

PRODUCT INTRODUCTION
AND
TECHNICAL INFORMATION

Switchblade



INCLUDES INFORMATION ABOUT:

SWITCHBLADE GL - 16 x 16 Balanced Guitar Rack Switching System

SWITCHBLADE 8B - 8 x 8 Balanced Guitar Rack Switching System

SWITCHBLADE 8 - 8 x 8 Low Cost Guitar Rack Switching System



Advanced Guitar Switching Systems

SWITCHBLADE PRODUCT INTRODUCTION

WHAT IS THE SWITCHBLADE AND WHAT MAKES IT SO SPECIAL?

The Switchblade guitar rack switching system is by far the most powerful guitar rack switching system available anywhere. If you have been using traditional switching systems to connect processors together in your guitar rack, then be prepared to be truly blown away! The Switchblade is way more than a switching system. It is a single piece of gear that can replace dozens of separate pieces of gear that are typically used to integrate rack systems such as switchers, mixers, distribution arrays, buffers, isolation boxes, VCAs and more, yet because it is a single integrated system is able to perform operations that go way past the capability of separate units. It is the single most important piece of equipment that can be installed in your guitar rack as it has the power to completely integrate and control the routing and levels everywhere in your system. Read on to learn about the amazing power of the Switchblade.

THE MATRIX...THE HEART OF THE SWITCHBLADE

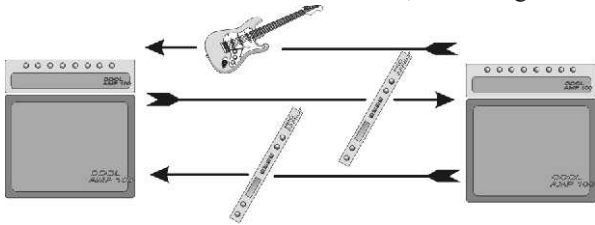
The Switchblade uses a true matrix switching network, accepted in the industry as the most powerful type of switching arrangement possible. With the amazing 16 in by 16 out matrix (or 8 x 8 for the Switchblade 8 and 8B) you can distribute any input to any output simultaneously with other inputs, electrically mixing those inputs that are patched to the same output. What this means is that you can combine effects any way you wish, from chaining them in any order to mixing them in parallel. In fact, with the Switchblade it is possible to combine effects into full blown networks of simultaneous series and parallel mono and stereo effects all savable as presets and controllable with MIDI Program Change, MIDI Control Change, or a simple mechanical footswitch and without ever touching a patch cord!

CONTROL OVER GAIN LEVELS EVERYWHERE

The signal level from each input to output patch is independently programmable over a 48dB range in calibrated increments. This gives you the power to adjust the level of the signal going to or returning from your effects, instruments, and amps to control the balance between effects, control the drive to and from preamps, control noise levels and even locate effects individually in stereo or multi-channel images. Exciting new sounds can be created as never before by tapping the signals at various points in the effect network, remixing to new levels and assigning the final mix to other outputs. Select a new preset and levels and patches everywhere change in an instant.

DYNAMIC GAIN CONTROL EVERYWHERE

Each connection in a Switchblade preset can be assigned a starting and an ending gain and assigned to a MIDI continuous control pedal. Since each connection can be set with different gains, the result is scalable fading across the effect network. In fact, the Switchblade can be used with 2 continuous controllers with some patches assigned to one controller and other patches assigned to the second. When used in this fashion the result is astounding. One controller can be used to crossfade between effects in a network, increasing or decreasing their individual "presence" with respect to other effects in real time, while the other controller can be used to vary the overall volume. An internal "Auto Sweep" function can be used in place of one of the controllers for hands off automatic sweeping. Integral anti-zippering circuitry removes zippering noise when used with even low resolution continuous controllers for smooth sweeping.



Instruments and processors can be panned using continuous controllers or the internal autosweep

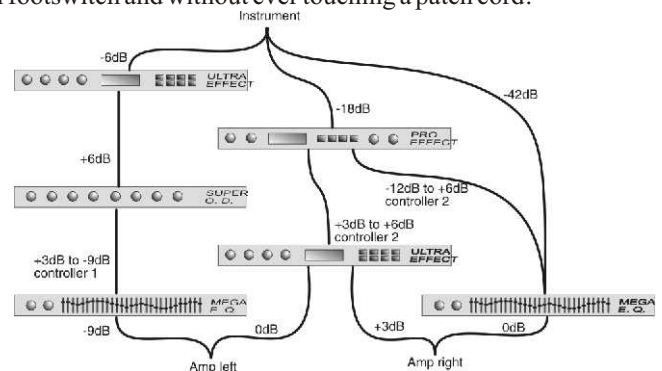
remove and re-insert individual effect devices under control of the "instant control" switches on your MIDI foot controller. When an effect is removed, the Switchblade intelligently keeps things routed as you would want them to be with full regard over echo trailing sounds and bypasses when necessary. Change presets to re-route and mix your effects and then use Smart Insert to remove and re-insert effects within the preset.

TOP QUALITY INTEGRAL BUFFERS

All inputs and outputs are buffered making sure that your signal stays pure when connecting lots of effects and amps with long cable lengths.

INSTANT, GLITCH FREE SWITCHING

The Switchblade uses an advanced switching algorithm during preset changes to offer super quiet, musically transparent switching. The switching time is programmable from 0ms to 1000 ms. A switching time of 0 will change presets instantly with absolutely no dropouts. Longer switching times can be used to add a "morph" type feel to preset changes to mask the switching boundaries further adding to musicality and professionalism.



Processors can be combined in parallel and series networks with fixed or continuously controlled gains at each audio connection.

