

# SOUND DEVICES



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# MixPre-D

## User Guide and Technical Information



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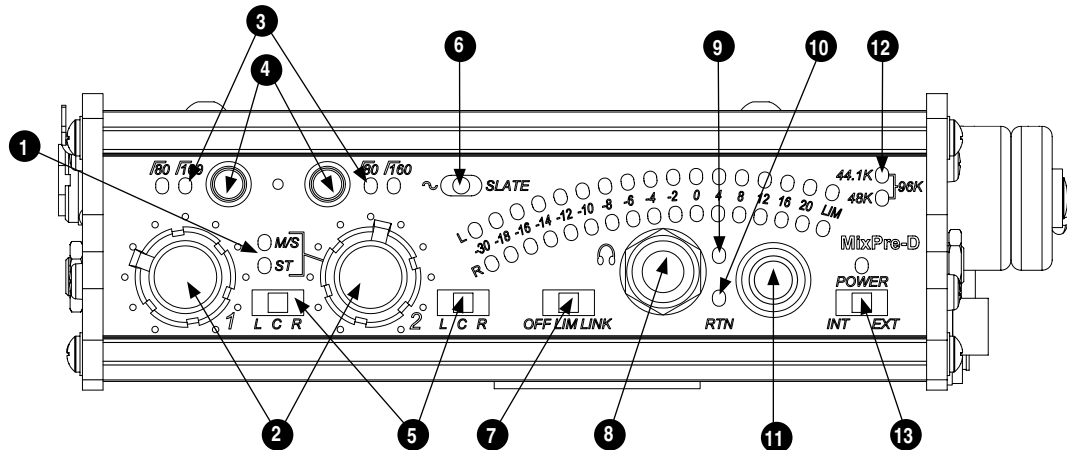
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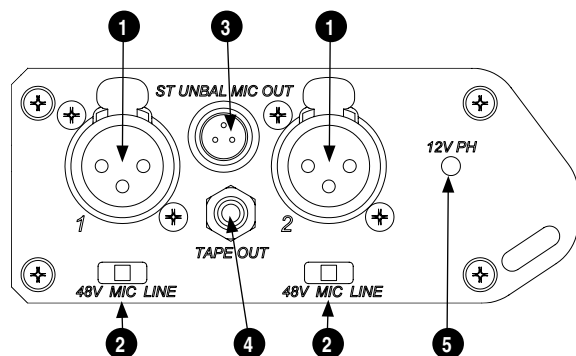
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## Front Panel Description

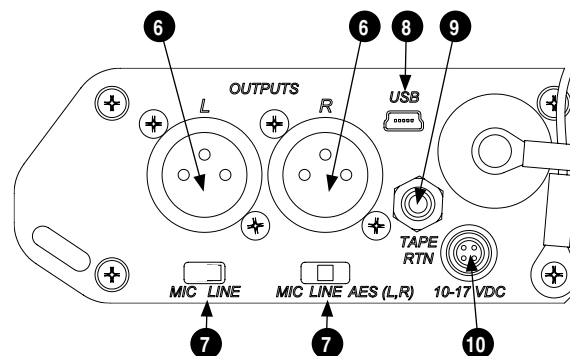


- 1) **Link LEDs**  
Indicates linked status of inputs. **Both LEDs off:** no link; **Bottom LED illuminated:** stereo linking; **Both LEDs illuminated:** MS stereo linking. *See [Input Linking](#)*
- 2) **Input Gain Controls**  
Potentiometers to adjust input gain. Fully counter-clockwise is off.
- 3) **High-Pass Filter LEDs**  
Indicates that the high-pass filter is engaged for the input. **One LED illuminated:** 80 Hz; **Both LEDs illuminated:** 160 Hz.
- 4) **Input Buttons**  
Toggles between high-pass filter settings for the input (Off / 80 Hz / 160 Hz).
- 5) **Pan Switches (Input Assignment)**  
Three-position switch pans input to Left, Center (both left and right) or Right outputs. When inputs are linked, Input 2 Pan Switch function is altered. *See [Input Linking](#)*
- 6) **Tone Oscillator/Slate Microphone Switch**  
Toggle switch activates a 1 kHz tone oscillator when switched to the left position and activates the slate microphone when in the right (momentary) position. Microphone inputs are muted when tone or slate are activated.
- 7) **Limiter Switch**  
Activates both the input and output limiters. **Middle:** (LIM) dual-mono limiter operation; **Right:** (LINK) stereo operation. Threshold is adjustable. *See [Front Panel Shortcuts](#)*
- 8) **Headphone Connector**  
Accepts stereo and mono headphones with 1/4-inch connectors.
- 9) **Return Signal LED**  
Indicates presence of signal on RTN input or Channel 3 & 4 input. *See [Inputs 3 and 4](#)*
- 10) **Monitor Source LED**  
Indicates monitor source. **Off:** output bus. **Solid:** Return signal; **Flashing:** USB output signal. *See [Computer Interface](#)*
- 11) **Headphone Controller**  
Rotating controls headphone gain. Push to cycle between monitor sources. Also controls various secondary functions. *See [Front Panel Shortcuts](#)*
- 12) **Sample Rate LEDs**  
Indicates the current sample rate when AES output is active or USB is connected.
- 13) **Power Switch and LED**  
Three position switch: **Middle:** off; **Left:** (INT) internal power; **Right:** (EXT) external power. Power illuminates green for adequate voltage and flashes green when voltage is low.

