

USER GUIDE



Talkshow Gadget

P/N 991008



ANGRY AUDIO

PHONE

+1 (615) 763-3033

WEB

answers@angryaudio.com
www.angryaudio.com

ADDRESS

128 HOLIDAY CT STE 118
Franklin TN 37067 USA

Welcome to the world of Angry Audio, home of the audio gadgets.

The audio world is filled with complex, high-tech gear. Much of it bristles with seductive shapes and eye-catching lights and displays, and all of it promises to make things sound better and open up new creative possibilities.

But in order for those products to shine, you still have to get the basics right and sweat the details. Good audio isn't made by one component. It's made by getting things right every step of the way, especially the little things.

Accordingly, every audio gadget – including the Talkshow Gadget – is designed to solve common yet critical problems, and are meticulously engineered with performance and longevity in mind to deliver pristine audio for many years.

Our promise and guarantee.

We know you'll love your Talkshow Gadget, but the universe is a strange place, so it's always possible that you won't. That's why we give you 30 days to bond with your gadget. If the two of you can't get your chakras to align, we'll buy it back.

Plus, every gadget is warrantied to be free from defects in parts and workmanship for two full years after you purchase it. If a gadget fails within this time period, Angry Audio will, at its discretion, repair or replace it so long as you let us know of the failure within the warranty period and can provide proof of purchase in the form of a dated sales receipt. You can call us at +1 615-763-3033, or reach us online at www.angryaudio.com/contact.

Making a good first impression.

When you unbox your Talkshow Gadget, we really hope it makes a good first impression and that you take a moment to appreciate the lengths we've gone to in order to create a "built for broadcast" product. All audio gadgets are over-engineered to provide long-term reliability and guaranteed RFI immunity.

Some of this is apparent - such as the rugged powder-coated steel chassis - but much of this goodness is invisible, like the premium components used in the audio path. Even if you can't see it, you'll hear it!

A word or two about safety.

Most of this falls under the category of common sense, but the company lawyers started to visibly twitch when we suggested we didn't need to go beyond a simple "Don't use your gadget in the bathtub" warning. Besides, our market research indicates that injured (or dead) customers can't be relied upon to buy more stuff, which we're told is a critical element to a successful business. Who knew?

Audio gadgets aren't chainsaws or flamethrowers, but still, they are intended to be used by qualified personnel only. To avoid electric shock, do not open the unit or attempt to perform any servicing unless you are qualified to do so.



The Talkshow Gadget has an internal 120VAC or 240VAC power supply. Hazardous voltages are present whenever the unit is plugged in and may still be present on certain components even when the unit is unplugged.

The power cord is the primary disconnect device and so the outlet providing power to the gadget should be easily accessible. In other words, make sure you can back out of making bad electrical decisions by yanking the plug. Use only a properly grounded outlet for power. Do not cut the ground pin or use a ground-lifting adapter, and do not defeat the polarized plug. Do not overload outlets.

Do not expose your gadget to rain or moisture. Do not block any ventilation openings, as lack of airflow could damage the unit or create a fire hazard.

Any electronic device can fail without warning; do not use this product in applications where a life threatening condition could result due to failure.

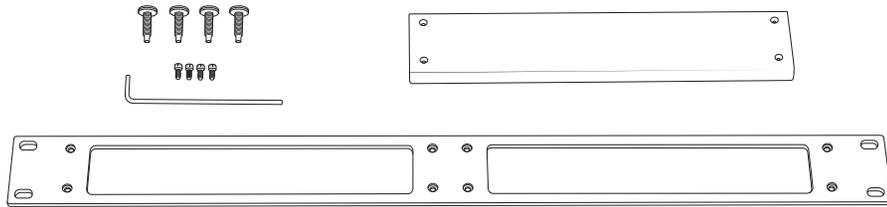
Do not tug on Superman's cape. Do not spit into the wind. Do not pull the mask off the ole Lone Ranger. Do not mess around with Jim (or Slim for that matter).

Mounting your Talkshow Gadget in a rack.

The Talkshow Gadget sits on four rubber feet that ensure it won't scratch the zebra wood inlays on your antique mahogany desk.

If you prefer to rack mount your gadgets, you'll need the optional Rack Mount kit which allows one or two gadgets to be installed side by side in a standard 1RU rack space.

Each Rack Mount Kit consists of a custom rack panel with cut outs for all front panel controls and displays. A blank filler panel is also provided if you are mounting only one gadget.



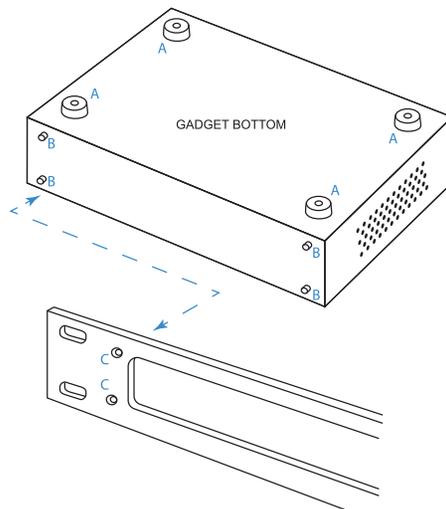
When rack mounting, remove the four rubber feet ("A") from the bottom of the gadget with a #1 Phillips screwdriver, being careful to save the screws.

