

DUAL DARK Series

DUAL DARK SERIES

OWNER'S MANUAL

THANK YOU!



Thank you for choosing Orange. You are now a member of the 'Legendary British Guitar Amplifier' owners club!

Since 1968 when the company was founded, Orange has been a pioneering force in the guitar amplification industry. Today, with a team of the world's finest amplifier engineers, Orange continues to push back the boundaries of conventional valve amplifier design.

Our commitment to craftsmanship and quality control has allowed our amplifiers to stand the test of time, giving their owners as much pleasure now, as the day they were bought. To maintain this level of excellence, each Orange amplifier is put through many rigorous test procedures before leaving the factory.

The warmth, tonal quality and rich harmonics generated by a valve amplifier cannot be reproduced by 'artificial' means. Many guitarists have reached the same conclusion: neither the transistor nor microchip is a suitable alternative to valve technology.

This booklet contains valuable technical and safety information Please take the time to read this manual as the information may enhance the sound and performance of your amplifier. We are confident that you will be delighted with your new purchase and that it will provide you with many years of enjoyment.

CONTENTS

CONTACT DETAILS 4

IMPORTANT SAFETY INFORMATION 5

EMI 7

BEFORE USING YOUR AMPLIFIER 7

FRONT PANEL FEATURES 8

REAR PANEL FEATURES 10

VALVES AND FUSES CAN FAIL AT ANY TIME! 11

FREE EXTENDED WARRANTY OFFER 11

The contents of this owner's manual may be subject to change without notice. The latest version is available for download on the official Orange Amplification website: http://www.orangeamps.com/support/downloads/

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IMPORTANT SAFETY INFORMATION



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.

- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near liquid.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the

third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- Servicing: Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
- Refer all servicing to qualified service personnel.
- Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: (a) When the power-supply cord or plug is damaged; (b) If liquid has been spilled, or objects have fallen into the product; (c) If the product has been exposed to rain or water; (d) 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; (e) if the product has been dropped or damaged in any way; (f) 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 has used 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.



The voltage selector switch and mains fuse are factory set for the region in which your amplifier is intended to be sold. Do not tamper with this switch without express permission from Orange Music Electronic Company Ltd.



Connect the supplied mains cord to the AC Mains Input on the amplifier to your AC mains wall outlet. This Class I electrical equipment must be earthed. The correct mains fuse value for your region are displayed on the unit, close to the AC Mains Input. Replace only with the same type and value. If the mains fuse repeatedly blows, contact your Orange dealer.

EMI

To reduce the possibility of outside electrical interference during performance, operate your amplifier and instrument away from appliances/equipment that generate high levels of electronic/electromagnetic noise. This may include, but is not limited to: fluorescent lighting, refrigerators, motors, mobile phones, radios, computers etc.

BEFORE USING YOUR AMPLIFIER

Speakers

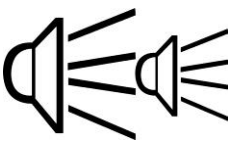
Always ensure the correct speaker load (Ω) is connected to the **SPEAKER OUTPUT** terminal(s) at all times during operation. The speaker outputs are found on the rear of the amplifier. The minimum total load is 8Ω. **Only connect cabinets as described below.**

- 1 x 16Ω cabinet – Use the 16Ω speaker jack socket (Rear of chassis)
- 2 x 16Ω cabinets – Use both of the 8Ω speaker jack sockets (Rear of chassis)
- 1 x 8Ω cabinet – Use either of the 8Ω speaker jack sockets (Rear of chassis)

Note:

- Never use instrument cable to make speaker connections.
- Use only quality, unshielded speaker cable.
- Speaker cabinets must have power handling at least equal to the amplifier's rated output power.
- Never use two cabinets of mismatched impedance (Ω).

Valves



To prolong the lifespan of the valves installed in the amplifier, when powering up, set the FULL/STBY/HALF selector switch to the middle (STBY) position for approximately 2 minutes. This places the amp in STBY mode (Startup Tension Bypass, historically known as 'standby' mode). This allows the valves to reach the correct temperature. After 2 minutes, switch to either the FULL or HALF position to begin playing.

FRONT PANEL FEATURES

(RIGHT TO LEFT)



Input Jack Socket

Plug your instrument into this jack socket.



