Palmer®
be true to your sound

PRODUCT CATALOGUE

BE TRUE TO YOUR SOUND

Sound purists around the world appreciate Palmer® products, because they deliver a pure sound signal, whether for guitarists, bassists or professional audio engineers.

From amplifiers to legendary speaker simulators and a wide range of effects, pedal boards, and such small helpers as DI boxes, splitters and controllers, the Palmer® family of products is notorious for its robust, hand-crafted construction, and for being durable performers with well-thought-out technical design and high-quality components. Musicians and audio technicians value Palmer® for its top-quality sound, reliable functionality, precise detail and for its pure authenticity through and through.

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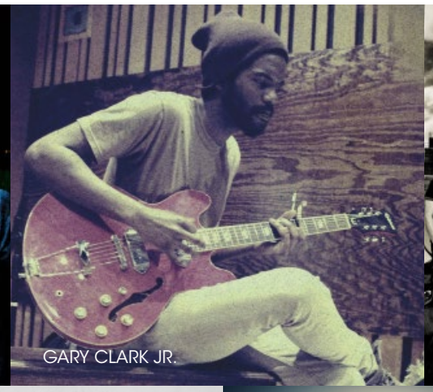
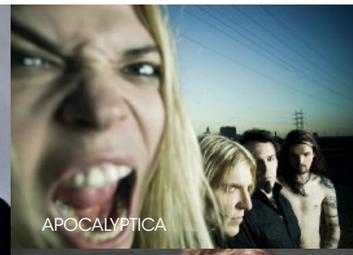
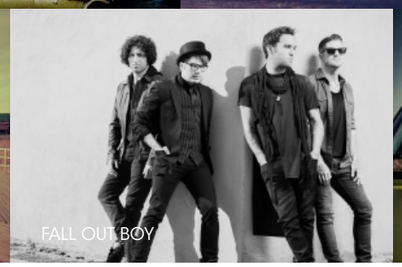
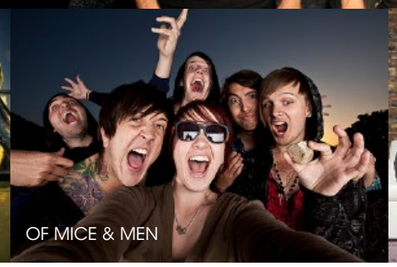
PALMER ARTISTS
GOOD ENOUGH FOR THEM, GOOD ENOUGH FOR YOU!









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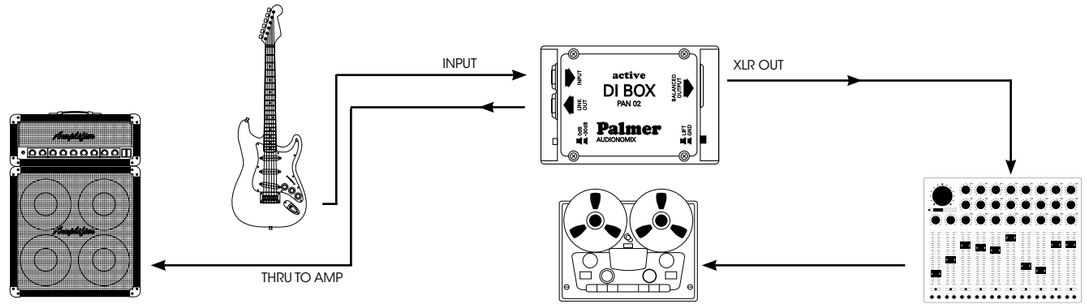
PALMER

DI BOXES

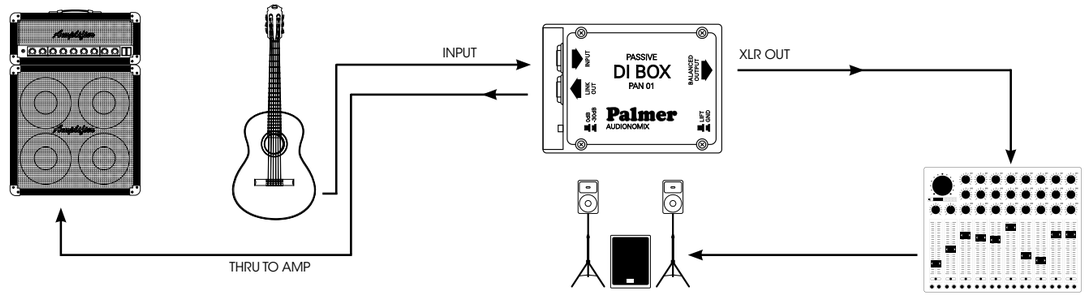
SETUP 01

DI boxes are mainly used to connect an instrument to a mixing desk or PA. A good DI box should not impair the sound in any way. This Diagram shows a typical application for an active DI Box. The guitar is connected to the input jack, this signal is looped through to the "Through" or "Link" jack where an amplifier can be connected. The XLR out is connected to the mic input of a mixer.



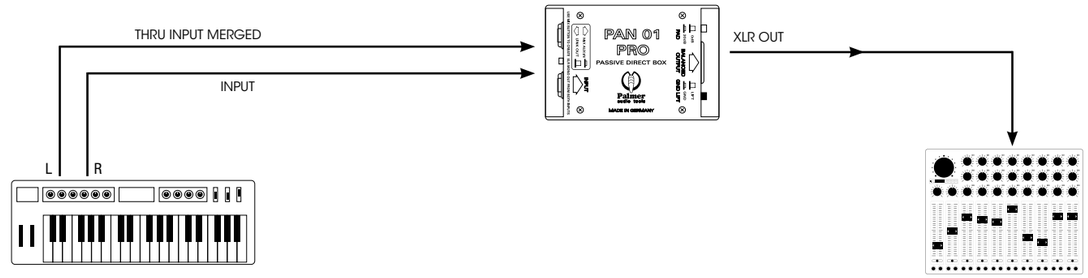
SETUP 02

This is a similar setup as above. Depending on if you are using an active or passive instrument, you should use either a passive or active DI-Box. For active Instruments (often recognizable in that they have a battery compartment or are mains powered such as a keyboard), a passive DI Box is sufficient. Passive Instruments (such as a normal electric guitar) work best with active DI Boxes. Passive DI-Boxes can lead to a muffled indirect sound in this case.



SETUP 03

The PAN01PRO offers an additional function that is particularly interesting in combination with keyboards. With the merge function you can use the thru output as an additional input and merge these together thus saving one channel on the mixer.



PAN 01/02/04/04A
DIRECT BOXES

Streamlined production methods and large runs have enabled us to offer you high quality DI boxes at an affordable price.

PAN 01 - Passive DI box. Jack input with parallel "THRU" output, transformer balanced XLR output. Attenuable input sensitivity, can handle both line level and speaker level signals.

PAN 02 - Active DI box. Both battery or 48 V-phantom power operation possible. Active circuitry allows for high input impedance (1 MΩ) and higher input sensitivity (typical difference between in and out -4 dB). Maximum output level with phantom power operation +10 dBu. Output: transformer balanced. The special "floating ground" circuitry enables ground lift even during phantom power operation.

PAN 04 consists of a housing containing the equivalent of two PAN-01s, making it a dual channel passive DI box. This "stereo" configuration makes it ideally suited for use with certain keyboards and devices which have several outputs.

SPECIFICATIONS

Model:	PAN01	PAN02	PAN04	PAN04A
No of Channels:	1	1	1	1
Active/passive:	passive	active	passive	active
Transformer balanced:	yes	yes	yes	yes
Attenuator:	-30 dB	-30 dB	-30 dB	-30 dB
Input/output gain:	-20 dB	-4 dB	-20 dB	-4 dB
Ground lift switch:	yes	yes	yes	yes
Maximum input level:	+ 54 dBu	+ 45 dBu	+ 54 dBu	+ 45 dBu
Maximum output level:	+ 4 dBu	+ 10 dBu	+ 4 dBu	+ 11 dBu
Frequency range @ 2k source imp. -1dB:	10 Hz - 40 kHz	10 Hz - 20 kHz	10 Hz - 40 kHz	10 Hz - 40 kHz
Input impedance @ 60Hz:	60 kΩ	1 MΩ	60 kΩ	1 MΩ
Nom. output impedance:	600 Ω	600 Ω	600 Ω	200 Ω
Housing:	Steel	Steel	Steel	Steel
Dimensions (W x H x D):	110 x 73 x 42 mm	110 x 73 x 42 mm	110 x 110 x 45 mm	116 x 110 x 45 mm
Weight:	0.34 kg	0.38 kg	0.48 kg	0.47 kg

PDIR 01
BALANCED IN - UNBALANCED OUT

Many try using a DI-Box "backwards" in order to convert a balanced signal to unbalanced. The resulting mismatch generally leads to disappointing results. The PDIR (DI-Reverse) offers a clean and reliable solution whilst additionally isolating the two connected devices via transformer.

SPECIFICATIONS:

No. of channels:	1
Type:	passive
Input / Output impedance (nominal):	2 kOhm
Transformer balanced:	yes
In/out gain:	0 dB
Ground lift switch:	yes
Max. input / output:	+6 dBu
Housing / Dimensions:	Steel / 110 x 35 x 39 mm

PAN 01 PRO

PROFESSIONAL DI BOX

PAN01 PRO is the deluxe version of Palmer's top selling passive DI box PAN01. It features a 2mm steel housing and heavy duty metal switches for the PAD and ground lift functions to withstand the rigors of the road and stage. The transformer has been completely redesigned and upscaled with a larger core for increased dynamic range and headroom, and a metal cover for improved shielding. Also, the PAN01 PRO's parallel out is switchable to double as additional input. This feature enables the summing of a stereo output (e.g. of a keyboard) with the resulting mono signal present at the PAN01 PRO's balanced XLR output.
The PAN01 PRO comes with a high quality reinforced nylon bag with cutouts for connecting the box inside the bag.

SPECIFICATIONS

Model:	PAN01PRO
No of Channels:	1
Features:	Passive, transformer balanced, ground lift switch, pad switch, mono merge function
Attenuator:	-30 dB
Input/output gain:	-20 dB
Maximum input level:	+ 56 dBu
Maximum output level:	+ 6 dBu
Frequency range @ 2k source imp. -1dB:	10 Hz - 40 kHz
Input impedance @ 60Hz:	60 KΩ
Nom. output impedance:	200 Ω
Housing:	Steel
Dimensions (W x H x D):	110 x 75 x 44 mm
Weight:	0.75 kg

PAN 02 PRO

PROFESSIONAL DI BOX

The Palmer PAN02 PRO is an active DI-box with outstanding additional functions. These include an unbalanced XLR input, in addition to the 3-way attenuator -10, -20, -30 dB and a switchable gain of 12 dB, connected with a maximum output voltage of +20 dBu. The Groundlift switch has a „lift" position allowing adjustments between a „soft and hard grounding" . The balanced output is achieved with a high quality transformer in the Mumetall housingthat was specially developed for this purpose. The PAN02 Pro can be powered either with a 9 V battery or 48 V phantom power. A two-colour LED indicates which source supplies the power.

SPECIFICATIONS

Product type:	active DI box
Channels:	1
Inputs:	2
Input connectors:	6.3 mm Jack, XLR
Max. input level:	+ 45 dBu
Input impedance:	0dB & 12 dB: 1 M, -10 & -20 dB: 70 k, -30 dB: 40 k Ohm(s)
Input pad:	0 dB, -10 dB, -20 dB, -30 dB
Outputs:	1
THRU outputs/channel:	1
Output connectors:	XLR, 6.3 mm Jack
Max. output level:	+ 20 dB
Output impedance:	600 Ohm(s)
Frequency response:	20 - 20000 Hz
Transformer balanced:	yes
Ratio:	3.16:1, 10:1, 31.6:1, 1:4
Controls:	attenuator, battery/+ 48 V Power, Boost, ground lift
Operating voltage:	9 V block, +48 V phantom power
Cabinet material / surface:	sheet steel / powder coated
Dimensions (W x H x D):	116 x 43.5 x 140 mm
Weight:	0.85 kg

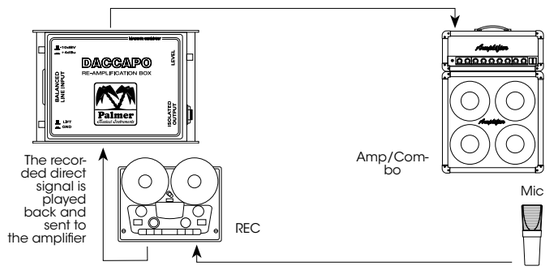
DACCAPO
RE-AMPLIFICATION / IMPEDANCE MATCHER

Since the introduction of multitrack recording, sound shaping in the studio has been continuously refined. Re-amplification is one of today's recording techniques tracking the raw guitar signal usually in parallel with that from a guitar amplifier. The direct recording can now be fed to different amps to compare, mix, and match a variety of tones for the ultimate sound without the necessity of playing a part over and over again. Recording systems, however, provide different output levels than electric guitars which are designed for their own distinctive breed of amplifiers. This is where the Palmer DACCAPO re-amplification interface comes in, a dedicated tool to perfectly match recording system and guitar amplifier levels.

- Passive unit - does not require mains or batteries.
- High quality special design transformer that handles both the input levels of professional and semiprofessional recording systems.
- Selector switches between the professional +4dBu studio or -10dBV semiprofessional levels.
- Unbalanced hi-Z signal output modeled on that of an electric guitar
- Trim pot has been incorporated for precise level adjustment.
- Input and output electrically isolated.

SPECIFICATIONS

Inputs:	XLR female unbalanced, pin 1 = ground, pin 2 = in phase (hot), pin 3 = phase reversed (cold)
Input Impedance:	600 Ω nominally @ +4 dBu, 10 kΩ nominally @ -10 dBV
Input Level:	min. +22 dBu @ +4 dBu
Output:	1/4ì (6.3 mm) TS jack, unbalanced
Output Impedance:	100 Ω nominally
Output Level:	max. 1:1 depending on the input level
THD:	< 0.02% @ nominal input level, typically 0.15% @ +20 dBu
Dimensions (W x H x D):	91 x 60 x 40 mm



PAN 03
ACTIVE DI-BOX 4 CH

Active 4 ch. DI box. The technical specifications are identical to the PAN-02, however, the PAN-03 is built for mains operation (power supply included). All connections and switches are located on the front panel, additional parallel XLR outputs are located on the back. A power supply is included with the unit.

SPECIFICATIONS

Model:	PAN03
No of Channels:	4
Active/passive:	Active
Transformer balanced:	yes
Attenuator:	-30 dB
Input/output gain:	-4 dB
Maximum input level:	+ 45 dBu
Maximum output level:	+ 10 dBu
Frequency range @ 2k source imp. -1dB:	10 Hz - 20 kHz
Input impedance @ 60Hz:	1 MΩ
Nom. output impedance:	600 Ω
Housing:	Steel
Dimensions:	19" / 1 U / 90 mm
Weight:	1.9 kg

PAN 03 PASS
PASSIVE DI-BOX 4 CH

Passive 4-channel DI BOX in a 19" housing. Each channel has a jack input with a parallel output for looping the signal through. An attenuation switch (-30dB) permits connection of a line or speaker signal at the user's choice. The specifications are identical with those of the PAN 01 / PAN 04. All connections and switches are on the 1 U front panel; the XLR output is additionally present as a parallel socket on the rear panel.

SPECIFICATIONS

Model:	PAN03PASS
No of Channels:	1
Active/passive:	Passive
Transformer balanced:	yes
Attenuator:	-30 dB
Input/output gain:	-20 dB
Maximum input level:	+ 54 dBu
Maximum output level:	+ 4 dBu
Frequency range @ 2k source imp. -1dB:	10 Hz - 40 kHz
Input impedance @ 60Hz:	60 kΩ
Nom. output impedance:	600 Ω
Housing:	Steel
Dimensions:	19" / 1 U / 90 mm
Weight:	1.7 kg

PAN 08
DI-BOX / LINE ISOLATOR/ BOOSTER

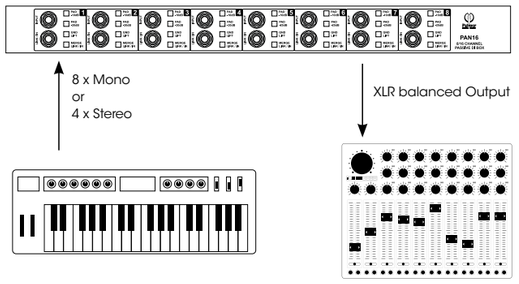
The PAN08 is a multifunctional device. Each of the four channels can be used independently as an active DI box, line isolation box or booster. The combination input socket accepts unbalanced and balanced signals. The output has dual transformer balanced XLR jacks (front and rear). The signal level can be attenuated by 20 dB for microphone inputs, but can also be boosted in three stages by up to 18 dB for LINE inputs if necessary. With an output level of +12 dBu on a load of 600 Ω with 0.05 % THD / 40 Hz and an output noise level of less than -110 dBu, the unit meets highest professional standards.

SPECIFICATIONS

Type:	Booster and active DI box with 4 independent channels.
Input (per channel):	Electronically balanced combination connector XLR Pin 2 = hot (+phase) pin 3 = cold (-phase) pin 1 = shield, ground TRS (stereo) jack plug: Tip = hot (+phase) ring = cold (-phase) housing = shield, ground GND-LIFT switch disconnects PIN1 and jack plug ground from the electronics Input impedance 20kΩ balanced, 10kΩ unbalanced Maximum input level: +12dBu
Channel boost switchable:	+6 db, +12 dB, +18 dB
Outputs:	2x XLR/m parallel, transformer balanced. XLR: Pin 2 = hot (+phase) pin 3 = cold (-phase) pin 1 = shield, ground
Output impedance:	600 Ω
Maximum output level:	+12 dBu
Output PAD switch:	20 dB attenuation
Power supply:	9V to18V DC
Power consumption:	9V/ 250mA, 18V/125mA (power requirement approx. 2.25W)
DC Connector:	Socket for 5.5 mm DC barrel connector with 2.1 mm pin receiver
Housing:	19", 1HU, approx. 90mm behind the front panel
Weight:	1.9 kg

PAN 16
19" PASSIVE DI-BOX 8 CH

The Palmer PAN16 is an 8 channel passive DI box in a 19" 1U rack format. Through the special MERGE THRU/IN function, the parallel THRU output can be connected as a second input for looping the signal. The signal is fed with the one from the INPUT jack as a mono sum into the output. Thus, the PAN16 offers a maximum of 16 inputs, two PAD buttons enable an attenuation of 10, 20 or 30 dB. The outputs are on XLR connectors and are electrically isolated and balanced by a transformer. They are available with 8 additional THRU-sockets on the rear panel of the device.



SPECIFICATIONS

Product type:	DI box
Type:	passive
Channels:	8
Inputs:	8 / 16
Input connectors:	6.3 mm Jack
Max. input level:	54 dBu
Input impedance:	((at) 60 Hz) 1 M Ohm(s)
Input pad:	0 / -30 dB
Outputs:	4 (+ 4 Parallel Thru out)
THRU outputs/channel:	2
Output connectors:	XLR, 6.3 mm Jack
Max. output level:	54 dB
Output impedance:	600 Ohm(s)
Frequency response:	10 - 40000 Hz
Transformer balanced:	yes
Ratio:	10 : 1
Controls:	PAD -20dB, PAD -10dB, merge, ground lift
Cabinet material:	sheet steel
Cabinet surface:	powder coated
Dimensions (W x H x D):	480 mm / 19" x 45 mm / 1 U x 200 mm
Weight:	2.39 kg

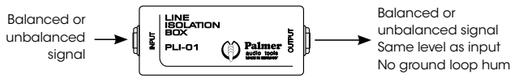
PALMER
LINE ISOLATORS

PLI 01
LINE ISOLATOR 1 CH

Single channel unit in a small rugged diecast box. Especially useful in guitar rack systems where multiple signal processors and preamplifiers are combined. May also be used to eliminate noise in car hifi systems by isolating power boosters or to balance unbalanced outputs and vice versa.

