

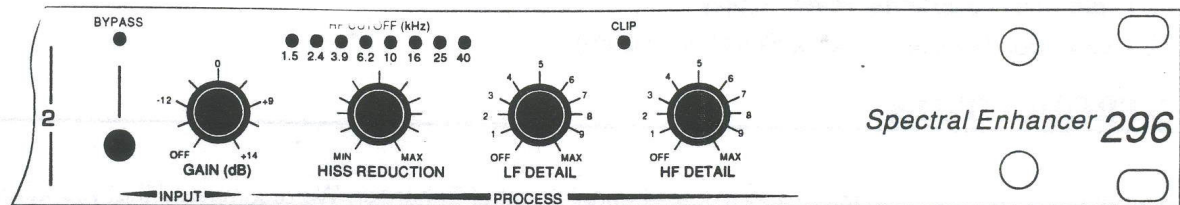
MODEL 296

SPECTRAL ENHANCER

dbx[®]
OPERATION MANUAL

OPERATING CONTROLS

Front Panel



Note: The INPUT and PROCESS controls are available independently for channel 1 and 2.

POWER LED: The red POWER LED lights when AC power is applied to the rear panel power jack.

INPUT Control

BYPASS Button and LED: Press this button in to bypass the front panel controls, effectively canceling the function and processing effect of the 296's enhancement settings. The input signal is still present at the 296's Output, but is now unaltered by the 296's controls. The BYPASS feature is especially useful for making comparisons between processed and unprocessed signals. (Note: the 296 BYPASS is hardwired. It will pass signal even if the unit is not powered.)

The red BYPASS LED lights when BYPASS is active.

GAIN (dB) Control: This control sets the level of the input signal. To add gain, rotate the control clockwise from 0. To attenuate the input signal, rotate the control counterclockwise from 0. Note that the 0 setting (control set to 12 o'clock position) is the nominal, or unity gain setting; in this case, the input is neither boosted or attenuated.

PROCESS Controls

HISS REDUCTION Control and HF CUTOFF LED Meter: Use the HISS REDUCTION control to activate the 296's high frequency filter. For normal operation, adjust this control clockwise from MIN until the audible hiss is reduced or eliminated. The fully counterclockwise setting turns the Hiss Reduction function Off. Note that HISS REDUCTION, when active, is applied to the dry input signal before any "detailing."

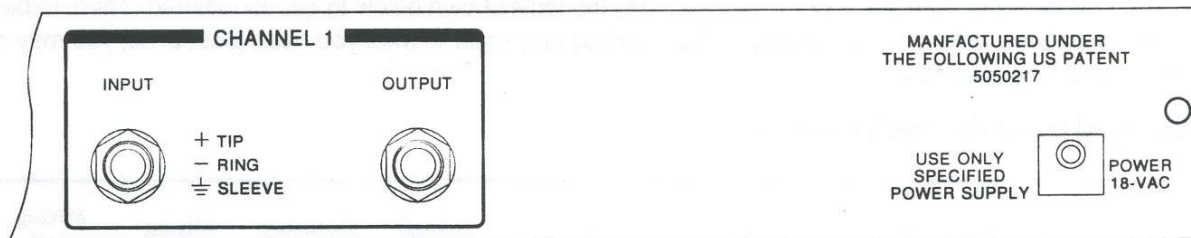
The HF CUTOFF LED meter is a useful guide to setting the HISS REDUCTION control because it shows the bandwidth of the filter at every moment, providing visual verification of the filter's audible effect.

LF DETAIL Control: Use this control to set the amount of low frequency energy that the 296 adds to the input signal. The LF DETAIL control boosts the "bottom end" frequencies (centered around 50Hz) while simultaneously cutting the "muddy" mid-bass frequencies. For most applications requiring LF DETAIL, start with the control at 5 and adjust as necessary. The fully counterclockwise setting turns this section Off.

HF DETAIL Control: Use this control to set the amount of high frequency energy that the 296 adds to the input signal. Continuous analysis of the input signal intelligently and automatically determines the amount of equalization necessary at each moment to achieve detailed, defined audio that is never shrill or over-sibilant. Modest settings (between 4 and 6) go a long way for most applications, and fully clockwise settings will be more than sufficient for almost any application. The fully counterclockwise setting turns the HF DETAIL Off.

