

## UpMix Quick Start Guide



This guide offers the quickest way to install and begin using your new **UpMix Surround Audio Decoder**. While UpMix's default settings are found to work in most applications, please read through the documentation to ensure you are getting the best experience from UpMix. The full owner's manual may be downloaded off our website at [www.daysequerra.com](http://www.daysequerra.com). While you are there, please take a few moments to complete the warranty registration form.

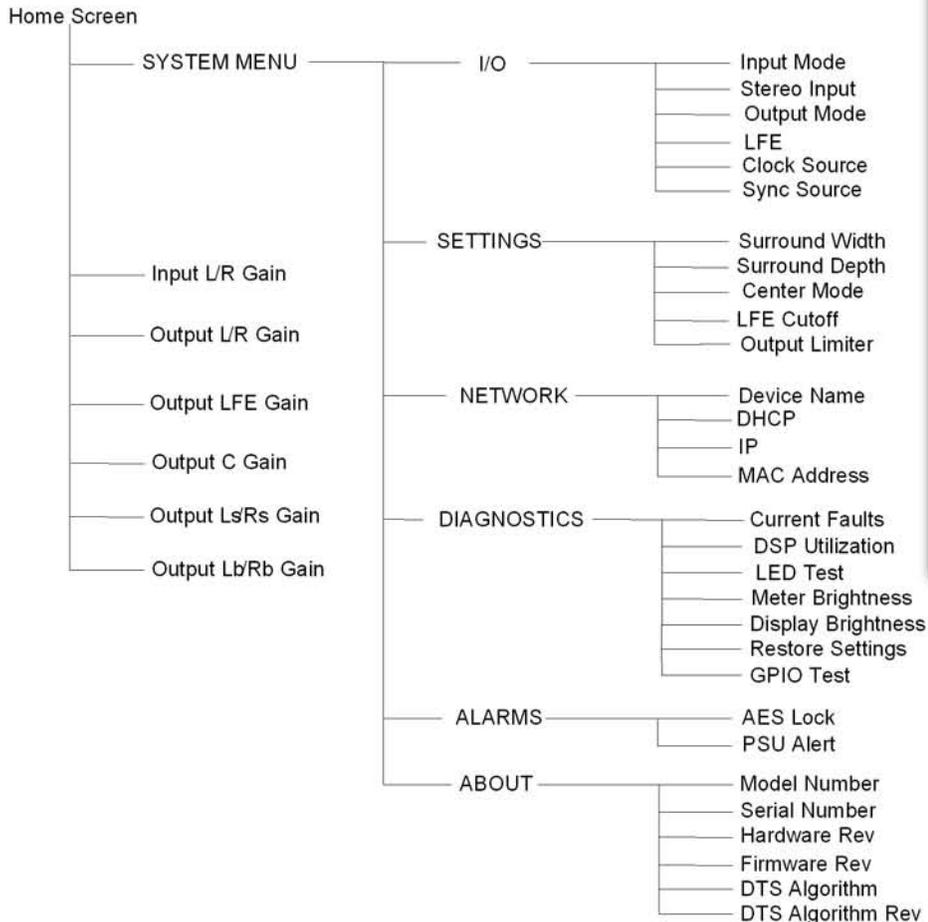
1. Mount the unit into your rack or place on a stable surface.
2. Connect your BNC AES input cables and output cables.
3. Connect UpMix to a power source with the supplied cables. UpMix will automatically power up when AC power is applied.
4. Rotate the knob to enter the menu. Press ENTER to select SYSTEM MENU. Press ENTER to select I/O.
5. Define input mode. The default setting is STEREO. Other input options may be selected based upon your configuration. Press ENTER and scroll the wheel to see available choices. Press ENTER to confirm a selected choice.
6. Define output mode. The default setting is 5.1. Other output options may be selected based upon your configuration. Scroll the wheel two clicks to select OUTPUT MODE, and then press ENTER to make your choice.
7. Define your clock source. The default setting is AES input 1/2. Other options may be selected based upon your configuration – select EXTERNAL if you are using the AES SYNC ports, or select INTERNAL if you wish to use UpMix's internal clock.
8. Press HOME to return to the home screen. If errors are displayed, consult your user's manual for further details.

### Front Panel Features

- **INPUT LEVELS:** Displays audio level of the inbound audio stream.
- **OUTPUT LEVELS:** Displays audio level of the up mixed audio stream.
- **AES LOCK:** Green LED illuminates when a valid AES3 digital input signal has been acquired.
- **AES ERROR:** Red LED illuminates when the AES3 digital input signal is lost or received corrupted.
- **FAULT:** Red LED illuminates when a fault has been discovered.
- **7.1 MODE:** Blue LED indicates when operating in 7.1 channel input mode.
- **VACUUM FLORESCENT DISPLAY:** Displays current operating status of the unit and programming menus.
- **SELECTION KNOB:** Used to select values while in the menu system.
- **ENTER KEY:** Used to enter a menu or confirm a selection.
- **HOME KEY:** Will return you to the home screen.
- **BACK KEY:** Will return you to a previous menu.

## UpMix Quick Start Guide

### Menu Tree



### Rear Panel Features

- **AES INPUTS:** Three 75Ω BNC connectors will accept an AES3 digital audio stream.
- **AES OUTPUTS:** Four 75Ω BNC connectors output the up mixed AES3 digital audio stream.
- **AES SYNC:** Two 75Ω BNC connectors that allow UpMix to receive an AES REF or DARS clock signal from an external source and pass it on to other devices in the same stack.
- **GPIO:** A Female DB-9 connection that allows UpMix to be monitored or controlled externally. Opto-isolated inputs will be triggered by a voltage of 5VDC.

