

2-BUS⁺ USER GUIDE



SAFETY REVIEW

The Exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product



Certain precautions should be taken when using electrical products. Please observe the safety hints by reading the manual and obtaining qualified help if necessary to adhere to the precautions.



1. Always use a properly grounded power supply cord with this product. Please do not defeat the ground pin on the mains plug. This connection provides earth to the chassis and signal grounds inside the device for clean and quiet operation.



2. Avoid high temperature operation in equipment racks by providing air circulation. The number one killer of electronic gear is HEAT. Vented rack panels may look like wasted space to an interior decorator, but they look like beauty to a technician or equipment designer! If the front panel is hot, it is roasting inside the box.



3. Avoid areas of high magnetic fields. The steel chassis is designed to shield the circuits from EMI and RFI (magnetic and radio interference). When installing equipment in racks, it is prudent to put power amplifiers and large power supplies at least several rack spaces, if not in a different rack, away from equipment that deals with low level signals. Separation of high level and low level equipment can pre-empt trouble caused by heat and EMI.



4. Care should be taken to avoid liquid spills around equipment. If a spill occurs, please shut off the gear and disconnect the mains. A qualified technician should investigate accidents to prevent further equipment damage or personnel hazards caused by spills.



5. If one is uncomfortable with opening gear and changing jumpers or making adjustments, please seek qualified help if necessary.



6. If adjustments or jumper changes are required, please disconnect the mains plug before opening the top. Dropped screws or tools on a live circuit board can manifest themselves as burn marks and smoked components. While we feel your pain, (been there) subsequent damage is not covered by the warranty.

Dangerous Music Group, LLC reserves the right to change the specifications or modify the designs of its equipment. Registering online is our way of keeping in touch with users of our equipment should this become necessary. Registration information is always kept confidential and never disclosed to third parties for any reason. Company contact information is on the last page of this manual.



The CE sign on this product signifies the fact that the **2-BUS⁺**® has been tested and verified to conform to the applicable standards of 89/336/EEC.EN55103-1 (emissions) EN61000-2 (immunity) and EN60065:2002 (safety requirements)

This product uses components of the types and quantities that comply with the EC RoHS standard 2002/95/EC. A list of suppliers and materials is available from DMG. We tightly control production to use top quality materials.

THANK YOU

||

Thank you for joining the Dangerous Music family! You will receive years of reliable pleasure from our gear due to careful design, construction, and component choices by recording industry veterans.

The **2-BUS⁺** is designed to inspire your musical genes. No matter if you're on the road or in studio, **2-BUS⁺** allows you to create with unparalleled accuracy, headroom, stereo separation and soundstage- propelling composition, performance, mixing and mastering to new heights like Mallory up Everest. (At the time of writing this manual, the search for his camera was ongoing.)

Though the box is overwhelmingly simple in appearance, there are comprehensive tips and application notes in this user's guide, so don't skip the read. Crack a beer and get listening-

mark styers

President and Audio Outlaw



ABOUT DANGEROUS MUSIC

Dangerous Music is composed exclusively of musicians, studio owners, producers and engineers – the very same group of people for whom Dangerous products are designed. That's the magic: living the recording experience on both sides of the control room glass and constantly working to improve it. (Without shareholders to engineer profits for at the expense of the artists using the gear).

From the inception, building to a "price point" was ignored in favor of: Audio Quality First. Our brain trust at Dangerous determines the product's function, feature set and how to make it sound as transparent, musical and versatile as humanly possible. We build the gear we want to use.

"Audio Integrity: non-negotiable." This is our founding credo. The results are products that resurrect dynamic range, punch, intelligibility and emotion. These high-fidelity, uncompromising signal paths are achieved by harnessing over 20 years of Chris Muth's design wizardry; creator of infamous custom black boxes for world class facilities like Hit Factory, Masterdisk, Absolute Audio and Sterling Sound Mastering. He leads our design team into the future and once in beta, the critical listening skills of golden-eared luminaries are applied, with the result being musical tools that fulfill the actual needs of today's flexible computer based studio.

CONTENTS

Overview	1
2-BUS⁺: Quickstart Guide	2
Unpack And Power Up	2
Connect The 2-BUS ⁺ To Your Studio	2
Zero Out The 2-BUS ⁺	2
Stem Out A Mix And Make Some Sound.	2
Start Mixes In The Analog Mixing Environment	2
Try Out Some Real Analog Color.	3
Meet The Tone Circuits.	3
Try Some Instant Re-patching	3
Try and Enjoy	3
2-BUS⁺: Front Panel Features & Benefits	4
LED Metering	4
Mono Buttons	4
Effects Control: Parallel & Series Processing	5
Effects Control: Assignment & Engagement	5
Effects Control: Harmonics	6
Effects Control: Paralimit	6
Effects Control: X-Former	7
Effects Control: External Insert	7
Output Level Trim.	8
2-BUS⁺: Rear Panel Features & Benefits	8
DB25 & XLR Inputs	8
Expansion Inputs	9
External Insert	9
Main & Monitor Output	10
Power Cable & Fuse	10
2-BUS⁺: Routing Scenario	11
Routing In Pro Tools (One Of Many Options)	11
2-BUS ⁺ with 16 Channel Interface.	12
2-BUS ⁺ , CONVERT-8, CONVERT-AD ⁺ , MONITOR-ST	13
2-BUS ⁺ Expansion	14
2-BUS ⁺ CONVERT Series Integration.	15
2-BUS ⁺ with LIAISON Integration	16
2-BUS ⁺ in Dangerous SYSTEM COMPLETE	17
Specifications	18
Warranty	19

30,000' OVERVIEW

The **2-BUS⁺** is a two-rack-space, 16-channel analog summing mixer with both XLR and DB25 inputs. Innovative features include three custom tone circuits that allow you to flexibly add real analog color to your mixes. **Harmonics** is a euphoric odd- and even-order distortion generator; **Paralimit** is a hard-hitting FET-style limiter; and **X-Former** is a custom wound pair of CineMag output transformers with an exclusive core-overdrive circuit. Both **Harmonics** and **Paralimit** can be applied across the stereo mix together or separately and then blended in with the main signal or on a pair of stems for instant parallel processing. '**X-Former**' inserts the pair of custom transformers across the stereo mix and has a control for core saturation that's totally unique to Dangerous products. All three tone controls can be active at once, and the order of signal flow through **Harmonics** and **Paralimit** can be flipped.