Remove the four front panel 3/32" hex screws ("B"). You can rummage around your toolbox for your own hex key, or use the one we thoughtfully provide in the mounting kit.

Line up the gadget so that the holes exposed after removing the socket head screws line up with the mounting holes ("C") in the rack panel.

Attach the rack panel to the front of your gadget with the same screws you just removed. If you dropped one and it immediately rolled to an inaccessible location (as these things always do), don't panic – we've included spares in the kit.

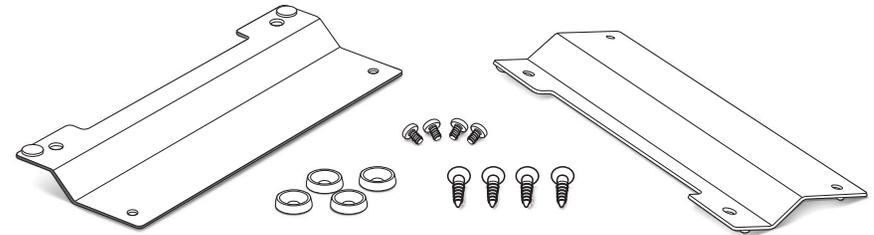
Finally, use the provided rack screws (all four, please) to mount your gadgets.



Attaching your Talkshow Gadget to a wall.

If you prefer to secure your gadget to the inside of a rack, cabinet, or other flat surface, the optional Wall Mount kit comes in handy.

Each Wall Mount Kit includes two brackets, four No. 6 screws, and four cup washers.

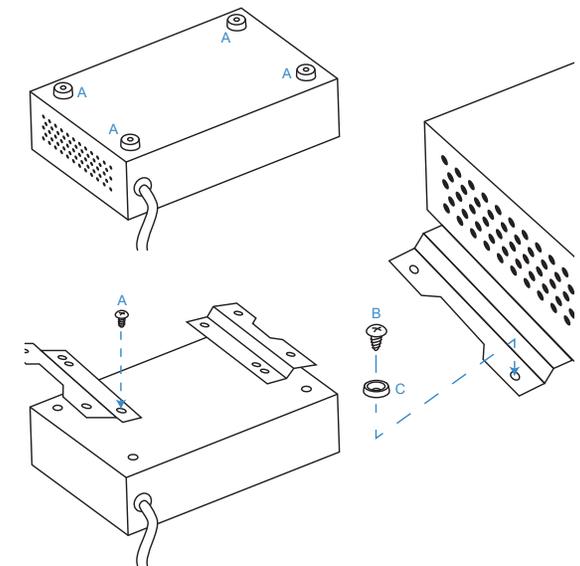


Remove the four rubber feet ("A") from the bottom of the gadget with a #1 Phillips screwdriver, being careful to save the screws.

Align the bracket holes with the holes in the bottom of the gadget, then attach the brackets using the screws removed from the rubber feet.

Use the four No. 6 screws ("B") and the four cup washers ("C") to secure the gadget to a plywood surface. Drilling pilot holes is recommended to reduce the risk of splitting the wood.

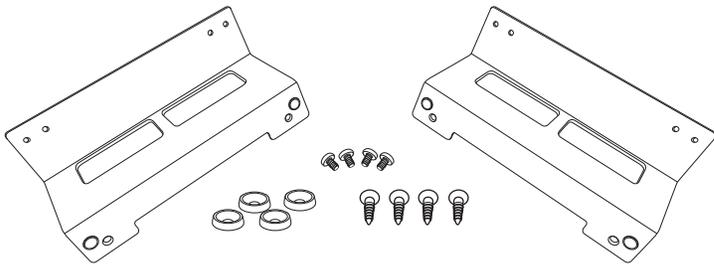
Different hardware (not supplied) will be required if you are mounting the gadget to a drywall (or other) surface.



Mounting your Talkshow Gadget under a counter.

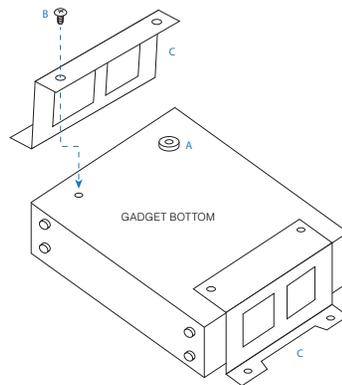
Your Talkshow Gadget can be mounted under a counter, desk, or table using the optional Under Counter Mount Kit.

This kit includes two brackets, four No. 6 wood screws, and four cup washers suitable for mounting to a plywood surface. Different hardware (not supplied) may be needed if the mounting surface is a different material.

