



PV[®]i 8500

400-WATT, 8-CHANNEL MIXER AMPLIFIER
WITH SD CARD / USB MP3 / BLUETOOTH[®] PLAYER

Operating Manual



www.peavey.com

ENGLISH

PV[®] i 8500

Powered Mixers

Congratulations on the purchase of your new PV[®] powered mixer from Peavey[®]. The Peavey PV[®]i 8500 is a revolutionary all-in-one powered mixer with everything a musician needs: up to eight combination XLR and 1/4" inputs using Peavey's award-winning mic preamps, and 400 watts of peak power for crystal-clear audio reproduction. The Peavey PV[®]i 8500 uses exclusive and patented features like Mid Morph[®] to accurately help improve tone and clarity of vocals. Feedback is quickly and easily identified and removed with Peavey's nine-band graphic EQ combined with our patented and revolutionary FLS[®] Feedback Locating System. The PV[®]i 8500 is equipped with Peavey's exclusive Kosmos[®]-C technology, which drastically enhances both the low and high end of the audio spectrum. Footswitchable, built-in 24-bit digital effects complements the already feature-packed unit. Connect virtually any music device to this versatile mixer via the onboard 1/4", RCA and 1/8" mini jacks.

 Before you begin using your powered mixer it is very important to ensure that the product has the proper AC voltage supplied. You can find the proper voltage for your amp printed next to the IEC line (power) cord on the rear panel of the unit.

FEATURES:

- FLS Feedback Locating System
- Mid-Morph EQ
- Kosmos-C
- On-board 24-bit digital effects with mute button
- Digital effects parameter control
- Combination XLR and 1/4" input jacks
- Selectable 9-Band Graphic EQ with FLS
- Master Mute for channels 1-7
- Footswitchable effects defeat
- 48 Volt Phantom Power
- RCA, 1/8" Media input
- Selectable Main or Monitor dual power section
- RCA Record outputs
- LED Meter bridge
- Power amp sub-sonic filtering
- Clip light and signal present indicator
- Main line level 1/4" output
- DDT[™] Speaker protection circuit
- SD card & USB MP3 player
- Bluetooth[®] player

 **VENTILATION:** For proper ventilation, allow 6" (15.5 cm) clearance on all sides.

CHANNEL CONTROLS

1 HIGH EQ

This High EQ shelving type of active tone control varies the treble frequencies (+/- 15 dB at 12 kHz) and is designed to remove noise or add brilliance to the signal, depending on the quality of the source.

2 MID MORPH® EQ

Where most mid-range controls work at just one frequency, the Mid-Morph works at two. When turned counterclockwise, it cuts at 250 Hz to reduce frequencies that muddy the sound. When turned clockwise, it boosts at 4 kHz to add intelligibility to vocals. Either way, improved vocal or instrument definition can be achieved.

3 LOW EQ

A shelving type of EQ that varies the bass frequency levels (+/- 15 dB at 80 Hz). Low EQ adds depth to thin-sounding signals or cleans up the muddy ones. As with any EQ, use sparingly. Too much of this EQ can give you a booming bottom end.

4 MONITOR SEND

The monitor send adjusts the level of the channel signal added to the monitor send. Keep in mind the monitor send can be assigned to one of two power amplifiers and power an external monitor speaker.

5 EFX - DIGITAL EFFECTS

This control adjusts the level of the channel signal added to the effects mix. The signal is sent to the internal effects processor. Turning the knob to the left (0) will turn off effects on the associated channel, while turning the knob to the right will increase the amount of the selected effect.

6 LEVEL

This control sets the signal level sent to the main mix.

7 CLIP

When this LED turns or blinks red, it is an indication that the signal coming into the channel is too strong, potentially causing distortion. Turn down the Level control (6) until the Clip light is no longer present. If you are having difficulty getting a clean signal, try varying the output of the connected device.

