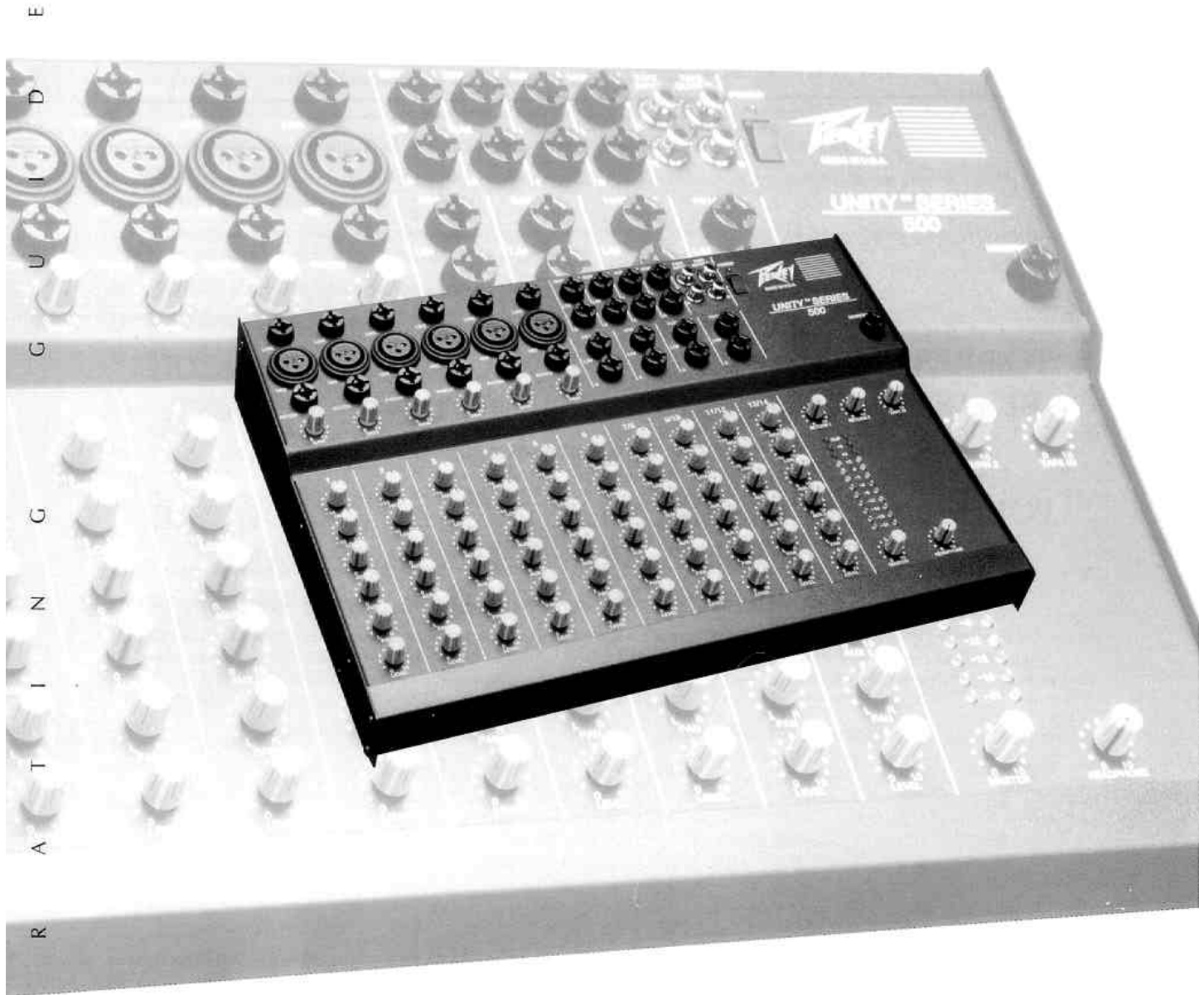


UNITY™ SERIES 500

MIXER



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Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock – DO NOT OPEN!

