



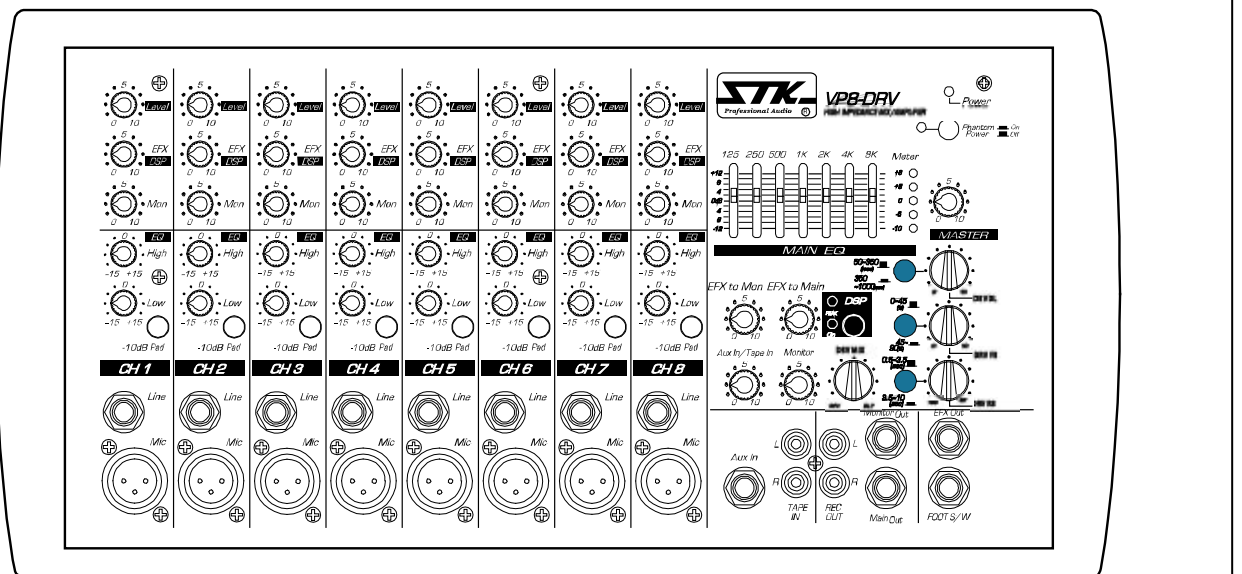
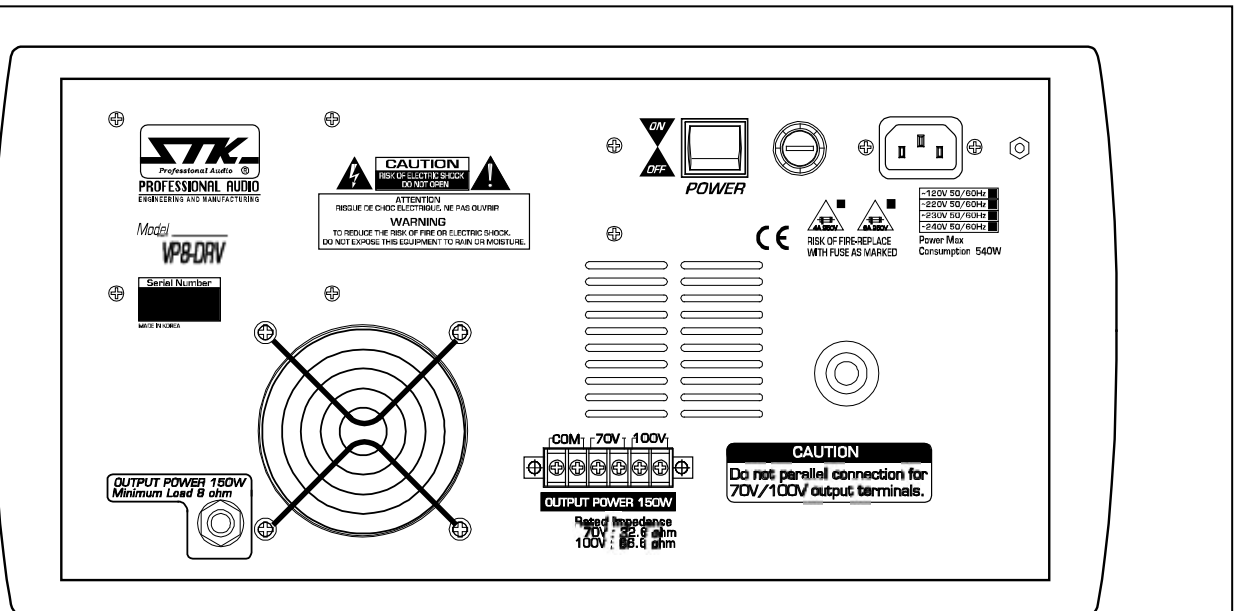
PROFESSIONAL AUDIO

ENGINEERING AND MANUFACTURING

VP8-DRV Dual Purpose Powered Mixer

OWNER'S MANUAL

ENGLISH





PROFESSIONAL AUDIO

ENGINEERING AND MANUFACTURING

VP8-DRV Powered Mixers

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I Introduction

The new VP8-DRV mixers offer solid, feature-packed performance in a compact, economical format. The VP8-DRV features 8 channels. Each channel incorporates a low impedance, XLR input and a high impedance 1/4" phone jack input. Separate pre-monitor sends, active high and low equalization, and post DSP/effect sends are also provided for each channel on the VP versions. The master section for the VP8-DRV provides controls for main, monitor, effect send, effect return. The VP8-DRV features a seven band equalization. sections offer +/-12dB cut/boost capability. Each VP8-DRV features a foot switchable, Digital Effect, while the VP8-DRV offer potentiometer control of Digital Signal Processing (D.S.P.). The VP-8FX offer portability, versatility and dependability.

