

# **Mini Amp Gizmo**

**User's Manual**



**RJM Music Technology, Inc.**



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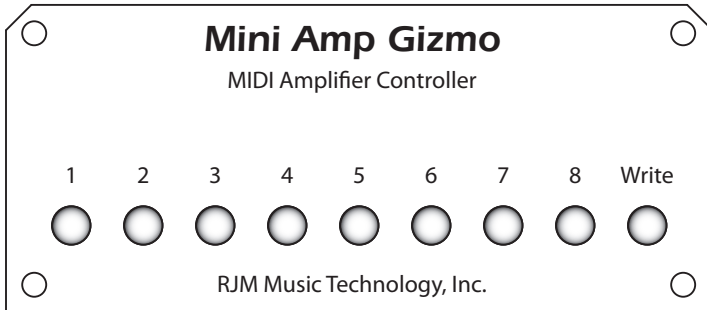
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## **Introduction**

Thank you for purchasing a Mini Amp Gizmo. This product is designed to connect your amplifier, effects devices or other electronic equipment to other MIDI-enabled equipment. The Mini Amp Gizmo can control any device that uses short-to-ground switching. This means that virtually any function that is controlled by a footswitch can be MIDI controlled using the Mini Amp Gizmo. A wide variety of interface cables are available, from our standard ¼" adapter cable to custom cables for a wide variety of amps. With these interface cables, the Mini Amp Gizmo can control most any amplifier out there – more than any other switcher on the market – and we are always developing new cables for other amplifiers and equipment.

## Front Panel



**Buttons 1 through 8** - These buttons turn function switches 1 through 8 on and off. The button lights up when the corresponding function switch is on.

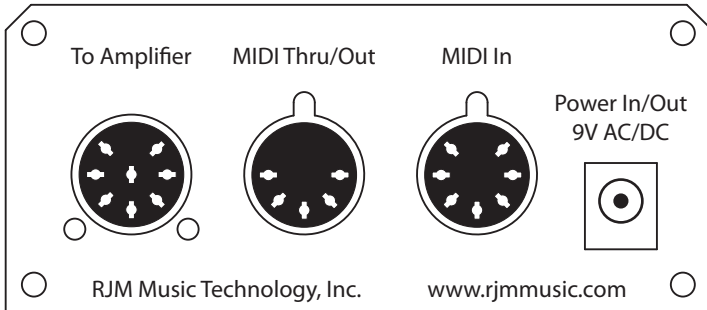
These function switches will control all footswitchable features of an amplifier connected to the Mini Amp Gizmo. These features may include channel, boost, effects loop or others – whichever features are normally controlled using the amp’s footswitch.

The interface cable you use determines which button controls which function. Please consult the instruction sheet that was included with your cable to find the button to function mapping for your amp.

**Write** – When held down for 3 seconds, this button saves the current switch state to non-volatile memory. This function is not active until a Program Change message is received at the MIDI In jack. See the MIDI Usage section for more details.

The Write button is always lit up with a green LED to indicate that the Mini Amp Gizmo is on.

## Back Panel



**To Amplifier** – Connect your custom amplifier interface cable here. Use the cable end that has a yellow label reading “Rack Gizmo / Amp Gizmo.” The other end of the cable plugs into your amp’s footswitch jack. Before connecting, make sure that you have the cable that’s made specifically for your amp, or the ¼” adapter cable if your amp has ¼” footswitch jack(s). Cables are available for a variety of amplifiers. Check our website for a list of currently available cables.

**MIDI Thru/Out** – All of the MIDI commands that are received at the MIDI In jack are sent out through this jack. This jack also doubles as a MIDI output when transferring SysEx data over MIDI. See the MIDI Usage section for more details.

**MIDI In** – Jack for incoming MIDI commands. Connect your MIDI foot controller here. The Mini Amp Gizmo will phantom power a compatible MIDI controller if you use a 7-pin MIDI cable. The AC adapter provided with the Mini Amp Gizmo can phantom power many MIDI controllers provided that they can run on a 9V DC supply and draw 250mA or less. Moving to a higher capacity power supply will allow you to phantom power MIDI controllers with higher current requirements – just add the current requirement of the device with the Mini Amp Gizmo’s requirement (250mA) and make sure your adapter can supply at least that amount of current.



**Power** – This unit requires power supply in the range of 9 to 12 volts, AC or DC. The plug should be a 5.5mm/2.1mm barrel connector, similar to those used in most effects pedals. The Mini Amp Gizmo requires a minimum of 250mA of current.

