PRIMOVA

GX-2 Gear Shifter

Reference Manual V2.0

Version 2.3

2022-08-28

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Getting Ready
Introduction

The Primova GX-2 combines many functions in one compact unit.

Guitar switcher

Allows you to connect two 13-pin guitars and one regular guitar and switch smoothly between them. The GK output volumes of each string may be calibrated so the two GK/Piezo guitars have similar output volume. Optionally you may even make BOSS/Roland Guitar Synths alternate between different GK Settings (this require a MIDI cable to the Synth). The unit has 10 individual "GK Settings" that can be freely mapped to the inputs IN1, IN2 and IN3. Each "GK Setting" contains settings for internal volumes/sensitivities as well as which GK-SETs are to be used by the synth units.

Hex pre-amp

As the volumes may independently configured you may use the GX-2 to amplify weak polyphonic pickups or make them less "hot" on a per string basis.

Synth switcher

Allows you to turn two individual Synth Units ON/OFF. Note that this unit is an "all signal switcher", meaning you don't have to assign GKVOL to volume to be able to turn the synth sounds off.

MIDI CC and Time Controller

The GX-2 can act like a MIDI Controller as GKVOL, S1, S2, CTRL1 and CTRL2 may be assigned to transmit MIDI CC Messages to the two MIDI outputs.

It can also be used as a MIDI Time Controller to synchronize the BPM of the connected devices from one source. It may also be used as a MIDI Slave if connected to a drum machine (i.e. Beat Buddy or similar). In this case the drum BPM will be forwarded to the two synth devices.

Polyphonic Modulation Effector

This unit has a volume modulation engine supporting 99 user configurable patches (effect memory slots). Some of them are populated with factory samples. Patches may be moved around or duplicated using menus. By modulating the per-string volume, effects like Polyphonic Semi-Arps, Tremolos, Envelopers and volume Sustainers are created. As this modulation is done on the raw polyphonic guitar pickup signals you may combine it with any other effects in your synth units to create completely new sounds or texture.

The unit may optionally also modulate the regular monophonic guitar pickup but in this case the Guitar Effects in your Synth or your analog pedals is preferred.

NOTE: The unit is delivered without power adapter. The adapter we recommend is NUX ACD-006A or a BOSS PSA adapter. The adapter must be 9VDC supplying at least >= 500mA (0.5A). The plug and polarity is the same as used BOSS on pedals. If you experience any added background noise, get a better power supply.

Connecting the Equipment

SY-1000, GR-55, VG/VB-99 or GP-10*
*MIDX-20 required for GKSET control via MIDI   1/4" STD   2 x GK(13-pin)

MIDI SYNC

MIDI (SysEx)

MIDI (SysEx)
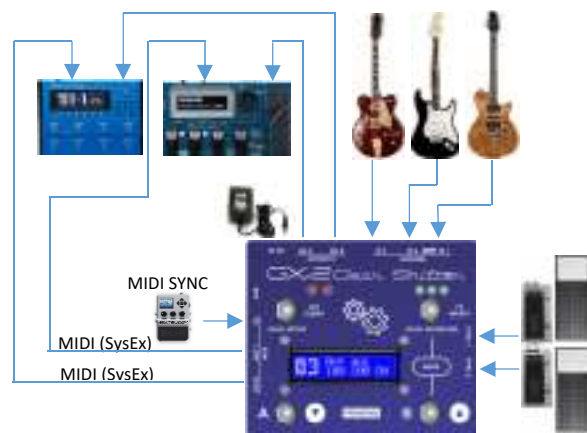
Never connect or disconnect GK connectors while power is ON

GUITAR INPUTS	
IN1	13-Pin Divided pickup GUITAR OR BASS *
IN2	13-Pin Divided pickup GUITAR OR BASS *
IN3	Normal Electric Guitar or Bass

* NEVER CONNECT TO 13-PIN SYNTH INPUT -
MAY CAUSE PERMANENT DAMAGE!

SYNTH OUTPUTS	
GKA	13-Pin GUITAR SYNTH
GKB	13-Pin GUITAR SYNTH

EXTERNAL CONTROLS - OPTIONAL	
CTRL1	ROLAND EV-5 Expression Pedal or FS-5U/FS-6/FS-7 Dual Footswitch
CTRL2	ROLAND EV-5 Expression Pedal or FS-5U/FS-6/FS-7Dual Footswitch

MODE/POLARITY Switch

FS-6

FS-7

MIDI - OPTIONAL	
IN	MIDI CLOCK Device or MIDI Controller
OUT1	Guitar Synth (1) MIDI IN
OUT2	Guitar Synth (2) MIDI IN

USB - OPTIONAL	
USB	Connect to a PC using a Mini USB 2.0 cable NOTE: Only connect to PC while programming the device using a dedicated software. A PC USB connection may induce ground loops/noise.

POWER	
9VDC	Connect to a noise free 9V DC Power supply >=500mA, 2.1mm, Center pin negative. Recommended: **Boss PSA** or **NUX ACD-006A** NOTE: Cheap "bulk" power supplies may induce noise or even damage your equipment.

Operating the device

FOOT SWITCHES

GK MODE

GKA STATE   PATCH NUMBER   PATCH NAME   GKB STATE

BPM   DEPTH   EFFECT STATE

PATCH MODE

PATCH NUMBER   BPM   DEPTH   EFFECT STATE
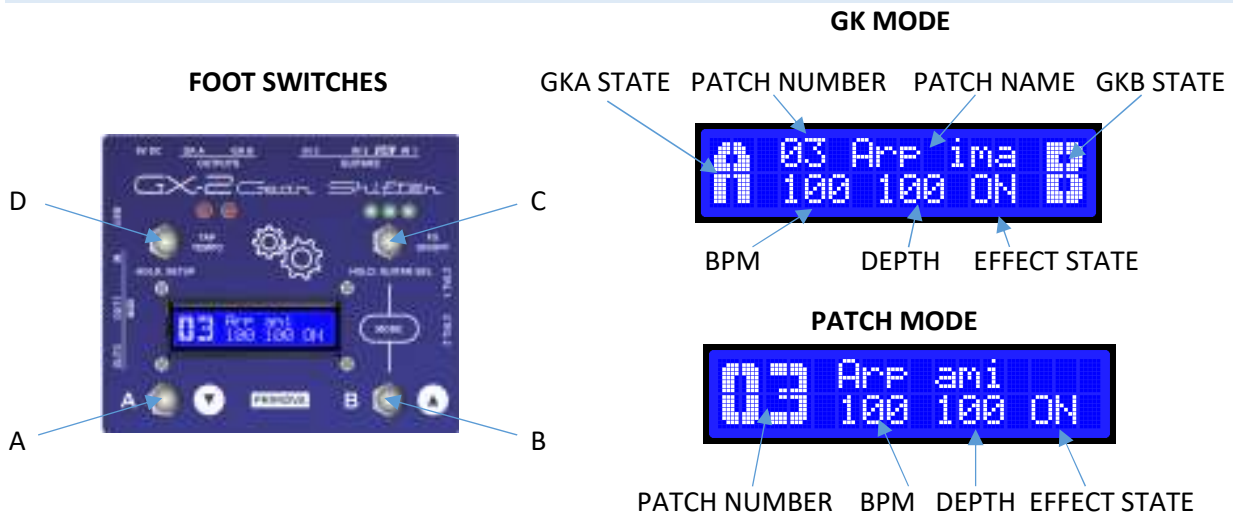
MODE CHANGE	
B+C	Switch between **GK MODE** and **PATCH MODE**

GK MODE	
A	GKA SYNTH OUTPUT ON/OFF
B	GKB SYNTH OUTPUT ON/OFF
A+B	TOGGLE GKA AND GKB ON/OFF

PATCH MODE	
A	PATCH DOWN (Previous Patch)
B	PATCH UP (Next Patch)

COMMON COMMANDS	
C	PATCH EFFECTS ON/OFF
D	TAP TEMPO If you press TAP TEMPO only once, all effects using BPM will START a new phrase or sequence. If you are using the GX-2 as a MIDI CLOCK source to other MIDI units, a MIDI START Command will be broadcasted. To set a new BPM you will have to TAP at least three times before the BPM will change. If you TAP more than three times the aggregated average of all TAPS will be used. TAP TEMPO does not work if the GX-2 is connected to another MIDI CLOCK source on MIDI IN.
A+D	A MIDI STOP command will be sent to both MIDI outputs.
HOLD D	SETUP MODE
HOLD C	INPUT SELECT
	OTHER USEFUL COMBINATIONS:
A+S1/S2	S1/S2 buttons to GKA only, as long as A is pressed.
B+S1/S2	S1/S2 buttons to GKB only, as long as B is pressed.
C+S1/S2	S1/S2 buttons change patch in GX-2, as long as C is pressed.

