

# Clarke®



## JUMPSTART

MODEL NO: JS1224

PART NO: 6240045

## OPERATING & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

DL1023 Rev 10

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## INTRODUCTION

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Thank you for purchasing this CLARKE Jumpstart.

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.

**Please keep these instructions in a safe place for future reference.**

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## GUARANTEE

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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 RECYCLING POLICY



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the 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.

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## GENERAL SAFETY RULES

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1. **ALWAYS** ensure when jumpstarting that there is air circulating around the machine.
2. **NEVER** allow the negative and positive leads on this unit, to touch each other or to touch the same metal object.
3. Although the jumpstart is water resistant and may be used outdoors, **DO NOT** leave it exposed to the elements. Avoid direct sunlight, direct heat, rain/moisture etc.
4. The JS1224 can be used with either 12 or 24V systems.
5. **DO NOT** operate the jumpstart if any of the cables are damaged. Consult your CLARKE dealer for repair or replacement of the parts.
6. **DO NOT** operate the jumpstart if the case is damaged. Consult your CLARKE dealer or a qualified person for inspection and repair.
7. Ensure the vehicle battery posts and battery clamps are perfectly clean before use.
8. When connecting the jumpstart leads to a battery, ensure the ON/OFF switch is OFF, and ALWAYS connect the RED, (positive '+') output conductor to the UNEARTHED (+) battery terminal FIRST, then connect the BLACK, (negative) conductor to a suitable earthing point on the chassis, well away from any fuel lines.
9. To prevent battery overheating and consequent damage, **DO NOT** exceed our recommendations for duration of jump starting.
10. **ALWAYS** wear suitable protective clothing and eye protection when working with lead acid batteries.
11. The jumpstart is **NOT** designed to be used as a replacement for a vehicle battery.
12. **DO NOT** attempt to BOOST CHARGE the jumpstart's sealed battery.
13. **NEVER** allow the battery to become completely discharged.
14. **NEVER** jump start the engine whilst the jumpstart is being charged.
15. **NEVER** allow the cables to become wrapped around the operator or any other person.
16. **NEVER** attempt any repairs yourself. If you have a problem with the machine contact your local CLARKE dealer.
17. **ALWAYS** keep body and clothing dry. Never work in damp area without adequate insulation against electric shock.

18. **ALWAYS** store the jumpstarter out of reach of children.
19. **ALWAYS** wear safety glasses when working with lead acid batteries.
20. If splashed by battery acid, immediately flush the area of the splash with clean water. If a burning sensation is felt or any blistering occurs, seek medical help.
21. If acid comes into contact with the eyes, flush the eyes with clean water continuously and seek medical help.



**WARNING: ALL LEAD ACID BATTERIES GENERATE HYDROGEN GAS DURING NORMAL OPERATION. THIS PROCESS INCREASES DURING A PERIOD OF RAPID DISCHARGE, SUCH AS WHEN USING FOR JUMP - STARTING.**

**WARNING: HYDROGEN GAS AND BATTERY ACID (SULPHURIC ACID) CAN BE: EXPLOSIVE, CORROSIVE TO SKIN, EYES AND HAIR, DAMAGING TO CLOTHING AND METALS, FLAMMABLE, POISONOUS TO BREATHE**

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## **ELECTRICAL SYMBOLS DISPLAYED**

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The meanings of the safety markings and symbols which may be displayed on this product are shown below.



Class II appliance without an earth connection



Always read instructions before use



Electrical hazard due to exposed live terminals



Chemical Hazard from battery acid

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## ELECTRICAL CONNECTIONS

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This product is provided with a 13 amp, 230 volt (50Hz), charging adaptor for connection to a standard, domestic electrical supply. Should the plug need changing at any time, ensure that a plug of identical specification is used.



This product is of double insulated design. No earth conductor is provided.

No earth conductor is provided. The two wires in the mains lead should be wired up in accordance with the following colour code:

Blue — Neutral

Brown — Live

Connect the BROWN coloured cable to the plug terminal marked a letter "L".

