

# **2200 PSI Electric High Pressure Washer**

Owner's Manual



WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item #157065

**READ & 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. It is important that you read the entire manual to become familiar with this product before you begin using it. |

This pressure washer is designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used

For technical questions, please call 1-866-902-9690.

for any application other than that for which it was designed.

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## Intended Use

The Powerhorse 2200 PSI Electric Pressure Washer is intended for cleaning the walls of buildings, facades, terraces, footpaths, garden equipment, machinery, vehicles, tools, etc. with a pressure water nozzle. If required, you can also use the pressure washer with added household cleaning agents.

The pressure washer is to be used only for its prescribed purpose, any other use is deemed to be a case of misuse. The user/operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the pressure washer is used in commercial, trade or industrial businesses or for equivalent purposes.

## **Packaging Contents**

- Machine (1)
   Wheel (2)
   Pin roll (2)
- Gasket (4)
   Spring pin (2)
   High pressure hose (1)
- Quick-connect wand (1)
   Trigger handle (1)
   15° nozzle (1)
- 25° nozzle (1) 40° nozzle (1) Soap nozzle (1)
- Turbo nozzle (1)
   Tip cleaning needle (1)
   Owner's Manual (1)

# **Technical Specifications**

| Property                 | Specification                      |
|--------------------------|------------------------------------|
| Power Source Requirement | 120 Volt AC, 60 Hz                 |
| Rated Current            | 13 Amps                            |
| Max. Pressure            | 2500 psi                           |
| Working Pressure         | 2200 psi                           |
| Max. Flow Rate           | 1.3 GPM                            |
| Electrical Cord          | 35 ft.                             |
| High-pressure Hose       | 25 ft.                             |
| Inlet Water              | Cold Tap Water, Max. 104°F / 40° C |
| Detergent Injection Rate | 3%~12%                             |

# **Important Safety Information**

## **MWARNING**

- 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. This product will be safer and do a better job 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.

## **MARNING**

#### **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 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.

## **MARNING**

#### **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.

## **ACAUTION**

#### PRESSURE WASHER USE AND CARE

- Do not force the pressure washer. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly
  and perform its intended function. Replace damaged or worn parts immediately. Never operate the
  product with a damaged part.
- Do not use a pressure washer with a malfunctioning switch. Any power tool that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power/air supply from the product and place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the pressure washer when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product.
   Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.
- Keep guards in place and in working order. Never operate the pressure washer without the guards in place.
- Do not leave the pressure washer running unattended.

## **Specific Operation Warnings**

#### **AWARNING**

- Wear ANSI Z87.1 compliant safety goggles during use.
- Before servicing, cleaning, or removing parts, unplug pressure washer from power source and relieve the pressure.
- Risk of Explosion. Do not use pressure washer to spray flammable liquids.
- Arching electrical parts. Keep the motor at least 18ft. (6m) from explosive vapors.
- High-pressure spray can cause flying debris and possible surface damage.
- Cleaning chemical vapors or contact with skin may be hazardous.
- Never operate the pressure washer with broken or missing parts. Check the product regularly and repair or replace worn or damaged parts immediately.
- Never spray flammable liquids or use the pressure washer in areas containing combustible dust, liquids, or vapors. An electric spark could cause an explosion.
- Never leave the wand unattended while the product is running or switched on.

- Never cover the pressure washer during operation to allow free air cooling.
- Always turn water supply on before turning the pressure washer on unless draining for storage. Running the pump dry causes serious damage.
- Not for use by or around children.

#### INJECTION HAZARD

- Spray gun can kick back causing personal injury or loss of control of spray gun, causing injury other persons. Hold spray gun with two hands while operating.
- Equipment can cause serious injury if the spray penetrates the skin. Never point spray gun or direct spray at people, animals, or pressure washer.
- When unit is switched to the OFF position, pressure will still remain in unit. Point the spray gun in a safe direction and engage trigger to release pressure. Do not direct discharge at persons or animals.
- Never operate the pressure washer without all components properly connected to the product (handle, gun/wand assembly, nozzle, etc.).
- Never put hand or fingers over the nozzle or spray tip while operating the pressure washer.

