

**Acoustic  
Solutions**

**Domino 3**

***AER*** The Acoustic People<sup>®</sup>



**Manual English**

# Acoustic Solutions

## Domino 3

### Operating Manual

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## 1. Introduction

Welcome to AER!

We are very happy that you have chosen the **Domino 3**. You are now the owner of a professional, compact and powerful 2x85 watts stereo amplifier. Each of its four discrete channels has its own EQ, Mute/Colour/Pad-switches, 48V phantom power etc. In addition the internal AER 32 bit digital effects may be separately configured via software and a USB connection and then individually blended for channels 1&2 plus channels 3&4 at the amp.

We wish you hours of happy playing with your **Domino 3**!

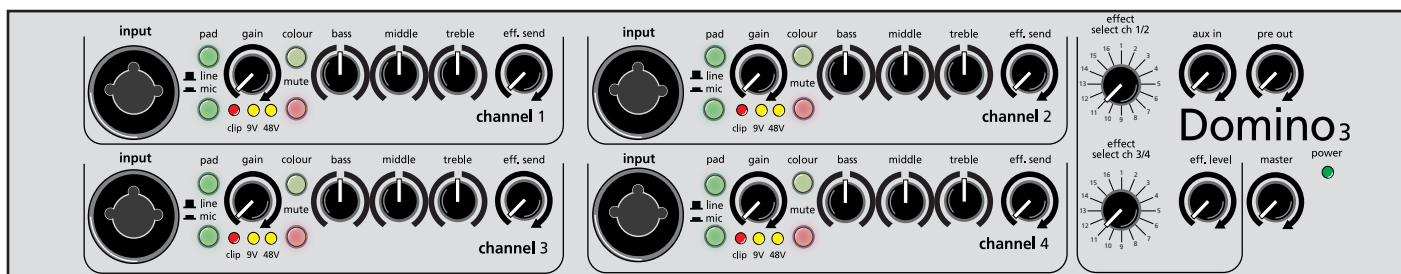
## 2. Safety Precautions

The following guidelines shall help minimize the risk of injury through fire or electric shock.

- Carefully read these safety notes before you use the device!
- Keep these safety notes in a safe place.
- Pay attention to all warnings, instructions and additional texts on the unit.
- Do not install or use your amp in close proximity to water or if you are wet yourself.
- Use your amp in a safe place where nobody can step on cables or trip over and damage them.
- Pay attention to an unhindered air circulation around the amp, never obstruct the air vents or grilles.
- Always pull the mains plug before cleaning your amp. Use only a dry cloth for cleaning. Avoid the use of detergents and do not let any liquids seep into the unit.
- Use only the right fuses with the same current rating and trigger characteristic as replacements. Never mend fuses! Pull the mains plug before replacing a fuse. Should a fuse blow again after a short while, the device needs to be checked.
- Never install your amp close to devices with strong electromagnetic fields such as large mains transformers, revolving machines, neon illumination etc. Do not lay signal cables parallel to power current cables.
- There are no user-servicable components inside the unit. To avoid the risk of an electric shock, the unit must not be opened. All maintenance, adjustment and repair works should be carried out by qualified staff only. Any unauthorized tampering will void the 2-year warranty.
- In keeping with the EMV regulations screened cables with correctly fitted connectors must be used for all signal connections.
- Always use an earthed power supply with the correct mains voltage. If you are in doubt about the power outlet's ground, have it checked by a qualified technician.
- Cable up your amp only when it is powered off.

