



User Manual CABZEUS

Speaker Simulator System



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Chapter 1 - OVERVIEW

Congratulation on your purchase of Cabzeus!

Cabzeus is a algorithm-based *speaker - cabinet - miking* simulator system. Connected direct to your gears this device enables you to obtain the sound of a miked-guitar amp cabinet without the hassle of miking your cabinets. Extending this basic function, we've built into Cabzeus a plethora of unique and powerful features that goes beyond simple speaker simulations.

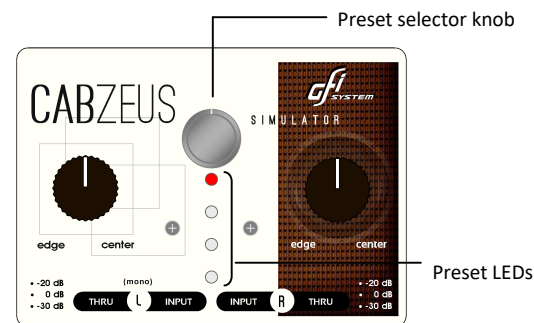
■ Stereo I/O

Cabzeus has 2 independent channels, each with its own *input*, *thru*, and *output*. With a special software that we provide you can freely customize the whole simulation aspects (speaker type, cabinet type, mic placement, etc.) of each channel independently. To help you get the most of your stereo setup, we have also included powerful stereo processing functions such as :

- adding short delays to one of the channel.
- blending two simulation channels.
- independent volume and phase control.

■ Presets

When you've found your favorite settings you can save them as presets in Cabzeus. The presets (8 of them) can then be called using the preset selector knob, an external switchbox, or a MIDI controller.



Preset 1 - 4 : LED turns **Green**

Preset 5 - 8 : LED turns **Red**

Bypass : LED turns off.

■ Headphone Out

A stereo headphone out with a dedicated volume control is available to allow silent practicing or private monitoring.

■ Mic Position Knobs

Sometimes you feel that you need to make some adjustment to the overall tone of your presets while you are away from a computer, this is where the two brown colored knobs on Cabzeus come in handy. These knobs control the mic position parameters (the same control is found in CabsLab software as well).

As a rule of thumb, turn the knob to *Center* position for a extended highs and slightly tamed lows, and turn to *Edge* position for the opposite tonal effect.

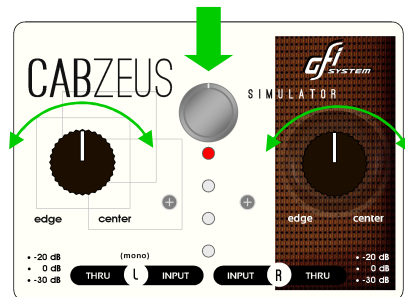
Operating the knobs

The two knobs have a *lock* mechanism which prevents changes due to accidental movements.

After turning the mic position knobs : press the middle button once (do not hold) to actuate the change. The change will immediately take effect.

If you want to save the changes you made into the current preset : press and hold the middle button, until the preset LED flashes 3x.

- Press (do not hold) to actuate the change.
- Press and hold to save the change (LED will blink 3x).



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■ Customizing the functions of the two on-board knobs.

Beginning with firmware v2.0 the two on-board knobs which function as *Mic Position* control knobs by default, can be reassigned to control other parameters.

Use the editor software CabsLab (version 2.0.0 or above) to set the functions.

Left Knob

- Mic Position
- Channel Blend.
- Volume / Phase.

①

Right Knob

- Mic Position.
- Channel Blend.
- Volume / Phase.

①

① available only in 'Stereo Cabs' mode

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■ Input Connections

Cabzeus has a pair of inputs, and each one has its dedicated *Thru* output. A wide array of input sources can be connected to the inputs, ranging from your favorite stompboxes, preamps, your head amp's speaker out, to any music player (see Chapter 3 : Application Ideas).

What's the purpose of Thru Output?

As we've mentioned, you can connect the *speaker out* of your amp to the Cabzeus input, however recall that a tube amp must have its speaker output connected to a speaker or a load box at all times to avoid damaging its output transformer. And since Cabzeus does not function as a load box you must connect the Cabzeus' Thru output to a speaker cabinet or a load box, keeping your tube amp's safe.

