

INDIGO

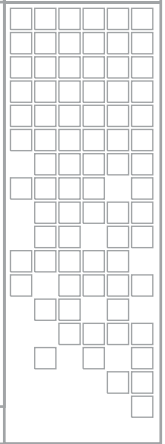
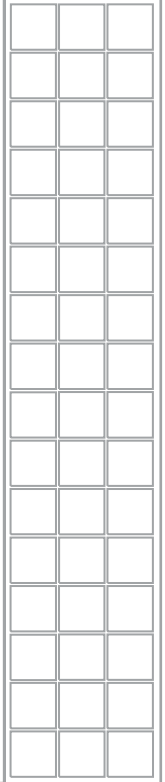
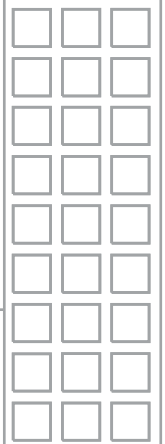
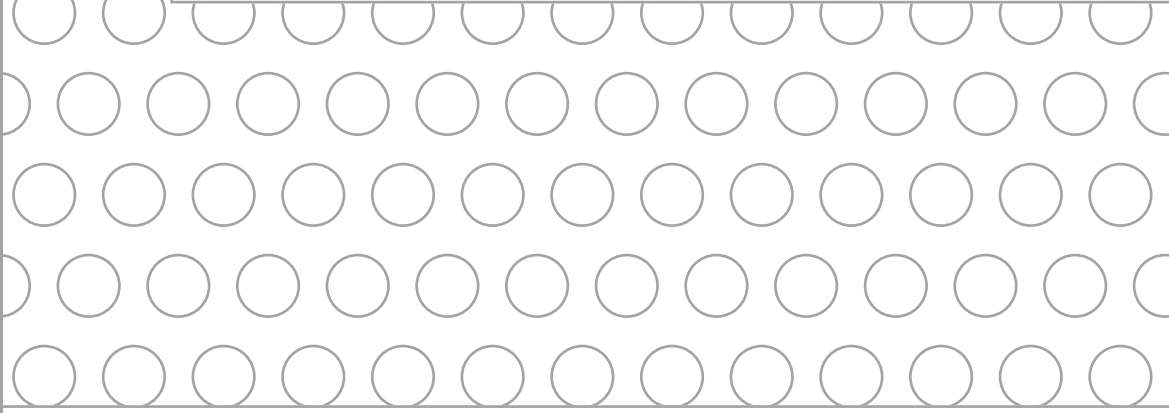
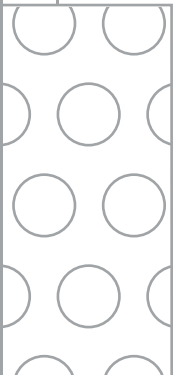
AV Mixer

Release Notes



SOFTWARE VERSION 1.2.18

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9. APRIL 2008



Contacting Grass Valley

On the www.thomsongrassvalley.com web site you get further information Thomson/Grass Valley and our products.

For Sales and Service, please contact your local dealer.

To find the account representative, dealer, or distributor nearest you, go to www.thomsongrassvalley.com/indigo

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Grass Valley Web Site

The 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.

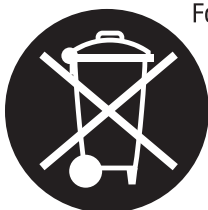


END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.



For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment



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Version **1.2.18**

9. APRIL 2008

Indigo Release Notes

Introduction

This document includes notes for software installation, new features and changes, and other information specific to INDIGO Release 1.2.18 software.

Note Please read this Release Notes before updating the software!

New Features

- Downscaler aspect ratio control support
- Acappella router support
- Audio Dynamics improvements

Solved Restrictions in Software Version 1.2.18

Area	Solved Restrictions	ID
M/E	Instability of hue, contrast and saturation caused by an automatic correction after switching the inputs is solved.	
Output	Vertical position for some SDI sources fixed in NTSC.	
Output	Sporadic signal disturbances for DV output fixed.	

