

# Release Notes



## WVR610A & WVR611A Waveform Rasterizers

**061-4260-00**

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## Contacting Tektronix

<b>Phone</b>	1-800-833-9200*
<b>Address</b>	Tektronix, Inc. Department or name (if known) 14200 SW Karl Braun Drive P.O. Box 500 Beaverton, OR 97077 USA
<b>Web site</b>	<a href="http://www.tektronix.com">www.tektronix.com</a>
<b>Technical support</b>	Email: <a href="mailto:techsupport@tektronix.com">techsupport@tektronix.com</a> 1-800-833-9200, select option 3*

\* **This phone number is toll free in North America.  
After office hours, please leave a voice mail message.  
Outside North America, contact a Tektronix sales office or  
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# Release Notes

This Release Notes describes known issues with the WVR610A & WVR611A Waveform Rasterizers (hardware version 0x100 and software version 1.0.4) and provides updates to the *WVR610A & WVR611A Waveform Rasterizers User Manual* (071-1199-00). The sections are arranged by the affected operating mode of the instrument.

## Known Issues and Behaviors

**General** Some monitors or projectors may have trouble adapting to the XGA output from the WVR61x. This is because there may not be any significant signal in all four corners of the raster, so the monitor cannot find the edges of the active area. To overcome this, select Status in all four tiles of the WVR61x display, and then cycle the power on the monitor to force it to re-configure. If necessary, adjust the horizontal and vertical position and size to optimize the image.

Pressing the mode button once should normally dismiss pop-up menus such as those for WFM and Vector modes, however, in some cases it may take several presses for them to go away.

Waveform displays may freeze on unsupported digital standards such as HD signals or SDI inputs with large jitter. In this mode the picture will blank and the message “unlocked” will appear in red in the lower left corner of the display.

**Alarms and Logging** False alarm error entries may be recorded in the log file while running diagnostics. Examine the log time stamps to see which errors are not significant, or clear the log files after running diagnostics.

The Video session screen has three fields which may be misleading. The Signal Lock, RGB Gamut, and Cmpst Gamut readouts may continue to display an error message after the alarm condition is no longer present. The text will be red when the alarm is actually present and green when the alarm has passed. For example, the word Unlocked will be displayed as red text in the signal lock field when the signal is present but unstable, then it may display Unlocked in green when it is stable. The normal display when the video is stable would be Locked in green text. The correct information for all three fields is available on the Alarm Status screen.

**Picture** Signals from most VCR and DVD players will work properly. However non-standard signals (such as those from a VCR) may not be displayed properly while using a menu. To insure proper operation use signals that conform to NTSC, PAL, or CCIR601 video standards. Inputs from sources such as VCRs and DVDs may work better if the composite AFC speed is set to Fast and the composite clamp mode is set to Slow or Off. If these parameters are not set correctly, the displays in all tiles may be disrupted, although the status bar will indicate the signal is locked.

In tile mode, 525 line pictures are cropped by 12 lines. Six at the top and six at the bottom. This is done as part of the aspect ratio correction. In full-screen mode there is no cropping.

Pictures are decimated horizontally or vertically to achieve the correct 4 x 3 aspect ratio on a square pixel computer monitor. This decimation may cause some artifacts. This behavior may be evident on a sweep signal on 525 mode.

The line select bright-up on the picture may not coincide with the selected line if using an external reference that is not timed with the input. To prevent this, use this function in internal reference mode, or correctly time the input and reference.

**External Reference** When using an SDI input with an external reference, an input signal time-base variation outside the specified range may be shown as a reference unlock on the status bar and error logs.

When using an input and external reference that have time-bases that are more than 200 ppm different from one another, a line-selected display may show a frozen image instead of a live one. To prevent this do not exceed the  $\pm 50$  ppm specification of time-base error for the input and the reference.

**Audio** In analog audio modes, the lissajous phase pair selection allows choosing channels seven and eight. These two channels are actually not available since the analog audio has only six channels. Ignore the extra channels in the selection menu.

Audio clips may not be registered if the stream has active auxiliary bits. If this problem is encountered, set these bits to all 0's or use the "over" threshold instead of the clip.

**Web UI** The screen captures for the web interface displays can be temporarily corrupted if you change settings during the capture. This can result in images that are a mixture of the settings before and after the changes. Subsequent captures taken when no settings changes are occurring will be correct.

The XGA display can sometimes be disrupted by the screen captures for the web interface. This disruption typically takes the form of a minor flicker in the display.

The refresh rate on the screen captures is not adjustable although there is a field for this purpose. The refresh is constrained by network and internal limits and is typically about seven to ten seconds on a fast network. The rate will be slower if multiple users are simultaneously connected to the same instrument.

