

R25
Wet Dry Vacuum

OPERATOR'S MANUAL


 **WARNING** Read and understand the Operator's Manual before use. Failure to follow instructions may result in electrocution and/or serious injury.

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Technical Support


Technical support is available by submitting a Technical Ticket (helpdesk ticket) at onyxsolutions.com/support, or by contacting us at 704-827-9368.


Safety Precautions

This machine is suitable for indoor commercial cleaning and vacuuming. All of other uses are not approved.

The following terms and symbols are used to identify statements of potential hazards which affect safety of yourself and others. Read and observe all safety statements found on this Operator Manual and on your machine.

 **DANGER:** The signal word DANGER indicates a hazardous situation which, if not avoided according to the instruction found in this Operator Manual or on your machine, will result in death or serious bodily injury.

 **WARNING:** The signal word WARNING indicates a hazardous situation which, if not avoided according to the instruction found in this Operator Manual or on your machine, could result in death or serious bodily injury.

 **CAUTION:** The signal word CAUTION indicates a hazardous situation which, if not avoided according to the instruction found in this Operator Manual or on your machine, could result in minor or moderate injury or damage to your engine or property.

The following safety symbols are used on the product and in this manual to alert the operator of potential safety hazards. Read them carefully, and understand their meaning.



Indicates **DANGER, WARNING, or CAUTION**



WARNING: Read and understand the Operator Manual before use. Failure to follow instructions may result in electrocution and/or serious injury.




WARNING: Electrocution risk. Unplug the machine cord from wall outlet before servicing the machine.




WARNING: Do not use machine near flammable materials, liquids, or vapors.

 **WARNING:** The following information explains other safety precautions and potential hazards during machine operation:


- Do not operate the machine unless you have read and understood the operator manual.
- Do not operate unless you have been trained and authorized.
- Do not operate the machine unless all safety equipment such as guards and shrouds are in place.
- Do not operate the machine if the machine is not functioning normally.
- Only operate the machine when it is in an upright position.
- Do not operate the machine if any blockage prevents air movement to the vacuum motor/fan.
- Stop the machine immediately and have the machine serviced by qualified personnel if you feel, hear, or experience any vibration or unusual noise.
- Take care to avoid slipping or falling.
- Do not operate the machine on sloped surfaces.
- Wear appropriate anti-skid shoes.
- Walk slowly, especially during turning and stopping. Avoid quick or sharp changes in direction.
- Pay attention for bystanders and keep distance.
- Proceed slowly and carefully when approaching a location of poor visibility, such as the end of an aisle or where walkways intersect.
- Look behind yourself prior to operating machine in reverse. Do not operate in reverse for extended periods.
- Turn off machine and disconnect power cord from wall outlet before attempting to make any adjustments.
- Drain recovered liquids and dispose of any dry waste in accordance with local rules and regulations.
- Operate the machine in a clear, unobstructed area. Remove any debris, clutter, or obstacles from the floor before use.

 **WARNING:** The following information explains other safety precautions regarding electrical safety:


- Inspect the power cord for damage prior to each use. Do not operate the machine if the power cord is damaged.
- Do not pull on the power cord. Do not drag the machine by the power cord or use the power cord as a handle.
- Keep power cord clear of any hot surfaces, sharp edges, moving parts, or any other hazards which may damage the power cord.
- Do not use extension cords, other than authorized by manufacturer.
- Do not connect the machine to an outlet without proper grounding.
- Do not attempt to power multiple machines or any other appliances the same outlet or from outlets that are connected to the same circuit.

 **WARNING:** The following information explains other safety precautions and potential hazards during machine storage:

- Turn off machine and disconnect power cord from wall outlet before storing.
- Do not let children play on or around the machine.
- Do not leave the machine unattended in places populated with bystanders
- Do not store the machine in places where unauthorized or untrained personnel could access or use the machine.