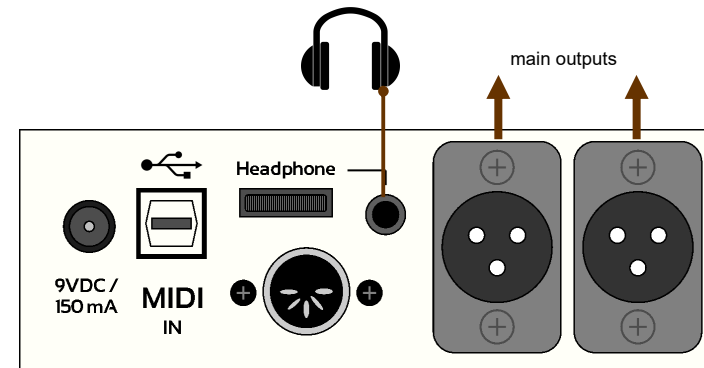


What's the purpose of Input Pad?

Input Pad switches allow you to attenuate the input signal level going into Cabzeus, which may be necessary if you connect an input source with very high level output signal such as the *speaker out* of an amp.

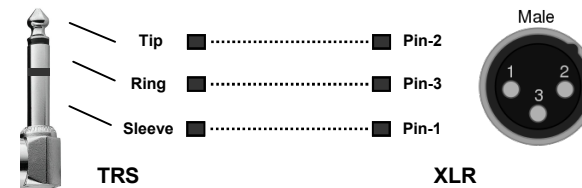
If attenuation is not needed set the switch to 0 dB, in this case you may use the -30 dB position as a 'mute' function.

■ Output Connections



Note : Earlier production batches (pre July 2018) had TRS output connectors instead of XLR. To use TRS connectors with XLR systems you may use TRS-to-XLR adapters such as the Neutrik NA3MP.

An alternative is to build your own cable adapter, use the following schematic if you plan to build such a cable yourself.



Chapter 2 - Using CabsLab software (brief guide)

Here are some of the things that you can do with CabsLab :

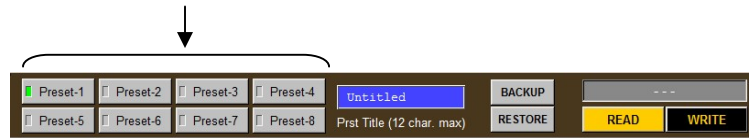
- Customize the speaker simulation system algorithms.
- Store the customized algorithms to your pedal as presets.
- Read the stored algorithms in your pedal and display them on screen.
- Save local presets (favourites) in your computer.
- Configure the MIDI channel on your pedal.
- Revert your pedal to factory setting.
- Update your pedal's firmware.

Highlights :

- Real-time preview as you tweak the parameter controls.
- 'Solo' function for single speaker auditioning or quick A/B comparison.
- Extensive set of speakers simulation system parameters.

■ Saving algorithms as preset into Cabzeus

(1) Choose the desired preset location

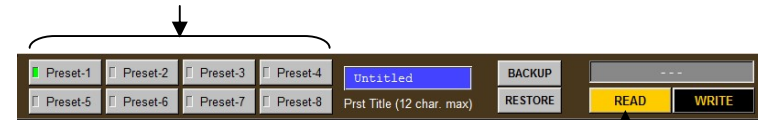


(2) Click 'Write'

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■ Reading stored preset from Cabzeus

(1) Choose the desired preset location

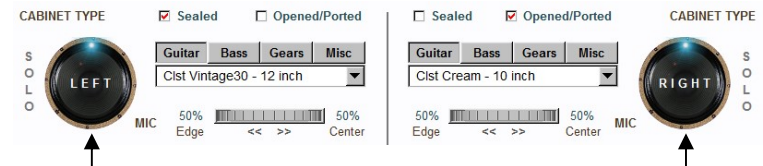


(2) Click 'Read'

■ 'Solo' Function

One very useful feature that you will find yourself using a lot is the 'Solo' function. When using the Stereo Cabs mode, you have the luxury to specify different speaker for the Left and the Right channel. But, often in the process of searching for a great sounding speaker pair, you would like to be able to audition only a single speaker in isolation. There are many ways to accomplish this, but the easiest method is to use the Solo function.

Activating the Solo function forces both the Left and Right simulators to use the same speaker selection & cabinet type, as were set on the simulator side whose Solo function you've just activated. All the other controls are still independent.



Click on the Left speaker icon to activate/deactivate the *Left Solo* function.

Click on the Right speaker icon to activate/deactivate the *Right Solo* function.