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

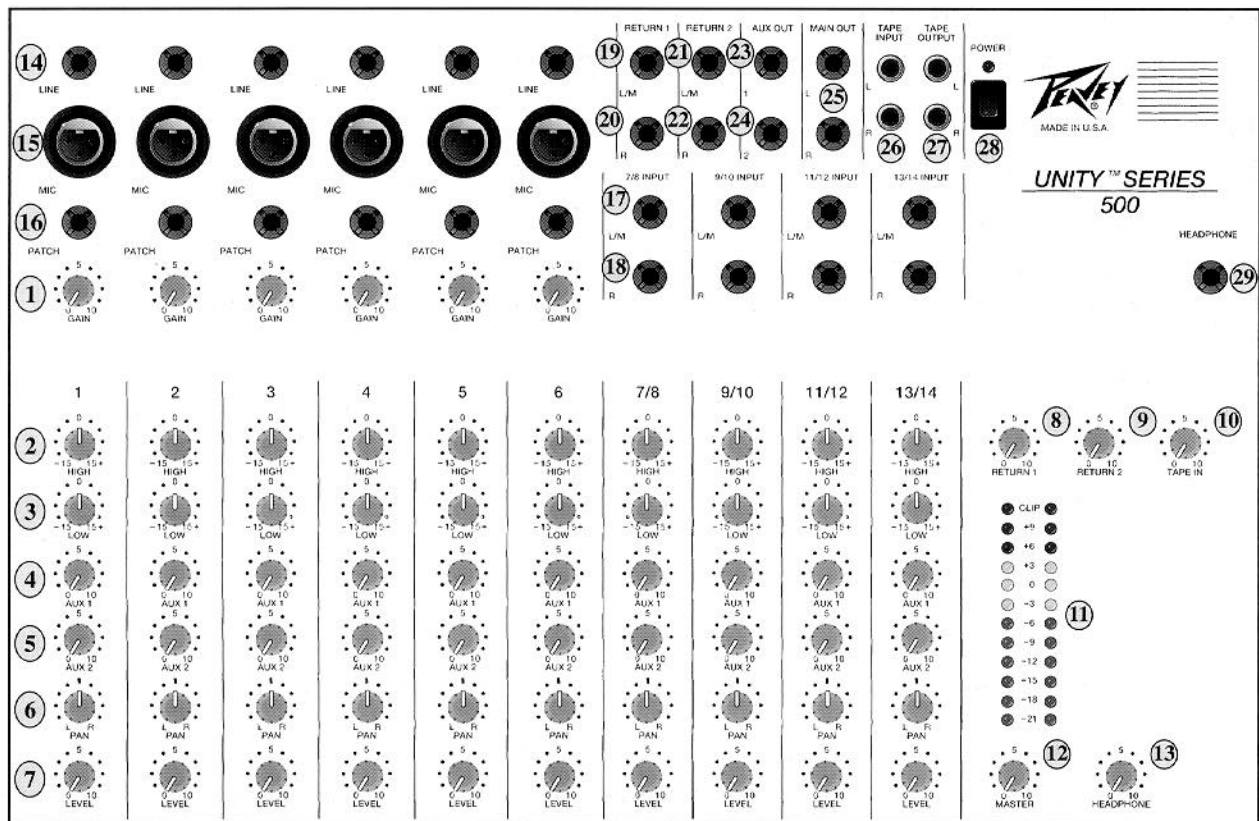
WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.

CAUTION:

TO PREVENT ELECTRICAL SHOCK, MATCH THE WIDE
BLADE OF THE PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION:

POUR EVITER LES CHOC ELECTRIQUES, INTRODUIRE
LA LAME LA PLUS LARGE DE LA FICHE DANS
LA BORNE CORRESPONDANTE DA LA PRISE ET
POUSSER JUSQU'AU FOND.



GAIN (1)

Varies the gain of the channel input stage to allow a wide input dynamic range. Proper adjustment of the input gain will maximize the signal to noise ratio.