8 SIG

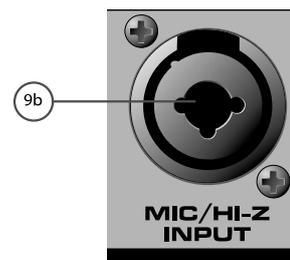
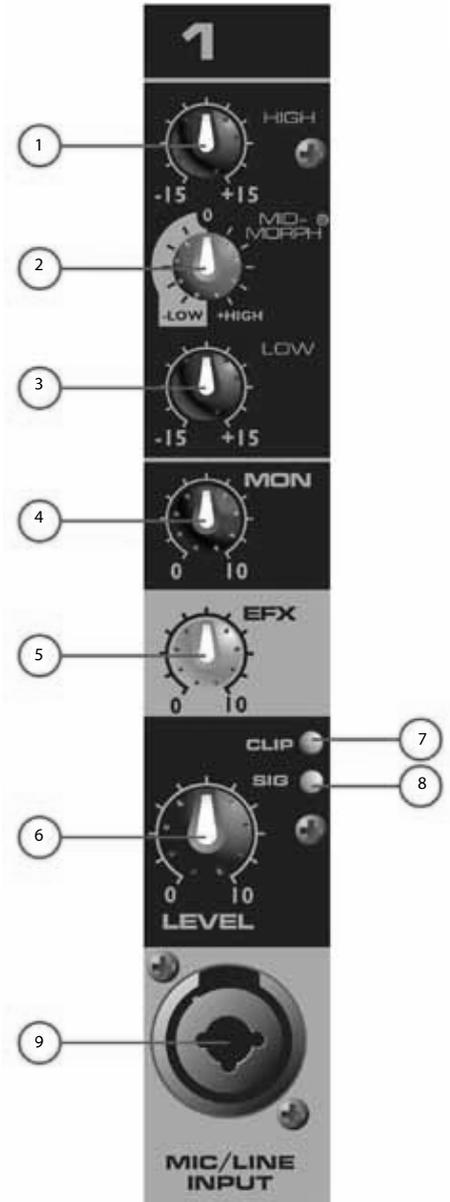
When this LED is green, it is an indication the mixer is receiving signal at the input of the channel. If you are having trouble getting sound out of the mixer and this LED is not on, check the microphone, instrument or cable that is connected to the channel.

9 MIC/LINE INPUT

This combination input jack can accept either a 1/4" (balanced or unbalanced) input or an XLR balanced, low-impedance connection. The tip is positive on the 1/4" balanced input, and pin 2 is positive on the XLR.

9b MIC/HI-Z INPUT

Channel 7 line input is a Hi-Z unbalanced input for use with high impedance microphones, acoustic/electric guitars or other high impedance sources equipped with a 1/4" plug (TS).



10 **XLR BALANCED INPUT**

Channel 8 is designed specifically for pre-recorded (program) music, but can also be used with a microphone. This XLR input provides a balanced low impedance connection.

11 **MIC OR MEDIA SELECT BUTTON**

This control selects between the low impedance XLR (9) and the RCA / 1/8", or MP3/Bluetooth® player.

12a **MEDIA INPUT**

These inputs, both RCA and 1/8" accept a stereo input from the output of an MP3 player, CD player, tape deck or other similar device.

13 **FLS®**

When feedback occurs, the corresponding LED of the frequency that is closest to the frequency that is feeding back will illuminate over the slider to be adjusted. Slowly bring the corresponding slider down until feedback is gone. The LED will remain illuminated for a few seconds after the feedback is gone.

14 **GRAPHIC EQ**

These 9-band EQs are designed for 12dB cut or boost. These EQs are used to make minor adjustments to the overall mix and should be used sparingly.

15 **AMP LEVEL LED LADDER**

These LEDs indicated the signal level going to the power amplifier. The top LED indicates LIMIT and activation of our revolutionary DDT™ speaker protection circuit. Peavey's award winning speaker protection circuit is built into the PV® 8500/PVi 8500 and activated automatically to maximize the power amplifier without fear of distortion.

16 **POWER AMP INPUT SELECT**

This control allows the user to select whether the 2nd power amplifier receives its signal from the Master Volume (18) or from the Monitor Volume (17) control. This allows the user to run both power amps for mains, or use power amp 1 for mains and power amp 2 for monitors.