## Side Panels Description



- 1) **XLR Inputs**  
Transformer balanced input stage. Pin 1: ground; Pin 2: 'hot' (+); Pin 3: 'cold' (-). Can be unbalanced by grounding pin 3 to pin 1 of the XLR connector.
- 2) **Mic/Line and Phantom Power Switch**  
Selects the input level of the adjacent XLR input. **Left:** (48V) mic level with phantom power; **Middle:** (MIC) mic level without phantom power; **Right:** (LINE) line level. Mic level has 40 dB more gain than line level.
- 3) **Stereo Mic-level Output**  
Unbalanced stereo signal on a TA3 connector. Signal from this output is mic level (-36 dBu). Pin 1: ground; Pin 2: left; Pin 3: right.
- 4) **Stereo Line-level Output (Tape Out)**  
Unbalanced, stereo, 3.5 mm output connector. Signal from this output is aux level (-10 dBu). Tip: left; Ring: right; Sleeve: ground.
- 5) **12V Phantom LED**  
**Illuminated:** phantom power is set to 12 V; **Off:** phantom power is set to 48 V.
- 6) **XLR Outputs**  
Active-balanced outputs. Mic or Line switchable. Right output can also be set to AES. Pin 1: ground; Pin 2: 'hot' (+); Pin 3: 'cold' (-).



- 7) **XLR Output Switch**  
Sets level of output XLRs. **Left:** (MIC) mic level (-40 dB); **Middle:** (LINE) line level; **Right:** (AES) AES digital. The AES setting is available on the right output only. AES signal carries 2 channels on one balanced connector.
- 8) **USB Port**  
USB connector for interconnection with the computer. USB 1.1 and 2.0 compliant.
- 9) **Return Input**  
Unbalanced, stereo, 3.5 mm input connector. Feeds return signal to monitors or 3,4 Inputs. *See Inputs 3 and 4.* Tip: left; Ring: right; Sleeve: ground.
- 10) **DC Input**  
Accepts input voltage from 10 to 17 V for mixer powering. Pin 1: negative (-); Pin 4: positive (+). External DC is isolated (floating) from the rest of the circuitry.

## Inputs

The MixPre-D features two transformer balanced analog inputs. Each input provides enough gain to amplify a variety of signals from low-sensitivity ribbon and dynamic microphones, medium-level wireless and condenser microphones, and “hot” line level signals.

The XLR inputs of the MixPre-D are transformer-balanced. The isolation characteristics of transformers are superior to other balancing techniques and are ideal for the hostile and uncontrolled environments of field production. Transformers provide galvanic isolation from the driving source, meaning there is no direct electrical connection. Signals are “transformed” magnetically. The input transformers in the MixPre-D use premium magnetic core material to achieve high signal handling capability (especially at low frequencies) while keeping distortion to a minimum. Because of their inherently high common mode impedance, transformers are unrivaled by any other type of input for common-mode noise rejection.

The inputs of the MixPre-D can be used as balanced or unbalanced. When unbalancing, ground pin-3 to pin-1 of the XLR connector. There is no change in gain between unbalanced and balanced connections into the MixPre-D.

### Mic / Line Setting




Before plugging a source into an XLR input on the MixPre-D, set the Mic/Line and phantom powering switch to the correct position:

Setting	Input Source
48V	Condenser microphones requiring phantom power
MIC	Dynamic microphones, some ribbon microphones, devices outputting mic-level signal (for example, wireless receivers).
LINE	Devices outputting line-level signal (outputs from other mixers, for example)

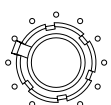
### Phantom Power

Phantom powering is a fixed DC voltage at either 12 or 48 volts. This voltage is resistively applied to pin-2 and pin-3 of an XLR connector relative to pin-1. There is no voltage difference between the signal pins-2 and -3. Dynamic microphones will operate as normal when phantom power is applied to them.

The MixPre-D can provide up to 10 mA to each input at 48 V, sufficient for the most power-hungry condenser microphones. Many phantom powered microphones do not require 48 V and can be properly powered with 12 V. When acceptable, use 12 V phantom to extend the MixPre-D’s battery life. The phantom voltage level can be set to either 12 V or 48 V and is applied across all inputs where phantom power is selected.

