

# Clarke®



## INVERTER/GENERATOR

MODEL NO: IG1700F

PART NO: 8877095

## OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

DL1225 - ISS 2

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## **INTRODUCTION**

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Thank you for purchasing this CLARKE Inverter Generator.

Please read this manual thoroughly before attempting to operate this product and carefully follow all instructions given.

It is vitally important that ALL precautions are taken as specified, which will not only provide protection for yourself and that of others around you, but will also ensure that the generator will give you long and satisfactory service.

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## **GUARANTEE**

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This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt 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.

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## **ENVIRONMENTAL RECYCLING POLICY**

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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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**WARNING: EXHAUST FUMES CAN BE EXTREMELY DANGEROUS IF INHALED**

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## WORK AREA

1. **Always** use in a well ventilated area.
2. **Always** position the exhaust outlet away from people.
3. **Never** use indoors or in a confined space.
4. Read these safety instructions before using the equipment.
5. Keep children away from the generator.

## POSITIONING THE GENERATOR

1. **Always** leave a least a 1m gap between the generator and any surrounding building or structures.
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.

## FIRE PREVENTION

1. **Always** switch the engine OFF when refuelling.
2. **Always** refuel away from any source of heat.
3. **Always** refuel in a well ventilated area.
4. Only use standard unleaded petrol.
5. **Never** smoke whilst refuelling and avoid smoking or using a naked flame near the generator.

## 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.

## ADDITIONAL SAFETY RULES FOR GENERATORS

1. **Always** ensure 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** ensure the generator reaches 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. **Do Not** connect to a commercial or residential power supply e.g. ring main.
7. **Never** allow the generator air vents to become blocked.

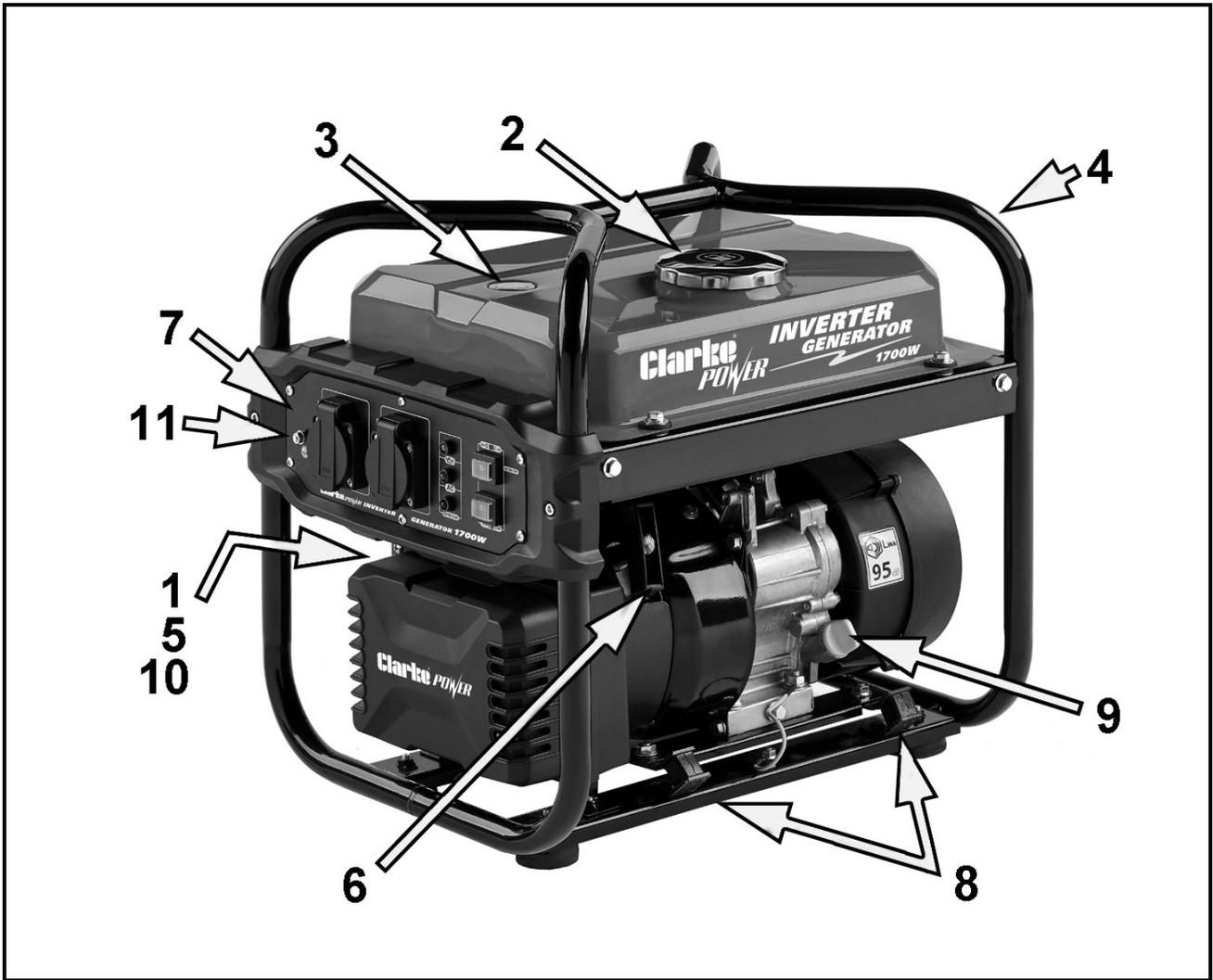
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## SAFETY SYMBOLS

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	Read Instruction manual before use		Flammable
	Caution - The user should be aware of a general hazard		Hot Surface - Do not touch
	Dangerous voltage		Poisonous fumes - Do not use the generator in an enclosed space.

# GENERATOR OVERVIEW



NO	DESCRIPTION	NO	DESCRIPTION
1	Fuel Supply Valve (at the rear)	7	Control Panel
2	Fuel Cap	8	Anti-vibration Feet
3	Fuel Level Gauge	9	Oil Dipstick
4	Frame	10	Choke Lever (at the rear)
5	Air Filter (at the rear)	11	Earth Point
6	Starting Handle		

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## UNPACKING AND ASSEMBLY

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Unpack your generator and check to ensure the following items are present. Should there be any deficiency or damage caused during transit contact your Clarke dealer immediately.

- Spark plug box spanner
- Tommy bar
- Oil Funnel

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## BEFORE USING THE GENERATOR

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Attach a suitable earth lead to a good earthing point - water pipe, ground spike etc., whenever you use this generator.

Before using your generator check that it is:

- in good condition and free from damage.
- clean and free from fuel or oil spillage.
- correctly located for use (See page 3).
- the fuel system is intact and there are no leaks.

**NOTE:** Always use a funnel to fill the fuel tank to avoid accidental spillage. If fuel is spilled it must be cleaned up before use.



**WARNING: ENSURE THERE IS ADEQUATE FUEL IN THE TANK WHEN USING THE GENERATOR. RUNNING OUT OF FUEL OR STOPPING THE ENGINE SUDDENLY WITH A LOAD CONNECTED TO IT COULD CAUSE SERIOUS DAMAGE.**

- ***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.

