Harley Benton

MP-500

User Manual

MIDI Foot Switch

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Table of contents


MP-500 INTERFACE/FOOT CONTROL
1
2
3
4
A
B
C
D
Harley Benton

1 General information

1.1 General information

This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

1.1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Instructions

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

1. Switch on the device.

2. Press *[Auto]*.

⇨ Automatic operation is started.

3. Switch off the device.

1.1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is used to control guitar amplifiers or effect devices via footswitches and MIDI as well as an interface for mobile devices. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard! Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke! Never let children unattended use electrical devices.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations. Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures). Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly the user. Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

- Audio interface with MIDI foot switch for controlling guitar amps or effects devices via mobile end devices and apps (iOS, Mac OS and Android systems)
- USB MIDI control and standard MIDI control
- 8 programmable foot switches
- 2 inputs for effect pedals to control the effect parameters (effect pedals not included)
- High-speed data transmission of up to 192 kHz/24 bits
- Pre-programmed configurations for common software or devices, e.g. Bias FX, JamUp, Kemper or Axe FX
- Preamplified microphone input with +24 V phantom power, designed as XLR connector
- Adjustable instrument and microphone input, designed as a 6.35 mm jack plug (stereo)
- Power supply via USB
- MIDI cable, USB cable (type B) for data exchange and charging, USB micro cable (type B) only for charging, 1.0 mm guitar pick, adapter 3.5 mm stereo mini jack to 6.35 mm stereo jack plug included in delivery

4 Installation

NOTICE!

Danger of short circuit

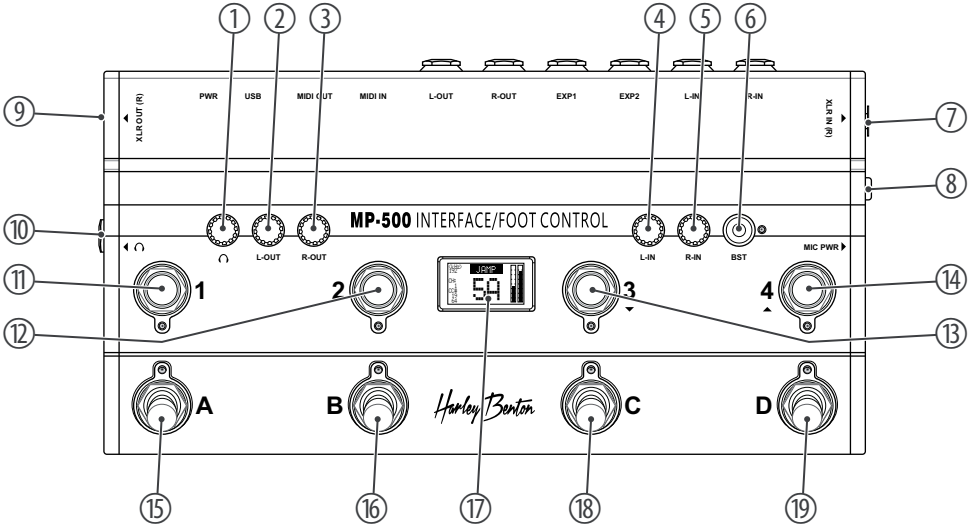
Switching on phantom power will damage the device if unbalanced XLR cables are connected.

Only turn on phantom power when exclusively balanced XLR cables are connected.

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

5 Connections and controls

Front panel

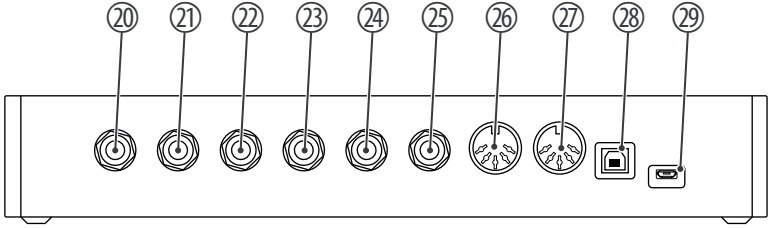


1	Volume control for the microphone input
2	*[L-OUT]* | Volume control for the left output channel. Pressing the rotary knob mutes the channel.

3	*[R-OUT]* | Volume control for the right output channel. Pressing the rotary knob mutes the channel.
4	*[L-IN]* | Volume control for the left input channel. Pressing the rotary knob mutes the channel.
5	*[R-IN]* | Volume control for the right input channel. Pressing the rotary knob mutes the channel.
6	*[BST]* | Analogue boost effect for the left input channel
7	*[XLR IN (R)]* | Input for condenser microphone or dynamic microphone, designed as XLR jack
8	*[MIC PWR]* | Switch for switching on 24 V phantom power for microphones
9	*[XLR OUT (R)]* | Outputs for the right channel, designed as XLR chassis plugs
10	Headphones output, designed as 6.35 mm jack plug
11	*[1]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'JAMP'* configuration.
12	*[2]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'BIFX'* configuration.
13	*[3]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, hold the foot switch down, and turn on the unit by connecting the USB cable to the power supply to activate the *'KMPA'* configuration.