## 3. Controls and Connections

Front panel top (from left to right):



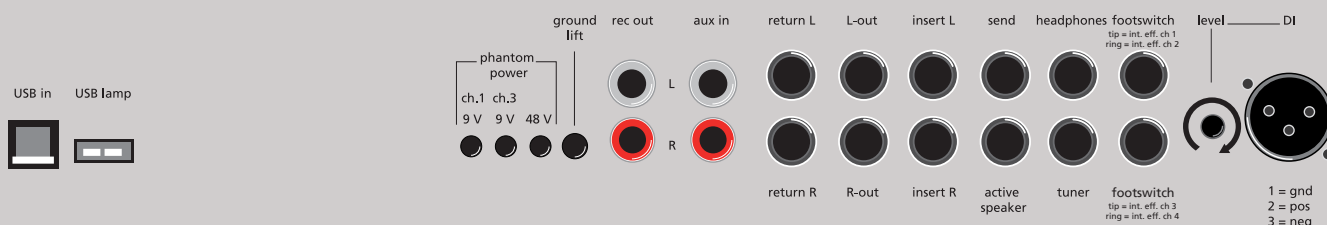
### channel 1/2/3/4

<b>input</b>	XLR/6.3 mm jack plug combi socket
<b>pad</b>	Input sensitivity selector switch pressed = lower sensitivity
<b>line/mic</b>	Signal source selector switch. line: For instruments (pickups), <b>only</b> via jack plug. mic: For microphones with a jack or an XLR connector.
<b>gain</b>	Input level control
<b>clip</b>	This indicator lights up when overload is imminent in the respective channel.
<b>9 V</b>	This indicator lights up when the 9 V phantom power is turned on. (As a factory default setting the 9 V phantom power is only available on channel 1&3. See also operation summary).
<b>48 V</b>	This indicator lights up when the 48 V phantom power for condenser microphones is turned on (See also operation summary).
<b>colour</b>	This switch activates the midrange contour filter. Boosts presence and slightly cuts midrange frequencies.

<b>mute</b>	Channel mute switch
<b>bass</b>	Bass control
<b>middle</b>	Midrange control
<b>treble</b>	Treble control
<b>eff. send</b>	Adjusts the effects send level for the corresponding channel (the internal effect is blended).
<b>effect select ch 1/2</b>	Rotary control for effect selection on channel 1&2
<b>effect select ch 3/4</b>	Rotary control for effect selection on channel 3&4
<b>aux in</b>	Adjusts the signal level at the aux in jack sockets
<b>eff. level</b>	Master level control for all internal effects
<b>pre out</b>	Adjusts the signal level at the L-out, and R-out jacks
<b>master</b>	Adjusts the overall volume level
<b>power</b>	This LED indicates that your amplifier is ready to use

Back panel (from left to right):

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<b>USB in</b>	This socket serves to make a connection to a PC
<b>USB lamp</b>	Connector for an optional USB lamp
<b>phantom power</b>	
<b>ch. 1</b>	
<b>9V</b>	Activates the 9V phantom power on channel 1
<b>ch. 3</b>	
<b>9V</b>	Activates the 9V phantom power on channel 3
<b>48V</b>	Turns the 48V phantom power on
<b>ground lift</b>	Disconnects signal ground from protective ground, thereby eliminating hum problems with so-called ground loops. This button should normally remain switched off (i.e. not pressed).
<b>rec out L/R</b>	Preamp output (post EQ, aux in and effects). RCA sockets (white = left channel, red = right channel)
<b>aux in L/R</b>	Auxiliary input for additional signal sources like e.g. CD player. RCA sockets (white = left channel, red = right channel)
<b>return L/R</b>	Input for the output signals of an external effects processor (left/right channel with separate 6.3 mm mono jack sockets).
<b>L/R-out</b>	Preamp output (post EQ, aux in and effects). Adjustable via <b>pre out</b> (left/right channel with separate 6.3 mm mono jack sockets).
<b>insert L/R</b>	Insert point for external devices, located behind the <b>master</b> volume control. One 6.3 mm stereo jack socket for left and right channel (each with tip = send, ring = return).