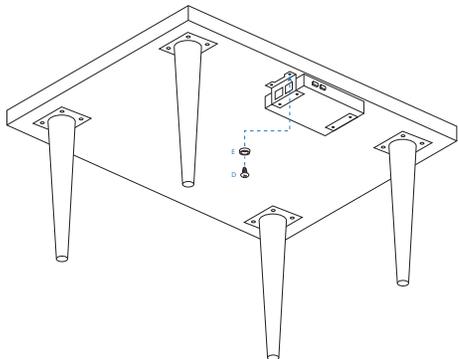


Remove the four rubber feet ("A") from the bottom of the gadget using a #1 Phillips screwdriver, being careful to save the screws.

Line up the brackets ("C") so that their mounting holes line up with holes exposed after removing the rubber feet. Orient the brackets as shown in the diagram to the right so that the deeper flat side supports the gadget and the "notched" side faces the under-mount surface.



Use the panhead screws ("B") removed from the rubber feet to secure the brackets to the gadget.



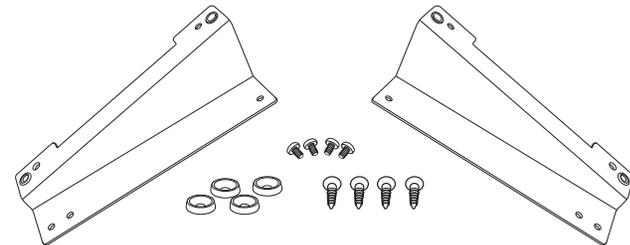
Use the four provided No. 6 screws ("D") and the four cup washers ("E") as shown in the diagram to the left to secure the gadget to the plywood underside of the counter, desk, or table.

Drilling pilot holes is recommended to reduce the risk of splitting the wood.

Using your Talkshow Gadget on a desktop.

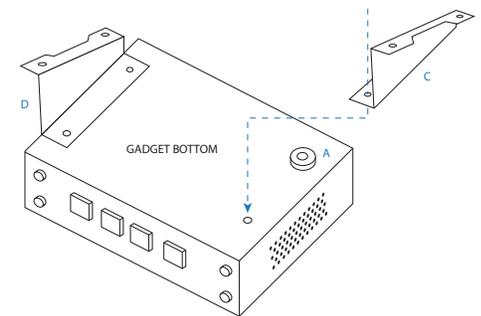
If you like the idea of using the Talkshow Gadget on a desktop but prefer a more permanent installation along with the convenience of having it angled up toward the user, we've got you covered with the optional Desktop Bracket Kit.

This kit includes two brackets, four No. 6 wood screws, and four cup washers suitable for mounting to a plywood surface. Different hardware (not supplied) may be needed if the mounting surface is a different material.



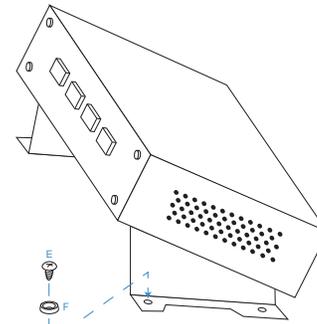
Remove the four rubber feet ("A") from the bottom of the gadget using a #1 Phillips screwdriver, being careful to save the screws.

With the bottom of the gadget facing up and the front panel facing toward you, line up bracket "C" with the holes exposed after removing the feet on the right side of the gadget. Orient the bracket as shown in the diagram to the right so that the flat side is attached to the gadget, and the "notched" side sticks up with the notch facing outwards. Use the panhead screws ("B") removed from the rubber feet to secure the brackets to the gadget.



Use the four provided No. 6 screws ("E") and cup washers ("F") as shown in the diagram above to secure the gadget to a plywood surface.

Drilling pilot holes is recommended to reduce the risk of splitting the wood.



Or, why do I need this thing anyway?

A fair question! In short, it's because most of the mixers used by podcasters and independent VO and production talent are designed for live use and lack some important features that are standard fare on dedicated radio mixers.

Radio mixers tend to be simpler overall since the input sources are comprised of existing recordings (CDs, digital audio playout systems, etc.) which don't require individual adjustment of EQ and compression.

More importantly, mixers designed for broadcast have on/off buttons on each channel allowing for quick activation and de-activation of each source. When that source happens to be a microphone, a radio mixer will automatically mute the monitor speakers to prevent feedback. At the same time, a logic output is activated which may be used to illuminate an "ON AIR" or "RECORDING" light or the tally lights on some mic arms so that everyone within (and outside of) the studio knows the mics are hot. (Shhhh!)

