

# PETROL GENERATOR

OWNER'S MANUAL

SPG2200, SPG3000, SPG6500



FOR YOUR SAFETY  
PLEASE READ THESE INSTRUCTIONS CAREFULLY  
AND RETAIN THEM FOR FUTURE USE.



## WARRANTY

This generator is covered by a 24 month warranty from the initial date of purchase. This is a domestic warranty provided directly by SGS Engineering. Please keep a receipt of your purchase as this may be required as proof of purchase.

You will invalidate your warranty if the product is found to have been misused, tampered with, modified, overloaded or used for a commercial application for which it was not designed. The warranty will also be rendered invalid if the maintenance procedure has not been followed.

You must contact SGS Engineering prior to returning any product. This warranty does not effect your statutory rights.

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## GENERATOR SAFETY



Only use outdoors.



Never use during wet conditions.



Do not smoke whilst handling fuels.



In emergency, switch engine switch to 'off'.



Always operate on level ground!



If in doubt about anything, contact us on  
(+44) 01332 576 850.



Always consult this manual for effective product knowledge.

## EXHAUST GAS PRECAUTIONS



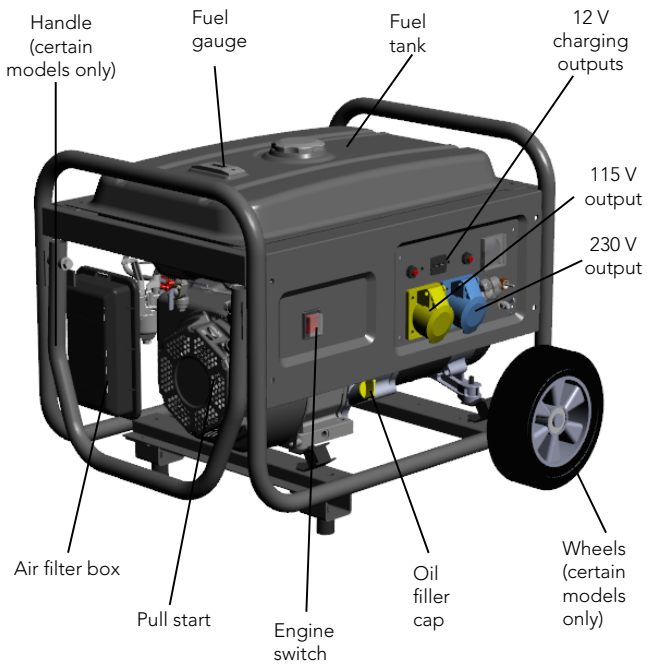
**Exhaust fumes can be fatal!**

- Always ensure that there is adequate ventilation when using the generator.
- Always position the generator so that the exhaust is pointing away from people or animals.
- Never use the generator indoors or in an enclosed area. (i.e workshop, garage, lockup etc)

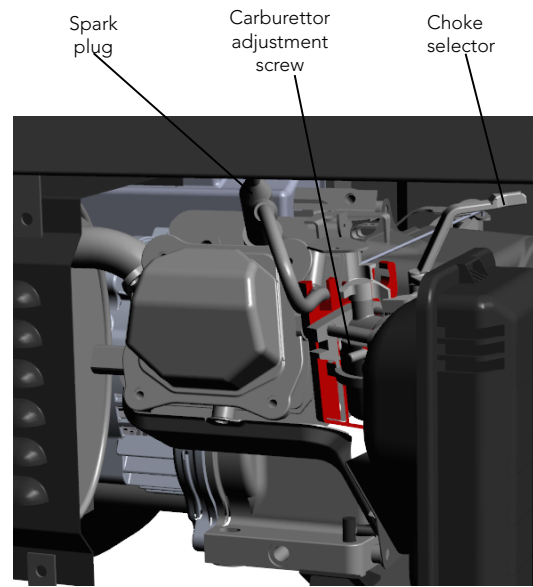
## EARTHING THE GENERATOR

- In most situations the frame of a portable generator need not be grounded (connected to earth) and the frame may serve as the earth.
- An earth connector lug is fitted to the generator, for use if required to connect to an earth. This connection should only be undertaken after full consultation with a competent, qualified electrician.
- Earth spike not provided as not required for general use.

