

CAUTION - READ THESE INSTRUCTIONS BEFORE USING THE MACHINE

User instructions

MW240, MW340, MW340/PUMP, MW440/PUMP

Multipurpose floor cleaning machines

03-5977-0000 Issue 5 12/08



http://www.truvox.com/Products/Scrubber_Dryers/Multiwash



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IMPORTANT

READ THESE INSTRUCTIONS CAREFULLY AND RETAIN FOR FUTURE REFERENCE

1. Product Information

Please pass all safety instructions on to other persons operating this machine.

The floor cleaning machines are designed for use on smooth, even floors in indoor areas. They can be used on most floor surfaces including shortpile carpet, wood, PVC, rubber and stone. They should be not used on rough uneven surfaces.

We are confident the machines will give years of trouble free service, coupled with ease of use and minimum maintenance.

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

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

1.1 Important safety instructions

The machine must be unpacked and assembled in accordance with these instructions before connecting to the electrical supply.

This machine should always be connected to a fully earthed power supply of the right voltage and

Please read the following instructions completely before operating the machine. Any violation of the same will not only invalidate the warranty, but may also result in a safety hazard.

frequency.

Keep the power supply cord away from moving parts. During operation, hazard may occur when running machine over the supply cord.

The machine must be disconnected from the mains supply (by pulling the plug out) before changing the brushes, cleaning the machine and for maintenance.

Warning! Only use the brushes / accessories as per the instruction manual. Usage of any other brushes/accessories can cause safety problems.

Periodically inspect the cord for possible damage. A damaged cord must be replaced with the special cord available from the manufacturer or an authorised service agents.

DO NOT leave the machine connected to the power supply when not in use; always remove the plug from the mains socket.

DO NOT use where hazardous dust is present.

DO NOT use machine near flammable liquids.

DO NOT use in an explosive atmosphere.

DO NOT use on a gradient or slopes.

1.2 Guidelines for the operator

- Operators must be fully trained in accordance with these instructions, able to perform routine upkeep of the machine and correct selection of brushes.
- Operators should be physically capable to manoeuvre, transport and operate the machine.
- **DO NOT** run the machine dry, as this could damage the floor surface or the machine itself.
- Take adequate care to hold the machine firmly while installing and removing the brush.
- Never use excessive foaming or highly corrosive cleaning solutions.
- While operating on a flooded floor, always ensure that the water level does not exceed 1/4" or 6mm.
- **DO NOT** operate this machine on rough uneven surfaces e.g. industrial concrete floors.
- **DO NOT** clean the machine using water sprays or jets.
- Ensure all parts are fitted properly before operation.

