



# POWERHORSE®

## 16 Inch Surface Cleaner

### Owner's Manual



**WARNING:** Read and understand all instructions, warnings, and cautions before using this product. Failure to follow the instructions, warnings, and cautions may result in serious personal injury and/or property damage.

**Item # 47892**

**SAVE THESE INSTRUCTIONS**

Thank you very much for choosing a Powerhorse product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Save the receipt, warranty, and this manual.

This surface cleaner is designed for certain applications only. Northern Tool and Equipment cannot be responsible for issues arising from modification or use of this product in an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

## Table of Contents

<b>Intended Use</b> .....	<b>4</b>
<b>Technical Specifications</b> .....	<b>4</b>
<b>Important Safety Information</b> .....	<b>4</b>
<b>Specific Operation Warnings</b> .....	<b>6</b>
<b>Assembly</b> .....	<b>7</b>
<b>Before Each Use</b> .....	<b>8</b>
<b>Operating Instructions</b> .....	<b>9</b>
<b>After Each Use</b> .....	<b>9</b>
<b>Maintenance</b> .....	<b>10</b>
Replace the Hose .....	10
Replace a Nozzle.....	10
Replace the Swivel Complete Fixture.....	11
Replace the Swivel Filter .....	12
Replace the Swivel O Rings .....	12
<b>Parts Diagram</b> .....	<b>13</b>
<b>Parts List</b> .....	<b>14</b>
<b>Troubleshooting</b> .....	<b>15</b>
<b>Replacement Parts</b> .....	<b>15</b>
<b>Limited Warranty</b> .....	<b>16</b>

## Intended Use

This surface cleaner is designed for high-pressure cleaning of a variety of outdoor surfaces such as concrete, asphalt, paving stone walkways pool decks etc. The cleaner connects to a pressure washer and is rated up to 4200 PSI, 5 GPM with fluid temperatures up to 200° F.

## Technical Specifications

Property	Description
Cleaning Width (in)	16
Max. PSI	3500
Max. GPM	5
Material	Stainless-steel
Caster Type	Swivel
Temperature Capacity (°F)	200
Weight	15 lbs.

## Important Safety Information

### **⚠ WARNING**

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

## **⚠ WARNING**

### **WORK AREA SAFETY**

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury. Using the product in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

## **⚠ WARNING**

### **PERSONAL SAFETY**

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.
- Do not use the tool when tired or under the influence of drugs, alcohol or medication.
- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.

## **⚠ CAUTION**

### **CLEANER USE AND CARE**

- Do not force the cleaner. Tools do a better and safer job when used in the manner for which they are designed. Plan your work, and use the correct tool for the job.
- Check for damaged parts before each use and before connecting the cleaner to a pressure washer. Carefully check that the cleaner will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the cleaner with a damaged part.
- Store the cleaner when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the cleaner for good working condition prior to storage and again before re-use.
- Use only replacement parts that are recommended by the distributor. Parts that may be suitable for one cleaner may create a risk of injury when used with another cleaner. Never use a part that has a lower operating pressure than the cleaner itself.
- Do not leave the cleaner unattended when it is pressurized.
- Do not turn the cleaner over when it is pressurized by connection to an operating pressure washer to avoid high-pressure spraying water that could cause personal injury.

## **Specific Operation Warnings**

### **⚠ WARNING**

- DO NOT exceed the rated PSI capacity.
- Keep body parts clear of nozzle heads and away from skirt while operating machine.
- DO NOT lift machine from surface or point nozzle heads at people while operating.
- Wear the proper safety gear including ANSI Z87.1 approved safety glasses.
- Use only on hard level surfaces.
- No alterations shall be made to this product.
- Only attachments and/or adapters supplied by the manufacturer shall be used.
- Not for use by or around children.

## Assembly

1. Check the contents of the shipping carton against the parts list to ensure all parts are present.
2. Attach the four casters to the housing as shown below using parts 2, 8, and 12 - 16. After tightening the bolts check that the casters swivel and the wheels turn smoothly.



3. Attach the swivel complete fixture (5) to the center hole of the housing (this may already be done at the factory). Push the fixture up from underneath the housing so the bolts go through the three holes in the housing as shown below left. Place a washer and cap screw on each bolt and tighten.



4. Connect the swivel's piping to the top of the fixture (top center of left-hand picture above; this may already be done at the factory).
5. Connect the handle (1) to the housing, as shown below, with screws (17) and nuts (18).



