1. **SAFETY INFORMATION**

EXHAUST FUMES IS POISONOUS.

Never operate generator indoors.

FUEL IS HIGHLY FLAMMABLE.

Stop generator when refuelling.

No Smoking while refuelling.

Take care not to spill fuel.

Never place near inflammables.

Never operate in wet weather conditions.

Never touch with wet hands.
Ground (earth) the generator.

DO NOT connect to commercial power outlet.

DO NOT connect to another generator.
2. **PRE-OPERATION CHECK**

Fuel tank capacity is 4L.  
Use petrol mixed with 2 stroke engine oil.  
Do not make fuel reach the top of fuel filter.

How to make the mixture of petrol and 2 stroke engine oil:  
Petrol and 2 stroke engine oil mixing ratio is 50:1.  
50 parts petrol : 1 part 2 stroke engine oil.

Use fuel tank cap to measure as:

1.(L): 0.02(L)  
2.(L): 0.04(L)  
3.(L): 0.06(L)  
4.(L): 0.08(L)

Shake fuel tank after fueling.
3. STARTING THE ENGINE

Before starting, DO NOT connect with any electrical appliances.

1. Turn fuel cock to "ON" position.

2. Turn choke lever to "CLOSE".

3. Turn engine switch to "ON".

4. Pull slowly on recoil starter until engaged, then pull it briskly.

5. Turn choke lever to "OPEN".
4. **STOPPING THE ENGINE**

Before stopping, turn off all electrical appliances.

1. Turn engine switch to "STOP".

2. Turn fuel cock to "OFF" position.

5. **CONNECTION**

1. Wind lead 2 or 3 turns around the handle.

2. Start generator.

3. Plug into AC socket.

Battery charger (if equipped):
Connect red lead (provided as accessory) to positive (+) pole and black to negative (-) pole.
### SAFETY DEVICES

Press to reset AC or DC protector.
Reduce load under the Max limit of rated output, if AC or DC protector (if equipped) trips.

### 6. PERIODIC MAINTENANCE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>REMARKS</th>
<th>Every 50hrs Or Every month</th>
<th>Every 150hrs Or Every 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spark plug</td>
<td>Remove carbon. Adjust gap. Replace if necessary.</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Air filter</td>
<td>CLEAN. Replace if necessary.</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Fuel filter</td>
<td>CLEAN. Replace if necessary.</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
**SPARK PLUG**

1. Remove spark plug.

2. Remove carbon deposits.

3. Check spark plug for discolouration.
   Standard colour is Tan.

4. Check spark plug gap 0.7-0.8mm (0.028-0.031"").

**AIR FILTER**

1. Remove air filter.

2. Wash in solvent.

3. Pour engine oil (if generator is operated in a dusty area).

4. Squeeze out any extra engine oil.

5. Replace air filter.

Never run generator without the air filter element.
1. Stop generator.
2. Unscrew fuel cap and take out fuel filter cup.
3. Clean in solvent.
4. Wipe off and insert back.
7. **APPLICATION RANGE**

<table>
<thead>
<tr>
<th>Apparatus</th>
<th>650</th>
<th>950</th>
<th>1000</th>
<th>1100</th>
<th>Power factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 Hz</td>
<td>~450 W</td>
<td>~650 W</td>
<td>~720 W</td>
<td>~850 W</td>
<td></td>
</tr>
<tr>
<td>60 Hz</td>
<td>~550 W</td>
<td>~800 W</td>
<td>~850 W</td>
<td>~950 W</td>
<td></td>
</tr>
<tr>
<td>50 Hz</td>
<td>~330 W</td>
<td>~480 W</td>
<td>~540 W</td>
<td>~640 W</td>
<td>0.7-0.8</td>
</tr>
<tr>
<td>60 Hz</td>
<td>~410 W</td>
<td>~600 W</td>
<td>~640 W</td>
<td>~710 W</td>
<td>0.7-0.95</td>
</tr>
<tr>
<td>50 Hz</td>
<td>~390 W</td>
<td>~570 W</td>
<td>~620 W</td>
<td>~730 W</td>
<td></td>
</tr>
<tr>
<td>60 Hz</td>
<td>~480 W</td>
<td>~700 W</td>
<td>~730 W</td>
<td>~820 W</td>
<td></td>
</tr>
</tbody>
</table>

If DC output is equipped

| DC | 12V/8.3A | Max chargeable battery capacity: 40 A.h |

---

8. **TROUBLE SHOOTING**

ENGINE WILL NOT START.

1. Check fuel.
2. Check fuel cock is turned "ON".
3. Check generator switch is turned "ON".
4. Check spark plug.
If generator still will not start, check the following:

1. Fuel cock clogging.

2. Air filter clogging.

Or consult your dealer.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>650</th>
<th>950</th>
<th>1000</th>
<th>1100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Single-phase, brushless, self-excitation alternator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Hz</td>
<td>50</td>
<td>60</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Voltage V</td>
<td>110, 115, 120, 220, 230, 240 Optional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated output W</td>
<td>450</td>
<td>550</td>
<td>650</td>
<td>800</td>
</tr>
<tr>
<td>Max. output W</td>
<td>500</td>
<td>600</td>
<td>720</td>
<td>880</td>
</tr>
<tr>
<td>Volt regulator</td>
<td>Capacitor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Single-cylinder, air-cooled, reed-Valve, 2-stroke gasoline engine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displacement cc.</td>
<td>63</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting system</td>
<td>Recoil starter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended fuel</td>
<td>Unleaded gasoline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lube oil</td>
<td>2-stroke engine oil, pre-mixed with fuel 50:1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel tank capacity L</td>
<td>4.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Running time hr</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>Noise level dB(A)</td>
<td>57 (At 7m)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (LxWxH) mm</td>
<td>400x330x330</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry weight kg</td>
<td>16.5</td>
<td>18.5</td>
<td>20.5</td>
<td></td>
</tr>
</tbody>
</table>