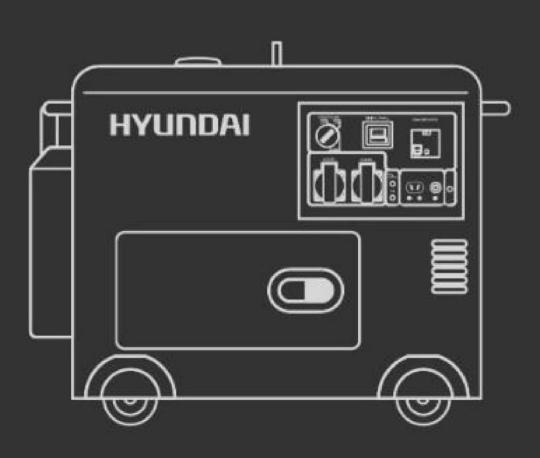


DIESEL GENERATOR

DHY6000SE/DHY6000-SERS DHY8500SE/DHY8500-SERS

User Manual

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1. SAFETY

- 1.1. General safety notes.
 - 1.1.1. The operator of the machine is responsible for, and has a duty of care in making sure that the machine is operated safely and in accordance with the instructions in this user manual. Keep the manual safe and pass it on if the machine is loaned or sold to anotheruser.
 - 1.1.2. Please note the following safety points.
 - 1.1.2.1. The machine should never be left it in a condition which would allow an untrained or unauthorised person/s to operate thismachine.
 - 1.1.2.1.1. All due care and diligence should be taken by the operator for the safety of, and with regard to, those around whilst using the machine.
 - 1.1.2.1.2. Some or all of the following - warning signs, symbols and/or PPE pictograms may appear throughout this manual. You MUST adhere to their warning/s. Failure to do so may result in personal injury to yourself or those around you.

The FOLLOWING safety notes will help avoid or reduce risk of injury or death.



/ DANGER



!\ WARNING



Indicates a hazard, which, if not avoided, could result in serious injury or death.

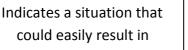
Indicates a hazard, which, if not avoided, could result in serious injury.

Indicates a hazard which, if not avoided, might result in minor or moderate injury.



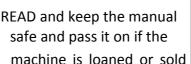


equipment damage.









to another user.



You MUST fully read instructions to make sure you use and operate machine safely.

Appropriate Personal Protective Equipment (PPE)

MUST be worn at all times when machine is in use or being repaired.

















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ALWAYS keep the working area clear of non-essential people to include, but not limited to, children, the elderly and vulnerable persons.

NEVER ALLOW an untrained person to use this machine.

- 1.2. Carbon monoxide (where applicable).
 - 1.2.1. Carbon monoxide is a colourless and odourless gas. Inhaling this gas can cause death as well as serious long term health problems such as braindamage.
 - 1.2.2. The symptoms of carbon monoxide poisoning can include but are not limited to the following;

Headaches, dizziness, nausea, breathlessness, collapsing or loss of consciousness.

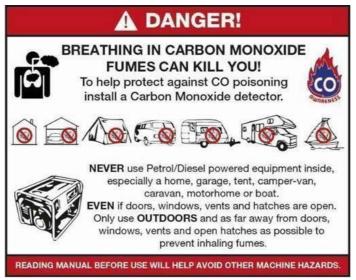
- 1.2.2.1. Carbon monoxide poisoning symptoms are similar to flu, food poisoning, viral infections and simply tiredness. It is quite common for people to mistake this very dangerous poisoning for somethingelse.
- 1.2.2.2. To avoid carbon monoxide poisoning DO NOT use Petrol/Diesel-powered equipment inside any of thefollowing;

Home, garage, tent, camper van, mobile home, caravan or boat.

This list is not exhaustive and if you are in any doubt contact your dealer.

- 1.2.3. If you think you have or someone around you has been affected by carbon monoxide poisoning;
 - 1.2.3.1. Get them fresh air immediately, by leaving the affected area or by opening doors and windows. If safe and practical to do so make sure that the machine is turned off. DO NOT enter a room you suspect of having carbon monoxide present – instead call the emergencyservices.
 - 1.2.3.2. Contact a doctor immediately or go to hospital let them know that you suspect carbon monoxide poisoning.
- 1.2.4. **DO NOT** use in an enclosed area or a movingvehicle.