- |                        |                       |
|------------------------|-----------------------|
| 1 Output Relay 1 N.O.  | 6 Output Relay 2 N.O. |
| 2 Relay 1 Common       | 7 Relay 2 Common      |
| 3 Optical Input 0      | 8 Optical Input 2     |
| 4 Optical Input 1      | 9 Optical Input 3     |
| 5 Optical Input Common |                       |

- **NETWORK:** Used to update UpMix's firmware.

To download the complete user manual, please go to [www.daysequerra.com](http://www.daysequerra.com)



# DaySequerra

---



## 5.1 Surround Decoder

**UpMix** | User Manual

# Welcome

Thanks for purchasing the DaySequerra UpMix. Our UpMix transforms any stereo signal into a surround sound experience by utilizing the DTS Neural Surround™ process. We design and build all of our DaySequerra products to be completely reliable and easy to use, so you can concentrate on producing great sounding broadcasts, not struggling with complicated equipment or difficult to use product manuals.

While the UpMix has been designed to be straightforward to use, we do suggest that you spend a few minutes familiarizing yourself with the features and operational functions that are contained in this manual.

**DaySequerra has been building broadcast quality products since 1989. The technology developed for the UpMix, and all of our products, has evolved through a process of user feedback, extensive listening, field-testing and careful refinement.**

In the event that you encounter any technical or operational difficulties with this or any DaySequerra product, please feel free to contact us at 856-719-9900. Our office hours are from 9 to 5 ET, Monday through Friday. Or you can email your questions to: [info@daysequerra.com](mailto:info@daysequerra.com).

Also, please remember to visit our website [www.daysequerra.com](http://www.daysequerra.com) for warranty registration and the latest DaySequerra product information.

We have worked hard to ensure that your DaySequerra UpMix will reliably serve you for years to come. With a modular design and upgradable firmware, your new unit is easy to install and use right out of the box.

We sincerely hope our products help you achieve a new level of excellence in your work!



**David V. Day**  
and the **DaySequerra Team**

# Table of Contents

Important Safety Information	4
Service Information	4
Technical Specifications	5
Introduction	6
Operational Diagram	6
Typical Applications	6
Unpacking and Installation	7
Front Panel Controls and Indicators	8
Rear Panel	9
Meter Display	10
Home Screen	11
Programming Menu	11
Menu Tree	12
Menu Functions and Descriptions	13
Faults	16
Firmware Update	17
Warranty	19

## UpMix - Key Features

- Perfect mapping of watermarked (LtRt) elements into the surround field
- Brings the excitement of surround sound to your audience without replacing any infrastructure
- Active correction to fix issues such as comb filtering, spatial location and distortion
- The conveniences of a matrix surround encode/decode system with the performance of modern day perceptual audio codecs

## Important Safety Information

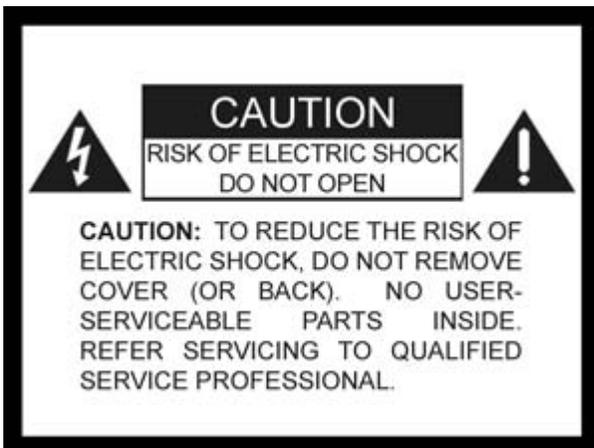
- Indoor use only. Not for use in wet or damp environments.
- Maximum Relative Humidity: <80%
- Class I Equipment (grounded type)
- Electrical rating: 100-260V~50/60Hz 25W max
- AC Mains supply voltage fluctuations are not to exceed  $\pm 10\%$  of the nominal voltage
- Operations temperature range -40°C to 70°C
- Maximum altitude: 3000m (9843ft)
- Equipment suitable for continuous operation
- Weight: 3.6kg (8.0lbs) equipment only; 5.4kg (12.0lbs) shipping

**Important Note: Please connect your UpMix to an uninterruptible power supply (UPS) to provide other protection against power surges and low-voltage conditions.**

## Service Information

The DaySequerra UpMix contains no user serviceable components inside the unit. Please contact DaySequerra for repair and upgrade information. In the event that your unit needs to be returned to the factory, contact us for a return authorization number. **Please visit [www.daysequerra.com](http://www.daysequerra.com) and register your new UpMix so we can keep you informed of the latest hardware and software updates.**

The lightning flash with arrowhead symbol is intended to alert the user to the presence of un-insulated “dangerous voltages” within the product’s enclosure that may be of a sufficient level to cause harm.



The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance instructions within the product literature.

Exposed portions of the power supply assembly are electrically live. To reduce risk of electric shock, the power cord must be disconnected when the power supply assembly is removed. For continued protection against electric shock, a correctly wired and grounded (earthed) three-pin power outlet must be used. Do not use a ground-lifting adapter and never cut the ground pin on the three-prong plug. The ground terminal of the power plug is connected directly to the chassis of the unit.