Tips : When the Left Solo function is active, activating the Right Solo function automatically disengage the Left Solo function. This behavior is very useful for doing A/B comparison when auditioning the many speaker types.

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■ Presets Management : Backup & Restore

BACKUP : this operation will create a backup* of all the presets currently stored in your pedals.



RESTORE : this operation will restore all the presets in your pedal from a backup you previously created.

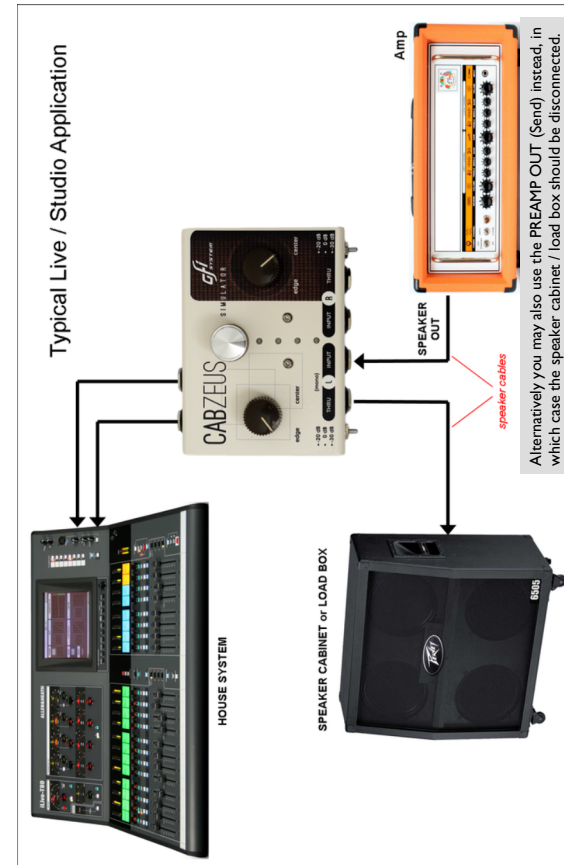
* Backup files created will reside in the following drectory :

Mac OSX : Documents/GFI System/CabsLab/Presets/

Windows : C:/GFI System/CabsLab/Presets/

Chapter 3 - Application Ideas

1. Typical Live / Studio application using an amp as sound source.



Stompboxes or other effects processors may be put in place of the amp, in which case the speaker cabinet / load box should be disconnected, or replaced with an amp.

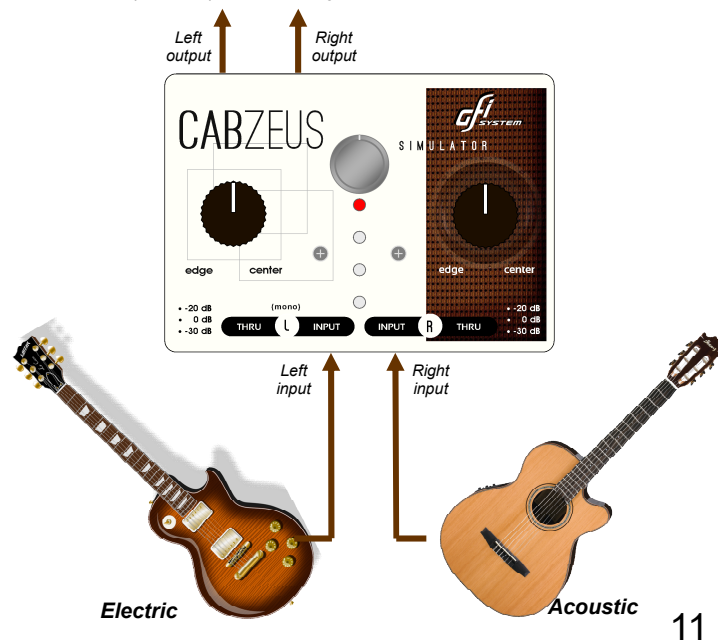
Application Ideas (cont.)

2. Intergrating Electric and Acoustic setup.

In CabsLab software :

- Use **STEREO CABS** mode.
- Choose 'MISC : Full-Range Speaker' for the Right channel, and any other speaker type you like for the Left channel.
- Create 2 presets : one preset has both **BLEND** sliders set all the way to the left (for Electric performance), and the other has both **BLEND** sliders set all the way to the right (for Acoustic performance).

To powered speakers or mixing console.