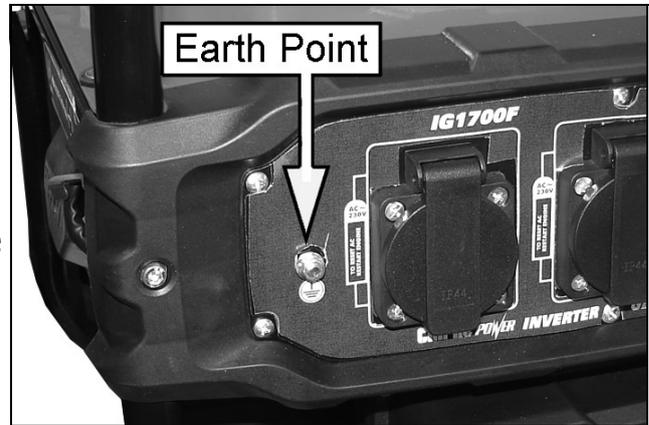
## EARTH POINT



**WARNING: FAILURE TO PROPERLY GROUND THE GENERATOR CAN RESULT IN ELECTROCUTION.**

1. Earth the generator by connecting a suitable grounding wire to the earth point.

**NOTE:** Connect the other end of the earthing wire to a copper or brass grounding rod that is driven into the ground.



## CHECKING THE ENGINE OIL

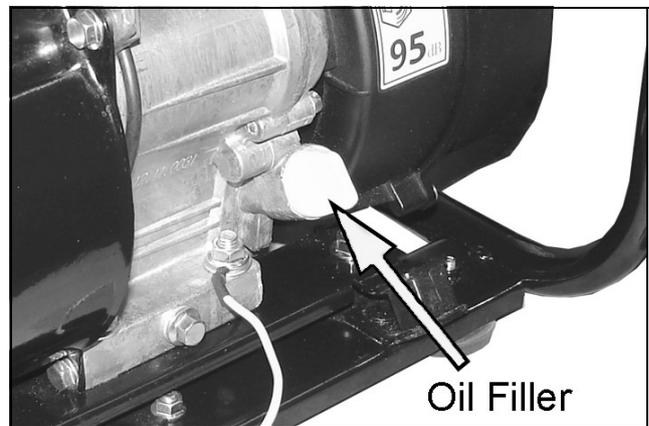


**WARNING: TO CARRY OUT THIS CHECK, PLACE THE GENERATOR ON LEVEL GROUND WITH THE ENGINE SWITCHED OFF.**

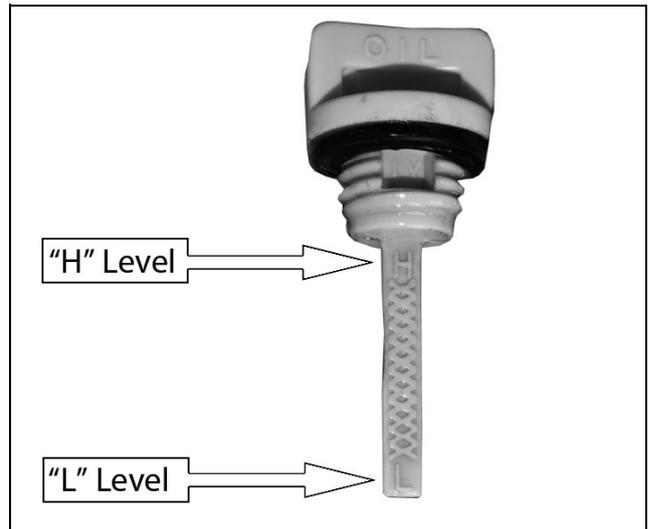
**WARNING: TAKE CARE NOT TO TOUCH ANY HOT PARTS OF THE GENERATOR WHEN CHECKING THE OIL LEVEL.**

### LEVEL

1. Turn the dipstick anti-clockwise and remove from the oil filler tube.
2. Wipe the dipstick with a clean cloth.
3. Insert the dipstick back into the oil filler tube and then remove it again. Do not screw in the oil filler cap/ dipstick when doing this.

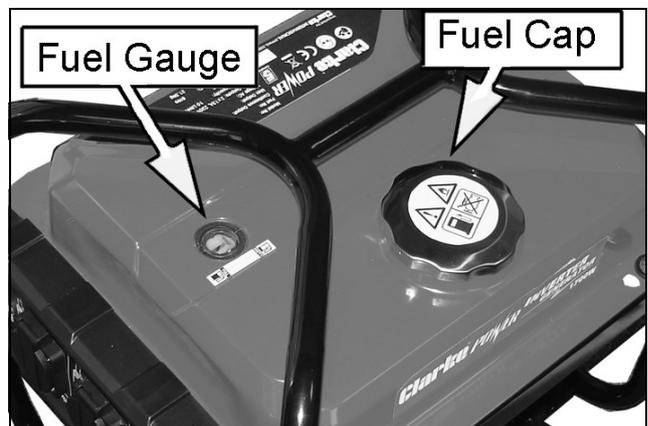


4. If the oil level is at or below the 'L' mark on the dipstick, add oil to the crankcase.
  - Fill until the oil reaches the threads in the oil fill tube.
  - Oil capacity is 0.36L.
  - We recommend the use of SAE10W-30 oil (Part No: 3050845) in this generator. available from your Clarke dealer.
5. Replace the oil filler cap.



## CHECKING THE FUEL LEVEL

1. Check the fuel level on the fuel gauge.
2. To add fuel, open the fuel filler cap.



3. Check the filter is free of any trapped debris.
4. Slowly add fuel to the fuel tank (maximum 10L) watching the fuel level gauge as you do so.



**NOTE:** Do not overfill the fuel tank.

### RECOMMENDED FUEL

We recommend the use of standard unleaded petrol.



**WARNING: ALWAYS REFUEL IN A WELL VENTILATED AREA AWAY FROM ANY HEAT SOURCES.**

**WARNING: ALLOW THE UNIT TO COOL DOWN BEFORE REFUELLING.**

**WARNING: DO NOT LEAVE FUEL WITHIN THE REACH OF CHILDREN.**

5. Replace the fuel filler cap securely.

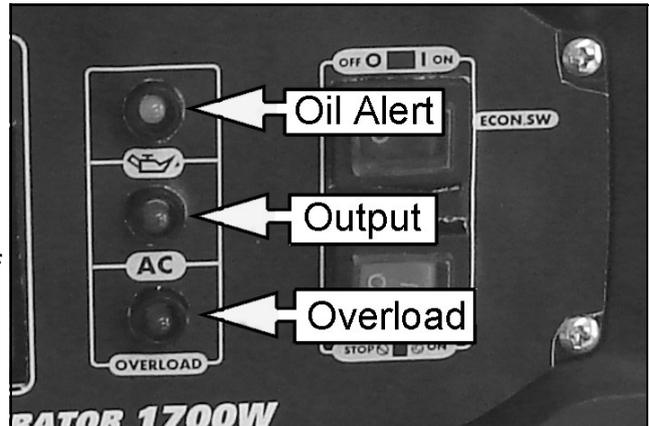
# INDICATOR LIGHTS

## OUTPUT

The output indicator (Green) will remain illuminated whenever the generator is producing power.

## OVERLOAD

The overload indicator (Red) will light up if there is an overload or a short circuit in the connected appliance. If this happens proceed as follows:



1. Turn off any connected electrical devices and stop the engine.
2. Reduce the total wattage of connected electric devices to within the rated output of the generator.
3. Check air inlet and around the control unit. If any obstructions are found, remove them.
4. After checking, restart the engine.

