

# Worlde Orca PAD48 MIDI Controller

## User's Manual



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## 1. Introduction

Thank you for purchasing the Worlde Orca PAD48 USB MIDI controller. To help you get the most out of your new instrument, please read this manual carefully.

In order to use the functions of this product, you'll need to make settings in the application you're using. Make settings as described in the owner's manual for your application.

## 2. Features

- 48 high quality velocity & pressure sensitive performance pads with RGB backlit, can be assigned easily as pads, MIDI CC buttons or Program change switches.
- 8 assignable encoders.
- 8 assignable control sliders.
- Function buttons, providing functions like, OCTAVE, AFTERTOUCHE, VELOCITY, MUTE and etc.
- USB interface, adaptable to USB 2.0(FULL SPEED). Power supplied by USB.
- MIDI IN, MIDI OUT
- Compatible with Win10/8/7/XP/Vista and Mac OSX. Drive free and hot-plug supported.
- Edited by the Orca PAD48 Software Editor, the picture below is the main screen. It can be downloaded from [www.worlde.com.cn](http://www.worlde.com.cn) for this software editor.

### MainWindow

**Global Parameters**

Channel:

Knob Accel:

Not connected

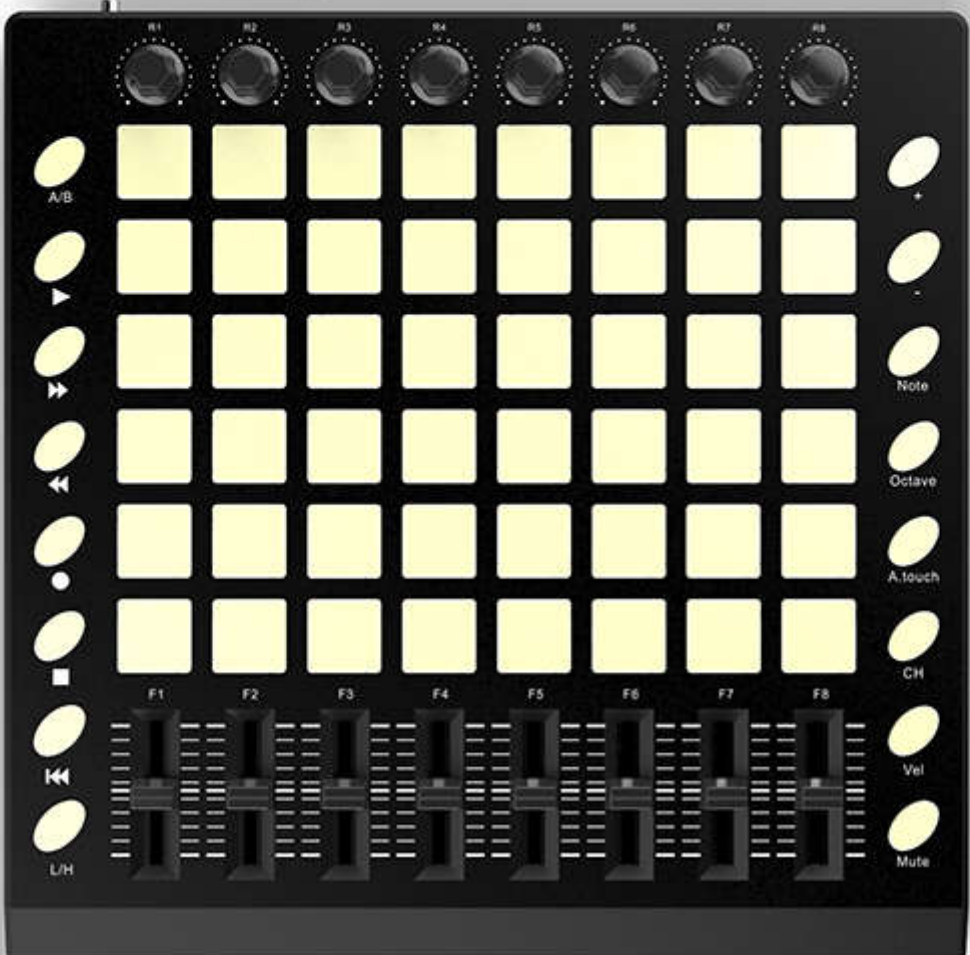
**Selected Control Parameters**

Channel:  CR:

CC Number:  Value:  CG:

Mode:  Mode Option:  CB:

Min / LSB:  Max / MSB:

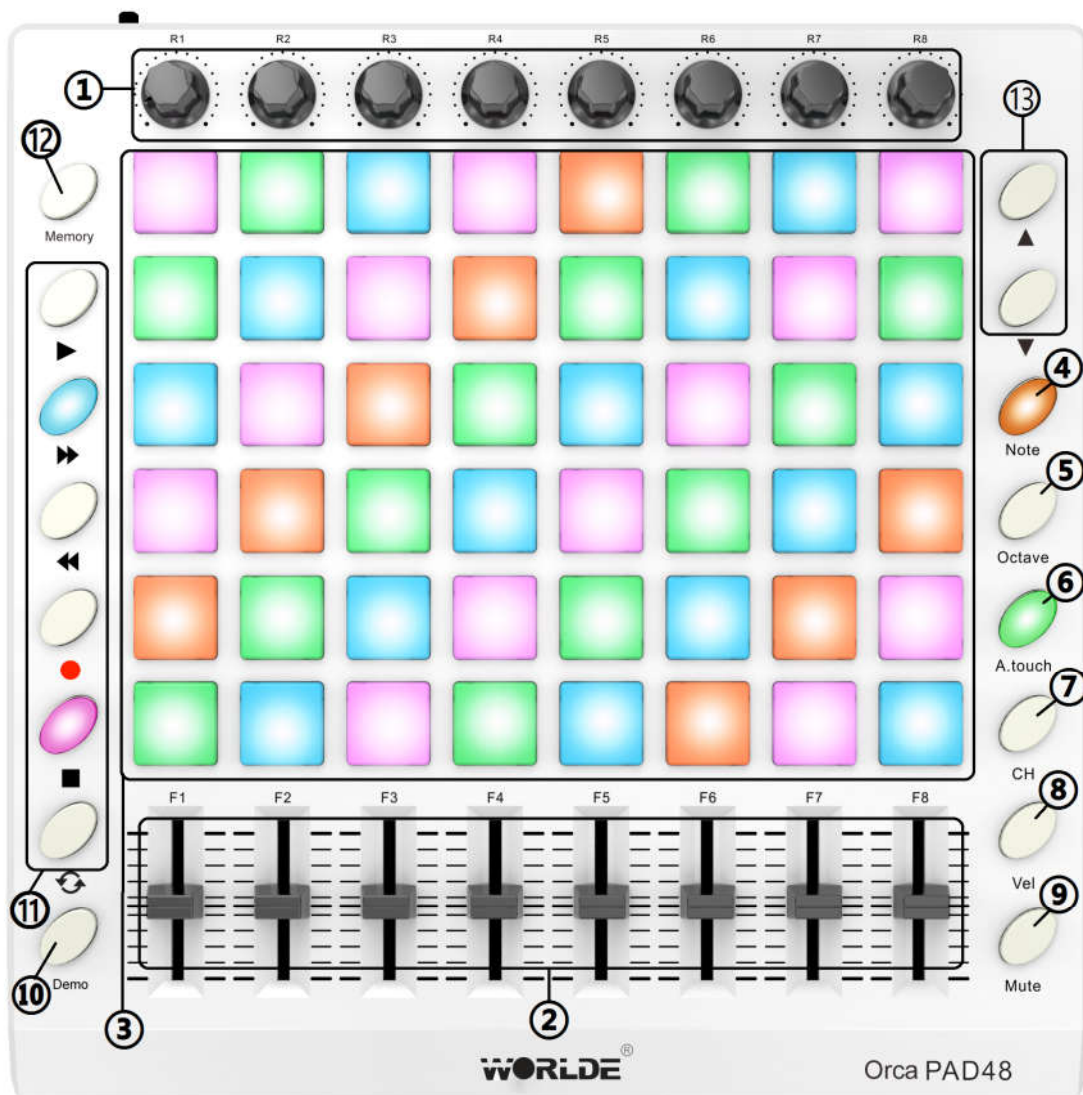


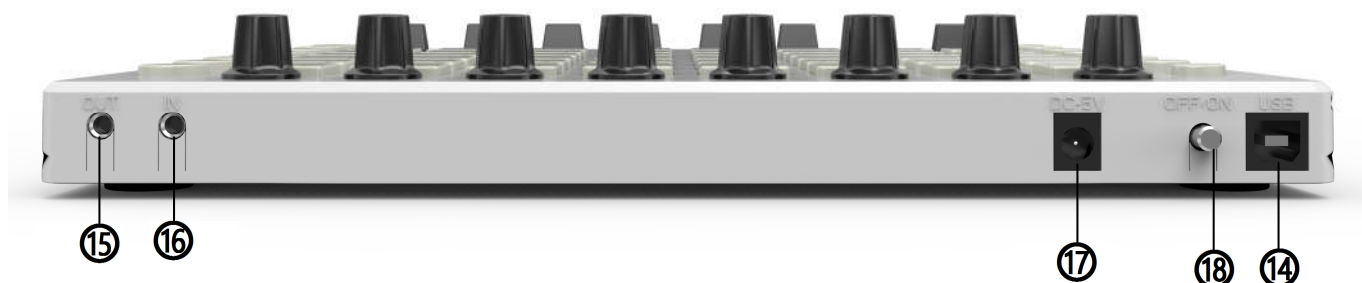
Send to Mem:

### 3. Parts and Their Functions

#### 3.1 Orca PAD48 Overview

##### 3.1.1 Top Panel Overview





### 1. Encoder

These encoders transmit control change messages. Each encoder can be used to send continuous control data to a desktop audio workstation or external MIDI device.

### 2. Slider

These sliders transmit control change messages. Each slider can be used to send continuous control data to a desktop audio workstation or external MIDI device.

### 3. Trigger pads

Pads can transmit note messages or control change messages. 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.

Use the Orca PAD48 Software Editor to select the backlit RGB color of 48 pads. We'll show you how to select the backlit RGB color of 48 pads in section 5.2.

### 4. [Note] button

The 48 pads have dual modes: trigger pads mode and key note mode. Click the note button to start the note mode of the 48 pads, press +/-button to increase or decrease the current note by semitone.

### 5. [Octave] button

Click the Octave button to start the Octave function, use +/-button to adjust Octave. Adjustment range is from 0 to 4. Press DATA +/- buttons at the same time to set octave to initial 0

### 6. [A.Touch] button

Click the A.touch button to start the function of channel after touch and keyboard after touch. Channel after touch is on when the LED color is red for the A.touch button. Keyboard after touch is on when it's blue for the A.touch button. When channel after touch in on, the system sends channel after touch info when pressing the pads. When keyboard after touch in on, the system sends keyboard after touch info when pressing the pads.