 **WARNING:** The following information explains other safety precautions and potential hazards during machine repair & maintenance:

- Turn off the machine and disconnect power cord from wall outlet before conducting any machine repair.
- Do not wear loose jacket, shirt, or over sleeve.
- Wear protective gloves and eye protection when conducting any machine repair, and especially when contacting wires or other electronic components.
- Use only the replacement parts provided or recognized by the manufacturer.
- All maintenance and repairs must be carried out by qualified personnel.
- Do not alter the machine in any way, other than advised by the manufacturer.
- Some parts including motor and electrical parts can become hot enough to cause burns. Allow these parts to cool before conducting any maintenance or repairs.

 **WARNING:** The following information explains other safety precautions and potential hazards during transportation:

- Turn off the machine and disconnect the power cord from wall outlet before transporting the machine.
- Secure the machine with rope or straps, when transporting on truck or trailer.
- Drain the tank from any liquids or debris before transporting the machine.
- The machine is heavy, especially when filled with liquid. Take care when pushing the machine up or down a ramp. Do not attempt to use a ramp with excessive incline angle or a ramp that is wet or slippery.

Machine Specifications

Recovery Volume	25 Gal
Motor Power	1250 W (1.7 HP)
Squeegee Width	29 inches
Voltage	110-120V (AC)
Power Cord	50 ft, 14/3 SJTOW, Yellow
Inlet Hose	1.5 inch
Drain Hose	1.5 inch
Tip & Pour Drain	4.0 inch
Transport Wheel	10 inch, Solid Rubber
Accessory Tool Kit	5-Piece Tool Kit Available
Headlight	Dual LED Headlight Included
Water Lift	100 in H2O
Airflow	115 CFM
Sound Level	<70 dba

Components & Controls

- | | | | |
|-----|-------------------------------|-----|--------------------------------|
| 1. | Recovery Tank | 16. | Filter Flange |
| 2. | Motor Head | 17. | Kick Plate |
| 3. | Handle | 18. | Gasket Seal |
| 4. | Power Cord | 19. | Air Discharge Vent |
| 5. | Latch | 20. | Lifting Handles |
| 6. | Hinge | 21. | Squeegee Mounting Bracket |
| 7. | Rear Wheels | 22. | Squeegee Assembly |
| 8. | LED Lights | 23. | Squeegee Casters |
| 9. | Inlet Hose | 24. | Squeegee Bumper Wheels |
| 10. | Inlet Port (fixed to machine) | 25. | Squeegee Blades |
| 11. | Drain Hose | 26. | Squeegee Clamp (plastic inner) |
| 12. | Drain Hose Cap | 27. | Squeegee Body (metal outer) |
| 13. | Tip & Pour Drain and Lid | 28. | Squeegee Wingnuts |
| 14. | Power Switch | 29. | Squeegee Hose Port |
| 15. | Filter (wet or dry) | | |



Machine Preparation

Unpacking Machine

1. Open the top panel of corrugated carton, and remove any foam packing.
2. Identify which side of the machine is front and rear.
3. Lay the carton down, so that the rear of machine is lying on the floor.
4. Pull machine out of the carton, using the rolling of rear wheels to assist.
5. Set the machine upright on the floor.
6. Identify and remove all components stored in the recovery tank for shipping:
 - a. Motor Head
 - b. Squeegee
 - c. Inlet Hose
 - d. Parts Bag
7. Dispose/Recycle carton material in accordance with local rules and regulations.

Motor Head Installation

1. Identify the two horizontal slots on motor head (one on each side) located near the bottom/rear.
2. Identify the hinge knobs on the top/rear of the recovery tank.
3. Lift the motor head, and interlock the slots (number 1 above) with the hinge knobs (number 2 above)
4. Once interlocked, the motor head can freely rock/pivot on the hinge.
5. Use the latch to secure the motor head to recovery tank (at front). Make sure the latch fully and properly engages with the clip.

Squeegee Installation

1. The squeegee will be installed to the squeegee mounting bracket. Identify the bracket and the 4 mounting holes in the bracket.
2. Identify the 4 attachment holes on the front of the squeegee lifting arms, which are attached to the recovery tank. Note: these attachment holes have welded nuts on the rear.
3. Use the provided 4 bolts to secure the squeegee mounting bracket to the lifting arm attachments.
4. Install the inlet hose to the two ports:
 - a. Inlet port on machine
 - b. Hose port on squeegee
5. Press the inlet hose into the channel on front of recovery tank. The inlet hose should form an “S” shape which serves as a trap to catching any drips of water.