CLIP LED: The red CLIP LED lights when the 296's controls are adjusted so that the unit is clipping. If this occurs, your output peaks may be exceeding +20dBu. Turn down one or more of the following 296 controls until the LED stays off: HF DETAIL, LF DETAIL, INPUT GAIN. If clipping is still evident at the 296 output, the input signal to the 296 is too "hot"; turn down the level of the unit driving the 296 (e.g., keyboard, preamp, mixer, etc.).

Rear Panel



INPUT Jacks: Use 1/4" phone plugs to connect these inputs to your source. The 296's INPUT jacks accept either balanced or unbalanced signals. Nominal input level is 0dBu and clipping level is +20dBu. Input impedance is 100k Ω .

OUTPUT Jacks: The OUTPUT jacks accept 1/4" phone plugs. Nominal output signal level is 0dBu into 600 Ω , and typical maximum output signal level is +20dBu into 600 Ω . Output impedance is 47 Ω . The outputs are single-ended (or unbalanced), Tip Hot.

AC Power Supply Jack Plug the AC Power Supply (shipped with your unit) into this jack and an appropriate AC power source. Note that the 296 does not have a power button. It is recommended that the 296 be "On" at all times. Power consumption is low. If you do not plan to use the 296 for an extended period of time, unplug it.

Warning: Be sure to verify your actual line voltage is the same as the voltage level printed on the power supply. Connection to an inappropriate power source may result in extensive damage which is not covered by the warranty.



OPERATING NOTES

Using the 296

The best way to become familiar with the 296, whether in the studio or live, is to pass audio through it and listen to the effects produced by turning the various controls. Use the table shown below to get you started. Then, experiment with the 296's controls and try different settings. You might be surprised at what you hear. Best of all, you may create the perfect sound for your needs.

Suggested Uses For Each Control

	Voice	Keyboard	Guitar	Bass Guitar	Drums	Strings/ Horns	Bouncing Tracks	Mixing Pre-Reverb	Mixing Post	Club Sound/ PA
Hiss Reduction	▶	▶	▶	▶	▶	▶	▶	▶	—	▶
Detail	—	▶	▶	▶	▶	▶	—	▶	▶	▶
HF Detail	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶

▶ Recommended; These sound sources can be effectively re-energized and enhanced with treatment. Use to taste.
 ▶ Program-Dependent; Use when program material requires treatment. Make sure you use only as much treatment as needed.
 — Not Recommended. The 296 is generally not applicable for these applications.

Hiss Reduction

Unlike the enhancement "detail" circuitry which enhances a signal and then mixes it back with the main signal at the device's output, the 296's HISS REDUCTION is applied to a signal before it reaches the enhancement circuitry. (Note that the hiss reduction acts upon the entire pre-processed signal.) Therefore, the sound you hear is actually composed of "detailed" signals mixed back together with the main audio path (which may have been hiss reduced).

The Hiss Reduction and HF Detail circuitry "talk" to each other. When the Hiss Reduction is active, the maximum amount of HF Detail that can be added to the signal is reduced.

This circuit is most effective when used in the tracking process. If your overall mix requires hiss reduction, be aware that with some types of reverb, the reverb effect may be diminished. When possible, add reverb after treatment with a 296.

"Detailing" Controls

The HF DETAIL and LF DETAIL controls are "level" controls that "mix" the desired effect into the original program material. Start with both controls set fully counterclockwise to defeat the effect. Advance either control to hear that control's effect.

HF Detail

On mixed program material, the HF DETAIL usually produces the best sound if adjusted in the 4 to 6 range; the detail and definition of the program material is improved, yet the material does not sound excessively shrill. If HF DETAIL processing is applied to single tracks, the control must be set to individual taste. Use your ears, and judge how the processing affects the sound of the track in the context of the entire mix. Generally, if the program material is very bright to begin with, you will hear little effect; if the program material is dull, you will hear very significant brightening. Note that for any HF processing to occur, there must be some high frequency signal content present in the input signal. The 296 also works well in treating final mixes which contain previously treated individual tracks because the unit will only add highs when they are below the threshold determined by the HF DETAIL control setting.