LED Indicators

The LED indicators show selected guitar, enabled synth outputs and actual BPM rate.

The three LED's to the right indicate selected Guitar input.

When IN1 is selected the GREEN LED will be turned ON
When IN2 is selected the YELLOW LED will be turned ON
When IN3 is selected the RED LED will be turned ON

The leftmost UNUSED LED will always blink at the actual BPM rate.

The rightmost UNUSED LED may blink at the actual BPM subdivision rate. The subdivision is derived from the patch settings if applicable.

The two LED's to the left indicate the active GK outputs. These two LED's are multi-color.

If GKA is enabled the left LED will turn ON
If GKB is enabled the right LED will turn ON

If they show a YELLOW light you are in the GK mode.

If they show a RED or GREEN light you are in the PATCH mode.

If the patch effects are ON these LED's will blink with the BPM rate and the right LED will blink at the actual BPM rate. The left LED may blink at the actual BPM subdivision rate. The subdivision is derived from the patch settings if applicable.

If the actual GK is enabled the LED will blink in a reversed fashion turning the LED briefly OFF.

If the actual GK is disabled the LED will blink in a normal fashion turning the LED briefly ON.

Using the device as a MIDI CLOCK CONTROLLER

The device may be used as a MIDI CLOCK source. A MIDI START command will be broadcasted if the TAP TEMPO foot switch is pressed once or at the first tap in a sequence of several taps to set the BPM rate. To set a new BPM you will have to TAP at least three times before the BPM will change. If you TAP more than three times the aggregated average of all TAPS in the sequence will be used. If you don't tap for 2.5 seconds a new sequence will be ready to start.

If you press footswitch A and TAP TEMPO at the same time a MIDI STOP command will be sent.

CONNECTIONS

Connect a MIDI cable MIDI OUT to your other device and make sure the *MIDI: CLOCK OUT* setting is turned ON in the GX-2 System settings. The two MIDI OUT connectors broadcast identical information.

By connecting two MIDI cables you may control two external devices simultaneously. If you wish to control more than two devices you need a MIDI splitter unit.

WHAT HAPPENS IF I CONNECT AN EXTERNAL CLOCK DEVICE TO MIDI IN?

If you have connected an external CLOCK source such as the "Beat Buddy" or similar to the MIDI IN connector, the tapping won't work. The external clock source will control the GX-2 BPM as well as the other devices you have connected to the MIDI OUT connectors.

Setting up the system for switching between two guitars - IMPORTANT

Each guitar is a unique individual with certain characteristics. This is why most guitar synths using a divided pickup need to be calibrated using the synth GK SETTINGS. In some cases with two similar guitars the main characteristics are the same but still the volume will differ if the distances between each string and the divided pickup are different.

Simplified configuration

In the simplified configuration you do NOT connect MIDI cables between GX-2 and the synths and both guitars will share the same synth GK SETTING.

Use the following steps to compensate for variation in string volumes between two guitars:

1. Keep all string volumes at 100 (DEFAULT) for the divided pickup connected to IN1.
2. Program the GK SETTINGS in your synth(s) so it works perfectly with this guitar.
3. Adjust the GX-2 string volumes for the divided pickup connected to IN2 so they correspond to the same levels as with the guitar connected to IN1. Here you need to watch the synth volume meters while the GX-2 string volumes are adjusted.
4. Now switch between the two guitars a number of times and verify the functionality of both guitars. If necessary do further adjustments. If you are not satisfied with the ending result, you may instead need to use the advanced configuration.

Advanced configuration

In the advanced configuration the synths will alternate between two different GK SETTINGS as you switch guitar. This is achieved by GX-2 sending out SYSEX commands to reprogram the synth(s).

Use the following steps to setup the advanced configuration:

1. Keep all string volumes at 100 (DEFAULT) for the divided pickup connected to IN1
2. Keep all string volumes at 100 (DEFAULT) for the divided pickup connected to IN2
3. Select the guitar connected to IN1
4. Setup the GK SETTINGS #1 in synth A to perfect operation with this guitar (IN1)
5. Setup the GK SETTINGS #1 in synth B to perfect operation with this guitar (IN1)
6. Now select the guitar connected to IN2
7. Setup the GK SETTINGS #2 in synth A to perfect operation with this guitar (IN2)
8. Setup the GK SETTINGS #2 in synth B to perfect operation with this guitar (IN2)
9. Connect a MIDI cable between GX-2 OUT1 to MIDI IN of synth A
10. Connect a MIDI cable between GX-2 OUT2 to MIDI IN of synth B
11. Now when switching between the two guitars the synths should alternate between GK SET #1 (for IN1) and GK SET #2 (for IN2). If this is not working, make sure the system setting "GKSel SysEx" is turned ON.

Menus (SYSTEM/PATCH)

[Step 2.] D: Hold down (a couple of seconds) to **Start Menu mode** (System or Patch).

[Step 7] D: Hold down (a couple of seconds) to get to the **Exit menu**.

Modify: "Save Yes/No", or "Save As" and hold down D again to **Quit** Menu mode.

[Step 1] B+C: Press both to **Toggle between System** (GK Mode) **and Patch** mode.

[Step 4] C: Press to **Start edit the parameter**.

[Step 6] C: Hold, to **Exit parameter** editing.

[Step 3] A/B: **Scroll up/down** to the parameter you want to edit.

[Step 5] A/B: **Change the parameter value** (up/down).

To reach the SYSTEM menu you must be in GK MODE.

To reach the PATCH settings you must be in PATCH MODE.

To get into the settings menu (SYSTEM or PATCH) hold down foot switch **"D"** (in the upper left corner) for a couple of seconds.

ACTUAL MODE	MENU
GK MODE	SYSTEM SETTINGS MENU
PATCH MODE	ACTUAL PATCH SETTINGS MENU (Patch 1-99)

Note: Even though most parameters, MENUS and NUMBERS are edited as described above, a few parameters like "Patch Name" and "Patch Target" require all four buttons operated to successfully edit the parameter.

See the next chapter for more information.

How to edit menu parameters

Start parameter editing by pressing the **"C"** switch. In editing mode the parameter will appear surrounded by brackets "[…]". To exit parameter editing, HOLD down C for a couple of seconds (or simply press C unless the parameters is a string or a target).

