Amp Gizmo

User's Manual

RJM Music Technology, Inc.

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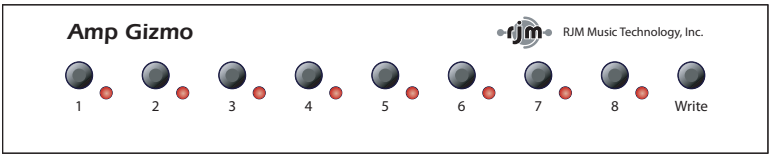
Introduction

Thank you for purchasing an AMP GIZMO. This product is designed to connect your amplifier, effects devices or other electronic equipment to other MIDI-enabled equipment. The 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 AMP GIZMO. It's even possible to control more than one device at a time, depending on the number of functions you need to switch.

Devices that use ¼" mono or stereo jacks for switching purposes are supported with no special cable required. Custom cables are available to control equipment that uses non-standard connectors. Many types of custom cables are available now and we will continue to develop new cables to support other amplifiers and equipment.

Front Panel

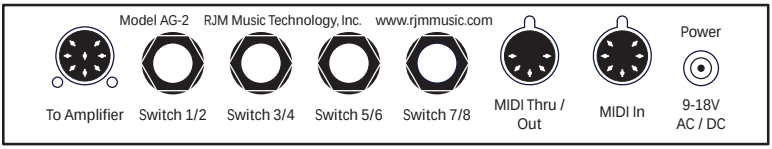


Buttons 1 through 8 - These buttons turn function switches 1 through 8 on and off. The LED to the right of each button is lit when the corresponding function switch is on.

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

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 section on MIDI Usage for more details.

Back Panel



To Amplifier – Connect the custom amplifier interface cable here. Use the cable end that has a yellow label reading "RG-16 / 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. Cables are available for a variety of makes and models of amplifiers. Check our website for a list of currently available cables.

Switch 1/2 – This jack is for function switches 1 and 2. You can plug a mono or stereo (TRS) ¼" cable here. Switch 1 is on the tip conductor and Switch 2 is on the ring conductor (when using a TRS cable).

Switch 3/4 – This jack is for Switches 3 and 4. You can plug a mono or stereo (TRS) ¼" cable here. Switch 3 is on the tip conductor and Switch 4 is on the ring conductor (when using a TRS cable).

Switch 5/6 – This jack is for Switches 5 and 6. You can plug a mono or stereo (TRS) ¼" cable here. Switch 5 is on the tip conductor and Switch 6 is on the ring conductor (when using a TRS cable).

Switch 7/8 – This jack is for Switches 7 and 8. You can plug a mono or stereo (TRS) ¼" cable here. Switch 7 is on the tip conductor and Switch 8 is on the ring conductor (when using a TRS cable).

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 patch data over MIDI.

MIDI In – Jack for incoming MIDI commands. Connect your MIDI foot controller here. The AMP GIZMO will phantom power a compatible MIDI controller if you use a 7-pin MIDI cable. The AC adapter provided with the AMP GIZMO can phantom power most MIDI controllers provided that they can run on a 9V AC supply. However, if your MIDI controller needs more than 800mA, an adapter with a higher current capacity is recommended.

Power – This unit requires power supply in the range of 9 to 18 volts, AC or DC. The plug should be a 5.5mm/2.1mm barrel connector, similar to those used in most effects pedals. The AMP GIZMO requires a minimum of 200mA of current.

MIDI Usage

The 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 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 AMP GIZMO's MIDI In jack. The 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 AMP GIZMO's setup mode to change which MIDI channel the AMP GIZMO responds to. See the Setup Mode chapter 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 AMP GIZMO buttons, select your amp's channel and functions.
3. Hold down the Write button on the 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 though 128.

If the lights don't flash after a few seconds of holding down the Write button, it means that your AMP GIZMO did not receive the MIDI Program Change message. Check your MIDI cable connection, and make sure that the MIDI controller and 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 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 AMP GIZMO supports MIDI Continuous Controller messages. The following Continuous Controllers are supported by default:

Continuous Controller	Value	Function
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 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 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.