## MIDI Usage

The Mini Amp Gizmo can receive MIDI messages from any MIDI controller. You can store different switch settings for MIDI program numbers 1 through 128 in MIDI banks 0 and 1. When a Program Change message is received on the correct channel, the Mini Amp Gizmo will automatically recall the saved settings for the given program number.

To set up for MIDI use, simply connect your MIDI controller to your Mini Amp Gizmo's MIDI In jack. The Mini Amp Gizmo is set for MIDI Channel 1 by default. Either make sure your MIDI controller is set up to transmit commands on Channel 1, or use the Mini Amp Gizmo's setup mode to change which MIDI channel the Mini Amp Gizmo responds to. See the Setup Mode section for more details.

To save a program setting, perform the following steps:

1. Using your MIDI controller, select a MIDI program number.
2. Using the Mini Amp Gizmo buttons, select your amp's channel and functions.
3. Hold down the Write button on the Mini Amp Gizmo until the LEDs flash. This should take about 3 seconds.

That's all it takes. You can repeat this for any or all of MIDI program numbers 1 through 128.

If the lights don't flash after a few seconds of holding down the Write button, it means that your Mini Amp Gizmo did not receive the MIDI Program Change message. Check your MIDI cable connection, and make sure that the MIDI controller and Mini Amp Gizmo are set to the same MIDI channel.

Now that your settings have been saved, you can recall your settings by using your MIDI controller to send a Program Change message again. The Mini Amp Gizmo will call up your saved settings and set

your amp's channel and functions whenever it receives a MIDI Program Change message.

### ***Continuous Controllers***

In addition to supporting MIDI Program Change messages, the Mini Amp Gizmo supports MIDI Continuous Controller messages. The following Continuous Controllers are supported by default:

<b>Continuous Controller</b>	<b>Value</b>	<b>Function</b>
CC88	0...63 64...127	Switch 1 off Switch 1 on
CC89	0...63 64...127	Switch 2 off Switch 2 on
CC90	0...63 64...127	Switch 3 off Switch 3 on
CC91	0...63 64...127	Switch 4 off Switch 4 on
CC92	0...63 64...127	Switch 5 off Switch 5 on
CC93	0...63 64...127	Switch 6 off Switch 6 on
CC94	0...63 64...127	Switch 7 off Switch 7 on
CC95	0...63 64...127	Switch 8 off Switch 8 on

\*Setup Mode can be used to change which Continuous Controller messages the Mini Amp Gizmo responds to. Please refer to the Setup Mode section for more details.

Please note that settings such as Momentary Mode and Group Mode are in effect when processing Continuous Controller messages.

## ***Bank Selection***

The Mini Amp Gizmo can store programs in MIDI banks 0 and 1, for a total of 256 programs. Continuous Controller #0 (Bank MSB) is used to select the current MIDI bank. Bank numbers above bank 1 are ignored.

By default, bank selection is disabled. You can enable bank selection using Setup Mode (see Setup Mode section).

## ***Backing Up Your Settings: SysEx Dump***

A SysEx (System Exclusive) data dump will send the current Mini Amp Gizmo system configuration out through the MIDI Thru/Out port. You can then save this data to your computer, or copy the settings directly to another Mini Amp Gizmo.

Hold down the Switch 5 button while powering up the Mini Amp Gizmo, and the Mini Amp Gizmo will immediately send the SysEx Dump. It only takes a couple of seconds to complete.

If you wish to copy settings from one Mini Amp Gizmo to another, connect the MIDI Thru/Out of the transmitting unit to the MIDI Input of the receiving unit, then power up the transmitting unit while holding down the Switch 5 button. (Note that the receiving Mini Amp Gizmo must be powered on and **not** in setup mode.) The receiving unit will display a progress bar graph on the LEDs. The transfer goes very quickly, taking only a couple of seconds. In the case of an error, the receiving unit will flash all LEDs 5 times.

Once the transfer completes, the receiving unit will reset, then return to normal operating mode. The receiving unit now has an exact copy of the transmitting unit's settings.

## **Controlling Multiple Devices**

The Mini Amp Gizmo features a single switching jack, making it best suited to controlling a single amp. However, if you need to control multiple amps or effects processors and they have ¼" footswitch jacks, you can use our BOB-8 product. BOB-8 stands for BreakOut Box, 8 outputs. It connects to the Mini Amp Gizmo and provides eight electrically isolated ¼" jacks. These jacks can safely be connected to up to eight separate devices with no danger of electrical problems.