6. Connect the bottom of the hose to the swivel piping (shown below left) and the top to the handle (below right).



Hose-Swivel Piping Connection



Hose-Handle Connection

## Before Each Use

Perform the following inspections before each to ensure the cleaner is working properly.

- Check for any worn or damaged parts. Replace any such part before using the cleaner.
- Check that all the parts are tightly fastened. Tighten any that are loose.
- Check that the casters swivel and roll smoothly. Repair or replace any that don't function properly.
- Check that the swivel and sprayer arm rotate smoothly.
- Use a low-pressure water connection to check that the sprayer nozzles are clear and spray correctly. If either nozzle doesn't, replace or clean the non-working nozzle (see maintenance section for the steps).



## Operating Instructions

1. After before-use inspections, place the cleaner at the edge of the surface to clean.
2. Bring a pressure washer to the area.

### **⚠ WARNING**

Do not use the surface cleaner with a pressure washer that has a fluid delivery greater than 3500 PSI, 5 GPM, and 200° F. Fluid delivery above these parameters may overload the cleaner and cause damage to components and possibly personal injury.

3. Connect the surface cleaner hose at the handle to the pressure washer hose.
4. With one hand on the surface cleaner handle, start the pressure washer.

### **⚠ WARNING**

Do not tilt the surface cleaner up off any of the casters while in use. The operating pressure is very high and wildly spraying fluid can easily cause personal injury and property damage.

5. Slowly walk behind the surface cleaner watching for good cleaning action.
6. When cleaning is complete, stop the pressure washer. When fluid pressure is released through the sprayer nozzles, disconnect it from the surface cleaner.

## After Each Use

Perform the following inspections after each use to clean the cleaner and ready it for the next use.

- Clean out any dirt or foreign material from under the housing and the casters. If necessary, use a cloth or sponge to wash the surface cleaner and rinse it with tap water.
- Check for loose parts and any damage.

## Maintenance

### ⚠ WARNING

Disconnect the surface cleaner from a pressure washer and ensure that the cleaner is not pressurized before performing and inspections, maintenance or adjustments to avoid any wildly spraying fluid that may cause personal injury and property damage.

Maintain your tool in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual.

For general inspections, see the Before Each Use section.

### Replace the Hose

Disconnect the bottom of the hose from the swivel piping and the top from the handle, as shown below, then reconnect a new hose to these connections.



Hose-Swivel Connection



Hose-Handle Connection

### Replace a Nozzle

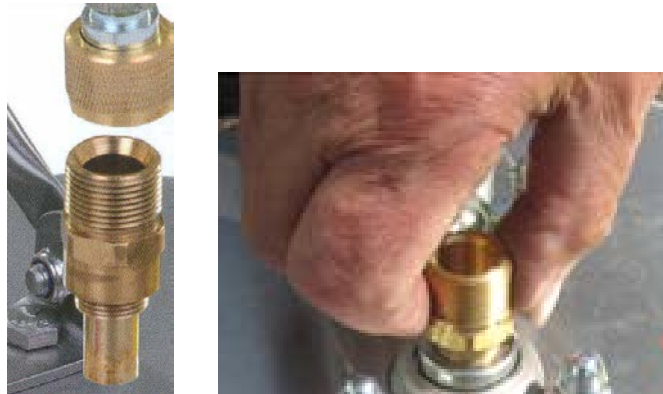
To replace a clogged, worn, or damaged nozzle, simply unscrew it from the sprayer and screw on a new or cleaned replacement nozzle.

Plugged nozzles can be easily cleaned with a needle or small paper clip.



## Replace the Swivel Complete Fixture

1. Remove the hose bottom connection (shown below, left) then remove the swivel piping from the top of the housing (below right).



2. Support the swivel fixture below the housing with a rolled up cloth to avoid the fixture dropping onto the floor, possibly causing damage to it.
3. Loosen the three nuts on top of the housing around the swivel fixture.