## OIL ALERT

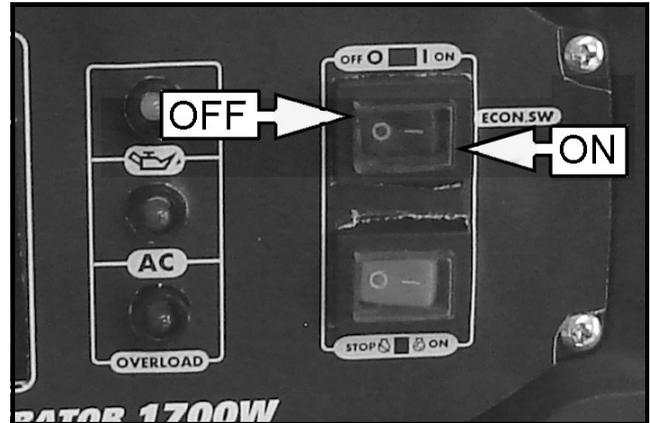
The oil alert indicator (Yellow) will light up when the oil level is low.

- To add oil, follow the instructions on page 7.

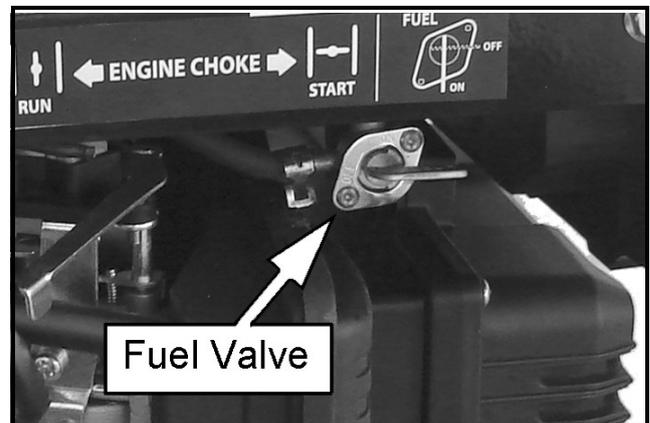
# USING YOUR GENERATOR

## STARTING THE ENGINE

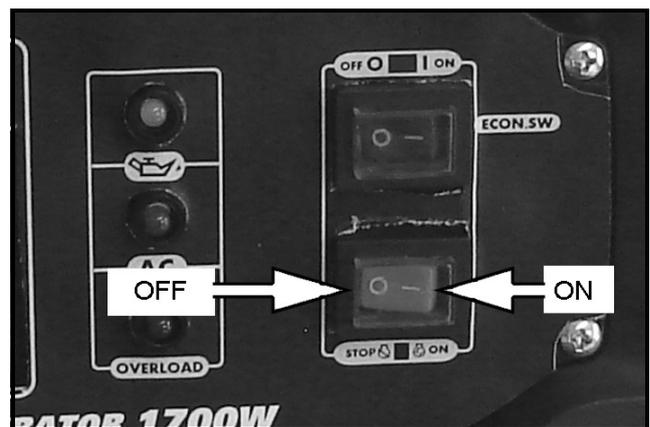
1. Remove all connections from the AC sockets.
2. Set the ECON switch to 'OFF'.



3. Set the fuel valve to the ON position as shown.



4. Set the engine switch to 'ON'.

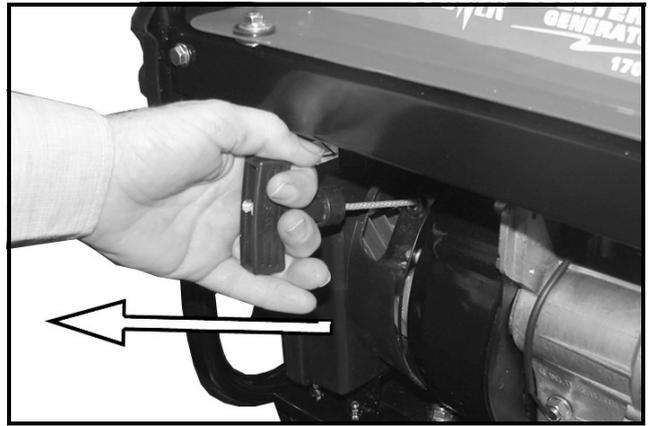


5. Move the choke to the 'START' position.

**NOTE:** Not required if the engine is already warm.

6. Hold the generator steady and pull the starting handle lightly until you start to feel resistance. Then pull sharply to start the engine.

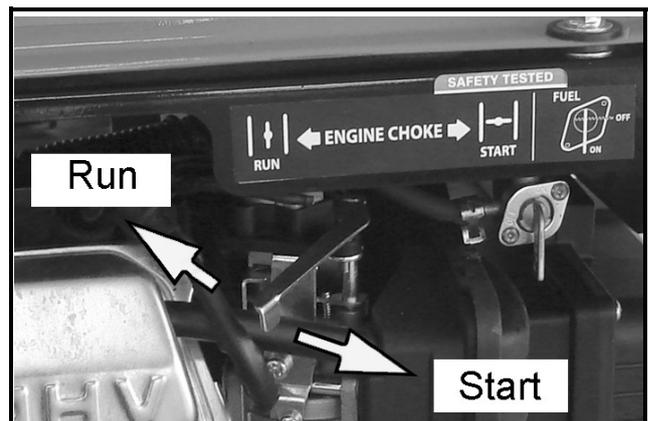
**NOTE:** You may have to do this more than once.



**WARNING: ONCE THE GENERATOR HAS STARTED, RELEASE THE STARTING HANDLE SLOWLY TO AVOID INJURY/DAMAGE AS IT RECOILS.**

**NOTE:** When you first start the generator, the overload indicator may light up for a few seconds, which is normal. If the overload indicator is still lit after 5 seconds, stop the engine and contact your Clarke dealer.

7. Once the engine has warmed up, move the choke to the "run" position.



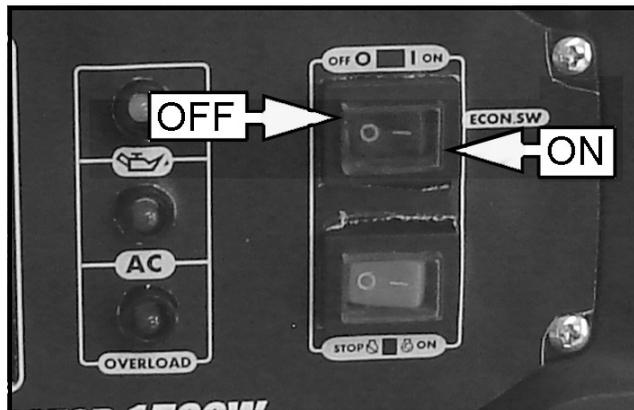
## ECONOMY SWITCH

### ON:

Minimizes fuel consumption and reduces noise levels when no load is applied to the generator. Engine speed varies with the load.

### OFF:

The smart throttle system does not operate.



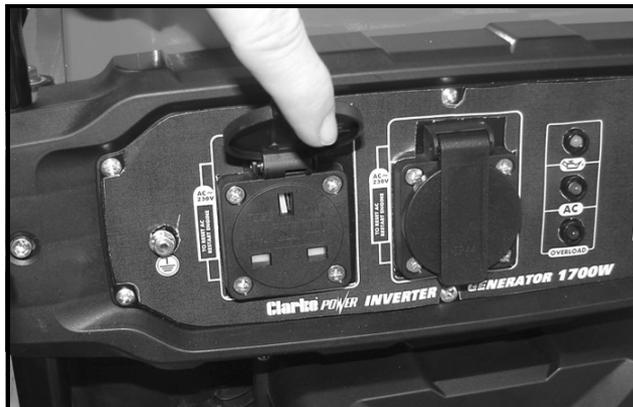
CAUTION: THE ECONOMY CONTROL DOES NOT WORK EFFECTIVELY IF THE ELECTRICAL APPLIANCE REQUIRES 'BURSTS' OF POWER.