Backing Up Your Settings: Sysex Dump

A Sysex (System Exclusive) data dump will send the current 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 AMP GIZMO.

Hold down the Switch 5 button while powering up the AMP GIZMO, and the 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 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 AMP GIZMO must be in normal operating mode to receive data.) 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

Each of the switching jacks on the AMP GIZMO is electrically isolated from the others. Because of this, it's possible to safely control multiple devices. For example, you could control an amplifier that has three channels and two switchable functions, plus an effects device that has two switchable functions – using just one AMP GIZMO. This could be done in several ways:

- Connect the amplifier to the "To Amplifier" jack using an appropriate custom cable. Connect the effects device to the "Switch 7/8" jack using a ¼" cable.
- Connect the amplifier to the "Switch 1/2", "Switch 3/4" and "Switch 5/6" jacks using ¼" cables. Connect the effects device to the "Switch 7/8" jack using a ¼" cable.

These are only two possibilities – there are many more configurations that can be used. As long as you connect only one device to each jack, you have a safe configuration.

Don't use a Y cable to control two different pieces of equipment from a single jack! That could lead to ground loops or, even worse, damage your equipment.

An important thing to note is that, although they are electrically isolated, the amplifier jack and ¼" jacks are not independently switched. For example, if you press the Switch 1 button , the Switch 1 pin of the "To Amplifier" jack and the Switch 1 half of the "Switch 1/2" jack will both be turned on (i.e. shorted to connector ground) at the same time. The same is true for all of the eight switchable functions – each one simultaneously controls a pin on the "To Amplifier" jack and the corresponding conductor on one of the four ¼" jacks.

You can take advantage of this arrangement if you have two amplifiers that need to be switched at the same time. If you use the appropriate cables, you can make the two amps switch channels and functions simultaneously – one connected using a custom cable and the other using ¼" cables.

Setup Mode

To configure the 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.

To Select MIDI Channel and MIDI Options

MIDI Channels

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

Hold the Switch 1 button while powering the AMP GIZMO on. Keep holding the button until the LEDs flash. The Switch buttons will then allow you to select the MIDI channel the AMP GIZMO responds to. Using the Switch buttons, turn on and off the LEDs to select the channel as shown below:

MIDI Channel	Switch 1 LED	Switch 2 LED	Switch 3 LED	Switch 4 LED
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**

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	**ON**	OFF
64…71	3	OFF	**ON**
56…63	4	**ON**	**ON**

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).

Saving MIDI Channel and Options

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

Invert Mode

Some amplifiers may have inverted polarity on some functions. This can cause the 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 AMP GIZMO to Invert Mode.

Hold down the Switch 2 button while powering up the 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 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 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 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 AMP GIZMO is now in normal operational mode and the momentary functions should operate correctly.

Group Mode

The Group 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 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 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 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 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 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 AMP GIZMO will configure the switches buttons as follows:

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

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

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

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

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

Hold Switch 6: First two switches grouped and momentary.

Hold Switch 7: First three switches grouped and momentary. (Bogner Ecstasy, EVH 5150III, Traynor YCS100)

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

Once the button has been pressed and the LEDs have flashed, the 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 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 AMP GIZMO by a MIDI cable that's known to be working correctly. The next most likely cause is that the 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 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 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.

Warranty

RJM Music Technology, Inc. warrants this product against any defects that are due to faulty material or workmanship for a period of one year from the date of original retail purchase. This warranty does not cover damage to the product resulting from accident or misuse.

This warranty is transferable provided the current owner has the original purchase receipt and can provide a copy of it when submitting the warranty claim.

Should you experience any difficulty with this RJM Music product, please contact us as described below. If it is determined that the product has become defective within the warranty period and must be returned to the factory, RJM Music Technology will issue a Returned Merchandise Authorization (RMA) number and shipping and packaging instructions.

RJM Music Technology will repair or replace the product free of charge, provided it is returned freight prepaid to RJM Music Technology with a valid receipt and RMA number. Return shipping will be paid by RJM Music Technology 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 or authorized service center. There are no warranties which extend beyond the terms described herein.

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