CONTENTS: Inside the box you'll discover the **2-BUS⁺**, this manual, a standard 3 Pin IEC power cable and a ton of sonic sculpting opportunities.

Note: We recommend reading the entire manual before using the **2-BUS⁺** so that you can get the most out of its unique and powerful features right away- but... if you can't wait, we did cook up a Quickstart Guide here.



2-BUS⁺: Quickstart Guide

UNPACK AND POWER UP

Remove the **2-BUS⁺** from the box along with the included IEC power cable and plug the unit into AC mains power.

Turn on the power switch next to the AC cable socket on the back and confirm that the unit has powered up by checking that the front panel LEDs are illuminated.

Turn the unit off.

CONNECT THE **2-BUS⁺** TO YOUR STUDIO

Using high quality cables, connect the outputs of your digital-to-analog converter to **either** the XLR or DB25 connectors on the back of the **2-BUS⁺**.

Connect the stereo MONITOR OUTS to a balanced input on your monitor controller. **Do not hook the 2-BUS⁺ directly to speakers.** Excellent monitor controller options include The Dangerous SOURCE, D-BOX⁺ or MONITOR-ST.

Connect the stereo MAIN OUTS to your final print path (back into your DAW Interface, 2-Channel A/D converter or to an external digital or analog 2-track recorder).

TIP: If you're using a patch bay, make the same connections according to your bay's routing. Be sure to use high quality patch bays and cables (like Mogami) to assure the best connections for all the gear in your studio.

ZERO OUT THE **2-BUS⁺**

Power up the **2-BUS⁺**.

Set the Attenuator to the 12 o'clock position (orange triangle).

Disengage the **Harmonics**, **Paralimit**, and **X-Former** buttons (light dim) and turn their knobs fully counter-clockwise.

Make sure the EXT. INSERT is disengaged (light dim).

STEM OUT A MIX AND MAKE SOME SOUND

Assign track outputs or groups of track outputs (called "stems") from your DAW to the channels you want them to occupy on the **2-BUS⁺**. You might send all the drums out in stereo on channels 3-4, guitars on 5-6, etc. . . . or individually (kick out 1, snare out 2...)

Assign mono tracks from the DAW that you'd like to have in the middle of your mix (perhaps bass and lead vocals) to channels 1-2 or 9-10 and then engage the **MONO** buttons to bring those channels to the center of the mix. Mono sounds more powerful assigned on the **2-BUS⁺** than using mono in your DAW.

Press play and use your DAW to get a basic mix happening. Enjoy mixing in analog- it feels good!

TIP: Don't overthink the routing. Just remember that sounds with loud transients should be spread out to take the stress off the DAW. Remember, there's no one right way to organize a mix. Every project is unique, and even different genres of music call for different approaches. Organizing the routing in effective ways is part of the craft of analog mixing. See our website or read the rest of this manual for routing examples, diagrams and helpful tips.

START MIXES IN THE ANALOG ENVIRONMENT

Analog and digital mixing environments are very different, and what worked "in the box" might not hold up once it's being

summed in analog. Ultimately you'll get far better results in analog, but if you need to rework a pre-existing digital mix, we strongly recommend zeroing out the mix, removing the plug-ins and starting from scratch. You'll mix faster, with deeper enjoyment and better results.

Begin all new mixing projects through the **2-BUS⁺** (Create a template in your DAW). That way you won't have to re-do anything down the road. You'll be surprised how quickly you can work in the analog environment.

TIP: Try mixing without any plug-ins. Many mixing engineers used to working in the box depend on plug-ins to get their mixes to gel together, but when you mix in the analog realm some of those plug-ins could be constricting your original sonics. Deinstantiate all of them and get a cool balance happening in the analog environment. Now see judiciously select where and when you'd like to change any of the original sounds with your plug-in processing. Many users find they use far fewer when mixing with the active summing amps in the **2-BUS⁺**.

TRY OUT SOME REAL ANALOG COLOR

Once you've got a decent balance together, go ahead and dial in some color with the unique on-board analog circuits.

Engage **Harmonics** by pressing the button so it lights up, and then turn the knob clockwise to increase the effect. Do the same for **Paralimit** and **X-Former**, blending all three colors to taste.

Try "Flip" to change the order of **Harmonics** and **Paralimit**.

MEET THE TONE CIRCUITS

Harmonics is a totally unique analog saturation circuit that adds the perfect blend of even and odd harmonics to your mix or stem. At subtle settings, the sound will gently glow. Turn it up for more obvious distortion! (Note: This is shaped distortion, not the same thing as turning a guitar amp up to 11). Sprinkle it on female backup vocals to add sparkle without sibilance or a percussive sound like handclaps, claves (cowbell?) to push it forward.

Paralimit is inspired by the famous Urei 1176 Limiting Amplifier with all of its ratio buttons pushed in simultaneously (NUKE!), a cool insider trick that generates an explosive sound. Blend **Paralimit** into the full mix or a drum kit or to any stem assigned to 13-14 or 15-16. This can add considerable excitement to the source (like a shot of Tequila)- driving it harder in the hooks is a great seasoning to punch up the ante.

X-Former inserts a pair of customized CineMag transformers across the mix buss and lets you drive the core with a very unique circuit developed by our sonic craftsman, Chris Muth. Listen closely for a tightening of the low-end and increased richness in the mids as you drive it harder. It is giving you more perceived energy in the bottom, but with fewer bandwidth wasteful frequencies.

TRY SOME INSTANT RE-PATCHING

Because **Harmonics** and **Paralimit** are instantly assignable (independently or together) to channels 13-14 and 15-16, you can choose to take them off the mix buss and use them on channel pairs.

The FLIP button changes the order of **Harmonics** and **Paralimit** when they're assigned to the mix buss or to a channel pair together. Flipping them allows for different interactions between the two circuits.

TIP: The **Paralimit** circuit gives you incredibly high-quality analog parallel compression processing. Famously used by the top pro mixers, blending in a bit of "squashed" signal with the original signal adds umph, sustain and energy to your mixes. Try blending **Paralimit** into a drum stem for huge drum sounds, or try a little on a vocal to punch the edges up and out.

RELAX AND ENJOY

With the **2-BUS⁺** you're using the best analog summing mixer available. Your ears will thank you, and so will your clients. Take your time getting to know its high-fidelity sound, its powerful tone circuits, and most of all take time to enjoy mixing in the analog environment. Many claim that analog mixing takes the stress and fatigue out of digital work, that they are more relaxed and energized throughout even the longest mixing sessions. We think you'll agree.

