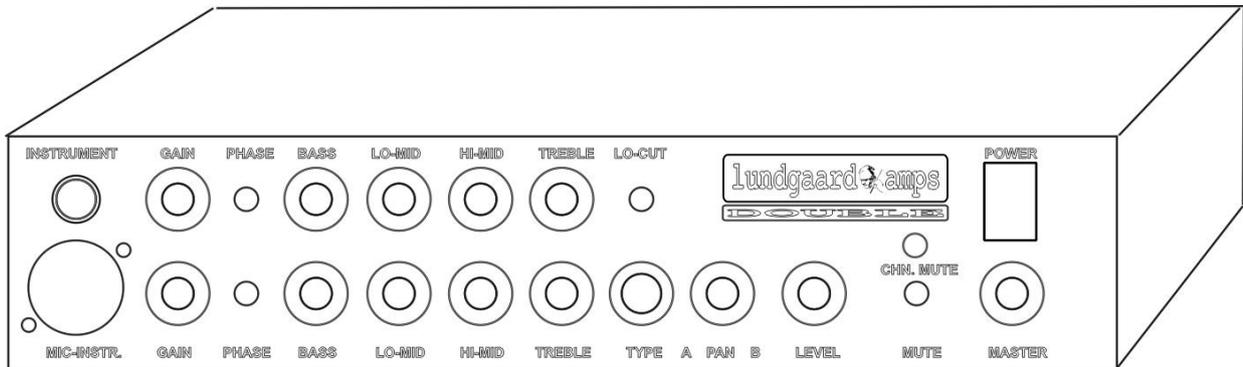


# **LUNDGAARD.AMPS**

## **USERS MANUAL**

## The "lundgaard.amps DOUBLE" front panel:



### Top line controls, left. Channel B

**Instrument:** this jack socket fits all instrumental signals, from guitars to piezo pickups.

**Gain:** adjusts the sensitivity on the instrument input. It isn't able to completely cut off the sound, since it works the same way as a gain control on a studio mixer. However, there is plenty of gain variation, so you can mix levels between channel A & B.

**Phase:** changes the polarity on the instrument channel, and can be used as a feedback remover or to make your acoustic instrument sound better or tighter. It should be flipped to get the best sound.

**Bass:** adjusts the deepest frequencies, and can either cut or boost sounds below 100 Hz.

**Lo-mid:** adjusts the low middle frequencies, and it's centered at 300 Hz, where a lot of the core information in the sound is hidden. It can be boosted to make your sound meatier, or you can cut and filter out booming sounds.

**Hi-mid:** adjusts the presence and attack in your sound. Boost to make your sound more aggressive, and cut to filter out aggressive sounds, or give a more distant sound experience.

**Treble:** adjusts the highest frequencies, and can be boosted to give your sound more details, and cut to make the overall sound-picture dark and woolly.

**Lo-cut:** flip this switch to filter out the deepest frequencies, and make your sound function better in difficult rooms or when playing at extreme volumes. It also protects the loudspeaker.

**Chn.mute:** channel mute. This switch lets you mute either channel a, or b. In the middle position both channels are active. You can use this when you double between two instruments. Just flip the switch to choose the instrument you are going to use next. With both channels on the amp works as a mixer, so you can mix two pickups or play your instrument in channel a, and sing in your microphone on channel b. The phase switches can make two different pickups work together in an optimal way.

***The channel B controls mirrors those on channel A. They aren't found on the SINGLE model.***

**Power:** Turns the mains power on and off. When the red light glows, the amplifier is running. When turning power on, please turn master down or flip mute switch, or a start up sound from the effects unit is heard.

**Bottom line controls, left. Channel A:**

**Mic/instr.** This is a combo socket, allowing both standard jacks and XLR plugs to be attached. It senses automatically the type of connection. The jack connection leads to the instrument circuit, similar to the channel B input, and the XLR leads to a sophisticated microphone preamplifier. This circuit features a hi-end microphone transformer, adding warmth to the sound. On the rear panel you find a pad-switch, reducing the input sensitivity on channel A. It's hidden on the back panel, because it's not used very often. You also find the phantom power switch, feeding the XLR connection with power for studio-condenser microphones.