17 **MONITOR VOLUME**

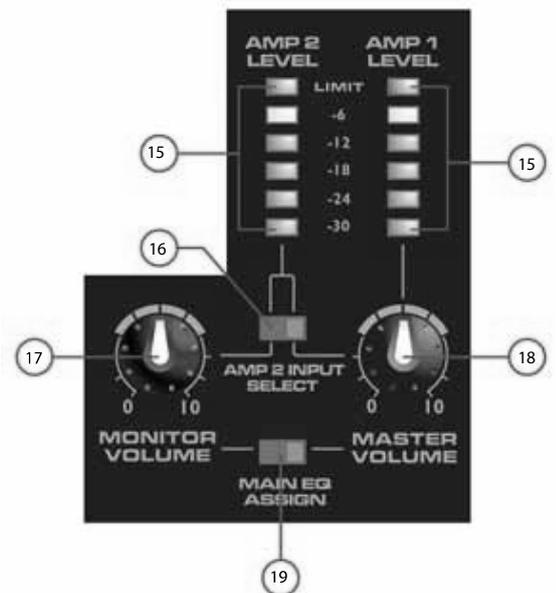
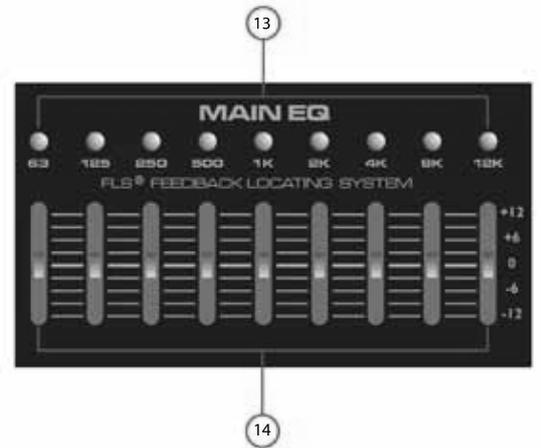
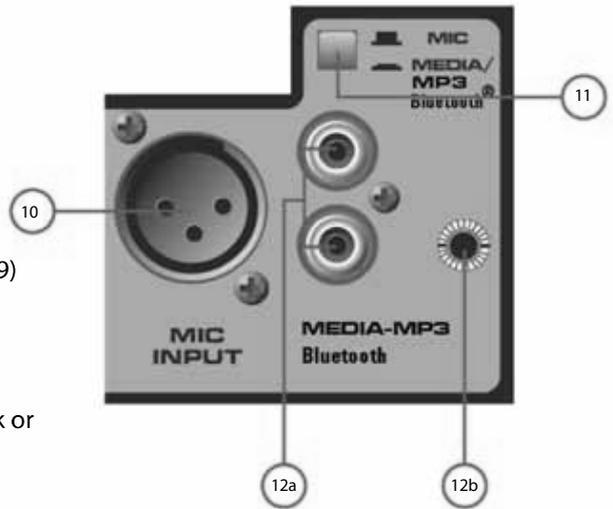
The master level control adjusts the level of the signal coming out the Monitor send 1/4" jack. It can also be assigned to feed the 2nd power amplifier via selector switch (16).

18 **MASTER VOLUME**

The master level control for the main mix and the overall volume of the powered mixer.

19 **MAIN EQ ASSIGN**

This switch allows the user the ability to assign the graphic EQ (14) to either the Main or Monitor mix.



20 MASTER MUTE LED
When the LED is ON it indicates the master mute is activated.

21 MASTER MUTE
Depressing this button mutes channels 1-7, preventing signal from passing to the power amplifier. This button does not affect channel 8.

22 KOSMOS®-C
The Kosmos-C module uses special circuitry to enrich the sound of your system. The Low control is not just a simple bass boost. It provides 'natural bass enhancement' by adding harmonically related bass signals that track envelope of the original signal. The Kosmos-C High control can be used to add clarity to dull signals.

24 EFFECTS TYPE TABLE
This table lists the types of effects available and the abbreviation used for that effect in the first character of the LED display. The chart also lists the parameter associated with the effect that is controlled by turning encoder 24. A more detailed list of effects can be found at the end of this manual.

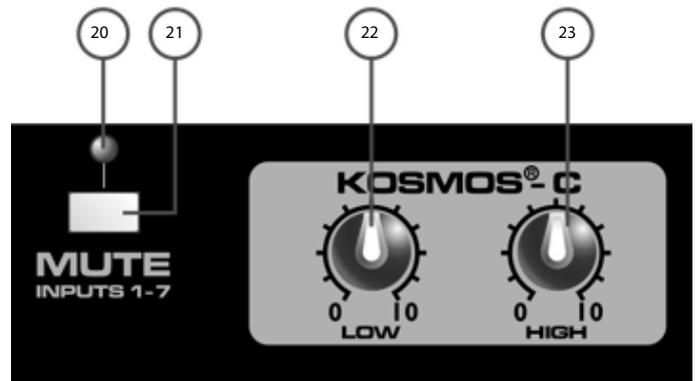
25 EFX LED
This LED indicates the type of effect currently selected. When turning encoder 29 the display will flash until the encoder is depressed, selecting a new effect.

