

Audio impedance and level matching

BALANCING GADGETS



Ground breaking technology. And for once, that's not hyperbole.

Balancing Gadgets

Professional applications use balanced audio for good reason. Balanced circuits offer many performance advantages compared to unbalanced audio, such as increased headroom and reduced noise from radiation and ground differentials. Sometimes, though, unbalanced devices are unavoidable. The Balancing Gadgets were made for those times.



All three Balancing Gadgets feature an internal low-noise linear power supply, direct coupled transformerless analog circuitry and our exclusive input design that suppresses common mode noise. The result is the most sonically-transparent devices available. Never any buzz, hum, hiss or RFI.

Stereo Balancing Gadget

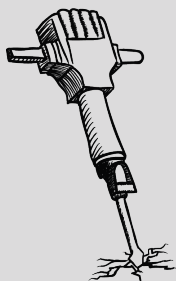
Converts unbalanced stereo -10dBV audio via two RCA/Phono jacks into professional +4dBu fully balanced lines on two XLR connectors. Ideal for a single playback-only consumer device. State-of-the-art analog circuitry is low-distortion, low-noise, and includes DC offset correction and our exclusive input stage that reduces ground-loop noise.

Dual Stereo Balancing Gadget

We stuffed two Stereo Balancing Gadgets into a single box. Two playback-only consumer devices feed four RCA/Phono jacks at -10dBV. 4 XLR connectors deliver +4dBu balanced audio to your professional equipment. Output amplifiers capable of driving +26dBu into long cables, even low-impedance 600Ω loads (+24dBm).

Bidirectional Balancing Gadget

Converts one stereo pair from unbalanced to balanced and another stereo pair from balanced to unbalanced. Perfect for a recording device or a computer sound-card. All unbalanced and balanced signals are on RCA/Phono jacks and XLR connectors, respectively. Plenty of gain in the unlocked position means even low-level computer sound-cards are no problem.



Groundbreaking Technology

Our exclusive active input circuitry dramatically suppresses common-mode noise on unbalanced sources. Not only will the balancing gadgets eliminate the hum and buzz of a ground loop, it will also reduce noise from external sources such as power lines and digital noisemakers.

You can even run long unbalanced cables between gear. The balancing gadgets make it possible to use unbalanced equipment in professional applications without compromising performance.

Mounting Options



Rack Mount Kit
Pro mount one or two gadgets in only 1RU.



Wall Mount Kit
Attach your gadget to a wall or inside of a cabinet.



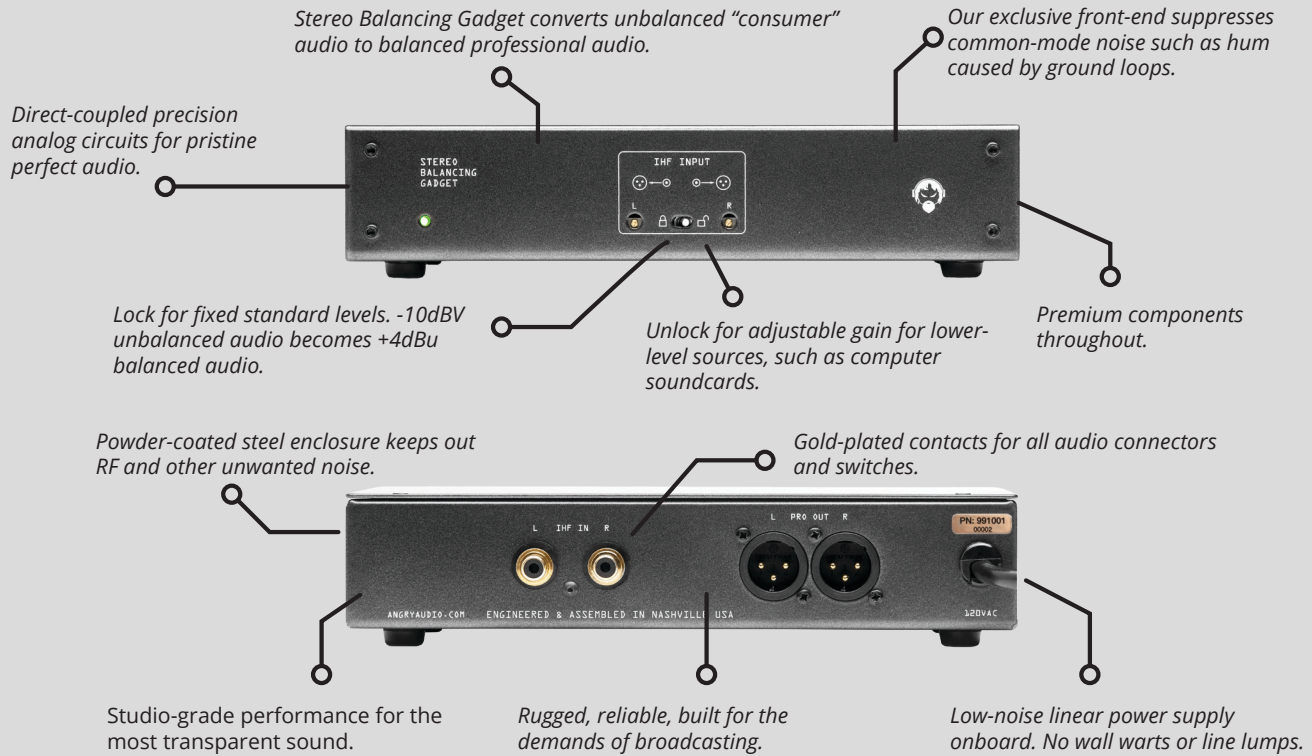
Desktop Mount Kit
Brackets tilt the gadget toward the user's eyes.