CAUTION: TURN THE ECONOMY CONTROL FEATURE OFF WHEN CONNECTING HIGH LOAD APPLIANCES.

## CONNECTING ELECTRICAL APPLIANCES

The generator can supply only 230V AC.

1. Start the engine. See page 10.
2. Connect your appliance to the generator.
  - Make sure the appliance is turned off before connecting it to the generator.



CAUTION: MAKE SURE THAT THE APPLIANCE BEING CONNECTED IS IN GOOD WORKING ORDER. IF IT BEGINS TO ACT ABNORMALLY OR STOPS SUDDENLY, DISCONNECT IT FROM THE GENERATOR

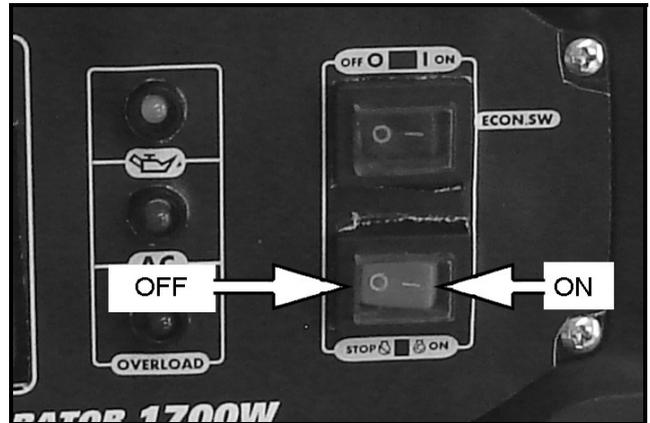
CAUTION: MAKE SURE THE APPLIANCE DOES NOT EXCEED THE MAXIMUM RATED LOAD FOR THE GENERATOR.

CAUTION: ANY DEVICE WHICH CONTAINS AN INDUCTIVE LOAD E.G. DEVICES THAT CONTAIN A MOTOR MAY REQUIRE MORE CURRENT ON STARTUP.

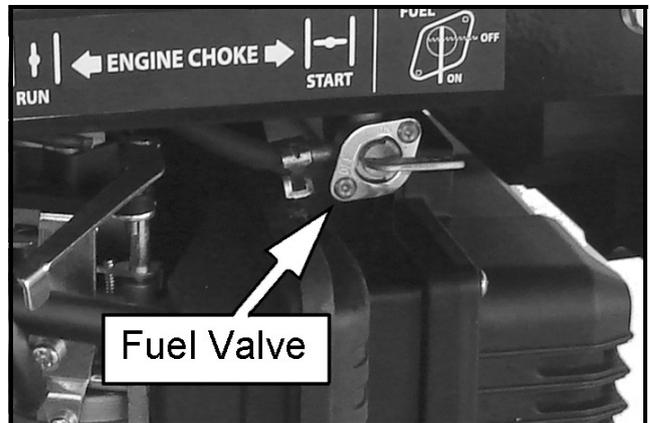
## SHUTTING DOWN THE GENERATOR

To stop the generator immediately simply set the engine switch to 'OFF'.

1. Turn off and disconnect any electric appliances.
2. Set the engine switch to the "0" (OFF) position.



3. Set the fuel valve to the OFF position shown on the panel.



# MAINTENANCE

## CHANGING THE ENGINE OIL



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

The engine oil should be changed after roughly 25 hours of running as follows:

1. Unscrew and remove the oil filler cap/dipstick.

2. Place an oil collection tray under the drain plug.

3. Unscrew the drain plug and allow the used engine oil to drain from the crankcase into the oil collection tray.

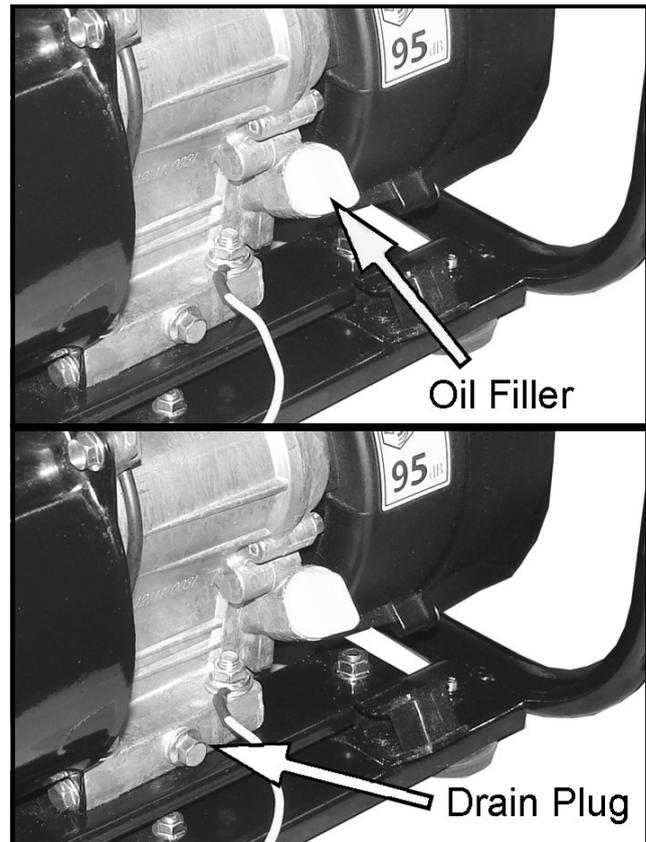
**NOTE:** Drain the engine oil when the engine is warm to ensure the oil flows out faster.

4. Replace the drain plug.

5. Fill the crankcase with engine oil.

- Fill until the oil reaches the threads in the oil filler.
- Total oil capacity 0.36L.
- We recommend the use of SAE10W-30 oil (Part No: 3050845) in this generator, available from your Clarke dealer.

6. Replace the cap/dipstick.



## ENVIRONMENTAL PROTECTION

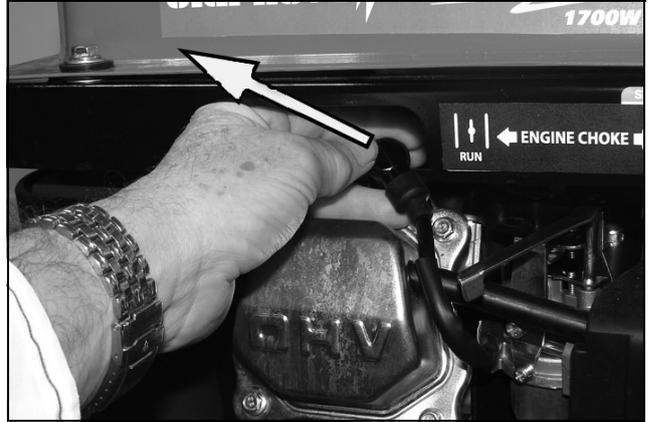
One of the most damaging sources of pollution is oil. Do not throw away used engine oil in with your domestic rubbish or pour it down drains and sinks. Place it in a leak proof container and take it to your local waste disposal site.

