



# OPERATOR'S MANUAL

MODEL #100784  
3200 PSI PRESSURE WASHER



REGISTER YOUR PRODUCT ONLINE

at [championpowerequipment.com](http://championpowerequipment.com)



1-877-338-0999

or visit [championpowerequipment.com](http://championpowerequipment.com)

**SAVE THESE INSTRUCTIONS.** This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

**TABLE OF CONTENTS**

<b>Introduction</b>	<b>3</b>
<b>Safety Definitions</b>	<b>3</b>
<b>Important Safety Instructions</b>	<b>4</b>
Fuel Safety	6
Safety and Dataplate Labels	7
Safety Symbols	8
Operation Symbols	9
Quickstart Label Symbols	9
<b>Controls and Features</b>	<b>10</b>
Pressure Washer	10
Engine	10
Parts Included	11
<b>Assembly</b>	<b>12</b>
Remove the Pressure Washer from the Shipping Carton	12
Install Wheels, Support Legs, Detergent Tank, Trigger Gun Holder, Handle, and Nozzles	12
High Pressure Hose Strap	13
Attach the Trigger Gun Assembly	14
Connect the High Pressure Hose	14
Connect the Garden Hose	14
Add Engine Oil	15
Add Fuel	16
<b>Operation</b>	<b>17</b>
Pressure Washer Location	17
Before Starting the Engine	17
Starting the Engine	17
Distance from Cleaning Surface	18
High Pressure Wash	19
Low Pressure Wash	19
System Flush	20
Depressurize System	20
Operating Tips	20
Stopping the Engine	20
Operation at High Altitude	21

<b>Maintenance</b>	<b>21</b>
Cleaning the Pressure Washer	21
Cleaning Spray Nozzle	22
Changing the Engine Oil	22
Cleaning and Adjusting the Spark Plug(s)	22
Cleaning the Air Filter	23
Cleaning the Spark Arrester	23
Adjusting the Governor	23
Maintenance Schedule	23
<b>Storage</b>	<b>24</b>
Pressure Washer Storage	24
Engine Stored for Less than 30 Days	24
Engine Stored for Over 30 Days	24
Winter Storage	24
<b>Specifications</b>	<b>26</b>
Pressure Washer Specifications	26
Engine Specifications	26
Oil Specifications	26
Fuel Specifications	26
Temperature Specifications	26
Parts Diagram	27
Parts List	28
Engine Parts Diagram	29
Engine Parts List	30

**Troubleshooting**

## INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

CPE highly values how our products are designed, manufactured, operated, and serviced as well as providing safety to the operator and those around the pressure washer. Therefore, it is IMPORTANT to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

<b>CPE TECHNICAL SUPPORT TEAM</b>
<b>1-877-338-0999</b>
<b>MODEL NUMBER</b>
<b>100784</b>
<b>SERIAL NUMBER</b>
<b>DATE OF PURCHASE</b>
<b>PURCHASE LOCATION</b>

## SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

### DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

## IMPORTANT SAFETY INSTRUCTIONS

### ⚠ WARNING

Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### ⚠ DANGER

Pressure washer exhaust contains carbon monoxide, a colorless, odorless, poisonous gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.

#### OPERATE PRESSURE WASHER OUTDOORS ONLY IN A WELL VENTILATED AREA AND POINT EXHAUST AWAY.

DO NOT operate the pressure washer inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the pressure washer compartment of a recreational vehicle.

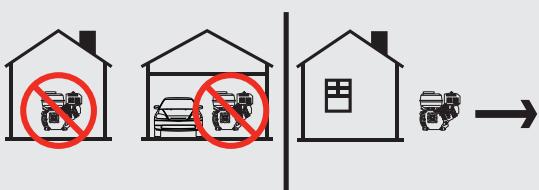
DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

### ⚠ DANGER

Using an engine indoors **CAN KILL YOU IN MINUTES**. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.

**NEVER** use inside a home or garage, **EVEN IF** doors and windows are open.

**ONLY** use **OUTSIDE** and far away from windows, doors, and vents.



Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up according to the manufacturer's instructions.

### ⚠ DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.

Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.

Tie up long hair and remove jewelry.

Operate equipment with guards in place.

DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

### ⚠ WARNING

Spark from removed spark plug wire can result in fire or electrical shock.

#### When servicing the pressure washer:

Disconnect the spark plug wire and place it where it cannot contact the plug or any other metal object.

DO NOT check for spark with the plug removed.

Use only approved spark plug testers.

### ⚠ WARNING

Contact with electrical power source can cause electric shock or burn.

NEVER spray in the direction of or near a power source/electrical outlet.

### ⚠ WARNING

Running engines produce heat. Severe burns can occur on contact. Combustible material can catch fire on contact.

DO NOT touch hot surfaces.

Avoid contact with hot exhaust gases.

Allow equipment to cool before touching.

Maintain at least 3 ft. (91.4 cm) of clearance on all sides to ensure adequate cooling.

Maintain at least 5 ft. (1.5 m) of clearance from combustible materials.

### ⚠ NOTICE

DO NOT let water in the pump freeze.

See Storage section in the manual for instructions regarding winter storage.

If water has frozen in the pressure washer, thaw the pressure washer in a warm room before starting.

DO NOT pour hot water on or into the pump; internal parts will be damaged and your warranty will be voided.

### ⚠ NOTICE

NEVER run the unit dry.

Be sure the water supply is completely turned on before operating the unit.

**⚠ WARNING**

NEVER spray flammable liquids or use pressure washer in areas containing combustible dust, liquids, or vapor.

NEVER operate this machine in a closed building or in or near an explosive environment.

- DO NOT remove fuel tank cap or fill fuel tank while engine is hot or running (allow engine to cool two minutes before refueling). Always fill the tank slowly.
- NEVER disconnect the high pressure discharge hose from the machine while the system is pressurized.

**⚠ WARNING**

Rapid retraction of the recoil cord will pull hand and arm towards the engine faster than you can let go. Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the recoil cord slowly until resistance is felt and then pull rapidly to avoid kickback.

DO NOT start or stop the engine with electrical devices plugged in and turned on.

**⚠ DANGER**

Keep clear of nozzle.

DO NOT point the spray wand at a person, an animal or yourself.

Always wear safety glasses or goggles and protective equipment (hearing protection, gloves, rubber boots, protective clothing) when operating or performing maintenance.

- NEVER put hand or fingers over the spray tip while operating the unit.
- NEVER try to stop or deflect leaks with any body part.
- ALWAYS engage the trigger safety latch in the safe position when spraying is stopped even if only for a few moments.

**⚠ WARNING**

Always wear eye protection with side shields marked to comply with ANSI Z87.1.

Following this rule will reduce the risk of serious personal injury.

**⚠ NOTICE**

Improper treatment or use of the pressure washer can damage it, shorten its life and void your warranty.

Use the pressure washer only for intended uses.

Operate only on level surfaces.

DO NOT expose pressure washer to excessive moisture, dust, or dirt.

DO NOT allow any material to block the cooling slots.

DO NOT use the pressure washer if:

- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

**⚠ DANGER**

Risk of injection or injury. High pressure jets can be dangerous if subject to misuse.

- DO NOT direct discharge stream at persons, animals, electrical devices, or the machine itself.
- ALWAYS point spray gun in safe direction. Every time you stop the engine, squeeze trigger of spray gun to relieve any trapped pressure.

**⚠ NOTICE**

ONLY use cold water.

**⚠ NOTICE**

Water under high pressure can damage fragile surfaces.

- ALWAYS: practice on a inconspicuous test area to understand when damage may occur.
- DO NOT: Point spray gun at glass.
- NEVER: Point the spray nozzle at persons, animals, electrical devices, plants or the machine itself.

**⚠ WARNING**

Use of pressure washers can create wet walking surfaces. While using a pressure washer, forces from the gun can cause you to loose footing and fall.

- Use only on a level surface.
- Make sure there is proper drainage to dissipate water.
- DO NOT: use on elevated surface where kickback could result in a serious fall.
- ALWAYS grasp the gun with two hands to prevent potential injury do to high pressure from gun.

**⚠ WARNING**

High pressure spray can splash back at operator or propel objects.

**NEVER:** allow children to operate any pressure washer or play nearby.

**NEVER:** leave spray gun unattended while machine is running or until after engine has been turned off and pressure has been relieved from the spray gun.

**NEVER:** repair high pressure hose, replace it.

**NEVER:** repair leaking connections with sealant, replace damaged O-rings.

**NEVER:** use spray gun with a damaged or altered trigger lock.

**NEVER:** secure the trigger in the open / spray position.

**ALWAYS:** keep high pressure hose connected to spray gun and pump while in use.

**ALWAYS:** be certain that spray gun nozzles and accessories are properly attached to the lance.

**ALWAYS:** wear safety goggles when operating this equipment.

**NOTE:** Safety goggles cover the sides, top and bottom of the eyes. Don't confuse safety glasses for goggles.

**Fuel Safety****⚠ DANGER**

**GASOLINE AND GASOLINE VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE.**

Fire or explosion can cause severe burns or death.

**Gasoline and gasoline vapors:**

- Gasoline is highly flammable and explosive.
- Gasoline can cause a fire or explosion if ignited.
- Gasoline is a liquid fuel but its vapors can ignite.
- Gasoline is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
- Gasoline has a distinctive odor, this will help detect potential leaks quickly.
- Gasoline expands or contracts with ambient temperatures. Never fill the gasoline tank to full capacity, as gasoline needs room to expand when temperatures rise.
- In the case of any petroleum gasoline fire, flames should never be extinguished unless the fuel supply valve can be turned OFF. By not doing so, if a fire is extinguished and the supply of fuel is not turned OFF, an explosion hazard could be created.

**When adding or removing gasoline:**

- DO NOT light or smoke cigarettes.
- Always turn the pressure washer off and let cool for a minimum of two minutes before removing the gasoline cap. Afterwards, loosen gasoline cap to relieve pressure from the gasoline tank.
- Only fill or drain gasoline outdoors in a well-ventilated area.
- DO NOT pump gasoline directly into the pressure washer at the gas station. Always use an approved fuel container to transfer the gasoline to the pressure washer.
- DO NOT overfill the gasoline tank.
- Always keep gasoline away from sparks, open flames, pilot lights, heat and other sources of ignition.

**When starting the pressure washer:**

- DO NOT attempt to start a damaged pressure washer.
- Always make certain that the gasoline cap, air filter, spark plug, fuel lines and exhaust system are properly secured, connected and in place.
- Always allow spilled gasoline to evaporate fully before attempting to start the engine.
- Make certain that the pressure washer is resting firmly on level ground.

**When operating the pressure washer:**

- DO NOT move or tip the pressure washer during operation.
- DO NOT tip the pressure washer or allow fuel or oil to spill.

**When transporting or servicing the pressure washer:**

- Make certain that the fuel valve is in the OFF position and the gasoline tank is empty.
- Disconnect the spark plug wire.

**When storing the pressure washer:**

- Store away from sparks, open flames, pilot lights, heat and other sources of ignition.
- Do not store pressure washer or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.