PARAMETER TYPE	EXAMPLE	COMMANDS	EXIT WITH
MENU	IN1:GK Pickup Orient[NORMAL]	A – Menu Down B – Menu Up	HOLD C (or C)
NUMBER	Patch:Depth Depth: [100]	A – Decrease B – Increase	HOLD C (or C)
CHARACTER STRING Character strings are used for patch names.	klmnopqrstuvwxyz [Arp ima]	A – Flashing cursor left B – Flashing cursor right C – Next character D – Previous character	HOLD C
TARGET The "target" parameter defines which outputs and signals the effect will modify.	Arp1:Step #1 Mods:[AB6 43_1G]	A – Flashing cursor left B – Flashing cursor right C – Turn target ON/OFF D – Turn target ON/OFF Note: '_' indicates target is OFF Targets: [A] GKA [B] GKB [1]-[6] GK String 1 to 6 [G] Guitar pickup	HOLD C
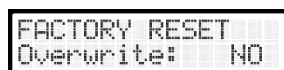
How to exit the settings menu

To exit the menu, hold down **"D"** for a couple of seconds and this menu will appear:

SYSTEM SETTINGS MENU:

SAVE(up/dn more)
Overwrite: YES

Set this parameter to NO if you wish to leave the SYSTEM settings without modification. Scroll using "A" / "B" to get to the next option.

FACTORY RESET
Overwrite: NO

Set this parameter to YES if you wish to revert the whole unit to factory default settings. All system and all patch settings will be reset to factory state.

PATCH SETTINGS MENU:

SAVE(up/dn more)
Overwrite: YES

Set this parameter to NO if you wish to leave the patch settings without modification. Scroll using "A" / "B" to get to the next option.

Write to
Patch: 3

Use this option to write your patch data to another patch.

Initialize
Patch: NO

Use this option to reset the patch. All parameters will be set to default value and the patch name will be named "Init Patch".

SYSTEM Menu settings

Display settings

SYS:BackLight Level:[ ]	
STAGE	Set the display backlight to highest intensity (DEFAULT)
HOME HI	Set the display backlight lower than STAGE
HOME LO	Set the display backlight lower than HOME HI
NIGHT	Set the display backlight to lowest intensity

SYS:Contrast Level:[ ]	
0-20	Set the display contrast level (DEFAULT 10)

Guitar switcher

SYS:Guitars [ ]	
2xGK,1xSTD	Two GK guitars and one NORMAL (DEFAULT)
1xGK,1xSTD	One GK Guitar and one NORMAL
2xGK(GK1+IN3)	Two GK guitars where GK1 guitar normal pickup is obtained from IN3. This setting allow you to use the Two-Cable method (2CM), using a GK cable for divided pickup combined with a separate regular guitar cable for normal pickup.
2xGK(GK2+IN3)	Two GK guitars where GK2 guitar normal pickup is obtained from IN3. This setting allow you to use the Two-Cable method (2CM), using a GK cable for divided pickup combined with a separate regular guitar cable for normal pickup.
2xGK(GK*+IN3)	Two GK guitars where normal pickup is ALWAYS obtained from IN3.
2xGK	Two GK guitars only.

Effect outputs

SYS:Mstr FX Out Enable:[ ]	
GKA+GKB	Enable effects for both GKA and GKB (DEFAULT) A similar setting is also found in Patch settings. The Patch setting may override this global setting within the patch.
GKA	Modulation effects is only appearing on GKA
GKB	Modulation effects is only appearing on GKB

GETTING READY

Instrument type and pickup orientation

IN1:Inp.Settings 01:[Primary GK]	
01-10	Select one of the 10 GK settings [DEFAULT "01 – Primary GK"]

IN1:Edit name [name of GK setting]	
String	Rename the currently selected GK setting Editing a string is a little bit different using all four switches, see chapter "How to edit menu parameters".

IN1:Instrument Type:[ ]	
GUITAR	Use this if connected to a 6 string guitar. [DEFAULT]
BASS	Use this if connected to an Electric Bass.

IN1:GK Pickup Orient:[ ]	
NORMAL	The GK pickup is at normal position (DEFAULT)
REVERSED	The GK pickup is mounted upside-down. String 1-6 signals will be flipped by the device. As the device is reversing the up-side down mounting, the synth unit should always be setup for NORMAL orientation.

Separate string and normal pickup output volumes

The following string volumes allow you to set the volume to the synth units GKA and GKB. Normally you would set all the levels for guitar 1 to [100], adjust the GK Synth sensitivities to the actual levels, and then adjust the string volumes for guitar 2 to suitable levels so the same readings are showed in the synth(s) regardless of selected guitar.

IN1:GK String 1 (*) Volume [ ]	
0-400	Volume of string 1 (DEFAULT 100) Example: 100 means gain=1.0, 400=means gain=4.0 (signal amplified four times)

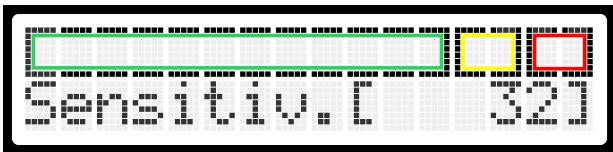(*) This setting is repeated for all strings 1-6

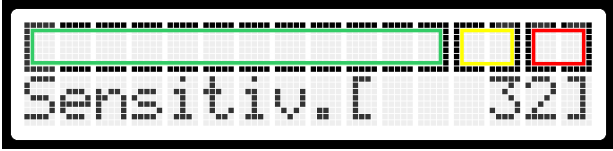| IN1:GTR Pickup Volume	
0-400	Volume of NORMAL guitar pickup (DEFAULT 100) Example: 100 means gain=1.0, 400=means gain=4.0 (signal amplified four times)

String sensing / Tracking

Some effects like the "SUSTAINER" and the "ENVELOPER" need to sense how you play the strings. Since guitar type and mounting will affect the signal volumes you will have to calibrate the GX-2 for each individual guitar used. This calibration procedure is handled by the following settings. The GX-2 ENVELOPER and SUSTAINER effects listens to each individual string and applies changes to the output volume according to what it "hear". In order for these effects to work properly you MUST individually calibrate the GX-2 SENSE settings to match the guitars.

NOTE: YOU MAY USE THE FACTOR PATCHES "**25 POPCORN**" AND "**26 SUSTAINER**" TO HEAR HOW THE SETTINGS AFFECT THE TRACKING.

- If the volumes are too high and/or the note-on detection thresholds are too low you may experience double triggering when you play a note.

- If the volumes are too low and/or the note-on detection thresholds are too high you may have to play very hard to trigger a new note on an already sounding string.

IN1:Sense Str 1 (*) Sensitiv.[ ]	
0-63	Sets the internal volume for measuring how hard the GK strings are played. For "HOT" guitars with RMC boards (Godin) use around 40. Play the strings on at a time and visually watch the horizontal meter. Calibrate all strings to a similar level and feel using normal playing force. The peak level should not go much higher than area #3. **The menu selection (1,2,3,4,5,6) will self-adjust to the string played.** Go through all the strings adjust the level and try to get similar readings on the meter when played. DEFAULT 70

(*) This setting is repeated for all strings 1-6

IN1:Sense GTR Sensitiv.[ ]	
0-63	Sets the internal volume for measuring how the NORMAL pickup is played on input IN1. While editing, play the strings and visually watch the horizontal meter. The peak level should not go much higher than area #3. DEFAULT 40

IN1:GK Sens 1	
Level [ ]	
0-100	GK Trigger Level 1. Sets the sensitivity level to detect an initial note has been played from a silent state. Keep value low but higher than "**IN1: GK Sens Mute**". DEFAULT 2

IN1:GK Sens 2	
Level [ ]	
0-100	GK Retrigger Level 2 Sets the sensitivity to detect a note has been played while a note is already playing. This is the most critical parameter. This level is used when the string is already sounding and you play it again (re-trigger). If you set the value too low "double-triggers" may occur, and if you set it too high you will need to play hard for the unit to detect the new note. Note: If you experience double-trigger on only one or two strings, go back to "**IN1: GK Sens 1-6**" (input gain) settings and lower the gain of the particular problematic string slightly. DEFAULT 4

IN1:GK Sens Mute	
Level [ ]	
0-100	GK Mute Level Sets the sensitivity to detect that a note is no longer played. The mute level defines the level when the string is not sounding any more. Increase only if needed. DEFAULT 0

