

Clarke®

POWER



GENERATOR
MODEL NO: CP2850K
PART NO: 8857730

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

GC11/24 -REV 1

INTRODUCTION

Thank you for purchasing this CLARKE Generator.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

ENVIRONMENTAL PROTECTION



Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted and taken to a recycling centre for disposed in a manner compatible with the environment.

By purchasing this product, the customer is taking on the obligation to deal with its safe disposal in accordance with the Waste Electrical and Electronic Equipment (WEEE).

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility. If disposing of this product or any damaged components, do not dispose of with general waste. This product contains valuable raw materials. Metal products should be taken to your local civic amenity site for recycling of metal products.

GENERAL SAFETY RULES



WARNING: EXHAUST FUMES CAN BE EXTREMELY DANGEROUS IF INHALED

WORK AREA

- **ALWAYS** use in a well ventilated area.
- **ALWAYS** position the exhaust outlet away from people.
- Read these safety instructions before using the equipment.
- Keep children and animals away from the generator.

FIRE PREVENTION

1. **ALWAYS** switch the engine OFF when re-fuelling.
2. **ALWAYS** refuel in a well ventilated area.
3. **NEVER** overfill the tank, only fill to the level specified.
4. **NEVER** smoke whilst refuelling and avoid smoking or using a naked flame near the generator.
5. **NEVER** start the engine if there is spilled fuel. Any spillage must be wiped clean and the generator allowed to dry before attempting to start the engine.

PREVENTION OF ELECTRIC SHOCK

1. **NEVER** use the generator in wet conditions unless it is well protected/covered. Under these conditions, adequate ventilation **MUST** be provided.
2. **NEVER** operate the generator with wet hands.
3. **NEVER** use water or any other liquids to clean the generator.
4. Make sure you ground (earth) the generator.

POSITIONING THE GENERATOR FOR USE

1. **ALWAYS** leave at least a 1 metre gap between the generator and any surrounding building or structure or the engine may overheat.
2. **ALWAYS** ensure the generator is on a solid, flat surface.
3. **ALWAYS** ensure the surrounding area is free from any material that could burn or be damaged by heat.
4. **NEVER** move or tilt the generator whilst it is switched on.

5. **NEVER** cover or enclose the generator whilst it is in use.
6. Be aware of the weight of the generator, do not attempt to lift or move the generator without the assistance of another person.

EXHAUST GAS PRECAUTIONS

WARNING!: EXHAUST FUMES CAN BE FATAL

1. **ALWAYS** ensure that there is adequate ventilation when using the generator.
2. **ALWAYS** position the generator so that the exhaust is pointing away from people or animals.
3. **NEVER** use the generator indoors or in a enclosed area. (i.e. in warehouse, tunnel, well or a hold).

ADDITIONAL SAFETY RULES FOR GENERATORS

1. **ALWAYS** make sure the applied load does not exceed the generator rating. Overloading the generator is dangerous and could cause serious damage.
2. **ALWAYS** disconnect the generator when carrying out any maintenance.
3. **ALWAYS** allow the generator to reach operating speed before connecting a load.
4. **NEVER** allow the generator to run out of fuel when a load is connected.
5. **NEVER** transport the generator with fuel in the tank.
6. **NEVER** connect the generator to a commercial or residential power supply; e.g. ring main.
7. **NEVER** allow the generator air vents to become blocked.
8. **NEVER** alter or tamper with the internal wiring of the generator.
9. **NEVER** touch any part of the engine, alternator or exhaust when the generator is in use as these get hot and could cause burns.
10. **NEVER** allow anyone, not fully familiar with generator sets to use this equipment.
11. This generator set is NOT suitable for use with electronic equipment such as televisions, hi-fi's or computers etc.
12. Connect only those appliances that are in good working order.

NOTE: Most portable electric tools are Class II (double insulated) appliances. Always check BEFORE connecting. Equipment that does not meet this standard (i.e. tools with metal casing) require a three conductor cable with an earth conductor.

13. **DO NOT** Alter the engine settings, the voltage and frequency of the generator output is directly linked to the engine speed. These settings are factory set. Should they need re-calibration - consult your CLARKE dealer.

14. Connect only those appliances whose voltage (according to their data plate) corresponds to that produced by the generator.








IMPORTANT!: This generator uses either a floating chassis or neutral reference to chassis earthing system. (refer to technical information sheet).

Neutral reference to chassis generators **MUST** be connected to an earthing spike to ensure they are properly grounded.