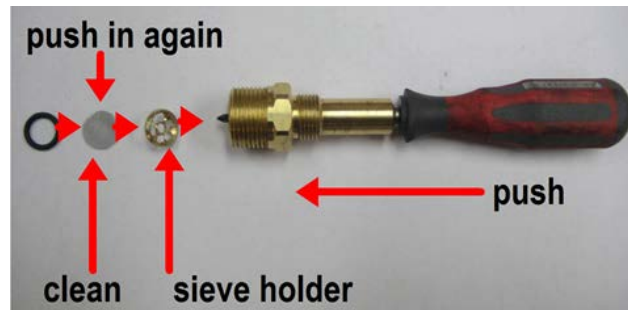


4. Lift the housing off the swivel fixture.

Install a new swivel fixture by reversing the above procedure. Check the nozzles on the old swivel as they may be reusable

## Replace the Swivel Filter

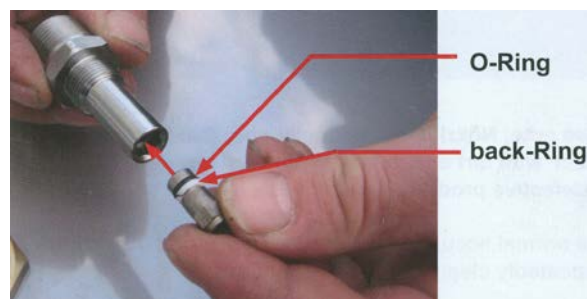
1. Remove the swivel piping from the cleaner:
  - a. Disconnect the hose connection from the top of the swivel.
  - b. Remove the swivel piping from the fixture in the housing.
2. Remove the bottom piece of the swivel piping.
3. Gently push a small screwdriver up into the bottom the swivel to dislodge the internal components (shown below).



4. Clean the filter screen and check the O ring for wear or damage. Replace either defective component.
5. Replace the O ring, filter screen and sieve holder in the top of the swivel as shown above.
6. Re-install the swivel piping and reconnect the hose.

## Replace the Swivel O Rings

1. Disconnect the hose connection from the top of the swivel piping.
2. Remove the swivel piping from the swivel fixture in the housing.
3. Remove the bottom piece of the swivel as shown below.
4. Replace the O rings with replacements from the Easy Repair Kit.



5. Reinstall the bottom piece in the swivel piping.
6. Reinstall the swivel piping in the housing fixture.
7. Reconnect the hose to the swivel piping.

# Parts Diagram

## Parts Diagram 47892



## Parts List

Item #	Part #	Description	Quantity
1	47892.1	Handle	1
2	47892.2	Caster	4
3	47892.3	Housing	1
4	47892.4	Nozzle	2
5	47892.5	Swivel Complete component	1
6	47892.6	Easy Repair Kit	1
7	47892.7	Sealing Lip	1
8	47892.8	Caster Holder	4
9	47892.9	Pressure washer Hose 600 mm	1
10	47892.10	M 22 x 1,5 Nipple	1
11	47892.11	High Pressure Filter	1
12	47892.12	Screw M 6 x 10	8
13	47892.13	Nut M 6	8
14	47892.14	Cap Nut M 8	4
15	47892.15	Washer 16 x 8,5 x 1,5	4
16	47892.16	Screw M 8 x 12	4
17	47892.17	Screw M 8 x 12	2
18	47892.18	Stop Nut M 8	2
19	47892.19	Mounting system	1
20	47892.20	Screw M 8 and Nut M 8	2

## Troubleshooting

Please check the list below before addressing the problems to servicing personnel including the local dealer. If the problem continues after the following troubleshooting, please call your local dealer for future assistance.

Problem	Possible Cause	Solution
Nozzle blocked (not spraying)	Dirty nozzle	Twist the nozzle off and clean by needle or paperclip
Both nozzles not spraying	Dirty filter	Clean or replace filter (see Maintenance section)
Spray outward from sealing lip	Damaged sealing lip	Replace the sealing lip 47892.7
Caster won't roll or swivel	Dirt in caster	Clean the caster

## Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following will be required: model number, serial number/lot date code, and description.
- The distributor reserves the rights to make design changes and or improvements to product lines and manuals without notice.

## Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Powerhorse product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of 2 years from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, replace product components without charge to you. No returns will be accepted. This limited warranty is not transferable.

In addition to the normal warranty, Powerhorse shall warrant any normal wear item from defects in material or workmanship for a period of 90 days from the date of purchase by user. Normal wear items include, but are not limited to, nozzles, quick connect fittings, seals, hoses, springs, brushes, and O-rings.

### Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner. Not included are consumable components such as nozzles.

### Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

### Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

### Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

### Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.





Distributed by:

Northern Tool & Equipment Company, Inc.

Burnsville, Minnesota 55306

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

Made in Germany