## CHANGING THE SPARK PLUG



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

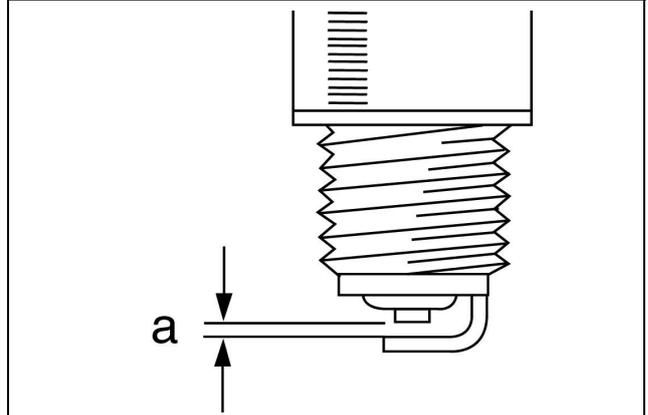
1. Remove the spark plug cap from the spark plug.



2. Use the spark plug spanner supplied to remove the spark plug.
3. Remove any carbon that has accumulated around the electrode.



4. Check the spark plug gap (a), it should be between 0.7 and 0.8 mm. Adjust if necessary.
5. Check the overall condition of the spark plug for erosion or pitting and replace if necessary.
6. Reinstall the spark plug and reattach the spark plug cap and lead.



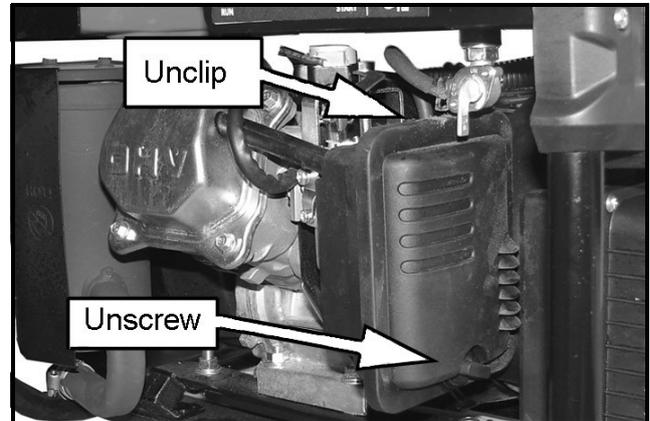
## CHECKING THE AIR FILTER



**CAUTION: DO NOT USE THE GENERATOR WITHOUT THE AIR FILTER FITTED, THIS CAN DAMAGE THE ENGINE.**

After roughly 10 hours of running, (dependent on the working conditions), the air filter should be cleaned as follows:

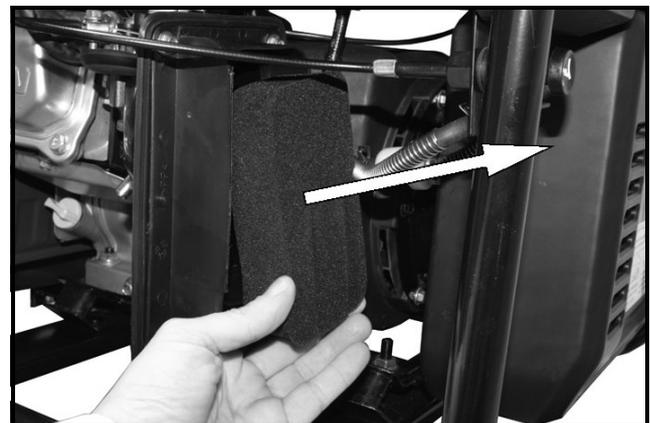
1. Unscrew the retaining knob from the bottom of the air filter cover and lift it off the clips at the top.



2. Remove the air filter element.

3. Make sure that the air filter is clean and not damaged.

- If the air filter is damaged contact Clarke spare parts department for a replacement.
- If the filter is dirty, wash in a solution of warm water and mild detergent and rinse thoroughly. Leave the filter to dry completely.



Once it is dry, immerse in clean engine oil and squeeze to remove excess oil.



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

4. Replace the filter to its original position and replace the air filter cover.

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The generator fails to start	Ignition switch is off.	Set the ignition switch to 'on'.
	Not enough oil in the generator.	Add more oil. See page 7.
	No fuel.	Add more fuel. See page 8.
	Spark plug not working correctly.	Change the spark plug. See page 15.
The generator fails to generate electricity	The device you are trying to power is faulty.	Make sure the device you want to power is working properly.
	The AC breaker is switched off.	Switch the AC breaker on.
The generator is difficult to start	The air filter is dirty.	Clean the air filter.
	The fuel filter is blocked.	Clean the fuel filter.

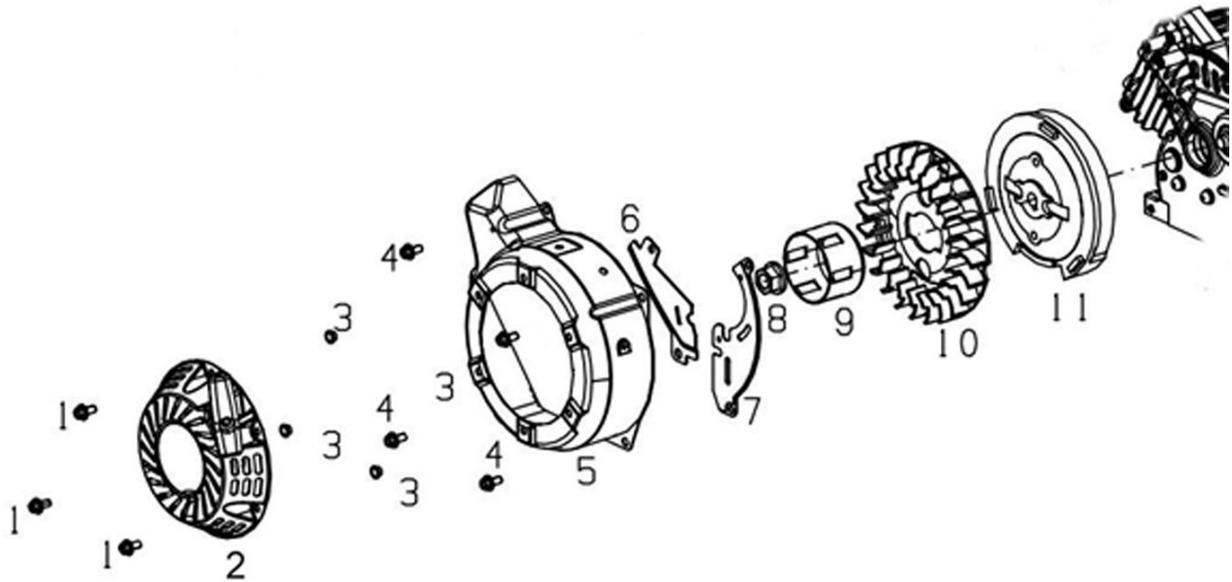
If this does not solve your problem, please contact the Clarke service department.