Floating earth generators **DO NOT** require earthing.

SAFETY SYMBOLS

The following safety symbols are shown on the product or it's packaging. Please read all of the safety and operating instructions carefully before using this product.

	<p>Read instruction manual before use.</p>		<p>Hot surface - Do not touch</p>
	<p>Dangerous voltage</p>		<p>Poisonous fumes - Do not use the generator in an enclosed space.</p>
	<p>Flammable</p>		<p>Caution - The user should be aware of a general hazard.</p>
	<p>This product produces high noise levels during operation. Ear protection is advised.</p>		

UNPACKING AND ASSEMBLY

Unpack your generator and check the following items are present. Should there be any missing or damaged during transit contact your CLARKE dealer.

BEFORE USING THE GENERATOR

IMPORTANT: Generators should ALWAYS be earthed. Make sure you earth the generator.

Before using your generator check that the generator is:

- In good condition and free from any damage.
- Clean and free from fuel or oil spillage or leaks.
- Correctly located for use.

NOTE: To avoid accidental spillage of fuel, always use a funnel to fill the fuel tank. If fuel is spilled it must be removed from the unit before attempting to start the engine.

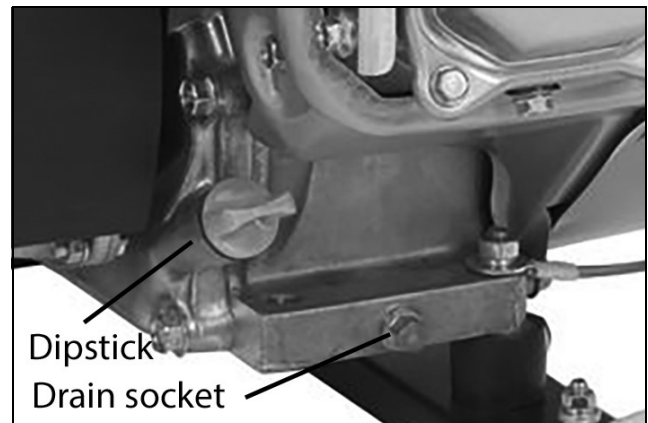
CHECK THE ENGINE OIL LEVEL



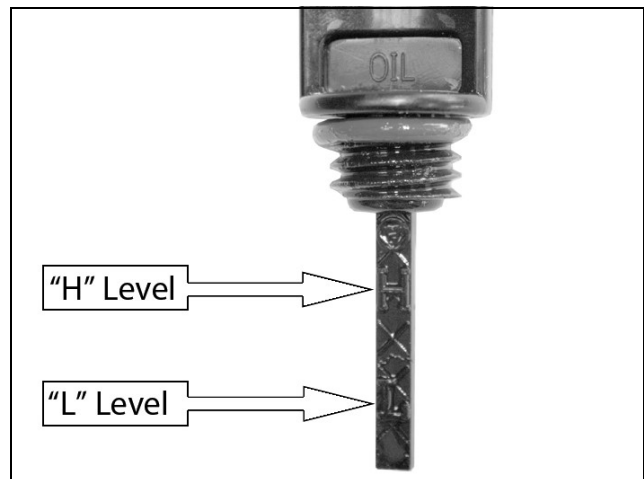
WARNING: YOUR GENERATOR MAY NOT BE SUPPLIED WITH OIL - ALWAYS ENSURE THERE IS SUFFICIENT OIL BEFORE USE.

CAUTION: ONLY CARRY OUT THIS CHECK WITH THE ENGINE OFF.

1. Stand the generator on a level surface and check the oil level as follows.
2. Turn the oil filler cap/dipstick anti-clockwise to remove from the oil reservoir and wipe with a clean cloth.
3. Insert the dipstick back into the oil filler tube and then remove it again.



4. If the oil is below the Min. level on the dipstick, top up the oil reservoir with fresh oil.
 - **DO NOT** fill above the max level mark.
 - We recommend the use of SAE10W/30 oil in this generator. (CLARKE part number 3050845)
 - **DO NOT** tilt the generator when adding engine oil. This could result in overfilling and damage to the engine.
5. Replace and tighten the oil filler cap.