### GENERATOR COMPONENTS LOCATION DIAGRAM



### GENERATOR COMPONENTS LOCATION DIAGRAM



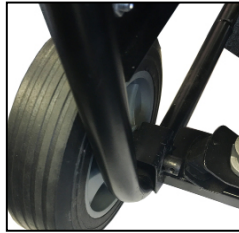
## FIXING THE WHEELS (SPG3000, SPG6500)



DO NOT tip the generator on its side to fit the wheels.



1. Push the axle through the wheel.



2. Slot the wheel and axle on the frame.

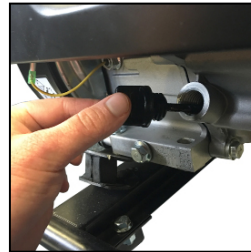


3. Insert split pin through axle hole and spread pin.

## FILLING THE GENERATOR WITH OIL



ONLY USE 10W30 GRADE OIL. Other oils will prevent the generator from starting.



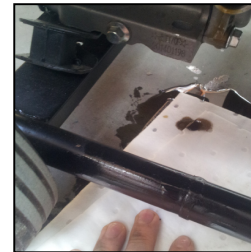
1. Remove the oil reservoir filter cap.



2. Fill with 10W30 oil to the centre line of the dipstick.



Tip: When filling with oil, use a funnel with a hose. NEVER tip the generator onto its side to fill with oil.



3. Wipe up any oil spillages with a rag.



4. Re-insert the oil reservoir filler cap.

## FILLING THE GENERATOR WITH PETROL



1. Unscrew fuel filler cap.



2. Fill with unleaded fuel until at least 3/4 full.



*Tip: ALWAYS use clean, unleaded petrol in the generator. NEVER use 2-stroke or other fuels.*



3. Screw fuel filler cap closed.



4. Fuel level can be indicated through the fuel tank window.

## STARTING THE GENERATOR - PULL START



1. Disconnect all equipment cables from the 230 V and 115 V outlets.



2. Turn the circuit breaker to the 'off' position.



3. Turn the fuel tap downwards, this means the fuel supply is 'on'.



4. Turn the choke to the 'left' position.

## STARTING THE GENERATOR - PULL START



THE GENERATOR SHOULD REQUIRE ONLY ONE OR TWO PULLS TO START. Otherwise please contact SGS Engineering on 01332 576 850.



5. Switch the engine switch to the 'on' position.



6. Pull the pull starter cord lightly, until it tenses, then pull briskly.



7. Once generator engine starts, move choke lever over to the right.

## STARTING THE GENERATOR - ELECTRIC START



1. Disconnect all equipment cables from the 230 V and 115 V outlets.



2. Turn the circuit breaker to the 'off' position.



3. Turn the fuel tap downwards, this means the fuel supply is 'on'.



4. Turn the choke to the 'left' position.



## STARTING THE GENERATOR - ELECTRIC START




7. Turn the engine start key to 'start' position until generator engine starts.



8. Once generator engine starts, move choke lever over to the right.


## OPERATING THE GENERATOR

1. Start the engine and allow to run for a few minutes in order for it to warm up.

 NEVER have any appliances/tools etc plugged in when starting the generator engine.

2. After engine has warmed up, you can then plug in appliances/tools into the generator outlets. As a general rule, switch on appliances/tools etc that you think will take the most power demand first.

3. ALWAYS ENSURE the correct voltage is selected, using the voltage selector.

 If the appliance/tool has a standard 3 pin plug it must be used in conjunction with a flylead and plugged into the blue socket.

If the appliance / tool has a blue socket attached then it is 230 V, and must be plugged into the BLUE outlet on the generator.

If the appliance / tool has a yellow socket attached then it is 115 V, and must be plugged into the YELLOW outlet on the generator.