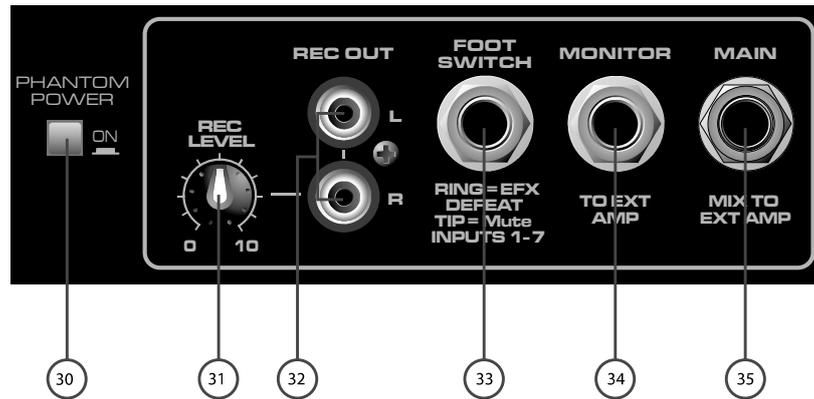
26 PARAMETER CONTROL
This encoder controls the parameter associated with the selected effect, listed both on the mixer (24) and in this manual. The parameter control is used to make adjustments to the sound of the effect.

27 EFX MUTE
When pushed this button bypasses the effects section, letting the user listen to the dry signal. When depressed and muted, LED 25 displays two dashes "--".

28 CLIP LED
This LED blinks RED when the signal to the effects section is too hot and is causing distortion. Find the source of the hot signal by reducing the EFX SEND (5) on each channel until the LED is no longer clipping (blinking red).

29 EFFECTS SELECT
Turn and push this encoder to select the desired effect.





30 PHANTOM POWER

When depressed, this switch, applies +48 VDC to all input XLR connectors to power microphones that require phantom power.

Caution: When phantom power is switched on, make sure that any channel you are plugging a microphone into is turned down and the Master Main and Monitor controls are set to minimum. Otherwise, there will be a loud pop in the system. For best results, first plug all microphones into their respective channels before phantom power is switched on. This reduces noise through the system and reduces the chance of damage to the microphones. If phantom power is used, do not connect unbalanced, dynamic microphones or other devices to the XLR inputs that cannot handle this voltage. (Some wireless receivers may be damaged. Consult their manuals.) The line input jacks are not connected to the phantom supply and are safe for all inputs (balanced or unbalanced). An unbalanced to balanced impedance converter such as the Peavey 5116 or a Peavey 1:1 Interface Adapter may also be used to isolate a microphone from phantom voltage.

31 RECORD LEVEL

This knob adjusts the main signal level sent to both the RCA record outs

32 RCA RECORD OUT

This pair of RCA jacks provides a signal to the recording inputs of a CD recorder, stereo tape deck, or other recording device.

NOTE: Do not connect a single device to the Media In (12a/12b) and Record Out (32). This improper setup forms a loop, which can cause severe feedback. Use separate devices for recording and playback.

33 FOOTSWITCH

This 1/4" TRS (tip ring sleeve) jack accepts a momentary 1/4" TRS dual button footswitch (Peavey part number 03014070) designed to defeat the effects on all channels and activate the MASTER MUTE switch (21). This function is extremely useful for playing program music during breaks.