#### **ELECTRIC SHOCK HAZARD**

- Inspect cord before using. Do not use if cord is damaged, frayed or split.
- Keep all connections dry and off of the ground.
- Do not plug in power cord when wet or while standing on damp/wet ground.
- Always move switch on product to "Off" position before connecting or disconnecting power cord to electrical outlets.
- Do not use an extension cord with this product.
- Connect only to a grounded outlet equipped with a ground fault circuit interrupter (GFCI).
- Do not attempt to service or open this product while it is connected to an electrical source. Service should only be completed by a qualified technician.
- When servicing, use only original equipment manufacturer (OEM) replacement parts.
- This product is provided with a ground fault circuit interrupter (GFCI) built into the power cord plug. If replacement of the plug or cord is needed, ensure the GFCI is included with the new cord.
- Connect to individual branch circuit only.

## Grounding

## **MWARNING**

- This device provides additional protection from the risk of electrical shock. Plug the Ground Fault Circuit Interrupter (GFCI) into a power outlet. Indicator should turn red. TEST BEFORE EACH USE. Press the "TEST" button. Red indicator should disappear. Press "RESET" button again for use. Do not use if this test fails.
- Should replacement of the plug or cord become necessary, use only manufacturer replacement parts that include GFCI protection. All services must be done by an Authorized Service Technician. Unauthorized service will void warranty.
- Connect directly to outlet. Do not use product with extension cord. The use of an extension cord

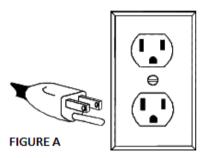
could override the GFCI built into the plug of the power supply cord resulting in the risk of electrical shock.

 CHECK with a qualified electrician or service person if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

## **Grounded Tools: Tools with 3-Prong Plugs**

Tools marked with **Grounding Required** have a 3-wire cord and 3-prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)

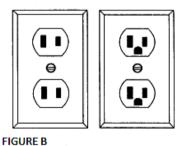
Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration.



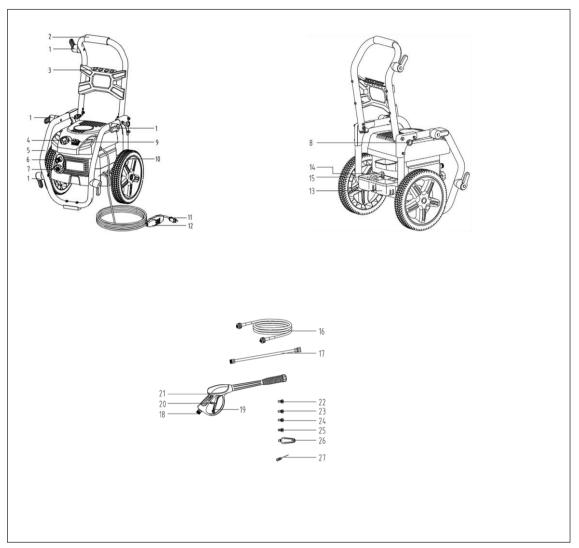
## **Double Insulated Tools: Tools with Two-Prong Plugs**

Tools marked **Double Insulated** do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B.)

Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration.



# **Main Parts of Product**



| Reference | Subassembly                         |
|-----------|-------------------------------------|
| 1         | Gun / Power cord / Hose holder      |
| 2         | Handle with soft grip               |
| 3         | Spray tips storage slots            |
| 4         | Pressure adjusting knob             |
| 5         | Support                             |
| 6         | High-pressure water outlet          |
| 7         | Water inlet                         |
| 8         | Locking/releasing pin (not shown)   |
| 9         | On / Off Switch                     |
| 10        | Wheel                               |
| 11        | Plug                                |
| 12        | Power cord with GFCI                |
| 13        | Attachments storage                 |
| 14        | Detergent intake hose               |
| 15        | Nozzle cleaning needle              |
| 16        | High-pressure hose                  |
| 17        | Quick-connect wand                  |
| 18        | Spray gun high-pressure water inlet |
| 19        | Trigger switch                      |

| Reference | Subassembly            |
|-----------|------------------------|
| 20        | Safety lock            |
| 21        | Trigger handle         |
| 22        | 15° nozzle             |
| 23        | 25° nozzle             |
| 24        | 40° nozzle             |
| 25        | Soap nozzle            |
| 26        | Turbo nozzle           |
| 27        | Nozzle cleaning needle |