2-BUS⁺: Front Panel Features & Benefits

01. LED METERING



[SIGNAL PRESENT LEDS PICTURED ABOVE]

Feature: LED Metering.

Benefit: Verify audio is present on any of the 16 channel inputs- simplifies troubleshooting.

Tip: 🖐️ LEDs will either be dark when no audio is present or green when signal is present. They will not turn red for overload- because the **2-BUS⁺** has more headroom built in than any D/A converter set to standard calibrations can output. Meaning you will clip in your DAW before you ever get close to clipping the **2-BUS⁺**. The **2-BUS⁺** provides 6dB of headroom above full-scale output of a converter calibrated to the industry standard of -18dBu per input.

02. MONO BUTTONS



[MONO BUTTONS PICTURED ABOVE]

Feature: Switch inputs 1&2 and/or 9&10 from stereo to mono.

Benefit: Pan specific instruments straight up the middle of your mix.

Example: If you have the kick drum on input 1, the snare on input 2, the bass guitar on 9 and the lead vocal on 10, then the mono buttons could be engaged to send those four elements straight up the middle of the mix.

Tip: 🖐️ Want to drop your favorite EQ on the lead vocal? No problem. Simply patch it between your D/A (or interface) to the EQ and into input 10. Boom! You're processing in analog, which means no latency that can cause phasing and other issues while mixing. Many users are wiring the **2-BUS⁺** into a patch bay or a Dangerous LIAISON™ along with their converters to make for even easier integration of their outboard gear.

03. EFFECTS CONTROL: PARALLEL & SERIES PROCESSING



[PARALLEL & SERIES PROCESSING KNOBS PICTURED ABOVE]

Feature: Each of the three color options are controlled individually via a continuously variable potentiometer. Both **Harmonics** and **Paralimit** are blended using parallel processing. The **X-Former** is wired in series, meaning that the CineMag transformers are patched across the stereo mix directly, rather than blended in parallel. However, you can control how hard the X-Former circuit is driven with the “Saturate” knob.

Benefit: Dictates the amount of direct (non-effected, dry) or processed (effected, wet) signal to achieve the right balance of color for every mixing project. Instantly and simply achieve otherwise complicated parallel processing at the push of a button and the turn of a knob.

Tip: 🙌 The parallel processors are virtually level matched- meaning that from dry through to wet the level will be largely unchanged. Not only does this help you maintain levels in your mix while adding processing, it also keeps you from falling for the “louder is better” fallacy so common when comparing processed and unprocessed signals.

04. EFFECTS CONTROL: ASSIGNMENT & ENGAGEMENT



[EFFECTS ASSIGNMENT & ENGAGEMENT CONTROLS PICTURED ABOVE]

Feature: All three color options may be assigned to the mix buss. **Harmonics** and **Paralimit** can alternately be assigned to mix stems 13-14 or 15-16 individually or together. When assigned together, the “Flip” button instantly changes the order of **Harmonics** and **Paralimit**.

Benefit: With the simple front panel buttons and knobs, you are instantly creating complex patches and parallel processing configurations in a hassle-free way – all in the analog realm. Many engineers will confess to not trying out alternate configurations if it involves elaborately re-patching their mix, so now there’s no excuse not to try a radically different configuration on the fly. Experimentation often leads to new discoveries and great results (just ask your partner). Assigning **Harmonics** and **Paralimit** to separate stems (13-14 or 15-16) allows for quick analog parallel processing of individual instrument pairs within the mix. Combine them in any order with the “Flip” control, or use them separately.

Insert the on-board CineMag transformers and “Saturate” them to taste.

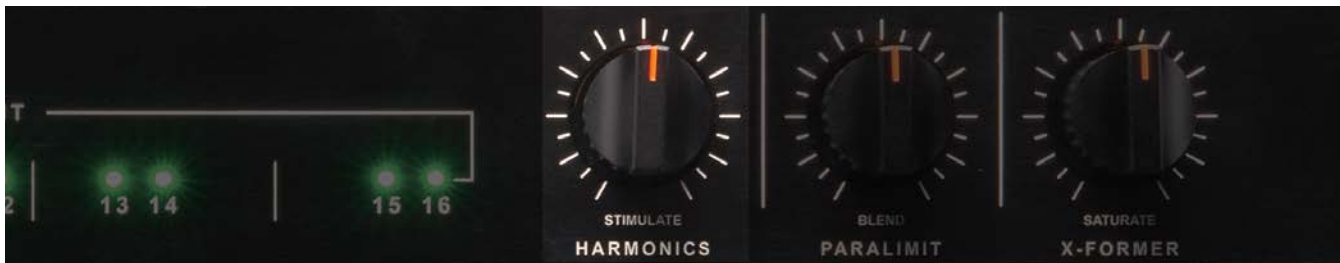
Use the External Insert to patch your favorite outboard processing to the entire mix at the press of a button. This is the last point in line before the output. In other words, the insert follows the color circuits.

Use: Simply press the buttons to engage the effects on the appropriate stem or master mix buss.

6 | DANGEROUS MUSIC

Tip: 🙌 All three color options employ True Hard Wired Bypass technology. In other words, when the effect is disengaged, the circuitry is completely out of the signal path, allowing for true A/B comparisons. This also allows you to use the **2-BUS⁺** in its pure form as the most transparent analog summing mixer available.

05. EFFECTS CONTROL: HARMONICS



[HARMONICS CONTROL PICTURED ABOVE]

Feature: Tuned harmonic distortion generator in parallel.

Benefit: Introduces a controlled amount of analog distortion. Our lead designer, Chris Muth, has carefully tuned the amount of even- and odd-order **Harmonics** for a very musical analog sound. For example, add shimmer to drum overhead mics, warm up the whole mix, sweeten female backup vocals adding sparkle without sibilance or a percussive sound like handclaps, claves, timbale to push it forward.

Operation: Select where to insert the effect (i.e. Buss 13-14, Buss 15-16 or the Master Buss) then starting with the knob fully counterclockwise (dry), turn it clockwise (wet) to introduce the effect.

Tip: 🙌 Try training your ear to see how little of the Harmonic effect you can reliably discern. As years of experience add up, you'll be able to discern smaller and subtler differences in tone. The **Harmonics** circuit can add nuanced colors that are consciously audible to some people and only subconsciously felt by others. Experiment and test your perceptual skills.

