



Hand made in the Netherlands



INSTRUCTION MANUAL

Thank you for choosing Kool Amplification and congratulations on acquiring one of the most incredible sounding all tube guitar amplifiers available today!

Kool Amplification is Holland's foremost guitar amp company, located 35 km north of Amsterdam in the Netherlands. Amp-designer and guitarist Aryjan Kool has been tweaking amplifiers and electric guitars since the early nineties. His passion for the electric guitar and tube amps resulted in the establishment of Kool Amplification in 2007. Ever since its foundation, the company's reputation has been growing rapidly. Kool amplifiers and cabinets have been part of numerous recordings and live rigs of Holland's biggest acts. Over the last few years steadily guitarists all over the world have been discovering these hidden jewels from Europe's lowlands...

Among many other things like windmills, clogs and 'total football', the Netherlands are also very well known for cradling guitar virtuosos such as Edward van Halen, Jan Akkerman and Adrian Vandenberg. Art, design and technology are at the heart of the Dutch identity and expressed through the world famous 'Dutch Design' philosophy. Here at Kool Amplification we are proud to be part of that history and honour these great traditions and heritage through the design and manufacturing of our amplifiers and cabinets. The principle of blending beauty and functionality to perfection is always at heart of all of our designs.

Every Kool Amplification product is proudly handmade from A to Z in our own custom shop, right here in the Netherlands. The equation of Dutch Design, state-of-the-art technology, old-world-craftsmanship and the use of the best components and the finest materials available, result in a unique blend of awesome tone, feel and functionality.

From countless conversations and correspondence with Kool Amplification users we learned how much guitar players appreciate the reliability, simplicity and the unique character and feel of our amps and cabs. We are confident your new Kool amplifier will do the same for you and bring you countless moments of joy and inspiration.

ACE deluxe (2019 model) Vintage tone chameleon

The ACE full tube amplifier is the perfect blend of the 59' Bassmann and the 62' JTM45. Just like its predecessors this amplifier is super dynamic and responds very well to your playing and the volume-knob of your guitar. The ACE was designed to take pedals and loves boosts, Fuzz pedals, distortions, phasers, flangers, tremolos and wahs.

Single channel 'ease of use' with dual-channel versatility

Its single channel layout combined with 2 footswitchable modes makes this amp feel like second nature, very musical and very easy to use. The gain (pre-gain) and master (post-gain) open an entire world of tone varieties from sparkling clean to tasty crunch tones. There is no amp that does so many styles so well, from Jazz to Rock to Blues to pop, your tone is always ace.

SAFETY INSTRUCTIONS

We want you to enjoy your amplifier to the best of its potential. So please before you go any further, take a moment to read these SAFETY INSTRUCTIONS

- ❖ **Read these guidelines & keep them**
- ❖ **Follow all instructions, guidelines & warnings.**
- ❖ **Do not use this amplifier near water or any other liquid**
- ❖ **Do not subject to direct sunlight for longer periods of time**
- ❖ **Do not store directly near heat source**
- ❖ **Do not store in moist environment**
- ❖ **Do not block any openings**
- ❖ **Do not attempt to clean the amplifier with any fluids: use only a dry cloth**
- ❖ **Do not attempt to modify or service this product yourself**

• Removing covers could mean you are exposed to dangerous voltages that may result in severe injury or death

• Refer all servicing to qualified service personnel

• It is the nature of tube amplifiers to get hot, so please let it cool down for at least 5 minutes before moving it.

• Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❖ **When the power-supply cord or plug is damaged;**
- ❖ **If liquid has been spilled, or objects have fallen into the product;**
- ❖ **If the product has been exposed to rain or water;**
- ❖ **If the product does not operate normally by following the operating instructions.**
- ❖ **Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation;**
- ❖ **If the product has been dropped or damaged in any way;**
- ❖ **When the product exhibits a distinct change in performance - this indicates a need for service.**

• Replacement Parts: When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

What's included?

Your amplifier comes with the following:

- ❖ **A mains lead for your country**
- ❖ **2 button footswitch**
- ❖ **This User Guide**

FRONT PANEL



INPUT: Plug in your guitar here.

