



**VOODOO LAB**



**CONTROL SWITCHER**

**User's Manual**

**[www.voodoolab.com](http://www.voodoolab.com)**

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## INTRODUCTION

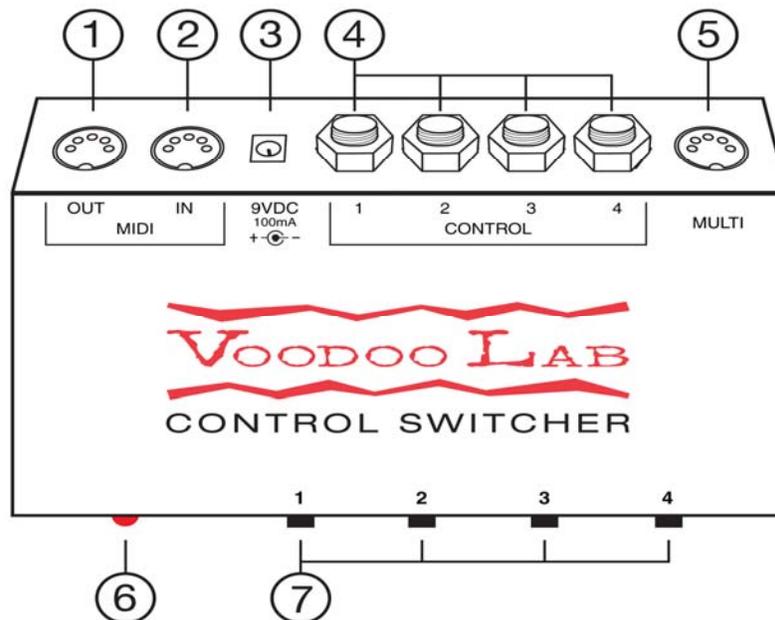
Voodoo Lab Control Switcher lets you replace your amp's footswitch to instantly automate channel switching and much more. It easily interfaces with everything from vintage combos to modern heads. Plus, each switch is completely isolated so you can control multiple amps or other footswitchable devices from a single Control Switcher.

It works with any standard MIDI capable foot controller, loop switcher, and multi-effect pedal like Line 6 Helix or HX effects, TC Electronic's G-System & Nova System, and many more. Control Switcher is also a great way to expand the capabilities of a Ground Control Pro and GCX Audio Switcher rig.

Using Control Switcher with your amp gives you the ability to remotely control each function and create preset combinations of amp channels, onboard boost, reverb, EQ, and FX loops. Now everything can be automated along with your other effects in a single stomp. Thanks to its compact, low-profile design you can mount it inside your combo amp, head, pedalboard, or rack.

Build the ultimate pedalboard with a Voodoo Lab Dingbat PX board including integrated PX-8 PLUS programmable 8-loop audio switcher. This unique patented design keeps all switcher connections under the board for more useable space than any other switching system. Add Control Switcher for instant one button control of your entire rig. Of course PX-8 PLUS with Control Switcher are the perfect upgrade to any pedalboard.

## CONNECTIONS



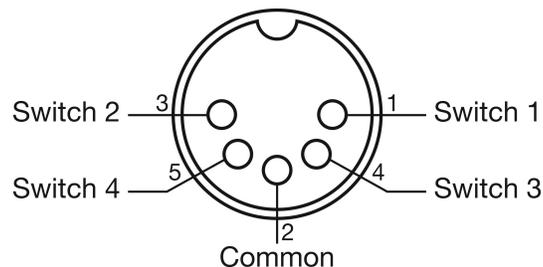
1. **MIDI OUT.** Echoes commands from MIDI IN for chaining devices.
2. **MIDI IN.** Receives MIDI commands and provides phantom power for Voodoo Lab Ground Control Pro foot controller.
3. **Power jack.** Requires 9-12VDC or 9VAC at 100mA.
4. **Control Jacks (4).** Access to individual switch functions with 1/4" mono jacks.
5. **MULTI connector.** Access to all 4 switch functions from a single connector.
6. **Power LED.** Indicates Control Switcher is powered on.
7. **Buttons / Status lights.** Buttons toggle switch functions on/off. Buttons light up to indicate status. Also used to save programs and setup.

