

# **Owners Manual**

# **Avenger Quiet Self-Contained Extractor**

Model: AV 12QX

**NOTE:** As with all electrical equipment, care and attention must be exercised at all times during its use, in addition to ensuring that routine and preventative maintenance is carried out periodically in order to ensure its safe operation. In particular the electrical supply cable should be regularly inspected by a competent person and immediate action taken to rectify any faults found. Failure to carry out maintenance as necessary, including replacement of parts to the correct standard, could render the equipment unsafe and the manufacturer can accept no responsibility in this respect. See the enclosed exploded drawings for correct replacement parts.

Before using your machine, you must familiarize yourself with all its components.

# **MACHINE COMPONENTS**

#### **Vacuum Dome**

The vacuum dome is located on top of the recovery tank. It is held in place by vacuum suction when in operation. Just underneath the vacuum dome there is a screen to prevent debris from entering the vacuum tube leading to the vacuum motor.

#### **Recovery Tank**

The recovery tank is located on the top of the machine. It is attached to the solution tank (lower) by four latches. It is possible to remove the recovery tank from the solution tank – but – you must first disconnect the electrical connector at the rear of the machine. This connector has a swivel lock. To remove this connector you should first disconnect the power cord from the wall outlet. Then simply rotate the connector ring counterclockwise and gently pull down. Remove the black sound dampening plate and vacuum hose from the rear of the solution tank. The solution tank can now be removed.

When using accessory cleaning attachments, the hose leading from the floor vacuum shoe should be removed from the rear of the recovery tank and replaced with the accessory vacuum hose.

At the lower left side of the tank is the recovery drain hose. It is held in place with a hose clip. To remove the cap, unscrew in a counterclockwise direction.

NOTE: When reconnecting the electrical connector to the recovery tank it is very important to make sure the connection is secure – but do not over-tighten the connector ring. Do not force the connector when re-attaching.

#### **Solution Tank**

The solution tank is the lower unit. It can be filled with water via the front spout using a clean bucket or with a hose direct from the faucet. The solution tank has water conduit with an inlet filter and weight. The weight must be at the inlet filter end of the hose to keep it submerged.

At the rear of the machine beneath the handle is a panel that encloses the pump. Exiting from this panel is a quick coupler. For normal use, the short water hose from the water valve should be connected to the quick coupler.

There is a water flow valve on the side of the unit that will allow the water volume to be adjusted from maximum flow to zero. To locate this, follow the solution line from the coupler to the side of the machine. When adjusting this flow, it is useful to remove the spraybar from the machine and start the pump to ensure that water flow is sufficient to give a uniform spray pattern.

If accessory cleaning attachments are used, disconnect the solution line at the rear of the machine and replace it with the accessory solution hose.

NOTE: Never fill the unit using a dirty bucket. This may cause damage to the pump system.

#### **Brush Housing**

The brush housing is located in centre of the machine under the solution tank. To adjust the brush height there is a round knob on the lower left-hand side at the rear of the machine. There are several drilled holes in the knob to allow different brush height settings for different carpet types. To adjust the brush height, simply pull the knob and rotate to the desired setting. The storage position is with the knob rotated fully clockwise and locked in place.

**NOTE:** When the machine is not in use the brush must be stored in the storage position to prevent damage (flattening) of the brush roll.

## **Vacuum Shoe Assembly**

To raise and lower the floor vacuum shoe, depress the foot pedal and move it slightly to the right then release. This will lower the shoe so that it touches the floor. To raise the shoe, depress foot pedal and move slightly to the left to lock it in place.

For cleaning and for transporting the machine from site to site, the vacuum shoe can be removed by lifting up the securing pin knob on the top of the vacuum shoe assembly. Take care not to lose the brass spacer/bushing.

#### **Vacuum Shoe Pressure**

The pressure on the vacuum shoe can be increased of deceased by rotating the adjustment knob located at the rear of the machine next to the brush height adjustment knob.

# <u>OPERATION</u>

To operate the machine as a carpet automatic, follow the instructions below.

**Fill:** Fill the machine with hot clean water using a clean bucket or hose direct from the faucet. Then, pour into the solution tank an appropriate quantity of a good quality extraction chemical. Note: This agent should be low foaming to avoid vacuum motor damage.

**Plug In:** Plug the machine into the wall outlet.

**Water Volume**Adjust the water output volume to the desired level by turning the water volume knob. Turn the solution switch to "on" to check the spray. The maximum volume is with the knob rotated fully counterclockwise (marked "+"). The minimum setting (zero flow) is with the knob rotated fully clockwise (marked "-"). The range of settings varies from max. to min. over approximately 4 \_ turns of the knob.