IN1:GTR Sens 1	
Level [ ]	
0-100	Normal Pickup Trigger Level 1. Sets the sensitivity level to detect an initial note has been played from a silent state. Keep value low but higher than "**IN1:GTRSens mute**". DEFAULT 2

IN1:GTR Sens 2	
Level [ ]	
0-100	Normal Pickup Retrigger Level 2 Sets the sensitivity to detect a note has been played while a note is already playing. This level is used when the string is already sounding and you play it again (re-trigger). If you set the value too low "double-triggers" may occur, and if you set it too high you will need to play hard for the unit to detect the new note. DEFAULT 8

IN1:GTRSens mute Level [ ]	
0-100	GK Mute Level Sets the sensitivity to detect that a note is no longer played. The mute level defines the level when the string is not sounding any more. Increase only if needed. DEFAULT 2

IN1:VG-99 SET Set: [GK SET 01]	
01-10	Select the GK SET that will be used internally by the VG-99 with the currently selected GK Settings. DEFAULT 01

IN1:VB-99 SET Set: [GK SET 01]	
01-10	Select the GK SET that will be used internally by the VB-99 with the currently selected GK Settings. DEFAULT 01

IN1:GR-55 SET Set: [GK SET 01]	
01-10	Select the GK SET that will be used internally by the GR-55 with the currently selected GK Settings. DEFAULT 01

IN1:GP-10 SET Set: [GK SET 01]	
01-03	Select the GK SET that will be used internally by the GP-10 with the currently selected GK Settings. DEFAULT 01

IN1:SY-1000 SET Set: [GK SET 01]	
01-03	Select the GK SET that will be used internally by the SY-1000 with the currently selected GK Settings. DEFAULT 01

NOTE: All settings related to IN2 will appear after the IN1 settings.

The options for IN2 is similar to IN1.

IN3 settings for NORMAL GTR will appear after IN2 settings.

GKA and GKB Output Settings

GKA:Master VOL Volume:[ ]	
0-100	Sets the MASTER volume of GKA output (DEFAULT 100) The MASTER volume affects all strings.

GKA:OFF-Mute GTR Enable:[ ]	
ON	When muting GKA, also the normal guitar pickups will be muted. (DEFAULT)
OFF	When muting GKA, the normal guitar pickups will not be muted.

GKB:Master VOL Volume:[ ]	
0-100	Sets the MASTER volume of GKB output (DEFAULT 100) The MASTER volume affects all strings.

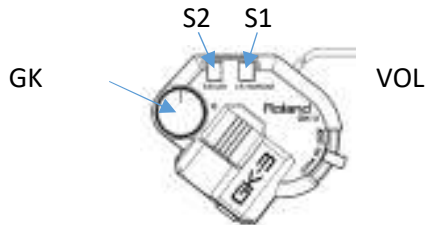| GKB:OFF-Mute GTR Enable:[ ]	
ON	When muting GKB, also the normal guitar pickups will be muted. (DEFAULT)
OFF	When muting GKB, the normal guitar pickups will not be muted.

Setting up Assigns

GK Control Assigns

Roland GK-3 divided pickup controller.   Godin xtSA

S2   S1

GK   VOL   GK VOL

S1/S2

These following settings will appear in both the SYSTEM and the PATCH settings. The PATCH settings (locally to one patch) have higher priority than SYSTEM settings. If a parameter is not used in the PATCH setting, the SYSTEM setting will be used.

Table 1

GKVOL: Assign to: [ ]	
OFF	No function (PATCH DEFAULT)
GKA VOL	GK VOL will only affect GKA
GKB VOL	GK VOL will only affect GKB
GKAB VOL	GK VOL will affect both GKA and GKB (SYSTEM DEFAULT)
DEPTH	The Patch Total Effect Depth will be affected by knob position.
BPM	The Patch Modulation/Arpeggiation BPM Speed will be affected by knob position.
CC#0 – CC#127	The knob position will transmit MIDI CC (continuous controller) messages to MIDI OUT1 and OUT2. Adjust the "MIDI:Output CH" to set the MIDI channel.

GKVOL: Assign Target Min:[ ]	
0-100	Sets the value when GKVOL knob is in lowest position (DEFAULT 0)

GKVOL: Assign Target Max:[ ]	
0-100	Sets the value when GKVOL knob is in highest position (DEFAULT 100)

Table 2

GK S1: Assign to:[ ]		
OFF	No function (PATCH DEFAULT)	
GKA S1	Only GKA S1 will be affected	
GKA S2	Only GKA S2 will be affected	
GKB S1	Only GKB S1 will be affected	
GKB S2	Only GKB S2 will be affected	
GKAB S1	Both GKA and GKB S1 will be affected (SYSTEM DEFAULT)	
GKAB S2	Both GKA and GKB S2 will be affected	
PATCH NEXT	Next Patch	
PATCH PREV	Previous Patch	
INPUT SEL	Advance to next guitar input	
TAP TEMPO	Sets the BPM by tapping	
GK BOTH	Forces both GKA and GKB to go silent/not silent	
GK A/B	Alternate silence between GKA and GKB	
GKA EN	Mute GKA	Additional Mode setting:
GBK EN	Mute GKB	MOMENTARY
GKAB EN	Mute both GKA and GKB	REV MOMEN
PATCH EN	Enable/disable all patch effects	TOGGLING
ARPS EN	Enable /disable used ARPS effects	REV TOGGL
MODS EN	Enable /disable used MODULATION effects	
ENVS EN	Enable /disable used ENVELOPER effects	
DIVIDER EN	Enable /disable DIVIDER effect	
SUSTAIN EN	Enable /disable SUSTAINER effect	
CC#0 – CC#127	Transmit MIDI CC (continuous controller) messages to MIDI OUT1 and OUT2. Values: 0=OFF, 127=ON. Adjust the "MIDI:Output CH" to set the MIDI channel.	

Table 3

GK S1 Assign (*) Mode:[ ]	
MOMENTARY	The target is only activated while the button is pressed down
REV MOMEN	The target is only activated while the button is released
TOGGLING	The target is will toggle ON/OFF
REV TOGGL	The target is will toggle ON/OFF in reverse

* This setting only applies to some of the targets.

| GK S2 Assign to:[ ]	
Same options as GK S1 (table 2)	SYSTEM DEFAULT = "GKAB S2" PATCH DEFAULT = "NONE"

CTRL1 and CTRL 2 Assigns

The device has two CONTROL INPUTS (CTRL1 and CTRL2) for additional control. Each of the control inputs may be connected to a either a Roland EV-5 Expression pedal or a Dual Footswitch Pedal like FS-6 or FS-7.

For expression pedals and dual footswitches a STEREO cable with stereo connectors must be used.
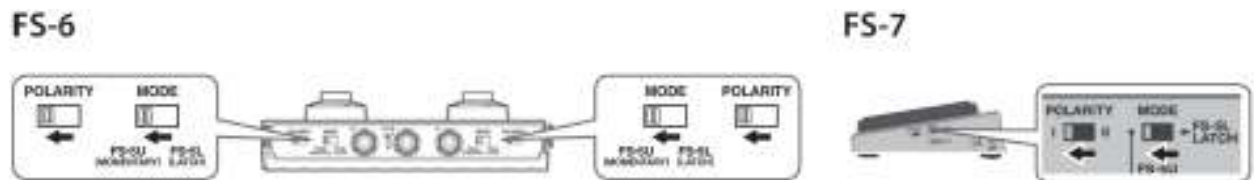
| Stereo connector | Roland EV-5 | FS-6 | FS-7 |

MODE/POLARITY Switch:

These following settings will appear in both the SYSTEM and the PATCH settings. The PATCH settings (locally to one patch) have higher priority than SYSTEM settings. If a parameter is OFF in the PATCH setting, the SYSTEM setting will be used.