<b>send</b>	Output to the input of an external effects unit. 6.3 mm mono jack socket.
<b>active speaker</b>	Output to connect an active extension cabinet or an active subwoofer. 6.3 mm mono jack socket.
<b>headphones</b>	Output for a stereo headphone set. 6.3 mm stereo jack socket. Never use mono jack plugs, otherwise the amp could be damaged!
<b>tuner</b>	Output to an external tuner. May also be used when input is muted. 6.3 mm mono jack socket.
<b>footswitch</b>	connection to a double footswitch to switch internal and external effect on and off. (Tip = internal Effect ch. 1, Ring = internal Effect ch. 2 on/off). 6.3 mm stereo jack socket.
<b>footswitch</b>	connection to a double footswitch to switch internal and external effect on and off. (Tip = internal Effect ch. 3, Ring = internal Effect ch. 4 on/off). 6.3 mm stereo jack socket.
<b>DI level</b>	Signal level control at the DI output
<b>DI</b>	Balanced preamp output, pre master, post EQ, with aux in and effects. XLR socket
<b>power on</b>	Combined power switch with fuse holder and IEC mains socket



## 4. Operation Summary

### • Cabling and startup

Check if your local mains voltage (e.g. 120 V in the USA, 230 V in Europe) complies with the required operating voltage for your amplifier. The proper mains voltage is printed on the rating plate on the rear panel of the unit, e.g. AC 230V (AC means alternating current).

Please take care that the **master**, **gain**, **aux in**, pre out, **eff. level** and **eff. send** controls are set to zero (left stop) and all other controls to their center positions. The pushbuttons should be switched off (not pressed).

**Important note:** Under no circumstances activate the **9 V** and **48 V** on the rear panel (below phantom power) when you are not sure that phantom supply is needed.

Then make all the necessary cable connections (mains, instrument etc.).

Now you may turn on your amplifier with the **power on** switch located on the rear. The green **power** control LED will indicate operational readiness.

### • Level adjustment

Using the **gain** control, **pad** and **line/mic** switches you can adapt the amplifier to your signal sources (guitar pickups, microphone etc.) to achieve the best possible signal-to-noise ratio (SNR).

First adjust the **line/mic** switch on each channel according to your signal source: **mic** is suitable for microphones, **line** for pickups and other signal sources.

Turn the **gain** control clockwise until the red **clip** indicator flashes momentarily when playing with a strong attack. Now lower the **gain** control (and also the instrument's volume control) again slightly to get some headroom for an undistorted reproduction. The **clip** control LED should now only rarely flash. In case you find the level setting difficult because the input signal is too strong, press the **pad** switch as well. If the input signal is too weak, the **gain** control must be increased accordingly. With signal sources with a sufficient input signal strength the **gain** control should be adjusted between the '9:00 and 11:00 o'clock' position.

Finally set the desired overall volume level with the **master** control. If necessary, you can mute the selected channel with the **mute** switch.

### • Equalization

The three-band equalizer with individual **bass**, **middle** and **treble** controls on each channel of your **Domino 3** has been designed in such a way that it both complies with the special requirements of acoustic instruments and also with the more general demands of other sources. The **colour** switch on each channel activates a midrange contour filter which is especially useful for picking techniques.

One more note: Adjusting the EQ controls can also affect the level setting. Whenever you see the **clip** indicator flashing frequently, you should slightly correct your **gain** setting (see iLevel adjustment!).

### • Effects

The **Domino 3** has a built-in (internal) digital 32 bit AER effects processor which allows you to assign one of 16 different effect programmes to channels 1/2 and 3/4 using the two effect select rotary controls. With the send control the effects proportion is adjusted for each channel.

In addition you can also connect your amplifier to your computer by means of the supplied USB cable to modify and save the effect parameters according to your own preferences in realtime with the **Domino 3** effect control panel software (see separate manual).

The **eff. level** control determines the intensity of the internal effects (left stop = no effect). Don't forget to turn up the send controls on the desired channels. Furthermore an additional effects unit (external effect) may be connected. For this purpose please use the send and return L or return R sockets located on the back of the amplifier (send

goes to Input, **return L** & **return R** are connected to the output of the external effects device). The intensity is then adjusted at the external effects unit. The external effects loop works in *ëparallelë* mode, i.e. the effect signal is blended with the original signal.