HIGH EQ (2)

A shelving type of active tone control that varies the high (treble) frequency range ± 15 dB.

LOW EQ (3)

A shelving type of active tone control that varies the low (bass) frequency range ± 15 dB.

AUX 1 (4)

Adjusts the level of the channel signal added into the Aux 1 mix. This control is post fader.

AUX 2 (5)

Adjusts the level of the channel signal added into the Aux 2 mix. This control is post fader.

PAN (6)

Assigns the channel to any position in the Left-Right stereo field. For mono operation, the channel should be assigned to the Left or Right mix. On channels 7 - 14, this control functions as a balance control for the paired channels if a stereo signal is applied to the Left and Right input jacks. It is a pan control for mono inputs.

CHANNEL LEVEL (7)

Sets the level of the channel to the Left and Right mixes. The detent (channels 1 - 6) is at the 0 dB (unity gain; mid position) point to assure an optimum balance between noise and headroom.

STEREO RETURN 1 LEVEL (8)

Adjusts the level of the Stereo Return 1 that is added into the Left-Right mix.

STEREO RETURN 2 LEVEL (9)

Adjusts the level of the Stereo Return 2 that is added into the Left-Right mix.

TAPE INPUT LEVEL (10)

Adjusts the stereo level of the Tape signal added to the Left-Right mix.

LED METER ARRAYS (11)

Two 12 point LED arrays are provided to visually indicate the levels of the Left and Right mixes. The clip LED lights when the levels reach +12 dBV, 6 dBV below the actual clip level as a warning of loss of headroom.

MASTER (12)

This adjusts the master level for the Left and Right mix, and sets the overall output levels of the Left and Right output jacks.

HEADPHONE LEVEL (13)

Adjusts the level of the Left and Right signals to the headphone jack. This signal is independent of the Master Level Control. (pre-fader)

LINE INPUT (14)

High impedance channel input designed for unbalanced high level signals equipped with a 1/4" phone plug.

LOW Z MIC INPUT (15)

Channel input designed for use with a balanced low impedance mic or low level source equipped with an XLR connector.

PATCH (16)

A stereo jack that breaks the signal before EQ to allow for an external compressor or graphic EQ to be inserted into the channel. Tip = Send, Ring = Return.

STEREO LINE INPUT, LEFT/MONO (Channels 7, 9, 11, 13) (17)

A high impedance input for devices having a high level output and 1/4" phone plugs. Mono inputs should be connected to this input. It supplies a signal to both the Left and Right mix of corresponding channels, which can be positioned by the channel Pan control. If a stereo input is used, the Left output should be connected to this jack.

STEREO LINE INPUT, RIGHT (Channels 8, 10, 12, 14) (18)

A high impedance input for devices having a high level output and 1/4" phone plugs. When a stereo device is connected, the Right output from the device should be connected to this jack. (See Left/Mono Return.)

RETURN 1, LEFT/MONO (19)

Mono effect devices connected to the Aux 1 output may be returned at this point. This input supplies a mono signal to both the Left and Right mix if there is no plug connected to the Return 1 Right jack. When a stereo effects device is connected, its Left output should be returned to this jack.

RETURN 1, RIGHT (20)

When a stereo effect device is connected to the Aux 1 output, the Right output from the device should be returned to this jack. (See Left/Mono Return.)

RETURN 2, LEFT/MONO (21)

Mono effect devices connected to the Aux 2 output may be returned at this point. This input supplies a mono signal to both the Left and Right mix if there is no plug connected to the Return 2 Right jack. When a stereo effects device is connected, its Left output should be returned to this jack.

RETURN 2, RIGHT (22)

When a stereo effect device is connected to the Aux 2 output, the Right output from the device should be returned to this jack. (See Left/Mono Return.)

AUX 1 OUT (23)

Output of the Aux 1 mix to external effects or signal processing equipment. The level is set by the Aux 1 signals from the channels.