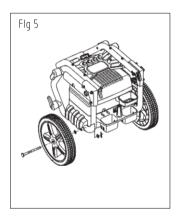
# **Assembly Instructions**

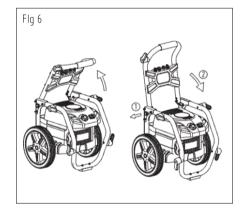
## **MARNING**

- Remove the power cord from the power source before carrying out any work on the equipment, use only original parts.
- Before starting any cleaning task, it is important to inspect the area for objects that could create a hazard.
- Remove any objects from the work area that could be tripped over, such as toys or outdoor furniture. Ensure that all doors and windows are closed tightly.

## 1. Assemble the wheels as shown in Fig.5.

Assemble the wheel with a pin roll, two gaskets, and a spring pin as shown steps in Fig.5.





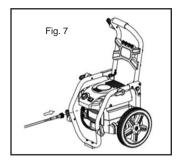
## 2. Unfold the handle as shown in Fig.6.

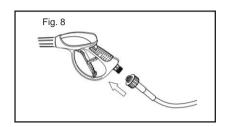
Turn the handle upward around 100°, until the locking/releasing pin engages into the corresponding hole on the handle. Make sure the handle is attached securely before each use.

To fold the handle: Pull the locking/releasing pin outward on the right side of the pressure washer and turn the handle downward to fold the handle.

#### 3. Connect the hose to the pressure washer as shown in Fig. 7.

Attach the high-pressure hose to the washer's water outlet (hand-tighten only).



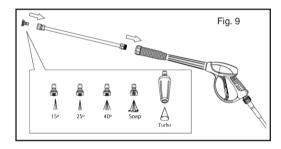


## 4. Connect the hose and spray gun as shown in Fig. 8.

Screw the high-pressure hose firmly onto the spray gun.

## 5. Fit the spray nozzles to spray gun as shown in Fig. 9.

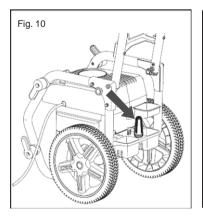
Attach the desired color-coded spray tip to the quick - connect wand by pushing to ensure it is clicked in securely. Insert the quick – connect wand into the spray gun and hand-tighten until the two parts are locked.



Storage position of the turbo nozzle as shown in Fig.10.

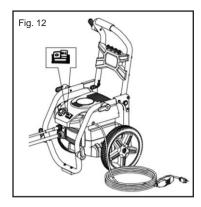
## 6. Connect the garden hose and inlet adapter as shown in Fig. 11.

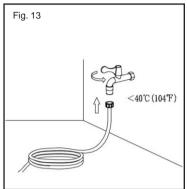
Attach a hose with a quick-connect coupling (not supplied) to the water inlet on the high-pressure washer.





#### 7. Connect to the water supply as shown in Fig. 12 and 13.

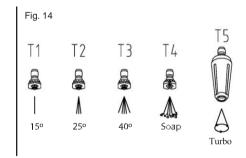




## 8. Spray tips as shown in Fig. 14.

The spray tips are for the following purposes:

- T1: Yellow-15°: Delivers balanced pressure and flow for general cleaning.
- T2: Green-25°: Delivers balanced pressure and flow for general cleaning.
- T3: White-40°: For delicate cleaning.
- T4: Black-Soap: Low pressure / to apply detergent.
- T5: Turbo: To remove particularly stubborn dirt.



# **Before Each Use**

## **MWARNING**

- Never use the pressure washer to draw in water contaminated with solvents (e.g., paint thinners, gasoline, oil, etc.).
- Dirt in the water inlet will damage the pressure washer. To avoid this risk, we recommend inspecting and cleaning the water inlet regularly.
- Always prevent debris from being drawn into the washer by using a clean water source and an additional accessory water filter, if required.
- To prolong the life of the washer, rest the washer for 5 minutes after every 30 minutes of use.