A standard double footswitch can be connected to each **footswitch** socket on the rear of the amp with a stereo cable. These switches can be used to turn the internal effects on and off.

### An important note on phantom power

When used incorrectly, the phantom power can damage devices connected to the amp inputs (such as pickups, microphones, preamps and others)!

To avoid this:

- Use the phantom power only for accessory equipment which is explicitly designed for it. In all other cases leave the corresponding switches (**9 V**, **48 V** on the back panel) turned off (not pressed).
- Always insert the jack plugs all the way in.
- Mind the line/mic switches. Use the mic position (switch pressed) only for microphones.
- When you press the **48 V** switch, 48 volts are applied to all microphone inputs. Only microphones must be connected which are designed to handle 48 volts phantom power. Other microphones could be damaged. (Jack inputs switched to the line position will not be affected.)

### • 9 volts phantom power

Both channels 1 and 3 of the **Domino 3** provide 9 volts phantom power to supply suitable accessory equipment such as special active guitar electronics. These are connected to the input with a stereo jack cable. The phantom power is activated for the corresponding channel with the **9 V** switch on the rear and is then present at the *ëringë* contact of the jack socket. Signal sources without phantom power may be connected the usual way by means of mono jack instrument cables.

#### • Options

Additionally the 9 V phantom power may also be activated for channel 2 and 4 (even separately). To this end, the amplifier must be opened. If necessary, please get this done by a professional repair shop. This modification comes into question for you if you need more than two channels with 9 volts phantom power regularly.

But please note:

- Afterwards it will no longer be possible to use channel 1 with and channel 2 without phantom power. There is only the **ch1 / 9 V** switch which will act on both channels then.
- The same also holds true for channels 3 and 4.

### • 48 volts phantom power

Microphones which need 48 volts phantom power may be connected to all input sockets of the amplifier. The phantom power is activated with the **48 V** switch on the rear of the unit.

#### • Options

The 48 V phantom power may be deactivated on individual amp channels. To this end, the amplifier must be opened. If necessary, please get this done by a professional repair shop. This modification comes into question if you have to connect microphones both with and without phantom power to the amplifier.

With its great dynamics, a huge variety of connections and controls and vast possibilities to adapt to individual sound ideas, we hopefully have designed the **Domino 3** amplifier so as to meet all your wishes and demands.

We wish you hours of happy playing with your **Domino 3**!

## 5. Technical Data

### Inputs (notes 1, 2)

**Inputs, channels** Combo socket, XLR + jack ¼" (6.35 mm)

**1 – 4** **Line mode**  
High impedance, unbalanced jack input for instruments (pick-ups) and line-level sources  
Sensitivity: 26 mV (–32 dBV)  
Pad switch (attenuator): –10 dB  
Impedance: 1 Meg  
Equivalent input noise,  
A-weighted: 1.6 µV (–116 dBV)  
Phantom power: +9 V DC at ring of jack sockets in Ch. 1 and Ch. 3, switchable per channel (note 4), max. 100 mA (all channels total), overload protected

#### Mic mode

XLR (balanced), stereo jack (balanced), or mono jack (unbalanced) input  
Sensitivity: 7.5 mV (–43 dBV)  
Pad switch (attenuator): –19 dB  
Impedance (balanced): 1.7 k  
Equivalent input noise,  
A-weighted: 0.3 µV (–130 dBV)  
Voice filter: –4 dB at 450 Hz (referred to 10 kHz)  
Phantom power: 48 V, with common on/off switch for all four channels (note 4)

Clip indicator: Headroom 6 dB

**Return** Stereo return from external parallel effect loop  
2 x mono jack, ¼" (6.35 mm, left/right)  
Sensitivity: 375 mV  
Routing: stereo to speakers, headphones, rec out, and L/R-out; mono (L+R) to DI out