 To change the phantom voltage between 12 V and 48 V, hold down the Headphone Controller and slide the Slate switch into the slate position. The 12 V Phantom LED on the left side panel illuminates green when the phantom voltage is set to 12 V.

### Input Gain Control



The amount of gain applied to an input is adjusted with the Input Gain Control. A fully clockwise position results in no signal passing from the input to the output bus (muted). Up to 66 dB of gain is available from for microphone inputs.

## High-pass Filter

Each input of the MixPre-D has a two-position high-pass filter. High-pass (or low-cut/low frequency roll-off) filters are useful for removing excess low frequency energy in audio signals. Wind noise is a common unwanted low frequency signal and a high-pass filter is effective for reducing wind noise. For most audio applications engaging the high-pass filter is beneficial, since little usable audio information exists below 80 Hz, especially for speech reproduction.

The MixPre-D's high-pass filters feature a 6 dB/octave slope with either 80 Hz or 160 Hz corner (-3 dB) frequencies. The 160 Hz setting is used when aggressive filtering is required. The MixPre-D's high-pass circuit is unique because of its placement before any electronic amplification. Most mixer's high-pass circuits are placed after the mic preamp, where all of the high-energy low-frequency signals get amplified. Because the MixPre-D's circuit cuts low-frequency signals before amplifying, higher headroom is achieved in presence of signals with a high amount of low-frequency energy.

When possible, attempt to equalize at the sound source with microphone selection, use of wind-screens, microphone placement, and on-board microphone filtering. Many microphones have on-board high pass filters, and the high-pass filters on the MixPre-D can be used in conjunction with the microphone's filters to increase the filter's slope.

The three available high-pass filter settings are switched for each input by pressing the Input Button for the adjacent input. The two blue High-pass Filter LEDs for each input indicate the setting of the high-pass filter for the adjacent input.

## Limiters


The MixPre-D Limiters act solely as "safety" limiters. Activate the Limiters using the front panel "LIM" switch. Both input and output limiters are active, with input limiters preventing overload of the input stage and output limiters preventing the MixPre-D from overloading the next device in the signal chain.

In normal operation, with a properly set gain structure, the limiter threshold is only occasionally reached. In the presence of extremely high input signal levels, such as in high SPL environments, the limiter(s) activate to prevent the input signal from clipping. The limiters have no effect on audio below the set threshold.

When Inputs 1 and 2 are linked as a stereo pair, the limiters also link; gain reduction is equal for both inputs.

To change the threshold of the limiters, hold down both the Input 1 Button and the Input 2 Button and turn the Headphone Controller.

## Pan Switch

 The pan switches assign inputs to the channels of the output bus. Inputs can be sent to the left, right, or both outputs equally. The MixPre-D features excellent "off-attenuation" in the left and right positions. With the use of the pan switches, separate mixes can be sent to the left and right outputs. For example, a summed mono mix of both inputs can be sent to the right output while a single input can be sent to the left output.

## Inputs 3 and 4

Each channel of the Tape Return input can be routed to various locations. When additional inputs are needed (such as when multiple wireless receivers are used) the Tape Return channels can be independently routed to the main output bus of the MixPre-D to act as additional inputs (3 and 4).

To cycle between the available routings of the Tape Return signal, hold down the Input 1 Button (for Channel 3) or the Input 2 Button (for Channel 4) and press the Headphone Controller. An LED in the right meter will illuminate to represent the destination of the routing:

- -30: RTN L (Channel 3) or RTN R (Channel 4)
- -18: Left output bus.
- -16: Center (left and right) output bus
- -14: Right output bus

When any channel of the Tape Return input is routed to the main output bus, the RTN Monitor Source is disabled.

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*The TAPE RTN (Input 3 and 4) Input is an unbalanced stereo input that is suitable for tape or line level devices only. There are no microphone preamps on Inputs 3 and 4.*

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## Input Linking

Stereo linking allows Inputs 1 and 2 to be controlled as a single, stereo input. This is useful when stereo microphones or stereo line level signals are used with the MixPre-D. There are two modes of operation for stereo linking, X/Y link and MS stereo.

The Linked status of the inputs is indicated by the Link LEDs on the front panel. When both LEDs are off, the inputs are not linked. To cycle between linking configurations hold down both Input 1 and Input 2 Buttons and slide the Slate Switch to the Slate position.

### X/Y Stereo Link

When in X/Y stereo link operation, Input 2's Pan Switch controls the stereo image (**L**: Input 1 = Left, Input 2 = Right; **C**: Both Inputs in both channels; **R**: Input 1 = Right, Input 2 = Left). Channel 2's Fader controls the overall level of the stereo pair. Input 1 and 2's High-pass Filters continue to act independently of each other. When linked, Input 1 and 2's Limiters are also linked.