## Technical Specifications

Latency of the DTS Algorithm:	22ms at 48k sampling rate
Power Consumption:	25W Maximum
Dimensions:	Rack Mount; 1 RU (1.75" x 19" x 10.75")
Dynamic Range:	140dB, DR any input to any output
GPIO:	DB-9 Female, 0-5V TTL
Regulatory:	North America: Designed to Comply with FCC Class A part 15 requirements. Europe: Designed to comply with LV Directive 73/23/EEC and EMC Directive 89/336/EEC; CE Mark (EN 55022 Class A, EN55024); Designed for RoHS and WEEE compliance.

## FCC Part 15 Regulatory Statement

This equipment has been tested and found to comply with the limits for Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction's manual, may cause interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required to correct the interference at their own expense. The user is cautioned that changes and modifications made to the equipment without approval of the manufacturer could void the user's authority to operate this equipment. The user should use only shielded and/or grounded cables to combat sources of interference.

## Environmental Preservation Efforts



This equipment has been designed and built by DaySequerra corporation to give many years of trouble free service and is backed by our three year warranty and commitment of providing the best customer support. When the time comes to retire your product from service, it should be disposed of in accordance with local codes or ordinances. Do not discard with household or commercial waste.

DaySequerra products are manufactured with the environment in mind. The Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (2002/95/EC) restricts the use of six specific hazardous materials in the manufacture of various types of electronic and electrical equipment. Following this directive prevents these toxic substances from entering our environment after disposal.



## Introduction

The DaySequerra UpMix renders any two channel audio source (stereo, matrix encoded stereo or LtRt) as surround sound. Because UpMix renders sound independently of the transport environment, it will compliment analog, digital, linear or compressed mediums. Using the DTS Neural Audio process, UpMix can simultaneously position individual elements within a rich surround field creating unparalleled image stability and realistic granularity. This approach avoids taking “artistic license” with content by placing audio exactly where it would be heard in a professional LEDE (Live End Dead End) listening environment. For example, mono or pan-pot stereo will image in front of the listener on the center channel, where stereo containing depth information will surround the listener using the full capabilities of their surround decoder.

UpMix can be used as a stand-alone unit to monitor stereo production or in tandem with the DaySequerra DownMix as a complete 5.1 transport solution. Surround content that has been encoded by UpMix will be reproduced just as it was heard in the original 5.1 mix. To improve system reliability and up-time, UpMix uses a robust DSP-based processing platform rather than the PC-based approach to completely avoid broadcast disruptions caused by operating system lockups.

## Operational Diagram

The diagram below shows an UpMix taking a two channel audio source, such as stereo, matrix encoded stereo or LtRt, and creating a 5.1 channel surround mix using the proprietary DTS Neural Audio process.



The surround mix produced from the input content is fully immersive to the listener when played through a 5.1 monitor system.

## Typical Applications

*Here are some examples that describe some typical applications where you might use UpMix.*

**RADIO PRODUCTION STUDIO** – UpMix allows production engineers to render mono or stereo content into surround. The mix can then be broadcasted on a compatible medium. When used in conjunction with DownMix, UpMix will allow the engineer to render a watermarked (Lw/Rw) two channel audio source back into its original surround content.

**STEREO TELEVISION MASTER CONTROL** – Another application of UpMix is in a stereo television master control room setup. UpMix allows rendering of original mono or stereo content into surround. The surround mix can then be sent to an encoder and later combined video to have a complete HD broadcast.

## Installation

Immediately upon receiving your UpMix, please make a careful inspection for any shipping damage. If damage is found or suspected, please notify the carrier at once and then contact your dealer. UpMix is shipped in one carton, which contains: the UpMix unit, an AC power cable and this Users Manual.

We strongly encourage you to save the shipping carton and shipping materials supplied with your UpMix. They are specially designed to properly protect your UpMix, and in the event that you need to return it for service, only these OEM shipping materials can ensure its safe return to our factory.

We provide a limited 3-year warranty on all of our products; however, if you don't register your unit, it is impossible for us to contact you to notify you when important software upgrades become available.

**Please take a few minutes to complete the warranty registration form on our website, [www.daysequerra.com](http://www.daysequerra.com).**

## Rack Mount Installation

The UpMix chassis has four rack mounting holes and has been designed to fit in a standard 1RU space. Plastic 'finishing' washers are recommended to protect the painted surface around the mounting holes. Locate the air vents on each side of the unit, and be sure to keep them clear so the unit may have adequate ventilation.

## Power Connection

The AC power cable supplied with UpMix must be connected from the IEC320 power entry module to an AC mains outlet with a functional earth ground connection. For protection against electric shock and electro-magnetic interference, do not plug the power cable into a ground lifting adapter or remove the cable's grounding pin. If in doubt, please consult a qualified electrician.

UpMix is designed with redundancy in mind with two internal auto switching power supplies. **Please connect UpMix to an uninterruptible power supply (UPS) to protect against power surges and low-voltage conditions.** For maximum redundancy, connect each power supply to a separate UPS on different power circuits. UpMix may be combined with other devices on the output of the UPS(es) as long as the total load is within the UPS' capacity. Consult your UPS manual for details.

UpMix will automatically power up when AC power is applied. If AC line power is lost or momentarily interrupted, UpMix will revert to its previous state.

## Front Panel Meters

**INPUT LEVELS** - Six 10-segment multi-colored LED meters display the audio level for each channel of the inbound audio stream.

**OUTPUT LEVELS** - Six 10-segment multi-colored LED meters display the audio level for each channel of the up-mixed audio stream.

