

# SAFETY, OPERATION AND MAINTENANCE MANUAL MSR-15E SCRUBBER



**This Unit is intended for commercial user.**

## READ & FOLLOW ALL INSTRUCTIONS, WARNINGS & CAUTIONS BEFORE USING THIS SCRUBBER

This scrubber will afford you many years of trouble-free operating satisfaction, provided it is given proper care. All parts have passed rigid quality control standards prior to being assembled to produce the finished product. Prior to packaging, the scrubber was again inspected for assurance of flawless assembly.

Your scrubber is protectively packed to prevent damage in shipment. We recommend that upon delivery, unpack your scrubber and inspect it for any possible damage. Only a visual examination will reveal damage that may have occurred in transit.

If damage is discovered, immediately notify the transportation company that delivered your scrubber. As a shipper, we are unable to report any claim for damage. You must originate any claim within 5 days of delivery.

The manufacturer takes no responsibility for damages caused to property or persons due to improper use of the scrubber. Operating instructions must always be available for the operator. The scrubber may only be operated by persons who have been fully trained and authorized to use it.

## READ ALL INSTRUCTIONS BEFORE OPERATING

## SAVE THESE INSTRUCTION

# IMPORTANT SAFETY INSTRUCTION

## WARNING:



To Avoid Electric Shock, Do Not Expose To Rain  
Store Indoors.

*When using this equipment basic precautions should  
always be followed, including the following:*

- 1) **DO NOT** leave the electric scrubber when plugged in. Unplug from outlet when not in use and before servicing.
  - 2) Turn **OFF** all controls before unplugging.
  - 3) This is **NOT** a toy. Close attention is necessary when used around or near children.
  - 4) Use only as described in this safety manual. Use only manufacturer's recommended attachments and accessories.
  - 5) **DO NOT** use electric scrubber with damaged cord or plug. If the scrubber is not working as it should, because it has been dropped, damaged, left outdoors or dropped into water, contact an authorized service center or the factory.
  - 6) **DO NOT** pull electric scrubber by the cord, use cord as a handle, close a door on cord or pull cord around sharp edges and corners. **DO NOT** run scrubber over cord. Keep the cord away from heated surfaces.
  - 7) **DO NOT** unplug the scrubber by pulling on the cord. To unplug, grasp the plug, not the cord.
  - 8) **DO NOT** handle the plug of the electric scrubber with wet hands.
  - 9) Store scrubber indoors in a dry area. **DO NOT** expose to freezing temperatures.
  - 10) **DO NOT** use this scrubber for dry vacuuming. This scrubber is not fitted with a fine dust filter.
  - 11) **DO NOT** use the scrubber to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
  - 12) **DO NOT** use this scrubber to clean surfaces that have dust or substances which are flammable, poisonous, caustic, or irritants and represents a health hazard.
  - 13) **DO NOT** use where anesthetics or oxygen are used.
  - 14) **DO NOT** use an extension cord unless absolutely necessary. If an extension cord is used, then wire size must be #14 or larger and should not exceed 50 feet in length. The extension cord must be a three-wire grounded type.
  - 15) Replace damaged or worn parts immediately with genuine original equipment parts to maintain safety and to protect your limited warranty.
  - 16) **DO NOT** run pump dry. When the solution tank is empty, turn off the pump.
  - 17) **NEVER** drive scrubber over steps.
- Electrical equipment must be connected to a properly grounded outlet only. (See *grounded instructions*)

# CARE OF THE SCRUBBER

This scrubber is designed to be safe when used to perform cleaning functions as specified. Should damage occur to electrical parts, the unit should **NOT** be used until the damage is repaired by the manufacturer or an authorized service center. This will avoid further damage to the scrubber or injury to the user.

These instructions are for your protection and information. **PLEASE READ CAREFULLY!** Failure to follow instructions or precautions could result in injury or damage to the user and/or the scrubber.

# GROUNDING SAFETY INSTRUCTIONS

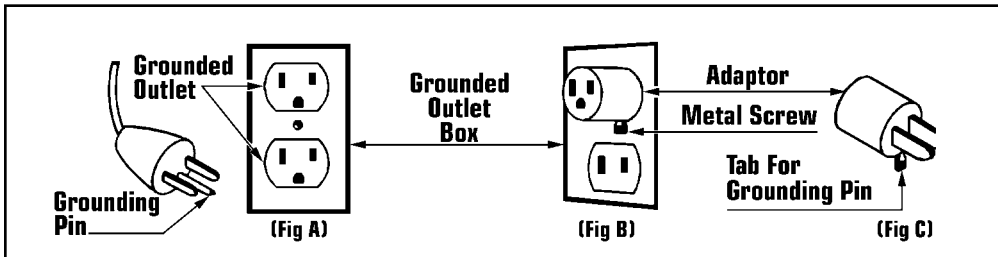
## DANGER:



Improper use of the grounding plug can result in a risk of electric shock.

