- Updated BLDATA command to include GAINOT when reporting the phone output gain.

Release 2.3.2

February 26, 2003

Bug Fixes

- Improved EF bus operation and resolved rare Config Timeout errors on linked devices.

Release 2.3.1

January 23, 2003

Bug Fixes

- Release 2.3.0 was not correctly updating the front panel gating LED for the EF2211 and EF2210. This was fixed in this release. No changes were made for the EF2280, EF2241, or EF2201 products. However, the version number was updated for all EF22xx products in order to maintain consistency.

Release 2.3.0

January 14, 2003

New Features

- Added functionality for EF2210 and EF2211 platforms.

Bug Fixes

- Fixed bug where an error was falsely reported when an unmute command was sent to an input that was already unmuted, and many crosspoints were open.
- Disabled telephone input and output dynamics processing in factory presets 13 and 14 for all devices that have telephone interfaces.
- Fixed the display of the output delay time on the LCD menus.

Release 2.2.0

December 19, 2002

New Features

- Added functionality for EF2201 platform.
- Added Linkwitz-Riley filter type.
- Enhanced AEC doubletalk performance.
- Added GMUTEI command.

Bug Fixes

- Minor fixes to LCD Menus.
- Fixed bug on EF2241 platform that caused the BLINFO command to be set incorrectly in the factory presets.
- Added some missing LCD menus: AGCMIN, DELAYOE, DELAYO, and CGATET.
- Updated LCD Equalizer menus for EF2241 and EF2280.

Release 2.1.0

November 4, 2002

New Features

- Added functionality for EF2241 platform.
- Added automixer reference.
- More commands are now available for use by logic outputs.

Bug Fixes

- The LOP command now automatically causes the global preset to be saved.
- Error reporting of device ID conflicts on LCD menu is now more user friendly.
- Updated LCD menus for better support of presets and RS-232 settings.
- Fixed bug with Conference Composer meter data when line inputs were muted.
- Fixed bug that caused output 1 to not pass audio sometimes.
- PRESETK will now give an error if you try to delete a factory preset.
- Empty presets can no longer be selected as power-up default presets.
- The maximum value for AMNOM is the number of mics in the device, instead of 64.

Release 2.0.6

September 23, 2002

As of this version, we began using a new version numbering standard (major.minor.patch).

New Features

- Made EFBUS more hot swappable.

Release 2.05

August 6, 2002

Bug Fixes

- Acknowledgments of preset commands executed from macros have been fixed.
- Logic pin upload commands acknowledgment format has been fixed.
- Macros above number 99 can now be stored.
- A small audio quality bug in NOM attenuation has been fixed.
- A buffering bug in RS-232 code was fixed.
- Reporting of output labels for outputs W-Z during autoscan now happens.

- Fixed MGATE output array commands (previously, only input array commands worked properly).

Release 2.04

July 1, 2002

Bug Fixes

- Fixed occasional ASPI Bus failures during power on self test.

Release 2.03

Internal Polycom use only.

Release 2.02

May 10, 2002

Compatibility Issues

- EF2280 Hardware Revision F (manufactured with a Polycom logo on the chassis) must use code revision 2.00 or later. Older boards (with the ASPI logo on the chassis) may use 1.xx or 2.xx.
- Conference Composer 2.0.5 or later is required for using firmware version 2.xx.
- If multiple EF2280 devices are bussed together, they should all have the same version of code. Particularly, units with 1.xx code should not be bused with 2.xx units.

New Features

- RS-232 now supports 9600, 19200, and 38400 baud rates (used to just be 9600).
- RS-232 hardware flow control can now be set to on, off, or auto-detect (used to always be auto-detect).
- RS-232 drivers now can accept either CR and CR/LF.
- Added some features for faster communications with Conference Composer during upload and autoscan.
- Added audio delay on line outputs, adjustable in 0.1 ms increments up to 340 ms.
- Added MACROQ command for quiet (and fast) execution of macros.
- Presets can now be executed from macros. Using PRESETQ is recommended, but PRESETX is possible as well.
- Added P channel to EFBUS to support telephone signals on EFBUS with future products such as EF2241. There is an 8x2 P-bus submatrix to support two mixes of up to eight telephone devices on the bus. The EF2280 does not transmit on P because it has no built in telephone channels.
- The EFBUS initialization code was changed to be compatible with both hardware revisions (D and F).
- Meters are now more responsive (for use with Conference Composer).
- Added separate bootloader program.

Release 2.01

Internal Polycom use only.

Release 2.00

Internal Polycom use only.

Release 1.21

May 21, 2002

Bug Fixes

- Fixed ASPI Bus bug that caused ASPI Bus to periodically hang when many devices were on ASPI Bus.

Release 1.20

March 1, 2002

New Features

- The AEC was tweaked to provide a better balance of full duplex and echo suppression at the various modes.

Release 1.19

February 1, 2002

Bug Fixes

- Fixed a bug in macro storage that caused some macros to become corrupted when many macros were stored in the box and overwritten several times.

Release 1.18

November 15, 2001

We recommend upgrading firmware in any device with firmware older than 1.18.