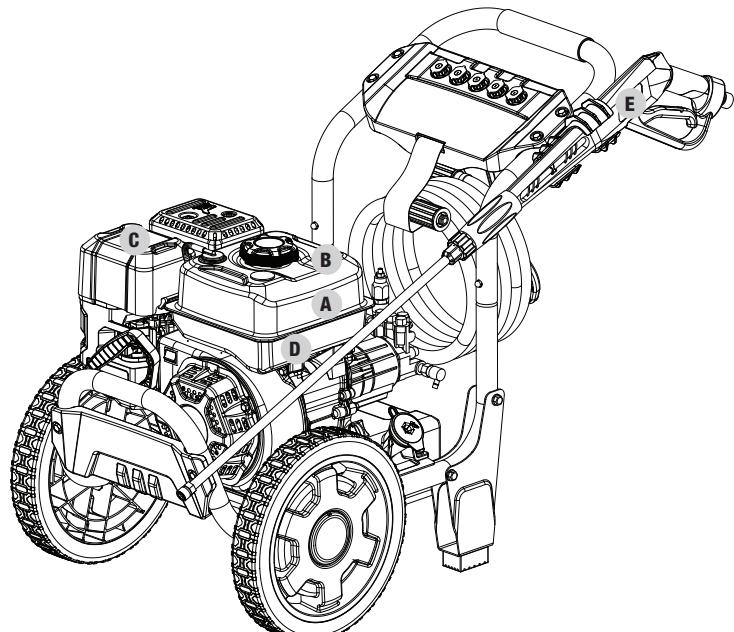
**⚠ WARNING**

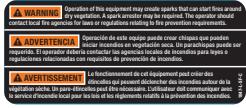
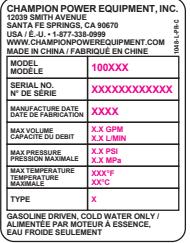
Never use a gasoline container, gasoline tank, or any other fuel item that is broken, cut, torn or damaged.

## Safety and Dataplate Labels

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

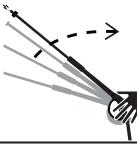
If a label comes off or becomes hard to read, contact Technical Support Team for possible replacement.



	LABEL	DESCRIPTION
A		Safety Symbols
B		Fuel
C		Hot Surface
D		Combustion
E		Trigger Gun
F		Dataplate (not shown)

## Safety Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	<p><b>Read Operator's Manual.</b> To reduce the risk of injury, user must read and understand operator's manual before using this product.</p>
	<p><b>Electric Shock.</b> Failure to use in dry conditions and to observe safe practices can result in electric shock.</p>
	<p><b>Toxic Fumes.</b> The engine exhaust from this product contains chemicals known to the state of California to cause cancer and birth defects and other reproductive harm.</p> <p><b>Risk of Asphyxiation.</b> This engine emits carbon monoxide, an odorless, colorless poison gas. Breathing carbon monoxide can cause nausea, fainting or death. Use only in a well ventilated area.</p>
	<p><b>Risk of Injections.</b> To reduce the risk of injection or injury, never direct a water stream towards people or pets or place any body part in the stream. Leaking hoses and fittings are also capable of causing injection injury. Do not hold hoses or fittings.</p>
	<p><b>Eye and Ear Protection.</b> Always wear safety goggles or safety glasses with side shields, and as necessary a full face shield as well as full ear protection when operating this product.</p>
	<p><b>Kickback.</b> To reduce the risk of injury from kickback, hold the trigger gun securely with both hands when the machine is on.</p>
	<p><b>Risk of Fire.</b> Fuel and its vapors are extremely flammable and explosive. Fire can cause severe burns or death. Do not add fuel while the product is operating or still hot. Do not spray flammable liquids. Operate only where open flame is permitted.</p>
	<p><b>Risk of Explosion.</b> Do not spray flammable liquids. Flammable liquids, fuel, and their vapors are explosive and can cause severe burns or death.</p>

## Operation Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	0° Nozzle
	15° Nozzle
	25° Nozzle
	40° Nozzle
	Soap Nozzle

SYMBOL	MEANING
	Choke/Run
	Fuel valve OFF/ON
	Fuel Gauge: Full
	Fuel Gauge: Empty
	Stop

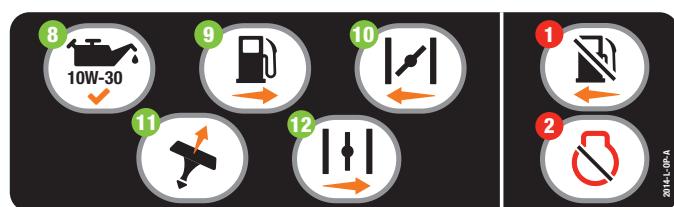
## Quickstart Label Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.



### Set Up

1. Attach wand to trigger gun.
2. Attach high pressure hose to trigger gun.
3. Attach high pressure hose to pump.
4. Attach garden hose.
5. Attach nozzle to trigger gun.
6. Turn on water supply.
7. Press the trigger for 30 seconds.



### Starting the Engine

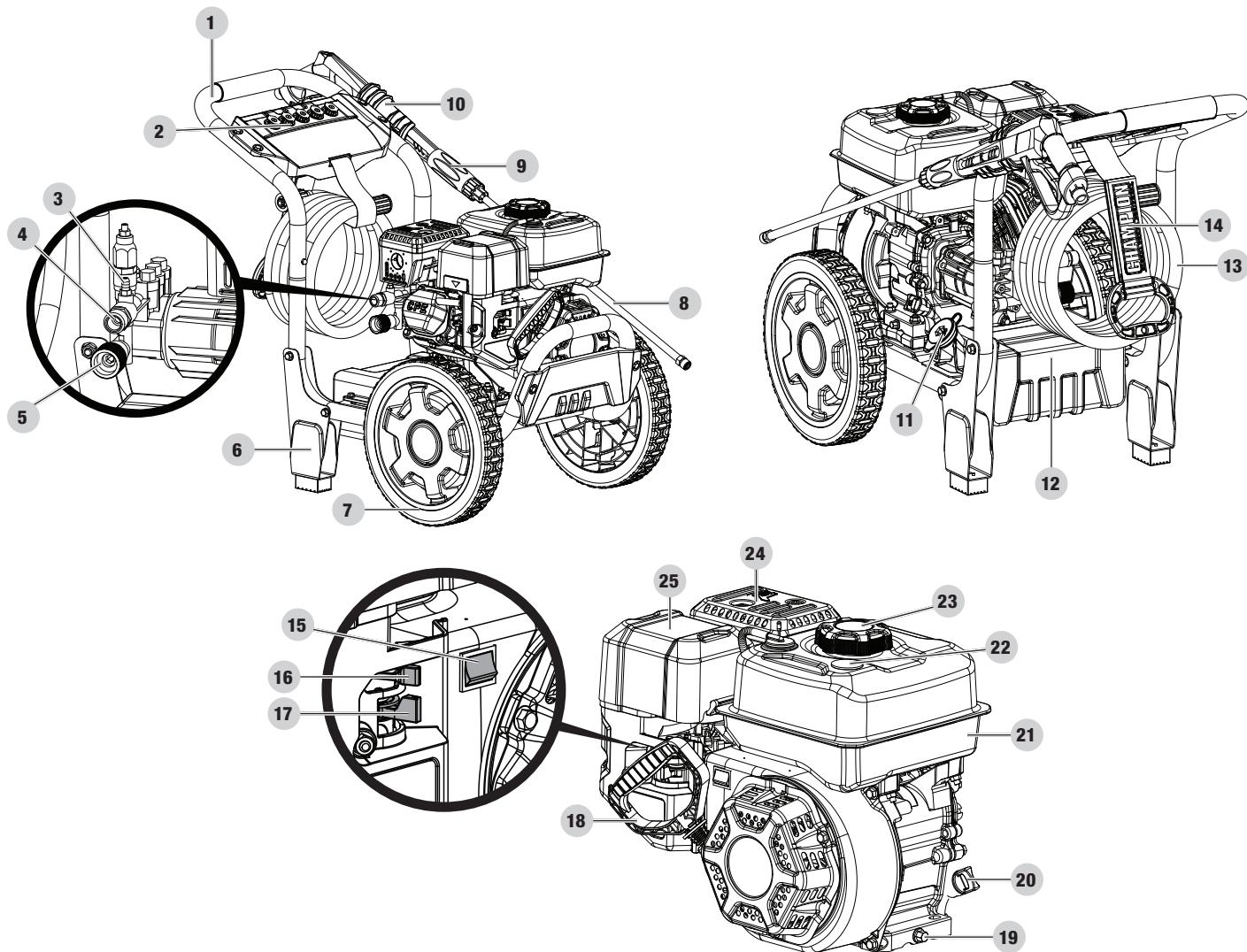
8. Check oil level. Recommended oil is 10W-30.
9. Move the fuel valve to the "ON" position.
10. Move the choke lever to the "CHOKE" position.
11. Pull the recoil cord.
12. Move the choke lever to "RUN" position.

### Stopping the Engine

1. Move the fuel valve to the "OFF" position.
2. Press the engine switch to the "OFF" position.

## CONTROLS AND FEATURES

Read this operator's manual before operating your pressure washer. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.



### Pressure Washer

1. Upper handle	6. Support leg	11. Detergent tank cap
2. Nozzles	7. Wheel	12. Detergent tank
3. Detergent barb	8. Spray wand	13. High pressure hose
4. High pressure hose outlet	9. Trigger gun	14. High pressure hose storage strap
5. Garden hose inlet	10. Trigger gun holder	

### Engine

15. Engine OFF switch	20. Engine oil fill cap/dipstick (on each side)	24. Muffler
16. Choke	21. Gasoline tank	25. Air filter
17. Fuel valve	22. Gasoline gauge	
18. Recoil starter	23. Gasoline tank cap	
19. Oil drain bolt (on each side)		

**Parts Included**

Part	Part Qty.	Hardware	Hardware Qty	Tools Needed
Wheels	2	Wheel cap	2	
		Pin roll	2	
		B-Clip Ø2	2	
Support Leg	2	Flange bolt M8 x 45	4	2x 12mm wrench or socket
		Lock nut M8, flange	4	
Detergent tank	1	Flange bolt M6 x 12	4	1x 10mm wrench or socket
Detergent hose	1			
Top handle	1			
Trigger gun	1			
Spray wand	1			
Nozzle "0", 00028	1			
Nozzle "15", 15028	1			
Nozzle "25", 25028	1			
Nozzle "40", 40028	1			
Nozzle "Detergent", 65400	1			
Trigger gun holder	1	Bolt M6 x 45	2	1x 10mm wrench
		Lock nut M6, flange	2	
High pressure hose, 25ft.	1			
Hose strap	1			
Bottle of engine oil, 20.3 fl. oz.	1			
Oil Funnel	1			

## ASSEMBLY

Your pressure washer requires some assembly. This unit ships from our factory without oil. It must be properly serviced with fuel and oil before operation. If you have any questions regarding the assembly of your pressure washer, call our help line at 1-877-338-0999. Please have your serial number and model number available.

