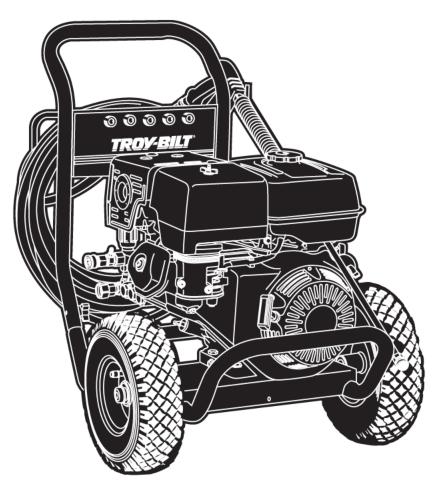


# **Owner's Manual / Manual del Propietario**

Pressure Washer / Lavadora de Presión Model / Modelo 020210



## CAUTION

Before using this product, read this manual and follow all Safety Rules and Operating Instructions.

## PRECAUCIÓN

Antes de utilizar el producto, lea este manual y siga todas las Reglas de Seguridad e Instrucciones de Uso.

Questions? Preguntas? Helpline - I-888-611-6708 M-F 8-5 CT

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Printed in USA

**Safety Rules** 

Section

# SAVE THESE INSTRUCTIONS

## TABLE OF CONTENTS

Safety Rules
Know Your Pressure Washer
Assembly
Operation
Maintenance
Storage
Troubleshooting
Notes
Warranty

# EQUIPMENT DESCRIPTION

Read this manual carefully and become familiar with your pressure washer. Know the applications, the limitations and any hazards involved.

This manual contains information for a high pressure washer that operates at 3,700 PSI at a flow rate of 4.0 gallons per minute. This powerful, high quality system features large 12" wheels, a pump equipped with an automatic cool down system, chemical injection system, nozzle extension with quick connect nozzles, safety goggles, heavy duty 50' hose, and more.

Every effort has been made to ensure that information in this manual is accurate and current. However, we reserve the right to change, alter or otherwise improve the product and this document at any time without prior notice.

# SAFETY RULES

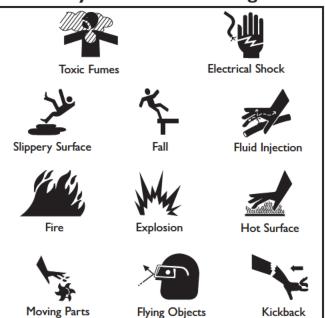
This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol (**A**) is used with a signal word (DANGER, CAUTION, WARNING), a pictorial and/or a safety message to alert you to hazards. **DANGER** indicates a hazard which, if not avoided, *will* result in death or serious injury. **WARNING** indicates a hazard which, if not avoided, *could* result in death or serious injury. **CAUTION** indicates a hazard which, if not avoided, *might* result in minor or moderate injury. **CAUTION**, when used **without** the alert symbol, indicates a situation that could result in equipment damage. Follow safety messages to avoid or reduce the risk of injury or death.

## WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

## Hazard Symbols and Meanings



# Section 1: Safety Rules

## WARNING

Running engine gives off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide will cause nausea, fainting or death.

Some chemicals or detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning.

• Operate pressure washer ONLY outdoors.

 Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes or other openings.

- DO NOT operate pressure washer inside any building or enclosure.
- Use a respirator or mask whenever there is a chance that vapors may be inhaled.
- Read all instructions with mask so you are certain the mask will provide the necessary protection against inhaling harmful vapors.

## WARNING

Use of pressure washer can create puddles and slippery surfaces.

High pressure spray could cause you to fall if you are too close to the cleaning surface.

- Keep spray nozzle between 8 to 24 inches away from cleaning surface.
- Operate this unit on a stable surface.
- The cleaning area should have adequate slopes and drainage to reduce the possibility of a fall due to slippery surfaces.
- Be extremely careful if you must use the pressure washer from a ladder, scaffolding or any other relatively unstable location.

 Firmly grasp spray gun with both hands when using high pressure spray to avoid injury if gun kicks back.

## 

Rapid retraction of starter cord (kickback) will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises or sprains could result.

- When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
- If engine starts and fails to continue to run or if increased resistance is felt during starting pull attempts, squeeze trigger on spray gun.

## WARNING

Fuel and its vapors are extremely flammable an explosive.

Fire or explosion can cause severe burns or death.

#### WHEN ADDING FUEL

- Turn pressure washer OFF and let it cool at least 2 minutes before removing fuel cap.
- Fill fuel tank outdoors.
- DO NOT overfill tank. Allow space for fuel expansion.
- Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
- DO NOT light a cigarette or smoke.

#### WHEN OPERATING EQUIPMENT

- DO NOT tip engine or equipment at angle which causes fuel to spill.
- DO NOT spray flammable liquids.

#### WHEN TRANSPORTING OR REPAIRING EQUIPMENT

Transport/repair with fuel tank EMPTY or with fuel shutoff valve OFF.

# WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK

 Store away from furnaces, stoves, water heaters, clothes dryers or other appliances that have pilot light or other ignition source because they can ignite fuel vapors.

## WARNING

The high pressure stream of water that this equipment produces can pierce skin and its underlying tissues, leading to serious injury and possible amputation.

Spray gun retains high pressure when pressure washer is shut down, which can cause injury.

- NEVER aim spray gun at people, animals or plants.
- DO NOT allow CHILDREN to operate pressure washer.
- NEVER repair high pressure hose. Replace it.
- Keep high pressure hose connected to pump and spray gun while system is pressurized.
- Squeeze trigger on spray gun to relieve trapped pressure, every time you stop engine. Engage trigger lock on spray gun.

## WARNING

Spray contact with electrical wiring can result in electrocution.

 Keep water spray away from electric wiring or fatal electric shock may result.

## WARNING

Running engines produce heat. Temperature of muffler and nearby areas can reach or exceed 150°F (65°C).

Severe burns can occur on contact.

Combustible debris, such as leaves, grass, brush, etc. can catch fire.

- DO NOT touch hot surfaces.
- Allow equipment to cool before touching.
- The pressure washer must be at least 5 feet from structures having combustible walls and/or other combustible materials.
- Keep at least 3 feet of clearance on all sides of pressure washer for adequate cooling, maintenance and servicing.
- In the State of California a spark arrester is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. If you equip the muffler with a spark arrester, it must be maintained in effective working order.

## WARNING

Starter and other rotating parts can entangle hands, hair, clothing, or accessories.

• DO NOT wear loose clothing, jewelry or anything that may be caught in the starter or other rotating parts.

Tie up long hair and remove jewelry.

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High pressure spray can cause paint chips or other particles to become airborne.

 Always wear eye protection when using this equipment or in vicinity of where equipment is in use.

## 

Unintentional sparking can result in fire or electric shock.

#### WHEN ADJUSTING OR MAKING REPAIRS TO YOUR PRESSURE WASHER

• Disconnect spark plug wire from spark plug and place wire where it cannot contact spark plug.

## 

Excessively high or low operating speeds increase risk of injury and damage to pressure washer.

- DO NOT tamper with governed speed.
- DO NOT operate pressure washer above rated pressure.

## CAUTION

A pressure washer produces a high pressure spray which increases risk of injury and damage to unit.

- DO NOT secure spray gun in open position.
- DO NOT leave spray gun unattended while machine is running.
- NEVER use a spray gun which does not have a trigger lock or trigger guard in place and in working order.
- Always be certain spray gun, nozzles and accessories are correctly attached.

#### CAUTION

# High pressure spray may damage fragile items including glass.

- DO NOT point spray gun at glass when in jet spray mode.
- NEVER aim spray gun at plants.

#### CAUTION

Improper treatment of pressure washer can damage it and shorten its life.

- If you have questions about intended use, ask dealer or contact Briggs & Stratton Power Products.
- NEVER operate units with broken or missing parts, or without protective housing or covers.
- DO NOT by-pass any safety device on this machine.
- Before starting pressure washer in cold weather, check all parts of the equipment to be sure ice has not formed there.
- NEVER move machine by pulling on high pressure hose. Use handle provided on unit.
- Check fuel system for leaks or signs of deterioration, such as chafed or spongy hose, loose or missing clamps, or damaged tank or cap. Correct all defects before operating pressure washer.
- This equipment is designed to be used with Briggs & Stratton Power Products authorized parts ONLY. If equipment is used with parts that DO NOT comply with minimum specifications, user assumes all risks and liabilities.

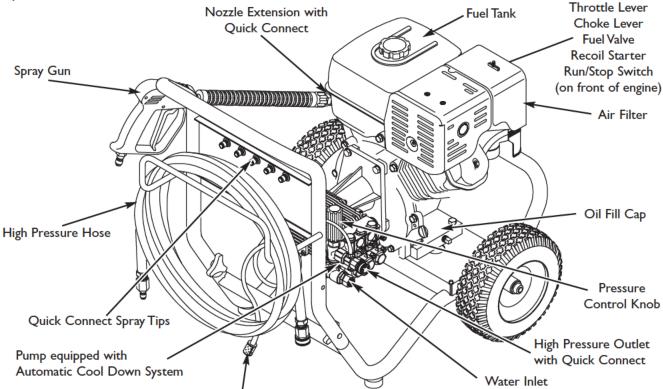
## Features and Controls

Section

## **KNOW YOUR PRESSURE WASHER**

#### Read this owner's manual and safety rules before operating your pressure washer.

Compare the illustrations with your pressure washer to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



Chemical Injection Siphon/Filter

Air Filter — Protects engine by filtering dust and debris out of intake air.

Automatic Cool Down System — Cycles water through pump when water reaches 125°-155°F. Warm water will discharge from pump onto ground. This system prevents internal pump damage.

Chemical Injection Siphon/Filter — Used to siphon detergent or other pressure washer chemicals into the low pressure stream.