SPECIFICATIONS

No. of Channels:	1
Connectors:	6.3 mm Jack
Input/Output ratio:	1 : 1
Ground lift switch:	no
Max. level:	+ 10 dBu
Nominal Impedance:	10 kΩ
Frequency range:	20 Hz - 40 kHz ± 1dB
Dimensions (Wx H x D):	100 x 40 x 35 mm
Weight:	0.17 kg



PLI 02
LINE ISOLATOR 2 CH

Professional dual channel line isolating unit for stage and studio use. The Neutrik combo input connector accepts both male XLR and jack plugs. The PLI 02 easily converts unbalanced outputs into balanced ones. It may also be used to transformer balance electronically balanced inputs and outputs.

SPECIFICATIONS

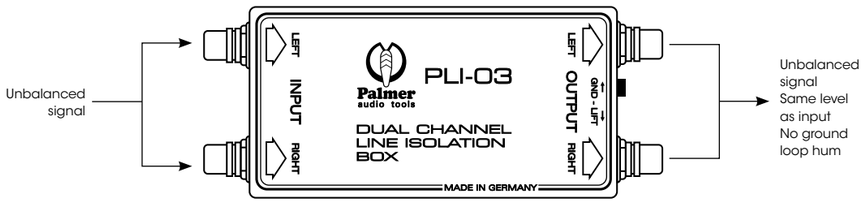
No. of Channels:	2
Connectors:	XLR/m Combo
Input/Output ratio:	1 : 1
Ground lift switch:	yes
Max. level:	+ 20 dBu
Nominal Impedance:	600 Ω
Frequency range:	20 Hz - 40 kHz ± 1dB
Dimensions (Wx H x D):	140 x 45 x 95 mm
Weight:	0.58 kg

PLI 03
LINE ISOLATOR 2 CH UNBALANCED

The PLI03 is a dual channel isolating transformer designed to help to solve specific problems which may arise when connecting computer sound cards to stereo/recording systems. Firstly, the PLI 03 can safely eliminate any ground loops. Also, by isolating digital and analog ground, it eliminates crackling and hissing noise originating from the computer's highfrequency clock signals. The RCA sockets on the inputs/outputs make the PLI 03 a convenient tool to eliminate ground loops in hifi/stereo systems. . The unit also finds applications in car hifi systems, where it can also eliminate unwanted ground noise.

SPECIFICATIONS

No. of Channels:	2
Connectors:	RCA/Cinch
Input/Output ratio:	1 : 1
Ground lift switch:	no
Max. level:	+ 6 dBu
Nominal Impedance:	10 Ω
Frequency range:	20 Hz - 30 kHz ± 1dB
Dimensions (Wx H x D):	140 x 45 x 65 mm
Weight:	0.26 kg



PLI 04
MEDIA LINE ISOLATOR 2 CH

The PRO MEDIA DI / PLI04, focuses on the discerning needs of the computer-age media in mind. With the PLI04 personal computers and other consumer equipment with unbalanced outputs can be converted to balanced signals. The PLI 04 accommodates all the common input types: TRS jacks accepting mono or stereo plugs, RCA sockets and a 3.5mm stereo jack input for use with the headphone output of a Laptop or similar device. The outputs are conventional transformer balanced XLR sockets, as used in professional PA systems, guaranteeing an electrically decoupled signal. Although the PLI 04 is primarily a stereo unit, it can be switched to mono, in this setting the two stereo signals are summed and fed to both XLR outputs.

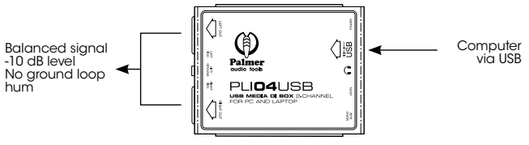
SPECIFICATIONS

Passive DI-box, stereo unit, transformer balanced outputs, mono switch

Input:	2x 6.3 mm TRS-Jack, Tip = +phase (hot), Ring = -phase (cold), Sleeve = screening, ground, 2x RCA phono sockets and 1x 3.5mm stereo jack
Input impedance:	6 kΩ at 600 Ω load
Input level:	6 dBu @ 30 Hz/0.05% THD, 16 dBu @ 30 Hz/0.33% THD, All measurements taken with 200 Ω source
Output:	2x XLR male, Pin 1 ground, Pin 2 pos. phase (hot), Pin 3 neg. phase (cold), Transformer balanced
Output impedance:	600 Ω
Gain reduction input to output:	10 dB, transformer ratio: 3.16 : 1
Frequency response:	20 Hz - 20 kHz ± 0.5 dB
3 position ground lift switch:	lift, ground, soft ground
Housing:	Steel
Dimensions (W x H x D):	140 x 45 x 95 mm
Weight:	0.42 kg

PLI 04 USB
USB MEDIA LINE ISOLATOR 2 CH

The PRO MEDIA DI / PLI04, focuses on the discerning needs of the computer-age media in mind. With the PLI04 personal computers and other consumer equipment with unbalanced outputs can be converted to balanced signals. The PLI 04 accommodates all the common input types: TRS jacks accepting mono or stereo plugs, RCA sockets and a 3.5mm stereo jack input for use with the headphone output of a Laptop or similar device. The outputs are conventional transformer balanced XLR sockets, as used in professional PA systems, guaranteeing an electrically decoupled signal. Although the PLI 04 is primarily a stereo unit, it can be switched to mono, in this setting the two stereo signals are summed and fed to both XLR outputs.



SPECIFICATIONS

Passive DI-box, stereo unit, transformer balanced outputs, mono switch

Input:	2x 6.3 mm TRS-Jack, Tip = +phase (hot), Ring = -phase (cold), Sleeve = screening, ground, 2x RCA phono sockets and 1x 3.5mm stereo jack
Input impedance:	6 kΩ at 600 Ω load
Input level:	6 dBu @ 30 Hz/0.05% THD, 16 dBu @ 30 Hz/0.33% THD, All measurements taken with 200 Ω source
Output:	2x XLR male, Pin 1 ground, Pin 2 pos. phase (hot), Pin 3 neg. phase (cold), Transformer balanced
Output impedance:	600 Ω
Gain reduction input to output:	10 dB, transformer ratio: 3.16 : 1
Frequency response:	20 Hz - 20 kHz ± 0.5 dB
3 position ground lift switch:	llift, ground, soft ground
Housing:	Steel / 140 x 45 x 95 mm
Weight:	0.42 kg

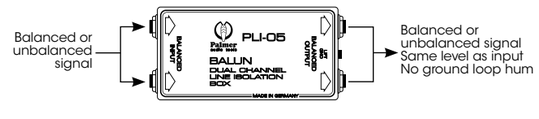
PLI 05
LINE ISOLATOR 2 CH

Balanced or unbalanced isn't the question here. BALUN stands for Balanced-Unbalanced. Thanks to the stereo TRS jacks used in the PLI05, it can cope with both balanced and unbalanced signals. The PLI05 is so to say the PLI02's little sister. Both use so called line isolating transformers to realize a galvanic separation. They are connected between mains powered devices to reliably prevent ground loop hum. The PLI02 was designed for use with XLR connections and for low impedances (600 Ω). The PLI05 on the other hand with its jack connectors is better for higher impedances. It covers a wide range from 600 Ω to over 10 kΩ. To prevent loss of level make sure that your input impedance is not higher than the output impedance. Both devices are suitable for high levels of up to +20 dBu.

SPECIFICATIONS

Line isolating transformer box with 2 seperate channels

Input:	2 x TRS jacks (stereo sockets) Input impedance: nominal 10 kΩ
Output:	2 TRS jacks (stereo sockets), Transformer ratio 1 : 1, Frequency response: 30 Hz - 20 kHz ± 0.5 dB @ 10 kΩ source impedance
THD:	< 0.5% @ 0 dBu @ 10 kΩ source impedance
Housing:	Steel
Dimensions (W x H x D):	140 x 45 x 65 mm
Weight:	0.4 kg



PLI 06
2 IN 1 CHANNEL LINE ISOLATOR

Today, lectures and presentations are mostly held with audio and visual media support. Connecting laptop computers to the mixing consoles of PA systems, however, can be a major problem due to incompatible connector formats. The Palmer Line Level Convertor PLI06 is a dedicated interface to feed the unbalanced stereo signal typically provided by a laptop to the balanced (mono) microphone inputs of professional mixing desks. It mixes the stereo output to mono while impedance matching and signal balancing are achieved by a high quality audio transformer especially designed for the unit. Moreover, it also prevents ground loops and the annoying hum they result in. The PLI06 is entirely passive and does not require mains power or batteries.

SPECIFICATIONS

Inputs:	2x RCA sockets unbalanced
Input impedance:	min.600 Ω, max 10 kΩ.
Input level: -	10 dBV to + 6dBu
Features:	Mono merge via resistor network
Output::	1x XLR/m, PIN 1 = Ground, PIN 2 = hot (+phase), PIN 3 = cold (-phase)
Output impedance:	200 Ω at 600 Ω input
Output level:	-4dBu at 0dBu input level mono, depending on the mono-compatibility of the signal.
Housing:	Aluminium diecast
Dimensions (W x H x D):	140 x 45 x 65 mm
Weight:	0.42 kg

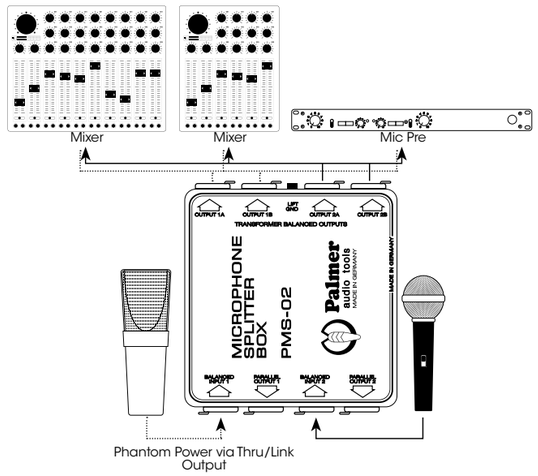
PALMER
SPLITTERS

PMS 02
PASSIVE MIC SPLITTER 2 CH

A passive dual channel microphone splitbox. The PMS 02 is designed to produce correct levels and impedances for optimal transmission of microphone signals. Phantom power can be looped through the parallel thru socket, making it possible to use condenser mics.

SPECIFICATIONS

Input:	Dual channel "1 in 3" splitbox in an aluminum die-cast housing. Each channel: Input XLR/f, parallel socket XLR/m
Output:	Two outputs XLR/m via a mu-metal-shielded transformer 1 : 1. Nominal impedance for inputs/outputs: 200 Ω / Resistor-decoupled outputs, Max. level: +4 dBu
Housing:	Steel
Dimensions (W x H x D):	140 x 45 x 115 mm
Weight:	0.7 kg

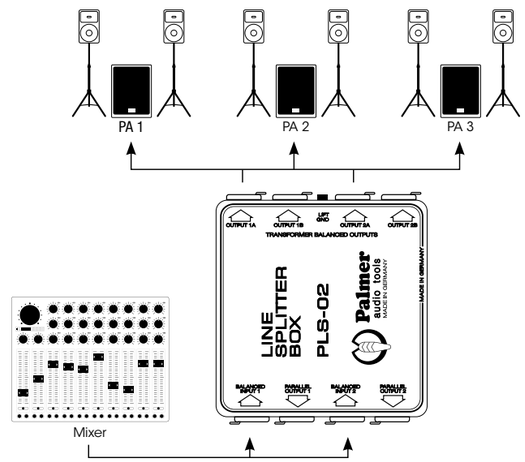


PLS 02
PASSIVE LINE SPLITTER 2 CH

A passive dual channel line splitter that is mainly used to feed the left and rightmaster outputs of a mixer into several inputs such as power amplifiers, recording machines etc. A specially designed audio frequency transformer maintains signal integrity and prevents ground loop hum.

SPECIFICATIONS

Input:	2 channel line splitter "1 into 3",each channel: Input: female XLR type with parallel male XLR type output
Output:	2 transformer isolated male XLR type outputs, Transformer ratio 1:1, Nominal level: 0 dBu, max. level: +20 dBu, Nominal impedance input and output: 600 Ω, Ground lift switch, Transformer ratio 1:1, Resistor-decoupled, outputs, Max. level: +4 dBu
Housing:	Steel
Dimensions (W x H x D):	140 x 45 x 115 mm
Weight:	0.82 kg



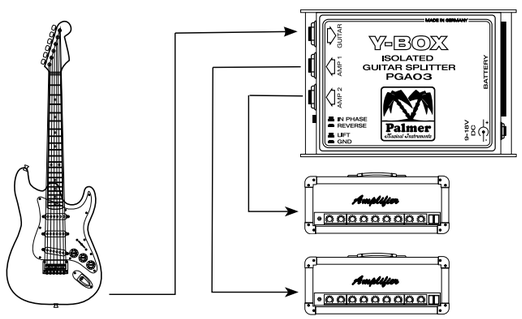
PGA 03 Y-BOX
GUITAR SPLITTER

PGA 03 Y-Box, for splitting guitar signals. "I always get a loud hum when I hook up both my amps…" A rather common problem, we've got the answer! The Palmer Y-box's FET input circuitry adapts your guitar signal, driving a transformer which routes the ungrounded signal to the output. Ground hum is eliminated. 9V battery operation is recommended.
The Y-Box also serves as a line driver for long leads, and it allows for phase reversal of the AMP 2 output. This comes in handy when you're using two (pre-)amps.

Optional 9VDC Power Supply (Art. No.: PW9V) available

SPECIFICATIONS

Input imedance:	1 MΩ
Output:	Parallel AMP1 output, AMP2 output electronically buffered, and transformer isolated
Input and output sockets:	¼" Jack

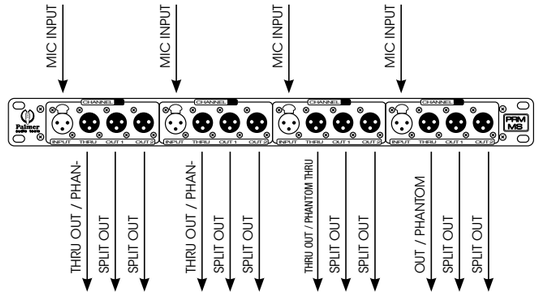


PRM MS
PASSIVE MIC SPLITTER 4 CH

Microphone Splitter, 4 channel passive in a 19" rackmount steel casing. Each channel comprises an input, an output wired in parallel, and two transformer isolated outputs designed with decoupling resistors to minimize interference between adjacent channels.

SPECIFICATIONS

Input:	Each channel: Input: female XLR type
Output:	1 parallel male XLR type, 2 transformer isolated male XLR type, Nominal impedance for inputs/outputs: 200 Ω, Max. input level: +6 dBu
Weight:	2.6 kg

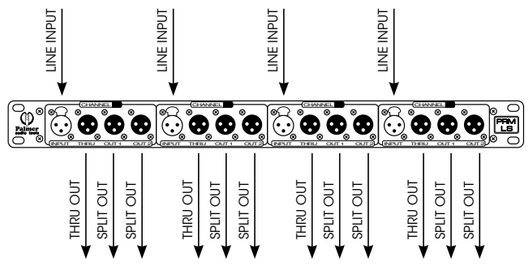


PRM LS
PASSIVE LINE SPLITTER 4 CH

Designed with a special transformer to split line level signals. The features are identicat to the PRMMS except that this verion does not have decoupling resistors in order to acheive the lowest source impedance.

SPECIFICATIONS

Input:	Each channel: Input: female XLR type
Output:	1 parallel male XLR type, 2 transformer isolated male XLR type, Nominal impedance for inputs/outputs: 600 Ω, Max. input level: +20 dBu
Weight:	2.8 kg



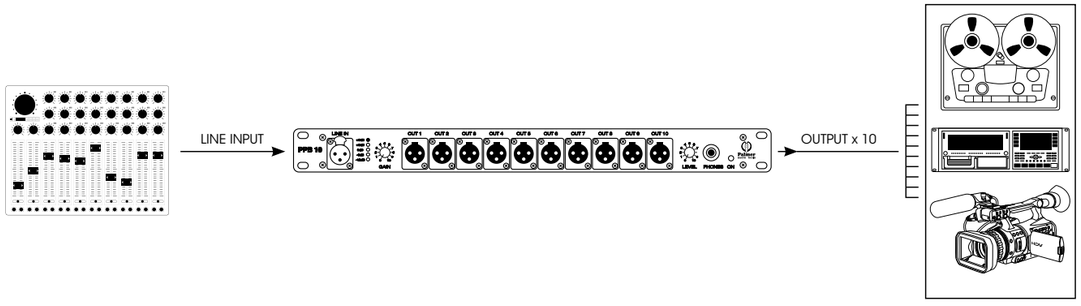
PPB 10

PRESS PATCH BOX – ACTIVE 1 IN 10 SPLITTER

The PPB10 is a special kind of audio splitter in that it splits one incoming signal up to ten outputs (as opposed to the usual three). This splitter is especially intended for press conferences, in which a speaker addresses a number of journalists. Instead of each journalist having to place his or her own microphone in front of the speaker, the PPB10 splits the signal of one microphone up to ten outputs. The PPB10 comes with a transformer balanced input for line signals. Mechanically the input is equipped with Neutrik XLR/fsockets on the front as well as on the rear of the device. A ground lift switch is located next to the XLR input on the rear, this switch disconnects the pin 1 of both input XLRs from ground. You can adjust the input gain with the gain pot next to the front XLR input, the gain ranges from -∞ to +25dB. The 5-segement LED meter helps you monitor the output level. When this meter indicates 0dB the output level reads +6dBu without a load connected and +4dBu with a load of 600 Ohms. The PPB10 offers 10 balanced outputs which are located on the front of the device in form of Neutrik XLR/m sockets. All 10 outputs are galvanically isolated by the use of transformers. To avoid interferences between the individual channels , 5 low ohmic driver circuits are used to drive 5 transformers, each of which split up the input signal to two outputs. The output pairs coming from each transformer are decoupled from each other by the use of resistors. In case of a short circuit on an output, only one other channel will be affected in that it is dampened by 3dB. All other channels remain completely unaffected. Each output has its individual ground lift switch on the rear of the device. Where more than 10 outputs are required, additional PPB 10 or PPB20 can be hooked up via a rear BUS IN/OUT socket.

SPECIFICATIONS

Input:	XLR/f parallel connectors on the front and rear - transformer balanced, ground lift switch. Nominal impedance 10 kΩ Nominal input level: 0 dBu, max. +20 dBu Max. amplification to the outputs: 25d B
Output:	10 transformer-balanced outputs XLR/m with ground lift switch. Nominal output level +4 dBu at 600 Ω load and 0 dB LED meter Nominal output impedance: 300 Ω Headphone output: 6,3 mm (1/4") stereo jack, tip and ring connected together Suitable for headphones from 8 to 200 Ω, volume steplessly variable 5 segment LED chain: -12 dB, -6 dB, 0 dB, +3 dB, +6 dB. To monitor the output level Bus in and out via mono jack to connect several units Power supply 230/240 V AC, max power consumption 10 W
Housing:	Steel
Dimensions:	19", 1U, 205 mm deep
Weight:	4 kg



etc...

