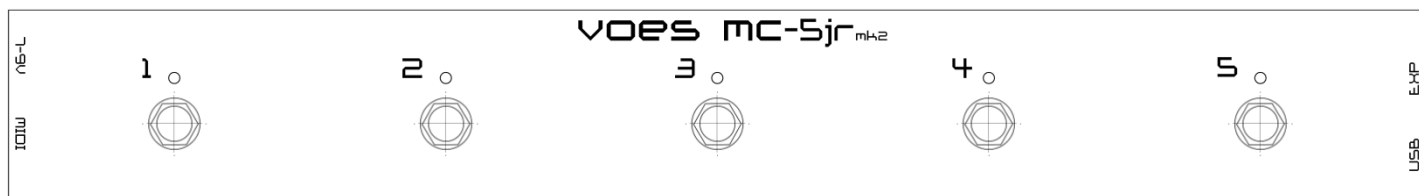




Voës Midi Controllers

MC-5jr

user manual



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1 Introduction

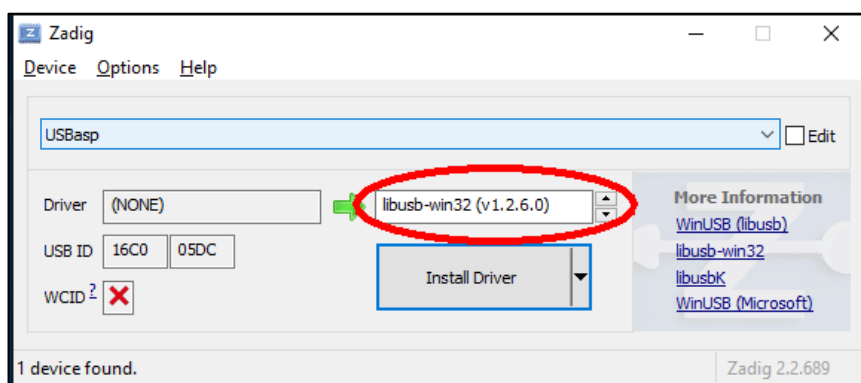
The **MC-5jr** is a compact, intelligent and user-friendly Midi Controller.

Features:

- 7-pin MIDI out
- Power: 7-9v AC/DC. Minimum 100mA.
2.1mm connector or Midi-7 (*power supply not included*)
- USB connection for easy-to-use editor (*windows only*)
- 3 Modes: Program – PC – Scenes
- 5 hardware buttons, 5 bicolor (green/red) LEDs
- 1 input for Expression Pedal
- 2 pages with each 5 custom programmable software buttons
- Dimensions approx.: 40 cm x 6 cm (*15.75" x 2.36"*)
- Weight approx.: 620 gr (*1.37 lbs*)

2 Installation

- Download the latest editor, driver, firmware and manual on www.voes.be.
- Unzip the file.
- Connect the **MC-5jr** to your computer (Windows 7 or higher).
Let Windows detect the device (it will report driver not found). If a window pops up asking to search for a driver, just close it or click *Cancel*.
- Run **Voës MC Driver** (located in the folder *manual and driver*).



Do not update if asked.

Select **libusb-win32 (v1.2.6.0)** and click Install Driver.

- Start **Voës MC-5jr Editor**. If you get an error, check the *Voës Driver Problem* document (located in the folder *manual and driver*).

3 Using the MC-5jr without the editor

The **MC-5jr** can be used without programming.

There are 3 Modes:

- Program-Mode
- Preset-Mode
- Scenes-Mode

3.1 Changing Modes

Press **Button 1** and **5** at the same time to enter **Menu**.



The **MC-5jr** LEDs will show **Green – Red – Green – Red – Green** to indicate you entered the **Menu**.