### MS Stereo Linking

When MS stereo linking is selected in the Setup Menu, Inputs 1 and 2 are linked as an MS (Mid-Side) stereo pair. Connect the mid signal (unidirectional / cardioid microphone) to Input 1 and the side signal (bi-directional microphone) to input 2.

Input 2's Level Control adjusts the overall gain of the MS stereo pair. Input 1's Level Control adjusts the "spread", or width of the stereo image. Input 2's Pan Switch controls the polarity of the side signal (**L**: Normal, **R**: Inverted). Reverse polarity to flip the stereo image between right and left. The center ("**C**") position of Input 2's Pan Switch mutes the side signal; only the mid signal is present, resulting in a mono signal. Input 1's Pan Switch is disabled in MS linking mode. Input 1 and 2's High-pass Filters continue to act independently of each other.

## Outputs

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The MixPre-D is a two-output-bus mixer. Each input can be "hard panned" between the left and right output bus making it easy to use the MixPre-D in either stereo or dual-mono operations. Because dialog is often recorded in mono, each output connector can be used to send signal to separate cameras or recorders. The MixPre-D's XLR Outputs, Tape Outputs, Stereo Unbalanced Mic Outputs, and AES Digital Output share the same program content and pan assignment.

There is no master level control on the MixPre-D. The master is factory-set to unity gain, or "0" dB.



## XLR Outputs

The two XLR outputs are active-balanced connections, each capable of driving long lines. These connections can be used as either balanced or unbalanced. When unbalancing, use pin-2 for (+) and pin-1 for ground; float (leave open) pin-3.

## Tape Output

The Tape Output is typically used to interface with consumer inputs such as Comtek inputs or consumer transcription recorders. The MixPre-D has an unbalanced, two-channel tape level output on a single, TRS 3.5 mm connector.

The Tape Output program is identical to the XLR Output. Tape Out level is fixed at a -10 dBu nominal level and is electrically isolated from the XLR Outputs. Additionally, the Tape Output is used for the Mix Out signal to link multiple Sound Devices mixers. *See Mixer Linking.*

## AES Digital Output



The Right XLR Output can be set to AES digital signal by sliding the XLR Output switch to “AES”. In this configuration, the Right XLR Output contains both channels of the MixPre-D’s output as a balanced, AES3 signal. All other outputs are unaffected, so inputs panned left will appear on the left channel of the AES output plus the left channel of all analog outputs (including the left XLR main output).

## Sampling Rate

The MixPre-D’s digital system operates at sample rates of 44.1 kHz, 48 kHz, or 96 kHz. When either a USB connection or AES output is enabled the operating sample rate of the MixPre-D is indicated by the front panel Sample Rate LEDs. If AES output is disabled and there is no USB connection to a computer both Sample Rate LEDs are off.

To change the sampling rate of the MixPre-D, hold down the Headphone Controller while sliding the Right XLR Output switch to “AES”.

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*When connected to a computer with a USB cable, the sample rate of the MixPre-D is set by the computer’s operating system and the sample rate cannot be changed from the MixPre-D. [See Computer Interface](#)*

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## Stereo Unbalanced Mic Output

ST UNBAL MIC OUT



The Stereo Unbalanced Mic Output is designed to interface with “prosumer” DSLR-type cameras. The MixPre-D has an unbalanced, two-channel “hot” mic level output on a single, locking, TA3M connector.

The Stereo Unbalanced Mic Output program is identical to the XLR Output. This output is fixed at a -36 dBu.

# Monitoring


## Headphone Gain



Headphone output level is controlled by the front panel Headphone Controller. While turning the Headphone Controller, the headphone gain level is indicated on the Right Output Meter.

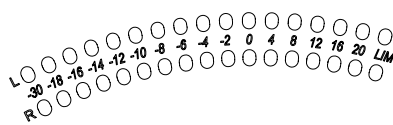
*The MixPre-D can drive headphones to dangerously high levels. Turn down the headphone gain before selecting a headphone source to prevent accidental signal extremes.*

### Headphone Source Selection

-  The source of the headphone output can be selected by pressing the Headphone Controller.
- The Headphone Source LED indicates what source program is present in the headphone output.

Headphone Source LED	Headphone Source
Off	Main mixer output (Including Channel 3/4 input, if enabled)
Solid Blue	Return signal
Flashing Blue	Computer Audio (Only available in Interface Mode)

### Metering



The MixPre-D features two large 16-segment LED output meters. The meters use energy-efficient GaN LEDs, which are clearly visible in full sunlight. The MixPre-D output meters are unaffected by shock, temperature, or humidity extremes.


The MixPre-D meters display input levels in a peak + VU format. The perceived loudness (VU) is displayed on a bar graph, and the Peak signal on a dot above the VU. This metering format provides the best of both VU and Peak metering by seeing the “loudness” of the signal while simultaneously showing peaks.