#### **Surface Preparation**

Before starting any cleaning task, it is important to inspect the area for objects that could create a hazard. Remove any objects from the work area that could be tripped over, such as toys or outdoor furniture. Ensure that all doors and windows are closed tightly.

#### Water Supply (Cold Water Only)

Only draw cold water through the washer. For use with cold water supply only. The water hose must be at least a 1/2" (13 mm) in diameter. The flow rate of the water supply must not fall below 2 GPM (gallons per minute). The flow rate can be determined by running the water for one minute into an empty 5-gallon container. Measure the volume of water in the bucket after one minute. The water supply temperature must not exceed 104°F (40°C).

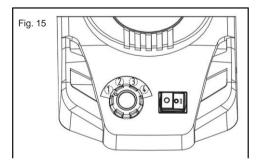
# **Operating Instructions**

## **∴WARNING**

- To avoid the risk of injury, do not directly discharge the stream at yourself or others.
- Before cleaning any surface, an inconspicuous area should be cleaned to test the spray pattern and distance for maximum cleaning results.
- The pressure washer must only be used with clean water. Use of unfiltered water or corrosive chemicals will damage the pressure washer.
- This pressure washer is <u>not intended to pump hot water</u>. Never connect it to a hot water supply as it could cause injury and will significantly reduce the life of the pump.
- Damage may occur to painted surfaces if a chemical is allowed to dry on the surface. Wash and rinse a small section at a time. Avoid working on hot surfaces or in direct sunlight.
- Never use: Bleach, chlorine products and other corrosive chemicals, liquids containing solvents
  (i.e., paint thinners, gasoline, oils), tri-sodium phosphate products, ammonia products, and acidbased products. These chemicals will harm the pressure washer and will damage the surface
  being cleaned.

#### Adjusting the Pressure, as shown in Fig. 15:

This pressure washer is equipped with a pressure regulator. It has four settings. The approximate value for each setting is shown below:



- 1. 1300 psi;
- 2. 1600 psi;
- 3. 1900 psi;
- 4. 2200 psi;

#### To select the desired pressure:

Turn the knob so the indicator mark aligns with the desired psi setting.

#### To make use of the power cord/hose/gun holder as shown in Fig. 16-1&16-2:

This pressure washer is equipped with a 5-piece power cord/hose/gun holder. Each of them consists of three parts (support, lever, and central pin), each lever also could rotate 360° around its central pin clockwise or counter-clockwise, and can stop in any required position.

#### To rotate holder to specific position:

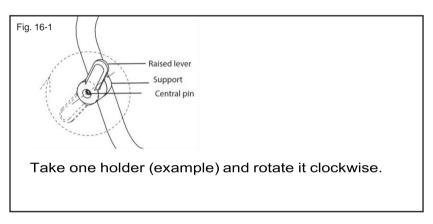
Place your hand on the holder/bracket and move it to the required position.

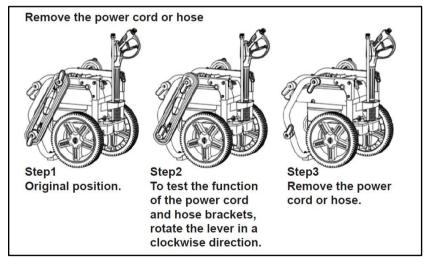
Two holders/brackets on the same side of the washer can be used together to store the power cord/hose. To tidy the power cord/hose quickly:

Rotate the two holders so that the raised lever points outward at the same time. This will
prevent the power cord/hose from slipping off.

To remove the power cord/hose quickly:

• Rotate the two holders so that the raised lever can point inward at the same time. This allows the user to remove the power cord/hose easily off the holder freely.





## To connect to electrical main supply, as shown in Fig. 17

## **MARNING**

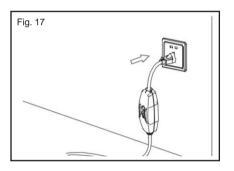
Before you connect the pressure washer to the power source make sure that the data on the
rating plate are identical to the mains data. If possible, do not use extension cords with this
pressure washer; however, if you must use one, it must comply with requirement mentioned in
section of "Extension cords"

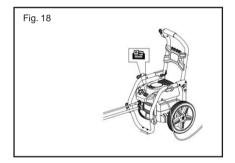
Insert the power cord into the socket.

