Tektronix®

WFM8200 and WFM8300 Waveform Monitors

Release Notes

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Release notes

This document describes the key features and known limitations of software version 3.4.X of the WFM8200 and WFM8300 Waveform Monitors. Some of these notes apply only to instruments with specific options installed. A list of available instrument options is available at www.tek.com.

New key features

Software version 3.4.X adds a new HDR (High Dynamic Range) tool set for assisting camera operators and editors to adjust their content to the correct levels. The HDR toolset included the following new features and capabilities:

NOTE. Option PROD is required to access the HDR tool set.

■ Waveform display

 ▬ The Waveform display pop-up menu now contains a Dynamic Range setting where you can select from SDR, HDR, HDR Full, and Camera Log.

 ▬ Depending on the Dynamic Range setting, the CONFIG > Graticules and Readouts menu has new graticule selections for monitoring HDR content.

 ▬ When HDR or HDR Full is selected as the Dynamic Range, you can use the Left / Right arrow keys to toggle the vertical scale of the HDR graticule between Nits, Stops, Reflectance and Code Value. The selected scale is shown at the bottom of the display. Camera operators can use the graticule lines at 2%, 18% or 90% Reflectance to properly setup camera exposure with a camera test chart of 2% black, 18% gray and 90% white.

 ▬ When the ST.2084 (1K) or ST.2084 (10K) HDR graticules are selected, a fixed zoom mode from 100 Nits to maximum scale is available by using the Up arrow key to enable Zoom Mode and the Down arrow key to disable Zoom Mode. When Zoom Mode is enabled, the Gain function and the Vertical Position controls are locked in a fixed configuration. When in HDR modes, Variable Gain will be enabled by default to facilitate the Zoom mode function.

 ▬ When HDR or HDR Full mode is selected as the Dynamic Range setting, the mV measurement cursors are replaced by a set of Nits measurement cursors.

- Picture display

  - The CONFIG > Display Settings menu now has a Picture Brightup on Luma/Specular Gamut Error setting where you can select from Off, Luma On, HDR Specular On, and HDR Full Specular On.

  - When the Picture Brightup is set to HDR Specular On or HDR Specular Full On, the highlight overlay is turned on for selected HDR or HDR Full settings and produces HDR zebra highlights in the picture for large areas of the trace that exceed 100 nits. The HDR zebra highlighting allows users to verify the location and the size of the specular highlights.

- Graticule settings

  - The CONFIG > Display Settings menu now has a Graticule Opacity setting where you can select from Additive and Opaque. The Additive setting alpha-blends the graticule and trace together. The Opaque setting allows the graticule to obscure the trace.

  - The CONFIG > Display Settings menu now has settings for selecting Grey as the color of the readouts and/or the graticules.

- UI color scheme

  - The DISPLAY menu now has a UI Colorscheme setting where you can select from Classic, Modern, and Monochrome. The Classic setting provides the traditional look and feel of Tektronix waveform monitors. The Modern setting provides a look and feel similar to the Tektronix PRISM Media Analysis Platform. The Monochrome setting provides a black and white display intended for color grading and similar applications.

- 4K tile mode

  - When the instrument is in 4K tile mode, the trace intensity is lessened to aid in viewing the display.

General limitations

This release has the following general limitations. Topics are listed in alphabetical order.

Dolby operation with Option DPE

- For listening mode selections other than FULL or EX, clipping may occur. For example, if the Dolby Digital input is 3/2 with full-scale test tones and Stereo listening mode is selected, clipping will likely occur. To avoid clipping, choose either compression mode, Dialnorm+Line or Dialnorm+RF in CONFIG > Audio Input/Outputs > Dolby D (AC-3) Setup > Dialnorm&DynRng.

- When in Channel Mode 2/2 and Phantom Listening Mode, the Surround Sound display (AUDIO tile) shows the Ls and Rs levels attenuated by 3 dB instead of displaying at full amplitude for this channel mode/listening mode combination.

- When in Channel Mode 3/0 and 3-Stereo Listening Mode, the Surround Sound display (AUDIO tile) shows the C level attenuated by 3 dB instead of displaying at full amplitude for this channel mode/listening mode combination.

- The Dolby E/Dolby Digital decoder will pass through PCM audio at 48 kHz frequencies or less. Audio frequencies above this will not pass through and may cause noise or distortion on both the bars and the audio outputs. If PCM audio at frequencies greater than 48 kHz is used, choose either AES A or B as the input source.

- When Dolby Digital Plus (DD+) is present, the parameters below Extended BSI are grayed out.

Firmware update to version 3.X

- The first time the instrument firmware is updated to version 3.X, the upgrade process must be run twice in order for the firmware to be properly installed. Subsequent upgrades will require only one attempt to upgrade the firmware.

- If you are updating firmware from 2.X to 3.X via USB, after the instrument reboots, you may have to remove and reinsert the USB flash drive to complete the update.

Firmware update with any Dolby option

When updating the instrument firmware 2.X to 3.X and Option DPE is installed, do not cycle the instrument power until the Power-on diagnostic screen is cleared and the User interface is fully running. If the Instrument Fault LED is lit (red Power/Standby button), an additional instrument reboot is required. This may be performed by pressing the Power/Standby button. When the upgrade is complete, the Dolby firmware version will be 2.1.2.1. You can confirm the version on your instrument from the CONFIG > Utilities > SW Version menu.

Incompatible operation

When applying 3 Gb/s signals to any instrument that does not support the signal formats, the unit indicates that the signal input is not standard. Applying unsupported video signals may result in a frozen PICT display.

SNMP messages

Commands returning the audCurOutput OID return the string "Embed 7 & 8" for embedded audio channel pairs 9 & 10, 11 & 12, 13 & 14, and 15 & 16.

Sweep

The waveform style must be set to Overlay to get 2 line or 2 field sweep.

4K/UHDTV1 video mode operation

- If any of the quad link signals is removed, the instrument indicates that the input signal is missing. Ensure that all signals are correctly applied.

- Whenever the instrument switches to and from 4K/UHDTV1 input mode, the display turns white and flashes before changing to the new mode. This can happen when the Input Monitor Mode setting is changed in the Configuration or Main button menu, when the instrument boots up in 4K/UHDTV1 input mode, or during a firmware upgrade when the instrument is in 4K/UHDTV1 input mode.

USB

- Always press the MAIN button and select USB Status to safely "Unmount" and remove the USB memory device from the USB port. You risk permanent loss of any files saved on the USB device if you do not use the "Unmount" feature.

- If there are more than 32 files saved in a Capture or Presets directory on the USB device, you can only view the first 32 files.

Waveform mode cursor for XYZ color space

The voltage cursors are given in millivolt scale, but the XYZ color space is referenced in hex scale. To see the values for 000 to FFF, change the graticule settings to max and percent.

Web browser

- The Web browser applet will not resize when running in some versions of the Netscape browser and in some non-Windows Operating Systems (for example, Solaris).

- We recommend using Java Runtime Engine (JRE) version 1.6 or above.