



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.



machinery specialists since 1968

Medusa T3801 Generator



03957

**FOR HELP OR ADVISE 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

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

Medusa T3801 Petrol Generator - SIP Part. No. 03957

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

2006/95/EC	Low Voltage Directive
2006/42/EC	Machinery Directive
2004/108/EC	EMC Directive
97/68/EC	Emissions From Non-road Mobile Machinery
As Amended By 2006/96/EC	
2000/14/EC	Noise Emission Directive
As Amended By 2005/88/EC	
2002/95/EC	RoHS Directive

And the following harmonised standard(s)

EN 12601:2010
EN 55012:2007+A1
EN 61000-6-1:2007

Signed: 

Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 28/02/2013.



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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

NOTES

and repairs.

- 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 untrained 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.
- Ensure 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 (where applicable).
- Never operate the generator with damaged, broken or missing parts, or with any guards or covers removed.
- Only use unleaded petrol as fuel for the generator.
- Do not refill the fuel tank while the engine is running, or still hot.
- 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 before refuelling, or servicing the generator.
- 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.
- Do not operate this generator on wet surfaces or in the rain.
- Do not operate the generator or any electrical items with wet hands.
- Never drag the generator with power cords to move it.
- Never cover the generator or restrict the exhaust or air flow in any way.

SAFETY INSTRUCTIONS....cont

- 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.



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.

It could cause damage or fire to 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.

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 cur-

PARTS LIST

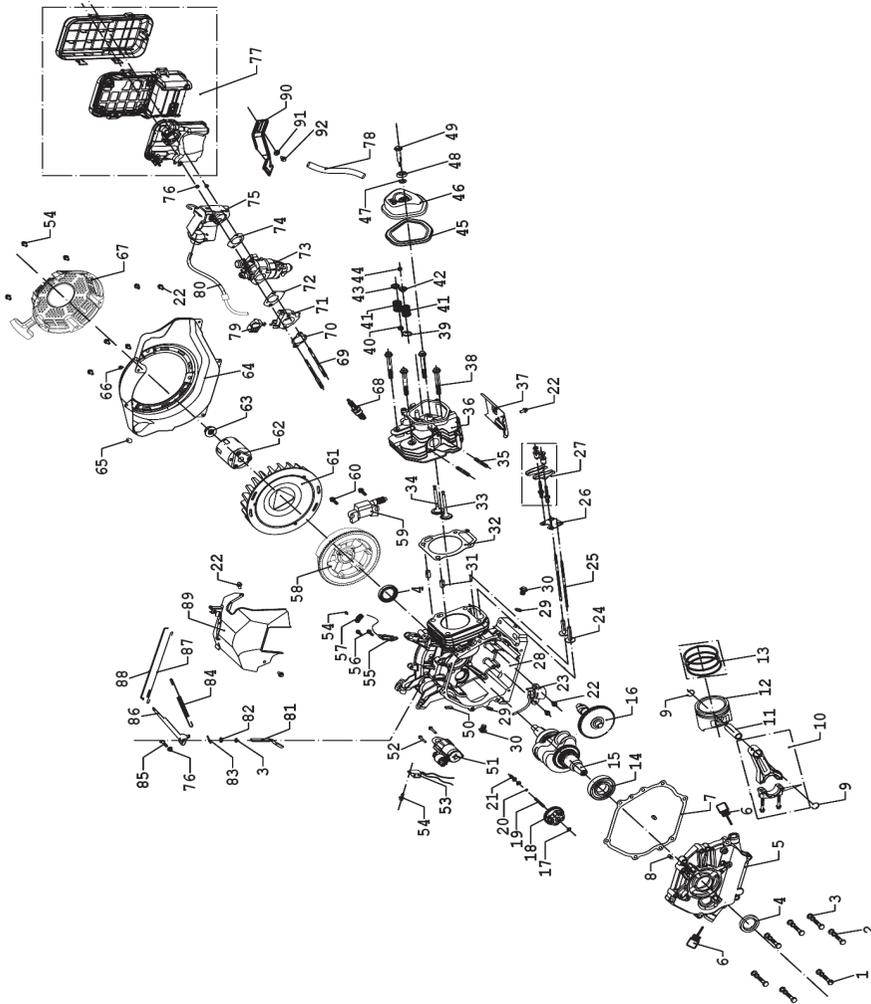
Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
4.	Oil seal	PW01-00411	68.	Spark plug	PW01-00419
6.	Oil dipstick	PW01-00412	72.	Carburettor gasket	PW01-00420
7.	Crankcase cover gasket	PW01-00413	73.	Carburettor	PW01-00421
23.	Oil sensor	PW01-00414	74.	Air filter gasket	PW01-00422
29.	Oil drain Bolt gasket	PW01-00415	77.	Air filter	PW01-00423
30.	Oil drain bolt M12x14	PW01-00416	84.	Speed governing spring	PW01-00425
53.	Diode	PW01-00407	86.	Speed governing arm	PW01-00424
59.	Ignition coil	PW01-00418	87.	Throttle reset spring	PW01-00426
67.	Recoil starter	PW01-00417			



Note: If you require parts that are not listed, contact your distributor or SIP directly.

