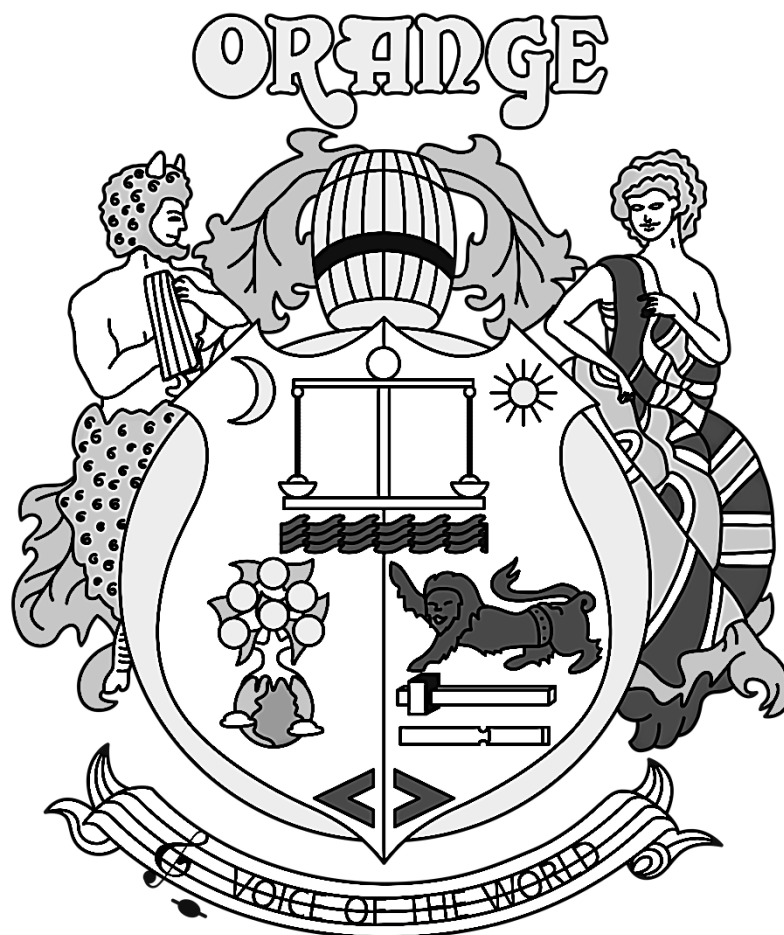


# 4 STROKE

## BASS AMPLIFIER SERIES



# USER MANUAL

ORANGE MUSIC ELECTRONIC CO. LTD

LONDON, ENGLAND

Est. 1968

## INTRODUCTION

In 1968, Orange founder and CEO Cliff Cooper borrowed £50 to start a musical instrument shop and recording studio in London's West End. Against the backdrop of one of the city's most vibrant districts, the shop was decorated with psychedelic script and painted a bright shade of orange which gave the company its name.

Shortly after, we began designing and manufacturing our own products which quickly established a reputation for their innovation, superior quality and distinctive sound. Orange has been a pioneering force in the industry ever since, and today, with a team of the world's finest amplifier engineers, we continue to push back the boundaries of conventional design. From our very humble beginnings on New Compton Street, Orange Amplification has grown into an iconic global brand, earning legions of loyal supporters along the way who continue to make the 'Voice of the World' heard. Welcome to the Orange family.

### THE 4 STROKE SERIES

The **4 Stroke Series** is our offering to the demanding modern bass player – everything you need, and nothing you don't. Featuring all-analogue circuitry throughout, these amps are all about powerful, full-bodied tones with an organic delivery that has passed by a generation of players confronted with an array of lifeless digital offerings.

**4 Stroke Series** amplifiers speak with genuine authority, remaining clean, composed and expressive all the way up to their extremes, without ever becoming clinical or sterile. With an extensive four band parametric EQ setup and Class A compression, these are supremely versatile amps, capable of performing in any situation.

Due to the **4 Stroke's** unique feature set, we urge you to take some time to familiarise yourself with the contents of this user manual. Deep exploration of the **4 Stroke's** tone controls will help you gain a comprehensive understanding of how they affect the overall sound. Remember: cutting frequencies you don't want to hear is often just as effective as boosting those you do. However, there are of course no rules. Training your ears through experimentation will ultimately allow you to unlock the full potential of these remarkable amplifiers.

We are confident that you will be delighted with your new purchase and that it will provide you with many years of enjoyment. Congratulations, you are now a member of the *Legendary British Guitar Amplifier Owners Club!*

*In the interests of continued product development and improvement, the contents of the manual may be subject to change without notice. Ensure you are viewing the latest version at: [www.orangeamps.com](http://www.orangeamps.com)*

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarised or grounding-type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. 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.



The exclamation point within an equilateral triangle and "WARNING" are intended to alert the user to the presence of important operating instructions. Failure to heed the instructions will result in severe injury or death.



This Orange product complies with the WEEE Directive (2002/96/EC) marking requirement. This affixed product label indicates that you must not discard this electrical/electronic equipment in domestic household waste in the European Union. Other territories may differ. Contact your local authority for details of your nearest approved recycling facility.