Choke Lever — Prepares a cold engine for starting.

Fuel Tank — Fill tank with recommended fuel.

**High Pressure Hose** — Connect one end to the water pump and the other end to the spray gun.

High Pressure Outlet with Quick Connect— To connect high pressure hose. Nozzle Extension with Quick Connect — Permits easy switching between five different spray tips.

Oil Fill Cap — Fill engine with oil here.

**Pressure Control Knob** — Varies pressure of high pressure spray.

Pump — Develops high pressure.

Recoil Starter — Use for starting the engine manually.

**Run/Stop Switch** — Set this switch to "**Run**" before using recoil starter. Set switch to "**Stop**" to switch off engine.

**Spray Gun** — Controls the application of water onto cleaning surface with trigger device. Includes safety latch.

**Quick Connect Spray Tips** — Chemical injection, 0°, 15°, 25°, and 40°: for various cleaning applications.

**Throttle Lever**—Sets engine in starting mode for recoil starter.

Water Inlet — Connect garden hose here.

#### Section

# Assembly

3

#### Required Assembly Tools

NO Tools Required for Assembly

# ASSEMBLY

**IMPORTANT:** Read entire owner's manual before you attempt to assemble or operate your new pressure washer.

#### Remove Pressure Washer From Carton

- Remove high pressure hose, handle, and parts box included with pressure washer.
- Slice two corners at end of carton from top to bottom so panel can be folded down flat, then remove all packing material.
- Roll pressure washer out of carton.

#### **Carton Contents**

#### Items in the carton include:

- Main unit
- High pressure hose
- Spray gun with quick connect fitting
- Nozzle extension with quick connect fitting
- Handle
- Engine oil
- Safety goggles
- Parts Bag (includes the following):
  - Owner's registration card
  - Bag containing 5 multi-colored quick connect spray tips
  - Owner's manual
  - Engine manual
  - Emissions control warranty sheet
  - Handle Fastening Hardware Kit (which includes):
    - Carriage Bolts (2)
    - Plastic Knobs (2)

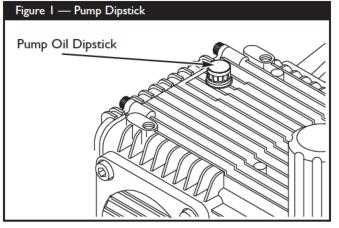
If any of the above parts are missing or damaged, call the pressure washer helpline at **I-888-611-6708**.

# PREPARING PRESSURE WASHER FOR USE

If you have any problems with the assembly of your pressure washer or if parts are missing or damaged, call the pressure washer helpline at **1-888-611-6708.** 

# To prepare your pressure washer for operation, you will need to perform these tasks:

- I. Fill out and send in registration card.
- 2. Verify oil dipstick has been installed into pump (Figure 1).

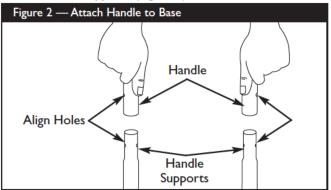


- 3. Attach handle to main unit.
- 4. Add oil to engine.
- 5. Add fuel to fuel tank.
- 6. Connect high pressure hose to spray gun and pump.
- 7. Connect water supply to pump.
- 8. Connect nozzle extension to spray gun.
- 9. Select and install desired quick connect spray tip.



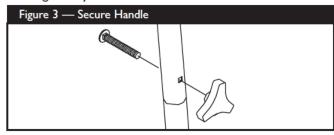
#### Attach Handle

 Place handle assembly onto handle supports connected to main unit. Make sure holes in handle align with holes on handle supports (Figure 2).



**NOTE:** It may be necessary to move the handle supports from side to side in order to align the handle so it will slide over the handle supports.

 Insert carriage bolts through holes from outside of unit and attach plastic knob on inside of handles (Figure 3). Tighten by hand.



3. Insert multi-colored spray tips in spaces provided in handle.

#### Add Engine Oil and Fuel

· Place pressure washer on a level surface.

#### CAUTION

Any attempt to crank or start the engine before it has been properly filled with the recommended oil will result in equipment failure.

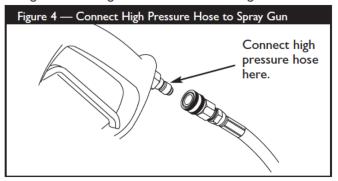
- Refer to engine manual for oil and fuel fill information.
- Damage to equipment resulting from failure to follow this instruction will void warranty.
- Refer to engine owner's manual and follow oil and fuel recommendations and instructions.

**NOTE:** Check oil often during engine break-in. Refer to engine owner's manual for recommendations.

#### Connect Hose and Water Supply to Pump

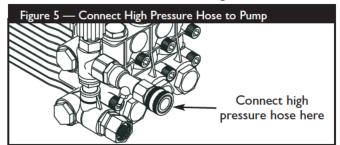
**IMPORTANT:** To avoid pump damage, you must assemble the nozzle extension to the spray gun and attach all hoses before you start the engine.