## Status Indicators



**AES LOCK** - Green LED indicator illuminates when UpMix has acquired a valid AES3 digital input signal.

**AES ERROR** - Red LED indicator illuminates when UpMix has lost or has received an invalid AES3 digital input signal.

**FAULT** - Red LED indicator illuminates when UpMix has discovered a fault. The fault will be displayed on the home screen, or may be viewed under the DIAGNOSTICS menu. Fault text may be removed from the home screen by pressing the ENTER key.

**7.1 MODE** - Blue LED indicator illuminates when UpMix is producing a 7.1 channel stream.

## Display and Controls

**VACUUM FLUORESCENT DISPLAY** - A Multi-function display will indicate current operating status of the unit and programming menus.

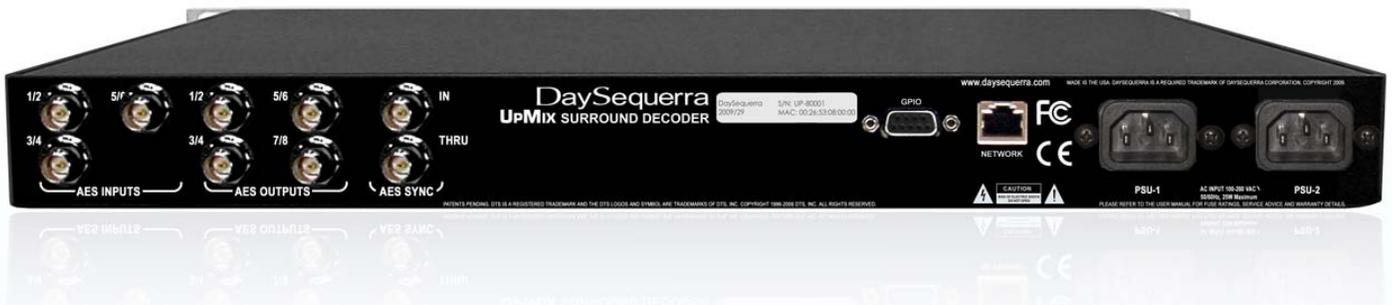
**SELECTION KNOB** - A stepping rotational knob is used to select values while in the menu system. To enter the menu, simply rotate the knob in any direction while UpMix is on the HOME screen.

**ENTER KEY** - Used to enter a menu or confirm a selection. This key will also clear a FAULT display from the home screen.

**HOME KEY** - A press of this button will return UpMix to its home screen.

**BACK KEY** – While on the HOME screen, this key will re-display the FAULT status text if it has been cleared. A press of this key will return to a previous menu, or if you are entering a value, exit the field and return the value to the last programmed state.

## Rear Panel



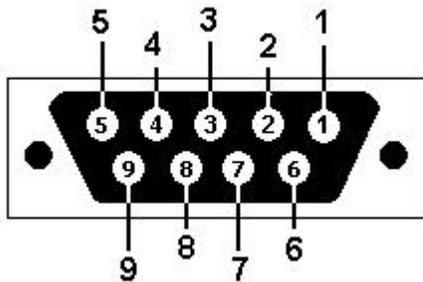
**AES INPUTS** - Three 75Ω BNC connectors will accept an AES3 digital audio stream.

**AES OUTPUTS** - Four 75Ω BNC connectors output the up-mixed AES3 digital audio stream.

**AES SYNC** - Two 75Ω BNC connectors that allow UpMix to receive an AES REF or DARS clock signal from an external source and pass it on to other devices in the same stack.

*The AES-3id-1995/SMPTE 276M standard dictates a 75Ω unbalanced connection and requires proper termination. The termination should occur at the destination of the signal (that is, on the inputs to UpMix). If the loop-through BNC connectors are not feeding additional equipment, terminate each of these with a standard 75Ω terminator. Like other inputs, AES SYNC signal should be terminated.*

**GPIO** – A Female DB-9 connection that allows UpMix to be monitored or controlled externally. Opto-isolated inputs will be triggered by a voltage of 5VDC.



DB-9 Female Port  
on UpMix Rear Panel

Pin	Signal
1	Output Relay 1 N.O.
2	Relay 1 Common
3	Optical Input 0
4	Optical Input 1
5	Optical Input Common
6	Output Relay 2 N.O.
7	Relay 2 Common
8	Optical Input 2
9	Optical Input 3

**Output 1:** Relay 1 is Normally Open. Upon a hardware failure (i.e. Power Supply or Internal Communications Failure), the relay will close. When the failure is remedied, the relay will open.

**Output 2:** Relay 2 is Normally Open. Upon an AES lock loss failure, this relay will close. When the failure is remedied, the relay will open.

**Input 1:** Voltage detected on this input will cause UpMix to go into pass-through operating mode.

**Input 2:** Voltage detected on this input will have UpMix take the input signal and up mix it into 5.1 surround.

**Input 3:** Unused.

**Input 4:** Unused.

**NETWORK** - Used to update UpMix's firmware. To connect directly to a PC without use of a network switch or hub, a crossover cable is required. Firmware updating is accomplished via UDP Port 44600.

**PSU 1 / PSU 2** - Two IEC320 ports to connect to AC Mains. The internal power supplies are auto switching and will work on 120VAC-60Hz or 240VAC-50Hz electrical power systems with a maximum total current draw of 25W (>.25A 120VAC or >.15A 240VAC).

**Please connect UpMix to a properly grounded uninterruptible power supply (UPS) to protect against power surges and low-voltage conditions.** For maximum redundancy, connect each power supply to a separate UPS on different power circuits. UpMix may be combined with other devices on the output of the UPS(es) as long as the total load is within the UPS' capacity. Consult your UPS manual for details.