GAIN: This control effectively sets the gain on channel 1. The way you dial in the Gain, Master and Loud & Louder knobs very much determines gain structure and feel of the amp. There are endless possibilities of different sounds to be found here and we really do encourage you to experiment with all these possibilities to find the find your ultimate tone!

CLEAN/BOOST modes: The ACE has 2 foot switchable modes: **CLEAN** and crunchier **BOOST** mode. Each mode has its own **SVC** Volume control in the **SVC POWER** section

BASS: This controls the low frequency content of your sound. Low levels of bass can be good at low volumes, to capture naturel tone, sustain and feel of higher volume setting.

MIDDLE: Controls the midrange frequencies in your sound. Run the middle control higher to help cut through a band mix, or generally fatten and 'widen' your sound. Run it lower for a lighter, less 'in-your-face' kind of sound.

TREBLE: Controls the high frequency content of your sound and is also a powerful tone shaper when it comes to character.

MASTER: This master helps you level the volume but it also colours your tone.

Tech Talk: Just like the original '70's Master Volume Plexi' this master is placed before the phase splitter tube.

PRESENCE: This controls a different part of the high frequency response of your amplifier than the treble control. It helps you tame or enliven your tone depending on your situation, without having to change your EQ. **Tech-talk:** As the presence is in the negative feedback line in the power section of your amp it works most effectively when the (SVC) Volume is cranked up.

(SVC)VOLUME 1 and (SVC) VOLUME BOOST: All Kool Amps are equipped with our acclaimed "Seamless Volume Control" system (SVC). It enables the amp to produce 0,1 Watt bedroom volume levels yet retaining great tone and sustain. The (SVC) Volume control is used to set the overall volume of the amp. If the (SVC) Volume is turned to maximum the amp becomes a non-master volume amplifier. **Tech-talk:** The (SVC) Volume is positioned in the power section of the amp after the phase splitter tube.

VOLUME 1 and VOLUME BOOST are correspond respectively with **CLEAN** and **BOOST** mode on (2019 model!)

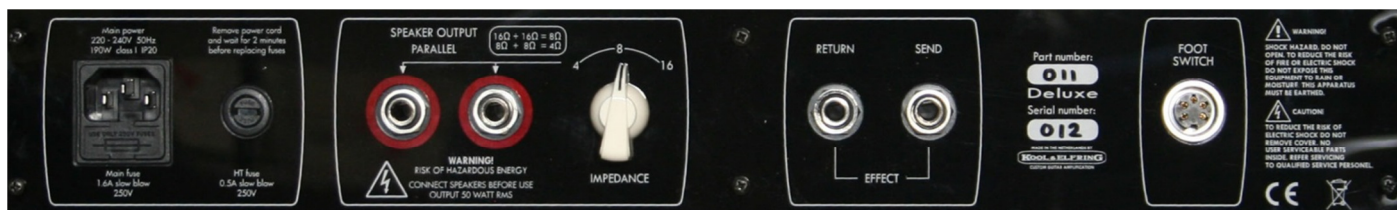
ON/STANDBY: Leave this in **STANDBY** mode for at least 1 minute for maximum tube life, switch to **ON** mode when you are ready to use the amp. Place back in **STANDBY** mode when you're not using the amp for a break.

ON/STANDBY: Leave this in **STANDBY** mode for at least 1 minute for maximum tube life, switch to **ON** mode when you are ready to use the amp. Place back in **STANDBY** mode when you're not using the amp for a break.

ON/OFF: Turn this **ON** to power the amp. Leave amp in **STANDBY MODE** for at least 1 minute. The amp reaches it electrical/musical sweet spot within 10 minutes and then stabilizes to deliver hours and hours of heavenly tone.

POWERLAMP: This lights up when the amp is powered.

REAR PANEL



MAINS INLET (IEC Socket): Please only use the correct mains cord for your territory!
The mains inlet contains a slide where the mains fuse is located. Always use the correct rating and type of fuse indicated as indicated on the back of your amplifier.