**Aux in** Auxiliary stereo input (e.g., for CD player)  
Level adjustable  
Cinch (RCA) sockets (left/right)  
Sensitivity: 375 mV  
Routing: stereo to speakers, headphones, rec out, and L/R out; mono (L+R) to DI out

### Outputs (note 3)

**Tuner** Tuner output, not affected by **mute** switch  
Mono jack, ¼" (6.35 mm)  
Output voltage: 360 mV

**Headphones** Headphones output. When connected, internal speakers are muted.  
Stereo jack, ¼" (6.35 mm)  
Output power: max. 2 x 100 mW / 32 ohms  
Input sensitivity for 2 x 50 mW / 32 ohms:  
30 mV at line input (any channel)

**Caution:** For stereo headphones with stereo jack plug only. Do not connect mono plugs.

**Active speaker** Mono (L+R) output post-master, suitable for active extension speaker  
Mono jack, ¼" (6.35 mm)  
Output voltage: 1.4 V  
Activates 100 Hz low-cut filter for internal speaker if plugged in.

**L/R-out** Stereo line output after tone controls, with aux in and effects  
Level adjustable by pre out  
2 x mono jack, ¼" (6.35 mm, left/right)  
Output voltage: 0...1.4 V

**Rec out** Recording output after tone controls, with aux in and effects  
Cinch (RCA) sockets (left/right)  
Output voltage: 1.4 V (note 4)

**DI** Balanced XLR output before master, after tone controls, with aux in and effects (note 4)

Level adjustable  
Output voltage: 0...145 mV

**Send** Send for parallel effect loop  
Mono jack, ¼" (6.35 mm)  
Output voltage: 710 mV (note 4)

**USB lamp** DC output for a lamp  
Data lines are not connected.  
Output voltage: 5 V DC, max. 200 mA

### Insert points

**Insert L/R** Stereo insert point after master volume  
2 x stereo jack (L/R), ¼" (6.35 mm)  
Tip = send, ring = return  
Output voltage: 1.4 V

### Tone controls (all channels)

**colour** +10 dB at 8 kHz, –3 dB at 700 Hz

**bass** ±8 dB at 100 Hz, shelf type

**middle** ±4 dB at 650 Hz

**treble** ±9 dB at 10 kHz, shelf type

### Effects

**Internal effect** AER 32-bit digital effect processor with 16 factory presets  
Two independent, simultaneous effects (one for channels 1 and 2, and one for channels 3 and 4).  
USB interface and PC software for creating user-defined settings

**External effect** Parallel effect loop (see send and return)

### Power

**Power amp** 2 x 100 W / 4 ohms,  
discrete bipolar transistor design  
Dynamic range: 100 dB (A-weighted, see note 2)

**Limiter threshold** 2 x 85 W

**Analog signal processing** Subsonic filter, low distortion RMS limiter

**Speaker system** Two 8" (200 mm) twin cone full-range speakers, bass reflex enclosure

**Mains power** Mains voltage (depending on model):  
100, 120, 230, or 240 V AC, 50–60 Hz.  
Power consumption: max. 420 W

