

# Elmwood

GUITAR AMPLIFIERS



## STINGER

Owner's Manual

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### Congratulations

to your purchase of a Elmwood STINGER.

The STINGER is a 30 watt cathode biased EL84 equipped amplifier with separate Gain and Volume for the 2 channels.

Among many smart features the power amp can be switched between Modern style and Vintage style and the FX loop can be altered as a solo booster. The traditional EQ puts you right in control. Equipped also with a three position bright switch and a Hi cut knob.

The Stinger is capable of producing everything from big warm clean sounds and funky clean rhythm to raw crunch and singing lead tones with its own touch.

### Features

- The STINGER is a 2 channel, all tube amplifier
- Each channel has its own Gain and Volume controls as well as a three position bright switch.
- The two channels are footswitch able.
- The EQ section contains Treble, Middle, Bass and High cut.
- There are two different output power modes; Modern and Vintage.
  - Modern is full output, 30 watts
  - Vintage lowers the output to approximately 18 watts and gives the amplifier a somewhat darker voicing and a smoother feel.
- Serial FX loop with an adjustable send level that also can act as a volume booster using the footswitch's on/off feature.
- The amplifier chassis is built as a 2 unit high, rack mountable unit and is fan cooled.
- There are five different speaker outputs on the back of the amp, from 4 to 16 ohms, to match any speaker load.
- The speaker, in the 1X12" combo version, is a lightweight Celestion Vintage Neo.

## PRECAUTIONS & WARNINGS

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### PRECAUTIONS & WARNINGS

**Always follow the safety instructions listed here and use common sense.**

- Read this manual carefully before switching on your amplifier.
- Vacuum tube amplifiers generate heat. Insure proper ventilation. Keep away from curtains or any flammable objects.
- Do not expose the amplifier to rain, moisture, or any kind of water or liquids. Never use the amplifier in wet condition.
- Do not block ventilation openings on the rear of the amplifier.
- Never operate the amplifier without a connected speaker or load since this can cause severe damage to the amplifier.
- Always connect the mains to a grounded mains outlet with a CE certified 3 pole power cord.
- All service, including replacement of tubes, should be done by qualified personnel.
- Always unplug power cord before changing fuses or any tubes. When replacing fuse, use only same type and rating. Avoid direct contact with heated tubes.
- Keep children away from the amplifier.
- Be sure to always connect an AC power supply that corresponds to the amplifiers power supply specification / setup.
- Always turn off the power of all related equipment before making any connections.
- Make sure that you are using a correct speaker cable for the speaker outputs. Low signal cables, such as regular guitar cables, might seriously damage the output stage of the amplifier.
- Always remove power plug from the wall socket if there is any risk of lightning occurring nearby or if the amplifier is not used for longer periods.
- Always treat your amplifier with caution and never use excessive force.
- Never use solvents for cleaning. Wipe of the exterior with a soft cloth.
- Your amplifier can create high sound volumes. Do not exposure yourself or others to high sound volumes that may cause permanent hearing damage.

### About Elmwood Amps

Elmwood Amps was founded in 1998 in Sweden. The goal was to build guitar tube amplifiers with the most outstanding sound and functionality available. The Elmwood staff, and everyone who has ever tried an Elmwood are of the opinion that Elmwood has succeeded.

From the beginning, the goal was to take the best parts of historical tube amplifiers while critically questioning the original ideas - making them better - re-inventing the great potential of tube characteristics to create a sound that would stun the world - the Elmwood sound.

The Elmwood amps are built to last. Only parts of highest possible quality are used and each Elmwood product is carefully tested and approved before shipping.

An Elmwood amp is an amazing extension of the performing guitarist's heart and soul, providing the most genuine and expressive tones imaginable. Elmwood users all over the world give testimonials of the fantastic response, versatility and tone of their Elmwood amps.

The amps are designed with a special attention to live performance versatility - giving endless possibilities of shaping your sound with your guitar volume, tone settings, picking technique, string handling, EQ settings and channel switching.

An Elmwood will be your best companion no matter what your style of playing - from soft whispers to hard punches - from lush clean to screaming high gain - from heaven to hell - always interacting with your deepest musical intentions.

We are always glad to get to know our existing and future users - to get your feedback and to give you the best service possible.