CTRL1: EXP Assign to: [ ]	
Same options as GKVOL (table 1)	SYSTEM DEFAULT CTRL1 = "DEPTH" SYSTEM DEFAULT CTRL2 = "OFF" PATCH DEFAULT = "NONE"

CTRL1: Target Min Value: [ ]	
0-100	Sets the target value when the heel of the EXP Pedal is depressed (DEFAULT 0)

CTRL1: Target Max Value: [ ]	
0-100	Selects the target value when the toe of the EXP Pedal is depressed (DEFAULT 100)

CTRL1: Exp curve Type: [ ] 21		
NORMAL	Linear curve SYSTEM AND PATCH DEFAULT	You can select how the actual target value will relative to the amount the pedal is pressed. Target value Heel position Toe down position
SLOW	Logarithmic curve	
FAST	Inverted logarithmic curve	

CTRL1: SW1 Assign to: [ ]	
Same options as GK S1 (table 2)	DEFAULT OFF

CTRL1: SW2 Assign to: [ ]	
Same options as GK S1 (table 2)	DEFAULT OFF

The same list of settings for CTRL2 will appear after the CTRL1 settings.

ASSIGN1 – ASSIGN8

The eight general assigns allow you to control the device using MIDI or to assign multiple functionality to a source.

These following settings will appear in both the SYSTEM and the PATCH settings. The PATCH settings (locally to one patch) have higher priority than SYSTEM settings. If a parameter is OFF in the PATCH setting, the SYSTEM setting will be used.

MIDI:ASSIGN 1 to: [ ]			
	This parameter defines the TARGET the SOURCE controller will modify. If the SOURCE is MIDI you have the following target options:		
OFF	DEFAULT OFF		CC# Value Range
GKA VOL	The GKVOL on GKA will be modified		0-127
GKB VOL	The GKVOL on GKB will be modified		0-127
GKAB VOL	The GKVOL on GKA and GKB will be modified		0-127
FX DEPTH	The patch effect DEPTH will be modified		0-127
FX BPM	The BPM will be modified		0-127
INPUT SEL	Input 1-3 will be selected directly		0-2
GKA S1	GKA S1 will be affected		0-63 OFF, 64-127 ON
GKA S2	GKA S2 will be affected		0-63 OFF, 64-127 ON
GKB S1	GKA S1 will be affected		0-63 OFF, 64-127 ON
GKB S2	GKB S2 will be affected		0-63 OFF, 64-127 ON
GKAB S1	Both GKA and GKB S1 will be affected		0-63 OFF, 64-127 ON
GKAB S2	Both GKA and GKB S2 will be affected		0-63 OFF, 64-127 ON
PATCH NEXT	The device will select the next patch		0-63 OFF, 64-127 ON
PATCH PREV	The device will select the previous patch		0-63 OFF, 64-127 ON
INPUT NEXT	The device will advance to the next guitar input		0-63 OFF, 64-127 ON
TAP TEMPO	Tap tempo function		0-63 OFF, 64-127 ON
GK BOTH	Turns both GKA and GKB on/off		0-63 OFF, 64-127 ON
GK A/B	Toggles between GKA and GKB		0-63 OFF, 64-127 ON
GKA EN	Mute GKA	Additional Mode setting: MOMENTARY REV MOMEN TOGGLING REV TOGGL	0-63 OFF, 64-127 ON
GBK EN	Mute GKB		0-63 OFF, 64-127 ON
GKAB EN	Mute both GKA and GKB		0-63 OFF, 64-127 ON
PATCH EN	Enable/disable all patch effects		0-63 OFF, 64-127 ON
ARPS EN	Enable /disable used ARPS effects		0-63 OFF, 64-127 ON
MODS EN	Enable /disable used MODULATION effects		0-63 OFF, 64-127 ON
ENVS EN	Enable /disable ENVELOPER effects		0-63 OFF, 64-127 ON
DIVIDER EN	Enable /disable DIVIDER effect		0-63 OFF, 64-127 ON
SUSTAIN EN	Enable /disable SUSTAINER effect		0-63 OFF, 64-127 ON

MIDI:ASSIGN 1	
CC#: [ ]	
0-127	Use this setting to define the CC# that will cause the target to change. DEFAULT 60-67 for ASSIGN 1-8

MIDI:ASSIGN 1 (*)	
Target Min:[ ]	
0-100 (40-250 when BPM)	The target will receive this value when the CC message is at lowest value (0) DEFAULT 0 (DEFAULT 40 when BPM)

* This setting may only be available for some of the targets

MIDI:ASSIGN 1 (*)	
Target Max:[ ]	
0-100 (40-250 when BPM)	The target will receive this value when the CC message is at highest value (127) DEFAULT 100

* This setting may only be available for some of the targets

MIDI:ASSIGN 1 (*)	
Target Max:[ ]	
MOMENTARY	The target is only activated while the button is pressed down
REV MOMEN	The target is only activated while the button is released
TOGGLING	The target is will toggle ON/OFF
REV TOGGL	The target is will toggle ON/OFF in reverse

* This setting may only be available for some of the targets

> *The same list of settings for ASSIGN 2 to 8 will appear after the ASSIGN 1 settings.*

MIDI

MIDI IN Connector

You may control the device using MIDI. To change patch number use the MIDI Program Control (PC) commands in the range of 0-98, where 0 represent Patch #1 and 98 represent Patch #99.

Use Control Change (CC) commands to modify the behavior of the device using MIDI Assigns (see previous chapter).

If you connect an external CLOCK source like a "Beat Buddy" pedal, the BPM will follow the external CLOCK source and TAP TEMPO is disabled. In this case the *CLOCK IN* setting must be set to ON.

MIDI OUT1 and MIDI OUT2 Connectors

The device may send out dedicated SysEx commands to your Roland/Boss guitar synths to automatically change GKSET when a guitar input is selected. If the *CLOCK OUT* setting is enabled you may also control the BPM rates of the connected MIDI devices.

MIDI Settings

MIDI settings are found the in the SYSTEM menu.

MIDI:MERGE/THRU Enable: [ ]	
ON/OFF	Turns MIDI MERGE/THRU on or off. If enabled, all incoming MIDI traffic on MIDI IN will be forwarded to MIDI OUT1 and MIDI OUT2. DEFAULT ON

MIDI:CLOCK IN Enable: [ ]	
ON/OFF	If enabled the device will listen for MIDI CLOCK commands on MIDI IN to synchronize the BPM rate. DEFAULT ON

MIDI:CLOCK OUT Enable: [ ]	
ON/OFF	The device may be used as a MIDI CLOCK source. CLOCK pulses will be broadcasted out at a rate of 24 pulses per quarter note. MIDI START will be broadcasted if TAP TEMPO foot switch is pressed once. DEFAULT ON

MIDI:Input CH Channel: [ ]	
1-16	Listening channel for MIDI PC (Program Change) and CC (Continuous Controller) MIDI commands. DEFAULT 1

MIDI:Output CH Channel: [ ]	
1-16	Transmission channel for MIDI commands generated by the device. DEFAULT 16

MIDI:INP SEL CC#	
CC#: [ ]	
0-127	Sets the CC number to use when GUITAR INPUT has changed. DEFAULT 1 To change GKSET of a Boss GP-10 an external conversion device must be used such as the Primova MIDX-20 or similar. Hardware connections for use with MIDX-20: 1. Connect a USB cable between the MIDX-20 USB LWR USB connector and the GP10 USB connector. 2. Connect a MIDI cable between one of the GX-2 MIDI OUT connectors to the MIDX-20 MIDI IN connector. 3. Make sure you have the GP-10 firmware flashed into the MIDX-20. 4. Make sure the MIDX-20 listening channel match the GX-2 MIDI Output CH. As can be seen in the MIDX-20 documentation of the GP-10 MIDI Bridge CC#1 is used to control the GK SET, hence the default value of CC# 1

MIDI: INP SEL ADD	
GKSET start: [ ]	
0-9	Sets the number that will be added to the GX-2 Guitar input select number when transmitting the INP SEL CC# to the MIDX-20 device (or similar). When using a MIDX-20 to control the GP-10 this number should be set to 1. DEFAULT 1

Patch settings menu

GENERAL PATCH SETTINGS

Patch: Name [Init Patch]	
String	12 character string displayed when the patch is selected. Editing a string is a little bit different using all four switches, see chapter "How to edit menu parameters". DEFAULT "Init Patch"

Patch: BPM Select [ ]	
GLOBAL	Set to GLOBAL if you don't want the BPM to change when the patch is selected. DEFAULT
PATCH	Set to PATCH if you want to set a specific BPM for this patch.