The HF DETAIL processing introduces surprisingly little noise because it intelligently differentiates noise from other program material and does not enhance noise.

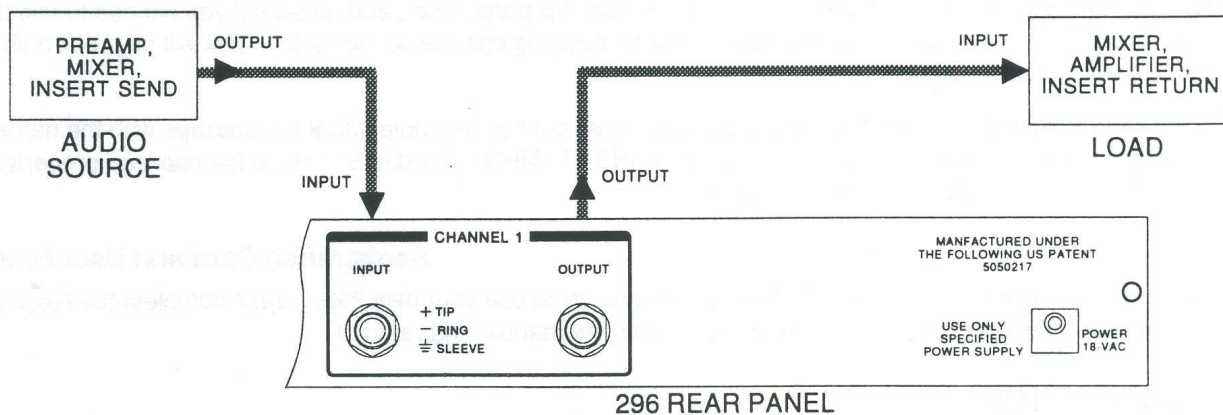
LF Detail

The 296's LF DETAIL is a static EQ that uses a specially derived curve to boost the lower bass frequencies, while cutting mid-bass mud. This "mud" can come from too many bounces on analog multi-track, limited EQ on a mixing console, improper miking techniques, etc. The circuit provides a very different type of effect than the EQ on a typical mixer — enhancing and re-energizing the signal's low end. Don't hesitate to re-adjust the LF DETAIL for different program input or different EQ settings on your mixer. The LF DETAIL can also be used in conjunction with bass enhancement devices (such as a dbx 120XP Subharmonic Synthesizer). Be careful not to exceed your system's maximum level handling capability when using extreme settings.

CONNECTING THE 296 TO YOUR SYSTEM

Basic Connection

The 296 can be used with any line-level device. Some common examples include mixing consoles, electronic musical instruments, patch bays, and signal processors.



For all connections, refer to the following steps:

1. Turn Off all equipment before making any connections.
2. Mount the 296 in a 1U rack space (Optional).

The 296 requires 1 rack space (height) and 1 rack space (width). It can be mounted above or below anything that doesn't generate excessive heat; it requires no special ventilation. Ambient temperatures should not exceed 113°F (45°C) when equipment is powered.

Note: Avoid over-tightening of rackmounting screws as this could damage the front panel.

Caution: Never remove the cover. There are no user-serviceable parts inside.

3. Make connections via 1/4" phone jacks according to your requirements.

When connecting your 296, consider the following patch points: a mixer's channel or subgroup inserts when using the 296 on individual instruments or tracks; the mixer's main outputs when mixing; main outs of a submixer (i.e., keyboard mixer) as the signal is sent to main mixer; between a DAT's output and an analog cassette input. When using a chain of processors, the 296 may be placed either before or after effects or dynamics processors. We recommend you use common sense and experiment with different setups to see which one provides the best results for your needs. For example, when mixing material while adding reverb, the 296 usually works best when placed



before the reverb.

4. Connect the AC power supply (shipped with the unit) to the 296's rear panel POWER jack and an appropriate AC power source.

Note: Check the line voltage (printed on the power supply) and verify that it is correct.