*The Elmwood team*

## GETTING STARTED

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### Getting started

1. Connect the amplifier to the mains. Always connect the mains to an earthed outlet with a 3 pole CE approved mains cord.
2. Make sure that there's a speaker cabinet connected to the appropriate jack socket, regarding impedance, on the back of the amplifier.
3. Make sure that you are using a correct speaker cable for the speaker outputs. Low signal cables, such as regular guitar cables, might seriously damage the output stage of the amplifier.

**Note:** *Never operate the amplifier without a connected speaker since this can cause severe damage to the amplifier.*



4. Connect the accompanying foot switch to the jack socket marked "Foot Switch" on the back panel.
5. Set the switch marked "Power" to position ON.
6. Check that the built in fan can operate without obstacles. Assure that there is a free space of minimum 15 centimetres at the rear of the amplifier.
7. Check that Volume and Gain are set fully counter clock wise on both channels.
8. Set the EQ controls, Treble, Mid, Bass and High cut to their middle positions, 12 o'clock.
9. Set the two bright switches to their middle position respectively.
10. With the footswitch connected, press the switches on the footswitch so the led's goes dark.
11. Allow the amplifier to build up heater and bias voltages for approximately 30 seconds before switching on the Standby switch.

The amplifier is now ready for use.

Plug in your guitar in the Input jack socket.

See section "Channel 1" and "Channel 2" for making some sound.

## CHANNEL 1

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### Channel 1

- Press the switches on the foot switch so that the led's will go dark to activate Channel 1 and the FX loop deactivated.
- Turn up Gain 1 on Channel 1 to its middle position.
- Slowly turn Volume 1 up.  
You should now be able to hear sound coming out of the speaker(s).

By adjusting Volume, Gain, Treble, Mid, Bass and bright switches you can change the sound and vary from clean to distortion. The EQ section is very effective and you will not have any problem finding your favourite sounds.

For cleaner sounds it's recommended to keep the Gain 1 below 12 o'clock and adjust the overall output with Volume 1.

## CHANNEL 2

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### Channel 2

- Press the left switch on the foot switch so that the channel LED lights up to activate Channel 2.
- Turn up Gain 2 on Channel 2 to its middle position.
- Slowly turn Volume 2 up.  
You should now be able to hear sound coming out of the speaker(s).

Channel 2 is a dedicated crunch/lead channel with the ability to clean up according to the guitars volume control.

For lighter crunch rhythm and lead sounds - keep the Gain 2 below 12 o'clock and adjust the overall output with Volume 2.

For lead and heavier rhythm parts - adjust Gain 2 to a suitable level above 12 o'clock and adjust the overall output with Volume 2.

## TOGGLE SWITCHES AND HI CUT KNOB

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### Toggle switches

#### Switch marked **Modern / Vintage**

Modern - The amp puts out approximately 30 watts. This mode gives the amp a fast and articulated response.

Vintage - The output power reduces to approximately 18 watts. This mode gives the amp a darker sound and allows for power amp compression/distortion at lower levels.

#### Switch marked **Ch Select**

Position 1 – Activates Channel 1.

Position 2 – Activates Channel 2.

**Note:** *When connected, the foot switch overrides the Ch Select.*

#### Switch marked **Bright Ch1**

Affects Channel 1.

Middle position – Bright is off.

Position 1 – Smaller increase of Brightness

Position 2 – Bigger increase of Brightness.

#### Switch marked **Bright Ch2**

Affects Channel 2.

Middle position – Bright is off.

Position 1 – Smaller increase of Brightness

Position 2 – Bigger increase of Brightness.

#### High Cut Knob

The high cut is global and affects both channels.

The more the High cut is being turned up, clockwise, the more it will cut off the high frequencies of the amp.

### **FX Loop / Solo Boost**

The serial FX loop is switch able, on/off, from the footswitch and has an adjustable send level.

- On the footswitch - press the far right switch so the led lights up.

The FX loop is now “On”.

#### **Solo boost**

The solo boost is active when no cables or effects are connected to the FX loop. By adjusting the send level on the back of the amp you can have 2 different output levels from the amp.

For example; Set the send level knob to, say 12 o'clock. Adjust the channels gain and volume controls to what you believe will be a good rhythm level. By turning the FX loop on and off through the foot switch you have now 2 different output levels that are totally independent of which channel/channel setting you are playing at.

For a bigger difference, turn the send level counter clockwise and vice versa.

#### **FX loop**

When having an effect unit connected to the FX loop the send level sets the proper signal level to that unit.