06. EFFECTS CONTROL: PARALIMIT



[PARALIMIT CONTROL PICTURED ABOVE]

Feature: **Paralimit** is a Dangerous-original design inspired by the famous UREI 1176 FET Limiting Amplifier with “all buttons in.” “ABI” was a trick where the ratio selectors were all pressed at once to give the 1176 a near infinite ratio that absolutely slammed signals. We’ve added our unique implementation of preemphasis to help it cut through the mix without the inrush.

Benefit: Add as much or as little “crush” to your stems or master buss as you choose. Subtly blend **Paralimit** into stereo background vocals, strings and keyboard pads to “consolidate” them and help them cut through. Especially effective on drum tracks when an aggressive sound with lots of sustain is called for. Will not introduce “swoosh” artifacts upon the initial attack, collapse the stereo image, or suck the life out of the bottom end.

- Use:** Select where to insert the effect (i.e. Buss 13-14, Buss 15-16 or the Master Buss) then starting with the knob fully counterclockwise (dry), turn it clockwise (wet) to introduce the effect.
- Tip:** 🎯 Assign 13-14 or 15-16 to an aux buss in your DAW and automate how much you'd like to introduce. Ride it in the hooks to add excitement and lay back on the verses to alternate the song's tension.
- Tip:** 🎯 Use the red LED to determine when you're crossing the Threshold. See photo under item 4 for a screenshot.

07. EFFECTS CONTROL: X-FORMER



[X-FORMER CONTROL PICTURED ABOVE]

Feature: **X-Former** utilizes a pair of customized CineMag transformers with a Muthian designed core saturation circuit that takes a unique approach to generating real analog artifacts and tone.

Benefit: When merely inserted and not driven, the CineMag transformers will add a subtle tightening to the low-end and will firm up the whole mix. By turning up the knob, you begin to drive the transformer in a controlled manner that eventually gives way to a unique analog distortion when fully clockwise.

Use: Insert the effect by selecting the X-Former Mix Buss button, then starting with the knob fully counterclockwise (dry), turn it clockwise (wet) to introduce more of the effect.

Note: The X-Former is engaged even when the knob is fully counterclockwise (It is in series, not parallel).

Tip: 🎯 Try working with the transformer circuit on, but turned fully counterclockwise. The subtle tightening of low end will often allow you to do less compressing to low end content, like bass and kick drums. Many vocal tracks will also pick up a hint of interest from the subtle effects of running your mix through excellent transformers.



[CUSTOM WOUND TRANSFORMERS PICTURED ABOVE]

08. EFFECTS CONTROL: EXTERNAL INSERT



[EXTERNAL INSERT SWITCH PICTURED ABOVE]

Feature: Have a favorite piece of gear or chain of outboard for the Mix Buss? Rented or borrowed a piece of gear to audition in your arsenal? Connect it here and turn it on and off instantly with the EXT. INSERT button.

Benefit: Audition outboard gear at the touch of a switch on a True Hardwire Bypass for honest A/B comparisons. Also, the outboard changes will be audible via the Monitor Output vs. daisy chaining the Main Output to outboard, which requires monitoring of the final “print track” in your DAW for comparisons.

Operation: Simply press the EXT. INSERT button to instantly patch in your favorite outboard gear. Hard-bypass when disengaged.

Tip 🎧: Imagine Buss B of the Dangerous Liaison wired to the External Insert for instant A/Bs- Boom!

09. OUTPUT LEVEL TRIM



[OUTPUT LEVEL TRIM STEPPED ATTENUATOR PICTURED ABOVE]

Feature: The stepped attenuator (not a potentiometer) can cut -4dB or boost 6dB for the final print stage.

Benefit: The exacting stepped attenuator has .01dB of tolerance, meaning it tracks identically through the entire range, allowing the stereo image to remain unchanged. Recall your exact settings easily due to the steps.

Operation: Twist at will to compensate for any added or lost gain during mixing to get the perfect print levels for your mix, whether you’re printing to tape, back into your DAW or to an external digital recorder.

Tip 🎧: If sending the Mix Output into outboard gear, it may be desirable to “drive” it by pushing the output of the **2-BUS⁺**. For example, certain vintage compressor / limiters utilize a fixed ratio, so by cranking more level (i.e. voltage) into their input stage, the effect will be more dramatic and thus, audible. Conversely, reducing the level to external gear will have the opposite effect (especially when attempting not to blow out A/D converters and plug-in limiters!).

2-BUS⁺ : Rear Panel Connections

10. DB25 & XLR INPUTS



[REAR PANEL INPUTS PICTURED ABOVE]

Feature: High-Quality DB25 Connectors and XLR input connectors.

Benefit: High-quality connectors assure proper connection of all your equipment in and out of the **2-BUS⁺**, while the option to use either DB25 or XLR makes for versatile and quick setup in any studio configuration.

Note: DB25s wired per the Tascam-Avid standard. Please use high quality cables when connecting your beloved audio gear.

Tip 🖐️: Utilize either set of inputs at your convenience. (Do not use them simultaneously!)

11. EXPANSION INPUTS



[EXPANSION INPUTS PICTURED ABOVE]

Feature: Expand your **2-BUS⁺** by patching in another **2-BUS⁺**, a 2-BUS-XT or a D-BOX⁺ here.

Benefit: There are plenty of mix engineers out there with three or more Dangerous Music summing mixers linked together for even more channels of potent active analog summing.

Note: If combining the **2-BUS⁺** with other models, make it the final unit in the chain in order to apply the colors to the entire mix.

Tip 🖐️: Want to employ an external console? Take the master outs of your mixer and connect them to the Expansion Inputs of the **2-BUS⁺**.

12. EXTERNAL INSERT



[EXTERNAL INSERT CONNECTIONS PICTURED ABOVE]

Feature: Have a favorite piece or chain of outboard for the Mix Buss? Rented or borrowed a tasty morsel of gear to audition for your arsenal? Plug it in here.

Benefit: Audition outboard gear at the touch of a switch on a True Hardwire Bypass for honest A/B comparisons. Also, the outboard changes will be audible via the Monitor Output vs. daisy chaining the Main Output to outboard, which would require monitoring of the final “print track” for comparisons.

Operation: Hit the External Insert button and tweak your outboard at will.

Tip 🖐️: Imagine Buss B of the Dangerous Liaison wired to the External Insert for instant A/Bs- Boom!

13. MAIN & MONITOR OUTPUT



[MAIN & MONITOR CONNECTIONS PICTURED ABOVE]

Feature: Use the MAIN OUTPUT to feed whatever you're using to capture your mix. A high end A to D converter like the CONVERT-AD+, a pair of interface inputs back into your DAW, an external digital recorder or analog tape machine are typical destinations for final mix prints.