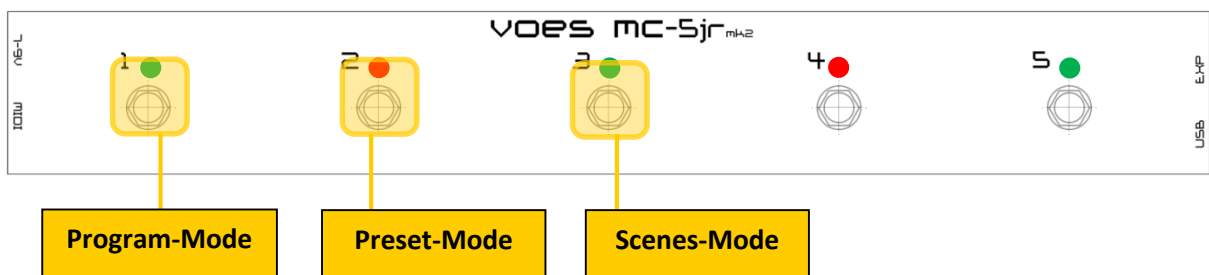


Select:

Button 1 for Program-Mode: Buttons acts as programmed on the Editor.

Button 2 for Preset-Mode: Button 1-5 are Preset 1-5 on Midi Channel 1.

Button 3 for Scenes-Mode: Button 1-5 are Scene 1-5 on Midi Channel 1.



After selection the **MC-5jr** will reboot (all LEDs green, all LEDs red, all LEDs off).

Of course at any time, you can change between Modes.

4 Voes MC-Sjr Editor

Instead of using precious resources for editing on the hardware, which is a PITA to use, we thought it would be better to give you an excellent, easy to use Editor and extra features.

The **MC-5jr** has 10 software buttons, divided over 2 pages. Each button has up to 4 commands. As there are only 5 physical buttons, there has to be a way to select the *other* 5 buttons. You can do this by either creating a **Page** button, which toggles between buttons 1-5 and 6-10, or by using press-and-hold to toggle each button separately. A combination of both is also a possibility.

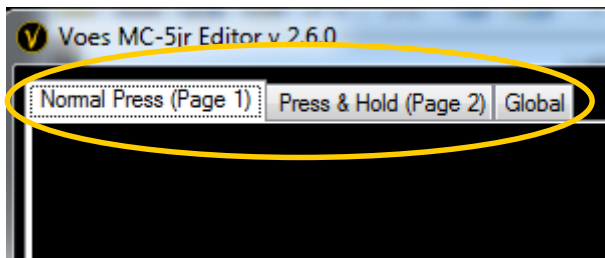
4.1 Overview

The **MC-5jr** has the same layout as the hardware, making programming a breeze.



4.2 Tab-pages

In the top left corner you can find the tabs **Normal Press (Page 1)**, **Press & Hold (Page 2)** and **Global**.

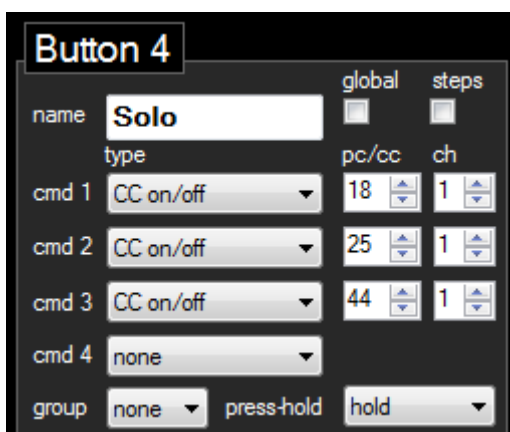


Normal Press (Page 1) gives you an overview of buttons 1-5, *Press & Hold (Page 2)* of buttons 6-10.

Global tab is for editing Global Settings, see section 4.5.

