Gefen tv

Home Theater Audio Processor

GTV-HT-AUDPROC

User Manual

www.gefentv.com

DOLBY
DIGITAL
PRO LOGIC II

ASKING FOR ASSISTANCE

Technical Support:

Telephone   (818) 772-9100
                                 (800) 545-6900

Fax   (818) 772-9120

Technical Support Hours:

8:00 AM to 5:00 PM PST Monday thru Friday.

Write To:

Gefen, LLC
c/o Customer Service
20600 Nordhoff St
Chatsworth, CA 91311

www.gefentv.com
support@gefentv.com

Notice

Gefen, LLC reserves the right to make changes in the hardware, packaging, and any accompanying documentation without prior written notice.

GefenTV Home Theater Audio Processor is a trademark of Gefen, LLC

Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

Rev A5

CONTENTS

INTRODUCTION

Congratulations on your purchase of the GefenTV Home Theater Audio Processor. Your complete satisfaction is very important to us.

GefenTV

GefenTV is a unique product line catering to the growing needs for innovative home theater solutions. Gefen specializes in total integration for home theater connectivity, while also focusing on going above and beyond customer expectations to ensure you get the most from your hardware. Gefen invites you to explore the distinct GefenTV product line and hope that you find the solution that fits your needs.

The GefenTV Home Theater Audio Processor

The GefenTV Home Theater Audio Processor is a powerful yet very compact solution for all your audio/video needs.

The GefenTV Home Theater Audio Processor provides pass-through connection for a Hi-Def source to two mirrored HDTV displays using HDMI features supporting 1080p full HD, Deep Color, Lip-Sync, Dolby TrueHD, DTS-HD MA, and 3DTV pass-through. The audio from both the HDMI and coax inputs is sent to the coax and optical outputs as compressed AC-3 digital audio and to separate six-channel audio on the RCA and binding post connectors. Up to 5.1 channels of LPCM, Dolby Digital, and Dolby Pro Logic II is decoded on the output.

Speakers can be connected to the binding posts using the built-in amplifier, delivering 25 watts per channel RMS. The audio can also be sent to an external power amplifier using the RCA connectors. The front-left and front-right channels use bi-amplification to enhance the sound quality.

The Home Theater Audio Processor features an easy-to-read LCD display with extensive features such as individual control of speaker size, distance location, and volume up/down. Control is available using the front panel push buttons or using the included IR remote and RS-232 control.

How It Works

Connect the GefenTV Home Theater Audio Processor to the Hi-Def source using the supplied HDMI cable and coax cable. Connect up to two (2) HDTV displays or AV receivers to the Audio Processor HDMI outputs. Connect an optical and a coax cable from the Audio Processor digital audio outputs to an AV receiver. Use the binding posts to connect up to five speakers. The sub-woofer must be a powered version and is connected to the RCA connector allocated for the sub. Connect the included 24V power supply to the Audio Processor and push the power button to turn on the Audio Processor. Apply power to the Hi-Def source and HDTV Display(s) and/or AV receivers.

READ THESE NOTES BEFORE INSTALLING OR
OPERATING THE HOME THEATER AUDIO PROCESSOR

- The GefenTV Home Theater Audio Processor is designed to be used with speakers, using five full-bandwidth channels and one low frequency channel. RCA outputs are provided for connecting the GefenTV Home Theater Audio Processor to a separate audio amplifier. Two (2) additional connectors, both speaker and RCA, are available for bi-amping the front-left and front-right channels (see page 22 for details).

- This unit provides a maximum power output of 25 Watts per channel RMS.

- This product supports the following audio formats:

  LPCM (up to 6 channels)
  Dolby Digital (AC-3 up to 6 channels)
  Dolby Pro Logic
  Dolby Pro Logic II

Supported HDMI 1.3 Features

* 225 MHz (up to 12-bit YUV 4:4:4 @ 1080p)

* Deep Color support (x.v.Color)

* Lip-Sync pass-through

* CEC pass-through

Features

* Separates digital audio from the HDMI or of S/PDIF inputs and decodes up to 5.1 channels of digital audio

* Splits one HDMI input source into 2 mirrored HDMI outputs

* Supported audio formats:
  Dolby Digital, Dolby Pro Logic, and Dolby Pro Logic II decoding

* Test tone for system diagnostics

* Outputs line-level analog audio up to 5.1 channels using RCA connectors

* Outputs amplified analog audio at 25 Watts per channel RMS on external speaker terminals

* LCD status display for full selection menu

* IR control

* RS-232 control

* Field-upgradable firmware

* External / Internal EDID management

* Small in size

* This product is HDMI and HDCP-compliant

Package Includes

(1) GefenTV Home Theater Audio Processor
(1) 6 ft. HDMI cable (M-M)
(1) 6 ft. S/PDIF cable
(1) IR remote control (battery included)
(1) 24V DC Power Supply
(1) User Manual

PANEL LAYOUT

Front

1

GefenTV

DOLBY
DIGITAL
PRO LOGIC II

Mute ▶   Volume ▲   Menu   Power

IR   Input ◀   Volume ▼   Mode / OK   Exit

Home Theater Audio Processor

2 3 4   5   6   7   8   9   10 11

Back

22   21   20

Bi-Amp FR FR Bi-Amp FL FL   SR SL C   RS-232   HDMI Out 1 HDMI Out 2 HDMI In

GTV-HT-AUDPROC
Gefen Inc.