**Mains fuse** 5 x 20 mm  
Slow 3.15 A for 230 and 240 V models  
Slow 6.3 A for 100 and 120 V models

### General

**Cabinet** 15 mm (0.6") finnish birch plywood

**Finish** Waterbased acrylic, black spatter finish

**Dimensions** 365 mm (14.37") high  
420 mm (16.54") wide  
300 mm (11.81") deep

**Weight** 16 kg (35.3 lbs)

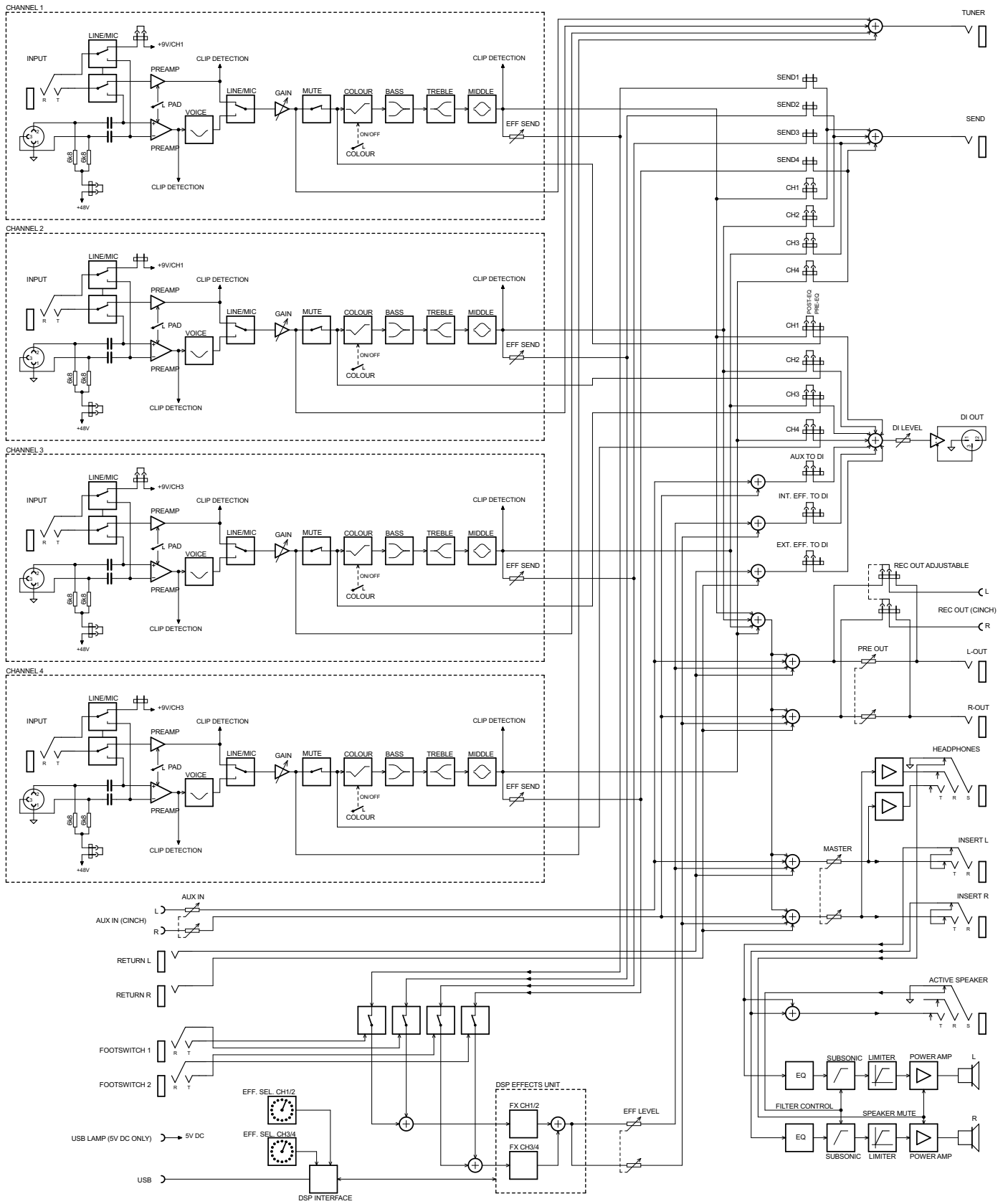
#### Notes:

- Input sensitivity**  
Input sensitivities refer to 2 x 85 watts into 4 ohms, full gain and master settings, neutral tone control settings, and 1 kHz sine-wave test signal.
- Noise and dynamic range**  
Equivalent input noise voltage was obtained by measuring noise voltage at speaker output and dividing by the effective voltage gain of the amplifier. Full gain and master settings, neutral tone control settings, input shorted, measuring bandwidth 20 Hz – 20 kHz.  
Dynamic range: Range between output signal at limiter threshold and A-weighted output noise with master volume in zero position.
- Output levels**  
Output levels refer to 50 mV / 1 kHz sine-wave test signal at channel 1 input in line mode, full gain and master settings, and neutral tone control settings.
- Options**  
The following options can be activated by jumper settings.  
9 V phantom power can be enabled for channels 2 and 4 if required. (Not recommended generally, because only a common switch will be available for channels 1/2, and channels 3/4 respectively)  
48 V phantom power can be disabled for each of the four channels.  
DI output can be changed from post-equalizer to pre-equalizer (tone controls) for each channel, and disconnected from aux in, internal, and external effects.  
Send level can be made dependent on eff. send controls for each channel.  
Rec out level can be made dependent on pre out control.

0 dBV = 1 V

Specifications and appearance subject to change without notice.

# 6. Block Diagram



## 7. Effects Table

Number	Description	Type	Number	Description	Type
01	Long warm corridor	Reverb	11	Phasing chorus	Chorus
02	Xlarge marble church	Reverb	12	Frozen chorus	Chorus
03	Xlarge wood church	Reverb	13	Ambient reflections	Delay
04	Large soft hall	Reverb	14	Long delay	Delay
05	Large bright hall	Reverb	15	Fast delay	Delay
06	Mid vocal hall	Reverb	16	Spacy delay	Delay
07	Small dark room	Reverb			
08	Small soft room	Reverb			
09	Ambience delay	Reverb/Delay			
10	Swimmingpool	Reverb			

## 8. Manufacturer's Declaration

The disposal of electronic equipment in household waste is not permitted. AER GmbH waste electrical and electronic equipment is not to be taken to public collection points for disposal.

AER GmbH remains solely responsible for the disposal of AER GmbH waste electrical and electronic equipment labelled with a dustbin.

To dispose of AER GmbH waste electrical and electronic equipment that is labelled with a dustbin symbol, please contact us; we will ensure correct and cost-neutral disposal.

In the case of AER GmbH waste electrical and electronic equipment that is not labelled with a dustbin, the owner is responsible for correct disposal in accordance with the law.

However, we are also happy to help in this case and we can present you with the options of where to dispose of these electrical goods.

**The telephone number of AER GmbH: +49 (0)2361 891789**

Here, we will provide you with qualified information on the disposal of AER GmbH waste electrical and electronic equipment.

### Declaration

The EU directive on the disposal of waste electrical and electronic equipment (WEEE, 2002/96/EC) has been changed to the electrical and electronic equipment act.

All AER electrical equipment affected by WEEE has been labelled with the symbol of a crossed out dustbin since 13.08.2005.

This symbol indicates that the disposal of the equipment is not permitted with household waste. It has been circulated in this form since 13.08.2005.

In the German registration department EAR, AER GmbH has been registered under WEEE registration number DE26301529.

### European Union, Norway, Iceland and Lichtenstein

The disposal of electronic equipment in household waste is not permitted.

All AER electrical equipment affected by WEEE has been labelled with the symbol of a crossed out dustbin since 13.08.2005. This is also applicable for Norway, Iceland and Liechtenstein.

This symbol indicates that the disposal of the equipment is not permitted with household waste.

It has been circulated in this form since 13.08.2005.

The European directives of WEEE are anchored in different respective national laws in all European states. As such, we are unfortunately unable to provide you with one standard disposal solution.

The distributor or importer for the respective state is responsible for the observance of the laws of that state and must ensure the disposal of the waste electrical and electronic equipment in accordance with national regulations.

### Other Countries

For correct disposal of the electrical goods, please ask the local dealer or the appropriate authority.

