

DG <u>Portable Petrol Generators</u>



DG 950P



DG 3500PX



DG 5000P



DGW



DG 11000PS

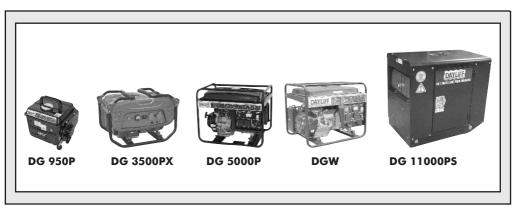
Installation & Operating Manual

INDEX

1.	GENERATOR SPECIFICATIONS	1
2.	CONTROLS	3
3.	ELECTRICAL CONNECTIONS	3
4.	GENERATOR OPERATION	4
5.	ROUTINE MAINTENANCE	4
6.	SAFETY WARNINGS	5
7 .	TROUBLE SHOOTING	6
8.	WARRANTY	7

Thank you for choosing Dayliff DG generator. It has been manufactured to the highest standards and if operated correctly should give many years of efficient and trouble free service. Careful reading of this instruction manual is therefore extremely important and if you have any queries please refer them to your retailer.

1. GENERATOR SPECIFICATIONS



The Dayliff Range of portable petrol generators are dependable, quality products specially designed for mains standby and remote site power supply applications. Particular features include:

- Reliable and economical air cooled OHV petrol engines equipped with large size exhausts and air cleaners for low noise operation
- High efficiency square core alternators providing increased power output and enabling operation of sensitive electronic equipment
- AC auxilliary current and DC welding current can be used simultaneously (DGW)
- DC output for battery charging
- Strong tubular frame for protection and ease of handling(not DG950P and DG11000PS)
- Integrated control panel with voltmeter for operational convenience
- Fuseless type over current protection
- Oil alert system to stop engine in the event of low oil level (not DG950P)
- High capacity fuel tank for extended operation (not DG950P)

Dayliff generators are of compact design and their advanced features make them suitable for all small scale power supply applications.

Specifications

	Output		Engine			Fuel tank	Opera- ting	
Model	Rated (kVA)	Max (kVA)	Model	Capacity (cc)	Max Power (HP)	capacity	Period (Hrs)	Starter
DG 950P	0.65	0.72	LT1E45, 2T	63	2	4.2	5	Recoil
DG 2500H	2	2.3	Honda GX160, 4T	163	5.5	15	6	Recoil
DG 3000P	2.3	2.5	LT200, 4T	196	6.5	15	6	Recoil
DG 3500PX	2.8	3.1	LT210, 4T	208	7	15	6	Recoil
DG 5000P	4	4.5	LT390, 4T	389	13	25	5	Electric
DG 6500H	5	5.5	Honda GX390, 4T	389	13	25	5	Electric
DG 7500P	6	6.5	LT420, 4T	420	16	25	4	Electric
DG 11000PS*	8.5	9.5	LT620, 4T 2 Cylinder	614	20	25	3	Electric
DGW 200P	5	5.5	LT420V	420	10.5	25	7	Electric

^{*}Acoustic Set with AMF, noise level: 70dBA@7m

Welding Data

	<u> </u>					Welding Rod Currents (A)		
Model	No Load Voltage (V)	Operation Voltage (V)	Operating Current (A)	Max. Arching Current (A)	2.5mmØ	3.2mmØ	4mmØ	
DGW200P	65	28-35	50-140	200	50-100	100-160	160-200	

NOTE: Given outputs are sea level ratings. Sets should be derated at 1% for every 100m higher than 100m above sea level, and 2% for every $5^{\circ}C$ temperature above $20^{\circ}C$

Electrical Data

Alternator: Brushless, self exciting, 2 pole **Power Output:** 50Hz, 240V,

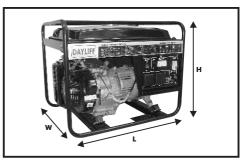
single phase

Voltage Regulator: AVR **Direct Current:** 12V/8.3A

Power Factor: 1 Speed: 3000rpm

Dimensions & Weights

Model	L (mm)	W(mm)	H(mm)	Weight (kgs)
DG950P	360	310	310	16
DG2500H	590	433	460	43.5
DG3000P	590	433	460	44.5
DG3500PX	682	450	460	45
DG5000P	685	512	550	74.5
DG6500H	685	485	550	80
DG7500P	685	512	550	88
DG11000PS*	990	630	860	180
DGW200P	740	475	590	125



2. CONTROLS

All generators are fitted with the following:-

- 2 no 3 pin AC outlets, +ve and -ve DC connections. DG950 with one outlet
- Engine on/off switch.
- Magnetic circuit breaker electric cutout.
- Voltmeter (Not DG950)

3. ELECTRICAL CONECTIONS



If the generator is to be connected for standby power use ensure a qualified electrician is employed. The generator must be isolated from the utility power when connected or serious damage will result to the generator and house power circuits.