## SHUTTING DOWN THE GENERATOR



1. Switch OFF any appliances/tools that are plugged into any outlets on the generator.



2. Unplug any appliances/tools that are plugged into any outlets on the generator.



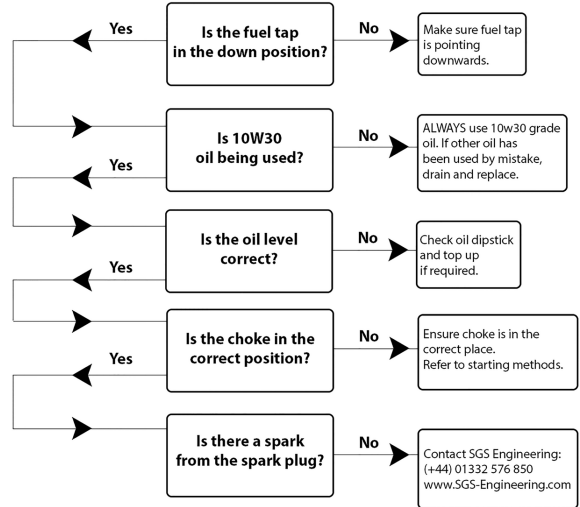
3. Switch the generator to the 'OFF' position.



4. Turn the fuel tap so it is pointing 'LEFT' into the off position.

## TROUBLESHOOTING STARTING A GENERATOR

### Troubleshooting flowchart for generator: generator will not start.



## GENERATOR TROUBLESHOOTING

PROBLEM	SOLUTION
Generator will not start.	<ul style="list-style-type: none"> <li>• Check fuel valve tap is in the 'down' position.</li> <li>• Check the oil level is correct.</li> <li>• Check 10W30 oil is being used.</li> <li>• Check choke is in the correct position (refer to starting methods).</li> <li>• Check there is a spark - Remove your HT (high tension) lead from the top of your spark plug. Remove the spark plug and reconnect the lead, then touch the metal on the spark plug against the generator frame. Gently pull the starter cord mechanism, listen for an audible 'ticking' sound and/or small flashes coming from the very tip of the spark plug. If there is no audible 'ticking' and/or small flashes, the spark plug may need replacing.</li> </ul>
Generator is difficult to start.	<ul style="list-style-type: none"> <li>• The air filter is dirty - clean the filter</li> <li>• The fuel filter is dirty - clean the filter</li> <li>• If the pull start mechanism is too 'hard' when trying to pull it, it may denote that there is too much oil. Check the oil level by using the dipstick and drain excess oil from the oil sump bolt at the bottom of the generator.</li> <li>• If the pull start mechanism feels too 'slack' (i.e easy to pull), there may be not enough compression in the generator engine for it to work properly. Please contact SGS Engineering.</li> </ul>

## GENERATOR TROUBLESHOOTING

PROBLEM	SOLUTION
No electrical output.	<ul style="list-style-type: none"> <li>• Check the breaker switch is up.</li> <li>• The device being powered is faulty.</li> <li>• Check that the voltage output switch is set to 115 or 230V.</li> <li>• Check the connecting lead from the appliance/tool into the generator is physically sound.</li> </ul>
Engine making "revving" sounds	<ul style="list-style-type: none"> <li>• If your generator is 'hunting' (surging), it may need a carburettor adjustment. Turn the brass screw on the carburettor clockwise slowly and listen for the engine sound. If it does not improve then try turning the screw anticlockwise.</li> </ul>



See our help and advice section for videos and guides on setting up, starting and maintaining your generator.

<http://www.sgs-engineering.com/help-advice>

## MAINTENANCE SCHEDULE

ITEMS	REMARKS	PRE-OPERATION CHECK (DAILY)	INITIAL 1 MONTH or 10HR	EVERY 3 MONTHS or 50HR	EVERY 6 MONTHS or 100HR	EVERY 12 MONTHS or 300HR
Spark plug	Check condition, adjust gap and clean. Repeat if necessary.			X		
Engine oil	Check oil level.	X			X	
	Replace.		X			
Air filter	Clean. Replace if necessary.			X		
Fuel filter	Clean fuel drain filter. Replace if necessary.				X	
Valve clearance	Check and adjust when engine is cold.					X
Fuel line	Check fuel hose for crack or damage. Replace if necessary	X				
Exhaust system	Check for leakage. Retighten or replace gasket if necessary.	X				
	Check muffler screen. Clean / replace if necessary.				X	
Caraburetor	Check choke operation.	X				
Starting system	Check key start ignition.	X				
Decarbonisation	More frequently if necessary					X
Fittings/ Fasteners	Check all fittings and fasteners. Correct if necessary.				X	