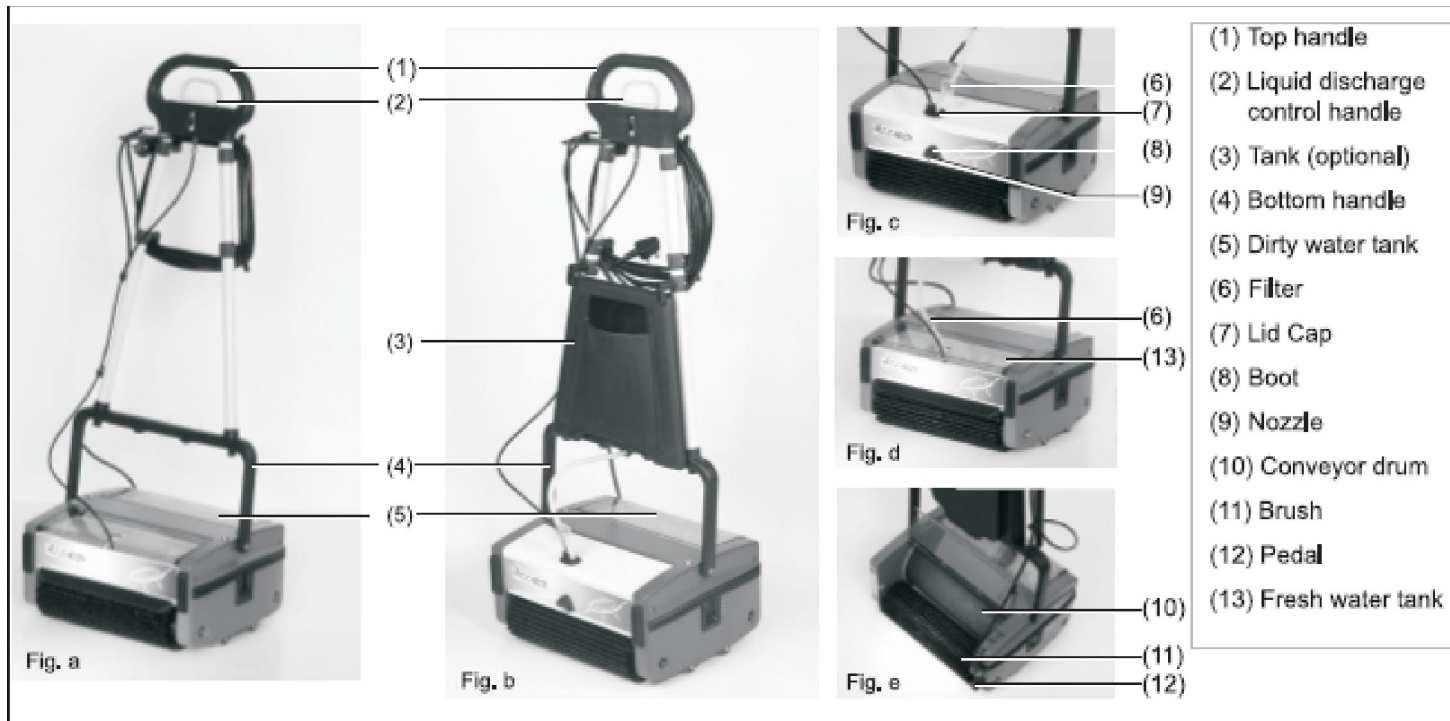
1.3 Electrical connection

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

UK only

The supply cord is fitted with a non-rewireable 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.

2. Knowing your machine



NOTE:

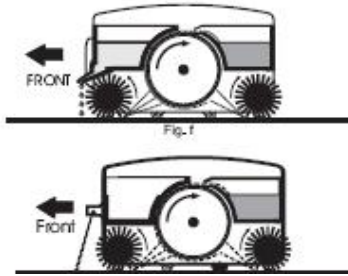
MWXXX refers Standard model & MWXXX/PUMP refers Pump model

XXX refers to machine width 240 / 340 / 440 mm

If you have purchased Pump model please refer Fig. b, Fig. c, Fig. e & Fig. g (for Fig. g see page 6)

If you have purchased Standard model please refer Fig. a, Fig. d, Fig. e & Fig. f (for fig. f see page 6)

3. Working Principle



1. Cleaning liquid in the solution tank is applied to the floor by either gravity (Standard) or Spray (Pump).
2. The counter rotating brushes scrub the floor and also throw the dirty water on the Conveyor drum. The front brush does most of the scrubbing and drying. The rear brush completes the scrubbing and collects the remaining water off the floor.
3. A blade fitted to the dirty water tank wipes the drum and collects the dirty water.

Warning! This machine is heavy. Do not attempt to lift the machine without assistance. Incorrect lifting techniques may result in personal injury.

4. Preparing for use

Unpack



- | | |
|---|----------------------|
| 1. Bottom handle | 9. Cable retainer |
| 2. Machine body | 10. Power cord |
| 3. Pump Housing (Pump) / Fresh water tank(Standard) | 11. Dirty water tank |
| 4. Auxillary Tank (Pump) | 12. Hook |
| 5. Top handle & pull cable | 13. Knob |
| 6. Handle LH & RH | |
| 7. Brush shafts (2) | |
| 8. Screws & washers | |

1. To save packing space and to ensure the safety of the machine during transportation, the machine comes to you with its handle dismantled. Ensure that the listed parts are present as shown and identify them in order to understand the assembly instructions.
2. Remove the hook which holds the bottom handle with the machine body while holding the bottom handle.

Warning! Since the bottom handle is spring loaded, care must be taken when removing the hook to avoid sudden springing back leading to possible injury to personnel.

5. Assembly

1. Insert the two tubular handles into the bottom handle and secure them using knob (2 off) by tightening lightly. Ensure that the handles are assembled according to their marked position and the cable holding hooks are pointing towards the rear.



RIGHT
BOTTOM
REAR

LEFT
BOTTOM
REAR

2. Slide the electric cable retainer into the top portion of RH handle.
3. Fit the top handle over the tubular handles and secure them with washer and screw (2 sets). Ensure that the label on the top handle is facing the front of the machine. Now tighten firmly both the knobs and screws alternately. Insert the dummy caps provided to cover the screws (2 off) in the top handle.



