Firmware 2.25 version for GSC-3 and GSC-2

 New functions:

- added two SWITCH outputs working modes for amp controlling,

Amp controlling

Controller enables the SWITCH outputs to work on **SF1** – latching type mode, **SF2** – pulse mode and

SF3 – momentary switch mode or **SF-4** and **SF5** - mixed modes (see SWITCH button settings, footswitch No 8). Mostly used mode is the **SF1** - latching type mode. In this mode the indicators SWITCH 1 to 4 lit what means contact short-circuit of corresponding relay. Other modes are applied in selected amp models for which is required other functionality of outputs. In case of controlling the amp with momentary switch input (**SF3** mode) the amp should have the switch which enables switching the functions in order to synchronize the controller and the amp states.

SWITCH button settings

Footswitch No. 8 (by successive pressings) enables to set the SWITCH 1 to 4 working modes according to the table below.

8	SF1	**SWITCH function 1 – SWITCH 1 to 4 outputs in latching mode (closed or open state)**
	SF2	SWITCH function 2 – SWITCH 1 to 4 outputs in pulse mode (closed for 80 ms)
	SF3	SWITCH function 3 –SWITCH 1 to 4 outputs in momentary switch mode (closed for 80 ms)
	SF4	SWITCH function 4 – SWITCH 1, 2 and 3 outputs in the pulse mode (closed for 80 ms), the SWITCH 4 output in the momentary switch mode (closed for 80 ms)
	SF5	SWITCH function 5 – SWITCH 1 and 2 outputs in the pulse mode (closed for 80 ms), the SWITCH 3 and 4 outputs in the momentary switch mode (closed for 80 ms)

Firmware 2.24 version for GSC-3 and GSC-2

New functions:

- possibility to set the level of silent switching function

- possibility to send tap tempo function to one of three MIDI devices (MIDI1, 2 or 3)

Silent switching function

Controller GSC-2/3 futures silent switching function (CLICK PROTECTION) which can be set on one of five levels (from CP1 to CP5) in LOOP button settings at footswitch No. 9. If the controller is connected between a guitar and an amp input it is recommended to set silent switching on level CP3 to CP5. In case when controller is connected to an amp effects loop it is recommended to set silent switching on level CP1 to CP3.

In the firmware version 2.23 and lower the silent switching works on level CP5.

9	CP1**	click protection 1 – level 1 (the lowest one) of muting the loop switching clicks
	…	
	CP5**	**click protection 5 – level 5 (the highest one) of muting the loop switching clicks (same as silent switching in the firmware version 2.23 or lower)**

Tap tempo

Controller enables to send tap tempo to one of three MIDI devices (MIDI1, 2 or 3). This function is activated in LOOP button settings by footswitch No. 5.

5	**tt0**	**tap tempo 0 – tap tempo function inactive**
	tt1	tap tempo 1 – sending tap tempo (Ctrl CH #80, 0/127) to MIDI1 device
	tt2	tap tempo 2 – sending tap tempo (Ctrl CH #80, 0/127) to MIDI2 device
	tt3	tap tempo 3 – sending tap tempo (Ctrl CH #80, 0/127) to MIDI3 device

Firmware 2.23 version for GSC-3 and GSC-2

New functions:

- added pulse and momentary SWITCH outputs working modes
- added two additional modes of silent tuning (MUTE)

Silent tuning (MUTE)

There is a possibility to define the footswitch No. 6 as a footswitch activating silent tuning mode MUTE (see Loop button settings, footswitch No. 7).