"SMART INSERT" INTELLIGENT LOOP CONTROL

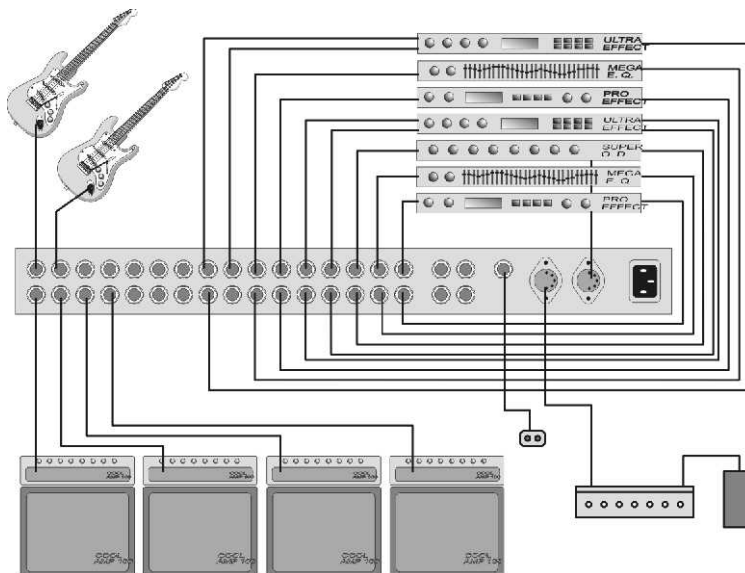
The Switchblade is a preset based system, which means when you select a preset, your rack full of gear is re-wired and levels adjusted in an instant, but with the new "Smart Insert" feature, you now have the ability to

EXCEPTIONAL SOUND QUALITY

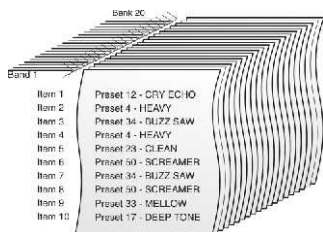
All this power would be meaningless without first rate audio quality. That's why the audio signal paths in the Switchblade have been engineered with performance and transparency in mind. The frequency response, signal to noise ratio, distortion and phase properties have all been dramatically improved over our previous switching systems to allow crystal clear passage of your instrument sound through your effects. The dynamic range (headroom) has been increased as well to handle switching of even the hottest preamps and overdrive effects. Sound Sculpture customers have commented that their rack system sounds cleaner and more transparent than they have experienced with any other system.

MIDI TRANSMIT CAPABILITY

The Switchblade is also a MIDI controller. Select a preset and the Switchblade will send a burst of up to 16 different MIDI program change commands (or 8 for the Switchblade 8 and 8B) over separate channels to all the effects in your rack. If you are using a separate MIDI controller or sequencer, a preset can be selected on the Switchblade, and then the Switchblade in turn will transmit Program Change messages to all the other MIDI gear in your system.



Everything in the rack system is connected to the Switchblade. This includes all guitars, amps, processors, personal monitors, MIDI foot controller and footswitch if desired.



Up to 20 banks can be loaded with up to 10 presets per bank for footswitch access.

FOOTSWITCH SIMULATION

The Switchblade has jacks on the back panel that are connected to programmable relays. These can be used to control the reverb or overdrive functions on many amplifiers as well as certain functions on non-MIDI rack effects such as boost controls on preamps. When activated, each relay shorts the tip and sleeve of an instrument cable together activating that function in the amp or effect. The states of these relays changes when a new preset is selected. Each relay can be programmed to put out either a momentary pulse when the preset is selected or go to a solid on or off state. This function eliminates the need to have several footswitches around the stage controlling different amps and offers the ability to change the state of the amps instantly when a preset is selected.

CONTROLLING THE SWITCHBLADE ON STAGE

The Switchblade is compatible with all popular MIDI footcontrollers. A footswitch input also allows presets to be called up from a user programmable "list" if a MIDI footcontroller is not available. Our 2 computer based editors can also be used with portable computers for extreme control situations using high level System-Exclusive commands.

READY FOR THE ROAD!

Road worthy construction is the name of the game in switching systems and the Switchblade has it. A solid chassis and solidly mounted audio jacks ensure the Switchblade will withstand the rigors of the road time after time. Highest quality audio components and comprehensive inspection and testing ensure the Switchblade won't go down when you need it the most.

EASY TO PROGRAM!

The programming menus of the Switchblade have been created to be logical and user friendly. Once you acquaint yourself with how to program the unit, you will rarely have need for the users manual. Simply put, there is a Setup menu group that is used to name the inputs and outputs on the Switchblade and other global parameters. After that all operations will take place in the Preset menu group which is where you route one device to another and set levels in the selected preset.

VU METERING

Each preset comes with it's own VU bar graph menu allowing the user to select and monitor the audio levels (in dB) of the individual inputs. With the ability to monitor the input levels, maximum signal to noise ratios can be achieved and headroom can be monitored carefully when required.

DON'T SETTLE FOR LESS

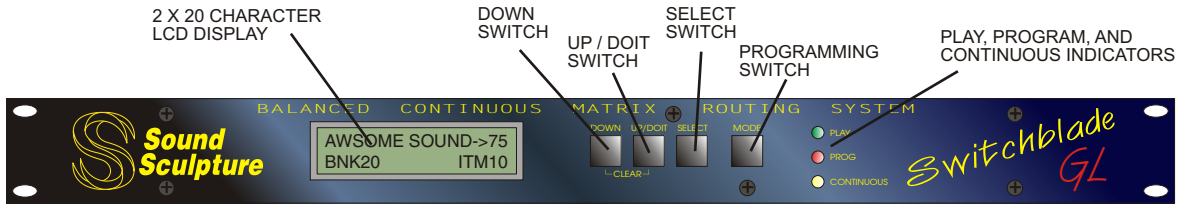
Check out every other switching system on the market and then take a close look at the Switchblade. Regardless of price, you won't find another system offering the features and quality of the Switchblade. Not even close!