**7. [Channel] button**

Click the channel button to start the channel function, use +/-button to select the channel. The initial setting is 1, adjusting scale is 1~16.

**8. [Velocity]button**

Click the velocity button to start the velocity selection function, the medium(or normal) velocity is on when the LED color of velocity button is green, heavy velocity is on when it's in red color, and blue for constant velocity.

**9.[Mute] button**

Mute ON/OFF button. Click mute button will start the mute function. No message will be transmitted under Mute mode.

**10.[Demo] button**

Demo ON/OFF button. Click demo button will start the demo function.

**11. [MMC] button**

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.

**12.[Memory] button**

Holding the memory button and pressing one of the pads to recall the parameters in Memory area. Press the MEMORY button. The system enters the storing state, it stores 6 groups setup value.

**13. [<] and [>] button**

These buttons are used for navigating through fields of menus and options.

**14. Full Sized USB connector**

Connect the Orca PAD48 to your computer with a USB cable via this port.

**15. [MIDI OUT] Connector**

Use a five-pin MIDI cable to connect the MIDI OUT of the Orca PAD48 to the MIDI IN of an external device.

**16. [MIDI IN] Connector**

Use a five-pin MIDI cable to connect the MIDI OUT of an external MIDI device to the MIDI IN of the Orca PAD48.



## 17. DC 5V

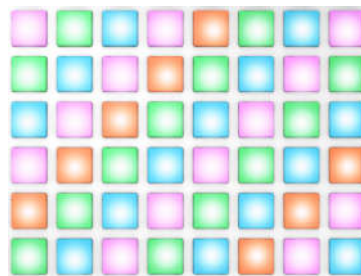
5V power input interface.

## 18. [OFF/ON] button

Power Off/On button.

### 3.1.2 The pads/preset buttons

Orca PAD48 has 48 high quality velocity & pressure sensitive performance pads with RGB backlit which can be assigned easily as pads, MIDI CC buttons or Program change switches. 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.