EXPLODED DRAWING

ENGINE



SAFETY INSTRUCTIONS...cont

rent 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



Earth / Ground Terminal

1. Use the ground terminal (see picture 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. Refer to the local regulations for ground source information. If not sure of regulations or procedures, obtain assistance from a qualified (licensed or certified) electrical technician.



CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

GUARANTEE

Guarantee:

This SIP 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 generator 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 etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible. Proof of purchase will be required before any warranty can be honoured.



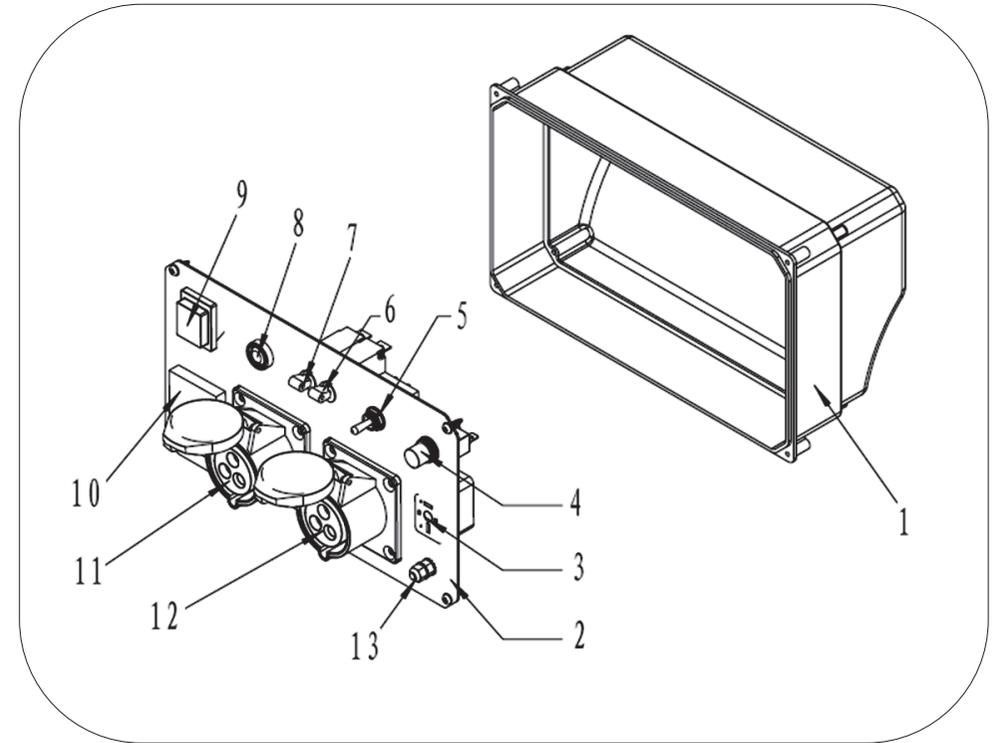
Note: Proof of purchase will be required before any warranty can be honoured.

TECHNICAL SPECIFICATIONS

Name	Medusa T3801
Part number	03957
Engine type	4-stroke, single cylinder, air cooled, OHV
Engine size	9.0 HP
Fuel type	Unleaded petrol
Rated output (peak)	3800 watts
Rated output (continuous)	3200 watts
AC voltage	230v / 110v ~ 50hz
DC voltage	12 v
DC current (max.)	8.3 amps
Fuel tank capacity	25 Litres
Sound power (LWA)	96 dB(A)