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1.3. General fuel safety.



ALL FUELS ARE FLAMMABLE

1.3.1. Fire hazard - keep fuel away from all sources of ignition for example heaters, lamps, sparks from grinding orwelding.



Fire Hazard

- 1.3.2. DO NOT carry out hot work on tanks that have contained fuel it is extremely dangerous.
- 1.3.3. ALWAYS keep work area clean and tidy.
- 1.3.4. ALWAYS clean up all spills promptly using correct methods i.e. absorbent granules and a lidded bin.
- 1.3.5. ALWAYS dispose of waste fuels correctly.
- 1.4. Fueling/De-fueling (where applicable).

CAUTION

ALL FUELS ARE FLAMMABLE

- 1.4.1. ALWAYS fuel and defuel in a well-ventilated area outside of buildings.
- 1.4.2.ALWAYS wear correct, suitable and fit for purpose Personal Protective Equipment (PPE), suggested items are but not limited to safety gloves and overalls.

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- 1.4.3. When fueling/de-fueling ALWAYS avoid inhalingfumes
- 1.4.4. When de-fueling ALWAYS use a propriety fuelretriever.
- 1.4. 5.ALWAYS carry fuel in the correct and clearly markedcontainer.

Eiro Hazard

1.5. Electrical safety.



- 1.5.1. Electricity can kill NEVER work on LIVE/ENERGISED equipment.
- 1.5.2. Prior to carrying out any maintenance work you MUST Identify electrical isolation methods and isolate all electrical supplies,
- 1.5.3. Prior to use and with all electrical supplies isolated You MUST check all electrical cables, plugs and connections for thefollowing;
 - 1.4.1.1. Are intact and have no signs of damage, to include but not limited to bare wires, chaffing, cuts and loose wiring.
 - 1.4.1.2. If there are any signs of damage, the damaged item MUST be taken out of service until the damage has been repaired by an electrically competent person.
 - 1.4.1.3. All trailing cables should be routed so as not to cause any kind of trip hazard.
 - 1.4.1.4. NEVER work on or near electricity with wet hands, wet clothing, and wet gloves.

1.6. Batteries



Corrosive

1.6.1. Batteries present a risk if they become damaged by the possible leaking of electrolyte. This electrolyte is an acid and can cause serious burn injuries. Care

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- should be taken when working on or near them. NOTE the electrolyte may be in liquid or gel form.
- 1.6.2. Should you come into contact with electrolyte youshould;
 - 1.6.2.1. Remove all clothing contaminated with electrolyte. If you cannot remove then saturate in water.
 - 1.6.2.2. Get medical assistance as soon as possible. You must advise the medical staff of the type acid.
 - 1.4.1.4.1. Lead/acid battery = dilute sulphuric acid
 - 1.4.1.4.2. Nickel/cadmium = potassium hydroxide alkalielectrolyte.
 - 1.6.2.3. Use fresh running water to wash off excess electrolyte, continue this until medical assistance arrives. Make sure that you do not wash the electrolyte to another part of the face or body.
 - 1.6.2.4. If electrolyte comes into contact with Eyes the electrolyte needs to be immediately washed away with large amounts of water. Make sure that you do not wash the electrolyte to another part of the face orbody.
- 1.6.3. Gasses from charging batteries are highly flammable and great care should be taken to charge in well ventilated areas.
- 1.6.4. There is an explosion risk if the battery terminals are short circuited, when connecting/dis-connecting ALWAYS exercise great care so that the terminals or battery leads are NOT allowed to touch and cause a spark. ALWAYS use suitable insulated tools.



- 1.7. Vibrations (where applicable).
 - 1.7.1. Prolonged use of hand held (operated) machines will cause the user to feel the effects of/from vibrations. These vibrations can lead to white finger (Raynaud's phenomenon) or carpal tunnel syndrome. This condition reduces the ability of the hand to feel and regulate temperature, causing numbness and heat sensations and may cause nerve damage and circulatory tissuedeath.
 - 1.7.2. Not all factors that lead to white finger disease are known, but cold weather, smoking and other diseases that affect blood vessels and blood circulation as well as large and long-lasting impact of shocks are considered factors in the formation of white finger. Note the following to reduce the risk the white finger and carpal tunnel syndrome:
 - 1.7.2.1. Wear gloves and keep your hands warm
 - 1.7.2.2. Take regular breaks
 - 1.7.3. All of the above precautions may help reduce the risk of white finger disease but not rule out carpal tunnel syndrome. Long-term and regular users are therefore recommended to observe the condition of your hands and fingers. Seek medical attention immediately if any of the above symptoms shouldoccur.

