User instructions

Solaris – SSD400

Scrubber / dryer – floor cleaning machine
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1 Product Information
These commercial floor treatment machines are designed for the scrubbing of hard floors in indoor areas.

This machine must only be used for the manufacturer’s approved application. Do not use the machine where it is suspected that the carpet, floor or upholstery contains health endangering dust or debris such as asbestos or chemical waste. If this is suspected do not proceed, contact your supervisor, supplier or Truvox International for advice.

The following instructions contain important information about the machine and safety advice for the operator.

Equipment must be operated, serviced and maintained in accordance with the manufacturer’s instructions. If in doubt contact the supplier of your machine.

These instructions are valid for the following models:

Solaris – SSD400…

1.1 Important Safety Advice
When using electrical equipment basic safety precautions should be followed including the following.

- Read all instructions carefully before use.
- This appliance is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops, offices, rental businesses and other than normal housekeeping purposes.
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the machine by a person responsible for their safety.
- Keep children and unauthorised persons away from the machine when in use.
- Before using the appliance, check that the mains power voltage corresponds with the voltage shown on the rating plate.
- All parts are to be positioned as indicated in the instructions before using the machine.
- Do not operate the machine if it malfunctions or is damaged in any way. Contact an authorised service agent for repair or adjustment.
- Do not operate switches or touch the mains plug with wet hands as this may cause electric shock.
- When unplugging pull the plug, not the supply cord.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull around sharp edges or corners.
- Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
- Keep cord away from heated surfaces.
- Do not use where hazardous dust is present.
- Do not use in an explosive atmosphere.
- Do not pick up oil or other flammable material.
- Do not leave the machine connected to the electricity supply when not in use, always remove the plug from the socket-outlet.
- Switch off the machine before removing the plug.
- The power supply cord must be regularly inspected for signs of damage. If the power supply cord is damaged, it shall only be replaced by the manufacturer, its service agent or a similar qualified person in order to avoid a hazard.
- Only replace the supply cord with the type specified in the instruction manual.
- Do not operate the machine with a damaged supply cord or plug, or after the machine malfunctions or is damaged in any way. Contact an authorised Service Agent for repair or adjustment.
- The plug of the power supply cord must be removed from the socket-outlet before commencing cleaning of the machine or undertaking maintenance operations.
- Do not kink or twist the power cord.
- Take care when using a machine near the top of stairs to avoid overbalancing.

WARNING
Keep the power supply cord clear of moving parts and/or rotating brushes. During operation hazard may occur when running the machine over the power supply cord.
1.2 Guidelines for the operator

**WARNING**

Operators must be fully trained in the use of the machine in accordance with these instructions, able to perform user maintenance and the correct selection of accessories.

- Operators should be physically capable to manoeuvre, transport and operate the machine.
- Operators should be able to recognise unusual operation of the machine and report any problems.
- Only use the machine on firm level surfaces.
- Wear suitable footwear to avoid slipping.
- Wear suitable clothing to keep dry and warm.
- Where possible implement job rotation and adequate rest periods to avoid continuous use of the same muscles.
- Do not leave machine running unattended
- Do not smoke when using the machine.
- Do not put any objects into openings. Do not use with any opening blocked: keep free of dust, debris, hair, or anything that may reduce air flow.

**CAUTION** - This machine is for indoor use only and should not be used or stored outdoors or in wet conditions.

**CAUTION** - If it is suspected that there is hazardous dust or flammable materials stop cleaning the area immediately and consult your superior.

**WARNING** Only use accessories and spare parts provided with the machine or those approved by the manufacturer. The use of other accessories may impair the safety of the machine.

- Ensure the machine is switched off before adding or changing accessories.

1.3 Transporting the machine

**CAUTION** – Incorrect lifting techniques may result in personal injury, where applicable do not lift large and heavy machines without assistance. We advise that the manual handling regulations are followed. Please refer to the technical table for details on weight of machine.