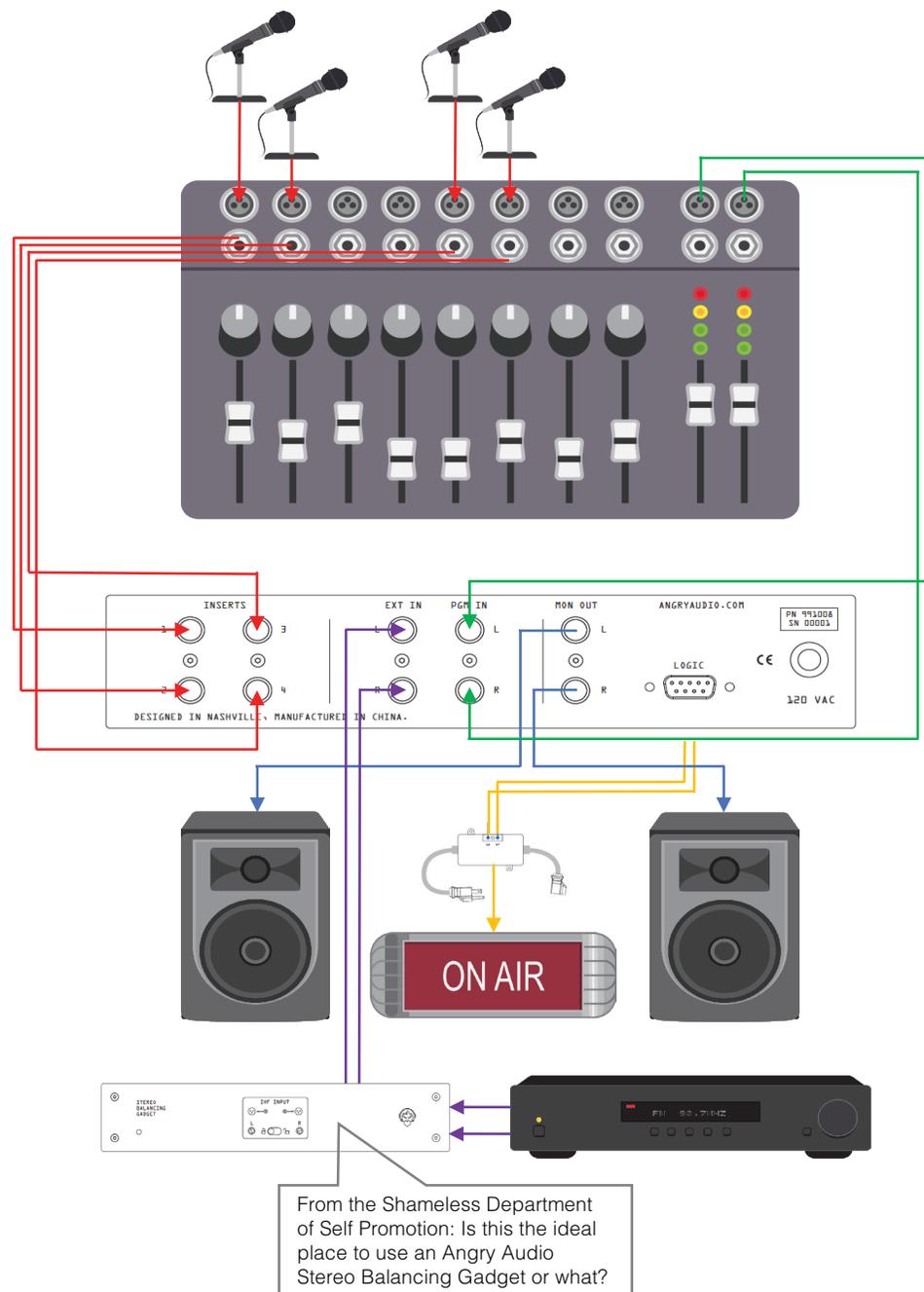


Enter the Talkshow Gadget, which allows you to add these useful broadcast features to your live mixer. It features instant muting switches for four microphone inserts, a level control for your monitor speakers, an input for monitoring an external source, and dry relay contact closures which follow the status of the microphones. Each microphone has its own mute override logic signal should you not wish to mute the monitor output.

A subtle but annoying problem involves the timing of monitor mutes and open mics. If the mics are opened immediately after muting the monitors, it is possible to hear reverberation of the monitor audio on the air, which sounds like a brief noise burst. The Talkshow Gadget eliminates this problem by waiting 50ms after muting the speakers before turning on the mics. Yeah, we're that obsessive.

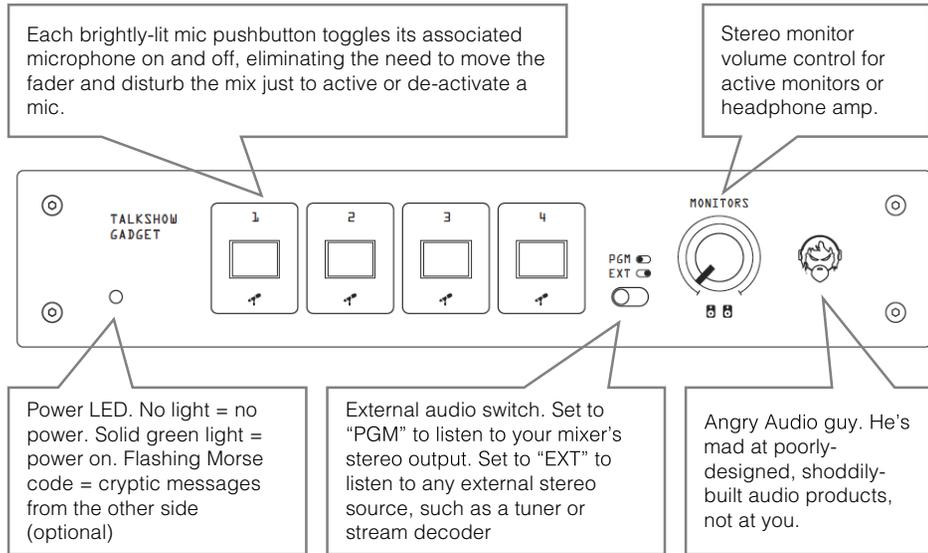
The audio signal path is completely passive, with sealed switches, gold-contact relays, and long-life LED illumination in the pushbuttons. Connections are simple and use the defacto standard: A cable with a 1/4 inch TRS (tip-ring-sleeve) connector at both ends. The Talkshow Gadget can accept both balanced and unbalanced audio sources.