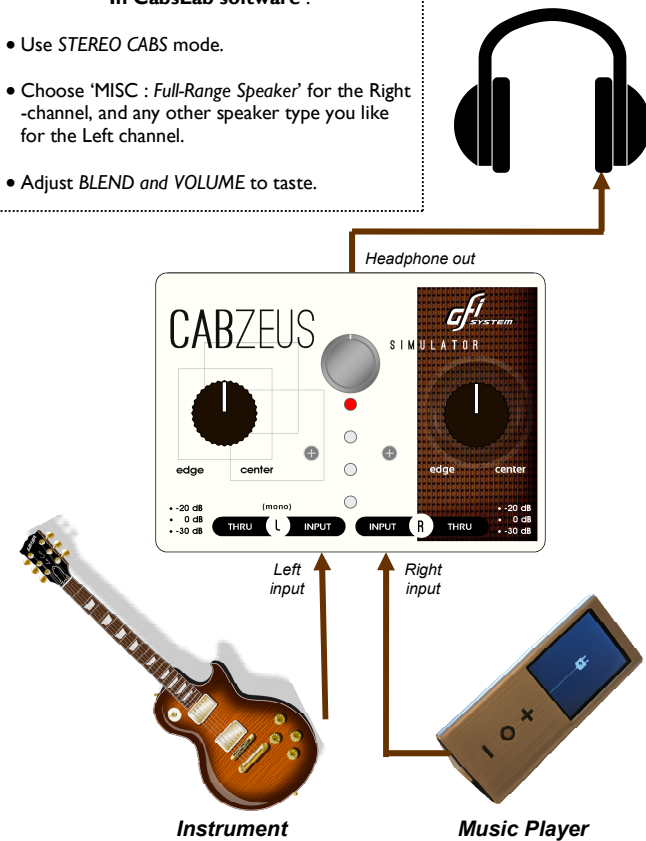
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Application Ideas (cont.)

3. Practicing to accompaniment music (minus the neighbors banging on your door)

In CabsLab software :

- Use **STEREO CABS** mode.
- Choose 'MISC : Full-Range Speaker' for the Right channel, and any other speaker type you like for the Left channel.
- Adjust **BLEND** and **VOLUME** to taste.

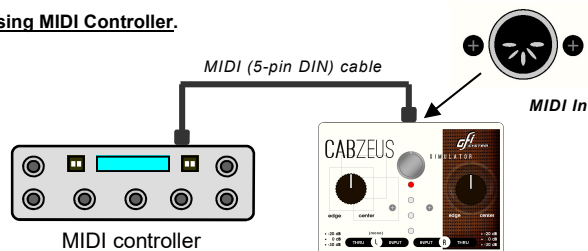


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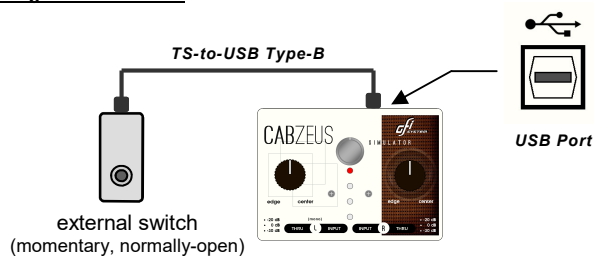
Chapter 4 - Remote Preset Change

There are two ways to perform remote preset change :

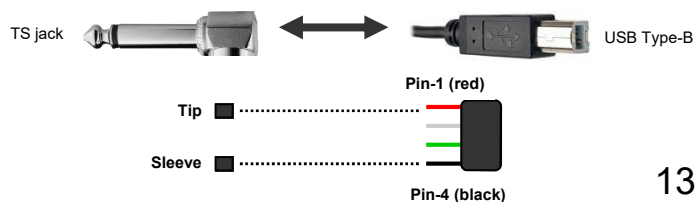
1. Using MIDI Controller.



2. Using External Switch.



This method requires a specially-made cable with a TS (*Tip - Sleeve*) jack on one end, and USB Type-B connector at the other end.



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Chapter 5 - M I D I

You can use any standard MIDI controller capable of sending *Program Change* (PC) messages to accomplish remote preset change.

MIDI Implementation Chart

	PC#
Preset-1	0
Preset-2	1
Preset-3	2
Preset-4	3
Preset-5	4
Preset-6	5
Preset-7	6
Preset-8	7
Bypass	8

MIDI Channel

Cabzeus is pre-programmed to use MIDI channel 16. You can use the CabsLab software to change the channel number to any number from 1

Chapter 6 - Updating Firmware

You can use CabsLab to perform firmware updates.