The pads

### 3.1.3 Parameter control encoders

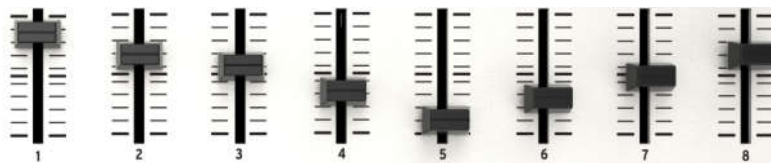
These encoders transmit control change messages. The 8 encoders can be assigned to control any editable parameter on the selected device. Each encoder can be used to send continuous control data to a desktop audio workstation or external MIDI device.



The Parameter control encoders

### 3.1.4 Parameter control sliders

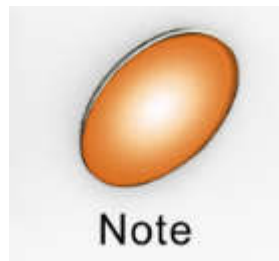
The 8 sliders can be assigned to control any editable parameter on the selected device. These sliders transmit control change messages. Each slider can be used to send continuous control data to a desktop audio workstation or external MIDI device.



The Parameter control sliders

### 3.1.5 Note button

The 48 pads have dual modes: trigger pads mode and key note mode. Click the note button to start the note mode of the 48 pads, press +/-button to increase or decrease the current note by semitone.

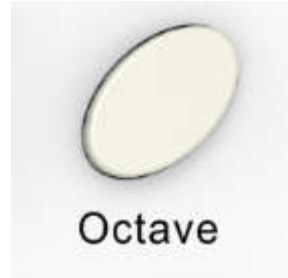


Note button

### 3.1.6 Octave button

Pushing the Octave buttons will transpose the keyboard by as much as four octaves up or down. The farther from center the keyboard has been transposed, the faster the buttons will flash.

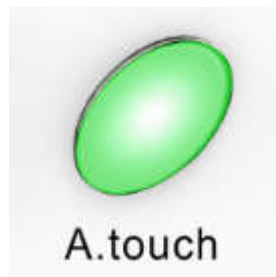
Click the Octave button to start the Octave function, use +/-button to adjust Octave. Adjustment range is from 0 to 4. Press DATA +/- buttons at the same time to set octave to initial 0.



**Octave button**

### 3.1.7 A. TOUCH button

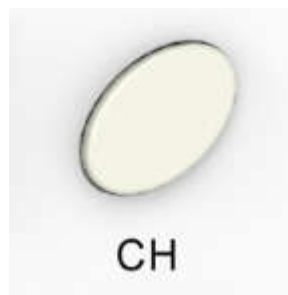
Click the A.touch button to start the function of channel After touch and keyboard after touch. Channel After touch is on when the LED color is red for the A.touch button. Keyboard After touch is on when it's blue for the A.touch button. When Channel After touch in on, the system sends Channel After touch info when pressing the pads. When Keyboard After touch in on, the system sends Keyboard After touch info when pressing the pads.



**After touch button**

### 3.1.8 Channel button

Channel selection function button, selecting current MIDI channel. Click the channel button to start the channel function, use +/-button to select the channel. The initial setting is 1, adjusting scale is 1~16.



**Channel button**

### 3.1.9 Velocity button

Every time you press a key, a MIDI note message is sent with a velocity value between 0 and the maximum; this value specifies how hard you pressed the key. Since different people have different playing styles, your Orca PAD48 offers a number of different velocity curves. You should experiment with the different velocity curves to find the curve that best suits your playing style.

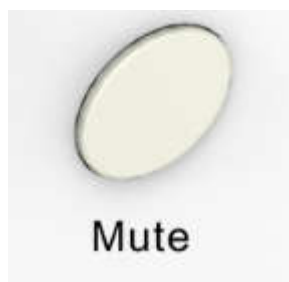
Click the velocity button to start the velocity selection function, the medium(or normal) velocity is on when the LED color of velocity button is green, heavy velocity is on when it's in red color, and blue for constant velocity.



**Velocity button**

### 3.1.10 Mute button

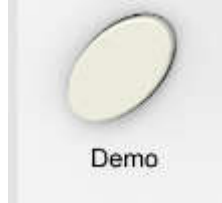
Mute ON/OFF button. Click mute button will start the mute function. No message will be transmitted under Mute mode.