SWITCHBLADE FAMILY FEATURES

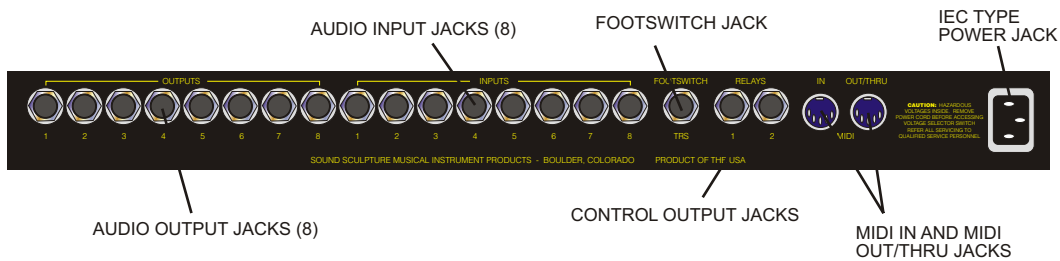
The Switchblade family is built on a common design and differ only in the number of inputs and outputs, the channel design, the number of control (relay) outputs, and the cabinet size. The differences between the various Switchblades is described in the next section.

PANEL CONTROLS AND I/O

The front panel of the Switchblade GL is shown here and except for nomenclature is identical to all Switchblade models. The front panel shows the display and 3 switches labeled MODE, SELECT, UP/DOIT and DOWN. The MODE switch is used to navigate through the menus for programming. The SELECT switch is used to move the cursor around the current menu. The UP/DOIT and DOWN switches are used to increment and decrement various values under the cursor or to initiate an operation. The front panel also had 3 LEDs. A green LED indicates that the Switchblade is in the "play" mode, the red LED indicates that the programming mode has been entered and the yellow LED is illuminated whenever a preset contains any patches that are assigned to continuous control. The rear panel of the Switchblade GL is shown here. The upper row is the 16 input jacks used to connect to instruments, effect returns and other signal sources and the lower, the 16 output jacks used to connect to effect sends, amps or other devices.



The rear panel of the 8 and 8B is shown here. Shown are the 8 inputs and 8 outputs in a single row.



THE SWITCHBLADE MENUS

The menu structure of the Switchblade was designed to offer the greatest power with the greatest programming ease and speed possible. To achieve this, the menu structure was broken down into 3 groups. The Setup group is used to program parameters common to all presets and for global setups. The Preset group is used to program those parameters specific to the presets. A third group is really a single menu used to load presets, if desired, into the Preset Manager. The menu structure is described here:

SETUP MENU GROUP

- 1. COPY MENU:** Copy one preset to another to simplify creating a new preset that is similar to another preset already programmed.
- 2. EFFECT CONFIGURATION MENU:** Use this menu to assign names to the effects, instruments and amps connected to the inputs and outputs. In addition, use this menu to assign MIDI channels to any MIDI effects you have attached to the Switchblade as well as the channel number of the Switchblade itself. This menu is also sets up the Remote Programming feature which is used for ultra fast reprogramming of the group gain of a preset while in the play menu to increase or decrease the overall volume of a preset with respect to other presets. This menu greatly simplifies programming of the presets since all patching or MIDI program change number assignment is performed by calling up the patches or MIDI devices by name instead of having to remember what loops they are connected to or what channel they were assigned to.

3. **BACKUP MENU:** Backup and restore the entire Switchblade memory for archiving purposes or to load in and save preset collections.

4. **RELAY TYPE MENU:** The "footswitch simulator" outputs can be set as either solid (off or on) or pulse (momentarily) whenever a preset is selected. This allows compatibility between the Switchblade and those amps and effects that expect to see either push on/push off or momentary type footswitch.

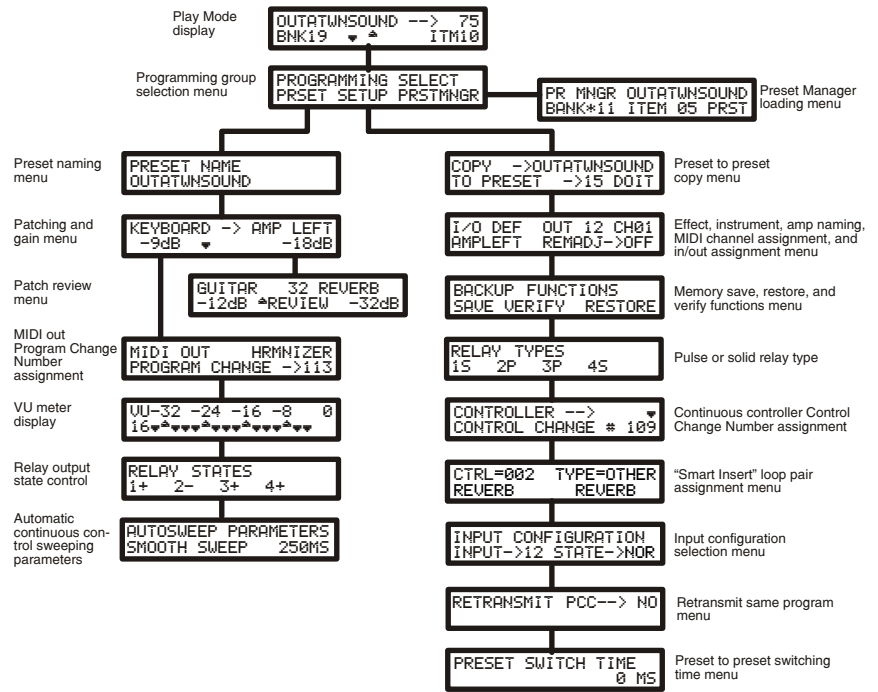
5. **CONTROLLER ASSIGNMENT:** Allows control change number assignments to each of two continuous controller symbols. The symbols are then used during preset programming instead of numbers to simplify and speed up the task of assigning a controller to a patch.

