

# MOEN

# GEC 5

GUITAR EFFECT COMMANDER

## OWNER'S MANUAL

- 128 presets.
- Each Preset contain 2 channels of PC#/CC#.
- 2 Sequential loops, 2 fixed loop, 1 isolate loop.
- 2 amp footswitch.
- Buffer/Non buffer input option.
- MIDI in/out
- Link capability on two GEC5.

Be sure to read this manual before using the product in order to ensure safe operation.



#### **(6) TUNER**

When this footswitch engages, it switches the guitar to TUNER jack and mutes the OUTPUT jack at the same time.

#### **(7) TUNER INDICATOR**

The indicator lights up when TUNER footswitch is engaged.

#### **(8)BANK**

This footswitch changes the preset bank number by pressing once shortly. Double press (press twice shortly) this footswitch will enter "ON THE FLY" mode. Hold this footswitch for 2 seconds will start to edit the preset LANE.

#### **(9)PROGRAM BUTTONS&INDICATORS FOR LOOP3/4/5**

LP3/4/5 are program buttons for loop3/4/5, the center indicator lights up when the loop is engaged. Loop3 and loop4 are "order fixed" loops, loop5 is an isolated loop.

#### **(10)INDICATORS OF SEQUENTIAL LOOPS**

Loop3, loop4, loop Green and loop Blue are internally connected, the signal path is : guitar - N1 - loop3 - N2 - loop4 - N3 - output. The sequential loops (Green and Blue) could be at one of the node positions N1/N2/N3, node (N1/N2/N3) indicators light up in green when loop Green is engaged, light up in blue when loop Blue is engaged.

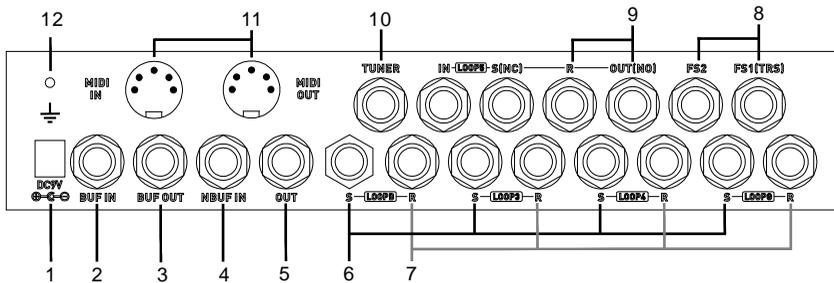
#### **(11) AMP FOOTSWITCH INDICATORS**

There're two amp footswitches - FS1 and FS2, the indicator "1" / "2" lights up when FS1/FS2 is engaged.

#### **(12)SCREEN**

The screen show preset pool/bank index, midi numbers, setup information.

## REAR VIEW



### (1) DC JACK

5.5 x 2.1mm negative center, supply with DC 9V.

### (2) BUF IN (Buffered Input)

Signal input via this jack is fed to a buffer circuit prior to being sent to the loops.

### (3) BUF OUT

This jack outputs buffered input signal only when the guitar connects BUF IN jack.

### (4) NBUF IN (Non Buffer Input)

This jack directly sends signal to the loops.

### (5) OUTPUT

Guitar signal goes through loop3, loop4, loop Green and loop Blue then outputs here.

### (6) LOOP SEND

Send jack of loop3/loop4/loop Green/loop Blue, connects to input jack of guitar pedal.

### (7) LOOP RETURN

Return jack of loop3/loop4/loop Green/loop Blue, connects to output jack of guitar pedal.

### (8) AMP FOOTSWITCH

FS1/FS2 are two normally close, latch type footswitch for amp switching. FS2 is mono type jack while FS1 is stereo, the tip of FS2 automatically connects to ring of FS1 when FS2 doesn't insert a cable.

### (9) LOOP5 (ISOLATE)

It's an isolated loop, which could work as either a series or a parallel loop.

The S jack also could be used at latch type footswitch (Normally close) for amp switching, the OUT jack also could be used as latch type footswitch (Normally open).

Note: Do not insert any cables into other jacks when S/OUT is used as footswitch.

### (10) TUNER

This jack connects to INPUT jack when the unit is muted, usually it connects to a tuner.

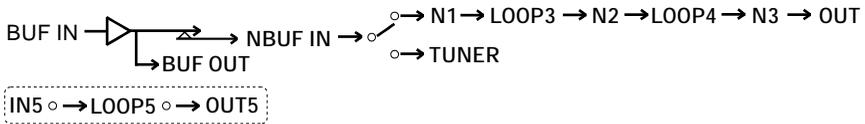
### (11) MIDI JACKS

MIDI OUT transmit MIDI messages, MIDI IN receive MIDI messages.

### (12) EARTH TERMINAL

Connect the enclosure to earth via this terminal if necessary.