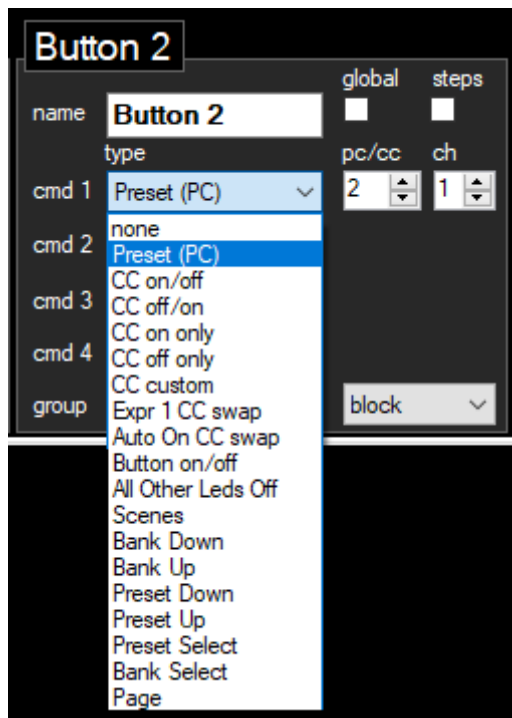
4.3 The Button

On other Midi Controllers, a button has 6 parameters for each command. (*Channel On, Command On, Value On, Channel Off, Command Off, Value Off*). We reduced this to 2 parameters: Channel and Command, making programming easier.



Each button can be **named**. Every button can handle 4 commands. Each command has its own **Type**, **PC/CC/Nr** and **Ch** (midi channel).

19 different **Types** are available (11 on command 2, 3 and 4).



None

None does nothing! If steps is active, this command will be skipped.

Preset (PC)

Preset (PC) also known as Program Change transmits a program change **PC** on a midi channel **Ch** (1-16).

Depending on **Preset Offset** in *Global Settings* (see section 9), PC range is 0-127 or 1-128.

CC on/off

ON sends a control change **CC** (1-127) on **Ch** (1-16) with **Value 127** (maximum).

OFF sends exactly the same **CC** with **Value 0** (minimum).

CC off/on

This is the opposite of the previous type.

ON sends a control change **CC** (1-127) on **Ch** (1-16) with **Value 0** (minimum).

OFF sends exactly the same **CC** with **Value 127** (maximum).

CC on only

This type always sends **Value 127** on each press on **CC** (1-127) on **Ch** (1-16). This command is ideal for Tap-tempo.

The corresponding LED will blink briefly.

CC off only

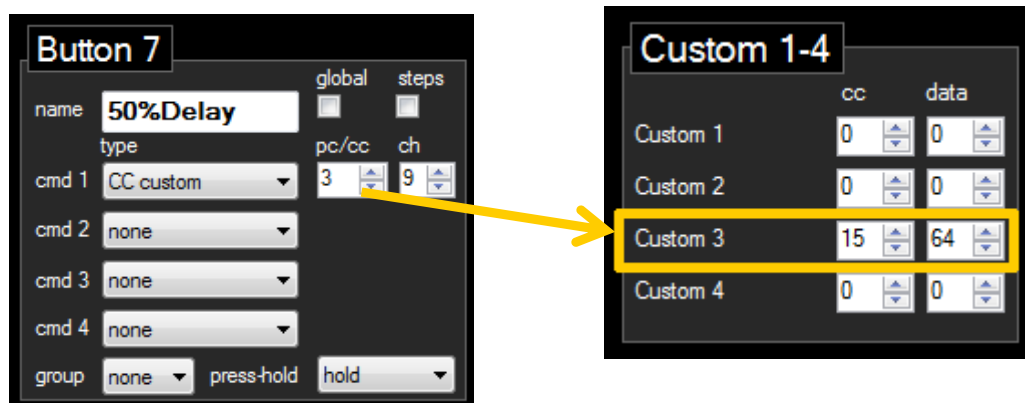
This type always sends **Value 0** on each press on **CC** (1-127) on **Ch** (1-16).

The corresponding LED will blink briefly.

CC custom

A bit different is **CC custom**. It points to a custom **CC** and **Value** command found in *Global Settings* (see section 9).

E.g. **CC custom 3** sends **CC 15** with **Value 64** on **Ch 9**.



The corresponding LED will blink briefly. A total of 8 CC customs are available.

Expr1 CC Swap

Expr1 CC Swap is a nice feature to change your Expr1 Pedal, e.g. from Wah to Volume.

ON replaces the **CC** and **Ch** of the regular Expr1 settings.

OFF returns to the regular settings found in *Global Settings* (see section 4.5).

Auto On CC Swap

Auto On CC Swap can be useful in some situations. For example you could have 3 FX (wah, rotary, phaser). You want to control freq, speed and depth of each with one pedal, and you don't gonna use them together. By setting freq, speed and depth to the same controller (**Expr 1 Pedal**), wah, rotary and phaser would all change. Using the Auto On CC Swap command would only turn ON the FX you want.