Use the MONITOR OUTPUT to feed your monitor controller (for example, The MONITOR-ST, The SOURCE, D-BOX+ etc...).

Benefit: The MAIN and MONITOR paths offer essential big-console functionality, executed here to the highest standards so that so that true A/B comparisons before and after the print A/D converter are effortless. What you hear is what you'll print.

Operation: Patch accordingly in your studio, either directly or via a high-quality patch bay or Dangerous LIAISON.

14. POWER CABLE & FUSE



[AC INLET & FUSE HOLDER PICTURED ABOVE]

Feature: Utilizes a standard 3 pin IEC power cable.

Benefit: Easy to purchase or steal if lost.

Feature: Switching power supply auto detects voltage, but you must use the correct fuse value.

Benefit: Travel with your favorite gear anywhere in the world while spreading the audio gospel.

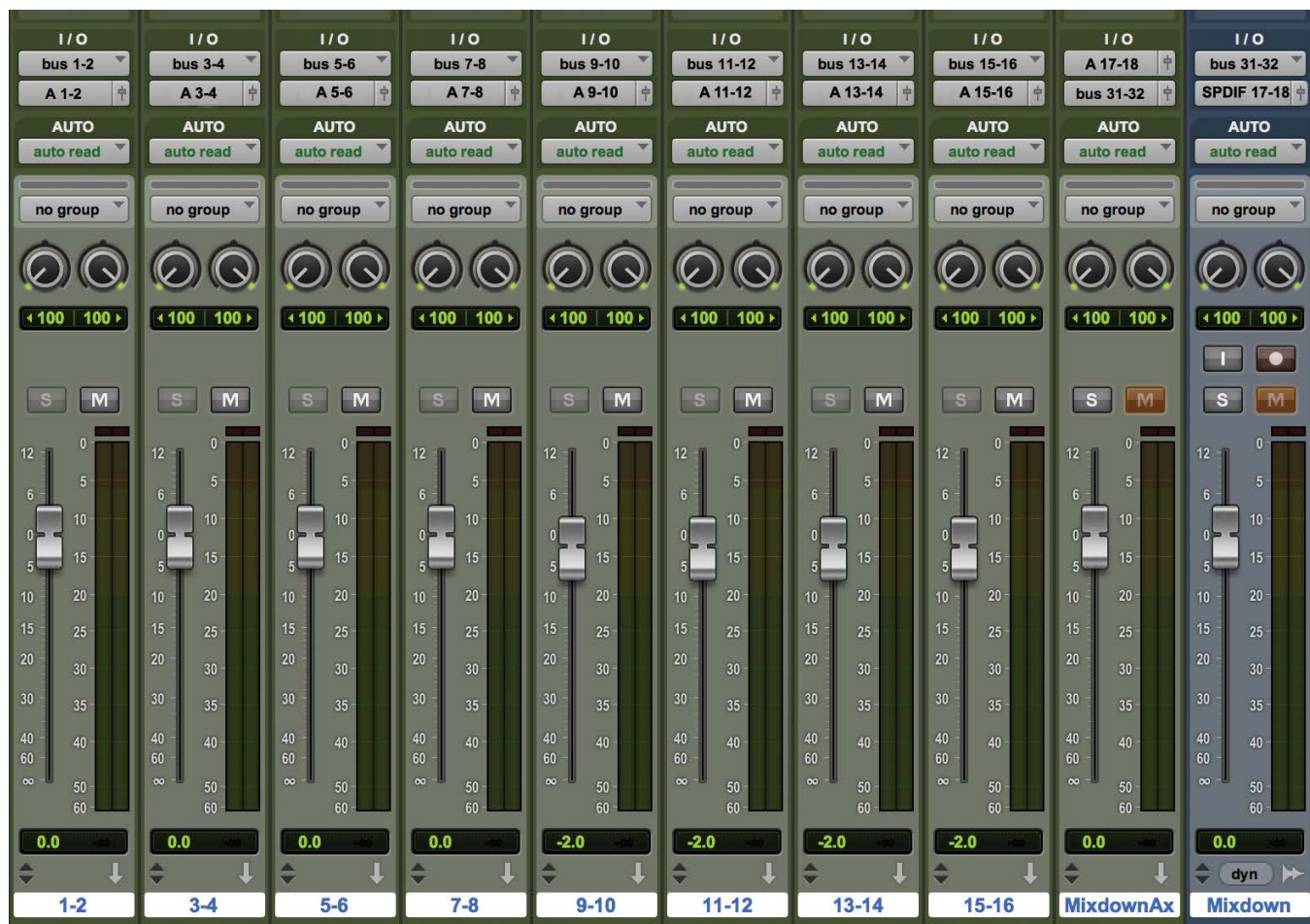
Operation: Unit ships with voltage appropriate fuse value. To change it, use a screwdriver to gently pry the mains inlet module's cover open and insert the correct voltage. Fuses for the alternate voltage are included in the shipping box.

Tip: ✌ The power switch is on the inlet module. Seat the AC cable completely and use properly grounded power mains for safe and quiet operation.

Tip: ✌ If the **2-BUS+** will not power on and the power is known to be good, check the fuses under the inlet module's cover. Use 2 amp Slo-Blo for 90-120V (Americas) and 1 amp Slo-Blo for 200-240V (Europe). Switching fuses will not void your warranty. Switching to inferior summing mixers will.

2-BUS+: Routing Scenario

15. ROUTING IN PRO TOOLS (ONE OF MANY OPTIONS)



[SCREEN SHOT OF PRO TOOLS 11 ROUTING PICTURED ABOVE]

For this example, we assume you've

01. Wired 16 analog outputs from your interface or D/A converter (like 2 CONVERT-8s) into the 16 inputs of the **2-BUS+**
02. Connected the stereo MONITOR OUTS to a balanced input on your monitor controller (like a MONITOR-ST), not directly to your speakers
03. Plugged the stereo MAIN OUTS back into your A to D (like the CONVERT-AD+) or DAW interface
04. Sent the digital output to your monitor controller for the final mix. (Refer to the wiring diagram ahead).

Next, open your DAW and create 8 stereo aux tracks that correspond to their associated outputs. In other words, Aux 1-2 has Analog 1-2 of your interface as its output, and internal buss 1-2 as its input. Subsequent busses follow the same pattern (see picture above). You can name these aux tracks once you know what you will be sending to them (i.e. Drum Buss, Background Vocals, Effects, etc).