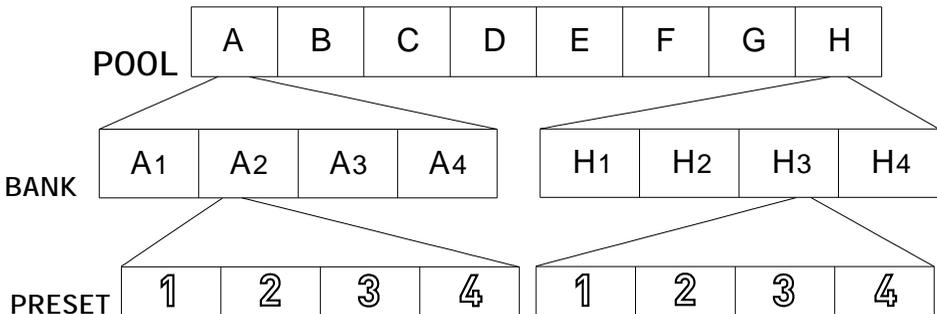
## 2- Signal Path



Sequential loop green and blue could be at any place of N1 or N2 or N3, or bypass, however, the two sequential loops can not be engaged at the same place.

## 3- Presets Hierarchy

GEC5 have 128 presets, which are contained in 32 banks, each bank have 4 presets, the banks are contained in 8 pools (A-H), each pool have 4 banks.



The first preset number (midi program change number 0) is bank A1, preset 1. The last preset number (midi program change number 127) is bank H4, preset 4.

## 4- Recall Presets, Change BANK, Change POOL

Press footswitch 1/2/3/4 to recall presets, the corresponding LED lights on when a preset is engaged. To recall a preset in another bank, press BANK switch once till the bank number starts to blink, and press BANK switch again to find the bank number then press footswitch 1/2/3/4 to recall expected presets. To recall a preset in another pool, need to hold the BANK switch for 2 seconds till the pool index starts to blink, then press BANK switch again to find the pool then press footswitch 1/2/3/4 to recall the expected presets.

## 5- Control Loops “On The Fly”

User could recall a preset, then double click BANK (press twice fastly, before it changes the bank number) to enter “On The Fly” mode, the screen shows “FL”, this mode allows the loops to be controlled individually by preset switch 1/2/3/4 and mute switch. preset 1 switch turns on/off loop5, preset 2 for loop4, preset 3 for loop3, preset 4 for loop green, MUTE for loop Blue. “On The Fly” is very useful for rehearsal, or adding/removing a few pedals individually. Click BANK again to exit.

## **6- Mute the Commander**

MUTE switch mutes the output, at the same time the guitar signal goes to the TUNER jack. Click MUTE switch again will cancel the mute.

Note: Recall preset will clear the mute too.

## **7- Program a Preset**

### **7.1 Program loops and footswitches**

Recall a preset and make sure the lock switch is at unlock position, pressing LP3/4/5 buttons to turn on/off loop loop3/4/5. Pressing LPG/LPB button to change the sequence of loop green/blue, or bypass them.

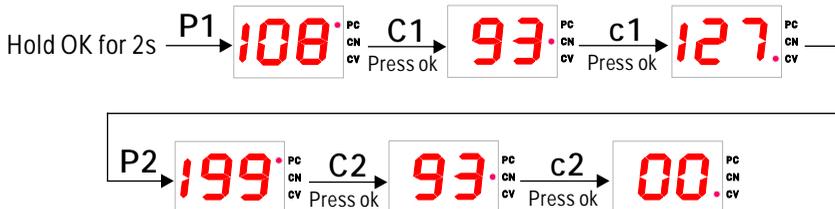
### **7.2 Program Midi**

There are two channels of PC#/CC# in the preset, make sure the program panel is unlocked, hold the OK button for 2 seconds to start the midi program, firstly edit the 1st PC# - screen shortly shows "P1" then restores its current value, the "PC" led indicates PC# is being edited. To change the PC value, use MIDI + or MIDI - button to scroll up/down the value (range 0~199, or off).

After the 1st PC# is done, press OK button to start the 1st CC# edit - screen shortly display "C1" (capital letter C) then restore its current value (0~127, or off), the "CN" led indicates the controller number is being edited, use MIDI +/- button to change the number.

Press OK button to edit the controller value (range 0~127 or off) of the 1st CC# - screen shortly display "c1" (lowercase letter c) then restore its current value, the "CV" led indicates the controller value is being edited, use MIDI +/- button to change the value.

Till now, the 1st channel of PC#/CC# has been edited, to edit the 2nd channel of PC#/CC#, just press ok again to continue the same sequence as the 1st channel. To end midi program, hold OK button for 2 seconds again, all values will be saved into nonvolatile memory automatically.



Flow chart of midi program

## **8- MIDI**

### **8.1 MIDI OUT**

MIDI out jack transmit stored midi messages or pass through the messages received from other midi controller. The range of the MIDI out PC# is 0~199 or off (transmit nothing), the range of CC# controller number/value is 0~127 or off (transmit nothing). There're two channels of PC#/CC# in each preset, easily to control two midi devices. The midi channel is editable, range 1~16 (section 9).

