

# Clartec®



## JUMPSTART

MODEL NO: JS1100/JS1100C

PART NO: 6240017 & 6240015

## OPERATING & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC04/20:-lss.2

# INTRODUCTION

Thank you for purchasing this CLARKE Jump-start.

The JS1100 is a rechargeable power pack which can be used to start a car in the event of a flat battery. The unit can also be used to power electrical appliances via a cigarette lighter type socket using the adaptor supplied. The unit also incorporates a built-in lamp and may be used as a stand alone light source. An audible warning will sound in the event of low battery voltage, or if the clamps are incorrectly fitted for jump starting (wrong polarity).

The integral air compressor (JS1100C only) is ideal for pumping up tyres on the vehicle or a variety of accessories. However, for assured accuracy a calibrated tyre pressure gauge should always be used.

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.

## SPECIFICATIONS

Item	Specification
Weight	7.9 kg (JS1100), 8.4 kg(JS1100C)
Insulation Class (Charger)	Class II
Max Output Current	Starting 500A Peak 1100A
Battery Type	Sealed re-chargeable lead-acid 12V/18Ah
Auxiliary (Lighter) Socket output	12V dc /15A
USB Power Supply	5 V dc - 1.1A
Estimated engine starting capacity	Up to 2.5 litres diesel or 3.0 litres (petrol)
Air Compressor Max output (JS1100C)	17.9 bar (260psi)
Compressor Duty Cycle	50% (10 min on/10 min rest) but not more than 6 cycles. (after which wait 2 hours before repeating).

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.

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## GENERAL SAFETY RULES

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1. Always ensure when jump-starting that there is air circulating around the jumpstart.
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 jump-start 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 JS1100/JS1100C jump-starts are designed for use with 12V electrical systems.
5. Do not operate the jump-start if any of the cables are damaged. Consult your Clarke dealer for repair or replacement.
6. Do not operate the jump-start 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 jump-start 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 the battery overheating and consequent damage, do not exceed our recommendations for the duration of jump starting.**
10. Always wear suitable protective clothing and eye protection when working with lead-acid batteries.
11. The jump-start is NOT designed to be used as a replacement for the vehicle battery.
12. DO NOT attempt to BOOST CHARGE the jump-start's sealed battery.
13. Never allow the battery to become completely discharged.
14. Never allow the cables to become wrapped around the operator or any other person.
15. Never attempt any repairs yourself. If you have a problem with the jump-start contact your local CLARKE dealer.
16. Always keep your body and clothing dry. Never work in damp area without adequate insulation against electric shock.
17. Never jump-start the engine whilst the jump-start is being charged.

18. Never operate the compressor for more than 10 minutes, then wait a further 10 minutes before continuing. Use a maximum of 6 cycles, then allow 2 hours before repeating.
19. Always store the jump-starter out of reach of children.
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**

## 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.

## ELECTRICAL SYMBOLS DISPLAYED



Class II appliance without an earth connection (charger only)



Always read instructions before use



Fuse T2 A



Indoor use only

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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.

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



1	<b>Lamp</b> to provide light for roadside repairs or emergency situations.	8	<b>12 DC Socket</b> connects the 230 Volt charger for mains charging.
2	<b>Positive Battery Connecting Lead</b> to connect to positive battery terminal	9	<b>Negative Battery Connection Lead</b> - connect to the negative terminal.
3	<b>230 Volt Charger</b> to charge the internal battery pack	10	<b>Air Compressor On/Off Switch</b>
4	<b>Cigar Lighter Adaptor Lead</b> complete with 5 Amp fuse.	11	<b>Air Pressure Gauge</b>
5	<b>Battery Condition Indicators</b> to indicate the voltage level of the internal battery.	12	<b>Adaptors</b> for connecting the air line to different applications
6	<b>Battery Test/USB On/Off/Lamp ON/OFF Switch.</b> Switches the lamp ON or OFF.	13	<b>Compressed Air Hose/connector</b>
7	<b>Aux Output Socket</b> for use with the cigar lighter type adapter provided	14	<b>USB output connection port</b>

# INITIAL BATTERY CHARGING

1. Charge your jump-start battery before using it for the first time.
2. Recharge the jump-start battery after every occasion of use if possible, and thereafter, at least every 90 days.
3. Always avoid leaving your jump-start in a discharged state.

