

sound*force*

SFC-OB User Manual

1. Intro

Thank you for purchasing the SFC-OB MIDI controller. A considerable amount of effort and passion has been put into this product to make it the best it can be. It is built to last and withstand intense usage on tour and in the studio. SoundForce has an excellent track record for its controller line, with many units built and very little registered issues and repairs. I hope you will have a great experience using this device and that it will inject some fun in your music. Many thanks for your support. I am interested to get your feedback and requests: nicolas@sound-force.nl

2. Installation and start-up:

The SFC-OB is a class-compliant USB-MIDI device which means that no drivers are necessary. The controller should directly be recognized by your computer when plugged-in. USB devices should preferably be connected directly to the computer USB ports. Please make sure that your USB ports/hubs are providing enough power to every single device in your configuration.

To use the controller with your DAW and plugins you need to make sure that the controller is set-up in your DAW. In some DAWs, Logic for example, it's automatic when you plug it in and you don't need to do anything. In others, you might need to turn on an option in the preferences. Please refer to your DAW manual for details.

The controller is sending by default MIDI CC messages and can be mapped to plugins using their MIDI mapping functions. To specify which instance of a plugin you want to control, simply route the MIDI to the right track. This is usually down by scrolling (or clicking) from one track to another and thus putting a specific track in "record-arm". In some DAW, you can specify which MIDI devices are used on a specific track, so you can filter per device and sometimes also per channel. Please refer to your DAW user manual for specific details.

3. USB-MIDI Troubleshooting on MAC:

If the device turns on (red LEDs are on and you can change the switches positions) but it is not recognized by the computer, [please go through this guide completely](#). Please also try another USB cable, USB port and if possible another computer or OS. Before getting in touch for support, please confirm that the device is sending out MIDI correctly (or not) using a MIDI monitor (in google Chrome you can use [the control panel app](#)). If it does send MIDI messages as expected then the problem should be in the DAW and plugin configuration, make sure the controller is setup in your DAW and that the plugin is mapped.

4. USB-MIDI Troubleshooting on Windows:

If the device turns on (red LEDs are on and you can change the switches positions) but it is not recognized by the computer there is most likely an configuration or OS related issue. Please try another USB cable, USB port and if possible another computer or OS. Before getting in touch for support, please confirm that the device is sending out MIDI correctly (or not) using a MIDI monitor (in google Chrome you can use [the control panel app](#)). If it does send MIDI messages as expected then the problem should be in the DAW and plugin configuration, make sure the controller is setup in your DAW and that the plugin is mapped. **Remember that Windows allows only 1 connection at the time between a USB-MIDI device and a software.** Make sure all other MIDI applications are closed before you are trying to connect the controller to your DAW.

5. Using the controller with plugins

Before you get started, always make sure that you have the latest version of the software you want to use with the SFC-OB.

The SFC-OB sends CC MIDI messages to take control of the synth parameters. Therefore the plugin needs the right MIDI mapping and MIDI needs to be routed to the plugin's track. There is no magic connection between the controller and plugins, the MIDI needs to be routed like a USB-MIDI keyboard for example.

Every plugin has a specific MIDI mapping system, so please refer to your plugin's manual to start assigning MIDI CCs.

6. Plugin modes

The controller front panel layout was designed to fit as many OB-styled plugins as possible. As there are differences between different plugin interfaces (specifically the amount of positions in certain switches), plugin modes are needed to make the controller compatible with each plugin.

The original 1.0 factory firmware supports 4 modes:

- Arturia OP-Xa (default out of the box)
- GForce OB-X
- Sonic Projects OP-X PRO-II/DiscoDSP OB-Xd
- Synapse Obsession

To change the plugin mode, see the control panel section 12.