The FX loop's on/off feature is still active when having an effect unit connected.

This means that if you wish to have the connected units effects, for example, on channel 2 only - you simply activate the FX loop when playing at channel 2.

## BACK PANEL

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### Back Panel

#### Speaker outputs

- 4 Ohm - Two jack sockets for 1x4 ohm or 2x8 ohms impedance. Here you connect either one 4 ohm cabinet or two 8 ohms cabinets.
- 8 Ohm - Two jack sockets for 1x8 ohm or 2x16 ohms impedance. Here you connect either one 8 ohm cabinet or two 16 ohms cabinets.

This is the default socket for the combo versions internal speaker. If an additional speaker/cab shall be connected along with the internal speaker it must be of 8 ohms. Both plugs shall in this case be connected to the 4 ohm jack sockets according to the above.

- 16 Ohm - One jack socket for 1x16 ohm.

*According to Ohms law:*

*Two 8 ohms speakers in parallel equals 4 ohm and two 16 ohms speakers in parallel equals 8 ohm.*

**Note:** *Never operate the amplifier without a connected speaker or a damaged speaker cable since this can cause severe damage to the amplifier.*



**Note:** *Do not mix speakers with different impedances at the same time since this can cause severe damage to the amplifier.*



#### Cooling fan

On the back grill of the STINGER is a fan for cooling the tubes for extended tube life and for evacuate the heat built up inside the cabinet.

Make sure that the fan is running at all times when the amp is switched on.

## **BACK PANEL**

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### **Footswitch jack sockets**

Close to the mains inlet on the back of the amp is the footswitch jack socket.

Here you connect the accompanying footswitch.

The jack socket can also be operated through a Midi switcher that has a closing relay function.

- The tip is channel switching
- The ring is FX loop on/off
- The sleeve is ground for both functions.

### **Mains input**

Always connect the mains to an earthed outlet with a 3 pole CE approved mains cord.

### **Fuses**

Replace broken fuse only with the same type-Voltage/current.

The mains inlet fuse is a 250 Volt, 1 Ampere slow blow.

## TUBES

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### Tubes

#### Tube chart

V1 - closest to the input jack socket, is the first two gain stages in the amp  
V2 - the middle tube is distortion and EQ gain stages.  
V3 - closest to the back of the amp, is the phase inverter.

V4 - EL 84 output tube  
V5 - EL 84 output tube  
V6 - EL 84 output tube  
V7 - EL 84 output tube

#### How to replace tubes

**WARNING:** *This amplifier contains electrical parts. Voltages inside chassis can be lethal. All service should be performed by qualified personnel. Always unplug AC power before removing chassis.*



To change the tubes in the combo version:

- On each side, near the upper front of the amp, there are 2 screws. Remove these totally by turning them counter clockwise.
- Remove the speaker plug on the back of the amp. The amplifier chassis can now be removed by pushing it gently backwards.
- Ones out of the cabinet - remove the 7 screws on the outer sides on top of the amplifier chassis so the top piece can be removed.
- Preamp tubes - On the far left, with the front of the amplifier facing towards you, there are 3 preamp tubes. The shields covering the tubes are removed by turning them counter clockwise a few millimeters and then pulling them straight up. The tubes can now be removed by pulling them gently straight up.
- Poweramp tubes - In the near middle of the amplifier are the power amp tubes, mounted horizontal. These tubes can be replaced by removing the retainer and then gently pulling the tubes towards the fan on the back of the amp.
- Be sure to re-assemble all parts and to connect the speaker plug before connecting the power cord.

The power amp is operating in a cathode biased circuit.  
No biasing is necessary when replacing poweramp tubes.

**Note:** *Make sure to replace poweramp tubes with a matched quartet of EL84's.*

## SPECIFICATIONS

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### Specifications

Preamp tubes . . . . . 3 x ECC83 JJ Electronics  
Poweramp tubes . . . . . 4 x EL84 JJ Electronics  
Poweramp mode . . . . . Cathode biased circuit  
Dimensions (W\*D\*H). . . . . 480 x 460 x 275 mm  
Weight . . . . . 17 kg (Combo version)  
Footswitch (W\*D\*H) . . . . . 210 x 110 x 50 mm

*Specifications are subject to change without notice!*

## CONTACT

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### Contact

The staff at Elmwood Amps is always glad to get in contact with our existing and future users - to get your feedback and to give you the best service possible.

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