PPB 20 (S)

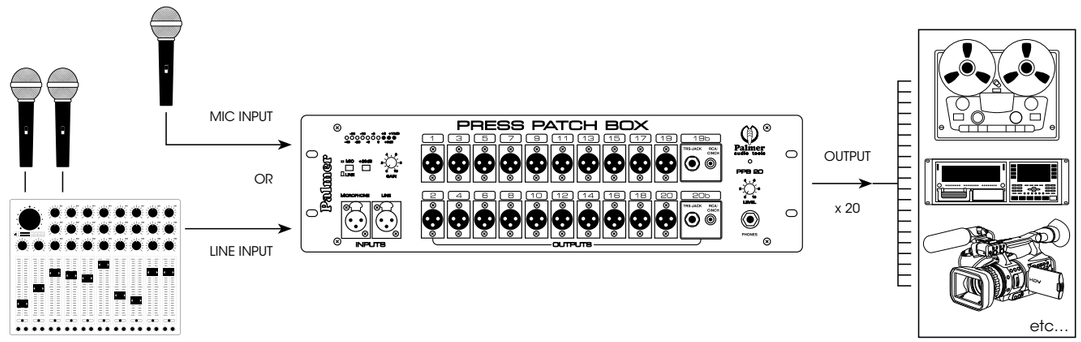
PRESS PATCH BOX – ACTIVE 1 IN 20 (STEREO) SPLITTER

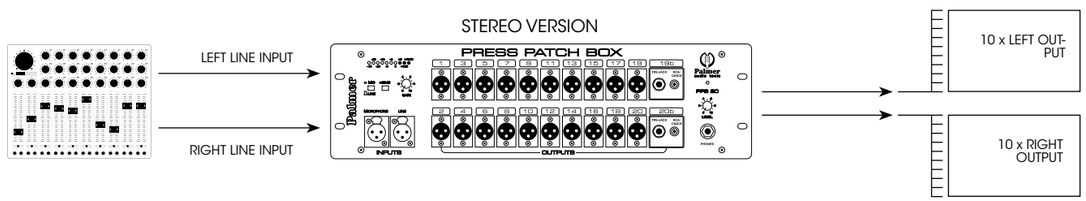
The Press Patch Box is a special kind of audio signal distributor intended for use at press conferences. It features separate inputs for microphone and line signals. A high quality input amplifier with a transformer balanced input provides a wide dynamic range. A total of 20 transformer-balanced XLR/m outputs with separate paired driver circuits make it possible to connect up video cameras and other recording equipment. The nominal output level is +4 dBu at 600 Ω. Channels 19 and 20 have TRS jack sockets for balanced/unbalanced signals and also RCA sockets (-10 dBu nominal level). Where more than 20 outputs are required, additional PPB 20s can be hooked up via a rear BUS IN/OUT socket. Signal monitoring is provided by a 10 LED strip displaying a range of -40 to +10 dB (0 dB in the display = 4 dBu output) and an adjustable headphones amplifier. The PPB20 has an integral, shielded power supply unit. An extra DC input makes it possible to connect up a (backup) battery power source.

A stereo version of the PPB20 is also available. Instead of having one microphone and one line input the stereo version has two line inputs. The first input is split on to the upper row of outputs i.e. on to the odd channels whereas the second line input is split on to the lower row of outputs, i.e. the even channels. The PPB20S can be switched to mono mode. In this case both inputs are merged together and the summed signal is split up to the 20 outputs.

SPECIFICATIONS

Input:	Transformer-balanced, 4 XLR/f sockets, with paired front/rear parallel connections for separate microphone/line signals. Nominal input impedances: Microphones = 200 Ω, Line = 5 kΩ Max. input levels: microphones = 0 dBu, Line = +20 dBu Max. amplification: microphones = +66 dB, Line = +22 dB (constantly adjustable via switch and potentiometer).
Output:	20 XLR/m, 2x TRS jack, 2 x RCA, all transformer-balanced and floating with separate ground lift switches at rear Nominal output impedances: XLR = 300 Ω, jack and RCA = 600 Ω. Nominal output levels: XLR = +4 dBu/20 dBu max.; jack/RCA = -10 dBu, + 6 dBu max. Headphones output: Stereo jack socket, with mono tip + ring, Designed for use with 8 Ω - 200 Ω headphones (constantly adjustable level). 10 LED strips displaying a range of -40 to +10 dB. Bus input/output (mono jack)
Power supply:	230 VAC or ±12 V to ± 18 VDC, 15 Watts.
Dimensions:	19", 3 U, approx. 200 mm deep.
Weight:	9 kg





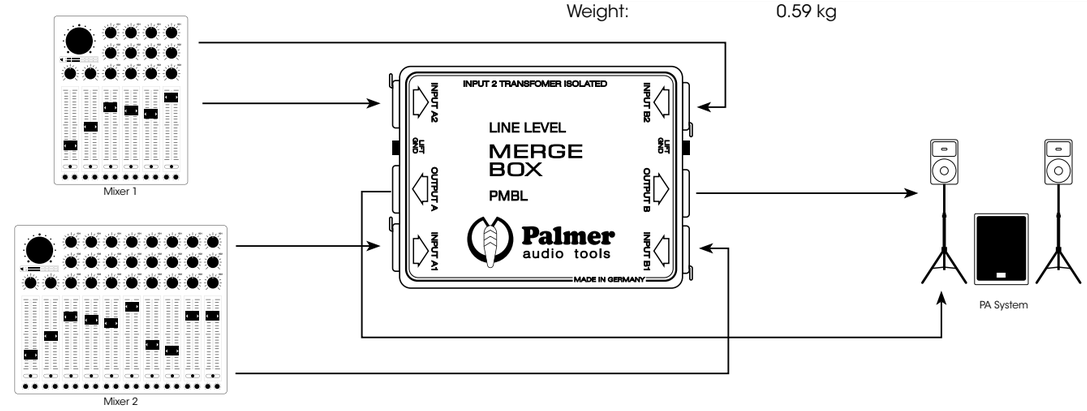
PALMER
MERGERS

PMBL
PASSIVE LINE LEVEL MERGER

The PMBL is a 2 channel passive line level merge box. Each channel has 2 balanced XLR/f inputs. The input signal is merged via a resistor network to a XLR/m output. The top side input is transformer isolated. Possible applications may be the routing of two mixing desks to one power amp or mixing a stereo signal down to mono. Our transformer technology allows for an unbalanced top side input to be sent out balanced.

SPECIFICATIONS

Input:	Input 1: transformer balanced XLR/f. Symmetrically decoupled through resistors. Total ohmic value: 2 kΩ. Maximum level for THD < 0.5% @ 35 Hz: +20 dBu. Ground lift switch. Input 2: Balanced XLR/f. Symmetrically decoupled through Resistors. Total ohmic value: 2 kΩ
Output:	XLR/m balanced. For minimum attenuation, the load impedance should be several Kohms. Typical attenuation: 6 dB, Aluminium die cast housing made of a RF-shielding alloy.
Dimensions (W x H x D):	110 x 125 x 38 mm
Weight:	0.59 kg

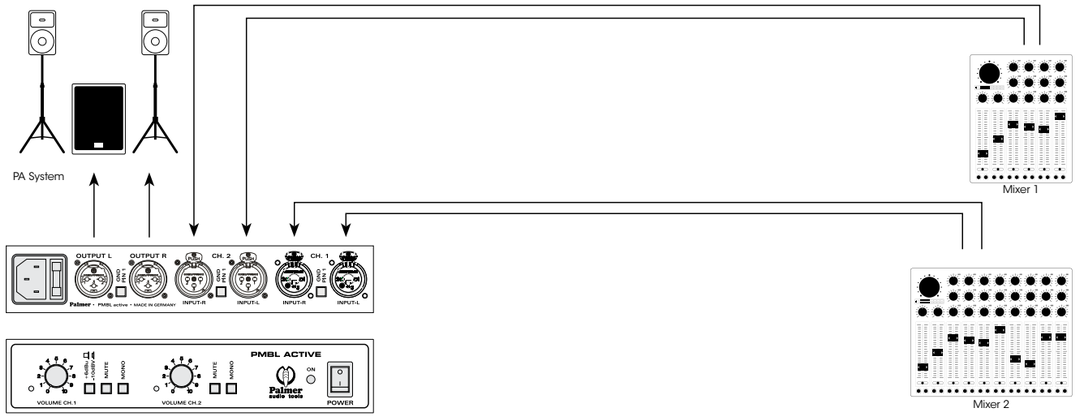


PMBLA
ACTIVE LINE LEVEL MERGER

The PMBL-ACTIVE is a 2-channel stereo line level merge box that can be used to merge two stereo line signals into one stereo output. One classic application: routing two mixing desks to one PA system. The unit has enough amplification to boost even semi-professional levels accordingly. The input channels are galvanically isolated from one another. Each channel offers a mute switch and the ability to mix the stereo signal down to mono. The unit is housed in a 1 U/9.5" case and has a built-in power supply.

SPECIFICATIONS

Inputs channel 1:	combo sockets L/R for 6.3 mm TRS and XLR connectors transformer balanced (TS input = unbalanced) input impedance: >2 kΩ, nominal input sensitivity: -10 dBV/+6 dBu switchable
Inputs channel 2:	2x XLR/f for L/R, electronically (servo) balanced input impedance: 10 kΩ / nominal input sensitivity: +6dBu
Each channel:	rotary gain control, -∞ / +16 dB / mute switch / mono switch
Outputs:	2x XLR/m electronically (servo) balanced output impedance: 300 Ω / max. output level: 20 dBu into 600 Ω
Mains input:	100V-240V, power consumption approx. 2.5 W
Housing:	powder coated steel with 3 mm aluminium front panel
Dimensions (W x H x D):	222 x 44 x 160 mm, depth without front panel and connector overhang
Weight:	1,3 kg

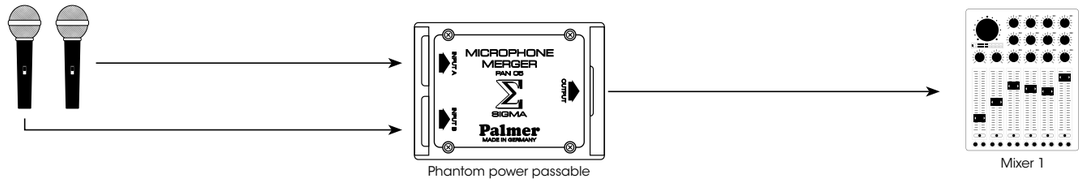


PAN 05
PASSIVE MICROPHONE MERGER

The PAN 05 enables you to patch two microphones into one single mixing desk channel in situations where you run out of channels. Since decoupling occurs via a balanced resistor network, the PAN 05 also lets phantom power "pass through", useful for condenser microphones. However, due to the difference in sound and signal level, mixing dynamic and condenser mics should be avoided. Best results will be achieved using two identical mics.

SPECIFICATIONS

Input:	2 x XLR/f balanced, nominal impedance: 200 Ω
Output:	1 x XLR/m balanced, load impedance > 200 Ω Symmetrically decoupled through resistors,total ohmic value: 200 Ω. Typical attenuation: 6 dB
Housing:	Metal casing
Dimensions (W x H x D):	110 mm x 73 mm x 42 mm
Weight::	0.27 kg



DUETTO

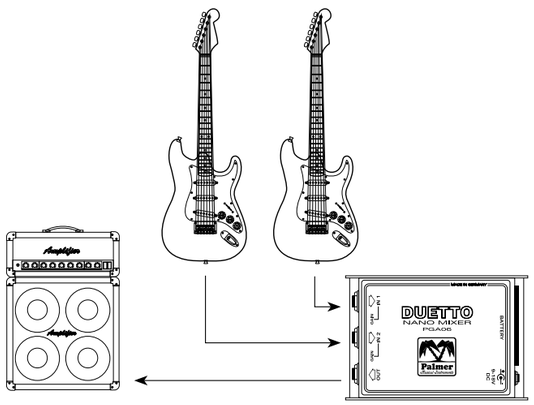
NANO MIXER & BUFFER AMP

The Palmer Duetto-Box is a small format mixer. The inputs are specifically configured for electric guitars in terms of level and impedance. The box of course also works well with normal line signals. The Duetto allows you to actively mix two sources together to one output, which can in turn be connected to an amplifier. Each input has a volume pot so that the levels can be adjusted. Especially guitar teachers who would like to play together with their student over one amp will value the Duetto. The Duetto`s very low power consumption allows the unit to be powered by battery over many hours. However the box also offers a DC power socket where you can connect a standard 9V power adaptor.

Optional 9VDC Power Supply (Art. No.: PW9V) available

SPECIFICATIONS

Inputs:	2 x unbalanced 6,3 mm jack / Input impedance: 1M Ohm / Max. Input Level: 1.55 V (+6dBu)
Output:	1x unbalanced 6,3mm jack
Output impedance:	10 kΩ
Amplification:	max x 2 (6dB)
Power Supply:	9V



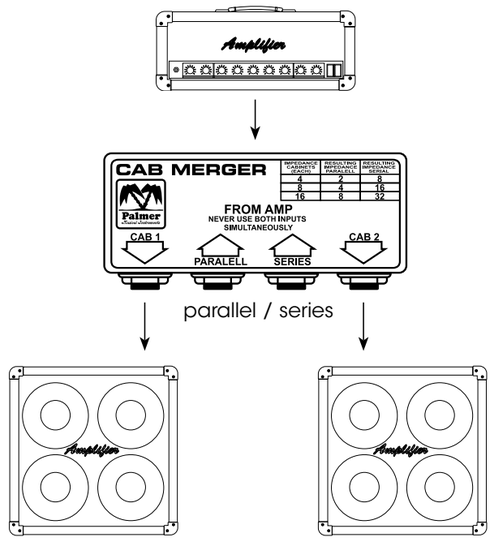
PCABM

PASSIVE MERGER FOR GUITAR CABINETS

The concept behind the cab merger may be very simple, but it fills an important gap!
Have you ever wanted to connect two guitar cabinets to one amplifier output? The PCABM makes it possible.
In addition, you can select whether the cabinets should be wired in parallel or series with one another. For example, if you interconnect two 8 ohm cabinets. The PCABM offers you two resulting impedances to choose from: 4 ohms (parallel) or 16 ohms (serial). The device is passive and does not affect the tone in any way.

SPECIFICATIONS

Type:	passive
Inputs:	2 x 6.3 mm Jack
Outputs:	2 x 6.3 mm Jack
Dimensions (W x H x D):	105 x 35 x 35 mm



PALMER

SPEAKER SIMULATORS

max out your sound with the exclusive "right in your face" JB switch

take your tone to any venue and studio for consistent live sound and tracking

say goodbye to miking and mic-related problems such as leakage and low-end rumble

add authentic speaker and cabinet flavors for frequency compensated balanced DI

PDI 03 JB

THE JOE BONAMASSA SIGNATURE GUITAR SPEAKER SIMULATOR DI

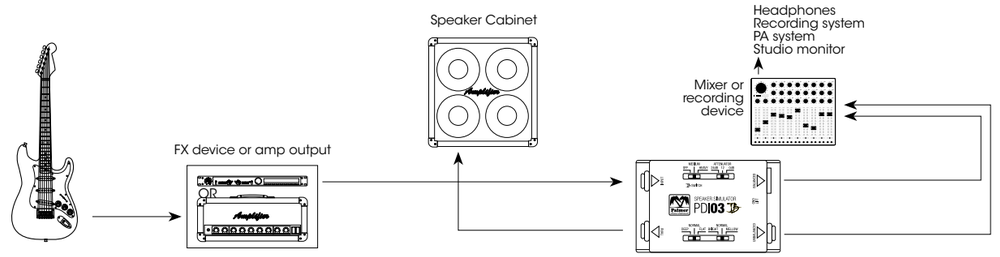
The PDI-03 JB Speaker Simulator is a professional passive DI box for guitar amps. Providing a frequency compensated, transformer balanced direct feed to mixing consoles or soundcards it connects between the amplifier output and loudspeaker or equivalent dummy load. The PDI-03 JB has been developed for live, studio and home recording applications to eliminate the need for time consuming mic placement and mic-related problems.

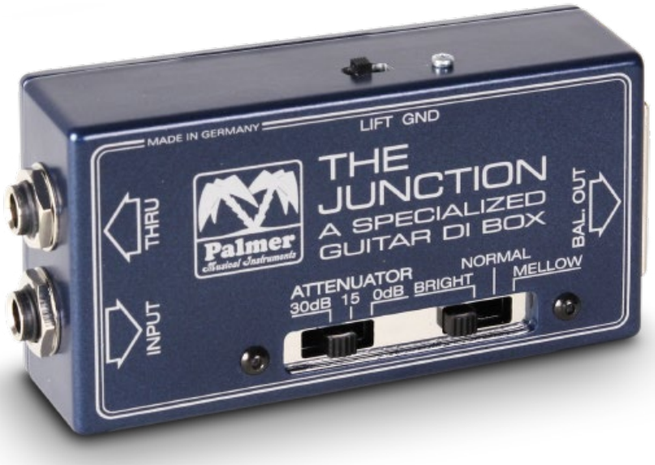
Designed to Joe Bonamassa`s high standards for a huge but tightly focused tone the exclusive JB switch brings the output signal to the fore and takes it "right in your face." The PDI-03 JB`s dual speaker simulation filters are carefully voiced to authentically replicate the frequency response of classic and contemporary loudspeakers and cabinets. The unit`s input sensitivity is adjustable for amps up to 200 watts or line and instrument level equipment.

Delivering consistent guitar tone from show to show the PDI-03 JB can also be used to add realistic speaker flavors to preamps and dirt boxes in direct recording applications. The rugged powder coated steel enclosure features high quality Amphenol connectors and a ground lift to remove hum resulting from earth loops.

For amp DI WITHOUT speakers a dummy load with matching impedance must be connected. We recommend the Palmer Power Attenuator PDI06 and the Palmer Dual Load Box PLB2X8.

- passive guitar amp DI box with speaker simulation
- for live and direct recording applications
- consistent guitar tone in any venue or studio
- exclusive JB switch for a huge, maxed-out tone
- dual analog filters for variable frequency compensation
- authentic guitar loudspeaker and cabinet sounds
- ground lift to remove earth loop hum
- eliminates miking and mic-related issues
- connects between amps up to 200W and speakerer or dummy load
- also works with preamps and dirt boxes



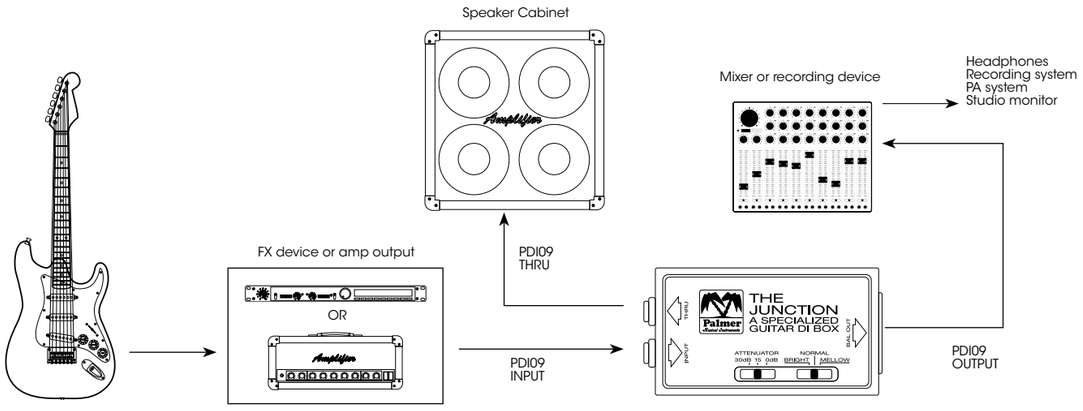


PDI 09
PASSIVE DI BOX WITH SPEAKER SIMULATION

PDI 09 "THE JUNCTION" A DI box designed especially for guitarists, for use with line level preamps, or to be connected between amp and speaker, enabling direct-to-mixing-desk recording without microphones. Integrated filter circuits simulate the authentic "speaker" sound. Tone can be varied between "Mellow", "Normal", or "Bright".