 Uncoil high pressure hose and attach quick connect end of hose to base of spray gun (Figure 4). Pull down on collar of quick connect, slide onto spray gun and let go of collar. Tug on hose to be sure of tight connection.



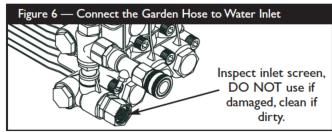
**NOTE:** Remove and discard all pump shipping caps before attaching hoses.

2. Similarly, attach other end of high pressure hose to high pressure outlet on pump (Figure 5). Pull down on collar of quick connect, slide onto pump and let go of collar. Pull on hose to be sure of tight connection.



3. Before connecting garden hose to water inlet, inspect inlet screen (Figure 6).

Clean screen if it contains debris, replace if damaged. DO NOT RUN PRESSURE WASHER IF SCREEN IS DAMAGED.



Run water through garden hose for 30 seconds to 4. clean out any debris. Turn off water.

**IMPORTANT:** DO NOT siphon standing water for the water supply. Use ONLY cold water (less than 100°F).

5. Connect garden hose (not to exceed 50 feet in length) to water inlet. Tighten by hand (Figure 6).

#### CAUTION

There MUST be at least ten feet of unrestricted garden hose between the pressure washer inlet and any flow shut off device, such as a 'Y' shut-off connector or other convenience-type water shut-off valve.

- Damage to equipment resulting from failure to follow this instruction will void warranty.
- Turn ON water and squeeze trigger on spray gun to 6. purge pump system of air and impurities.

## WARNING

High pressure spray can cause paint chips or other particles to become airborne.

- Always wear eye protection when using this equipment or in vicinity of where equipment is in use.
- Before starting the pressure washer, be sure you are wearing adequate eye protection.

### Checklist Before Starting Engine

Review the unit's assembly to confirm you have performed all of the following:

- I. Make sure handle is in place and secure.
- Check that oil has been added to proper level in 2. engine crankcase.
- 3. Add proper fuel to fuel tank.
- 4. Check for properly attached hose connections.
- 5. Check to make sure there are no kinks, cuts, or damage to high pressure hose.
- 6. Provide a proper water supply (not to exceed 100°F) at an adequate flow.
- 7. Be sure to read "Safety Rules" and "How To Use Pressure Washer" before using pressure washer.

Section



# HOW TO USE PRESSURE WASHER

If you have any problems operating your pressure washer, please call the pressure washer helpline at **I-888-611-6708**.

#### Pressure Washer Location

#### Pressure Washer Clearance

## WARNING

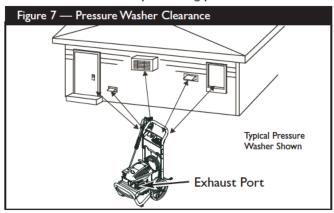
Running engine gives off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide will cause nausea, fainting or death.

- Operate pressure washer ONLY outdoors.
- Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes or other openings.
- DO NOT operate pressure washer inside any building or enclosure.

The pressure washer must be at least 5 ft. (152 cm) from structures having combustible walls and/or other combustible materials. Leave at least 3 ft. (92 cm) all around pressure washer including overhead, for adequate cooling, maintenance and servicing.

Place pressure washer in a well ventilated area, which will allow for removal of deadly exhaust gas. DO NOT place pressure washer where exhaust gas could accumulate and enter inside or be drawn into a potentially occupied building. Ensure exhaust gas is kept away from any windows, doors, ventilation intakes or other openings that can allow exhaust gas to collect in a confined area (Figure 7). Prevailing winds and air currents should be taken into consideration when positioning pressure washer.



#### How to Start Engine

The best way to start your pressure washer for the first time is to follow these instructions step-by-step. This starting information also applies if you have let the unit sit idle for at least a day.

- Place pressure washer near an outside water source capable of supplying water at a flow rate greater than 5.0 gallons per minute and no less than 20 PSI at pressure washer end of garden hose.
- 2. Make sure unit is in a level position.
- 3. Check that high pressure hose is connected to spray gun and pump. See "Preparing Pressure Washer for Use" for illustrations.
- 4. Connect garden hose to water inlet on pressure washer pump. **Turn ON water**.

#### CAUTION

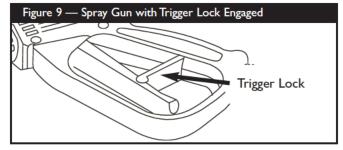
DO NOT run the pump without the water supply connected and turned on.

- Damage to equipment resulting from failure to follow this instruction will void warranty.
- 5. Squeeze trigger on gun until you have a steady stream of water. This purges pump of air and impurities.
- 6. Attach nozzle extension to spray gun (Figure 8). Tighten by hand.

