electro-harmonix

BIG MUFF π

HARDWARE PLUGIN®

Congratulations! You have just purchased the ultimate harmonic distortion-sustain device developed to date for all musicians and recording artists: the Big Muff Pi Hardware Plugin®! Not just for guitar players anymore, the Big Muff Pi Hardware Plugin® (BMπHP) opens up the world of real analog circuitry to digital recording artists and computer musicians.

Features Include:

- BMπHP acts like a standard DAW plugin but your tracks are processed through the real analog Big Muff® circuitry.
- Integrates with DAWs such as Pro Tools®, Ableton Live®, Cubase®, GarageBand®, Logic Pro X®, Reaper® and more.
- A true stereo Ram's Head™ Big Muff® with Tone Wicker and Tone Bypass buttons.
- Save up to 10 Presets on the BMπHP pedal and unlimited presets on your computer.
- Functions as a 2 In/2 Out USB Audio recording interface / record with or without Big Muff® tone.
- Power through USB or supplied AC Adaptor.

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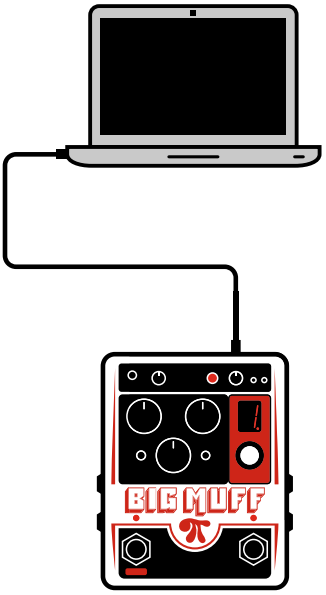
WARNING: This device comes equipped with an Electro-Harmonix 9.6DC-200BI power supply. It requires **120mA** at 9VDC with a center negative plug. Use of the wrong adapter or a plug with the wrong polarity may damage the device and void the warranty.

Big Muff π® and Hardware Plugin® are registered trademark of Electro-Harmonix/New Sensor Corp.

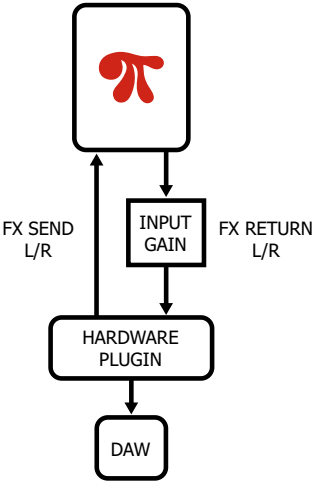
Quick Start Guide

Using BMπHP as a Hardware Plugin

1. Install the software for your operating system at *www.ehx.com/BMPHP*
2. Connect the BMπHP to your computer using a standard USB cable. All power can be supplied through the USB cable.
3. Wait for the computer to install drivers and make the device available.
4. Open up your DAW.
5. Insert the Electro-Harmonix Big Muff Pi software plugin on a track or channel within your DAW.
6. Assign the BMπHP to the software plugin by doing the following:
   a. Click the Settings menu in upper right corner of plugin toolbar.
   b. Click Select Device (this will be greyed if unit is not properly connected).
   c. Click BMP-*[4 digit serial number]*.
   d. Click on Audio.
7. When the STATUS light in the software plugin turns green the BMπHP is ready for use.
8. Press Play on the DAW. The channel with the plugin will now go through the BMπHP's analog circuitry.
9. Rock-n-Roll!