EXPLODED DRAWING

CONTROL PANEL



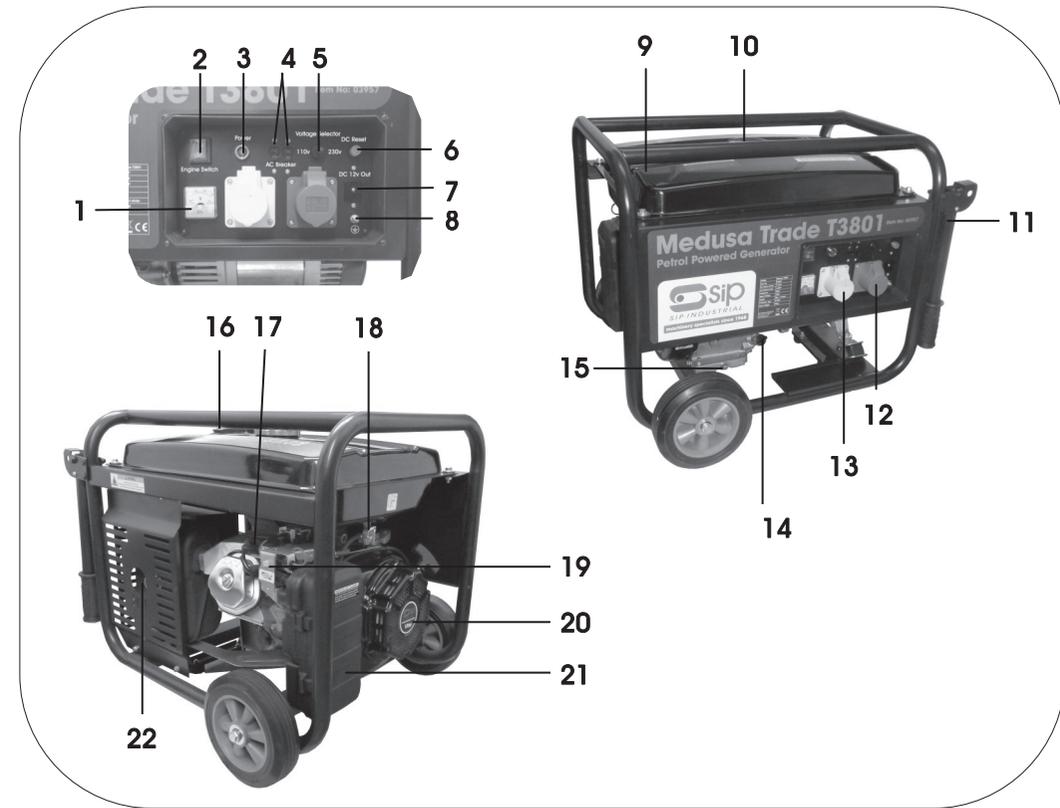
PARTS LIST

Ref No.	Description	Part No.	Ref No.	Description	Part No.
1.	Rear cover panel	PW01-00450	8.	Pilot light	PW01-00441
2.	Front panel	PW01-00451	9.	Engine switch 20A	PW01-00453
3.	12v socket	PW01-00439	10.	Voltmeter	PW01-00440
4.	5A DC reset	PW01-00437	11.	110v socket	PW01-00445
5.	Voltage switch	PW01-00452	12.	230v socket	PW01-00444
6.	Circuit breaker 14A	PW01-00443	13.	Earth assembly	PW01-00454
7.	AC circuit breaker 28A	PW01-00446			

PARTS LIST....cont

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
63.	Flange bolt M8x40	PW01-00370	69.	Bolt M6x14	PW01-00322
64.	Flange bolt M6x12	PW01-00318	70.	Washer M6	PW01-00320
65.	Bolt M8x25	PW01-00371	71.	Lock washer M6	PW01-00321
66.	Screw ST4.2x12	PW01-00323	72.	Washer M6	PW01-00372
67.	Flange nut M6	PW01-00319	73.	Bolt M8x33.5	PW01-00373
68.	Bolt M8x16	PW01-00303			

GETTING TO KNOW YOUR GENERATOR



Ref. No.	Description	Ref. No.	Description
1.	Volt Meter	12.	AC Socket (230v)
2.	Engine Switch	13.	AC Socket (110v)
3.	Power Indicator	14.	Oil Filler / Dipstick
4.	AC Circuit Breakers	15.	Oil Drain Bung
5.	Voltage Selector Switch	16.	Fuel Gauge
6.	DC Circuit Breaker	17.	Spark Plug
7.	DC Socket	18.	Fuel Tap
8.	Earth / Ground Terminal	19.	Choke
9.	Fuel Tank	20.	Recoil Starter
10.	Fuel Cap	21.	Air Filter
11.	Handle	22.	Exhaust

ASSEMBLY INSTRUCTIONS

FITTING THE HANDLES



Gather together the parts required to fit the handle set (as shown above):

- 4 x M8x45 Coach-bolts.
- 2 x M8x45 Bolts.
- 6 x M8 Domed Nuts.
- 2 x Handle Brackets.
- 2 x Handles.



- Locate the handle bracket retaining holes on the frame of the generator.
- Line up the holes of the bracket with those on the frame.



Note: Ensure that the square holes are facing outwards and that the flat section of the bracket is on the top.

- Slide the coach-bolts (M8x45) through the holes in both the bracket and frame, from the outside of the frame.
- Secure in place with domed nuts (M8) and fully tighten.
- Follow these instructions to fit the bracket to the opposite side.