Machine Operation

Understanding the Function

The R25 wet dry vacuum functions by powering a motorized fan which moves air through the machine and creates a vacuum, or loss of pressure. The flow of air and water is described below:

1. Air is pulled into the squeegee and travels through the squeegee at a high velocity due to small area of the air pathway. Simultaneously, water is being scraped off of the floor by the squeegee blades. The combination of fast airflow and vacuum (loss of pressure) will cause the water droplets to be lifted off of the floor and join the air stream.
2. Water and air travel together up through the inlet hose.
3. Water and air enter the recovery tank. The velocity dramatically slows down, allowing the water droplets to fall back into the recovery tank.
4. At top of motor head, air is pulled up and into the motor head.
 - a. Note: this happens high above the water level to eliminate risk of water from being pulled into the motor head.
 - b. Note: a filter here blocks any liquid bubbles/foam or any dry dust from proceeding into the motor head.
5. Air travels through the inside of motor head, and is pulled into the vacuum fan.
6. The vacuum fan expels the air back into the atmosphere, through air discharge vent located in the side of motor head.

Turn Machine On/Off

1. Unwind the power cord and plug it into an approved wall outlet.
2. Note: when the machine is powered, the LED lights will illuminate.
3. To turn on the machine, press up on the power switch (the direction toward the line "|")
4. When turned on, the motor will be powered and airflow will commence.
5. To turn off the machine, press down on the power switch (the direction toward the circle "o")


Raise/Lower the Squeegee

1. To raise the squeegee, step down on the plate of the kick plate until the squeegee bracket "locks" into position
2. To lower the squeegee, kick the top of the kick forward with your toe. This will release the bracket and allow the squeegee to fall to the floor.
3. Note: the spring provides additional downward force to press the squeegee against the floor.

Operation Tips

- The machine can pick up water in both directions: forward and rearward
- Attempt to cover the area by primarily moving the machine back and forth in the forward/rearward direction, and minimize making sharp turns.
- The machine will pick up water at a fast rate, allowing you to move at a comfortable walking speed. However, if some of the water was pushed off to the sides and not recovered, you may be attempting to walk too fast.
- Overlap your passes, to ensure that all liquids are recovered.
- You can monitor the water level of the recovery tank through the transparent tip & pour lid. Once you see the water level against the tip & pour lid, the recovery tank is full and will need to be drained.


Drain Machine

 **CAUTION:** Only drain the machine in an approved drain compliant with local rules and regulations. Draining the recovery waste water in an unapproved location can cause facility damage, and can violate local rules and regulations.

Use of the drain hose is appropriate to drain the machine into floor drains or mop sinks with a low profile ledge. To drain the machine with the drain hose:

1. Maneuver the machine to the proper drain location.
2. Pull the drain hose out of its storage channel on rear of machine.
3. With the drain hose still raised high, unscrew the drain hose cap, by turning it counterclockwise.
4. Slowly lower the drain hose until the recovered water starts to pour out.
 - a. Note: the lower you position the drain hose, the faster the water will drain. If the water is draining from the machine faster than it can flow down into the drain, you should raise the drain hose to slow down the water flow.
5. Continue draining until the recovery tank is fully empty, and give time to allow any leftover water droplets to drain out.
6. Replace the drain hose cap and tighten it by screwing it on.
7. Replace the drain hose back into its storage channel.

For some elevated drains like a commode/toilet or elevated mop sink, or when a mop sink has a high ledge, the tip & pour drain will be required. To drain the machine using the tip & pour drain:

1. Maneuver the machine to the proper drain location.
2. Use the drain hose (steps above) to drain as much water from the recovery tank as possible. Even if draining into a commode/toilet, you can likely drain a significant amount of the recovery waste water through the drain hose, which will lighten the weight and make using the tip & pour easier.
3. Open the tip & pour drain, by turning the lid counterclockwise to remove it.
4. Depending on the drain location and available space, you may also be required to remove the entire motor head.
5. Rock the machine back to the elevated drain. You can use the two lifting handles of the recovery tank as grab points.
 **CAUTION:** Grab the lifting handles on the sides, not the front, to avoid pinch point.
6. Continue rocking the machine back more and more to allow the water to drain out of the tip & pour outlet.
7. When you get near empty, you will likely need to lift the entire machine up in the front, to fully allow the water to drain out of the opening.
8. Replace the tip & pour lid, and tighten by turning it clockwise.
9. Replace the motor head, if it was removed during draining.