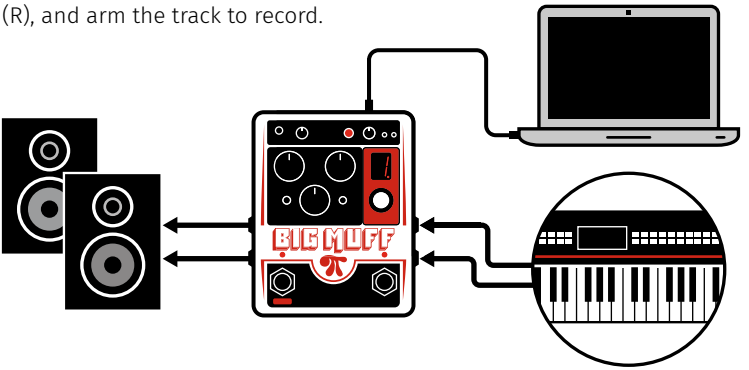


Signal Flow Diagram

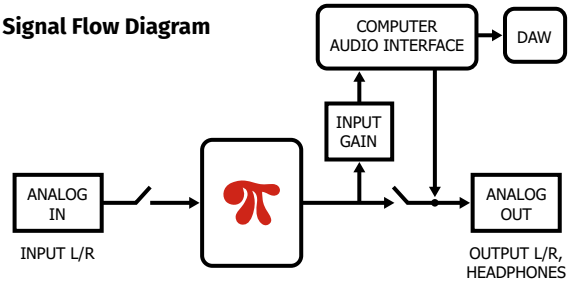


Using BMπHP as an Audio Interface

1. Follow steps 1–4 on the opposite page.
2. In your DAW, select Big Muff Pi for your input and output connections.
3. Select a track, choose Input 1 (L) or 2 (R), and arm the track to record.
4. Begin recording on your DAW. Press the Bypass footswitch to enable/disable Big Muff distortion while recording.
5. Rock-n-Roll!



Signal Flow Diagram



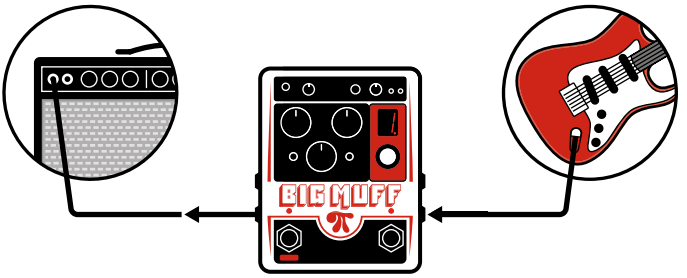
Using BMπHP Standalone as a Guitar Pedal

1. Inputs/Outputs: use standard 1/4" instrument cables:

a. MONO: connect your mono instrument (such as guitar) to the MONO/L Input and Output.

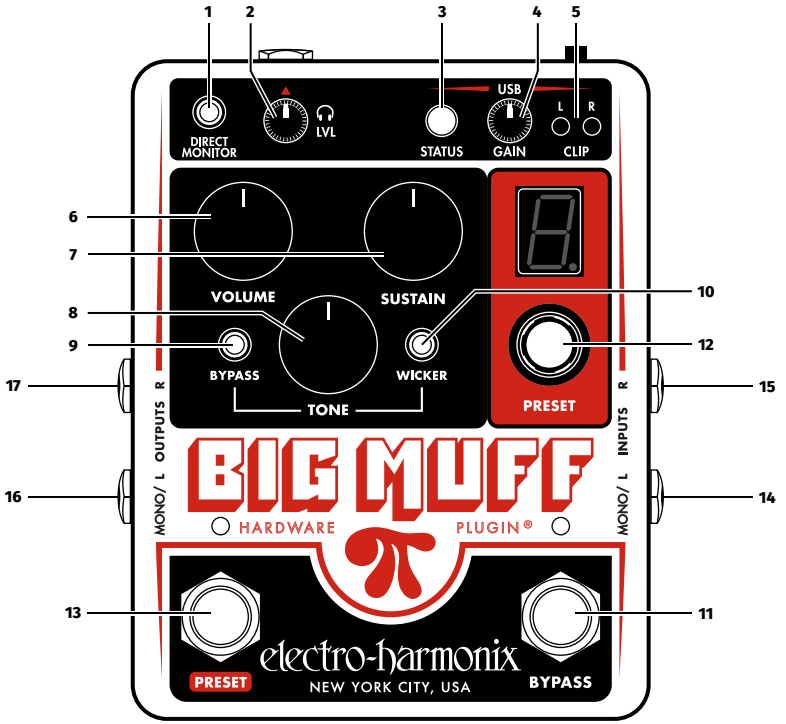
b. STEREO: connect to both the MONO/L and R Input and Output jacks.