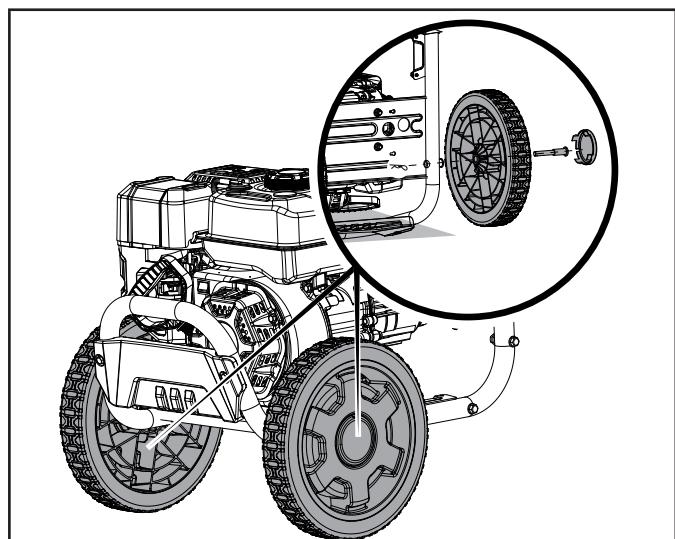
### Remove the Pressure Washer from the Shipping Carton

1. Set the shipping carton on a solid, flat surface.
2. Remove everything from the carton except the pressure washer.
3. Carefully cut each corner of the box from top to bottom.

### Install Wheels, Support Legs, Detergent Tank, Trigger Gun Holder, Handle, and Nozzles

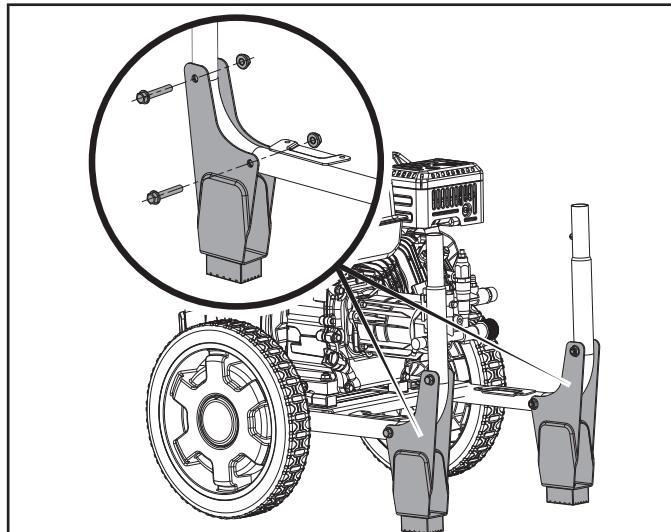
#### Wheels

1. Before adding fuel and oil, carefully pivot the pressure washer up and forward so that it rests on the front bumper housing. Place a piece of cardboard from the packaging or moving blanket on the ground before tipping forward.
2. Slide the roll pin through the wheel from the outside.
3. Slide the roll pin through the mount point on the frame.
4. Secure with the B-clip.
5. Repeat to attach the second wheel.
6. Add wheel caps to protect the roll pins.



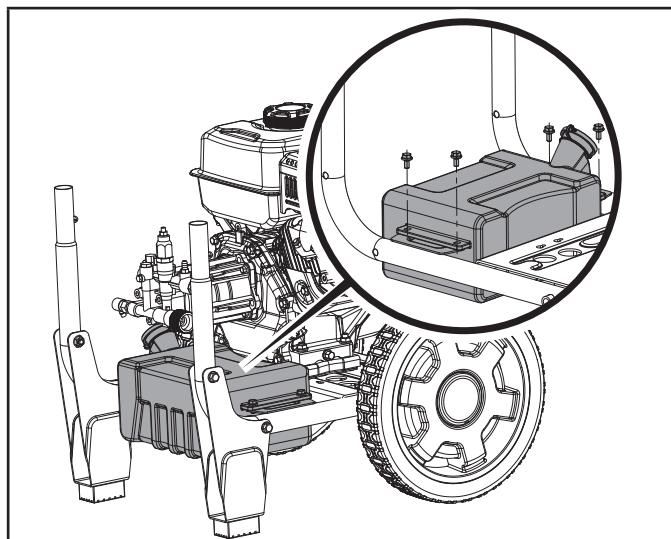
#### Support Legs

1. Attach the support legs to the pressure washer frame with 2 M8 x 45 flange bolts and 2 M8 flange lock nuts per leg. Tighten to 8.8 ft-lb – 10.3 ft-lb (12-14 Nm).
2. Repeat to attach the second leg.
3. Slowly tip the pressure washer back down so that it rests on the support legs.



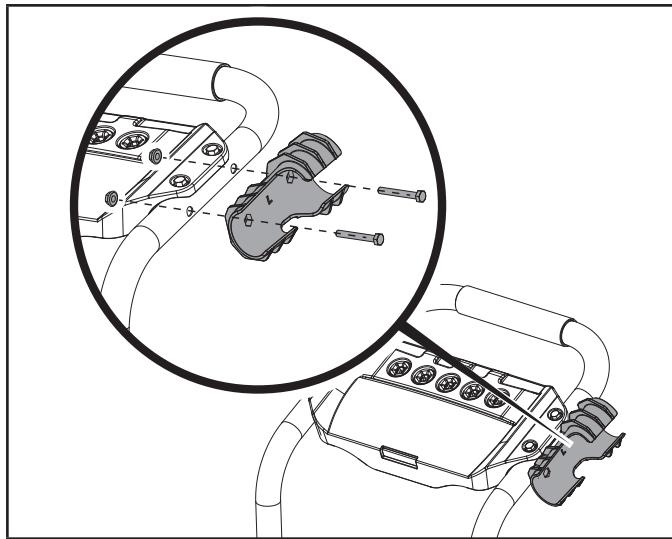
#### Detergent Tank

1. Slide detergent tank from the back of the frame between the support legs. It will only align one way. If for some reason, you're unable to align the tank holes to the brackets, reverse out the tank and try the other way.
2. Attach to the frame with 2 M6 x 12 flange bolts on each side. Tighten to 4.4 ft-lb – 5.9 ft-lb (6-8 Nm). Do not overtighten and risk cracking the detergent tank.



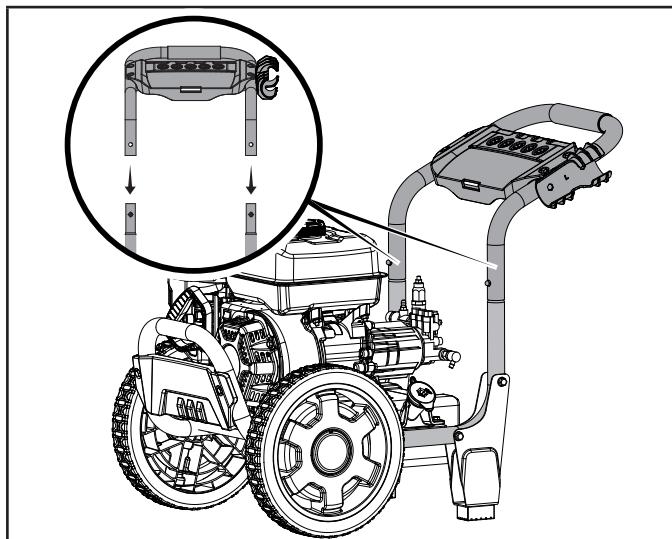
### Trigger Gun Holder

1. Align the trigger gun holder to the frame.
2. Attach to the frame with 2 M6 x 45 flange bolts and M6 nuts. Tighten to 8.8 ft-lb – 10.3 ft-lb (12-14 Nm). Do not overtighten.



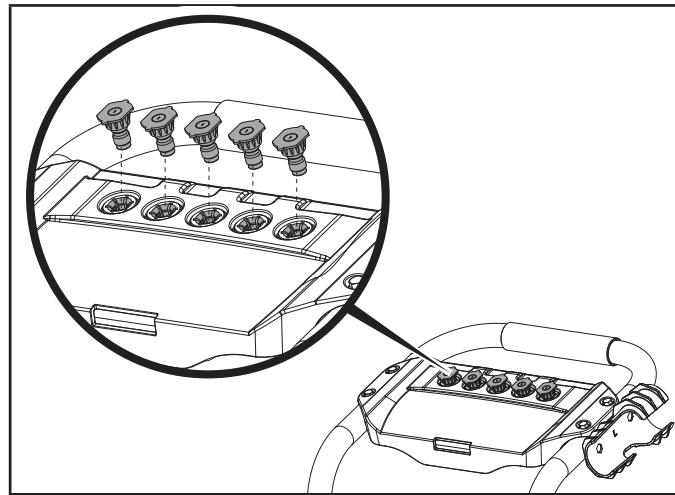
### Handle

1. Line up the handle with the bottom frame.
2. Make sure the handle holes are lined up with the bottom frame spring button.
3. Slide the handle downward on the bottom frame, until the spring buttons have popped through the holes on the handle frame. A “click” may sound.
4. Gently pull up on the handle to make sure that two frames have made a solid connection and that the handle cannot be pulled off without pressing on the spring buttons to release it.



### Nozzles

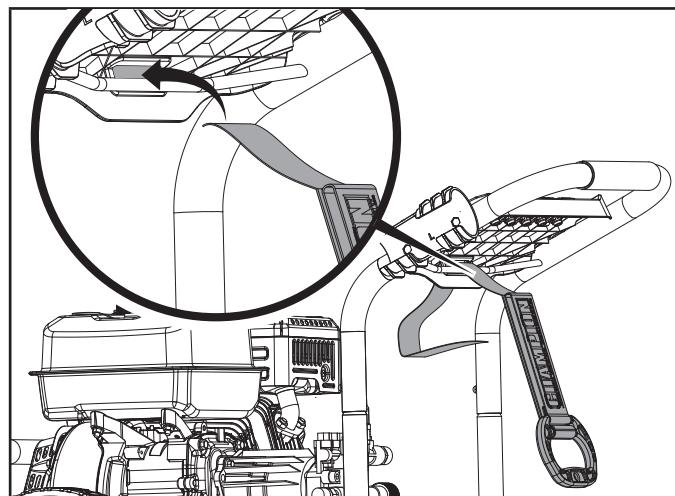
1. Nozzles are stored in the top panel. To store the nozzle, press it into the corresponding opening. To remove the nozzle, just pull the nozzle out.



### High Pressure Hose Strap

The High pressure hose storage strap is provided to store your hose when not in use. You can store the hose on the pressure washer panel per below instructions or alternatively, use the strap to hang it up on your shop peg board with provided handle on the hose strap.

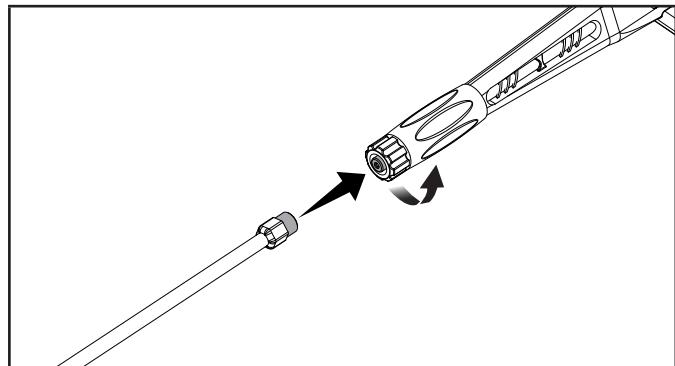
1. Feed hose strap end through the slot on the upper panel.