6. **SMART INSERT ASSIGNMENT MENU:** Allows user to assign Control Change (CC) numbers to individual input/output pairs which represent effects connected to the Switchblade. The user can then use their footcontroller to remove or re-insert effects while remaining in the current preset

7. **INPUT CONFIGURATION MENU:** (Switchblade-GL and 8B only) Turns on or off the individual 6dB trims on any of the inputs.

8. **RETRANSMIT PCC MENU:** If set to NO prevents re-loading of the same preset on multi-effect units that have slow load times.

9. **PRESET SWITCHING TIME MENU:** Used to program the fade out-switch-fade in time when switching from preset to preset. Adjustable from 0ms (instant) to 1000ms.



PRESET MENU GROUP

1. **PRESET NAMING MENU:** Used to assign a 12 character name to the preset.

2. **PATCHING AND GAIN MENU:** Use this menu to create and set the gain levels of the connections (patches). To create a patch, scroll to the desired audio source name on the left side of the menu (such as "guitar"), then scroll to the desired audio destination on the right side of the menu (such as "amp"). Finally, scroll to the desired gain setting for this particular patch. If the gain is set to "OFF" then this patch is disconnected from the circuit. If you wish continuous control for a particular patch, move the cursor to the lower right section. A second gain number will appear that normally tracks the first gain number. If this number is changed to be different from the first, then the 2 gain values determine the start and stop gains for this patch. Note that the start gain can be higher or lower than the stop gain to allow cross-fading between patches. This particular patch can now be assigned to 1 of 2 continuous controllers represented in the display by an "up" or "down" pointing arrow.

2A. **REVIEW MENU:** This timesaver allows you to quickly review all the connections you have made in a preset and is accessed by pressing and holding the "Select" switch while in the Patch menu. Pressing the Select Switch again returns you to the Patching and Gain menu at the same location presented in the review menu so quick updates can be made during the review process.

3. **MIDI OUT MENU:** This menu is used to create the outgoing MIDI program change command burst that is sent whenever this preset is selected. Since all MIDI devices are displayed by name, it is easy to quickly set up the burst to all your effects.

4. **VU METER DISPLAY:** This menu is used to monitor the audio level of any of the inputs on an individual basis. The meter is calibrated in 2 dB increments from 0dB to -34dB. The input number being monitored is also displayed in this menu and the number can be scrolled using the UP or DOWN buttons.

5. **CONTROL OUTPUT STATE MENU:** This menu is used to activate or deactivate each of the control relays for this preset that are used to turn on or off the reverb or overdrive channels of amplifiers. All relays can be overridden using reserved Program Change numbers or Controllers ("Instant Access" switches used on some foot controllers).

6. **AUTOSWEEP MENU:** Used to turn on or off the automatic sweep function for this preset and to select the type of sweep (smooth sweep, multi pan, and single shot) and the sweep cycle time (250 ms to more than 13 seconds). The Autosweep can be used in place of one of the continuous controllers available. If the Autosweep is turned off for a particular preset than the external controller is automatically assigned.

PRESET MANAGER GROUP

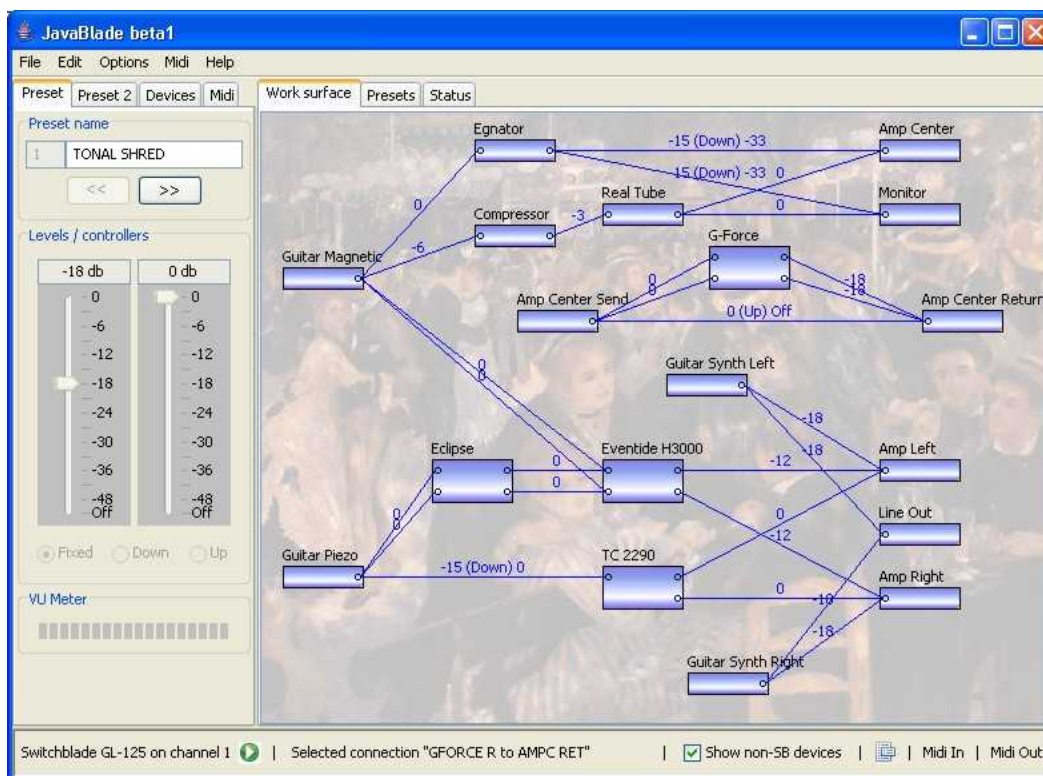
This menu is the only menu in the third group and is used to load selected presets into the Preset Manager. There are 20 banks available and 10 empty locations in each bank. If a bank is not filled, then the bank will "short cycle". For example, loading only 2 presets into a bank will allow rapid toggling between the two presets when the footswitch is pressed. You can quickly move to a preset that is not in the list by using your MIDI foot controller. You may use both a footswitch and a MIDI foot controller together.