2. Use the supplied power supply to power the BMπHP.
3. Press the BYPASS footswitch to light its LED. The BMπHP is ready to use.
4. Rock-n-Roll!



Hardware Overview

Front Panel Controls



USB CONTROLS

1. DIRECT MONITOR Illuminated Button When enabled, DIRECT MONITOR sends the signal headed to the ADC to the stereo output jacks and to the Headphone output located on the rear panel. This is particularly useful when using the BMπHP as a USB audio interface for recording new audio tracks. *Note: the DIRECT MONITOR switch is disabled when using the BMπHP as a standalone guitar pedal. In this case, the audio output is always sent to the stereo output jacks and Headphone output.*

2. Headphone LVL Knob Controls the volume level at the Headphone output jack on the rear panel.

3. USB STATUS LED Lights red when the BMπHP is locked onto your computer's USB. The same LED lights green when a proper audio connection has been made between the software plugin and the BMπHP.

4. USB GAIN Knob Controls the signal level of the audio sent to the computer before it hits BMπHP's internal A/D converter (ADC). Rotate GAIN clockwise until you see one or both CLIP LEDs light. Then rotate it counter-clockwise a bit so

that the CLIP LEDs remain off. This will ensure a large enough analog signal is converted to digital audio without exceeding the digital audio's total range.

5. CLIP L & R LEDs LEDs will light when the audio signal into the ADC is clipping. If the LEDs light up, the audio signal is too loud for the ADC and the digitized audio signal will be distorted on its loudest peaks. Use the USB GAIN knob to set the right amount of signal into the ADC (see GAIN Knob above).

BIG MUFF CIRCUIT CONTROLS

The Big Muff section is fully stereo and uses the *Ram's Head™ Big Muff®* circuit. Each of the following controls acts on both stereo channels.

6. VOLUME Knob Output volume control for the Big Muff section.

7. SUSTAIN Knob Adjusts the amount of sustain and distortion.

8. TONE Knob Provides a range of sounds from high treble to deep bass. As you turn the TONE knob clockwise, treble increases and bass decreases.

9. TONE BYPASS Illuminated Button When enabled, the BYPASS button completely bypasses the TONE knob and analog EQ, essentially removing the TONE knob from the circuit. When the BYPASS button is disabled, the TONE knob is active. Press the BYPASS button to enable or disable Tone Bypass. If the button is lit, the TONE knob and its circuitry is bypassed.

10. TONE WICKER Illuminated Button The Wicker effect opens up the bandwidth allowing more high frequency signal to pass through for a bright and clear top end. Disable Wicker to obtain the sound of the classic Big Muff π®. Press the WICKER button to enable or disable the Wicker effect. If the button is lit, the Wicker effect is enabled.

11. BYPASS Footswitch & LED Press the BYPASS footswitch to enable or disable the Big Muff effect. When the associated LED is lit, the Big Muff effect is enabled; when the LED is off, the unit is in buffered bypass mode.

PRESET CONTROLS

12. PRESET Knob & Display The single digit LED display indicates the current preset number selected using the preset knob. The PRESET is active if the LED above the PRESET footswitch is lit. If this LED is not lit then you are in LIVE mode, where the current knob positions indicate the actual setting.

13. PRESET Footswitch & LED Press the PRESET footswitch to load or cycle through the 10 presets. When the associated LED is lit, the preset represented by the number on the display is loaded and enabled; when the LED is off, preset mode is off. For more on saving presets, go to page 7.