II Important Safety Instructions

- 1. Read Instructions-** All the safety and operating instructions should be read before the appliance is operated.
- 2. Retain Instructions-** The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings-** All warnings on this appliance and in the operating instructions should be adhered to.
- 4. Follow Instructions-** All instructions should be followed.
- 5. Water and Moisture-** This appliance should not be used near water- for example, near a bathtub, sink, laundry tub, in a wet basement, near a swimming pool, etc.
- 6. Heat-** This appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 7. Power Sources-** This appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the operating instructions.
- 8. Polarization-** If the appliance is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other), this plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 9. Grounding-** If the appliance is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin, this plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
- 10. 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.
- 11. Damage Requiring Service-** Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the appliance.
 - c. If the appliance has been exposed to rain or water.
 - d. If the appliance does not operate normally by following the operating Instructions.
Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
 - e. If the appliance has been dropped or the cabinet has been damaged.
 - f. When the appliance exhibits a distinct change in performance-this indicates a need for service.
- 12. Servicing-** Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

III Warranty Information

UNPACKING

As a part of our system of quality control, every STK product is carefully inspected before leaving the factory to insure flawless appearance. After unpacking, please inspect for any physical damage. Save the shipping carton and all packing materials, as they were carefully designed to reduce the possibility of transportation damage should the unit again require packing and shipping. In the event that damage has occurred, immediately notify our dealer so that a written claim to cover the damage can be initiated with the carrier. The right to any claim against a public carrier can be forfeited if the carrier is not promptly notified and if the shipping carton and packing materials are not available for inspection by the carrier. Save all packing materials until the claim has been settled.

STK Customer Service Department

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STK LIMITED 1 YEAR WARRANTY

STK electronics are warranted to be free from defects in materials and workmanship under normal use for a period of 1 year from date of original purchase. During that period, STK will at its option, repair or replace materials at no charge if product has been delivered to STK by an STK dealer or STK Service Center together with the original sales receipt or other proof of purchase. Warranty excludes fuses, exterior finish, normal wear, failure due to abuse, or operation outside of specified ratings. Warranty applies to original purchaser only. This warranty gives you specifically rights which vary from state to state.

For more information about warranty repair, please contact: *Customer Service Dept., The STK Professional Audio.*

FOR YOUR RECORDS

All of us at STK thank you for your expression of confidence in STK products. The unit you have purchased is protected by a limited 1 year warranty. To establish the warranty, be sure to fill out and mail the warranty card attached to your product.

For your own protection, fill out the information below for your own records.