The Preset Manager is a memory area consisting of 20 banks with 10 empty slots in each bank called "items". The user can select a bank and then insert any of the presets into the slots in any order and repeating any presets. For example, Bank 15 might hold preset 5, 17, 5 again and 22 in that order. Then, each time the footswitch is pressed the presets are called up in the order listed. When preset 22 is reached, pressing the switch again will cause the list to cycle around to the start of the list. A second switch can be used to scroll to the next bank (next song). The preset manager can be used in addition to a separate MIDI controller that might be connected and does not interfere with it. The MIDI controller can then be used to directly access specific presets without using the preset manager.

COMPUTER EDITORS

The Switchblade is easily used as a standalone device and is easily programmed from the front panel, but we also offer two computer based editors to increase the speed with which large numbers of presets can be created and tested using a fast visual environment. The two editors offered are WinBlade for the Windows operating system and the new JavaBlade for Mac, Windows, and Linux environments.

These powerful full featured editors allow you to pull your effects onto a worksurface where you can connect your effect, guitars, and amps, and adjust gain levels with mouse clicks. You can create as many of these worksurface presets as you like and save them in files for later use. You can download presets from the editors to the non-volatile Switchblade memory for standalone use.



With JavaBlade you can:

- Create presets using your mouse and a visual icon based environment
- Adjust levels between devices by clicking on connections and moving gain sliders
- Listen to presets as you create them
- Assign continuous controllers to connections and operate them from the worksurface for sound testing before downloading
- Enter all setup parameters into the Switchblade such as Input and Output names, MIDI channel, Smart Insert pairs, and more
- Operate the Smart Insert feature from a visual display for sound testing.
- Show icons of other devices in your rack not connected to the Switchblade to show an image of your entire rack.
- Quickly backup and restore all Switchblade memory for security purposes.
- Quickly load all new presets into the Switchblade from a file.
- Upload presets from the Switchblade to the editor in case field changes were made.
- And much more

TYPICAL SETUP

An example of a typical system and two preset examples will be discussed here. Keep in mind that all gear is connected to the Switchblade without regard to which inputs or outputs are used for each device. Since all inputs and outputs are given names, everything is routed and mixed by name only and connectivity and mix levels between gear changes instantly. The gear for this example is as follows:

Switchblade 8B

Guitar (1 input)

Stereo power amp with 2 cabinets (2 outputs)

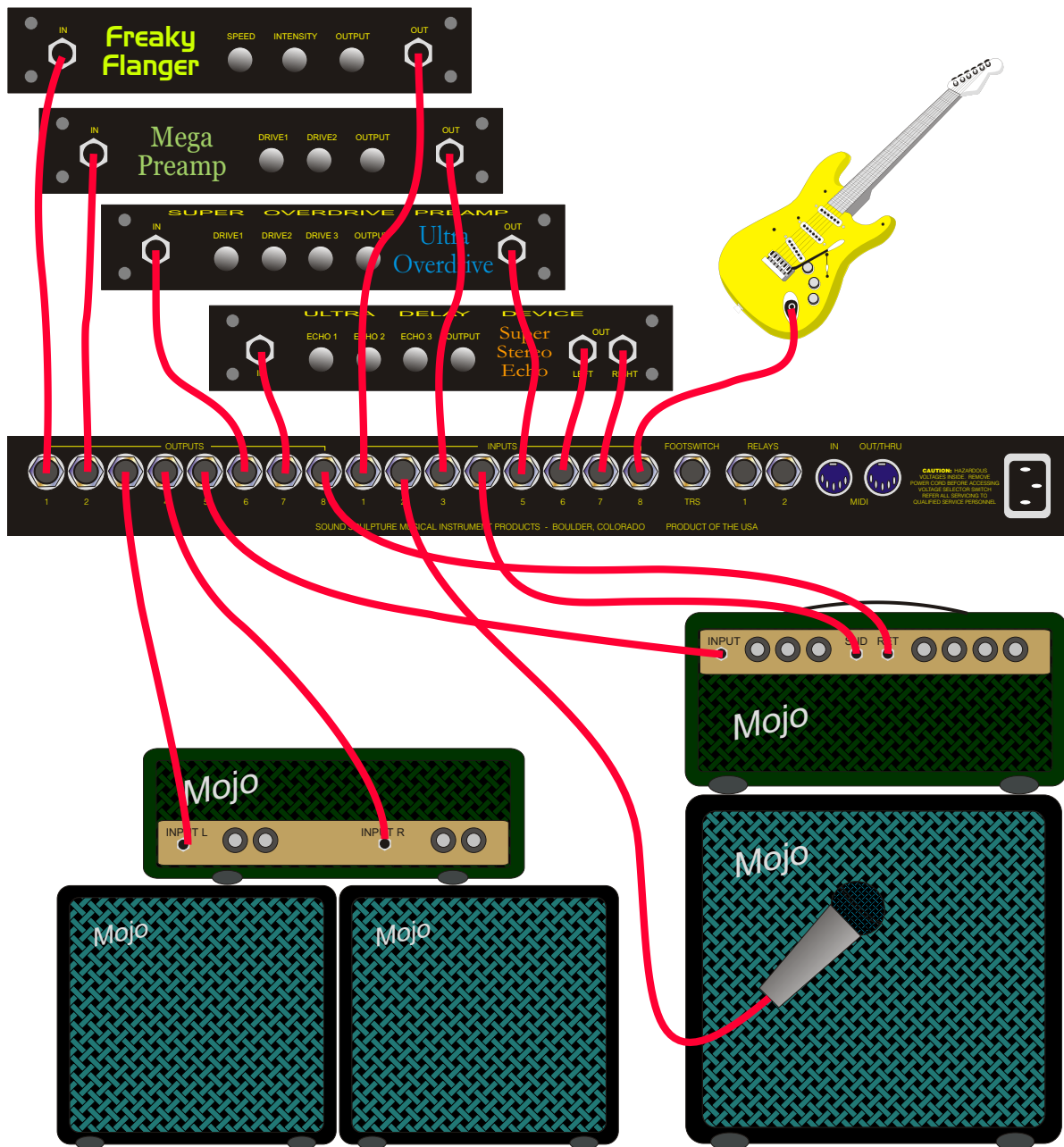
Mono amp head with one cabinet (1 output)