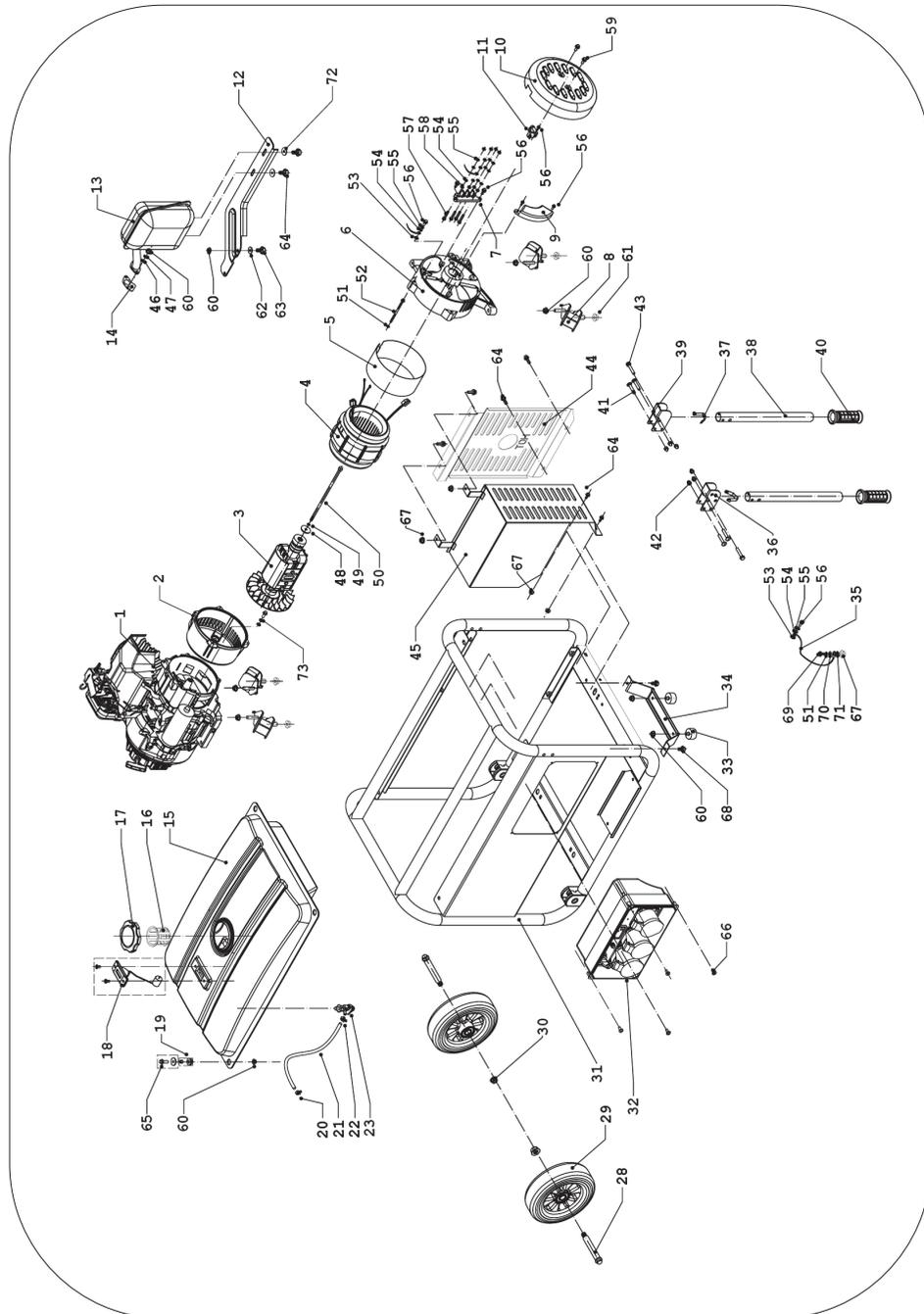


PARTS LIST

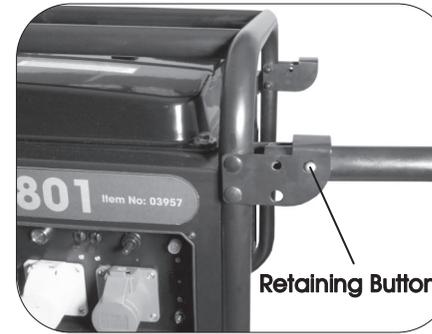
Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
1.	Engine	PW01-00324	34.	Shock absorption bracket	PW01-00351
2.	Front end cover	PW01-00325	35.	Grounding wire	PW01-00352
3.	Rotor	PW01-00326	36.	Left handle bracket	PW01-00353
4.	Stator	PW01-00327	37.	Pressure button spring	PW01-00354
5.	Alternator guard	PW01-00328	38.	Handle	PW01-00355
6.	Rear end cover	PW01-00329	39.	Right handle bracket	PW01-00356
7.	Wire fasten connection	PW01-00330	40.	Handle cover	PW01-00357
8.	Shock absorption	PW01-00331	41.	Bolt M8x45	PW01-00358
9.	AVR	PW01-00332	42.	Nut M8	PW01-00359
10.	Rear end cover	PW01-00333	43.	Bolt M8x45	PW01-00360
11.	Carbon brush	PW01-00334	44.	Muffler protect outside	PW01-00361
12.	Muffler bracket	PW01-00335	45.	Muffler protect side	PW01-00362
13.	Muffler	PW01-00336	46.	Washer M8	PW01-00305
14.	Muffler gasket	PW01-00337	47.	Spring washer M8	PW01-00306
15.	Fuel tank	PW01-00338	48.	large washer M8	PW01-00363
16.	Fuel tank filter	PW01-00294	49.	Spring washer M10	PW01-00364
17.	Fuel tank cap	PW01-00339	50.	Bolt M10x245	PW01-00365
18.	Fuel gauge	PW01-00340	51.	Spring washer M6	PW01-00308
19.	Shock absorption	PW01-00296	52.	Bolt M6x155	PW01-00366
20.	Clamp	PW01-00341	53.	Lock washer M5	PW01-00312
21.	Fuel pipe	PW01-00342	54.	Washer M5	PW01-00313
22.	Clamp	PW01-00343	55.	Spring washer M5	PW01-00314
23.	Fuel switch	PW01-00344	56.	Flange bolt M5x16	PW01-00315
28.	Axle	PW01-00345	57.	Full thread bolt M5x20	PW01-00367
