Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.

FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR, OR SIP DIRECTLY ON:
TEL: 01509500400
EMAIL: sales@sip-group.com or technical@sip-group.com
www.sip-group.com

Ref: 130320

SIP INDUSTRIAL

machinery specialists since 1968

Ti-800
Inverter Generator

03935

Please read and fully understand the instructions in this manual before operation. Keep this manual safe for future reference.

DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer's authorised representative within the EC
declare that the

SIP Ti-800 Inverter Generator - SIP Part No. 03935

Conforms to the requirements of the following directive(s), as indicated.

2006/42/EC	Machinery Directive
2014/30/EU	EMC Directive
2000/14/EC As Amended By 2005/88/EC	Noise Emission Directive*
2011/65/EU As Amended By (EU) 2015/863	RoHS Directive

And regulations.

(EU) 2016/628 As Amended By (EU) 2018/989	Emission limits and type-approval for internal combustion engines for non -road mobile machinery

And the relevant harmonised standard(s), including:

EN ISO 8528-13:2016
EN 55012:2007+A1:2009
EN ISO 3744:1995

* Noise measurements have been made in accordance with the internal control of production (Annex VI).
The declared noise values are as follows:

Measured Sound Power Level	The Guaranteed Sound Power Level
88 dB(A)	89 dB(A)

*Document Ref. No. EX_73977

Signed: ……..

Mr P. Ippaso - Director - SIP (Industrial Products) Ltd
Date: 09/12/2019.

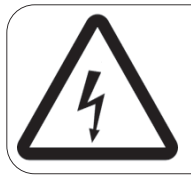
CE

NOTES

CONTENTS

SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL

Danger / Caution: *Indicates risk of personal injury and/or the possibility of damage.*



Warning: *Risk of electrical injury or damage!*

Hot Surfaces: *Indicates risk of possible burning due to hot surfaces created during normal operation.*

Note: *Supplementary Information.*

Poisonous Fumes: *Indicates a risk of possible inhalation of harmful fumes if care is not taken.*

Flammable: *Indicates possible risk of combustion if care is not taken.*

SAFETY INSTRUCTIONS

IMPORTANT: *Please read the following instructions carefully,* ***failure to do so could lead to serious personal injury and / or damage to the generator.***

- Before starting or servicing any generator, read and understand all instructions. Failure to follow safety precautions or instructions can cause equipment damage and/or serious personal injury. Retain all manuals for future reference.
- Never use this generator for any application other than that specified by the manufacturer.
- Never operate this generator under conditions not approved by the manufacturer.
- Never attempt to modify this generator to perform in any manner not intended by the manufacturer.
- Use only products and parts recommended by the manufacturer for maintenance and repairs.

NOTES

NOTES

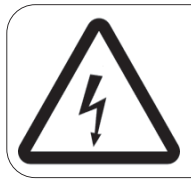
SAFETY INSTRUCTIONS….cont

- Be sure that the generator is properly grounded to an external ground path prior to operation. Refer to the section entitled " Grounding Instructions " for proper grounding procedures.
- Be sure that the generator is operated only by persons who have read and who understand these instructions.
- Be sure that the generator is placed on a flat level surface prior to and during operation. The generator must not slide or shift during operation.
- Keep all persons away from the generator during operation.
- Do not allow persons wearing loose clothing or jewellery to start or operate the generator. Loose clothing or jewellery may become entangled in moving components, causing equipment damage and/or personal injury.
- Be aware of moving parts and hot surfaces that occur during normal operation of this generator.
- Be sure all devices are switched off prior to connecting them to the generator.
- Be sure that all tools and appliances are in good working order and are correctly grounded.
- Only use devices that have standard three pin (13A type) plugs; If an extension cord is used, be sure that it has three pin plug/socket for proper grounding.
- Never operate the generator with damaged, broken or missing parts, or with any guards or covers removed.
- Do not refill the fuel tank while the engine is running.
- Be careful to prevent fuel spillage during refills.
- Be sure the fuel tank cap is securely in place before starting the engine.
- Allow engine to cool for at least two minutes before refuelling.
- Never refuel whilst smoking or in the vicinity of a naked flame.
- Take care not to spill any fuel on the engine, exhaust or any part of the generator.
- Should any fuel make contact with your clothes; change and wash them immediately.
- If any fuel makes contact with your skin wash with soap and water immediately.
- If you swallow any fuel, inhale any vapour or allow contact with your eyes, seek medical attention immediately.
- Be sure to store petrol in clean containers that do not contain water, dirt or rust because this will reduce the life of the engine; ensure that all local fuel storage laws are followed.
- Never operate this generator in an explosive atmosphere or near any flammable sources.
- Always operate this generator in a well ventilated area to reduce the risk of suffocation.
- Shut off the generator engine and disconnect the spark plug wire before performing any service or maintenance to the unit.
- Do not operate this generator on wet surfaces or in the rain.
- Do not operate the generator or any electrical items with wet hands.

SAFETY INSTRUCTIONS….cont

- Never drag the generator with power cords or by any means to move it; only move the generator with the carrying handles.
- Never cover the generator or restrict the exhaust or air flow in any way.
- Always ensure that the generator is at least 1m (3ft) away from any walls or buildings to allow correct air flow.
- Do not connect this generator to a commercial power supply.
- Do not connect this generator in parallel with any other generator.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.