Known Restrictions in Software Version 1.2.18

Area	Known Problem	ID
Acappella	No Tally support	
Acappella	No Audio support	
Acappella	The integration of an Acappella router works only if both HD serial inputs are connected to the router outputs. VGA and DVI inputs cannot be used in parallel.	
Acappella	To avoid re-synchronizing of the Indigo's integrated scaler it is strictly recommended to connect a line or frame synchronizer between router output and Indigo's HD-SDI input.	
Acappella	If the router output cannot be synchronized after switching to a non-sync source, the internal scales of the Indigo needs to be reset by temporary changing the HiRes input source, e.g. from HD-SDI to VGA or DVI.	
Acappella	Transitioning Acappella sources faster than two seconds apart will result in transition command being skipped.	
Keyer	In PiP mode if Transform is enabled and picture is rotated then edges becomes jagged. To make edges more soft go to the Crop/Border menu and add crop softness.	
Keyer	Border menu of HiRes Keyer is only available when keyer is set to PIP mode and Transform is enabled.	80276
Media Player	Preroll is only activated when source is selected on PST bus and auto/cut transition is executed	79938
Scaler	Downscaler doesn't work for 75Hz standards	
Setup	SD-Flattened operation mode: Hi-Res program and preview outputs shows upscaled SD program (because of the hardware restrictions).	
Setup	HR-Flattened operation mode: 1. Downscaled Hi-Res program and preview are routed to the AUX1 and AUX2 (because of the hardware restrictions). 2. If SD sources are selected on program and preview bus then preview shows same source as program (because of the hardware restrictions).	
Setup	Audio: Embedding/deembedding is not implemented for DV.	
Setup	Video/Output: If Ext. Lock is enabled and H & V are adjusted with some H & V phases combinations, transformed PiP or key could be damaged. Adjusting the H & V phases of the external genlock during set up may cause a transformed key to no longer produce the expected image. Work around - reboot. After adjusting phases will bring key back to normal state.	74347
USB	Because of the many different types offered worldwide sometimes a USB Flash Drive is not detected. Disconnecting and reconnecting the USB Flash Drive may solve this problem.	75759

User Manual and Quick Start Guide

The latest versions of User Manual and Quick Start Guide can be downloaded from our web site

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

New Features and Menu Changes

Downscaler Aspect Ratio Control Support

In the software released so far the aspect ratio of downscaled HiRes signals was always adapted to the selected aspect ratio of the output picture. Using different formats could lead to stretching in the output picture.

With software version 1.2.18 stretching of the picture content can be prevented using the **Preserve Aspect** in the **Setup - Video** menu. Depending upon selected format the image position can be adjusted in horizontal or vertical direction. Refer [Table 1 on page 8](#)

Note Adjusting the H or V position is a setup feature and not intended for live operation!

Figure 1. Setup - Video Menu

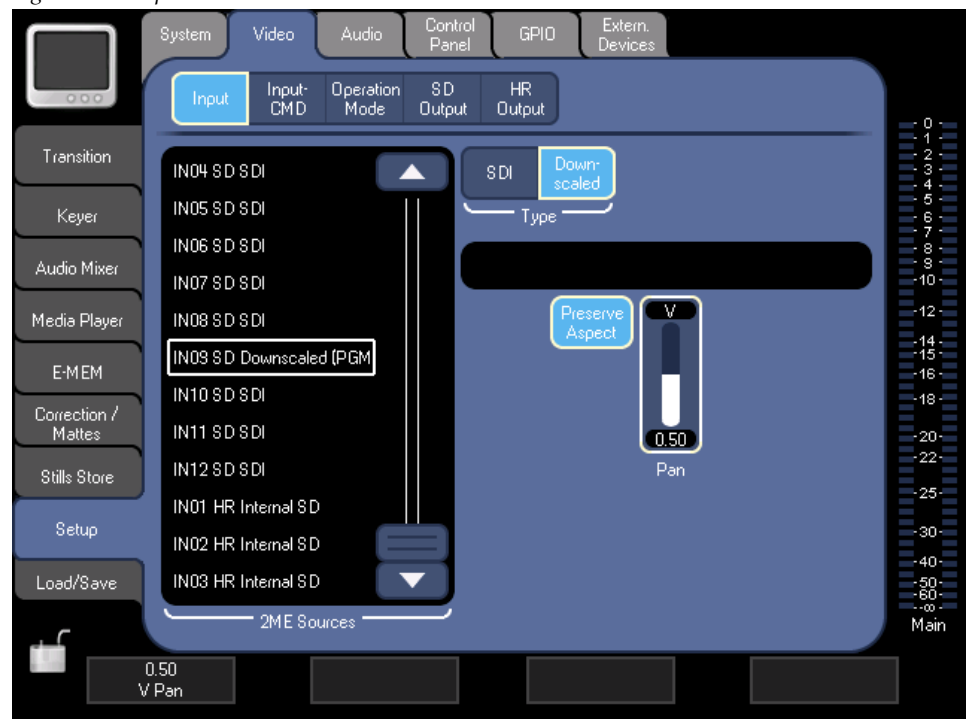
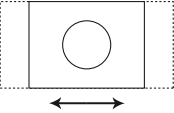
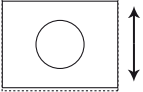
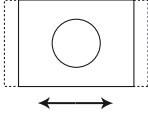
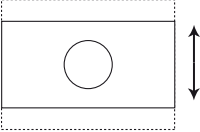
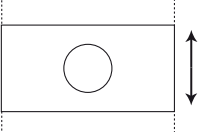
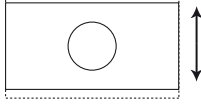