TECHNICAL SUPPORT, FACTORY SERVICE

Technical Support, Factory Service

The 296 is an all-solid-state product with components chosen for high performance and excellent reliability. Each 296 is tested, burned in and calibrated at the factory and should require no internal adjustment of any type throughout the life of the unit. We encourage you to return the 296 to the factory only after referring to the manual and consulting with Customer Service.

Our phone number, Fax number and address are listed on the inside front cover. When you contact dbx Customer Service, be prepared to accurately describe the problem. Know the serial number of your unit — this is printed on a sticker attached to the rear panel.

Note: Please refer to the terms of your Limited Two-Year Standard Warranty, which extends to the first end-user. After the warranty expires, a reasonable charge will be made for parts, labor, and packing if you choose to use the factory service facility. In all cases, you are responsible for shipping charges to the factory. dbx will pay return shipping if the unit is still under warranty.

Shipping Instructions: Use the original packing material if it is available. Mark the package with the name of the shipper, and with these words in red: "DELICATE INSTRUMENT, FRAGILE!" Insure the package properly. Ship prepaid, not collect. Do not ship parcel post.

Registration Card and User Feedback

We appreciate your feedback. After you have an opportunity to use your new 296, please complete the Registration Card (located in the back of this manual), detach it from the manual and return it.

SCHEMATICS

Schematics for the 296 are provided in the 296 Service Manual, available from our Customer Service Department for a nominal fee.

SPECIFICATIONS

Note: 0dBu = 0.775Vrms

Specifications are subject to change.

Frequency Response	20Hz - 20kHz, +0dB, -1.0dB 5Hz - 40kHz, +0dB, -3.0dB; Referenced to 1kHz
Input (Balanced or Unbalanced)	
Impedance	100k Ω
Max Level	+20dBu
Gain	Adjustable; $-\infty$ to +14dB
Output	
Impedance	47 Ω
Max Level	+20dBu into 600 Ω (Unbalanced)
Distortion + Noise	<0.1% (Typically 0.02%) 20Hz - 20kHz, 0dBu Output
Noise	<-80dBu, Unweighted, 20Hz - 20kHz Bandwidth.
Dynamic Range	>100dB, Unweighted
Crosstalk	<-90dBu @ 1kHz
Common Mode Rejection	>40dB (Any Frequency)
Controls (per channel)	Input Gain, Hiss Reduction, LF Detail, HF Detail, Bypass
Metering (per channel)	Cutoff Frequency, Clip
Power Requirements	AC provided by external power supply included with unit.
Operating Temperature	0°C to 45°C (32°F to 113°F)
Dimensions (H x D x W)	1.75" x 4" x 19" (4.45cm x 10.16cm x 48.5cm)
Rack Space	1 Rack Unit
Weight	Net Weight: 3 lbs (1.38 kg); Shipping Weight: 5 lbs (2.3 kg)

WARRANTY

United States Warranty

Limited Warranty

This warranty is valid only for the original purchaser and only in the United States. We warrant dbx products against defects in material or workmanship for a period of two years from the date of original purchase for use, and agree to repair or, at our option, replace any defective item, except external power transformers, without charge for either parts or labor.

IMPORTANT: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts, or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center. No responsibility is assumed for any special, incidental or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law.

Simply take or ship your dbx product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) dbx will pay return shipping.

NOTE: No other warranty, written or oral is authorized for dbx products.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion of limitations of incidental or consequential damages or limitations on how long an implied warranty lasts. See the state laws for more information.

International Warranty

Bedingungen

dbx gewährt 2 Jahre Garantie ab Verkaufsdatum auf nachweisbare Material- und Fabrikationsfehler (ausgenommen externe Netzgeräte). Der Garantieanspruch erlischt bei unsachgemäßer Handhabung, elektrischer oder mechanischer Beschädigung durch mißbräuchliche Anwendung sowie bei unsachgemäßer Reparatur durch nichtautorisierte Werkstätten. Zur Inanspruchnahme der angeführten Garantieleistung ist der Nachweis des Kaufes (ordentliche Rechnung des Verkäufers erforderlich). Transport- und Portospesen, welche aus der Einsendung des Gerätes zur Garantiereparatur erwachsen, können von dbx nicht übernommen werden, das Risiko der Zusendung trägt der Kunde. Die Garantie wird ausschließlich für den ursprünglichen Käufer geleistet.