SPECIFICATIONS

Input:	¼"Jack with parallel "THRU" socket
Output:	XLR/M transformer balanced
Attenuator:	(Level switch) 0dB for line signals, -15 dB for small amps up to 10 W, -30 dB for large amps up to 200 W
Power supply:	No power supply or battery necessary



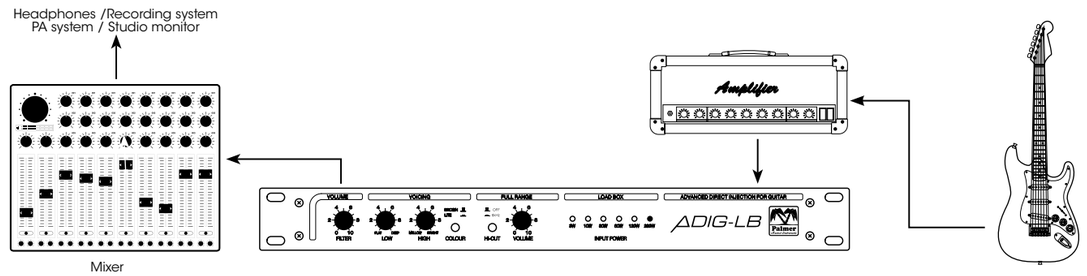
AVAILABLE IN
4, 8 AND 16 OHMS

PGA 04
SPEAKER SIMULATOR WITH LOAD BOX

PGA 04 ADIG-LB is a successor to our legendary speaker simulator (PDI03), which has conquered recording studios worldwide and is used by renowned artists such as Keith Richards/Rolling Stones, Alex Lifeson/Rush, Joe Bonamassa, Eddie Van Halen, Def Leppard and The Black Keys only to name a few. The PGA 04 is connected in place of a speaker cab, facilitating direct-to-mixing-desk recording, thereby eliminating undesirable "noise pollution" through "cranked" amplifiers. An extensive and unique filter section lets you shape the sound beyond the boundaries of common EQ circuits. The PGA04 works without any additional mains power. The PGA04 features a 100W loadbox allowing you to play your tube amplifier without a speaker connected. The unit is available in 2, 4, 8 and 16 Ohms Versions.

SPECIFICATIONS

Loadbox:	¼"Jack input with parallel „THRU" socket for speaker operation
Max.input load:	100 W
Input level display:	6 LED's
Output:	2 x ¼" Jack, unbalanced, floating ground, 1 x balanced XLR output
Output impedance:	Jack: 10 KΩ, XLR: 600 Ω
Level:	unbalanced 0dBu, balanced -10 dBu at 25 W input
Controls:	Volume Filter, LOW, HIGH, LITE/BROWN-switch for tone shaping. Full range volume for unfiltered signal.



AVAILABLE IN
4, 8 AND 16 OHMS

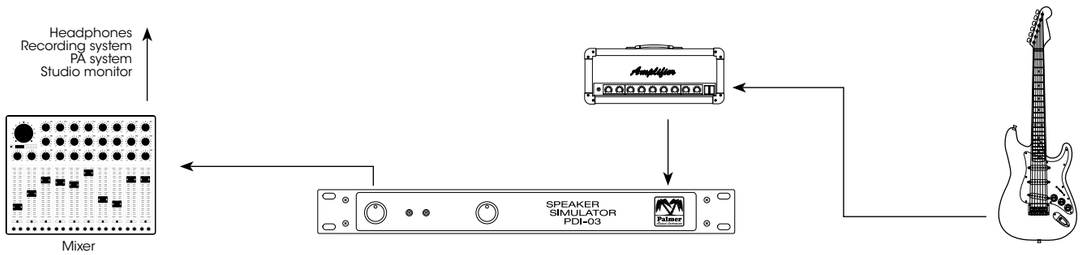
PDI 03

CLASSIC SPEAKER SIMULATOR WITH LOAD BOX

The PDI 03 is a passive device that takes the signal from an amp's speaker output, and converts it to balanced and unbalanced signals suitable for feeding the input of a mixer, recorder, or power amp. The unit is available in 2, 4, 8 and 16 Ohms Versions. Four additional unfiltered 1/4" outputs with a separate level control for incorporating effects or similar units into the setup. Two three-way filter switches allow you to adjust high-end response to simulate „American," „British," or „bright" speaker types, and adjust low-end response to simulate closed-back 4x12, „neutral," or open back 2x12 speaker cab sounds.

SPECIFICATIONS

Input:	19" / 1 U passive DI-Box for Loudspeaker Level, Integrated Load Box and Filter Section Rating: max Input Power 100 W RMS, THRU jack (Speaker signal link) socket with break function disconnecting the internal load box
Filtered output:	1 unbal. jack socket, 1 bal. XLR/m socket PIN 2 hot, all with floating ground Output Impedance: Unbalanced 10 kΩ nom. Balanced 600 Ω nom. Outputs via isolating transformer, GND switch connecting input/output ground. 4 unbalanced Line Outputs - Output impedance 10 kΩ nom
Controls:	Separate volume controls for filter and line out.
Switches:	Low End - Deep, Normal, Flat. / High End - Bright, Normal, Mellow.



PDI 05

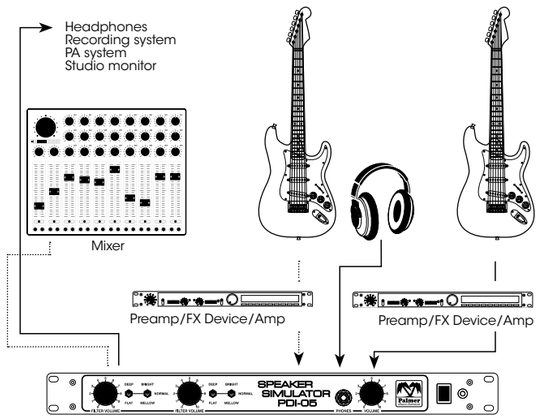
SPEAKER SIMULATOR – 2 CHANNELS

With its flexible potential applications, the PDI-05 is equally at home in the studio and home recording as well as onstage, e.g., in the racks of Rush or Def Leppard. Originally developed for the preamp/multieffect/power amp combination popular in the late eighties and nineties, this authentic reissue is also suitable for heads and combo amps. What's more - the precise frequency correction of the stereo speaker simulator turns overdrive and distortion pedals or multieffect units into a genuine preamp with an authentic sound. The PDI 05 lends digital keyboards and drum machines fullness and analogue warmth without complex and time-consuming post-processing at the mixing desk. A built-in headphone amplifier permits "environmentally-friendly" practicing; its high output power even permits direct connection of ordinary hi-fi speakers.
The stereo speaker simulator is active; the power supply is permanently installed. It can also be operated in mono mode and with power amps (in this case, the power amp must always be connected to speakers or a corresponding load, for example the Palmer PDI 06 or PLB2X8 loadboxes).
The PDI-05 makes conventional micing unnecessary and provides for a perfectly isolated signal without interference from other instruments and without feedback. With the reissue, pros and aficionados finally once again have a device at their disposal that has proven itself in more than 20 years of use, onstage and in the studio, around the world.

SPECIFICATIONS

Two independent channels, each channel:

Input / Input level:	1/4" Jack with parallel thru output. Input switchable between line/loudspeaker level
Output:	XLR/m and 1/4 " Jack output with ground lift switch, 6.3 mm Phones output
Controls:	Filter Volume, Deep/Flat-switch, Bright/ Mellow-switch, Phones Volume
Load box:	Optionally available (Palmer PLB2X8)
Power supply:	Internal power supply 230/115 VAC



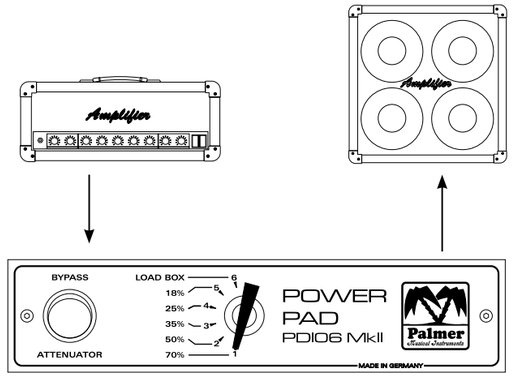
AVAILABLE IN
8 AND 16 OHMS

PDI 06
POWER ATTENUATOR / POWER SOAK

The PDI 06 is a power attenuator for live applications. The device is connected between the amplifier output and the speaker cabinet. It makes it possible to use the popular power stage distortion of tube amplifiers while reducing the associated high volume level. This permits practical volume reduction in six increments from 100% to 18% for stage and practice room situations. An additional Setting completely mutes the speaker; the PDI06 then functions as a LOAD BOX and absorbs the entire output power of the amplifier.
The total impedance of the speakers connected must equal the value shown on the PDI 06. For example: the outputs of a PDI06 that is specified for 8 ohms can be connected to one 8 ohm cabinet or two 16 ohm cabinets. The output of the (tube) amplifier is also set to 8 ohms.

SPECIFICATIONS

Maximum input power:	120 watts
Output impedance:	8 Ω (4 and 16 Ω version also available)
Output for speaker cabinets:	2 x 6.3 mm jack sockets connected in parallel
Input from amplifier:	1 x 6.3 mm jack socket
Functions:	The LOAD BOX position mutes the connected speaker cabinet. The BYPASS/ATTENUATOR switch lets the user toggle quickly between full and reduced output.
Controls:	6-position switch, 5 increments (3 dB each) for volume reduction, equivalent to attenuation of the input power to 70%, 50%, 35%, 25%, 18%.



PALMER
SWITCHERS

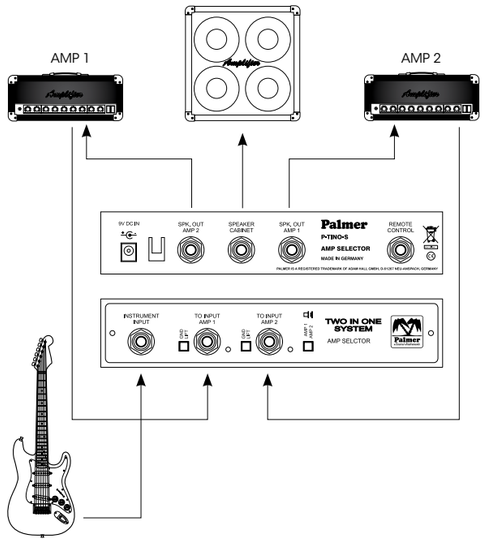
TINO-S
DUAL GUITAR AMP TO SINGLE SHARED CABINET SWITCHING SYSTEM

The Palmer TINO system is an AB switcher for two guitar amps sharing a single speaker cabinet that is suitable for both tube and solid state amplifiers. Amp 1 or 2 are activated by a front panel pushbutton or an optional latching footswitch connected to the rear panel remote jack.

The TINO system feeds the input signal to the selected amplifier while routing its output to the cabinet. The deselected amp is muted and connected to a dummy load to prevent output transformer and tube damage. Switching is glitch-free without dropouts, pops or clicks.

The TINO includes a transparent unity gain buffer converting the high impedance guitar signal to low impedance to minimize interference. The outputs are transformer isolated with ground lift switches eliminating earth loop hum.

The Palmer TINO can also be used for AB switching combo amps or head and cab setups. A center negative 9V adapter is included to power the system.

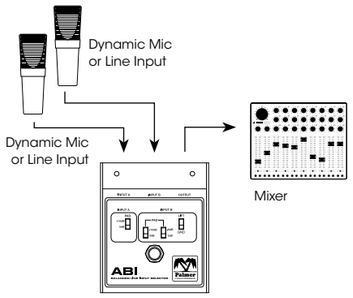


SPECIFICATIONS

Product type:	switch
Type:	amp switcher
Switching function:	output switcher
Input connectors:	2 x 6.3 mm Jack
Input impedance:	10 MΩ
Output connectors:	1 x 6.3 mm Jack
Output impedance:	10 kΩ
Transformer isolated outputs:	no
Display:	channel number
Controls:	ground lift, channel switching
Operating voltage:	9 V DC power supply
Power consumption:	130 mA
Cabinet material:	sheet steel/aluminium
Cabinet / Housing surface:	powder coated/anodized
Dimensions (W x H x D):	222 x 44 x 175 mm
Accessories (included):	9 V DC power adapter
Weight:	1,6 kg

PEABI
BALANCED INPUT SWITCHER

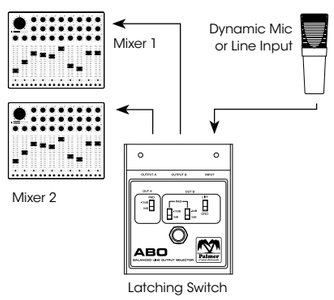
- Passive switcher
- Switch between two inputs to one output
- Latching switch
- Sturdy construction
- Ground lift and Pad for each input
- LED to indicate selected channel



Toggle between Input A & B

PEABO
BALANCED OUTPUT SWITCHER

- Passive switcher
- Switch one input to two outputs
- Latching switch
- Sturdy construction
- Ground lift and Pad for each input
- LED to indicate selected channel



Latching Switch

PF 1
UNIVERSAL 1-CHANNEL FOOTSWITCH

This simple but robust single-channel switch can be used universally. Whenever a change of channel or function via foot switch is required. For example, the PF1 can be used to switch the channel of a guitar amp or activate a particular function on a keyboard. The switch is latching, not spring return. To connect, a standard Mono Jack cable is sufficient.

SPECIFICATIONS

Product type:	passive switch
Output connectors:	1 x 6.3 mm Jack
Controls:	footswitch
Switch type:	latching
Cabinet material:	sheet steel
Cabinet / Housing surface:	powder coated
Dimensions (W x H x D):	55 x 60 x 65 mm
Weight:	0,25 kg

OCTOBUS
8-CHANNEL LOOP SWITCHER

The Palmer OCTOBUS is a high-performance loop switcher for effects pedals. This central switcher lets you control up to 8 different effects.
Thirty-two programmable presets let you determine at will which effects are included in the signal path.

SPECIFICATIONS

Number of loops:	8
Switching function:	output switcher, input switcher
Inputs:	1 x 6.3 mm Jack
Input impedance:	1 MΩ
Outputs:	1 x 6.3 mm Jack
Output impedance:	100 KΩ
Transformer isolated outputs:	no
Display:	LED display, bank
Controls:	store, bank select, preset, edit
Power supply:	9 V DC power supply
Power consumption:	300 mA
Cabinet material:	sheet steel
Cabinet / Housing surface:	powder coated
Dimensions (W x H x D):	455 x 110 x 45 mm
Weight:	2 kg
Accessories (included):	power supply
Features:	true bypass

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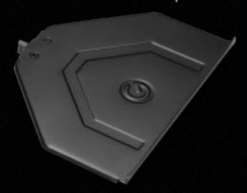
LTS **01** B THE ALL-NEW GRAVITY LAPTOP AND CONTROLLER STAND

table clamp

additional tray



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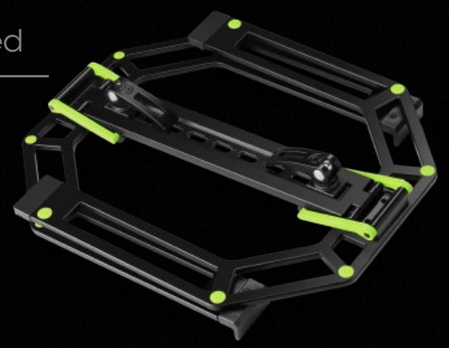

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5 YEAR GUARANTEE

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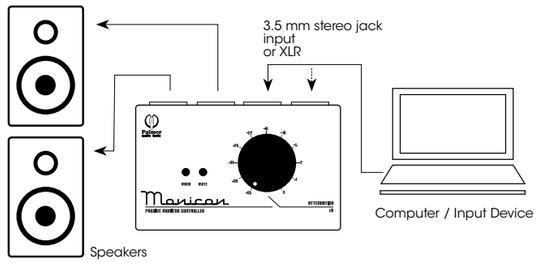
PALMER

STUDIO- & MONITOR-CONTROLLER

MONICON (W)
PASSIVE MONITOR CONTROLLER

With Palmer Monicon, your monitor volume is always under control. The passive mini-mixer with the oversized control is inserted between the stereo output of the notebook, PC or interface and an active monitor system and thus permits convenient and precise volume control of the monitors from the workstation. The passive circuitry with only a few components has absolutely no affect on the sound. Mute and mono buttons make it possible to mute the outputs and merge the stereo output signal into a mono master signal.

The inputs and outputs of the controller are equipped with XLR connectors and the 3.5mm stereo TRS sockets usually found on computers. Combo input sockets also permit connection with 6.3 mm TRS plugs. Thus the Palmer Monicon is compatible with both professional and consumer equipment. Genuine wood sides make the practical studio tool in its massive powder-coated sheet steel housing an elegant looking „little helper" that is a typical Palmer product.



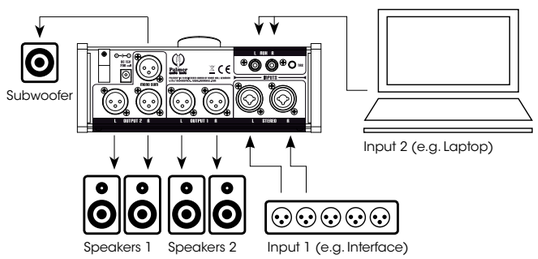
SPECIFICATIONS

Product type:	Monitor Controller
Type:	passive
Channels:	2
Inputs:	2
Input connectors:	3.5 mm TRS, XLR
Input type:	balanced/unbalanced (depending on TS/TRS connection)
Max. input level:	20 dBu
Input impedance:	(balanced) 10 kΩ, (unbalanced) 5 kΩ
Outputs:	2
Output connectors:	XLR, 3.5 mm TRS
Output type:	balanced/unbalanced (depending on TS/TRS connection)
Max. output level:	20 dB
Output impedance:	600 Ω
Frequency response:	10 - 40000 Hz
THD:	0.001 %
Max. attenuation:	(Attenuator) 85, (Attenuator + Mute) 112 dB
Controls:	mute, mono, attenuation
Cabinet material:	wood, sheet steel
Cabinet surface:	powder coated
Dimensions (W x H x D):	164 x 62 x 85 mm
Weight:	0.75 kg

MONICON L
PASSIVE MONITOR CONTROLLER

The Palmer Monicon L is a precise analog volume control that connects between computers or audio interfaces and self-powered monitor loudspeakers. To prevent signal coloration the circuitry is all passive, the LED indicators and built-in headphone amplifier are powered by the included DC adapter.

The Monicon L`s stereo input is on balanced combo sockets, the AUX input features a 3.5 mm TRS jack and RCA connectors. The compact console sports dual outputs for two pairs of monitor speakers and a summed mono output on XLR connectors. The stereo and AUX inputs are alternatively selectable, the outputs can be activated individually and in tandem. Besides the large stereo volume knob the Monicon L provides mono, mute and PFL switches, a 6.35 mm TRS headphone jack as well as separate AUX and headphone level controls for additional convenience.