**WFM mode**

When viewing SDI input as a composite waveform, the sync and burst are synthetic and are not derived from the input. In some modes this sync and burst may start or end a line or two earlier or later than specified by the composite standards. The composite representation of the SDI input is intended for gamut and level interpretation. Examining the vertical interval of this signal should not be expected to yield insight into the SDI input, rather one should look at the native YPbPr representation.

When viewing 525 line SDI input as a composite waveform while using line select mode, both burst phases may appear when you would expect to see only one.

**Timing Display**

When there is no input signal, the timing display may indicate a stable display with reasonable offset. The input status indicator in the status bar at the bottom of the screen will indicate “Input Missing” in this condition.

**Diagnostics**

The DCM reset test in the advanced diagnostics may sometimes fail when there is nothing wrong with the instrument. If this happens, connect an SDI signal to input A and terminate the loop-through. Select SDI input A to be active, and then re-run the test from the configuration menu and it will accurately test the hardware.

## Documentation Updates

### Status Session Screens

There are two similar modes in the audio and video session screens, Stopped and Frozen. Stopped is controlled by pressing the front panel arrow keys. When stopped, the instrument stops accumulating data into the error statistics such as runtime and EDH error seconds. The real time portions of the display continue. Frozen is controlled using the Freeze front-panel button. When frozen, all fields of the display stop updating, but the statistics continue to accumulate in the instrument. When the display is un-frozen, the statistic readouts will jump to the new value. The stopped mode is useful to prevent logging errors that are anticipated, for example, errors from switching inputs. The frozen mode is useful for capturing an event like a state where multiple errors exist or a specific EDH checksum is present.

In the Alarm Log, some events may appear out of sequence within the one second resolution of the log. For example, when you change input the instrument may register a few log entries from the previous input after the input change is registered. Time stamping may also be out of sequence within a one second interval. If you change from SDI with time code to Composite without a time code, you may see a few entries with time stamp after the switch because changes in the instrument state are logged immediately, while changes in the alarms need time to filter through the detection circuits and code.

### Gamut

The gamut bright-ups on the picture may be difficult to see on signals with luminance in the mid range. An example of such a case is the cyan bar in a 75% color bar signal. This does not happen often at normal gamut threshold values. The gamut errors reported on screen and in the log will not be affected and will report errors in all signals accurately.

When changing Gamut thresholds, the changes can only be viewed in real time if the gamut tile was active before you entered the Configuration menu. If the gamut tile was not active before entering Configuration menu, the changes will be updated when you exit the configuration menu. Make the arrowhead or diamond tile active, and use the four-tile mode when changing gamut thresholds.

### Web UI

Many web browsers do not correctly interpret IP addresses with leading zeros. If the IP address shown in the WVR61x configuration menu is of the form 124.161.038.151, remove the "0" when entering it into the address line.

The field that displays the IP address in DHCP mode may sometimes display what appears to be a valid address, when it is not. This often happens for a few seconds as the unit negotiates for an address with the server, but it can also happen if there is no Ethernet connection installed. These false addresses usually have a form similar to 010.001.023.157. Verify that the address you see is reasonable for the network on which the instrument is installed before trusting it to be correct.

Java plug-in version 1.4.1 or higher is required for proper operation of the web applet. Also, you should use either Netscape version 6.22 or Microsoft Internet Explorer version 6.0 or higher; operation with other browsers or versions has not been verified.

Web interface operation is optimized for screen resolutions of 1024 x 768 or higher. Operation on computers with lower resolution has not been verified.

**Audio** Some of the Audio SNMP OIDS have a syntax that is tile specific, but they actually are global and affect all tiles.

The analog inputs and outputs are labeled as 1 through 6 in the user interface and on the breakout cable, however, the pin diagram in the manual lists them as left/right pairs. The translation is as follows:

L0 = 1, R0 = 2, L1 = 3, R1 = 4, L2 = 5, R2 = 6.

**Line Select** While in external reference mode, the line select function counts lines relative to the external reference signal. This allows use of the line select function for evaluating timing between input and reference.

**Software Update** When using DHCP, there is no way to be sure what address will be assigned when activating the software update mode. If the unit is not off or disconnected from the network long enough, then typically the WVR61x will get the same address as it had previously. This means that you can go to the Config menu and get the current IP address and use that in the update process. If this does not work the first time you may need to try again or use the manual IP address mode.

**SNMP Remote** Both MIBs describing the available commands and their syntax can be downloaded from the instrument. These downloads are available via the web browser page. Simply download the files and save them as a text file.

**Specifications** The Composite Chroma filter gain spec should be  $\pm 1\%$  instead of the  $\pm 0.1$  spec shown in the manual.

The acoustic noise at room temperature may be a few dB above the typical value listed in the manual since the fans are running at a slightly higher speed profile.