Front Sub Surround Front Bi-Amp   Coax Out Optical Out Coax In 24V DC

12   13   14   15   16   18

17   19

4
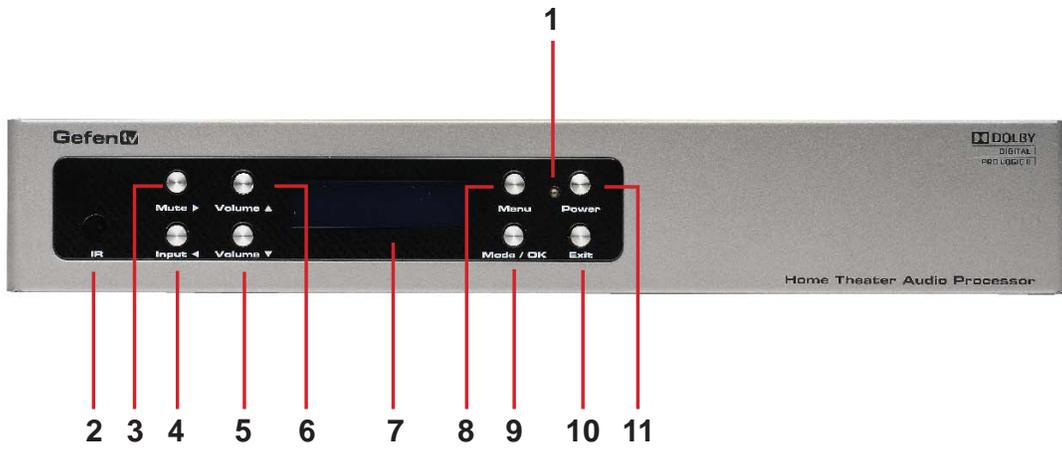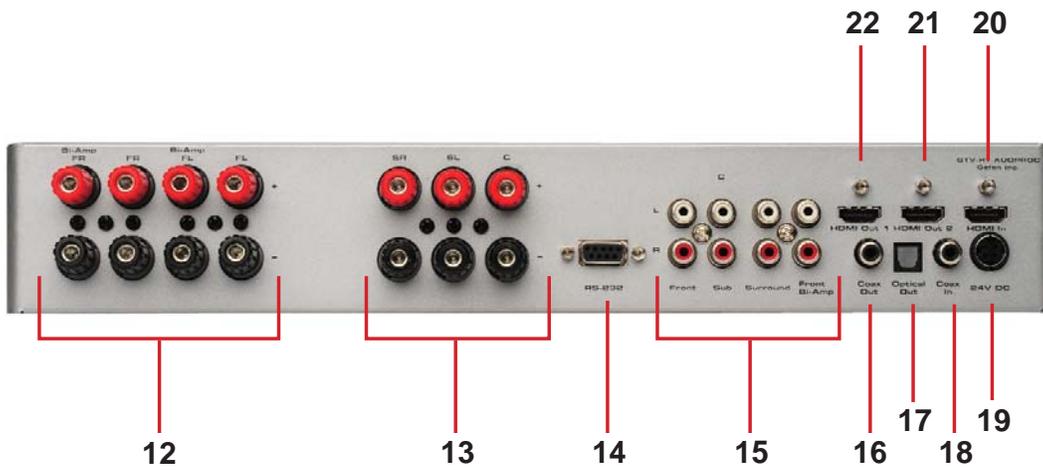
1   ***Power Status LED Indicator***
This LED will indicate the current power state. When the LED is red, the unit is in standby mode. When the LED is green, the unit is on.

2   ***Infrared Sensor***
This infrared sensor will accept commands from the included GTV-AUD-IR remote control. This sensor requires line-of-sight between the unit and remote for proper operation.

3   ***Mute / Right Button***
This button will cycle between Mute-On and Mute-Off modes when not in the Menu System. When the Mute-On mode is enabled, all audio output will be ceased. While in the Menu System this button will cycle through available options in the right direction when a feature has been selected for adjustment.

4   ***Input / Left Button***
This button will toggle between the HDMI and Coaxial audio input sources when not in the Menu System. When the HDMI source is selected, audio will be extracted from the embedded audio within the incoming HDMI signal. When the Coaxial source is selected, audio will be extracted from the incoming audio source connected to the Coaxial (S/PDIF) input port. While in the Menu System this button will cycle through available options in the left direction when a feature has been selected for adjustment.

5   ***Volume Decrease / Down Button***
This button is used to decrease the volume level of the audio outputs when not in the Menu System. While in the Menu System this button will cycle down through the current level's options.

6   ***Volume Increase / Up Button***
This button is used to increase the volume level of the audio outputs when not in the Menu System. While in the Menu System this button will cycle up through the current level's options.

7   ***Main LCD Display***
This display will show pertinent status information and will be used to make adjustments to features in the Menu System.

8   ***Menu Button***
This button will activate the Menu System which is where all adjustment and settings will be made.

9   Mode / OK Button

This button will change the Processing Mode when not in the Menu System. While in the Menu System this will be used as a confirmation button.

10   Exit Button

This button is used to exit the current menu level and return to the previous/ parent level. This button will exit the entire Menu System when on the top most level.

11   Power Button

This button will toggle between the ON and STANDBY power states. An LED status indicator will signify the current power state. A RED LED will be active when the unit is in Standby power state. A GREEN LED will be active when the unit is in the ON power state.

12   Front Right and Front Left Speaker Terminals

These are 5-way binding post type terminals. They will accept spade lug, banana plug, dual banana plug, bare wire, and pin style connections. 4 pairs of positive and negative terminals are available. 2 pairs are for front right and front left speakers. An additional 2 pairs are also available for bi-amping the front right and front left speakers.

13   Center, Surround Right, and Surround Left Speaker Terminals

These are 5-way binding post type terminals. They will accept spade lug, banana plug, dual banana plug, bare wire, and pin style connections. 3 pairs of positive and negative terminals are available. 2 each for the center, surround right, and surround left speakers.

14   RS-232 Serial Communications Port

This port is used to control functions and features using serial communications. For more information on this feature please see page 23.