SPECIFICATIONS

Product type:	Monitor Controller
Type:	passive
Channels:	2
Inputs:	2
Input connectors:	XLR, 3.5 mm TRS, RCA
Input type:	balanced/unbalanced (depending on TS/TRS connection)
Max. input level:	20 dBu
Input impedance:	(balanced) 10 k Ω, (unbalanced) 5 kΩ
Outputs:	3
Output connectors:	XLR
Output type:	balanced/unbalanced (depending on TS/TRS connection)
Max. output level:	20 dB
Output impedance:	600 Ω
Frequency response:	10 - 40000 Hz
THD:	0.001 %
Max. attenuation:	(Attenuator) 85, (Attenuator + Mute) 112 dB
Controls:	mute, PFL source, mono, attenuation, output selector, input selector
Cabinet material:	wood, sheet steel
Cabinet surface:	powder coated
Dimensions (W x H x D):	218 x 77 x 100 mm
Weight:	1.14 kg

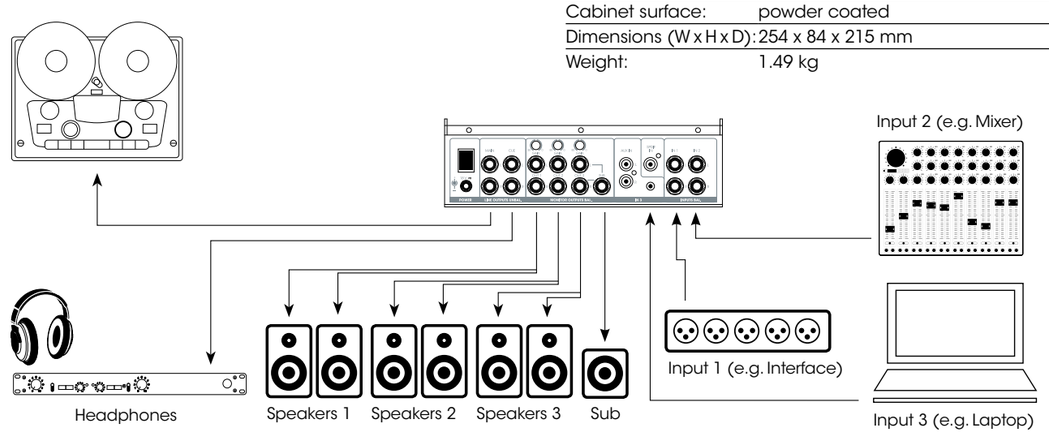
MONICON XL
ACTIVE STUDIO MONITOR CONTROLLER

With its ergonomic two-tier console layout, the Palmer Monicon XL is the perfect tool to manage multiple audio sources and studio monitor speakers. It features three analog stereo inputs plus a S/PDIF input and outputs for three pairs of monitors with individual volume controls to enable level matching. It also provides a full frequency range output for a dedicated mono speaker or subwoofer. Simply select sources and destinations with the push of a button. Exclusive to the Monicon XL, a correlation meter located between the L and R level meters provides visual indication of your stereo mixes' mono compatibility.To support your preferred way of working you can easily custom-configure the unit and save your settings.

Preventing latency and signal colouration, the Palmer Monicon XL sports all-analogue audio circuitry. And more than just a monitor controller, the unit is packed with additional functions that are essential to any recording studio setup. It provides two headphone outputs with individual level controls and main/cue selectors, an overall cue level control and a switchable talkback mic with level control. In addition, there is a mute button and a dim switch with attenuation knob that instantly lets you reduce the monitor output by a preset level. Not to forget the Monicon XL's steering wheel, the comfortable large knob main volume control.

SPECIFICATIONS

Product type:	Monitor Controller
Type:	active
Channels:	3 switchable balanced outputs, 1x CUE output, 1x MAIN Output
Inputs:	3 + SPDIF
Input connectors:	3,5 mm Stereo Jack , Cinch , XLR, SPDIF
Input type:	balanced/unbalanced (depending on TRS connection)
Max. input level:	20 dBu
Input impedance:	(balanced) 10 k Ω, (unbalanced) 5 kΩ
Outputs:	7 Stereo
Output connectors:	TRS balanced (1 – 3) and TRS unbalanced (CUE, MAIN, Headphone 1 und 2)
Output type:	balanced/unbalanced (depending on TRS connection)
Max. output level:	25 dBu (balanced), 20 dBu (unbalanced)
Output impedance:	600 Ω
Frequency response:	12 - 90000 Hz (-1dB)
THD:	0,002 % (BW 20-20000 Hz)
Signal to noise ratio:	102 dB (a-weighted) @ +4dBu
Dynamic range:	115 dB
CMRR:	better than 55 dB
Max. Damping:	(Attenuator + Mute) 111 dB , (Attenuator) 86 dB
Controls:	Attenuation, Output select, Input select, Mono, Mute, PFL Source, Audio DIM, TALKBACK
Cabinet material:	wood, sheet steel
Cabinet surface:	powder coated
Dimensions (W x H x D):	254 x 84 x 215 mm
Weight:	1.49 kg



STUDIMON

POWERED 5" REFERENCE NEARFIELD STUDIO MONITOR

Compact yet powerful, the Palmer STUDIOMON 5 is a bi-amped reference class nearfield studio monitor that looks the part, too. It features a magnetically shielded 5" low frequency driver with rubber surround, a 0.75" silk-dome tweeter and a rear reflex port for extended low frequency response. Driven by 30 watt class AB amplifiers each, the transducers deliver your mixes accurately with excellent dynamics and transient response. The STUDIOMON 5 provides balanced XLR and 6.35 mm TRS inputs to maintain signal integrity and a convenient volume control. What's more, the speaker's looks match those of the Palmer MONICON series monitor controllers.

FEATURES

- 5" woofer and 0.75" soft-dome tweeter
- Bass reflex design
- Bi-amped, 2 x 30 watts RMS
- Frequency response 70 Hz - 20 kHz
- Balanced XLR and 6.35 mm TRS inputs
- Compact dimensions
- Elegant and rigid enclosure construction

SPECIFICATIONS

Product type:	Reference Nearfield Studio Monitor
Type:	active
Configuration:	2 Way Bassreflex
Woofer Diameter:	1x 5" Polypropylen with rubbersurround, magnetic shielding,vented magnetic motor
Tweeter Diameter:	0,75" Softdome
Amplifier Class:	Class A/B
Directivity:	120 x 120 °
Output Power:	2 x 30 Watt RMS(WooferAmp 30 Watt/ TweeterAMP 30 Watt)
Frequency Response:	70 - 20 000 Hz(-3dB)
Cut off frequency:	2500 Hz
Filter:	Analog 24dB Linkwitz Riley filter (with 2 stage Gyrator EQ)
Input Impedance:	10 kOhm
Max. SPL:	110 dbU bei 1 Khz
Signal to Noise Ratio:	85dB
Protection Circuits:	Short Cut, thermal shutdown
Operating Controls:	Volume control, Power Switch(On/Off)
Line Inputs	6,3 mm TRS , XLR
Power Supply:	SPSU, 100 V AC - 240 V AC, 50 - 60 Hz
Power Consumption:	85 W
Enclosure Construction:	15 mm Plywood stained / MDF/ Black Vinyl Wrap
Dimensions (W x H x D):	190 x 268 x 215 mm
Weight:	3.84 kg

PALMER

PREAMPS & AMPLIFIERS

POCKET AMP ACOUSTIC

PORTABLE PREAMP
FOR ACOUSTIC STRING INSTRUMENTS

Providing extensive sound shaping options for acoustic guitars and basses, the Acoustic Pocket Amp is a versatile preamp that's perfect for gigging, recording and practising.
It accomodates both piezo and magnetic pickups, and the 3-band EQ with semi-parametric mid control is specifically tuned for acoustic instruments. The Pocket Preamp features an input limiter to prevent transient distortion while a 5-position rotary notch filter eliminates resonant frequency feedback. A mode switch selects between crisp contemporary or warm vintage sound characteristics, and a blend control allows you to mix the direct and processed signals.

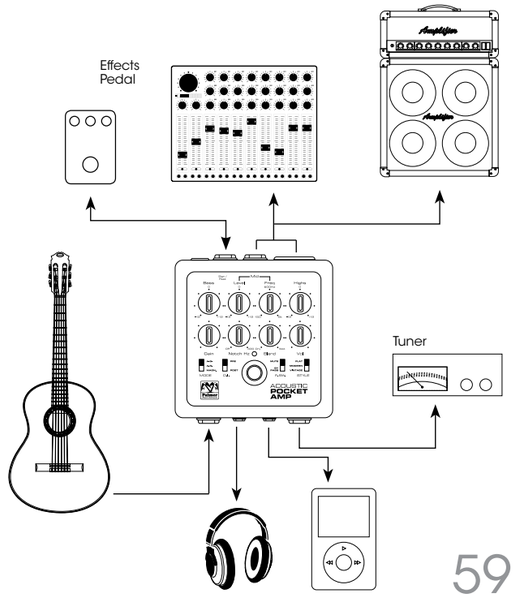
The Acoustic Pocket Amp provides an insert for external effects, 3.5 mm stereo line input, headphones output and a footswitch-assignable thru jack to connect a tuner. Enabling DI applications, the balanced XLR output is pre or post signal processing switchable. The Acoustic Pocket Amp requires a 9 volt battery or power adapter and comes in a rugged diecast enclosure with heavy duty long-life footswitch, convenient LED status indicators and ground lift.

FEATURES

- Versatile acoustic preamp for instruments with piezo and magnetic pickups
- Compatible with instrument amplifiers, sound reinforcement systems and recording mixers
- Flat, Modern and Vintage sound mode switch
- Input limiter, polarity switch and notch filter
- 3-Band EQ with semi-parametric mid control
- Blend control for wet and dry signal mixing
- 3-pin XLR for balanced DI, pre or post signal processing switchable
- Footswitch-assignable tuner output
- Insert, stereo line input and ground lift

SPECIFICATIONS

Product type:	Preamp
Inputs:	2
Input connectors:	6.3 mm Jack
Input impedance:	1 MΩ
Outputs:	4
Output connectors:	6.3 mm Jack
Output impedance:	100 Ω (XLR) / (TRS) - 500 Ω
Indicators:	on/off , peak , Signal
Controls:	Bass, Blend, Di, Footswitch, Gain, Highs, Mid, Mid frequency, Mode, Notch, Style, Volume
FX loop:	yes
Operating voltage:	9 V DC, 9 V block
Cabinet material:	die-cast aluminium
Dimensions (W x H x D):	100 x 55 x 100 mm
Weight:	0.41 kg



POCKET AMP MK2
PORTABLE GUITAR PREAMP

In its new incarnation, the Palmer Pocket Amp MK 2 delivers an extended range of authentic tube amplifier tones from high headroom ultra clean to maxed out high gain distortion. With 3-position selector switches for amplifier design, gain structure and loudspeaker miking simulation the MK 2's hot rodded circuitry lets you easily configure vintage and modern sounds as well as your own while high performance op amps provide superior S/N ratio. For even more flexibility the Pocket Amp MK 2 sports master controls for drive and output level plus a 2-band EQ that has been carefully tailored for guitar applications.

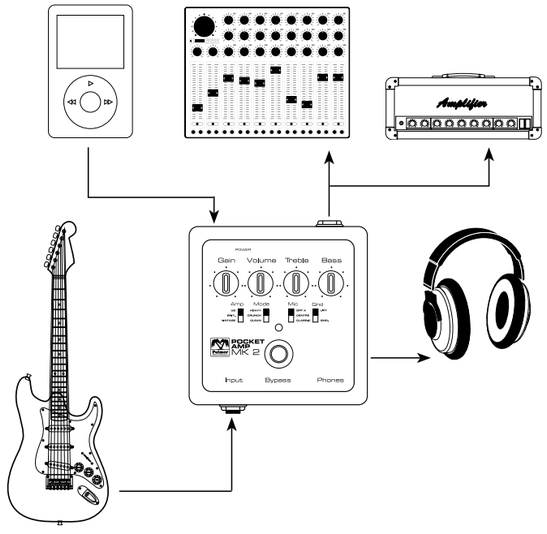
Featuring a durable die cast aluminium enclosure with balanced XLR and unbalanced 6.35 mm outputs in addition to 3.5 mm AUX input and headphones jacks the Palmer Pocket Amp MK 2 is more than just the go-to tool for direct recording. It doubles as a practice amp, overdrive and distortion pedal, standard guitar DI box when bypassed and replaces your stage amp when used with a sound and monitor system. The Pocket Amp MK 2 works on a 9V battery or optional power adapter, e.g. Palmer PW9V.

FEATURES

- Wide range of authentic tube amplifier tones
- Selectable amplifier styles, gain structure and mic position emulation
- Master drive, level, bass and treble controls
- Superior signal-to-noise ratio
- Ideal for direct recording
- Doubles as distortion pedal, practice amp and DI box
- Pure analog device

SPECIFICATIONS

Product type:	guitar effect pedal
Technology:	solid state
Inputs:	1
Input connectors:	6.3 mm Jack
Input impedance:	1 MΩ
Outputs:	3
Output connectors:	3.5 mm jack, 6.3 mm Jack, XLR
Output impedance:	510 Ω
Channels:	1
Indicators:	on/off
Controls:	level, mic position, mode, Treble, ground lift, Gain, Bass, Drive, amp select
FX loop:	no
Operating voltage:	9 V DC, 9 V block
Cabinet material:	die-cast aluminium
Dimensions (W x H x D):	100 x 55 x 100 mm
Weight:	0.36 kg



POCKET AMP BASS
PORTABLE GUITAR PREAMP FOR BASS GUITARS

Providing extensive sound shaping options for active and passive bass guitars, the Pocket Bass Amp is a multi-purpose effects pedal and preamp that's perfect for gigging, recording and practising. It features clean, overdrive and fuzz modes with adjustable drive and saturation, a 3-band EQ with semi-parametric mid control that is specifically tuned for bass guitar and vintage or modern cabinet simulation. A blend control allows you to mix the direct and effected signals.

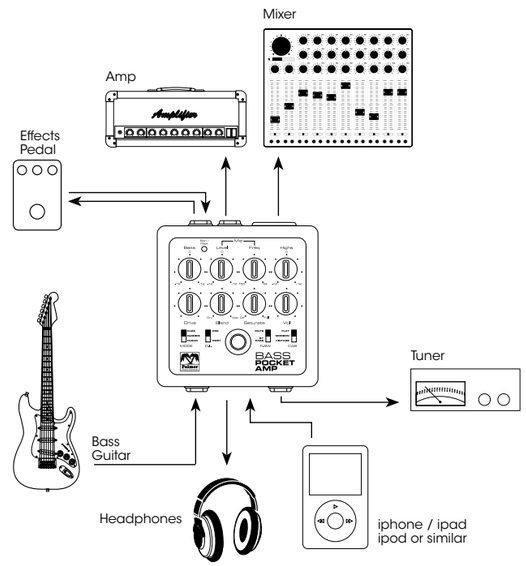
The Pocket Bass Amp provides an insert for external effects, 3.5 mm stereo line input and headphones output for quiet play-along practice and a footswitch-assignable thru jack for silent tuning. Enabling DI applications, the balanced XLR output is pre or post effect switchable. The Pocket Bass Amp requires a 9 volt battery or power adapter and comes in a rugged diecast enclosure with heavy duty long-life footswitch, convenient LED status indicators and ground lift.

FEATURES

- Multi-purpose bass effects pedal and preamp
- Works with any bass rig, power amp, mixing desk and as headphones amp
- Pad switch for use with active and passive basses
- Clean, overdrive and fuzz modes
- Drive and saturation controls
- 3-Band EQ with semi-parametric mid control
- Vintage and modern cabinet simulations
- Blend control for wet and dry signal mixing
- 3-pin XLR for balanced DI, pre or post effect switchable
- Footswitch-assignable thru (tuner) output
- Insert, stereo line input and ground lift

SPECIFICATIONS

Product Type:	Effects pedal
Type:	Preamp/preamplifier
Technology:	Solid state
Number of Inputs:	2
Input Connections:	6.3 mm jack
Input Impedance:	1 MΩ
Number of Outputs:	4
Output Connections:	XLR, 2 x 6.3 mm jack, 3.5 mm jack
Output Impedance:	XLR: 510 ohm, TRS: 10 k ohm
Output Level:	XLR: +4 dBu, TRS: 0 dBV
Number of Channels:	1
Display Elements:	On/Off, Signal/Peak
Controls:	Bass, Mid level, Mid Frequency, Highs, Drive, Blend, Saturate, Volume, Mode, DI, pre/post, Footswitch, mute/bypass, Cabinet mode, input pad, ground lift
FX Loop:	yes
Power Supply:	9 V DC, 9 V block battery
Cabinet Material:	die-cast aluminium
Dimensions (W x H x D):	100 x 55 x 100 mm
Weight:	0.4 kg



PHDA 02
REFERENCE HEADPHONE AMPLIFIER

Reference class headphone amplifier with Stereo, Mono, and Dual Mono operation modes.

- Stereo mode: The L/R input signal is fed to the left and right earphones while the volume level is set by the Stereo/Left control. The front panel inputs provide simultaneous connection of two headphones in parallel.
- Mono mode: The left and right channels are summed, and the resulting mono signal is fed to both the left and right ear phones. Again, volume is governed by the Stereo/Left control.
- Dual Mono mode: The left and right channels can be used independently with individual level controls for the left and right earphones.

The PHDA02 operates with all headphones with an impedance of 8 up to 600 Ohms. Impedance matching is achieved by a specially designed switchable transformer. Uncommon and costly, this solution provides superior performance, dynamic range, and signal-to-noise ratio at all loads. Combo input sockets allow for balanced XLR and unbalanced TS headphone connection while parallel XLR outputs facilitate daisy chaining multiple units.

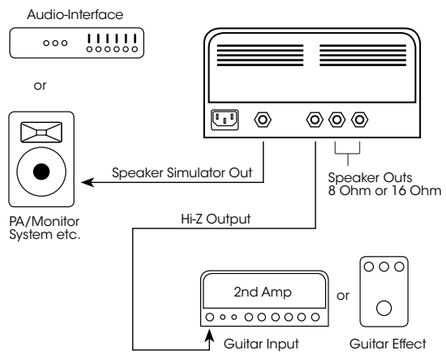
SPECIFICATIONS

Inputs:	Combo sockets L/R (XLR = electronically balanced)
Input impedance:	10 KΩ unbalanced, 20 K Ω balanced
Max. input level:	+22 dBu
Headphones connectors:	2 x 6.3 mm TRS
Headphones impedance:	8 Ohms/200 Ω switchable
Min. load:	8 Ω per output
Typical output power:	approx. 2 x 400 mW @ 8 or 200 Ω
Max. gain:	26 dB @ 200 Ω
Frequency response:	20-20.000 Hz +0/-1 dB @ 8 Ω
THD:	typically 0.02 % @ 1V, 8 Ω
Signal-to-noise:	typically -110 dBu @ unity gain, 8 Ω
Power supply:	100 - 240 V AC, 50/60 Hz
Dimensions:	9.5", 1U (222 x 44 mm), depth 175 mm
Weight:	0.7 kg

EINS
FULL TUBE GUITAR AMPLIFIER 1W

Small 1-5W amps have become very popular in recent years. They are fun items but some seem more like toys than real amplifiers. Palmers approach with the EINS was to design a serious true tube amplifier for professional purposes. The speaker simulated output allows you to connect the output of the amp directly to your audio interface. Thanks to the integrated loadbox a speaker does not need to be connected. Thanks to the unique "HiZ output" you can connect the output of the EINS directly to the input of any amplifier! This way the EINS can be power boosted or used as a preamp or even on your pedalboard.
The Palmer EINS comes with an ECC83 preamp tube (V1) and an ECC82 (V2) power stage tube as standard. Other tube configurations are possible as follows.