Connect the BLUE coloured cable to the plug terminal marked a letter "N".

If the battery charger for this appliance is fitted with a plug which is moulded on to the electric cable (i.e. non-rewireable) please note:

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace the fuse cover, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local Clarke dealer or most electrical stockists.

### FUSE RATING

The fuse in the plug must be replaced with one of the same rating and this replacement must be ASTA approved to BS1362.

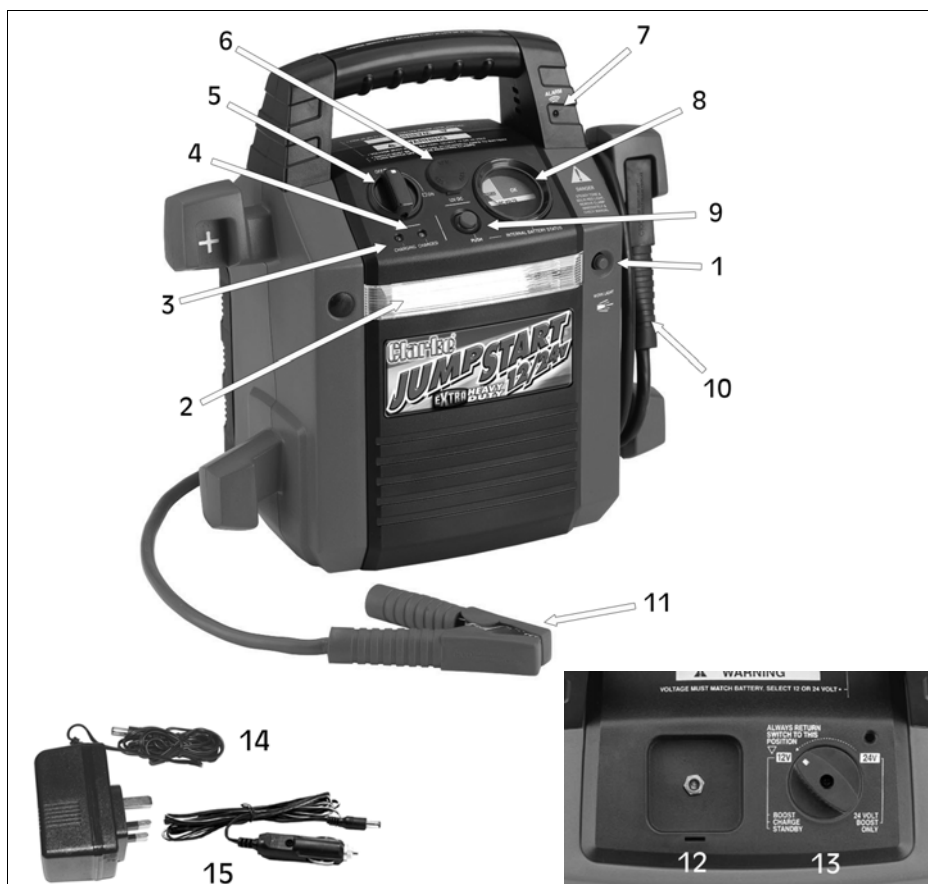
If in any doubt, consult a qualified electrician. **DO NOT** attempt any electrical repairs yourself.

## COMPONENT IDENTIFICATION

The JS1000, JS1010 and JS1224 are a range of rechargeable power supplies which can be used to start a car in the event of a flat battery. The units can also be used to power electrical appliances via a cigar lighter type socket using the adaptor supplied.

- The JS1010 model also incorporates a compressor, which can be used for inflating car tyres/dinghies/lilos etc by connecting the air hose/adaptor contained within the side compartment.
- The JS1224 model can be switched to either 12 V or 24 V, depending on the battery being boosted.

Unpack and lay out the components, checking against the following list. Any damage or deficiency should be reported to your CLARKE dealer.