#### Switch on/off

## **AWARNING**

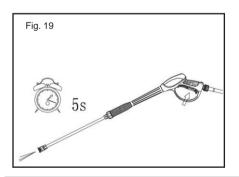
Before switching on, ensure you have completely assembled the high-pressure washer and connected all connections.

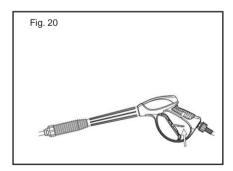




#### To switch on (Fig. 18 & 19):

You should maintain the correct operating position every time you start the pressure washer by placing one hand on the trigger and the other on the wand.





## **MARNING**

- Before switching on, first purge the pump by squeezing the trigger handle for about 5 seconds. To switch the pressure washer on, set the On/Off switch to ON. Unlock the safety trigger lever on the spray gun, and press the trigger lever until there is a steady stream of water.
- This pressure washer is equipped with a SOFT START function which is controlled by software. After switching it on for 10 seconds, the motor will reach the rated operating speed.

#### To temporarily switch off:

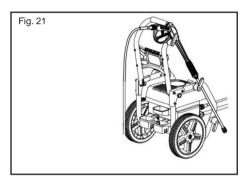
Release the trigger lever and the equipment will switch into 'standby mode'. As soon as you press the trigger lever again, the equipment restarts.

#### To completely switch off (Fig. 20):

- 1. Release the trigger lever and replace the safety lock.
- 2. Switch the pressure washer off and set the On/Off switch to OFF.
- 3. Close the water inlet valve.

## To temporarily store the spray gun, as shown in Fig. 21

When the handle is in the upright position, the pressure washer creates gun holder brackets on the right side, which consists of a three-piece power cord/hose/gun holder. It allows you to temporarily rest the spray gun on it.



## Working with the electric high-pressure washer

Use special care when cleaning the tires. Vehicle tires/tire valves may become damaged or burst when handled improperly. The first signs of damage are discolorations on the tire.

Damaged vehicle tires/tire valves pose a life-threatening risk. Keep the jet at a distance of at least 12 inches!

## **MARNING**

## **Risk of Fatal Injury**

• The high-pressure jet may be dangerous when handled improperly. The jet should not be directed towards people or animals, live-equipment, or the pressure washer itself.

## To operate trigger handle and wand

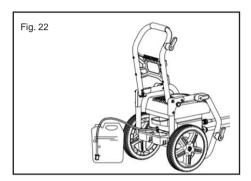
- 1. Hold the hand-held spray gun and the jet tube firmly with both hands. Be aware of the recoil when switching the high-pressure jet to the ON position.
- 2. Unlock the safety button and press the trigger on the handheld spray gun.
- 3. The high-pressure pump starts running as soon as you operate the hand-held spray gun. Due to the soft start function, after switching on for 10 seconds, the motor will reach the rated operating speed.
- 4. The pressure washer's STOP function is controlled by software so after releasing the trigger for 10 seconds, the motor will stop.

#### Use the detergent bottle (not supplied), as shown in Fig. 22

- 1. Stop the pressure washer.
- 2. Add detergent to the bottle (not supplied). Gently pull the detergent intake hose out, and put the end of detergent intake hose into the bottle. Make sure the end of the hose can reach the bottom of the detergent bottle.

Note: There is not a designated detergent bottle holder.

- 3. Insert the soap nozzle and turn the pressure regulator for the best results.
- 4. When you have finished using the detergent injection system, fill the detergent bottle with clean water. Siphon the water by using the soap nozzle for one minute, so that all the detergent is flushed through the system. Remove the detergent bottle and rinse it thoroughly.



## **After Each Use**

## **MARNING**

- Turn off the water supply and squeeze the trigger to depressurize the washer. Failure to do so could result in personal injury due to the discharge of high-pressure water.
- Failure to clean the unit properly will cause the detergent injection system to become clogged and inoperable.
- Drain the pressure washer after each use.
- For storage, remove the water connection: turn on the washer for a few seconds and press the trigger handle to purge the remaining water in the pump. Turn off immediately.