Patch: BPM Rate Patch BPM: [ ]	
40-250	Set the starting BPM rate when the patch is selected. Note: This setting will only show if BMP Select is set to PATCH. DEFAULT 100

Patch: Depth Depth: [ ]	
0-100	Sets the patch master volume variation DEPTH parameter. Examples: 0 –Volume changes caused by the effects cannot be heard. 50 – Volume changes will affect the overall volume by 50%. 100 – Volume changes will affect the overall volume by 100% This parameter is showed on the display and may be controlled by external expression pedal, other controllers or by MIDI when Target = "DEPTH". DEFAULT 100

Patch: Pat FX Out Enable: [ ]	
SYSTEM	Use this setting to enable outputs for effects. If set to SYSTEM the system *Mstr FX Out* is in effect. DEFAULT
GKA+GKB	Enable effects for both GKA and GKB for this patch
GKA	Modulation effects is only appearing on GKA for this patch
GKB	Modulation effects is only appearing on GKB for this patch

This setting allows you to use other GK SETS (from the system pool of 10 GK Settings) with IN1, IN2 and IN3 when this particular patch is selected.

IN1:Inp. Settings xx: [ ]	
00-SYSTEM	If set to SYSTEM the system IN1 settings will used. DEFAULT
01-[name]	Use "GK setting 1" when input IN1 is selected.
02-[name]	Use "GK setting 2" when input IN1 is selected.
03-[name]	Use "GK setting 3" when input IN1 is selected.
04-[name]	Use "GK setting 4" when input IN1 is selected.
05-[name]	Use "GK setting 5" when input IN1 is selected.
06-[name]	Use "GK setting 6" when input IN1 is selected.
07-[name]	Use "GK setting 7" when input IN1 is selected.
08-[name]	Use "GK setting 8" when input IN1 is selected.
09-[name]	Use "GK setting 9" when input IN1 is selected.
10-[name]	Use "GK setting 10" when input IN1 is selected.

The same list of settings for IN2 and IN3 appear after the IN1 setting.

SUSTAINER EFFECT

The SUSTAINER effect will increase the output volume as the input volume declines. The output volume may be amplified up to +31.5dB. As soon as a new trigger occur the sequence will restart. Note that this is not a "freeze" effect. When the string stops to oscillate there is no sound to amplify.

For this effect to operate optimal you should first calibrate the input sensitivity, see chapter "Basic SYSTEM Menu settings".

SUSTAINER Enable: [ ]	
ON/OFF	Enables the SUSTAINER effect. DEFAULT OFF

Sust:Sensitivity Level: [ ]	
0-50	Sensitivity of the Sustainer, i.e. trigger level. DEFAULT 5

Sust:Sustain Vol Level: [ ]	
0-63	Sustainer max volume after Attack time has been reached. DEFAULT 52

Sust:Attack Time(s): [ ]	
0.5-30s	Duration of the volume increase period, starting from the time when the trigger level occurred. DEFAULT 3s

Sust:Hold Time(s): [ ]	
0.5-30s	Duration the volume will be maintained at maximum volume following the attack time. DEFAULT 10s

Sust:Release Time(s): [ ]	
0.5-30s	Duration while the volume will be returning back to normal after the Hold period. DEFAULT 1s

Sust:Target Mods:[ ]	
AB654321G	Set which GK outputs, strings or if normal pickup to be affected by the SUSTAINER effect. Editing a target is a little bit different using all four switches, see chapter "How to edit menu parameters". DEFAULT "AB654321_"

ENVELOPER EFFECT (1 and 2)

The ENVELOPER effects will modify the envelope of each string played in up to 4 stages.
These four stages are called ADSR.
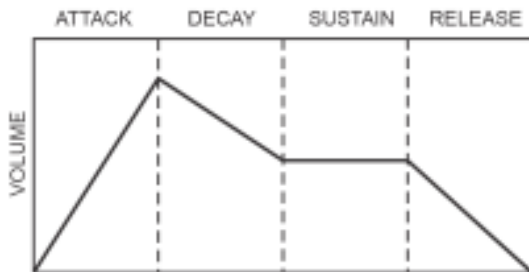
This diagram shows a typical ADSR envelope of a note played. The ENVELOPER effect allows you to change the volume during these four stages. For example if you remove the initial attack you get a smooth bow-like sound.

There are two independent ENVELOPER effect sections (1 and 2). For this effect to operation optimally you should first calibrate the input sensitivity, see chapter "Basic SYSTEM Menu settings".

ENVELOPER1 Enable: [ ]	
ON/OFF	Enables the ENVELOPER effect. DEFAULT OFF

Env1:Depth [ ]	
0-100	Volume variation DEPTH of the ENVELOPER. DEFAULT 100

Env1:Attack time Level: [ ]	
OFF	When a note is detected the volume will be increased during the Attack time. If set to OFF this stage is not used.
0.01-3.0s	Attack time in seconds. DEFAULT 0.2

Env1:Attack vol Volume: [ ]	
0-3660	Sets the final volume reached after the Attack stage. DEFAULT 100

Env1:Decay time Level: [ ]	
OFF	After the Attack time the Decay stage starts. If set to OFF this stage is not used. DEFAULT OFF
0.01-3.0s	Decay time in seconds.

Env1:Decay vol Volume: [ ]	
0-3660	Sets the final volume reached after the Decay stage. DEFAULT OFF

Env1:Sust time Level: [ ]	
OFF	After the Decay time the Sustain stage starts. If set to OFF this stage is not used. DEFAULT OFF
0.01-3.0s	Sustain time in seconds.

Env1:Sust vol Volume: [ ]	
0-3660	Sets the final volume reached after the Sustain stage. DEFAULT 100

Env1:Releas.time Level: [ ]	
OFF	After the Sustain time the Release stage starts. If set to OFF this stage is not used. DEFAULT OFF
0.01-3.0s	Release time in seconds.

Env1:Releas.vol Volume: [ ]	
0-3660	Sets the final volume reached after the Release stage. DEFAULT 100

Env1:Mute detect Level: [ ]	
ON/OFF	Some envelopes with a soft attack sounds better if started from silence. Enable this option to mute the strings when sound is below the mute level. DEFAULT OFF

Env1:Mute time Level: [ ]	
0.00-0.5s	Sets the mute time in seconds. If set to 0.0 the mute is instant. DEFAULT 0.05

Env1:Target Mods: AB654321G	
AB654321G	Each position indicate if the GK output, string and normal guitar pickup affected by the ENVELOPER. A – GKA will be affected B – GKB will be affected 6 – Indicate if string 6 will be affected: '6'=ON, '_' = OFF 5 – Indicate if string 5 will be affected: '5'=ON, '_' = OFF 4 – Indicate if string 4 will be affected: '4'=ON, '_' = OFF 3 – Indicate if string 3 will be affected: '3'=ON, '_' = OFF 2 – Indicate if string 2 will be affected: '2'=ON, '_' = OFF 1 – Indicate if string 1 will be affected: '1'=ON, '_' = OFF G – Indicate if normal pickup will be affected: 'G'=ON, '_' = OFF DEFAULT "AB654321_" Editing a target is a little bit different using all four switches, see chapter "How to edit menu parameters".