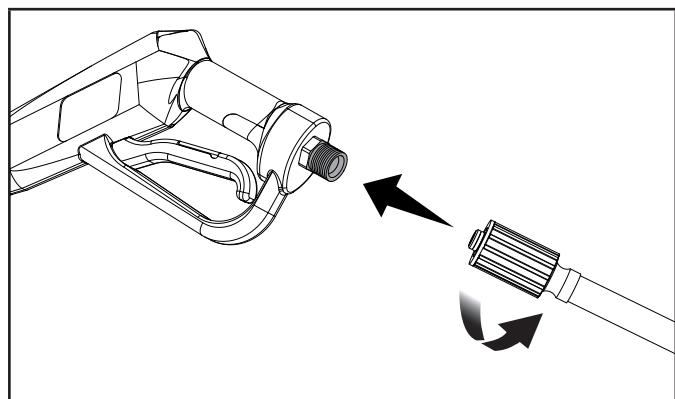
2. Coil up the hose up neatly and wrap the strap around the hose.
3. Feed loose end (not handle-end on the hose strap) through the slot of the handle on the hose strap and back again.
4. Attach hook side to loop side as tightly as necessary to hold the hose during storage.
5. Your hose is now stored on your pressure washer.
6. For peg board or shop storage, start with step 2.

## Attach the Trigger Gun Assembly

1. Attach the spray wand to the trigger gun.
2. Rotate (clockwise) the M22 coupler on the trigger gun until the spray wand is secure. Do not overtighten.



3. Connect the end of the high pressure hose to the gun inlet. Tighten connection clockwise. Do not overtighten.

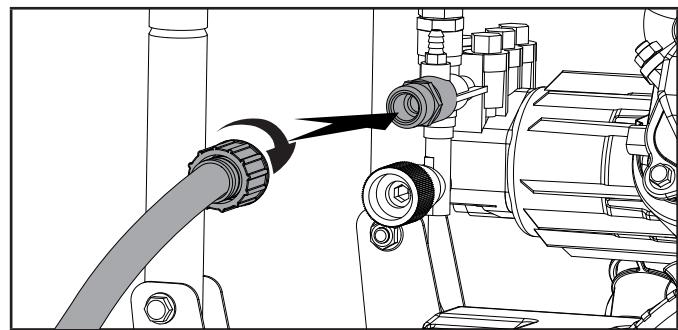


### NOTICE

Be careful to avoid cross-threading, which can cause the trigger gun to leak during use.

## Connect the High Pressure Hose

1. Completely uncoil and straighten the high pressure hose to prevent kinks.
2. Align the collar on the hose to the threaded outlet on the pump.
3. Insert the high pressure hose collar onto the threaded outlet.
4. Turn the collar clockwise to tighten the hose securely to the pump.



### NOTICE

Be careful to avoid cross-threading, which can cause the hose to leak during use.

5. Gently pull on the hose to be certain it is properly secured.

## Connect the Garden Hose

The water supply must come from a pressurized water spicket. NEVER use hot water or water from pools, lakes, etc. Before connecting the garden hose to the pressure washer:

1. Run water through the hose for 30 seconds to clean any debris from the hose.
2. Inspect the screen and gasket in the water intake.
3. If the screen and gasket is damaged, do not use the machine until the screen has been replaced.
4. If the screen is dirty, clean it before connecting the garden hose to the machine.

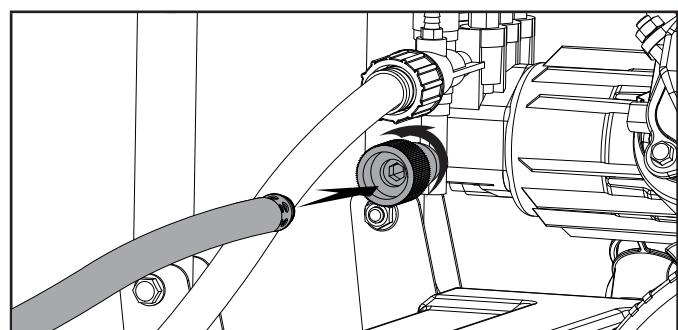
### To connect the garden hose to the machine:

1. Completely uncoil the garden hose or remove completely from reel to prevent kinks.

### NOTICE

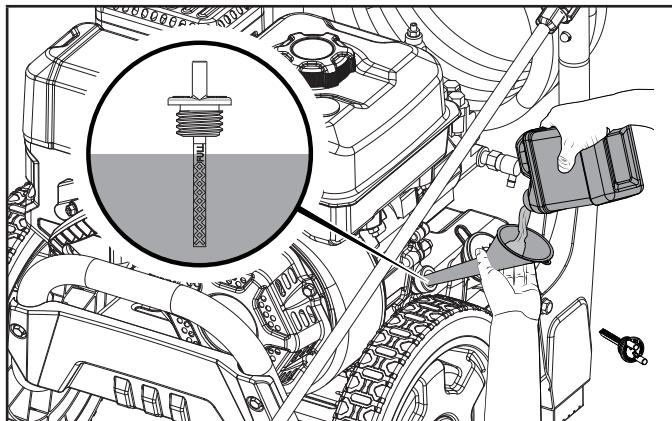
There must be a minimum of 10 ft. (3 m) of unrestricted hose between the pressure washer intake and the hose faucet or shut off valve (such as a "Y" shut off connector).

2. With the hose faucet turned completely off, attach the end of the garden hose to the water inlet. Tighten by hand.



**NOTICE**

Do not run the pressure washer without water supply connected and turned on, as this may damage the high pressure seals and decrease pump life. Completely unwind the hose from its reel or coil and make sure the hose is not being restricted by tires, rocks, or any other objects that may lessen or prevent water flow to the pressure washer.

**Add Engine Oil****CAUTION**

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the engine as a result of failing to follow these instructions will void your warranty.

**NOTICE**

The engine rotor has a sealed, pre-lubricated ball bearing that requires no additional lubrication for the life of the bearing.

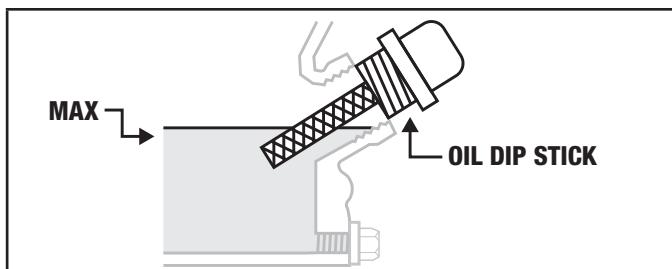
**NOTICE**

The recommended oil type for typical use is **10W-30 automotive oil**.

If running engine in extreme temperatures, refer to the following chart for recommended oil type.

Recommended Engine Oil Type								
10W-30								
5W-30				10W-40				
5W-30 Full Synthetic								
°F	-20	0	20	40	60	80	100	120
°C	-28.9	-17.8	-6.7	4.4	15.6	26.7	37.8	48.9
Ambient temperature								

4. Check engine oil level at every use and add as needed.

**NOTICE**

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole.

When using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

**NOTICE**

Check oil level often during the break-in period. Refer to the Maintenance section for recommended service intervals.

**CAUTION**

This engine is equipped with a low oil shut-off and will stop when the oil level in the crankcase falls below the threshold level.

**NOTICE**

We consider the first 5 hours of run time to be the break-in period for the engine. During the break in period we recommend using standard automotive non-synthetic blended oils. After the break in period synthetic lubricant can be used but is not required. Adjusting throttle setting will increase/decrease engine speed helping to seat piston rings. Avoid bogging or luging the engine down and avoid prolonged running at constant RPM. After the 5 hour break-in period, change the oil. Using synthetic lubricants does not increase the recommended oil change interval.

### NOTICE

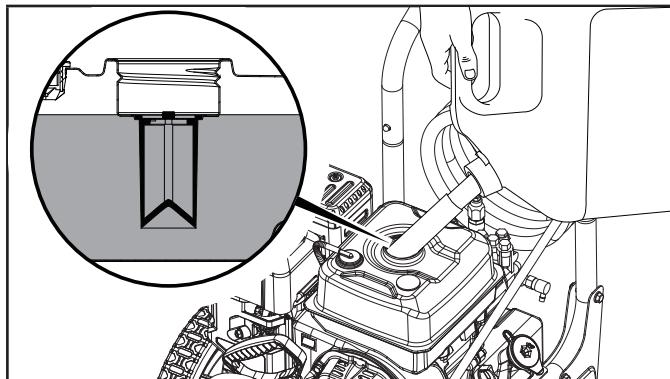
Synthetic oil may be used after the 5 hour initial break-in period. Using synthetic oil does not increase the recommended oil change interval. Full synthetic 5W-30 oil will aid in starting in cold ambient  $< 41^{\circ}$  F ( $5^{\circ}$  C) temperatures.

## Add Fuel

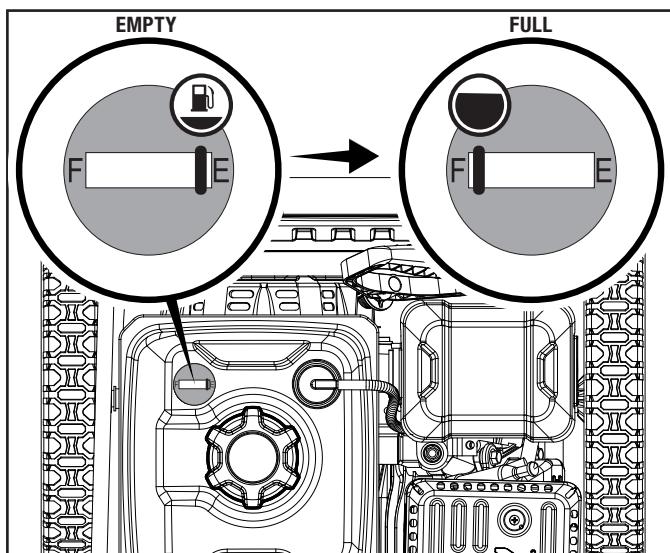
Use clean, fresh, regular unleaded gasoline with a minimum octane rating of 87 and an ethanol content of 10% or less by volume.   

DO NOT mix oil with gasoline.

1. Remove the gasoline cap.
2. Slowly add gasoline to the tank. Tank is full when gasoline reaches red circle on screen. DO NOT OVERFILL. Gasoline can expand after filling. A minimum of  $\frac{1}{4}$  in. (6.4 mm) of space left in the tank is required for gasoline expansion, although more than  $\frac{1}{4}$  in. (6.4 mm) is recommended. Gasoline can be forced out of the tank as a result of expansion if overfilled, and can affect the stable running condition of the pressure washer.



3. The approximate fuel level is shown on the fuel gauge on top of the fuel tank.



### CAUTION

Use unleaded gasoline with a minimum octane rating of 87 and an ethanol content of 10% or less by volume.

