



Two Amps To Cabinet

User Manual

Amplifier Cabinet Switching Systems



THANK YOU for choosing the N-audio Two Amps To Cabinet switcher, and welcome to the N-audio family.

Introduction

The Two Amps To Cabinet is an amp cabinet switcher with a wide range of capabilities. Its primary functions involve switching between two amplifiers to a single speaker cabinet or one amplifier to two speaker cabinets. It features a footcontroller and either one (Mono set) or two (Stereo set) relay switching units.

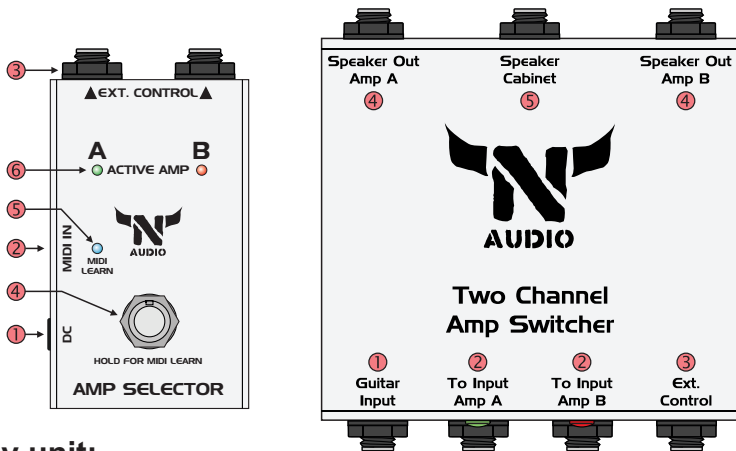
One of the outstanding features of this device is its seamless compatibility with any type of amplifier, including tube, solid-state, and bridged mono amplifiers. It also includes built-in protections, such as resistive loads for the non-working amplifier, to ensure the safety of your amplifiers. The signal path consists solely of relays, ensuring a pure tone with no active electronics. A special circuit has been implemented to reduce pops when switching, and there are no dead spots when toggling between the amplifiers or the cabinets, making it perfect for both stage performances and studio recording sessions to capture your favorite guitar tones.

Controls and connectors

Footcontroller:

1. DC Input – Use an external DC BOSS-style center negative power supply adapter (not provided). It powers the footcontroller and the relay units.
2. MIDI In – Use it to remotely switch via MIDI from your MIDI controller or multi-FX processor.
3. External control outputs – Use a mono guitar cable between the footcontroller and relay box. It provides a control voltage for the relay unit only. Both outputs are identical, and you can control up to two relay units.

4. Footswitch for toggling between the amplifiers.
5. MIDI Learn LED – Stays on when programming or flashes when the unit receives MIDI messages.
6. Active Amp LEDs – Indicate the activated amplifier (or cabinet when using one amplifier for two cabinets).



Relay unit:

1. Guitar Input – Plug your guitar here.
2. To input Amp A and B jack plugs for connecting to the inputs of your amplifiers, where you would normally plug in your guitar.
3. External control inputs – Use a mono jack to connect the relay unit to the footcontroller.
4. Speaker Out Amp A and B jack plugs for connecting the speaker outputs from your amplifiers, where you would normally plug in your cabinet.
5. Speaker Cabinet – Plug your speaker cabinet here when playing with two amps to one cabinet.

Amp type selector

AMP A TUBE AMP A BRIDGED
 AMP B TUBE AMP B BRIDGED

The relay units have a dual DIP switch with two positions on the bottom. The function of this switch is to reduce pops when switching between different amplifier types. Use the 'TUBE' position for the corresponding amplifier when using a tube or a vintage solid-state amplifier. The 'BRIDGED' position is for bridged mono solid-state amplifiers like Kemper amps, Orange Micro Terror, BIAS amps, and others. Playing in the 'BRIDGED' position with a tube amp may result in some pops when switching, but it won't harm your amplifier. Playing in the 'TUBE' position with bridged mono amplifiers will make audible issues and could potentially damage your amplifier. If you are unsure about the type of your solid-state amplifier, the 'BRIDGED' position is the safer choice.