1. Work Light ON/OFF switch
2. Lamp/Work light
3. Red LED (charging)
4. Green LED (charged)
5. On/Off Switch
6. 12V DC socket connection
7. Alert LED (incorrect polarity alarm)
8. Battery condition gauge
9. Test push button
10. Negative (-) battery connection lead
11. Positive (+) battery connection lead
12. 12V charging jack socket
13. 12/24V Selector
14. 230V mains charging adaptor
15. 12V DC adaptor lead with jack plug

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## INITIAL BATTERY CHARGING

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1. Charge your jumpstart battery before using it for the first time.
2. Recharge the jumpstart battery after every occasion of use if possible, and thereafter, at least every 30 days.
3. Always avoid leaving your jumpstart in a state of discharge.

FOLLOW THE ABOVE POINTS TO ENSURE MAXIMUM LIFE FROM THE BATTERY.

Two means of charging the battery are provided:

1. Via a mains electricity supply, using the mains adaptor, shown in Fig 1.
2. Via a 12V vehicle supply using the cigarette lighter adapter with cable and plug provided, shown.

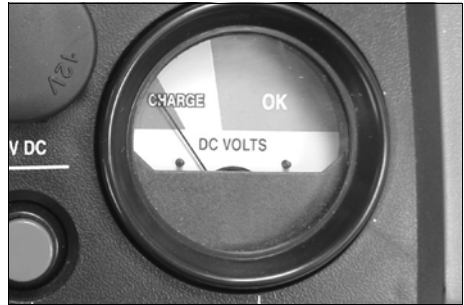
**NOTE:** Using a 12V vehicle supply, the battery will not charge to maximum, but only to approx. 50% of its capacity.



## CHARGING USING THE MAINS ADAPTOR

1. Set the On/Off switch to the Off position and the Voltage Selection switch to the 12V position.
2. Plug the cable into the socket at the rear of the unit, then plug the adaptor into the mains supply and switch on.

- The red CHARGING light on the jumpstart will come on to indicate charging is in progress.



3. It is best to charge the jumpstart until the green CHARGED light comes on.
  - To ensure maximum battery life, it is desirable to charge the unit after each occasion of use and recommended to recharge after every 30 days.

**NOTE: Pressing the 'TEST' button with the charger disconnected will cause the needle on the battery condition gauge shown above, to register the state of charge of the battery.**

Turn the unit on and a beep will be heard, indicating that there is power to the booster clamps.

## CHARGING USING THE 12V ADAPTOR

1. Plug the jack plug into the charging socket at the rear of the unit, then into the cigarette lighter socket on the vehicle and start the engine. The red LED on the jumpstart to indicate that charging is in progress.
2. Continue to charge until the "Internal Battery Status" gauge registers 'OK' when the 'TEST' button is pressed, **WITH THE CHARGING CURRENT DISCONNECTED**. i.e. disconnect the cigarette lighter adapter from the socket on the vehicle before pressing the Test Button.

**NOTE:** We recommend that you use this system only when necessary, as prolonged use will reduce the life expectancy of the battery, due to the fact that this method can only charge the battery to approx. 50% of its capacity.

**NOTE:** For maximum battery life, we strongly recommend that you maintain the battery in a fully charged state at all times.

**NOTE:** If charging does not take place, check the green LED on the adaptor. Ensure all connections are clean and free of grease etc.



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## OPERATION

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**WARNING: FAILURE TO FOLLOW THE INSTRUCTIONS BELOW AND THE SAFETY INSTRUCTIONS ON PAGE 4, MAY RESULT IN PERSONAL INJURY, DAMAGE TO THE VEHICLE, OR THE POSSIBILITY OF AN EXPLOSION**

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*Always* carry out the following preliminary checks before connecting the Jumpstart to the car battery:

- Ensure the vehicle ignition and ALL ancillary equipment - lighting, radio etc, is switched off.
- Check the vehicle battery voltage, and select the correct voltage on the 12V/24V selector on the rear of the jumpstarter.
- Ensure the battery terminals are clean and the clamps are firm and secure.
- Remove any vehicle battery filler plugs and check electrolyte level. If necessary, top up with distilled water.