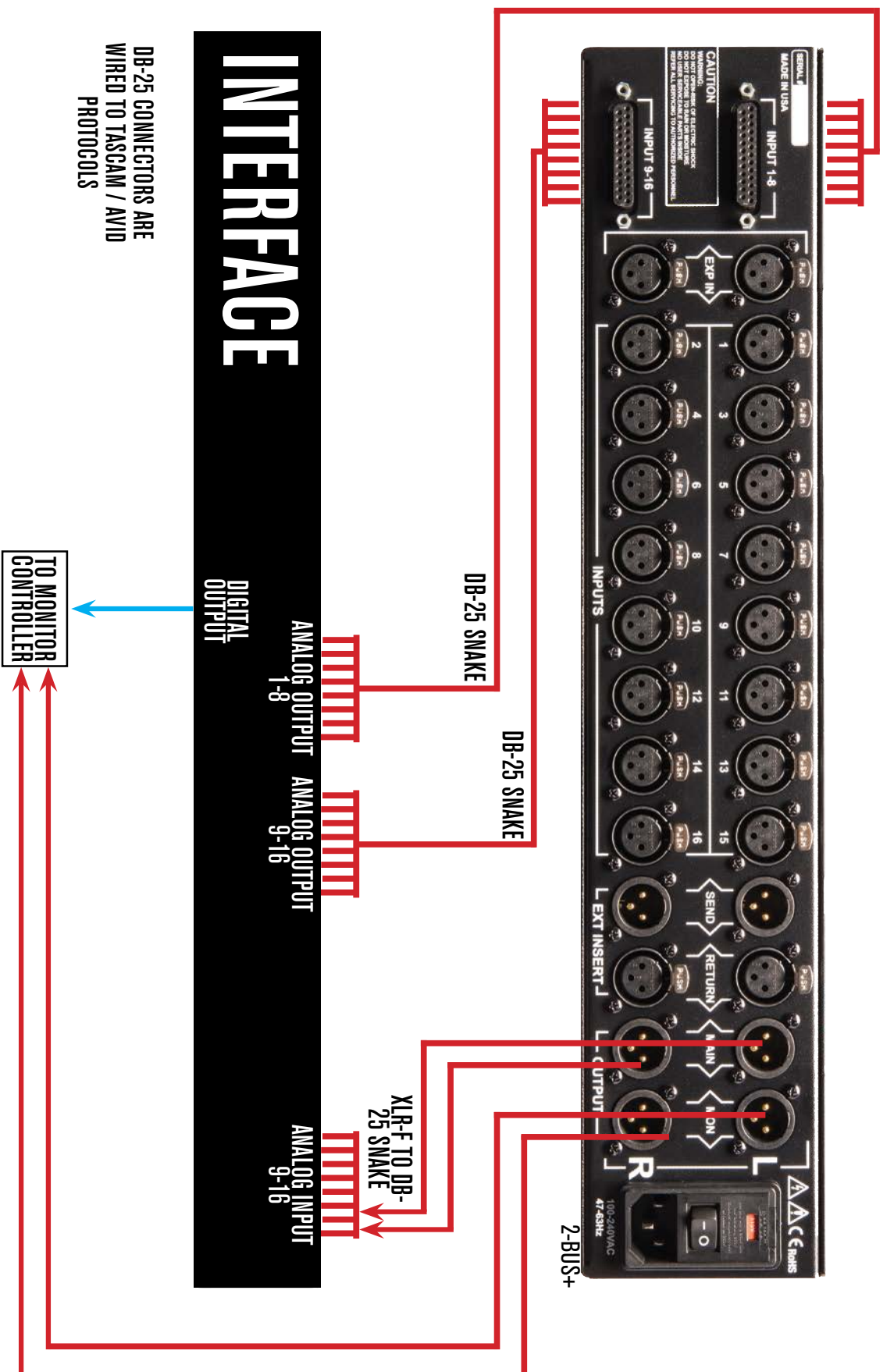
Assign tracks from your session to these busses according to how you would like to split up your stems (i.e. all guitar tracks are bussed to 3-4, all percussion tracks are bussed to 5-6). For important mono tracks such as kick drum, snare drum, lead vocal, or bass guitar, you can utilize the mono buttons on the **2-BUS+** by sending these tracks to the busses or directly out 1, 2, 9, or 10.

Note the return to your DAW (in this example 17-18) is on an AUX because you may want to instantiate a plug-in here. That AUX is assigned to the stereo track named "Mixdown". This will be your final printed master.