### Switches

Control Switcher includes four automated switches which are used to replace your amp's footswitch. The switches can be accessed individually from the four 1/4" mono CONTROL jacks, or combined using the MULTI connector.

The MULTI connector provides access to all four switches with a common ground. This is a standard 5-pin DIN connector which is commonly used for MIDI. Plugging into any 1/4" jack isolates and removes that switch from the MULTI connector.

### MULTI Connector



*Tip: If you want to make your own amp control cable using the MULTI connector, start with a 5-pin active MIDI cable, cut off and replace the connector from one end.*

Please contact Voodoo Lab or refer to our web site to purchase a ready made interface cable for many common amps.

## **MIDI Connections**

Control Switcher receives MIDI commands from your controller to turn individual switches on or off, and recall preset combinations of switch settings. It is compatible with any MIDI capable controller, such as Ground Control Pro MIDI footcontroller, PX-8 PLUS pedalboard loop switcher, and many other multi-effect pedals and switchers.

You can route the MIDI signal from your foot controller to your devices in any order that is convenient for cabling. Start by connecting a MIDI cable from the MIDI OUT of your foot controller to the MIDI IN of your first device. Then patch from its MIDI OUT (or MIDI THRU) to the MIDI IN of your next device. Continue chaining in this manner until all devices have their MIDI inputs connected.

## **Power**

Normally, you will power Control Switcher from its supplied adapter. To use a different adapter or power supply, provide 9-12VDC at 100mA to a 5.5x2.1mm barrel connector. Control Switcher can also operate from 9VAC.

Control Switcher can be powered from any output of the Pedal Power 2+ with its DIP switch in the normal position. Other Voodoo Lab Pedal Power models can use any 9V or 12V output.

Control Switcher will provide phantom power via its MIDI IN jack to power the Voodoo Lab Ground Control Pro MIDI foot controller. Use a MIDI cable that has all 5 pins wired, commonly marked *5-pin active* and power the Control Switcher with 9V and at least 500mA.

You can also phantom power Control Switcher by providing 9-12VDC to its MIDI IN jack, pins 1 & 3.

## **OPERATION**

Once Control Switcher is connected to your amp and MIDI controller, you can access individual switch functions by pressing the front panel buttons. The button will light up to show the state of each switch. If your foot controller has instant access buttons, these can also be assigned to directly control individual switches.

You can save preset combinations of switch settings for recall with a single button press. How to do this will depend on which type of MIDI controller you're using. The following sections explain using Control Switcher with the different types of controllers.

## **USE WITH GROUND CONTROL PRO**

Using the Voodoo Lab Ground Control Pro, you will access Control Switcher as if it were four loops of a GCX Guitar Audio Switcher. Ground Control Pro assigns loops in the order the devices are chained. For example, a Control Switcher connected directly to Ground Control Pro's MIDI OUT will be GCX#1 loops 1-4. A 2nd Control Switcher would then be GCX#2 loops 1-4. Alternately, if MIDI is routed to a GCX first and then Control Switcher, the GCX is #1 and Control Switcher becomes GCX#2.

You will setup Ground Control Pro as if you have a GCX. Here's how:

- 1.) Press both SETUP buttons to enter setup mode.
- 2.) Press EXPANDERS.
- 3.) Press YES/+ to turn on GCX-1. You have enabled GCX#1 loops 1-8. To enable more GCX loops, press BANK ↓ then YES/+ to turn on GCX-2. You can enable up to four GCX modules.
- 4.) Press either SETUP button to see "EXIT Y/N" then press YES/+ to exit setup mode.

Refer to the Ground Control Pro user's manual for a detailed description of how to assign instant access buttons to individual loops and create preset combinations of loop settings.

## **USE WITH PX-8 PLUS**

The Voodoo Lab PX-8 PLUS pedalboard loop switcher provides true bypass for better tone and let's you recall preset combinations of pedal effects with a single button press. Adding Control Switcher let's each PX-8 PLUS preset recall your amp settings as well for a complete one button tonal makeover.