**Mute button**

### 3.1.11 Demo button

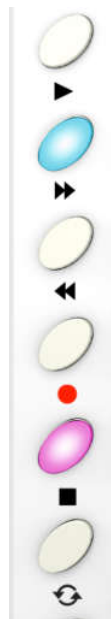
Demo ON/OFF button. Click demo button will start the demo function. Orca PAD48 also has the preset lighting effect show. Holding the [PLAY] button and press the ON/OFF button to start the Lighting effect show mode. Then Orca PAD will display the preset lighting effect automatically.



**Demo button**

### 3.1.12[MMC] button

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.



**MMC button**

### 3.1.13 Memory button

Holding the memory button and pressing one of the pads to recall the parameters in Memory area.  
Press the MEMORY button. The system enters the storing state, it stores 6 groups setup value.



**Memory button**

### 3.1.14 [<] and [>] button

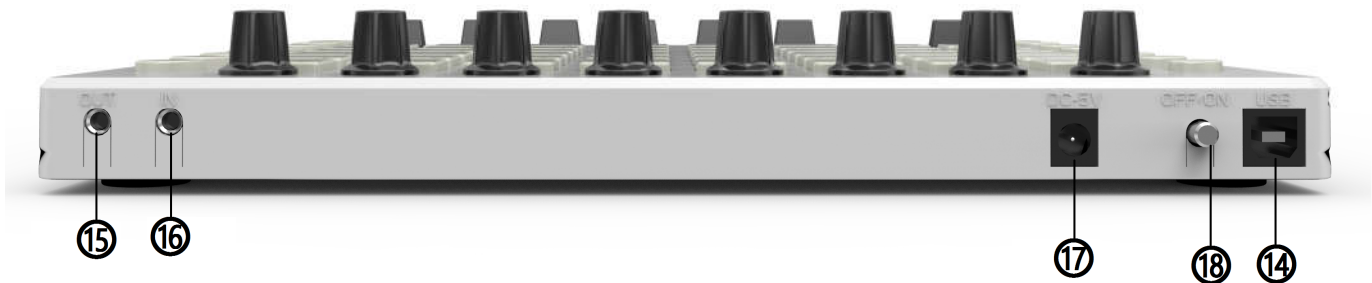
These buttons are used for navigating through fields of menus and options.



**Navigation button**

### 3.1.15 Back panel overview

The back panel of the Orca PAD48 contains some important connectors: the USB Type B jack, MIDI IN/MIDI OUT jack, DC 5V jack, ON/OFF button.



## 4. Setup

### 4.1 Minimum System Requirements

Windows	Mac OS
Pentium 3 800 MHz or higher	Macintosh G3*800/G4*733 MHz or higher
(CPU requirement may be higher for laptops)	(CPU requirement may be higher for laptops)
256MB RAM	OS X 10.3.9 with 256 MB RAM,
Direct X 9.0b or higher	OS X 10.4.2 or greater with 512 MB RAM
Windows XP(SP2)or higher	*G3/G4 accelerator cards are not supported
(Windows 98,Me,NT or 2000 not supported)	

### 4.2 Making detailed settings

The following settings cannot be edited on the Orca PD48 instrument, so you need to use the Worlde Orca PAD48 control Editor. You can download the Worlde Orca PAD48 control Editor from Worlde website [www.worlde.com.cn](http://www.worlde.com.cn).

## 5. Using Orca PAD48 with Software

### 5.1 Creating MIDI Presets with the Orca PAD48 Software Editor

#### 5.1.1 Overview: What is a Orca PAD48 Preset?

Thanks to the Orca PAD48 Software Editor it's possible to configure the Orca PAD48 to work with practically any device or software capable of responding to MIDI information.

To summarize, here are some examples of what you can do with a Orca PAD48 preset:

- Assign pads to send MIDI Machine Control commands (MMC)
- Use the pads to transmit MIDI notes
- Switch between two values of any MIDI CC# by playing a pad
- Assign an encoder to control any MIDI CC# and define its operational range
- Assign a slider to control any MIDI CC# and define its operational range
- Save the entire set of altered controls to one of Orca PAD48's eight preset locations
- Define another seven sets of parameter assignments and save each one to a different memory location
- Recall any of the eight personalized presets easily and immediately

#### 5.1.2 Assign a Pad to Start/Stop MMC

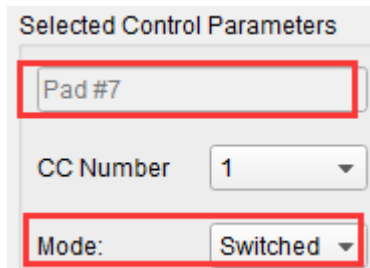
One feature that often comes in handy with a controller keyboard is the ability to start and stop a song without having to use the computer keyboard or mouse. It's really easy to set up the Orca PAD48 pads to do that.