DO NOT light cigarettes or smoke when filling the tank.

DO NOT mix oil and gasoline.

DO NOT overfill the tank. Fill tank to approximately  $\frac{1}{4}$  in. (6.4 mm) below the top of the tank to allow for gasoline expansion.

DO NOT pump gasoline directly into the pressure washer at the pump. Use an approved fuel container to transfer the gasoline to the pressure washer.

DO NOT fill tank indoors.

DO NOT fill tank when the engine is running or hot.

### WARNING

Pouring gasoline too fast through the fuel screen may result in gasoline splashing over the operator while filling.

### NOTICE

The engine works well with 10% or less ethanol blend gasoline. When using ethanol-gasoline blends there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor. The compromised gasoline can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- If a fuel stabilizer is used, confirm that it is formulated to work with ethanol-gasoline blends.
- Any damages or hazards caused by using improper gasoline, improperly stored gasoline, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.

It is advisable to always shut off the gasoline supply and run the engine to starvation after each use. See Storage instructions for extended non-use.

## OPERATION

### Pressure Washer Location

This pressure washer must have at least 5 ft. (1.5 m) of clearance from combustible material. Leave at least 3 ft. (91.4 cm) of clearance on all sides of the pressure washer to allow for adequate cooling, maintenance and servicing. Place the pressure washer in a well ventilated area. DO NOT place the pressure washer near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning pressure washer.

### Before Starting the Engine

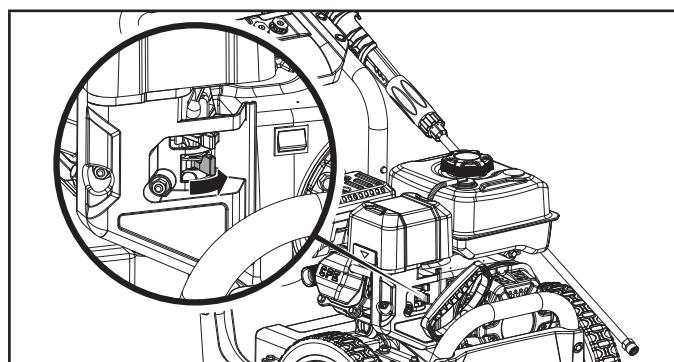
1. Turn the water supply ON.
2. Pull the trigger on the trigger gun to purge all air from the pump and hose. This may take several minutes.
3. Do not start the engine until a steady stream of water is flowing from the nozzle.

#### CAUTION

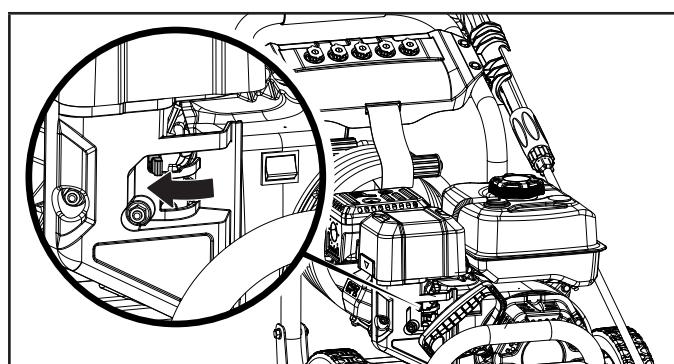
Never operate your pressure washer without water.

### Starting the Engine

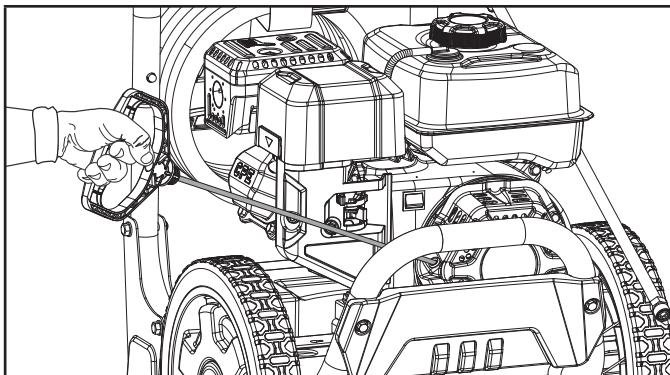
1. Make certain the pressure washer is on a flat, level surface.
2. Move fuel valve to the "ON" position.



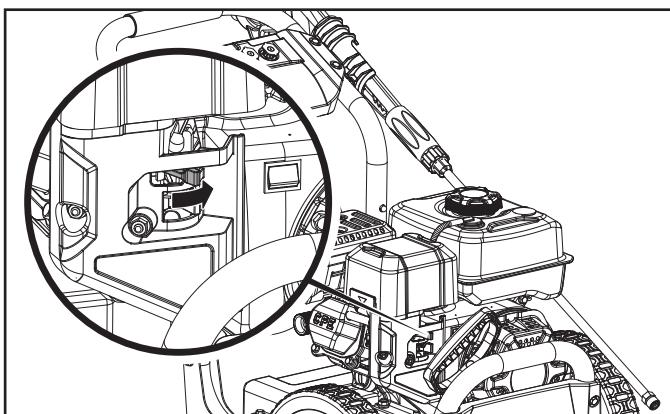
3. Move the choke lever to the "CHOKE" position.



4. Pull the starter cord slowly until resistance is felt and then pull rapidly. SEE NOTE.



5. As engine warms up, move the choke lever to "RUN".



#### NOTICE

Keep choke lever in "CHOKE" position for 2 pulls of the recoil starter. After second pull, move choke lever to the "RUN" position for up to the next 3 pulls of the recoil starter. Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.

#### NOTICE

If the engine does not start after 2 pulls, relieve pump pressure by pulling the trigger on the trigger gun.

#### NOTICE

If the engine starts but does not run make certain that the pressure washer is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

## Distance from Cleaning Surface

The distance between the spray nozzle and the cleaning surface is another factor that affects the impact force of the water. The impact force of the water increases as the nozzle is moved closer to the surface. You can vary the impact force by controlling

- The nozzle's fan pattern.
- The nozzle's angle to the cleaning surface.
- The nozzle's distance from the cleaning surface.

Never use a narrow high impact stream on a surface that is susceptible to damage. Avoid spraying windows with a narrow high impact stream or turbo nozzle. Doing so may break the glass.

1. Before triggering the gun, select a nozzle with a wide fan pattern.
2. Place the nozzle approximately 4-5 ft. (1.2 m - 1.5 m) away from the cleaning surface. Then hold the nozzle at a 45 degree angle to the cleaning surface. Trigger the gun.
3. Vary the fan pattern spray angle and the distance to the cleaning surface until optimum cleaning efficiency is achieved without damaging the surface.

**Use the following table to determine which nozzle to use.**

NOZZLE SELECTION GUIDE						
		HIGH PRESSURE WASH				LOW PRESSURE WASH
Abrasive	Gentle	0°	15°	25°	40°	Soap
Concrete, Brick, Masonry		!	✓	✓	✓	✓
Siding, Gutters, Home			!	!	✓	✓
Fencing, Deck, Patio			!	!	✓	✓
Lawn and Garden Equipment, Boats, RVs			!	!	✓	✓
Recommended nozzle	Use with caution					

## High Pressure Wash

### ⚠ CAUTION

Always engage the trigger safety latch when the unit is not in use.

The trigger safety latch prevents the gun from being triggered accidentally. Push the latch fully down to engage it.

### ⚠ WARNING

Injection hazard.

Fully unwrap and straighten high pressure hose prior to and during each use and do not allow it to become kinked. The high pressure hose features an outer covering that provides strength to the hose. If the outer covering becomes damaged, stop using the hose and replace it immediately. A kinked or damaged hose can develop a high pressure leak and result in a possible injection or other serious personal injury.

### ⚠ NOTICE

If the starter grip and rope becomes difficult to pull, squeeze the trigger to relieve water pressure before attempting to start the engine again.

For high pressure cleaning, refer to the Nozzle Selection Guide for more information about which quick connect nozzle to choose.

### ⚠ CAUTION

The narrow high impact spray can damage some surfaces.

A wide fan pattern distributes the impact of the water over a larger area resulting in excellent cleaning action with reduced risk of surface damage. Clean large surface areas quickly using a wide fan pattern.

## Low Pressure Wash

### Detergent Use

The use of detergents can dramatically reduce cleaning time and assist in the removal of difficult stains. Many detergents are customized for pressure washer use on specific cleaning tasks. Pressure washer detergents are as thick as water. Using thicker detergents – like dish soap – will clog the chemical injection system.

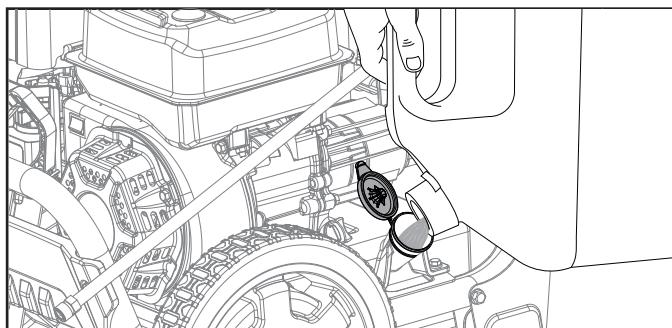
### ⚠ NOTICE

Use only detergents designed for pressure washers.

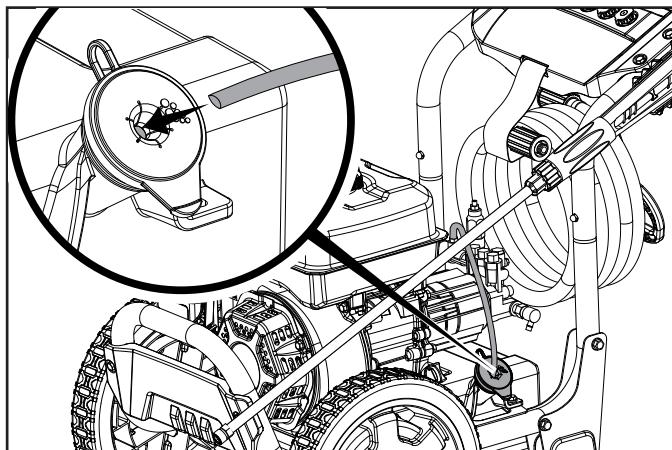
Do not use household detergents, acids, alkalines, bleaches, solvents, flammable material, or industrial grade solutions, which can damage the pump or cause property damage. Many detergents may require mixing prior to use. Prepare cleaning solution as instructed on the solution bottle. Always test in an inconspicuous area before beginning.

You can effectively clean surfaces by combining the chemical action of detergents with high pressure rinses. On vertical surfaces, apply the detergent starting at the bottom and work your way upward. This method prevents the detergent from sliding down and causing streaks. Begin high pressure rinsing at the bottom and work your way upward. On particularly tough stains, use a brush in combination with detergents and high pressure rinsing.