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1.8. Noise.

- 1.8.1. The operating noise of the machine can damage your hearing. Wear hearing protection such as earplugs or ear defenders to protect your hearing. Long-term and regular users are advised to have hearing checked regularly. Be especially vigilant and cautious when wearing hearing protection because your ability to hear alarm warnings will be reduced.
- 1.8.2. Noise emissions for this equipment is unavoidable. Carry out noisy work at approved times and for certain periods. Limit the working time to a minimum. For your personal protection and protection of people working nearby it is also advisable for them to wear hearing protection.
- 1.8.3. See CERTIFICATE of CONFORMITY section for Outdoor Noise declaration of conformity.



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1.4.7. Dispose of waste fuelscorrectly.



- 1.4.8. Diesel safety. TOXIC
 - 1.4.8.1. Always fuel and defuel in well-ventilated area.
 - 1.4.8.2. Always wear correct, suitable and fit for purpose Personal Protective Equipment (PPE), suggested items are as follows, but are not limited too.



1.4.8.3. Hand protection.



1.4.8.4. Protective clothing.



- 1.4.8.5. Respiratory protective equipment should be used when in an unventilated area.
- 1.4.8.6. When defueling always use a propriety fuel retriever.
- 1.4.8.7. Always carry fuel in the correct and clearly marked container.



- 1.4.9. Petrolsafety. TOXIC FUMES
 - 1.4.9.1. Always fuel and defuel in well-ventilated area.
 - 1.4.9.2. Always wear correct, suitable and fit for purpose Personal Protective Equipment (PPE), suggested items are as follows, but are not limited too.



1.4.9.3. Hand protection.



1.4.9.4. Protective clothing.



- 1.4.9.5. Respiratory protective equipment should be used when in an unventilated area.
- 1.4.9.6. When defueling always use a propriety fuel retriever.
- 1.4.9.7. Always carry fuel in the correct and clearly marked container.



- 1.4.10. Electrical Safety. sho
 - 1.4.10.1. Electricity can kill never workon LIVE/ENERGISED equipment.
 - 1.4.10.2. Identify electrical isolation method and always isolate all electrical supplies, prior to carrying out any maintenance work.
 - 1.4.10.3. Prior to use and with all electrical supplies isolated check all electrical cables, plugs and connections for thefollowing.
 - 1.4.10.3.1. Are intact and have no signs of damage, to include but not limited to bare wires, chaffing, cuts and loose wiring. If there are any signs of damage, the damaged item should be taken out of service until the damage has been repaired by an electrically competent person.
 - 1.4.10.4. All trailing cables should be routed so as not to cause any kind of trip hazard.

1.5. Additional Safety guidelines'

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1.5.1. Exhaust and Engine

- 1.5.1.1. The engine and exhaust will become very hot during use do not touch.
- 1.5.1.2. These items remain hot for some time after use.
- 1.5.1.3. Place the machine in an area where pedestrians or children are not likely to touch themachine.
- 1.5.1.4. Avoid placing any flammable materials near the exhaust outlet during operation.
- 1.5.1.5. Keep the machine at least 1 m from buildings or other equipment, or the engine mayoverheat.
- 1.5.1.6. Avoid operating the engine with a dust cover.

1.5.2. Control Functions

1.5.2.1. Oil WarningSystem

- 1.5.2.1.1. When the pressure switch senses low oil pressure engine will stop automatically.
- 1.5.2.1.2. Unless you refill with oil the engine will not start again.

1.5.3. Starter Switch (SW)

- 1.5.3.1. The engine starter switch controls the ignition.
- 1.5.3.2. In the 'OFF' Position the ignition circuit is switched off and the enginewill not run
- 1.5.3.3. In the 'ON' position the engine is ready for starting
- 1.5.3.4. In the 'START' position (pushed against spring tension) the starter motor is engaged and the machine will start.