INPUT / OUTPUT JACKS

14. MONO/L INPUT Instrument/Line level, 1/4" unbalanced input jack. Plug your instrument or output from another effects pedal into this jack. If you use just one input, we recommend using the MONO/L input. The input impedance presented at this jack is 2MΩ. The maximum allowable signal level is +9.0 dBu.

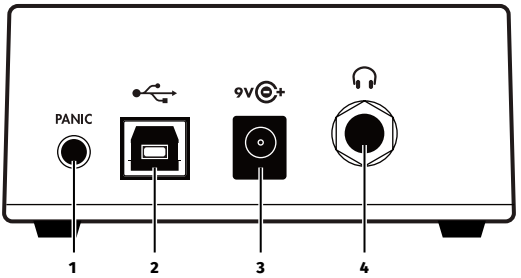
15. R INPUT Instrument/Line level, 1/4" unbalanced input jack. Plug your

instrument or output from another effects pedal into this jack. Use this jack with the MONO/L INPUT jack for stereo use. The input impedance presented at this jack is 2MΩ. The maximum allowable signal level is +9.0 dBu. The MONO/L input routes to the Right input if no plug is inserted into R INPUT jack.

16. MONO/L OUTPUT 1/4" unbalanced output jack. The Left output signal is sent through this jack. In Bypass, the dry signal at the Left input jack outputs to the MONO/L Output jack. The source impedance of the MONO/L OUTPUT is approximately 400Ω.

17. R OUTPUT 1/4" unbalanced output jack. The Right output signal is sent through this jack. In Bypass, the dry signal present at the Right input jack is output to the R OUTPUT jack. If a plug is not inserted into the Right input jack then the Left signal is output on the R OUTPUT jack in both effect and bypass modes. The source impedance of the R OUTPUT is 400Ω.

Top Panel Controls



1. PANIC Button Press the PANIC button to reset the USB connection to the computer. This is useful if the BMπHP becomes unresponsive to its software plugin either by not processing audio or no longer responding to control movement or automation.

2. USB 2.0 Type B Port Connect the supplied USB cable, or any other standard USB cable, to this port to provide both power and a data connection the BMπHP. You must connect the USB cable to the BMπHP to use it as a hardware plugin. Power may be obtained from the USB cable or from the supplied AC Adapter.

3. 9V Power Jack Plug the output of the factory-supplied EHX9.6DC 200mA AC adapter into the 9V power jack. The BMπHP draws 120mA at 9VDC with a center negative plug. The BMπHP accepts Boss® and Ibanez® style AC Adaptors capable of delivering at least 150mA.

4. 1/4" Stereo Headphone Output Jack Both the Left and Right Output jack signals are routed to the Headphone output jack. Use the Headphone LVL knob to adjust the volume at the Headphone jack.

Managing Presets

The BMπHP can store up to 10 presets on the pedal itself and as many presets as your computer can hold through the software plugin. Here's how to manage your presets on the BMπHP:

Saving Presets

1. Turn the PRESET knob to the preset number (0–9) you would like to save with the current BMπHP settings.
2. Press and hold the PRESET knob. The number will begin to blink. Continue to hold until the number stops blinking.
3. The dot next the digit lights after your preset has been saved successfully.

Navigating Presets

Preset Mode Off (LED Off)
Turn the PRESET knob to select a preset number in the display. Numbers cycle back to 0 after 9.

Preset Mode On (LED On)
Press the footswitch to advance the preset numbers sequentially.

While in Preset mode, turning the PRESET knob will select the next preset without loading it. The number will blink indicating it is waiting to load. Pressing the footswitch or PRESET knob will load your selected preset.

Loading Presets

Press the PRESET footswitch or PRESET knob to load the preset number shown in the display. The PRESET LED will light. When the PRESET LED is lit, pressing the footswitch will load the next preset number.

Modifying presets

If a control is moved on the BMπHP while a Preset is loaded (Preset LED On), the dot next to the preset number digit will blink to indicate that a preset is loaded but has been altered.