A typical Talkshow Gadget set up.

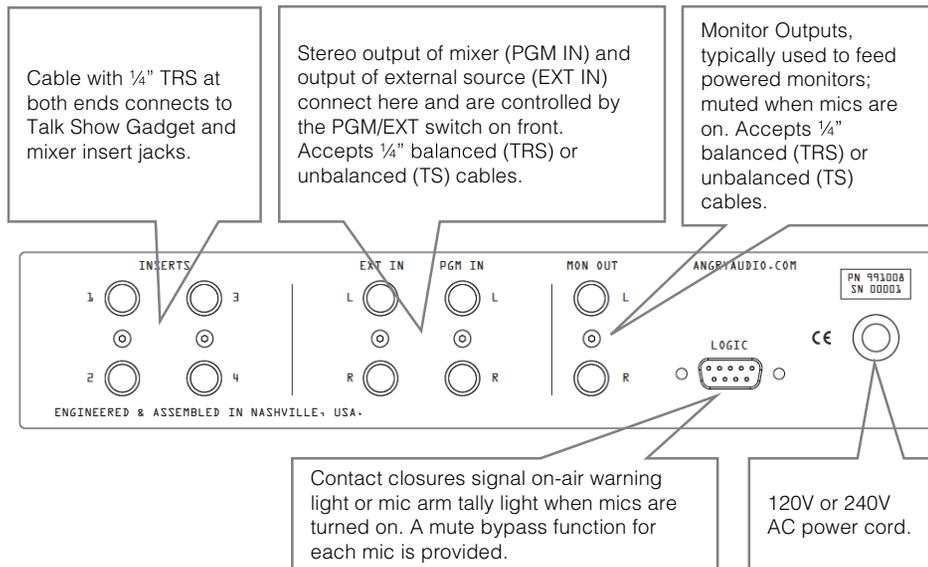


Buttons, knobs, switches, lights, and connections.

Here's a look at what's what on the Talkshow Gadget front panel:

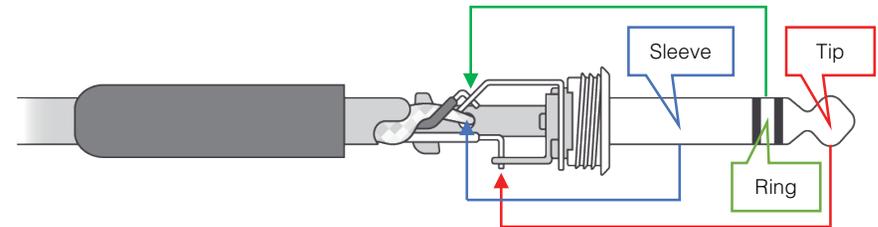


And a look at the back panel:



TRS 101.

As mentioned previously in the rear panel diagram, an insert cable is required to connect your Talk Show Gadget to your mixer. Insert cables have a 1/4" TRS (Tip – Ring – Sleeve) connection at both ends. The wire connected to the tip sends audio from the mixer to the gadget. The wire connected to the ring returns audio from the gadget to the mixer. The wire connected to the sleeve serves as a common ground.



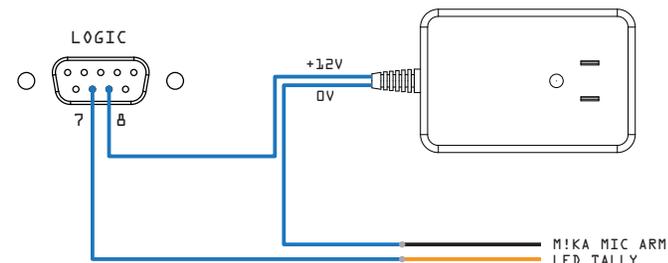
Suggested wiring for on-air and tally lights.

The Talk Show Gadget's logic port provides dry relay contacts that can be used to trigger a mic arm tally light or on-air light, providing a visual indication that one or more mics in the studio are live.