## Setup Mode

To configure the Mini Amp Gizmo, you must first enter setup mode. Holding down selected buttons while powering the unit on will bring up selected setup modes, as detailed in this section.

### *Selecting MIDI Channel and MIDI Options*

Hold the Switch 1 button while powering the Mini Amp Gizmo on. Keep holding the button until the LEDs flash. The Switch buttons will now allow you to select the MIDI channel the Mini Amp Gizmo responds to, as well as other MIDI-related options:

#### **MIDI Channels**

The Mini Amp Gizmo is set by default to send and receive on MIDI Channel 1. To change the send/receive channel:

<b>MIDI Channel</b>	<b>Switch 1 LED</b>	<b>Switch 2 LED</b>	<b>Switch 3 LED</b>	<b>Switch 4 LED</b>
<b>1</b>	OFF	OFF	OFF	OFF
<b>2</b>	<b>ON</b>	OFF	OFF	OFF
<b>3</b>	OFF	<b>ON</b>	OFF	OFF
<b>4</b>	<b>ON</b>	<b>ON</b>	OFF	OFF
<b>5</b>	OFF	OFF	<b>ON</b>	OFF
<b>6</b>	<b>ON</b>	OFF	<b>ON</b>	OFF
<b>7</b>	OFF	<b>ON</b>	<b>ON</b>	OFF
<b>8</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	OFF
<b>9</b>	OFF	OFF	OFF	<b>ON</b>
<b>10</b>	<b>ON</b>	OFF	OFF	<b>ON</b>
<b>11</b>	OFF	<b>ON</b>	OFF	<b>ON</b>
<b>12</b>	<b>ON</b>	<b>ON</b>	OFF	<b>ON</b>
<b>13</b>	OFF	OFF	<b>ON</b>	<b>ON</b>
<b>14</b>	<b>ON</b>	OFF	<b>ON</b>	<b>ON</b>
<b>15</b>	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
<b>16</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>

You can also set a few other MIDI-related options using the other Switch buttons:

### Continuous Controller Ranges

The Switch 5 and 6 buttons control the Continuous Controller range for all switches:

CC Range	GCX Number	Switch 5 LED	Switch 6 LED
80...87	1	OFF	OFF
88...95 (default)	2	<b>ON</b>	OFF
64...71	3	OFF	<b>ON</b>
56...63	4	<b>ON</b>	<b>ON</b>

### GCX Compatibility Mode

Switch 7 turns on GCX compatibility mode. This makes the switches respond to MIDI commands like the GCX switcher, manufactured by Voodoo Lab. In GCX compatibility mode, the switches respond only to Continuous Controller messages on MIDI channel 16, regardless of the MIDI channel setting. The GCX number is set by Switches 5 and 6 (see above).

### Bank Select Enable

Switch 8 controls whether or not the Mini Amp Gizmo will allow MIDI bank selection. When Switch 8 is off, the Mini Amp Gizmo will ignore MIDI bank select messages. When Switch 8 is on, the Mini Amp Gizmo will respond to Bank Select messages as described in the Bank Selection section.



## **Saving MIDI Channel and Options**

Once you've set the MIDI channel and options, press the Write button. The Mini Amp Gizmo is now in normal operational mode.

## ***Invert Mode***

Some amplifiers may have inverted polarity on some functions. This can cause the Mini Amp Gizmo to display a function as off when the function is actually on, and as on when the function is actually off. To correct this, you must first switch the Mini Amp Gizmo to invert mode.

Hold down the Switch 2 button while powering up the Mini Amp Gizmo. Keep holding the button until the LEDs flash. You are now in invert mode.

While in invert mode, use the front panel buttons to light the LED of any function that is inverted. Make certain no other LED is lit.

Once you've selected the inverted function's associated button(s), press the Write button. The Mini Amp Gizmo is now in normal operational mode, and the inverted functions should operate correctly.

## ***Momentary Mode***

Some devices require momentary-type switching, rather than the more common latching-type switches. (A momentary switch changes OFF/ON state by closing its contacts for a short time and then re-opening them. In momentary mode, the Mini Amp Gizmo switches will close for 100 milliseconds before opening again.)

To enter momentary mode, hold down the Switch 3 button while powering up the Mini Amp Gizmo. Keep holding the button until the LEDs flash. Use the front panel buttons to light the LED of any function that needs to be momentary. Make certain that no other LED is lit.

Once you've selected the buttons for the momentary functions, press the Write button. The Mini Amp Gizmo is now in normal operational mode and the momentary functions should operate correctly.