AUX 2 OUT (24)

Output of the Aux 2 mix to external effects or signal processing equipment. The level is set by the Aux 2 signals from the channels.

LEFT OUTPUT/RIGHT OUTPUT (25)

These are the outputs of the Left-Right mix that are adjusted by the Master fader.

TAPE INPUT JACKS (26)

Receives a line level stereo input from the output of a tape deck or CD player.

TAPE OUTPUT JACKS (27)

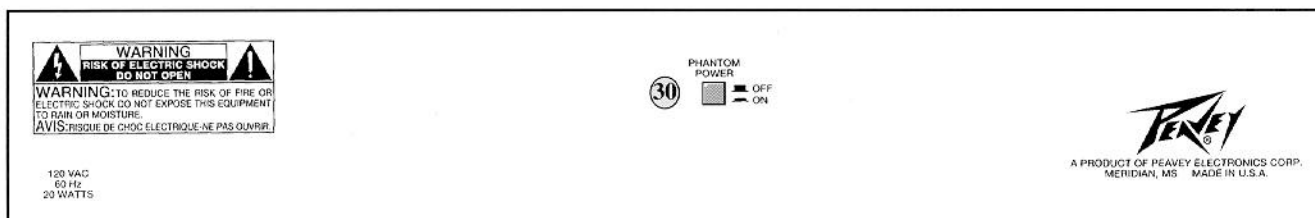
Provides stereo signal to the Left and Right input of a stereo tape deck. The level is a 10 dB attenuation of the Left and Right output signals.

POWER SWITCH and LED (28)

Press toward LED to turn on. LED will illuminate when power is on.

HEADPHONE JACK (29)

This stereo jack provides signal to drive stereo headphones. Tip = Left, Ring = Right.



PHANTOM POWER (30)

Press to enable 48 V phantom mic power to all input XLR connectors.

SPECIFICATIONS

Summary of Functions:

Six mic/line (low Z balanced and high Z unbalanced) input channels with patch connections; four stereo (or eight mono) unbalanced high Z line inputs; two stereo returns to the left and right mains; stereo tape inputs and outputs (high Z); left and right balanced (TRS) main outputs; headphone output; high and low shelving EQ on all channels; two aux sends on each channel; gain adjustment on mic channels; 12 step LED meters on left and right outputs.

Note: These measurements are made using the balanced outputs.

XLR Mic Inputs: (Channels 1 - 6):

Input Impedance: 150 - 600 ohms, balanced
Nominal Input Level: -35 dBV, 18 mV RMS
Minimum Input Level: -50 dBV, 3 mV RMS
Maximum Input Level: +18 dBV, 8 V RMS

Line Inputs:

Input Impedance: 20 K ohms, unbalanced
Nominal Input Level: -23 dBV, 70 mV RMS
Minimum Input Level: -38 dBV, 13 mV RMS
Maximum Input Level: +26 dBV, 20 V RMS

Stereo Line Inputs:

Input Impedance: 10 K ohms, unbalanced
Nominal Input Level: -6 dBV, .5 V RMS
Minimum Input Level: -26 dBV, 50 mV RMS
Maximum Input Level: +26 dBV, 20 V RMS

Left & Right Outputs:

Balanced TRS
Load Impedance: 600 ohms or greater
Nominal Output: 0 dBV, 1 V RMS
Maximum Output: +26 dBV, 20 V RMS

AUX Outputs:

Unbalanced
Load Impedance: 600 ohms or greater
Nominal Output: 0 dBV, 1 V RMS
Maximum Output: +20 dBV, 10 V RMS

Return Inputs:

Input Impedance: 10 K ohms, unbalanced
Nominal Input Level: -6 dBV, .5 V RMS
Minimum Input Level: -26 dBV, 50 mV RMS
Maximum Input Level: +26 dBV, 20 V RMS

Tape Inputs:

Input Impedance: 10 K ohms, unbalanced

Nominal Input Level: -16 dBV, 160 mV RMS
Minimum Input Level: -26 dBV, 50 mV RMS
Maximum Input Level: +26 dBV, 20 V RMS

The following specs are measured with all tone controls set flat, all gain controls set mid position, and all low Z inputs terminated with 150 ohms.