14	*[4]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'AXEF'* configuration.
15	*[A]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed and turn on the device by connecting the device to the power supply via the USB cable to activate the *'ATOM'* configuration.
16	*[B]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'PC-8x'* configuration.
17	Display
18	*[C]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'CUS1'* configuration.
19	*[D]* | Foot switch for sending program change and control change MIDI commands Press the foot switch, keep the foot switch pressed, and turn on the unit by connecting the USB cable to the power supply to activate the *'CUS2'* configuration.

Rear panel

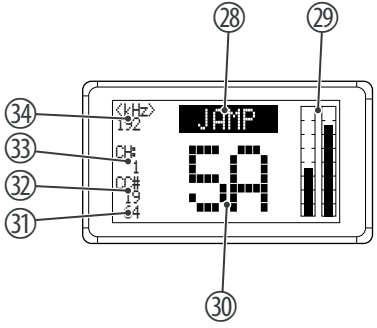


20	*[R-IN]* | Balanced input for connecting condenser microphone or dynamic microphone, designed as 6.35 mm jack plug
21	*[L-IN]* | Unbalanced input for connecting a guitar or dynamic microphone, designed as a 6.35mm jack plug
22	*[EXP2]* | Input for connecting an effect pedal, designed as a 6.35 mm jack plug
23	*[EXP1]* | Input for connecting an effect pedal, designed as a 6.35 mm jack plug
24	*[R-OUT]* | Balanced output, designed as a 6.35 mm jack plug (stereo)
25	*[L-OUT]* | Balanced output, designed as a 6.35 mm jack plug (stereo)
26	*[MIDI IN]* | MIDI input for connecting external devices, designed as DIN connector (5-pin)
27	*[MIDI OUT]* | MIDI output for connecting external devices, designed as DIN connector (5-pin)

28	*[USB]* | USB port for connecting a mobile device and power supply
29	*[PWR]* | USB micro port for power supply

If noise is caused by connecting the USB ports, connect the micro USB port using an adapter directly to the mains plug and not to a computer.

Display



28	Configuration
29	Dynamic display for *[EXP1]* (empty if no effect pedal is connected to EXP1)
	Dynamic display for *[EXP2]* (empty if no effect pedal is connected to EXP2)
30	Current number of the program change MIDI command
31	Sub-parameter of the sent control change MIDI command (updated only if changed and held for 0.5 s)
32	Sent control change MIDI command (updated only when changed and held for 0.5 s)
33	MIDI channel used
34	Sampling rate

6 Operating

Turning the unit on

- Connect the device to a voltage source using the supplied USB micro cable (type B).
  - ⇨ The device is operational. The LEDs under the push buttons light up briefly. The display shows the current status of the device.

Using a device with mobile end devices

1. Connect the device to your mobile end device, e.g. an iPad or tablet, using the supplied USB cable (type B).
2. Insert your mobile end device into the provided groove of the device. This way you have an optimal view of the display of your mobile end device while playing.
3. Set the volume of your mobile end device to 80 to 90 per cent.
4. Connect your instrument to the *[L-IN]* input jack and set the default gain value to 0 dB.
5. Connect headphones to the headphone output or connect a monitor to the line output*[(L-OUT]*, *[R-OUT]*).
6. Start an audio software of your choice on the mobile end device and set an extremely low latency time.

   Activate the MIDI controller the first time you use the software.

   ⇨ You can now control the device with the app of your mobile end device.

Select configuration

You can switch between six preset and two individually programmable configurations.

1. Depending on the desired configuration, press *[1]*…*[4]* or *[A]*…*[D]* and keep the button pressed.
2. Enable the device by connecting the supplied USB micro cable (type B) to a voltage source.

   ⇨ The selected configuration is activated. The display will show the selected configuration.

Foot switch	Configuration	Function
1	JAMP	Control of effects of the iOS software JamUp
2	BIFX	Control of effects of the Biax FX software
3	KMPA	Control of effects of the Kemper profiling amp
4	AXEF	Control of AXE FX effects
A	ATOM	Control of the ATOMIC amplifier effects
B	PC-8x	*[1]*…*[4]* and *[A]*…*[D]* for sending program change MIDI commands. 8 patches are a group. 8 different patches can be switched.
C	CUS-1	Individually programmable configuration
D	CUS-2	Individually programmable configuration

Programming the configuration

You can program and save two individual configurations.