15   Analog Audio RCA Outputs

8 RCA type audio outputs are available for connection to a separate amplifier. Up to 6 discrete channels can be utilized. 2 RCA audio output connectors are available for front channel bi-amping purposes. Please see page 22 for more information.

16   Coaxial (S/PDIF) Audio Output

This output is constantly active. Audio that is extracted from the input HDMI source device or via the coaxial input is directly output through this connector. Processing and features of the Home Theater Audio Processor are not applied to the audio passing through this connector.

17 Optical (TOSLINK) Audio Output

This output is constantly active. Audio that is extracted from the input HDMI source device or via the coaxial input is directly output through this connector. Processing and features of the Home Theater Audio Processor are not applied to the audio passing through this connector.

18 Coaxial (S/PDIF) Audio Input

A coaxial audio source can be connected and used as the main audio input source if desired. Please be aware of the limitations of audio types and quality which can be transported over this connector type.

19 24V DC Power Receptacle

This 24V DC power supply included with the unit connects to this receptacle. Please only use the power supply that is included with this product.

20 HDMI Input Port

This input will accept a single HDMI source device. Audio in the source's signal will be extracted and processed. This input will be replicated and output through the HDMI 1 & 2 ports. Audio from this source can be bypassed by using the audio from the coaxial input connector.

21 HDMI Output Port 1

This output will accept a single HDMI output device. The HDMI input source will be replicated and output through this port and the HDMI output port 2.

22 HDMI Output Port 2

This output will accept a single HDMI output device. The HDMI input source will be replicated and output through this port and the HDMI output port 1.

CONNECTING THE
HOME THEATER AUDIO PROCESSOR

How to Connect the Home Theater Audio Processor

1. Connect an HDMI source device to the HDMI input port of the Home Theater Audio Processor using the included HDMI cable.

2. Optionally, connect an additional audio source to the coaxial (S/PDIF) input using a user supplied coaxial cable.

3. Connect up to 6 speakers to the speaker terminals on the back panel of the Home Theater Audio Processor. The following connection terminals are available:

    - Front Left
    - Front Left (for bi-amping)
    - Front RIght
    - Front Right (for bi-amping)
    - Center
    - Left Surround
    - Right Surround

4. Connect the Digital Audio Decoder to an amplifier using the RCA connectors on the rear panel. The following RCA connectors are available:

    - Front Left
    - Front Left (for bi-amping)
    - Front RIght
    - Front Right (for bi-amping)
    - Center
    - Left Surround
    - Right Surround
    - Subwoofer

5. Connect up to two HDMI output devices to the HDMI outputs using user supplied HDMI cables. If only using a single HDMI device, connect this device to the HDMI Output 1 port. These outputs will be mirrored.

6. Optionally, audio can also be output using the coaxial (S/PDIF) and optical (TOSLINK) connectors. These outputs will not have any processing applied to them.

7. External control can be accomplished using the RS-232 serial communications port. More information on the use of this connector can be found on page 23.

8. Connect the included 24V DC power supply to the power receptacle on the Home Theater Audio Processor. Connect the wall plug into an empty wall power socket.

Home Theatre Audio Processor Remote Control

1	POWER OFF	
2	MODE	
3	←	
4	EXIT	
5	MUTE	
6	SPDIF	
7	HDMI	
8	INFO / TEST TONE	
9	VOL ↓	
10	ENHANCE	
11	ENTER	
12	→	
13	VOL ↑	
14	MENU	
15	POWER ON	