Frequency Response:

+0, -1 dB, 20 Hz - 22 kHz

Noise:

-83 dBV

E.I.N. (Equivalent Input Noise):

-129 dBV @ 150 ohms

Distortion:

Less than .02% THD @ 1 V RMS out

Equalization:

±15 dB @ 50 Hz and 13 kHz shelving

Crosstalk:

Less than -50 dB @ 1 kHz

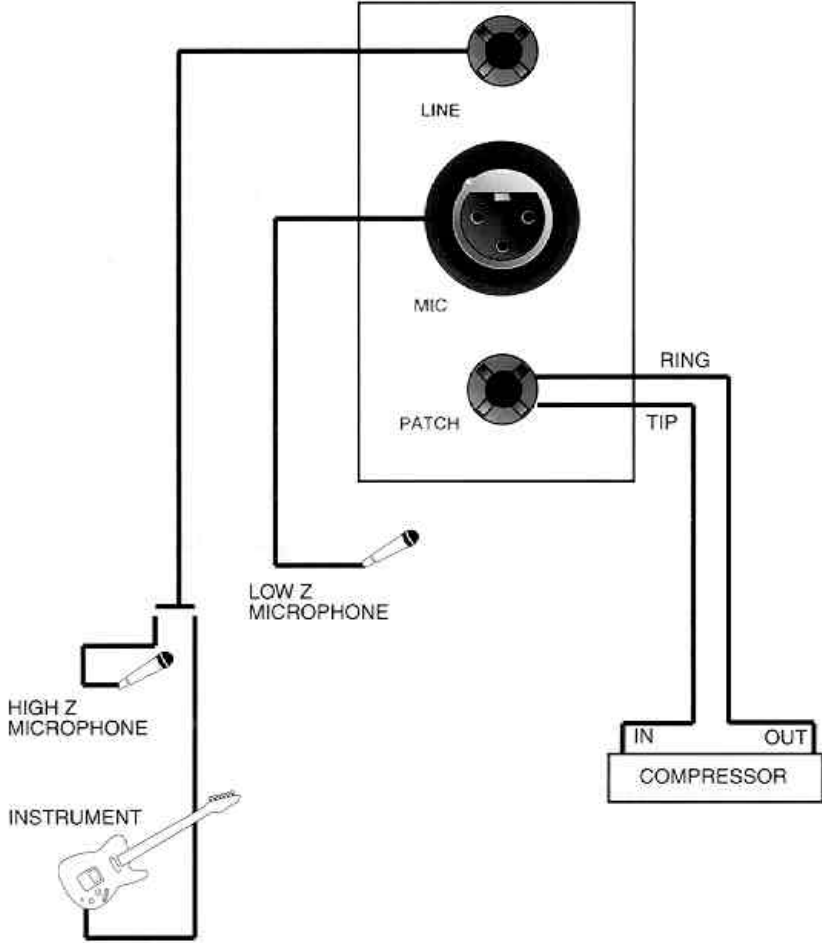
Maximum Available Gain:

+20 dB master
+20 dB channel
+40 dB input gain
+80 dB total gain possible

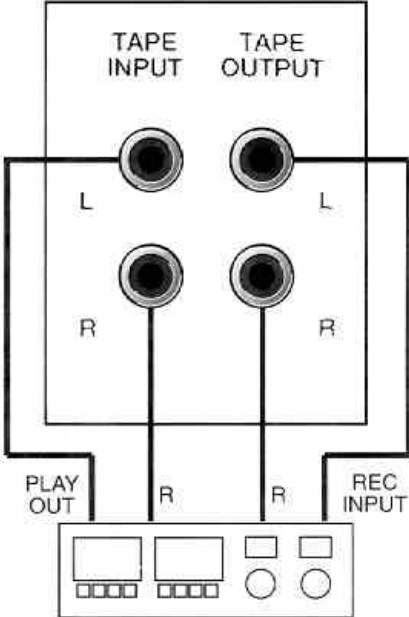
Power Requirements:

120 V AC, 60 Hz, 20 watts
240 V AC, 50/60 Hz, 20 watts

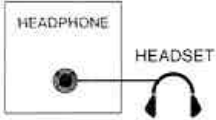
MIC CHANNELS 1 - 6



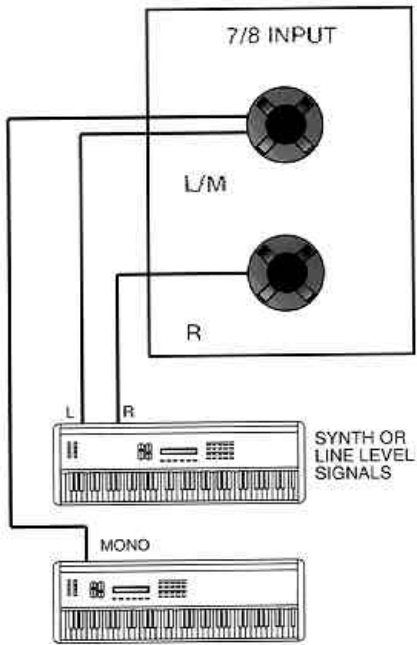
TAPE



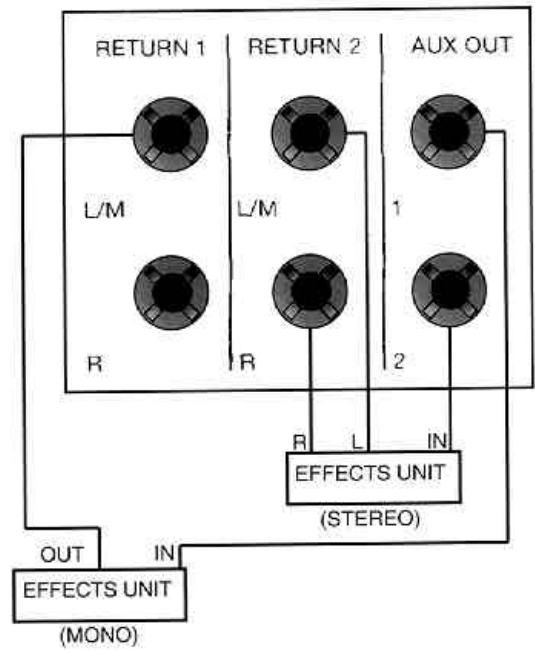
HEADPHONE



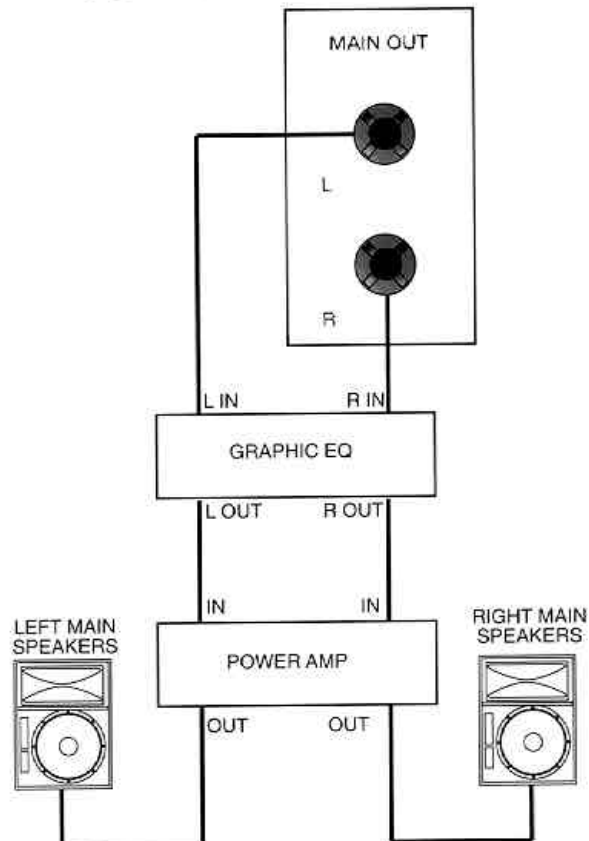
LINE CHANNELS 7 - 14

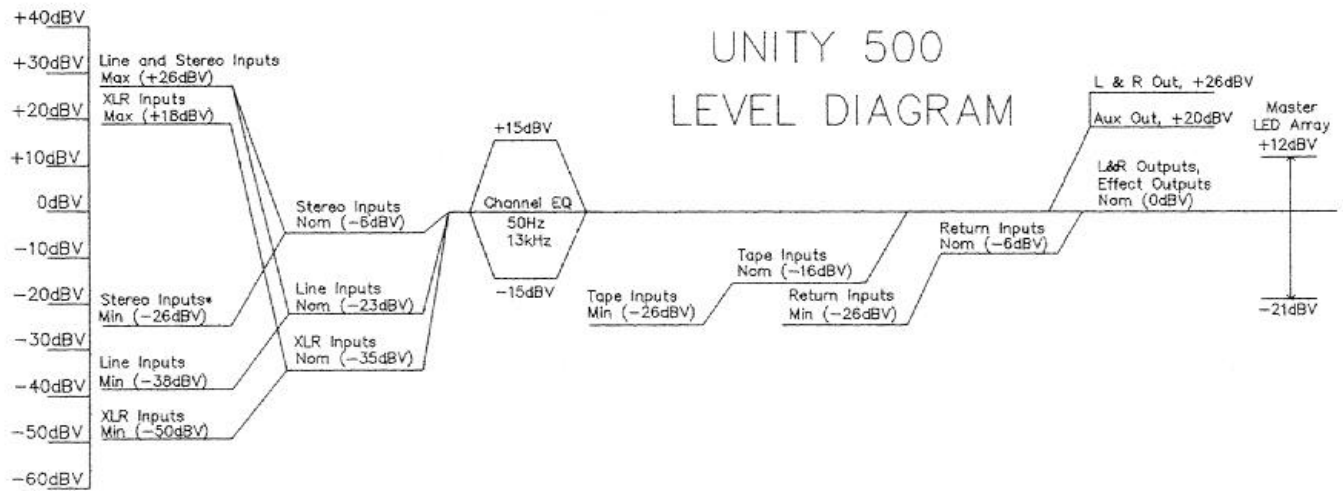
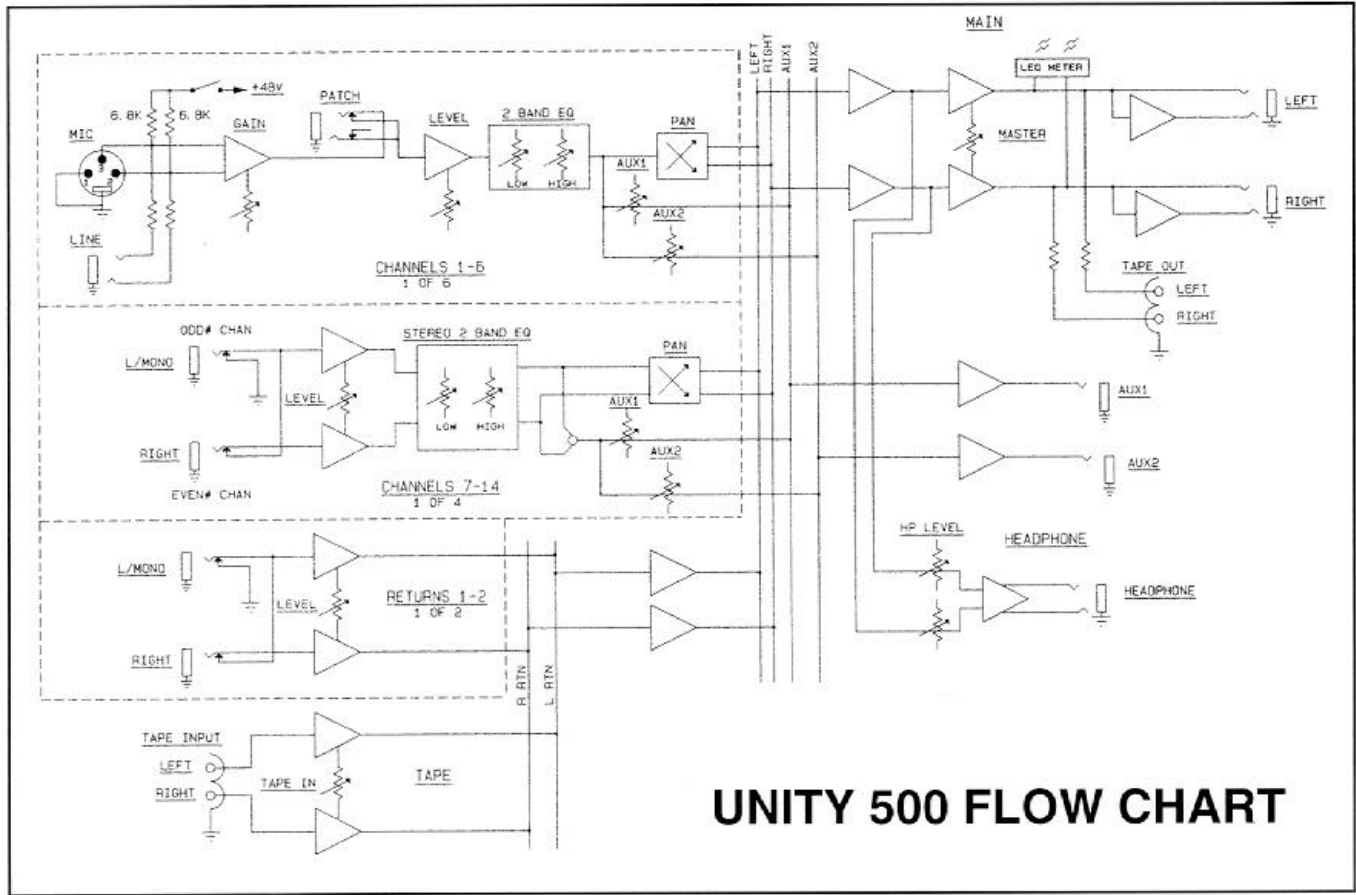