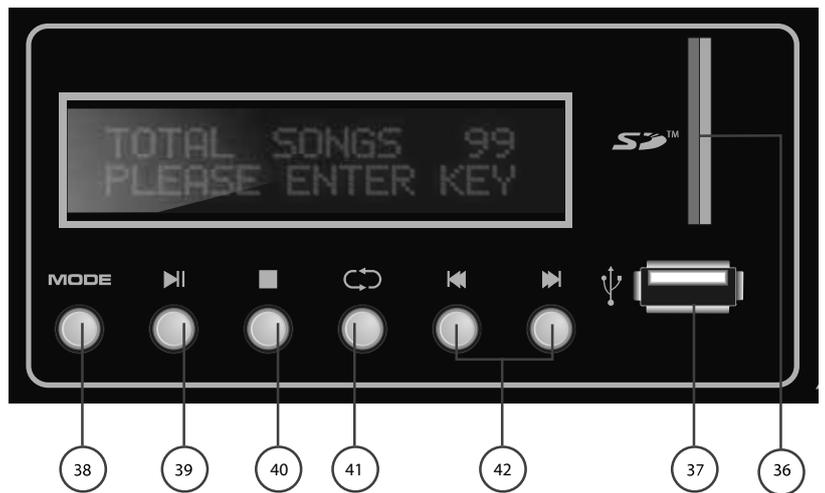
34 MONITOR OUT

This 1/4" jack provides a signal from the monitor mix (4) for an external power amplifier. An external power amplifier, such as our IPR[®] series of amplifiers, can then drive additional monitor speakers.

35 MAIN OUT

This 1/4" jack provides a signal from the main mix (after the graphic EQ) for an external power amplifier. An external power amp, such as our IPR series of amplifiers, can then drive additional speakers.

USB/SD MP3 Player



36 SD CARD SLOT

To connect the SD card, push the card completely in the slot until it clicks into place. The player will accept a SD card up to 32Gb in size.

37 USB disk SLOT

On the right side of the device is a USB drive slot where a USB memory stick can be connected. The player will accept a memory stick up to 32Gb.

38 MODE

If both, a memory stick and SD card are present, a short press of the MODE button will change between the USB input and the SD card input. A long press of the MODE button will shut off the MP3 player. Another long press is needed to turn it back on.

39 PLAY/PAUSE

A short press of the PLAY/PAUSE button causes the operation to change from PLAY to PAUSE or from PAUSE back to PLAY. A long press of the PLAY/PAUSE button will put the player into navigation mode. When in navigation mode the player can toggle between multiple folders on the memory device. The file folder num is displayed at the top of the screen while the file folder name is at the bottom. The "track skip (42)" buttons can be used to toggle between the folders on the memory device. Once the desired folder is found, press "PLAY/PAUSE" to select the folder. The first song in the folder will begin playing.

40 STOP

Press the STOP button to stop a file that is playing.

41 REPEAT

Pressing the REPEAT button toggles the function between ALL, RANDOM and SINGLE.

ALL: Repeats all songs.

RANDOM: Plays songs in random order.

SINGLE: Repeats a single song.

Note: The REPEAT functions only apply to the songs in the selected folder.

42 TRACK SKIP

In playback mode the TRACK SKIP buttons let you select the track to play.

A short press skips to the next track. A long press allows you to fast forward/rewind through a song. Hold the button down until the desired playback point is found. Release the button and the song will start playing.

In navigation mode, the TRACK SKIP buttons are used to increment/decrement through the folders on the memory device.

43

Bluetooth® Switch

Turns the Bluetooth on and off. Slide the switch to the right to turn the Bluetooth feature on.

44

Bluetooth® indicator LED

Indicates the status of the Bluetooth function.

To listen to your music via Bluetooth wireless connection, you need to pair (link) your PV®i 8500 with your Bluetooth phone and/or music device.

1. Turn off any Bluetooth devices previously paired with your PV®i 8500.
2. Turn on the Bluetooth feature on your phone or music device.
3. Slide the switch (43) to the right to turn on the Bluetooth feature. The Bluetooth LED will flash to indicate your PV®i 8500 is in discoverable mode.
4. Place your phone or music device in Bluetooth search mode.

The phone or music device will now begin searching for your PV®i 8500.

5. Select **Bluetooth audio** from search results on your phone or music device.
6. Select OK or Yes to pair your speaker system with your phone or music device.

When your PV®i 8500 successfully pairs and connects with your phone or music device, the Bluetooth indicator changes from flashing green to steadily lit. You will now be able to play music from your connected music source through your PV®i 8500. The level can either be adjusted from the connected source or by the level control in Channel 8.

* Wireless range can vary depending on Bluetooth class of source device, and be subject to interference from obstructions such as walls or other electronic devices.



Back Panel

45

POWER SWITCH

This is the main power switch.



46

FUSE

This is the main safety fuse for the AC line voltage. Only replace with a fuse of the exact type and rating. If the fuse continues to open, do not over fuse. Take the unit to an authorized Peavey service center.

NOTE: If the main AC voltage is changed, the fuse must also be changed to one of the appropriate rating for the voltage you are switching to.