Every click on the same preset switch will repeat to transmit stored midi messages once, this feature could be used for tap tempo sync on multiple midi devices.

### **8.2 MIDI IN**

MIDI in jack receive Program Change numbers 0~127 and recall presets A1P1~ H4P4, Below is the map of PC# vs. Preset.

Received PC# vs. GEC5 Presets Map									
<b>MIDI in PC#</b>	<b>00</b>	...	<b>03</b>	<b>04</b>	...	<b>07</b>	...	<b>126</b>	<b>127</b>
<b>GEC5 PRESET</b>	<b>A1P1</b>	...	<b>A1P4</b>	<b>B1P1</b>	...	<b>B1P4</b>	...	<b>H4P3</b>	<b>H4P4</b>
A1P1: Pool A, Bank 1, Preset 1					H4P4: Pool H, Bank 4, Preset 4				

GEC5 also receives bypass CC# for master bypass.

Master bypass controller number: 102,

controller value: 0~63, bypass.

controller value: 64~127, engage.

	Received CC#	
	Controller	Value
Bypass	102	0~63
Engage	102	64~127

### **8.3 Pre Controller message**

GEC5 allows each preset to transmit a special CC# piror to stored PC#/CC#, it is called Pre Controller message, the pre controller number could be 0~127 or off (see section 9.5,9.6), the controller value is always127. Usually The Pre Controller is used for engaging a bypassed midi device before which receives other midi message.

## **9- Initialization**

GEC5 has a initialization menu which allows user to setup:

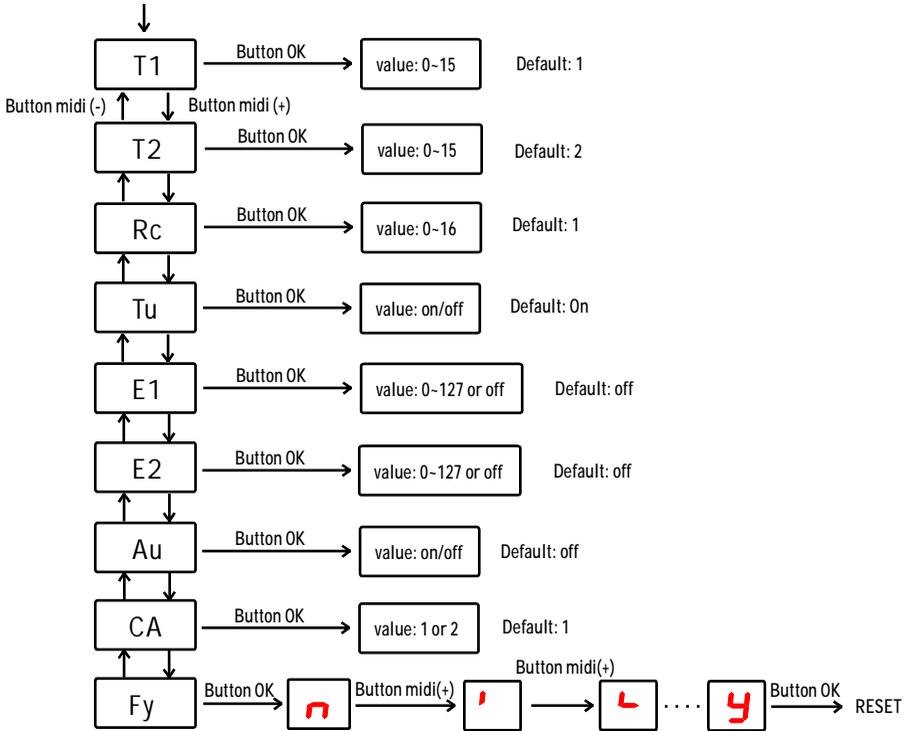
1. Display code "T1", transmitting channel of the first midi PC#/CC#, range 1~15.
2. Display code "T2", transmitting channel of the 2nd midi PC#/CC#, range 1~15.
3. Display code "Rc", receiving midi channel, range 1~16.
4. Display code "Tu", midi through, value: on/off
5. Display code "E1", pre controller of the 1st midi channel, value: 0~127 or off.
6. Display code "E2", pre controller of the 2nd midi channel, value: 0~127 or off.
7. Display code "Au", Each preset transmits its PC# on midi channel16, value: on/off.
8. Display code "CA", Click on an acitive preset, value: 1 or 2.

Value 1: Every click sends a repeat midi messge, usefull for tap tempo.

Value 2: Click on an active preset, it goes back to the previous recalled preset.

9. Display code "Fy", Factory reset.

Hold Button OK and power up GEC5, then release button.



## **10- Specifications**

Dimensions.....260(L)x88(D)x55(H)mm  
 Weight.....1250g  
 Power Supply.....DC9V (Negative Center)  
 Current Drain.....max. 150mA  
 Buffer Input impedance..... 500K ohm  
 Buffer Output impedance.....10K ohm  
 Max. Buffered Input Vp-p..... 5V  
 Max. Non-Buffered Input Vp-p..... 30V

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