Machine Adjustments & Maintenance

Remove Squeegee

Once the main squeegee bracket is installed to the machine, as was done during machine preparation/installation, the squeegee itself can be quickly removed from the bracket by loosening the two center wingnuts, and sliding the squeegee forward.

Squeegee Adjustments

The amount of squeegee engagement with the floor can be adjusted by changing the vertical position of the squeegee casters, which can be adjusted by turning the nut on the top of the squeegee wheels.

- To lower the casters, which will raise the squeegee blades, turn the nut clockwise.
- To raise the casters, which will lower the squeegee blades, turn the nut counterclockwise.

Note: it is also important that the squeegee blade has consistent engagement with the floor on both sides, so aim to keep the position of the two wheels equal with each other.

Replace Squeegee Blades

To replace the squeegee blades:

1. Remove the squeegee from mounting bracket, according to first step in this section.
2. Remove all 4 wingnuts on top of squeegee.
3. Separate the squeegee clamp (plastic inner part) from the squeegee body (steel outer part).
4. Once separated, the squeegee clamp will release and the blades can be easily removed and replaced.
5. To install squeegee blades, reverse these steps.

Tips:

1. When installing squeegee blades, make sure that the blades are fully inserted into the clamp crevasse.
2. When installing squeegee blades, make sure to fully tighten the 4 wingnuts. The goal is that the clamp piece must be fully bottomed out against the top of the outer body. If the wingnut will keep turning, then it is not fully tight yet.
3. Prior to reinstalling the squeegee back onto the machine, look down the blade and make sure that it is perfectly flat and true. If it is curved or uneven, it was not assembled properly and should not be installed back onto the machine.
4. The squeegee blades are universal, which means the same blade can be used as front or rear blade.
5. The squeegee blade can also be reversed vertically, so the edge that was previously facing up (recessed into the clamp) can be flipped and used against the floor. This gives 2X the squeegee life compared to blades which cannot be reversed.

Replace Air Filter

There are two types of air filters:

1. A wet filter: A foam filter that helps to block liquid bubbles and foam.
2. A dry filter: A pleated filter that helps to capture dusty particles.

To replace or change the filter:

1. Release the latch and rock the motor head into the raised position.
2. Turn the filter securing flange (plastic) counterclockwise to unscrew/remove it.
3. Slide the filter off of the filter cage.
4. Slide new filter onto the filter cage.
5. Reinstall and tighten the filter securing flange by turning it clockwise.
6. Lower the motor head and latch it in the front.

NOTE: Inside the filter cage is a float cup. If the machine falls onto its side while the motor is powered, then the float cup will be sucked against the top and block water from entering the motor head. Important: the rounded cup should always be positioned facing UP.

General Maintenance

Prior to each use, check the following components and function. Arrange an authorized service provider to replace/repair parts as necessary:

- All fasteners are tight and secure
- Power cord is free from wear/damage
- Power switch is functional
- Squeegee bracket can raise/lower properly
- Machine rolls smoothly
- Vacuum motor/fan operates normally and air movement/suction are normal.
- No blockage in hose.
- Air filter is clean.
- LED light illuminates properly
- Motor head latch can release and clamp properly
- Motor head can pivot freely
- Recovery tank is clean

Machine Transport

To transport the machine within a facility:

1. Disconnect the power cord from wall outlet, and use the base of handle as a convenient cord wrap.
2. Raise the squeegee off of the floor, by stepping down on rear kick plate.
3. Roll the machine on its two rear wheels and front swivel caster.