## Meter Display

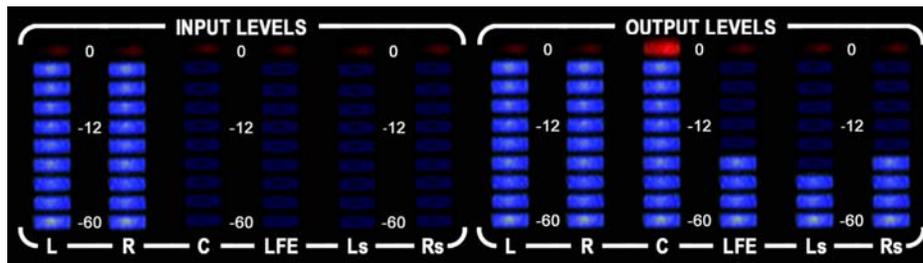


Figure 1. Metering display UpMix.

**INPUT LEVELS** – LED display shows current amplitude of input signal from -60dB to 0dB across all active channels. Unused channels will not light the display.

L - Left (AES Input 1)	<i>LFE- Low Frequency (AES Input 4)</i>
R - Right (AES Input 2)	<i>Ls - Left Surround (AES Input 5)</i>
C - Center (AES Input 3)	<i>Rs – Right Surround (AES Input 6)</i>

**OUTPUT LEVELS** – LED display shows current amplitude of signal generated by UpMix across all active channels. Unused channels will not light the display.

L - Left (AES Output 1)	LFE- Low Frequency (AES Output 4)
R - Right (AES Output 2)	Ls - Left Surround (AES Output 5)
C - Center (AES Output 3)	Rs – Right Surround (AES Output 6)

**Items in italics are only utilized when UpMix is configured to take a 5.1 audio stream and create a 7.1 audio stream.**

## Home Screen

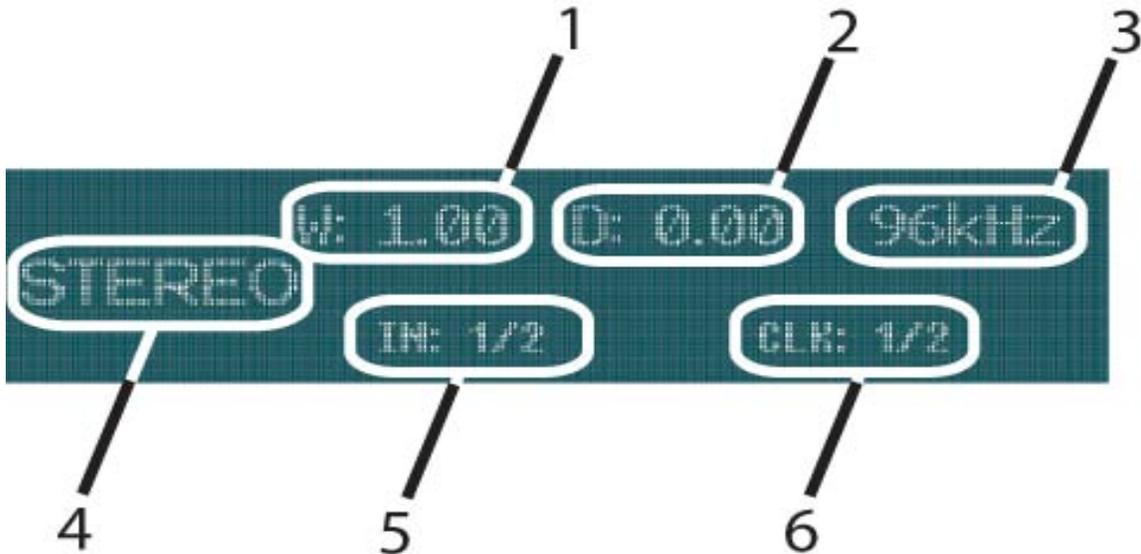


Figure 2. Home Screen on UpMix.

When you power on UpMix, if there are no errors, the display should look similar to the one pictured above. Each field is dynamic and will show status or current selected settings.

1. Currently selected surround width (Located on SETTINGS menu). May also display current fault status over fields 1 and 2.
2. Currently selected surround depth (Located on SETTINGS menu). May also display current fault status over fields 1 and 2.
3. Current clock sync UpMix is operating with. This clock is either internal or externally acquired.
4. Current output mode. This is selectable on the I/O menu.
5. Input source port will display the port number UpMix is set to receive the audio stream from. This can be set under the I/O menu.
6. Clock source display will indicate where UpMix is getting a clock signal. This will be represented as a port number, internal or external.

## Programming Menu

If AC line power is lost or momentarily interrupted, UpMix will revert to its previous state.

To enter the programming menu, turn the selection knob in any direction while at the HOME screen. The ENTER key will enter the currently selected sub menu or enter the value selection mode for the option. A press of the BACK key will navigate to the previous menu level or revert the current value to its last stored state.