To adjust the brightness of the meters (and other front panel LEDs) slide and hold the Slate Switch in the Slate position and turn the Headphone Controller.

## Tone Oscillator & Slate Microphone


A single, two-position switch controls both the slate microphone and the tone oscillator.

### Slate Microphone

 **SLATE** The built-in MixPre-D slate microphone is used to notate scenes from the mixer location. Its audio performance is not suitable for critical recording applications; it should be used for documenting scenes and for communication purposes only.

The slate mic uses the momentary right switch position. Hold the switch to the right to activate, and release to turn off. Program audio is muted when the slate mic is active. The slate is sent to all outputs.

### Tone Oscillator

 **TONE** Tone is used to set gain between the MixPre-D and the next device in the signal path. The tone oscillator uses the locking left position of the slide switch. Slide left to activate, and slide right to deactivate.

The tone oscillator outputs a 1 kHz sine wave at 0 dBu to the outputs (when the outputs are set to Line Level). Program audio is muted when tone is active. Tone is sent to all outputs. The MixPre-D headphone outputs are attenuated when tone is activated.

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## Powering

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The MixPre-D can be powered from either internal batteries or from external DC. The power-efficient MixPre-D can operate from two AA alkaline batteries for nearly a production day (less with phantom powering). While many users prefer external DC sources to power both their mixer and wireless receivers, the use of internal batteries is perfectly feasible for both primary and backup powering of the MixPre-D.

### Power Switch and LED

The 3-position power switch selects between internal batteries, external DC, or power off. There is sufficient capacitance in the power supply circuit to toggle between internal and external without any disruption in audio.

The power LED illuminates solid green to indicate good power. The power LED flashes green when the internal batteries are low.

### Internal Batteries

The MixPre-D accepts two standard AA batteries (1.2 to 1.65 Volts). The robust battery cap and tube are sealed to prevent inadvertent battery leakage from reaching internal circuitry. The threaded-nickel cap extends beyond the panel to make battery changes easy and quick.

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*Remove batteries when the unit is stored for extended periods.*

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### External DC Sources

For extended mixer runtime use an external DC source. The MixPre-D can be powered from any DC source with a voltage range of 10 volts to 18 volts. If an over voltage is applied to the mixer, an internal poly fuse is opened to prevent mixer damage. The fuse is reset when the voltage is removed.

The external DC supply is isolated (floating) from the circuitry to minimize ground loop and interaction among devices sharing the same DC source. The external DC connector is a Hirose 4-pin female. This locking connector mates to Hirose P/N HR10-7P-4P (Sound Devices P/N XL-H). Pin-1 is negative and pin-4 is the positive voltage.

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## Computer Interface

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The MixPre-D is an USB Audio Device Class peripheral. When attached to a computer as an audio interface, the stereo output bus is sent to the computer as left and right inputs and the left/right audio output of the computer is sent to the headphone output of the MixPre-D.

No proprietary drivers are required to operate the MixPre-D. The MixPre-D directly operates with Mac OS 10.4+, Windows XP, Vista, and 7 (both 32- and 64-bit), or Linux (*See Computer System Requirements* for details). The first time the MixPre-D is plugged in, the operating system will enable standard USB Audio Device Class drivers automatically (if necessary).

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*When connecting the MixPre-D to computers running Linux or any version of Macintosh OS X previous to 10.5.8, it is necessary to run the MixPre-D in "full-speed" USB mode. To do this, hold down the Headphone Controller while inserting the USB plug to the MixPre-D.*

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### Installation and Connection with Mac OS

Before connecting the MixPre-D, quit all open applications which use audio. Audio application that are open when the MixPre-D is connected may not recognize the MixPre-D until the application is restarted.

#### OS X Audio / MIDI Setup

1. Follow *Applications > Utilities > Audio MIDI Setup* to open the *Audio MIDI Setup* dialog.
2. OS X 10.6 and later: Highlight the MixPre-D item in the list of devices, click the button with the gear icon and select *Use this device for sound output*. Click the button with the gear icon again and select *Use this device for sound input*.

OS X 10.5 and earlier: Ensure that the MixPre-D is selected for both the *Default Input* dropdown menu and the *Default Output* dropdown menu in the *System Settings* section.

#### Adjusting Sample Rate in OS X

1. Follow *Applications > Utilities > Audio MIDI Setup* to open the Audio MIDI Setup dialog.
2. OS X 10.6 and later: Highlight the MixPre-D item and adjust the sample rate and bit depth from the drop-down box labeled *Format*.

OS X 10.5 and earlier: Select the MixPre-D from the *Properties For* dropdown menu, then set the sample rate, channel count, and bit depth as desired from the dropdown menus in the *Audio Input* section and the *Audio Output* section.

### Windows Installation and Connection

Before connecting the MixPre-D, quit all open applications that use audio. Audio application that are open when the MixPre-D is connected may not recognize the MixPre-D until the application is restarted.