AUX



OUTPUT





* Note:
The channel level control
is used for this
gain adjustment

NOMINAL GAIN SETTINGS DEFINED:
All level controls at mid position
All tone controls flat
All pan controls fully assigned L or R
Output is balanced
(For unbalanced output increase minimums and nominal by 6dB)

THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY. Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur. Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes países.

PEAVEY ONE-YEAR LIMITED WARRANTY/REMEDY

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions, and limitations hereinafter set forth:

PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES

These limited warranties shall be void and of no effect, if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

- a. In the case of tubes or meters, replace the defective component without charge.
- b. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

- a. Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product.

If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

OR

- b. Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION
International Service Center
326 Hwy. 11 & 80 East
MERIDIAN, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items:

If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESSED, LIMITED WARRANTIES, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of expressed or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

INSTRUCTIONS — WARRANTY REGISTRATION CARD

1. Mail the completed WARRANTY REGISTRATION CARD to:

PEAVEY ELECTRONICS CORPORATION
POST OFFICE BOX 2898
MERIDIAN, MISSISSIPPI 39302-2898

- a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation.
2. **IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES:**
 - a. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
 - b. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.
3. You may contact Peavey directly by telephoning (601) 483-5365.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.

Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS!



Features and specifications subject to change without notice.

Peavey Electronics Corporation 711 A Street / Meridian, MS 39301 / U.S.A. / (601) 483-5365 / Fax 486-1278

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