29.	Wheel	PW01-00346	58.	Nut M5	PW01-00368
30.	Nut M12	PW01-00347	59.	Bolt M5x12	PW01-00316
31.	Frame	PW01-00348	60.	Flange nut M8	PW01-00304
32.	Control panel assembly	PW01-00349	61.	Flange nut M10	PW01-00369
33.	Shock absorption	PW01-00350	62.	Washer M8	PW01-00317

EXPLODED DRAWING

MAIN GENERATOR UNIT



ASSEMBLY INSTRUCTIONS...cont



- Fit the handles inside the handle brackets, as shown.
- Ensure that the retaining button is correctly seated in the relevant hole.
- Slide the bolt (M8x45) through the bracket and handle.
- Secure in place with domed nut (M8), but **DO NOT** fully tighten as the handle needs to move.

- Follow these instructions to fit the handle to the opposite side.

The handles can be moved downwards when not in use (see picture right) by pressing the retaining button and lowering the handles.



FITTING THE WHEELS



Gather together the parts required to fit the wheels (as shown above):

- 2 x Wheels.
- 2 x Axle / Bolts.
- 2 x Locking nuts



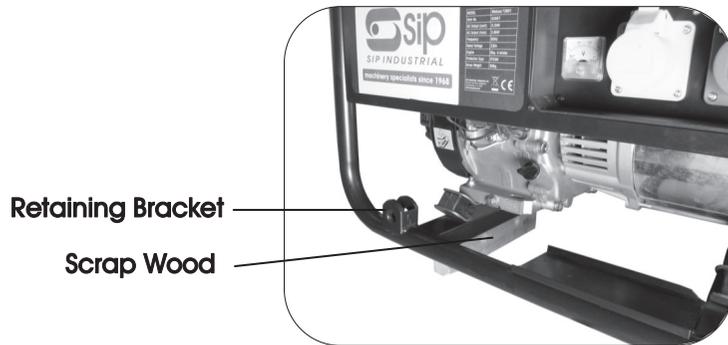
Caution: The generator is heavy; at least 2 persons could be needed to carry out the following operation.

ASSEMBLY INSTRUCTIONS...cont

- Raise the engine end of the generator to allow the wheels to be fitted more easily.



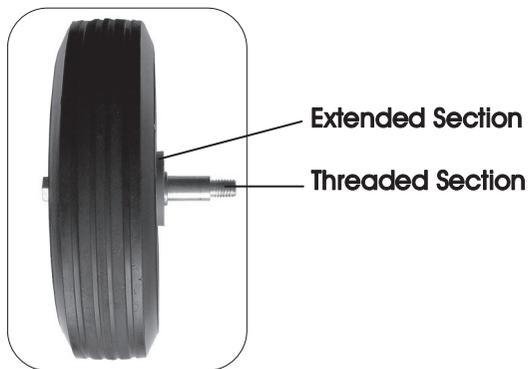
Note: Use a scrap block of wood or similar to hold the generator in position.



- Slide the axle / bolt through the centre of the wheel with the threaded section of the axle / bolt facing the generator.