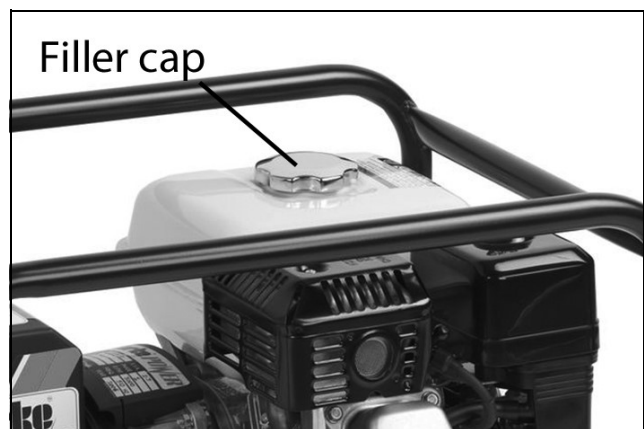


ADDING FUEL/CHECKING THE FUEL LEVEL



WARNING: MAKE SURE THERE IS FUEL IN THE TANK WHEN USING THE GENERATOR. RUNNING OUT OF FUEL OR STOPPING THE ENGINE SUDDENLY WITH A LOAD CONNECTED COULD CAUSE SERIOUS DAMAGE.

1. To check the fuel level, open the fuel filler cap.
2. Slowly add fuel to the fuel tank (maximum 3.6 litres)
 - **DO NOT** overfill the fuel tank.
3. Replace the fuel filler cap securely.



RECOMMENDED FUEL

Your generator has been designed to use regular unleaded petrol with a octane number of 86 or higher.



WARNING: FUEL IS HIGHLY FLAMMABLE AND POISONOUS.

WARNING: SEE "GENERAL SAFETY RULES" ON PAGE 3 AND READ THEM CAREFULLY BEFORE REFUELING.

WARNING: DO NOT FILL ABOVE THE TOP OF THE FUEL FILTER OR IT MAY OVERFLOW WHEN THE FUEL HEATS UP AND EXPANDS.

WARNING: WIPE UP ANY SPILLED FUEL IMMEDIATELY.

WARNING: AFTER REFUELING, MAKE SURE THE FUEL FILLER CAP IS TIGHTENED SECURELY.

PREPARATION FOR USE

EXTENSION CABLES

All extension cables from the generator set to the appliance, must be carefully selected, fitted and maintained. Cables in accordance with IEC 245-4 should be used.

Cables should be inspected regularly and should be replaced, not repaired in the event of a defect.

The length and cross section of conductors should be selected according to the job to be done. The table below is an indication of the sizes that should be used.

Conductor (mm ²)	Max Length (m)	Current (Amps)	Single Phase (kW)
1.5	25	10	2.3
2.5	40	16	3.7
4.0	60	28	6.5

Ensure the cable is fully unwound when in use to avoid overheating, and the placing of extra load on the generator.

OPERATION

IMPORTANT: Ensure all precautions are taken, referring to this and the Honda engine manual before proceeding.

Start the engine as follows (referring to engine manual) and allow to run for a few minutes at full speed in order for it to warm up.

1. Move the fuel valve lever to the ON position
2. To start a cold engine, move the choke lever to the closed position.
3. Pull the recoil starter grip lightly until you feel resistance, then pull briskly. Return the starter grip gently.

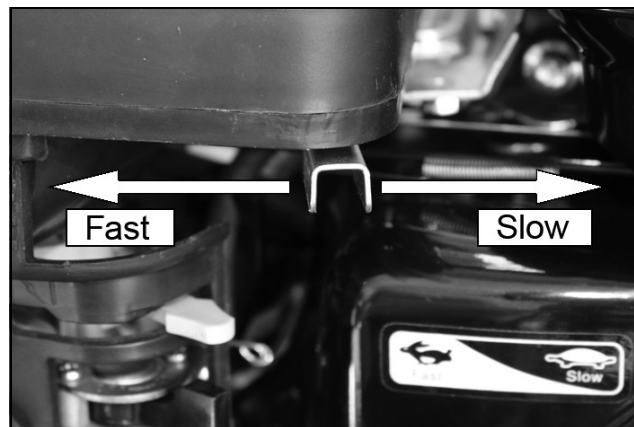
NOTE: DO NOT allow the starter grip to snap back against the engine at high speed causing damage.

4. To re-start a warm engine, leave the choke lever in the open position.



5. Set the engine speed by moving the throttle lever away from the MIN position

IMPORTANT: Ensure no appliances are connected to the generator when starting the engine.



6. Check the condition of the appliance, including the supply cable and the extension cable if used, and ensure it is switched OFF. Ensure also that the operating voltage is the same as the output from the generator.
7. For generators with dual output, ensure the voltage selector switch is set to deliver the appropriate output - 115V or 230V.



