

# 8960DEC

NTSC/PAL to 4:2:2 Adaptive Decoder

Release Notes

SOFTWARE VERSION 5.0

071809201  
MAY 2003

*the most watched worldwide*

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## Grass Valley Web Site

The [www.thomsongrassvalley.com](http://www.thomsongrassvalley.com) web site offers the following:

**Online User Documentation** — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

**FAQ Database** — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

**Software Downloads** — Software updates, drivers, and patches can be downloaded.

# *8960DEC Release Notes*

## **Introduction**

This document provides information on the latest software release for the 8960DEC NTSC/PAL to 4:2:2 Adaptive Decoder module. Read this document completely before attempting to update to the latest software.

**CAUTION** These notes contain critical information concerning the updating process. Do not update software without completely reading *Software Updating on page 11*.

This document details:

- Version 5.0 Release features and operation ([page 4](#)),
- Important Notes for this release ([page 10](#)),
- System Requirements ([page 10](#)),
- Hardware Modifications ([page 11](#)),
- Software Updating ([page 11](#)), and
- Accessing Reference Documents ([page 11](#)).

Pertinent reference documents are available on-line or hard copies can be ordered from Grass Valley. For more information, see *Accessing Reference Documents* at the end of these Notes.

## Version 5.0 Software Release

The following new features and enhancements are provided in the latest version 5.0 software:

- Noise immunity has been improved dramatically as the video input now serves as the timing reference for the digital encoding process and is highly tolerant to low quality and noisy signals.

The following changes and enhancements have been made to the web page and local controls:

- The **Auto** Standard Recognition function has been removed. You must manually set your line standard as 525 or 625 in the Standard Selection controls ([page 5](#)).
- The Levels web page has been revised ([page 6](#)). It now contains the Video Input Gain control (formerly **Video Input Level** on the Standard Selection page).
- A Picture Position Offset control has been added to the Video Processing controls ([page 7](#)).
- Separate VBI/Data Line controls have been added to allow VBI line processing and configuration functions ([page 8](#)).

Several overall changes to the web page interface include:

- Removal of Slider controls for speeding up response time.
- Status LED icons and a manual **Refresh** button is now available on each web page with 8900NET software v3.2.0 and later.

The most pertinent revisions for this release are outlined below. Check the Grass Valley web site as described in [Accessing Reference Documents](#) for the most current documentation for this module.

## Standard Selection

The Standard Selection controls have been modified to remove the **Auto** standard recognition function. You must now manually select your line standard to **525** or **625** with the web page (Figure 1) or using the local onboard controls.

For onboard configuration, Position 0 (Manual/ Auto) in Bank 1 is no longer used. Use Bank 1, rotary switch Position 1, paddle switch up for 525, paddle switch down for 625.

Figure 1. Standard Selection Web Page for 525 and 625 Modes

 **Standard Selection** 

Model: [8960DEC](#) Description: [Adaptive Decoder](#)  
 Frame Location: [not assigned](#) , Slot: 1

selection current setting

Line Standard:  525

selection current setting

Input Video Setup:  Setup  
 NTSC/PAL-M Select:  NTSC  
 SuperBlack:  Enable

 **Standard Selection** 

Model: [8960DEC](#) Description: [Adaptive Decoder](#)  
 Frame Location: [not assigned](#) , Slot: 1

selection current setting

Line Standard:  625

## Levels

The revised Levels web page is shown in [Figure 2](#). The **Input Video Gain** control is now on this page and some controls have been renamed (**Luma** and **Chroma Gain**). Local onboard controls remain the same.

Levels may also be adjusted with the optional control panel.

Figure 2. Levels Web Page in Version 5.0

**Levels**

Model: [8960DEC](#) Description: [Adaptive Decoder](#)  
Frame Location: [not assigned](#) , Slot: 1

Input Video Gain  
<< 100.00 % >>  
< Apply >

User Adjustments: selection current setting  
User > User  
Apply

Luma Gain  
<< 100.00 % >>  
< Apply >

Black Level  
<< 7.50 %white >>  
< Apply >

Chroma Gain  
<< 100.00 % >>  
< Apply >

Hue  
<< 0.00 degrees >>  
< Apply >

## Video Processing

A new video processing function allows you to select the amount of picture position offset (centering) in increments of 37 ns in a - 222 ns to + 296 ns range.