#### Windows Vista and Windows 7 Sound Control Panel

1. Follow *Start > Control Panel > Sound*.
2. Click the *Playback* tab.
3. Click to select the item labeled "MixPre-D" in the list of devices.
4. Click the *Set Default* button. A green check mark icon will appear next the MixPre-D entry and the phrase "Default Device" will appear below the entry, indicating that the MixPre-D is now the default playback device.
5. Click the *Recording* tab and repeat and repeat steps 3 and 4 to make the MixPre-D the default recording device.
























#### Adjusting Sample Rate in Windows Vista and Windows 7

1. Follow *Start > Control Panel > Sound*.
2. Click the *Playback* tab. Highlight (Single click) the entry labeled "MixPre-D" and then Click the *Properties* button.
3. Click the *Advanced* tab. Select the desired bit depth and sample rate from the dropdown menu.








#### Windows XP Sound Control Panel

1. Follow *Start > Control Panel*. The control panel view will be in either "Classic view" or "Category view".
2. If category view is enabled, click *Sounds, Speech, and Audio Devices*, then click *Sounds and Audio Devices*. Skip to step number 4.
3. If classic view is enabled, click *Sounds and Audio Devices*.
4. Click the *Audio* tab. Select the MixPre-D from the *Default device* dropdown menu in the *Sound playback* section. Select the MixPre-D from the *Default device* dropdown menu in the *Sound recording* section.

## Front Panel Button Shortcuts

Function	Key Sequence	Action
HP Source Toggle		<b>Press Headphone Controller.</b> Switches monitor source between mixer output (LED off), RTN program (solid blue LED), and computer output (flashing blue LED).
RTN Level	 + 	<b>Press and hold Headphone Controller then turn Headphone Controller.</b> Adjusts the input level of RTN input.
Limiter Threshold	 +  + 	<b>Hold Input 1 Button, hold Input 2 Button, and turn Headphone Controller.</b> Adjusts the threshold level of the limiter.
Input Linking	 +  + 	<b>Hold Input 1 Button, hold Input 2 Button, and slide Slate Switch right.</b> Switches input linking between unlinked (no LEDs), stereo linking (one LED lit), and M/S linking (both LEDs lit).
12V Phantom	 + 	<b>Slide and hold Slate Switch right and press Headphone Controller.</b> Switches between 48V phantom and 12V phantom (for mic inputs setting only).
LED Brightness	 + 	<b>Slide and hold Slate Switch to the right and turn Headphone Controller.</b> Adjusts brightness of all LEDs
Sample Rate	 + 	<b>Hold Headphone Controller while switching Right Output Switch to AES.</b> Switches between 44.1 kHz, 48 kHz, and 96 kHz sample rates.
Channel 3 Assign	 + 	<b>Hold Input 1 Button and press Headphone Controller.</b> Switches destination of left channel of RTN input between RTN left (-30 on meter), left output bus (-18), center output bus (-16), and right output bus (-14).
Channel 4 Assign	 + 	<b>Hold Input 2 Button and press Headphone Controller.</b> Switches destination of right channel of RTN input between RTN right (-30 on meter), left output bus (-18), center output bus (-16), and right output bus (-14).
Channel 3 Level	 + 	<b>Hold Input 1 Button and turn Headphone Controller.</b> Adjusts input level of input 3 (when set to something other than RTN left).
Channel 4 Level	 + 	<b>Hold Input 2 Button and turn Headphone Controller.</b> Adjusts input level of input 4 (when set to something other than RTN right).

## Connector Pin Assignments

Connector		Pin Assignments	Notes
XLR-F Analog Inputs 1-2		1 – ground 2 – signal (+) 3 – signal (-)	3.3k ohm input impedance, Mic- and Line-level Transformer Balanced. For unbalanced, pin 1 and pin 3 tied together = ground, pin 2 = positive.
3.5 mm Return Input		tip – signal L ring – signal R sleeve – signal ground	Mates with 3.5 mm TRS jack. Signal is unbalanced.
XLR-M Master Outputs/ AES Output		1 – ground 2 – signal (+) 3 – signal (-)	Transformer balanced, Output Level is selectable using switch between Mic or Line-level. For unbalanced, pin 1 and pin 3 tied together = ground, pin 2 = positive. Balanced AES3 Out on Right XLR connector, 110 ohm, 2 V p-p, AES3 and S/PDIF compatible with RCA adaptor.
3.5 mm Tape Output		tip – signal L ring – signal R sleeve – signal ground	Mates with 3.5 mm TRS jack. Signal is unbalanced.
TA3-M Stereo Mic Output		1 – ground 2 – left signal 3 – right signal	Unbalanced stereo output for interconnection to stereo mic inputs. Mic level (-36 dBu). Mates with Switchcraft TA3F-type connector.
1/4-inch Female Headphone		tip – signal L ring – signal R sleeve – signal ground	Mates with 1/4-inch TRS jack.
Hirose 4-pin DC Input		1 – ground 2 – not connected 3 – not connected 4 – DC (+)	10-17 Volt DC input. Mates with Sound Devices XL-NPH and XL-WPH3 powering accessories. See Accessories for details.