## BEFORE USING YOUR AMPLIFIER



### IMPORTANT!

This apparatus must be connected to a mains socket outlet with a protective earthing connection.

The voltage selector switch and mains fuse are set at the factory for the country or region in which this Orange product is intended to be sold. To prevent serious damage to the product, ensure that the rated AC mains voltage indicated on the product's rear panel agrees with the mains voltage from your AC mains outlet before connecting the supplied mains cord. Do not tamper with the voltage selector switch.

If the product is to be used outside of the factory-set region, contact Orange amplification.

The correct mains fuse rating for the product and region is printed on the chassis next to the AC mains inlet. **Use only the type and rating specified for the product.**



### SPEAKER OUTPUTS

The **4 Stroke** may be operated without a speaker connected. When using a speaker cabinet, make sure the correct load ( $\Omega$ ) is connected. Failure to observe these points may cause damage to both the amp and cabinet(s)! Speaker outputs are wired in parallel:

- ✓ 1 x 8 Ohm cabinet: Use either speaker output
  - ✓ 2 x 8 Ohm cabinets: Use both speaker outputs
  - ✓ 1 x 4 Ohm cabinet: Use either speaker output
- Never use two speaker cabinets of mismatched impedance!
  - Never connect a speaker load which is less than 4 Ohms!
  - Always connect to a speaker load of suitable power handling:
    - **One cabinet:** The cabinet's power rating should be **at least equal** to the amp's output power.
    - **Two cabinets:** Each cabinet should have a rating of **at least 50%** of the amp's output power.
  - Never connect speakers using an instrument cable! Only use a quality dedicated speaker cable.



### VENTILATION & GENERAL USE

Under normal operating conditions, the amplifier may generate heat. During sustained periods at high volume levels the internal fan will start operate and may be audible. **Do not obstruct the fan or the cooling vents and install the unit with space around it to allow ventilation.**

**To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Never place liquids or vessels containing liquid on or near the amplifier.**

# FRONT PANEL FEATURES



POWER



Switches mains power to the amplifier on/off. Connect the supplied IEC/Mains cord to the AC Mains inlet (rear). The power LED will illuminate when the mains switch is set to ON. *Set the **VOL.** control to zero/minimum before switching on power to the amplifier.*

INPUT



Use a quality shielded instrument cable to connect your instrument to the **INPUT** jack socket. The **PAD** switch (-6dB) selects the correct input level for instruments with active or passive pickups.

VOL.



Adjusts the overall output volume level.

COMP.



Controls the effect level of the on-board compression circuit. Adding compression can help to smooth out sound peaks and transients for a fatter, more rounded tone. The **COMP.** LED will react to your playing and flash blue at higher **COMP.** settings to indicate the gain reduction.

4 BAND  
PARAMETRIC EQUALISER



	- / + CUT/BOOST Controls the level of the selected frequency with up to 18dB cut (-) or boost (+)	FREQUENCY Selects the centre frequency of the corresponding CUT/BOOST control
BASS		40 – 400Hz
LOW MID		80 – 800Hz
HIGH MID		250 – 2500Hz
TREBLE		550 – 5500Hz

When a **CUT/BOOST** control is in the 12 o'clock/noon position, the response of the frequency band is flat with no cut or boost. Sweeping the corresponding **FREQUENCY** control will have no effect.

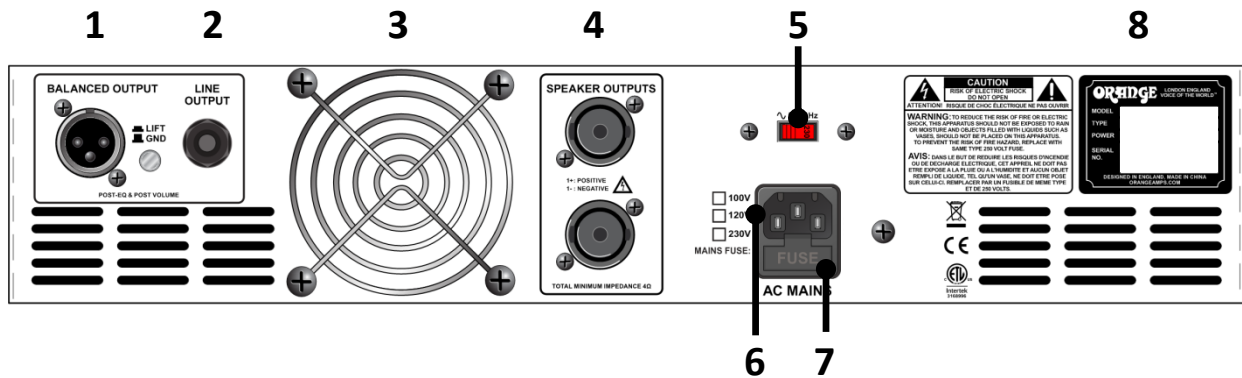
The frequency bands crossover to enable even more cut/boost if required. For example, if the **HIGH MID** and **TREBLE** frequency bands are both set to 550Hz, the effect of their **CUT/BOOST** controls is combined.