From the web page interface, use the **Picture Pos Offset** control on the Video Processing page as shown in [Figure 3](#). Use the arrows to adjust the picture position.

The Picture Positioning Offset may also be adjusted with the local onboard controls. To access this function, rotate the Function Rotary Switch to the 2nd Bank (until the 2ND LED is on) and set to position 1. Move the paddle switch up to move the picture to the left and down to move it to the right.

Figure 3. 8960DEC Video Processing Display

**Video Processing**

Model: [8960DEC](#) Description: [Adaptive Decoder](#)  
 Frame Location: [not assigned](#) , Slot: [1](#)

selection current setting

Decoding Adaptation:  [High](#)

Picture Pos Offset  
  ns

selection current setting

Test Signal:  [Disable](#)

## VBI/Data Line Processing

A new set of controls has been added for VBI/Data Line Processing. These controls allow you to set the start of active picture (SAV), then use any of the unused lines of active video for external data insertion. VBI and data lines have processing controls to either apply filtering or delete (blank).

The active video lines (SAV1–SAV4) on the 8960DEC that can be defined as SAV and made available for external data insertion in both 525 and 625 modes are given in [Table 1](#).

Table 1. 8960DEC VBI Settings

Active Lines	525	625
SAV1	21 (Field 1) 284 (Field 2)	24 (Field 1) 337 (Field 2)
SAV2	22 (Field 1) 285 (Field 2)	25 (Field 1) 338 (Field 2)
SAV3	23 (Field 1) 286 (Field 2)	26 (Field 1) 339 (Field 2)
SAV4	24 (Field 1) 287 (Field 2)	27 (Field 1) 340 (Field 2)

To set these parameters with the local onboard controls, refer to [Table 2](#).

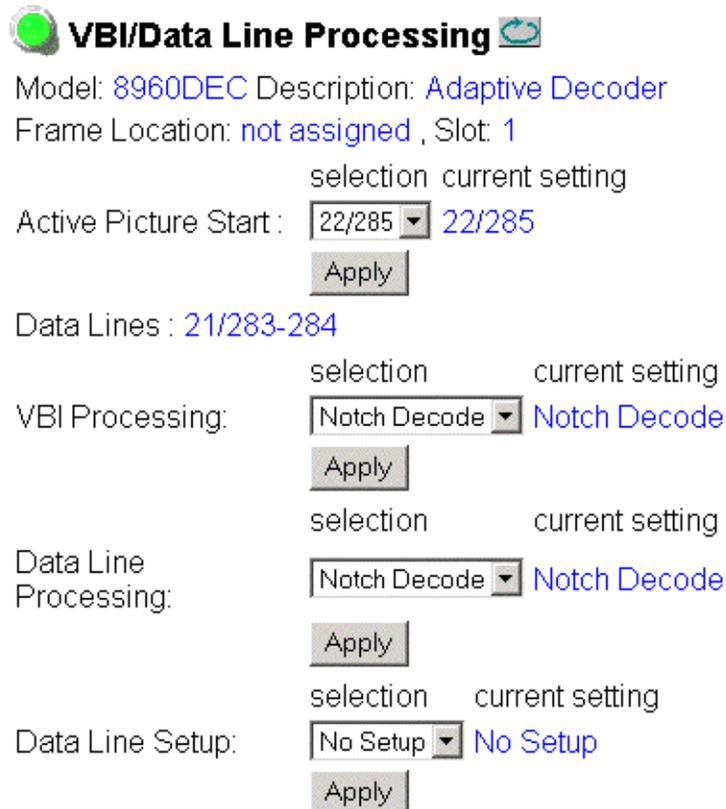
Table 2. Local Onboard Controls for VBI/Data Line Configuration

Function Switch	Paddle Switch Up	Paddle Switch Down	Function Description
9	SAV4	SAV3	Select one setting to determine line number of Active Picture Start (SAV). See <a href="#">Table 1</a> for the corresponding values for these controls.
A	SAV2	SAV1	
C	Notch Decode	Delete	VBI Data Line Processing – select Notch Decode to apply U/V filtering or select Delete to remove content (blank).
D	Setup	No Setup	Setup on Data Lines (active when Notch Decode is enabled above). Select Setup if setup is present on data lines, No Setup if not present.