# SPECIFICATIONS

		<b>IG1700F</b>
Engine	Engine Model	QL160
	Fuel Type	Unleaded Petrol (RON95)
	Displacement (cm <sup>3</sup> )	119
	Start system	Hand recoil
	Fuel tank capacity (L)	10
	Fuel consumption (L/hr.)	357g/kw.h
	Maximum runtime(h)@75%Load	8
	Engine oil type	SAE10W-30
	Engine oil capacity (L)	0.36
	Guaranteed sound power(LWAdB)	95
Generator	Rated Frequency (Hz)	50
	AC Output Voltage (V)	230
	Rated Output (A)	7.01
	Max. Power (W)	1700
Dimensions	Length (mm)	460
	Width (mm)	380
	Height (mm)	440
	Unpacked Weight (kg)	21.5

# PARTS LISTS AND DIAGRAMS

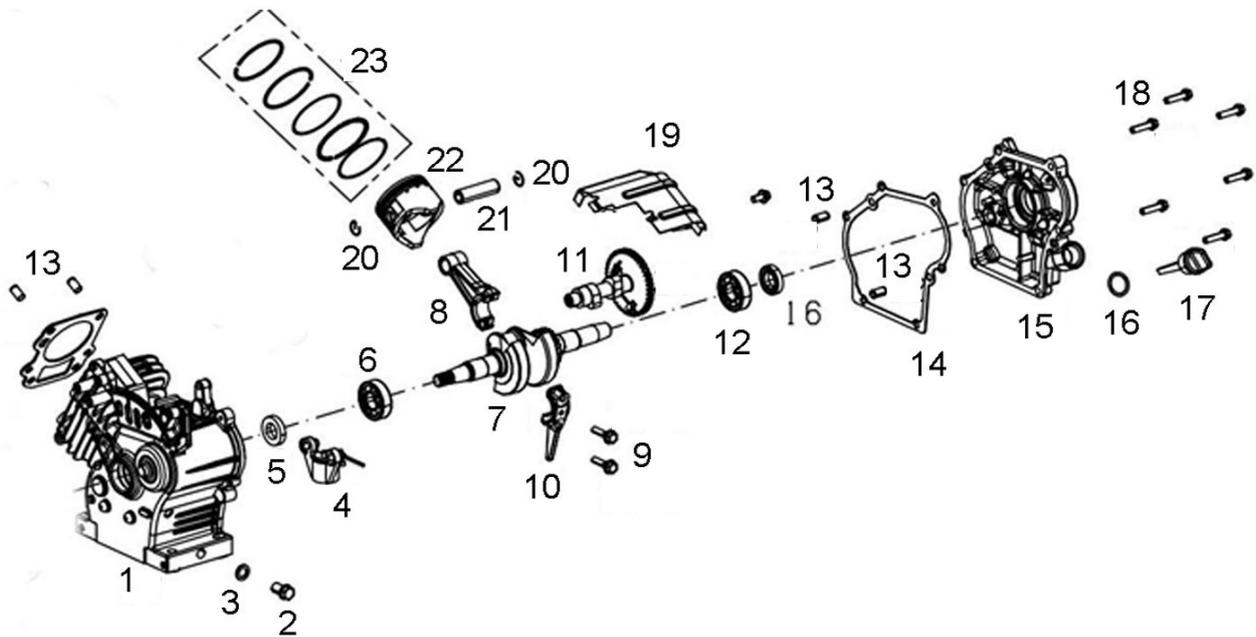
## ENGINE ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Flange Bolt M6	3
2	Recoil Starter Assembly	1
3	Bushing 11mm	4
4	Flange Bolt M6	4
5	Engine wind shield	1
6	Engine front shield	1

ITEM	DESCRIPTION	Qty
7	Engine side shield	1
8	Nut M12	1
9	Starter Drum	1
10	Ignition Coil fan	1
11	Flywheel	1

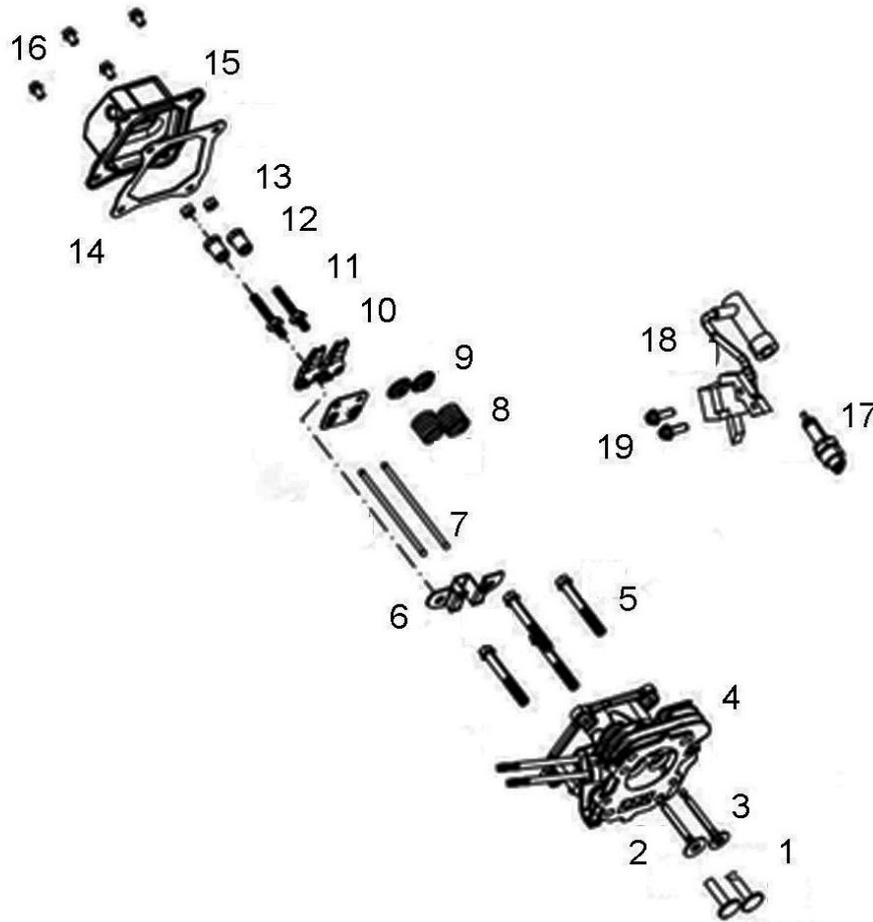
# CRANKCASE ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Crankcase	1
2	Oil drain plug	1
3	Aluminium Washer	1
4	Oil Sensor	1
5	Oil Seal	1
6	Bearing	1
7	Crankshaft	1
8	Connecting Rod	1
9	Big-end Bolt	2
10	Big-end Cap	1
11	Camshaft	1
12	Bearing	1

ITEM	DESCRIPTION	Qty
13	Alignment Pin 8mm	3
14	Gasket	1
15	Crankcase Cover	1
16	Oil Dipstick Seal	1
17	Dipstick	1
18	Flange Bolt M6	6
19	Heatshield	1
20	Circlip	2
21	Gudgeon Pin	1
22	Piston	1
23	Piston Ring (Set)	1