Under Cabinet Mount Kit
Conveniently located under the edge of your desk.

Stereo Balancing Gadget

Converts unbalanced stereo -10dBV audio via two RCA/Phono jacks into professional +4dBu fully balanced lines on two XLR connectors. Ideal for a single playback-only consumer device. State-of-the-art analog circuitry is low-distortion, low-noise, and includes DC offset correction and our exclusive input stage that reduces ground-loop noise.



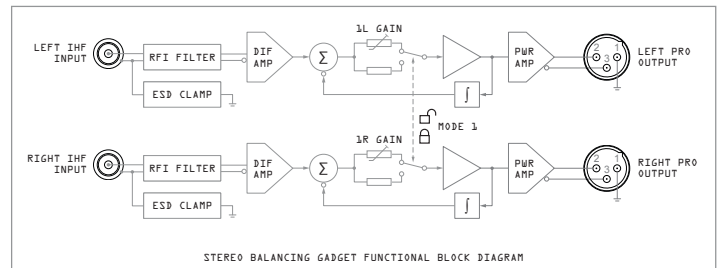
Specifications:

Unbalanced to Balanced Conversion

Fixed Gain	+11.8dB (-10dBV in = +4dBu out)
Adjustable Gain Range	+10dB to +28dB
Frequency Response	±0.2dB, 20Hz - 20kHz
THD+N	≤0.004%, 20Hz - 20kHz
Noise	≤90dBu, 20Hz - 20kHz (locked)
Headroom	≥20dB
Maximum Output Level	+26dBu (+24dBm @ 600Ω load)
Input Impedance	100kΩ
Output Impedance	100Ω balanced
Crosstalk	≤-75dB (10kHz)
CMRR	≥70dB (20Hz to 20kHz)

Power and Environmental

North American Version	115VAC 60Hz, NEMA 5-15P power plug
Export Versions	230VAC 50/60Hz, various plugs available.
Power Consumption	3VA
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	Venting Chassis (fanless)
Shipping Box	12in x 9in x 6in, 5 pounds



Part number: 991001 115VAC USA Power Plug
 991001E 230VAC Europe Power Plug
 991001A 230VAC Australia Power Plug
 991001U 230VAC UK Power Plug

Box includes:
 Balancing Gadget
 RCAM to RCAM stereo audio cable
 RCAF to 3.5mm stereo audio adapter
 Dual XLRF to RJ45F StudioHub adapter

Dual Stereo Balancing Gadget

We stuffed two Stereo Balancing Gadgets into a single box. Two playback-only consumer devices feed four RCA/Phono jacks at -10dBV. 4 XLR connectors deliver +4dBu balanced audio to your professional equipment. Output amplifiers capable of driving +26dBu into long cables, even low-impedance 600Ω loads (+24dBm).