Caution: *anyone who operates this generator should read and fully understand all of the instructions and warnings in this manual.*



Electric Shock: *There is a very real risk of electric shock if this generator is not used in the correct manner.* ***NEVER*** *Use the generator or anything connected to it in wet conditions.*

Hot Surfaces: *During normal operation certain parts of this generator will become hot.* ***ALWAYS*** *stay alert and be aware of hot components / surfaces. Allow the engine to cool before attempting to move, clean or maintain the generator.*

Poisonous Fumes: *Exhaust fumes produced during normal operation are poisonous.* ***Do not*** *operate this generator in enclosed areas.*

Flammable: *The fuel used to run this generator (unleaded petrol) is highly flammable. Never re-fuel the generator whilst it is still running. Store unused fuel safely and away from children and in accordance with local regulations / laws.*

Caution: *Never attempt to connect the generator directly to the electrical system of any building / structure which is connected to the main grid.*

Electrical current from the generator may "back feed" into the home's electrical system which could cause damage or fire to/in the building, the generator as well as anything connected to it.
Should a generator be required to be connected to any electrical system, it must be installed by a suitably qualified electrician who can warn you of any dangers that may occur.

TRANSPORTATION & STORAGE

TRANSPORTATION

To prevent fuel spillage when transporting or during temporary storage, the generator should be stored upright in its normal operating position, ideally with all of the fuel removed and with the engine switch off. The fuel cap vent lever is turned counter clockwise to the off position - Allow the engine to cool well before turning the fuel cap vent lever to the off position.

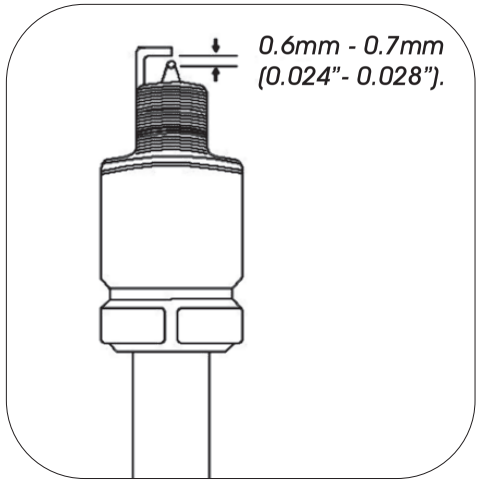
LONG TERM STORAGE (>1 Month)

1. Be sure the storage area is free of excessive humidity and dust.
2. Completely drain the fuel from the tank; Open the fuel valve and start the engine and operate it in the idle position until all remaining fuel is used and the engine stops automatically.
3. Discharge the oil.
4. Remove the spark plug and fill the cylinder with 1 tablespoon of fresh oil. Pull the starting cord 3-4 times to discharge the remaining oil then reinstall the spark plug.
5. Pull the starting cord slowly until the resistance is strong, this indicates that the piston is moving to the top of the compression stoke and the valves will be closed.

Note: *Always follow local laws / regulations regarding transportation and storage of fuel and oil.*

MAINTENANCE….cont

- In order to ensure correct operation of the engine, the spark plug gap must be appropriate; Measure spark plug gap with a feeler gauge, the spark plug gap should be 0.6mm - 0.7mm (0.024"- 0.028").



- Refit the spark plug and turn clockwise to tighten, using the spark plug wrench.
- Refit the ignition coil to the spark plug.
- Refit the top inspection cover and tighten the screws to secure.

FUEL TANK FILTER

Check The Fuel Tank Filter (periodically).

Just under the fuel cap is a fuel filter, check this filter periodically and remove any contaminants which may have accumulated.

- Remove the fuel tank cap and filter.
- Clean the filter with solvent, if damaged then replace.
- Wipe the filter and insert it back in.
- Ensure the tank cap is tightly secured.

FUEL LINES

Check the fuel lines for leaks or damage before each use; If a leak or damage is spotted:

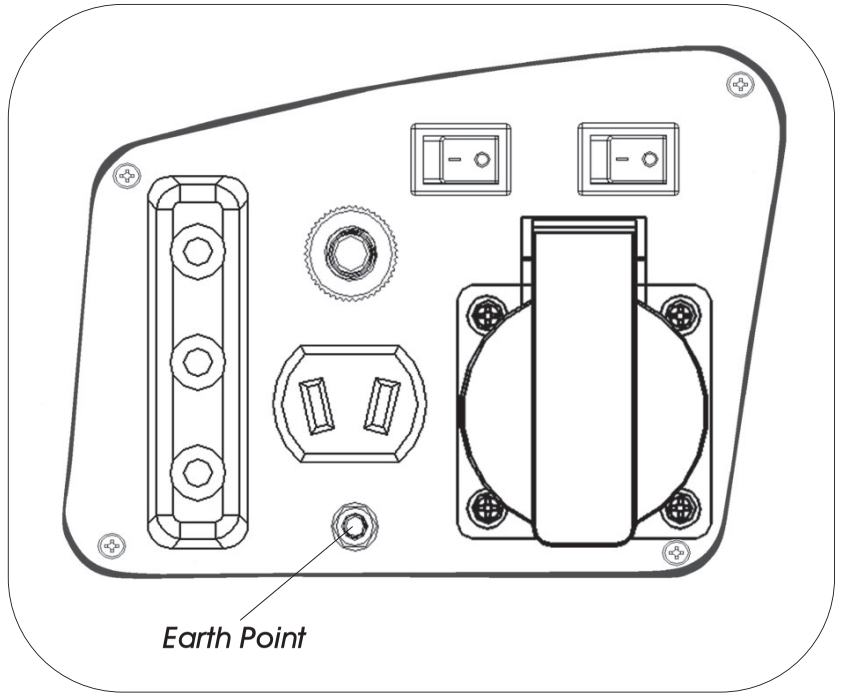
- Ensure that there is no fuel in the system.
- Replace any damaged / worn pipes etc.

