PV® 10 and PV® 14 Compact Mixer Operations Guide

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ENGLISH

PV®10 and PV®14 Compact Mixers

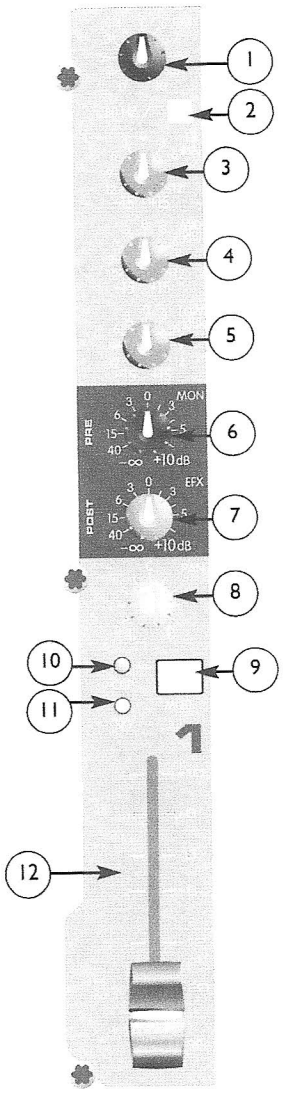
Description

Congratulations on purchasing the Peavey PV 10 or PV 14 compact mixer. The PV 10 and PV 14 are studio-quality mixing consoles designed to meet diverse needs while occupying only a small space. These are the perfect consoles for small venue performances or home recording environments. PV series mixers feature built-in DSP effects that are useful in real-world recording and sound reinforcement, and parameter controls allow you to tailor each effect to meet your needs.

Please read this guide carefully to ensure your personal safety as well as the safety of your equipment.

Features

- **Six XLR mic inputs on PV 10, ten XLR mic inputs on PV 14**
- **Two stereo channels with RCA and ¼" inputs**
- **Three-band channel EQ**
- **A/B stereo input selector reduces patching**
- **Inserts on all mono channels**
- **80 Hz low-cut switch on all mic inputs**
- **Clip LEDs monitor the entire signal path for clipping**
- **Signal LEDs on every input channel**
- **Mute switches with LED indicator on every input channel**
- **48 Volt phantom power switch**
- **Effects send on every channel with stereo return**
- **Internal digital effects with 16 selections, including reverb, delay and vocal enhancement**
- **Effect parameter adjustment allows you to customize each effect selection**
- **Monitor send on every channel**
- **Zero latency record monitoring capabilities**
- **Control room output with level control**
- **Contour EQ switch**
- **Internal universal input power supply**
- **Optional rack-mount kit**



Gain (1)

This control establishes the nominal operating level for the channel. The input gain can be adjusted over a wide range to compensate for soft voices or very loud drums. To maximize the signal-to-noise ratio, the gain should be set to the proper level, with the channel level control (12) set to ***0***. If the clip LED comes on and remains lit, try reducing the gain.

80 Hz Low Cut (2)

The low cut filter has a corner frequency of 80 Hz. When engaged, it can improve clarity by removing low frequencies that make a mix sound muddy. This feature is especially useful when playing outside on a windy day or on a hollow-sounding, noisy stage. These kinds of ambient noises can rob your sound system of power. Engaging this switch will remove those frequencies from the system and restore power where needed.

Hi EQ (3)

An active tone control (shelving type: ±15 dB) that varies the level of the high frequency range.

Mid EQ (4)

An active tone control (peak dip: ±15 dB) that varies the mid frequency range.

Low EQ (5)

An active tone control (shelving type: ±15 dB) that varies the level of the low frequency range.

Caution: *Excessive low frequency boost causes greater power consumption and increases the possibility of speaker damage.*

MON Send (6)

This control adjusts the level of the channel signal sent to the monitor output. The signal is taken before the channel level control but after the channel EQ.

EFX Send (7)

This control adjusts the level of the channel signal added to the effects mix. The effects send signal is taken after the channel fader (12) so that adjustments made to the fader will also affect the send level.