Warranty Conditions

dbx warrants dbx products (except for external power transformers) against evident defects in material and workmanship for a period of two years from the date of original purchase for use. This warranty does not cover damage resulting from misuse or abuse, or lack of reasonable care, and inadequate repairs performed by unauthorized service centers. Performance of repairs or replacements under this warranty is subject to proof of purchase. Shipment of the defective item for repair under this warranty will be at the customer's own risk and expense. This warranty is valid for the original purchaser only.

Conditions de garantie

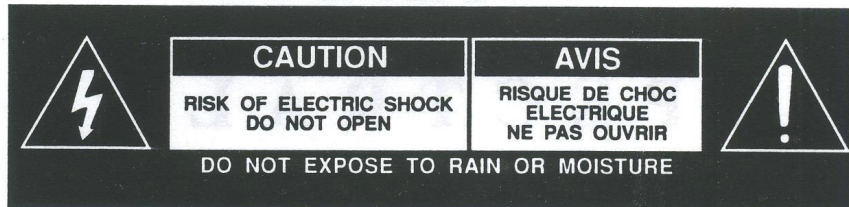
Pour toute mise en œuvre de garantie ou de service après-vente, vous devez vous adresser à votre revendeur. Notre société assure au revendeur le remplacement gratuit des pièces détachées nécessaires à la réparation pendant deux ans, à partir de la date de votre facture, sauf en cas de non respect des prescriptions d'utilisation ou lorsqu'une cause étrangère à l'appareil est responsable de la défaillance. Cette garantie n'est pas appliquée pour les transformateurs external. Les dispositions stipulées ci-dessus ne sont pas exclusives du bénéfice au profit de l'acheteur de la garantie légale pour défaut et vice cachés qui s'applique, en tout état de cause, dans les conditions des articles 1641 et suivants du Code Civil.

Condizioni di garanzia

L'dbx presta garanzia per due anni dalla data della vendita per difetti di materiale e fabbricazione che possono essere provati. Il diritto di garanzia cessa in caso di manipolazione impropria, danneggiamento elettrico o meccanico attraverso l'uso non appropriato e riparazione inesperta eseguita da officine non autorizzate. E' indispensabile, per la prestazione della garanzia, presentare la carta di garanzia debitamente riempita dal rivenditore autorizzato e la fattura di vendita. Spese di trasporto che risultano dall'invio dell'impianto per la riparazione in garanzia, non possono essere assunte dall'dbx l'invio è a rischio e pericolo del cliente. La garanzia verrà data solo al primo acquirente.

Condiciones de garantía

dbx concede dos años de garantía (menos fuentes de poder exteriores) por defectos comprobables de material o de fabricación a partir de la fecha de venta. El derecho de garantía caduca en caso de procederse a una manipulación inadecuada en caso de producirse daño eléctrico o mecánico por uso indebido, así como también en caso de reparaciones inadecuadas por parte de talleres no autorizados. La prestación de la garantía está sujeta a la presentación de la factura de compra. dbx no asume ningún gasto de transporte o correo incurrido por el envío del aparato defectuoso para la reparación bajo garantía; el riesgo del envío ha de ser asumido por el cliente. La garantía se concede única y exclusivamente al comprador original.



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure — voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

Manufactured under one or more of the following U.S. patents: 3,377,792; 3,681,618; 3,714,462; 3,789,143; 4,097,767; 4,329,598; 4,403,199; 4,409,500; 4,425,551; 4,473,795, 5,050,217. Other patents pending.

This dbx-branded product has been manufactured in the United States of America.

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This manual is part number 96048-000-03C

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dbx Professional Products

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H A Harman International Company

IMPORTANT SAFETY INSTRUCTIONS

All the safety and operating instructions should be read before the appliance is operated.

Retain Instructions: The safety and operation instructions should be retained for future reference.

Heed Warnings: All warnings on the appliance and in the operating instructions should be adhered to.

Follow Instructions: All operation and user instructions should be followed.