Table 1. Center Cut with H and V Pan

		HiRes Input				
		Ratio	4:3	16:9	5:4	5:3
Standard			800x600 1024x768 1400x1050	1280,720 1366x768 1920x1080	1280x1024	1280x768
Downscaled SD Output	4:3	Fixed Size	Center Cut with H Pan 	Center Cut with V Pan 	Center Cut with H Pan 	
	16:9	Center Cut with V Pan 	Fixed Size	Center Cut with V Pan 	Center Cut with V Pan 	

Acappella Router Support

Software version 1.2.18 provides a new external device control option for the Thomson Grass Valley™ Indigo™ AV Mixer that expands its ability to work with high-definition (HD) video sources. The option allows the use of the Indigo ME buttons to select up to eight HD-SDI inputs on the Acappella router. Once the sources are selected they can be mixed in real time by the Indigo AV Mixer.

In this version of the software, selecting Acappella sources which are not synchronized will produce up to one second of black. To avoid introducing black into the Program input, sources should be selected on the Preset row before mixing to Program.

This option allows remote selection of Acappella sources only. It does not expand the internal processing of Indigo.

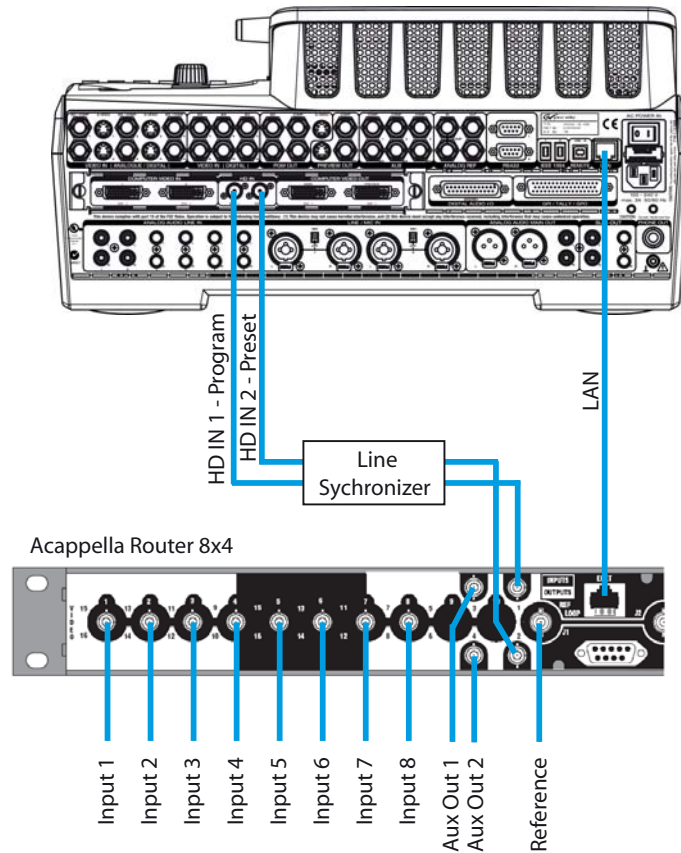
The Indigo HD-SDI option also allows two Acappella outputs to be used as auxiliary outputs. And, like the SD auxes, the HD auxes are completely separate, single feed aux outputs.