Caution: *Petrol is highly flammable; never work on the fuel line whilst the generator is running, still hot or near naked flames or other possible ignition sources. Work only in a well ventilated area as petrol fumes can be dangerous if inhaled or ignited.*

SAFETY INSTRUCTIONS….cont

Incorrectly installed generators can also cause personal injury. For example, if a power company employee is working on an electrical line believing it to be "dead" and current created by the generator is in the line, shock or electrocution may occur.
The key to better safeguard against these dangers is professional installation by a qualified electrician and the installation of a generator transfer switch.
Keep in mind a generator burns fuel and must be run in a well ventilated area, it must not be run in a garage or other outbuilding.
Cords used to connect the generator to the lights and appliances must be correctly sized to prevent overheating or damage to the equipment as well, again if you are unsure ask a suitably qualified electrician.

GROUNDING INSTRUCTIONS



The generator must be properly connected to an appropriate ground source to help prevent electric shock, damage to the generator or anything connected to it. Refer to the local regulations for ground source information. If not sure of regulations or procedures, obtain assistance from a qualified electrical technician.

1. Use the ground terminal (see above) on the generator to connect the unit to a suitable ground source. Securely fasten the end terminal of the ground wire to the ground terminal on the generator.
2. The ground wire should be made of more than 0.75 square millimetre wire. Too thin wire may not provide an adequate ground path.
3. The other end of the ground wire must be securely fastened to an approved ground source.

TECHNICAL SPECIFICATIONS

Name	SIP Ti-800 Inverter Generator
Part number	03935
Engine type	4-stroke, single cylinder, air cooled, OHV
Engine size	40 cc
Fuel type	Unleaded petrol
Rated output (peak)	800 Watts
Rated output (continuous)	600 Watts
AC voltage	230V ~ 50Hz
DC Voltage	12V
DC Current	3A
Fuel Type	Unleaded Petrol
Fuel tank capacity	1.5 Litres
Performance class	G1
Oil Type	SAE 15W-40
Oil Capacity (approx.)	230 ml
Power Factor	1.0
Sound Pressure (LpA)	67.60 dB(A)*
Guaranteed Sound power (LwA)	89 dB(A)*
Max. Continuous Operation Time	5 Hours
Maximum Altitude	1000M Above Sea Level
Maximum Ambient Temp.	40°C
Minimum Ambient Temp.	-15°C
Protection Class	IP23M
Weight	9Kg

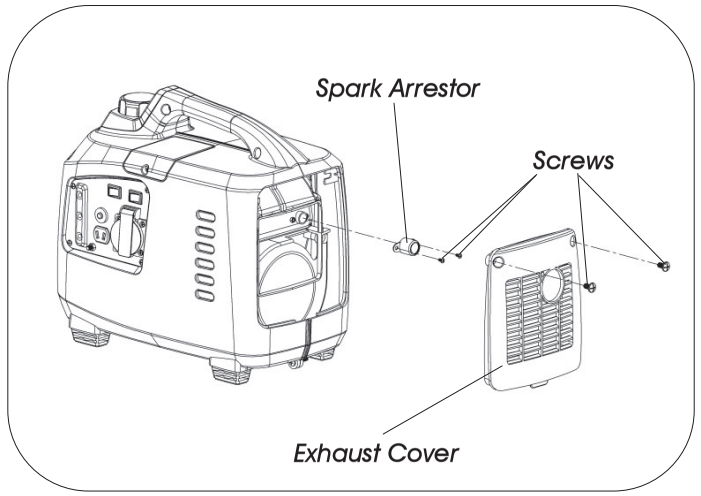
*K=1.44 dB(A)

MAINTENANCE….cont

gent and rinse thoroughly. Leave the filter to dry completely; Once dried immerse the filter in clean engine oil and squeeze the filter to remove excess oil - the filter should only be damp with oil.

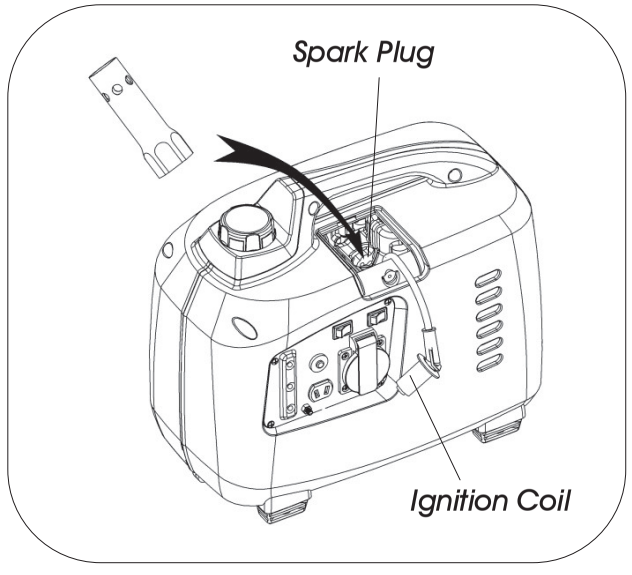
6. Refit the filter and follow the previous instructions in reverse to fit the cover etc.

SPARK ARRESTOR



- Loosen and remove the exhaust cover retaining screws and remove the exhaust cover.
- Loosen and remove the 2 spark arrestor retaining screws.
- Remove the spark arrestor.
- Check the spark arrestor and clean or replace as necessary.
- Follow the above instructions in reverse to refit the spark arrestor and cover.