Electrical equipment must be grounded. If it should mal-function or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. The scrubber is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

If repair or replacement of the cord or plug is necessary, **DO NOT** connect the grounded wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.



## GROUNDING METHODS

This electric equipment is for use on a nominal 120 volt circuit, and has a grounded plug that looks like the plug illustrated in (Fig A). A temporary adaptor that looks like the adaptor illustrated in (Fig B & C) may be used to connect this plug to a 2-pole receptacle as shown in (Fig B) if a properly grounded outlet is not available.

The temporary adaptor should be used only until a properly grounded outlet (Fig A) can be installed by a qualified electrician. The green color rigid ear, lug or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw (Fig 3).

## WARNING:



Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded.

**DO NOT** modify the plug provided with the equipment. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

**Note:** In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code.

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## OPERATION OF SCRUBBER

1) This scrubber is designed for wet cleaning on waterproof surfaces inside buildings. All other usage is improper.

2) The manufacturer takes no responsibility for damage due to improper use of the scrubber. The user takes the entire risk for damage due to improper use.

3) Following the operating, maintenance and repair instructions are required.

4) The appropriate accident prevention rules, as well as other known regulations for health and safety in operation must be followed.

5) Any changes to the scrubber will void the warranty. Any damage that may occur as a result of those changes will be the sole responsibility of the owner.

6) Check the suitability of the floor surface before using the scrubber.

7) Check that the wheels and brushes will not damage any surface to be cleaned, especially gymnasium floors.

8) If the scrubber is misused, the manufacturer will not be responsible for any form of warranty.

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## SAFETY & CHEMICAL INFORMATION

### Operation Safety

1) **DO NOT** run the brushes when the scrubber is stationary as it may cause damage to the surface being cleaned.

2) Tilt scrubber back when moving, especially over thresholds or sills to prevent damage to the brushes.

3) When transporting in elevators, there safety regulations and precautions are to be respected as well as maximum load capacity of the elevator.

### Chemicals

1) Always consult correct use and safety precautions as detailed on manufacturers label. If required, wear appropriate recommended clothing and safety glasses.

2) Only use low foaming and non-flammable chemicals which do not include hazardous components.

3) **DO NOT** use flammable, poisonous, hazardous or explosive chemicals.

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## WHAT TO USE WITH SCRUBBER

### Type Of Cleaning

Daily or weekly cleaning on waterproof surfaces.

### Chemicals

Floor cleaner, degreaser, maintenance cleaner, scented cleaner depending upon the degree of dirt on surface.

### Scrub Brushes/Pads

Nylon brushes, red, green or white pads depending on condition of floor.

**Note:** Maximum water and chemical temperature is 72° F

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## ROUTINE MAINTENANCE

If you maintain this scrubber properly it will stay in working order for a long period of time. Check the unit regularly for any wear and tear.

1) Check rubber squeegee blades.

2) **DO NOT** clean scrubber with pressure washer.

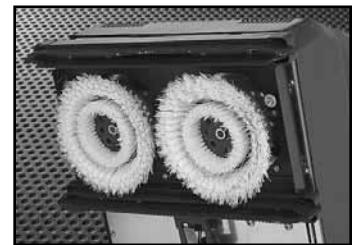
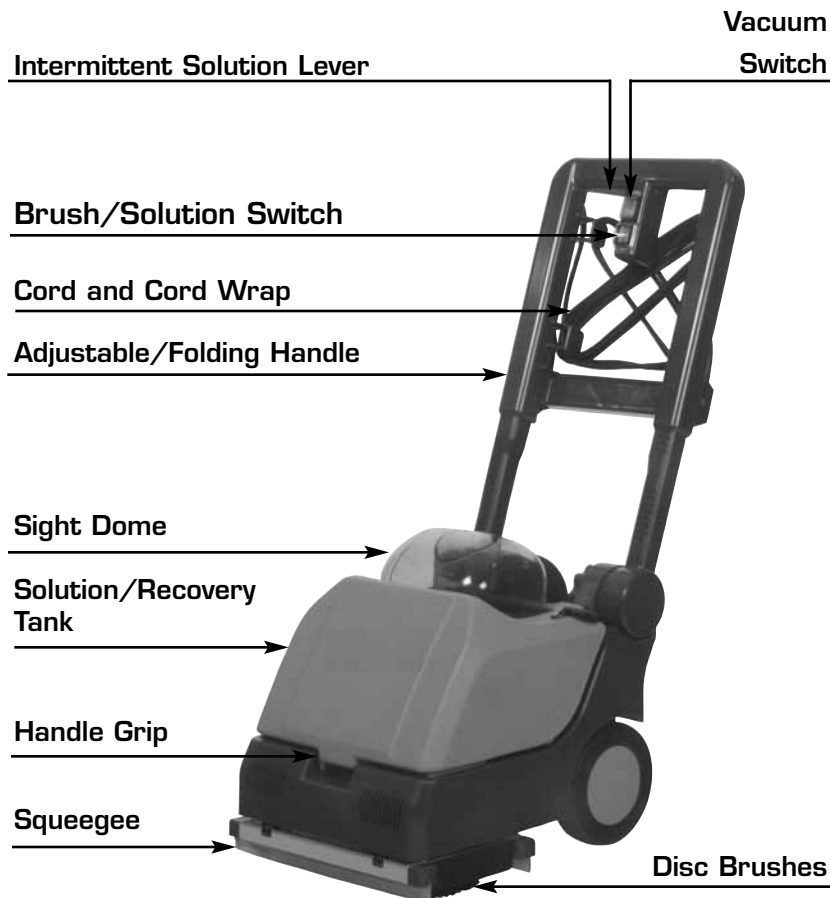
3) When servicing or making repairs use only genuine original equipment parts.