For this feature a Thomson Grass Valley™ Acappella™ router has to be connected via Ethernet to the Indigo AV Mixer.

Refer [Known Restrictions in Software Version 1.2.18 on page 6](#)

Connection

Figure 2. Connection Diagram



Ethernet Cabling

The Acappella frame uses Ethernet to communicate. Use standard pin-to-pin (patch) Category 5e cables if you are using switches between the router and the Indigo AV Mixer. For direct connection use a crossover cable.

Note The IP address and Subnet Mask of your Acappella router has to be configured first using the **NetConfig** tool from a networked PC. NetConfig software ships with each new Acappella router. Refer to your Acappella Instruction Manual.
IP address and Subnet Mask of Acappella must be in the same range as Indigo.

For example: Indigo IP address = 192.168.0.100,
Acappella IP address = 192.168.0.101
Indigo and Acappella Subnet Mask = 255.255.255.0

Reference Cabling

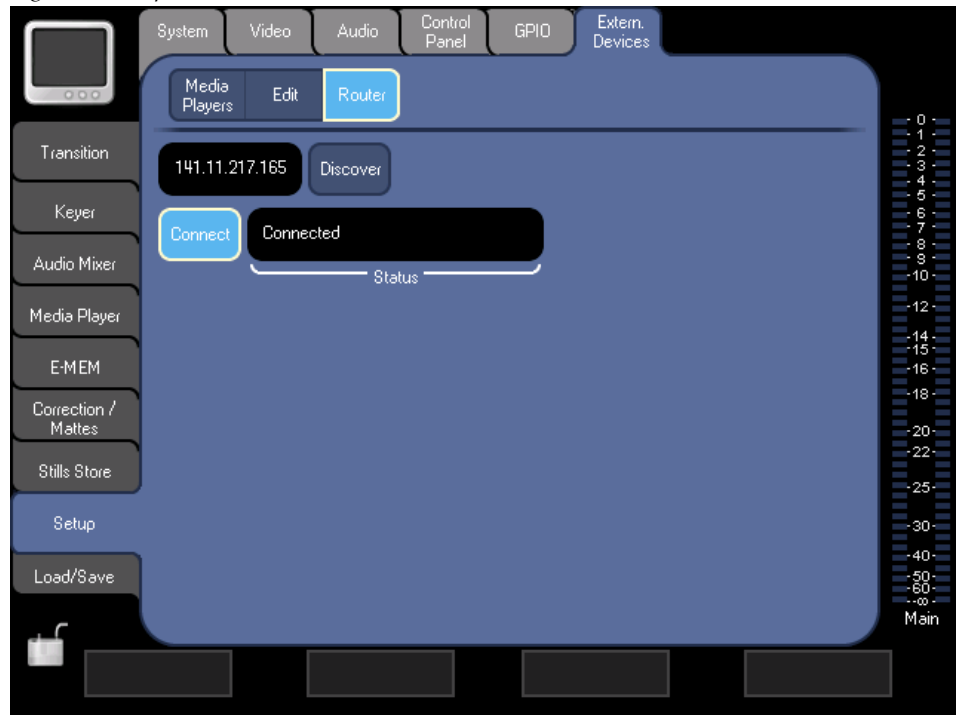
The Acappella router has to be synchronized by an external reference signal. Reference signals for the Acappella router are loop-through with the end of the chain terminated. Color Black or Tri-Level Sync signals can be used.

Note For details refer the Acappella Instruction Manual

Setup

1. To configure the Indigo AV Mixer go to the **Setup - Extern. Devices** menu and select the **Router** button.

Figure 3. Setup - External Devices Menu



2. Press **Discover** and **Refresh Devices** in the new dialog [Figure 4 on page 12](#). All routers connected to the network will be listed. Select your Acappella Router and press **OK** and then the **Connect** button.
3. If the **Status** display shows **Connected** the Router can be controlled.

Figure 4. Setup - External Devices - Discover Menu



Button Assignment

To control the Acappella router with Indigo's **Program** and **Preset** source selection button rows, the buttons have to be assigned to the router channels. Go to the **Setup - Control Panel** menu and **Assign** the sources to the buttons 1 through 8.