Figure 8 — Connect Nozzle Extension to Spray Gun

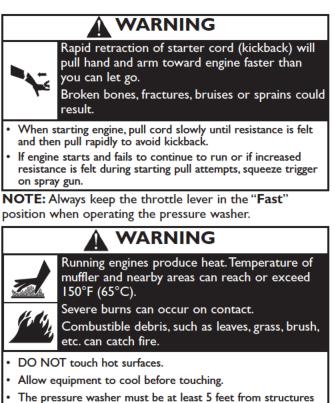


- Choose spray tip you want to use and insert it into nozzle extension. See "How to Use Spray Tips".
- 8. Apply trigger lock to spray gun trigger (Figure 9).



 Start engine according to instructions given in engine owner's manual. Also see operating instructions tag located on the pressure washer.

# **Section 4: Operation**



- The pressure washer must be at least 5 feet from structures having combustible walls and/or other combustible materials.
- Keep at least 3 feet of clearance on all sides of pressure washer for adequate cooling, maintenance and servicing.
- In the State of California a spark arrester is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. If you equip the muffler with a spark arrester, it must be maintained in effective working order.

#### How to Stop Your Pressure Washer

- I. Let engine idle for two minutes.
- Turn engine off according to instructions given in engine owner's manual.
- 3. Squeeze trigger on spray gun to relieve trapped pressure in hose to avoid injury.

## WARNING

The high pressure stream of water that this equipment produces can pierce skin and its underlying tissues, leading to serious injury and possible amputation.

Spray gun retains high pressure when pressure washer is shut down, which can cause injury.

Keep high pressure hose connected to pump and spray gun while system is pressurized.

Squeeze trigger on spray gun to relieve trapped pressure, every time you stop engine. Engage trigger lock on spray gun.

**NOTE:** A small amount of water will squirt out when pressure is released.

4. Engage trigger lock on spray gun when not in use.

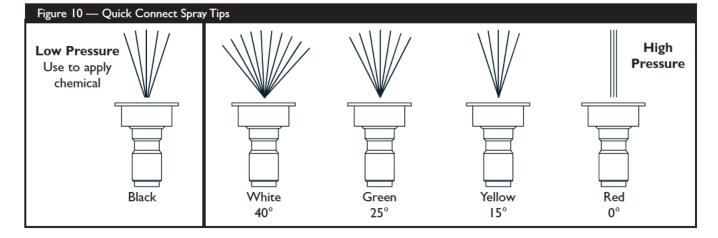
## How to Use the Spray Tips

The quick–connect on the nozzle extension allows you to switch between five different spray tips. The spray tips vary the spray pattern as shown below (Figure 10).

## CAUTION

A pressure washer produces a high pressure spray which increases risk of injury and damage to unit.

• NEVER exchange spray tips without locking the trigger lock on the trigger.





# Section 4: Operation

#### Follow these instructions to change spray tips:

- I. Engage trigger lock on spray gun.
- 2. Pull back collar on quick-connect and pull current spray tip off. Store spray tips in space provided on handle storage panel.
- 3. Select desired spray tip:
  - For gentle rinse, select white 40° or green 25° spray tip.
  - To scour surface, select yellow 15° or red 0° spray tip.
  - To apply chemical, select black spray tip.
- 4. Pull back on collar, insert new spray tip and release collar. Tug on spray tip to make sure it is securely in place.
- 5. For most effective cleaning, keep spray tip from 8 to 24 inches away from cleaning surface. If you get spray tip too close, you may damage cleaning surface.
- 6. DO NOT get closer than 6 inches when cleaning tires.

#### **Cleaning and Applying Chemical**

**IMPORTANT: Use soaps designed specifically for pressure washers.** Household detergents could damage the pump.

#### CAUTION

#### You must attach all hoses before you start the engine.

- Starting the engine without all the hoses connected and without the water turned ON will damage the pump.
- Damage to equipment resulting from failure to follow this instruction will void warranty.

#### To apply detergent follow these steps:

- I. Review spray tip use.
- 2. Prepare detergent solution as required by manufacturer.
- 3. Place chemical injection siphon/filter into detergent container.

#### CAUTION

# Keep the chemical injection tube from coming in contact with the hot muffler.

- When inserting the filter into a detergent solution bottle, route the tube so as to keep it from inadvertently contacting the hot muffler.
- 4. Make sure black spray tip is installed.

**NOTE:** Detergent cannot be applied with the high pressure spray tips (White, Green, Yellow, or Red).

- Make sure garden hose is connected to water inlet. Check that high pressure hose is connected to spray gun and pump; start engine.
- Apply detergent to a dry surface, starting at lower portion of area to be washed and work upward, using long, even, overlapping strokes. DO NOT allow detergent to dry on (prevents streaking).
- Allow detergent to soak in between 3–5 minutes before washing and rinsing. Reapply as needed to prevent surface from drying.

**IMPORTANT**: You must flush the chemical injection system after each use by placing the filter into a bucket of clean water, then run the pressure washer in low pressure for 1-2 minutes.

#### **Pressure Washer Rinsing**

After you have applied detergent, scour the surface and rinse it clean as follows:

- I. Apply safety latch to spray gun.
- 2. Remove black chemical spray tip from nozzle extension.
- 3. Select and install desired high pressure spray tip following instructions in "How to Use Spray Tips".
- 4. Keep spray gun a safe distance from the area you plan to spray.

