

Product Manual: Crush 20RT

Thank you for choosing Orange.

Since its founding in 1968, Orange Amplification has been built by guitarists, for guitarists. Today, backed by a team of passionate industry-leading engineers, the company continues to push the limits of traditional amp design—delivering cutting-edge heads, cabinets, and combos for players everywhere.

Orange's commitment to quality control, construction and craftsmanship is long established, and each amplifier passes through a rigorous test procedure before shipping, resulting in complete confidence that you will be delighted with your new purchase, and that it will provide you many years of enjoyment and reliability.

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.

WARNING! TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE

Where indicated or stated on the product/unit, this device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.








Note: This equipment has been tested and found to comply with the limits for digital devices of its class, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or a qualified technician for help.

Note: Changes or modifications not expressly approved by Orange Music Electronic Company, Ltd. could void the user's authority to operate the equipment.

For customers in Canada: Where indicated or stated on the product/unit, this digital apparatus complies with Canadian Interference Regulations CAN ICES-3(B)/NMB-3(B).

All products are certified and tested to relevant safety standards. For further information, please contact us at info@omec.com

	The exclamation point within an equilateral triangle and "WARNING" are intended to alert the user to the presence of important operating or servicing instructions. Failure to heed the instructions can result in severe injury or death. This equipment should be used under the supervision of an adult at all times.
	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.
	This symbol indicates this product is classified as Waste Electrical and Electronic Equipment (WEEE) in the European Union and should not be discarded with household waste. Contact your local authority for more information and details of your nearest approved disposal facility.
	The "Caution, hot surface" symbol indicates that the marked item may be hot. Ensure the apparatus is installed with plenty of space around the unit (> 6"/12.5cm) as this apparatus may generate heat under normal use. This equipment is not intended to be used on soft support (like beddings, blankets etc.). This equipment should always be placed on a flat, stable surface.
	To reduce the risk of fire and electric shock do not expose this apparatus to rain or moisture. Do not use in damp environments, e.g. bathrooms etc.
	Do not place objects containing liquids on, or near the product. Do not operate this apparatus or connect/disconnect a power plug whilst hands are wet.
	Do not attempt to gain access to the interior of the product. No user serviceable parts inside. Refer all servicing to qualified servicing personnel.

BEFORE USING YOUR AMPLIFIER

Voltage selection: 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 inlet before connecting the IEC power cable. If the product is to be used outside of the factory-set region, please ensure the voltage-selector switch (found on the rear or side panel) is set to the correct voltage for the new country/region and that the appropriate mains fuse is fitted in the pull-out fuse tray below the IEC mains input. The correct mains fuse rating for the product is printed on the chassis (see "Rear Panel Features"). Use only the same type and rating as specified for the product. Be advised that different operating voltages require the use of different types of line cord and attachment plugs. If you are unsure, please contact your Orange dealer.

Before using your amplifier: Always ensure the amp's volume control(s) are set to zero before switching on the power to the amplifier. To prevent hum and electrical noise, operate your amplifier and instruments as far away from other electronic devices (especially fluorescent and neon lamps) as possible, as devices such as these generate extremely high levels of electronic noise.

Speaker output connections:

1. Make sure the correct speaker is connected at all times during operation.
2. Do not connect to a speaker load which is less than 8 Ohms in total.
3. Always connect to a cabinet of an appropriate power rating/handling.
4. Never use two cabinets of different/mismatched impedance.
5. Only connect speakers using a quality dedicated speaker cable. Never use an instrument cable.
6. Never connect headphones to the speaker outputs.
7. If you are unsure, please contact your Orange dealer.