Figure 5. Setup - Control Panel Menu



Note After pressing the Indigo's source selection button, the Acappella router needs some frames to change the input crossbar of the router. Select the router source on Indigo's PST to avoid introducing black into PGM.

New Diagnosis Message

With software version 1.2.18 the ventilation fan of the HiRes Board will be monitored. The status can be shown in the **Setup - Diagnosis** menu.

Figure 6. Setup - Control Panel Menu



Note This diagnostic message depends on hardware index of the Indigo. In units equipped with printed circuit boards from the first production series the message is not shown!

Audio Dynamics Improvements

With software version 1.2.18 the Audio functionality is improved.

Built in Presets

The Preset Clipboard is used in the Channel Adjust and Channel Dynamics menu to recall fixed and user preset settings and to save the user presets.

With software version 1.2.18 the following built-in presets are available:

- Compression 2:1 > -50dB
- Compression 4:1 > -20dB
- Expander 1:3 < -20dB
- Expander 1:4 < -5dB
- Noise gate < -60dB

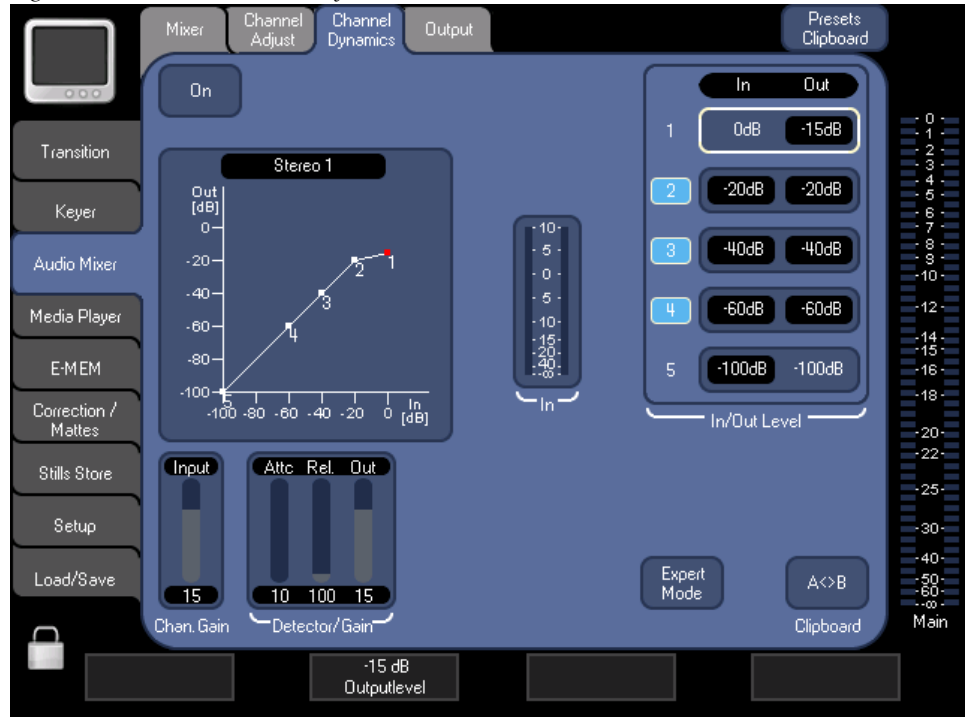
Figure 7. Selecting the Built-in Presets



Audio Channel Dynamics Menu in Standard Mode

The menu layout for dynamics parameters is changed for easier understanding of the signal-flow