FOOT SWITCH



Connect a latching footswitch (e.g. *Orange FS-1*) to this jack socket to remotely engage/defeat the compression circuit. Use a standard instrument/tip-sleeve (mono) cable to connect the footswitch.

# REAR PANEL FEATURES



1	<b>BALANCED OUTPUT</b>	Sends a balanced, line-level signal (post-EQ and post-volume) to a mixer or PA system. Engage the ground <b>LIFT/GND</b> button if ground hum becomes a problem when connecting the amplifier to external equipment.									
2	<b>LINE OUTPUT</b>	Sends an unbalanced, line-level signal (post-EQ and post-volume) to a mixer or PA system.									
3	<b>FAN INTAKE</b>	<b>Do not obstruct or place objects into the fan!</b> During sustained periods of high volume playing the fan will begin to operate to help cool the amplifier.									
4	<b>SPEAKER OUTPUTS</b>	Refer to ' <b>Before Using Your Amplifier</b> '. <b>Make sure the correct speaker load and power handling is connected!</b> Total minimum impedance = 4Ω (Ohms). <i>Speaker outputs are wired in parallel (Speakon connector only).</i>  <i>Full output power = 4Ω</i>									
5	<b>VOLTAGE SELECTOR</b>	This is factory-set for the region in which the amplifier is intended to be sold. Do not tamper with this switch. Refer to ' <b>Before Using Your Amplifier</b> '.									
6	<b>AC MAINS INLET</b>	Connect the supplied IEC/mains cord to the mains input and connect the plug to your AC mains supply. Refer to ' <b>Before Using Your Amplifier</b> '.									
7	<b>MAINS FUSE</b>	The <b>mains fuse</b> is located in the tray directly below the AC Mains Inlet. If the mains fuse blows, replace only with the <b>exact</b> rating for your region. Use only the correct fuse type. If the mains fuse repeatedly blows, contact your Orange dealer.									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #333; color: white;">Region/Voltage</th> <th style="background-color: #333; color: white;">4 Stroke 300</th> <th style="background-color: #333; color: white;">4 Stroke 500</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">100 - 120V</td> <td style="text-align: center;">T6.3AL</td> <td style="text-align: center;">T8AL</td> </tr> <tr> <td style="text-align: center;">230 - 240V</td> <td style="text-align: center;">T3.15AL</td> <td style="text-align: center;">T4AL</td> </tr> </tbody> </table>			Region/Voltage	4 Stroke 300	4 Stroke 500	100 - 120V	T6.3AL	T8AL	230 - 240V	T3.15AL	T4AL
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8	<b>MODEL PLATE</b>	The model name, output power and serial number is displayed here. Ensure that the power handling/rating of the speaker cabinet(s) connected to the amplifier is equal to or exceeds the output power of your amplifier.									

## WARRANTY INFORMATION

All Orange amplifiers are covered by a conditional, non-transferable manufacturing warranty, which covers the product against defects in materials and workmanship for one year from the date of purchase. Subject to the terms and conditions of your Orange distributor, you can extend this period for **free** by registering your purchase on our website. Please retain all documents and proof of purchase/receipt for your records. Full details, terms and conditions can be found on our support pages on **orangeamps.com**

Always refer servicing to an authorised Orange technician. No user serviceable parts inside. Attempts by non-authorised personnel to access the interior of the product will void the warranty.

## CONTACT DETAILS

### WORLD HEADQUARTERS

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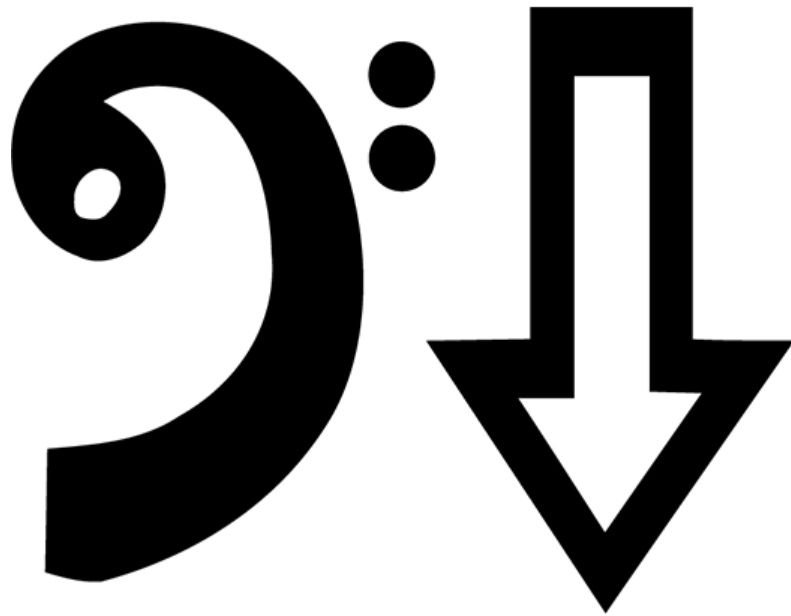
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# ORANGE



SERIOUS BASS AMPLIFICATION