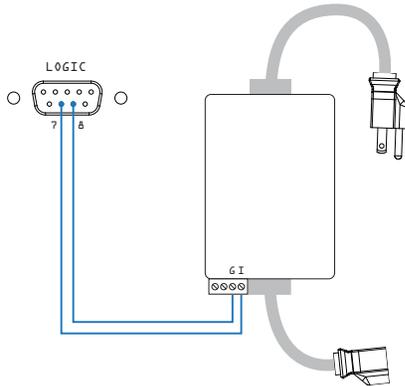
If you're not comfortable or proficient at soldering or crimping pins for a DSUB connector, you may find a 9-pin shell with a breakout terminal board to be a handy gizmo. We like ones from Uxell, available on the interwebs by heading to amazon.com and searching for "Uxell plastic breakout terminals connector". For this application, you'll want the DB9 male version.

Pin 6 on the rear panel DSUB connector is normally closed (NC), Pin 7 is relay common (C), and Pin 8 is normally open (NO).

A 12VDC power supply (typically a wall wart) can be used for illuminating a mic arm tally by connecting the gadget, power supply, and mic arm as shown below.



Controlling a 120VAC or 230VAC on-air light requires switching mains power to the device. We recommend the iBoot-IO-OFF from Dataprobe.com. This uses a dry contact closure to turn the power on. Connect the iBoot to the Talkshow Gadget Logic connector as shown. NEVER CONNECT MAINS POWER TO THE TALKSHOW GADGET RELAY!



Using the mute bypass feature.

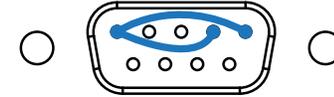
Normally, monitor outputs are muted when any mic is active. In most situations, this is a good thing, and it's probably why you made the thoughtful and intelligent decision to buy your bad self a Talk Show Gadget in the first place. However, there may be times when muting is unnecessary or undesirable, and you may find the mute bypass feature useful.

Keep in mind that because the same relay that controls monitor muting also controls on-air light switching, any mic wired to exclude muting the speakers will also fail to trigger the on-air light.

Mute bypass for individual mics is accomplished by connecting a jumper between the mute disable pin of each mic to one of the two ground pins. The DSUB pin-out is as follows, starting with pin 1 in the top left corner and ending with pin 9 in the bottom right corner:

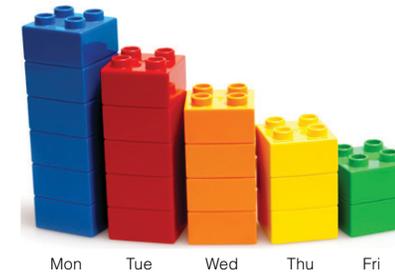
- | | |
|----------------------|--------------------------|
| 1: Logic ground | 6: Relay normally closed |
| 2: Mic 1 mute bypass | 7: Relay common |
| 3: Mic 2 mute bypass | 8: Relay normally open |
| 4: Mic 3 mute bypass | 9: Logic ground |
| 5: Mic 4 mute bypass | |

In the example diagram below, pin 1 (Logic ground) is connected to both Mic 3 and Mic 4 mute bypass. When these mics are opened, the monitors will not mute nor will the on-air or mic arm tally lights illuminate. The front panel buttons will always illuminate when the mic is active, however. Mic 1 and Mic 2 will function normally.



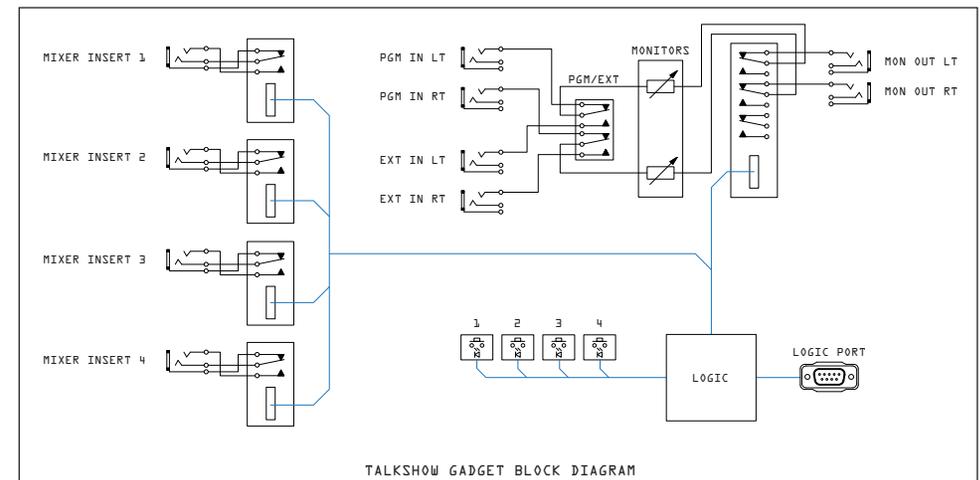
Block Diagrams

Employee productivity throughout the week:



No? You meant the boring kind of diagram? Sorry.

Here's how things are connected inside the Talk Show Gadget:



Riveting data about your gadget.