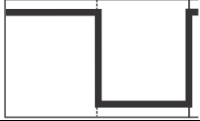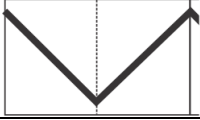> *The same list of settings for ENV2 will appear after the ENV1 effect settings.*
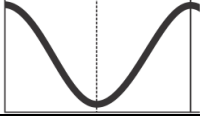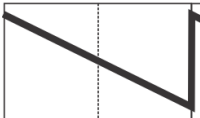
MODULATION EFFFECT (1 and 2)

The MODULATION effect will apply a periodical variation of volume to the target. The speed is relative to the current BPM. There are two independent MODULATION effect sections (1 and 2).

MODULATION1 Enable: [ ]	
ON/OFF	Enables the MODULATION effect. DEFAULT OFF

MODULATION1 Speed: [ ]		
Modulation speed derived from patch BPM DEFAULT "QUARTER"		
WHOLE	1/1	Whole Note
DOT HALF	*1/2	Dotted Half Note
TRIP WHO	1/1T	Triplet of Whole Note
HALF	1/2	Half Note
DOTQUART	*1/4	Dotted Quarter Note
TRIPHALF	1/2T	Triplet of Half Note
QUARTER	1/4	Quarter Note
DOT 8TH	*1/8	Dotted 8th Note
TRIP QUA	1/4T	Triplet of Quarter Note
8TH	1/8	8th Note
DOT 16TH	*1/16	Dotted 16th Note
TRIP 8TH	1/8T	Triplet of 8th Note
16TH	1/16	16th Note
DOT 32TH	*1/32	Dotted 32th Note
TRIP16TH	1/16T	Triplet of 16th Note
32TH	1/32	32th Note

MODULATION Depth: [ ]	
0-100	Volume variation DEPTH of this MODULATION. DEFAULT 100

Mod1:Wave Wave:[ ]	
SQUARE	Square wave starting at full volume then after half time volume is instantly reduced.
TRIANGLE	Triangle wave starting at full volume then ramping down and up again.
SINE	Sine wave starting at full volume then ramping down and up gain smoothly.
SAW	Saw tooth waveform starting at full volume and then ramping down until the next cycle starting at full volume.

Mod1:Inv wave Enable:[ ]	
ON/OFF	Invert the selected modulation waveform upside-down.

Mod1:Target Mods:[ ]	
AB654321G	Set which GK outputs, strings or if normal pickup to be affected by the MODULATION waveform. Editing a target is a little bit different using all four switches, see chapter "How to edit menu parameters". DEFAULT "AB654321_"

Mod1:Rev Trgt Mods:[ ]	
AB654321G	Set which GK outputs, strings or if normal pickup to be affected by the INVERTED MODULATION waveform. **When the target volume is increased, the reversed target volume will be decreased by the same amount. This will cause a panning effect. Use this option to pan the modulation waveform between different strings or GK outputs.** DEFAULT "AB_____" (OFF)

MODULATION Touch Control

Mod1:Touch ctrl Enable: [ ]	
ON/OFF	Enable the touch sensive control. DEFAULT OFF

Mod1:Touch sens. Level: [ ]	
0-100	Sensitivity of the touch control. DEFAULT 20

Mod1:Touch time Time(s): [ ]	
0.00-10.00s	Duration from the trigger point to the time when reaching the final value. DEFAULT 3.00s

Mod1:Touch depth Time: [ ]	
OFF	Enables touch DEPTH control.
FADE IN	The DEPTH will start at 0 (no effect) and end at the set MODULATION depth.
FADE OUT	The DEPTH will start at the set MODULATION depth and end at 0 (no modulation).

Mod1:Touch speed %BPM: [ ]	
OFF	Enables touch SPEED control.
10%-500%	The SPEED will start at actual BPM and end at a percentage of the actual BPM. This parameter may be used to create a touch controlled slowing down or speeding up modulation effect.

The same list of settings for MOD2 will appear after the MOD1 effect settings.

ARPEGGIATOR EFFFECT (1 and 2)

The ARPEGGIATOR effect will apply an instant variation of volume to the target according to a list of target pattern steps (max 32). The speed is relative to the current BPM. The number of steps will be divided equally into the available time frame set by the BPM and its derived SPEED setting.

There are two independent ARP effect sections (1 and 2).

ARPEGGIATOR1 Enable: [ ]	
ON/OFF	Enables the ARP effect. DEFAULT OFF

Arp1:Speed Speed: [ ]		
Sets the ARPEGGIATOR speed derived from patch BPM DEFAULT "QUARTER"		
WHOLE	1/1	Whole Note
DOT HALF	*1/2	Dotted Half Note
TRIP WHO	1/1T	Triplet of Whole Note
HALF	1/2	Half Note
DOTQUART	*1/4	Dotted Quarter Note
TRIPHALF	1/2T	Triplet of Half Note
QUARTER	1/4	Quarter Note
DOT 8TH	*1/8	Dotted 8th Note
TRIP QUA	1/4T	Triplet of Quarter Note
8TH	1/8	8th Note
DOT 16TH	*1/16	Dotted 16th Note
TRIP 8TH	1/8T	Triplet of 8th Note
16TH	1/16	16th Note
DOT 32TH	*1/32	Dotted 32th Note
TRIP16TH	1/16T	Triplet of 16th Note
32TH	1/32	32th Note

Arp1:BPM Frame # of Steps: [ ]	
ALL	All Arp steps will be executed within one BPM frame - DEFAULT
1	Only one Arp step will be executed in each BPM frame. Use this if you are using many steps to avoid the Arp to be too fast.

Arp1:Wave Wave: [ ]	
SQUARE	The Arp will instantly turn volume on and off - DEFAULT
TRIANGLE	The Arp will smoothly turn volume on and off
SAW1	The Arp will use a saw tooth envelope.
SAW2	The Arp will use a reversed saw tooth envelope.

Arp1:Depth Depth: [ ]	
0-100	Volume variation DEPTH of this ARPEGGIATOR. DEFAULT 100

Arp1:Steps Steps: [ ]	
1-32	Number of ARRPEGIATIOR target steps in the sequence. When the final step is reached the sequence will start again with the first step. DEFAULT 16

Arp1:Step #1 Mods: [ ]	
AB654321G	ARRPEGIATOR step target Each position indicate the GK, string and normal guitar pickup affected by the step. A – GKA will be affected B – GKB will be affected 6 – Indicate if string 6 will be sounding ON or OFF, 6=ON, _ = OFF 5 – Indicate if string 5 will be sounding ON or OFF, 5=ON, _ = OFF 4 – Indicate if string 4 will be sounding ON or OFF, 4=ON, _ = OFF 3 – Indicate if string 3 will be sounding ON or OFF, 3=ON, _ = OFF 2 – Indicate if string 2 will be sounding ON or OFF, 2=ON, _ = OFF 1 – Indicate if string 1 will be sounding ON or OFF, 1=ON, _ = OFF G – Indicate if normal pickup will be sounding ON or OFF, G=ON, _ = OFF Any position that is ON may be modulated by another ARPEGGIATOR or MODULATION effect. Editing a target is a little bit different using all four switches, see chapter "How to edit menu parameters".

Step#2-Step#32 will following this setting depending on how many STEPS have been selected.

ARPEGGIATOR Touch Control

Arp1:Touch ctrl Enable: [ ]	
ON/OFF	Enable the touch sensitive control. DEFAULT OFF

Arp1:Touch sens. Level: [ ]	
0-100	Sensitivity of the touch control. DEFAULT 20

Arp1:Touch time Time(s): [ ]	
0.00-10.00s	Duration from the trigger point to the time when reaching the final value. DEFAULT 3.00s

Arp1:Touch depth Time: [ ]	
OFF	Enables touch DEPTH control.
FADE IN	The DEPTH will start at 0 (no effect) and end at the set ARPEGGIATOR DEPTH.
FADE OUT	The DEPTH will start at the set ARPEGGIATOR depth and end at 0 (no arpeggiation).