47

AC POWER INLET

This is the receptacle for an IEC line cord, which provides AC power to the unit. Connect the line cord to this connector to provide power to the unit. Damage to the equipment may result if improper line voltage is used. (See line voltage marking on unit).



Never break off the ground pin on any equipment. It is provided for your safety. If the outlet used does not have a ground pin, a suitable grounding adapter should be used and the third wire should be grounded properly. To prevent risk of shock or fire hazard, always make sure that the amplifier and all associated equipment is properly grounded.



NOTE: FOR UK ONLY

As the colors of the wires in the mains lead of this apparatus may not correspond directly with the colored markings identifying the terminals in your plug, proceed as follows: (1) The green and yellow wire must be connected to the terminal which is marked with the letter E, or by the earth symbol, or is colored green, or green and yellow. (2) The blue wire must be connected to the terminal which is marked with the letter N, or the color black. (3) The brown wire must be connected to the terminal which is marked with the letter L, or the color red.

48

VOLTAGE SELECTOR SWITCH

This switch allows the user to select between 115VAC / 60Hz or 230VAC / 50Hz. To change the voltage selector, you must first unscrew and remove the plastic cover that protects the switch. After changing the voltage, please replace the plastic cover to ensure the voltage level is not inadvertently altered.

NOTE: The fuse MUST be changed to the appropriate value to match the voltage you have selected. Please see the note on the back of the mixer for the correct value.

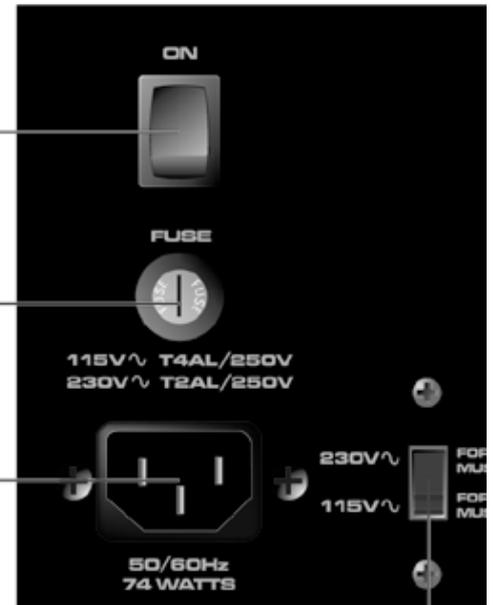


49

MAIN / MONITOR SPEAKER OUTPUTS

These are two-conductor 1/4" speaker outputs. Each one is rated at 4 ohms minimum impedance. You may connect either one 4-ohm, one 8-ohm or two 8-ohm speakers to each output. Do not operate below rated minimum impedance. For maximum power transfer, be sure to use speaker cables and not instrument cables to connect to the speakers. We recommend the use of 18-gauge or larger speaker wire.