Part Numbers

Talkshow Gadget (115VAC, US Plug)	Part No. 991008
Talkshow Gadget (230VAC, Europe Plug)	Part No. 991008E
Talkshow Gadget (230VAC, Australia Plug)	Part No. 991008A
Talkshow Gadget (230VAC, UK Plug)	Part No. 991008U

Mic Pushbutton Switches

Momentary action, LED illuminated

Connections

Insert jacks	¼" TRS
PGM and EXT inputs	¼" TRS (balanced) or TS (unbalanced)
Monitor outputs	¼" TRS (balanced) or TS (unbalanced)

Power and Environmental

North American Config.	115VAC 60Hz, NEMA 5-15P power plug
Export Versions	230VAC 50/60Hz, various plugs
Power Consumption	4VAC
Operating Temperature	0° to 40° C (32° to 104° F)
Storage Temperature	-20° to 45° C (-4° to 113° F)
Relative Humidity	0% to 90% non-condensing
Cooling	Vented chassis (fanless)

Product Weight & Dimensions

Width x depth x height	8.5 x 6.25 x 1.70 in., 21.6 x 16 x 4.32 cm.
Weight	3.5 pounds, 1.6 kilograms

Shipping Weight & Dimensions

Length x width x height	12 x 9 x 6 in., 31 x 23 x 16 cm.
Weight	5 pounds, 2.3 kilograms

Box includes:

Talkshow Gadget
DE9M to RJ45F adapter (for logic port)

In The U.S.

In the U.S., this gadget complies with the limits for a Class A computer device as specified by FCC Rules, Part 15, Subpart J, which are designed to provide reasonable protection against such interference when this type of equipment is operated in a commercial environment.

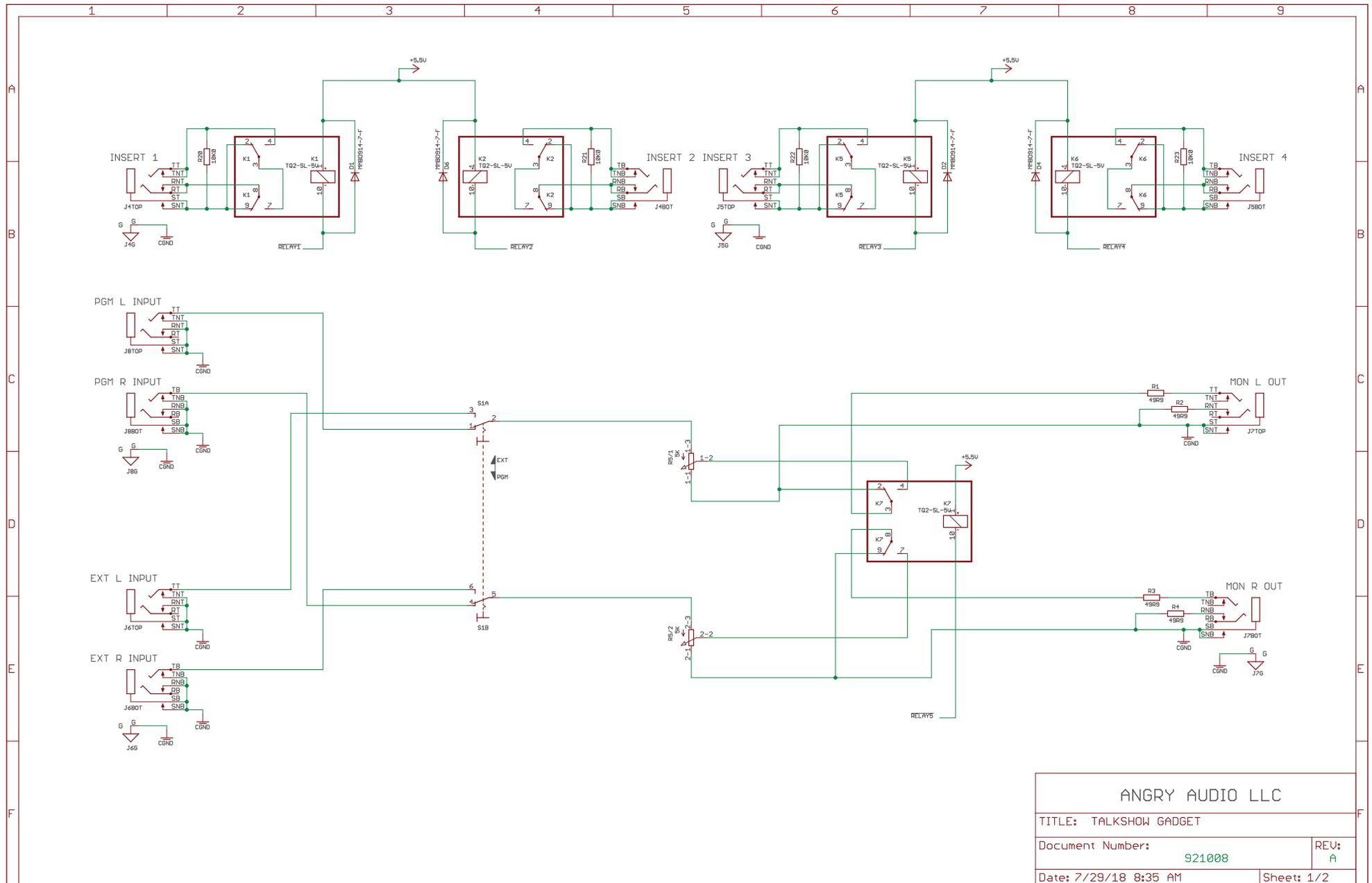
In Canada

In Canada, this gadget does not exceed the Class A limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