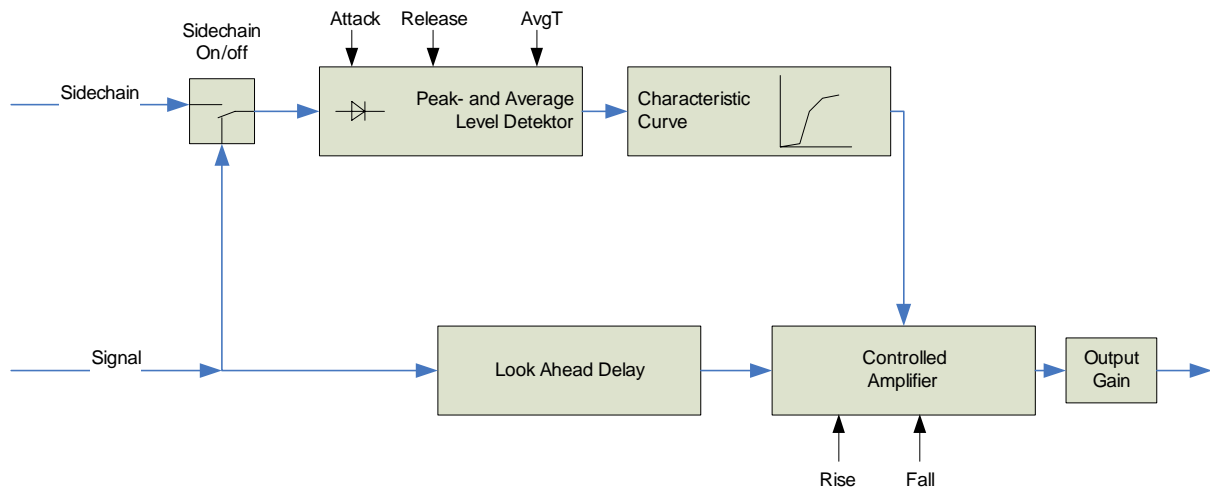
Figure 8. New Audio Channel Dynamics Menu in Standard Mode



Audio Channel Dynamics in Expert Mode

In the **Expert Mode** it is possible to adjust more settings of the dynamics processor manually. The following block diagram shows the principle of the settings:

Figure 9. Block Diagram of Expert Mode Settings



- **Sidechain On/Off** selects whether the channel signal itself or the sidechain input is used. It is only present when a sidechain input has been selected in **Setup- Audio - Dynamics** menu.
- **Attack** adjusts how fast the **Peak** level detector follows a rising signal. **Release** adjusts how fast the Peak Level Detector follows a falling signal. The adjustment group is visible when **Method Peak** or **Both** is selected.
- **AvgT** adjusts how fast the Average Level Detector follows the signal (rising or falling). The adjustment is visible when **Method AVG** or **Both** is selected.
- **Characteristic Curve** defines the relation of input to output levels and determines the Gain of the Controlled Amplifier.
- **Look Ahead Delay** delays the signal to compensate for latency in the detector path automatically.
- **Rise** adjusts how fast the Controlled Amplifier follows increasing Gain.
- **Fall** adjusts how fast the Controlled Amplifier follows decreasing Gain.
- **Output Gain** adjusts the output level.
- **Method** modes:
 - **Peak**: the Peak detector is used for the Dynamics.
 - **AVG**: the average detector is used for the Dynamics.
 - **Both**: both detectors are used and the higher level is used for the Dynamics.