## Specifications

Frequency Response	20Hz - 30 kHz, +0.2, -0.5 dB (relative to 1 kHz level with 150 ohm source, gain controls set at 50%)	
Equivalent Input Noise	-126 dBu (-128 dBV) max. mic in to line out (150 ohm source, flat weighting, 22 Hz - 22 kHz bandwidth, gain control set at 50% or higher, phantom power off)	
Input Clipping Level	-10 dBu min. (mic level)	+28 dBu min. (line level)
Gain	<ul style="list-style-type: none"> <li>Line to Line, max: 26dB</li> <li>Line to Mic, max: -14dB</li> </ul>	<ul style="list-style-type: none"> <li>Mic to Mic, max: 26dB</li> <li>Mic to Line, max: 66dB</li> <li>Unbalanced mic TA3 relative to Line out: -36dB</li> </ul>
Dynamic Range	110 dB min., mic input to line output	
THD + Noise	0.05% max. (from 50 Hz to 22 kHz @ +4 dBu output level)	
Common Mode Rejection Ratio	100 dB min. at 80 Hz, 60 dB min. at 10 kHz	
Inputs	Transformer-balanced, 2k mic input impedance, 16k line input impedance	
Outputs	<ul style="list-style-type: none"> <li>XLR-Line/Mic: active-balanced, 100 ohm output impedance</li> <li>XLR-AES3: balanced, 110 ohm, two-channel, on right XLR connector</li> <li>TA3: unbalanced mic-level output, pin-2 left, pin-3 right, pin-1 ground, 200 ohm output impedance</li> <li>Tape (3.5 mm) Unbalanced, tip-left, ring-right, sleeve-ground, 2.1k ohm output impedance</li> </ul>	
Output Noise	-100 dBu (-102 dBV) max. (22 Hz - 22 kHz bandwidth, flat filter)	
High Pass Filters	80 Hz or 160 Hz (switch selectable), 6 dB per octave	
Phantom Power	12-volt through 680 ohm resistors or 48-volt through 6.8 k resistors (switch selectable)	

<b>Limiters</b>	<ul style="list-style-type: none"> <li>• Threshold adjustable</li> <li>• +6 dBu to +18 dBu</li> <li>• 20:1 limiting ratio</li> </ul>	<ul style="list-style-type: none"> <li>• 1 mS attack time</li> <li>• 500 mS release time.</li> </ul>
<b>Metering</b>	<ul style="list-style-type: none"> <li>• 16 segment x 2 GaN (Gallium Nitride) meters,</li> <li>• peak + VU responding</li> </ul>	
<b>Powering</b>	Internal: 2 AA alkaline batteries, 4 hours life typical, no phantom power	External: 10-17 VDC via 4-pin Hirose, pin 4 = +, pin 1 = -, completely isolated floating supply
<b>USB Connectivity</b>	USB class-compliant device, analog input to USB output, USB monitoring in headphones	
<b>A/D Converter</b>	<ul style="list-style-type: none"> <li>• 103 dB typical, A-weighted.</li> <li>• Sample rate selectable 44.1 k, 48 k, or 96 k.</li> </ul>	
<b>Temperature</b>	<ul style="list-style-type: none"> <li>• Operating: -20° C to 60° C, 0 to 95% relative humidity; (non-condensing)</li> <li>• Storage: -40° C to 85° C</li> </ul>	
<b>Weight</b>	0.7 kg, 1.5 lbs with batteries	
<b>Dimensions</b>	43 mm x 94 mm x 140 mm (h x w x d), (1.7" x 3.7" x 5.5")	

## Accessories

Several high-value accessories are available for the MixPre-D. For a full list of Sound Devices products and accessories, visit our web site [www.sounddevices.com/products](http://www.sounddevices.com/products).