# Menu Tree

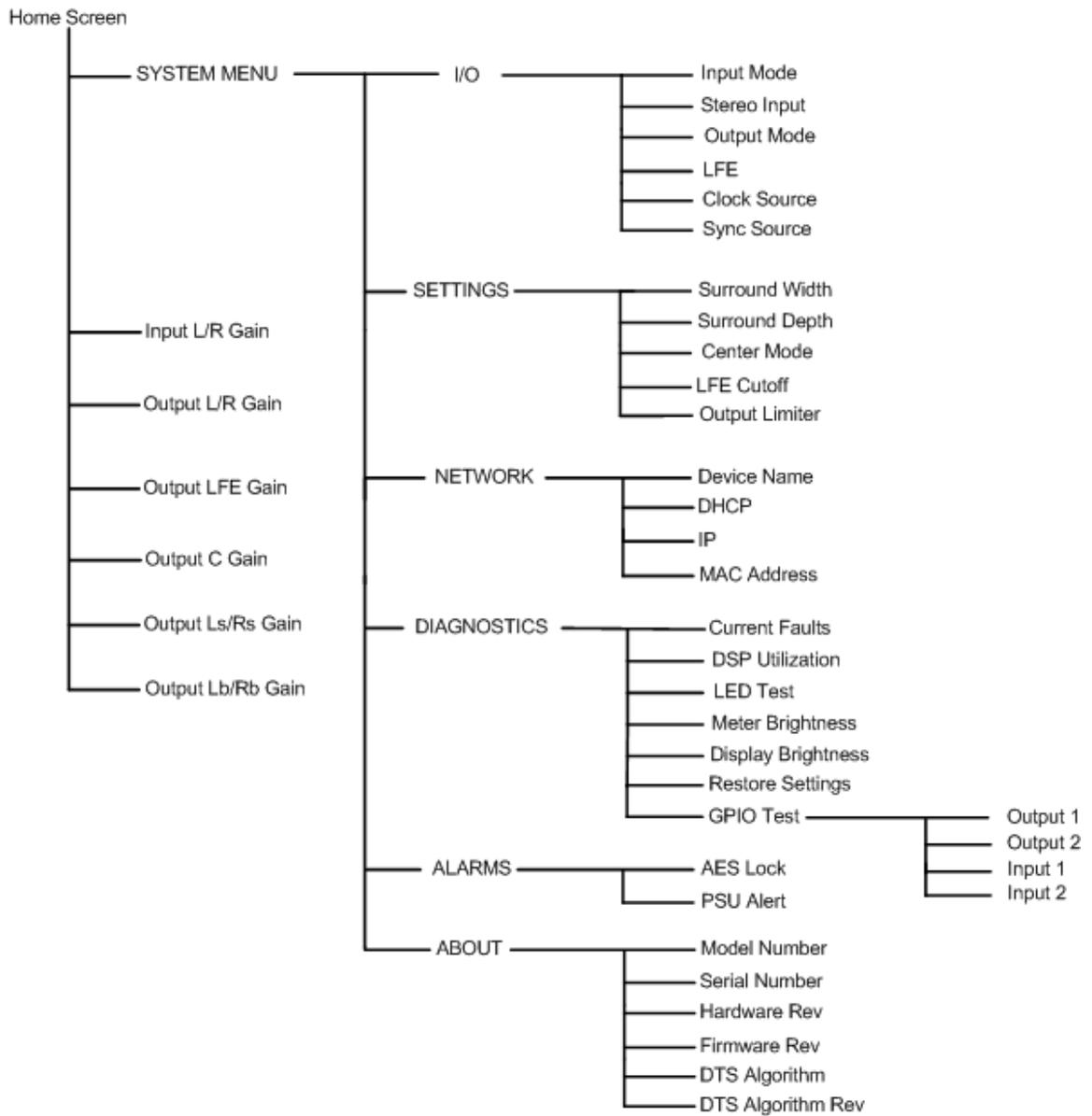


Figure 3. Visual Map of UpMix Menu System.

## Menu Functions and Descriptions

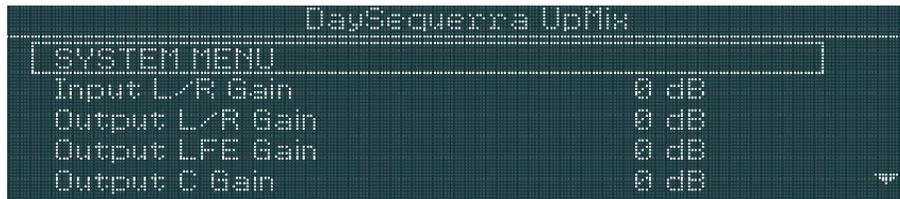


Figure 4. Main Menu display on the DaySequerra UpMix.

The Display output shown on UpMix when you first enter the menu is shown in Figure 4. From here, you can navigate to the rest of the menu by selecting SYSTEM MENU, or you can adjust the audio levels for the following audio channels (12 to -12dB and mute):

- Input L/R Gain - Two channel stereo input level
- Output L/R Gain - Left Front and Right Front output level
- Output LFE Gain - Low Frequency Effects output level
- Output C Gain - Center channel output level
- Output Ls/Rs Gain – Left Surround and Right Surround output level
- Output Lb/Rb Gain – Left Back and Right Back output level

Only the options that are available for the current configuration will be displayed.

## System Menu



Figure 5. System Menu screen display on the DaySequerra UpMix

Navigating to SYSTEM MENU after entering the Main Menu will allow you to change all values to fine tune the operation of your UpMix.

## I/O Menu

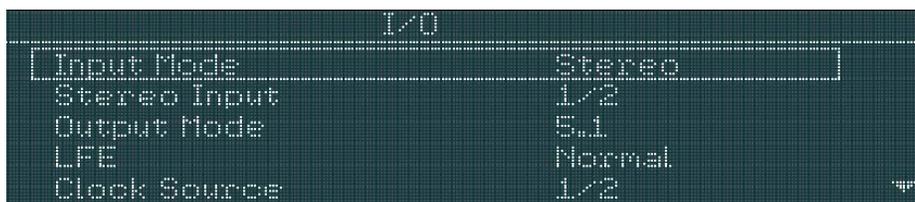


Figure 6. I/O Menu screen display on the DaySequerra UpMix

The I/O Menu will allow you to tailor UpMix to your specific application.