Manufacturer:

Orange Music Electronic Co. Ltd, 108 Ripon Way, Borehamwood, Hertfordshire, WD6 2JA, UK
 Website: orangeamps.com Email: info@omec.com






EU Representative:

Authorised Rep Compliance Ltd, Ground Floor, 71 Lower Baggot Street, Dublin, D02 P593, Ireland
 Website: arccompliance.com

TOP PANEL

	<p>POWER: The power light will illuminate with the power switch (rear) is set to on.</p>
	<p>HEADPHONE SOCKET: Connect headphones via a stereo 6.35mm jack for silent practice. The headphones output features cabinet simulation and can also be used to connect the amp to a mixer or recording console. Avoid using headphones for extended periods at loud levels.</p>
	<p>AUX IN: For use with mp3 players, laptops etc. via a 3.5mm audio cable. The audio signal is internally summed to mono.</p>
	<p>CHANNEL SWITCH: Selects between the clean and dirty channels. This can be switched remotely via a footswitch (see rear panel).</p>
	<p>DIRTY VOLUME: Adjusts the dirty channel output level. Note: with the gain set to zero, no sound will be heard.</p>
	<p>TREBLE: Adjusts the high-end frequencies. Increasing the treble control produces brighter tones</p>
	<p>MIDDLE: Adjusts the mid-range frequencies. Increasing the middle control produces a fatter sound. With higher overdrive settings, reduce the mid-range frequencies for a more scooped, modern tone.</p>
	<p>BASS: Adjusts the low-end frequencies. Increasing the bass control produces deeper tones.</p>
	<p>GAIN: Adjusts the input signal level. Set the gain control higher with lower settings on the overdrive control for a classic vintage crunch. Balance the gain control with the volume control to achieve the desired output level.</p>
	<p>REVERB: Adjusts the reverb level for both channels. Higher settings add longer trails for a more spacious effect.</p>
	<p>CLEAN VOLUME: Adjusts the clean channel output level. Higher settings on the clean channel will produce natural overdrive and breakup.</p>
	<p>INPUT: Use a quality shielded instrument cable to connect your instrument to the input jack socket.</p>
	<p>TUNER: Depress the On/Off button to engage the tuner. The appropriate red LED will illuminate on the display to indicate the note being played. If the green “#” LED also illuminates, this indicates a sharpened note, e.g., (F#). The > arrow LED indicates the played note is flat. The < arrow LED indicates played note is sharp. Adjust the string’s pitch in the direction shown by the arrows until the green “OK” LED is lit. Set the volume to zero for silent tuning if required.</p>

REAR PANEL

	<p>CHANNEL FOOTSWITCH: Connect a latching footswitch (e.g., FS-1) to remotely switch between clean and dirty channels. The front panel channel switch is disengaged when using a footswitch. An Orange FS-1 led will illuminate when the clean channel is selected.</p>
	<p>AC MAINS INPUT: Refer to Before Using Your Amplifier. Connect the supplied IEC cable to the AC mains input. Ensure the power switch is set to off before connecting the IEC cable.</p>
	<p>MAINS FUSE: The mains fuse is located in the pull-out tray underneath the AC mains input. If the mains fuse blows, replace this fuse only with the exact type and rating as printed on the chassis. If the mains fuse continues to blow, contact your Orange dealer.</p>
	<p>VOLTAGE SELECTOR SWITCH: Refer to “Before Using Your Amplifier”</p>
	<p>POWER SWITCH: Ensure the amp’s volume controls are set to zero before switching on power to the amplifier. Switch off when not in use.</p>

PRODUCT SPECIFICATION TABLE

Features	Twin channel guitar amp combo with high gain preamp, 3 band EQ, Reverb, Tuner, Aux In & CabSim-loaded headphone output
Output Power	20 Watts
Controls	Instrument Input, Channel Switch, Gain, Bass, Middle, Treble, Volume, Reverb, Tuner, Headphone Output, Footswitch Jack
Mains Input Power	39 VA
Mains Input Voltage	100V / 110-120V / 220-240V (DEPENDING ON REGION)
Mains Fuse	100-120V: T630mA L 250V 220-240V: T315mA L 250V