4. Pass the free end of the pull cable through the plastic guide in RH Handle. Press and twist clockwise to firmly

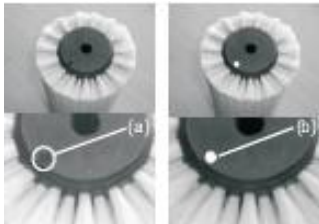
secure the cable end to the fresh water tank (Standard).

5. Fix the auxiliary tank firmly into the bottom handle by holding the top handle.
6. Rotate the knob to hold the auxiliary tank.
7. The brushes are only loosely packed in the machine for transit, therefore the brush shafts must be fitted before operating the machine. Push the shafts through the brushes from the side of the machine. To remove brushes, push the brush shaft out from the side of the machine using the fingers and withdraw the shaft. Normally the standard brush will be supplied with the machine. Brushes should be selected according to the type of floor surface to be cleaned, and the degree of dirt to be removed, please refer Brush Selection Guide.
8. The machine is now ready for use.

6. Brush Selection Guide

Type of floor	First time cleaning	Maintenance Cleaning
All natural stone floors, Ceramic, Mosaic, Wood, Profiled rubber, Vinyl, PVC	Standard	Soft
Short pile carpet	Soft	Soft
Marble Granite	Soft	Soft
Smooth concrete	Hard	Standard
Escalator	Escalator	Escalator
Others	To suit individual floor conditions	

7. Brush identification



- (a) Hole provided for plugging button.
 (b) Brush with button plugged.

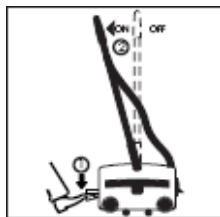
This is applicable when the customer has more than one set of brushes of same type.

Distinct colour coding make it easy to separate tools into their correct areas of use. Washroom tools are kept in the restroom; kitchen tools are kept in the kitchen - reducing bacteria cross- contamination between high and low-risk areas. RED, BLUE, WHITE and YELLOW brush buttons are packed with the machine. Simply plug the buttons into the hole in the brush as shown.

Clear identification, by colour coding, helps to prevent cross contamination.

8. Controls

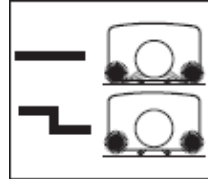
On/Off Control



By pressing the pedal lightly with your foot (1), pull back the handle (2) a little to start the motor. The brushes and the drum starts rotating. Pulling the handle further without pressing the pedal, lowers the machine and engages the rotating

brushes onto the floor. To stop working, take the handle to the vertical position.

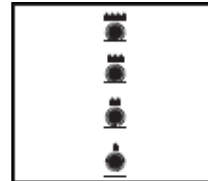
Transport/Working Mode Control



Slide this knob to TOP position (Working Mode) to operate the machine. Slide this knob to BOTTOM position to move the machine and park the machine.

Warning! Keeping the knob in the top position (working mode) and moving the machine will damage the brushes.

Brush Contact Control



Brush contact with the floor is adjustable in 4 steps, contact is MINIMUM when the knob is fully down and MAXIMUM when it is fully raised. This helps you to compensate for the wear of brushes and also to control the

scrubbing effect. If the machine does not move when the handle is lowered, slide the transport/working mode knob up one step

Cleaning Liquid Discharge Control



By pulling, the liquid discharge control handle up, the cleaning solution is dispensed on the floor. The solution stops once the liquid discharge control handle is released

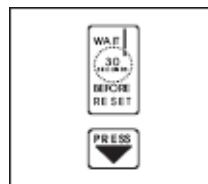
Pull cable connect / disconnect control



Insert the free end of pull cable into the valve body fitted in the fresh water tank.

Press and twist clockwise to secure the cable end. Similarly, press and twist anti-clockwise to disconnect the cable end

Motor Overload Protector



In the event of motor getting overloaded due to improper power supply or unexpected obstruction to the brush/drum rotation, the over load protector trips and protects the motor from damage. If this happens,

identify the cause, correct it and, reset the protector button after minimum of 30 seconds from tripping by pressing the over load protector manually and continue working.

Important - Should the machine fail to operate, contact the supplier from whom you purchased the machine.