GTV-AUD-IR

Gefen tv
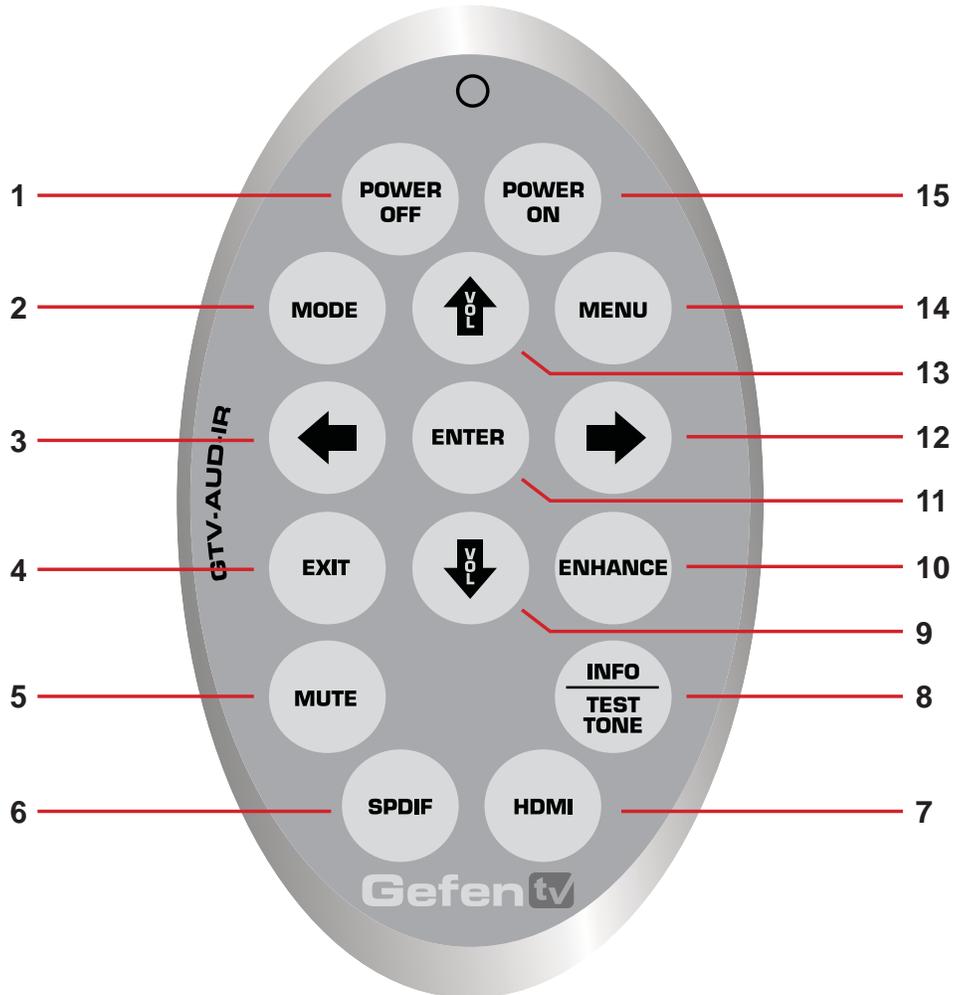
1   Power Off

This is a discrete power off button. Pressing this button will turn the Home Theater Audio Processor off.

2   Mode

This button functions the same as the Mode button on the front panel.

3   Left

This button will navigate left when using the Menu System.

4   Exit

This button functions the same as the Exit button on the front panel.

5   Mute

This button cycle between mute on and mute off modes. When mute is applied there will not be any audio output.

6   S/PDIF

This is a discrete button that will select the S/PDIF audio input source.

7   HDMI

This is a discrete button that will select the HDMI audio input source.

8   Info/Test Tone

This button will display a series of information messages on the LCD screen when pressed. When adjusting the Speaker Level, this button will activate a test tone that is useful for adjusting the volume level of each speaker.

9   Volume Down

This button will navigate down through options when using the Menu System and will increase the volume when not in the Menu System.

10 Enhance

This button will cycle through the various enhancement modes. For a full description of these modes please see page 18.

11 Enter

This button will confirm options and changes made in the Menu System.

12 Right

This button will navigate right when using the Menu System.

13 Volume Up

This button will navigate up through options when using the Menu System and will increase the volume when not in the Menu System.

14 Power On

This is a discrete power on button. Pressing this button will turn the Home Theater Audio Processor on.

15 Menu

This button functions the same as the Menu button on the front panel.

To use the GTV-AUD-IR remote, remove the battery cover on the back of the remote to reveal the battery compartment. Insert the included battery into the open battery slot. The positive (+) side should be facing up. Ensure that both DIP (Dual Inline Package) switches are in the OFF position. Replace the battery cover. The remote ships with 2 batteries. One battery is needed for operation and the other battery is complimentary.

Empty Battery Slot
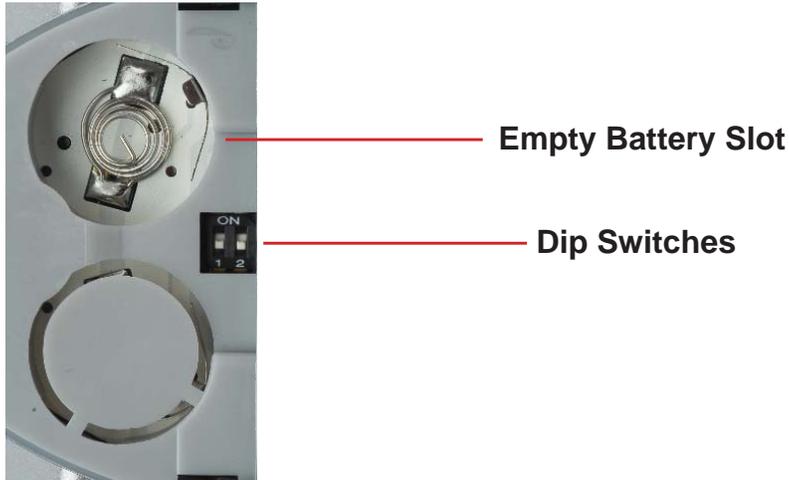
Dip Switches

The DIP Switches above are used to set the IR Channel. Changing channels will alleviate issues that may occur if the unit or remote control responds or interferes with other non-Gefen equipment. This setting must match the IR Channel setting on the unit. Please see page 18 for setting up the IR Channel on the unit.

Remote Channel 1:

1   2

Remote Channel 2:

1   2

Remote Channel 3:

1   2

Remote Channel 4:

1   2
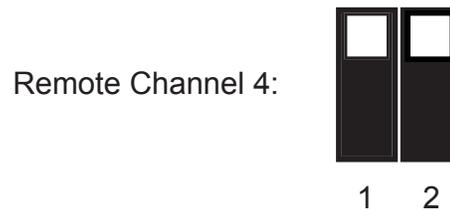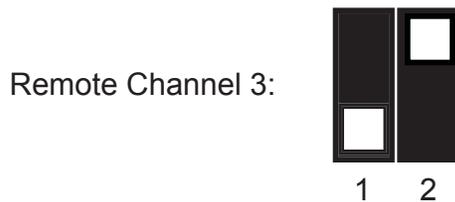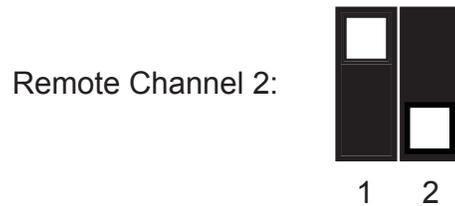
NAVIGATION

The Home Theater Audio Processor uses a series of buttons, located on the front panel, for all input selection and feature functions. All status information, such as the input audio type, are always available on the front panel **LCD Screen**. User adjustable features, such as speaker distance and processing modes, can be navigated and adjusted by referencing the **LCD Screen**.

All menu navigation and adjustments are accomplished by using the front panel buttons or the included GTV-AUD-IR remote control. Please review the front panel buttons below.

For a full description of each of these buttons please see the descriptions on page 5.