4) Repairs and service should only be made by an authorized service center or the factory.

5) Monthly Maintenance: Check all gaskets, tighten loose nuts and bolts.

6) Every (6) months check vacuum motor carbon brushes, if worn to  $\frac{3}{8}$ " length or less replace.

## SCRUBBER FEATURES



Quick Release Brush



Compact Fold-Up Design



Removable Easy Fill Tank

<b>Tank Construction:</b>	Rotationally Molded Polyethylene
<b>Scrub Path:</b>	13.5"
<b>Cleaning Direction:</b>	Forward/Back
<b>Brush Spread:</b>	Two (6.5")
<b>Squeegee Width:</b>	15"
<b>Solution Capacity:</b>	3.5 Gallons
<b>Recovery Capacity:</b>	4 Gallons
<b>Vacuum Motor:</b>	120 Volt, By-Pass - 850 Watts
<b>Brush Motor:</b>	200 Watts
<b>Brush Speed:</b>	200 RPM
<b>Brush Pressure:</b>	22 Lbs
<b>Water Output:</b>	.2 (GPM)
<b>Power Cord:</b>	25 Ft, 3 Wire Grounded
<b>Storage Dimensions:</b>	15" W X 22" L X 16" H
<b>Includes:</b>	6.5" Counter Rotating Scrub Brush
<b>Net Weight:</b>	48 Lbs Net/54 Lbs Shpg

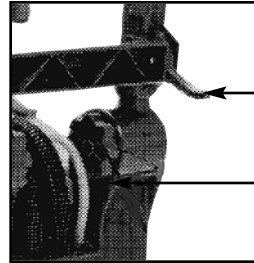
## SCRUBBER SPECIFICATIONS

# OPERATING PROCEDURES

1) Prepare the floor surface by sweeping or vacuuming before using the scrubber.

2) Make sure all the switches are **OFF**.

3) Select the proper floor brushes or pad drivers and floor pads for the cleaning operations.



Handle Height Adjustment

Handle Angle Adjustment

4) Adjust the handle to the best position for comfortable operation.

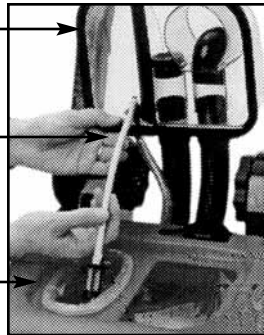
5) Add the chemical required. Check the label for dilution rates.

6) Fill a clean bucket with clean water, and pour it into the solution tank opening, maximum capacity 3.5 gallons.

**Gasket**

**Short Solution Hose**

**Rear Rim**



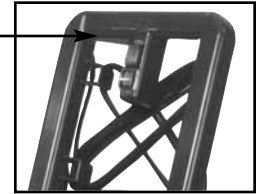
7) Place the solution hose to the far side of the tank making sure the hose is not bent. Place the dome to the rear rim of the tank and press the dome gasket gently into the front rim.

8) Check to make sure the short solution hose located at the bottom right on the scrubber is plugged into the female QDC connector.

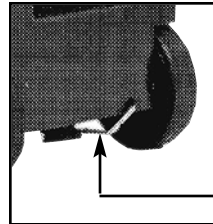
9) When using an external cleaning tool unplug the hoe and plug in the solution hose to the attachment you are using.

