



# ***PBS-4***

***WEB BROADCAST***

**OWNER'S MANUAL**

P.19~

〒158-0081

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# CONGRATULATIONS!

## READ BEFORE USE

Thank you for purchasing the Vestax PBS-4.

Please read this user's manual before use to maximize the performance of the PBS-4.

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## SAFETY PRECAUTIONS



**CAUTION**  
RISK OF ELECTRIC SHOCK DO NOT OPEN



**CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



**ESD Warning :** The PBS-4 may be affected by Electrostatic Discharge interference. If this happens, please turn off and wait a few minutes before powering on the unit.

# IMPORTANT SAFEGUARDS

## IMPORTANT SAFEGUARDS

### READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

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 the appliance and in the operating instructions should be adhered to.
4. Follow Instructions-All operating and use instructions should be followed.
5. Cleaning-Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments-Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture-Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories-Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power sources-This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
11. Lightning-For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
12. Overloading-Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
13. Object and Liquid Entry-Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
14. Servicing-Do not attempt to service product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.

### NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### NOTE

Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

# FEATURES

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The PBS-4 is an easy to use all-in-one solution to broadcast live audio and live video sources on the Internet. Multiple audio and video sources can be mixed together, and instantly streamed online towards a worldwide audience. The USB output feeds the mixed audio and video to your computer and streams your content to various live streaming service including Ustream, Justin.tv, Livestream and more.

## AUDIO

- 3 Channel audio mixer with PFL
- 2 Mono inputs on Combo Neutrik (microphone / instrument)
- 5 stereo inputs (2 RCA, 1 HDMI, 1 USB Loopback)
- Headphone out (1/4" stereo jack)
- Control Room (master) output (RCA and Headphone)

## VIDEO

- 4 Channel video selector (2 composite, 1 composite / HDMI switchable, 1 composite / VGA switchable)
- Master video output (Composite and USB)
- Preview video output (Composite)
- Separate preview video selector

# ACCESSORIES

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Owner's Manual, USB Cable, Power Adaptor (Vestax SDC-6), Driver Installer disc, Carry Case

# MINIMUM SYSTEM REQUIREMENTS

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### [Windows]

OS : Windows XP (SP2) / Vista / 7 / 8  
CPU : Intel Core Duo 2.0GHz or more  
RAM : 1GB  
USB2.0 port, CD-ROM DRIVE

### [Macintosh]

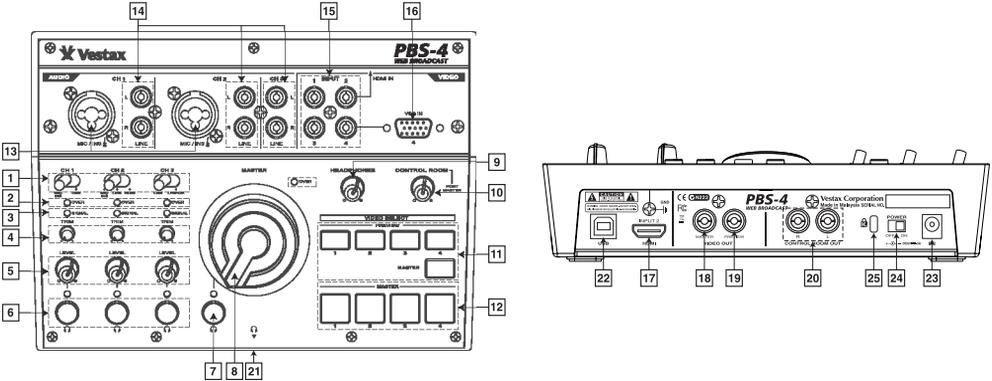
OS : Mac OS X 10.6/10.7/10.8  
CPU : Intel Core Duo 2.0GHz or more  
RAM : 2GB  
USB2.0 port, CD-ROM DRIVE

**IMPORTANT:** When streaming with a web browser on a Mac, we recommend Google Chrome. Other web browsers (Safari, Firefox) do not support the PBS-4 driver. Please visit [www.vestax.com](http://www.vestax.com) for latest compatibility information. Using pre-streaming software is recommended to ensure stable broadcasting.

**NOTE:** Check your internet speed and minimum requirements for the Streaming application (such as Ustream Producer) as well when broadcasting online.