LCD SCREEN

The **LCD Screen** displays status information and can also be used to navigate and adjust functions when using the Menu System. This display is a high contrast 2-line/16-character LCD. It will display information like in the example below.
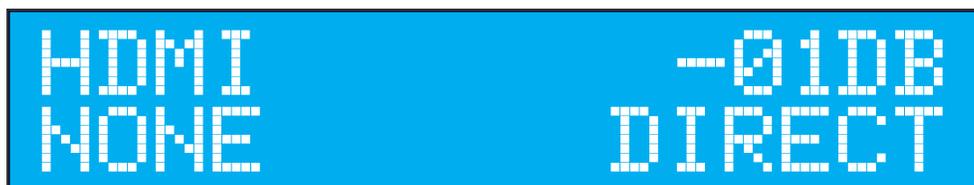
MAIN DISPLAY

The **Main Screen** will display useful information to the user. It displays the currently selected input port and audio input format. The currently used output format can also be displayed by pressing the ▼ button. Pressing the ◄ or ► buttons while on this screen will have no effect. Please see below for the **Main Screen** layout.

```
1 ——  HDMI          -01DB  —— 2
3 ——  NONE         DIRECT  —— 4
```

1   This section will display the currently selected audio input source.

2   This section will display the current volume level. The range is from -60dB to +10dB

3   The section will display the current input audio format. This unit will support LPCM (2-6) channels) and Dolby Digital (AC-3 up to 6 channels).

4   This section will display the current processing mode. Supported modes are Direct, Stereo, Multi Channel Stereo, Mono, and Dolby Pro Logic II.

1 - INPUT SOURCE

This portion of the screen will display the currently selected input. The available inputs and their labels are listed below:

LCD Display Name	Actual Input	Location
HDMI	HDMI In	Rear Panel
SPDIF (default)	Coax In	Rear Panel

To switch between audio input sources, use the front panel button labeled INPUT. The IR remote control has discrete switching functions. To select the source connected to the "Coax In" port, press the SPDIF button. To select the source connected to the "HDMI In" port, press the HDMI button.

2 - VOLUME INDICATOR

This portion of the screen will display the current volume level. Volume control is based on reference levels. 0.0dB on this unit is approximately 85dB (reference level for dialog recorded in studios) with peaks of up to 105dB.

The maximum volume setting is +10dB. The minimum volume level is -60dB.

The default value is -30dB.

3 - AUDIO FORMAT

This portion of the screen will display the current audio inputs format. Please use the table below to determine what formats are accepted by each input type.

Input	Supported Audio Formats	Supported Channels
HDMI	LPCM	6
	Dolby Digital	6
	Dolby Pro Logic II	6
Coaxial	LPCM	2
	Dolby Digital	6
	Dolby Pro Logic II	6

4 - PROCESSING MODE

This portion of the screen will display the currently used processing mode. Multiple processing modes are provided to enhance the audio experience.

The following processing modes are available:

• Direct - This mode will playback audio without any processing (default).

• Stereo - This mode will playback all audio at 2 channels. Multiple channel audio will be down-mixed appropriately.

• Multi Channel Stereo - The front right and left channels will be mixed and also played back through the center channel speaker. This mode is only available when using stereo sources. If this mode is selected and a multi-channel source is detected, the mode will automatically switch to Direct mode.

• Mono - Audio from the front right channel will be played through both the front right and front left speakers. If a center channel speaker is available, the front right and front left channels will be played as normal but the center will play a mix of the two audio channels.

• Dolby Pro Logic II - Dolby Pro Logic II processes any high quality stereo signal source into five separate full frequency channels. Dolby Pro Logic II also decodes 5 channels from stereo signals encoded in traditional four-channel Dolby Surround or five-channel Dolby Pro Logic II. This mode is only available when using stereo sources. If this mode is selected and a multi-channel source is detected, the mode will automatically switch to Direct mode.

Note: Not all processing modes will be available for all input audio types. For additional information on how which modes will affect various speaker setups and audio formats, please see page 20.

MENU SYSTEM

NAVIGATION

The **Menu System** will allow the user to configure features of the Home Theater Audio Processor. The front panel buttons are used to navigate the **Menu System**. Feature configuration can also be accomplished via the IR remote control.

To enter the Menu System, press the MENU button located on the front panel. The Main Menu will become available, The following menu options are available:

- *Speaker Size*
  This option will set the speaker size. The size of the speaker will determine how lower frequency material is handled by each speaker.

- *Speaker Level*
  This option will allow the user to adjust the volume for each individual speaker. The adjustment is designed to set each speaker's volume for equalizing the sound at the listening position.

- *Speaker Distance*
  This option will allow the user to adjust the distance value for each individual speaker. The level adjustment will set delays necessary to create the proper audio soundstage.

- *Tone Control*
  This option will allow the user to adjust the bass and treble levels.

- *Audio Setup*
  This option will allow the user to adjust the favorite processing and enhancement modes.

- *Misc Setup*
  This option will allow the user to adjust the distance unit, EDID source, TV System, and factory default reset.

- *Exit*
  This option will return the user to the Main Display screen.

Use the ▼ and ▲ buttons on the front panel to cycle between the options. To select a menu option and proceed to it's submenu, press the OK button.

SPEAKER SIZE

This menu option will allow the user to select the speaker size to either SMALL or LARGE. When a speaker size is set to SMALL, all frequencies below 80Hz are automatically routed to the subwoofer channel. When a speaker size is set to LARGE, all frequencies will be routed to the speaker.

All speakers except the front left and right channels have an option to disable the use of that channel. If the center, rear surround, or subwoofer channels are not going to be used these speakers should be set to the OFF setting. Source audio that uses these channels will be properly mixed to the other available speakers.

