

Update Package  
Software Release Notes

**Version 6.06 (Update Package K)**

- Update firmware to support Cat. 1100
- Use ExtraPutty terminal emulation for XMODEM file transfers.
- Include Dolby Cat. 552 Firmware version 2.1.3.0.
- The Dolby Carrier card now gets different firmware if the Cat. 1100 is in use.

**Version 6.03 (Update Package G)**

- Update to main firmware to select a different jitter tolerance setting on the AES receivers. This improves the jitter tolerance of the AES receivers.

**Version 6.02 (Update Package F)**

- Replace *Terminal* application with *Tera Term* to allow updates to use Windows 7 and 8 operating systems.

**Version 6.02 (Update Package D)**

- SDI reclocked output no longer glitches when audio group selection changes for 919398 SDI de-embedder board.

**Version 6.01 (Update Package C)**

- Added extra warnings to update instructions regarding 3G unit updates vs. non-3G unit updates.

**Version 6.01 (Update Package B)**

- Fixed bug where older Dolby hardware would not set AES output channel status bits correctly if the module was not locked on startup.

**Version 6.00**

- Added support for 919398 SDI De-Embedder Card.

**Version 5.29**

- Unbalanced and Balanced AES outputs from SDI no longer put out extraneous data if a selected subgroup is not embedded in the SDI stream.

**Version 5.28b**

- Removed extra outdated programming file.
- Updated Dolby decoder software to Version 2.1.2.9 to keep up with latest changes from Dolby Labs.

**Version 5.28**

- Updated SDI code to follow latest recommendations from a chip vendor. Should reduce incidents of distorted de-embedded audio when phase words are properly embedded.

**Version 5.26b**

- Updated Dolby D (only) Decoder (919345) software (848185) to Version 0.0.0.8. Some registers in the Dolby D decoder were not being initialized, causing random channel swaps and mixes on the outputs.

**Version 5.26a**

- Dolby Decoder Software Version 2.1.2.7 includes the following updates (applies to E8s only):

- Decoder no longer puts out distorted audio when receiving signals with intermittent errors.
- Aux downmix levels have been corrected for Dolby E signals with multiple programs.
- Corrected an issue where the Left channel of each output pair could distort when Dolby E streams were switched incorrectly.
- Dolby E decode latency reduced to be within one video frame.

#### **Version 5.26**

- Added support for 919361 main board.

#### **Version 5.21**

- Corrected absolute polarity of analog outputs.

#### **Version 5.20**

- Added three main new features:
  - Ability to ignore phase words in the SDI de-embedder (919300)
  - Ability to mute incoming non-PCM data streams based on embedded 16-bit PA headers, or the nAUDIO channel status flag, or both (aka bitstream mutes).
  - Support for the Dolby D only decoder card (919345)
- This software set will work with any of the existing hardware revisions but behavior will be modified for older 919304 Dolby Decoder Carrier Cards (those prior to Rev. D1). If the modification specified in document 823224 has not been performed on the 919304 card, the following discrepancies are noted:
  - On the serial port of the 919304 card (RS-232B), "Unlock signal is NOT connected" will be reported instead of "Unlock signal is connected" when the unit reboots.
  - If a 919345 (D-only) card is installed and if the user switches from a 16-bit Dolby E signal to a PCM signal without causing the AES receiver to unlock, the PCM signal will be muted.
  - For either the 919345 or the Cat. 552 decoder, the unit cannot accurately report an unlock condition ("- - -" shown in the LCD). The unit may report PCM or Dolby D when the input is actually unlocked on startup, and the Cat. 552 will report the last format received thereafter.
- All AES terminations are turned ON by default (IE – All digital inputs are terminated by default).

#### **Specific Notes on the new feature set:**

**Phase Words:** Some equipment manufacturers do not embed phase words correctly in their HD and 3G SDI bitstreams. By default, the 919300 SDI de-embedder board pays close attention to those phase words, and may produce interrupted audio if they are not exactly correct. There is now an item in the setup menu to cause the 919300 board to ignore the phase words; however, this assumes that the audio embedded in the SDI stream is locked to the video clock in the SDI stream. This may also produce a one-sample delay between the audio groups embedded in the stream. If one is experiencing interrupted audio from de-embedded SDI streams it is best to try the phase word setting

in both positions, and see which works best. Then contact Wohler Technical Support for further information.

**Bitstream Mutes:** Units that receive audio that is frequently switched between encoded data streams (such as Dolby D or E) and PCM signals will benefit from this new feature. The unit will automatically mute these streams if they are not being processed through a Dolby decoder. At present, the unit can only detect 16-bit streams reliably. 20-bit streams will be treated as PCM streams unless the nAUDIO channel status flag is set in the AES stream. Some equipment manufacturers do not set this bit correctly, so if PCM streams are being muted, in the setup menu, set the "A Vld Det" menu item to "Disa". It does take the unit a small amount of time to detect that a signal has changed from PCM to an encoded type. There may be a small burst of noise emitted when this happens. The A Vld Det menu item is enabled by default.

**Version 5.09 (official release)**

- Fixes problem with Dolby decoder where it used to lock up with program switches between Dolby D and Dolby E programs.

**Version 5.05 (interim release)**

- The main PIC now sends commands to the Dolby PIC for program selection only when the program selection changes. Previously, it would send them continuously.
- Many debugging features have been added, but are compile-switched out.

**Version 5.02 (interim release)**

- Changed behavior of "Left Up" button for E8s and S8s. Previously, the button was moving the channel selections in the wrong direction in certain monitoring modes of operation.

**Version 5.00 (official release)**

- First official release