

# PANDA200 MIDI Controller Owner's Manual

2.0 Version





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## **FEATURES**

- 16xHigh quality velocity & pressure sensitive performance trigger pads with RGB backlit.
- 5xAssignable Dials.
- 8xAssignable Slider, each slider can be edit by user.
- 26xLED backlit Assignable Buttons.
- Function buttons, providing functions like, EDIT, GLOBAL, LEVELS, PRESET, PAD
   GROUP, and etc.
- 1xMIDI OUT, 1XMIDI IN; Power supplied by USB and DC 9V.
- Compatible with Win XP/Vista/Win7/8/10 and Mac OSX. Drive free and hot-plug supported.



#### **INTRODUCTION**

#### FRONT PANEL OVERVIEW



- **1. LCD** The display is used for navigating menus, displaying data, and affecting change on PANDA200′ s options and parameters.
- **2. [VALUE]** (Push to Enter) –This dial is used for incrementing and decrementing Presets, parameter values and settings. This dial also functions as an [ENTER] button when it is pressed down.



- **3.** [<] **AND** [>] BUTTONS These buttons are used for navigating through fields of menus and options.
- **4.** [PRESET] This button calls up Preset Mode. You can select and recall different Preset programs in this mode.
- **5. [EDIT]** This button calls up Edit Mode, which allows you to edit the behavior of the pads, knobs, buttons, faders.
- **6. [GLOBAL]** This button calls up Global Mode, where MIDI reset commands and global system preferences are set.
- 7. [PROGRAM CHANGE] Pressing this button will enter Program Change mode.

  In this mode, you can send a Program Change or Program with Bank Change message to a hardware or software module.
- **8.** [FULL LEVEL]. When [FULL LEVEL] is activated, the pads always play back at a maximum velocity (127), no matter how hard or soft you hit them.
- **9** . **[16 LEVEL]**. When [16 LEVEL] is activated, you can use the 16 pads to change a selected sound' s velocity in 16 steps.
- **10. [CONTROL BANK].** The PANDA200 features 2 independent banks of continuous controllers. Effectively, this allows you to control up to 78 independent parameters with the knob, faders and buttons on the PANDA200. The [CONTROL BANK] button is used to switch among the 2 banks.
- **11. PAD BANK** buttons. These 3 buttons switch among pad banks A, B, C. Each bank can address a unique set of 16 sounds giving you access of up to 48 different sounds you can trigger with the pads. The currently selected pad bank will be

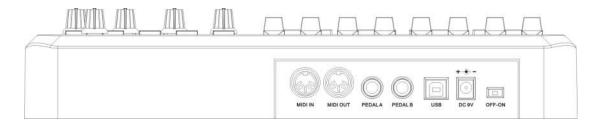


indicated on the LCD display.

- **12.16 PRESSURE AND VELOCITY SENSITIVE PADS**. The pads can be used to trigger drum hits to our software or hardware module. The pads are pressure and velocity sensitive, which makes them very responsive and intuitive to play.
- **13. 5 ASSIGNABLE KNOBS**—Each 360-degree knob can be used to send continuous control data to a desktop audio workstation. These knobs should be endless and can send MIDI note messages.
- 14. 26 ASSIGNABLE BUTTONS. These buttons can be used as MIDI CC switches.
- **15.8 ASSIGNABLE SLIDERS**-Each slider can be used to send continuous control data to a desktop audio workstation or external MIDI device.



#### **REAR PANEL OVERVIEW**



- **1. DC POWER ADAPTER INPUT** –Plug in a 9V–1A DC power adapter if you do not wish to power the PANDA200 through the USB connection.
- 2. USB CONNECTION Plug a standard USB cable into this outlet and into the USB port of your computer. The computer's USB port will provide power to the PANDA200. This connection is used to send and receive MIDI data to and from your computer and may also be used to send MIDI data from your computer to a device attached to the MIDI OUT port of the PANDA200.
- **3. MIDI OUT** Use a five-pin MIDI cable to connect the MIDI OUT of the PANDA200 to the MIDI IN of an external device.
- **4. MIDI IN** Use a five-pin MIDI cable to connect the MIDI OUT of an external MIDI device to the MIDI IN of the PANDA200.
- **5. Pedal A** –can be used as MIDI CC switches.
- 6. Pedal B -can be used as MIDI CC continues.



#### **HOOKUP DIAGRAM**

Please refer to the following scenario for connecting the PANDA200.