Pan (8)

This knob controls the placement of the signal in the stereo field. When rotated completely counterclockwise, the signal is present only on the left channel; when rotated completely clockwise, only in the right channel. On stereo channels 5/6 and 7/8 on the PV 10, (11/12 and 13/14 on the PV 14), this control functions as a balance control to adjust the relative level of the left and right signals.

Mute (9)

The mute button is a quick way to remove the channel signal from the left/right main mix, effects and monitor sends without disturbing the control setting.

Clip/Mute LED (10)

This light normally indicates that the channel signal level is nearing the overload point, but it also lights when mute is engaged. The clip indicator circuit monitors the signal at many points in the channel to ensure that it catches all instances of clipping. It illuminates at +19 dBu and warns that the gain or EQ boost should be reduced. When it lights, roughly 3 dB of headroom remain.

Signal LED (11)

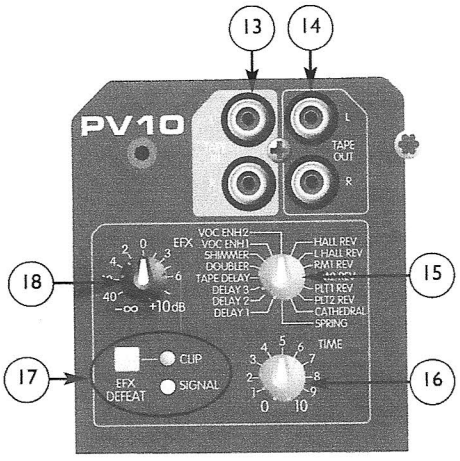
The signal LED lights when the channel level reaches approximately -20 dBu. This not only indicates which channels are active, but also serves as a mini level meter.

Fader (12)

The channel fader is the channel output control and sets the signal level to the left and right mix and the effects send control. The optimum setting is the 0 (unity gain) position.

Tape In/Out (13 & 14)

The tape input jacks are designed to accommodate tape, CD or computer sound card output levels. The output level is +4 dBu for connecting to a recorder or sound card input. The tape inputs can be used as an additional stereo input by engaging the Tape to Main Mix switch (27). The tape input can also be used to monitor the recorder/sound card output without the risk of feedback.



EFX Select (15)

This rotary switch selects one of sixteen available effects. See the table below for descriptions of each.

	Effect	Description	Application	Parameter
1	Hall Rev	Medium Concert Hall	Ensemble	Rev Time
2	Large Hall Rev	Larger Concert Hall Darker	Gen Reverb	Rev Time
3	Room 1 Rev	Intimate Room Bright	Pop Vocal	Rev Time
4	Room 2 Rev	Larger Room Darker	Drums, Rhythm	Rev Time
5	Plate 1 Rev	Bright	Pop Vocal	Rev Time
6	Plate 2 Rev	Darker	Drums	Rev Time
7	Cathedral	Large Space, Long and Darker	Choir	Rev Time
8	Spring	Classic Spring	Guitar	Rev Time
9	Delay 1	Single Delay (Slap-back)	Voc/Instr	Dly Time
10	Delay 2	Warm Delay with Repeats	Instruments	Dly Time
11	Delay 3	Dark Delay with Repeats	Instruments	Dly Time
12	Tape Delay	Warm Delay	Instruments	Dly Time/Feedback
13	Doubler	Single Delay, 30 - 120 ms	Instruments	Dly Time
14	Shimmer	Warm Delay with Modulation	Instruments	Dly Time
15	Vocal Enhancement 1	Brightens and adds Room Reverb	Vocals	Rev Level
16	Vocal Enhancement 2	Brightens and adds Spring Reverb	Vocals	Rev Level

EFX Time (16)

This control adjusts the time of the particular reverb or delay.

Green Signal LED and Red Clip LED (17)

The green Signal LED and red Clip LED are used to set the operating input level to the PV®10 and PV®14 effects processors. The signal level to the processor is affected by channel fader, the effects send and the effects send master controls. Start with the master control set to 0 (12 o'clock) and adjust the channel sends so that the signal LED lights and the clip LED blinks on occasionally, if at all. The clip LED lights 6 db below clipping. Pressing the EFX defeat mutes the effects signal and lights the clip/mute LED.