HT FUSE: The HT or 'High Tension' fuse protects the high voltage for the tube supply. If this fuse blows, the first step is to replace it with an identical fuse. Always use the correct rating and type of fuse as indicated on the back of your amplifier. The HT fuse may sometimes blow due to 'flash-over' inside an output tube. This is where during the manufacturing process, not all of the gas is removed from the glass envelope and the 'getter' inside the tube, usually made from barium or magnesium oxide, will burn or evaporate these remaining gasses resulting in the common silvered internal surface of the tube. This process, which is more likely to happen with new equipment, draws high current momentarily and can blow the HT fuse. It will rarely cause any damage so just replacing the fuse is sufficient to get the amp running normally again. However, if the HT FUSE repeatedly blows, it may indicate a serious tube failure where internal parts of a tube are shorted and in this case the amplifier needs to be checked by a qualified engineer to assess the problem.

SPEAKER OUTPUT: Plug your speaker cabinet(s) in here.

Warning!: We strongly advise to not mismatch your amp with the speaker cabinet.

IMPEDANCE SELECTOR: Enables you to match your amp with the impedance of your speaker cabinet. When using a single cabinet please choose one of the two output sockets. (It does not matter which one you choose as they are wired in parallel internally)

For a single 4 Ohm cabinets→Please set the impedance selector to 4 Ohm

For a single 8 Ohm cabinets→Please set the impedance selector to 8 Ohm

For a single 16 Ohm cabinets→Please set the impedance selector to 16 Ohm

For a pair of 8 Ohm cabinets→Please set the impedance selector to 4 Ohm

For a pair of 16 Ohm cabinets→ Please set the impedance selector to 8 Ohm

FOOTSWITCH: The 2 button footswitch is an integral part of your amplifier. This means you need the footswitch to switch between the 2 modes (Clean and Boost) and to switch on/off the effects loop. When the footswitch is disconnected the amp switches automatically to: **Boost mode on, effects loop on.**



PLEASE NOTE: The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated ‘dangerous voltage’ within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock. Terminals labelled as “Speaker Outputs” must be connected to a speaker cabinet of the designated load rating using an un-shielded two conductor cable for speaker use at all times during operation. Never use a guitar cable to connect the amplifier to a speaker as this presents the amplifier with a ‘capacitive load’. This can cause instability or oscillation which may seriously damage tubes and/or the expensive output transformer.

Older m ACE models:

Before 2019 there were two ACE versions: Standard and Deluxe.

The Standard version had no effects loop and a 1 button footswitch to switch between modes

The Deluxe version did have an effects loop and a 3 button footswitch which switches: modes, SVC Volumes, effects loop.

VERY IMPORTANT WARNINGS!!

In certain countries, (specifically, Nordic countries), is it totally forbidden to open up any electronic equipment or to work on them at all unless you are a fully qualified and approved technician. Please check the laws in your country and do not attempt to change tubes/tubes or re-bias the amplifier if the law forbids this. In this case, please take your amplifier to a qualified and approved electronics technician. In certain countries it is also totally forbidden to keep or place any liquids on top of the amplifier, (e.g. beer, water bottles, glass, drinks etc). This may cause serious electric shocks and/or dangerous situations.

OUTPUT POWER

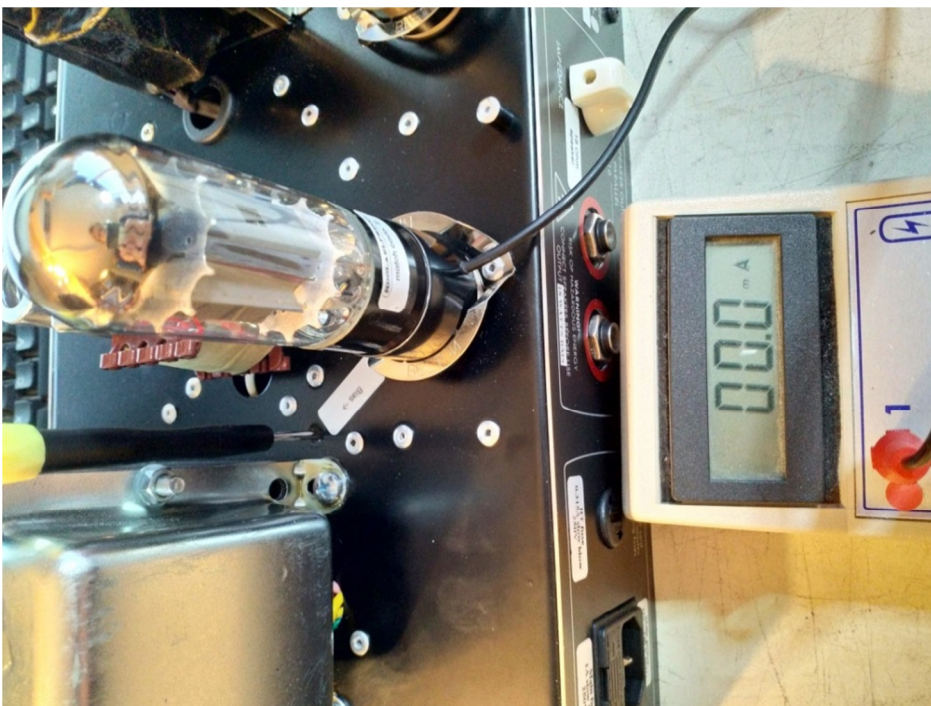
WARNING! This amplifier has been designed to achieve a very high sound pressure level (SPL) so caution is required when playing in high power mode or hearing damage may result.