When transporting the machine ensure that all components, tanks and removable parts are securely fastened, and that the supply cord and plug are not trailing. Detach hose and wand from machine where applicable.

When transporting the machine the handle should be locked in the upright position.

Take extreme care when moving the machine up or down steps or stairs.

1.4 Symbols & Markings

**WARNING**

Earth symbol

2 Preparing for use

2.1 Electrical connection

Before connecting the machine to the power supply, check that your supply voltage corresponds with that marked on the rating label.

The power supply cord plus any extension leads should not exceed 30m in total, otherwise you may experience problems starting up the machine. The cross-section of any extension cable wiring must be at least 2,5 mm².

Should an extension cord be used, ensure cord rating is adequate for the equipment. Do not use extension cord in coiled condition as this could result in overheating of the cord.

**UK only**

The supply cord for 230v models is fitted with a plug containing a 13 amp fuse. Should the fuse require replacement it must only be replaced by a 13 amp fuse conforming to BS1362, and the fuse cover must be refitted. If the fuse cover is lost the plug must not be used until the correct replacement cover is fitted.

**IMPORTANT** - If the supply cord is damaged, it must only be replaced by a special cord available from the manufacturer or an authorised service agent.

**WARNING** – THIS APPLIANCE MUST BE EARTHED
3 Preparing for use

3.1 Adjusting the handle height
Select the most comfortable handle height using the adjustment lever on the handle, and lock in position.

3.2 Filling the solution tank
- The solution tank can be filled on or off the machine. To fill the tank off the machine the recovery tank must first be removed.
- Remove vacuum hose and clear dome from recovery tank and lift off tank.
- Disconnect solution feed hose from solution tank and lift tank off base. To release hose pull connector collar forward (Fig. 1).

- Fill the solution tank with clean water using a bucket, tap or hose, and an appropriate measure of detergent.
- Replace tanks on base and reconnect hoses.
- Ensure solution hose is fully engaged and captive in the connector allowing solution to flow, thus preventing the pump from overheating.

**IMPORTANT** - Only chemicals recommended by the appliance manufacturer should be used, i.e. low foaming, and follow the chemical manufacturer’s directions regarding use, handling, disposal and health and safety provisions.
- The tank capacity is 15 litres. Do not overfill the tank as spillage may occur when in use.

**IMPORTANT** - When the solution tank has emptied, switch off the machine and empty the recovery tank before refilling the solution tank.

4 Controls
The operating controls are located on the handle and indicated in the logos above the switches (Figs. 2, 3).

![Fig 2](image1)

**Fig 2**

1 - Brush motor switch
Used to switch motor ON and OFF. Lights when in the on position.

2 - Neon indicator
Lights when the machine is connected to the power supply.

3 - Vacuum motor switch
Used to switch motor ON and OFF. Provides suction at the squeegee. Lights when in the on position.

![Fig 3](image2)

**Fig 3**

4 - Solution feed triggers
When squeezed supplies cleaning solution to the brush head.

5 - Handle adjustment lever
Used to adjust handle to comfortable working height.

6 - Cut-out reset button
Cut-out protects brush motor from overheating. Press button once to reset cut-out and restart motor.

7 - Cable winder
Used to hold supply cord in place on handle when machine is not in use.

![Fig 4](image3)
5 Operation

5.1 Starting the machine
Fully unwind the supply cord and plug in to a convenient socket outlet.

- With the solution tank filled and the handle set at a comfortable height, the machine is ready for use.
- Switch ON the brush motor, followed by the vacuum motor.
- Release cleaning solution at regular intervals by means of the handle triggers.

**WARNING** - Always ensure adequate solution is on the floor, scrubbing without solution could damage the floor surface and/or the machine brush. Keep the machine moving while the brush is rotating.

**IMPORTANT** - Should the brush stop rotating due to operation of the cut-out on the brush motor, switch OFF the machine and allow to cool for a few minutes. Press the cut-out reset button on left hand side (Fig.5), and restart the machine.