SPARK PLUG



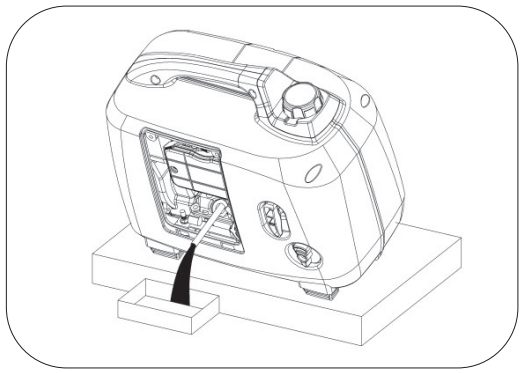
- Loosen and remove the top inspection cover screw and the cover.
- Pull the ignition coil from the spark plug.
- Remove the spark plug with a spark plug wrench.
- Visually inspect the spark plug; If the insulator is broken/damaged the plug must be discarded and replaced; If it is just dirty; Use a firm brush (or similar) to clean the spark plug.

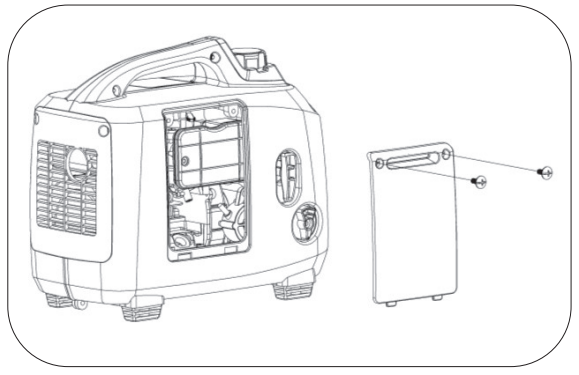
MAINTENANCE….cont

OIL

Check the oil level before each use and replace every month or 20 hours of use.

1. Remove the side inspection cover.
2. Turn the oil filler cap counter clockwise and remove from the oil sump.
3. Fit the oil drain tube in place and pour the oil out of the sump into a suitable container (below, left).
4. Follow the instructions on page 12 to refill the oil.

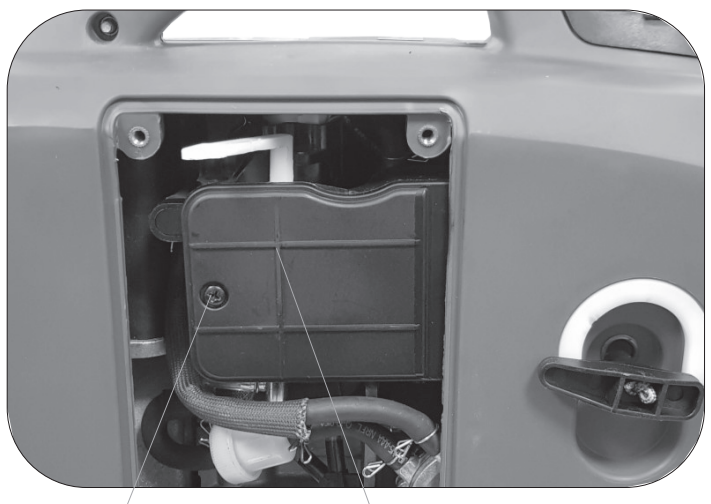


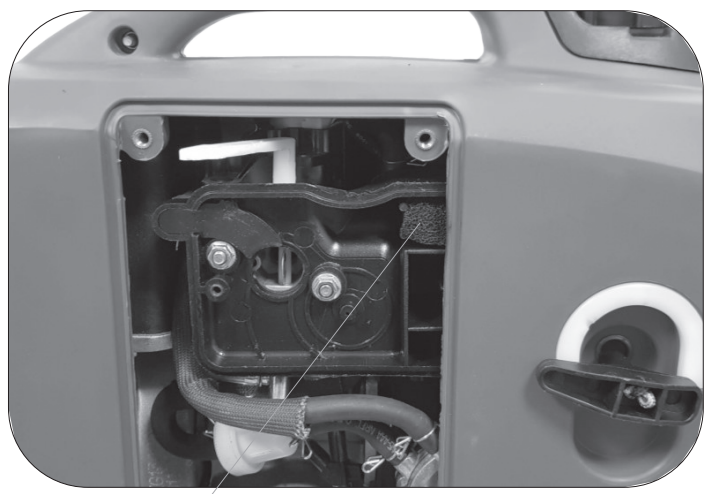


AIR FILTER

Check The Air Filter regularly and clean / replace 3 months or 50 hours of use.