Dual Stereo Balancing Gadget converts the unbalanced audio of two "consumer" devices into professional balanced audio.

Our unique circuitry delivers ground-loop isolation comparable to transformers.

No capacitors or transformers in the signal chain for the purest possible sound.

Stunning specs including THD below 0.004%.

Switch between fixed and variable gain settings.

Plenty of gain for even low-level devices such as computer soundcards.

All steel construction built for the rigors of broadcasting.

Fully balanced outputs capable of driving long cables at levels up to +26dBu.

Built-in power supply with 2 meter cord.

RFI-immune circuitry.

Gadgets use only the highest quality components.

DC error correction servo eliminates any offsets.

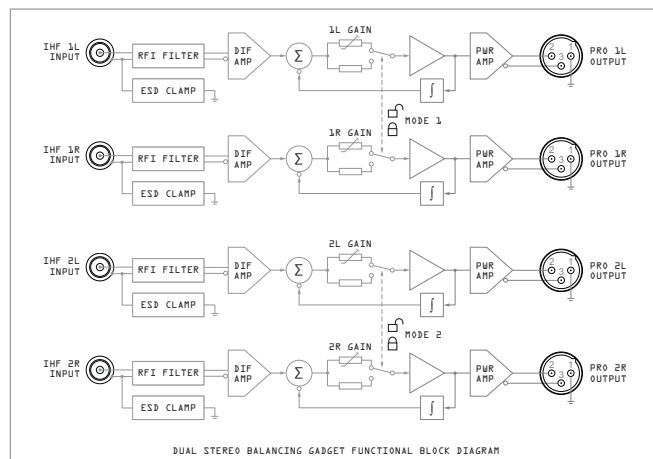
Specifications:

Unbalanced to Balanced Conversion

Fixed Gain	+11.8dB (-10dBV in = +4dBu out)
Adjustable Gain Range	+10dB to +28dB
Frequency Response	±0.2dB, 20Hz - 20kHz
THD+N	≤0.004%, 20Hz - 20kHz
Noise	≤90dBu, 20Hz - 20kHz (locked)
Headroom	≥20dB
Maximum Output Level	+26dBu (+24dBm @ 600Ω load)
Input Impedance	100kΩ
Output Impedance	100Ω balanced
Crosstalk	≤-75dB (10kHz)
CMRR	≥70dB (20Hz to 20kHz)

Power and Environmental

North American Version	115VAC 60Hz, NEMA 5-15P power plug
Export Versions	230VAC 50/60Hz, various plugs available
Power Consumption	4VA
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	Venting Chassis (fanless)
Shipping Box	12in x 9in x 6in, 5 pounds



Part number: 991002 115VAC USA Power Plug
 991002E 230VAC Europe Power Plug
 991002A 230VAC Australia Power Plug
 991002U 230VAC UK Power Plug

Box includes:

Balancing Gadget
 2x RCAM to RCAM stereo audio cable
 2x RCA to 3.5mm stereo audio adapter
 2x Dual XLR to RJ45 StudioHub adapter

Bidirectional Balancing Gadget

Converts one stereo pair from unbalanced to balanced and another stereo pair from balanced to unbalanced. Perfect for a recording device or a computer sound-card. All unbalanced and balanced signals are on RCA/Phono jacks and XLR connectors, respectively. Plenty of gain in the unlocked position means even low-level computer sound-cards are no problem.

The Bidirectional Balancing Gadget converts stereo unbalanced "consumer" audio to professional balanced audio. It also converts stereo pro-audio to "consumer" unbalanced audio.

Innovative input circuitry extracts clean audio while eliminating noise from ground loops and external sources.

Direct-coupled circuitry delivers the cleanest, most transparent sound.

Lock for fixed gain +4dBu balanced audio is converted to -10dBV outputs.

When unlocked, gain can be adjusted via the sealed multitrurn trimpots.