**Gain-phase-bass-lo-mid-hi-mid-treble:** These control knobs, have the same function as described in channel B. They are found on both SINGLE and DOUBLE models.

**Type:** Selects between 16 different studio grade effects:

Number	Name	Type	Good for:
1	hall 1.	bright hall reverb.	Drum, guitar, vocals.
2	hall 2.	warm hall.	Acoustic guitar, piano, vocals.
3	room 1.	hardwood studio.	Acoustic instruments.
4	room 2.	ambience.	Mixers. Synths.
5	room 3.	Warm room.	Guitars. Rhythm.
6	plate 1.	Classic plate reverb.	Lead vocals. Drums.
7	plate 2.	Bright plate reverb.	Vocals. Guitars.
8	plate 3.	Short vintage plate reverb.	Snaredrums. Guitars.
9	chorus.	Chorus effect.	Guitars. Pianos.
10	flanger.	Jet effects.	Synth.
11	delay 1.	Slapback echo.	Vocals. Guitars.
12	delay 2.	190 ms. Echo.	Percussion.
13	chorus/room 1.	Mix effect.	Guitars. Pianos.
14	chorus/room 2.	Mix effect.	Lead instruments.
15	vocal cancel.	Vocal remover.	No good singers.
16	rotary speaker.	Leslie effect.	Organ Guitar.

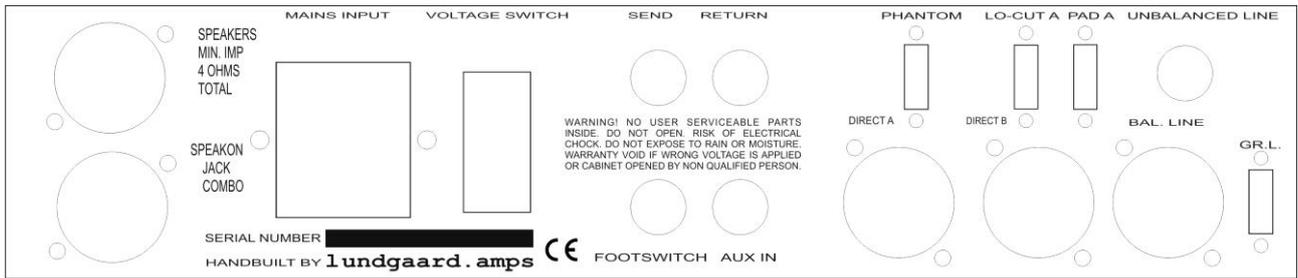
**A Pan B.** Here you mix the internal effect between channel A and B, making it possible to vary the amount of effect on each channel, or even leave a channel dry, and another wet. On the SINGLE model, this knob will mix internal and external effects.

**Level:** Controls the overall amount on effect in the signal sent to the master control and the balanced line out XLR socket on the rear panel.

**Mute:** Mutes all signals going to the mastercontrol, and from here to the loudspeakers.

**Master:** Controls the overall level going to the loudspeakers.

## **BACK PANEL:**



### **Left:**

**Speakon sockets:** The XLR/Jack combi socket, allow both speakon and jack plugs to be attached. The total impedance must never be lower than 4 ohms, and also grounding and short circuit of the terminals should be avoided.

**Mains input:** This socket is an IEC inlet, containing a fuse. Always replace fuse with correct value (4amp).

**Voltage switch:** This switch should never be touched, unless you have made absolutely sure, that you know the correct voltage in the country the amplifier will be used in. The application of 230 volts when switch is at 115 volt position will damage or destroy the amplifier, and void warranty. The 300 watt model switches automatically between 115/230 volts. A Phillips screw has must be removed before switching can take place.