**DANGEROUS
MUSIC**

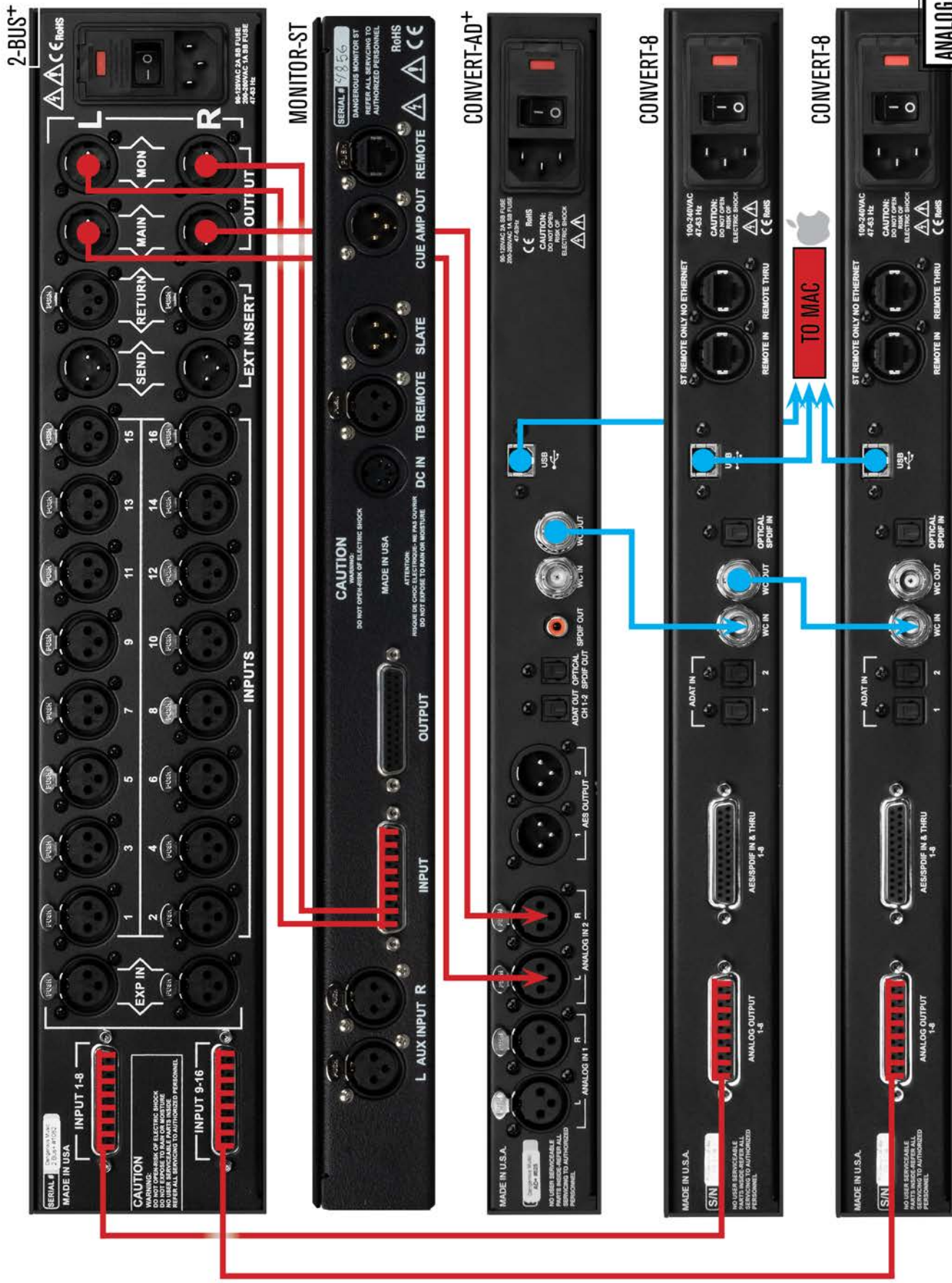
2-BUS+ with 16 CHANNEL INTERFACE



DB-25 CONNECTORS ARE
WIRED TO TASCAM / AVID
PROTOCOLS



2-BUS+, CONVERT-8, AD+, MONITOR-ST

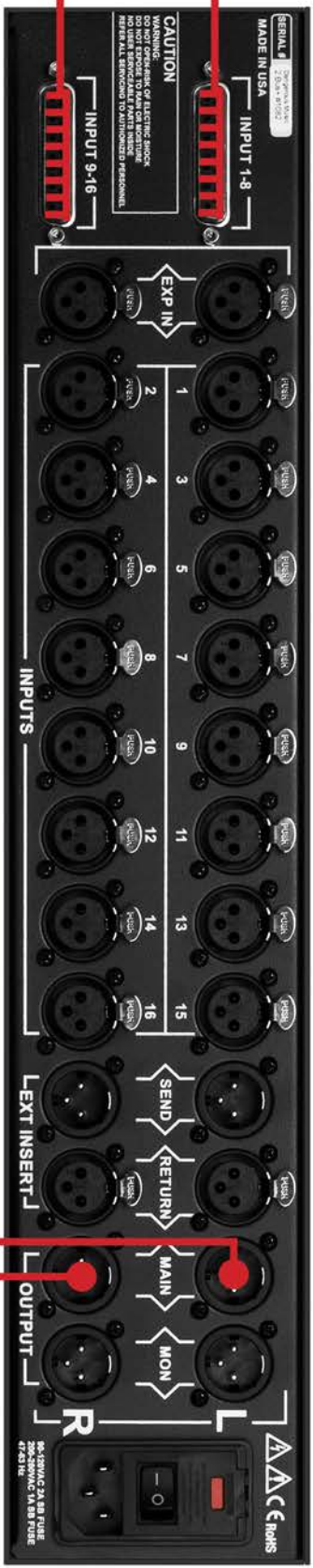




**DANGEROUS
MUSIC**

2-BUS+ EXPANSION

2-BUS+ 1-16



2-BUS+ 17-32



MONITOR-ST



CONVERT-AD+

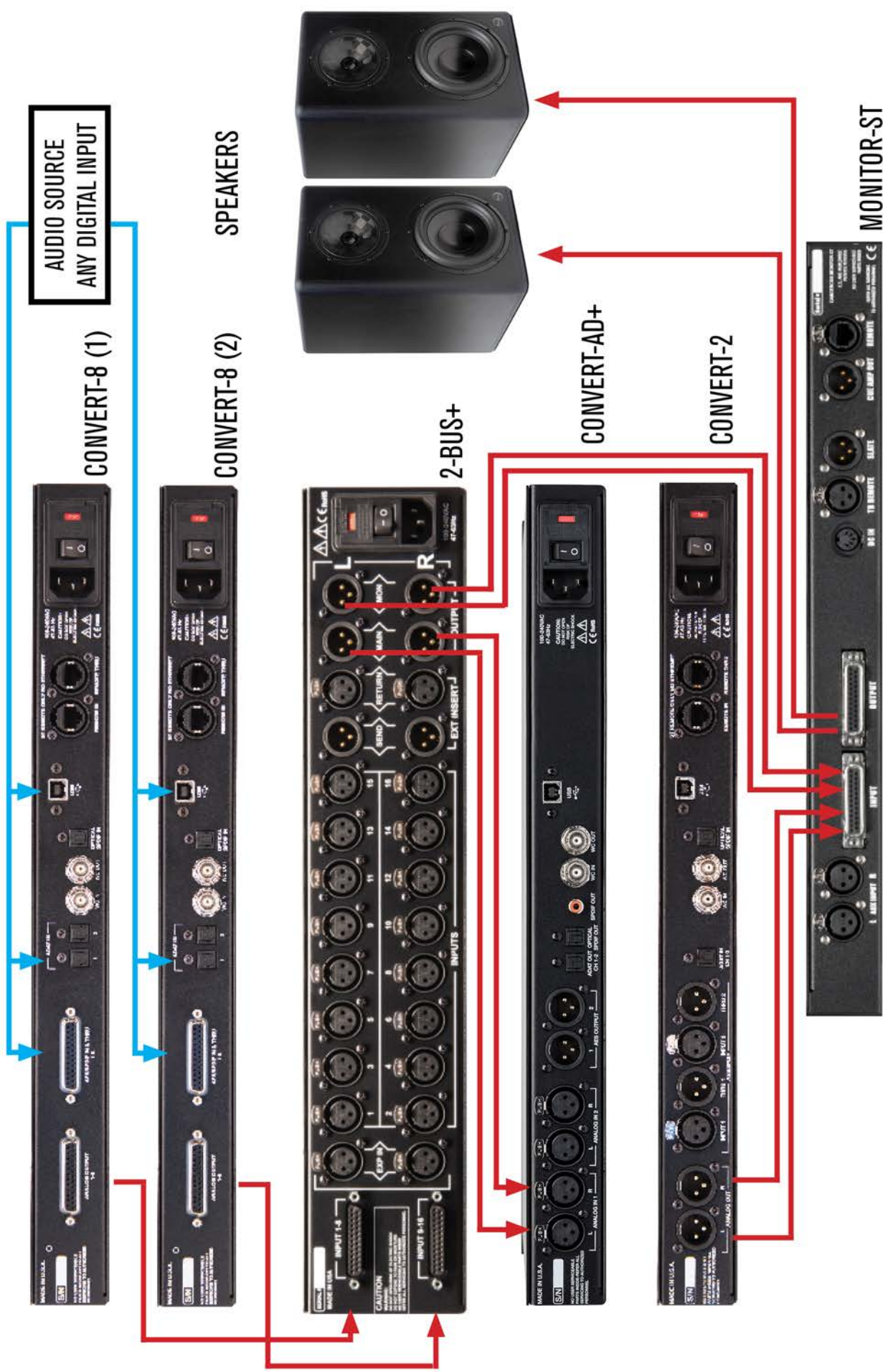


ANALOG CABLE: —

DIGITAL CABLE: —



2-BUS+ & CONVERT INTEGRATION



ANALOG CABLE: —
DIGITAL CABLE: —



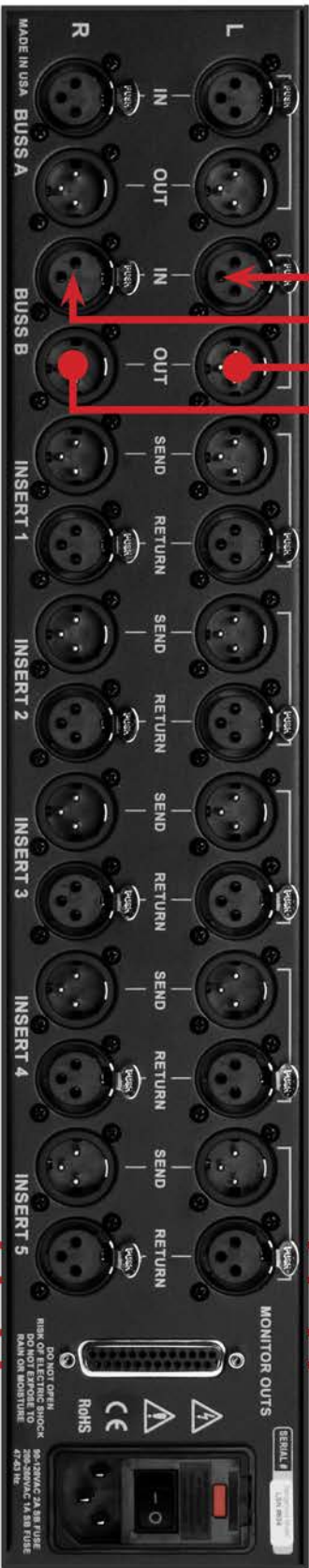
**DANGEROUS
MUSIC**

2-BUS+ & LIAISON

2-BUS+ 1-16



2-BUS+ 17-32



MONITOR-ST



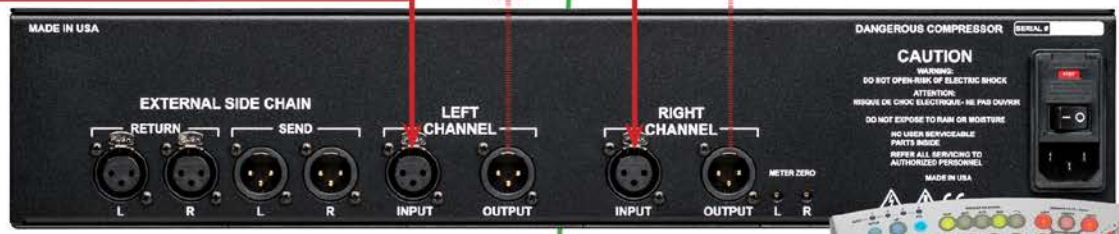
CONVERT-AD+



ANALOG CABLE: —
DIGITAL CABLE: —



MIC PRE OUT



SPECIFICATIONS

Note: Dangerous Music, Inc. publishes actual measured specifications, not theoretical numbers derived from data sheets published by chip manufacturers.

THD+N @+4dBu 1KHz, unweighted, 22Hz to 22kHz < 0.0048%

THD+N @+22dBu 1KHz, unweighted, 22Hz to 22kHz < 0.0026%

IMD @ +4dBu < 0.0038%

IMD @ +22dBu < 0.0021%

Crosstalk rejection > 108dBu @ 1KHz

Noise at Unity Gain 22Hz to 22KHz: < -86dBu

Noise at Nominal Mix Setting 22Hz to 22KHz: < -91dBu

Frequency Response Flat within 0.1dB from 10Hz -50kHz

Input Impedance 25K Ohms Balanced