Model Number _____

Serial Number _____

Dealer _____

Date Of Purchase _____

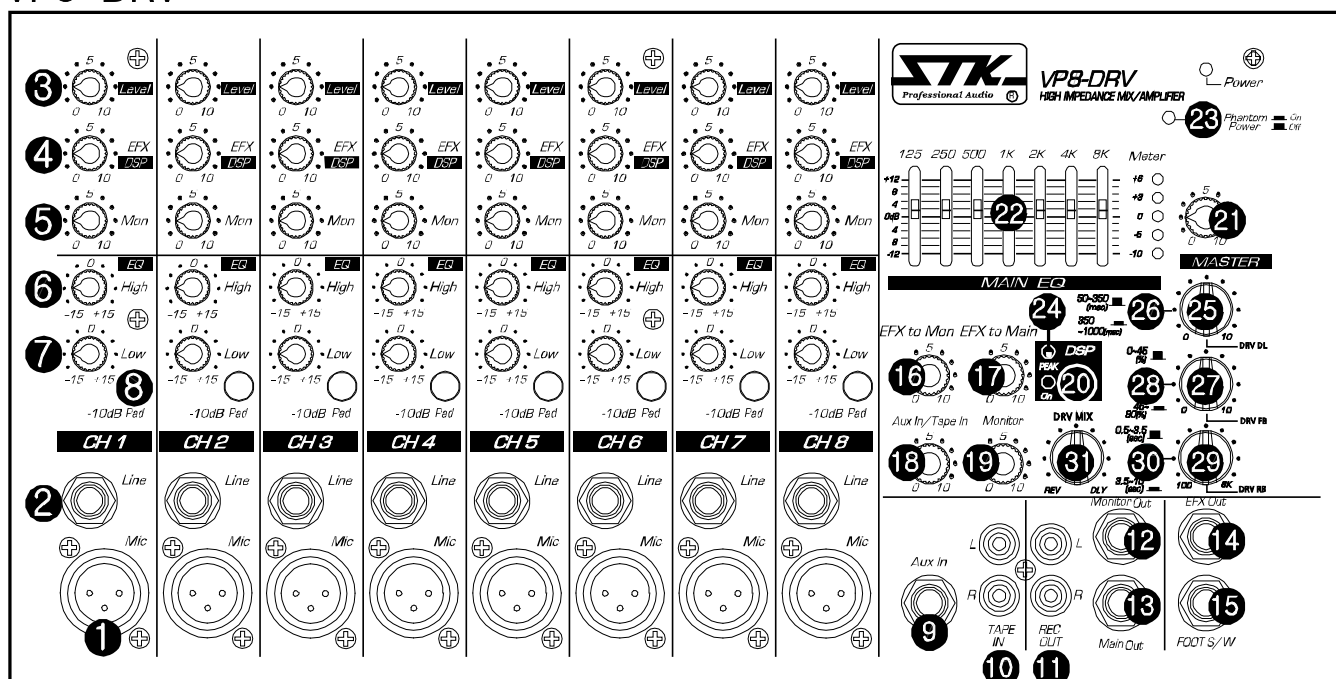
Salesman _____

Phone _____

Other Information

IV Panel Descriptions

VP8-DRV



Note: The operation of the VP-8FX Mono powered mixer is nearly identical. This manual will help you understand and get the most out of all VM mixers.

MONO INPUT CHANNELS

1. Mic In

This input accepts a standard XLR microphone connector and low impedance microphone.

2. Line In

This input accepts a 1/4inch two conductor plug and is suitable for unbalanced line level sources.

3. Level

The channel level control provides continuously variable adjustment of the channel output level to the main mixing buss

4. EFX(DSP)

The channel Reverb/Effects control varies the amount of channel signal sent to the reverb or D.S.P, as well as to the effects send circuitry

5. MON

This control varies the amount of signal sent to the monitor send circuitry.

6. High

The high frequency shelf control is set at 10kHz. You can increase or attenuate frequencies 10kHz(and above)up to 15dB. There is a detente in the 0 position indicating a flat response.

7. Low

The low frequency shelf control is set at 100Hz. You can increase or attenuate frequencies 100Hz(and below) up to 15dB. A detente is provided in the 0 position indicating a flat response.

8. PAD

This switch attenuates the input signal by 10dB when connecting a line level device to channels 1-8, or if the mic input is distorted turn-this switch on (the pressed-in position)

FRONT PANEL MASTER SECTION

9. Aux In - Input to Main Jack

The Aux In - Input to Main phone jack is used to feed signals from an external source to the main bus and can be connected to the output of an external effects processor.

10. Tape In - Input to Main Jacks

The Tape In - Input to main phone jacks are used to feed signals from an external source to the main bus and can be connected to the stereo outputs of a cassette, DAT

11. Rec Out - Output Jacks

The Rec Out - Output RCA jacks output the main bus signal prior to the 7-band graphic equalizer and master level control, and can be connected to the stereo inputs of a cassette, DAT or MD deck for recording.

12. Monitor Out

The monitor output phone jack outputs the monitor bus signal after the monitor master control, and can be connected to the input of a powered monitor speaker.

13. Main Out

The main output jack out the main bus signal after the 7-band graphic equalizer and master level control, and can be connected to the input of a larger mixer, or a more powerful amplifier.

Panel Descriptions

14. EFX Out

The input of an external effect such as a delay or echo can be connected to this jack. The signal adjusted by the EFFECT control of each channel.

It will be sent to the EFFECT bus, its level adjusted by the EFFECT OUT control, and output from this jack.

15. Footswitch

The DSP Footswitch jack is a standard 1/4" size accommodating a monaural ON/OFF Footswitch that enables/disables the internal digital effects.

16. EFX To Mon

This master EFX control varies the amount of overall combined signal of the independent channels sent to the Moni EFX bus.

17. EFX To Main

This master EFX control varies the amount of overall combined signal of the independent channels sent to the Main EFX bus.

18. Aux In /Tape In Control

This control varies the amount of the signal from the Tape In and Aux In mixed back to the main buss.

19. Monitor Control

This controls the overall signal level at the Monitor Line Out. The control ranges from off through unity on up to +12dB of extra gain.

20. DSP Switch

This push control activates/deactivates the DSP effects.

21. Master Control

This Control adjusts the ST bus signal output level. This setting is output to the SPEAKERS L/R/L+R, Bridge jacks and the MAIN (STEREO) jack on the rear panel and appears in the ST bus signal.

22. Graphic Equalizer(Main)

7 band graphic equalizers are provided on the front panel and may be used for stereo Main of VM8-DRV.

23. Phantom Power Switch

This push button control provides 48V of DC power to the independent channel XLR inputs for the use of condenser microphone without external battery.

24. DSP Peak Indicator

25. Delay Time Adjust

This control adjusts the delay time.

26. Delay Time Range Select

This push control select delay time range from 50~350(msec) to 350~1000(msec).

27. Delay Feedback Adjust

This control adjusts the delay feedback.

28. Delay Feedback Range Select

This push control select delay feedback range from "0~45%" to "45~90%".