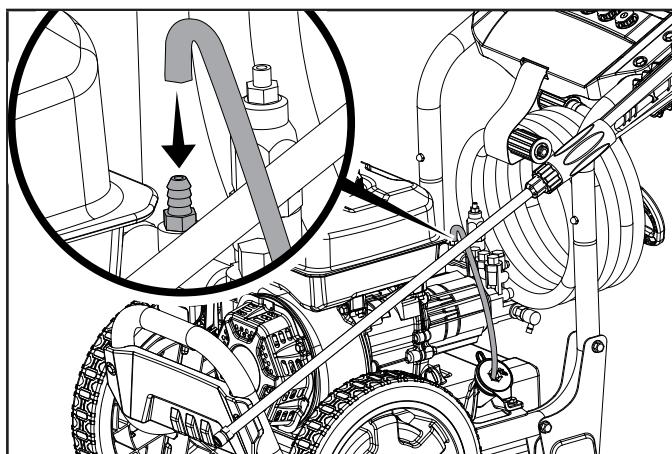
1. Fill the detergent tank with cleaning solution.



2. Insert the detergent suction hose (end with the filter) through the detergent tank cap until it goes all the way to the bottom of the detergent tank.



3. Uncoil the rest of the detergent suction hose.
4. Connect the other end of the detergent suction hose to the detergent barb on the pump.



### ⚠️ WARNING

NEVER use bleach in detergent tank. It will damage the pump and void the warranty.

### 💬 NOTICE

The trigger gun will only draw detergent from the tank when the black quick connect nozzle is installed in the wand.

### 💬 NOTICE

When spraying detergent, the detergent will be diluted 1:12. Approximately 20.3 oz. (0.6 L) of detergent will be consumed from the tank for every minute sprayed.

## System Flush

After using detergents, flush the suction system by placing the detergent suction tube into a bucket of clean water.

### ⚠️ WARNING

NEVER turn the water supply off before turning the engine off.

## Depressurize System

To depressurize, turn engine off, turn water supply off and squeeze gun trigger for at least 15 seconds after engine is turned off.

### ⚠️ WARNING

NEVER disconnect the high pressure discharge hose from the machine while the system is pressurized.

To reduce the risk of bodily injury or property damage, always follow this procedure whenever spraying is stopped, when work is completed, and before checking or repairing any part of the system.

1. Engage the trigger gun lock out.
2. Turn the unit off.
3. Shut off the water supply.
4. Disengage the trigger safety latch and trigger the gun to relieve pressure.
5. Re-engage the trigger safety latch.
6. Before overnight storage, long term storage, or transporting unit, disconnect the water supply and turn off the fuel supply valve.

## Operating Tips

### ⚠️ CAUTION

Never operate your pressure washer without water.

### ⚠️ CAUTION

Never connect your pressure washer to a hot water supply.

Connecting your pressure washer to a hot water source will significantly reduce the life of the pump and will void the warranty.

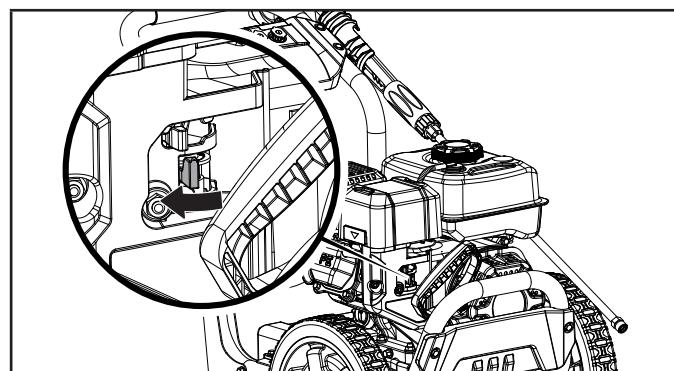
### ⚠️ CAUTION

Running the unit for more than one minute without spraying water causes heat to build up in the pump.

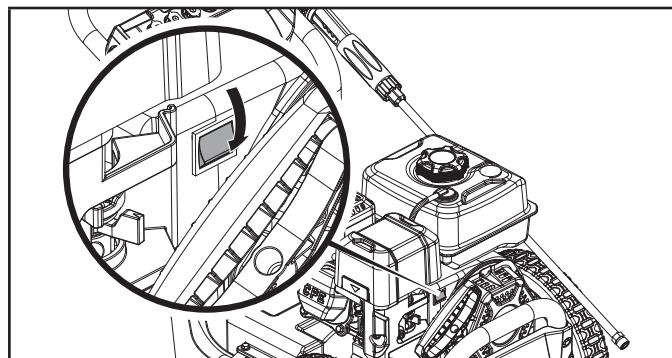
In the event that the pump gets too hot, a thermal relief valve will open to release the hot water. Running the unit without spraying water can damage pump components and will void the warranty.

## Stopping the Engine

1. Turn the fuel valve to the “OFF” position.



- Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
- Press the engine switch to the "OFF" position.



- Depressurize system.
- Turn off water supply and unplug all hoses. Never start or stop the pressure washer unless the water supply is turned on.

**Important:** Always ensure that the fuel valve and the engine switch are in the "OFF" position when the engine is not in use.

#### NOTICE

If the engine will not be used for a period of two (2) weeks or longer, please see the Storage section for proper engine and fuel storage.

## Operation at High Altitude

The density of air at high altitudes is lower than at sea level. Engine power is reduced as the air mass and air-fuel ratio decrease. Engine power and output will be reduced approximately 3½% for every 1000 ft. of elevation above sea level. At high altitudes increased exhaust emissions can also result due to the increased enrichment of the air fuel ratio. Other high altitude issues can include hard starting, increased fuel consumption and spark plug fouling.

To alleviate high altitude issues other than the natural power loss, CPE can provide a high altitude carburetor main jet. The alternative main jet and installation instructions can be obtained by contacting our Technical Support Team. Installation instructions are also available in the Technical Bulletin area of the CPE website.

The part number and recommended minimum altitude for the application of the high altitude carburetor main jet is listed in the following table.

In order to select the correct high altitude main jet it is necessary to identify the carburetor model. For this purpose, a code is stamped on the side of the carburetor. Select the correct high altitude jet part number corresponding to the carburetor code found on your particular carburetor.

Carb. Code	High Alt. Jet Part Number	Min. Altitude
P22-17-H	27.131017.04.01.H	3,500 ft. (1,067 m)

#### WARNING

Operation using the alternative main jet at elevations lower than the recommended minimum altitude can damage the engine. For operation at lower elevations, the originally supplied standard main jet must be used. Operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance.

## MAINTENANCE

Make certain that the pressure washer is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors.

#### WARNING

Never operate a damaged or defective pressure washer.

#### WARNING

Improper maintenance will void your warranty.

#### NOTICE

For Emission control devices and systems, read and understand your responsibilities for service as stated in the Emission Control Warranty Statement of this manual.

The owner/operator is responsible for all periodic maintenance. Complete all scheduled maintenance in a timely manner. Correct any issue before operating the pressure washer. For service or parts assistance, contact our help line at 1-877-338-0999.

## Cleaning the Pressure Washer

#### CAUTION

DO NOT spray the pressure washer with water.

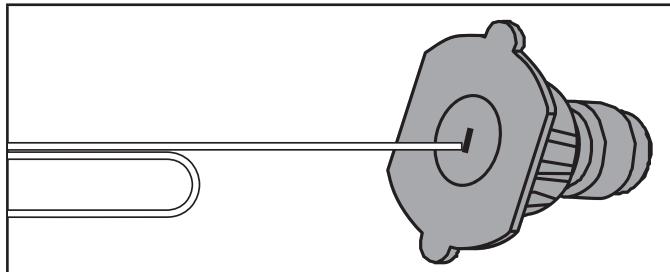
Water can contaminate the fuel system and can enter the engine through the cooling slots and damage the engine.

- Use a damp cloth to clean exterior surfaces of the pressure washer.

2. Use a soft bristle brush to remove dirt and oil.
3. Use an air compressor (25 PSI) to clear dirt and debris from the pressure washer.
4. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

## Cleaning Spray Nozzle

Detach the quick connect nozzle from the wand. Use a small wire rod (paper clip) to loosen up any particles in the quick connect nozzle and flush with water.

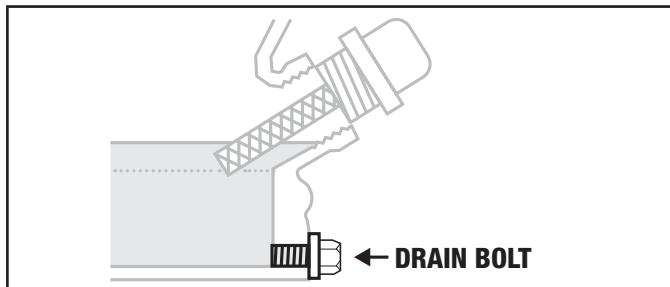


To prevent accidental starting, remove and ground spark plug wire before performing any service.

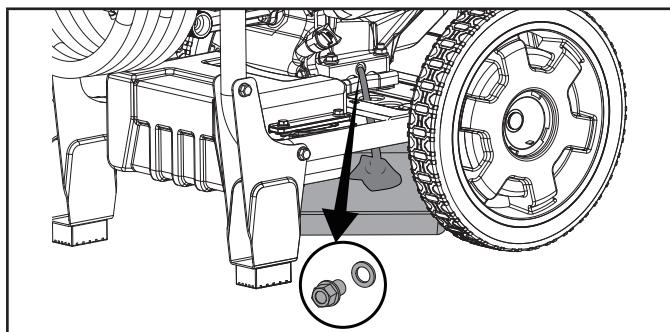
## Changing the Engine Oil

Change oil when the engine is warm. Refer to the oil specification to select the proper grade for your operating environment.

1. Remove the oil drain bolt with a 12 mm socket (not included) and extension.



2. Allow the oil to drain completely into an appropriate container.



3. Replace the oil drain bolt.

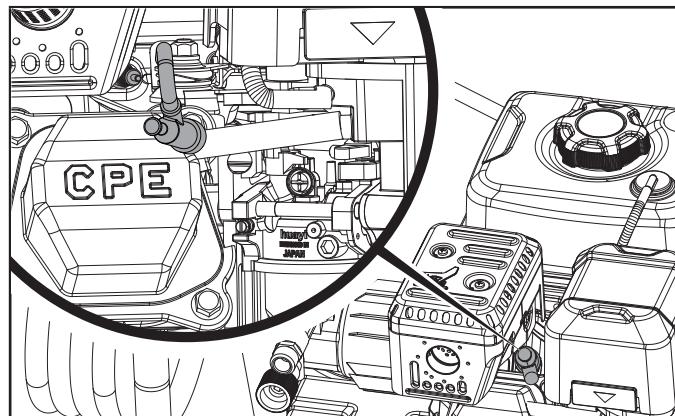
4. Add oil according to *Add Engine Oil* in Assembly section. DO NOT OVERFILL. Oil not included for routine maintenance.
5. Dispose of used oil at an approved waste management facility.