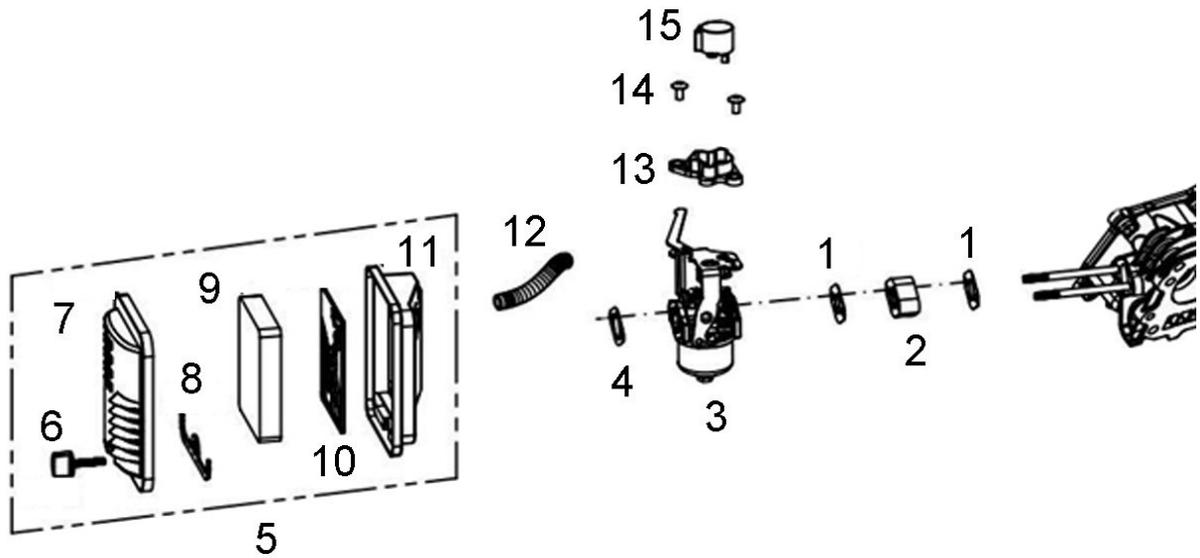
# CYLINDER HEAD ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Tappet	2
2	Inlet Valve	1
3	Exhaust Valve	1
4	Cylinder Head	1
5	Flange Bolt M8	4
6	Cylinder Head Plate	1
7	Push Rod	2
8	Valve Spring	2
9	Valve Spring Seat	2
10	Base	1

ITEM	DESCRIPTION	Qty
11	Stud	2
12	Guide	2
13	Nut	2
14	Head Gasket	1
15	Cylinder Head Cover	1
16	Flange Bolt M6	4
17	Spark Plug	1
18	High Voltage Lead	1
19	Flange Bolt M6	2

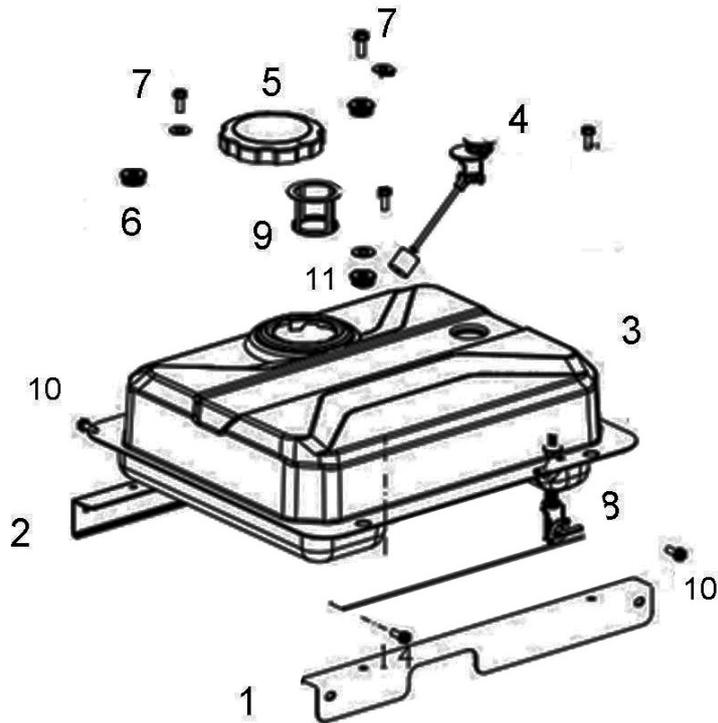
# CARBURETTOR ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Gasket	2
2	Insulation Pad	1
3	Carburettor Assembly	1
4	Air Filter Gasket	1
5	Air Filter (complete)	1
6	Wing Nut	1
7	Filter Front Cover	1
8	Filter Pad	1

ITEM	DESCRIPTION	Qty
9	Filter Sponge	1
10	Metal Mesh	1
11	Filter Backplate	1
12	Vent Pipe	1
13	Jointing (cyl head)	1
14	Fixing	2
15	Stepper Motor	1

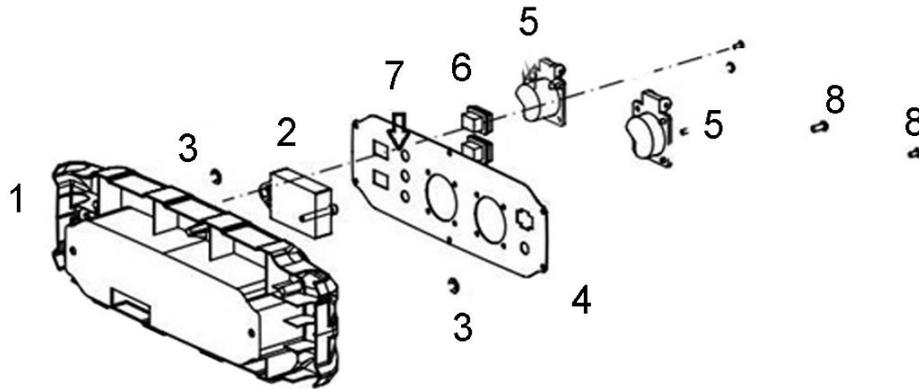
## FUEL TANK ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Left Frame	1
2	Right Frame	1
3	Fuel Tank	1
4	Fuel Level Gauge	1
5	Filler Cap	1
6	Rubber Washer	4

ITEM	DESCRIPTION	Qty
7	M6 Flange Bolt	4
8	Fuel Switch	1
9	Fuel Filter	1
10	Flange Bolt	4
11	Sealing Ring	4

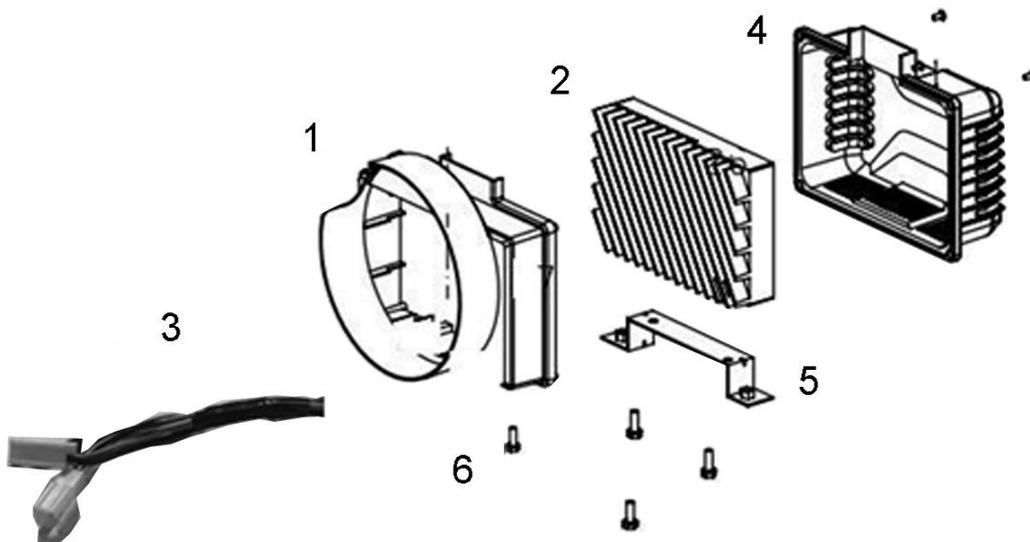
## CONTROL PANEL ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Control Panel Box	1
2	Limit Speed Bar	1
3	M5 Nut	2
4	Control Panel	1