#### WARNING

High pressure spray could cause you to fall if you are too close to the cleaning surface.

- Keep spray nozzle between 8 to 24 inches away from cleaning surface.
- Operate this unit on a stable surface.
- Be extremely careful if you must use the pressure washer from
- a ladder, scaffolding or any other relatively unstable location.
- Firmly grasp spray gun with both hands when using high pressure spray to avoid injury if gun kicks back.
- 5. Increase (decrease) spray pressure by turning pressure control knob clockwise (counterclockwise) (See "Know Your Pressure Washer"). Use lower pressure to wash items such as a car or boat. Use higher pressure to strip paint and degrease driveways.

- 6. Apply high pressure spray to small area and check surface for damage. If no damage is found, you can assume it is okay to continue cleaning.
- 7. Start at top of area to be rinsed, working down with same overlapping strokes as you used for cleaning.

#### **Cleaning Detergent Siphoning Tube**

If you used the detergent siphoning tube, you must flush it with clean water before stopping the engine.

- 1. Place chemical injection siphon/filter in a bucket full of clean water.
- 2. Attach black cleaning detergent nozzle.
- 3. Flush for I-2 minutes.

4. Shut off engine.

**IMPORTANT:** Simply shutting **OFF** engine will not release pressure in the system. When the engine has shut down, squeeze the trigger on the spray gun to relieve the pressure in the hose.

#### Automatic Cool Down System (Thermal Relief)

If you run the engine on your pressure washer for 3-5 minutes without pressing the trigger on the spray gun, circulating water in the pump can reach temperatures above 125°F. The system engages to cool the pump by **discharging the warm water onto the ground.** 

## Maintenance

Section

# 5

## SPECIFICATIONS

Outlet Pressure .	
Flow Rate	4.0 gallons per minute (gpm)
Detergent Use det	ergent approved for pressure washers
Water Supply Temperature	Not to Exceed 100°F
Automatic Cool Down System	Will cycle when water reaches 125°-155°F
Shipping Weight .	

# GENERAL MAINTENANCE RECOMMENDATIONS

The pressure washer warranty does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the pressure washer as instructed in this manual.

**NOTE:** Should you have questions about replacing components on your Troy-Bilt pressure washer, please call **1-888-611-6708** for assistance.

- Some adjustments will need to be made periodically to properly maintain your pressure washer.
- All maintenance in this manual and the engine owner's manual should be made at least once each season.
- If equipped with inflatable tires, keep the air pressure at the value marked on the tire or within 15 and 40 psi.

#### **Before Each Use**

- I. Check engine oil level.
- 2. Check water inlet screen for damage.
- 3. Check in-line filter for damage.
- 4. Check high pressure hose for leaks.
- 5. Check detergent siphoning tube and filter for damage.
- 6. Check spray gun, nozzle extension, and spray tips for leaks.
- 7. Rinse out garden hose to flush out debris.

# PRESSURE WASHER MAINTENANCE

#### **Check and Clean Inlet Screen**

Examine the screen on the water inlet. Clean it if the screen is clogged or replace it if screen is damaged.

#### **Check High Pressure Hose**

The high pressure hose can develop leaks from wear, kinking, or abuse. Inspect the hose each time before using it. Check for cuts, leaks, abrasions or bulging of cover, damage or movement of couplings. If any of these conditions exist, replace the hose immediately.

#### WARNING



The high pressure stream of water that this equipment produces can pierce skin and its underlying tissues, leading to serious injury and possible amputation.

- NEVER repair high pressure hose. Replace it.
- Replacement hose rating MUST exceed maximum pressure rating of unit.

#### Check Detergent Siphoning Tube

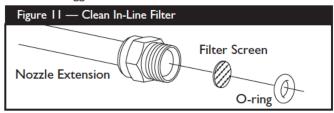
Examine the filter on the detergent tube and clean if clogged. The tube should fit tightly on the barbed fitting. Examine the tube for leaks or tears. Replace the filter or tube if either is damaged.

#### Check Gun and Nozzle Extension

Examine the hose connection to the spray gun and make sure it is secure. Test the trigger by pressing it and making sure it springs back into place when you release it. Put the safety latch in the on position and test the trigger. You should not be able to press the trigger.

#### **Check In-Line Filter**

Refer to Figure 11 and service the in-line filter if it becomes clogged, as follows:

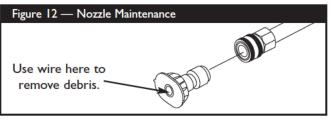


- Detach spray gun and nozzle extension from high pressure hose. Detach nozzle extension from spray gun and remove o-ring and screen from nozzle extension. Flush screen, spray gun, and adjustable nozzle extension with clean water to clear debris.
- 2. Place in-line filter screen into threaded end of nozzle extension. Direction does not matter. Push screen in with eraser end of pencil until it rests flat at bottom of opening. Take care to not bend screen.
- 3. Place o-ring into recess. Push o-ring snugly against in-line filter screen.
- 4. Assemble nozzle extension to spray gun, as described earlier in this manual.