29. Reverb Time Adjust

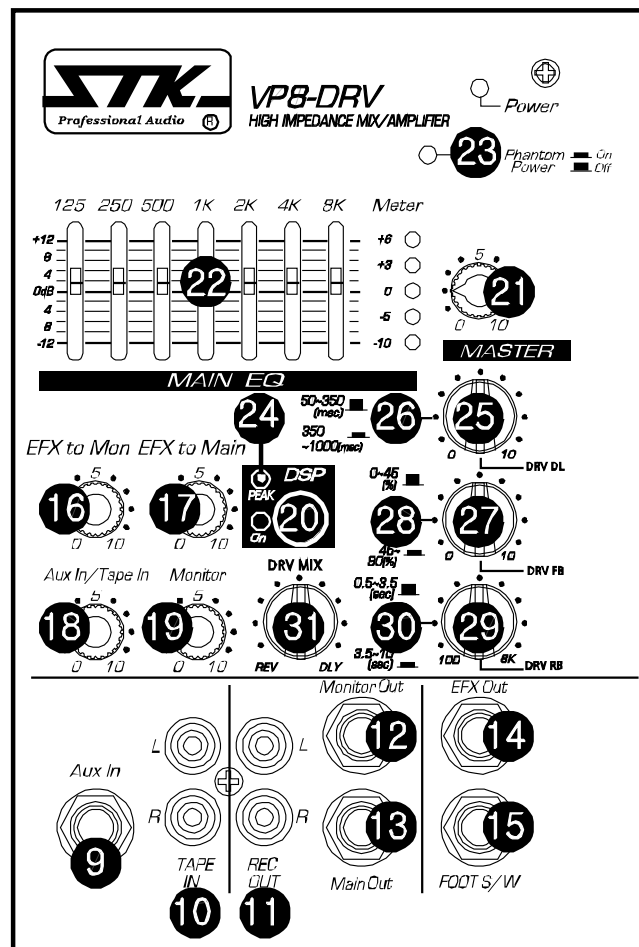
This control adjusts the reverb time.

30. Reverb Time Range Select

This push control select reverb time range from "0.5~3.5(sec)" to "3.5~10(sec)".

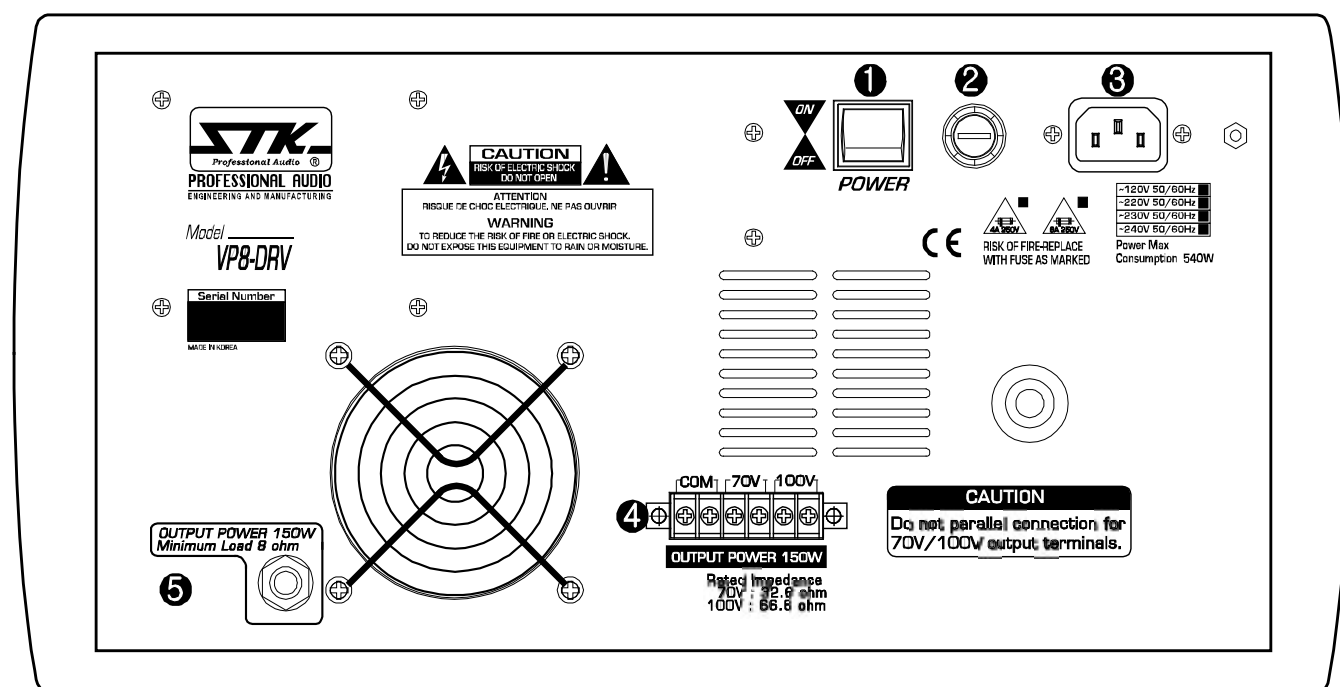
31. Reverb and Delay Mix Balance Adjust

This control adjust the reverb or delay mixing level.



