Release Notes

Tektronix

**WVR6100, WVR7000, and WVR7100
Waveform Rasterizers**

061-4295-04

This document applies to firmware version 2.0.X
and above.

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Release Notes

This document supports software version 2.0.X and greater of the WVR6100, WVR7000 and WVR7100 Waveform Rasterizer. The following release notes apply to instruments with the indicated measurements or options installed. See the *WVR6100, WVR7000 and WVR7100 Waveform Rasterizers Quick Start User Manual* for a list of which options are available for each model.

Known Issues and Behaviors

The following pages describe known issues and behaviors with the waveform rasterizer.

Options DD, DDE, EYE, and PHY
Options DD, DDE, EYE and PHY are only available for the WVR6100 and WVR7100 instruments. You cannot install these options on a WVR7000.

Incompatible Operation
When applying SD or HD signals to any rasterizer that does not support them, the unit indicates that the signal input is not standard. Applying unsupported video signals may result in a frozen PICT display.

SDI Video Session
Under certain conditions, an SDI video session reports ANC data present if Embedded Audio or EDH are present.

SDI Status Display
When the input signal is missing, the Cable Length meter, the Cable Length readout, and the Cable Loss readout on the SDI Status display indicate zero. Use the Input Status on the Status Bar for the actual signal state.

Sweep MAG
When in two-line mode, waveform displays of SD or composite inputs will display invalid information at the left and/or right side of screen (beginning and/or end of sweep) when Sweep MAG is on. HD formats are unaffected.

Display Select and Freeze Interactions
Switching between four-tile and a FULL display mode can cause display anomalies when the display is Frozen. For example, PICT displays may not display closed caption data, picture borders, and menus after switching display modes. Frozen AUDIO and STATUS tiles may also have anomalies when switching display mode. To avoid this issue, you should freeze displays in the display mode in which you want to observe them.

**Option PHY
Eye Amplitude Calibration**

In some cases, such as performing the Performance Verification procedures, when the instrument is in calibration mode, the Eye Amplitude readout will provide incorrect results. To avoid this problem, use the Eye waveform display and the measurement cursors to calibrate the Eye Amplitude measurement.

NOTE. Option PHY is only available for the WVR6100 and WVR7100.

WVRRFP

A 100 ft. cable, Tektronix part number 012-1682-00, is available for use with the WVR RFP (remote front panel).

Ext. Reference

The following issues are related to operation when using an external reference:

- Sometimes loss of the External Reference signal does not make the resulting loss of lock obvious. For example, for a 525 input with EXT REF selected and configured to lock to an NTSC reference, removing the external reference signal leaves the waveform stable but shifted on screen.

- Note that the SDI Input Readout can be used to determine whether the waveform is locked.

- When in SDI mode, but with no SDI input signal present, the screen displays Ref: Ext Unlocked even though a valid External Reference signal is connected.

- The following External Reference signal formats are not fully supported when in line select mode or in Sweep MAG mode. Although not supported, these formats may be somewhat functional and are not locked out.

    - NTSC and PAL with tri-level input

    - 720p 23.98, 1080sf 29.97, 720p 24, 1080sf 30, 720p 25, and 1080sf 25

- With some combinations of SDI input and External Reference formats, the sweep stops prematurely when Sweep MAG is on in one-line mode. To work around this limitation, turn off EXT REF to make the measurement.

Audio Status

The following issues are related to Audio status:

- Audio status clip values can vary between different Waveform Rasterizer units.

- Sometimes changing the Video-to-Audio map setting to Embedded does not update the input status line in the audio display. Switch to a different audio input and then switch back to update the audio display to reflect that mapping is set to Embedded.

Display Distortion   The rasterizer does not show the correct aspect ratio in the audio phase display under the following conditions:

- The rasterizer is using 16X9 VGA monitor

- Audio Display is selected and set to display the Phase as a Lissajous pattern

Under these conditions, the X-Y Lissajous axes of the Lissajous display are not 90 degrees apart and the Lissajous waveform is stretched somewhat horizontally.

Option DS   In the Audio Inputs/Outputs CONFIG menu, the Video to Audio Map submenus for SDI A, SDI B, Cmpst A, and Cmpst B include the Analog A and Analog B choices. Since Option DS is a digital-audio-only option, the Analog A and Analog B entries do not function for Rasterizers with the DS option.

Options DA and DG   When version one of the Audio board is installed, the user interface includes menu selections for loudness ballistics. However, loudness ballistics require version two of the Audio board. When a version one Audio board is installed and you select the loudness ballistic, the instrument actually provides the True Peak ballistic, or under some circumstances, the most recent non-loudness ballistic.

Field Installs of Dolby Options   When you update a rasterizer with Option DD or Option DDE, the Dolby input entries may not appear in the Audio popup menu until you cycle power. Therefore, after installing an option and powering up and updating the Option Key, be sure to cycle power once more to ensure that the menu items appear.

Dolby Bar Labels   Depending on the current state of the input, surround channels may be indicated by numbers 1–10, rather than by labels L, R, C, and so on. For example, for a 5.1 surround input in EX listening mode with a Dolby downmix mode selected, all the numbers correlate as follows:

Channel Label[1]	L	R	C	Ls	Rs	Lfe	Lb	Rb	$L_{[ot]/M}$[2]	$R_{[ot]/M}$[3]
Bar Number	1	2	3	4	5	6	7	8	9	0 (10)

[1]   Channels and labels can vary with Dolby D Listening Mode set for the rasterizer or the Dolby E Program Configuration detected by the rasterizer. See the tables at the end of the *Monitoring Dolby-Based Surround Sound* chapter in the *WVR6100, WVR70000 and WVR7100 Quick Start User Manual.*

[2]   Downmix values may be Lo (Left only), Lt (Left total), or M (Mono), depending on the downmix selected.

[3]   Downmix values may be Ro (Right only), Rt (Right total), or M (Mono), depending on the Dolby Downmix Mode setting selected.

The channels, if present in the AUDIO display, allow the Channel Labels to be present in both the audio Input/Output maps in the CONFIG menu and in the audio session. If channels are not present (input shifts from 5.1 to Stereo or downmixes are turned off), the affected bar numbers appear in the session and maps, replacing the Channel Labels. In the alarm status and error log, bar numbers are always shown regardless of the input format.

Option DDE   There are several issues that apply to Dolby operation on rasterizers with Option DDE installed:

1. In the AUDIO display, with a Dolby Digital input and a nonexistent stream selected, the downmix level bars continue to display levels instead of going to Mute status. The other bars go to Mute status as expected.

2. In the Dolby Audio Status display (STATUS pane), two Dynamic Range Parameters indicate 0 dB levels differently:

   - Line Mode Compression reads "None."

   - RF Mode Compression reads "0 dB."

3. 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 the CONFIG menu Audio Input/Outputs > Dolby D (AC–3) Setup > Dialnorm&DynRng.

4. 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. They should display at full amplitude for this channel mode/listening mode combination.

5. 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. It should display at full amplitude for this channel mode/listening mode combination.

6. When you apply a signal with PCM audio to an AES input, 48 kHz audio will not pass through the rasterizer Dolby decoder. 96 kHz audio will pass through to the downmix, but not to the main audio outputs. 192 kHz will silence all of the outputs.

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).

SNMP Messages   Listed below are some SNMP-related issues:

1. 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.

2. The MIB contains the command dolbyPgmAvg, but the command name does not indicate that the OID is for loudness.

3. The MIB contains the dolbyPgmCurLoudness command. However, it does not contain a command for program session loudness.

■■ **End of document** ■■