Using the Two Amps To Cabinet switching system

It's important to ensure that you have the right cables for your setup. There are two types of cables commonly used: guitar cables and speaker cables. It's highly recommended to use quality shielded guitar cables and proper speaker cables with a cable thickness of $2 \times 1.5\text{mm}^2$ or $2 \times 2.5\text{mm}^2$. You can use any inexpensive mono guitar cable between the footcontroller and the relay units.

Place the relay unit close to the amplifiers, preferably on top of them, to prevent long speaker cable runs. Position the footcontroller on your pedalboard and power it from your power supply. Connect a shielded guitar cable from the input on the first amplifier, where you would typically plug your guitar into the 'To input Amp A' jack. Also, connect a speaker cable from the back of this amplifier, where you would normally connect an external speaker cabinet, to the 'Speaker Out Amp A' jack. Do the same for the other amplifier.

⚠ It is crucial to connect each amplifier to the same A or B jacks. Double-check it!

When the footswitch is pressed, the two amplifiers, A and B, are toggled one after the other. Additionally, you can switch them remotely from your MIDI controller.

Power On/Off sequences

Power-on sequence:

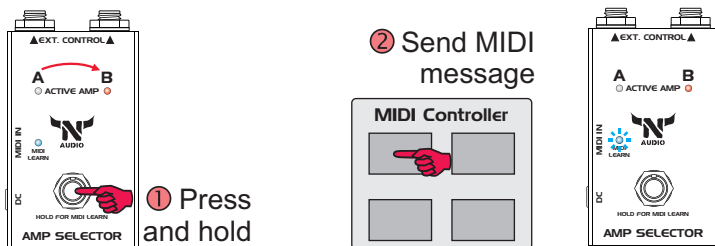
1. Power the Two Amps To Cabinet switcher.
2. Turn on the amplifiers.
3. Test each amplifier and cabinet with reduced volume.

Power-off sequence:

1. Turn off the amplifiers.
2. Power off the Two Amps To Cabinet switcher.

MIDI Programming

The Two Amps to a Cabinet switcher receives MIDI data and saves it to a given preset. Unlike many other MIDI devices, when using this device, you do not need to understand how MIDI works. MIDI programming itself is very quick and easy.



Simply press and hold the footswitch until the MIDI Learn LED turns on. Keep in mind that the active amplifier will change. Then send a MIDI message from your controller. The MIDI Learn LED will turn off and you are done! You have already programmed one preset. Repeat the same process for the next amplifier. If you have pressed and held the footswitch, enabling MIDI programming mode, and you want to exit that mode, simply press the footswitch once.

The MIDI messages can be on different MIDI channels or feature varying types of messages. For example, you can use a control change message on one MIDI channel for a selected amplifier and a program change message on a different MIDI channel for the other amplifier. The switcher supports program changes, control changes, and note on/off messages, and it ignores velocity values.



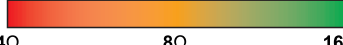
When programming over a previously programmed preset, the device automatically overwrites the new MIDI data and deletes the previous ones. There is only one MIDI message for a given selected amplifier.

To delete all saved MIDI messages from the internal memory, press and hold the footswitch, and then power on the switcher. Wait a few seconds until the MIDI Learn LED stops flashing, and release the footswitch.

To control multiple guitar effects with a single button press on your MIDI controller, send all MIDI messages sequentially, starting with the one directed to the Two Amps To Cabinet switcher. It will detect and store only the first message.