Panel Descriptions

REAR PANEL



1. Power Switch

This switch controls the AC mains power to your powered mixer. Power is on when the switch is in the on(up) position and is confirmed when the power LED indicator is illuminated.

Note : Before turning on or off the mixer. It is a good idea to turn down the main master and monitor master controls.

2. FUSE

The fuse is located in the fuse holder. (See Section VIII Specifications for the correct values.)

3. IEC Socket

This is where you connect the supplied AC line cord to provide AC power to the all VM series powered mixer. Plug the line cord into an AC socket properly configured for your particular model.

4. High Impedance Speaker Output

This terminal is for high impedance speaker system (See the Installation)

5. Low Impedance Speaker Output

This speaker output jacks accept standard 1/4" TS phone jack, providing 150 watts of power at 8 ohm.

NOTE : Load impedance less than 8 ohms will not draw additional power and may cause the unit go to the protect mode.

V Output Transformer

Inputs(150watt : built in VP-8DRV)

Impedence	8 ohm
Input voltage	34.6 V

Outputs

Impedance	66.6 ohm	32.6 ohm	common
Output voltage	100 V	70 V	0 V

NOTE

An amplifiers RMS voltage at rated output may also be

determined by measuring with an RMS voltmeter or calculated using the following formula.

$$\text{FORMULA \#1 } V(\text{RMS}) = \sqrt{Z \times P}$$

where V = RMS voltage in volts
 Z = amp rated load impedance in ohms
 p = Power rating in watt (RMS)

EXAMPLE: Using the same 150 watt @ 8 ohms amplifier in the preceding example, substitute into the formula as follow.

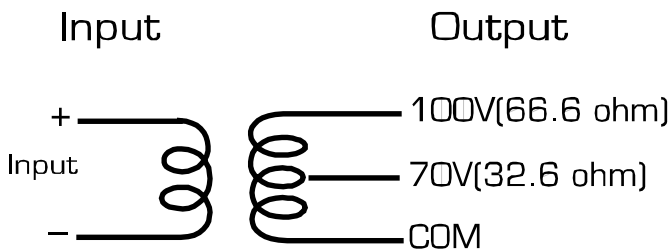
$$V(\text{RMS}) = \sqrt{Z \times P}$$

$$V(\text{RMS}) = \sqrt{8 \times 150}$$

$$V(\text{RMS}) = \sqrt{1200}$$

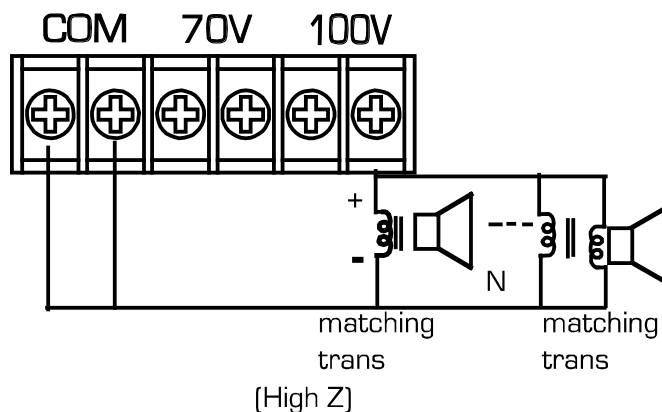
$$V(\text{RMS}) = 34.6$$

When rounded off, the formula indicates an RMS voltage rating of 34.6 volts.



VI Installation

- step1.** Turn off the Amplifier power switch.
- step2.** Connect to the speaker systems as below figure.
- step3.** Check the connected speaker wire short or open.
- step4.** Be sure that total impedance is less than rated impedance.



VII Connecting Your System

A. CONNECTORS

Your powered mixers uses several types of input and output connectors.

1. XLR Input jacks

Electronically balanced inputs accept a standard XLR male connector. Pin1=ground, pin2=hot or positive(+) and pin3=cold or negative (-) (see Figure 1). These connectors should be utilized for low impedance microphones. If you are using a high impedances microphone, it will likely have a cord with a 1/4 " connector on it. In this case, it would be appropriate to plug such microphones into a line input, however performance, and gain may be lessened. for best performance. We recommend you invest in one of the many higher quality, low impedance mics available on the market, or alternatively, purchase an impedance matching transformer from your dealer.

2. 1/4" Phone Input Jacks

These tip / sleeve jacks accept an unbalanced line level signal using a normal male phone plug. (See Figure 1.)

3. Speaker Output Jacks

The speaker output jacks are 1/4" two conductor jacks. Their power output and function are dependent upon the particular unit that you are using.

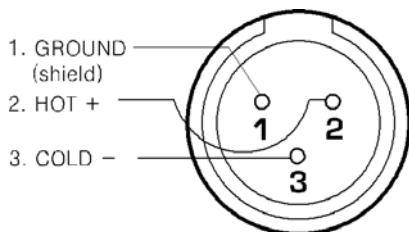
4. RCA Phone Jacks

The RCA jacks accept unbalanced male pin connectors.