8. With the engine running smoothly connect the appliance to the appropriate receptacle: BLUE - 230V, YELLOW - 115V.

NOTE: If the AC circuit is overloaded the circuit protection switch will trip. To reset the circuit, first disconnect the appliance and rectify the cause of the overload. Wait a short period and then press the reset button on the panel.

BE AWARE!

Some appliances draw more current on start-up than their normal running current, i.e. electric motors, and compressors. If in any doubt as to whether an appliance is compatible or not, please consult your CLARKE dealer.

Additionally, please refer to the specifications sheet attached, to ensure the machine is used under the correct operating conditions.

SHUTTING DOWN THE GENERATOR

IMPORTANT: Never switch off the engine whilst an electrical appliance is connected.

To stop the generator in an emergency simply set the engine switch to 'OFF'.

Move the throttle lever to the MIN position.

1. Set the engine switch to the "0" (OFF) position.
2. Turn the fuel valve knob to "OFF" (pointing left).
3. Disconnect any electric devices.

MAINTENANCE

ENGINE OIL (AFTER FIRST 20 HOURS OF USE)



CAUTION: PROLONGED EXPOSURE TO USED ENGINE OIL IS DANGEROUS, ALWAYS WASH YOUR HANDS THOROUGHLY AFTER HANDLING USED ENGINE OIL.

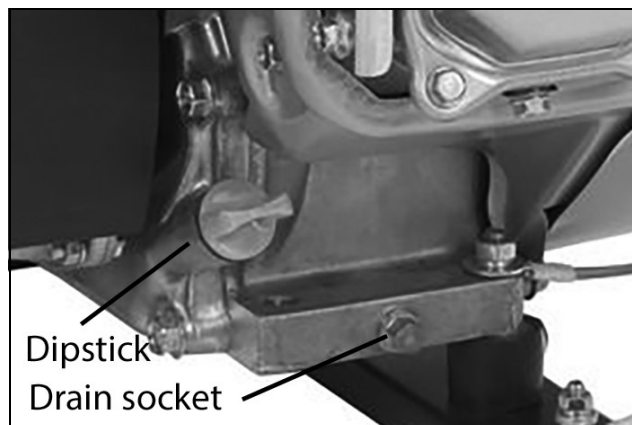
1. Turn the oil filler cap anti-clockwise and remove from the oil reservoir.
2. Tilt the generator to allow the oil to drain out of the oil reservoir into a suitable container.

NOTE: You may need assistance with this step as the generator is heavy.

3. Fill the oil reservoir with fresh oil.

- **DO NOT** fill above the max level mark.
- We recommend the use of SAE10W/30 oil in this generator. (CLARKE part number 3050845)

4. Replace the oil filler cap.



ENVIRONMENTAL PROTECTION

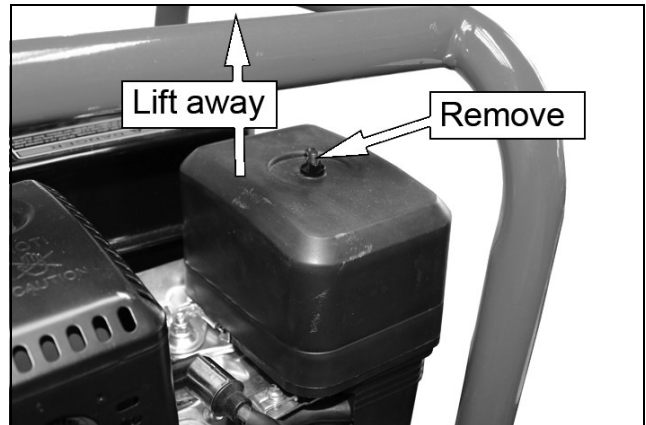
One of the most damaging sources of pollution is oil. Do not throw away used engine oil in with your domestic waste or down drains and sinks. Place it in a leak proof container and dispose of it according to local regulations.

AIR FILTER (EVERY 50 HOURS OF USE)



WARNING: DO NOT USE FLAMMABLE SOLVENTS OR PETROL TO CLEAN THE AIR FILTER.

1. Remove the air filter cover, unscrewing the securing nut.
2. Remove the air filter panel and the air filter element.
3. If the air filter is damaged contact the CLARKE spare parts department for a replacement.
 - If the filter is dirty, wash it in a solution of warm water and mild detergent and then rinse thoroughly.
 - Leave the filter to dry completely, once it is dry immerse the filter in clean engine oil and squeeze the filter to remove excess oil.
4. Replace the filter into its original position and replace and secure the air filter cover.