ON replaces the **CC** and **Ch** of the regular Expr1 Auto On settings.

OFF returns to the regular settings found in *Global Settings* (see section 4.5).

Button on/off

Turns another Button On or Off.

Caution! You can create an endless loop. E.g. Button 1 turns Button 2 On and Button 2 turns Button 1 On.

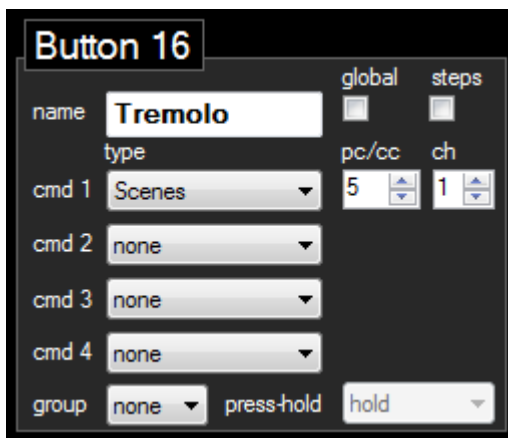
All Other LEDs Off

In some cases, there might be a conflict with the visual LEDs on/off layout and the actual on/off state of the connected musical instrument. Using the **All Other LEDs Off** command can solve this problem.

Scenes (only available as first command)

The **MC-5jr** is capable of handling scenes, a *Fractal Audio Systems*™ feature.

When a Scene button is activated, all other Scene buttons will be turned off. Scenes CC (default CC34) can be changed in *Global Settings* (see section 4.5).

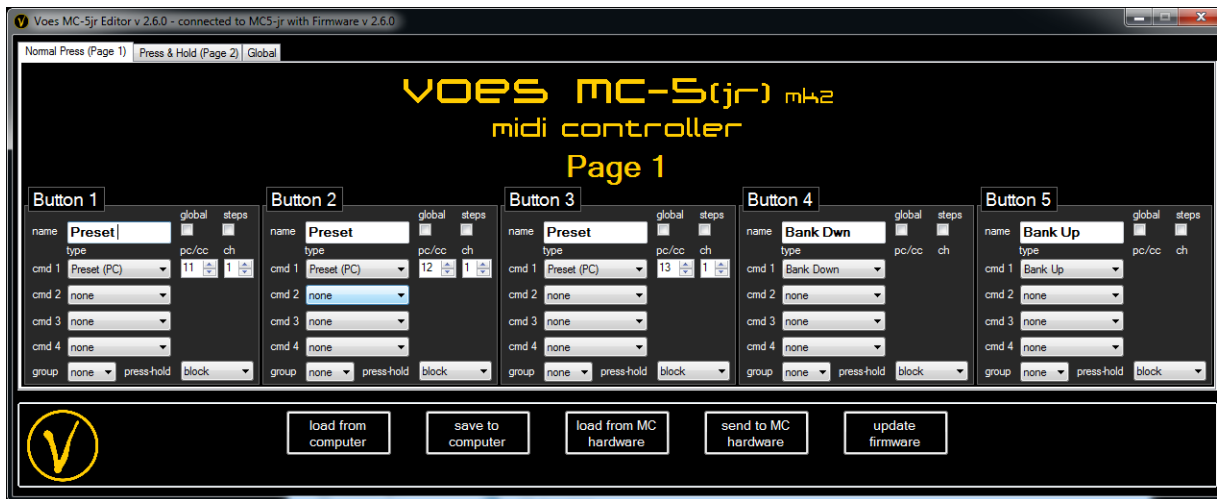


The screenshot shows the configuration window for 'Button 16'. The 'name' field is 'Tremolo'. The 'type' is set to 'Scenes'. The 'cmd 1' dropdown is 'Scenes', with 'pc/cc' set to 5 and 'ch' set to 1. 'cmd 2', 'cmd 3', and 'cmd 4' are all set to 'none'. The 'group' is 'none', 'press-hold' is 'hold', and 'hold' is set to 'hold'.

name	type	cmd 1	cmd 2	cmd 3	cmd 4	group	press-hold	hold
Tremolo	Scenes	Scenes	none	none	none	none	hold	hold

Bank Down / Bank Up (only available as first command)

Bank Down/Up selects the first preset number and decreases/increases it with the count of all the presets on both pages.



