

**SPACEF DEVICES**  
**- CC5 -**  
**Midi CC REMOTE DEVICE**



## General presentation :

CC5 is a device that is able to convert an incoming midi Control Change (Midi "CC") into 5 other CC numbers, and with the ability to modify the CC modulation shape. You can reverse, apply different synchronization curves. CC5 also includes a "Lag" parameter that allows to smooth CC controls.

## Conventions:

Texts and numbers on an orange background are "Click-And-Drag" displays: you must click on them and drag the mouse to see the different values, just like you would do like a fader.



The Destination Midi Channel, the Toggle method, and the various curve modifiers are all "click-and-drag" controls.

## Incoming CC Status:

- if you use the fader to manually send a CC to the destination CC, then it will be also available at the output of the device.
- If you use a midi remote controller to send the incoming CC, then it will not be available at the device outputs.



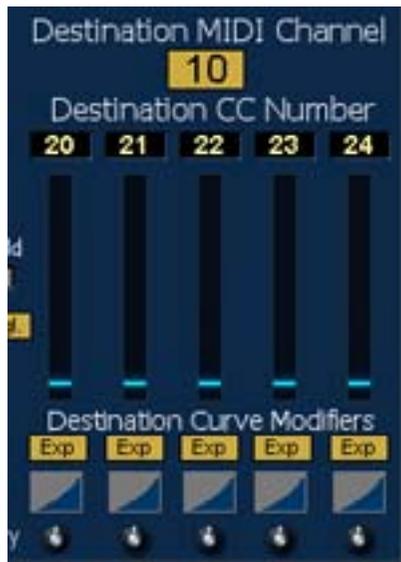
## 1. THE SOURCE

Midi Input:

The midi input is set by default to "Omni" meaning that it will accept information coming from any of the 16 midi channels. You can choose another channel if your midi remote controller is assigned to a specific midi channel.

CC Input value and fader:

You can type a Midi CC number in the text display which is just above the big white fader. This will be the Midi CC number that you want to modify and resend to a device.



## 2. THE DESTINATION

One destination midi channel is available for all 5 destination CC numbers.

Destination CC can be typed in the display, or assigned as usual by right-clicking on the corresponding "vu-meter" (the strips with a blue line are vu-meters, not faders).

The Destination curve modifiers is one of the most funny feature of this device. Here, you can reverse, make more or less exponential or linear, or simply swith OFF a certain CC value.

The control under the curve display is an Intensity parameter: it allows to give you further control over the way the destination CC follow the incoming CC.

Next paragraph give you the shapes available to the curve modifiers.

### Curve modifier shapes:

Off: the destination CC will not react to the incoming CC

Lin: linear: the dest.CC follows exactly the incoming CC

LinR: linear, but reverse (min becomes Max and vice versa).

Exp : Exponential. If intensity is at its minimum, the control is like "linear". The more intensity, the more exponential the curve becomes (starts slow, and goes faster as you come closer to the max values).

ExpR: exponential reversed.

Log: logarithmic is like exponential, but it starts Fast and goes slower as you approach the maximum values.

LogR: logarithmic reversed.

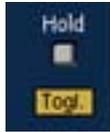


### 3. LAG

The lag control is simply an envelope follower that is applied to the incoming CC. A lag of 1ms means that the incoming CC will not be modified. A value of 300 ms, means that it will take 300 ms to go from point A to B: the effect is to smooth out the transition between the two points.

Lag is easy to understand if you assign a button to the incoming CC fader: the button will cause the fader to go at max and minimum position without transition (like a on/off state). The Lag allows to add a smooth transition between those two values, making the button act like a fader, with all transitions in between.

The maximum lag time is 600 ms. It is not advised to use more than 5 CC in a whole project with a lag of 600ms. This can cause performance degradation in SFP, especially with delays.



#### 4. HOLD

“Hold” allows to “freeze” the current value of the destination CC: the will not receive any new information until the Hold button is released.

2 modes are available: Toggle and Latch.

- Toggle: just like a on/off button: press once to switch ON, and a second time to switch OFF.
- Latch: the button goes in its OFF state when you release it.

Hold is nice to use to create morphing-like effect from a point to another.

Example:

- Start by putting the fader at the value you want as a starting position.
- Press Hold in Toggle mode
- Put the fader at another position
- Press hold so it is off
- The fader will move as soon as the Hold function is OFF.

Have great fun with CC5 !

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