EFX Return (18)

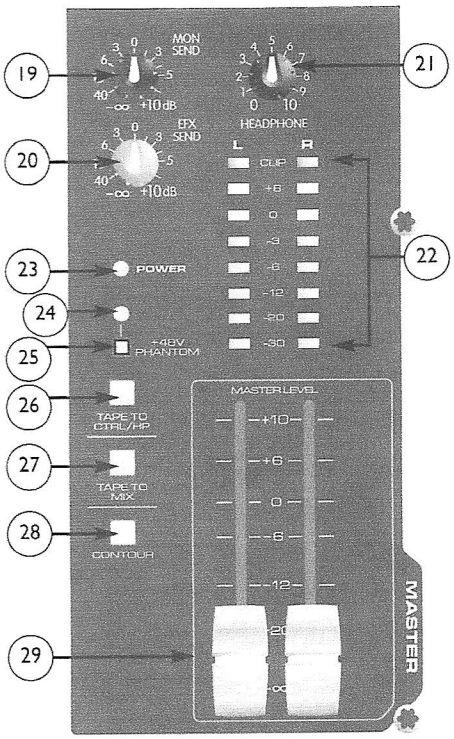
Once the input level is set (see 17) use the EFX return control to mix the effects processor output into the main left/right outputs. Remember, a little reverb goes a long way.

MON Send Master (19)

This is the master output level control for the monitor mix. The output level sent to the Monitor Send jack (36) is controlled by the channel monitor send controls (6) and by this master control.

EFX Send Master (20)

This is the master output level control for the EFX mix. The output level sent to the EFX Send jack and the internal effects processor is controlled by the channel level controls (12), the channel EFX send controls (7) and by this master control. The ***0*** position is the recommended setting for this control.



Headphone Level (21)

This knob sets the headphone and control room output levels. To avoid damage to your hearing, make sure to turn the dial fully counterclockwise before using headphones. Slowly turn the knob clockwise until you reach a comfortable listening level. Normally, the signal in the headphones is the left/right signal. If the Tape to Control Room (26) is engaged, the tape signal is also included.

LED Meters (22)

Two eight-segment LED arrays are provided to monitor the levels of the main left/right outputs. These meters range from -30 dB to +19 dB. 0 dB on the meter corresponds to +4 dBu at the outputs.

Power LED (23)

This LED indicates AC power is supplied to the unit, the power switch is on and the unit is functioning properly.

Phantom Power LED (24)

This LED lights when the Phantom Power Switch (25) has been engaged.

Phantom Power Switch (25)

Applies +48 VDC voltage to the input XLR connectors to power microphones requiring phantom power.

If phantom power is used, do not connect unbalanced dynamic microphones or other devices to the XLR inputs.

Tape To CTRL/HP (26)

Depressing this switch adds the tape return to the Control Room (38) and Headphone Outputs (40) for zero latency monitoring.

Tape to Mix (27)

Depressing this switch routes the signal from the Tape Inputs (13) to the Main Outputs (39).