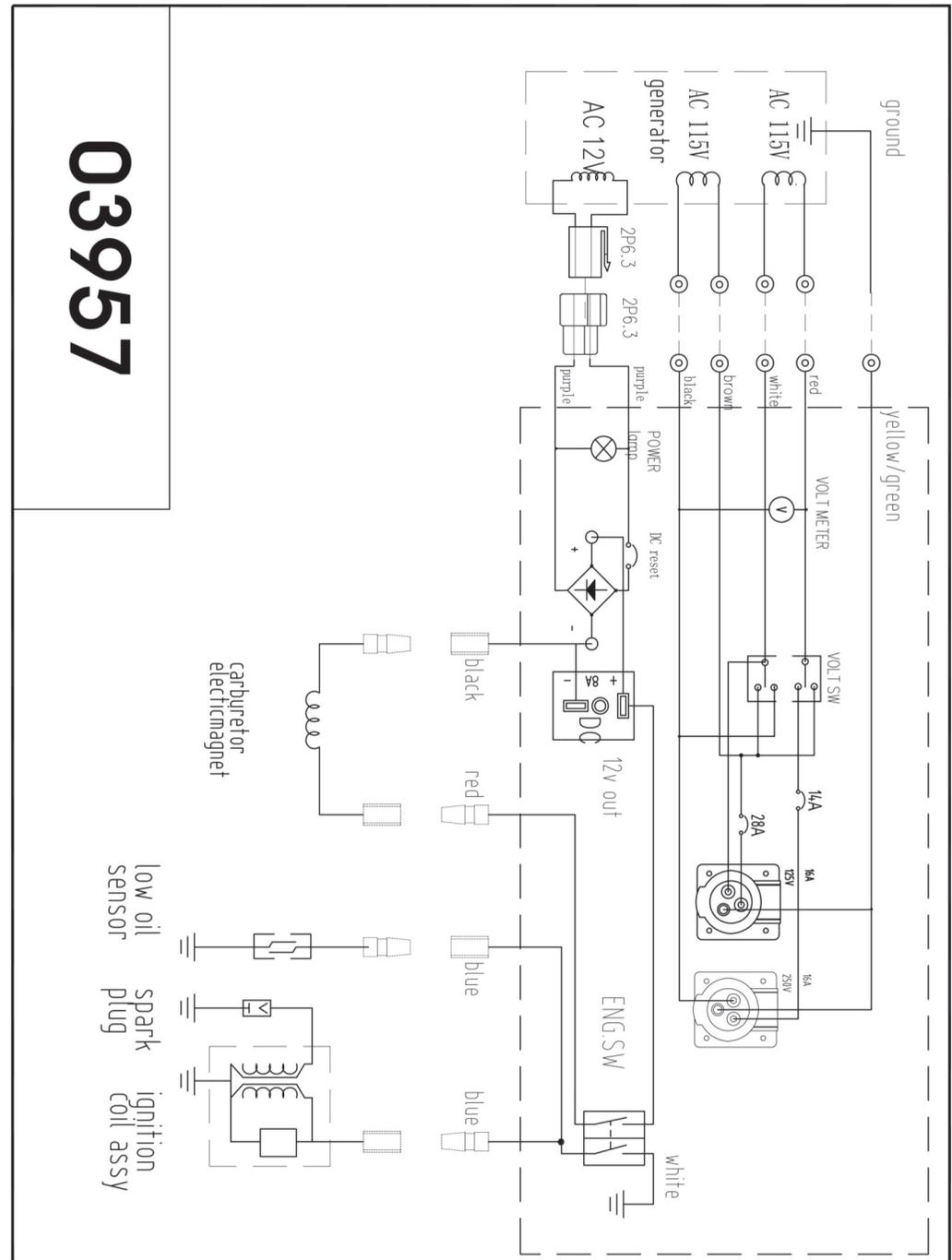


Note: Ensure that the extended section of the wheels centre boss also faces towards the generator.



- Fit the threaded section of the axle / bolt through the retaining bracket on the frame of the generator.
- Fit and fully tighten the locking nut onto the axle / bolt.
- Repeat for the opposite wheel.
- Slightly raise the generator to remove the scrap wood.

WIRING DIAGRAM



MAINTENANCE INSTRUCTIONS....cont

5. Put the filter back into its original position and refit the air filter cover etc.

CLEAN OR REPLACE THE SPARK PLUG

Clean or Replace The Spark Plug (every 50 hours of use).

1. Remove the spark plug cap from the spark plug.
2. Use the supplied spark plug spanner to remove the spark plug.
3. Check for discoloration and remove any carbon build up.
4. Check the spark plug gap, it should be between 0.7 and 0.8mm; Adjust if necessary.
5. Check the overall condition of the plug and replace if damaged.
6. Reinstall the plug & cap.