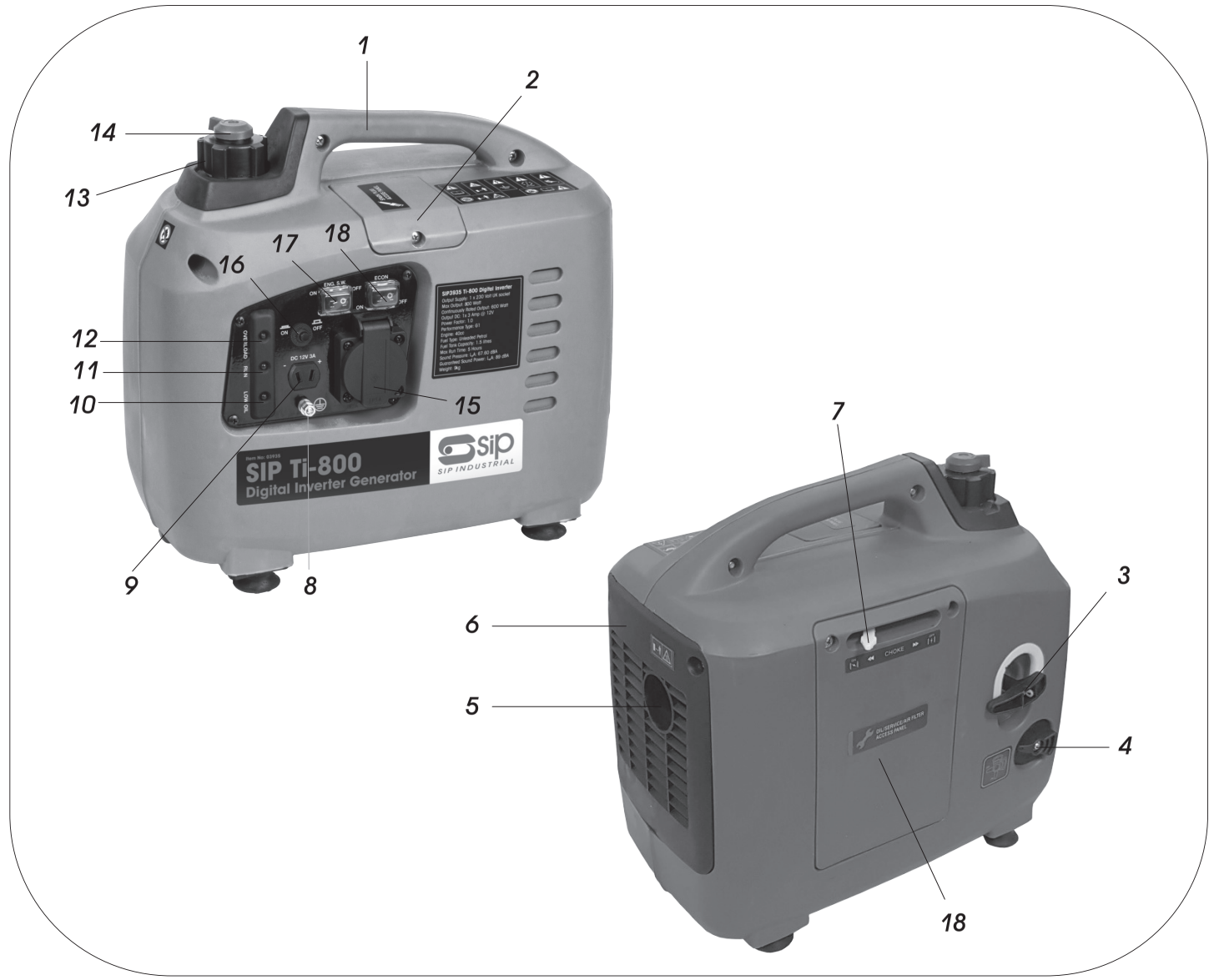
1. Remove the side inspection cover (above, right).
2. Remove the air filter cover screw.





3. Remove the air filter cover.
4. Remove the air filter element.
5. If the air filter is damaged contact your local distributor to purchase a replacement, If the filter is dirty - Wash the filter in a solution of warm water and mild deter-

GETTING TO KNOW YOUR GENERATOR



Ref. No.	Description	Ref. No.	Description
1.	Carrying Handle	11.	Output Indicator
2.	Top Inspection Cover	12.	Overload Warning Light
3.	Pull Cord	13.	Fuel Cap
4.	Fuel Tap	14.	Breather Valve
5.	Exhaust	15.	AC Outlet (230V~)
6.	Exhaust Cover	16.	DC Overload
7.	Choke	17.	Engine On/Off Switch
8.	Ground / Earth Point	18.	Economy Switch
9.	12V Outlet	19.	Side Inspection Cover
10.	Low Oil Alert		

GUARANTEE

This generator is covered by a 12 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the machine outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

This guarantee does not cover consumables such as filters & spark plugs etc.

In the unlikely event of warranty claims, contact your distributor or contact our help line on the back page of this manual.

Note: *Proof of purchase will be required before any warranty can be honoured.*

CONTENTS & ACCESSORIES

- *Oil Filler Bottle.*
- *Oil Drain Tube.*
- *DC Output Leads.*
- *Spark Plug Wrench.*
- *Spare Spark Plug.*
- *Screwdriver.*

MAINTENANCE

Part	Action	Before each use	Every 1 month or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Every 12 months or 300 hours
Oil	Check the oil level / condition.	•				
Oil	Replace		•			
Air filter	Clean / Replace			•		
Exhaust Spark Arrestor	Examine	•				
Exhaust Spark Arrestor	Clean		•			
Spark plug	Check condition / gap.				•	
Fuel Tank Filter	Examine	•				
Fuel Tank Filter	Clean / Replace					•
Fuel line	Check fuel line for cracks / damage.	•				

Caution: *Any repairs / adjustments should only be attempted by a suitably qualified person; if you are unsure call the help-line number on the back page for your nearest technician.*

OPERATING INSTRUCTIONS….cont

Note: *If the battery is too large for the generator, or if the battery is damaged it will attempt to take a load over that which the generator can give. The DC overload will then trip the output. If this happens, investigate the cause, wait a few minutes and reset the DC overload on the control panel.*

Note: *The 12V output will not cut out once the battery is charged and so should not be left unattended for extended periods; Remove any connected items as soon as they are charged.*

TURNING THE ENGINE OFF

In an emergency:

- Simply switch the main On/Off switch to the off position.