Figure 10. Audio Channel Dynamics Menu - Method Both

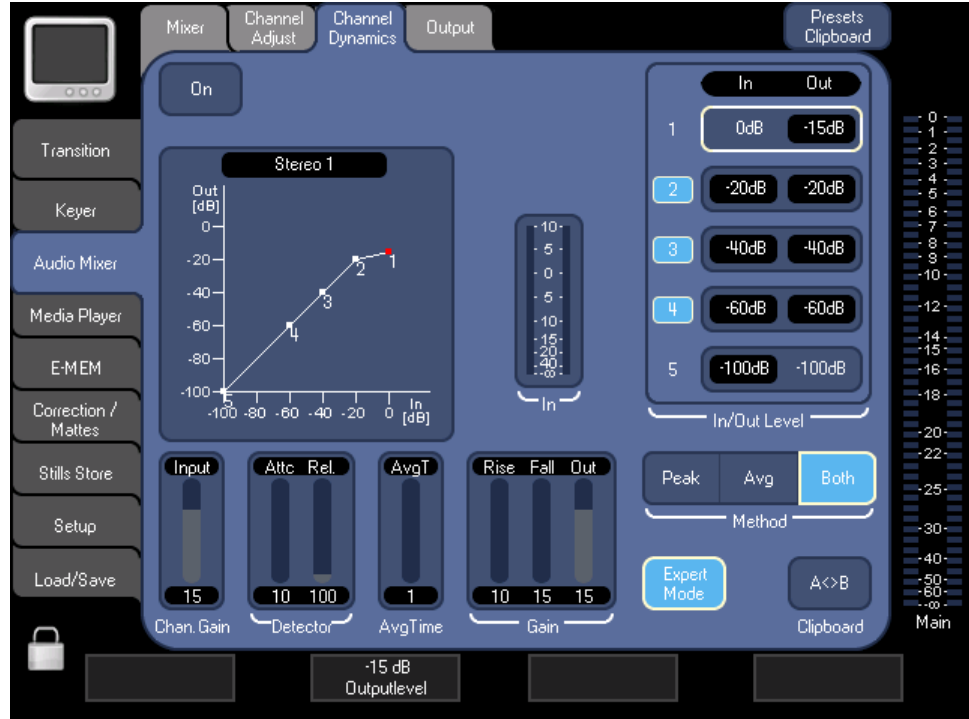


Figure 11. Audio Channel Dynamics Menu - Method Peak

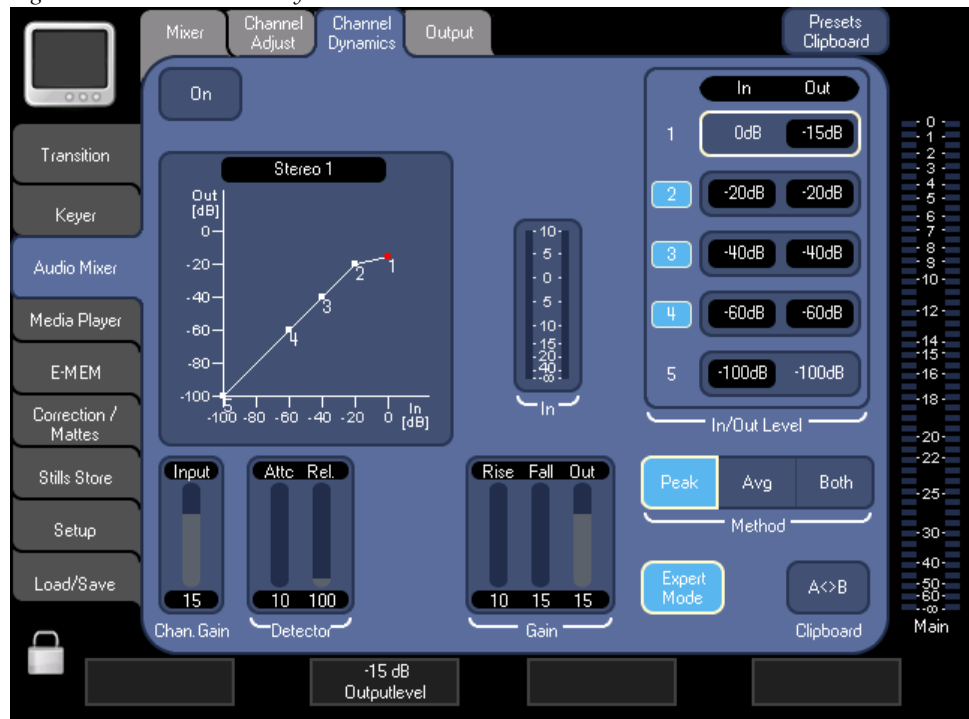
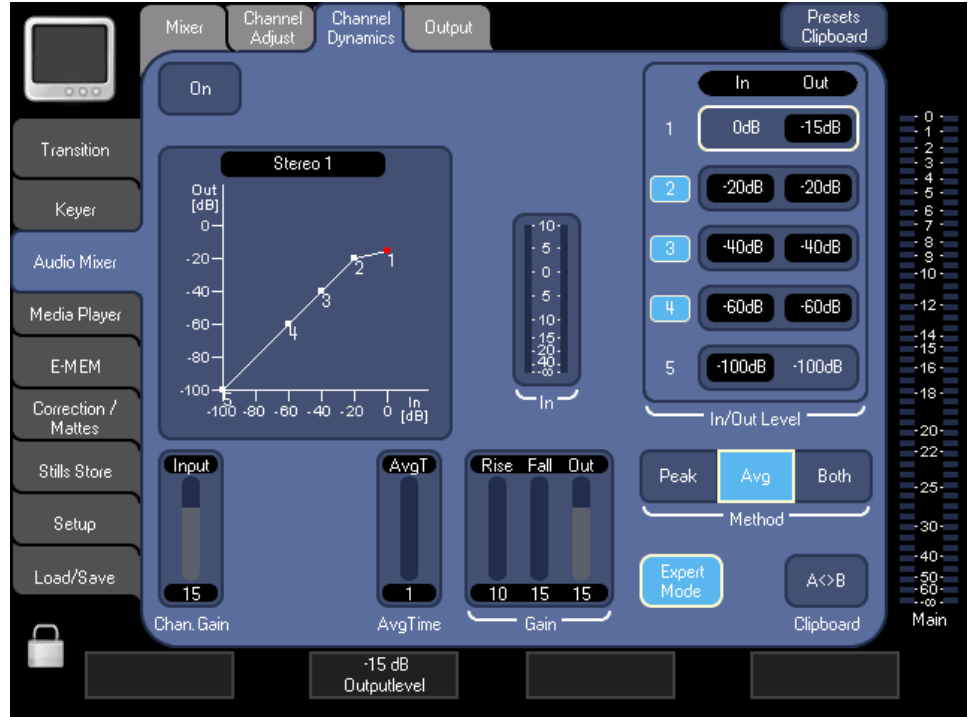