Amplifier and Cabinet Impedance Tips

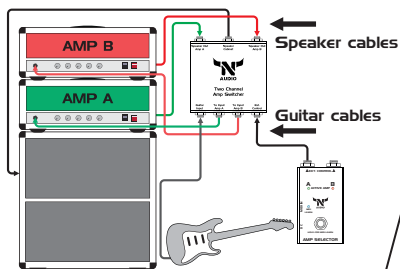
When using two amplifiers with one cabinet, set the output impedance of your amplifiers to match the impedance of the cabinet. For a setup with one amplifier and two cabinets, try to use cabinets with the same speaker impedance that matches the amplifier's impedance. You can use cabinets with different impedances, but make sure the impedance ratio between the amplifier and the cabinet is one impedance step. For example, 4 Ohm and 8 Ohm or 8 Ohm and 16 Ohm. A good practice when dealing with impedance mismatch is to set the output impedance of the amplifier at 8 Ohm. When dealing with an impedance mismatch, it's recommended to keep the maximum master volume control set 20-30% lower than its maximum. Avoid pushing your amplifier to its limits.

Tube Amplifier impedance	Speaker cabinet impedance
4Ω	 4Ω 8Ω 16Ω Perfect Acceptable Not good
8Ω	 4Ω 8Ω 16Ω Acceptable Perfect Acceptable
16Ω	 4Ω 8Ω 16Ω Not good Acceptable Perfect

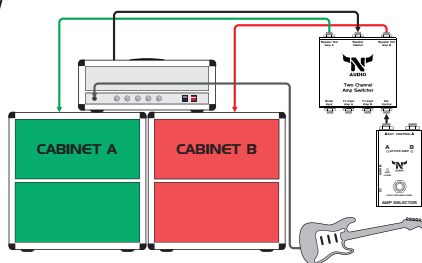
Avoid playing with a two-step impedance mismatch, such as using a 4 Ohm amplifier with a 16 Ohm cabinet.

Practical examples:

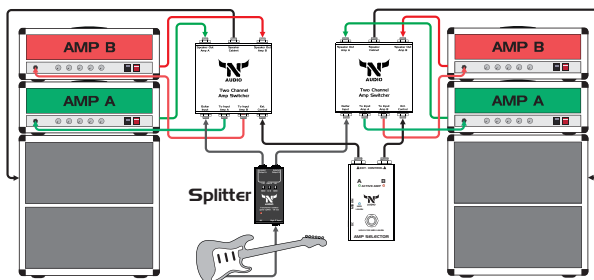
Two amplifier to a single cabinet



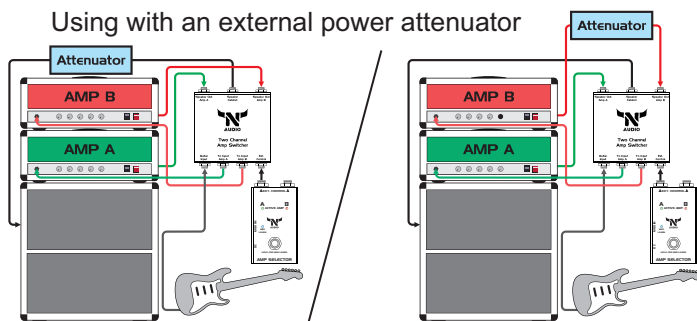
One amplifier to two cabinets



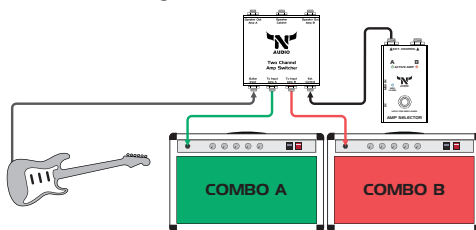
Two amplifier to a single cabinet - Stereo set



When using a stereo setup with two amps to cabinet system, it is recommended to prevent ground loops by isolating the input signals of the amplifiers with a transformer-isolated splitter.



Switching between two combo



What is in the box

When you purchase the N-audio Amp Cabinet Switcher, you will receive one footcontroller and one (for MONO setup) or two (for STEREO setup) relay units plus a user manual.

Technical specifications

Dimensions: Footcontroller W/D/H – 6/10/4 cm

Relay unit W/D/H – 10/11/3,5 cm

Power supply: 7-15VDC center negative (not included)

Current consumption: Mono version – 120mA at 9VDC

Stereo version – 240mA at 9VDC

Speaker relays are 16 Amps rated

Warranty

N-audio Two Amps To Cabinet comes with a lifetime warranty.