PX-8 Plus should be configured for *Preset Method* which is the default setting. If this setting has been changed, refer to SETUP in the PX-8 PLUS manual. When you recall a preset on PX-8 PLUS, it will send a MIDI program change (PC) message on MIDI channel 1.

For Control Switcher to respond to PX-8 PLUS, you must enable program change (PC). To do this, power on while holding button #1. Release when LEDs flash. Now press button #1 once so its LED is on and all others off. Remove power.

Now PX-8 PLUS presets will recall preset combinations of Control Switcher switch settings as follows:

- 1.) Select the desired PX-8 Plus preset by pressing A, B, C or D, within Bank 1-9. Control Switcher will respond by recalling whatever is currently saved for this preset (*possibly the default saved preset, which is all four switches off*).
- 2.) Set the four Control Switcher switches to the desired on/off combination.
- 3.) With the desired combination set, press *and hold* Control Switcher button 1 while then also pressing button 4 (and then, release both buttons). The LEDs will blink to confirm that the this combination is now saved.

Now, whenever this PX-8 Plus preset is selected, your Control Switcher will recall these saved switch settings.

Repeat steps 1-3 to configure additional presets.

### **USE WITH OTHER MIDI CONTROLLERS**

You can use Control Switcher with any MIDI footcontroller, multi-effect pedal or loop switcher capable of sending MIDI program change (PC) or control change (CC) messages. Follow the instructions below in the SETUP section of this manual to set Control Switcher to respond to either PC, CC or both message types, as well as which MIDI channel. If you are using CC, you also need to specify which group of CC numbers.

Once set up, you can save and then recall preset combinations of switch settings by sending a PC message from your MIDI controller. Here's how:

- 1.) Send the PC message from your MIDI controller for the preset you want to create.
- 2.) Set the Control Switcher switches to the desired combination.
- 3.) Press and hold button #1. At the same time, press button #4. The LEDs will blink to confirm that you saved the preset.

Now whenever Control Switcher receives this PC message, it will recall your switch settings.

*Note: You must configure Control Switcher to respond to PC messages. Instructions are in the following section, MIDI Program Change and Control Change Enable.*

## **SETUP**

### **MIDI Program Change and Control Change Enable**

You can set whether Control Switcher responds to MIDI program change (PC), control change (CC), both message types, or none.

*Note: When using Voodoo Lab Ground Control Pro, you should disable both PC and CC.*

The default is both PC and CC disabled.

PC messages are used to recall preset combinations of switch settings stored in Control Switcher.

CC messages allow direct control of individual switches from your MIDI controller. For example, this lets you use instant access buttons (IA) on your foot controller to turn amp functions on and off.

Here's how you set which MIDI messages Control Switcher will respond to:

- 1.) Apply power while holding down button #1. The LEDs will flash until you release the button.
- 2.) Press buttons #1 and #2 according to this table.

<b>Function</b>	<b>LED #1</b>	<b>LED #2</b>
None*	OFF	OFF
PC only	ON	OFF
CC only	OFF	ON
Both PC & CC	ON	ON

*\*None is the correct setting for Voodoo Lab Ground Control Pro only.*

- 3.) Remove power when finished.

### **Set MIDI Channel**

MIDI program change and control change messages include a channel number, 1 through 16. Control Switcher will only respond to messages received on its specified channel.

The default MIDI channel is 1.

*Note: When Control Switcher is being controlled by a Voodoo Lab Ground Control Pro, its MIDI channel is ignored.*

Here's how you set the MIDI channel:

1.) Apply power while holding down button #2. The LEDs will flash until you release the button.

2.) Find your desired MIDI channel from the table and press each button to match.

MIDI Channel	LED #1	LED #2	LED #3	LED #4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF
9	OFF	OFF	OFF	ON
10	ON	OFF	OFF	ON
11	OFF	ON	OFF	ON
12	ON	ON	OFF	ON
13	OFF	OFF	ON	ON
14	ON	OFF	ON	ON
15	OFF	ON	ON	ON
16	ON	ON	ON	ON

3.) Remove power when finished.