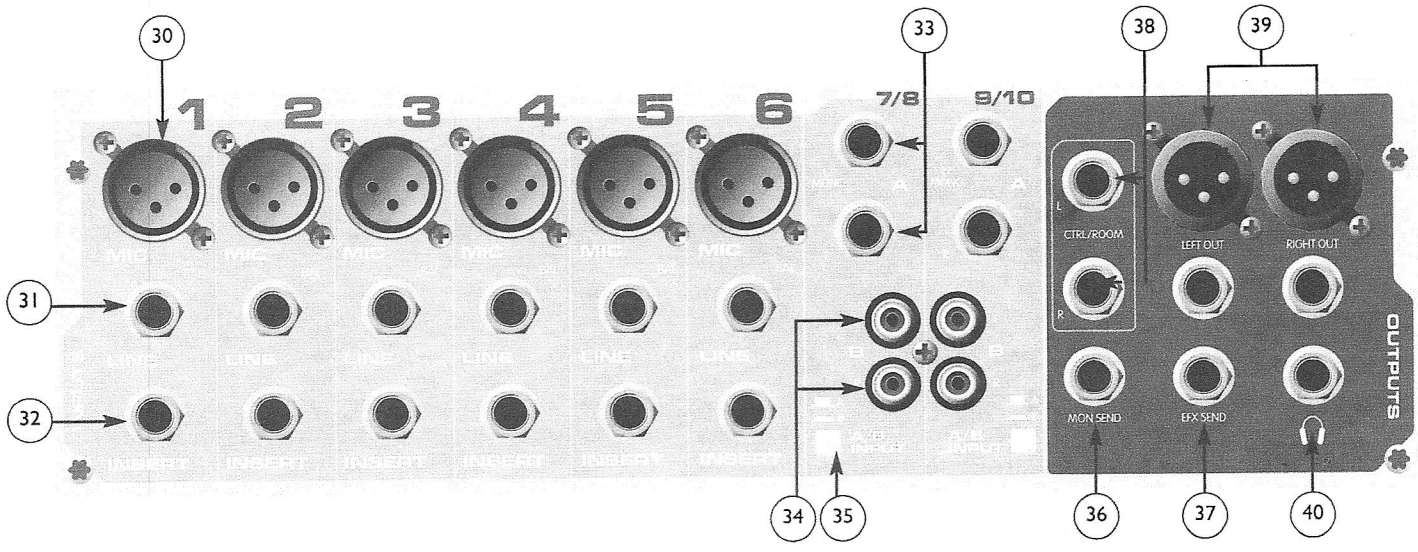
Contour Switch (28)

Engaging this switch enhances the signal by adding both bass and treble frequencies. This is especially effective at lower volumes or for tape/CD playback.

Master Level Faders (29)

The Master Faders control the levels sent to the main left/right outputs. Best results are obtained when these controls are set near the **0** point.

REAR PANEL



Mic (XLR) Inputs (30)

XLR balanced inputs optimized for a microphone or other low impedance source. Pin 2 is the positive input. Because of the wide range of gain adjustment, signal levels up to +14 dBu can be accommodated.

Line (¼") Inputs (31)

¼" balanced (TRS) 10 k Ohm impedance input. The tip is the positive input and should be used for unbalanced inputs. It has 20 dB less gain than the XLR input and does not have phantom power available. The Mic and Line inputs should not be used simultaneously.

Insert (32)

¼" TRS connector allows external signal processors to be inserted into the channel signal path. Tip=Send; Ring=Return; Sleeve=Ground.

Stereo (¼") Inputs (33)

These ¼" unbalanced inputs work as a stereo line input using both jacks or as a mono input if the connection is made to the left/mono input only. The A/B input selector must be in the "A" position for these jacks to be active.

RCA Inputs (34)

These RCA inputs work as stereo line inputs. The A/B input selector must be in the "B" position for these jacks to be active.

A/B Switch (35)

The A/B input selector switch expands the capability of the PV®10 and the PV®14 mixers by allowing two stereo sources to be connected to each stereo line input. Instead of repatching, the switch selects which input jacks are active.

MON Send (36)

The MON Send features a ¼" TRS Z-balanced jack in the master section. This output can be used with the Tip, Ring, Sleeve (TRS) balanced or Tip, Sleeve (TS) unbalanced connectors. The MON mix is determined by the amount of signal being sent to the MON bus in each channel and by the Monitor master control.

EFX Send (37)

The EFX Send features a ¼" TRS Z-balanced jack in the master section. These outputs can be used with Tip, Ring, Sleeve (TRS) balanced or Tip, Sleeve (TS) unbalanced connectors. The EFX mix is determined by the amount of signal being sent to the EFX bus in each channel and by the EFX master control.

Control Room Outputs (38)

The Control Room Outputs feature two ¼" TRS Z-balanced jacks. These outputs can be used with Tip, Ring, Sleeve (TRS) balanced or Tip, Sleeve (TS) unbalanced connectors. The Control Room Output Level is adjusted with the Headphone Level Control (21).

Left/Right Outputs (39)

The left/right Outputs feature two ¼" TRS Z-balanced jacks and two fully balanced XLR outputs. The ¼" outputs can be used with Tip, Ring, Sleeve (TRS) balanced or Tip, Sleeve (TS) unbalanced connectors. The output level is set by the Master Level faders (29). Both outputs can be used simultaneously.