**Input Mode:** Defines what kind of signal UpMix is going to process. (Stereo)

**Stereo Input:** Defines what physical BNC port UpMix will receive the stereo audio input stream. (1/2, 3/4, 5/6)

**Output Mode:** Defines what output signal format UpMix will generate. (Bypass, Stereo, 2.1, 3.1, 4.1, 5.1, 6.1 or 7.1)

**LFE:** Defines how UpMix will treat Low Frequency Effects. (Normal or Mute)

**Clock Source:** Defines where UpMix gets the timing signal.

Internal: UpMix's Internal Clock. Define using Sync Source.

Ext Sync: UpMix will get timing from AES Sync Port.

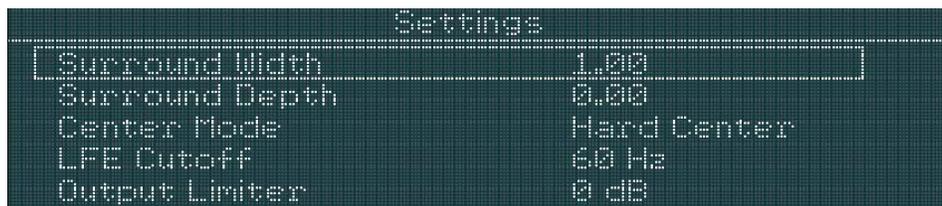
1/2: UpMix will get timing from the 1/2 BNC Input.

3/4: UpMix will get timing from the 3/4 BNC Input.

5/6: UpMix will get timing from the 5/6 BNC Input.

**Sync. Source:** If Clock Source is set to internal, defines what clock frequency UpMix will use. (32, 44.1, 48.0, 88.1 or 96 kHz)

## Settings Menu



Settings	
Surround Width	1.00
Surround Depth	0.00
Center Mode	Hard Center
LFE Cutoff	60 Hz
Output Limiter	0 dB

**Figure 7. Settings menu on the DaySequerra UpMix**

### Settings that can be controlled on UpMix:

**Rear Surround Width:** Adjusts the perceived width of the rear channel signal that is rendered from the stereo mix. (Narrow, .05-.95, Wide in .05 Increments)

**Surround Depth:** Adjust the perceived depth of the entire surround signal that is rendered from the stereo mix. (-1.00 to 1.00 in .05 Increments)

**Center Mode:** Tells UpMix to use a discreet center channel (Hard Center) or mix the center into the left and right channels (Phantom).

**LFE Cutoff:** Adjusts low-pass filter for Low Frequency Effects. (0-140Hz in 20Hz Increments)

**Output Limiter:** Allows UpMix to reduce the level of the output stream. (0dB to -20dB)

## Network Menu

The DaySequerra UpMix has several configurable network settings. All of UpMix's network settings are password protected. The password to change the network settings is **upmix123**. Please take note when entering the password that the UpMix password is case sensitive. The DaySequerra UpMix is configured to take a DHCP address by default.

**Device Name:** Allows you to change UpMix's name as reported to DNS. Press ENTER while the cursor is over this field to go into data entry mode. Turn the knob to scroll through the available choices of letters (A-Z, 0-9 and \_ (underscore)) and press enter to move on to the next field. Turning the knob again will start to scroll through the choices for the next letter, or pressing ENTER accepts the name.

**DHCP:** Configures UpMix to look for a DHCP server for IP configuration. (Enabled or Disabled)

**IP Address:** If DHCP is set to disabled, allows you to enter the desired IP address manually. Press ENTER while the cursor is over this field to go into data entry mode. Scroll through the available numbers (0-255) and press ENTER to move to the next octet.

**MAC Address:** Displays UpMix's MAC address if needed for firewalls or DHCP IP address assignments.

## Diagnostics Menu

**Current Faults:** Displays any error states that UpMix may be in.

**DSP Utilization:** Shows the current load on UpMix's processor.

**LED Test:** Turns on all front-panel LED indicators to verify their functionality.

**Meter Brightness:** Allows adjustment of UpMix's Input and Output meters intensity.

**Display Brightness:** Allows adjustment of UpMix's display output intensity.

**Restore Settings:** Returns all settings to their factory default values and reboots the unit. Network settings will not be lost.

**GPIO Test:** A sub-menu that can turn on the GPIO outputs for testing and shows the current state of the GPIO inputs.

## Alarms Menu

**AES Lock:** Allows the AES Lock alarm to be suppressed.

**PSU Alarm:** Allows the Power Supply alarm to be suppressed.

## About Menu

**Model Number:** Displays the model number of the unit.

**Serial Number:** Displays the serial number of this unit.

**Hardware Rev:** Displays the hardware revision level of this unit.

**Firmware Rev:** Displays the firmware revision level that is running on this unit.

**DTS Algorithm:** Displays the specific DTS algorithm running.

**DTS Algorithm Rev:** Version of the DTS algorithm running on this unit.

## Faults

Although your UpMix will provide you with years of trouble free service, occasionally problems may occur. Below is a listing of the most common fault conditions.

**PSU-x Failed:** One of the redundant power supplies has failed and your unit requires service. Please contact DaySequerra to arrange for repair.