### Optional MixPre-D Related Accessories

<b>XL-2F</b>	25-inch XLR-F to TA3-F cable, used to connect the MixPre-D's balanced analog (XLR-M) outputs to units with balanced, TA3-M inputs (7-Series recorders); package of two.
<b>XL-4</b>	Bag of four (4) TA3-F-type connectors.
<b>XL-3</b>	TA3-F to 3.5 mm TRS, used to connect the MixPre-D's unbalanced, stereo mic level output (TA3-M) to camera inputs, or for connecting the MixPre-D's Tape Output (3.5mm TRS) to the Mix Input (TA3-M) on a 302, or 552.
<b>XL-AB</b>	Anton Bauer D-tap to Hirose 4-pin, 12-inch, to power mixer from Anton Bauer-equipped camera
<b>XL-CAM</b>	Removable top-mounted 1/4-20 thread mount
<b>XL-TA25</b>	TA5F to 3.5 mm TRS, 12-inch, used to connect MixPre-D Tape Output (3.5mm) to 552 TA5M Link I/O (TA5M).
<b>XL-H</b>	Bare Hirose 4-pin locking DC connector (HR10-7P-4P).
<b>XL-NPH</b>	NP-type battery cup with 24-inch cable terminated in Hirose 4-pin locking DC connector (HR10-7P-4P) at equipment end.
<b>XL-WPH3</b>	AC to DC Power Supply (in-line) 100 - 240V 50/60 Hz input, 12 VDC 3.75 A (45 W) output, Hirose 4-pin DC plug. Supplied with 3-pin IEC cord for use in North America and Japan.



## Warranty and Technical Support

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### Warranty & Service

Sound Devices, LLC warrants the MixPre-D against defects in materials and workmanship for a period of ONE (1) year from date of original retail purchase. This is a non-transferable warranty that extends only to the original purchaser. Sound Devices, LLC will repair or replace the product at its discretion at no charge. Warranty claims due to severe service conditions will be addressed on an individual basis. THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE. SOUND DEVICES, LLC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOUND DEVICES, LLC IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY. Because some jurisdictions do not permit the exclusion or limitations set forth above, they may not apply in all cases.

For all service, including warranty repair, please contact Sound Devices for an RMA (return merchandise authorization) before sending your unit in for repair. Product returned without an RMA number may experience delays in repair. When sending a unit for repair, *please do not include accessories, including carry cases, cables, or adapters unless instructed by Sound Devices.*

Sound Devices, LLC  
Service Repair RMA #XXXXX  
300 Wengel Drive  
Reedsburg, WI 53959 USA  
telephone: (608) 524-0625

### Technical Support / Bug Reports

For technical support and bug reporting on all Sound Devices products contact:

Sound Devices, LLC  
E-mail: [support@sounddevices.com](mailto:support@sounddevices.com)  
web: [www.sounddevices.com/support](http://www.sounddevices.com/support)  
Telephone: +1 (608) 524-0625 / Toll-Free in the U.S.A.: (800) 505-0625  
Fax: +1 (608) 524-0655



## CE Declaration of Conformity

According to ISO/IEC Guide 22  
 Sound Devices, LLC  
 300 Wengel Drive  
 Reedsburg, WI 53959 USA

declares that the product, MixPre-D Field Mixer is in conformity with and passes:

EN55103-1, 1997	EMC-Product family standard for audio, visual, audio-visual and lighting control apparatus for professional use - Part 1: Emissions
EN55103-2, 1997	EMC-Product family standard for audio, visual, audio-visual and lighting control apparatus for professional use - Part 2: Immunity
EN61000-4-2 (2001)/ IEC61000-4-2 (2001)	ESD, $\pm 4$ kV contact, $\pm 8$ kV air discharge
EN61000-4-3 (2001)/ IEC1000-4-3 (2001)	Radiated RF immunity, 10 V/m, 80% 1 kHz amplitude modulation
EN61000-4-4 (2001)/ IEC61000-4-4 (2001)	AC and DC power ports: EFT Burst: $\pm 0.5$ kV - $\pm 2$ kV
EN61000-4-4 (2001)/ IEC61000-4-4 (2001)	Signal (>3m), Control & Measurement (>3m): EFT Burst: $\pm 0.5$ kV
EN61000-4-5 (2001)/ IEC61000-4-5 (2001)	AC Input Ports: Surge: $\pm 1$ kV Differential Mode (line to line) $\pm 2$ kV Common Mode (line to ground)
EN61000-4-5 (2001)/ IEC61000-4-5 (2001)	Signal (>30m) Surge: $\pm 1$ kV Common Mode
EN61000-4-6 (2001)/ IEC61000-4-6 (2001)	AC & DC Power Ports Conducted RF Immunity: 3 V, 80% AM modulation @ 1kHz
EN61000-4-6 (2001)/ IEC61000-4-6 (2001)	Signal (>3m) (Control & Measurement) (>3m) Conducted RF Immunity: 3 V, 80% AM modulation @ 1kHz
EN61000-4-8 (2001)/ IEC61000-4-8 (2001)	Display & Magnetic Sensors Magnetic Field Immunity: 3 A/M
IEC61000-4-11 (2001)	AC input ports Voltage Dips and Short Interruptions: 70%, 40% and 5% nominal for 10ms, 100ms, 1 sec. and 5 sec. (50Hz)

Tested by L. S. Compliance, Inc. Cedarburg, Wisconsin  
 March 21-22, 2011



Matthew Anderson  
 Director of Engineering  
 Sound Devices, LLC

# SOUND DEVICES