E.g. buttons 1, 2, 3 are defined as **Preset (PC)** Buttons with respective values 11, 12 and 13.

If you push button 5 **Bank Up**, the **MC-5jr** will seek the first PC value (11) and will add the count of all Preset buttons (3) giving you $11 + 3 = 14, 15, 16$.

Preset Down/Preset Up (only available as first command)

Preset Down/Up is a function that is not often included in other Midi Controllers. You can decrease/increase the current preset number. Only useful when 0 or 1 preset is programmed on a Page.

If no preset is programmed on a Page, default start preset is 1 on Midi Channel 1.

Preset Select (only available as first command)

When clicking on a **Preset Select** button, all LEDs will blink green and all buttons are connected to their respective Preset number. E.g. clicking on button 4 will bring you to preset 4. After selection, buttons will go back to their programmed state.

Bank Select (only available as first command)

When clicking on a **Bank Select** button, all LEDs will blink red and all buttons are connected to their respective Bank number. E.g. clicking on button 3 will bring you to bank 3. After selection, buttons will go back to their programmed state.

Page (only available as first command)

There are two ways to select another page.

Using a **Page** button toggles between page 1 and 2, and changes all buttons at once. (Be aware that in order to go back you need to program a **Page** button on each page.)

Or you can change one button to its respective button on the other page by press-and-hold (see section 3.5). E.g. press button 2 activates button 2, press-and-hold button 2 activates button 12. press-and-hold button 2 again activates button 2.

Buttons on Page 1 are indicated by a green LED. Buttons on Page 2 by a red LED.

Note On/Off

ON sends a “Note On” midi command with **Note** (1-127) on **Ch** (1-16) with **Velocity 127** (maximum).

OFF sends a “Note Off” midi command with **Note** (1-127) on **Ch** (1-16).

Find your desired Note number in the chart on the right.

Note	Octave										
	-1	0	1	2	3	4	5	6	7	8	9
C	0	12	24	36	48	60	72	84	96	108	120
C#	1	13	25	37	49	61	73	85	97	109	121
D	2	14	26	38	50	62	74	86	98	110	122
D#	3	15	27	39	51	63	75	87	99	111	123
E	4	16	28	40	52	64	76	88	100	112	124
F	5	17	29	41	53	65	77	89	101	113	125
F#	6	18	30	42	54	66	78	90	102	114	126
G	7	19	31	43	55	67	79	91	103	115	127
G#	8	20	32	44	56	68	80	92	104	116	
A	9	21	33	45	57	69	81	93	105	117	
A#	10	22	34	46	58	70	82	94	106	118	
B	11	23	35	47	59	71	83	95	107	119	

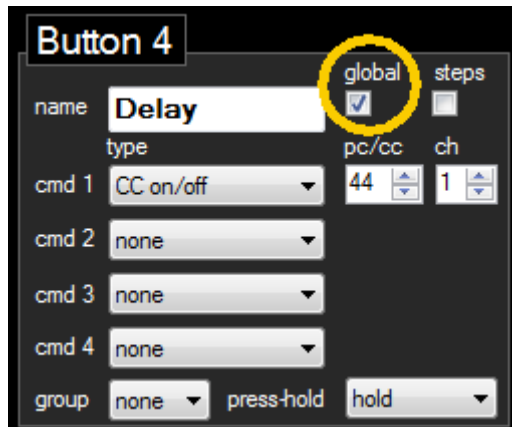
Note Trigger

Sends a “Note On” midi command with **Note** (1-127) on **Ch** (1-16) with **Velocity 127** (maximum).

This command is ideal for triggering Samples. The corresponding LED will blink briefly.