50

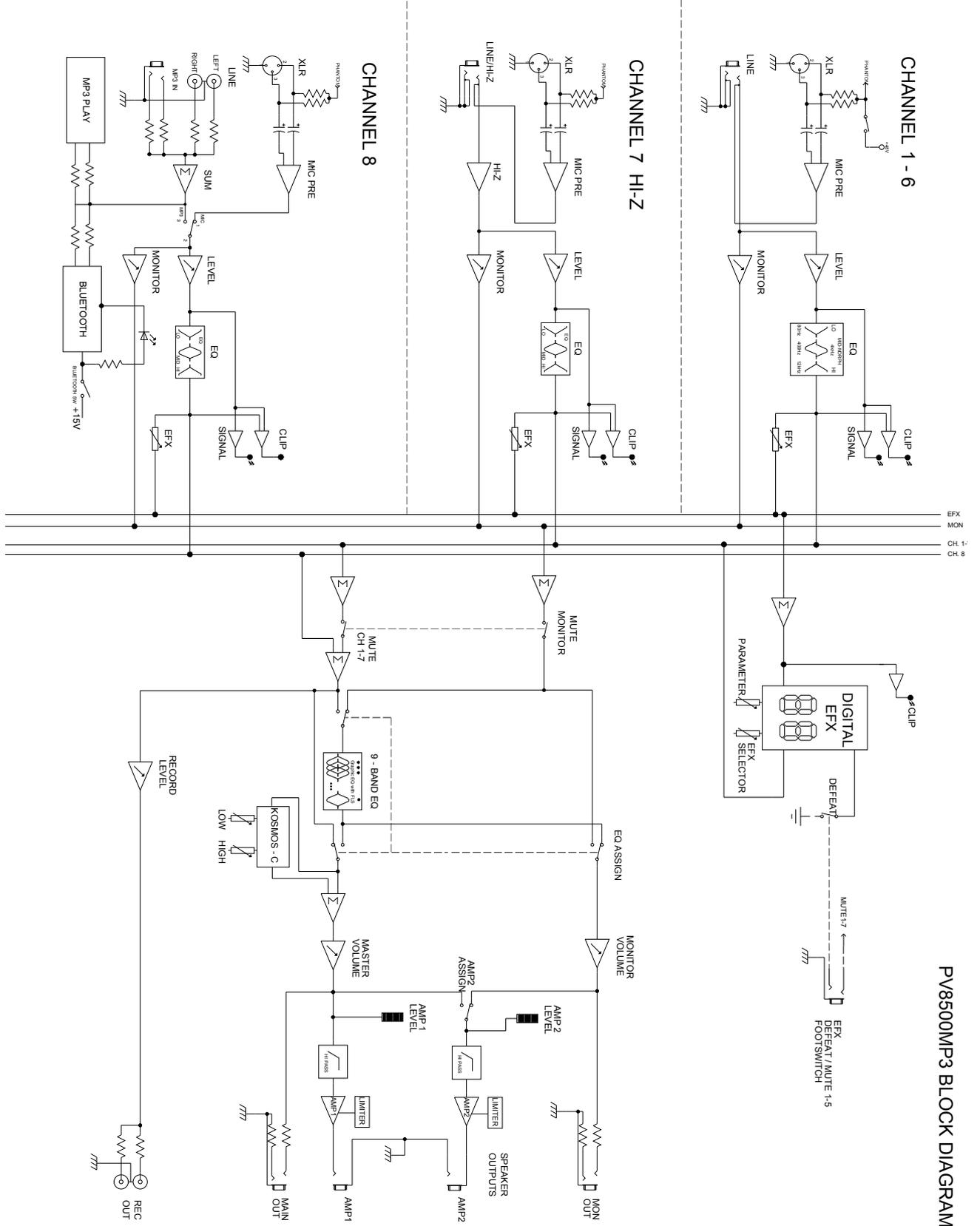


Effects (parameter)

PLATE (TIME)	DESCRIPTION	PREDELAY DAMP FACTOR	ROOM	ROOM SIZE	FRONT END HP	BACK END LP	MORE DESCRIPTIVE NAME
P1	Bright	35 ms					
P2	Gentle LP	48 ms					
P3	Med LP	62 ms					
P4	Hard LP	78 ms					
P5	Dark	95 ms					
HALL (TIME)							
H1	Vox Fox	35 ms	Med	Med	Subtle	Subtle	Med Hall
H2	Vox Huge	42 ms	Med	Large	Subtle	Subtle	Cathedral
H3	Vox Glow	10 ms	Med	Large	Subtle	Subtle	Auditorium
H4	Strings	30 ms	Med	Med	Subtle	Subtle	Concert Hall
H5	Brass Hall	35 ms	High	Med	Subtle	Moderate	Concert Hall 2
ROOM (TIME)							
R1	Vox Air	30 ms	Low	Small	Aggressive	Subtle	Hard Walls
R2	Vox Club	35 ms	High	Small	Subtle	Moderate	Club
R3	Snare Low	70 ms	Low	Small	Moderate	Subtle	Bathroom
R4	AC GTR	42 ms	Med	Small	Moderate	Subtle	Med Walls
R5	Brass Room	40 ms	High	Med	Subtle	Moderate	Med Room Damped Walls
DELAY (TIME)							
D1	Double						
D2	Slapback						
D3	Bright, Few Repeats						
D4	Bright, More Repeats						
D5	Bright, Most Repeats						
D6	Dark, Few Repeats						
D7	Dark, More Repeats						
D8	Dark, Most Repeats						
ENHANCE (CUTOFF FREQ)							
E1	Light Harmonics						
E2	Moderate Harmonics						
E3	Heavy Harmonics						
CHORUS (RATE)							
C1	High Depth, Slow Rate	10 ms	20 ms	0.1 – 1 Hz	Random Sine		
C2	Mod Depth, Wide Rate	10 ms	5 ms	0.5 - 4 Hz	Random Sine		
C3	Short Depth, Wide Rate	10 ms	2 ms	0.5 - 6 Hz	Sine		
C4	Short Depth, Fast Rate	5 ms	1 ms	5 - 15 Hz	Random Sine		
C5	High Depth, Mod Rate	2 ms	20 ms	0.2 - 3 Hz	Random Sine		

Block Diagram

PV8500MP3 BLOCK DIAGRAM



Specifications

INPUT SENSITIVITY:

Mic In to full power at the power amp. Master Volume Nom.