1.5.4. AC Switch (Breaker)

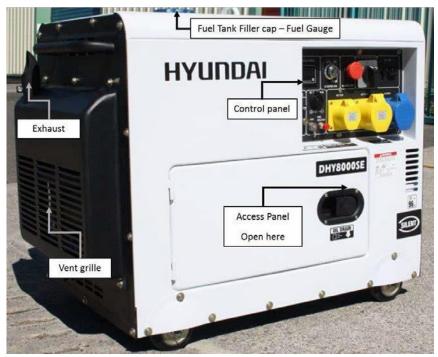
- 1.5.4.1. The AC Switch (Breaker) will turn 'OFF' automatically when the load exceeds the generator output.
- 1.5.4.2. If AC switch turns 'OFF' then before resetting remove some of the load and keep below the rated output of the machine.
- 1.5.5. DO NOT Connect the generator to Mains AC sockets in your building commonly known as 'back feeding' it is extremely dangerous and illegal.

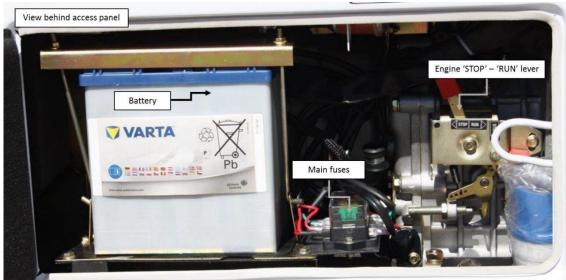


AC SW

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2. MACHINELAYOUT Typical control panel layout for Single phase machine.







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<u>Typical control panel layout for Single & Three phase machine.</u>



3. PREPARATION for STARTING



□ DO NOT EXCEED INDIVIDUAL SOCKET AMP RATINGS.



- DO NOT refill tank while engine is running or HOT.
- ☐ Do not smoke or allow flames or sparks in the area where the engine is refueled or where the fuel is stored.
- Do not overfill the diesel tank and make sure the filler cap is securely closed after refueling.
- Take care not to spill fuel when refueling. If any fuel is spilled, make sure the area is clean and dry before starting the engine.



Wear suitable PPE, suggested but not limited too

3.1. Selection and handling of fuel.





- 3.1.1.1. Only use standard specification diesel, this can be red or white.
- 3.1.1.2. Keep dust and water out of thefuel.
- 3.1.1.3. When filling the fuel tank from drums, make sure that no dust or water is mixed in with the fuel. This can cause serious damage to the fuel injection pump or the injector nozzle.
- 3.1.1.4. Do not overfill. Overfilling can potentially be very dangerous. Diesel can expand in hot weather and overflow
- 3.1.1.5. Always leave a 25mm gap above the fuel level.

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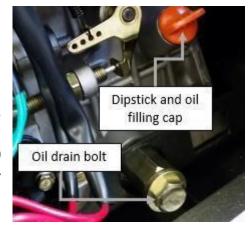
- ☐ Always check the engine oil level with the generator on a flat, level surface before starting or refilling the machine.
- If an insufficient amount of engine oil is used, damage to the engine mayresult.
- Do not overfill the engine with oil.
- This generator is equipped with a low oil pressure switch this system will stop the engine automatically when the oil pressure falls below the minimum pressure required.
- This helps prevents damage such as bearing seizures etc.
 However, this should not be relied upon and the engine oil level should be checked and topped up if required, daily.



Wear suitable PPE, suggested but not limited too



- 3.2. Check and refill the engine oil.
 - 3.2.1.To ensure the generator maintains an optimum performance and the life of the generator is as long as possible, it isimportant to use the correct engine oil SAE10W/30 SAE15W/40 (API CH-4/CF/SJ/SL diesel engine oil or higher grade) and change after the first 20 hours, then every 100 hours.