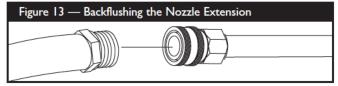
#### Nozzle Maintenance

A pulsing sensation felt while squeezing the spray gun trigger may be caused by excessive pump pressure. The principal cause of excessive pump pressure is a spray tip clogged or restricted with foreign materials, such as dirt, etc. To correct the problem, immediately clean the spray tips following these instructions:

- I. Shut off engine and turn off water supply.
- 2. Remove spray tip from end of nozzle extension.
- 3. Remove in-line filter from other end of nozzle extension.
- 4. Use a small paper clip to free any foreign material clogging or restricting spray tip (Figure 12).



 Using a garden hose, remove additional debris by back flushing water through nozzle extension (Figure 13). Back flush between 30 to 60 seconds.



- Reinstall spray tip and in-line filter into nozzle extension.
- 7. Reconnect nozzle extension to spray gun.
- 8. Reconnect water supply, turn on water, and start engine.
- 9. Test pressure washer by operating with each quick connect spray tips.

#### O-Ring Maintenance

Purchase an O-Ring/Maintenance Kit, part number 191922GS by contacting the nearest authorized service center. It is not included with the pressure washer. This kit includes replacement o-rings, rubber washer and water inlet filter. Refer to the instruction sheet provided in the kit to service your unit's o-rings.

# **ENGINE MAINTENANCE**

See the engine owner's manual for instructions on how to properly maintain the engine.

#### CAUTION

Avoid prolonged or repeated skin contact with used motor oil.

- Used motor oil has been shown to cause skin cancer in certain laboratory animals.
- Thoroughly wash exposed areas with soap and water.



KEEP OUT OF REACH OF CHILDREN. DON'T POLLUTE. CONSERVE RESOURCES. RETURN USED OIL TO COLLECTION CENTERS.

#### Pump Maintenance

#### Changing Pump Oil

Change oil after first 50 hours of operation and then every 200 hours or 3 months, whichever occurs first.

**NOTE:** When changing pump oil, use only high quality nondetergent 30 weight oil. Use no special additives.

#### Change pump oil as follows:

- 1. Clean area around brass oil drain plug at bottom of pump.
- 2. Remove oil drain plug. Drain oil completely into an approved container.
- 3. When oil has completely drained, install oil drain plug and tighten firmly.
- Clean area around pump oil dipstick. Remove dipstick and fill pump with recommended oil to "Full" mark on dipstick (typically 0.43L or 15 oz.).
- 5. Install pump oil dipstick.
- 6. Wipe up any spilled oil.

#### Data Tag

Data tag information is very important if you need help from our Customer Service Department or an authorized service dealer.

 The data tag (Figure 14) is located on the base of the pressure washer. For future reference, please copy the model, revision, and serial number of the pressure washer in the space below.

Figure 14 — Data Tag	
MODEL	Copy Model Number Here
REV NO	 Copy Revision
SERIAL	Here
PSI	Copy Serial Number Here
GPM	
<b>OTROY-E</b>	

Storage

#### Section

6

# PREPARING THE UNIT FOR STORAGE

Water should not remain in the unit for long periods of time. Sediments or minerals can deposit on pump parts and "freeze" pump action. If you do not plan to use the pressure washer for more than 30 days, follow this procedure:

- Flush detergent siphoning tube by placing filter into a pail of clean water while running pressure washer in low pressure mode. Flush for one to two minutes.
- Shut off engine and let it cool, then remove high pressure and garden hoses. Disconnect spark plug wire from spark plug.
- 3. Empty pump of liquids by pulling engine recoil handle about 6 times. This should remove most liquid in pump.
- 4. Use PumpSaver to prevent corrosion build up and freezing of pump.
- 5. Store unit in a clean, dry area.

#### **Protecting the Pump**

To protect the pump from damage caused by mineral deposits or freezing, use PumpSaver to treat pump. This prevents freeze damage and lubricates pistons and seals.

**NOTE:** PumpSaver is available as an optional accessory. It is not included with the pressure washer. Contact the nearest authorized service center to purchase PumpSaver.

To use PumpSaver, make sure the pressure washer is turned off and disconnected from supply water. Read and follow all instructions and warnings given on the PumpSaver container.

#### CAUTION

#### You must protect your unit from freezing temperatures.

- Failure to do so will permanently damage your pump and render your unit inoperable.
- Freeze damage is not covered under warranty.

#### CAUTION

Read and follow all cautions and warnings on the PumpSaver can label.

Always wear eye protection when using PumpSaver.

#### CAUTION

PumpSaver will drip from pump after treatment and will stain wood and concrete.

• Protect surfaces from dripping PumpSaver.

**NOTE:** If PumpSaver is not available, draw RV antifreeze (non-alcohol) into the pump by pouring the solution into a 3-foot section of garden hose connected to inlet adapter and pulling recoil handle twice.