9. Operating the machine
Before the washing operation starts

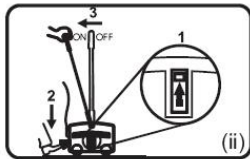
Warning! Pre-sweep the floor to remove debris before using the machine



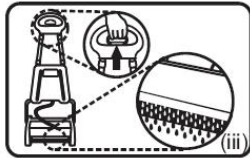
main 3-pin socket.

1. Ensure that the brushes are fitted properly.
2. Fill fresh water tank with cleaning solution.
3. Insert the plug into

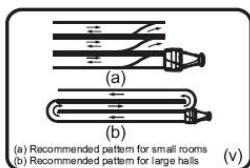
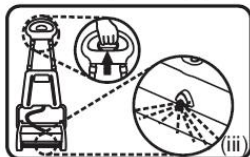
Recommended washing sequence



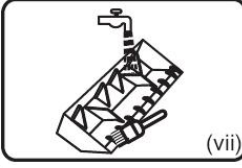
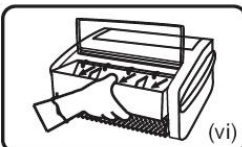
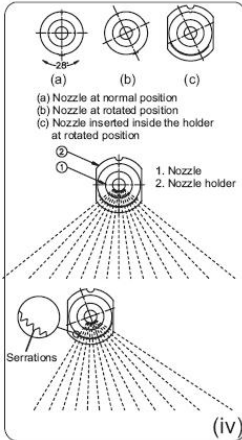
Model (Standard)



Model (Pump)



(a) Recommended pattern for small rooms
 (b) Recommended pattern for large halls



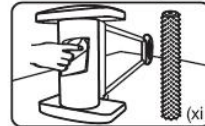
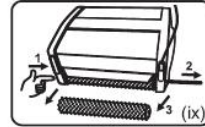
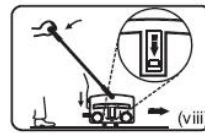
1. Start the machine by pressing the pedal and pulling the handle back (Fig-ii).
2. Move forward, while sparingly pulling the liquid discharge control handle (Fig-iii). This handle should not be kept pulled all the time. The duration and frequency of pulling and releasing has to be adjusted to match with the type of floor, extent of dirt. etc. For tiled or stone floors, apply very little water. The spray pattern of the machine can be adjusted by the user. Adjust the spray to prevent solution being dispensed onto areas that already have been cleaned. The spray pattern is adjusted by using the serrations in the spray nozzle and holder. Each serration allows a 4 degree change (Fig-i v).
3. Stop the liquid discharge approximately 30 cm before the end of forward motion, continue to move forward up to the wall without pulling the pull handle.

4. Pull the machine backwards in the same track, but without discharging any liquid. When you reach the starting point, change the track and repeat steps 2 through 4. When you are changing the track allow some overlap with the cleaned area. In case of large halls take a U-turn and move forward. If quick drying is required, move on the same track, without discharging the liquid (Fig-v)
5. Clean the blades and push the tank into its place.

Warning! Avoid touching the sharp edge of dirty water tank, it may cause injury to hands.

10. Care of the machine

Warning! Before cleaning the machine, switch off the machine and unplug from the electrical supply.



1. Move the Transport /Working mode control knob to BOTTOM (Transport) position (Fig-viii).
2. Disconnect the power supply by unplugging the electrical plug and wind the cable over cable holders in the handle.
3. Pull out the dirty water tank and wash it completely.
4. To prevent possible clogging of filter, drain cleaning liquid and keep the fresh water tank clean.
5. Remove the brushes by pushing the brush shaft out (Fig-ix).
6. Wash the brushes either by dipping in a bucket/sink or in running water (Fig-x).
7. Turn the machine sideways and wipe clean the conveyor and machine body with a damp cloth (Fig-xi).
8. Re-install the brushes after washing. It is easier to push the brush shaft from the right hand side (identified by the electrical cable).
9. Store the machine in a dry indoor area only.

11. Maintenance

Warning! Before undertaking any maintenance operations or adjustments switch off the machine and unplug from the electrical supply.

To get the maximum life of the machine ensure the following.

Supply cord

Regularly inspect sheath, plug and cord anchorage for damage or loose connection.