Gain Control (Channel B)

This controls the gain level of Channel B.



Shape Control (Channel B)

This controls the frequency sweep on Channel B. It adjusts between all midrange (minimum setting) to all bass and treble with no midrange (maximum setting).



Volume Control (Channel B)

This controls the output volume of Channel B.



Gain Control (Channel A)

This controls the gain level of Channel A.



Bass Control (Channel A)

This controls the bass response of Channel A.



Middle Control (Channel A)

This controls the midrange response of Channel A.



Treble Control (Channel A)

This controls the treble response of Channel A.



Volume Control (Channel A)

This controls the output volume of Channel A.



Attenuator Control

This controls the amount of attenuation for both channels. Turn clockwise to reduce the overall volume level. This can be defeated using a latching footswitch for a volume boost.



Channel Switch

Use any latching footswitch to change channel using this socket. *(Note – The front panel channel toggle switch must be switched to Channel A for the footswitch to function.)*



FULL/STBY/HALF Toggle Switch.

Refer to 'Before Using Your Amplifier. This turns on the operating voltages to the valves so that the amp is ready to play when switched to either the 'FULL' or 'HALF' position. 'FULL' or 'HALF' refers to the output power mode.

- **Dual Dark 50:** **Full Power** = 50 Watts. **Half Power** = 25 Watts.
- **Dual Dark 100: (see Rear Panel Features)**



Mains Power Toggle Switch.

This turns on the mains power to the amplifier and allows the valves to warm up before use.
(Note – The Half/STBY/Full toggle switch should be in the ''STBY' position while the valves are warming up.)

REAR PANEL FEATURES



SEND / RETURN (Effects Loop)

Use the 'Send' jack socket to connect to the input of time based effects pedals such as delay, chorus, etc. Use the 'Return' jack socket to connect to the effects pedal's output.



FOOTSWITCH

CHANNEL: Use any latching footswitch to change channel remotely. *Note – The front panel channel toggle switch must be switched to Channel A for the Channel footswitch to function.* **ATTENUATOR:** Use any latching footswitch to defeat the Attenuator control. This works well as a volume boost where extra gain is not required. *Note: An Orange footswitch will illuminate when the boost is **not** engaged.*



SPEAKER OUTPUTS (16Ω, 8Ω, 8Ω)

Please to refer to 'Using Your Amplifier'.

HT FUSE

This fuse will blow in the event of an output valve failure. Only replace with the correct rating and type, as printed on the amplifier, after having replaced the faulty valve(s). Bias adjustment should only be performed by a qualified technician.

DUAL DARK 100 Only

4 OUTPUT VALVES / 2 OUTPUT VALVES SELECTOR SWITCH

This switch works in conjunction with the **FULL/STBY/HALF** switch on the front panel. This allows for the following output power modes:

- Half Power/2 Output Valves = 30 Watts.
- Full Power/2 Output Valves = 50 Watts.
- Half Power/4 Output Valves = 70 Watts.
- Full Power/4 Output Valves = 100 Watts.

VALVES AND FUSES CAN FAIL AT ANY TIME!

From time to time output and preamp valves may fail. The fuse on the rear labelled 'HT FUSE' will blow if any of the power amp/output stage valves fail. This helps to protect the rest of the circuitry.

We suggest that output valves are changed at least once a year and that all class AB models (50 watts and above) will benefit from having the bias checked and adjusted. Bias checking must be carried out by a qualified engineer.

Orange amps are protected from damage caused by valve failure and inconsistent mains voltage by various fuses. We recommend that Orange users have a set of spare valves and fuses.

For more information on maintenance and for accessories and spares, please visit:

www.orangeamps.com

FREE EXTENDED WARRANTY OFFER

Orange amplifiers are under warranty for one year from the date of purchase, covering parts and labour, subject to consumer protection laws in the country of purchase and distributor's terms and conditions. An additional year can be added free of charge by registering online.

Valves and speakers supplied with an Orange amp or purchased separately at our online store are covered for 90 days from the date of purchase.

The warranty status of any Orange product is subject to its being used for its intended purpose in suitable conditions. As the manufacturer we reserve the right to refuse to warranty any Orange product which has been misused in any way whatsoever.

REGISTER RIGHT NOW AT **www.orangeamps.com**