A LIST OF COMPATIBLE TUBES IS AVAILABLE ONLINE ON WWW.PALMER-GERMANY.COM



SPECIFICATIONS

Technology / Class:	Tube / A
Power:	1 W
Inputs:	1 x 6.3 mm Jack
Input impedance:	1 MΩ
Outputs:	4 x 6.3 mm Jack
Output impedance:	Speaker out: 8 & 16 Ω, Simulated out: 4k, HiZ out: 3,3 MΩ
Display / Controls:	Power / Tone, level
Tubes:	ECC83 (Preamp), ECC82 (Power Amp)
Rectifier:	solid state
Power supply:	230 / 115 V AC
Power consumption:	10 W
Dimensions (W x H x D):	206 x 128 x 108 mm
Weight:	2.9 kg

MACHT 402

19" SPECIALIZED STEREO POWER AMP FOR GUITAR

The Palmer MACHT 402 is a 19" stereo power amplifier specially designed for guitar applications. It pumps out 200 watts per channel and 400 watts bridged into 4 ohms to drive virtually all speaker cabinets. Featuring a highly efficient switch mode power supply and low noise fan the soft start class D design is protected against overvoltage, DC, short circuits and overheating.

Conventionally named, the channels` Hi and Low controls have been carefully tailored for guitar signals to provide extensive EQ facility, a wide variety of sounds and authentic tube power stage characteristics. In addition, the MACHT 402 sports rumble filtering, LED indicators, a 3-way sensitivity selector, built-in limiter and ground lift switch. With XLR and 6.35 mm inputs as well as Speakon compatible and 6.35 mm output connectors the Palmer MACHT 402 is the ideal power station for guitar preamps, small amps, modelers and even effects pedals.

SPECIFICATIONS

Product type:	2-channel power amplifier
Rated ouput power (1kHz (at) 4 Ω):	2 x 200 W
Rated ouput power (1kHz (at) 8 Ω):	2 x 100 W
Rated ouput power (1kHz (at) 8 Ω, bridged):	400 W
Output circuitry:	Class D
Frequency response:	20 - 20000 Hz
THD:	< 0.1 %
Gain:	32 dB / 26 dB / 28 dB
Input sensitivity:	0,68 V / 1,4 V / 1,2 V
Protection circuits:	DC, short circuit, soft start, thermal overload, over-current
Controls:	volume, Sensitivity, On / Off, mode, limiter, low, high, ground lift
Indicators:	signal, Power, protect (protection circuit engaged), clip, mode
Line inputs:	2
Line input connectors:	RCA, 6.3 mm Jack
Loudspeaker outputs:	2
Speaker output connections:	Speakon compatible, 6.3 mm Jack
Cooling:	low-noise fan
Operating voltage:	Switching Power Supply
Power consumption (at) full load:	470 W
Operating voltage:	115 V AC / 230 V AC (switchable)
Dimensions (W x H x D):	482 x 44 x 244 mm
Weight:	3.8 kg

FEATURES

- 200 watts per channel into 4 ohms
- 400 watts bridged for mono use
- Carefully tailored, guitar specific EQ
- Input sensitivity selector for use with preamps, pedals etc.
- Built-in limiter
- All major protections
- Works with virtually any cabinet(s)

PALMER

CUSTOM CABINETS

JACKPLATE INFO:
Two In/Out jack sockets wired in parallel

PCAB 112
1 X 12" GUITAR CABINET

For a tightly focused sound with extended lows, punchy mids and sweet highs the 12" speaker has been the first choice in live and recording applications for decades. Most combo amps got away with just one of those to deliver legendary guitar tones.

With the Eminence FDM speaker options loudspeaker level and tone response are at your fingertips by simply turning the magnet flux control at the back of the speaker to suit your taste. With a built-in attenuator Eminence FDM speakers are available in American and British flavors for precision tone shaping. Get in touch to find out more!

SPECIFICATIONS

Dimensions (W x H x D):	58 x 45 x 29 cm
Front Grill:	Fabric, detachable
Speaker mounting:	1 x 12" Front mounted
Cabinet rear:	open back
Weight without speaker:	12 kg

Article No	Speaker	Cabinet Impedance (Mono)	Power Rating (Mono)	Cabinet weight
PCAB112GOV	GOVERNOR 8 Ω	8 Ω	75 W	16 kg
PCAB112LEG	LEGEND 1258 8 Ω	8 Ω	75 W	16 kg
PCAB112MAV	FDM* MAVERICK 8 Ω	8 Ω	75 W	16 kg
PCAB112MOW	MAN O WAR 8 Ω	8 Ω	120 W	17 kg
PCAB112PJA	PRIVATE JACK 8 Ω	8 Ω	50 W	17 kg
PCAB112REX	CANNABIS REX 8 Ω	8 Ω	50 W	17 kg
PCAB112RGN	FDM* REIGNMAKER 8 Ω	8 Ω	75 W	16 kg
PCAB112RWB	RED, WHITE & BLUES 8 Ω	8 Ω	120 W	17 kg
PCAB112TXH	TEXAS HEAT 8 Ω	8 Ω	150 W	17 kg
PCAB112V30	VINTAGE 30 8 Ω	8 Ω	60 W	16 kg
PCAB112WIZ	WIZARD 8 Ω	8 Ω	75 W	17 kg
PCAB112GBK	CELESTION GREENBACK 8 Ω	8 Ω	25 W	16 kg
PCAB112S80	CELESTION SEVENTY 80 8 Ω	8 Ω	75 W	16 kg

* FDM:
FLUX DENSITY MODULATION
ATTENUATION DIAL ON THE REAR OF THE SPEAKER

PCAB112B
1x12 EMPTY GUITAR CABINET

PCABCASTORS
CASTOR SET WITH 4 CASTORS INCL. SCREWS FOR BASS OR GUITAR CABINETS

PCAB112BAG
PROTECTIVE COVER FOR PALMER 1x12 CABINETS

PCAB 212
2 X 12" GUITAR CABINET

For a tightly focused sound with extended lows, punchy mids and sweet highs the 12" speaker has been the first choice in live and recording applications for decades. Most combo amps got away with just one of those to deliver legendary guitar tones.

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SPECIFICATIONS

Dimensions (W x H x D):	71 x 48 x 29.5 cm
Front Grill:	Fabric, detachable
Speaker mounting:	2 x 12" Front mounted
Cabinet rear:	closed back (open back version also available)
Weight without speakers:	15.6 kg

PCAB212B
2x12 EMPTY GUITAR CABINET

PCABCASTORS
CASTOR SET WITH 4 CASTORS INCL. SCREWS FOR BASS OR GUITAR CABINETS

PCAB212BAG
PROTECTIVE COVER FOR PALMER 2x12 CABINETS

Article No	Speaker	Cabinet Impedance (Mono)	Cabinet Impedance (Stereo)	Power Rating (Mono)	Power Rating (Stereo)	Cabinet weight
PCAB212GOV	GOVERNOR 16 Ω	8 Ω	16/Speaker	150 W	75 W/Speaker	27 kg
PCAB212LEG	LEGEND 1258 8 Ω	4 Ω	8/Speaker	150 W	75 W/Speaker	23 kg
PCAB212MOW	MAN O WAR 16 Ω	8 Ω	16/Speaker	240 W	120 W/Speaker	25 kg
PCAB212PJA	PRIVATE JACK 16 Ω	8 Ω	16/Speaker	100 W	50 W/Speaker	26 kg
PCAB212REX	CANNABIS REX 16 Ω	8 Ω	16/Speaker	100 W	50 W/Speaker	25 kg
PCAB212RWB	RED, WHITE & BLUES 8 Ω	4 Ω	8/Speaker	240 W	120 W/Speaker	25 kg
PCAB212TXH	TEXAS HEAT 16 Ω	8 Ω	16/Speaker	300 W	150 W/Speaker	25 kg
PCAB212V30	VINTAGE 30 16 Ω	8 Ω	16/Speaker	120 W	60 W/Speaker	24 kg
PCAB212WIZ	WIZARD 16 Ω	8 Ω	16/Speaker	150 W	75 W/Speaker	26 kg
PCAB212GBK	CELESTION GREENBACK 16 Ω	8 Ω	16/Speaker	50 W	25 W/Speaker	24 kg
PCAB212S80	CELESTION SEVENTY 80 16 Ω	8 Ω	16/Speaker	160 W	80 W/Speaker	26 kg

>> Add „OB" to the end of the article number to order an open back version

EMINENCE SPEAKERS

From dialing a sound in, to rocking it out, for over 45 years Eminence has been the leading choice in audio applications worldwide.

THE GOVERNOR™

Tight low-end, smooth midrange, top end sparkle

LEGEND 1258

Tight lows, warm smooth mids and highs, strong upper mid emphasis, extended highs

CANNABIS REX™

Clean and full, lots of body and sparkle., smokey smooth with high-end definition, Country, Jazz or Classical

SPECIFICATIONS	THE GOVERNOR™	LEGEND 1258	MAN O WAR	CANNABIS REX™
Nominal Basket Diameter	12”, 304.8 mm	12”, 304.8 mm	12”, 304.8 mm	12”, 304.8 mm
Nominal Impedance	8 or 16 Ω	8 Ω	8 or 16 Ω	8 or 16 Ω
Power Rating	75 W	75 W	120 W	50 W
Resonance	101 Hz	94 Hz	91 Hz	96 Hz
Usable Frequency Range	70 Hz - 5 kHz	80 Hz - 4 kHz	70 Hz - 5.5 kHz	70 Hz - 5 kHz
Sensitivity	102 dB	100.1 dB	102 dB	102 dB
Magnet Weight	56 oz.	34 oz.	38 oz.	38 oz.
Voice Coil Diameter	1.75”, 44.5 mm	1.5”, 38.1 mm	1.75”, 44.5 mm	1.75”, 44.5 mm
Net Weight	10.8 lbs., 4.9 kg	7.8 lbs., 3.5 kg	8.1 lbs., 3.7 kg	8.2 lbs., 3.7 kg

MATERIALS OF CONSTRUCTION				
Coil Construction	Copper	Copper	Copper	Copper
Magnet Composition	Ferrite magnet	Ferrite magnet	Ferrite magnet	Ferrite magnet
Basket Materials	Pressed steel	Pressed steel	Pressed steel	Pressed steel

RED, WHITE & BLUES™

Versatile, great for southern rock or blues, nice tight low-end, smooth midrange and top end sparkle.

TEXAS HEAT™

Warm, fat tone with top end bite and clarity to cut through a mix while maintaining a rich, bluesy tone, very touch-sensitive

CV75

Complete tonal balance. Grunt and punch in the lows, warm/tailored mids, and nice, clear, open/airy highs.

PRIVATE JACK™

Well balanced, thick and smooth, lots of mids and extended highs.

THE WIZARD™

Very articulate, with a hint of grit, nice sustain, exceptionally good tight bottom, classic rock tones of the 60s and 70s

MAN O WAR

Very loud and responsive/articulate in every register, chunky and solid sound with a little top end sparkle

SPECIFICATIONS	PRIVATE JACK™	RED, WHITE & BLUES™	TEXAS HEAT™	THE WIZARD™	CV75
Nominal Basket Diameter	12”, 304.8 mm	12”, 304.8 mm	12”, 304.8mm	12”, 304.8 mm	12”, 304.8 mm
Nominal Impedance	8 or 16 Ω	8 Ω	8, 4 or 16 Ω	8 or 16 Ω	8 Ω
Power Rating	50 W	120 W	150 W	75 W	75 W
Resonance	96 Hz	110 Hz	79 Hz	89 Hz	79 Hz
Usable Frequency Range	70 Hz - 5 kHz	70 Hz - 4.5 kHz	70 Hz - 5 kHz	70 Hz - 5.5 kHz	80 Hz - 5.5 kHz
Sensitivity	101 dB	101 dB	99 dB	103 dB	102 dB
Magnet Weight	38 oz.	38 oz.	38 oz.	56 oz.	56 oz.
Voice Coil Diameter	1.75”, 44.5 mm	1.75”, 44.5 mm	2”, 50.8 mm	1.75”, 44.5 mm	1.75”, 44.5 mm
Net Weight	8 lbs., 3.6 kg	8.2 lbs., 3.7 kg	8.3 lbs., 3.8 kg	10.8 lbs., 4.9 kg	10.8 lbs., 4.9 kg

MATERIALS OF CONSTRUCTION					
Coil Construction	Copper	Copper	Copper	Copper	Copper
Magnet Composition	Ferrite magnet	Ferrite magnet	Ferrite magnet	Ferrite magnet	Ferrite magnet
Basket Materials	Pressed steel	Pressed steel	Pressed steel	Pressed steel	Pressed steel

EMINENCE®

EMINECE SPEAKERS WITH FDM TECHNOLOGY

The patented new FDM™ technology lets you adjust your tone directly at the Eminence Maverick™ or Reignmaker™ speaker. Just turn the modulator knob to adjust speaker output and amplifier interaction. That lets you achieve saturated tube tone at a lower volume. Tweak the knob for a wide range of tones. More attenuation affords a warmer tone, while less attenuation provides more punch and brightness. Give it a try.

MAVERICK™

Clean with fat low end

REIGNMAKER™

Tight, more focused with more highs, more abundant in harmonic detail

SPECIFICATIONS	MAVERICK™	REIGNMAKER™
Nominal Basket Diameter	12”, 304.8 mm	12”, 304.8 mm
Nominal Impedance	8 Ω	8 Ω
Power Rating	75 W	75 W
Resonance	82.45 Hz	91.0 Hz
Usable Frequency Range	75 Hz - 5.2 kHz	80 Hz - 6.2 kHz
Sensitivity	Max. Attenuation 91.5 dB / Full Output: 100 dB	Max. Attenuation 91.5 dB / Full Output: 100 dB
Magnet Weight	38 oz.	38 oz.
Voice Coil Diameter	1.75”, 44.5 mm	1.75”, 44.5 mm
Net Weight	7.8 lbs., 3.54 kg	7.8 lbs., 3.54 kg
MATERIALS OF CONSTRUCTION		
Coil Construction	Copper	Copper
Magnet Composition	Ferrite magnet	Ferrite magnet
Basket Materials	Pressed steel	Pressed steel

CELESTION

CELESTION SPEAKERS

Responsible for the first ever dedicated guitar speaker, Celestion drivers have become the ‚voice of rock & roll`, delivering many of the most memorable performances by guitarists including Jimi Hendrix and Slash through to the current crop of high-octane shredders.

VINTAGE 30

Detailed and complex overtones, warm low-end, rich vocal mid-range and a beautifully detailed top-end.

CREAMBACK

Tight low end, more dynamic high end.

GREENBACK

Well-controlled low-end, broad mid-range attack, restrained top-end, forward punchy attitude to chords, searing lead tones without fizz.

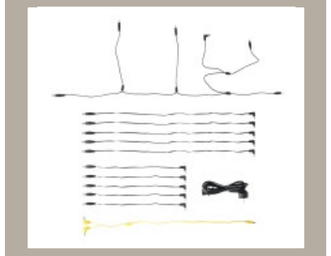
G12H

With a strong, aggressive low-end and powerful low-mids

SPECIFICATIONS	VINTAGE 30	GEENBACK	CREAMBACK	G12H
Nominal Basket Diameter	12”, 304.8 mm	12”, 304.8 mm	12”, 304.8mm	12”, 304.8mm
Nominal Impedance	16 Ω	8 Ω	8 Ω	8 Ω
Power Rating	60 W	25 W	75 W	30 W
Resonance	75 Hz	75 Hz	75 Hz	85 Hz
Usable Frequency Range	70 Hz - 5 kHz	75 Hz - 4.5 kHz	70 Hz - 5 kHz	75 Hz - 5 kHz
Sensitivity	100 dB	98 dB	100 dB	100 dB
Magnet Weight	50 oz.	35 oz.	50 oz.	50 oz.
Voice Coil Diameter	1.75”, 44.5 mm	1.75”, 44.5 mm	1.75”, 44.5 mm	1.75”, 44.5 mm
Net Weight	10,4 lbs., 4.7 kg	7.9 lbs., 3.6 kg	10.4 lbs., 4.7 kg	10.4 lbs., 4.7 kg
MATERIALS OF CONSTRUCTION				
Coil Construction	Copper	Copper	Copper	Copper
Magnet Composition	Ceramic	Ceramic	Ceramic	Ceramic
Basket Materials	Pressed steel	Pressed steel	Pressed steel	Pressed steel

PALMER

POWER SUPPLIES



CABLE SET
INCLUDED

PWT 05 MK2
UNIVERSAL POWER SUPPLY - 5 OUTPUTS

With a stable 250 mA on each of the five center negative barrel style outlets the compact Palmer PWT 05 MK2 is most suited to virtually any pedalboard size. To deliver clean DC power to your pedals and eliminate ground loops between them and the associated hum the outlets are isolated.

The PWT 05 MK2 is protected against overloading and comes with 25 and 50 cm long connection cables, as well as two Y-cables. The first one, with a black connector, connects two 9 V outputs to increase the current intensity to a massive 500 mA, the other one, with a white connector, connects two 9 V outputs to double the voltage to 18 V.. Also included is a 1-into-5 daisy chain that lets you power five pedals from one output if their total current draw does not exceed 250 mA. The rugged enclosure of the Palmer PWT 05 MK2 provides mounting and cable relief options while the IEC mains inlet and voltage selector enable worldwide use.

SPECIFICATIONS

Product type:	multiple power supply
Mains connector:	IEC socket
Input voltage:	230 V
Outputs:	5
Output connectors:	2.1 x 5.5 mm
Output voltage:	9 V
Max. output current:	each output 250 mA
Isolated outputs:	yes
Polarity:	center negative
Cord length:	25 - 50 cm
Indicators:	Overload, Power
Controls:	voltage selector switch, mains switch (on/off)
Dimensions (W x H x D):	105 x 45 x 140 mm
Weight:	1.5 kg

USB PORT
FOR YOUR DEVICES

BATPACK 4000 / BATPACK 8000
RECHARGEABLE POWER SUPPLY

Available in two versions, the Palmer Bat Packs are purpose-designed to power multiple stompboxes and pedalboards. They feature high grade, long-life lithium polymer batteries providing 500 mA each from two 9 volt DC center negative barrel outputs that are fully regulated and isolated. Recharging the 4,000 mAh capacity Bat Pack 4000 takes approximately four hours and twice that for the 8,000 mAh Bat Pack 8000. Both come in low-profile all-metal enclosures with 5-segment battery status indicators and convenience type A USB port for charging smartphones or tablets. Run time depends on your pedals` current draw.