![Fig 5](image)

- **WARNING** - If foam or liquid is emitted, switch off immediately and empty recovery tank. Liquid emitted could be hazardous as a result of its temperature, or chemical content.
- To STOP the machine, release solution feed triggers, switch off brush motor then vacuum motor.
- Normal movement of the machine is in a forward and backward direction.
- Proceed to operate the machine in the normal manner, releasing cleaning solution from time to time as required.
- For heavy soilage, scrub floor with cleaning solution but with vacuum motor OFF. Scrub floor again picking up the solution.
- When scrubbing is complete, unplug the machine from the power supply, empty the solution tank and clean and dry the machine.

**IMPORTANT** - Dispose of unused cleaning solution in accordance with the manufacturer’s directions.

5.2 Changing the brush

**WARNING** - This appliance has been designed for use with the brushes specified by the manufacturer. The fitting of other brushes may affect its safety. Always ensure machine is unplugged before fitting or removing parts.

- To change the brush, first remove both recovery tank and solution tank to reduce weight and avoid spillage.
- Move handle to upright position, pull backwards and downwards to rest on the floor thereby raising the base.
- Push end of brush shaft with a finger and withdraw shaft completely.
- Place new brush in position and insert shaft through brush until it clicks into place.
- Return machine to the floor, replace tanks and reconnect hoses etc.

5.3 Changing squeegee blades
The squeegee blades are self adjusting for wear, however when wet pick-up becomes ineffective, or blades are damaged they should be replaced as follows.

- Raise machine base as for a brush change.
- Slide squeegee blades out sideways from the holder.
- Slide new blades into place with the ribbed side facing outwards.
- Return machine to the floor.

5.4 Fitting the side brush
Always ensure machine is unplugged before fitting or removing parts.

- Remove recovery and solution tank, and raise machine base as for a brush change.
- Remove shaft from brush and position the magnetic brush guard on right hand side of machine, locating the peg on the guard in the hole in the side plate, and align the shaft hole.
- Insert side brush shaft through guard and push right through main brush until it clicks into place.
- Return machine to floor, replace tanks and reconnect hoses.

5.5 When cleaning is finished

- When cleaning is finished, unplug the machine from the power supply, and lift off and empty the recovery and solution tanks over a suitable sink or drain.
- Flush out the recovery tank with clean water.
- Replace tanks and wipe over the machine with a damp cloth.
- Wipe squeegee blades clean.

**IMPORTANT** - Dispose of unused cleaning solution in accordance with the manufacturer’s directions.

- Remove brush and wash in warm soapy water.
6 Storage
- Always unplug, empty, wipe down and dry the machine after use.
- The solution tank and recovery tank should be emptied and flushed out with clean water.
- Wrap the supply cord around the handlebar and cable winder ensuring that the plug is not trailing on the floor.
- When storing the machine for long periods, raise the base to protect the brush and squeegee from possible distortion.
- Store the machine in a dry indoor area only.

7 Maintenance

**WARNING** - Before undertaking maintenance operations or adjustments switch off machine and unplug from the electricity supply.

The machine requires minimum maintenance apart from the following checks by a trained operator.
- **Supply cord** - Regularly inspect sheath, plug and cord anchorage for damage or loose connection. Only replace the supply cord with the type specified in these instructions.
- **Solution tank** - Check water flow, if restricted inspect hoses and tubes for blockage or kinks. Check filter is clean and undamaged. A damaged filter must be replaced.
- **Recovery tank** – Check condition and clean tank
- **Squeegee blades** – Check condition and replace worn or damaged blades
- **Solution spray bar** – Remove the brush to access the spray bar. Check that the solution feed holes are not blocked or restricted, and clean as necessary.

8 After Sales Service

Truvox machines are high quality machines that have been tested for safety by authorised technicians. It is always apparent that after longer working periods, electrical and mechanical components will show signs of wear and tear or ageing.