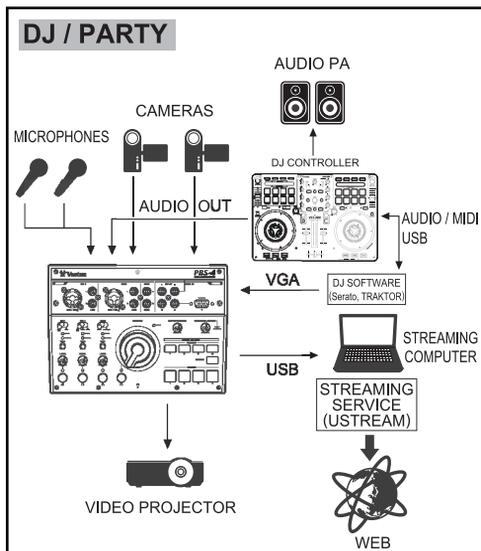
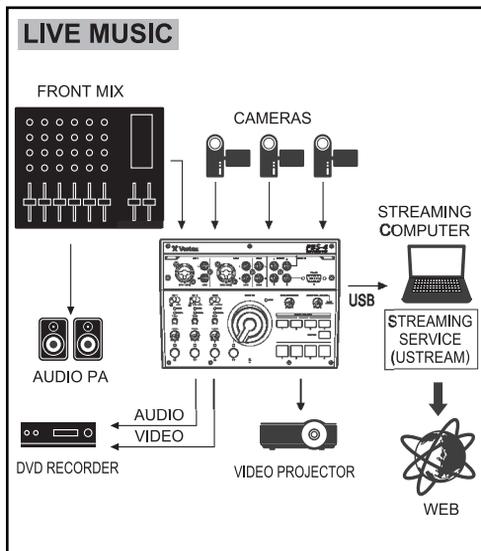
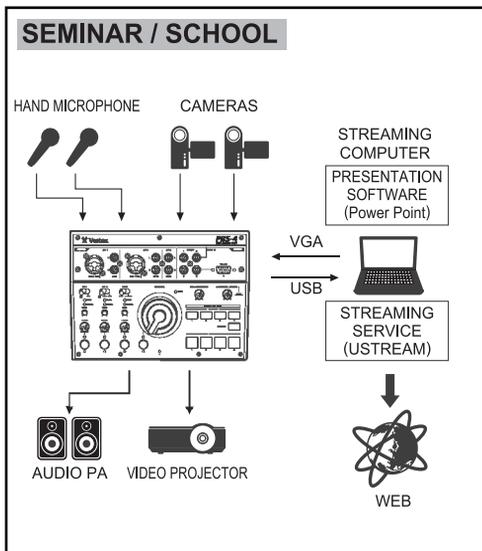
**NOTE:** Please note minimum requirements mentioned above do not guarantee operation with all computers and devices. For best performance purchasing a computer with higher specification is recommended.