Microphone picking up the mono cabinet (1 input)

A stereo delay unit (2 inputs and 1 output)

3 mono effects (preamp, overdrive, flanger - total 3 inputs and 3 outputs)

The send and return of the mono amp effect loop (1 input and 1 output)



PRESET 1: WET/DRY/WET SETUP

This preset shows a guitar signal, buffered and split into 2 signals to feed the preamp and the distortion in parallel. The outputs of these 2 devices are then mixed together and routed to the input of the mono amp head. In the effect loop of the amp head is inserted the flanger. The dry signal produced from the mono amp/cabinet is then miced and sent to the input of the Delay unit and the stereo output from the delay is routed to the stereo amp/cabinets.

Modifications to this preset might include sending the microphone signal to the stereo amp L and R channel directly to mix in a certain amount of dry signal. A dry signal can also be added between the send and return of the amp to allow a wet/dry mix across the flanger. An additional signal could be added from the guitar directly to the input of the mono amp to create a wet/dry mix across the 2 preamps.



PROGRAMMING THIS PRESET

Routing signals with the Switchblade is as easy as selecting a “source” such as a guitar and a “destination” such as a preamp and setting the gain of that particular connection. The first two menu items shown here demonstrate how the Switchblade buffers and splits the signal to route it to two devices with the gains of the two connections set individually. The guitar can be routed to as many devices as you like without any additional loading. These two images show the guitar being routed to the preamp with a gain of 0dB and also to the overdrive with a gain of -6dB to reduce the input drive to that device for a cleaner tone.

GUITAR -> MEGA PRE
0dB

GUITAR -> ULTRA OD
-6dB

These next images show the outputs of the preamp and overdrive are mixed together at different levels and routed to the input of the mono amp head. The output of the preamp is mixed at -3dB and the output of the overdrive is mixed at -9dB. With the Switchblade you can mix together any number of signals all at different levels.

MEGA PRE->MONO HD
-3dB

ULTRA OD->MONO HD
-9dB

Since the mono amp’s effect loop send and return are also connected to the Switchblade you can insert any effect or group of effects into the amp loop. When you change presets, you can swap effects around so the one used in the loop can now be used in front of the amp and so on. For this preset we will make a connection from the amp send to the flanger at -6dB and from the flanger to the amp return at 0dB. The sources always show up on the left side of the screen and the destinations always show up on the right so it is impossible for example to accidentally connect the input of the flanger to the return of the amp. This gives you the freedom to experiment without ever having to worry about making bad connections.

MONO SND->FLANGER
-6dB

FLANGER->MONO RET
0dB

The remaining 3 connections route the microphone signal to the delay input at 0dB, and the 2 outputs from the stereo delay to the 2 inputs of the stereo amp. Stereo devices are easily handled in the Switchblade as each channel gets its own unique name.

MICROPH -> DELAY
0dB

DELAY L -> AMP L
0dB

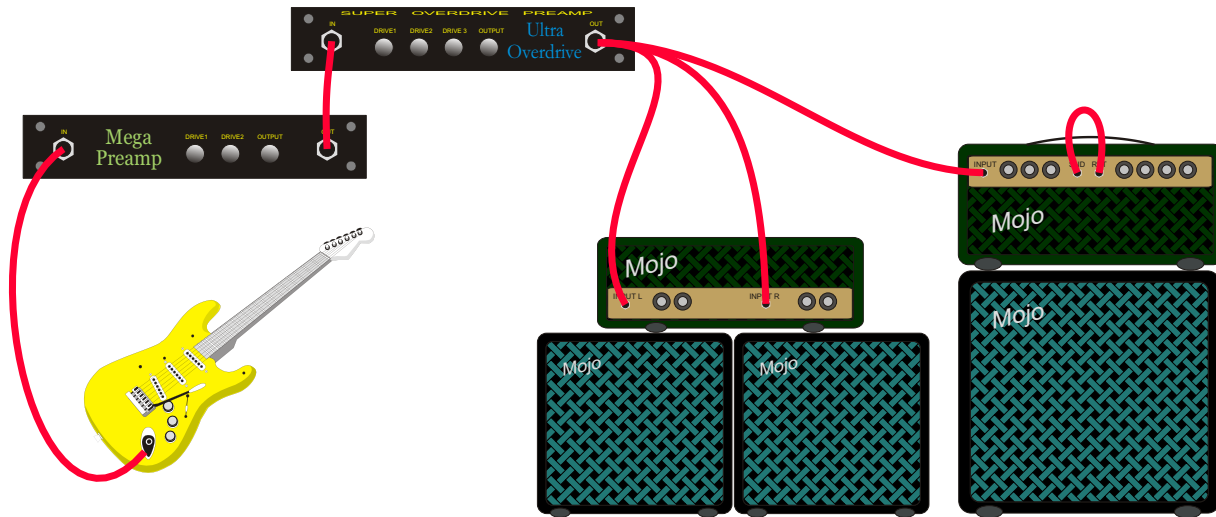
DELAY R -> AMP R
0dB

PRESET 2: DRY SOUND TO ALL 3 CABINETS

When you change presets on the Switchblade all wiring between devices can change instantly and with no delay, glitches, or breaks in the audio. Changing from preset 1 to this preset will change your sound from a lush wet sound, to a hard direct mono sound coming out of all 3 speakers.