7. Arturia OP-Xa 2-way communication

Thanks to Arturia's ingenious XML controller mapping system, a greatly improved integration with the latest Arturia OP-Xa (Vcollection 9 and above) plugin can be accessed thanks to a simple and easy to copy XML file. The controller can receive sysex data from the plugin when presets or instances are changed in the DAW. On the controller side, the data is loaded to the interface and the controller can update the front panel. It can also request the sysex interface data on demand if needed, this is necessary when a DAW will not trigger certain events correctly. This integration works thanks to Arturia's XML system that was implemented for their own line of MIDI controllers. This functionality won't be available for other plugins unless developers program special functions to implement this. Special thanks to Marie from Arturia for taking the time to explain me how it works.

Set-up:

First make sure that the SFC-OB is in the Arturia plugin mode (see section 6).

To start using this integration, [simply download and unzip the XML file from the support page](#) and copy it to:

on MacOS: /Library/Arturia/OP-Xa V/resources/controllers

on Windows: C:\ProgramData\Arturia\OP-Xa V\resources\controllers (folder is hidden by default).

When you installed the Arturia Software Center, you had the option to move this resource folder. If you did, then change the folder path above to your selected one.

After copying the XML file, restart the plugin if it was open and then in the plugin interface click on the cogwheel, then in the MIDI tab choose the SFC-OB in the MIDI controller dropdown. This will auto-map the plugin to the SFC-OB default CC map and turn on automatically the 2-way integration.



Behaviour to expect:

The controller will synchronize to the plugin in the following situations:

- when a new plugin instance is created
- when the standalone version is opened (if the SFC-OB is checked on in the Audio MIDI Settings)
- when changing presets
- when switching tracks/instances
- when requesting it using the SYNC switch on the controller

The plugin will also send a single sysex message when a plugin control is moved or touched using the mouse as well.

When the sysex interface data is sent to the controller, the firmware will ingest it and the LEDs will be changed to mirror the plugin status. The pot data is also ingested and they are 3 behaviors possible, see below in the MODES switch options.

DAW specifics:

Switching instances happens differently in every DAW so please refer to your DAW's manual and documentation to do this. Usually, it involves selecting another track, making sure that the arm record function goes with it and also insuring that the new plugin GUI opens. Please note that switching tracks (using the Arm Recording switch) to open a new instance in Ableton is problematic. The previously opened GUI is not properly closed and thus the functions in the plugin framework are not triggered correctly when a new instance is opened. This is not a problem related to Arturia software or SoundForce controllers. The easy workaround for this is to firstly switch tracks, then to manually request the sysex data transfer from the plugin to the controller with the SYNC switch.

Remote control switches:

From the controller, you can change the presets with the DOWN and UP arrow switches.

You can also manually request the sysex synchronization from the plugin to the controller with the SYNC switch. This is especially handy if you notice that the sysex transfer is not triggering when switching tracks/instances, for example in Ableton as mentioned above.

The DUMP switch allows you to synchronize in the other direction, from the controller to the plugin. The controller will dump its full interface data into one packet sent to the plugin.

The MODES switch will define the behavior in case of discrepancies between a plugin pot-position and a controller pot-position with the goal of avoiding jumping values.

MODES switch options:

When the received pot data from the plugin differs from the actual pot positions on the controller, discontinuities can appear if this is not dealt with. Similar to Ableton take over modes, they are 3 options that can be set with the MODES switch:

- **Jump:** the controller will send instantly its new physical pot value and the pot in the plugin will do a jump
- **Pick-up:** the controller will only send new pot values after the controller-pot has reached the plugin-pot position. The LEDs on top of the DOWN and UP arrow switches will blink to let you if you need to go down (DOWN arrow blinks) or up (UP arrow blinks)
- **Scaling:** the controller will rescale the values sent to the plugin elastically so that a move on the controller matches the range of a move on the plugin control. Only smooth transitions are created. As soon as the control reaches one extremities (0 or 127), the scale is back to the normal 1:1 proportion.

This preference is saved in the controller and loaded when the device is plugged in.

8. DUMP switch

When the plugin window and the state of the controller are different, it is sometimes preferable to "push" the state of the controller to the plugin interface. That way nothing is jumping around when you start moving the controls and it helps getting the controller and plugin synced up when you get starting. The DUMP switch is reading every control and sending a pack of CC messages to the plugin.