BIASSING (for fully qualified and approved technician only!):

Please read “**VERY IMPORTANT WARNINGS**” first. We strongly advise you to have re-bias jobs of your amp done by a fully qualified and approved technician.

Information for your qualified and approved technician:

After the power tubes are being replaced by new ones your amp needs a re-bias job. To do this the chassis of the amp does not have to be opened. The bias-pot can be accessed through a small hole next to the power transformer using a small screwdriver. The bias can be accurately done by using a bias device such as a TAD Bias-master. 50 Watt EL34 equipped amps should be biased around 37 mA and 18 Watt 6V6 equipped amps should be biased around 20 mA.



MAIN FEATURES

1 channel with 2 foot switchable modes

SVC - Seamless Volume Control: from 0,1 watt 'bed room' levels to 50 watt 'Rock Arena' levels
(no tone loss at low volumes, no need for power-soak)

Ultra wide gain range control on both channels for ultimate gain versatility

2 button footswitch (Modes + corresponding SVC Volume, Effects loop)

Outputs 4, 8, 16 Ohm or 2x16, 2x8 Ohm

SPECIFICATION 18 WATT VERSION

Output: 18 Watts R.M.S.

OVERTONES transformers, custom made in BRITAIN 

2 x 6V6 power tubes

3 x pre-amp tubes: 2 x 12AX7, 1x12AU7

Outputs 4, 8, 16 Ohm or 2x16, 2x8 Ohm

Head weight: 14,5 kg

Combo weight 19,8 kg

SPECIFICATION 50 WATT VERSION

Output: 50 Watts R.M.S.

OVERTONES transformers, custom made in BRITAIN 

 2 xTAD Premium EL34B-STR power tubes

3 x pre-amp tubes: 2 x 12AX7, 1x12AU7

Outputs 4, 8, 16 Ohm or 2x16, 2x8 Ohm

Head weight: approx. 16 kg

Combo weight: 21,3 kg

FINISH & CONSTRUCTION

Hand soldered / hand wired in the Netherlands by Kool Amplification

Dimensions head: H=27 cm W=51 cm D=25,5 cm

Dimensions combo: H=52 cm W=51 cm D=25,5 cm

Warranty

All Kool Amplification products come with a 5 year limited warranty. This covers any defects in manufacturing or faulty components. Tubes and speakers are warrantied for 90 days from the purchase date but replacement parts will be at our discretion. The warranty is transferable to a new owner in the event that you wish to sell your amplifier. Please contact us if you have any issues with your Kool Amplification product. Footswitches are covered for 12 months from date of purchase due to the nature of their (ab)use. Take great care not to damage the cable as this may result in an intermittent connection and erratic behaviour. If you suspect that any of your footswitches may have become faulty, please contact Kool Amplification service for advice and options.

Notes on what to do if your amplifier experiences any strange behaviour:

Kool Amplifiers are designed and built to last a lifetime. After so many years of tube amp manufacturing the only real issues that came up are tube-related. These are either premature tube failure or tubes that have worn out through extended use or have become micro phonic or noisy over time.

CUSTOMER SUPPORT: Our dedicated and friendly staff is ready to help you with any warranty or product questions you may have. Please email us at support@koolamplification.com