## MAINTENANCE INSTRUCTIONS

### Spark plug maintenance.

- Remove the spark plug cap from the spark plug.
- Use a spark plug spanner (supplied) to remove the spark plug.
- Check for discoloration and use a wire brush to remove any carbon build up.
- Check the spark plug gap with a feeler gauge, it should be between 0.6 and 0.7 mm. Adjust if necessary.
- Check the overall condition of the spark plug and replace if damaged.
- Reinstall the spark plug and replace the spark plug cap.
- **CAUTION: ALLOW THE ENGINE TO COOL BEFORE REMOVING THE SPARK PLUG.**

### Air filter maintenance.

- Remove the air filter element.
- Wash it in a solution of warm water and mild detergent.
- Rinse thoroughly and leave it to dry. Once it is completely dry immerse the filter in clean engine oil and squeeze the filter to remove excess oil.
- Replace the filter into its original position and replace and secure the cover.



**Tip:** Parts replacements are only to be carried out by competent persons. If in any doubt, please contact SGS Engineering for help.

## MAINTENANCE INSTRUCTIONS

Engine oil maintenance.	<ul style="list-style-type: none"> <li>• Warm up the engine on level ground.</li> <li>• Turn the engine off.</li> <li>• Remove the oil filler sump plug. Open the drain sump plug and let the oil drain completely into a pan placed under the engine.</li> <li>• Refit the drain sump plug and fill the engine with clean FOUR STROKE oil only. Replace the filler cap.</li> </ul>
Fuel filter maintenance.	<ul style="list-style-type: none"> <li>• Inside of the fuel tank, there is a fuel filter, this filter will need checking periodically.</li> <li>• Remove the fuel cap from the fuel tank.</li> <li>• Lift out the fuel filter.</li> <li>• Clean the filter with solvent. If the filter is damaged, contact SGS Engineering.</li> <li>• Replace the filter and fuel cap.</li> </ul>