Headphone Output (40)

The Headphone Output is a ¼" TRS (tip= left; ring = right; sleeve = ground). The signal sent to this output is normally the left/right mix. When the Tape to Control Room switch is engaged, the tape input signal is added to the left/right mix and can be monitored in the headphones.

Power Switch (41)

Depressing the power switch supplies power to the unit.

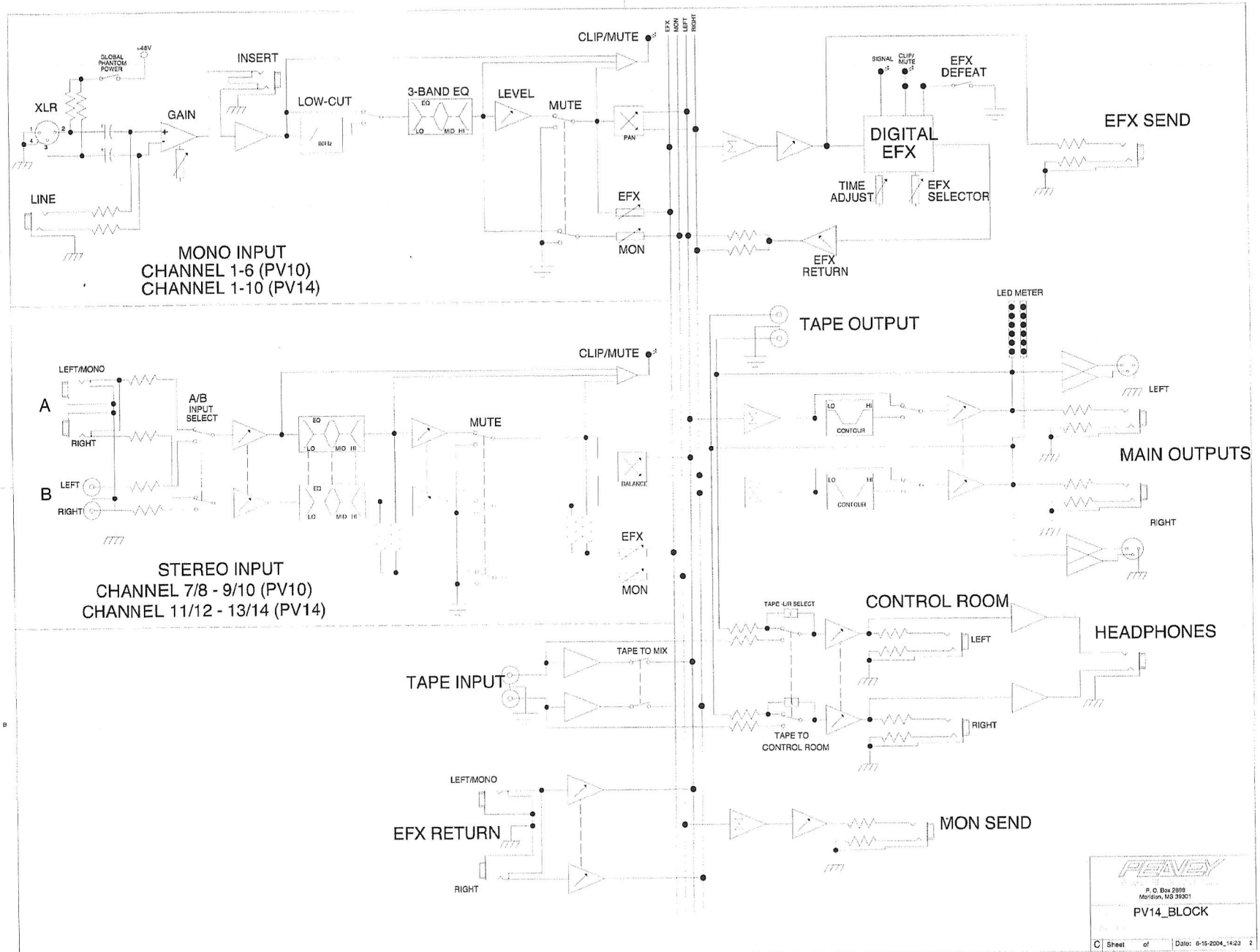
Warning: The power switch in this unit breaks only one side of the line. There may be hazardous energy present inside the mixer when the power switch is in the OFF position.