In normal conditions:

- Turn off and remove any load from the generator.
- Switch the main On/Off switch to the off position.
- Turn the fuel tap to off.
- Close the breather valve on the fuel cap.

CONTROL PANEL LIGHTS

Under normal operating conditions, the output indicator light (green) will be illuminated.
If the generator is overloaded or if the connected equipment has a short circuit, or there is an internal short circuit / issue; The output indicator light (green) is off, and overload indicator (red) is illuminated - There is no output.

If the overload indicator light is illuminated; Disconnect the device from the generator and check whether the device is faulty or whether there are problems with the mains lead / connection of the item.

If the low oil alert is illuminated the engine will automatically shut down; Check the oil level and refill where necessary.

ELECTRICAL CONNECTIONS

Connecting tools etc. to the generator:

This generator is fitted with:

1 standard 13 amp type socket (230V~).

Inspect them, as well as anything to be connected to the generator to ensure that no damage is present before ***every*** use. If any damage is visible have the socket / equipment inspected / repaired by a suitably qualified person.

The wires in the sockets are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live

As the colours of the wires may not correspond with the markings in your plug, proceed as follows: The wire which is coloured blue, must be connected to the terminal marked with N or coloured black (or blue). The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red (or brown). The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked ⏚.

Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.

Warning: *Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse for the equipment. If in doubt consult a qualified electrician.*

Note: *If an extension lead is required in order to reach the generator; ensure that this too is rated for the correct voltage and current.*

Note: *The cross section of the extension lead should be checked so that it is of sufficient size so as to reduce the chances of voltage drops.*

OPERATING INSTRUCTIONS

CAUTION: *Before you operate the generator* ***ALWAYS*** *check that no damage is present and that everything that should be, is tight and secure.*

FILLING THE CRANKCASE WITH OIL / CHECKING THE OIL LEVEL

Hot Surfaces: *Always ensure that the generator is turned off and allowed to fully cool before any refuelling or maintenance procedures are carried out.*

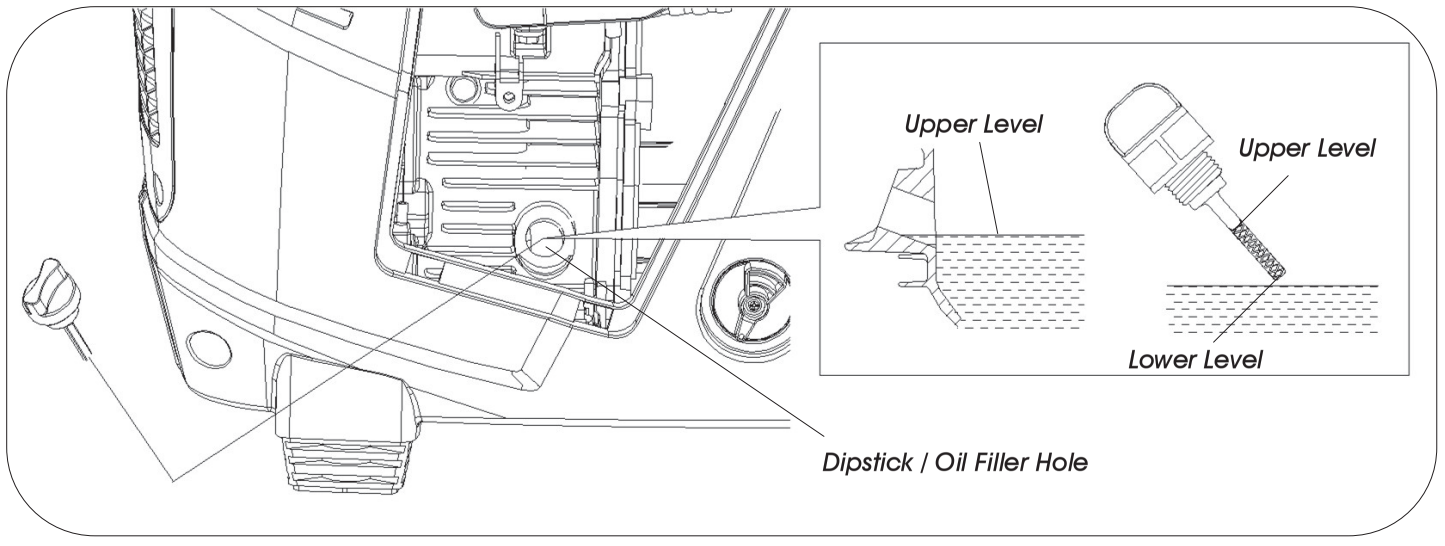
This generator is shipped from the factory without oil in the engine crankcase.

- Engine oil is a major factor affecting engine performance and service life. Non-detergent oils and vegetable oils are not recommended; Use premium quality 4-stroke motor oil.
- Do not add commercial additives to the recommended oil and do not mix petrol with the oil.
- SAE 15W-40 is recommended for general all temperature use.
- Other viscosities may be used when the average ambient temperature in your area is above or below average.

Note: *When checking the oil level; always ensure that the generator is placed on a firm level surface.*

- Check the oil level in the crankcase of the engine before each start.
- The oil level should be positioned between the lower and upper level marks on the oil filler cap (dipstick) (see below).

The Oil capacity is approximately 0.23L.



OPERATING INSTRUCTIONS….cont

USING THE AC OUTPUT

- Ensure that the tool or item to be connected to the generator is turned off and is of the correct voltage (230V) and that the current is within the range of the generator.
- Connect the tool / item to the AC socket.
- Start the engine (see page 14 'starting the engine').
- Set the economy switch depending on the type of load.
- Once the output indicator is illuminated proceed to use the tool / item normally.