WARNING: DO NOT SMOKE AND/OR HAVE ANY NAKED FLAMES DURING THIS PROCESS

## MAINTENANCE INSTRUCTIONS

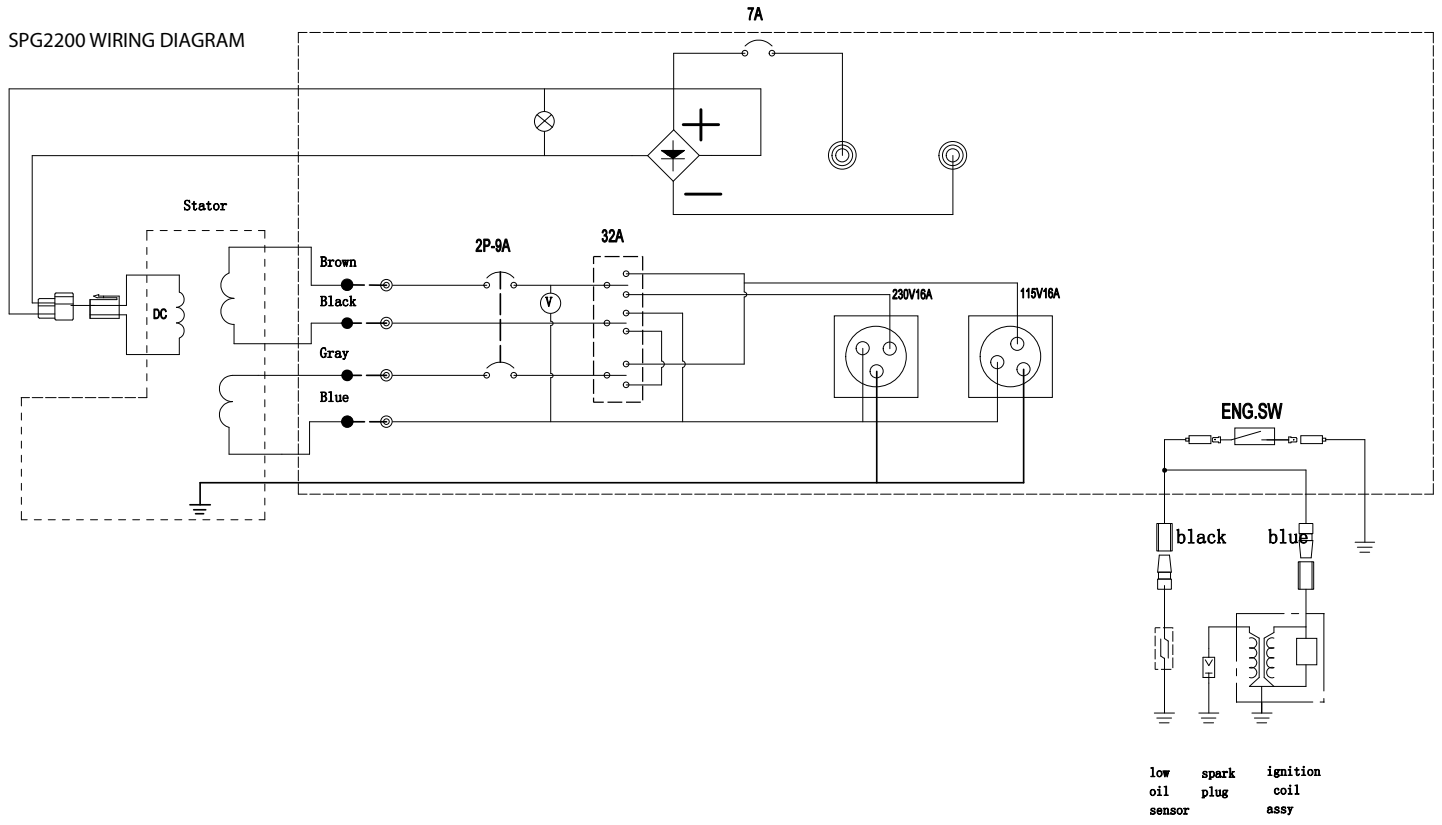
Draining the fuel.	<ul style="list-style-type: none"> <li>• You should drain your generator of fuel before you put it into storage.</li> <li>• Fuel goes stagnant if you left to stand for too long; this may damage your generator and affect how it runs.</li> <li>• Pull the fuel hose from the casing while leaving it attached to the fuel tap.</li> <li>• Set to the tap to the ON position.</li> <li>• Place the fuel hoses into an appropriate container or bottle.</li> <li>• Tilt the generator towards the fuel hose and allow all the fuel to drain.</li> </ul>
Draining the oil.	<ul style="list-style-type: none"> <li>• Place a tray underneath the oil sump screw.</li> <li>• Remove the sump screw</li> <li>• Tilt the generator towards yourself and allow all the oil to drain.</li> </ul>



See our help and advice section for videos and guides on setting up, starting and maintaining your generator.