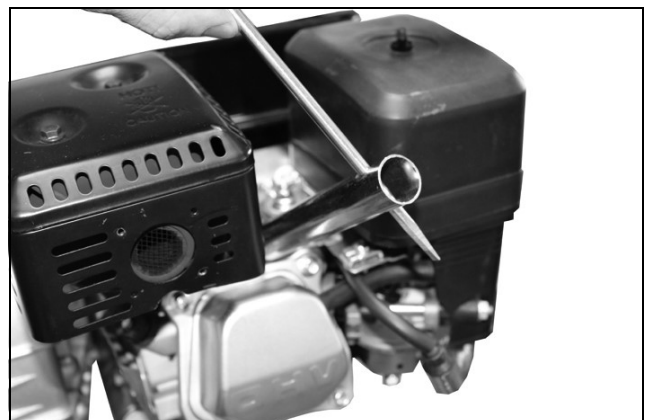


SPARK PLUG (EVERY 50 HOURS OF USE)



CAUTION: ALLOW THE ENGINE TO COOL BEFORE REMOVING THE SPARK PLUG.

1. Remove the spark plug cap from the spark plug.
2. Fit the spark plug box spanner over the spark plug as shown and use the lever to turn it.
3. When the spark plug has been removed, check for discoloration and use a wire brush to remove any carbon build up.

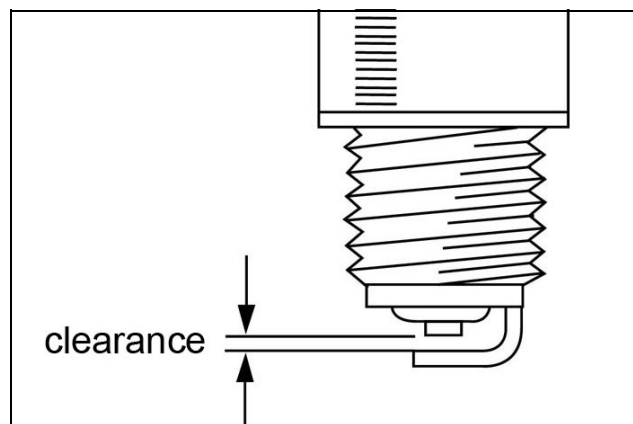


4. Check the spark plug gap with a feeler gauge which should be between 0.6 and 0.7 mm.

- Adjust if necessary.

5. Check the overall condition of the spark plug and replace if damaged.

NOTE: Spark plugs are available from CLARKE Spare Parts department 020 8988 7400.



6. Reinstall the spark plug and replace the spark plug cap.

FUEL TANK FILTER (EVERY 100 HOURS OF USE)

Just inside the fuel tank is a fuel filter. Check this filter periodically and remove any contaminants which may have accumulated.

1. Remove the fuel tank cap.
2. Lift out the filter inside.
3. Clean the filter with solvent. If the filter is damaged, contact CLARKE Spare Parts department for a replacement.
4. Replace the filter and fuel tank cap.

STORAGE

1. Always store in a damp free environment away from children.

SPARE PARTS

Frame	SH0211003	Socket 115V	SH0280027
Alternator mount	SH0270004	Socket 230V	SH0280028
Engine mount	SH0270006	Voltage selector switch	SH0430003
Alternator NS< ES80B	SH0280007	IP23 cover resets	SH0280043
IP23 Alternator cover	SH0280040	Voltage selector switch	SH0280044
Control box D/V wired/covers	SH0280042	Fuel tank (plastic) kit	SH0481000
Capacitor 13uf	SH0370010	Tank long run (plastic)	SH0212002
Reset-9Amp	SH0360072	Cleat for fuel tank	SH0270024
Alternator end cover	SH0280012	In-line fuel tap	SH0480002
Diode	SH0280026	Fuel filter (small in-line)	SH0480003