In the locked position, -10dBV source produces +4dBu outputs.

Rugged powder-coated steel chassis.

All gadgets are guaranteed to reject RF interference.

DC "servo" error correction keeps offset out while preserving the purity of DC coupled circuitry.

Every component is carefully selected for performance and long life.

Ultra high CMRR inputs keep even digital noise out of your audio.

Internal power supply. Available in 115V and 230V versions.

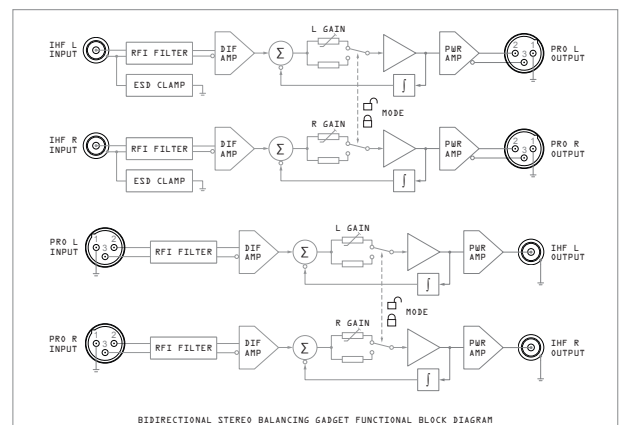
Specifications:

Balanced to Unbalanced Conversion

Fixed Gain	-11.8dB (+4dBu in = -10 dBV out)
Adjustable Gain Range	-17dB to +1dB
Frequency Response	±0.2dB, 20Hz - 20kHz
THD+N	≤0.004%, 20Hz - 20kHz
Noise	≤90dBu, 20Hz - 20kHz (locked)
Headroom	≥20dB
Maximum Output Level	+16dBV
Input Impedance	20kΩ
Output Impedance	100Ω (pseudo-balanced)
Crosstalk	≤-75dB (10kHz)
CMRR	≥70dB (20Hz to 20kHz)

Power and Environmental

North American Version	115VAC 60Hz, NEMA 5-15P power plug
Export Versions	230VAC 50/60Hz, various plugs available
Power Consumption	4VA
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	Venting Chassis (fanless)
Shipping Box	12in x 9in x 6in, 5 pounds



Part number: 991003 115VAC USA Power Plug
 991003E 230VAC Europe Power Plug
 991003A 230VAC Australia Power Plug
 991003U 230VAC UK Power Plug

Box includes:

Balancing Gadget
 2x RCAM to RCAM stereo audio cable
 2x RCAF to 3.5mm stereo audio adapter
 1x Dual XLRF to RJ45F StudioHub adapter
 1x Dual XLRM to RJ45F StudioHub adapter



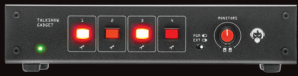
Balancing Gadgets

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Bluetooth Gadget

Bidirectional smartphone to PRO audio interface. Use your Bluetooth-equipped device for audio playback, phone calls, skype, etc. AAC and APTX audio codecs provide premium audio quality.



Talkshow Gadget

Adds broadcast features to audio mixers. Monitor speaker muting and volume control, pushbutton microphone control, on-air warning logic. All passive signal chain features sealed gold-contact relays.



Fail-safe Gadget

Stereo silence sensor and backup audio switcher. Adjustable threshold and delay. Alarm logic port. Can also be used to switch when audio is active.



Distribution Gadget

2x4 stereo or 2x8 monaural analog audio distribution amplifier. Choose from IHF or PRO audio input. Each output pair can be stereo or mono sum.



Guest Gizmo

Stereo headphone amplifier, Cough (mute) button, tally lamp driver. Installs in desktop. High power headphone amplifier can drive high or low impedance headphones.



Mic Tally Gizmo

Driver for MIKA mic arms equipped with LED tally. Installs in desktop. Dual logic inputs to illuminate tally either red or white.



Headphone Gizmo

Premium stereo headphone amplifier with StudioHub RJ45 connectors for input and daisy-chain output. Innovative circuitry can drive high impedance or low impedance headphones with power to spare.

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