Use the ▼ and ▲ buttons on the front panel to select the desired speaker output. The following selections are available:

- Front L/R - These settings will affect the front left and right channel outputs (default is SMALL).

- Center - These settings will affect the center channel outputs (default is SMALL).

- Surr L/R - These settings will affect the surround left and right channel outputs (default is SMALL).

- SUB - This should be set according to the use of a subwoofer (default is ONSUB).

Use the ◄ and ► buttons on the front panel to change options for the selected speaker.

When finished, press the ▼ or ▲ to move to another selection. Alternatively, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

SPEAKER LEVEL

This menu option will allow the user to increase or decrease the volume of a particular speaker. This feature is useful for equalizing the sound at the listening position. By default, each speaker's output is set at 00dB. The output can be adjusted in 1dB increments between -10dB and +10dB.

Once a speaker is selected for adjustment, the INFO/TEST TONE button on the IR remote control can be used to activate a test tone which will be heard through the selected speaker output.

Use the ▼ and ▲ buttons on the front panel to select the desired speaker output. The following selections are available:

- Front L - These settings will affect the front left channel output (default is +00dB).

- Center - These settings will affect the center channel output (default is +00dB).

- Front R - These settings will affect the front right channel output (default is +00dB).

- Surr R - These settings will affect the surround right channel output (default is +00dB).

- Surr L - These settings will affect the surround left channel output (default is +00dB).

- Sub - These settings will affect the subwoofer channel output (default is +00dB).

Use the ◄ and ► buttons on the front panel to change options for the selected speaker.

When finished, press the ▼ or ▲ to move to another selection. Alternately, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

SPEAKER DISTANCE

This menu option will allow the user to set the distance of each speaker. This feature is necessary for providing the proper audio delay when using the various processing modes.

The distance unit can be viewed in either feet or meters. This option is set in the Miscellaneous Setup menu. The distance for each speaker can be set in 1.5 feet (0.5 meter) increments between 0 feet (0 meters) to 33 feet (10 meters).

Use the ▼ and ▲ buttons on the front panel to select the desired speaker output. The following selections are available:

- Front L - These settings will affect the front left channel (default is 3.0m).

- Center - These settings will affect the center channel (default is 2.0m).

- Front R - These settings will affect the front right channel (default is 3.0m).

- Surr R - These settings will affect the surround right channel (default is 2.0m).

- Surr L - These settings will affect the surround left channel (default is 2.0m).

- Sub - These settings will affect the subwoofer channel (default is 3.0m).

Use the ◄ and ► buttons on the front panel to change options for the selected speaker.

When finished, press the ▼ or ▲ to move to another selection. Alternately, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

TONE CONTROL

This menu option will allow the user to adjust the bass and treble settings. These features were designed to allow the user to adjust the sound to their taste.

Both the treble and bass settings can be adjusted in 1db increments between -12dB and +12dB .

Use the ▼ and ▲ buttons on the front panel to select either the treble or bass option (default for both options are +00dB).

Use the ◄ and ► buttons on the front panel to change settings for the selected option.

When finished, press the ▼ or ▲ to move to another selection. Alternately, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

AUDIO SETUP

This menu option will allow the user to set favorite processing modes for both the S/PDIF and HDMI inputs. Additionally, audio enhancement modes can also be set in this menu option. The following features are available in this menu system:

- SPDIF FAV PROC - This feature is used to set the default processing mode for the S/PDIF input. Selectable processing modes can be found on page 14 (default is DIRECT).

- HDMI FAV PROC - This feature is used to set the default processing mode for the HDMI input. Selectable processing modes can be found on page 14 (default is DIRECT).

- DRC - This feature will apply compression of loud sounds over a certain threshold while quiet sounds remain untreated (default is OFF).

- ENHA. - This feature is used to set an enhancement mode. The following enhancement modes are available (default is OFF):

  1. Night+ Mode - This mode can be used to watch dynamic content at low volume levels. This works by increasing the volume of quiet passages, while decreasing the volume of load passages.

  2. Voice+ Mode - This mode will isolate and enhance dialog for clearer sounding vocals.

  3. Volume+ Mode - This mode will equalize the volume level when listening to a source that has large variation in volume level. (i.e. Television broadcast and advertisement volume differences.)

Use the ▼ and ▲ buttons on the front panel to select the desired option.

Use the ◄ and ► buttons on the front panel to change the setting or the selected option.

When finished, press the ▼ or ▲ to move to another selection. Alternately, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

MISCELLANEOUS SETUP

This menu option will allow the user to set miscellaneous settings. The following options are in the menu:

- DIST. UNIT - This will set the unit of measurement when using the Speaker Distance option. The user can use either Feet or Meters as the measurement unit (default is METER).

- EDID ADJ. - This will control the location and type of EDID which will be used to send to the HDMI source device. The following options are available:

  - INT - This option will use an internal EDID which will list all of the supported audio and video formats that can be used with the Home Theater Audio Processor.

  - EXT - This option will use the EDID from the HDMI device connected to HDMI output 1.

  - MIX - This option will take video capabilities form the EDID of the display connected to the display on HDMI input 1 and the audio capabilities from the EDID of the Home Theater Audio Processor (this is the default mode).

- IR CHANNEL - This will set the IR channel that is used with the included remote control. This setting must correspond with the setting on the IR remote control. Please see page 11 for information on setting the IR channel on the remote control.

  - 1 - The unit will use IR channel 1 (this is the default setting)

  - 2 - The unit will use IR channel 2

  - 3 - The unit will use IR channel 3

  - 4 - The unit will use IR channel 4

- DEFAULT - This will return the Home Theater Audio Processor to its factory default settings.

Use the ▼ and ▲ buttons on the front panel to select the desired option.

Use the ◄ and ► buttons on the front panel to change the setting or the selected option.