To set the parameters through the browser, use the VBI/Data Processing web page display shown in [Figure 4](#) to:

- Choose the line number for the start of active picture (SAV) from the **Active Picture Start** pulldown selections. The available data lines will be displayed.
- Set **VBI Processing** to **Delete**, **Notch Decode** (low and band pass filtering), or **Video to Luma** (no filtering).
- Set the Data Line Processing pulldown to either **Notch Decode** (U and V channels blanked) or **Delete** (remove content), and
- In 525 line standard, set Data Line Setup pulldown to **Setup** or **No Setup** to indicate if setup is present on data lines.

Figure 4. 8960DEC Video Processing Display



**VBI/Data Line Processing** 

Model: 8960DEC Description: Adaptive Decoder  
 Frame Location: not assigned , Slot: 1

Active Picture Start: selection current setting  
 **22/285**

Data Lines : **21/283-284**

VBI Processing: selection current setting  
 **Notch Decode**

Data Line Processing: selection current setting  
 **Notch Decode**

Data Line Setup: selection current setting  
 **No Setup**

## Important Notes

Important notes concerning any known software and operating issues in this release have been included in [Table 3](#).

*Table 3. Known Software and Operating Issues*

<b>Area</b>	<b>Issue</b>	<b>ID</b>
Software Download	Current software download via web page is reported to be unpredictable. Use the two .fld file download procedure given later in these release notes.	30082
VBI	In PAL-B, configurable VBI line 335 can be deleted but the Video to Luma filter cannot be applied in the VBI/Data Processing functions. Line 335 is always notch-decoded and line 336 is always comb decoded.	30094
Learn Module Config	The Learn Module Config function on the 8960DEC Slot Config page is currently not functioning.	31328
Line Standard	After updating to v5.0 from v4.0.1a software, the 8960DEC module will come up in 625 line standard. Reset the module to 525 if necessary using the Standard Selection controls.	31329

## System Requirements

For remote control and monitoring capability, the module must be installed in a Gecko 8900TFN frame equipped with an 8900NET module. Gecko 8900TX frames must be upgraded to a TFN version (with fans) to utilize the 8900NET module. For more information on Gecko 8900 frames and the 8900NET module refer to the following reference documents:

- 8900NET Network Interface Instruction Manual
- 8900 Frames Instruction Manual

## Hardware Modifications

Hardware modifications may be necessary on some versions of the module to enable updating or to be compatible with the latest software. Modification instructions are given in the form of Field Modification Notes (FMN) available on-line or in hard copy from Grass Valley (see [Accessing Reference Documents](#)).

Refer to [Table 4](#) below for an overview of the module versions and any necessary modifications.

Table 4. Hardware Modifications

Version Number	Modification	Comments
671-4664-00	N/A	No remote control, call Customer Service for update information
671-4664-01	075064300	New PROM to update to current software functionality (no remote download capability).
671-4664-03	075064000	Jumper modification to correct software download capability
671-4664-04	N/A	No modifications needed.

## Software Updating

Currently, the only recommended method of software updating is done with a software kit that includes a CD-ROM with the current software files and a serial cable assembly (8900-FLoad-CBL) available from Grass Valley.

Refer to the 8900-FLOAD-CBL Software Upgrade Instructions manual in pdf format on the CD-ROM for complete updating instructions.

## Accessing Reference Documents

For on-line access to any of the reference documents referred to in these Release Notes, navigate to the following URL:

<http://www.thomsongrassvalley.com/docs>

Select the **Modular Products** link and scroll through the available documents. All of the documents referred to may also be ordered in hard copy from any Grass Valley Sales or Customer Service source. Refer to [Contacting Grass Valley](#) at the front of this document.