Under extreme or specialised conditions and/or insufficient maintenance, shorter maintenance intervals are necessary. Use only original Truvox spare parts. Use of other spare parts will invalidate all warranty and liability claims.

Should you require after sales service please contact the supplier from whom you purchased the machine, who will arrange service. Repairs and servicing of Truvox products should only be performed by trained staff. Improper repairs can cause considerable dangers to the user.

9 Guarantee

Your product is guaranteed for one year from the date of original purchase, or hire purchase, against defects in materials or workmanship during manufacture. Within the guarantee period we undertake at our discretion, to repair or replace free of charge to the purchaser, any part found to be defective, subject to the following conditions.

**CONDITIONS**

1. Claims made under the terms of the guarantee must be supported by the original invoice/bill of sale issued at the time of sale, or the machine Serial Number.
2. For claims under this guarantee contact the supplier from whom you purchased the product who will arrange the appropriate action. Do not initially return the product as this could result in transit damage.
3. Neither Truvox nor its distributors shall be liable for any incidental or consequential loss.
4. This guarantee is governed by the laws of England. This guarantee does not cover any of the following: Periodic maintenance, and repair or replacement of parts due to normal wear and tear.
5. This guarantee is governed by the laws of England. This guarantee does not cover any of the following: Periodic maintenance, and repair or replacement of parts due to normal wear and tear.
- Damage caused by accident, misuse or neglect, or the fitting of other than genuine Truvox parts.
- Defects in other than genuine Truvox parts, or repairs, modifications or adjustments performed by other than a Truvox service engineer or authorised service agent.
- Costs and risks of transport relating directly or indirectly to the guarantee of this product.
- Consumable items and wear parts such as drive belts.

This guarantee does not affect your statutory rights, nor your rights against the supplier arising from their sales or purchase contract.

10 Waste Electrical & Electronic Equipment (WEEE)

Do not dispose of this device with unsorted waste. Improper disposal may be harmful to the environment and human health.

Please refer to your local waste authority for information on return and collection systems in your area.
11 Technical specification
Class I construction. Enclosure to IPX4. Fitted with 15m supply cord and non rewireable plug.

<table>
<thead>
<tr>
<th>Model</th>
<th>Solaris SSD400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage AC ( V ) / Frequency ( Hz )</td>
<td>230 – 240 / 50</td>
</tr>
<tr>
<td>Brush/cleaning width ( cm )</td>
<td>40</td>
</tr>
<tr>
<td>Brush diameter ( cm )</td>
<td>10</td>
</tr>
<tr>
<td>Brush speed ( rpm )</td>
<td>750</td>
</tr>
<tr>
<td>Brush pressure ( max ) ( g/cm² )</td>
<td>30</td>
</tr>
<tr>
<td>Squeegee width ( cm )</td>
<td>51</td>
</tr>
<tr>
<td>Solution tank capacity ( litres )</td>
<td>15</td>
</tr>
<tr>
<td>Recovery tank capacity ( litres )</td>
<td>15</td>
</tr>
<tr>
<td>Productivity – theoretical ( m²/h )</td>
<td>1200</td>
</tr>
<tr>
<td>Productivity – practical ( m²/h )</td>
<td>500</td>
</tr>
<tr>
<td>Brush motor rating ( W )</td>
<td>150</td>
</tr>
<tr>
<td>Vacuum motor rating ( W )</td>
<td>1100</td>
</tr>
<tr>
<td>Airflow ( l/s )</td>
<td>43</td>
</tr>
<tr>
<td>Vacuum ( mm/wg )</td>
<td>2300</td>
</tr>
<tr>
<td>Pump rating ( W )</td>
<td>42</td>
</tr>
<tr>
<td>Solution flow rate ( l/m )</td>
<td>0.65</td>
</tr>
<tr>
<td>Pump pressure ( bar )</td>
<td>2.2</td>
</tr>
<tr>
<td>Sound pressure level ( dB(A) )</td>
<td>70</td>
</tr>
<tr>
<td>Handle vibration ( m/s² )</td>
<td>&lt;2.5</td>
</tr>
<tr>
<td>Cable length ( m )</td>
<td>15</td>
</tr>
<tr>
<td>Cable specification</td>
<td>H05VV-F, 3 x 1.0mm² (10A)</td>
</tr>
<tr>
<td>Size (L x W x H) ( cm )</td>
<td>75 x 50 x 109</td>
</tr>
<tr>
<td>Height (handle folded) ( cm )</td>
<td>60</td>
</tr>
<tr>
<td>Weight (empty) ( kg )</td>
<td>37</td>
</tr>
<tr>
<td>Weight (full) (GVW kg)</td>
<td>42kg</td>
</tr>
<tr>
<td>Warranty</td>
<td>1 year</td>
</tr>
</tbody>
</table>