For example we'll use Pad 7 to send Stop commands and Pad 8 to send Start commands. This is accomplished through the use of MIDI Machine Control commands, which you've probably seen abbreviated as "MMC".

##### 5.1.2.1 Select the Pad Mode



Let's begin by selecting Pad 7 by clicking on its graphic in the MIDI Control Center or by tapping Pad 7 on the Orca PAD48. Then click the Mode field to activate the pull-down menu:



Selected Control Parameters

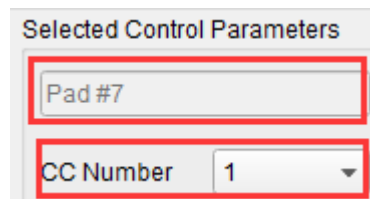
Pad #7

CC Number 1

Mode: Switched

### 5.1.2.2 Set the MMC Message number

Once the Mode has been set to MMC, the trick is to set both the LSB and MSB to the same number so the pad knows which command to send. MMC Stop command needs the CC number set to 1, like so:

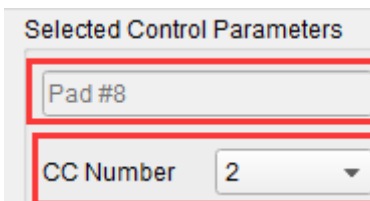


Selected Control Parameters

Pad #7

CC Number 1

Next, select Pad 8 so we can set it to the MMC command for "Start". This means the CC number must be set to 2:



Selected Control Parameters

Pad #8

CC Number 2

Now you should have Pad 8 set to start your song and Pad 7 set to stop it. Of course you can assign those functions to any pad you like, now that you know how to do it.

### 5.1.3 Assign a couple of Pads to MIDI notes

The natural thing to do when you're starting a song is to lay down the kick and snare tracks. The Orca PAD48 pads can be assigned to any MIDI note number that you like, so for this example we'll set Pads 1 and 2 to trigger the General MIDI note numbers for the Bass drum and Snare drum (MIDI note numbers 36 and 38, respectively).

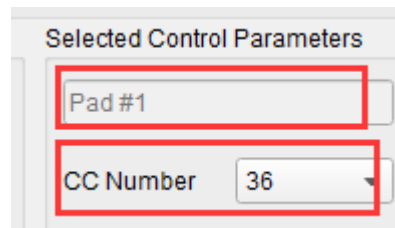
By default the pads have their Mode set to MIDI note, so when you select each Pad we'll get right down to selecting the

MIDI note number and velocity values. Let's leave the other setting to "Gate" so the notes shut off when you lift the pad; you can try the "Toggle" value later if you'd like the MIDI note to stay "On" until you hit the pad a second time.

#### 5.1.3.1 Select the MIDI note number: Kick

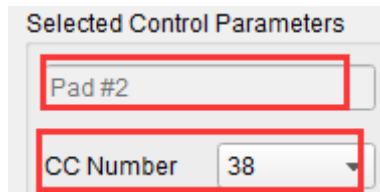
The CC number field is used to set the MIDI note number, which makes sense: there are 128 MIDI Controller numbers and 128 MIDI Note numbers. So click the pull-down menu and set this value to 36 to select the General MIDI Kick drum note number:

We'll show you how to set Pad 2 to the Snare drum note number in section 5.1.3.2.



#### 5.1.3.2 Select the MIDI note number: Snare

Setting Pad 2 to trigger the snare is done the same way, only by choosing a different MIDI note number (38 in this case):



So now you're ready to lay down the groove for your song: You have Pads 1 and 2 set to play the Kick and Snare, and Pads 7 and 8 set to Stop and Start the song.