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

Two means of charging the battery are provided:

1. Via a 230V mains electricity supply, using the mains adaptor, as shown.
2. Via a 12V supply using the vehicle cigar lighter adapter with cable and plug provided.

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



**NOTE:** A 5 amp fuse is fitted into the cigarette lighter plug adaptor, accessed by unscrewing the end cap of the adaptor. Take care not to loose the spring when unscrewing this cap.

## **CHARGING USING THE 230V MAINS ADAPTOR**

1. Plug the cable into the socket at the rear of the charger, then plug the adaptor into the mains supply and switch on.
  - The RED/YELLOW/GREEN CHARGING lights on the jump-start will light in sequence to indicate that charging is in progress.
2. Continue to charge until only the GREEN light is on to indicate the unit is charged.
3. This could take many hours, dependant upon the state of charge of the battery.



## CHARGING USING THE 12V ADAPTOR

1. Plug the jack plug into the charging socket at the front of the unit, then into the cigar lighter socket on the vehicle and start the engine. The RED/YELLOW/GREEN CHARGING lights on the jump-start will indicate that charging is in progress.
2. Continue to charge until the GREEN LED illuminates.

**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 adapter. Ensure all connections are clean and free of grease etc.

## BATTERY TEST FUNCTION

Before using the jumpstarter, press the test button and the LED display will indicate the battery status.

- If the voltage is  $<17V$ , the green LED will flash with an alarm on.
- If the voltage is 12.2 - 17V the green LED will be constantly on, showing the battery is fully charged.
- If the voltage is  $<12.2V$ , the yellow LED will be on, showing that the battery requires charging.
- If the voltage is between 10 & 12 V, the Red LED will be on, indicating that the battery requires charging badly before it can be used.
- If the voltage is from 8-10 volts, the Red LED will flash with an alarm on. The battery requires immediate charging.
- If the voltage is less than 8V the unit will shut off automatically.





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# OPERATION

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**WARNING: FAILURE TO FOLLOW THE INSTRUCTIONS BELOW AND THE SAFETY INSTRUCTIONS ON PAGES 3/4, 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 jump-start to the car battery:

- Make sure that the vehicle ignition and ALL ancillary equipment - lighting, radio etc, is switched off.
  - Make sure that the vehicle battery is rated at 12V and is not damaged in any way.
  - Make sure that the battery terminals are clean and the clamps are firm and secure.
  - Remove any vehicle battery filler plugs and check the electrolyte level. If necessary, top up with distilled water.
  - Make sure that the area is well ventilated.
  - Take great care not to touch the red positive (+) clamp against the black negative (-) clamp.
1. Make sure that the ON/OFF switch is in the OFF position.
  2. Connect the red positive (+) clamp to the positive (+) battery terminal first. Take care the clamp does not contact any moving parts or fuel lines.
  3. Connect the black negative (-) clamp to the negative (-) battery terminal or to a suitable earthing point on the vehicle chassis ensuring the connections are firm and secure.
  4. Switch the Jump-start, then the vehicle ignition 'ON' and leave in this condition **FOR APPROX TWO MINUTES**. (This will provide the vehicle battery with a short 'boost' charge to allow for easier starting).
  5. **Switch the ignition to 'start', for NO MORE than 10 seconds.**
    - **If the engine does not start within this time, SWITCH OFF the ignition and wait for at least 4 minutes before trying again 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.**
  6. Once the vehicle has started, turn the jump-start ON/OFF switch OFF.
  7. Once the engine is running, disconnect the earthed clamp **FIRST** i.e. that connected to the chassis or Negative terminal etc, and return it to its

storage position, then disconnect the Positive clamp from the battery terminal, and restore to its storage position.

8. After use, always recharge the jump-start. If the battery is allowed to remain in a discharged state, its life may be shortened.
9. 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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## USING AS A 12VOLT POWER SUPPLY

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The jumpstart has two cigar lighter type sockets located on the front (see page 6), that allows connection via a standard DC connector to other DC electrical equipment/appliance.

**WARNING: Be aware that a fully charged 12V battery can have an output of approx.13.5V. Consult the appliance handbook to ensure it is safe to operate from a 12V battery.**

The table below indicates the approx. operating time from a fully charged battery.