### Select Control Change Numbers

Each MIDI control change (CC) message includes a controller number which specifies the Control Switcher switch to turn on or off. You can select from eight different groups of CC numbers.

The default group is CC numbers 80-83, which means that 80 controls switch #1, 81 controls switch #2, 82 controls switch #3, and 83 controls switch #4.

Here's how you select which CC numbers Control Switcher will respond to:

1.) Apply power while holding down button #3. The LEDs will flash until you release the button.

2.) Press buttons 1, 2 and 3 according to this table.

CC #	LED #1	LED #2	LED #3
80-83	OFF	OFF	OFF
84-87	ON	OFF	OFF
88-91	OFF	ON	OFF
92-95	ON	ON	OFF
64-67	OFF	OFF	ON
68-71	ON	OFF	ON
56-59	OFF	ON	ON
60-63	ON	ON	ON

3.) Remove power when finished.

### Set Switch Function

Each of the four switches can be set to function as normal, reverse or momentary.

Normal: This is the default setting and works correctly for most applications. The LED shows the actual state of the switch. It will be off when the switch is off (open), and on when the switch is on (closed). This is sometimes referred to as “normally open” or N.O.

Reverse: This setting reverses the state of the LED. You should use reverse if the LED is backwards. The LED will be on when the switch is off (open), and it will be off when the switch is on (closed). This is sometimes referred to as “normally closed” or N.C.

Momentary: Some amplifiers and effects will require the switch to be pulsed. This simulates the action of a momentary switch. A momentary switch is on when you step on it, and goes off immediately when you pick up your foot. Control Switcher provides two different types of momentary switching:

Momentary Pulse On/Off: This type of momentary switch will pulse once to turn on and pulse again to turn off. This is how a momentary switch that selects between two amp channels or controls a single function like boost or EQ will normally work. This is called *pulse on/off*.

Momentary Pulse On Only: Some amps will use multiple momentary switches where each one selects a different channel. For example, you may have three separate switches for clean, rhythm and lead channels. In this case, you only pulse the switch for the channel you are selecting. This is called *pulse on only*.

Here's how you set Control Switcher's switch functions:

- 1.) Apply power while holding down button #4. The LEDs will flash until you release the button.
- 2.) Press each button to set the corresponding switch's function. The LED indicates the setting.

LED	Switch Function
Off	Normal
On	Reverse
Regular, Fast Blink	Momentary; Pulse On/Off
Irregular, Slower Blink	Momentary; Pulse On Only

- 3.) Remove power when finished.

### **Factory Reset**

You can restore all of the factory default settings and clear any saved presets by the following steps:

- 1.) Apply power while holding down both buttons #2 and #3. The LEDs will flash until you release the buttons.
- 2.) LED #1 will be on. Press button #1.
- 3.) Press buttons #2, #3 and #4 as each LED comes on.
- 4.) When the reset is complete, the LEDs will blink three times and then stay off. Remove power.

## **WARRANTY**

### **North America Only**

Voodoo Lab warrants this product against any defects that are due to faulty material or workmanship for a period of five years from the date of original retail purchase. This warranty does not include damage to the product resulting from accident or misuse.

If the product should become defective within the warranty period, Voodoo Lab will repair it or replace it free of charge, provided it is returned freight prepaid to Voodoo Lab with a valid RMA (return material authorization) number. Return shipping will be paid by Voodoo Lab within the U.S. only.

This warranty shall not apply to any goods that have been repaired or altered by anyone other than the manufacturer. There are no warranties which extend beyond the terms described herein.

Should you experience any difficulty with this Voodoo Lab product, contact us as described below. If it is determined that the product must be returned to the factory for repair, you will be issued an RMA and given shipping and packaging instructions.

### **Outside North America**

Regions outside North America please contact your country's distributor for warranty information.

## **HOW TO REACH US**

You can reach us by any of the following:

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