# COMPUTER MIDI EXTERNAL SOUND MODULE USB MIDI from Panda 200 to EXTERNAL MIDI DEVICE computer MIDI from external MIDI device connected to MIDI IN port of Panda 200 MIDI from computer to external sound module connected to MIDI OUT port of Panda 200

- 1. Connect a USB cable from your computer to the PANDA200. The unit will be powered through the USB connection. Alternatively, if you do not wish to use a computer in your setup or if you wish to power the PANDA200 externally, please plug in the included 9V-1A DC power adapter.
- 2. If you would like to use an external sound module, connect a 5-pin MIDI cable from the MIDI OUT of the PANDA200 to the MIDI IN of the external device.



3. If you would like to use Footswitches or an Expression Pedal with the PANDA200, connect the 1/4" jack from the selected pedal in to the appropriate plug on the PANDA200.

## A NOTE ABOUT USING THE PANDA200 WITH SOFTWAR

- 1. Make sure that the PANDA200 and all external devices are connected and that the USB cable is connected to your computer before opening any software applications with which you intend to use the PANDA200. If the unit is not plugged in before, your software application might not recognize the PANDA200 as an available device.
- In your software application, you will need to set the PANDA200 as a default MIDI input device. This is usually done in the MIDI section of the Preferences menu.



#### **OPERATION**



#### 1. FULL LEVEL

When the **[FULL LEVEL]** button is activated, the PANDA200 pads always play back at maximum velocity (127). This way, no matter how hard or soft you hit a pad, the PANDA200 will always trigger the sound at its maximum velocity (volume).

#### **2. 16 LEVELS**

When you press [16 LEVELS], you can use the 16 pads to change a selected pad's velocity in 16 steps. This allows you to have more control over the velocity of the desired sound. When this button is pressed the last pad that was hit gets mapped to all 16 pads. The pads output the same note number and pressure controller as



the initial pad, but the velocity is fixed at the values in the diagram below, regardless of how hard you hit each pad.

#### PADS AND CORRESPONDING VELOCITIES

103	111	119	127
71	79	87	95
39	47	55	63
7	15	23	31

#### TRY IT!

Try mapping a sound such as a snare drum to one of the pads and then see how expressive the 16 Levels option allows you to be with your playing.

#### 3. PAD BANK

These 3 buttons switch between pad banks A, B, C. You can store different sounds in each one of the 3 different banks, giving you access of up to 48 different sounds you can trigger.

When you Press [A], [B], or [C]. The LCD will display the current Pad bank, and the note of each pad is changed. When you edit the Pad data, Enter the global setting and choose save global. All the settings will be saved to the current Pad.

#### 4. PRESET

When the **[PRESET]** button is valid ,the PRESET MODE be activated. Different preset programs can be selected and recalled. A preset is a collection of information about



how different sliders, knobs, and pads will behave.

You can change presets with the [ < ] or [ > ] button, the number of the current preset will be displayed on the screen, pressing **[ENTER]** loads the selected Preset.



#### **5. PROGRAM CHANGE**

You can use this button to change the program.

\*SET PROGRAM CHANGE: You can set which Program Change Number the pad will transmit when it is pressed. Use [ < ] or [ > ] button to select Program Change field. While in ProgramChange field, use [VALUE] dial to select desired Program Change Number. Pressing [ENTER] to confirm the value.



\*SET BANK M: Use [ < ] or [ > ] button to select Bank M field. While in Bank M field, use [VALUE] dial to select desired value, Pressing [ENTER] to confirm the value.

\*SET BANK L: Use [ < ] or [ > ] button to select 'Bank L' field. While in Bank L field, use [VALUE] dial to select desired value, Pressing [ENTER] to confirm the value.







#### 6. EDIT

When you press[EDIT] button ,The LCD displays 'CTLdata1' and the EDIT MODE is activated. In this mode, you can change the parameters of the pads, knobs and sliders. The EDIT MODE allows you to fully customize and optimize your controller for the best desired performance.



The different parameters that you can edit are organized under two different pages on the display and are described below. Depending on which event type you select on Page 1, you will be given different parameters which you can edit on Page 2.

To select the controller you wish to edit, just move any slider, knob or hit a pad —
This will prompt the screen to display the properties of that particular controller.

You can select the desired controller with the **[VALUE]** dail. Pressing [ENTER] will confirm the value.(In edit mode, there is no message can be sent).



#### 6.1 PAD EDIT

The pads can either be set to transmit Note information.

Press the pad that you would like to edit, and use [ < ] or [ > ] button to select Note field. The LCD displays 'Pad\_note', turn the **[VALUE]** dial to select 'NOTE'. Press **[ENTER]** to confirm the 'Note'.

#### **6.2 CONTROL EDIT**

The knobs and sliders can be set to transmit special value of the Control.

\*SET CONTROL VALUE: Use [ < ] or [ > ] button to select Control VALUE field, and the LCD displays 'CTLdata2. While in Control VALUE field, use [VALUE] dial to select desired Controller VALUE.