1 Noise levels measured at a distance of 0.25 metre from machine and 1.5 metres above floor, when scrubbing a hard floor. Measurements recorded using a hand held meter.
2 Handle vibration does not exceed 2.5 m/s², when operating on any surface with brush or pads.
   Measurements recorded by an independent test laboratory

12 Accessories

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard brush (black)</td>
<td>03-7869-0000</td>
<td>General purpose scrubbing</td>
</tr>
<tr>
<td>Heavy duty brush (blue)</td>
<td>03-7916-0000</td>
<td>Heavy duty scrubbing</td>
</tr>
<tr>
<td>Squeegee kit (2 blades)</td>
<td>10-0040-0000</td>
<td>Wet pick up</td>
</tr>
<tr>
<td>Side brush kit (2 blades)</td>
<td>10-0040-0000</td>
<td>Wet pick-up</td>
</tr>
</tbody>
</table>

IMPORTANT : Genuine accessories are only available from authorised Service Agents or Truvox Customer Services Department
### 13 Fault diagnosis

**WARNING** - Before undertaking maintenance operations or adjustments switch off machine and unplug from the electricity supply.

The following simple checks may be performed by the operator.

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Reason</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine not working, motors not running</td>
<td>Lack of voltage/electrical supply.</td>
<td>Check fuse *, supply cord, plug and socket outlet.</td>
</tr>
<tr>
<td>Vacuum motor not running, switch illuminated.</td>
<td>Faulty motor.</td>
<td>Contact Service Agent.</td>
</tr>
<tr>
<td>Brush motor running, but brush not rotating.</td>
<td>Brush shaft incorrectly positioned.</td>
<td>Refit shaft. Contact Service Agent.</td>
</tr>
<tr>
<td>Vacuum motor running but squeegee not picking up.</td>
<td>Hose from squeegee blocked or split. Squeegee slot blocked or blades damaged. Vacuum dome out of position</td>
<td>Check and clear hose. Check and clean squeegee. Reposition dome.</td>
</tr>
</tbody>
</table>

* If the fuse blows several times, the machine should be checked by an authorised Service Agent.
EC Declaration of Conformity

We, Truvox International Ltd.
of Third Avenue, Millbrook,
Southampton, Hampshire
England
SO15 0LE

declare that the machinery

Make : Scrubber /dryer
Type : Solaris
Model : SSD400…

Serial Number : from 000001
Year of Construction : 2010

has been manufactured using the following transposed harmonised European Standards and technical specifications.

Ref No   Title
2006/42/EC  Machinery Directive and subsequent amendments
2006/95/EC  The Low Voltage Directive and subsequent amendments
BS EN 60335-1
BS EN 60335-2-72
2004/108/EC  The EMC Directive and subsequent amendments
EN61000-3-2
EN61000-3-3
EN55014-1
EN55014-2

Signed in : SOUTHAMPTON, England

on the 29th day of December 2009

Signature : 

Name : David Overell
Position : Managing Director

Technical file: Solaris Iss. 1
Mark Campbell
Product Support Manager