4.4 Global, Steps, Group, Press-and-Hold

4.4.1 Global

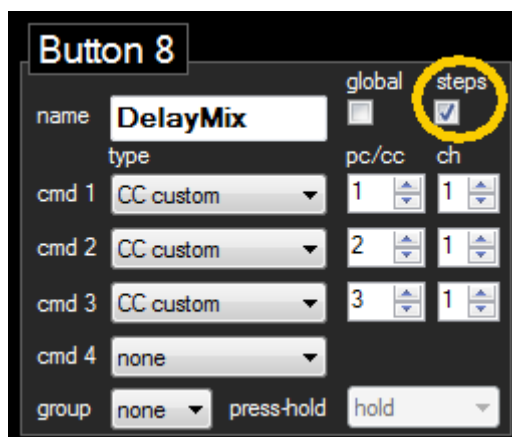


Global buttons in On status, will be retrIGGERED on a Program Change or Scene Change. Global buttons are only global on their page.

When using groups, this function is not available.

4.4.2 Steps

When activated, only one command will be executed. When using groups, this function is not available.



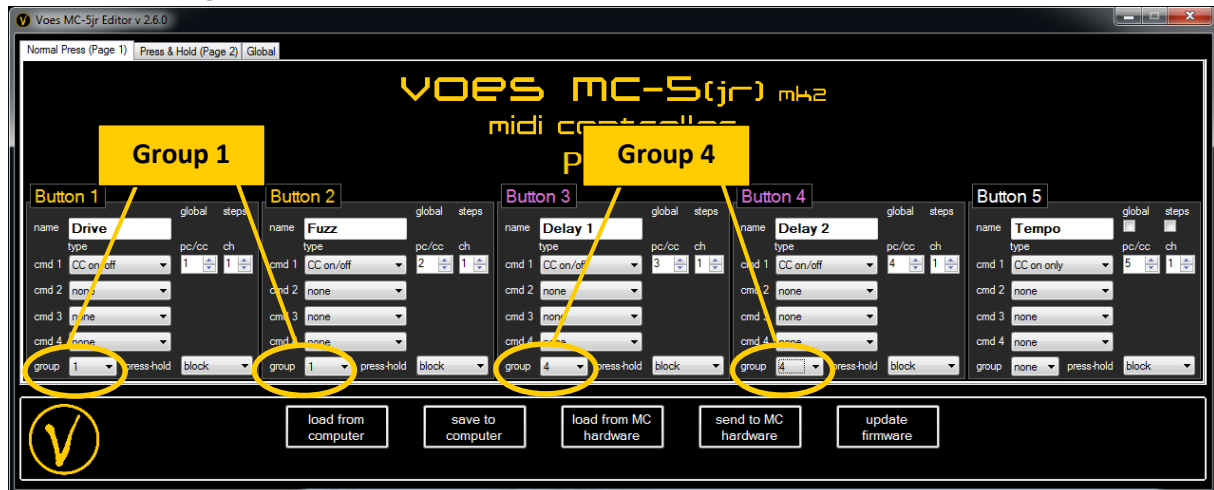
E.g. on the left:

first press command **1**
second press command **2**
third press command **3**
fourth press command **1**
(4 is skipped since it's command is set to **None**)
fifth press command **2**
...

With Steps you can't use **Button on/off**. This command will be changed to **nothing**.

If **Reset Steps** is enabled, which you can find in *Global Settings* (see section 4.5), steps will reset to the first step after 1 second of non-use.

4.4.3 Groups



You can group buttons in 4 different button groups. Selecting a button group changes the color of the button (on the editor!) into yellow (1), orange (2), green (3) or purple (4).

If a button is pressed, which is part of a button group, all other buttons in that group will be turned OFF and then the selected button will be activated. It's a very nice feature if you have FXs that are similar but never used together (like different drives). This feature will avoid tap-dancing.

Group buttons are only grouped together on their respective page.

When using groups, *global* and *steps* are not available because it can cause conflicts.

4.4.4 Press-and-Hold



Using a Page button toggles between buttons 1-5 and 6-10.

You can also toggle each button separately by press-and-hold.

When activated, it will change a button to the respective button on the other page by press-and-hold. E.g. press-and-hold button 4 activates button 9, press-and-hold button 7 activates button 2.

The press-and-hold time is approximately 0.5 seconds (short) or 1 second (long) depending on the setting in *Global Settings* (see section 4.5).