#### 7. GLOBAL

When you press[GLOBAL] button, the GLOBAL MODE be activated, it has 4 pages in this mode. Table 1 shows corresponding function for each page.

Page 1	MIDI COMMON CHANNEL
Page2	PAD VELOCITY CURVE
Page 3	MUTE
Page 4	Reset
Page5	SAVE GLOBAL
Page6	Pad Note output type



#### 7.1 Page1-MIDI COMMON CHANNEL

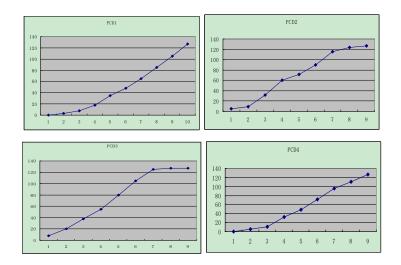
Use [ > ] or [< ]button to select MIDI Common Channel page in GLOBAL MODE.

Turn [VALUE] dial to select desire MIDI Channel. The array of the MIDI Channel is

0~15. Press [ENTER] set MIDI Channel.

#### 7.2 Page2-PAD VELOCITY CURVE

Use [ > ] or [< ]button to select PAD VELOCITY CURVE page in GLOBAL MODE. Turn [VALUE] dial to change Pad curve type. It has four curves, the array of the four curves is 0~3. Press [ENTER] to select desired curve.





#### 7.3 Select the Backlit RGB Color of 8 Pads

Press "GLOBAL" and ">" button and the LCD displays "RGB OFF", then press "VALUE" button to adjust RGB color for the pads when the LCD displays "RGB ON". The Faders F1, F2 and F3 are used for RGB color. F1 is for red color. F2 is for blue color and F3 is for green color. Press the pad you want to change the RGB color and then operate the fader F1,F2,F3 to change the RGB color of this pad. Press "VALUE" button to exit the RGB color setting mode. The operate steps are following:

- (1) Press the "GLOBAL" button and then ">" button for one or two times until the LCD displays "RGB OFF". Then press "VALUE" button for one or two times until the LCD displays "RGB ON".
- (2) Press one of the 16 PADs and the LCD displays "PAD".
- (3) Operate F1,F2,F3 to change the RGB color of the pad. During operation, the LCD displays the current RGB color No. on the bottom-left corner. Maximum is 127, 0 means LED lights off.
- (4) Press the "VALUE" button to exit the RGB color setting mode.
- (5) Reference RGB No. for some colors:

COLOR	R.	G.	В
WHITE	127	127	127
BLACK	0	0	0
RED	127	0	0
GREEN	0	127	0
BLUE	0	0	127
CYAN	0	127	127
MAGENTA	127	0	127
YELLOW	127	127	0
ORANGE	127	82	0

#### 7.4 Page3-MUTE

In MUTE ON mode, any message cannot be send. Press [ENTER] to switch the MUTE



mode.

#### 7.5 Page-4 Reset

Reset the all the controller, include the pads, knobs, buttons and sliders.

#### 7.6 Page4-SAVE GLOBAL

Use [ > ] or [< ]button to select SAVE GLOBAL page in GLOBAL MODE. You will see 'SAVE\_ALL' displayed on the screen. Press [ENTER] to save all the global settings.

#### 7.7 Page5-Pad note output type

In Note\_TP1 mode, when striking the pad, the NOTE OFF message is send immediately after the NOTE ON message is sent. In Note\_TP2 mode, the NOTE ON message is sent when the user strikes the pad, the Note off message is sent when the finger comes off the pad. Press [ENTER] to switch the mode.

#### 8. MMC(MIDI MACHINE CONTROL)

There are 6 buttons used for MMC-[|<<],[<],[<],[>],[O],[stop],[play].It is common to set the 6

buttons as Sequencer remote control buttons, it needs to be working with sequencer software.





Question: Does the PANDA200 have internal sounds?

**Answer:** No. The PANDA200 is a MIDI-controller, which means that it does not contain any sounds inside but is instead used to control external sound devices, such as hardware and software synthesizers, sequencers and drum machines.

**Question:** Do I need to use a power adapter if I am using the PANDA 100 with a computer?

**Answer:** No. The PANDA200 will draw power directly from the USB port. However, if your USB port does not supply enough power or if you are using a USB hub, it may be necessary to use a power adapter.

**Question:** What software applications is the PANDA200 compatible with? **Answer:** The PANDA200 is compatible with any software or hardware device which supports the MIDI protocol. Please consult your specific hardware or software device's documentation for instructions on enabling the PANDA200 as a MIDI input device.

**Question:** Can I use the PANDA200 as a MIDI interface for other MIDI devices? **Answer:** Yes. The PANDA200 functions as a MIDI interface which can send and receive from other MIDI devices connected to it.