In Europe

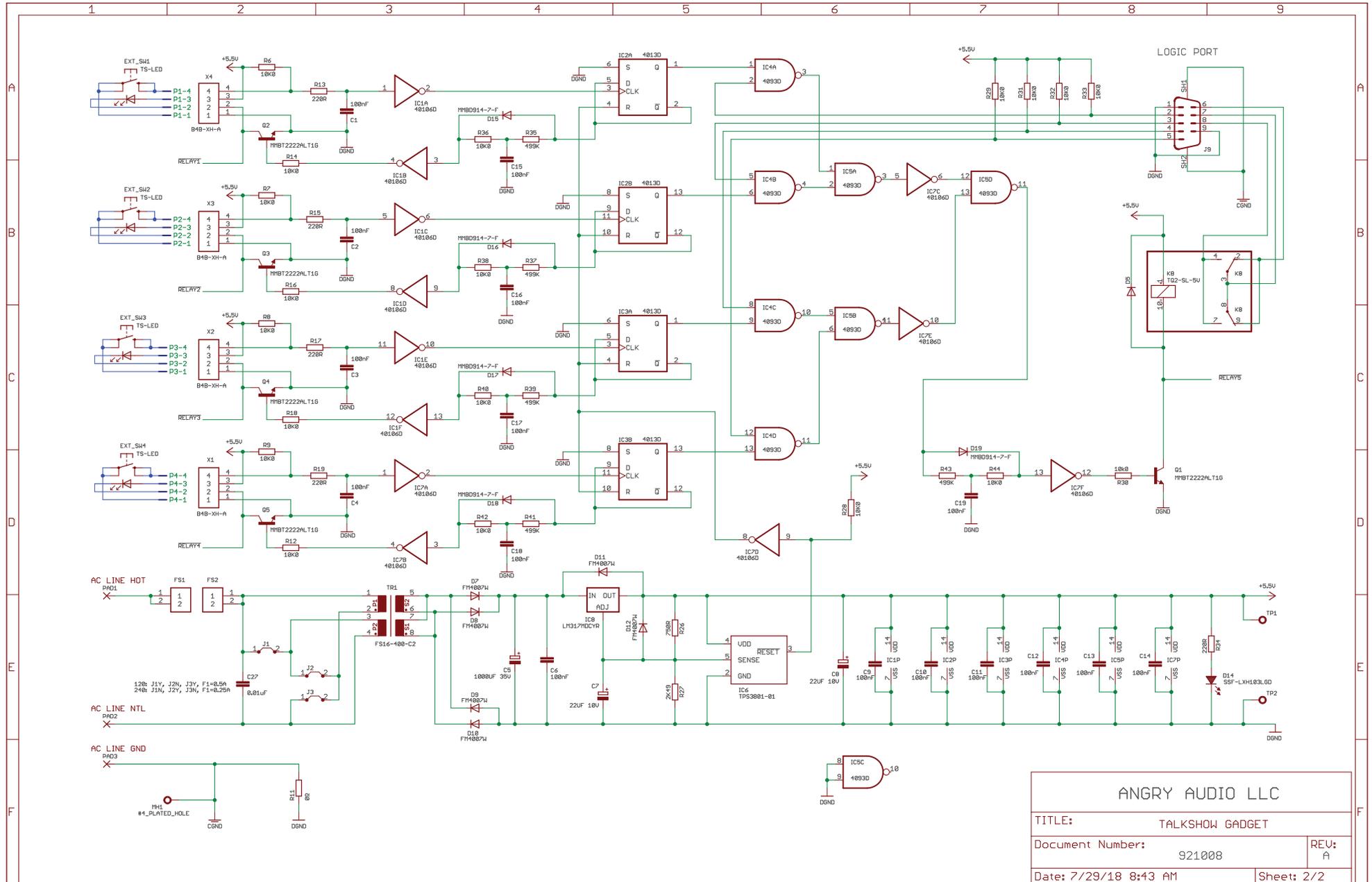
This gadget complies with the requirements of the EEC Council Directives 93/68/EEC (CE Marking), 73/23/EEC (safety – low voltage directive), and 89/336/EEC (electromagnetic compatibility). Conformity is declared to standards EN50081-1 and EN50082-1

A peek deep inside the Talkshow Gadget.



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Date: 7/29/18 8:35 AM	Sheet: 1/2

More intricate details.



ANGRY AUDIO LLC	
TITLE: TALKSHOW GADGET	
Document Number: 921008	REV: A
Date: 7/29/18 8:43 AM	Sheet: 2/2