To reload an altered preset and discard any modifications, press and release the PRESET footswitch or PRESET knob

To save an altered preset, press and hold the PRESET knob. The number will begin to blink. Continue to hold until the number stops blinking.

Unloading Presets

To unload a preset and return to Preset Mode Off, ensure that the current preset hasn't been altered (preset number dot not blinking), then press and release the PRESET knob.

Interfacing with Your DAW

Installing the Software Plugin

Before connecting the BMπHP to your computer, you must install the VST/AU/AAX software plugin and drivers for the BMπHP. Go to ***www.ehx.com/BMPHP*** to download the appropriate installer for your computer's OS (Mac, Windows 32-bit and 64-bit*).

** The Windows installers will install USB Audio 2.0 drivers which only work with the BMπHP. The USB audio drivers were developed by Thesycon. Approve their installation if prompted to trust that software.*

Connecting BMπHP to a Computer

Connect the BMπHP to your computer using the supplied standard USB cable. Upon making the connection, the computer may take up to a few minutes to install the proper drivers for the device. Once driver installation is complete, the BMπHP is ready for use.

Using BMπHP with your DAW as a Hardware Plugin

1. Open up your preferred DAW. You may need to open your DAW's audio settings to do the following:
   a. Make sure the BMπHP is not set as your DAW's input/output interface. Your usual audio interface (or Built-in Input/Output on Mac) should be used by the DAW.
   b. Your DAW's sample rate should be set to 44.1kHz or 48kHz.
2. Select a track or channel and open the menu for plugins. Find and select Electro-Harmonix -> Big Muff Pi. Choose either Mono or Stereo.*
3. **VERY IMPORTANT:** You must assign the software plugin to the BMπHP unit for the software to control the hardware. Here's how to do this:
   a. Make sure the software plugin's graphics are open in a window. Some DAWs may not automatically open up the plugin's graphical user interface.
   b. Click the Settings menu in the upper right corner of the toolbar. 
   c. Click on *Select Device*. Select Device will be greyed out if the BMπHP is not properly connected to the computer.
   d. Click on BMP-*[4 digit serial number]*.
   e. Click Audio.
   f. After a few seconds, the STATUS light on both the software plugin and BMπHP should turn green.
   g. If this is the first time you have used this BMπHP unit with this computer, a hardware calibration screen will appear. Click "Calibrate" to adjust the BMπHP's settings to your computer, then click "Done."
   h. Press the BYPASS footswitch graphic on the software plugin. Its associated LED should light in on both the software and the hardware.
   i. Now the software plugin and BMπHP are ready for use.
4. Press play on your DAW. The audio of the selected track will now pass through

the BMπHP's analog circuit. If the knobs are set correctly, you will hear a good deal of saturation added to the sound going through the BMπHP. Use the controls on the software plugin to tailor the effect.

** Due to the nature of Windows and its USB Audio drivers, only one BMπHP can be used per session. It is possible to use multiple devices and plugin instances on Mac.*

Software Overview



TOOLBAR CONTROLS

1. Preset Menu When clicked, it will open a dropdown menu with 3 submenus:

Hardware: Access BMπHP's hardware presets.

Electro-Harmonix: Access EHX's software presets.

User: Access User's defined presets. This submenu is mutable.

Beneath the User submenu are two menu options:

Show in Finder (Mac) / *Show in Folder* (PC): opens the folder where your BMπHP User presets are stored, so you can rename, delete, or manage your presets

Rescan Presets: re-scans the User preset folder, updating the User preset list with any changes made in the folder.

2. Preset Menu Navigation Buttons The up/down arrow buttons navigate through all of the presets.

3. A/B Section Allows you to compare two different parameter settings. The + button saves the current parameter setting and the corresponding letter button loads that parameter setting. The B section is disabled until you save a parameter setting into slot A.

4. Save Preset Button Clicking on this button saves the current settings as a preset to the software plugin's USER folder.

5. Preset Transfer Button This button opens/closes a window for transferring presets between the BMπHP and your computer. To read more about this functionality, go to the *Transferring Presets* section on page 12.