**Question:** Can I control multiple devices with the PANDA200?

**Answer:** Yes. The PANDA200 can transmit information on 16 MIDI channels

**Question:** Can I send Program Change messages to my software or hardware devices?

**Answer:** Yes. You can send program change messages in Program Change mode. In addition, pads and buttons may also be assigned to transmit program change messages.

**Question:** Are the pads on the PANDA200 velocity and pressure sensitive?



**Answer:** Yes. The PANDA200 sports real MPC velocity and pressure sensitive pads. This allows you to be extremely expressive with your programming and performance.

**Question:** What type of pads is used on the PANDA200?

**Answer:** The PANDA200 features the same pads as the MPC2500.

**Question:** Are the knobs on the PANDA200 endless?

**Answer:** The knobs on the PANDA200 are endless pots. This allows you to limit the range of the knobs, as well as use them as increment/decrement controls. Please note that your software application must be able to receive and recognize NRPNs for Increment/decrement functions to work.

**Question:** I see 5 knobs, 8 faders, 26 buttons, and 16 pads. Is that all I get? **Answer:** No. The PANDA200 features multiple banks of controllers and pads, which can be accessed with the [PAD BANK] and [CONTROL BANK] buttons. This allows you to access significantly more parameters than the amount of physical controllers. There are 3 control banks, which effectively give you 117 (3x39) controllers. There are also 4 different pad banks which give you a total of 64 (4x16) pads.



## **TROUBLESHOOTING**

PROBLEM	CAUSE	SOLUTION
		Please make sure that the
		PANDA 200 is connected to
The display dose not	No power.	your computer and that the
light up.		computer is powered on.
		If using a power adapter,
		please make sure that the
		adapter is plugged into a live
		power outlet.
		Check your computer's USB
		connection to confirm that the
		PANDA200 is recognized. If
		necessory, replug the
	PANDA200 not properly	connection and restart your
	connected.	computer.
		If controlling an external
		hardware module, make sure
		that the PANDA 200's MIDI
		OUT is connected to the
		device's MIDI IN port.
No sound from target	PANDA200 connected	Restart the software
device.	after software	application with the controller
	application has started.	plugged in.
	Problem is caused by	Unplug the PANDA200 from
	use of a USB hub.	the USB hub and connect
		directly to your computer.
	Software application not	Ensure that the PANDA200 or
	set to receive MIDI data	"USB" MIDI device is listed as
	from the PANDA200.	an active MIDI source in your
		application. Usually, the MIDI
		settings can be accessed
		through the application's



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		Preferences menu.
	PANDA200' S MIDI	Make sure that the PANDA200
	channel not the same as	is sending MIDI information on
	application's incoming	the channel that the target
	MIDI channel.	device expects.
	Footswitch was plugged	Turn the unit's power off, wait
Notes sustain	in after the PANDA200	a moment and then turn it on
continuously.	was powered on.	again.
	Stuck notes due to	Turn the unit's power off, wait
	incomplete MIDI data.	a moment and then turn it on
		again.
Footswitch works in	Footswitch was plugged	With the footswitch plugged
reverse.	in after power was	in, turn the unit's power off,
	turned on.	wait a moment, and turn it on
		again.
Transport control	Software does not	Edit the transport control to
does not work.	support MMC messages,	send MIDI messages instead.
	MIDI START/STOP or the	Make sure that the Transport
	MIDI CC mode.	mode on the PANDA200
		matches the receive mode of
		your software.
I am only hearing one	16 Level function is	When engaged, the 16 Level
sound when I hit	engaged.	function will map the last hit
different pads.		pad to all 16 pads. Deactivate
		16 Level to return to normal
		operation.
The pads always play	Full Level feature is	When engaged, the Full Level
at maximum	engaged.	function will cause all the pads
velocity(127).		to output maximum velocity,
		no matter how hard they are
		hit. Turn off Full Level to return
		to normal operation.



## **TECHNICAL SPECIFICATIONS**

GENERAL		
Display	custom LCD w/backlight	
Dimensions(WxDxH)	330mmx300mmx50mm	
Weight	1.8kg	
ower	~100mA, 5V DC via USB	
	~1A,9V DC via external adaptor	
MIDI output channels over USB	16	
MIDI output channels from 5-pin MIDI	16	
Drum pads	16(velocity and pressure sensitive)	
Drum pad banks	3	
Faders	8	
360 degree knobs	6	
Switches	396	
Accessories	USB cable, CD-ROM disc	
INPUTS/OUTPUTS		
MIDI inputs	5-pin DINx1	
MIDI outputs	5-pin DINx1	
USB	Slave connectorx1(MIDI over USB)	
DC IN	6V DC, 1A	



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