Notice that the effect that was in the series effect loop of the mono head is replaced with a direct bypass so that audio can continue to be heard without the effect. Also notice the 2 preamps which were in parallel in the last preset are now wired in series to give a highly overdriven sound. Finally the output from the overdrive is distributed to all 3 amp channels.

In this preset we will also introduce the use of the MIDI Continuous Control feature. If you have a movable pedal attached to your MIDI foot controller then you can use it as a volume pedal to control the volume going to all 3 amps simultaneously. We will assign the volume pedal to the 3 connections going from the overdrive to the 3 amplifier inputs.



PROGRAMMING THIS PRESET

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In these 2 images the guitar is routed to the preamp at 0dB and the preamp is then routed to the overdrive. We have set this level to -9dB to reduce the amount of distortion produced by the overdrive.

GUITAR -> MEGA PRE
0dB

MEGA PRE->ULTRA OD
-9dB

Here we route the mono amp effect send to the effect return since this is a series loop.

MONO SND->MONO RET
0dB

And finally we make the 3 connections from the overdrive to the 3 amp channels. We will assign the “UP” controller (indicated by the up arrow symbol) to all 3 connections and set the starting gain to OFF and the end gain to 0dB (full on). The starting gain (the gain shown on the left) represents the gain when the movable pedal is full up and the ending gain (on the right) represents the gain when the pedal is full down. As you move the pedal from full up to full down, the Switchblade increases the gain smoothly between these 2 extremes.

ULTRA OD->MONO AMP
OFF ^ 0dB

ULTRA OD -> AMP L
OFF ^ 0dB

ULTRA OD -> AMP R
OFF ^ 0dB

PRESET 3: BYPASSING THE MONO HEAD PREAMP

In this preset we are bypassing the preamp in the mono head with the separate preamp device. Since the amp head loop is a series loop, as long as there is a plug in the return of the amp, the connection between the preamp section and power amp section of the amp is disconnected. The Switchblade can take advantage of this to insert alternate preamps into the power amp section of the amp head.

We also have chosen not to use the stereo power amp for this preset and this is as easy as not making any connections to it. We have also left the input to the amp disconnected which is also achieved simply by not making a connection to it. There is no noise generated when a connection is not made to an amp input as the Switchblade grounds these inputs that are not used.



PROGRAMMING THIS PRESET

This preset is made up of only 2 connections. For this preset we will assign the MIDI continuous control to the connection between the guitar and the preamp. This reduces the amount of distortion at lower volume levels, similar to using the volume pot on the guitar. We could just have easily put the MIDI control after the preamp. This would have had the effect of heavy distortion even at low volume levels.



PRESET 4: ADD PREAMP SECTION IN PARALLEL

This preset is the same as preset 3 but we are adding the mono head preamp section in parallel with the external preamp. To do this we are adding 2 connections. The first connection goes from the guitar to the input to the mono head and the second connection connects this preamp to the power amp section. Note that the Switchblade mixes the external preamp and mono head preamp together.



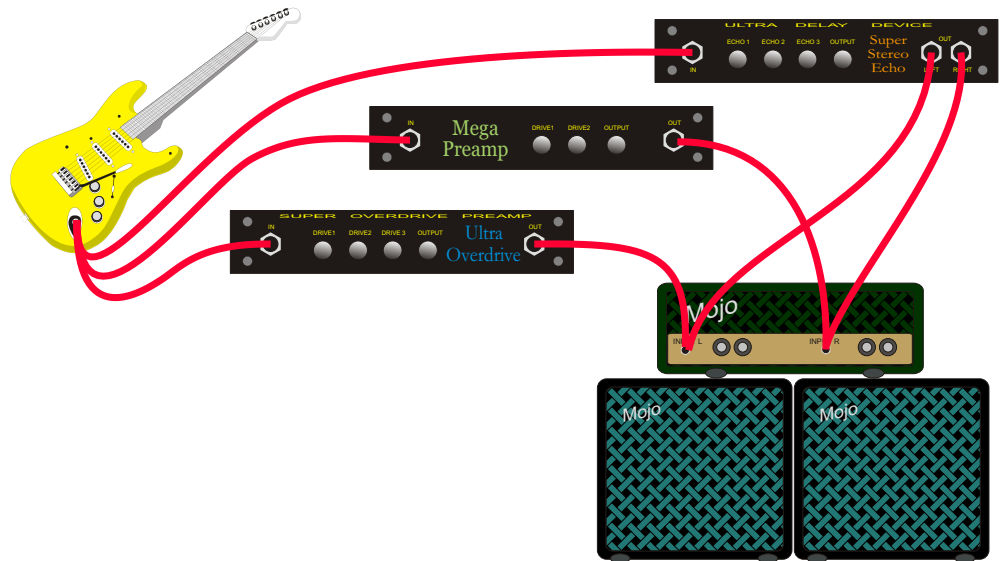
ADDING THE ADDITIONAL CONNECTIONS

The additional 2 connections are shown here. The connection from the guitar to the mono head is assigned to the “up” controller in the same way as it was assigned to the external preamp above. The “up” controller will control the volume going to both amps simultaneously. The second connection is simply from the send to the return to connect the preamp section to the power amp section.



