



# UpMix User Manual

#### Welcome

Thanks for purchasing the DaySequerra UpMix. Our DTS Neural Surround<sup>™</sup> UpMix transforms any stereo signal into a surround sound experience. 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**.

Also, please remember to visit our website **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

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# **UpMix - Key Features**

- Perfect mapping of watermarked (Lt/Rt) 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
- Internal circuit breaker for continuous short circuit protection.
- AC Mains supply voltage fluctuations are not to exceed <u>+10%</u> 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.

If UpMix is subjected to a strong RFI field, such as those emitted from portable two way radios, the display may "blank out". To restore the display without rebooting the unit, turn the rotary encoder to activate the main menu, and then press HOME. If the keylock is enabled, you will have to deactivate it by pressing the ENTER key followed by BACK.

#### **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 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 uninsulated "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



tended 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")   |  |
| Sample Rate:                  | 32kHz-96kHz, 24-bit   |  |
| Dynamic Range:                | 140dB, DR any input to any output   |  |
| GPIO:                         | DB-9 Female, 0-5V TTL opto-isolated   |  |
| Regulatory:                   | <i>North America:</i> Designed to comply with FCC Class A part 15 requirements.   |  |
|                               | <b>Europe:</b> 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.



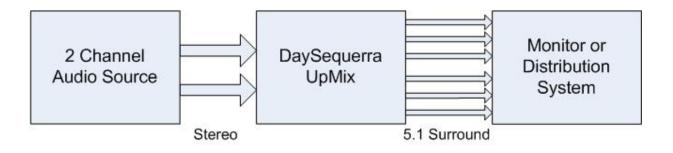
#### Introduction

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. UpMix is DSP based and will never need calibration or alignment.

#### **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 be broadcasted on a compatible medium. When used in conjunction with DownMix, UpMix will allow the engineer to render a watermarked (LtRt) 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, two AC power cables 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.

#### **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**

#### **Bargraph 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 receives an invalid AES3 digital input signal.

**FAULT -** Red LED indicator illuminates when UpMix has discovered a fault. An error message will be displayed on the display, or fault status may be viewed under the DIAGNOSTICS menu.

**7.1 MODE** - Blue LED indicator illuminates when UpMix is operating in 7.1 channel output mode.

#### **Display and Controls**

**VACUUM FLUORESCENT DISPLAY** - A multi-function display that indicates current operating status of the unit and programming menus.

**ROTARY ENCODER** - A stepping optical rotary encoder is used to select values while in the menu system. To enter the menu, simply rotate the rotary encoder 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 an error message display from the home screen.

**HOME KEY** - A press of this button will return UpMix to its home screen, or enter home screen selection mode.

**BACK KEY** – 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**



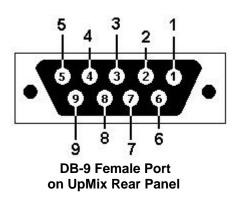
**AES INPUTS -** Three 75Ω BNC connectors will accept an AES3 digital audio stream.

**AES OUTPUTS -** Four 75 $\Omega$  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.

The AES-3id-1995/SMPTE 276M standard dictates a 75 $\Omega$  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 75 $\Omega$  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. Optoisolated inputs will be triggered by a voltage of 5VDC.



| Pin | Signal                  |
|-----|-------------------------|
| 1   | Output Relay 1 N.O.     |
| 2   | Relay 1 Common          |
| 3   | Optical Input 0         |
| 4   | Optical Input 1         |
| 5   | Optical<br>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-though operating mode.

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

Input 3: Unused at this time.

Input 4: Unused at this time.

**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**

|    | 0       | O INPUT LEVELS O | 0                |     |           | •       |
|----|---------|------------------|------------------|-----|-----------|---------|
|    | -12     | -12              | -12              | -12 | -12       | -12     |
| L, | -60 R - | 60<br>60 LFE     | -60<br>- Ls Rs - |     | -60 LFE - | -60 -60 |

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

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

*Items in italics are used when UpMix is configured to take a 5.1 audio stream and create a 7.1 audio stream (not supported in this code release).* 

#### **Home Screen**

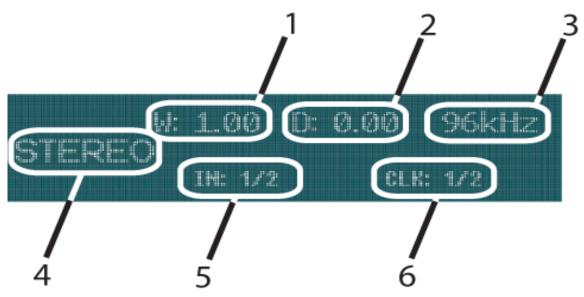


Figure 2. Home Screen on UpMix.