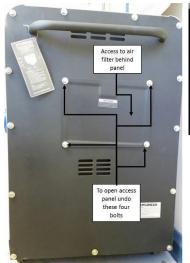
- 3.2.2. If the correct engine oil is not used, or the engine oil is not replaced every 100 hours, as required, the risk of crankshaft bearing failure, piston seizure, piston ring sticking and
 - accelerated wear of the cylinder liner, main bearing and failure of other moving components increases significantly. The generator lifespan will be greatly reduced if oil level and oil changes are reduced.
- 3.2.3. Remove oil filler cap and check engine oil level
- 3.2.4. If oil level is below the lower level line, refill with SAE API CH-4/CF/SJ/SL diesel engine oil on dipstick, or to the top of filler neck. N.B. do not screw oil filler in the oil filler cap when checking oil level.
- 3.2.5. Change contaminated oil.
- 3.3. Service the AirCleaner.



- □ Do not wash air filter with detergent.
 - Replace the air filter if the engine output decreases or excessive exhaust smoke is noticed.
 - Never run the generator without the air filter, otherwise rapid engine wear will result.

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- 3.3.1. Remove the access panel to reveal air filter cover.
- 3.3.2. Undo the nut (anticlockwise) and removethe air cleaner cover and take out theelement.
- 3.3.3. Clean the air filter.
- 3.3.4. Reattach the air filter cover and screw on the nut.







3.4. Checking the Generator before start up.

generator should be earthed to prevent electric shocks.

☐ Turn off the main breaker switch and remove all loads.

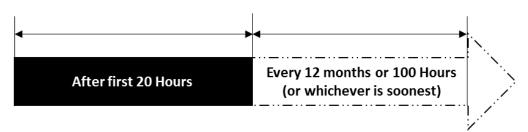


Be sure to turn off the main breaker switch before starting. The



- ☐ Before starting the engine, be sure to switch OFF any appliances connected to it.
 - ☐ Ensure that the breaker switch is OFF before switching between 115v/230v.
- 3.5. Running-in periods of Operation.
 - 3.5.1. The first 20 hours are the break-in period of the engine. For this reason, it is important to follow the following instructions during this period.
 - 3.5.1.1. Warm up the engine 5 minutes after the initial starting, before applying load.
 - 3.5.1.2. Avoid applying loads above 3kw during the first 20 hours of operation.
 - 3.5.1.3. It is important to replace the engine oil on time.
 - 3.5.1.4. Replace the engine oil whilst the engine is warm, after 20-hours running.
 - 3.5.1.5. Ensure that old engine oil is drained out completely.

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3.6. Battery.



• Do not connect tools or any other appliances to the generator

before starting.

CAUTION

• Explosive gases are given off when charging battery. Only charge in a well-ventilated area, away from sparks and naked flames.

3.6.1. Battery.

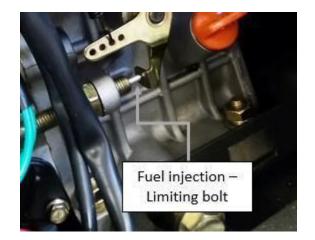
- 3.6.1.1. When you first install the battery, ensure that the battery's polarity is the same as the generator's battery leads Black = negative, Red = positive.
- 3.6.1.2. Using a voltmeter check the voltage is 12.3V+, if lower, the battery must be charged.
- 3.6.1.3. Check that the voltage is correct every month. The battery should be between 12.5v and 13.6v. When the engine is running it should re-charge the battery.
- 3.6.1.4. Make sure battery is free from damage and is not leaking. If battery shows signs of damage or leaking DO NOT continue to use. Instead replace battery immediately.
- 3.6.1.5. Make sure that all battery acid spills are correctly cleaned up straight away.
- 3.6.1.6. The battery should be stored in a charged condition.
- 3.6.1.7. The battery is a 12 volt 36Ah sealed lead acid battery and requires no maintenance otherthan;
 - 3.6.1.7.1. Ensure battery terminalsare;
 - 3.6.1.7.2. Kept clean.
 - 3.6.1.7.3. Kepttight.
 - 3.6.1.7.4. Covered to prevent shortcircuiting.
- 3.6.1.8. If the battery voltage is too low, it will require charging before use.
- 3.6.1.9. Keep the battery in a cool, dry place. It is important to clean the battery every three months and charge every sixmonths.

4. OPERATINGTHE GENERATOR



☐ Do not loosen or readjust either the engine speed limiting bolt or the fuel injection limiting bolt as this will cause the performance of the generator to be affected.

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4.1. Starting.