Arp1:Touch speed %BPM: [ ]	
OFF	Touch SPEED control will be enabled if set to other value than OFF.
10%-500%	The SPEED will start at actual BPM and end at a percentage of the actual BPM. This parameter may be used to create a touch controlled slowing down or speeding up an arpeggiation effect.

The same list of settings for ARP2 will appear after the ARP1 effect settings.

GK DIVIDER EFFFECT

The DIVIDER effect will allow you to set the GKA and GKB string levels independently to the GK outputs.

This may be convenient if you for example want to send string 5 and 6 only to GKA and 3, 2 and 1 only to GKB or if you like to have a Volume Booster/Damper effect.

Example of using this Effect is to create a GTR/Pin7 switcher using two patches:

Patch 50 "GTR TO A"

> Pat FX Out="GKA+GKB"
> Set all STR 1..6 signals=100% and GTR=100% for GKA
> Set all STR 1..6 signals=100% and GTR=0% for GKB

Patch 51 "GTR TO B"

> Pat FX Out="GKA+GKB"
> Set all STR 1..6 signals=100% and GTR=0% for GKA
> Set all STR 1..6 signals=100% and GTR=100% for GKB

Now when alternating between patch 50 and 51 the regular guitar pickup (GTR/Pin7) will toggle between the two GK units.

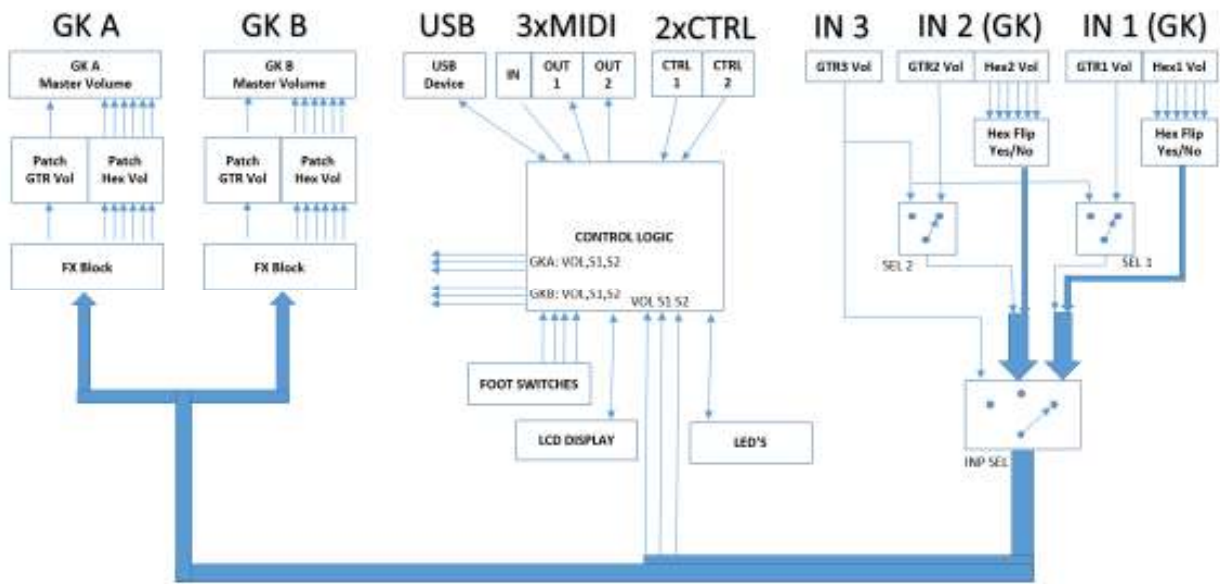| GK DIVIDER Enable: [ ]	
ON/OFF	Enables the DIVIDER effect. DEFAULT OFF

Div:GKA Str 1 (*) Volume: [ ]	
0-400	Sets the volume of string 1 outgoing to GKA. DEFAULT 100

(*) This setting is repeated for all strings 1-6

| Div:GKA GTR Volume: [ ]	
0-400	Sets the volume of the normal pickup outgoing to GKA. DEFAULT 100

Individual volume settings for GKB appear after the GKA settings.

Theory of operation

The device consists of an analog path of input selection circuitry and electronically controllable amplification stages. The volume of any signal may be individual set between MUTE and +31.5dB.
All effects are pure analog and change are made to the analog volumes only. There's no digital "resampling" of data. The digital side consists of Microcontroller, USB circuit and EEPROM memory for storing SYSTEM and PATCH settings. The internal voltage generation assures no current draw from synth outputs and deliver ultra-low noise DC voltages to the GK guitar inputs, assuming a recommended 9VDC adapter is used. The 9DVC input is protected for reversed polarity and contain noise suppression filters.

The effect section chain (in software) may be illustrated in the following way:
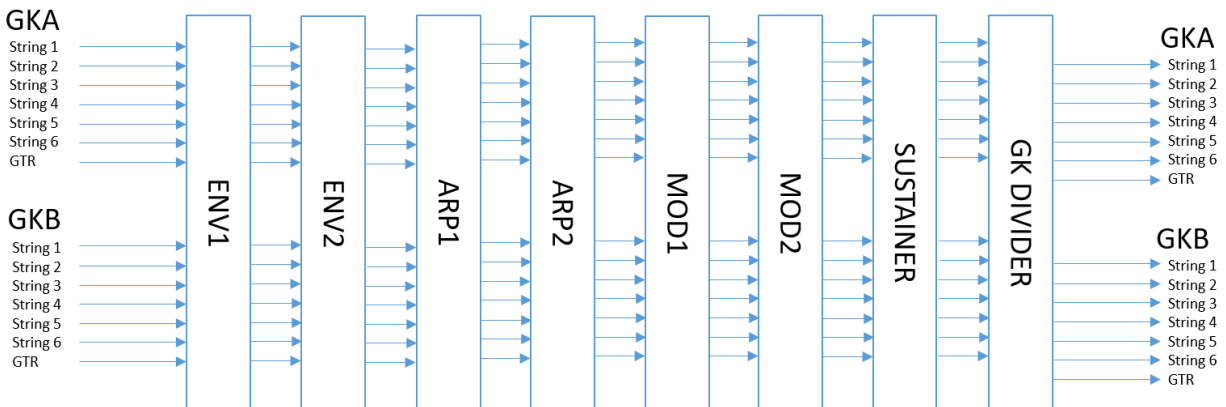
USB Connector

The USB connector is used to connect the device to PC.

When connected to a PC you may be able to upgrade the system program (firmware), setup the device or make backups of your settings or to restore them.

No drivers are required. The device will show up as a "Primova GX-2" USB Device.

To connect the device to the PC you need a USB cable with a type B Mini connector.

Check our web page for further information about currently available software.

Technical data

VOLTAGE (V)		
	Voltage	9VDC only

CURRENTS (mA)		
Normal consumption (at 9VDC)		
	GX-2 Unconnected	275 mA
	GX-2 Connect to two Roland GK-3 Guitars (or Godin xtSA > 2012 with RMC boards)	Abt. 400 mA
Maximum ratings		
	Max total current to guitar inputs +7V	250mA
	Max total current to guitar inputs -7V	250mA

INPUT IMPEDANCE (ohms)		
	Divided pickup signals	100k
	Normal guitar input	1M

FREQUENCY RANGE		
	Lowest	<20Hz
	Highest	>20kHz

WEIGHT and DIMENSIONS		
	Weight	0.62 kg
	Dimensions	145x120x40 mm