UpMix has been designed with ease of use in mind. Most of the common settings are available for modification right on the home screen. While the unit is at this screen, press the HOME key to invoke home screen selection mode; a selection box will appear. Turn the rotary encoder to move the box to the desired field to be changed and press the ENTER key to modify the value. Rotating the encoder again will cycle through the available options. Press ENTER again to confirm selection, or BACK to revert the setting to the last saved value. Pressing the HOME or BACK keys exits home screen selection mode.

- 1. **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)
- 2. **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)
- 3. **Sample Rate:** Shows the sample rate UpMix has detected from the clock source. When field 6 is set to INTERNAL, this field may be modified to the desired rate. (1/2, 3/4, 5/6, INT or EXT SYNC).
- 4. **Output Mode:** Defines what kind of signal UpMix is going to produce. (Bypass, Stereo, 2.1, 3.1, 4.1, 5.1, 6.1 or 7.1)
- 5. **Stereo Input:** Defines what physical BNC port UpMix will receive the audio input stream. (1/2, 3/4 or 5/6)
- 6. **Clock Source:** Will display the port that UpMix is using for AES Reference timing. 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 rotary encoder in any direction while at the HOME screen. The ENTER key will enter the currently selected sub menu or enter the value mode for the selected 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

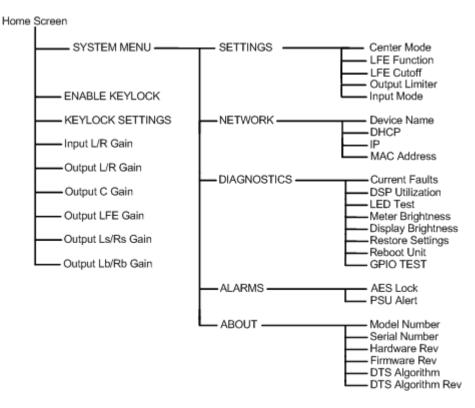


Figure 3. Visual Map of UpMix Menu System.

#### **Menu Functions and Descriptions**

While at the home screen, and not in home screen selection mode, rotate the encoder in any direction to enter the menu. From this screen you may navigate to the rest of the menu by selecting SYSTEM MENU. Also displayed are keylock controls and channel audio adjustments.

Selecting KEYLOCK from this menu will lock the front panel controls of the unit immediately. KEYLOCK SETTINGS sub-menu contains a time-out setting that will enable automatic locking of the controls after a user-specified time period has elapsed. To disable automatic keylock, select "OFF" from this menu.

**Channel Audio Adjustment:** Performs fine adjustment of the audio levels for the following audio channels (0 to -12dB):

- 1. Input L/R Gain Two channel stereo input level
- 2. Output L/R Gain Left Front and Right Front output level
- 3. Output LFE Gain Low Frequency Effects output level
- 4. Output C Gain Center channel output level
- 5. Output Ls/Rs Gain Left Surround and Right Surround output level
- 6. Output Lb/Rb Gain Left Back and Right Back output level

#### System Menu

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

#### Settings Menu

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

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

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**

UpMix has several configurable network settings. All of the UpMix 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. 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 rotary encoder 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 rotary encoder 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 DSP.

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

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

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

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

Reboot Unit: Performs a warm boot. No settings are erased or restored to defaults.

**GPIO Output:** Allows for testing of the internal signaling circuit within UpMix. The two fields displayed represent each output, 1 and 2, respectively.

**GPIO Input:** Shows the current state of the GPIO inputs. The four fields of the displayed status represent each input, 1-4, respectively.

#### Alarms Menu

All alarms are disabled by default at the factory. To take advantage of this function, the desired settings need to be enabled.

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.

Update packages will be available as a single .ZIP file for download. Compatible archive programs include Winzip (<u>www.winzip.com</u>) or WinRAR (<u>www.rarlabs.com</u>) and may be downloaded from their respective websites. The update package will contain four files; dsp2533.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.
- 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.
- 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 30 seconds.
- 8. Disconnect the cross-over cable and return your PC and UpMix to their original 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 subject to conditions contained herein.

DaySequerra products are sold worldwide, through a network of authorized DaySequerra dealers and distributors. This Warranty is for the sole benefit of the original purchaser of a DaySequerra product, purchased directly from an authorized DaySequerra dealer or distributor, is restricted to such original purchaser, and shall not be transferred to a subsequent purchaser of the product. Proof of purchase in the form of a bill of sale or receipted invoice substantiating that the product was purchased directly from an authorized DaySequerra dealer or distributor and is within the warranty period must be presented to obtain warranty service. Removal or alteration of the original DaySequerra serial number from a product automatically renders that product warranty null and void.

A Return Authorization Number must be obtained from DaySequerra in advance of return. 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.

DAY SEQUERRA 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 DAY SEQUERRA UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE COVERED PRODUCT, IN ACCORDANCE WITH THE TERMS SET FORTH HEREIN. DAY SEQUERRA 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 DAY SEQUERRA 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

For more information, please call 856-719-9900, visit www.daysequerra.com or email us at support@daysequerra.com.

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