### NOTICE

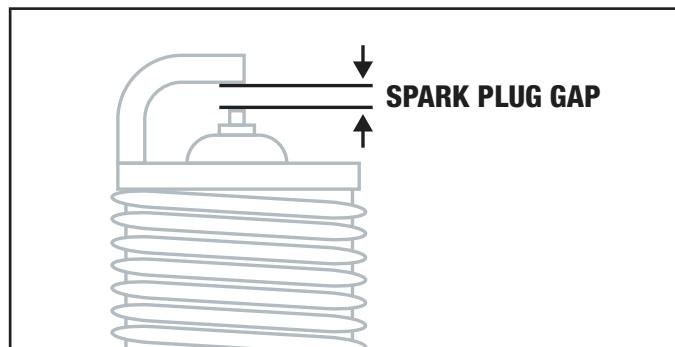
Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

## Cleaning and Adjusting the Spark Plug(s)

1. Remove the spark plug cable from the spark plug.



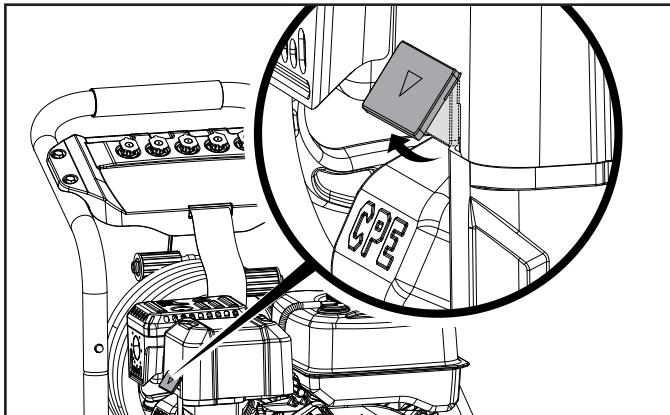
2. Use a spark plug socket tool (not included), or a 13/16 in. (21 mm) (not included) socket to remove the plug.
3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
4. Make certain the spark plug gap is 0.028-0.031 in. (0.7-0.8 mm).



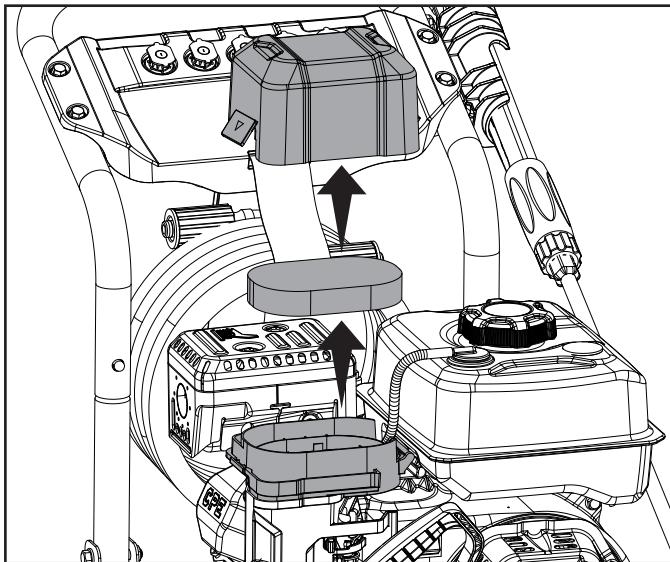
5. Refer to the spark plug types in Specifications when replacing the plug.
6. Carefully thread the plug into the engine.
7. Use the spark plug socket tool (not included), or a 13/16 in. (21 mm) (not included) socket to install the plug.
8. Attach the spark plug wire to the plug.

## Cleaning the Air Filter

1. Using your finger, pry the outer tab up slightly and lift the air filter cover above the tab lock position.



2. Remove both air filter cover and air filter element.



3. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
4. Saturate in clean engine oil.
5. Squeeze in a clean, absorbent cloth to remove all excess oil.
6. Place the filter in the assembly.
7. Reattach the air filter cover. Attach the side closest to the gas tank then pivot down to close. Make sure air filter cover snaps in place.

## Cleaning the Spark Arrestor

1. If so equipped, allow the engine to cool completely before servicing the spark arrester.
2. Remove the screws holding the cover plate which retains the end of the spark arrester to the muffler.
3. Remove the spark arrester screen.

4. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.
5. Replace the spark arrester if it is damaged.
6. Position the spark arrester on the muffler and attach with the screws removed in step 2.

### ⚠ CAUTION

Failure to clean the spark arrester will result in degraded engine performance.

## Adjusting the Governor

### ⚠ WARNING

Tampering with the factory set governor will void your warranty.

The air-fuel mixture is not adjustable. Tampering with the governor can damage your pressure washer and will void your warranty. CPE recommends that you contact our service line at 1-877-338-0999 for all other service and/or adjustment needs.

## Maintenance Schedule

Follow the service intervals indicated in the schedule below. Service your pressure washer more frequently when operating in adverse conditions. Contact our help line at 1-877-338-0999 to locate the nearest Champion Power Equipment certified service dealer for your maintenance needs.

### EVERY 8 HOURS OR DAILY

- Check oil level
- Clean around air intake and muffler

### FIRST 5 HOURS

- Change oil

### EVERY 50 HOURS OR EVERY SEASON

- Clean air filter
- Change oil if operating under heavy load or in hot environments

### EVERY 100 HOURS OR EVERY SEASON

- Change oil
- Clean/adjust spark plug
- Check/adjust valve clearance\*
- Clean spark arrester
- Clean fuel tank and filter\*

**EVERY 250 HOURS**

- Clean combustion chamber\*

**EVERY 3 YEARS**

- Replace fuel line\*

\* To be performed by knowledgeable, experienced owners or Champion Power Equipment certified dealers.

**STORAGE**

Refer to the Maintenance section for proper cleaning instructions.

**Pressure Washer Storage**

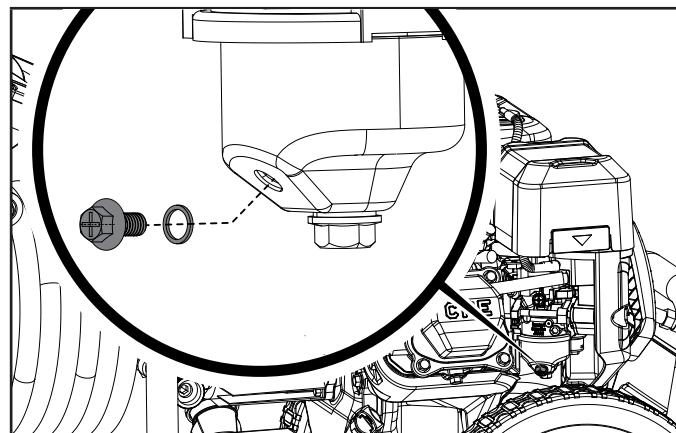
1. Allow the pressure washer to cool completely before storage.
2. Turn off the fuel supply at the fuel valve.
3. Clean the pressure washer according to the instructions in the Maintenance section.
4. Store the unit in a clean, dry area out of direct sunlight.

**Engine Stored for Less than 30 Days**

1. Allow the engine to cool completely before storage.
2. Clean engine according to the Maintenance section.
3. To extend the fuel storage life add a properly formulated fuel stabilizer to the tank.
4. Ensure the fuel valve is in the "OFF" position.

**Engine Stored for Over 30 Days**

1. Add a properly formulated fuel stabilizer to the tank.
2. Run the engine for a few minutes so the treated fuel cycles through the fuel system and carburetor.
3. Turn the fuel valve to the "OFF" position.
4. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
5. The engine needs to cool completely before cleaning and storage.
6. Use a funnel (and appropriate hose if necessary) under the carburetor drain bolt to avoid spillage. Be sure to properly dispose of the drained gasoline according to local regulations or guidelines.



7. Clean the engine according to the Maintenance section.
8. Change the oil.
9. Remove the spark plug and pour about  $\frac{1}{2}$  oz. (14.9 mL) of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
10. Reattach the spark plug.

**Winter Storage**

Protect your pressure washer parts from freezing.

1. Apply all storage instructions from previous sections.
2. Make sure pressure washer hose is free of all water before storing for winter.
3. In order to prevent the pump from freezing you will need to insert RV antifreeze.
4. You will need approximately 6 oz. (177.4 mL) of RV antifreeze, a funnel, and approximately 12 in. (30.5 cm) of garden hose or equivalent.
5. Pour the antifreeze into the funnel connected to the pump inlet with a small hose, then pull on the recoil starter to create suction in the pump housing. Pull the recoil several times until antifreeze comes out of the pump outlet.

**⚠ WARNING**

Never store the pressure washer inside or next to appliances where there is a source of heat or open flame, spark or pilot light because they can ignite gasoline vapors.

DO NOT store a pressure washer near fertilizer or any corrosive material.

Even with an empty gas tank, gasoline vapors could ignite.

**DANGER**

Engine exhaust contains odorless and colorless carbon monoxide gas.

To avoid accidental or unintended ignition of the product during periods of storage, the following precautions should be followed:

- When storing the pressure washer for short or long periods of time make sure that the engine switch and the fuel valve are set in the "OFF" position.

**NOTICE**

Our engines work well with 10% or less ethanol blend fuels.

When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.

It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.

## SPECIFICATIONS

### Pressure Washer Specifications

Model	100784
Max Pressure	3200 PSI
Max Volume	2.5 GPM
Max Water Temperature (°F/°C)	104/40
Weight	68.8 lb. (31.2 kg)
Length	41.5 in. (105.4 cm)
Width	19.5 in. (49.5 cm)
Height	27.1 in. (68.9 cm)

### Engine Specifications

Model	YF172FD-020
Displacement	224 cc

Type	4-Stroke OHV
Start Type	Manual

#### Spark Plug

OEM Type	NHSP F6RTC
Replacement Type	NGK BPR6ES or equivalent

Gap	0.028-0.031 in. (0.7-0.8 mm)
-----	------------------------------

#### Valve

Intake Clearance	0.005-0.007 in. (0.13-0.17 mm)
Exhaust Clearance	0.007-0.009 in. (0.18-0.22 mm)

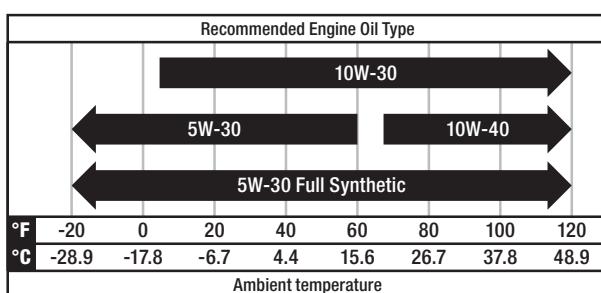
#### NOTICE

A technical bulletin regarding valve adjustment procedures is available at [www.championpowerequipment.com](http://www.championpowerequipment.com).

### Oil Specifications

DO NOT OVERFILL.

Type	*See chart below
Capacity	20.3 fl. oz. (600 ml)



#### NOTICE

Temperature will affect engine oil and engine performance. Change the type of engine oil used based on the temperature to suit the engine needs.

### Fuel Specifications

Use unleaded gasoline with a minimum octane rating of 87 and an ethanol content of 10% or less by volume. DO NOT USE E15 or E85. DO NOT OVERFILL.