Brushes

For maximum life, wash the brushes regularly. Ensure machine is in Transport mode when not in use. Store additional brushes in a vertical position to avoid bending of bristles. Check for permanent bending of bristles in a particular direction. This may occur if the machine is operated for several days without removing the brushes, which is not recommended. If this occurs, reverse the brush so that the bent bristles are automatically straightened.

Wiper Blade

After years of use the wiper blade may wear. If this occurs the water collection performance will decrease. It should be replaced by an authorised service agent.

Solution tank filter (Standard)

The filter prevents clogging of the drip holes in the tank. Periodically clean the filter to ensure uniform discharge of liquid. In case of non uniform discharge from the drip holes, back flush the tank in running water. Clean the drip holes using wire or a blunt pin.

Solution feed filter (Pump)

The filter prevents clogging of the spray nozzle and should be periodically cleaned. Use pressurised air/water for cleaning.

Nozzle maintenance (Pump)

If the spray of the nozzle become blocked, slide the nozzle cover off and remove nozzle wash in clean water and clean using a pin and refit.

12. Accessories

Transport Trolley

The simply fitted trolley provides for ease of movement when transporting the machine.

Warning! Empty all liquid from the machine before using the transporter.

Using the trolley

1. With the machine handle in the upright position place the trolley centrally alongside the machine.
2. By holding the machine firmly, strap the velcro with the machine to fix the transporter.
3. Ensure that the velcro strap is securely wrapped around the bottom handle.
4. Now the trolley is ready to use. The machine can then be manoeuvred easily whilst holding the top handle.



Side Brush

To clean up to walls, the side brush can be used. Switch off and unplug the machine before fitting the side brush.

Warning! Do not use side brush in a room with no wall skirting, otherwise, the wall may get dirty.

Fitting the side brush



1. Remove the front brush and brush shaft.
2. Fix the shield assembly on the side plate.
3. Insert the side brush through the shield and main brush.

Using the side brush

1. Tilt the machine at an angle move forward. This way, the dirty water thrown by the side brush will be collected by the rear brush.
2. Use side brush only for washing the edges.

13. After sales service

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

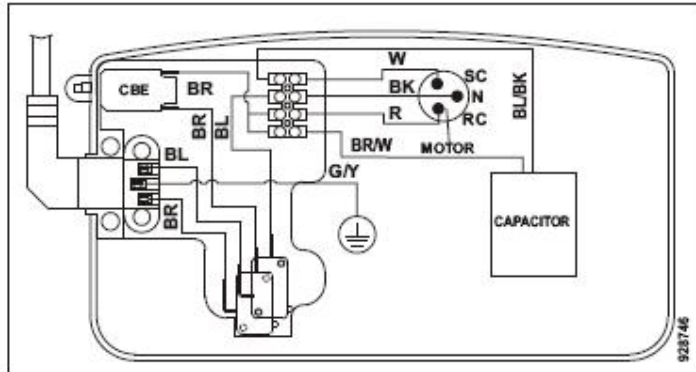
14. Guarantee

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.

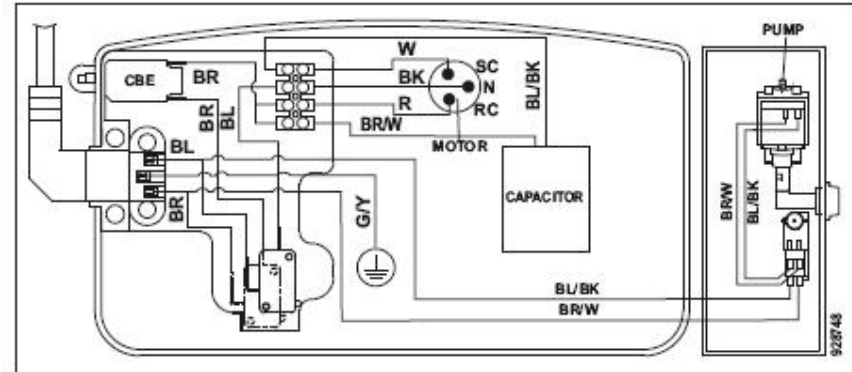
CONDITIONS

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.
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 the manufacturer nor its distributor shall be liable for any incidental or consequential loss.
4. This guarantee is covered by the laws of England.
5. 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 the manufacturer's genuine parts.
 - Defects in other than the manufacturer's genuine parts, or repairs, modifications or adjustments performed by other than an authorised service engineer or service agent.
 - Costs and risks of transport relating directly or indirectly to the guarantee of this product.
 - Consumable items such as brushes, drive belts and filters.
 - This guarantee does not affect your statutory rights, nor your rights against the supplier arising from their sales or purchase contract.
 - Our policy is one of continual product development and we reserve the right to alter specifications without prior notice.