Water and Moisture: The appliance should not be used near water (e.g., near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.).

Ventilation: The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Heat: The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

Power Sources: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

Grounding or Polarization: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

Power-Cord Protection: Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

Cleaning: The appliance should be cleaned only as recommended by the manufacturer.

Non-use Periods: The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

Object and Liquid Entry: Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

Damage Requiring Service: The appliance should be serviced by qualified service personnel when:

- The power supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped, or the enclosure damaged.

Servicing: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

The Appliance should be used only with a cart or stand that is recommended by the manufacturer.

Safety Instructions (European)

Notice For U.K. Customers If Your Unit Is Equipped With A Power Cord.

WARNING: THIS APPLIANCE MUST BE EARTHED.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, (⚡), or coloured green, or green and yellow.

The core which is coloured blue must be connected to the terminal marked N or coloured black.

The core which is coloured brown must be connected to the terminal marked L or coloured red.



The power cord is terminated in a CEE7/7 plug (Continental Europe). The green/yellow wire is connected directly to the unit's chassis. If you need to change the plug and if you are qualified to do so, refer to the table below.

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN-YELLOW	GREEN

AC Power Cord Color Coding

Safety Instructions (German)

Gerät nur an der am Leistungsschild vermerkten Spannung und Stromart betreiben.

Sicherungen nur durch solche, gleicher Stromstärke und gleichen Abschaltverhaltens ersetzen. Sicherungen nie überbrücken.

Jedwede Beschädigung des Netzkabels vermeiden. Netzkabel nicht knicken oder quetschen. Beim Abziehen des Netzkabels den Stecker und nicht das Kabel erfassen. Beschädigte Netzkabel sofort auswechseln.

Gerät und Netzkabel keinen übertriebenen mechanischen Beanspruchungen aussetzen.

Um Berührung gefährlicher elektrischer Spannungen zu vermeiden, darf das Gerät nicht geöffnet werden. Im Fall von Betriebsstörungen darf das Gerät nur von befugten Servicestellen instandgesetzt werden. Im Gerät befinden sich keine, durch den Benutzer reparierbare Teile.

Zur Vermeidung von elektrischen Schlägen und Feuer ist das Gerät vor Nässe zu schützen. Eindringen von Feuchtigkeit und Flüssigkeiten in das Gerät vermeiden.

Bei Betriebsstörungen bzw. nach Eindringen von Flüssigkeiten oder anderen Gegenständen, das Gerät sofort vom Netz trennen und eine qualifizierte Servicestelle kontaktieren.

Safety Instructions (French)

On s'assurera toujours que la tension et la nature du courant utilisé correspondent bien à ceux indiqués sur la plaque de l'appareil.

N'utiliser que des fusibles de même intensité et du même principe de mise hors circuit que les fusibles d'origine. Ne jamais shunter les fusibles.

Eviter tout ce qui risque d'endommager le câble seceur. On ne devra ni le plier, ni l'aplatir. Lorsqu'on débranche l'appareil, tirer la fiche et non le câble. Si un câble est endommagé, le remplacer immédiatement.

Pour éviter tout contact avec une tension électrique dangereuse, on n'ouvrira jamais l'appareil. En cas de dysfonctionnement, l'appareil ne peut être réparé que dans un atelier autorisé. Aucun élément de cet appareil ne peut être réparé par l'utilisateur.

Pour éviter les risques de décharge électrique et d'incendie, protéger l'appareil de l'humidité. Eviter toute pénétration d'humidité ou fr liquide dans l'appareil.

En cas de dysfonctionnement ou si un liquide ou tout autre objet a pénétré dans l'appareil couper aussitôt l'appareil de son alimentation et s'adresser à un point de service après-vente autorisé.

Safety Instructions (Spanish)

Hacer funcionar el aparato sólo con la tensión y clase de corriente señaladas en la placa indicadora de características.

Reemplazar los fusibles sólo por otros de la misma intensidad de corriente y sistema de desconexión. No poner nunca los fusibles en puente.

Proteger el cable de alimentación contra toda clase de daños. No doblar o apretar el cable. Al desenchufar, asir el enchufe y no el cable. Sustituir inmediatamente cables dañados.