#### To shut down and clean up

- Turn off the switch.
- Unplug the power cord from the outlet.
- Turn off the water supply.
- Press the trigger to release any remaining water pressure.
- Disconnect the garden hose from the water inlet on the washer.
- Engage the trigger handle's safety lock.

## **Maintenance**

## **MWARNING**

- Disconnect the pressure washer from the power source before conducting any maintenance.
- Turn off the water supply and depress the trigger to depressurize the washer. Failure to do so could result in personal injury due to discharge of high-pressure water.
- To assure product safety and reliability, repairs should be performed by authorized service technician or other qualified service personnel. Always use manufacturer replacement parts.
- Service or repairs made by unauthorized personnel will void the product warranty.

#### Clean the outside of high-pressure washer

Clean the pressure washer. Wipe the washer with a slightly damp cloth. Do not clean the pressure washer using a high-pressure water jet.

#### Clean the water filter, as shown in Fig. 23

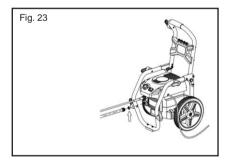
The pressure washer is equipped with a water filter to protect the pump. If the filter is not kept clean, the water flow to the pressure washer will be restricted and the pump may be damaged.

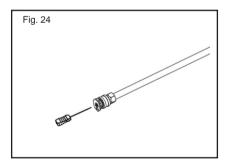
#### To clean the water inlet filter

- Remove the water inlet filter inside the inlet adaptor.
- Rinse the water inlet filter until it is free of debris and blockage.
- Place the water inlet filter back in position to prevent any foreign matter from entering the pump.

#### Clean the spray nozzles, as shown in Fig. 24

Clean the high-pressure spray nozzles.

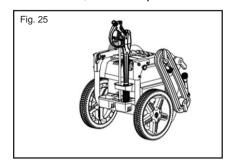


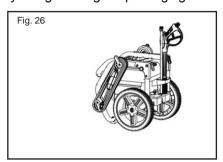


## Storage, as shown in Fig. 25 & 26

- Remove the cleaning agent and drain all the water left in the hoses.
- Clean the high-pressure washer.
- Fold the handle.
- Tidy the hose and power cord by winding them around the power cord/hose/gun holder, located on the metal support.
- Store the pressure washer where it is dry and well ventilated, when placing the pressure washer out of service for short period of time.
- To store the pressure washer for long periods of time, the storage method should be the same. In

addition, store the pressure washer by using the original packaging.





#### Moving

If shipping, use the original packaging whenever possible.

## Disposing of the pressure washer

Pressure washers which are labeled with the adjacent symbol must not be disposed of in household garbage. You must dispose of such electronic appliances separately. Check with your local authority about the possibilities for correct disposal.

# **Troubleshooting**

## **MWARNING**

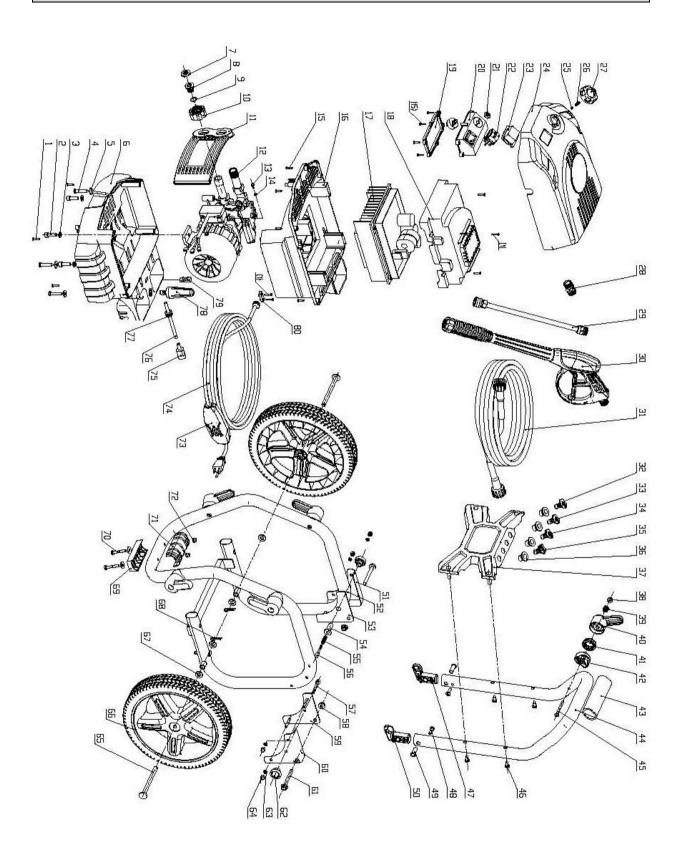
- Disconnect the pressure washer from the power source before making any repairs.
- Drain the trigger handle assembly of any remaining water. Aim the trigger handle downwards and squeeze the trigger.