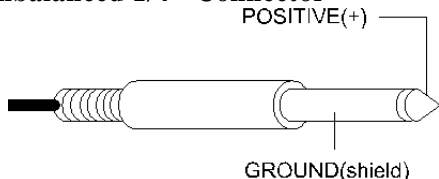
Figure-1

a. Female Three Pin Connector

b.



b. Unbalanced 1/4" Connector



B. GRAPHIC EQUALIZER USE

The VP8-DRV is equipped with a single 7-band equalizer that can be configured to affect either master output of main output.

You should think of the graphic equalizer as an extended "Tone Control." the built-in graphic equalizer(s) divide the audio spectrum into 9 segments or bands. you can raise or lower the level of each individual band by adjusting the slider on that band. Any environment has its own set of acoustics, even outdoors. Some environments will reflect or absorb certain frequencies more than others. a graphic

equalizer allows you to attenuate ranges of frequencies that are too strong and boost others that are too weak, or, in other words, to "Equalize" the seven different bands in their relationship to each other.

C. PROTECTION CIRCUIT

The protect LED indicates that there is a problem either in the amplifier's external connections, load or temperature conditions or it's internal functions.

If one of these situations occurs, the amplifier senses the problem and automatically switches into its "Protect Mode". The LED will light to warn you of the trouble and the amplifier will stop working.

If the LED lights and stays on, switch the unit off.

If you feel that you have been able to correct the fault condition that caused the unit to go into the protect mode, switch the mixer on again.

If you have successfully removed the fault condition, the amplifier will run normally.

Caution : *If the protect LED remains lit when attempting to resume operation, DO NOT USE THE UNIT. Take your VM Mix to an authorized service facility or contact your dealer for help.*

D. CARE AND MAINTENANCE

Your VM Mix is built to provide years of dependable service under demanding circumstances. It requires no internal maintenance but a common sense approach to its use will help you enjoy long and reliable operation.

Here are some tips:

1. Power Requirements

Your powered mixer is capable of 110-120V AC or 220-240V

AC operation allowing world-wide usage.

It is pre-wired at the factory for the correct voltage in your country. It is possible to change the mains voltage but it is an internal operation that can only be performed by an experienced technician.

Contact your dealer or service center for more information.

2. Periodic Cleaning

Keep the unit clean by wiping frequently with a damp, soft cloth. Use a mild detergent cleaner if necessary, Applied to the cloth, but not directly to the mixer. Do not use solvents or the other chemicals to clean the unit. A large(dry) paint brush is useful to remove cumulated dust from between the many control knobs on the mixer.

If you accidentally spill liquid onto or into the unit, disconnect the power cord and allow the unit to dry thoroughly before attempting to use it.

3. Connecting Cables

Use only high quality connecting cables with your VM mixer. Faulty or suspicious cables should be replaced to avoid possible deterioration of your sound quality.

4. Connections

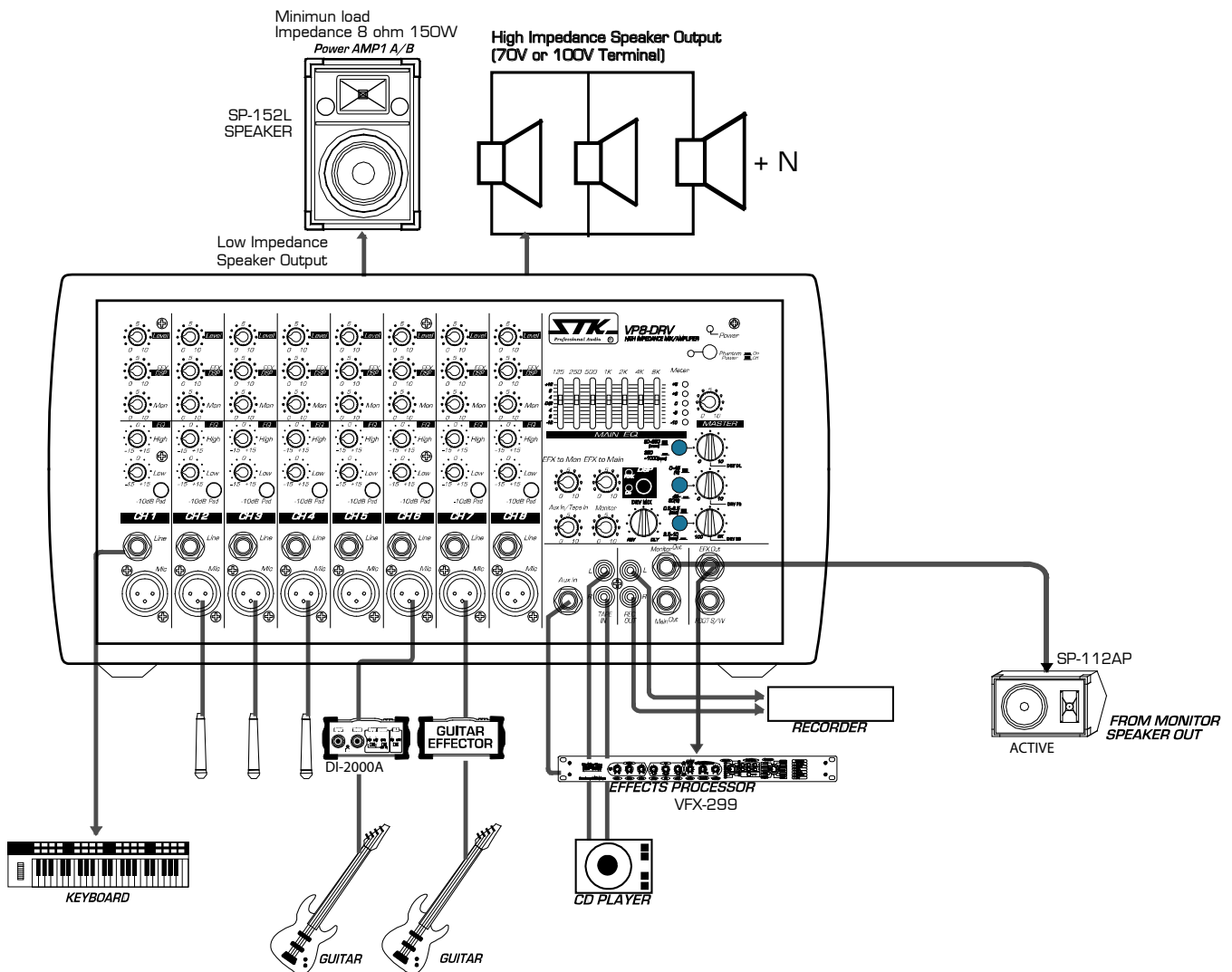
Check cable connections frequently, if you move your equipment often, check input and output jack condition to be sure they have not sustained any transportation damage, in temporary installations, such as live performances, check all cable connections before each performance. In permanent installations, verify the operation of all cables and connections often. It is much easier to deal with a poor cable or connection before a performance or recording session than during it.