Output Impedance 50 Ohms Balanced

Replacement Fuses: AMERICAS 90-120VAC 2 Amp Slo-Blo fuse

EUROPE 200-260VAC 1 Amp Slo-Blo fuse



WARRANTY

Free 2 year extended warranty with online registration.

Standard warranty: 90 days parts and labor, subject to inspection.

Does not include damage incurred through shipping damage, abusive operation or modifications/attempted repair by unauthorized technicians.

USA	EUROPE
Dangerous Music Group, LLC	Dangerous Music Europe
New City, NY 10956	Raderbergerstr.175
	50968 Cologne, Germany
Phone: 845.202.5100	Fon: +49 2236 393731
Fax: 845.818.4109	Fax: + 49 2236 393732
Email: support@dangerousmusic.com	E-mail: info@dangerousmusic.de

Dangerous Music Group, LLC reserves the right to alter the software and design of their equipment.

If after reading the manual more information for an application is needed, please contact us via email for the quickest response.

- Factory contact for RA# must occur before shipping a unit to us for service.
- Please keep the original cartons in case storage or transportation of units is required.
- Always insure shipment as these damages are not covered by the warranty.
- Thank you for actually reading the manual. Now go make some dangerous music!



HEAR EVERYTHING[®]



SACRIFICE NOTHING[®]