When completely satisfied, proceed as follows:

1. Turn the vehicle ignition off before connecting the booster cables.
2. Take great care not to touch the red positive (+) clamp against the black negative (-) clamp.
3. Ensure the area is well ventilated.
4. Ensure the ON/OFF switch is in the OFF position.
5. Connect the red positive (+) clamp to the positive (+) battery terminal first. Take care the clamp does not contact any moving parts or fuel lines.
6. Connect the black negative (-) clamp to a suitable earthing point on the vehicle chassis.
7. Switch the unit on. An intermittent beep should be heard, indicating there is power to the cables. If the audible signal becomes louder and steadier, a polarity error is indicated. Disconnect the booster clamps immediately. Reverse the connections to the battery terminals and the audible signal should return to a beep.
8. Turn the ON/OFF switch to the ON position.
9. Turn the ignition key on for a maximum of 6 seconds and the vehicle should start. If the vehicle does not start after a few seconds, switch off and wait for at least 3 minutes to prevent damage to the jumpstarter due to overheating before trying again. After this cooling off period, it is safe to resume trying to start the vehicle.

10. Once the vehicle has started, turn the jumpstart ON/OFF switch OFF.
11. Disconnect the black negative (-) clamp first, then disconnect the red positive (+) clamp.
12. After use, always wrap the cables around the post on the side of the jumpstart body and clip the clamps into their positions on the clamp posts.
13. Return the 12V/24V selector to the 12V position
14. Return the ON/OFF switch to the OFF position after use.
15. After use, always recharge the jumpstart as described on page 12.
16. Regularly check the charge level of the battery by pressing the TEST push-button on the front panel.



**WARNING: IT IS POSSIBLE THAT SOME ELECTRONIC EQUIPMENT COULD BE DAMAGED BY JUMP STARTING. ALWAYS CHECK WITH THE CAR MANUFACTURER'S HANDBOOK TO DETERMINE WHAT PRECAUTIONS IF ANY SHOULD BE TAKEN.**

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## RECHARGING

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Recharge the unit following each period of use. The unit must be charged at least every 3 months but it is recommended that a 'top-up' charge is desirable after every 30 days.

**NOTE:** Failure to do so will result in possible damage to the internal battery and result in poor performance from partial failure to operate due to the poor condition of the battery.

1. Insert the charger lead into the charging jack socket at the rear of the unit
2. Connect the mains adaptor to the mains outlet.
3. The 12V/24V selector switch must always be set to the 12V position while charging in this way, otherwise the charge will not be received by both batteries.
4. Check that the red CHARGING light illuminates and remains on during the charging process.
  - When the internal battery is fully charged, the green CHARGED light will come on automatically.
5. The unit can now be unplugged for further use or storage, or it can be left plugged in indefinitely so as to use its internal control to maintain the optimum battery charge level.

- Alternatively, charge the unit from the 12-volt outlet in the vehicle by plugging one end of the DC charging cable into the jump start charging socket and the other end into the running vehicle's cigarette lighter.

## CHARGE STATUS

When pressing the battery test button, the battery level can be shown at a High Charge status. This does not necessarily indicate that the battery is fully charged.

To be at the fully charged level, the green FULL CHARGE light on the front panel will turn on during the charging process, indicating Full Charge status.

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## MAINTENANCE

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**ALWAYS** inspect the jumpstart before use to ensure the cables are in perfect condition and the clamps are clean and free from corrosion.

Keep the unit clean by wiping with a dry cloth. **DO NOT** use solvents as a cleaning agent.

Keep the unit at HIGH or FULL CHARGE status at all times. Refer to the "RECHARGING" section on page 11.

**ALWAYS** turn the jumpstart OFF during storage and store the unit in an upright position, away from direct sunlight, moisture or sources of extreme heat or cold.

**NEVER** attempt any repair unless you are a qualified technician. If you have a problem with the machine contact your local CLARKE dealer.