When finished, press the ▼ or ▲ to move to another selection. Alternately, the user can press the OK button to immediately cycle to the next option.

To return to the previous menu, press the EXIT button. To exit the entire Menu System, press the MENU button.

SPEAKER AND FORMAT TABLE

	Speaker Size					FavProcMode				
	FL_R	CT	SL_R	SUB	SL_R	PLII(1)	Direct(2)	Stereo(3)	Mch Stereo(4)	Mono(5)
PCM2ch / Dolby_2ch	Small	Small	Small	onsub	Small	5.1ch	2.1ch	2.1ch	5.1ch	1.1ch
		Small	Large	onsub	Large	5.1ch	2.1ch	2.1ch	5.1ch	1.1ch
		Large	Small	onsub	Small	5.1ch	2.1ch	2.1ch	5.1ch	1.1ch
		Large	Large	onsub	Large	5.1ch	2.1ch	2.1ch	5.1ch	1.1ch
		off	Small	onsub	Small	4.1ch	2.1ch	2.1ch	4.1ch	2.1ch
		off	Large	onsub	Large	4.1ch	2.1ch	2.1ch	4.1ch	2.1ch
		Small	off	onsub	off	—	2.1ch	2.1ch	3.1ch	1.1ch
		Large	off	onsub	off	—	2.1ch	2.1ch	3.1ch	1.1ch
		off	off	onsub	off	—	2.1ch	2.1ch	2.1ch	2.1ch
PCM2ch / Dolby_2ch	Large	Small	Small	onsub	Small	5.1ch	2ch	2ch	5.1ch	1.1ch
		Small	Large	onsub	Large	5.1ch	2ch	2ch	5.1ch	1.1ch
		Large	Small	onsub	Small	5.1ch	2ch	2ch	5.1ch	1.1ch
		Large	Large	onsub	Large	5ch	2ch	2ch	5ch	1.1ch
		off	Small	onsub	Small	4.1ch	2ch	2ch	4.1ch	2.1ch
		off	Large	onsub	Large	4ch	2ch	2ch	4ch	2.1ch
		Small	off	onsub	off	—	2ch	2ch	3.1ch	1.1ch
		Large	off	onsub	off	—	2ch	2ch	3ch	1.1ch
		off	off	onsub	off	—	2ch	2ch	2ch	2.1ch
		Small	Small	none	Small	5ch	2ch	2ch	5ch	1.0ch
		Small	Large	none	Large	5ch	2ch	2ch	5ch	1.0ch
		Large	Small	none	Small	5ch	2ch	2ch	5ch	1.0ch
		Large	Large	none	Large	5ch	2ch	2ch	5ch	1.0ch
		off	Small	none	Small	4ch	2ch	2ch	4ch	2ch
		off	Large	none	Large	4ch	2ch	2ch	4ch	2ch
		Small	off	none	off	—	2ch	2ch	3ch	1.0ch
		Large	off	none	off	—	2ch	2ch	3ch	1.0ch
		off	off	none	off	—	2ch	2ch	2ch	2ch

SPEAKER AND FORMAT TABLE

		Speaker Size				FavProcMode				
	FL_R	CT	SL_R	SUB	SL_R	PLII(1)	Direct(2)	Stereo(3)	Mch Stereo(4)	Mono(5)
PCM5.1ch / AC3_5.1ch	Small	Small	Small	onsub	Small	—	5.1ch	2.1ch	5.1ch	1.1ch
		Small	Large	onsub	Large	—	5.1ch	2.1ch	5.1ch	1.1ch
		Large	Small	onsub	Small	—	5.1ch	2.1ch	5.1ch	1.1ch
		Large	Large	onsub	Large	—	5.1ch	2.1ch	5.1ch	1.1ch
		off	Small	onsub	Small	—	4.1ch	2.1ch	4.1ch	2.1ch
		off	Large	onsub	Large	—	4.1ch	2.1ch	4.1ch	2.1ch
		Small	off	onsub	off	—	3.1ch	2.1ch	3.1ch	1.1ch
		Large	off	onsub	off	—	3.1ch	2.1ch	3.1ch	1.1ch
		off	off	onsub	off	—	2.1ch	2.1ch	2.1ch	2.1ch
PCM5.1ch / AC3_5.1ch	Large	Small	Small	onsub	Small	—	5.1ch	2.1ch	5.1ch	1.1ch
		Small	Large	onsub	Large	—	5.1ch	2.1ch	5.1ch	1.1ch
		Large	Small	onsub	Small	—	5.1ch	2.1ch	5.1ch	1.1ch
		Large	Large	onsub	Large	—	5.1ch	2.1ch	5.1ch	1.1ch
		off	Small	onsub	Small	—	4.1ch	2.1ch	4.1ch	2.1ch
		off	Large	onsub	Large	—	4.1ch	2.1ch	4.1ch	2.1ch
		Small	off	onsub	off	—	3.1ch	2.1ch	3.1ch	1.1ch
		Large	off	onsub	off	—	3.1ch	2.1ch	3.1ch	1.1ch
		off	off	onsub	off	—	2.1ch	2.1ch	2.1ch	2.1ch
		Small	Small	none	Small	—	5ch	2ch	5ch	1.0ch
		Small	Large	none	Large	—	5ch	2ch	5ch	1.0ch
		Large	Small	none	Small	—	5ch	2ch	5ch	1.0ch
		Large	Large	none	Large	—	5ch	2ch	5ch	1.0ch
		off	Small	none	Small	—	4ch	2ch	4ch	2ch
		off	Large	none	Large	—	4ch	2ch	4ch	2ch
		Small	off	none	off	—	3ch	2ch	3ch	1.0ch
		Large	off	none	off	—	3ch	2ch	3ch	1.0ch
		off	off	none	off	—	2ch	2ch	2ch	2ch

BI-AMPING

The Home Theater Audio Processor features 2 additional outputs, both speaker terminals and RCA outputs, for bi-amping the front right and left audio channels. These outputs were intended to supply an additional set of front right and left audio channels for use with an amplifier or bi-ampable speaker. Please refer to your amplifier and speaker manual for proper bi-amping connection procedures.