14. Electrical Diagram



1. Electrical layout of Standard model



2. Electrical layout of Pump model

Diagram 1(Standard) and diagram 2 (Pump) are made available in the cover (Power cord side) of the respective machine for service purpose.




Warning! Any service or attempt to service by persons other than authorized servicing agent will invalidate the warranty.

Abbreviations given in the diagram as listed:

Abbreviation / Symbol	Description	Abbreviation / Symbol	Description
CBE	Circuit Breaker	G/Y	Green / Yellow
BR	Brown	SC	Starting coil
BL	Blue	RC	Running coil
W	White	N	Normal
BK	Black	⏏	Ground
R	Red		

ADDITIONAL INFORMATION-WEEE

(WASTE OF ELECTRIC AND ELECTRONIC EQUIPMENT)

The symbol  on the product or its packages indicates that the product may not be treated as house hold waste. Instead it shall be handed over to applicable collection point for recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequence of the environment and human health, which could otherwise be caused by inappropriate waste handling of this product, please contact your local city office, your household waste disposal service or shop where you purchased the product.

15. Technical Specifications

Model Product Code		MW 240	MW 340	(with tank & spray) MW 340/ PUMP	(with tank & spray) MW440/PUMP
Voltage	V/Hz	230~/50	230~/50	230~/50	230~/50
Motor power	w	400	600	600 + 26	1000
Solution tank capacity	l	1.2	1.7	4	4
Brush width	cm	24	34	34	44
Brush speed	rpm	650	650	650	650
Sound pressure level (see note 1)	dB (A)	68	69	69	71
Handle vibration (see note 2)	m/s ²	<2.5	<2.5	<2.5	<2.5
Cable length	m	12	12	12	12
Size (l ĩ w ĩ h(with handle))	cm	37.8 ĩ 34 ĩ 111.8	37.8 ĩ 44 ĩ 111.8	37.8 ĩ 44 ĩ 111.8	37.8 ĩ 54 ĩ 111.8
Weight empty	kg	19	23	25	29.5
Warranty		1 year	1 year	1 year	1 year

Other voltages available

Model	Main supply	Power (W)	Brush speed (rpm)
MW340/Pump	220 VAC \pm 6%, 60Hz, Single Phase	1050	780
MW340/Pump	110 VAC \pm 6%, 50Hz, Single Phase	750 + 26	650
MW340/Pump	110 VAC \pm 6%, 60Hz, Single Phase	750 + 26	780
MW440/Pump	220 VAC \pm 6%, 60Hz, Single Phase	1200	780
MW440/Pump	110 VAC \pm 6%, 50Hz, Single Phase	850	650
MW440/Pump	110 VAC \pm 6%, 60Hz, Single Phase	850	780

Note:

- Noise levels measured at a distance of 1 meter from machine and 1.6 metres above floor, when washing a hard floor. Measurements recorded using a hand held meter.
- Handle vibration does not exceed 2.5 m/s², when operating on a smooth hard surface.
- Above dimensions are approx. Since the companies policy is to continuously improve the product, there could be changes without prior notice.

16 EC Declaration of Conformity

We Truvox International Ltd.

Of Third Avenue
Millbrook
Southampton
SO15 0LE
England

declare that the machinery

Make MW
Type Floor cleaning machine
Model MW240, MW340, MW340/PUMP and MW440/PUMP

Serial Number:
Year of Construction: 2006

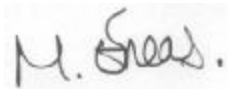
has been manufactured using the following transposed harmonized European Standards and technical specifications.

BS EN 60335-1 AND BS EN 60335-2-67, EMC: EN 55014-1, EN 61000-3-2, EN 61000-3-3, EMF: EN 50366, and is in conformity with EC directives 2006/95/EC, 89/336/EEC, RoHS directive 2002/95/EC and WEEE directive 2002/96/EC, Noise directive 86/594/EEC and all amendments:

Signed in: SOUTHAMPTON, England

on the 1st day of November 2008

Signature



Name M. R. Eneas
Position New Product Development Manager

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