- Rechargeable 9V DC Power Supply
- Perfect for Palmer Pedalbays
- Low-profile all-metal enclosure with 12 mounting holes
- High grade long-life lithium polymer battery
- 2 isolated and regulated 9V DC outputs
- Type A USB port for charging smartphones or tablets
- Short circuit protection
- 5-segment LED battery status indicator
- Fully functional while recharging

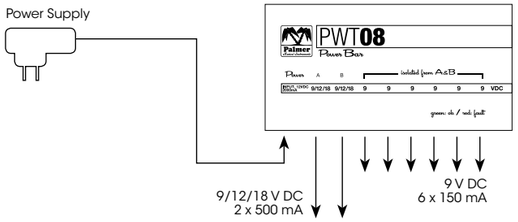
SPECIFICATIONS

Art. No.:	PBatpack 4000	PBatpack 8000
Product type:	power supply	power supply
Type:	Battery power supply	Battery power supply
Mains connector:	External power supply	External power supply
Input voltage:	12 VDC/2A	12 VDC/2A
Outputs:	3	3
Output connectors:	2.1 x 5.5 mm, USB type A	2.1 x 5.5 mm, USB type A
Output voltage:	9 VDC, 5VDC	9 VDC, 5VDC
Max. output current: 9V outputs:	500 mA, 5V output: 1A	500 mA, 5V output: 1A
Isolated outputs:	yes	yes
Polarity:	center negative	center negative
Indicators:	Battery status	Battery status
Controls:	Power (on/off)	Power (on/off)
Battery capacity:	4000 mAh	8000 mAh
Battery type:	Lithium Polymer	Lithium Polymer
Charging time:	4h	8h
Battery operation time at maximum load:	4h	8h
Dimensions (W x H x D):	195 x 25 x 83 mm	195 x 25 x 83 mm

CABLE SET
INCLUDED

PWT 08
UNIVERSAL POWER SUPPLY - 8 OUTPUTS

- Fully regulated universal pedalboard power supply
- 8 standard center negative outlets with 2,000 mA output total
- Two 9, 12 or 18 V switchable outputs
- Short circuit and overload protection for each outlet
- Bright power and outlet status LED indicators
- DC cables, Y cable and mains adapter included



SPECIFICATIONS

Product type:	multiple power supply
Mains connector:	wall wart
Input voltage:	100 V - 250 V
Outputs:	8
Output connectors:	2.1 x 5.5 mm
Output voltage:	9 V
Max. output current:	2000 mA
Isolated outputs:	yes
Polarity:	center negative
Cord length:	25 - 50 cm
Indicators:	Power, Fault
Controls:	Output voltage selector
Dimensions (W x H x D):	140 x 312 x 80 mm
Weight:	0.3 kg

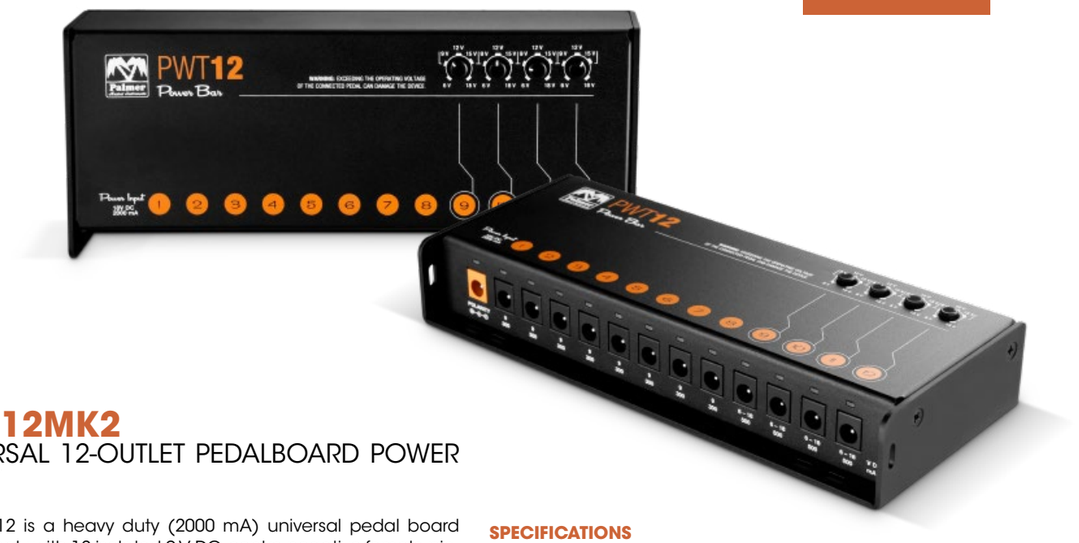
PWT 04
UNIVERSAL PEDALBOARD POWER SUPPLY 4-OUTPUTS

The PWT 04 is a universal pedalboard power supply with 1,000 mA output capacity and 4 standard centre negative 9 V DC isolated outputs. Featuring short circuit and overload protection, the PWT 04 is fully regulated to deliver constant voltage. The unit sports a power on LED, and comes with a set of DC cables and dedicated mains adapter.

- Fully regulated universal pedalboard power supply
- 4 standard centre negative outputs with 1,000 mA output total
- Short circuit and overload protection for each outlet
- DC cables and mains adapter included

SPECIFICATIONS

Product type:	power supply
Input voltage:	100 V - 250 V
Outputs:	4
Output connectors:	2.1 x 5.5 mm
Output voltage:	9 V
Max. output current:	each output 250 mA A
Isolated outputs:	yes
Polarity:	center negative
Cord length:	25 - 50 cm
Indicators:	Power
Dimensions (W x H x D):	80 x 25 x 90 mm
Weight:	0,12 kg
Accessories (included):	4 x DC cable



PWT 12MK2
UNIVERSAL 12-OUTLET PEDALBOARD POWER SUPPLY

The PWT 12 is a heavy duty (2000 mA) universal pedal board power supply with 12 isolated 9 V DC, centre-negative female pin-connector outputs. Four of the outputs feature adjustable voltage from 9 to 18 volts. The variable outputs enable the simulation of voltage drop or ‚battery sag` in old batteries. The power supply is regulated for constant voltage supply and protected against short circuit and overloading. The PWT 12 is equipped with a power LED and a two-colour LED output status indicator. It is supplied with an AC adapter and a set of DC cables. The PWT 12 is the ideal solution for power-hungry foot pedals or 9-volt effects units that can be operated at higher voltages for increased dynamics and stability.

- Fully regulated universal pedalboard power supply
- 12 standard centre negative outlets with 2,000 mA output total
- 8 x 9 V outlets (300 mA each)
- 4 variable voltage outlets 6 to 18 V (500 mA each)
- Short circuit and overload protection for each outlet
- DC cables and mains adapter included

SPECIFICATIONS

Product type:	power supply
Input voltage:	100 V - 250 V
Outputs:	12
Output connectors:	2.1 x 5.5 mm
Output voltage:	12 V, 18 V, 9 V
Max. output current:	2000 mA A
Isolated outputs:	yes
Polarity:	center negative
Cord length:	25 - 50 cm
Indicators:	Power, Fault
Controls:	Output voltage selector
Dimensions (W x H x D):	193 x 30 x 70 mm
Weight:	0.4 kg

PW 9V
9V POWER SUPPLY

Power supply for all Palmer devices with a 9 V input connector and a maximum power consumption of 300 mA.

- Input Voltage: 220 - 240 V AC 50 Hz
- Output Voltage: 9 V DC, 300 mA regulated
- Polarity negative inside

110V VERSION AVAILABLE
(Art. No. PW9VUS)

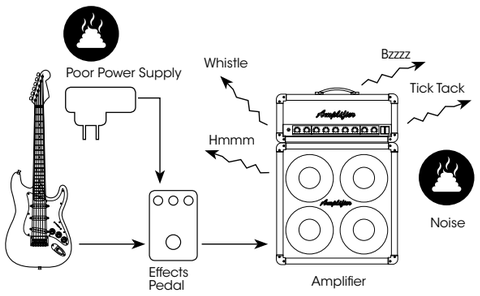
PURIFIER
DC VOLTAGE CLEANER

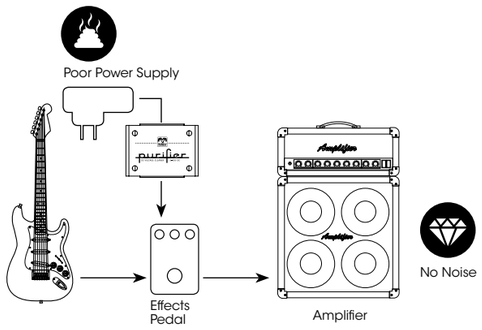
Designed especially for the use with effect pedals and pedalboards, the Purifier minimizes and removes noise induced by poor DC power adapter construction delivering clean DC power to your stompboxes. It provides standard 2.1 x 5.5 mm barrel jack connectors and automatically detects your DC power supply's polarity. The Purifier cleans any output voltage from 5 to 30 volts DC.

- Highly efficient DC power conditioner
- Removes noise induced by poor DC power adapters
- For all output voltages from 5 – 30 volts DC
- Automatic polarity detection
- Durable aluminium housing with convenient mounting holes

SPECIFICATIONS

Product Type:	Active DC Power Conditioner
Number of Channels:	1
Number of Inputs:	1
Input Connector:	2.1 x 5.5 mm barrel jack
Number of Outputs:	1
Output Connector:	2.1 x 5.5 mm barrel jack
Voltage Range:	5 – 30 V DC
Max. Electric Charge:	1 A
Polarity:	Automatic detection with LED indicator, red = center pos., green = center neg.
Current Draw:	2 mA
Protection Circuits:	PCB fuse
Housing Material:	Aluminium
Housing Finish:	Powder coated



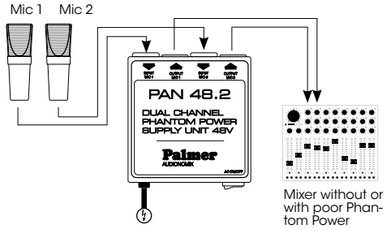


PAN 48
PHANTOM POWER 2 CH

The Palmer PAN48 is a unit for the external power supply of phantom powered appliances. Due to the high current level of a maximum of 20 mA, the application is not just limited to condenser microphones. PAN 48 is excellent for supplying phantom powered active DI-boxes. The box has two channels.

SPECIFICATIONS

Input:	2 channels, each channel: Microphone input: XLR/f Pin 2 & 3 +48 VDC, Pin 1 Ground
Output:	XLR/m no DC voltage, Ground lift switch, Phantom power stabilized ±5%. Low ripple, low noise, Max. current 20 mA, Control LED.
Housing:	Metal casing, Integrated wide range mains supply: 90 - 240 V
Dimensions (W x H x D):	110 x 110 x 45 mm
Weight:	0.9 kg



PWC 6
POWER CHAIN CABLE 1 TO 6

- Type: power distributor (Daisy Chain)
- Inputs: 1
- input connectors: Coaxial power connector 5.5 x 2.5 mm
- outputs: 6
- output connectors: Coaxial power connector 5.5 x 2.5 mm (9,5mm shaft length)
- max. total length: 2,3 m
- cable length between outputs: 350 mm

BC 400 AA
PROFESSIONAL 19" RACKMOUNT BATTERY CHARGER

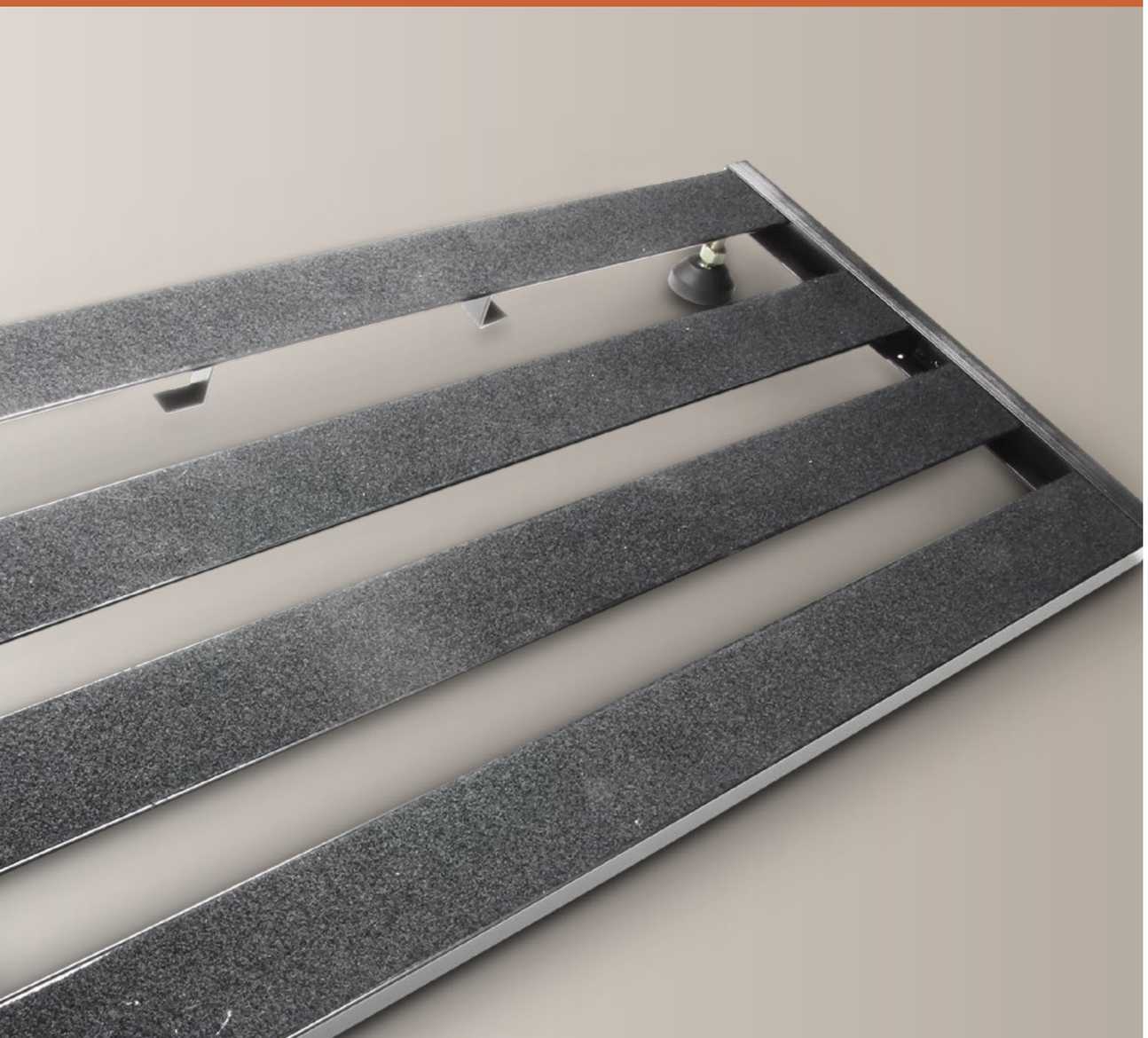
Keeping your wireless mics, in-ears, stompboxes and other battery powered gear ready to go any time is a cinch with the Palmer BC 400 AA professional rackmount battery charger. The microcontroller-based unit charges up to 16 batteries at the same time and handles both AA and AAA rechargeable batteries simultaneously. Compartments for two 9 volt block batteries each are available as accessories which can be used in combination with the included AA/AAA compartments.
The Palmer 19" fast charger provides individual monitoring of each battery's charging status, faulty battery detection plus overcharge and short circuit protection. The integrated multi-voltage power supply enables world-wide use. The Palmer BC 400 AA is supplied without rechargeable batteries.

- Professional rackmount fast battery charger
- Charges up to 16 AA/AAA rechargeable batteries simultaneously
- 4 battery compartments to hold 4 AA or AAA batteries each and any combination
- Individual monitoring of each battery
- 9 volt block battery compartments optionally available

SPECIFICATIONS

Product Type:	Battery charger
Indicators:	16 x 2-colour LED (red/green), Illuminated on / off switch
Controls:	On / off switch
Power consumption:	42 W
Protection features:	Battery defect detection, overload protection, Short-circuit protection
Power connector:	IEC power connector
Fuse:	F1AL / 250V
Ambient Temperature:	0 - 40 °C (operating)
Relative Humidity:	< 80 %, not condensing
Housing material:	plastic, metal
Colour:	Black
Dimensions (W x H x D):	480 x 44 x 200 mm
Weight:	3.2 kg
Accessories (included):	4 charging cups for 4 AA/AAA accus each, Power cord

PALMER
PEDALBAY
VARIABLE PEDALBOARDS



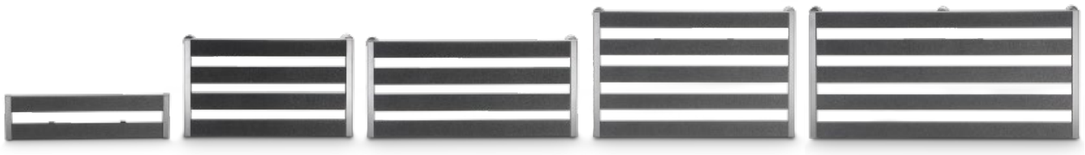
LIGHTWEIGHT VARIABLE PEDALBOARDS
WITH PROTECTIVE SOFTCASE

The Palmer Pedalbays are lightweight aluminium pedalboards for stompbox effects with adjustable height and tilt. The crossbars are covered with loop tape, and the inner braces are relocatable to accommodate a variety of pedal footprints. For convenient, space-saving power supply mounting the Pedalbays feature four brackets underneath, elastic retaining straps are included.
The Palmer Pedalbays come with adhesive backed hook tape and a high-quality padded softcase with accessory compartment and comfortable shoulder strap.

SPECIFICATIONS

Product type:	Pedalboard
Material:	aluminium
Surface:	powder coated
Width of the Cross Bars:	50 mm
Accessories (included):	soft carrying case with shoulder strap, approx. 3m hook tape, 2x black elastic bands, allen key
Features:	adjustable cross bars, height-adjustable

AVAILABLE SIZES:



PEDALBAY 50S
WIDTH: 50 CM
DEPTH: 13.5 CM
HEIGHT: 3.5 CM
2 CROSSBARS

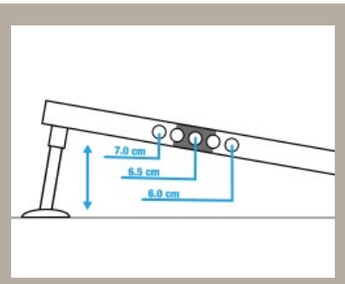
PEDALBAY 40
WIDTH: 45 CM
DEPTH: 30.5 CM
HEIGHT: 7 CM
4 CROSSBARS

PEDALBAY 60
WIDTH: 60.5 CM
DEPTH: 30.5 CM
HEIGHT: 7-8.5 CM
4 CROSSBARS

PEDALBAY 60L
WIDTH: 60 CM
DEPTH: 39 CM
HEIGHT: 7 CM
5 CROSSBARS

PEDALBAY 80
WIDTH: 80 CM
DEPTH: 39 CM
HEIGHT: 7 CM
5 CROSSBARS

EASY
ADJUSTMENT



POWER SUPPLY
MOUNTING HOOKS

PEDALBAY HNL

HOOK AND LOOP FASTENER
50 mm WIDE, 1m

**SUITABLE
POWER SUPPLIES:**

PWT08
PBATPACK4000
PBATPACK8000
PWT05 (only if the middle crossbar is moved down, not suitable for PPEDALBAY 50S)

PALMER
CABLE TESTERS

AHMCT 8
CABLE TESTER

The AHMCT 8 tests the most critical cables on the stage itself and flags up whether they are functioning or not, both visibly via LEDs and audibly via a buzzer. This makes it the perfect tool for engineers — both in the workshop and on stage.
The Pro AHMCT is operated simply, intuitively and safely via a single rotary switch on the device. The sturdy metal housing withstands even tough on-stage demands.
The standard kit comes with two test probes for carrying out fast and simple continuity tests on various cables or installations.