LOOP button settings

7	**tu1**	**tuner 1 – a guitar tuner connected to TUNER output, activated by pressing simultaneously footswitch No 1 and No 2**
	tu2	tuner 2 – using built-in tuner in MIDI processor, (recalling program No. 100 with muted signal) activation by pressing simultaneously footswitch No 1 and No 2
	tu3	tuner 3 –tuner connected to the TUNER output, activation by pressing footswitch No 6
	tu4	tuner 4 – using built-in tuner in MIDI processor, (recalling program No. 100 with muted signal) activation by pressing footswitch No 6

Amp controlling

Controller enables the SWITCH outputs to work on SF1 – latching type mode (which existed in previous firmware versions), SF2 – pulse mode and SF3 – momentary switch mode (see SWITCH button settings, footswitch No 8). Mostly used mode is the SF1 - latching type mode. In this mode the indicators SWITCH 1 to 4 lit what means contact short-circuit of corresponding relay. Other modes are applied in selected amp models for which is required other functionality of outputs. In case of controlling the amp with momentary switch input (SF3 mode) the amp should obligatorily posses the switch which enables switching the functions in order to synchronize controller and amp states.

SWITCH button settings

e) Footswitch No. 8 (by successive pressings) enables to set the SWITCH 1 to 4 working modes according to the table below.

8	**SF1**	**SWITCH function 1 –SWITCH 1 to 4 outputs in latching mode (closed or open state)**
	SF2	SWITCH function 2 – SWITCH 1 to 4 outputs in pulse mode (closed for 80 ms)
	SF3	SWITCH function 3 –SWITCH 1 to 4 outputs in momentary switch mode (closed for 80 ms)

Firmware 2.20 version for GSC-3 and GSC-2

New functions:
1) New bank switching mode
2) Sending additional Program Change commands
3) Connecting AUX BANK UP/DOWN with MIDI IN footswitch

Upgrade enables to equate the GSC-2 functionality with the GSC-3.

1) New bank switching mode

At the cb3 mode the BANK UP and BANK DOWN footswitches cause correspondingly increase and decrease of the bank number with immediate preset recalling (preset number in bank remains unchanged).

GSC-2 1	**cb0**	change bank mode 0 – constantly selected bank No. 0
	cb1	**change bank mode 1 –changing the bank by pressing and holding (over 1 second) footswitches;**
	cb2	change bank mode 2 – changing the bank by using BANK UP footswitch to increase or BANK DOWN footswitch to decrease a bank number
	cb3	change bank mode 3 – changing the bank by using BANK UP footswitch to increase or BANK DOWN footswitch to decrease a bank number with immediate recalling of the preset

2) Sending additional Program Change commands

Controller enables sending out four additional Program Change commands (named PC4 to PC7) instead of Control Change 4 to 7 commands. To use this option it is needed:

– to set at LOOP button settings (footswitch No. 6) transmitting three Control Change and five Program Change (m3A) commands,

– to set at SWITCH button settings the channel numbers for MIDI 4 to MIDI 7 instead of the controller numbers CTRL 4 to CTRL 7,

– to enter the program numbers to send in place of the controller values CTRL4 do CTRL7. On display, in place of the "CC" and controller's number, will appear the "PC" with the number of MIDI device to which will be sent the program number.

GSC-2 6	**m3p**	**midi 3 program change – only Program Change command can be transmitted to a MIDI 3 device**
	m3c	midi 3 control change and program change – to MIDI 3 device can be sent seven Control Change and one Program Change commands.
	m3A	midi 3 control change and program change – to MIDI 3 device can be sent three Control Change and one Program Change commands and there is a possibility to send four Program Change commands to devices MIDI 4 to MIDI 7 (PC4 to PC7)

3) Connecting AUX BANK UP/DOWN with MIDI IN footswitch

AUX BANK UP/DOWN with MIDI IN footswitch enables working in the mode of changing the banks by using BANK UP and BANK DOWN footswitches with ten presets in bank and also enables controlling the GSC by other device sending the Program Change commands. Before connecting it is needed to set AF2 at LOOP button settings (footswitch No. 8). The module should be connected to the AUX connector. MIDI receiving channel should be set on the rotatable switch situated on the left side of the module. The module receives Program Change commands in the range form 1 to 100 (program No. 100 corresponds with preset No. P00).

GSC-2	AF1	**AUX function 1 – AUX output function No. 1 – controlling AUX 2 x LOOP, AUX A/B SWITCH, AUX SWITCH 5&6 OUT modules**
8	AF2	AUX function 2 – AUX output function No. 2 – working with AUX BANK UP/DOWN with MIDI IN footswitch