**Brush Height:** Set the brush height. To do this, start the brush motor with the switch marked "Brush" by rocking it to the "ON" position. With the brush height adjustment knob, lower the brush height by one setting hole at a time until the brush is just touching the carpet, then lower by one more setting hole. This should give adequate brush pressure for proper agitation. A setting that is too low can reduce the life of the brush, decrease performance and cause the brush drive motor to work harder than necessary. Once the brush is set, turn the brush off.

**Vacuum:** Locate the vacuum motor switch marked "Vacuum".

**Solution:** Set the "Solution" switch to the "On" position. Note: the solution will not flow unless the solution release lever is depressed.

**Note:** In some instances it is useful to have continuous water flow without holding down the solution release lever. To do this, simply set the "Solution" switch to "Accessory Only". This will give continuous water flow until the solution switch is turned off.

**Cleaning:** Once you are prepared to clean, turn the brush on, turn the vacuum on and depress the solution lever with your finger. Give the machine a gently push to start the forward motion. Once moving, little effort should be required to maintain movement as the brush rotation helps to propel the machine.

NOTE: If the machine is too hard to push the brush might be too high or too low – or – the vacuum shoe pressure might be excessive.

### To operate the machine as a box extractor, follow the instructions below.

Note: This feature requires the purchase of optional accessory tools.

Fill the machine and plug in as above, remove the vacuum hose from the vacuum shoe where it enters the recovery tank. Remove the solution hose leading from the rear panel at the quick coupler.

Install the accessory solution hose at the female quick disconnect exiting the rear panel. Install the accessory vacuum hose at the rear of the recovery tank. Attach to the other end your choice of accessory tool. Turn the vacuum motor on with the "Vacuum" switch and turn on the solution pump by setting the switch in the "Accessory Only" position. Water will flow when the valve on your accessory tool is depressed.

**IMPORTANT:** Watch the recovery dome for signs of excess foaming. If excess foam develops, turn the machine off immediately and empty the recovery tank. Use a defoamer to cut down on foam generation in the recovery tank.

# **MAINTENANCE**

### **After Every Use**

- 1) Empty solution tank using the short vacuum hose provided. Simply remove the floor tool hose where it connects to the recovery tank and attach the short vacuum hose instead. Turn the vacuum switch on and vacuum out the solution tank. <a href="Caution: If there is a large volume of solution left, watch for excessive foaming in the recovery tank.">Caution: If there is a large volume of solution left, watch for excessive foaming in the recovery tank.</a>
- 2) Put some fresh water in the solution tank and pump this through the system. This will help keep the pump system clean.
- 3) Clean the recovery dome and gasket.
- 4) Clean any lint or debris from the vacuum inlet screen inside the recovery tank.
- 5) Thoroughly rinse and drain the recovery tank to prevent odours from developing.
- 6) Check the brush roll and vacuum shoe to remove any loose debris or strands.
- 7) Check that the brush in the storage position
- 8) Run the vacuum motor for 1 to 2 minutes. This will help remove any moisture from the motor fans and fan casing.

# **Periodically**

- 1) Inspect power cord and plug for damage.
- 2) Flush the pump system with an acidic de-calcifying solution to remove deposits.
- 3) Check the brush height adjustment cable for fraying / wear. Replace if necessary.
- 4) Check the spray jets water dispersion pattern. Clean or replace jets if pattern is erratic.
- 5) Check & clean the water inlet filter in the solution tank.

# **TECHNICAL SPECIFICATIONS**

Power 115V, 50/60Hz Brush Speed 1,000 rpm

Consumption 12 amps Vacuum Motor 3 stage, bypass 1,250W, 1.7 Hp

Solution Capacity 12 gallons

Airflow 95 cfm (max.)
Recovery Capacity 12 gallons

Waterlift 115 inches (max.)

Pump Pressure 100 psi (max.)

Power Cord 50' Pump Type diaphragm, with bypass

Weight 121 lbs.

Water Volume 0 - 1.2 gpm (max.)

20 inches

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Brush Motor 100W, 0.13 Hp DC rectified

#### **WARNINGS**

Cleaning Width

Do not use for any potentially hazardous or health endangering material recovery. Do not use the machine in corrosive or flammable environments.

#### Servicing

Only qualified personnel should perform service on this product. This machine is fitted with a grounded power cord. Only use with a properly grounded electrical outlet. Always use the appropriate parts when making any repairs. Failure to do so may compromise the safety of the product.

Always use genuine NORTH AMERICAN parts for any repairs required.

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