# PART NAMES & FUNCTIONS



No.	Control Name	Function
1	<b>INPUT SELECT</b>	Selects the audio source for each channel. [MIC/INS: Input for microphone or instruments, LINE: Input for Line sources, HDMI: Audio signal input, LPBACK: Audio signal from computer via USB]
2	<b>OVER LED</b>	This LED lights up when an audio signal is overloaded (Distortion in audio signal may occur).
3	<b>SIGNAL LED</b>	This LED lights up when audio signals are received in the associated channel. Its intensity varies depending on the input level adjusted with TRIM.
4	<b>TRIM</b>	Adjusts the audio input sensitivity. Set each channel separately to balance each channel audio signal with other channels.
5	<b>CHANNEL LEVEL</b>	Adjusts the audio level of each channel to be mixed together and sent to the final output (MASTER).
6	<b>PFL for each channel</b>	You can monitor each audio channel by pushing this button. Audio can be monitored PFL (without raising the CHANNEL LEVEL), which allows you to prepare and adjust your audio in advance.
7	<b>AFL for master level</b>	Switch the AFL to monitor the Master signal. What you hear is exactly what is streamed online.
8	<b>MASTER LEVEL</b>	Adjust the audio level of the Master signal. The audio level streamed online depends on the Master Level. Make sure to check the audio input level of the streaming service software to set the Master level to the ideal level.
9	<b>HEADPHONES LEVEL</b>	Adjusts the sound level of headphones.
10	<b>CONTROL ROOM LEVEL</b>	Adjusts the Output level of the Control Room Output. The Control Room Output is AFL (After Fade Listen).
11	<b>VIDEO PREVIEW SELECT</b>	Selects the video source to be previewed. Select between inputs 1,2,3,4 or Master source. (If Master is selected, Preview out will output the same video source selected by Video Master Select.)
12	<b>VIDEO MASTER SELECT</b>	Selects the video source to be sent to Master Out.
13	<b>MIC/INS INPUT</b>	Connection for XLR and 1/4" jack cables. Microphones and instruments (guitar for example) can be connected.
14	<b>LINE INPUT</b>	Connection for stereo Line sources such as CD players, DVD players, Video cameras audio out, MP3 players, etc.
15	<b>VIDEO INPUT (Composit)</b>	Composite cable connection for video cameras and other video sources.
16	<b>VGA INPUT</b>	VGA connection for computers and other video sources. The VGA input is assigned to VIDEO INPUT-4, which is shared with Composite and VGA. When Composite and VGA are both connected at the same time, VGA overrules and Composite.
17	<b>HDMI INPUT</b>	Connection for HDMI video sources. The HDMI input is assigned to VIDEO INPUT-2, which is shared with Composite. When Composite and HDMI are both connected at the same time, HDMI overrules Composite. *Audio signal fed through HDMI input is sent to Audio CH2.
18	<b>VIDEO MASTER OUTPUT</b>	Composite connection to output master video (selected with VIDEO MASTER SELECT) channel. The video output from VIDEO MASTER OUTPUT is the same as the image sent out via USB.
19	<b>VIDEO PREVIEW OUTPUT</b>	Composite connection to preview video with monitors and other video displays. The video source selected with VIDEO PREVIEW SELECT is sent out from VIDEO PREVIEW OUTPUT.
20	<b>CONTROL ROOM OUTPUT</b>	Connection to monitor the master audio output with audio equipment such as amplifiers, powered speakers, mixers, recording devices, etc. The audio signal is the same as the signal sent out via USB. To change the output volume, adjust the Control Room level (adjusting the Master Level will affect the audio level being streamed).
21	<b>HEADPHONES OUTPUT</b>	Connection for headphones to monitor each audio channel.
22	<b>USB</b>	The USB connection streams video and audio mixed with the PBS-4 to a computer. In addition, audio from a computer can be sent to PBS-4 while streaming. Audio fed into PBS-4 via USB is assigned to AUDIO CH-3 (LPBACK).
23	<b>DC INPUT</b>	Connection for Vestax SDC-6 (DO6V 3A) power adapter.
24	<b>POWER ON/OFF</b>	Power ON/OFF switch.
25	<b>KENSINGTON LOCK</b>	You can protect your PBS-4 from theft by attaching a Kensington lock to this slot.

# SETUP EXAMPLES



**NOTE:** Using both Dj application and streaming service / application on same computer makes the computer's CPU working intensely. Depending on your computer specification and performances, we can't guarantee a full stability of the system. If your computer shows CPU weakness (audio drops, visual drops...), we recommend to use two computers: one unit running the Dj application; the other unit running the web streaming application.

# DRIVER INSTALLATION

Driver installation is required to broadcast audio and video content from PBS-4 to the Internet with your computer. Follow the steps below.

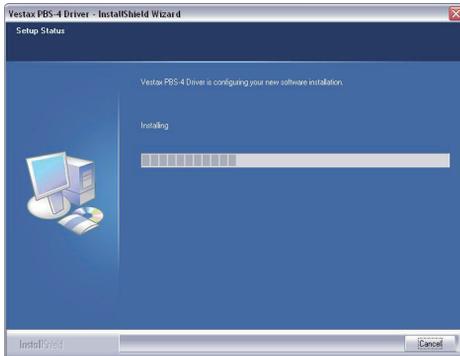
## ■ Windows

1. Insert the included “Vestax PBS-4 Driver” CD-ROM to your computer. Double click “Vestax PBS-4 Driver.exe” to start the installation.