6. Settings Menu Button Opens a dropdown with the following options:

Select Device Lists available BMπHP devices. The device option will be greyed out if another plugin instance is currently using said device. User has option of choosing Audio or Control mode when selecting a device.

Audio Mode: Select this to use the Hardware Plugin functionality of the BMπHP, routing audio from the DAW to the analog Big Muff circuit.

Control Mode: Select this to use your DAW to control the parameters of the Big Muff without routing audio to it. This can be used to remote-control the BMπHP while it is being used in a basic guitar-pedal-amp setup.

About Hardware Displays hardware information (device name, serial #, version #). When a device is selected, you're given the following options:.

Reset Factory Presets: Reset the Hardware presets to factory settings.

Device Options: Opens the Device Options window, where the BMπHP's USB audio settings can be adjusted**.**

About Plugin Displays software version number.



The *Settings Menu*, and the *About Hardware* submenu.

USB CONTROLS

7. STATUS LED Lights red when the software plugin is running in USB Control mode. The same LED lights green when the software plugin is running in USB Audio mode. Its default inactive LED color is gray.

8. OUTPUT GAIN Section controls the gain of the track's audio FX send to the BMπHP. The LED button functions as a stereo link for the knobs; if illuminated, turning one knob controls both knobs; if not illuminated, each knob controls its own channel of gain.

9. INPUT GAIN Section Controls the gain of the track's audio FX return from the BMπHP. This knob also corresponds with the BMπHP's hardware USB GAIN knob. The LED button functions as a stereo link for the knobs; if illuminated, turning one knob controls both knobs; if not illuminated, each knob controls its own channel of gain.

10. CLIP L & R LEDs LEDs will light when the audio signal into the ADC is clipping. If the LEDs light up, the audio signal is too loud for the ADC and the digitized audio signal will be distorted on its loudest peaks. Use the INPUT GAIN knob to set the right amount of signal into the ADC (see INPUT GAIN above).

BIG MUFF CIRCUIT CONTROLS

The Big Muff section controls the hardware's knobs/buttons when the BMπHP is connected as a hardware plugin (Audio or Control mode). Any physical changes made on the BMπHP hardware will be reflected in the software plugin.

11. VOLUME Knob Output volume control for the Big Muff section.

12. SUSTAIN Knob Adjusts the amount of sustain and distortion.

13. TONE Knob Provides a range of sounds from high treble to deep bass. As you turn the TONE knob clockwise, treble increases and bass decreases.

14. TONE BYPASS Illuminated Button When enabled, the BYPASS button completely bypasses the TONE knob and analog EQ, essentially removing the TONE knob from the circuit. Press the BYPASS button to enable or disable Tone Bypass. If the button is lit, the TONE knob and its circuitry is bypassed.

15. TONE WICKER Illuminated Button The Wicker effect opens up the bandwidth allowing more high frequency signal to pass through for a bright and clear top end. Disable Wicker to obtain the classic sound of Big Muff π®. Press the WICKER button to enable or disable the Wicker effect. If the button is lit, the Wicker effect is enabled.

16. BYPASS Footswitch & LED Press the BYPASS footswitch to enable or disable the Big Muff effect. When the associated LED is lit, the Big Muff effect is enabled; when the LED is off, the unit is in buffered bypass mode.

17. PRESET Footswitch & LED Press the PRESET footswitch to load or cycle through the 10 presets. When the associated LED is lit, the preset represented by the number on the display is loaded and enabled; when the LED is off, preset mode is off.

Transferring Presets

To perform any of these actions, click on the Preset Transfer button in the toolbar.

Transferring from Computer to BMπHP

Click on the **SEND** tab. Load any number of presets in any of the slots to prepare them for sending to the BMπHP. Once ready, press the *Send to Device* button at the bottom of the panel. The unit will flash **'r'** to indicate the presets are successfully transferring to the BMπHP.