**No Sync:** AES sync has been lost. Please check the source equipment and all cable connections. Ensure that UpMix is operating in the proper input mode for your application and is looking for the source audio on the correct port.

**CRC Error:** UpMix has encountered a CRC error in the audio stream.

**Validity Error:** UpMix has encountered a validity error with the audio stream.

**Bi-phase Error:** UpMix has encountered a bi-phase error with the audio stream.

**No Parity Error:** UpMix has encountered a parity error with the audio stream.

## Firmware Update

Provided that you have completed warranty registration for your UpMix on our website, we will notify you as new firmware updates become available. The notification will contain the announcement of new firmware, issues corrected, and instructions on how to retrieve the update files.

The updating process may only be performed on a PC platform. Update packages will be available as a single .ZIP file for download. Compatible archive programs include Winzip ([www.winzip.com](http://www.winzip.com)) or WinRAR ([www.rarlabs.com](http://www.rarlabs.com)) and may be downloaded from their respective websites. The update package will contain four files; dsp2501.bin, firmdown.exe, readme.txt and update.bat.

Firmware updating is accomplished via UDP Port 44600. At this time, updating is only supported by using a cross-over cable directly connected to one PC. If your PC has multiple network interface adapters, each additional adapter will need to be disabled before attempting to upgrade your unit. You may also wish to disable your firewall during the upgrade process. For additional support with networking, please contact your network administrator.

**DO NOT UNPLUG THE UNIT OR TURN OFF YOUR PC WHILE THE FLASH IS IN PROGRESS. If the flash procedure is interrupted before it can complete, UpMix may be left in an un-usable state and will need to be returned for factory service.**

Please follow these steps to upgrade your unit:

1. Un-Zip the files using a compatible utility that can handle ZIP archive file format into a new empty directory on your PC. A password may be required in order to extract the files.
2. Disable any additional network interface adapters present on your PC. Go to Control Panel, then Network Connections. Right click on the adapter to be disabled and select Disable.
3. Unplug your PC from the network it is currently connected to.
4. If your PC's network interface is set up for DHCP, disable it and enter a static IP address. While in Network Connections under Control Panel, right click on the network interface and select Properties. Select "Internet Protocol (TCP/IP)" and press the Properties button. On the general tab of the dialogue box, select "Use the following IP address". Enter an IP address in the box "IP Address" within the local network range. (Example: 192.168.0.1) Click in the "Subnet mask" box and it should auto populate with 255.255.255.0. Select OK to close the dialog, and then OK to close the properties box.
5. If UpMix is set up for DHCP, disable it and enter a static IP address within the local network range. (Example: 192.168.0.2) Details are available in the NETWORK section of this manual.
6. Connect the UpMix to the PC using a crossover Ethernet cable.
7. When Windows has acknowledged the Ethernet connection, you may start the update progress by double clicking on upgrade.bat. UpMix should download the new firmware and reboot within 15 seconds.
8. Disconnect the cross-over cable and return your PC and UpMix to their original networking configurations.



## DaySequerra – Three Year Limited Warranty

DaySequerra warrants this product to be free from defects in materials and workmanship to its original owner for three (3) years from the date of purchase. DaySequerra will repair or replace such product or part thereof that upon inspection by DaySequerra, is found to be defective in materials or workmanship.

A Return Authorization Number must be obtained from DaySequerra in advance of return. Call DaySequerra at (856) 719-9900 to receive the number to display on the outside of your shipping carton. A written statement with the name, address, and daytime telephone number of the original owner, together with receipt from the original purchase, and a brief description of any claimed defects, must accompany all returns. Parts or product for which replacement is made shall become the property of DaySequerra. The customer shall be responsible for all costs of transportation and insurance to and from the DaySequerra factory, and all such costs will be prepaid.

DaySequerra shall use reasonable efforts to repair or replace any product covered by this limited warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, DaySequerra shall notify the customer accordingly. DaySequerra reserves the right to replace any product that has been discontinued from its product line with a new product of comparable value and function.

This warranty shall be void in the event a covered product has been damaged, or failure is caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, or lightning, power fluctuations and other incidental or environmental conditions. Further, product malfunction or deterioration due to normal wear is not covered by this warranty.

**DAYSEQUERRA DISCLAIMS ANY WARRANTIES, EXPRESSED OR IMPLIED, WHETHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, EXCEPT AS EXPRESSLY SET FORTH HEREIN. THE SOLE OBLIGATION OF DAYSEQUERRA UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE COVERED PRODUCT, IN ACCORDANCE WITH THE TERMS SET FORTH HEREIN. DAYSEQUERRA EXPRESSLY DISCLAIMS ANY LOST PROFITS, GENERAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM BREACH OF ANY WARRANTY, OR ARISING OUT OF THE USE OR INABILITY TO USE ANY DAYSEQUERRA PRODUCT.**

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state. DaySequerra reserves the right to modify or discontinue, without prior notice to you, any model or style product. If warranty problems arise, or if you need assistance in using your product contact:

DaySequerra  
154 Cooper Road, Building 902  
West Berlin, NJ 08091

856-719-9900 (phone)  
856-719-9903 (fax)

For more information, please visit [www.daysequerra.com](http://www.daysequerra.com) or email us at [support@daysequerra.com](mailto:support@daysequerra.com).

**Manufactured under license from DTS Licensing Limited.  
DTS and the Symbol are registered trademarks and the DTS logo is a trademark of DTS, Inc.  
Product includes software. © DTS, Inc. All Rights Reserved.**