- 4.1.1. Turn the main AC switch to the 'OFF' position.
- 4.1.2. Make sure that the machine has fuel for the task.
- 4.1.3 Make sure the emergency STOP switch is out (turn anti-clockwise).
- 4.1.4. Set the engine speed lever is set to 'RUN'.
- 4.1.5.Turn the startingkey clockwise to the 'START' position.
- 4.1.6Remove your hand from the key as soon as the engine starts.
- 4.1.7. If the engine does not start after 10 seconds, wait
 15 seconds before trying again. Excessive startattempts will cause the battery to flatten.
- 4.1.8. If it does not start after 3 attempts, or runs intermittently with excessive smoke check that the fuel system is fully primed.
 - 4.1.8.1. Priming before starting to prime make sure that there is fuel in tank and that you can contain any fuelspilt.
 - 4.1.8.1.1. It is done by releasing the pipe clip on the diesel fuel line connected to the injector pump. Make sure you pinch the fuel line and then release slowly until all air is released and fuel appears.
 - 4.1.8.1.2. When fuel appears replace pipe onto the injector pump and replace clip. Clear up any fuel spills before restarting.
 - 4.1.8.1.3. The above may be necessary when new, or if the machine runs out of fuel.







Injector pump inlet



No fuel



Pull down to 'STOP' machine

Fuel showing

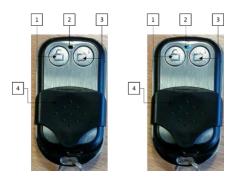
- 4.1.9. Always leave the key in the 'ON' position whilst the engine is running.
- 4.1.10. Run machine for two minutes before applying load
- 4.1.11. Insert the plug into the socket you are about to use.
- 4.1.12. Turn the main AC switch to the 'ON' position and turn the electrical appliance 'ON'.

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- ☐ If the engine has been running, the muffler will become very hot. Be careful not to touch the muffler until it has had time to fully cool down.
- ☐ Never refuel the fuel tank whilst the engine is still running.
- 4.2. Wireless remote controlled start (where fitted).
 - 4.2.1. With the ignition switch in the OFF position, and the machine in all other aspects ready for operation (see usermanual).
 - 4.2.2. The remote control has an approximate range of 25 metres in line of sight with no obstructions. This distance will reduce as the battery power depletes.
 - 4.2.3. Pull back the protection shroud (4) to reveal the ON OFF control buttons (1&3)
 - 4.2.4. To start the machine press button (3) twice each time the tell-tale LED (Blue) will light.

 N.B. the first press arms system, second press starts machine.



- 4.2.5. The machine will crank 3 times until started, if there is a NO start then a pause of 3 seconds,
- 4.2.6. The machine will crank 5 times until started, if there is a NO start then a pause of 3 seconds.
- 4.2.7. The machine will crank for 7 times until started, if there is NO start the machines wireless receiver will emit a 'beeping sound'. You will now have to turn the machine OFF and back on to reset the wireless receiver.
- 4.2.8. The following are possible causes for a NO start,
 - 4.2.8.1. STOP/START lever in STOP position.
 - 4.2.8.2. Emergency STOP buttonactivated.
 - 4.2.8.3. Low or no fuel.
 - 4.2.8.4. Flat battery.
- 4.3. Checks whilst generator is running.
 - 4.3.1. After each use make sure that there are no abnormal sounds or vibration.
 - 4.3.2. Check that the engine is running smoothly normally.
 - 4.3.3. Check that there is no excessive smoke from the exhaust after 10 minutes of running, and the engine has reached working temperature
 - 4.3.4. Check that there are no oil or fuel leaks.

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fault.

☐ Please contact Genpower for assistance if any of the above, stop required.

If you notice the engine and locate the

5. <u>LOAD</u>



Start appliancesone-by-one.

5.1. 230 Volt AC use.

- 5.1.1. After switching ON the main breaker switch, and the engine running check the Voltage reading when in 'Voltage Mode'. It should read $230v \pm 5\%$ (50Hz).
- 5.1.2. The Digital panel only becomes active when the Main breaker is in the 'ON' position. The following will be displayed by successive presses of the 'M' or mode button.