Full	Nominal
-40 dBu	-22 dBu

Line In to full power at the power amp. Master Volume Nom.

Full	Nominal
-10 dBu	+8 dBu

CHANNEL EQ:

Shelving EQ

Low EQ	80 Hz	±15 dB
Mid-Morph		
Low	250 Hz	±15 dB
High	4 kHz	±15 dB
High EQ	12 kHz	±15 dB

CLIP LED:

Clip LEDs come on 3 dB before clipping.

FREQUENCY RESPONSE:

All controls nominal (detent)

Mic to Main	20 Hz – 20 kHz	+0, -1 dB
Line to Main	20 Hz – 30 kHz	+0, -1 dB
Mic to Amp	50 Hz – 20 kHz	+0, -3 dB
Line to Amp	40 Hz – 20 kHz	+0, -3 dB

PHANTOM POWER:

+48 VOLTS

NOISE:

Main = Main line output, 22 – 22 kHz filter

Amp 1 = Amplifier output, loaded at 4 Ohms, through AP

AUX-0025 switching amplifier filter

All controls full down.

Main	<-95 dBu
Amp 1	<-70 dBu
Master Volume nominal	
Main	<-88 dBu
Amp 1	<-67 dBu

THD:

All controls nominal

<0.01% @ main line output, -30 dBu in mic input Channel 1

<0.5% @ amp 1 @ 100 Watts into 4 Ohms

All controls nominal

<0.005% @ main line output, +4 dBu in line input Channel 1

<0.5% @ amp 1 @ 100 Watts into 4 Ohms

MASTER EQ:

63Hz	±12 dB
125Hz	±12 dB
250Hz	±12 dB
500Hz	±12 dB
1kHz	±12 dB
2kHz	±12 dB
4kHz	±12 dB
8kHz	±12 dB
12kHz	±12 dB

METER ARRAY:

LIMIT

-6 dB	-12 dB	-18 dB	-24 dB	-30 dB
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AMP LIMITER:

Limits amplifier power just before clipping. The limiter holds the amp power without clipping and can be driven up to 18 dB past maximum output.

AMPLIFIER OUTPUT POWER:

120VAC

Both channels loaded at 8 ohms:	60 Watts RMS per ch 120 Watts Peak per ch
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Both channels loaded at 4 ohms:	100 Watts RMS per ch 200 Watts Peak per ch
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POWER REQUIREMENTS:

Domestic:	120VAC 50/60Hz	74 Watts Nominal
Export:	230VAC 50/60Hz	74 Watts Nominal

SIZE:

Dimensions:	H x W x D 11.25" x 19.375" x 10.75"
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WEIGHT:

22.2 lbs.

MP3 PLAYER:

Memory Device
SD Card - Up to 32Gb SDHC card.
Jump Drive - Up to 32Gb memory device.

File format

Format	File Type	Sample Rate	Bit Rate
MPEG 1/2/2.5 Layer 3	MP3	All*	32kbps-320kbps CBR/VBR
WMA	WMA, ASF	All*	32kbps-320kbps
PCM	WAV	All*	N/A

*Sample Rates: 8k/11.025k/12k/16k/22.05k/24k/32k/44.1k and 48k

BLUETOOTH® PLAYER:

Fully Bluetooth 3.0 + EDR system in 2.4 GHz ISM band.

- Built-in internal ROM for program memory
- Built-in 32 KB RAM for data storage and baseband data transfer buffering
- Enhanced Power Control
- High speed HCI-UART (Universal Asynchronous Receiver Transmitter) interface
- Max. +4dBm output power with 20 dB level control from register control.

Take your music with you with the extended wireless range of up to 10m/33ft.

SUBPART J OF FCC RULES. THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.



Features and specifications subject to change without notice.

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