ITEM	DESCRIPTION	Qty
5	3-pin Power Socket	2
6	Rocker Switch (red/black)	2
7	Indicator Light	3
8	Screw	4

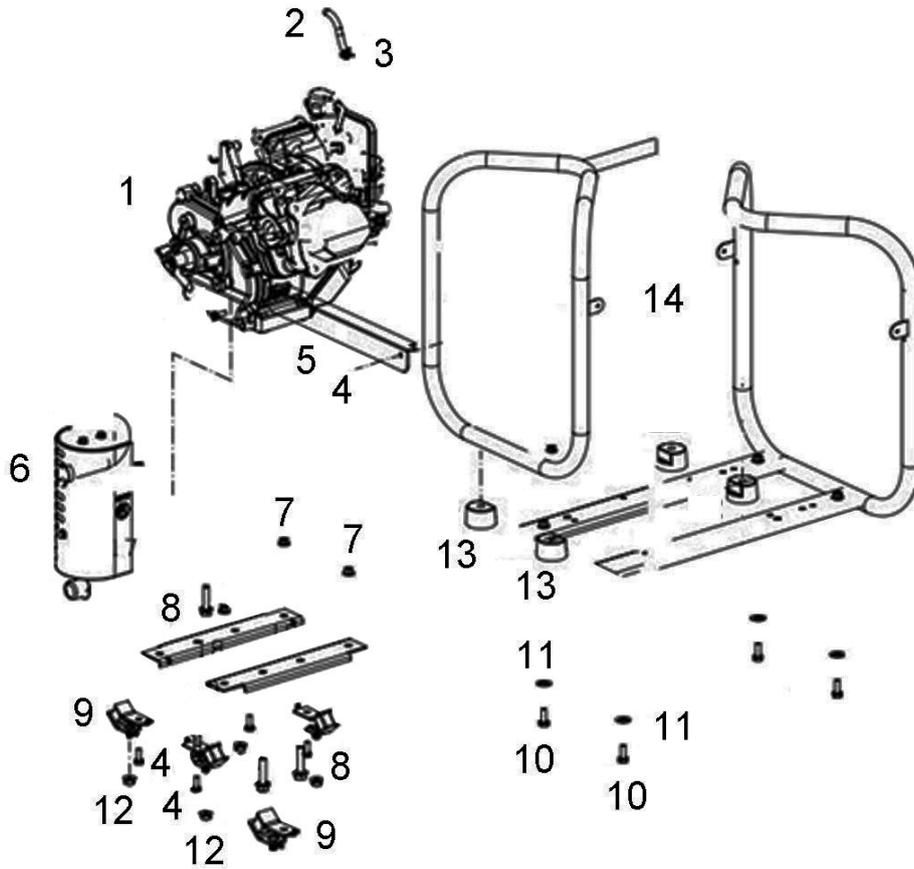
## INVERTER/COVER



ITEM	DESCRIPTION	Qty
1	Rear Cover	1
2	Inverter Unit	1
3	Wiring harness	1

ITEM	DESCRIPTION	Qty
4	Inverter Board Cover	1
5	Support	1
6	Screw	4

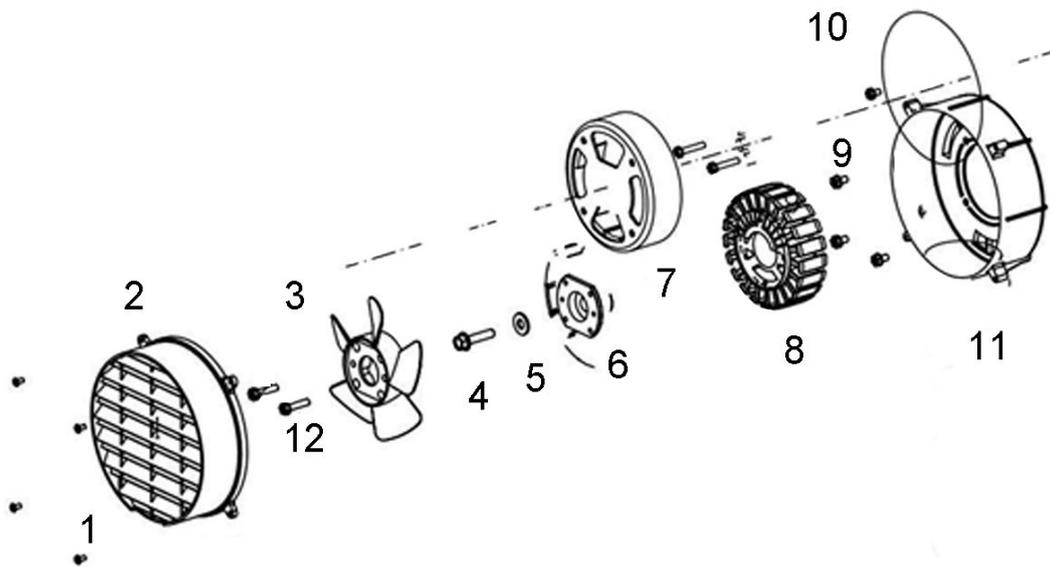
# FRAME ASSEMBLY



ITEM	DESCRIPTION	Qty
1	Engine Assembly	1
2	Fuel Pipe	1
3	Pipe Clip	1
4	Flange Bolt M6	8
5	Rear Panel	1
6	Muffler	1
7	Nut	4

ITEM	DESCRIPTION	Qty
8	Flange Bolt M8	4
9	Anti-vibration Mount	4
10	Flange Bolt M6	4
11	Washer	4
12	Flange Nut M6	4
13	Rubber Foot	4
14	Frame	1

# ROTOR/STATOR



ITEM	DESCRIPTION	Qty
1	Self-Tapping Screws	4
2	Fan Cover	1
3	Fan	1
4	Bolt	1
5	Washer	1
6	Mounting Flange	1

ITEM	DESCRIPTION	Qty
7	Stator	1
8	Rotor	1
9	Flange Bolt	4
10	Sealing Ring	1
11	Rear Cover	1
12	Flange Bolt	4

# DECLARATION OF CONFORMITY



Hemnell Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

**Product Description:** 1700W Inverter Generator  
**Model number(s):** IG1700F  
**Serial / batch Number:** 8877095  
**Date of issue:** 14/11/2018  
*(Noise Conformity)*  
**Notified Body:** TUV SUD Industrie Service GmbH  
Westendstrasse 199  
80686 Munchen  
Germany

**Technical Documentation Holder:** Alan Pond  
Clarke International  
2a Shrubland Road  
London E10,7RB  
UK

**Conformity Assessment Procedure:** to 2000/14/EC Annex VI  
**Manufacturer:** Clarke International  
**Noise Related Value:** 1.96 kW  
**Measured Sound Power Level:** 93 dB  
**Guaranteed Sound Power Level:** 95 dB

IG1700F 1.7KW Generator.DOC (v.0)

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Hemnell 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.*  
2006/42/EC *Machinery Directive.*  
2000/14/EC *Noise Emissions Directive, (amended by 2005/88/EC).*  
2016/1628 *Regulation (EU), gaseous and particulate pollutant emission limits.*

**The following standards have been applied to the product(s):**  
EN 55012:2007+A1:2009, EN 61000-6-1:2007, EN 1679-1:1998+A1:2011, EN 60204-1:2006+A1:2008.

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: 2018

Signed:

  
J.A. Clarke  
Managing Director

IG1700F 1.7KW Generator.DOC (v.0)

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# A SELECTION FROM THE VAST RANGE OF

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