USING THE 12V DC OUTPUT

Note: *The DC output on the generator is for charging batteries only - see specifications on page 8.*

CAUTION: *Make connections to the battery only after starting the engine.*

- Start the engine.

CAUTION: *To reduce the possibility of creating a spark near the battery, connect the battery charging lead to the battery first and then to the generator.*

- Connect the red wire to the positive terminal on the battery and the black wire to the negative terminal of the battery - ***NEVER REVERSE THE POLARITY!***
- Connect the opposite end of the charging lead to the DC outlet of the generator.
- ***If battery has vent plugs, remove to allow ventilation.***

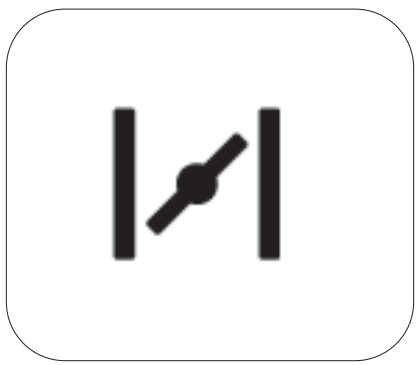
Note: *This not an intelligent battery charging system, therefore close monitoring of battery condition should be done during charging.*

On completion of charging:

- Unplug the lead from generator.
- Disconnect Negative clamp, then Positive clamp from the battery terminals.
- Turn off the generator.

OPERATING INSTRUCTIONS….cont

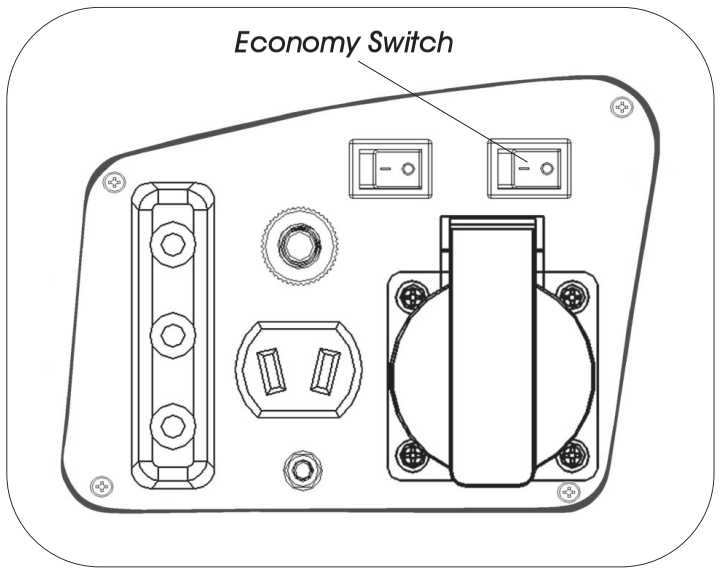
- Once the engine is running and warm enough, push the choke lever to the run position (below).



Note: *Allow the engine to run with no load applied for a few minutes to allow the engine to come up to running temperature.*

Note: Breaking the engine in; *The first 25 hours of operation is considered the break-in period for the engine. During this time operate at less than 75% of the load limit.*

This generator is fitted with an economy switch; When the switch is "***ON***" the generator controls the engine speed according to the connected load resulting in better fuel economy and less noise.
When the switch is "***OFF***" the engine runs at the rated speed regardless of whether a load is connected or not.



Note: *The economy switch should be "OFF" when using electrical devices that require a large starting current or bursts of power such as induction motors etc.*

OPERATING INSTRUCTIONS….cont

Note: *Check the oil level by pushing the filler cap back into its hole up to the bottom of the threads (do not screw the cap in).*

Caution: *Be sure oil level is maintained; Failure to do so will invalidate any warranty you may have.*

To fill the crankcase with oil proceed as follows:

- Ensure that the generator is on a flat level surface.
- Remove the side inspection cover.
- Remove the filler cap (dipstick) by turning it anti-clockwise.
- Slowly pour the oil into the crankcase.
- Check the oil level by pushing the filler cap back into its hole up to the bottom of the threads (do not screw the cap in).
- Once the oil level is between the upper and the lower marks on the oil gauge (see page 12), replace it and turn clockwise to fully tighten.

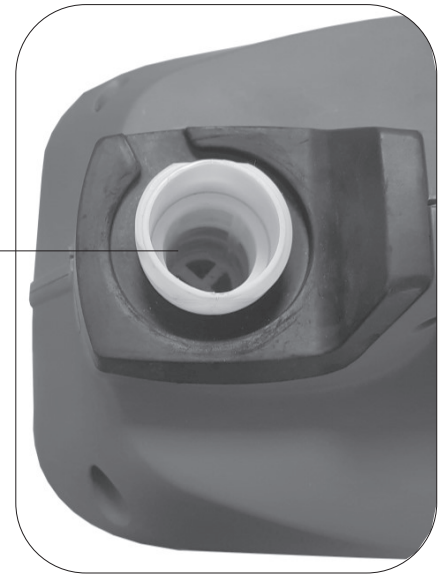
The oil should be ***changed*** after the first 8 hours of operation; thereafter change the oil after 20 hours of operation or less if the generator is operated under constant heavy loads or in high ambient temperatures.

FUELLING / RE-FUELLING THE GENERATOR

Caution: *Petrol is highly flammable; never re-fuel the generator whilst it is running, or still hot. Do not re-fuel near naked flames or other possible ignition sources. Only re-fuel in a well ventilated area as petrol fumes can be dangerous if inhaled or ignited.*

Never overfill the fuel tank; leave a small air gap at the top.
Fuel capacity: approx. 1.5 Litres.