Use the table below to troubleshoot problems before contacting service personnel or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

| Malfunction                    | Possible Cause   | Corrective action  |
|--------------------------------|--|--|
|                                | No electrical voltage.   | Check the fuse, power cord, power plug, and power source and have them replaced by qualified personnel if necessary. |
|                                | On/off switch set to "0".  | On/off switch set to "I".  |
| Pressure washer will not work. | Cross section of the extension cord is not large enough and/or the extension cord is too long. | Use the extension cord with larger cross sections and/or use shorter extension cords.                                |
|                                | Extension cord is damaged.   | Do not use an extension cord.  |
|                                | The protector on the PCB has activated.  | Switch off the pressure washer and pull the plug out from the power source then restart the unit.                    |
|                                | The main voltage is lower than the marked power supply.  | Contact the power supply company if necessary.   |
|                                | The pump is frozen.  | Check and thaw if necessary.   |
| Pressure is low, but steady.   | Wrong spray tip selected.  | Change to the correct spray nozzle.  |
|                                | High-pressure hose is damaged or   | Change the high-pressure hose or   |

| Malfunction   | Possible Cause                                    | Corrective action  |  |
|---|---|--|--|
|   | there's a leak in the connection.                 | hand-tighten the screw connection.   |  |
| Leak in the   | Unit leaks from the pump or has an internal leak. | Call customer service.   |  |
| pressure washer.                                    | Hose connection is loose.                         | Hand-tighten the water intake adapter and the hose screw connection.   |  |
|   | There's air intake in the water inlet.            | Check the supply hose and hose connection and replace if necessary.  |  |
| Irregular   | The water filter is clogged.                      | Clean the water filter.  |  |
| operating pressure.                                 | Water supply hose is kinked.                      | Straighten out kinked water supply hoses.  |  |
|   | Inadequate water supply.                          | Check the water supply.  |  |
| The pressure  | Power cord is damaged.                            | Call customer service.   |  |
| washer operates intermittently.                     | Internal loose electrical connection.             | Call customer service.   |  |
|   | On/Off switch is defective.                       | Call customer service.   |  |
|   | The water filter is clogged.                      | Clean the water filter.  |  |
| The motor storts                                    | There's air intake in the water inlet.            | Check the supply hose and hose connection and replace if necessary.  |  |
| The motor starts but there is no pressure build-up. | Air in the system.                                | Ventilate the pressure washer. Run the pressure washer without the pressure washer hose connected until the water starts leaking without bubbles. Reattach the high-pressure hose. |  |
|   | Spray tips are partly blocked.                    | Clean the spray nozzles.   |  |
| The detergent is                                    | Detergent is too dense.                           | Dilute with water.   |  |
| not being taken in.                                 | Deposits or restriction in detergent circuit.     | Flush with clean water and eliminate any restrictions.   |  |