RS-232 SERIAL CONTROL INTERFACE

Only Pins 2 (RX), 3 (TX), and 5 (Ground) are used on the RS-232 serial interface

RS-232 Settings

Bits per second 19200

Data bits 8

Parity .... None

Stop bits 1

Flow Control .... None

RS-232 COMMANDS

RS-232 Command Table

Command Code	Response	Description
POWER 0	> POWER OFF	POWER OFF
POWER 1	> POWER ON	POWER ON
VOL +10~-60	> VOL +10~-60	Audio volume adjust from maximum to minimum
VOL +	> VOL +10~-60	Increase audio by 1
VOL -	> VOL +10~-60	Decrease audio by 1
MODE 0	> PL II	Audio FAV PROC setup to Dolby Pro Logic II mode
MODE 1	> DIRECT	Audio FAV PROC setup to DIRECT mode [Default:DIRECT]
MODE 2	> STEREO	Audio FAV PROC setup to STEREO mode
MODE 3	> MCH	Audio FAV PROC setup to MCH mode
MODE 4	> MONO	Audio FAV PROC setup to MONO mode
ENHA 0	> ENHA NIGHT+	Audio ENHANCE effect NIGHT+
ENHA 1	> ENHA VOICE+	Audio ENHANCE effect VOICE+
ENHA 2	> ENHA VOLUME+	Audio ENHANCE effect VOLUME+
ENHA 3	> ENHA OFF	Audio ENHANCE effect OFF [Default:OFF]
TESTN 0	> NOISE FL	Generate pink noise for adjusting the Front Left speaker Audio volume
TESTN 1	> NOISE CT	Generate pink noise for adjusting the Center speaker Audio volume
TESTN 2	> NOISE FR	Generate pink noise for adjusting the Front Right speaker Audio volume
TESTN 3	> NOISE SR	Generate pink noise for adjusting the Surround Right speaker Audio volume
TESTN 4	> NOISE SL	Generate pink noise for adjusting the Surround Left speaker Audio volume
TESTN 5	> NOISE SUB	Generate pink noise for adjusting the Subwoofer speaker Audio volume
MUTE 0	> MUTE OFF	Audio MUTE OFF [Default:OFF]
MUTE 1	> MUTE ON	Audio MUTE ON
INPUT 0	> INPUT SPDIF	Audio input switch to SPDIF mode
INPUT 1	> INPUT HDMI	Audio input switch to HDMI mode
FIRMWARE ?	> FIRMWARE 1.XX	Show firmware version format is 1.XX

Command Code	Response	Description
SIZEFLR 0	OK	Front speaker Small
SIZEFLR 0	OK	Front speaker Large
SIZEC 0	OK	Center speaker Small
SIZEC 1	OK	Center speaker Large
SIZEC 2	OK	Center speaker Off
SIZELR 0	OK	Surround speaker Small
SIZELR 1	OK	Surround speaker Large
SIZELR 2	OK	Surround speaker Off
SUB 0	OK	Subwoofer Off
SUB 1	OK	Subwoofer On
INFO ?	> 1 2 3 4 5 6 7 8 9 10 11	Audio Information 1: Source 2: Audio Type 3: Number of channels 4: Sampling Rate 5: Volume 6: Mute Status (ON / OFF) 7: Enha (Night, Voice, Vol, Off) 8: FL (S / L / OFF) 9: C (S / L / OFF) 10: FR (S / L / OFF) 11: SUB (ON / OFF)

SPECIFICATIONS

Maximum Pixel Clock .... 225 MHz

Input DDC Signal ....5V p-p (TTL)

Maximum Power Output ....25W RMS

Digital Audio Input .... 1 x S/PDIF coaxial

HDMI Input .... 1 x HDMI Female, 19-pin

HDMI Outputs ....2 x HDMI Female, 19-pin

Digital Audio Output .... 1 x S/PDIF coaxial

Digital Audio Output .... 1 x TOSLINK optical

Speaker Outputs .... 7 total (5 five-way binding posts
+ 2 additional binding posts for Bi-Amp)

Analog Audio Outputs ....8 total (6 analog audio RCA jacks
+ 2 additional RCA jacks for Bi-Amp)

Supported Audio Formats:.................. Dolby Digital 5.1 (AC3), Dolby Pro Logic II,
LPCM up to 6 channels

Signal-to-Noise Ratio .... > 90dB (20 Hz - 20 kHz A-weight filter)

THD+N .... < 0.1% at 1 kHz at reference level

Frequency Response .... < +/- 0.5 dB 20 Hz - 20 kHz

Power Supply ....24V DC

Dimensions ....14.75" W x 2.5" H x 6.9" D

Shipping Weight .... 10 lbs.

WARRANTY

Gefen warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications. Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.

2. Customers outside the US are responsible for shipping charges to and from Gefen.

3. Copper cables are limited to a 30 day warranty and cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the features and specifications is subject to change without notice.

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Support section of the Gefen Web site at www.gefen.com.

PRODUCT REGISTRATION

Please register your product online by visiting the Register Product page under the Support section of the Gefen Web site.
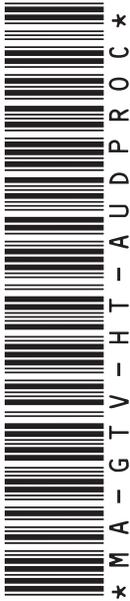
MA-GTV-HT-AUDPROC

This product uses UL listed power supplies.