CHECK THE 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.

1. Remove the fuel tank cap and filter.
2. Clean the filter and, if damaged replace.
3. Insert the filter back into place.
4. Ensure the tank cap is tightly secured.

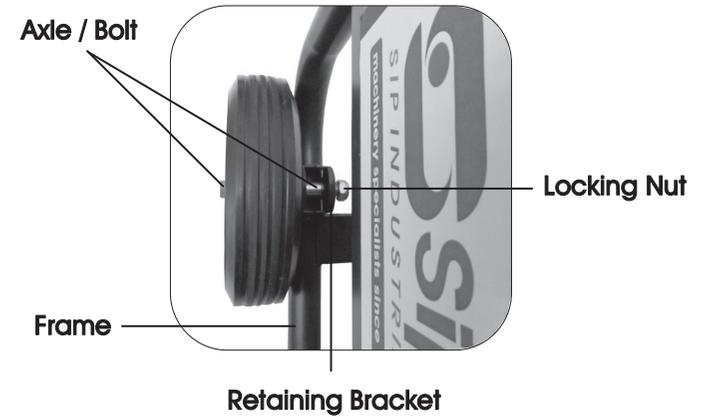
TRANSPORTATION AND STORAGE

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.

Long Term Storage (1 month or greater).

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, 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 stroke and the valves will be closed.

ASSEMBLY INSTRUCTIONS....cont



OPERATING INSTRUCTIONS

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.



Caution: The generator is drained of oil at the factory prior to shipping. SAE 10W-30 oil or equivalent is recommended for these generators.



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

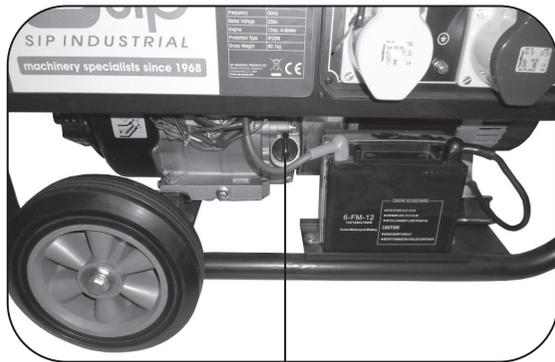
Ensure that the generator is on a flat level surface.

- 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 14), refit it and turn clockwise to fully tighten.

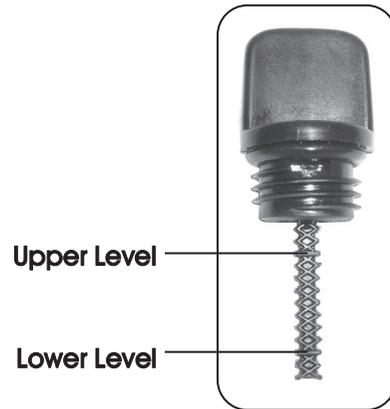
The oil level should be checked every 8 hours or daily.

OPERATING INSTRUCTIONS...cont

The oil should be **changed** after the first 20 hours of operation; thereafter change the oil after 50 hours of operation or less if the generator is operated under constant heavy loads or in high ambient temperatures.



Oil Filler Cap / Dipstick



Caution: Ensure the oil level is maintained; Failure to do so will invalidate any warranty you may have.

FILLING THE GENERATOR WITH FUEL



Flammable: The fuel used to run this generator (unleaded petrol) is highly flammable. Never re-fuel the generator whilst it is running. Do not re-fuel near naked flames or other possible ignition sources.



Note: Never overfill the fuel tank; leave a small air gap at the top.
Fuel capacity: 25 Litres.



Note: When re-fuelling always ensure that the fuel filter (supplied) is in place under the filler cap, as foreign matter or debris will cause damage to the engine and greatly reduce the life of the generator.

OPERATING INSTRUCTIONS...cont

STOPPING THE GENERATOR

In an emergency:

- Simply press the engine switch to the off position.

In normal conditions:

- Remove any load from the generator.
- Press the engine switch to the off position.
- Turn the fuel tap to off.

MAINTENANCE INSTRUCTIONS



Caution: Always turn off the generator and allow to fully cool before carrying out any maintenance procedures.

CHANGING THE OIL

Change The Engine Oil (every 50 hours of use).

1. Turn the oil filler cap counter clockwise and remove from the crankcase.
2. Loosen and remove the oil drain bung and allow the oil to drain into a suitable container.
3. Refit and tighten the oil drain bung once all of the oil has drained.
4. Fill the crankcase to the max level with fresh oil (see page 13); we recommend the use of SAE 10W-30 oil.
5. Refit the oil filler cap.

CLEAN OR REPLACE THE AIR FILTER

Clean or Replace The Air Filter (every 50 hours of use).