HYUNDAI





Lamp Illuminated	Indicating		
V	Voltage		
Hz	Frequency		
V1	Event timer - or current running time (hours). This will reset to zero when main Breaker is 'OFF'		
V2	Total Run Time		

- 5.1.3. Connect the equipment to the generator in correct order.
- 5.1.4. Connecting the loads with the largest motor first, then the smaller items.
- 5.1.5. If the generator is overloaded the main breaker will trip.
- 5.1.6. To reset the breaker do the following;
 - 5.1.6.1. Turn OFF and disconnect all loads.
 - 5.1.6.2. Reset breaker, and add load onto the circuit to within 50% to 75% of rated output.
- 5.1.7. Wait a few minutes before resuming operation.
- 5.2. Electrical appliances, particularly motor driven equipment, will have a very high startup current. The table below provides reference for connecting these appliances to the generator.

Type Wattage	Example
--------------	---------

	Starting	Rated	Typical	Appliance	Starting	Rated
			appliance			
Lighting			Incandescent	Incandescent		
Heating	x 1	x 1	lamp or heating	lamp 1000	100 vA	100 vA
Appliance			appliance	watts		
Fluorescent	v 2	x 1 to x 1.5	Fluorescent	Fluorescent Lamp	80 vA	40 to 60
Lamp	x 2	X 1 (0 X 1.5	Lamp	Fluorescent Lamp	80 VA	vA
Motor		x 1 to 2	Refrigerator,			
Driven	x 3.5		Electric fan,	Refrigerator150	450 to 750	150 to 30
Equipment			Compressoror grinder	watts	vA	vA

6. **STOPPINGMACHINE**

Do not stop the engine suddenly or whilst under load.

- **MARNING** This can damage the AVR and cause damage to the alternator through overheating.
 - Do not stop the engine with the decompression lever.
 - 6.1. Switch OFF equipment connected to thegenerator.
 - 6.2. Turn off the main breakerswitch.
 - 6.3. Run the generator without load for three minutes.
 - Turn the electric key start switch to the 'OFF' 6.4. position.
 - 6.5. Or press or pull down the stop lever.

7. PERIODICMAINTENANCE



MARNING ☐ Ensure the engine is off before performing any service.

- If the engine must be run, make sure that the area is well ventilated.
- The exhaust contains poisonous carbon monoxidegas.

7.1. Maintenance chart.

All work/s should be carried out by a competent person – if you need technical advice contact Genpower					
Item	Daily	First month or 20 hours	Every 100 hours / 12 months	Every 500 hours	Every year or 1000 hours
Check and refill with diesel	Yes				
Check and refill with engine oil	Yes				
Check for oil leakage	Yes				
Check and tighten fastening parts	Yes				
Check and tighten head bolts				Yes	

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Replace engine oil	Yes First oil change	Yes		
Replace engine oil filter		Yes		
Replace air filter		Yes		
Replace fuel filter		Yes		
Check Fuel injection pump				Yes
Check injector nozzle				Yes
Check fuel pipes				Yes
Adjust clearance of intake and exhaust valves	Yes – First time			Yes
Grind intake/exhaust valves				Yes
Replace piston rings				Yes
Check battery condition		Yes		
Check carbon brushes and slip rings			Yes	

7.2. Replacing engine oil.



After engine has been run prior to changing the oil will be very hot. Wear

correct PPE minimum of





gloves and overalls.



DO NOT allow any dust, dirt or any other debris enter oil or crankcase.

- 7.2.1. Remove the oil filler cap.
- 7.2.2. Remove the drain plug and drain the old oil while the engine is still warm.
- 7.2.3. The plug is located on the bottom of the cylinder block.
- 7.2.4. After draining, re-tighten the drain plug and refill with the recommended oil API CH-4/CF/SJ/SL diesel engine oil or highergrade.



8. LONG TERMSTORAGE



☐ After running the engine the oil will be very hot. ☐ Wear correct PPE minimum of gloves and

overalls.





- 8.1. If storing the generator for long periods of time, make the following operations.
 - 8.1.1. Operate the engine for 10 minutes and then stop.
 - 8.1.2. Stop the engine.
 - 8.1.3. Drain the engine oil whilst the engine is still warm and refill with fresh oil.

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- 8.1.4. Turn the engine for 2-3 seconds with the decompression lever set at the non-compression position and the starting key set at the 'START' position. (Do not start the engine.)
- 8.1.5. Wipe off the oil and dirt from the engine and store in a dry place.