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The generator fails to start	Engine switch is off	Set the engine switch to ON
	Fuel valve OFF	Move lever to ON position.
	Choke open (OFF)	Move lever to CLOSED position unless engine is warm.
	Lack of engine oil. (with Oil Alert feature fitted)	Add more oil.
	No fuel	Add more fuel.
	Bad fuel due to long term storage with fuel in tank	Drain fuel tank and carburetor. Refuel with fresh fuel.
	Spark plug defective, foul or wrongly gapped.	Clean, re-gap or replace the spark plug.
The generator fails to generate electricity (no AC output)	The device you are trying to power is faulty	Make sure the device you want to power is working properly.
	Selector switch in wrong position	Set selector switch
	Tripped circuit breaker	Reset AC safety trip
	Poor connection or defective lead	Check connection and/or replace lead
The generator is difficult to start	The air filter is dirty	Clean the air filter.
Erratic supply	Incorrect engine rpm	Adjust engine speed
	Internal alternator problem	Contact CLARKE servicing

If this does not solve your problem, please contact the CLARKE service department.

SPECIFICATION

Item	Specification
Model No	CP2850K
Dimensions (L x W x H)	610 x 420 x 410 mm
Weight	34 kg
Engine type	Honda GX160
Displacement	163cc
Engine power	5.5HP
Fuel capacity	3.6 L
Fuel consumption	0.92 L/hr
Running time (full tank)	3.9 Hr
Fuel type	Unleaded
Lubrication Oil Capacity/grade	0.6 L (SAE 10W30)
Spark plug type	BPR6ES
Alternator type	ES80B
Rated power	2.7kVA
Rated rotation speed	3000 rpm
Voltage AC	230/115 V
AC Rated frequency	50 Hz 1ph
Earthing	Floating
Sound output	70 dB(A) @7m
Measured sound output	93.347 dB
Guaranteed sound output	94 dB

DECLARATIONS OF CONFORMITY



DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation: The following standards have been applied to the product(s):

Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001

EN 61000-6-3:2007+A1:2011, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-2:2005,

The Electromagnetic Compatibility Regulations 2016

EN ISO 8528-13:2016, BS ISO 8528-1:2018, EN 60034-1:2010, EN 60204-1:2018, ISO 3744,

The Supply of Machinery (Safety) Regulations 2008

BS ISO 8528-2:2018, BS ISO 8528-3:2020, BS ISO 8528-4:2005, EN ISO 12100:2010,

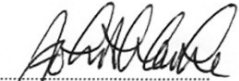
The Non-Road Mobile Machinery (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018

EN IEC 63000:2018, ISO 8528-10

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2024

Manufacturer:	Clarke International Ltd, Hemnall Street, Epping, Essex, CM16 4LG, United Kingdom	Notified Body:	Státní zkušebna strojů a.s. (ID Number: 1016), Třanovského 622/11, 163 04, Praha 6 - Řepy, Česká Republika
Product Description:	Generator	Assessment Procedure:	Annex VI of above noise legislation
Model Number(s):	CP2850K	Measured LWA:	93.347 dB
Serial/Batch Number:	Refer to product/package label	Guaranteed LWA:	94 dB
Document Holder:	Alan Pond	Signed:	 J.A. Clarke Director
Date of Issue:	06/11/2024		

CP2850K UKCA Clarke DOC 110624

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2000/14/EC

Outdoor Noise Directive

EN 61000-6-3:2007+A1:2011, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-2:2005,

2014/30/EU

Electromagnetic Compatibility Directive

EN ISO 8528-13:2016, BS ISO 8528-1:2018, EN 60034-1:2010, EN 60204-1:2018, ISO 3744,

2006/42/EC

Machinery Directive

BS ISO 8528-2:2018, BS ISO 8528-3:2020, BS ISO 8528-4:2005, EN ISO 12100:2010,

2016/1628

Particulate Emission and Type-Approval for Non-Road Mobile Machinery Regulation


EN IEC 63000:2018, ISO 8528-10

2011/65/EU

Restriction of Hazardous Substances (RoHS) Directive

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2014

Manufacturer:	Clarke International Ltd, Fitzwilliam Hall, Fitzwilliam Place, Dublin 2, Republic of Ireland	Notified Body:	Státní zkušebna strojů a.s. (ID Number: 1016), Třanovského 622/11, 163 04, Praha 6 - Řepy, Česká Republika
Product Description:	Generator	Assessment Procedure:	Annex VI of above noise legislation
Model Number(s):	CP2850K	Measured LWA:	93.347 dB
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Document Holder:	Alan Pond	Signed:	 J.A. Clarke Director
Date of Issue:	06/11/2024		

CP2850K CE Clarke DOC 110624

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A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS



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From DIY to industrial, Plus air tools, spray guns and accessories.

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Prime duty or emergency standby for business, home and leisure.

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