### THE USB CONNECTION

The jumpstart has a USB socket located on the front (see page 6), that allows connection via a standard USB connecting lead to small appliances such as phones/MP3 players.

The USB socket will be live while the work light is on. The USB socket can also be switched on without activating the work light by pressing the switch briefly once.

### ESTIMATED OPERATING PERIOD PROVIDED

Estimated Use	Electrical Appliance
30 hours	Mobile phones
21 hours	Radios, fans
12 hours	Cam-corder, VCR, Spotlight
7 hours	Electrical tools, bilge pump

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## USING THE COMPRESSOR (MODEL 1100C ONLY)

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**WARNING: DO NOT RUN THE COMPRESSOR FOR MORE THAN 10 MINUTES. ALLOW A 10 MINUTE PERIOD TO ELAPSE BEFORE SWITCHING ON AGAIN.**

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For inflating tyres, attach the air hose to the tyre by pushing the connector down firmly on the tyre adapter and locking in place by turning the connector locking lever through 90 degrees.

Switch on the compressor. The gauge will indicate the air pressure in the tyre.

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**CAUTION: THE AIR PRESSURE GAUGE ON THIS PRODUCT IS FOR GUIDANCE ONLY. IT IS IMPORTANT THAT YOU CHECK YOUR TYRE PRESSURE WITH A PRESSURE CERTIFIED GAUGE.**

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Pull out the hose and use one of the adaptors to connect to the accessory being inflated.

- Three adaptors are provided which allow the compressor to be used for inflating air beds, footballs etc.

Select the appropriate adapter and push the threaded end firmly into the air hose connector, locking it in place by turning the connector locking lever through 90 degrees.

Turn on the compressor using the switch and note the pressure displayed on the gauge. Switch off when the item is fully inflated. Do not exceed the duty cycle stated in the specification.



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## USING THE WORK LIGHT

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1. Press the TEST / USB / LAMP button for 3 seconds and release to switch on the work light and enable the USB port. If the battery can deliver less than 10 volts the light and USB port will switch off automatically.
2. Press and release the button again; the work light will flash for alert use.
3. Press and release the button again, the work light will shut off.
4. Recharge the jump starter as soon as possible after extensive use of the work light.



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# MAINTENANCE

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## DAILY CARE

Always ensure the cables & clamps are in good condition and the clamps are clean and corrosion free. If damaged they should be replaced. 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.

Always turn the jump-start OFF during storage and store 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. Your Clarke jump-start 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.

## CHANGING THE BATTERY

1. Unscrew and remove the self tapping screws securing the back cover. Separate the front and rear cases to expose the battery and other components.
2. Lift out the battery from the battery compartment, and detach the heavy duty, and other cables, from the battery terminals.
3. Taking great care not to short across the battery terminals, connect the RED heavy duty cable, and other cable with red sheath, to the battery terminal painted RED, and the black cables to the other battery terminal.
4. Gently slide the new battery into position in its compartment, taking care not to damage the printed circuit board.
5. Replace the back cover and secure with the self-tapping screws.

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## SPARE PARTS

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Spare parts are available as follows		Part Number
1	Positive Battery Connection Lead	GWJS110001
2	Lamp Bezel	GWJS110002
3	Lamp Lens	GWJS110003
4	230 Volt Charger assembly	GWJS110004
5	Negative Battery Connection Lead	GWJS110005
6	Battery (12V/17AH	GWJS110006
7	Cigar Lighter Adaptor Lead	GWJS110007

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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.

# DECLARATION OF CONFORMITY



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Hemnall Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

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

2014/30/EU *Electromagnetic Compatibility Directive.*

2014/35/EU *Low Voltage Equipment Directive.*

2011/65/EU *Restriction of Hazardous substances.*

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

*EN 61000-6-1:2007, EN 61000-6-3:2007+A1:2011, EN 55014-1:2006+A1+A2,*

*EN 55014-2:1997:2015, EN 61000-3-2:2014, EN 61000-3-3:2013,*

*EN 60335-1:2002+A11+A11, BS EN 60335-2-29:2004+A2, EN 62233:2008*

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

The CE mark was first applied in: 2006

**Product Description:** Jumpstarters 18AH with and without Compressor

**Model number(s):** JS1100C and JS1100

**Serial / batch Number:** n/a

**Date of Issue:** 01/03/2017

Signed:

**J.A. Clarke**  
Director

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