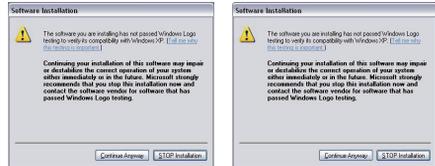
2. Click “Next”.



3. Driver installation will begin. (This may take a few minutes.)



4. In use of Windows XP, the following messages may appear. Click “Continue Anyway”.



5. Once installation has completed, click “Finish”.



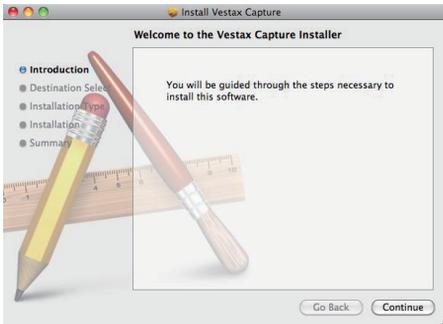
6. Restart your computer.



## Macintosh

1. Insert the included "Vestax PBS-4 Driver" CD-ROM to your computer. Double click "Vestax PBS-4 Driver.pkg" to start the installation.

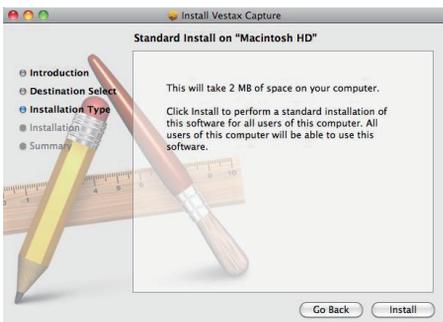
2. Click "Continue".



3. Click "Continue".



4. Click "Install".



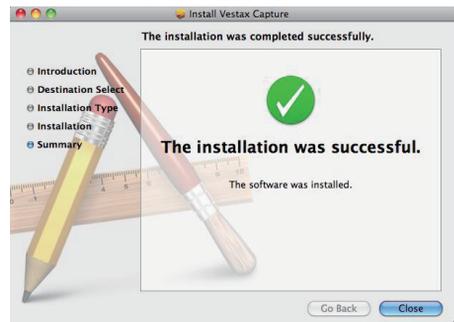
5. Enter your password and click "OK".



6. Driver installation will begin. (This may take a few minutes.)



7. Once installation has completed, click "Close", and restart your computer.



8. For Macintosh users, an application called "Vestax Capture" will also be installed, along with the driver. Vestax Capture allows you to record the audio and video. The application can be found in Finder ->Applications -> Vestax Capture.

# LOOPBACK AUDIO SETTING

The Loopback function enables audio from your computer (media player, movie soundtrack, iTunes, Quick Time player, VLC, PowerPoint presentation...) to be sent to PBS-4, mix it with other external sources (microphone, instrument, etc.), and stream the mix to your broadcast service.

To enable the Loopback function, the Audio Control panel of your computer must be configured correctly as shown below:

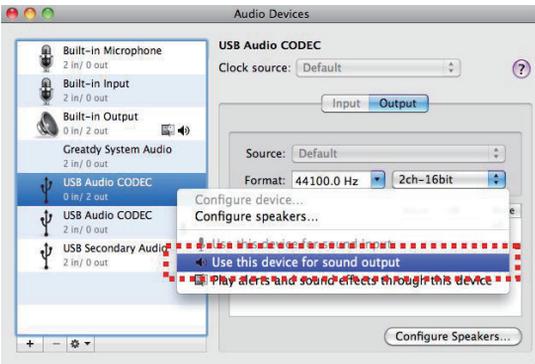
## ■ Windows

1. Connect the PBS-4 to your PC with the included USB cable.
2. Go to START > Control Panel > Sound and Audio Devices Properties > Audio
3. Choose "USB AUDIO CODEC" from the list of Sound playback device.



## ■ Macintosh

1. Connect the PBS-4 to your Mac with the included USB cable.
2. Open Audio MIDI Setup. (Finder > Application > Utilities)
3. CTRL+click "USB AUDIO CODEC 0 in/ 2 out", and click "Use this device for sound output".



# CONNECTING AUDIO EQUIPMENTS

**NOTE:** To avoid damaging your speakers or amplifiers, it is recommended to turn down the Master and Control Room volumes before connecting any equipment.