9. SHIFT switch

The SHIFT switch is unlocking an alternative MIDI channel for the pots. Simply hold down the SHIFT switch and turn your desired control. Please note that SHIFT is not latching, which means you need to hold it down.

10. LEDs brightness

Holding down the SHIFT button, you can change the LEDs brightness turning the PORTAMENTO TIME pot. This preference is saved in the controller and loaded when the device is plugged in.

11. Users pots and switches

Please note that there are extra USER pots and switches that you can map to whatever you want. For example, an external reverb plugin wet/dry or an FX return fader level in your DAW.

12. Control panel

The Control Panel is a Google-Chrome app that allows you to save CC maps and select the plugin mode.

As firmware v1.0, the SFC-OB has 4 modes:

- Arturia OP-Xa
- GForce OB-X
- Sonic Projects OP-X PRO-II/DiscoDSP OB-Xd
- Synapse Obsession

Each mode has a different interface behavior that will fit the destination plugin or hardware as much as possible.

You can click on each control and change the CC message number. In some situations, certain CCs are hijacked by DAWs and hard routed to specific functions, so some edits are necessary.

SFC-OB Control Panel

Selected control :

Pot 0:
MASTER - TUNE

CC number:

Available devices :

USB MIDI Device

Connection status :
Please plug in your SFC-OB

Firmware version:

Data transfer status:

Save this configuration

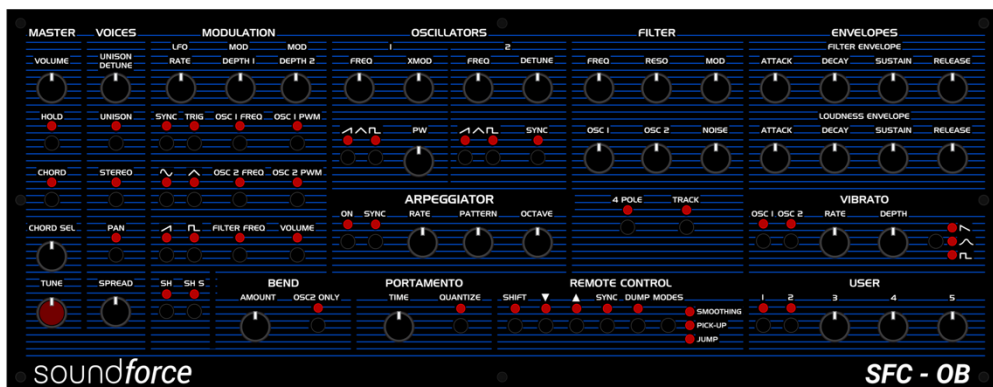
Load configuration

Reset to factory values

Send values

Send plugin mode

Sent messages:



POTS:			SWITCHES:			MIDI channel:		
Pot 0 - MASTER - TUNE	100		SW 0 - MASTER - CHORD	39		<input type="text" value="1"/>		
Pot 1 - MASTER - CHORD SEL	101		SW 1 - MASTER - HOLD	64		MIDI channel shift:		
Pot 2 - MASTER - VOLUME	2		SW 2 - VOICES - PAN	41		<input type="text" value="2"/>		
Pot 3 - VOICES - SPREAD	3		SW 3 - VOICES - STEREO	42		Plugin mode:		
Pot 4 - VOICES - UNISON DETUNE	4		SW 4 - VOICES - UNISON	43		Arturia OP-Xa V		
Pot 5 - MODULATION - LFO RATE	5		SW 5 - MODULATION - SH	44				
Pot 6 - MODULATION - MOD DEPTH 1	6		SW 6 - MODULATION - SAW	45				
Pot 7 - BEND - AMOUNT	7		SW 7 - MODULATION - SINE	46				
Pot 8 - MODULATION - MOD DEPTH 2	8		SW 8 - MODULATION - SYNC	47				
Pot 9 - OSCILLATOR 1 - FREQ	9		SW 9 - MODULATION - SH S	48				
Pot 10 - PORTAMENTO - TIME	10		SW 10 - MODULATION - SQUARE	49				
Pot 11 - ARPEGGIATOR - RATE	11		SW 11 - MODULATION - TRIANGLE	50				
Pot 12 - OSCILLATOR 1 - PW	12		SW 12 - MODULATION - TRIG	51				
Pot 13 - OSCILLATOR 1 - XMOD	13		SW 13 - MODULATION - FILTER FREQ	52				
Pot 14 - ARPEGGIATOR - PATTERN	14		SW 14 - MODULATION - OSC 2 FREQ	53				
Pot 15 - OSCILLATOR 2 - DETUNE	15		SW 15 - MODULATION - OSC 1 FREQ	54				
Pot 16 - OSCILLATOR 2 - FREQ	16		SW 16 - MODULATION - VOLUME	55				
Pot 17 - ARPEGGIATOR - OCTAVE	17		SW 17 - MODULATION - OSC 2 PWM	56				
Pot 18 - MIXER - OSC 1	18		SW 18 - MODULATION - OSC 1 PWM	57				
Pot 19 - FILTER - FREQ	19		SW 19 - BEND - OSC 2 Only	58				
Pot 20 - MIXER - OSC 2	20		SW 20 - ARPEGGIATOR - ON	59				
Pot 21 - FILTER - RESO	21		SW 21 - OSCILLATOR 1 - SAW	60				
Pot 22 - MIXER - NOISE	22		SW 22 - ARPEGGIATOR - SYNC	61				
Pot 23 - FILTER - MOD	23		SW 23 - OSCILLATOR 1 - SQUARE	62				
Pot 24 - LENV - ATTACK	24		SW 24 - PORTAMENTO - QUANTIZE	63				
Pot 25 - FENV - ATTACK	25		SW 25 - SHIFT	N/A				
Pot 26 - USER - 3	26		SW 26 - SYNC	N/A				
Pot 27 - VIBRATO - RATE	27		SW 27 - OSCILLATOR 2 - SAW	40				
Pot 28 - LENV - DECAY	28		SW 28 - OSCILLATOR 2 - SQUARE	67				
Pot 29 - FENV - DECAY	29		SW 29 - PRESET BACK	N/A				
Pot 30 - USER - 4	30		SW 30 - PRESET FORWARD	N/A				
Pot 31 - VIBRATO - DEPTH	31		SW 31 - SYNC	N/A				
Pot 32 - LENV - SUSTAIN	83		SW 32 - FILTER - 4 POLE	71				
Pot 33 - FENV - SUSTAIN	33		SW 33 - DUMP	N/A				
Pot 34 - USER - 5	34		SW 34 - MODES	N/A				
Pot 35 - LENV - RELEASE	35		SW 35 - FILTER - TRACK	74				
Pot 36 - FENV - RELEASE	36		SW 36 - USER - 1	75				
			SW 37 - VIBRATO - OSC 1	76				

How to use the control panel:

- First plug in your SFC-OB
- Then [open the control panel](#) in Google Chrome latest version
- The device should be recognized and the message “Connected to SFC-OB” will be displayed on the left middle container. The firmware version will also be displayed.
- Choose your desired mode in the “plugin mode” dropdown menu and click “Send plugin mode”
- If desired click on a switch/pot/ in the front panel image and change its CC number in the left field. When you are done with your changes, click “Save values”

You can save a MIDI map on your computer:

- click Export as text
- click in the filled text field
- copy and paste that list of comma-separated numbers
- save that on a text file on your computer

Similarly, you can copy a saved text field from a text file and paste it in the control panel text field. Then click “Load text to panel”.

You can go back to the factory CC values with the “Reset to factory values” switch. This will cause the controller to reboot and erase the saved data.

13. Default start-up state of the controller

To change the default start-up state of the switches, you can SHIFT press the DUMP switch. After it is saved for the first time, it will be loaded by default at start-up. It's loaded but not sent out at start-up, if you'd like to send it out as a packet use the DUMP switch.