Removable Power Cord (42)

This receptacle is for the IEC line cord (included) that provides AC power to the unit. Connect the line cord to this connector and to a properly grounded AC supply. Damage to the equipment may occur if an improper line voltage is used (see voltage marking on unit). Never remove or cut the ground pin of the line cord plug. The console is supplied with a properly rated line cord. If lost or damaged, replace this cord with one of the proper rating.

NOTE FOR UK ONLY:
If the colors of the wires in the mains lead of this unit do not correspond with the colored markings identifying terminals in your plug, proceed as follows: (1) The wire that is colored green and yellow must be connected to the terminal marked by the letter E, or by the earth symbol, or colored green or green and yellow. (2) The wire that is colored blue must be connected to the terminal that is marked with the letter N, or colored black. (3) The wire that is colored brown must be connected to the terminal that is marked with the letter L or colored red.

PV® 10 and PV® 14 Block Diagram



PV® 10 & PV® 14 Compact Console

SPECIFICATIONS

Inputs

Function	Input Z (Ohms min)	Input Gain Setting	Input Levels Min**	Nominal*	Max	Bal/Unbal	Connector
Microphone (150 Ohms)	2.2 k	Max Gain (60 dB)	-76 dBu	-56 dBu	-38 dBu	Bal	XLR Pin 1 Gnd Pin 2 (+), Pin 3 (-)
		Min Gain (10 dB)	-24 dBu	-4 dBu	+14 dBu		
Line (10 k Ohms)	10 k	Max Gain (40 dB)	-56 dBu	-36 dBu	-18 dBu	Bal	¼" TRS; Tip (+), Ring (-), Sleeve Ground
		Min Gain (-10 dB)	-10 dBu	+14 dBu	+32 dBu		
Stereo Line Input	10 k	Max Gain (20 dB)	-36 dBu	-16 dBu	+2 dBu	Unbal	¼" TS; Tip (+), Sleeve Ground
		Nominal	-21 dBu	-1 dBu	+17 dBu		
Tape	10 k	N/A (10 dB)	-17 dBu	-10 dBV	+12 dBu	Unbal	RCA Phono

0 dBu = 0.775 V (RMS)

** Min Input Level (sensitivity) is the smallest signal that will produce nominal output (+4 dBu) with channel and master faders set for maximum gain.

* Nominal settings are defined as all controls set at 0 dB (or 50% rotation for rotary pots) except the gain adjustment pot which is as specified.

Outputs

Function	Min Load Z (Ohms)	Output Level Nominal	Max	Bal/Unbal	Connector
Main Left/Right	600	+4 dBu	+22 dBu	Bal	XLR Pin Ground Tip Pin 2 (+), Pin 3 (-) ¼" TRS: Tip (+), Ring (-), Sleeve Ground
Effects and Monitor Sends	600	+4 dBu	+22 dBu	Bal	¼" TRS, Tip (+), Ring (-) Sleeve Ground
Control Room	600	+4 dBu	+22 dBu	Bal	¼" TRS, Tip (+), Ring (-) Sleeve Ground
Headphone	8	+4 dBu (no load)	+22 dBu	Unbal	¼" TRS; Tip Left, Ring Right, Sleeve Ground
Tape	2.2 k	+4 dBu	+22 dBu	Unbal	RCA Phono

0 dBu = 0.775 V (RMS)

Gain

Mic Input Gain Adjustment Range:	10 dB to 60 dB
Mic Input to Left/Right Balance Output	88 dB (max gain)
Line Input Gain Adjustment Range:	-10 dB to 40 dB
Line Input to Left/Right Balance Output	60 dB (max gain)
Stereo Line Input Gain Adjustment Range:	Off to +20 dB
Stereo Line Input to Left/Right Output	40 dB (max gain)