## AUDIO INPUTS

### Microphones / Instruments

You can connect 2 dynamic microphones to the PBS-4 Mic inputs. Microphones can be connected using 1/4" Jack or XLR cables. Note that electrostatic microphones, which require phantom power, do not work with PBS-4 unless an external Phantom power unit is chained between the microphone and PBS-4. Instruments such as electro-acoustic guitars or basses can be connected to the microphone inputs using 1/4" Jack cables.



### Line sources

Line sources such as CD players, DVD players, MP3 player, can be connected to channel 1, 2 and 3. Make sure to adjust the trim level correctly to avoid any distortion or low levels (Trim level setting is explained in the Basic Operations chapter). If you are streaming events such as concerts, conferences and club events, it is recommended to connect PBS-4 to the sub output of the main audio mixer. Connect the mixer output to the RCA input on channel 1,2 or 3.



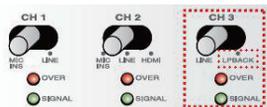
### HDMI Audio

Audio from HDMI equipment such as Cameras or DVD players is assigned to Audio channel 2.



### USB LoopBack (LPBACK) input

With the Loopback function you can use USB to input audio. Audio from movies, multimedia presentations, or even online players can be sent to channel 3, and can be easily mixed with other audio sources such as microphones. To enable the Loopback function, the Audio Control panel of your computer must be configured correctly. To configure your computer, please follow the Loopback Audio Setting instructions.



## AUDIO OUTPUTS

### Control Room

Use the Control room output to connect powered speakers, amplifier or audio recorders.



### Headphones

You can monitor each channel (PFL) and Master (AFL control) with your headphones.



### USB

Connect your computer. The USB connection streams your audio mix to web streaming services through your computer, but also inputs Audio from your computer to PBS-4 (Loopback).



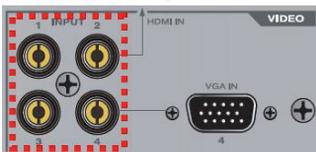
## CONNECTING VIDEO EQUIPMENT

## VIDEO INPUTS

### Composite inputs

You can connect composite inputs to any video source such as Cameras, DVD players, and others with a composite connector.

Channel 2 and 4 share input with HDMI (Channel 2) and VGA (RGB) (channel 4). When all Composite, HDMI and VGA are connected, HDMI and VGA will overrule composite.



### HDMI Input

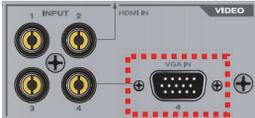
Video sources such as Cameras, DVD players, gaming stations and computers can be connected with HDMI. HDMI input is assigned to Video channel 2. When composite and HDMI are both connected at the same time, HDMI overrules Composite. If the HDMI source has audio signals, the audio will be assigned to Channel 2 of the Audio Mixer (Switch to HDMI position).



**NOTE:** The input resolution of the HDMI input of PBS-4 is fixed to [NTSC: 720x480 (60Hz), PAL: 720x576 (50Hz)]. If connecting a video camera to PBS-4 via the HDMI input, only [NTSC: 480p, PAL: 576p] formats are supported. Ensure that your camera supports these formats, before connecting to PBS-4.

### VGA input

Video sources such as computers can be connected with VGA. VGA input is assigned to Video channel 4. When composite and VGA are both connected at the same time, VGA overrules composite.



**NOTE:** The input resolution of the VGA input of PBS-4 is fixed to [NTSC: 1024x768 (60Hz), PAL: 1024x768 (50Hz)]. If a source with higher resolution (e.g. laptop output) is connected to this input, the video resolution will be reduced to this value.

## VIDEO OUTPUTS

### Master and Preview

You can connect video devices such as display monitors and video projectors to the Master and Preview output.



### USB

Connect your computer.

The USB connection streams your video mix to web streaming services through your computer.



# BASIC AUDIO OPERATIONS

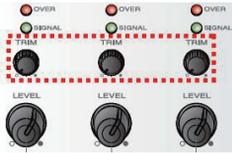
## Selecting audio inputs

Each channel can receive output from various audio sources, but only one source per channel can be sent to the Audio mixer. For example, Channel 1 can receive output with Mic / Inst and Line connection. If you plug a microphone into Mic, set the input switch to Mic/Inst position.