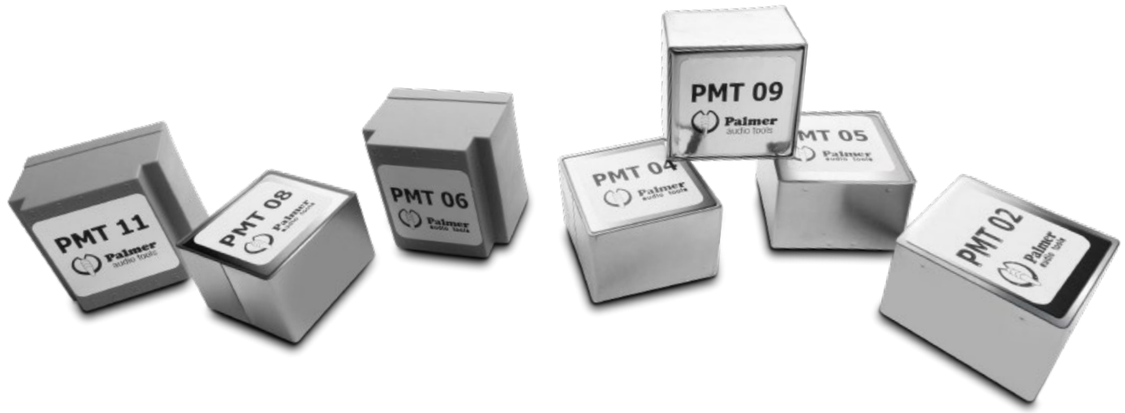
- Solid metal housing
- Powered by a 9-V block battery
- Applications: DIN 5-pin, XLR, RCA, 6.3 mm Jack, Banana plug, Speakon 4-pin
- Additional continuity tester with measuring probes
- Optical display and buzzer

AHMCT XL
CABLE TESTER

As well as standard audio and video cables, the Palmer Pro AHMCT XL also tests the major data cables (USB, RJ45). The test sequence can be either automated or manual, meaning the Pro AHMCT XL from Palmer is as ideal for the layperson as it is for the engineer.
The sturdy metal housing with practical handle effortlessly withstands even the toughest on-stage demands. Yet despite its impressive array of functions, it remains sufficiently compact to fit in any professional workshop or well-equipped tool case.

- Solid metal housing
- Powered by 2 x AA batteries
- Tests DIN 8-pin, DIN/Midi 5-pin, XLR, RCA/Cinch, Jack 3.5 mm, Jack 6.3 mm, Speakon (4 and 8-pole), S-Video
- Additional testing option for data cables (RJ45, USB-A to USB-B)
- Optical display
- Automated test sequence

PALMER
AUDIO **FREQUENCY TRANSFORMERS**



AUDIO FREQUENCY TRANSFORMERS

SPECIFICATIONS

Type	Ratio	Source imped.	Load imped.	Level max.	Frequency rangeR	PCB*		Application
PMT02	10 : 1	< 20 kΩ	> 200 Ω	+ 10 dBu @ 20 kΩ	30 Hz - 20 kHz ± 1 dB	N	EE25	Classic DI box transformer electrostatic & mumetal shielding
PMT04	1 : 1	200 Ω nom.	> 200 Ω	+ 4 dBu max.	40 Hz - 20 kHz ± 0.5 dB	N	EE25	Microphone balancing, electrostatic & mumetal shielding
PMT05	1 : 1 + 1 : 1	200 Ω nom.	> 200 Ω	+ 4 dBu max.	40 Hz - 20 kHz ± 0.5 dB	Y / 4 PCB05	EE25	Microphone split transformer, 3 secondaries electrostatic & mumetal shielding
PMT06	1 : 1 + 1	600 Ω nom.	> 600 Ω	+ 20 dBu max.	30 Hz - 20 kHz ± 1 dB	Y / 2 PCB06	EE32	Line isolation & split transformer, electrostatic shielding
PMT08	1 : 1	< 10 kΩ	> 10 kΩ	+ 6 dBu max.	30 Hz - 20 kHz ± 1 dB	Y / 4 PCB08	EE25	Line isolation consumer level, electrostatic shielding
PMT09	1 : 1 + 1	200 Ω nom.	> 200 Ω	+ 4 dBu max.	40 Hz - 20 kHz ± 0.5 dB	Y / 4 PCB09	EE25	Microphone split transformer, 2 secondaries electrostatic & mumetal shieldung
PMT11	1 : 1	600 Ω nom.	> 600 Ω	+ 20 dBu max.	30 Hz - 20 kHz ± 1 dB	Y / 2 PCB06	EE32	Line isolation & balancing – professional studio level – electrostatic shielding

* PC board available Y/N / Number of devices per board.
** Size EE25: 30 x 30 x 20 mm / EE32: 35 x 35 x 25 mm

PALMER

TECHNICAL APPENDIX

DI BOXES

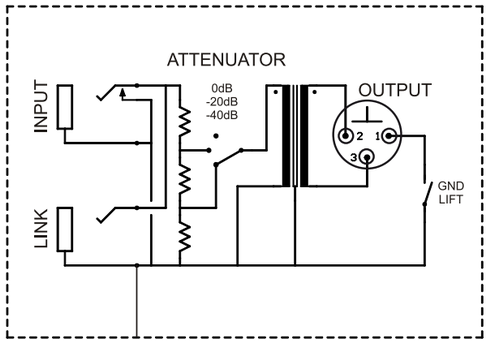
DI boxes are nothing new. So you would think everybody knows how to operate one and where it can be utilized. However, a specialist magazine went so far as to call a DI box a "hum killer" in a 19" rack. We would therefore like to give you some brief details of the capabilities and uses of Palmer DI boxes.

The simplest way to give you a clear picture of how DI boxes work is to look at how they developed. In the "electronic Stone age", only acoustic instruments were recorded using a microphone. When electronic instruments first appeared on the scene, you simply placed a microphone in front of the sound source, i.e. the loudspeaker. Then somebody hit on the idea of cutting out electric/acoustic signal conversion using a loudspeaker/microphone. This was achieved by feeding the electrical signal produced by the electronic instrument directly into the mixing console. However, as the electrical signal from a musical instrument is not necessarily compatible with a microphone output signal, a special signal converter box was required. This was where the DI box came in.

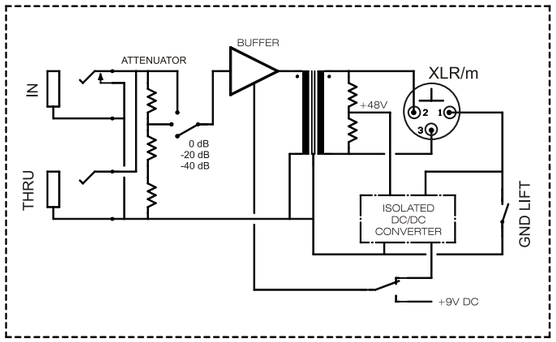
A DI box usually has three functions: 1. It reduces the line output level from electronic musical instruments to microphone level, so as not to cause overloading at the mixing console input. 2. Almost all musical instruments have an unbalanced output level. Microphones, on the other hand, have a balanced level. This means that an unbalanced signal must be converted into a balanced one. 3. Instrument output signal levels are in the mid to high impedance range, whereas microphone levels are in the low impedance range producing a nominal approx. 200 Ω. A DI box must therefore also be able to convert impedance levels. It basically consists of a transformer, which also isolates the electronic instrument from the mixing console. This in turn suppresses ground loops and any associated humming noise. It is obvious that a DI box cannot provide a 1:1 transfer ratio. However, in some cases, it may be possible to do this with an active DI box (PAD in 0 dB position), but only just within the DI box performance range. This is because the DI box output level is designed to operate within microphone level ranges and not at +22 dB line levels, e.g., required by radio stations.

PASSIVE OR ACTIVE?

People often claim that "Active DI boxes are always better than passive DI boxes". It is true that you can use cheap electronic components to tweak up a "doorbell" transformer and so reduce its ear-piercing frequency response. The question is whether such an active DI box actually produces a better sound than a passive one. We believe that even inexpensive electronic musical instruments have adequate output level ranges to produce satisfactory, if not excellent, results using a passive DI box. A passive DI box is therefore the right choice for most purposes. However, some instruments without electronics, such as passive bass guitars and acoustic guitars fitted with a pick up but no preamp, require very high input impedances which can only be supplied by an active DI box. Experienced professionals also use active DI boxes when transmission routes are severely distorted. The DI box produces higher levels, which can be reduced at the microphone input on the console by pressing the PAD key. This improves the signal-to-noise ratio. If possible, active DI boxes should be connected to a +48 V phantom power supply. This produces a better dynamic range compared to using a 9 V battery power supply.



PDI01



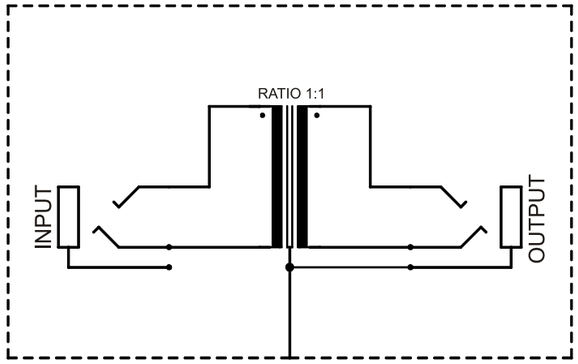
PDI02

LINE-ISOLATION-BOX

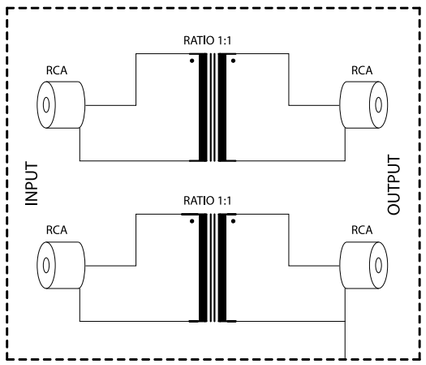
These are also known as "line boxes". With regard to impedance and level, line boxes (in contrast to DI boxes) have an input/output transformer ratio of 1:1. Line boxes are used to solve problems relating to ground loops.

To provide protection against electric shocks, many devices have metal housings and a power plug fitted with a grounding pin. This ensures that the device housing is grounded. If a fault occurs, the grounding prevents users from coming into contact with dangerous voltages. If you connect up two such devices using a screened audio cable, this may cause a ground loop, which produces a (50/60 Hz) humming noise. The reason for this is as follows: In an ideal situation the ground potential should always be 0 Volts. Cable routes with different lengths and many other complications can cause the ground potential to deviate slightly. By connecting up two devices with different ground potentials the screening allows an equalizing current to flow between the devices. This current superimposes itself over the audio signal and causes the humming noise. Here, it is important that you do not disconnect the ground contact. It is your only guarantee that high voltage short circuit current can be grounded if a fault occurs. Screened audio cables cannot be used here because of their cross-sectional size and connector type.

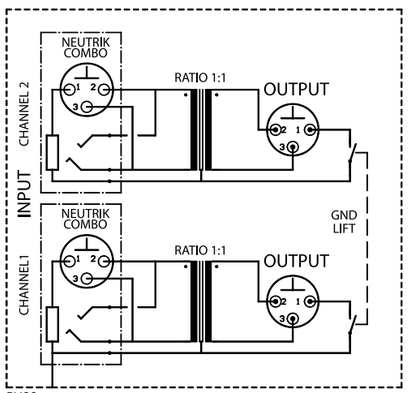
The safest way of preventing a ground loop is to isolate the two devices galvanically, i.e. to ensure that the devices are not DC-connected in any way. The best way to do this is by using a high quality audio transformer. Here, the signals are passed through the transformer by inductive coupling. There is no DC-connection from the primary to the secondary winding. This transformer must be designed for the intended purpose. Use of an incorrectly matched transformer can have severe effects on the frequency response and distortion of the signal. In the field of sound engineering, two types of line levels have become technical standards: Professional line level varying between 0 and 6 dBu (0.775 V to 1.55 V), max. +20 dBu at 7.75 Volts with 600 Ω source impedance and a line level for semi-professional (consumer) equipment which is at -10 dBV nominal (approx. 0.3 V) lower, but which has a nominal impedance of 10 kΩ. As a transformer can operate in both balanced and unbalanced mode, line boxes are also suitable for converting unbalanced lines routes to balanced ones and vice versa.



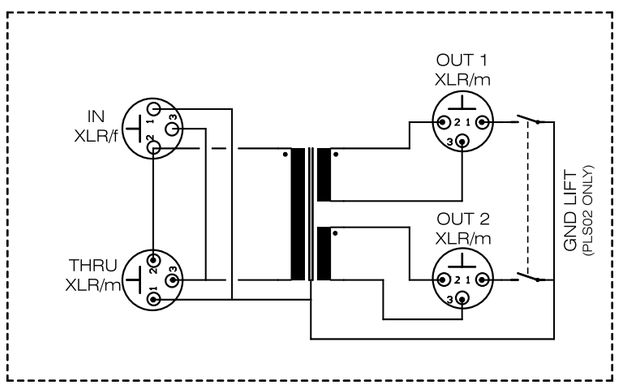
PLI01



PLI03



PLI02



PLS02 / PRMLS (ONE CHANNEL)

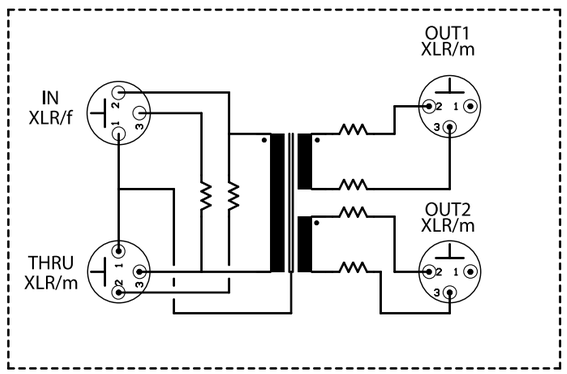
SPLIT BOXES

Sound engineering not only involves combining signals, but also directing them to different channels. The simplest way to do this is by using a so-called hardware split. The basic design is called a Y cable. But linking several mains-powered devices increases the chance of a ground loop occurring. A passive splitter box eliminates this danger by using so-called "split" transformers. These audio transformers have one input winding and several output windings. This isolates the devices from each other. Nevertheless, it is important to remember that the signal from one source must act as a driver for several loads.

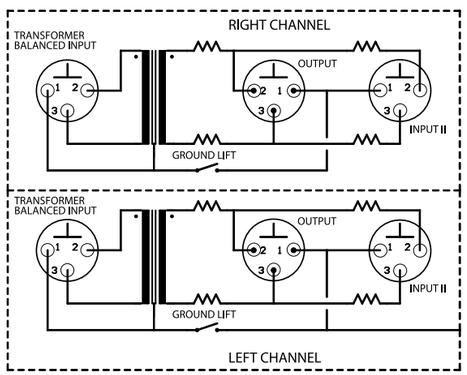
ACTIVE OR PASSIVE SIGNAL DISTRIBUTORS

A low impedance mixing console output can easily drive a dozen power amplifiers. In most cases, this can be handled by a passive splitter. But do not forget that a short circuit at one of the outputs will be transmitted to the other outputs by the transformer, interrupting or, at the very least, weakening the total signal. Decoupling resistors can reduce this effect but will also cut down the signal level.

Microphone signals, which operate at extremely low levels, are more susceptible to interference. Active splitters are preferable where longer cables are used and where professional standards are required. There are obvious advantages here. The "plug box" is located on stage near the microphones, so only short cable lengths are required. The active splitter can also boost low microphone signals. This considerably improves the quality of the signal before it is transmitted along the multi-core cable.



PRMMS (ONE CHANNEL)



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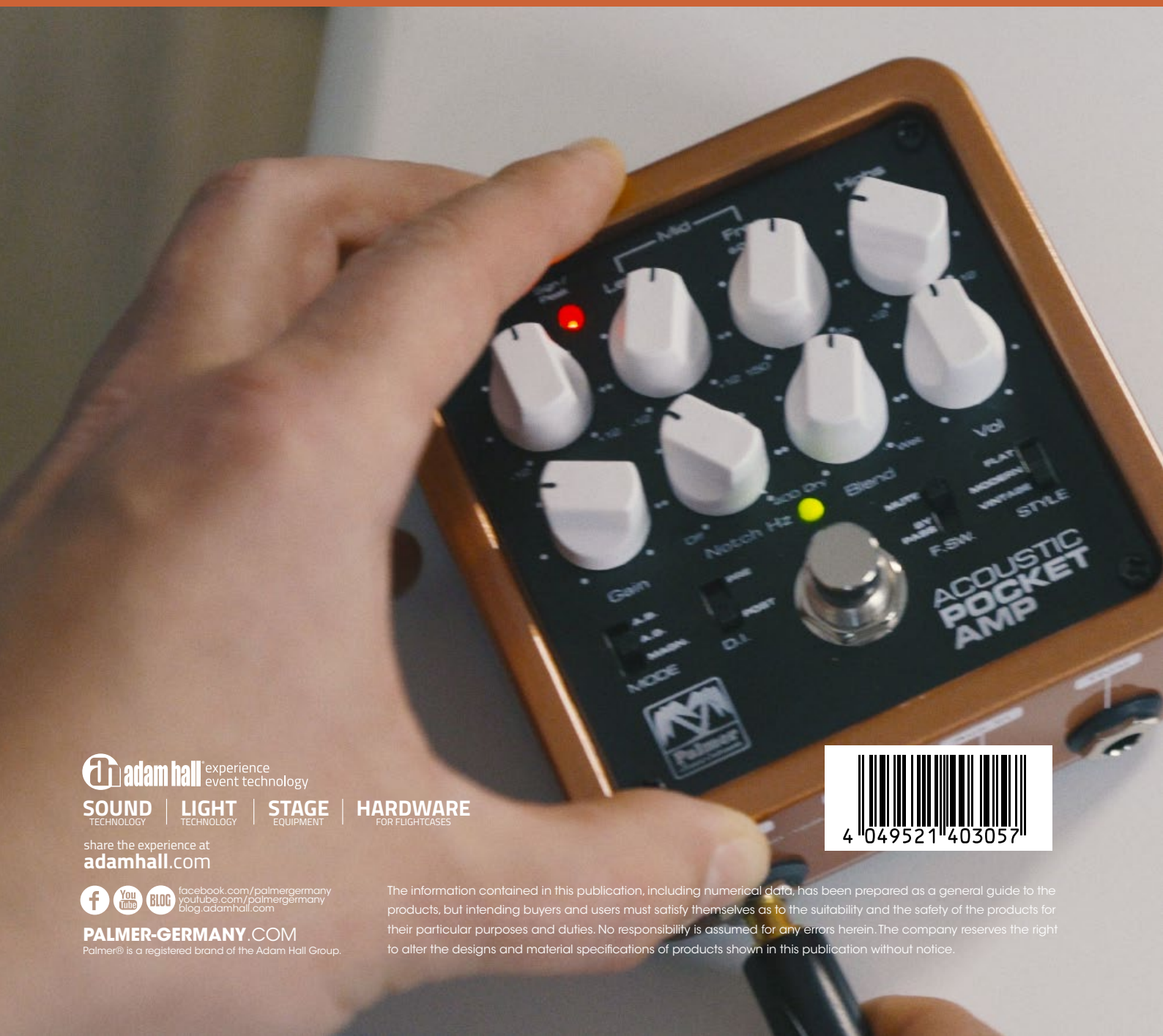
PRODUCT CATALOGUE



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