# Parts Diagram



# **Parts List**

| Reference | Part Description                               | Quantity |
|-----------|--|----------|
| 1         | Cross recessed pan head tapping screw ST3.5×19 | 10       |
| 2         | Hexagon socket cap screwM8X25                  | 4        |
| 3         | Washer Φ8                                      | 4        |
| 4         | Cross recessed pan head tapping screw ST6.3×50 | 4        |
| 5         | Washer Ф6                                      | 6        |
| 6         | Base   | 1        |
| 7         | Inlet filter                                   | 1        |
| 8         | Spool  | 1        |
| 9         | O ring 10×2.65                                 | 1        |
| 10        | Nut assembly                                   | 1        |
| 11        | Decorative board                               | 1        |
| 12        | Pump assembly                                  | 1        |
| 13        | Cross recessed pan head screw M4×10            | 1        |
| 14        | External teeth lock washer 4                   | 1        |
| 15        | Cross recessed pan head tapping screw ST3.5×16 | 12       |
| 16        | Clapboard                                      | 1        |
| 17        | Controller component                           | 1        |
| 18        | Controller cover                               | 1        |
| 19        | Switch box cover                               | 1        |
| 20        | Switch box seat                                | 1        |
| 21        | Nut  | 1        |
| 22        | Main switch                                    | 1        |
| 23        | PVC cover                                      | 1        |
| 24        | Panel  | 1        |
| 25        | Steel ball 6                                   | 1        |
| 26        | Knob spring                                    | 1        |
| 27        | Knob   | 1        |
| 28        | Alu adapter                                    | 1        |
| 29        | Metal wand                                     | 1        |
| 30        | Metal spray                                    | 1        |
| 31        | High pressure hose                             | 1        |

| 32 | 15° tip  | 1 |
|----|--|---|
| 33 | 25° tip  | 1 |
| 34 | 40° tip  | 1 |
| 35 | Soap tip                                       | 1 |
| 36 | Tip seat                                       | 4 |
| 37 | Handle decorative board                        | 1 |
| 38 | Non-metallic insert six corner flange nut M6   | 5 |
| 39 | Hook spring                                    | 5 |
| 40 | Hook   | 5 |
| 41 | Hook toothed ring                              | 5 |
| 42 | Hook seat                                      | 5 |
| 43 | Handle jacket                                  | 1 |
| 44 | Handle   | 1 |
| 45 | Cross recessed countersunk head screws M6x 65  | 5 |
| 46 | Cross recessed pan head tapping screw ST6.3×19 | 4 |
| 47 | Latch plug                                     | 1 |
| 48 | Cross recessed pan head screw M6×20            | 2 |
| 49 | Handle shaft sleeve                            | 2 |
| 50 | Limit plug                                     | 1 |
| 51 | Left corner housing                            | 1 |
| 52 | Main frame                                     | 1 |
| 53 | Left corner inner plate                        | 1 |
| 54 | Latch set                                      | 1 |
| 55 | Latch spring                                   | 1 |
| 56 | Latch shaft                                    | 1 |
| 57 | Limit shaft                                    | 1 |
| 58 | Non-metallic insert six corner flange nut M8   | 2 |
| 59 | Right corner inner plate                       | 1 |
| 60 | Right corner housing                           | 1 |
| 61 | Six angle flange bolt M8 ×70                   | 2 |
| 62 | Latch seat                                     | 2 |
| 63 | Spring washer 6                                | 4 |
| 64 | Cap nut M6                                     | 4 |
| 65 | Pin shaft                                      | 2 |
|    | i in onarc                                     | _ |

| 66 | Encapsulated wheel                  | 2 |
|----|-------------------------------------|---|
| 67 | Washer 10                           | 4 |
| 68 | Elastic pin                         | 2 |
| 69 | Ottomans                            | 1 |
| 70 | Cross recessed pan head screw M6×40 | 2 |
| 71 | Ottomans cover                      | 1 |
| 72 | Locking nut M6                      | 2 |
| 73 | GFCI                                | 1 |
| 74 | Power cord                          | 1 |
| 75 | Suction filter                      | 1 |
| 76 | Detergent tube                      | 1 |
| 77 | Cord sleeve                         | 2 |
| 78 | Turbo tips                          | 1 |
| 79 | Needle                              | 1 |
| 80 | Clamp                               | 1 |

# **Replacement Parts**

- For replacement parts and technical questions, please call Customer Service at 1-866-902-9690.
- 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 information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and 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 two 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, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

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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.

#### **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 1-866-902-9690, 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.

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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.



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