## **STORING THE ENGINE**

See the engine owner's manual for instructions on how to properly prepare the engine for storage.

# Troubleshooting

Section

# TROUBLESHOOTING

Problem	Cause	Correction
Pump has following problems: failure to produce pressure, erratic pressure, chattering, loss of pressure, low water volume.	1. Low pressure spray tip installed.	<ol> <li>Replace spray tip with high pressure spray tip.</li> </ol>
	2. Water inlet is blocked.	2. Clear inlet.
	3. Inadequate water supply.	3. Provide adequate water flow.
	4. Inlet hose is kinked or leaking.	4. Straighten inlet hose, patch leak.
	5. Clogged inlet hose strainer.	5. Check and clean inlet hose
	6. Water supply is over 100°F.	strainer.
	7. High pressure hose is blocked or	6. Provide cooler water supply.
	leaks.	7. Clear blocks in outlet hose.
	8. Gun leaks.	8. Replace gun.
	9. Spray tip is obstructed.	9. Clean spray tip.
	10. Pump is faulty.	10. Contact local service facility.
Detergent fails to mix with spray.	<ol> <li>Detergent siphoning tube is not submerged.</li> </ol>	I. Insert detergent siphoning tube into detergent.
	<ol> <li>Chemical filter is clogged or cracked.</li> </ol>	2. Clean or replace filter/detergent siphoning tube.
	3. Dirty in-line filter.	3. See "Check In-Line Filter".
	4. High pressure spray tip installed.	<ol> <li>Replace spray tip with low pressure spray tip.</li> </ol>
Engine shuts down during operation.	I. Out of gasoline.	I. Fill fuel tank.
	2. Low oil level.	2. Fill crankcase to proper level.

# Notes

#### LIMITED WARRANTY

"Troy-Bilt® is a registered trademark of Troy-Bilt, LLC and is used under license to Briggs & Stratton Power Products. Briggs & Stratton Power Products will repair or replace, free of charge, any part, or parts of the equipment<sup>\*\*</sup> that are defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions provided for in this policy. For warranty service, find your nearest Authorized service dealer by calling 1-888-611-6708. Warranty service may only be performed by a Briggs & Stratton Power Products Authorized service dealer.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE TIME PERIOD SPECIFIED, OR TO THE EXTENT PERMITTED BY LAW. ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some countries or states do not allow limitations on how long an implied warranty lasts, and some countries or states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from country to country or state to state."

#### WARRANTY PERIOD\*

Equipment **	Consumer Use	Commercial Use
Pressure Washer	2 Year	90 Days
Portable Generator	2 Year (2nd year parts only)	l Year

\* The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated in the table above. "Consumer use" means personal residential household use by a retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once equipment has been used commercially, it shall thereafter be considered to be in commercial use for purposes of this warranty.

\*\* The engine and starting batteries are warranted solely by the manufacturers of those products.

#### WARRANTY REGISTRATION IS NOT NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON POWER PRODUCTS EQUIPMENT. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE INITIAL PURCHASE DATE AT THE TIME WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE OF THE EQUIPMENT WILL BE USED TO DETERMINE THE WARRANTY PERIOD.

#### About your equipment warranty:

We welcome warranty repair and apologize to you for being inconvenienced. Any Authorized service dealer may perform warranty repairs. Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. For example, warranty service would not apply if equipment damage occurred because of misuse, lack of routine maintenance, shipping, handling, warehousing or improper installation. Similarly, the warranty is void if the manufacturing date or the serial number on the equipment has been removed or the equipment has been altered or modified. During the warranty period, the Authorized service dealer, at its option, will repair or replace any part that, upon examination, is found to be defective under normal use and service. This warranty will not cover following repairs and equipment:

- Normal Wear: Outdoor power equipment, like all mechanical devices, needs periodic parts, service and replacement to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment.
- Installation and Maintenance: This warranty does not apply to equipment or parts that have been subjected to improper or unauthorized installation or alteration and modification, misuse, negligence, accident, overloading, overspeeding, improper maintenance, repair or storage so as, in our judgment, to adversely affect its performance and reliability. This warranty also does not cover normal maintenance such as adjustments, fuel system cleaning and obstruction (due to chemical, dirt, carbon or lime, etc.).
- Other Exclusions: Also excluded from this warranty are wear items such as quick couplers, oil gauges, belts, o-rings, filters, pump packing, etc., pumps which have been run without water supplied or damage or malfunctions resulting from accidents, abuse, modifications, alterations, or improper servicing or freezing or chemical deterioration. Accessory parts such as guns, hoses, wands and nozzles are excluded from the product warranty. This warranty excludes failures due to acts of God and other force majeure events beyond the manufacturers control. Also excluded is used, reconditioned, and demonstration equipment; equipment used for prime power in place of utility power and equipment used in life support applications.

#### **BRIGGS & STRATTON POWER PRODUCTS GROUP, LLC**

JEFFERSON, WISCONSIN, U.S.A.