1. Download the latest firmware updates at :
www.gfisystem.com/cabslab.html
2. Remove power from the pedal.
3. While holding down the middle knob (preset-select knob), apply power to the pedal. Keep holding the knob down while the pedal goes through the normal power-up sequence, then release when preset-1 and preset-4 LEDs light up.
4. Connect the pedal to your computer's USB port, then open the CabsLab software and follow the instruction on the screen.

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Chapter 7 - Factory Presets

The pedals comes with 8 factory presets. Storing new presets will over-write these. You can use the CabsLab software to restore the factory presets.

Preset 1 ●

S-CABS	LEFT	RIGHT
SPKR	[GTR] Clst Vintage30/12"	[GTR] Clst Cream/12"
CAB	sealed	opened
MIC	50% center	50% center
DELAY	0 ms	0 ms
BLEND	10	90
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

Preset 2 ●

S-CABS	LEFT	RIGHT
SPKR	[GTR] Fano A60/12"	[GEAR] Cabzilla-B
CAB	sealed	-
MIC	70% center	50% center
DELAY	0 ms	30 ms
BLEND	10	90
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

Preset 3 ●

S-CABS	LEFT	RIGHT
SPKR	[GTR] Emin Legend B/12"	[GTR] Clst Green/12"
CAB	sealed	sealed
MIC	50% center	50% center
DELAY	0 ms	0.06 ms
BLEND	0	100
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

Preset 4

S-CABS	LEFT	RIGHT
SPKR	[GTR] Clst Vintage60/10"	[GEAR] Palm09-B
CAB	sealed	-
MIC	50% center	50% center
DELAY	0 ms	0 ms
BLEND	0	100
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

Preset 5 ●

S-CABS	LEFT	RIGHT
SPKR	[GTR] Emin Patriots/12"	[GTR] Fano A90/12"
CAB	sealed	sealed
MIC	50% center	50% center
DELAY	0 ms	0 ms
BLEND	10	90
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

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Preset 6 ●

S-CABS	LEFT	RIGHT
SPKR	[GTR] Clst Vintage10/10	[BASS] Emin Legend/10"
CAB	opened	sealed
MIC	60% center	40% center
DELAY	0 ms	0 ms
BLEND	10	90
VOLUME	+1	+1
Rm. SIZE	-	-
Rm. TIME	-	-
Rm. DEPTH	-	-
Rm. COLOR	-	-
KNOBS	Mic Position	Mic Position

Preset 7 ●

S-MICS	LEFT	RIGHT
SPKR	[GTR] Clst Vintage30/12"	n/a
CAB	sealed	n/a
MIC	50% center	n/a
DELAY	-	n/a
BLEND	25	25
VOLUME	+1	+1
Rm. SIZE	Small	
Rm. TIME	50	
Rm. DEPTH	50	
Rm. COLOR	II	
KNOBS	Mic Position	Reverb Time

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Preset 8 ●

S-MICS	LEFT	RIGHT
SPKR	[GTR] Clst Cream/12"	n/a
CAB	sealed	n/a
MIC	50% center	n/a
DELAY	-	n/a
BLEND	25	35
VOLUME	+1	+1
Rm. SIZE	Medium	
Rm. TIME	30	
Rm. DEPTH	33	
Rm. COLOR	II	
KNOBS	Mic Position	Reverb Time

Specifications :

- Input impedance : 1 MOhm.
- Output impedance : 300 Ohm.
- Sampling rate : 48 KHz.
- DAC / ADC resolution : 24 bits.
- Current consumption : ~150 mA.
- Weight : 0.6 Kg (1.2 lbs).
- Dimension : 12 (L) x 9 (W) x 5.5 (H) cm
- Power source requirement : 9VDC (negative center).

Key Features :

- Compact, integrated, stereo Speaker/Cabinet simulator.
- 2 inputs - 2 thru - 2 outputs (*balanced* or *unbalanced*)
- 8 Presets.
- Input Pads : 0dB (unity), -20dB or -30dB.
- Two general purpose on-board knobs.
- Algorithms customization via CabsLab® software.
- MIDI and External Switch Inputs for remote preset change.
- Stereo headphone out with volume control.

You can find many more information here :

<http://www.gfisystem.com/faq.html>

This product is designed and manufactured by :



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