PRESET 5: CROSSFADING AND SEPARATING PREAMPS

Sometimes preamps can enhance each other if they are made to drive their own amp channels rather than mixing them together in the same channel. In this preset the guitar drives both the preamp and the overdrive but the output of each go to their own separate channels on the stereo amp. There is an additional feature about this setup however in that the outputs of the two devices are both assigned to a MIDI continuous controller, but rather than the same direction as in previous presets, they are assigned with opposing slopes. When the pedal is full up you only hear the overdrive out of the left speaker and when the pedal is full down you only hear the preamp out of the right speaker. As you move the pedal from one extreme to the other not only does the mix of the two preamps change smoothly but the sound also pans across the speakers.



This preset also shows a direct connection from the guitar to the input of the stereo delay unit. The output of the delay feeds the stereo power amp. This adds a clean stereo echo to the sound.

In this preset we will also use the second available MIDI continuous controller called the “down” controller (represented by a down pointing arrow in the display) and this controller will be assigned to all 3 of the connections from the guitar to the 3 devices and will be used as a volume control

PROGRAMMING THIS PRESET:

First we make the connections from the guitar to all 3 devices. All 3 of these connections will also have a “start” gain of OFF which means when the pedal is up, the signal will be silent to all 3 devices, and an end gain of full on. All 3 connections are also assigned to the MIDI “down” controller (the down pointing arrow).

GUITAR -> ULTRA OD
OFF v 0dB

GUITAR -> MEGA PRE
OFF v 0dB

GUITAR -> DELAY
OFF v 0dB

The 2 connections from the preamp and the overdrive to the right and left channels of the amp are made in these images. Both of these are assigned to the other controller (the up arrow controller) but the first image shows the preamp gain moving from OFF to 0dB when the pedal moves forward while the overdrive starts at 0dB and moves to OFF as the pedal is moved forward. This is how the crossfading effect is created while also panning the sound from one speaker to the other.

MEGA PRE -> AMP R
OFF ^ 0dB

ULTRA OD -> AMP L
0dB ^ OFF

The final two connections are from the left and right outputs of the delay to the left and right amp inputs which are mixed with the preamp and overdrive signals.

DELAY L -> AMP L
0dB

DELAY R -> AMP R
0dB

The rack system and presets shown here are just typical examples and certainly your system will vary greatly from that shown, but with the Switchblade at the heart of your system, you can interconnect any and all gear that you have in your particular system and create presets that are uniquely yours. The Switchblade is the ultimate tool for generating ideas for all new tones and sounds that have never been heard before. With the Switchblade there are simply no limitations to your creativity.

SWITCHBLADE PRODUCTS

The Switchblade family consists of 3 models. These are the Switchblade GL, the Switchblade 8B, and the Switchblade 8. The three models are compared here.

SWITCHBLADE GL

This system has 16 inputs and 16 outputs. This is the ultimate system for guitar racks and studio applications where standard instrument level effects processors are used. Since the inputs and outputs are servo balanced you can connect both balanced and unbalanced equipment including rack gear, floor stomp boxes, amplifiers, keyboards, and passive instruments. The high impedance (1 megohm) inputs allow direct connections of passive instruments such as guitars and dynamic microphones without loading for maximum transparency. A -6dB trim control can be individually switched in on any of the inputs to allow handling of higher level signal processors and pickups. Four additional relay based outputs (footswitch simulators) are included for switching amp channel and reverb under preset control.

SWITCHBLADE 8B

This product is a smaller, lighter version of the Switchblade GL with the same balanced input/output design but in an 8 input by 8 output arrangement. Two footswitch simulator jacks are also included in this model for relay controlled amp channel and reverb switching. This model is ideal for the musician with a smaller array of signal processors.

SWITCHBLADE 8

The Switchblade 8 is the same as the Switchblade 8B but with unbalanced inputs and outputs and no input trim. This lower cost system is ideal for the musician with a standard array of rack and floor effects devices where balanced connections are not required. Two footswitch simulator jacks are included.

PRODUCT COMPARISON CHART

Specification	Switchblade GL	Switchblade 8B	Switchblade 8
Max input levels	+4dBv(4.5v p/p) or +10dBv (9v p/p) with input trim	+4dBv(4.5v p/p) or +10dBv (9v p/p) with input trim	+4dBv(4.5v p/p)
Max output levels	+10dBv(9v p/p)	+10dBv(9v p/p)	+7dBv(7v p/p)
THD+noise (20-20kHz)	.006%	.006%	.006%
Dynamic Range	106dB	106dB	106dB
Bandwidth (+1dB, -3dB)	5Hz-100kHz	5Hz-100kHz	5Hz-100kHz
Crosstalk	-90dB	-90dB	-90dB
Matrix	16 in by 16 out	8 in by 8 out	8 in by 8 out
Max simultaneous patches	32	16	16
Input amp trims	Normal or 6dB cut	Normal or 6dB cut	None
Gain Range (normal trim)	-48dB to 0dB	-48dB to 0dB	-48dB to 0dB
Gain Range (alt trim)	-54dB to -6dB	-54dB to -6dB	N/A
Inputs	1/4" TRS balanced or unbalanced	1/4" TRS balanced or unbalanced	1/4" TS unbalanced
Input Impedance	1 megohm	1 megohm	1 megohm
Outputs	1/4" TRS servo balanced	1/4" TRS servo balanced	1/4" TS unbalanced
Footswitch simulator outputs	4	2	2
Dimensions (inches)	19 x 1.7 x 12	19 x 1.7 x 7	19 x 1.7 x 7
Weight (lbs)	7	6	6
Warranty	2 years	2 years	2 years