Note: *When refuelling always ensure that the fuel filter (supplied) is in place as foreign matter or debris will cause damage to the engine and greatly reduce the life of the generator (see page 14).*



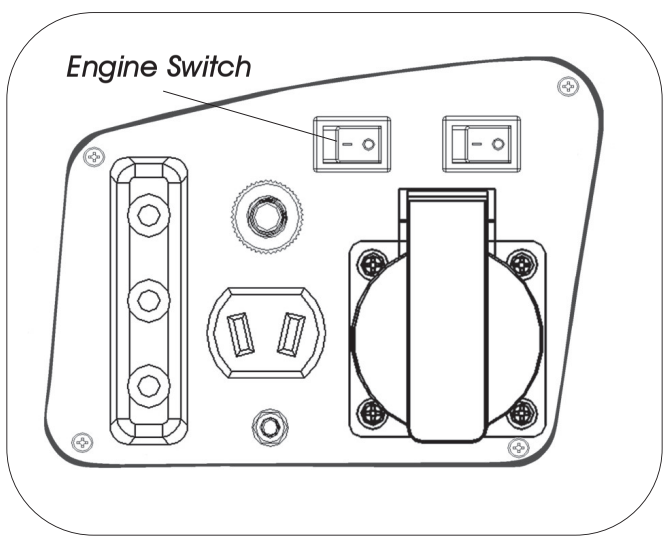
To fuel the generator:

1. Remove the fuel cap.
2. Carefully pour the petrol into the tank to the desired level and replace the fuel cap.
3. Remove any spilt fuel from the generator and surrounding area to avoid any risk of fire.
4. The generator should now be ready to run.

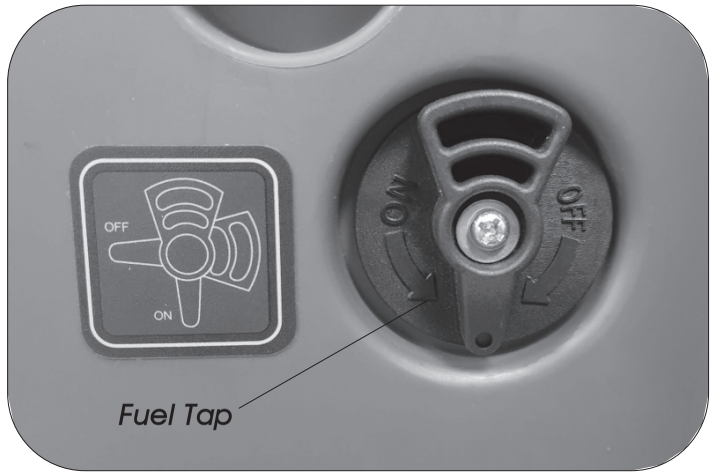
STARTING THE ENGINE

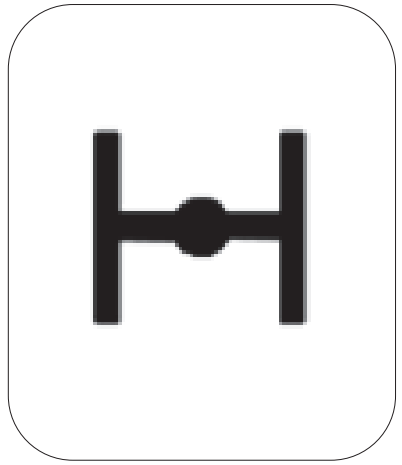
Caution: *Never start the engine with any load connected to the generator.*

- Turn the main engine switch to the on (1) position.



- Turn the fuel tap to the on position (below, left).

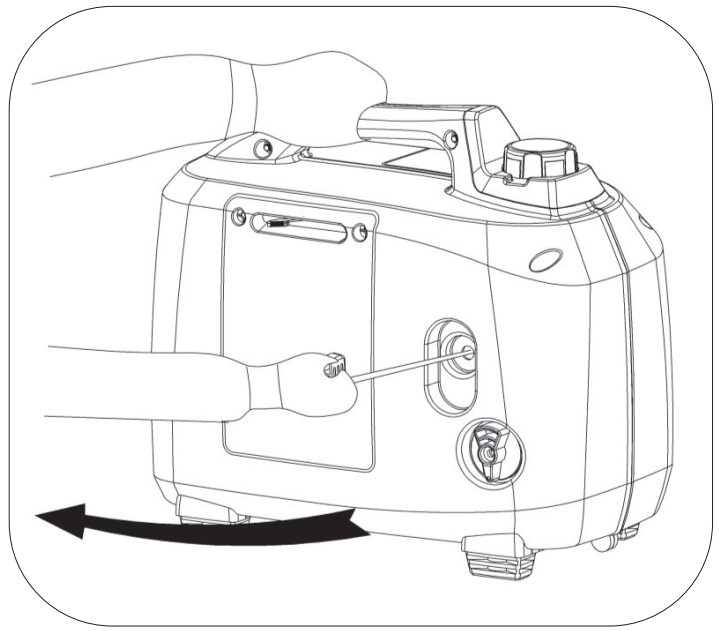




- Turn the choke lever to the "closed" (start) position (above, right).

Note: *The choke may not be needed if the engine is already warm.*

- Open the breather valve on the fuel cap (below, left).



- Carefully hold the generator with one hand to ensure that it does not get pulled over; Slowly pull the recoil start cord until you feel resistance, then pull sharply until the engine starts (above, right).

Note: *It may take a few sharp pulls to get the engine started.*