9. TROUBLESHOOTING.

9.1. Troubleshooting - N.B. all corrective actions should be carried out by suitably qualified person/s.

Problem	Possible fault/cause	Remedy
	The governer lever is not at START position	Set lever to START position
	Emergency STOP button	Re-set emergency STOP
	activated(depressed) Insufficient fuel	button Refill with fuel
The Diesel engine will not	Fuel injection pump does not deliver fuel or delivers insufficient fuel	Remove the injector pump and have it tested
start	Check the engine oil level	The specified oil level should be to the upper lever
	The injector has severe carbon build-up	Clean the injector
	The start motor turns slowly	Check battery performance and all connections
	The battery is flat	Charge or replace with a new one
	Main breaker switch has not been turned ON	Turn the main breaker to the ON position
	Alternator brushes worn	Replace the brushes
The generator is not	The contact in the socket is	Make sure plugs are fully
producing power	not good	inserted into sockets
	The rated sped is too HIGH or	Adjust engine speed to
	too LOW	produce 52 Hz with no load
	AVR is damaged	Replace AVR

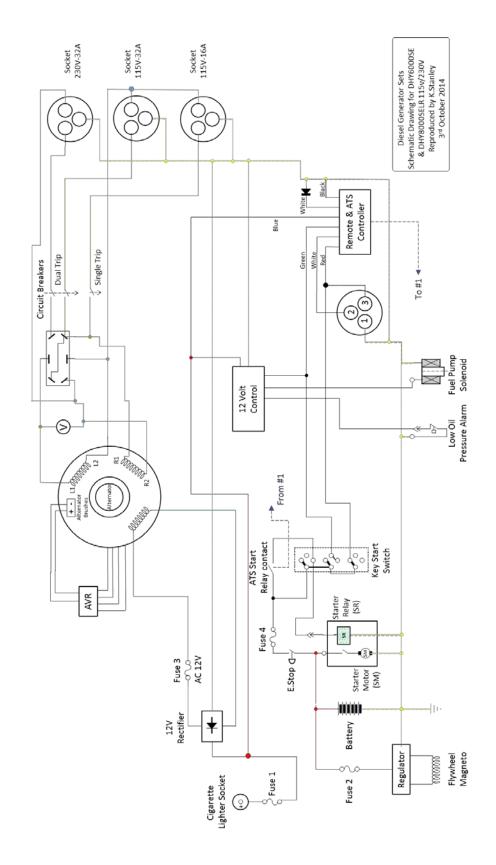
10. SPECIFICATIONS

	Model	DHY6000SE	DHY6000SERS	DHY8500SE	DHY8500SERS	
		Single phase only				
~	Frequency Hz	50 Hz				
GENERATOR	Continuous					
ERA	Output	4.6	4.6 kW		kW	
Ē	Power kW					
6	Max Power	5.2 kW 6.5 kW		kW		

	Voltage AC Volts		240V					
	Sockets		2X 15A + 32A @ 240V					
	Fuel Tank capacity	16	16	12				
	DC Output Volts - Amps		12V - 8.3A					
	Battery			12 v 36Ah				
	Engine Type			Diesel				
	Engine	Hyundai D40 coole	0, Forced Air- d, OHV	Hyundai [D500E, Forced Air	- cooled, O	HV	
	Power Output HP	10 HP 12 HP						
	Start method	Electric						
	Displacement cc	418	3 сс	456 cc				
	Engine Speed rpm	3000 rpm						
ENGINE	Lubrication Oil	SAE 10W/30 or 15W/40 (API CH-4/CF/SJ/SL diesel engine oil grade or higher)						
ENG	Lubrication Oil Capacity (Litres)		1.75 Litres 0.8					
	Power Factor cos [¢]							
	Voltage Regulati	Automatic Voltage Regulation - A.V.R.						
	Net Weight kg	152	152	152	152			
Weight imension	Dimensions (L x W x H) mm	935 x 520 x 765	935 x 520 x 765	935 x 520 x 765	935 x 520 x 765			

۵ 11. <u>WIRINGDIAGRAM</u>

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11.1. (N.B. Subject to change without priornotice).

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12. <u>SERVICE RECORD SHEET</u>

Date	Hours	Maintenanceundertaken	Name

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