10) Plug-in the power cord, turn on the vacuum switch, and then the brush switch.

**Solution Lever**



11) Start cleaning by squeezing the solution lever and push the scrubber forwards or backwards.



**Squeegee Lever**

12) If the floor is very dirty, turn **OFF** the vacuum switch. Using the squeegee lever, lift the squeegee off the floor. Squeeze the solution lever to add more cleaning solution to the floor. Scrub the floor thoroughly.

13) Turn **ON** the vacuum switch, lower the squeegee to the floor, and vacuum up the dirty solution.

14) While cleaning, monitor foam level in the recovery tank. If heavy foam is building, pour a quality defoamer into the recovery tank.

15) Periodically check the solution level in the tank. **NEVER** allow brushes or pads to run dry, otherwise both the pump and the floor may be damaged.

16) Periodically inspect the squeegee blades for obstructions (sand, cigarette butts, paper etc) clear, then continue the cleaning.

17) Before refilling the solution tank, flush the recovery tank with clean water.

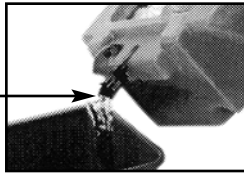
# DAILY MAINTENANCE

1) Remove dome cover from the tank and set it down behind the scrubber.



2) Lift tank by the grip and carry it to a floor drain or sink.

**Drain Plug**



3) Remove the drain plug from recovery tank and empty the tank.

4) Remove solution bladder from tank by pulling tab on the bladder upwards gently.

5) Once the edge of the bladder comes over tank rim opening, push the entire bladder into the tank and remove bladder through the large opening of the recovery tank.

6) Empty the solution bladder and rinse with clean water.

7) Hang up the solution bladder to dry.

8) Flush out the recovery tank with clean water to remove dirty solution. Drain tank.

9) When replacing the bladder make sure it fits properly into the recovery tank.

10) The bladder tab must be fitted on the left side of solution tank opening seen from the rear operators position.

11) Clean the dome, cover, vacuum hose and solution hose thoroughly. Make sure that the solution hose filter is also cleaned.

12) Clean the scrubber and squeegee with a damp cloth.

13) Store squeegee in the raised position to prevent damaging the blades.

14) Rinse brushes or pads with clean water. To remove brushes or pads, tilt scrubber back and slightly pull them downward. When replacing make sure they lock into the grooves.

## IMPORTANT:

**DO NOT leave solution in the bladder.  
After each use thoroughly wash out the bladder.  
This will help extend the bladder's life.**

# TROUBLE SHOOTING GUIDE

**CAUTION:**



**Before working on the scrubber disconnect power cord.**

**PROBLEM:** Scrubber does not run, no power.

**Possible Cause**

- 1) Fuses or circuit breakers have tripped.

**Possible Solution**

- 1) Check and replace fuses or reset circuit breakers.

**PROBLEM:** Insufficient vacuuming power.

**Possible Cause**

- 1) Debris caught under squeegee blades.
- 2) Vacuum hose not connected.
- 3) Tank cover not properly seated or gasket on the dome cover is damaged.
- 4) Filter in tank cover blocked.
- 5) Recovery tank drain plug not properly placed.

**Possible Cause**

- 1) Remove debris and wipe blades with clean cloth.
- 2) Connect hose.
- 3) Reseat tank cover correctly or replace gasket.
- 4) Clean filter with water.
- 5) Check drain plug and replace properly.

**PROBLEM:** Squeegee not picking up water.

**Possible Cause**

- 1) Rubber blades on squeegee dirty or worn-out.
- 2) Squeegee not in contact with floor.
- 3) Recovery tank full.
- 4) Vacuum hose loose or hose is damaged.

**Possible Cause**

- 1) Clean or replace blades.
- 2) Check blades and replace if necessary.
- 3) Empty recovery tank.
- 4) Reinstall or replace hose.

**PROBLEM:** Little or no water flow going to brushes.

**Possible Cause**

- 1) Solution line blocked.
- 2) Solution tank filter clogged.
- 3) Solution tank empty.

**Possible Cause**

- 1) Flush out solution tank and lines with clean water.
- 2) Unclog filter.
- 3) Refill solution tank.

**WARNING:**



**Service and repairs, should only be performed by an authorized service center.**



777 South Street P.O. Box 3210, Newburgh, NY 12550-0606

TEL: (800) 835-7812 (845) 565-8850

FAX: (800) 752-6883 (845) 565-9392

**Internet Access**

[www.mastercraftusa.com](http://www.mastercraftusa.com)

[techsupport@mastercraftusa.com](mailto:techsupport@mastercraftusa.com)