1. Gently prise open the 2 retaining clips on the right hand side of the air filter cover.
2. Remove the air filter cover.
3. Remove the air filter element.
4. 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 detergent 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.

OPERATING INSTRUCTIONS...cont

USING AC POWER

- Follow the instructions on page 16 to start the engine.
- Ensure that the device to be connected is turned off.
- Connect the device to the appropriate AC socket (230v or 110v).
- Select the required voltage with the voltage selection switch.
- Proceed to use the device normally.

USING DC POWER

i **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.

! **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.

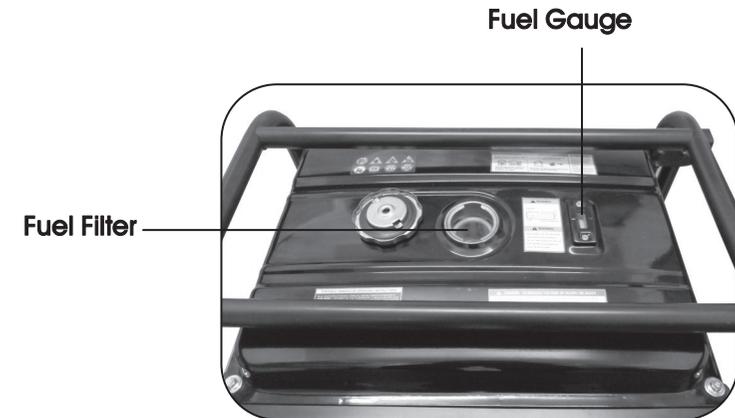
i **Note:** This not an intelligent battery charging system, therefore the battery condition should be closely monitored regularly during charging.

ON COMPLETION OF THE CHARGING PROCESS

- Unplug the lead from generator.
- Disconnect Negative clamp, then Positive clamp from the battery terminals.
- Turn off the generator (see page 19).

i **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.

OPERATING INSTRUCTIONS...cont



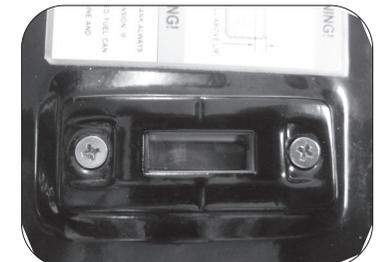
To Fuel / re-fuel the generator:

1. Remove the fuel cap.
2. Carefully pour the petrol into the tank to the desired level and refit the fuel cap.
3. Remove any spilt fuel from the generator and surrounding area to avoid any risk of fire.

i **Note:** There is a fuel gauge on the top of the fuel tank to give you an idea of how much fuel is in the tank.



Empty



Full

The generator should now be ready to run.

OPERATING INSTRUCTIONS...cont

STARTING THE ENGINE



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

Step 1:

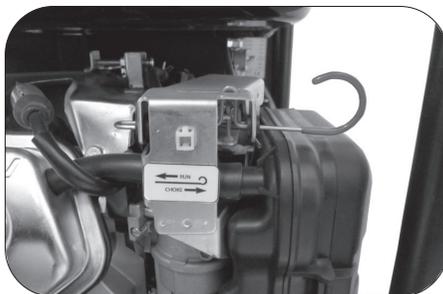
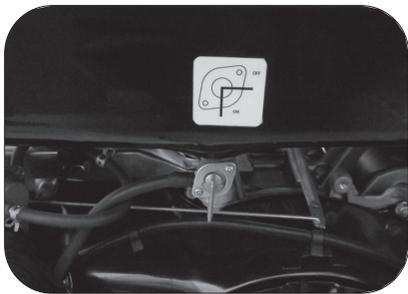
⇒ Turn the main engine switch to the on (1) position.

Engine Switch



Step 2:

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



Step 3:

⇒ Slide the choke lever to the right (see above, right).



Note: The choke may not be needed if the engine is already warm or the ambient temperature is hot.

OPERATING INSTRUCTIONS...cont

Step 4:

- ⇒ Hold the generator firmly with one hand.
- ⇒ Grip the recoil start handle and slowly pull the cord until it engages, then pull sharply until the engine starts.



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



Note: Once the engine has started slowly release the recoil and allow the cord to be retracted.

Step 5:

- ⇒ Once the engine is running and warm enough, slide the choke lever to the left 'RUN' position.



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: The power indicator light (green) will be on, and remain on during normal operation.

CONNECTING ELECTRICAL DEVICES

The generator can supply 230v & 110v AC as well 12v DC (only to be used for charging batteries).



Caution: Ensure that the device to be connected is in good working order and that the required power needed to run it is within those stated in the specifications for the generator.



Note: Any device which contains an inductive load (e.g. devices that contain a motor) may require more current on start-up.