- Ensure the total load does not exceed the generator rating. Maximum power output must only be used briefly or generator damage will occur.
- DC output to be used for charging automotive and solar 12V batteries only. Ensure correct polarity when connecting cables, i.e. +ve to +ve and -ve to -ve generator to battery terminals.
- Ensure the generator is properly earthed. Consult a qualified electrician if in doubt.

4. GENERATOR OPERATION



Always start generator before applying load by switching the circuit breaker and stop the generator after disconnecting load. Starting and stopping under load will damage the generator and powered accessories.

- CHECK ENGINE OIL. Operating without oil will cause severe engine damage and invalidate the warranty.
- To start ensure ignition 'on', fuel valve 'on' and choke 'on' .Then either pull starter cord (manual start) or turn key (electric start). For electric start do not turn the engine on for more that 5 seconds. If it fails to start release the switch and wait 15 seconds before re-trying. Switch off choke when engine has started.
- Check output voltage is 240V on the voltmeter. If not adjust engine speed. If
 the speed setting is correct and the voltage is low then the generator is
 overloaded and load must be reduced.
- If more than one appliance is connected apply load progressively with greatest load first.

- Close fuel valve whenever generator is not operating.
- DG 950 generators use two-stroke engines and oil must be pre-mixed with petrol at the ratio of 50:1. Use fuel tank cap as an oil measure adding one inverted capfull for each litre of fuel. Engine damage will occur without pre-mixed oil.

5. **ROUTINE MAINTENANCE**

For Diesel engines see separate engine manual. The below instructions apply to petrol versions only.

ENGINE OIL

Check engine oil daily. If low refill with SAE30.

Change engine oil after first month or after 20hrs operation and thereafter every 3 months or 50 hours of operation, in both cases whichever is sooner.

AIR CLEANER

Check the air cleaner every 3 months or after 50 hours operations, whichever is the sooner. Clean by blowing away accumulated dust and soaking in kerosene.

SPARK PLUG

A correctly set spark plug in good condition is essential for efficient engine operation. Check the plug every 3 months or after 50 hours operation, clean with a wire brush and set the electrode gap to 0.7-0.8mm. If general conduction is unsatisfactory it should be changed with a NGK (BPR5ES) or similar.

6. SAFETY WARNINGS

\bigcirc	Instruction Manual	Read and carefully understand the Instruction Manual before before use.
0	outlesson Outlesson	Avoid proximity to fire when refueling. Highly inflammable!
\bigcirc		Ensure good ventilation around the generator and do not operate indoors. Exhaust gases are very poisonous.
\bigcirc		Do not use generator on a slope. Fuel spillage may occur and cause a fire.
\Diamond		Do not restrict the exhaust silencer. There is a danger of overheating and fire.
\bigcirc		Do not connect generators together Generator damage will occur.
\Diamond		Ensure a competent trained person is used in case of overhaul.

7. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE		SOLUTION		
	Carburettor is blocked	>	Clean carburettor		
	Spark plug is wet / dirty	\supset	Clean and adjust plug		
	Air cleaner dirty	>	Clean air cleaner		
Engine dese	Too much engine oil	>	Reduce oil to suitable level		
Engine does not start	Insufficient engine oil		Oil sensor is activated. Add oil (Oil sensor prevents engine from running if oil level is low)		
			Check fuel cock open		
	No fuel		Clean if fuel filter blocked		
	Battery flat (Electric start)		Charge/replace battery		
Oil leakage from muffler or air cleaner	Engine has tipped over		Right engine oil to drain		
	Circuit breaker tripped		Reduce generator load		
No Electrical output			Check for short circuit in load		
			Loose connection in output cable		
Low Electrical	Low output voltage		Check engine speed		
output	Excessive electrical load		Reduce generator load		

8. TERMS OF WARRANTY

i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Davis & Shirtliff (hereafter called the Company) in respect of any defect or failure of equipment supplied is limited to making good by replacement or repair (at the Company's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences immediately after the equipment has been delivered to the customer and at its termination all liability ceases. Also the warranty period will be assessed on the basis of the date that the Company is informed of the failure.
- This warranty applies solely to equipment supplied and no claim for consequential damages, however arising, will be entertained. Also the warranty specifically excludes defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on the part of the equipment user, Acts of God or any other cause beyond the Company's reasonable control. Also, any repair or attempt at repair carried out by any other party invalidates all warranties.

ii) Standard Warranty

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- Up to six months The item will be replaced or repaired at no charge.
- Over 6 month, less than a year The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirtliff market price.

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirtliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard chargeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be considered.

DAYLIFF is a brand of **Davis & Shirtliff**

for enquiries contact

Davis & Shirtliff, Ltd.

P.O. Box 41762 - 00100, Nairobi, Kenya Tel: 6968000/ 0711 079 000

or visit

www.dayliff.com

for details of the nearest branch or stockist