

ATTENTION!

Important safety precautions and instructions

Do not operate the generator before reading this manual, engine manufacturer's owner's manual and warnings.

This Stephill generator has been designed to provide safe and efficient service if operated and maintained correctly.

Many accidents occur through failure to adhere to fundamental safety procedures.



Warning! Indicates a hazard or unsafe practice which CAN result in injury or death.



Danger! Indicates electrical hazards which CAN result in severe injury or death.

i - Electric Shock



Generators are a potential source of **electric shock**, which can cause severe injury or even death. They should be treated with the same care that you would apply to a mains supply.



Do not operate the generator with wet hands, or while wearing wet clothing.



Due to the risk of electric shock, do not operate the generator in wet weather or in wet conditions where it may come into contact with water.



Do not connect the generator to any external electrical system. You risk endangering personnel and damaging the generator.

ii - Fire



Fuels and lubricants are a potential source of **fire**. Never re-fuel the generator while it is running, while smoking, or near any naked flame or source of ignition. Petrol is highly flammable, and is explosive under certain conditions.

ii - Fire *continued*



Do not cover, enclose, or obstruct the airflow to the generator during or shortly after use as this may cause a **fire hazard** or damage to the generator from overheating. Allow the generator to cool before storing away.



Ensure that suitable fire extinguishers (AFFF or CO₂) are kept within proximity to the generator.

iii - Hot Parts



There is danger of **burns** as parts of the generator will become very hot during use. No part of the engine, alternator or exhaust must be touched during or shortly after operation.



Do not operate the generator unless all guards are in place. There is a risk of burns or serious mechanical injury.

iv - Asphyxiation

There is a danger of **asphyxiation** due to exhaust gases. Inhalation of poisonous exhaust fumes can lead to serious injury or death. The generator must not be used in a poorly ventilated or enclosed area.

v - Fuel and Oil

Fuels and lubricants, in particular unleaded petrol and used engine oil, are potentially **carcinogenic**. Direct contact should always be avoided by wearing suitable rubber gloves when handling them.

vi - Other hazards

Be aware of the weight of the generator. Do not attempt to lift or move the generator without the assistance of other personnel or a mechanical lifting device capable of lifting the weight safely.

vi - Other hazards *continued*

- Do not service or work on the generator while wearing loose clothing.
- Keep well clear of moving parts on the generator at all times.
- Children and pets must be kept clear of the operating area.
- Installation of the generator as a standby or secondary power source should only be undertaken by a fully qualified electrician using the appropriate means of isolation from the mains supply. Installation must comply with all applicable laws and electrical codes.
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Stephill Generators Ltd stress that the ultimate responsibility for the safe use of the generator rests with the user.

Generator earthing

Stephill manufacture generators that use either a floating earth or a Neutral bonded to earth.

Generator with floating earth

There is no connection between the chassis and/or earth connection of the socket-outlet of the unit to the neutral of the generator winding, or a neutral bonded to earth. The earth of the socket-outlet(s) are connected to the frame of the generator only. An RCD will not provide protection on circuits without a neutral bonded to earth.

Generator with Neutral bonded to earth

The earth connections of the socket-outlets at the generator are connected to the neutral of the generator winding in addition to the chassis or frame of the generator. A 30 mA RCD is fitted for all circuits supplied in this manner.

Information on the chassis connection type for any particular generator can be obtained from Stephill Generators' website.

For further guidance on the use of generators in temporary electrical installations please refer to, HSE Website, Eighteenth Edition Wiring Regulations BS 7671:2018 or an electrician.

1 - Pre-start Checks

- i - Position**
Ensure that the generator is positioned on a level base in a well-ventilated or "open" environment, with at least 2 metres of clearance from any building or other obstruction on each side.
- ii - Signs of damage**
Inspect the generator visually for signs of faults or damage.
- iii - Engine oil level**
Check the engine fluids and fill as required in accordance with the engine manufacturer's instructions found in the operating manual.