VIII System Hookup Diagram

session than during it.

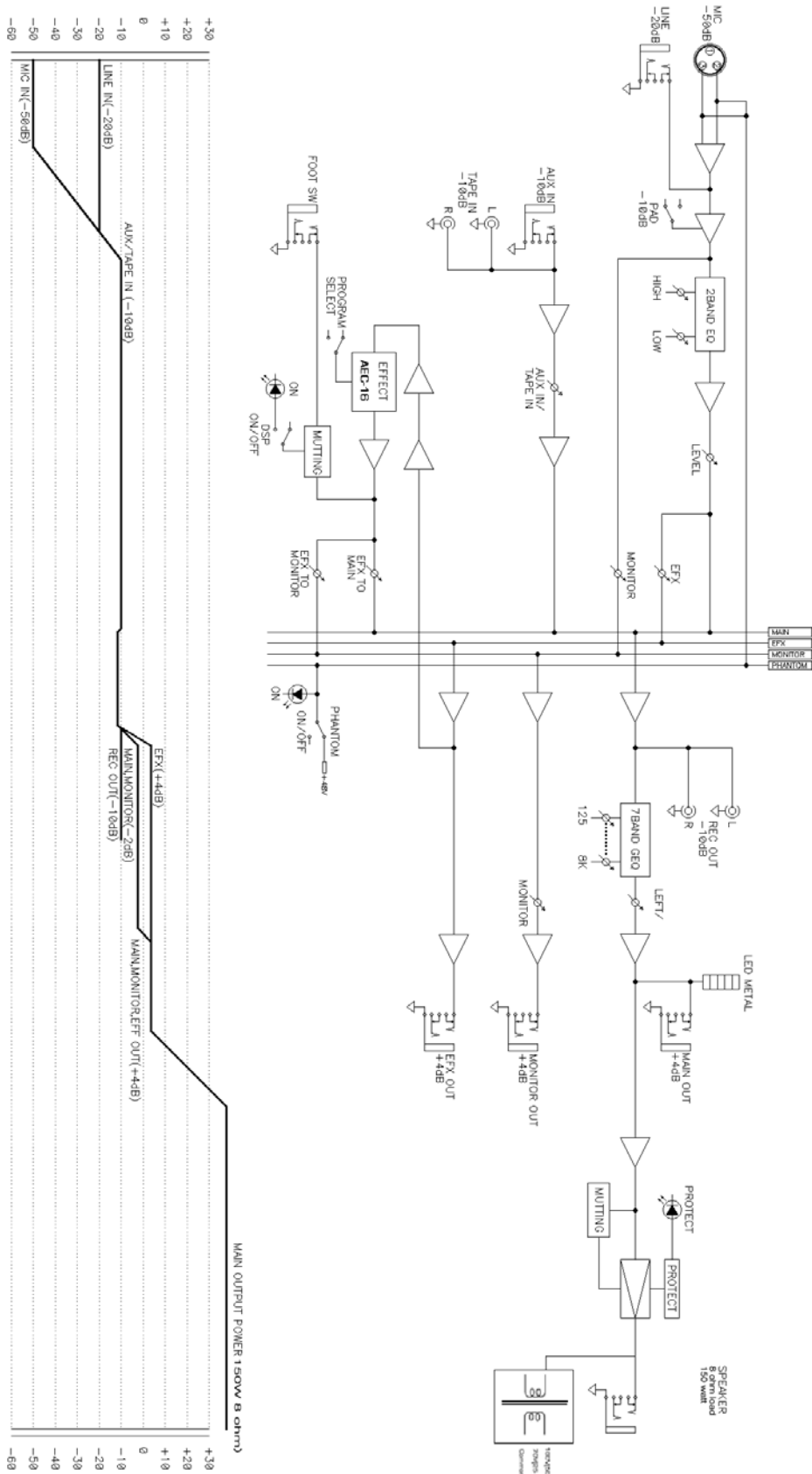
As a band with VP8-DRV

Here is an example of using the VP8-DRV as a compact system for a band.