## Setting Trim levels

Each audio source has its own output level (sensitivity). This means each channel has a different audio channel. To balance the audio level between each channel, it is necessary to adjust Trim. The recommended audio input level is when the “Signal” LED is fully lit and the “Over” LED slightly blinks. If the “Over” LED turns on when the audio source is at peak level, turn down Trim until it doesn’t reach “Over”. If the Signal level light is weak, turn the Trim level up until it almost reaches the “Over” LED.



## Mixing audio channels

Having Trim correctly adjusted is important when mixing different audio sources together and operating fades-in and fades-out with channel LEVEL control. To mute a channel, turn the channel LEVEL all the way to the left.

To output a channel, turn LEVEL clockwise until it reaches an adequate position. (3 o'clock)



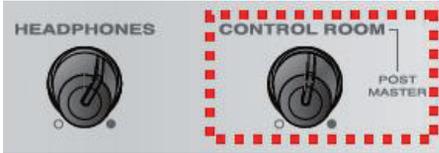
## Adjusting the Master Levels

The Master knob adjusts the audio level sent out via USB. Once you have adjusted each audio channel, raise the Master level to an adequate position. The Over LED should not be reached. Overloading the master level will cause distortion. During your broadcast session, you can use the Master knob to operate smooth audio fade-ins and fade outs for intros and outros. However, it is recommended to remember (or even take memo of) the adequate position of the Master level before operating fades, so you can easily reach the same position again.



## Control Room

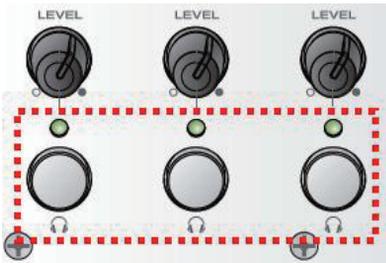
The Control Room level adjusts the volume of your speakers for monitoring, or your audio recorder. It is important to adjust the Master level to an adequate level position (refer to instructions above) to achieve best sound quality for CONTROL ROOM OUT.



**NOTE:** The Control Room output is AFL (After Fade Listen), meaning the audio you hear from devices connected to CONTROL ROOM OUT is the same as Master. However, the Control Room level which adjusts the level of your speakers or recorder does not affect the Master Audio level sent out via USB. Do not adjust the level of your speakers or recorder by using the Master knob as it will affect the audio level streamed online.

## Headphones Pre-Listen (PFL)

You can pre-listen each audio source with your headphones before sending the audio signal to the mixer. Select the channel that you want to listen to with PFL select. PFL is an acronym for Pre-Fader Listen, which means the level of each channel doesn't influence the headphone volume, and vice versa.



## Headphone Master control (AFL)

You can monitor the Master signal of your mix with your headphones by using the AFL button. Adjusting the headphone volume level will not affect the Master audio level. This enables you to listen to the final mix of all audio sources without sending it out via USB.



# BASIC VIDEO OPERATIONS

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## Selecting the Master video source

Select the Master video source with the Master Video Select buttons. The source set as Master is streamed via USB.

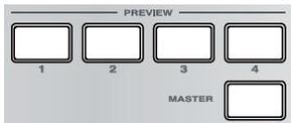


**NOTE:** Video noise on the output screen (Mainly Composite output) may appear for a moment when switching video source due to the synchronisation of the video signal. Also, when selecting a video channel that has no input (i.e. not connected to video devices such as cameras or DVD players) it will appear as a blank screen in your broadcast, and video noise may appear when switching back to other video channels.

## Select the Preview video source

You can preview each video source with the Preview Video Select button.

The Master video source can be previewed as well by selecting "Master" in the Preview Video Select area.



# STREAM YOUR EVENTS

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The main function of PBS-4 is to mix and stream multi audio and video sources to the Internet. The instructions below explain how to stream your audio and video mix.

There are two ways to Stream your contents to the Internet.

**-Streaming software (Ustream Producer)**

**-Web browser (Use streaming service websites, Ustream, Justin TV, Livestream...)**

Before streaming your content, you must install the latest PBS-4 driver, and have your streaming software or web browser correctly configured. To learn more about driver installation, follow the instructions in the DRIVER INSTALLATION chapter above.