**Send:** the effect send signal is tapped after the equalizer sections, and is affected by the tone controls. The primary use for this signal is to feed an outboard effects unit. The send signal can also be used as a tuner output.

**Return:** The return socket on the DOUBLE model is fed directly to the sum section buffer, just before the master control, and you will have to use the outboard effects own volume control in order to blend the amount of effect signal into the DOUBLES sound. On the SINGLE model the return signal is linked to the PAN control on the front panel, and can this way be mixed into the sound.

**Footswitch:** here you attach an arresting footswitch, that can mute the internal effects signal.

**Aux In:** Here you can attach any line level sound source, like an external mixer, MP3 player or drum machine.

**Phantom:** This switch activates the phantom power going to the combo XLR socket on the front, feeding power to condenser microphones.

**Lo-cut A:** Dampens the very low frequencies on channel A. Gives better sound in boomy rooms, and also protects speakers from excessive cone movement.

**Pad A:** Reduces gain on channel A, allowing hotter signals to be attached. Affects instrument and microphone signals.

**Unbalanced line:** This socket is fed from the bal. line section, and is not affected by the master control. It can be used as a line out or a headphone driver. All controls except master, affect this signal.

**Direct A:** XLR socket that gives you the clean signal right after the input section of channel A. It's only affected by the gain control, and is designed to provide pristine sound quality for PA mixers or recording purposes. No ground lift.

**Direct B:** sends a direct signal from channel B, and has the same function as: Direct A. This socket is not found on the SINGLE model. No ground lift.

**Bal.line:** sends a balanced output from the summed mix, just before the master volume buffer. Contains all sound information going to the loudspeakers, and is affected by all controls, except the master control.

**Gr.L:** a ground lift switch that lifts the ground connection on the Bal.line XLR socket. Used, if hum or other noise problems occurs.

### **Specifications:**

**Output power:** 3 different power modules: 220, 300 or 550 watts RMS, at 10% distortion in 4 ohms, and 230 volt mains inlet.

**Instrument input impedance:** 3 M ohms. Sensitivity variable from 30 miliVolt to 3 Volt

**Microphone input impedance:** 600 Ohms.

**Phase switch:** reverses phase polarity 180 degrees.

**Phantom Power:** 15 or 48 volts

**Bass :** +/- 15 db at 50 Hz.

**Lo-mid:** +/- 15 db at 300 Hz.

**Hi.mid:** +/- 15 db at 1 Khz.

**Treble:** +/- 15 db at 4 Khz.

**Effects unit:** 24 bit digital studio grade unit, with reverbs, delays and modulation effects.

**Mains inlet:** Standard IEC plug.

**Mains voltage:** Switchable or automatic, between minimum 85 and max 245 volts.

**Fuse:** 6,3 Amp

**Dimensions:** 285 x 204 x 64 mm.

**Weight:** Single & Double Heads: Max 1,8 kilo's depending on power unit. Combos: 6,5 to 8,5 kilos.

**Speakers:** Choose between 3 different Combo cabinets with 6 - 8 or 10 inch speakers.

**Serial number key:**

The number is made up from letters and numbers. These tell you if it is a single or double head, a single or double combo, a compact combo, the power and the speaker size.

Single head: SH 220, SH 300, SH 550

Double head: DH 220, DH 300, DH 550

Single combo: SC 220-6, SC 220-8, SC 220-10

SC 300-6, SC 300-8, SC 300-10

SC 550 -6, SC 550-8, SC 550-10

Double combo: DC 220-6, DC 220-8, DC 220-10

DC 300-6, DC 300-8, DC 300-10

DC 550-6, DC 550-8, DC 550-10

Compact Combo: CC 220-8, CC 300-8, CC 550-8

CC 220-10, CC 300-10, CC550-10

A Double combo with 10 inch speaker and 550 watts power is marked: DC 550 – 10 – XXX  
XXX represents the actual serial number.