#### 5.1.4 Assign a Pad to toggle a MIDI CC # between two values

One popular musical effect these days is to take an audio loop, filter it heavily for certain sections of a song, and switch it back to the full-open sound later in the song. You can pre-configure one of the Orca PAD48 pads to send those commands to a filter plug-in that should be readily available in your DAW software.

We'll use Pad 6 for this example. Select it and then use the pull-down Mode menus to select "Switched" and "Toggle":

Selected Control Parameters

Pad #6 Channel: Global

CC Number 1 Value 0

Mode: Switched Mode Option: toggle

These settings will allow you to send two different values of a particular MIDI CC number each time you press the pad. There are a couple of MIDI CC numbers that have been assigned the task of controlling filter brightness (CC# 74) or harmonic content (CC# 71). We'll use CC# 74 for this example.

Click on the CC number field and select the Brightness controller number as shown:

Selected Control Parameters

Pad #6

CC Number 74

Next we'll set some minimum and maximum values that might work (adjust them to suit the audio source):

Selected Control Parameters

Pad #6 Channel: Global

CC Number 74 Value 0

Mode: Switched Mode Option: toggle

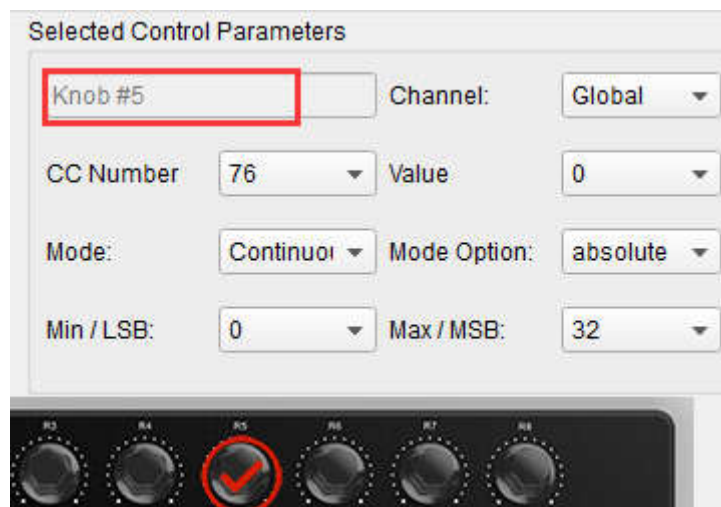
Min / LSB: 78 Max / MSB: 127

The first press of Pad 6 will send a CC# 74 command with a value of 78, which will close the filter down part way but still let a lot of the audio pass through. The second press of Pad 6 will send a value of 127, opening the filter completely.

Note: Be sure to check the MIDI Channel assignment to make sure it matches that of the receiving device.

### 5.1.5 Assign an Encoder to control a MIDI CC # between two values

The encoders are assignable using the same techniques described for the pads. Let's give a quick example of an interesting use: setting the rate of an LFO so it operates only within a certain range.



Looking at the picture above we see familiar information:

Encoder 5 has been selected. It is assigned to the Global MIDI channel; you can specify any MIDI channel from 1-16 or leave it on the Global channel.

Its Mode is set to Continuous, which means it will transmit a MIDI Continuous Controller number when it is turned.

The second Mode field is set to Absolute, which means it will transmit in a linear fashion from fully counter-clockwise to fully clockwise.

The CC number field shows CC# 76, the MIDI CC # that has been assigned to control Vibrato Rate.

The Min / LSB and Max / MSB fields are set in such a way as to limit Encoder 5 to operation only within a certain range. To summarize, the settings seen above mean that Encoder 5 will control the Vibrato Rate of the target device, sweeping it between the values of 10 and 32 only. The vibrato will not become too fast, nor will it become too slow.

Naturally you can choose settings that are appropriate for the MIDI device you are using.

Note: Some devices may not use standard MIDI controller assignments. Refer to the documentation for your device to determine what settings to use for each purpose.

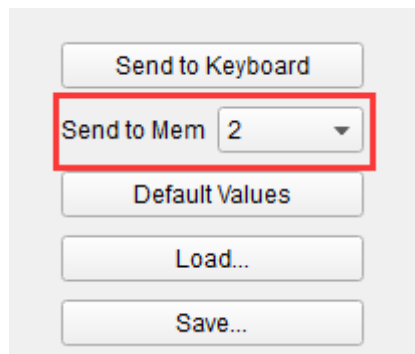
### 5.1.6 Save the changes to a Preset

So let's review what we've done in section 5.1 so far: The pads have been set up to play kick and snare, toggle the filter settings, and start / stop the song; one of the encoders is controlling the vibrato rate, and the Mod strip is controlling Aftertouch. Not bad! There's a lot more Orca PAD48 can do, but that's a good start.