No someter el aparato y el cable de alimentación a esfuerzo mecánico excesivo.

Para evitar el contacto con tensiones eléctricas peligrosas, el aparato no debe abrirse. En caso de producirse fallos de funcionamiento, debe ser reparado sólo por talleres de servicio autorizados. En el aparato no se encuentra ninguna pieza que pudiera ser reparada por el usuario.

Para evitar descargas eléctricas e incendios, el aparato debe protegerse contra la humedad, impidiendo que penetren ésta o líquidos en el mismo.

En caso de producirse fallos de funcionamiento como consecuencia de la penetración de líquidos u otros objetos en el aparato, hay que desconectarlo inmediatamente de la red y ponerse en contacto con un taller de servicio autorizado.

Safety Instructions (Italian)

Far funzionare l'apparecchio solo con la tensione e il tipo di corrente indicati sulla targa riportante i dati sulle prestazioni.

Sostituire i dispositivi di protezione (valvole, fusibili ecc.) solo con dispositivi aventi lo stesso amperaggio e lo stesso comportamento di interruzione. Non cavallottare mai i dispositivi di protezione.

Evitare qualsiasi danno al cavo di collegamento alla rete. Non piegare o schiacciare il cavo. Per staccare il cavo, tirare la presa e mai il cavo. Sostituire subito i cavi danneggiati.

Non esporre l'apparecchio e il cavo ad esagerate sollecitazioni meccaniche.

Per evitare il contatto con le tensioni elettriche pericolose, l'apparecchio non deve venir aperto. In caso di anomalie di funzionamento l'apparecchio deve venir riparato solo da centri di servizio autorizzati. Nell'apparecchio non si trovano parti che possano essere riparate dall'utente.

Per evitare scosse elettriche o incendi, l'apparecchio va protetto dall'umidità. Evitare che umidità o liquidi entrino nell'apparecchio.

In caso di anomalie di funzionamento rispettivamente dopo la penetrazione di liquidi o oggetti nell'apparecchio, staccare immediatamente l'apparecchio dalla rete e contattare un centro di servizio qualificato.

INSPECTION

1. Verify that the 296 package contains the following:

- 296 Unit and External Power Supply
- Operation Manual (including Registration Card)

INTRODUCTION

Congratulations on choosing the dbx 296 dual-channel Spectral Enhancer. We recommend that you take a moment and read through the manual as it provides information that will assist you in using your unit to its fullest potential.

The 296 takes a new and innovative approach to restoring detail to instruments, vocals and mixed program material on stage or in the studio. Unlike exciters and static HF boosters, which add distortion artifacts and hiss to the processed signal, the 296's "intelligent" circuitry acts dynamically and interactively to reduce hiss while dramatically improving detail and clarity. Its dynamic shelving filter provides up to 9.5dB of hiss reduction while leaving legitimate high frequency program content untouched.

The HF Detail circuitry in the 296 uses a dynamic shelving equalizer to provide results superior to even complex equalization. In many situations, the amount of high frequency content in the material you are working with will vary. Typical equalization schemes will produce results which are right some of the time, and completely wrong at other times. But not with the 296. The equalizer's dynamic operation and sliding corner frequency insure that high frequency enhancement is applied *only when needed* and in the *specific* frequency range necessary to maintain proper spectral balance moment to moment.

The LF Detail section in each channel of the 296 adds punch and definition at the lower end of the spectrum. As you increase the amount of LF Detail, this newly-developed dbx circuit boosts lower bass frequencies while *simultaneously* cutting problem frequencies in the upper bass/low midrange region which often muddy up program material. The 296 adds power and fullness to kick drums, electric synths and basses without ever getting boomy, flabby or muddy.

Use the 296 to resurrect older digital synths, add life to dull vocals and clarify cloudy guitar tracks without adding noise or harshness. Its HF Detail is also perfect for adding a nice, crispy edge to acoustic or electronic snare drums.

Note that the 296 is a through device and best results are obtained when it is used as a throughput device or with an insert. The 296 is not meant to be used in an effects loop. The 296's control settings will determine the "mix."