For long distance transport on a trailer or vehicle:

1. Disconnect the power cord from wall outlet, and use the base of handle as a convenient cord wrap.
2. Drain the recovery waste water.
3. Position machine on the trailer or vehicle. The lifting handles can help to lift/load the machine.
4. Secure machine using ropes or tie-down straps. The lifting handles make for a convenient location to secure the straps.

Machine Storage

1. Disconnect the power cord from wall outlet, and use the base of handle as a convenient cord wrap.
2. Drain the recovery waste water.
3. Inspect the machine for any damage or wear. If needed, have the machine repaired by an authorized service technician.
4. Store the machine in an indoor, climate-controlled location.
5. It is advisable to open the motor head during storage, so that any moisture or water droplets can evaporate. Keeping this moisture sealed in the recovery tank will likely result in a foul or musty odor.
6. If desired, the squeegee can hang on the front of the machine (near LED light) to save space during storage.

Troubleshooting Guide

<u>Problem</u>	<u>Potential Reason</u>	<u>Solution</u>
Motor does not turn on when switch is turned on... ...and LED light is not illuminated.	Machine is not plugged in.	Plug in machine.
	Power cord is damaged.	Repair/replace power cord.
	Facility outlet is faulty or circuit breaker has been tripped.	Check outlet. Reset facility circuit breaker if required. Take care not to run multiple machines or appliances from same circuit.
...and LED light is illuminated.	Motor is damaged/faulty.	Replace motor.
	Switch is damaged/faulty.	Replace switch.
	Electrical issue with internal motor/switch wiring.	Have machine inspected by qualified service technician.
Motor turns on, but very little suction... ...and motor pitch is normal/low, indicating normal air flow.	Gasket seal is damaged.	Replace gasket seal.
	Inlet hose is not installed with proper seal.	Reinstall inlet hose. Check seal. Replace if necessary.
	Drain hose cap is not sealed.	Reinstall drain hose cap. Check O-ring. Replace if necessary.
	Tip & pour lid is not sealed.	Reinstall tip & pour lid. Check gasket. Replace if necessary.
	Recovery tank is cracked/punctured.	Check/repair/replace the recovery tank.
	Motor head is cracked/punctured.	Check/repair/replace the motor head.
...and motor pitch is high/whiney, indicating blocked/obstructed air flow.	Blockage in intake hose.	Remove blockage.
	Filter is clogged.	Clean/replace filter.
	Air discharge vent is blocked.	Remove blockage. Check/clean filter.
	Float cup is upside down.	Orient float cup properly: rounded cup is facing up.
Suction is good, but squeegee pickup is poor.	Squeegee blades are worn.	Replace/reverse squeegee blades.
	Squeegee blades are not even/flat within the squeegee clamp.	Reinstall the squeegee blades so they are even/flat.
	Squeegee clamp is not fully and evenly bottomed out inside squeegee body.	Fully tighten all 4 wingnuts to cause the squeegee clamp to be fully bottomed-out against the inside of the squeegee body.
	Squeegee blades are not contacting the floor because squeegee is in the raised position.	Lower squeegee, by releasing the kick plate.
	Squeegee blades are not contacting the floor, because the squeegee casters are too low.	Adjust the squeegee casters to result in proper squeegee contact against the floor.
	Squeegee blades are not evenly in contact with the floor because the squeegee casters are not even with each other.	Adjust the squeegee casters to result in even squeegee contact against the floor.
	Squeegee is not in contact with the floor because the spring is missing or broken.	Check/replace the squeegee spring (in rear of machine near kick plate)
Squeegee falls off of the squeegee mounting bracket very easily.	Mounting wingnuts are not tight.	Securely tighten the two mounting wingnuts (the two in the center).
Recovery waste water leaks from machine.	Two bolts/nuts that secure the inlet port to the recovery tank are loose.	Tighten the two bolts/nuts.
	Rubber gasket at this inlet port is damaged/worn/missing.	Check/replace the rubber gasket.
	Drain hose is loosely installed to drain port.	Check/replace/secure the drain hose attachment.
	Recovery tank is cracked/punctured.	Check/repair/replace the recovery tank.



We believe that tomorrow can, and will, be better than today.

But, it takes a hero to change the world.

It takes you.

BECOME HERO™

B e c o m e **H E R O** . c o m

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