### ***Group Mode***

The group mode feature allows you define a group of buttons where pressing one button of the group turns that button on and turns all other buttons in the group off. This is typically used for switches that control which channel is selected on an amplifier. This prevents the Mini Amp Gizmo from trying to activate more than one amp channel at a time.

To enter group mode, hold down the Switch 4 button while powering up the Mini Amp Gizmo. Keep holding the button until the LEDs flash.

Use the front panel buttons to light the LED of any function that should be in the group. Make sure that no other LEDs are lit.

Once you've selected the functions that need to be grouped, press the Write button. The Mini Amp Gizmo is now in normal operational mode and the grouped buttons will now only allow one button to be selected at a time.

### ***Quick Setup Buttons***

Quick Setup buttons are provided to quickly set up the Mini Amp Gizmo for common configurations. Which configuration you use

depends on the number of channels your amplifier has, and whether the amplifier uses momentary switching or not.

To use this feature, hold down the Switch 8 button while powering up the Mini Amp Gizmo. Keep holding the button until the LEDs all turn on and stay on.

Next, press one of the following buttons. Based on the button pressed, the Mini Amp Gizmo will configure the switches as follows:

**Switch 1:** No switches momentary or grouped. (Default setting)

**Switch 2:** First two switches grouped, no switches momentary. (Most 2 channel amps)

**Switch 3:** First three switches grouped, no switches momentary. (Most 3 channel amps)

**Switch 4:** First four switches grouped, no switches momentary. (Most 4 channel amps)

**Switch 5:** All switches momentary, none grouped. (Rivera M and S amps)

**Switch 6:** First two switches grouped and momentary.

**Switch 7:** First three switches grouped and momentary. (Bogner Ecstasy, EVH 5150III)

**Switch 8:** First four switches grouped and momentary. (Marshall Mode 4)

Once the button has been pressed and the LEDs have flashed, the Mini Amp Gizmo will go directly to normal operating mode.



## Troubleshooting

**Problem:** The LEDs don't flash when you hold down the Write Button.

**Solution:** The Mini Amp Gizmo did not receive a MIDI Program Change message. First, verify that you have a valid MIDI connection. The MIDI output of your MIDI controller should be connected to the MIDI input of the Mini Amp Gizmo by a MIDI cable that's known to be working correctly. The next most likely cause is that the Mini Amp Gizmo is set to a different MIDI channel than your MIDI controller. Check both devices to insure that they're set to the same channel. On the Mini Amp Gizmo, the MIDI channel is set to 1 by default and can be changed in Setup Mode.

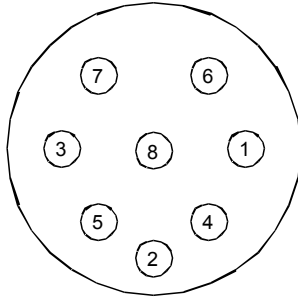
**Problem:** I'm trying to control my amplifier, and it's not working or behaving erratically.

**Solution:** This can happen when using the wrong amplifier interface cable, or if the Mini Amp Gizmo is not configured correctly for your amp. Check the instruction sheet that came with your amplifier interface cable, or check the Setup Mode section for more information on how to configure. You can also check contact us at RJM Music for assistance. We'd be happy to help you out.

## Specifications

<b>Dimensions</b>	Quarter-rack enclosure 4 (W) x 1.5 (H) x 4 (D) inches 10.2 (W) x 3.8 (H) x 10.2 (D) cm
<b>Weight</b>	10.3 ounces 300 grams
<b>Power</b>	9 to 12 Volts, AC or DC @ 250mA 5.5mm OD, 2.1mm ID x 9.5mm barrel connector
<b>Phantom Power</b>	Provided over pins 6 and 7 of the MIDI In jack. Phantom power voltage is the same as the power provided at the Power jack.
<b>Memory</b>	256 programs, arranged in 2 banks of 128  Memory is non-volatile and requires no backup battery

## Amplifier Connector Pinout



The Mini Amp Gizmo amplifier connector is a female DIN-8 jack. When a switch is activated on the Mini Amp Gizmo, the corresponding pin is shorted to the connector's ground (shield). Activating Switch 1 shorts pin 1 (as numbered above) to the connector's ground. Activating Switch 2 shorts pin 2, and so on.

RJM Music produces a wide range of cables to allow the Mini Amp Gizmo to control various amplifier models. Please contact your RJM Music dealer or the RJM Music web site to find the correct cable for your amp.