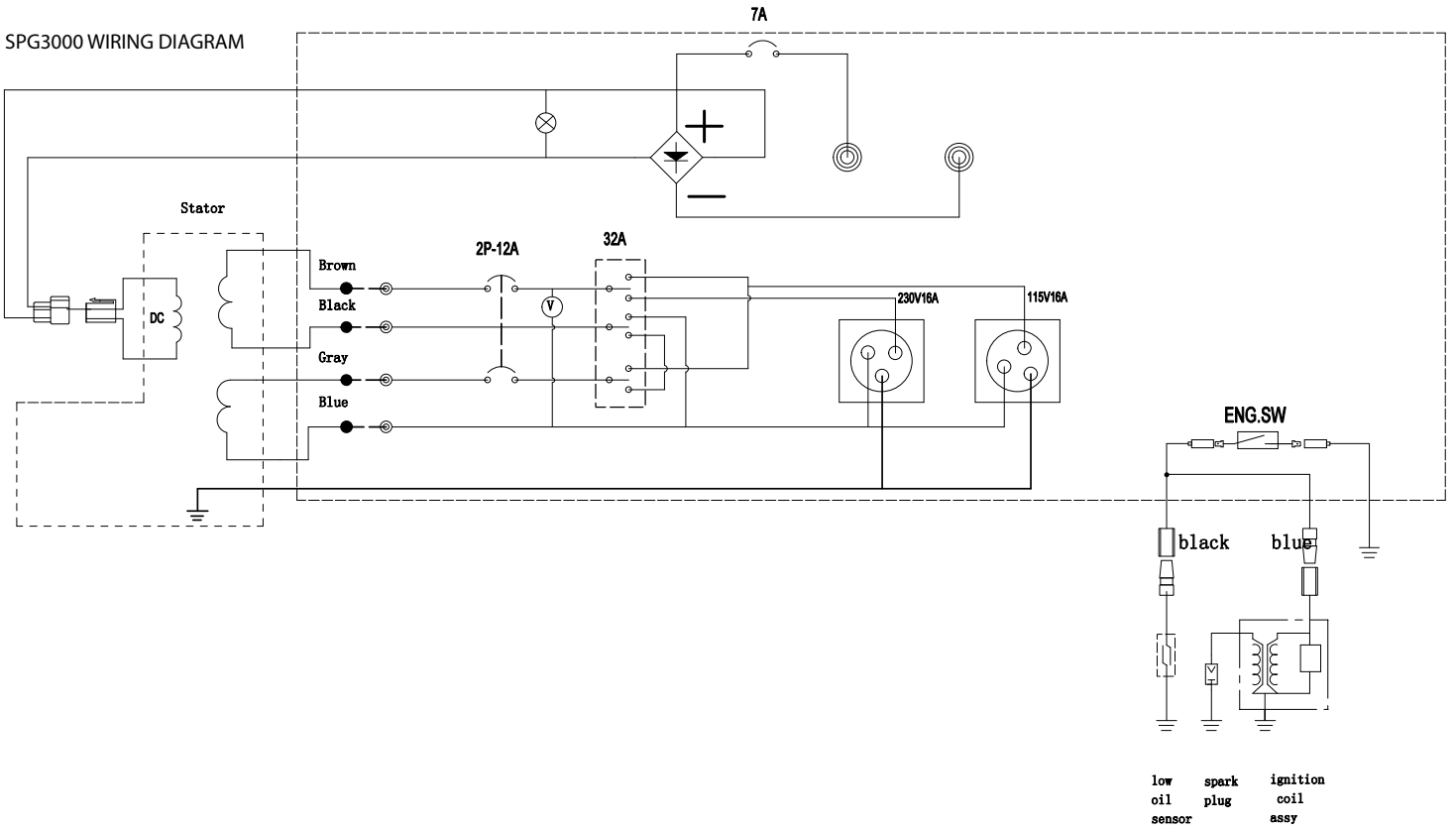
<http://www.sgs-engineering.com/help-advice>