Transferring from BMπHP to Computer

Click on the **RECEIVE** tab. Recently saved hardware presets will be indicated by red text. Click any of the grayed buttons to enable which presets to receive; the button will illuminate when enabled. Once ready, press the *Receive from Device* button at the bottom of the panel. The plugin will save the data into the computer's USER preset folder for future use.

Renaming BMπHP Hardware Presets

Click on the **RECEIVE** tab. Recently saved hardware presets will be indicated by red text. To rename these hardware presets, enter in a new name in the text field. Then, click the corresponding grayed button to enable the preset name rewrite; the button will illuminate when enabled. Once ready, press the *Receive from Device* button at the bottom of the panel. The new name will be saved in the selected preset slots. The plugin will also save the data into the computer's USER preset folder for future use.



Preset Transfer *Send* panel.



Preset Transfer *Receive* panel.

Updating the Big Muff Pi Hardware Plugin®

Updating the Software Plugin

Upon opening the plugin while connected to the Internet, the plugin will prompt a message indicating there is a new version of the software plugin to install. If you wish to install the newest version, press OK and it will open the installer download page on ***www.ehx.com/BMPHP***. Download and run the installer to get the most current version of the software plugin.

Updating the Hardware Firmware

Upon opening the plugin while connected to the internet, the plugin will prompt show the message "Firmware Update Required..." indicating there is a new version of the firmware to install on the BMπHP hardware. If you wish to install the newest version, click on the message and the pedal will navigate you through its firmware update process:

1. The Plugin will ask if you want to update the BMπHP's firmware. Press 'OK' to proceed with the update.
2. The LED display will show the letter 'b' then cycle through numbers 0-9. You will also see various LEDs on the BMπHP unit blink. **DO NOT DISCONNECT THE BMπHP, DELETE THE PLUGIN, OR QUIT YOUR DAW OR ELSE THE FIRMWARE UPGRADE PROCESS WILL FAIL.**
3. Once the download has completed, the BMπHP will restart.
4. Click on the Settings Menu and *Select Device* to reconnect to the BMπHP

Resetting Firmware

If for some reason the BMπHP does not start up/function normally, you are able to reset it to its factory firmware. There are two ways to do this:

Method 1

1. Remove the bottom cover of the BMπHP.
2. Find the F/WARE FACTORY RESET button. Hold this button while power cycling (removing the AC adapter from the unit and plugging it back in).
3. The LED Display will show an 'r'. If it does not restart itself within 20 seconds, power cycle the BMπHP again. The factory firmware will be running after that.

Method 2

1. Connect the BMπHP to your computer and assign it a software plugin instance.
2. Hold the Option key (Mac) / Alt key (PC), while clicking on the Settings menu.
3. Click on *Reset Firmware.*
4. The LED display will show an 'r'. If it does not restart itself within 20 seconds, power cycle the BMπHP again. The factory firmware will be running after that.

MIDI Implementation Chart

In addition to the plugin's USB Audio and USB Control modes, the BMπHP can be controlled via MIDI, without using the DAW plugin. Send the appropriate MIDI message from your computer using MIDI over USB, and the BMπHP will adjust its parameters accordingly.

Note: *MIDI control is disabled when the BMπHP is connected to the plugin.*

MIDI Configuration Mode

1. Unplug the BMπHP and hold down the Preset knob while plugging it back in. This will enter MIDI Configuration mode. All LEDs will be on, and the current MIDI channel will be displayed.
2. Scroll with the Preset knob to choose a MIDI channel.
3. Use Tone Wicker and Tone Bypass to enable/disable MIDI Send & MIDI Receive. MIDI Send is active when Tone Bypass is lit, and MIDI Receive is active when Tone Wicker is lit.
4. Press and release the encoder to select the displayed MIDI channel. The BMπHP will save the new MIDI channel and send/receive settings and return to normal operation.