**NOTE:** In use with streaming software, make sure the software supports USB video class and USB audio class, otherwise the PBS-4 will not be recognized by the software even if the driver is installed.

**NOTE:** To enable web streaming, your computer must be connected to the Internet. If your computer is offline, you cannot stream your content but can still use the PBS-4 and your computer to record audio and video, and stream the recorded contents to the Internet afterwards. This operation requires an audio and video recording software.

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## ■ Streaming with a streaming software (instructions below are for Ustream Producer)

**NOTE:** Ustream Producer is free to download. A Ustream user account (free) is required to download and use Ustream Producer.

Ustream Producer is available from the following URL: <http://www.ustream.tv/producer>

1. Connect PBS-4 to your computer with the included USB cable.
2. Open Ustream Producer.
3. Add the video source and audio source as shown below.

[Windows]	[Macintosh]
Video source : PBS-4 Video	Video source : Composite
Audio source : USB AUDIO CODEC	USB AUDIO CODEC
4. Make sure the video source fed to PBS-4 is displayed correctly.
5. Check the Audio level with the level meter on the right of the Ustream Producer window, and adjust if necessary.  
For an accurate audio test, adjust the master volume of PBS-4 to an adequate level.
6. Ustream producer is now configured and ready to stream. Click "Start Broadcasting" or "Start Recording" to stream your content.

## ■ Streaming with a Web Browser (instructions below are for [www.ustream.tv](http://www.ustream.tv))

**NOTE:** Most streaming services / websites (Ustream, Justin TV, Livestream...) require a user account.

**MAC USER:** When streaming with a web browser using a Mac, we recommend Google Chrome. Other web browsers (Safari, Firefox) do not support the PBS-4 driver.

1. Connect PBS-4 to your computer with the included USB cable.
2. Open web browser and go to [www.ustream.tv](http://www.ustream.tv)
3. Click "Go Live". A new browser window will open automatically: this is the Broadcast window.
4. A setup menu for Adobe Flash Player will instantly pop-up in the middle of the Broadcast window.  
Configure as shown below, and click "Authorize".

[Windows]	[Macintosh]
Video source : PBS-4 Video	Video source : Composite
Audio source : USB AUDIO CODEC	USB AUDIO CODEC



5. Close the Adobe Flash Player setup menu.
6. Your web browser is now ready to broadcast with PBS-4. Click Start Broadcast to start streaming.

# TROUBLE SHOOTING

Problem with PBS-4	
Problem	Possible solutions
<b>The power does not turn ON</b>	Check if the power adaptor is connected both to PBS-4 and a power outlet.
	If you are using a power strip with an ON/OFF switch, make sure the power is turned ON.
<b>There's no audio input (SIGNAL LED does not light up)</b>	Check if the INPUT SELECT switch is set to the correct input. *Please see "BASIC AUDIO OPERATIONS / Selecting audio inputs".
	Audio input level may be too low. Adjust the TRIM level. *Please see "BASIC AUDIO OPERATIONS / Setting Trim levels".
	Check the settings of external audio equipment.
	Note that electrostatic microphones that require phantom power do not work with PBS-4, unless an external phantom power unit is chained between the microphone and PBS-4.
<b>No audio from speakers</b>	Check each audio level (Trim, Channel level, Master level, Control room level). Also note that Control Room output is AFL (After Fade Listen). *Please see "BASIC AUDIO OPERATIONS / Control Room".
	PBS-4 does not have a built-in amplifier. Use powered speakers or an amplifier connected to passive speakers.
<b>No audio from headphones</b>	If there's no audio when monitoring each channel, check the Trim levels. If there's no audio when monitoring the master output, check the Master level.
<b>I can't see the video input from the video camera</b>	Check the output settings of your camera.
	When connecting a camera with HDMI, make sure the video camera supports 480p resolution (576p for PAL).
	If your camera has "AV output" or "AV multi output", connect the composite cable (yellow RCA pin) to the composite input of PBS-4.
<b>I can't see the video input from the DVD/Blu-ray player</b>	PBS-4 does not accept video signals from DVD/ Blu-ray players via HDMI. Please use the composite inputs.
	The DVD/Blu-ray player in use may not be able to output copyright protected data.
	Check the output settings and connections of the DVD/Blu-ray player.
<b>I can't see the video input from the computer when using VGA</b>	Configure your computer video output resolution to 1024x768.
	Check your computers display settings and make sure it has detected a secondary display.
<b>There's video noise in VGA input</b>	Check your computers Screen Refresh Rate(NTSC: 60Hz, PAL: 50Hz).
	Test with another VGA cable.
<b>COMPUTER CONNECTION / WEB BROADCASTING</b>	
<b>My computer does not recognize the PBS-4</b>	Check if the driver has been installed. Make sure to restart your computer after installing the driver.
	Connect the USB cable to another USB port.
	Check if your computer fulfills the minimum system requirements to work with PBS-4.
<b>Cannot install the driver</b>	Make sure you're logged in to your computer as administrator.
	Quit all other applications.
	Quit all resident software (such like security software).
	Turn off all wireless devices (such as Bluetooth).
<b>The Streaming software (or Web browser) does not recognize the PBS-4</b>	Connect PBS-4 to your computer before starting the streaming software (or Web browser).
	Check if the PBS-4 driver has been installed. In case the PBS-4 driver was not successfully installed, uninstall the driver, restart your computer and re-install.
	When streaming with a web browser using a Mac, we recommend Google Chrome. Other web browsers (Safari, Firefox) do not support the PBS-4 driver.
	If you are streaming with a web browser, update Adobe Flash Player to its latest version.