1. Press *[4]* and *[D]* simultaneously and keep the buttons pressed.
2. Enable the device by connecting the supplied USB micro cable (type B) to a voltage source.
   ⇨ The setup for individual configurations is activated. The display shows the submenus *'MIDI.CH'*, *'CUS1'* and *'CUS2'*.
3. Press *[2]* r *[3]* to switch between the submenus.

In the *'MIDI.CH'* submenu, MIDI channels can be assigned to the preset configurations.

1. Press *[4]* or *[D]* to select the desired configuration.
2. Press *[B]* or *[C]* to select the desired MIDI channel for the configuration.
   ⇨ The selected settings remain stored even after the device is turned off.

In the submenus *'CUS1'* and *'CUS2'*, parameters for individually set configurations can be set.

1. Press *[4]* or *[D]* to select the desired parameter.
2. Press *[B]* or *[C]* to select the desired option for the parameter.
   ⇨ The selected settings remain stored even after the device is turned off.

Parameter	Option	Function
ABC/123	ABC/123	Display of patch numbers 1A, 1B, 1C or 1, 2, 3
Bank Move	4x, 5x, 8x, 10x	Number of selected patches in a group
Bank Mode	WAI, IMM	WAI: Switches to the first patch of the next group with a delay when the foot switch is pressed. IMM: Immediately switches to the first patch of the next group when the foot switch is pressed.
SCR Start	0, 1	0: Displays the patch table starting from 0. 1: Displays the patch table starting from 1.
PC Start	0, 1	Current program change value of the first patch table
EXP1 CC#	1…127	Command number of the control change MIDI command for effect pedal 1
EXP2 CC#	1…127	Command number of the control change MIDI command for effect pedal 2
KEY 1 MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY 1 CC#	1…127	Command number of the control change MIDI command
KEY 1 Tog	OFF, ON	ON: The sub-parameters change between 0 and 64

Parameter	Option	Function
KEY 2 MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY 2 CC#	1…127	Command number of the control change MIDI command
KEY 2 Tog	OFF, ON	ON: The sub-parameters change between 0 and 64
KEY 3 MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY 3 CC#	1…127	Command number of the control change MIDI command
KEY 3 Tog	OFF, ON	ON: The sub-parameters change between 0 and 64
KEY 4 MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY 4 CC#	1…127	Command number of the control change MIDI command
KEY 4 Tog	OFF, ON	ON: The sub-parameters change between 0 and 64
KEY A MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY A CC#	1…127	Command number of the control change MIDI command
KEY A Tog	OFF, ON	ON: The sub-parameters change between 0 and 64

Parameter	Option	Function
KEY B MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY B CC#	1…127	Command number of the control change MIDI command
KEY B Tog	OFF, ON	ON: The sub-parameters change between 0 and 64
KEY C MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY C CC#	1…127	Command number of the control change MIDI command
KEY C Tog	OFF, ON	ON: The sub-parameters change between 0 and 64
KEY D MOD	PC#, CC#	PC: Program change MIDI command CC: Control change MIDI command
KEY D CC#	1…127	Command number of the control change MIDI command
KEY D Tog	OFF, ON	ON: The sub-parameters change between 0 and 64

You can connect the device to an external MIDI keyboard via the *[MIDI OUT]* MIDI output. The device sends control commands in standard MIDI format and can be used as an independent MIDI controller pedal to control other hardware devices.

Restore factory setting

You can use this function to reset the device to its factory default setting.

1. Press *[L-IN]* and *[R-IN]* simultaneously and keep both buttons pressed.
2. Enable the device by connecting the supplied USB micro cable (type B) to a voltage source.

   ⇨ The device is reset to the standard settings.

7 Technical specifications

Input impedance		200 Ω
Output impedance		Line output: 100 Ω
Total harmonic distortion (THD)		-93 dB
Dynamic range		108 dB
Phantom powering		24 V
Current consumption		0.15 A
Power supply		via USB (5 V ⎓)
Dimensions (W × H × D)		260 mm × 130 mm × 60 mm
Weight		980 g
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20 %…80 % (non-condensing)

Further information

Number of buttons	8
Number of pedals	0
Display	Yes
Connection for Expression Pedal	Yes

8 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

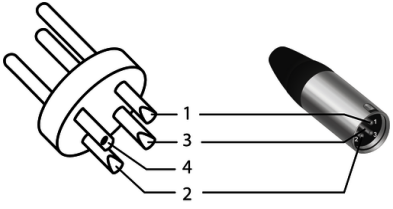
1/4" TS phone plug (mono, unbalanced)

1	Signal
2	Ground, shielding

1/4" TRS phone plug (mono, balanced)

1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

XLR plug (balanced)



1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)
4	Shielding on plug housing (option)

9 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.