MIDI Control Change Chart

Parameter	CC#	Data Range
Volume (L & R)	85	0–127
Volume L	86	0–127
Volume R	87	0–127
Tone (L & R)	88	0–127
Tone L	89	0–127
Tone R	90	0–127
Sustain (L & R)	102	0–127
Sustain L	103	0–127
Sustain R	104	0–127
ADC Gain (L & R)	105	0–127
ADC Gain L	106	0–127
ADC Gain R	107	0–127
Tone Bypass	108	64 – Engage 0 – Bypass
Tone Wicker	109	64 – Engage 0 – Bypass
Bypass Footswitch	110	64 – Engage 0 – Bypass
Preset Footswitch	111	64 – Engage 0 – Bypass
Omni Off	124	Any
Omni On	125	

MIDI Program Change Chart

Parameter	PC#
Select Presets 0–9	0–9
Toggle preset on/off	10
Toggle Bypass on/off	11
Toggle Tone Wicker	12
Toggle Tone Bypass	13

Tips, DAW Notes, & Technical Specifications

Tips for Successful Operation

Sample Rates & Audio Settings: If you don't hear anything from the BMπHP, you may need to check the audio settings for your DAW and computer:

- Your DAW's sample rate must be set to 44.1kHz or 48kHz. Other sample rates are not supported by the BMπHP
- Check the audio settings on your DAW and computer to make sure your BMπHP is not being used as an audio input/output device.

Disable Offline Rendering/Bouncing: Any rendering, bouncing, or freezing of tracks with the BMπHP must be done in real-time, since the signal is sent to the analog Big Muff circuitry in real-time.

Reaper® – Disable Anticipative Processing

Reaper's Anticipative Processing must be disabled for the BMπHP to stay in sync with other audio. This is found in Reaper's preferences menu, under Audio > Buffering

Logic Pro® – Low Latency Mode

In Logic Pro, enabling Low Latency Mode will bypass the BMπHP. The BMπHP will be re-activated when recording is completed, returning the effect to the track. To avoid this, disable Low Latency Mode.

Pro Tools® (Windows-Only) – MIDI Port Management

When using the BMπHP with AVID Pro Tools on Windows, an "ExcludedMIDIPorts.txt" file must be created to prevent Pro Tools from taking control of the BMπHP as a MIDI port.

1. Open the Settings menu to select your BMπHP device, and click on "Setup Pro-Tools..." which will replace the Audio and Control options until this process is complete.
2. A dialog box will open to guide you through the process of creating the file and copying it to your Pro Tools directory.
3. Restart Pro Tools for the change to take effect. You can now use the BMπHP.

Technical Specifications

- Input impedance for each input: 2MΩ
- Output impedance for L/R outputs: 400Ω
- Output impedance for Headphone output: 2Ω
- Current draw: 120mA
- Maximum input signal level: +9.0 dBu

System Requirements

- MAC: Operating System must be macOS® X Sierra®10.12.x or newer
- Windows: Operating System must be Windows® 10
- Compatible DAW application such as Ableton Live®, Apple GarageBand®, Apple Logic Pro X®, AVID Pro Tools®, Reaper®, Steinberg Cubase® and more to come.

WARRANTY INFORMATION

Please register online at *www.ehx.com/product-registration* or complete and return the enclosed warranty card within 10 days of purchase. Electro-Harmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a **Return Authorization Number** (RA#) from EHX Customer Service before returning your product. With your returned unit, include a written description of the problem as well as your name, address, telephone number, e-mail address, RA# and a copy of your receipt clearly showing the purchase date.

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Europe

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This warranty gives a purchaser specific legal rights. A purchaser may have even greater rights depending upon the laws of the jurisdiction within which the product was purchased.

COMPLIANCE

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.*

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

The CE logo indicates that this product has been tested and shown to conform with all applicable European Conformity directives.

The WEEE or "trashcan" logo indicates that this product is made up of electronic components that should not be trashed alongside household waste but instead should be recycled by a proper electrical waste facility.

ASIO COMPATIBLE

ASIO is a trademark and software of Steinberg Media Technologies GmbH.