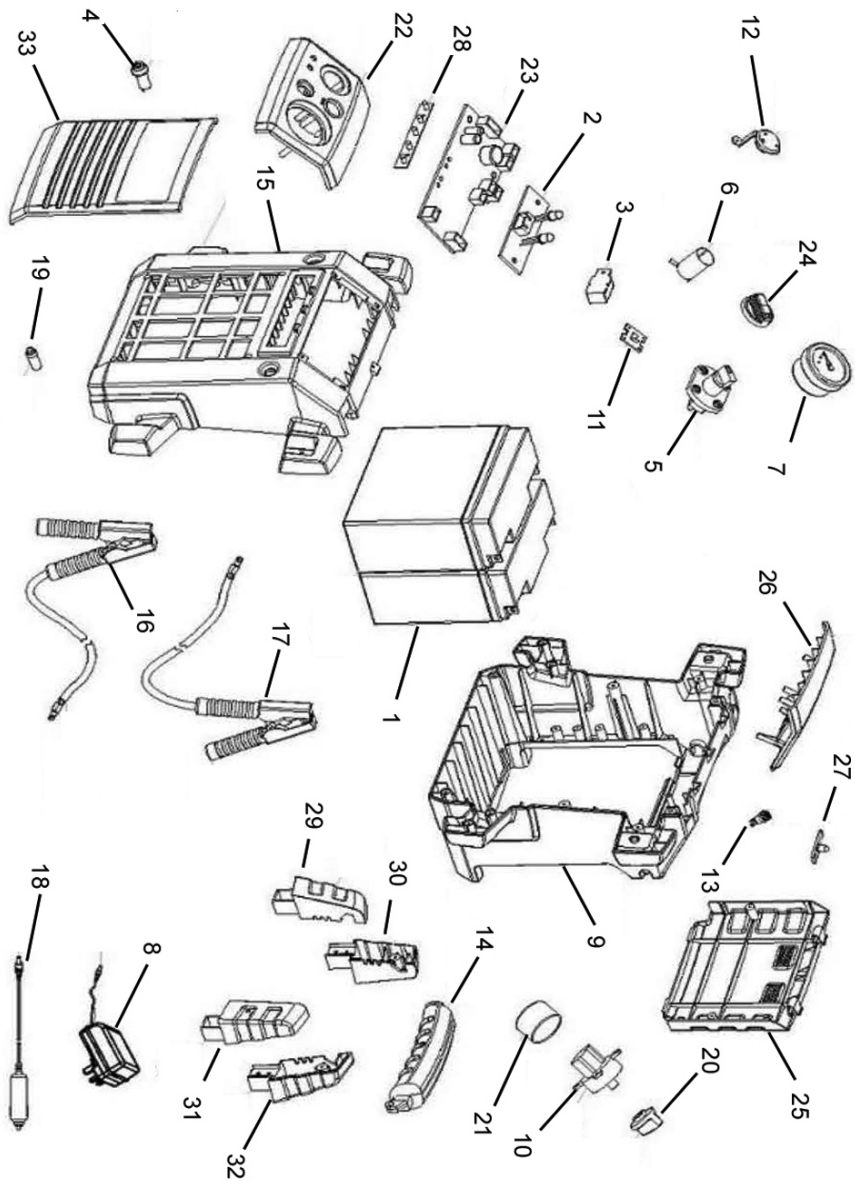
Your CLARKE jumpstart has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

## TECHNICAL SPECIFICATION

Item	Specification
Model	JS1224
Part No	6240045
Weight	16 kg
Dimensions	210 x 390 x 375
Insulation Class	Class II
Input Power Supply	12V DC / 3A / 36W
Max Output Current	Starting 1000A@12V Peak 2000A@12V Starting 500A@12V Peak 1000A@24V
Output Power	180W
Battery Type	2 x sealed Sealed lead-acid12V/22AH
Lighter Socket output	12V DC /15A
Operating temperature	-20/40°C
Estimated engine starting capacity	Up to 3.0litres (diesel) Up to 6.0litres (petrol)
Working lamp	LED, 3V/0.3W (non-replacable)

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.