# SPECIFICATIONS

VIDEO		AUDIO		
<b>Input Connectors</b>		<b>Input Connectors</b>		
Composite	RCA type x4	LINE	Stereo, RCA type x3	
HDMI	HDMI type A x1 (When Composite and HDMI are both connected to Ch2 HDMI overrides Composite.)	MIC/INS	XLR/TRS combo type x2	
VGA	DB-15 type x1. (When Composite and VGA are both connected to Ch4 VGA overrides Composite.)	HDMI	HDMI type A x1	
		LPBACK	USB type B x1	
<b>Output Connectors</b>		<b>Output Connectors</b>		
MASTER OUT	Composite, RCA type x1	CONTROL ROOM OUT	Stereo, RCA type x1	
PREVIEW OUT	Composite, RCA type x1	HEADPHONES	Stereo, 3.5mm mini type x1	
<b>Video Processor</b>		<b>Nominal Input Level and Impedance</b>		
Video Format	Composite	NTSC/PAL	LINE	
	VGA (NTSC)	1024 x 768 (60Hz)	MIC/INS	
	VGA (PAL)	1024 x 768 (50Hz)	-10dBV (0.3V), unbalanced	
	HDMI (NTSC)	720 x 480 (60Hz) +480p	-45dBV (5.5mV), balanced	
	HDMI (PAL)	720 x 576 (50Hz) +576p	<b>Nominal Output Level and Impedance</b>	
Sampling Rate	4:2:2 (Y:R-Y:B-Y), 8bit, 13.5 MHz (ITU-R BT.656)		CONTROL ROOM OUT	
Input/Output Level and Impedance	Composite : 1.0 Vp-p, 75 ohms		Load Impedance	
USB Output Resolution	720 x 480 (NTSC), 720 x 576 (PAL)		Nominal Output Level	
<b>OTHERS</b>		<b>Digital Audio Processor</b>		
Power Supply	DC-6V 3A (Vestax SDC-6)		HEADPHONES	
Power Consumption	7W (AC100V - 230V)		Load Impedance	
Dimension	210(W) x 147(D) x 45(H)mm (excluding knobs)		Maximum Output Level	
	210(W) x 147(D) x 54(H)mm (including knobs)		Load Impedance	
Weight	950g		Maximum Output Level	
		AD/DA Converter		
		Bit Depth	16bit	
		Sampling Frequency	48kHz	
		USB I/O	USB 2.0 Hi-Speed, B type x1	
		HDMI INPUT	HDMI type A x1	
		*NOMINAL VOLUME POSITION (CHANNEL LEVEL: 3 o'clock, MASTER LEVEL: 3 o'clock, HEADPHONE LEVEL: 2 o'clock, CONTROL ROOM LEVEL: 2 o'clock)		