Each button on the 1st page can be set to one of five press-and-hold types:

Block: press-and-hold does not work. *Notice that when set to **Block**, the button will respond faster because commands will be processed on button press and not on button release.*

Once: press-and-hold will activate the button on the 2nd page once and will return back to the 1st page on the next press. (*)

Trigger-Only: press-and-hold will activate the button on the 2nd page but will stay on the 1st page. (*)

Block Page: When using a page button, all buttons will switch from Page 1 to Page 2. Using **Block Page** will override this. Blocks with this press-hold value will stay on Page 1.

Hold: press-and-hold will activate the button on the 2nd page and stay there.

Buttons on the 2nd page are always type hold.

() Difference between **Once** and **Trigger-Only** is subtle and differs in the way the LEDs behave. Here are two scenarios to explain this.*

Scenario 1:

*Button x is on normal press **Preset 1 (PC)** and on press-and-hold **Preset 6 (PC)**. Normal press is used mostly, press-and-hold is used occasionally. Here you want to use **Once**.*

On normal press PC 1 will be activated and LED will turn green.

On press-and-hold PC 6 will be activated and LED will turn red.

Pressing again (normal press), PC 1 will be activated and LED will turn green.

This way you always see which Preset is selected.

Scenario 2:

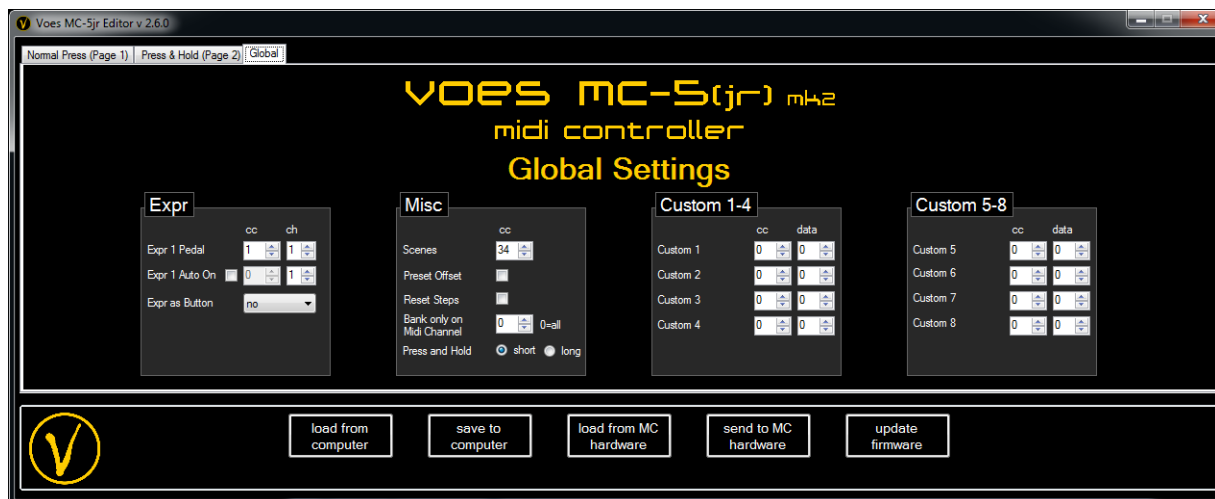
*Button x is on normal press **Tremolo On/Off** and press-and-hold **Controls the Speed**. Here you want to use **Trigger-Only**.*

On normal press Tremolo will be turned On or Off and LED will turn green or off.

On press-and-hold Speed will change, but the LED will stay green or off depending on the state of the Tremolo.

This way you always see the state of the Tremolo.

4.5 Global Settings



4.5.1 Expr

Expr 1 Pedal

CC (1-127) on midi channel **Ch** (1-16). Do not forget to calibrate your pedal! (see section 6)

Expr 1 Auto On

E.g. Wah Freq is controlled with CC 1, Wah On/Off is controlled with CC 85.

Instead of sacrificing a button to turn the Wah On/Off, you can use the **Auto On** feature.

Set Expr 1 Pedal CC to **1** and set Expr 1 Auto On **checked** and to CC **85**.