# COMPONENT PARTS JS1224



No	Description
1	12V-22AH Battery
2	Light Indication PCB
3	Circuit Breaker
4	Test Button
5	On/Off Switch
6	Cigarette Lighter Socket
7	DC Voltage Meter
8	Charging Adaptor
9	Rear Housing
10	12V/24V Selector Switch
11	Positive Electrode of socket
12	Socket Dust Cover
13	Charging Socket
14	Main Handle
15	Front Housing
16	Positive Battery Lead
17	Negative Battery Lead

No	Description
18	DC Adaptor Cable
19	Worklight Switch
20	Switch Cap
21	Switch Holder
22	Upper Front Panel
23	Main Charging PCB
24	On/Off Switch Cap
25	Rear Casing Panel
26	Rear Upper Panel
27	24V Indication PCB
28	LED Worklight Panel
29	Handle Upright (L/F)
30	Handle Upright (R/F)
31	Handle Upright (L/R)
32	Handle Upright (R/R)
33	Front Cover

***IMPORTANT: When requesting component parts for these products, please refer to the pre-fix GRBMZ/JS1224/01 onwards. as applicable.***

# DECLARATION OF CONFORMITY



**Clarke**  
INTERNATIONAL  
Hemnal Street, Epping, Essex, CM16 4JG  
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 Batteries and Accumulators (Placing on the Market) Regulations 2008
- The Electromagnetic Compatibility Regulations 2016
- The Electrical Equipment (Safety) Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

The following standards have been applied to the product(s):

- IEC 62321-4:2013+AMD1:2017, BS EN 50042-1:2015+A1:2018, IEC 62321-3-1:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-7:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-4:2017, ISO 17075-1:2017, ISO 17075:2017, IEC 62321-4-2013+AMD1:2017 CSN, EN 61000-3-3:2013+A1:2018, EN 60335-1:2012+A11:2014+A12:2017+A13:2019+A14:2019+A42:2019, EN 55014-2:2015, EN 62233:2008, EN 60335-2-2004+A2:2010+A11:2018, EN 55014-1:2017+A11:2020, EN IEC 61000-3-2:2019, EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021

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: 2023

Product Description: Jump Starter  
Model Number(s): JS1224  
Serial/Batch Number: Refer to product/backpacking label  
Date of Issue: 13/10/2023  
Signed:   
J.A. Clarke  
Director

JS1224 UKCA Data Doc 101223

Page 1 of 1



**Clarke**  
INTERNATIONAL  
Frimston Hill, Frimston Place, Dublin 2  
DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation:


- 2006/66/EC Battery Directive
- 2014/53/EU Electromagnetic Compatibility Directive
- 2014/53/EU Low Voltage Directive
- 2011/65/EU Restriction of Hazardous Substances (RoHS) Directive

The following standards have been applied to the product(s):

- IEC 62321-4:2013+AMD1:2017, BS EN 50042-1:2015+A1:2018, IEC 62321-3-1:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-7:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-4:2017, ISO 17075-1:2017, ISO 17075:2017, IEC 62321-4-2013+AMD1:2017 CSN, EN 61000-3-3:2013+A1:2018, EN 60335-1:2012+A11:2014+A12:2017+A13:2019+A14:2019+A42:2019, EN 55014-2:2015, EN 62233:2008, EN 60335-2-2004+A2:2010+A11:2018, EN 55014-1:2017+A11:2020, EN IEC 61000-3-2:2019, EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021

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: 2005

Product Description: Jump Starter  
Model Number(s): JS1224  
Serial/Batch Number: Refer to product/backpacking label  
Date of Issue: 13/10/2023  
Signed:   
J.A. Clarke  
Director

JS1224 CE Data Doc 101223

Page 1 of 1

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# Clarke®

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SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

**Clarke** INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG  
[www.clarkeinternational.com](http://www.clarkeinternational.com)