IX Block Diagram

VP8-DRV



* BLOCK and LEVEL DIAGRAM

X Specifications

■ General Specifications

MODEL	VP8-DRV	
Power Output Level(EIA)	32.6Ω (70V)	150W
	66.6Ω (100V)	150W
	8Ω	150W
Total Harmonic Distortion f=1kHz, Rated output RL 8Ω Main output +4dB m/600Ω	0.1%	0.08%
Frequency Response① 20Hz ~ 30kHz, 8Ω, 1 watt(Speaker Out) CH IN to Main OUT @+4dB m	+1, -2dB	
Frequency Response② 58Hz ~ 18kHz, 1 watt High impedance output (70V,100V Terminal)	+1, -3dB	
Hum and Noise 20Hz ~ 20kHz, Rs=1500Ω (With 20Hz~20kHz BPF)	-110dB Equivalent input noise -70dB Residual output noise (SP OUT) -88dB Residual output noise (MAIN OUT)	
Cross Talk	90dB at 1kHz, adjacent channel inputs. 90dB at 1kHz, Input to Output.	
INPUT CHANNEL Equalization ;¼ 15dB shelving ;¼ 15dB shelving	High : 10kHz Low : 100Hz	
Graphic Equalization	;¼ 12dB maximum boost or cut in each of seven bands. 125, 250, 500, 1K, 2K, 4K, 8K	
Protection circuit	Short circuit current limit DC protection at speaker output Power ON/OFF transient AC line fuse.	
Indicators	Power(Green) Phantom(Amber) DSP(Yellow) 5 Points LED Meter (-10, -5, 0, +3, +6dB) Main Out	
DC offset voltage	≥ DC10 mV	
Dimension (W_i×D_i×H)	413X256X222 mm	
Weight(Net)	23.77 Ibs/ 10.78kg	
Power Consumption	500W FUSE 100V ~ 120V.....6.3A 220V ~ 240V...T.3.15A	
Connector	Bal XLR input Unbal 1/4" input Unbal 1/4" output, 6 block barrier strip	

NOTE: (1) Sensitivity is the lowest level that will produce a full power output, or the nominal output level when the unit is set to maximum gain.

(2) XLR connectors are balanced. Phone jacks are unbalanced.

Specifications

♪ Input specifications.

<i>Input terminals</i>	<i>Actual Load Impedance</i>	<i>For use with nominal</i>	<i>Input level</i>			<i>Connector in mixer</i>
			<i>Sensitivity</i>	<i>Nominal (LIMIT)</i>	<i>Max. before clip(Main Out)</i>	
MIC IN (1-8) LOW IMPEDANCE	4 kohms	600 ohms mic	-50 dBu (2.45 mV)	$\pm 3/41$ dB	-34 dBu (15.5 mV)	XLR Jack
LINE IN (1-8) LOW IMPEDANCE	4 kohms	10k ohms	-20 dBu (109.5 mV)	$\pm 3/41$ dB	5 dBu (1.3 V)	Phone Jack
AUX IN	10 kohms	10k ohms	-10 dBu (245.0 mV)	$\pm 3/41$ dB	6 dBu (1.5 V)	Phone Jack
TAPE IN	10 kohms	10k ohms	-10 dBu (245.0 mV)	$\pm 3/41$ dB	6 dBu (1.5 V)	RCA Jack

NOTE: (1) Sensitivity is the lowest level that will produce a full power output, or the nominal output level when the unit is set to maximum gain.

(2) XLR connectors are balanced. Phone jacks are unbalanced.

♪ Output specifications.

<i>Output terminals</i>	<i>Actual Load Impedance</i>	<i>For use with nominal</i>	<i>Output level</i>		<i>Connector in mixer</i>
			<i>Nominal</i>	<i>Max. before clip</i>	
SPEAKER OUT	0.08 ohm	70V(32.6 Ω)	150W	154W	6 Block Barrier Strip
		100V(66.6 Ω)	150W	154W	6 Block Barrier Strip
		8 ohms SP	150W	152W	Phone Jack
MAIN OUT	600 ohm	10k ohms lines	+4dBu (1.2 V)	+20 dBu (8.3 V)	Phone Jack
MONITOR OUT	600 ohm	10k ohms lines	+4dBu (1.2 V)	+20 dBu (8.3 V)	Phone Jack
EFX OUT	600 ohm	10k ohms lines	+4dBu (1.2 V)	+20 dBu (8.3 V)	Phone Jack
TAPE OUT	600 ohm	10k ohms lines	-10dBu (245 mV)	+12 dBu (3.07 V)	RCA Jack

NOTE: (1) All connectors are unbalanced.