Figure 12. Audio Channel Dynamics Menu - Method AVG



Indigo Software Upgrade

The software of your INDIGO AV Mixer resides on a Compact Flash (CF) card. The CF card is installed in the slot under the lid found on the right side of the INDIGO.

Needed Parts

1. PC with Compact Flash card reader.
2. CF card with min. 128MB capacity which is formatted for FAT file system.

The CF card of your INDIGO can be overwritten, but you may want to keep the old software.

Procedure

1. Download Indigo software.

http://www.thomsongrassvalley.com/rnt/Switcher/switcher_Indigo.htm

or

http://gvg.custhelp.com/cgi-bin/gvg.cfg/php/enduser/std_adp.php?p_faqid=1268.

2. Save the settings of your INDIGO (Optional).
 - Insert a USB flash memory in one of the USB connectors
 - Go to the **Load/Save** menu
 - Select **Save** and give the saved data a meaningful name
 - Wait until the save is completed
 - Remove the USB flash memory
3. Turn off your INDIGO.
Open the lid on the right side and extract the CF card (or have another FAT format CF card ready).
4. Insert the CF card into the CF reader of the PC
5. On the PC, open the downloaded self-extracting .EXE file. It will automatically run the Software installation tool Indigo CD.

Figure 13. Setup Audio Output



6. Select **Install new Indigo Software on Indigo device** to copy the new software onto the CF card.
7. Wait until the copy process is completed. Then remove the CF card.
8. While your INDIGO is still turned off, insert the CF card containing the new software into the slot on the upper side of the printed circuit board.
9. Close the slot.
10. Turn on the INDIGO AV Mixer
11. Perform a Audio Fader calibration. For details refer to your User Manual.
12. Restore the settings if your INDIGO (Optional).
 - Insert the USB flash memory with the saved data in one of the USB connectors
 - Go to the **Load/Save** menu
 - Select the saved data from the list and press **Load**
 - Wait until the load is completed
 - Remove the USB flash memory
13. Update the HiRes board. Refer to [HiRes Board Update](#) on page 23
14. Start working with the new software.

More Information

Please refer to the INDIGO AV Mixer User Manual (section 10/ Maintenance) for more information.

Contacting Grass Valley Customer Service

Contact Grass Valley Customer Service if you have questions or encounter any problems:

- North America: 1-800-547-8949 or 1-530-478-4148
- ERoW Call Center: +800 80 80 20 20
Accessible from the following countries: Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.
- +33 1 48 25 20 20 for all other countries outside North America.
- E-mail: gv.indigo.support@thomson.net

HiRes Board Update

The software release V1.2.18 contains an update for the HiRes option card which requires an additional step after upgrading the Indigo Software using CF Card.

This update provides a greater list of supported graphics standards to the PC connected via VGA/DVI. Not doing this update step does not cause harm to the unit. It can be done at any time.

Upgrade Procedure

Connect 2 DVI cables from the Indigo DVI outputs to the Indigo DVI inputs and power up the unit. As soon as the Indigo Menu appears the update process is finished. This will take few minutes.

Optionally this can be done using only 1 DVI cable and 2 power ups.