SPG2200 WIRING DIAGRAM



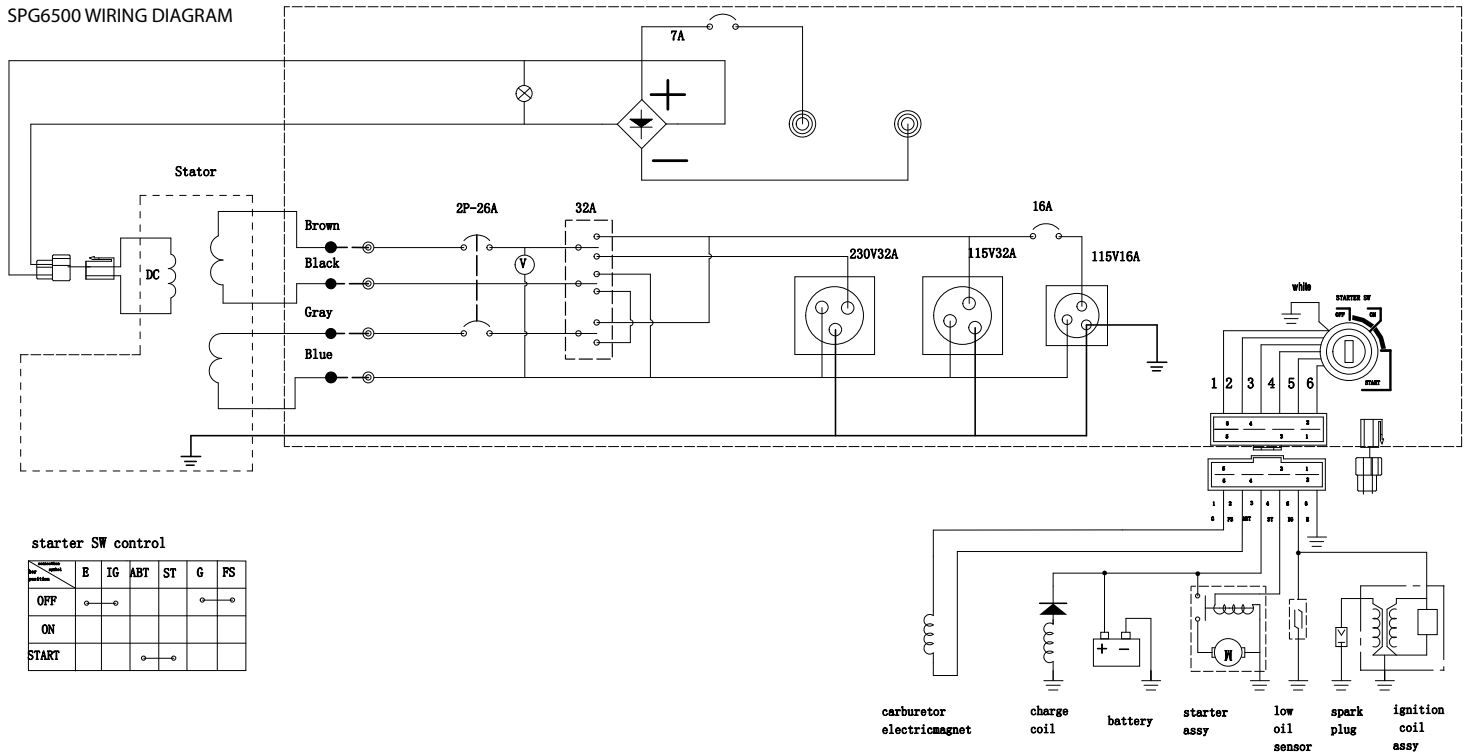
low oil sensor    spark plug    ignition coil assy

SPG3000 WIRING DIAGRAM



low oil sensor  
 spark plug  
 ignition coil  
 assy

SPG6500 WIRING DIAGRAM



starter SW control

	E	IG	ABT	ST	G	FS
OFF	○	○	○	○	○	○
ON	○	○	○	○	○	○
START	○	○	○	○	○	○

carburetor electricmagnet    charge coil    battery    starter assy    low oil sensor    spark plug    ignition coil assy





SGS Engineering (UK) Ltd  
2 West Side Park  
Raynesway  
Derby, DE21 7AZ

## EC Declaration of Conformity

This is an important document and should be retained

MANUFACTURER'S NAME: SGS Engineering (UK) Ltd

TYPE OF EQUIPMENT: Petrol Generator

PART NUMBER: SPG2200/SPG3000/SPG6500

### APPLICATION OF EC COUNCIL DIRECTIVES / STANDARD:

2004/108/EC	Electromagnetic Compatibility Directive
2006/42/EC	Machinery Directive
2006/95/EC	Low Voltage Equipment Directive
2000/14/EC	Noise Emissions Directive (amended 2004/26/EC)
97/68/EC	Emission of Gaseous Particulates (emended 2004/26/EC)

EN12601:2001, EN60204-1:2006, EN55012:2002+A1:2005,  
EN ISO 3744:1995, ISO 8528-10:1998

I, the undersigned, hereby declare that the equipment specified above conforms to the above European Communities Directive(s) and Standard(s).

PLACE: Derby, UK

DATE: 24th JUNE 2015

A handwritten signature in black ink, appearing to read 'Robert Wyatt', written over a horizontal line.

(Signature)  
Robert Wyatt  
Company Secretary