- iv - Plug ratings**
Ensure that the correct voltage and rating of plug is used to match the output socket.

e.g. 240v/16A BS4343 (IEC 60309) (BLUE) plug to suit 240v/16A BS4343 (IEC 60309) (BLUE) socket outlet
- v - Output**
Check that the generator output is suitable (kVA/kW) for the application/appliance. Ensure that the generator is compatible. The performance of the generator may require down-rating if it is used in higher than normal ambient temperature conditions.

2 - Starting Engine and Operation

- i** - Follow the engine starting procedure in accordance with the engine manufacturer's operator manual / handbook supplied with the generator. Ensure that the correct sequence for starting the engine is observed at all times. Pay attention to the specific safety warnings within the manufacturer's handbook.
- ii** - Ensure that any appliance, tool or other load is disconnected from the generator before starting, to avoid any equipment accidentally being turned on, or damage being caused to the engine or alternator.
- iii** - The generator is factory pre-set in accordance with the nameplate data. Do not attempt to adjust or move the engine throttle or governor mechanism, even when stopping or starting the generator.
- iv** - Observe and adhere to any particular manufacturer's instructions with regard to "running in" the engine.

Note: *Do not use the choke if the engine is warm or the air temperature is high.*
- v** - Turn the engine switch to the START position and hold it there for 5 seconds or until the engine starts. When the engine starts, return the switch to the ON position. *(Only relevant to engines with electric start)*

Note: *Do not use the electric starter for more than 5 seconds at a time. If the engine fails to start, release the key and wait 10 seconds before operating the starter again.*

3 - Stopping the Engine

- i** - Ensure that the electrical load is switched off and the voltage changeover switch (if fitted) is in the centre "zero" position, and disconnect the electrical plug from the generator output socket prior to attempting to stop the engine. Failure to do so may cause damage to the alternator.
- ii** - Turn the engine switch to the OFF position.

4 - Service and Maintenance *continued overleaf*

- i** - The owner or operator of the Stephill Generator is fully responsible for all servicing. It is important to keep the generator clean and well serviced, in particular keep all air vents / louvres clear of debris to prevent poor performance or possible overheating and permanent damage to the generator.

4 - Service and Maintenance *continued*

ii - Warnings and other markings on the machine should be regularly checked for legibility. Any that have become damaged or defaced should be replaced.

iii - The integral lifting beam and associated lifting eye on the generator should be regularly checked for signs of damage or gross corrosion.

iv - Engine

Service the engine strictly in accordance with the instructions given in the relevant operator manual / handbook. An approved specialist must carry out

any maintenance. Any spare parts required should be of genuine manufacturer's origin. Note: failure to adhere to the manufacturer's recommended service schedules may invalidate the warranty.

v - Alternator

Brushless alternators employed on Stephill Generators are maintenance free. Brush type alternators should be serviced in accordance with the manufacturer's manual / handbook. Maintenance must be carried out by competent qualified personnel. Any spare parts required should be of genuine manufacturer's origin.

5 - Long Term Storage

i - For storage or long periods of inactivity, Stephill Generators recommend the following:

- Petrol generators should be stored with oil filled to the correct capacity, but without fuel as unleaded petrol has a limited shelf life.
- Storage periods of 18 months and over may require special lubricants and treatments. If so, please seek further advice from the engine manufacturer.
- Before the generator is used after long term storage, all fuels and oils should be replaced.

ii - Batteries on electric start generators should be disconnected and removed from the generator. This operation should only be carried out by a competent engineer. Batteries should be stored in a dedicated area according to the manufacturer's recommendations. Both terminals should be insulated to prevent accidental arcing. Refer to the engine operator manual / handbook for service and maintenance.

iii - Generator mounts, pipes and hoses should be checked to ensure that they are un-perished following extended periods of storage.

iv - The generator should be stored in a clean, dry area, ideally having a reasonable constant ambient temperature, and ideally not below freezing.

If your Stephill Generator is operated within the given recommendations, serviced regularly in accordance with the manufacturer's instructions, and not unduly misused or abused, then it will give long and trouble-free service.

Stephill Generators have service and technical staff who are always available to assist with any enquiries, and give advice.

If in doubt, ask!