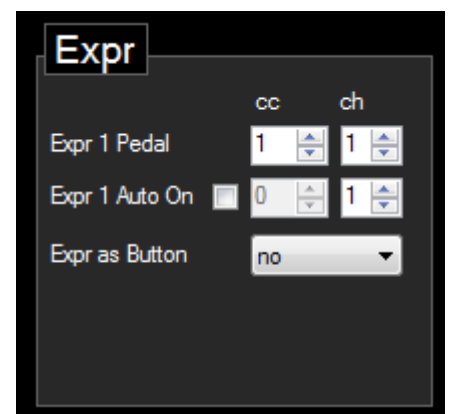
Moving Expression Pedal 1 higher than 5%, turns Wah On. If it is below 5%, it will turn Off.

Expr as Button

You can use Expression inputs with an External Switch instead of an Expression Pedal. Choose which Expression inputs you want to use with an external switch. The switch will act as a normal On/Off Button with the same Midi data programmed as their respective Expression Pedal.

Important: you need a mono jack cable instead of the typically stereo jack cable used for Expression Pedals.

If you want to use an External Switch **Momentary** instead of **On/Off**, just set “**Expr as Button**” to **No**.



Scenes

MC-5jr is capable of handling scenes, a *Fractal Audio Systems*™ feature. Here you define the Scenes CC (default 34).

Preset Offset

Set PC range to 0-127 or 1-128.

Reset Steps

If enabled, steps will return to the first step after 1 second of non-use.



Bank only on Midi Channel

Commands **Bank Up/Down/Select** only affect the selected Midi Channel.
If Midi Channel 0 is chosen, then Bank select will affect every Midi Channel.

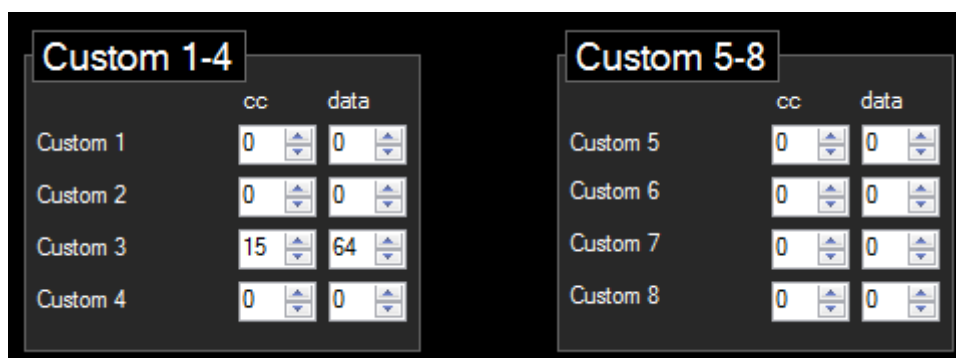
Press and Hold

Choose between a short or long time to engage press and hold.

4.5.2 Custom

A normal CC on the **MC-5jr** sends **Value 0** (minimum) or **127** (maximum). In most cases this is sufficient.

However sometimes you might want to have different values. You can save eight custom **CC** (0-127) and **value** (0-127) values. On a button you can select one of those with a **CC custom** command.



5 Load/Save/Update




You can save and load settings from/to the computer and from/to **MC-5jr**.

When sending data-files to **MC-5jr**, please wait until the **MC-5jr** reboots.

5.1 Updating firmware

Most recent firmware and software can be found on www.vo.es.be

To find the firmware version, choose **load from MC** hardware and clicking on the  logo in the left bottom corner. An info window with the both editor version and firmware version will appear.

When updating firmware, keep in mind that the firmware file needs to be placed in the program directory.

A batch program will be started. Wait until it stops, and close the window. *(We could make it auto close, but if any error appears it's easier to report this way.)*



6 Calibrating Expression Pedal

Press **Button 1** and **5** at the same time to enter **Menu**.



The **MC-5jr** LEDs will show **Green – Red – Green – Red – Green** to indicate you entered the **Menu**.



Move the expression pedal. The LEDs will turn green and indicate the calibration process. Don't worry if LED 5 is not lit at maximum.



Save settings by pressing **Button 5**



After saving the **MC-5jr** will reboot (all LEDs green, all LEDs red, all LEDs off).