So the next thing to do is make sure this configuration is available when you want it. To do that, you need to save these settings as a group into one of the eight memory locations in the Orca PAD48.

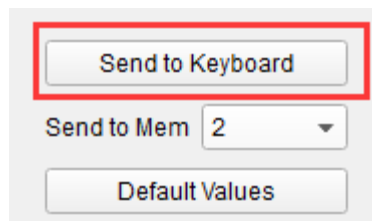
The upper right-hand section of the MIDI Control Center software has a button called "Send to Keyboard". Right below that is a pull-down menu that allows you to specify which of the TUNAMINI's eight memory locations will be the repository for the Preset you've created.

Before clicking the top button, select a location you know is available. We'll use memory location #2 for this example:



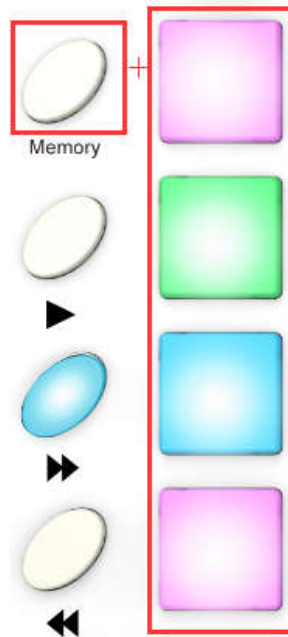
Select #2 in the drop-down list as pictured above.

Once you're sure where the preset will be stored, click the "Send to Keyboard" button:



### 5.1.7 Recalling a Preset / Switching between Presets

Once you've created a couple of presets you can switch between your personalized configurations very quickly. This is as simple as it can be: simply hold the Memory button and press one of the 4 pads as shown in picture below.




In the picture above the combination of the Memory button and Pad 2 will select Preset #2 from the Orca PAD48 preset memory locations.

To switch from Preset #2 to Preset #1, hold Memory again and press Pad 1 instead.

## 5.2 Select the Backlit RGB Color of 48 Pads

Use the Orca PAD48 Software Editor to select the backlit RGB color of 48 pads. You can download the Orca PAD48 Software Editor from Worlde website [www.worlde.com.cn](http://www.worlde.com.cn).

Press the pad and the red circle button  will appear on that, then select the color range No. for CR,CG and CB. Press the "Send to Keyboard" to send the parameters to the Orca PAD48 and then press the OK button to confirm. The color range is from 0 to 127 for each one.

**Reference RGB No. for some colors:**

COLOR	R.	G.	B
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

## 6.Appendix

### Appendix A- Toxic or Hazardous Substances and Elements

Part Number, Name and Description	Toxic or Hazardous Substances and Elements					
	Pb	Hg	Cd	Cr(VI)	(PBB)	(PBDE)
PCB	○	○	○	○	○	○
PCBA Welding Spot	○	○	○	○	○	○
Components	○	○	○	○	○	○
Metal Parts	○	○	○	○	○	○
Plastic and Polymeric parts	○	○	○	○	○	○
Paper Accessory	○	○	○	○	○	○
Power Cord	○	○	○	○	○	○

○ : Indicates that this toxic or hazardous substance contained in all the homogeneous materials for this part, according to EIP-A, EIP-B, EIP-C is below the limit requirement in SJ/T 11364.

✘ : Indicates that this toxic or hazardous substance contained in all the homogeneous materials for this part, according to EIP-A, EIP-B, EIP-C is above the limit requirement in SJ/T 11364.

(Enterprises may further provide in this box technical explanation for marking "X" based on their actual conditions.)



## ● Specifications

**Connectors:** USB connector

**Power supply:** USB bus power mode

**Current consumption:** 100 mA or less

**Dimensions (W x D x H):**256x256x36mm

**Weight :** 840g:

**Included items:** USB cable, Owner's manual

**\*Specifications and appearance are subject to change without notice.**

## Sales Head Office:

Hangzhou Worlde Music Electronic Co., Ltd

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Fax:0086 571 88730748

Email:sales@worlde.com.cn

Website:www.worlde.com.cn