Gasoline Capacity	0.9 gal. (3.5 L)
-------------------	------------------

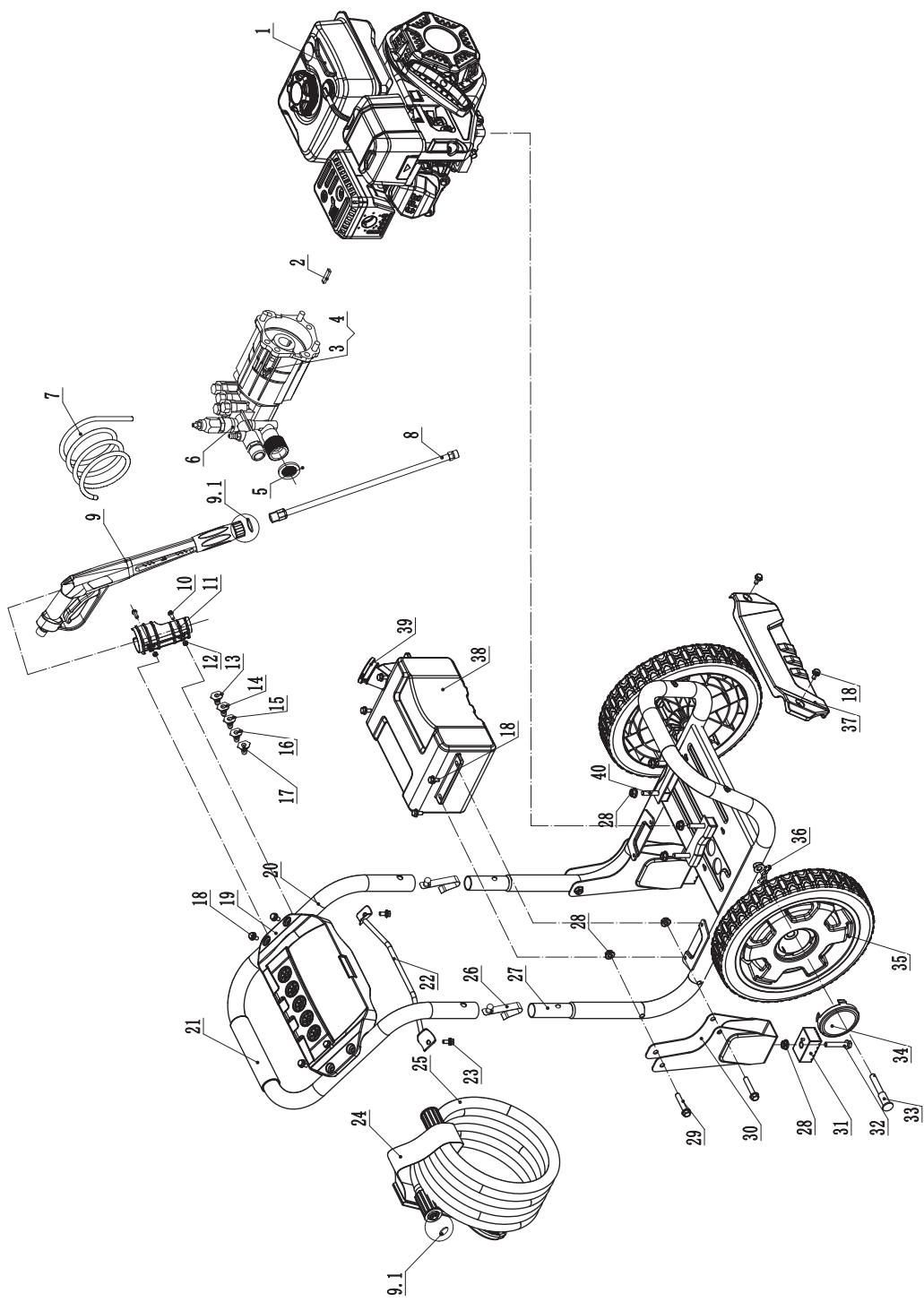
### Temperature Specifications

Starting Temperature Range (°F/°C)	5 to 104/-15 to 40
------------------------------------	--------------------

#### NOTICE

**An important message about temperature:** Your product is designed and rated for continuous operation at ambient temperatures up to 104°F (40°C). When needed, it may be operated at temperatures ranging from 5°F (-15°C) to 122°F (50°C) for short periods of time. If exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and vents.

## Parts Diagram

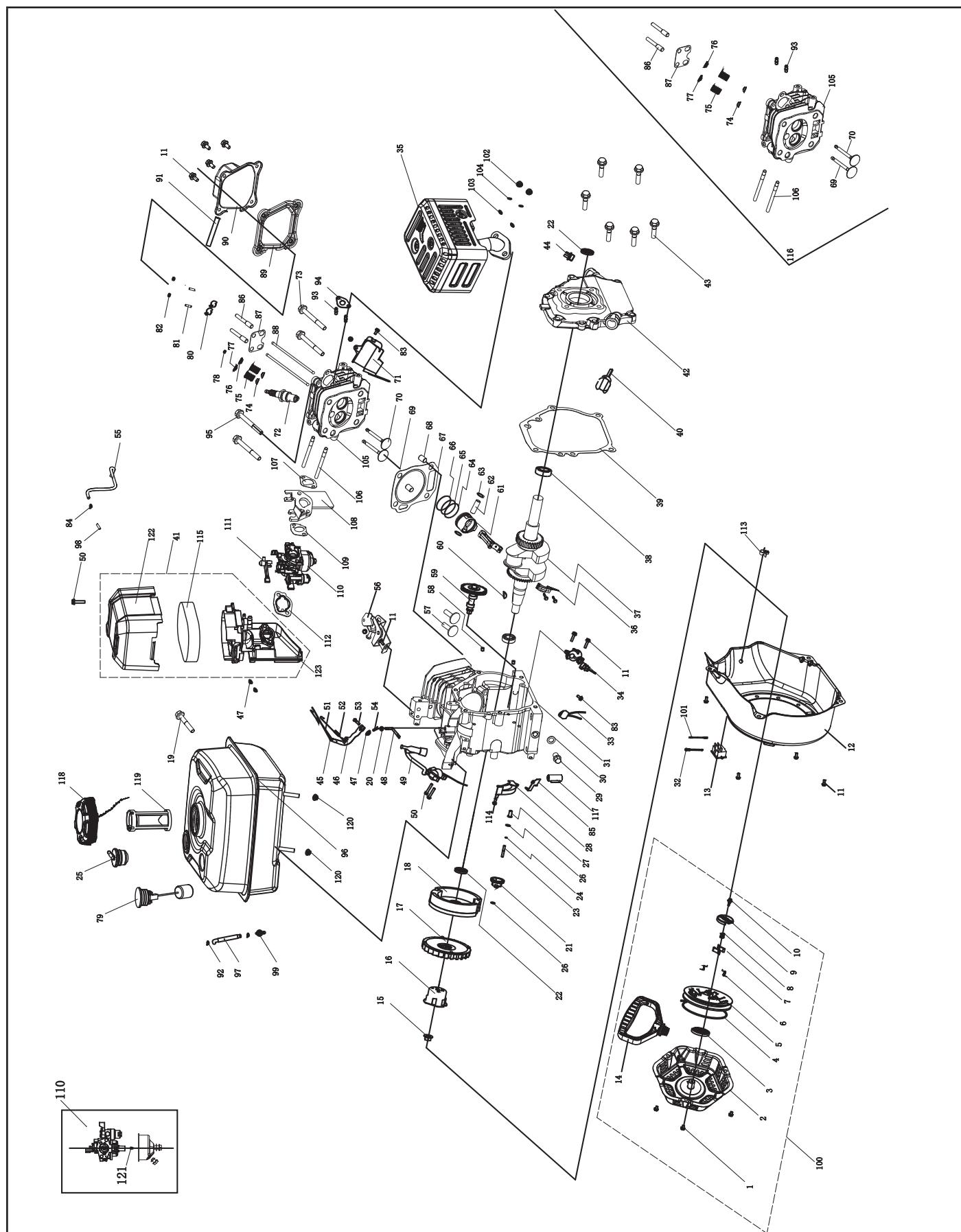


## Parts List

#	Part Number	Description	Qty.
1	27.301	Engine, 224cc	1
2	2.14.001	Key, SQ 4.78 x 4.78 x 40	1
3	2.08.010	Bolt 5/16-24 x 22	4
4	1.93.08	Lock Washer Ø8	4
5	252.251003.00	Inlet Filter Gasket	1
6	254.251000.01	Pump Body	1
7	254.250100.11	Detergent Hose, 27.6 in.	1
8	254.252200.00	Wand	1
9	254.252100.00.48	Handle, Gun , Yellow	1
9.1	2.07.034	O Ring , Ø14 x Ø9 x Ø2.5	3
10	1.5783.0645.1	Bolt M6 x 45, Black	2
11	254.200012.05.2	Trigger Gun Holder, Black	1
12	1.6177.1.06.1	Lock Nut M6, Flange , Black	2
13	254.252300.05	Nozzle "Detergent", 65400	1
14	254.252300.09	Nozzle "40", 40028	1
15	254.252300.08	Nozzle "25", 25028	1
16	254.252300.07	Nozzle"15", 15028	1
17	254.252300.06	Nozzle "0", 00028	1
18	1.5789.0612.1	Flange Bolt M6 x 12, Black	10
19	251.200800.01.2	Top Panel, Black	1
20	251.200701.02.78	Handle, Frame, 877C	1
21	251.200702.02	Handle Grip	1
22	251.201600.00.78	Support Plate, 877C	1
23	1.5789.0612	Flange Bolt M6 x 12	2
24	9.4300.000	Hose Strap	1
25	254.250100.00	High-Pressure Hose, 25ft.	1
26	252.201300.00	Pin	2
27	61160.0.78	Frame, 877C	1
28	1.6177.1.08	Lock Nut M8, Flange	14
29	1.5789.0845	Flange Bolt M8 x 45	4
30	251.200002.01.78	Support Leg, 877C	2

#	Part Number	Description	Qty.
31	122.201400.04.29	Rubber, Support, Cool Gray 11	2
32	1.5789.0825	Flange Bolt M8 x 25	2
33	122.201501.00	Pin Roll, Wheel	2
34	254.201702.04.48	Cap, Wheel, Yellow	2
35	254.201701.04.48	Wheel, PU, Yellow	2
36	2.16.005	Clip Ø2, "B" Shape	2
37	251.200800.02.2	Front Bumper, Black	1
38	251.250202.00	Detergent Tank	1
39	254.250203.01	Cap, Water Tank	1
40	252.201200.00	Vibration Mount, Engine	2

## Engine Parts Diagram



## Engine Parts List

#	Part Number	Description	Qty.
1	1.16674.0608	Flange Bolt M6 x 8	3
2	27.061100.02.2	Cover, Recoil Starter, Black	1
3	21.061005.00	Spring, Recoil Starte	1
4	2.10.003.1	Rope Ø4 x 1550, Black	1
5	21.061001.01	Reel, Recoil Starter	1
6	45.060003.00	Spring, Ratchet	2
7	45.060002.00	Starter Ratchet, Steel	2
8	45.060009.00	Spring, Ratchet Guide	1
9	45.060007.00	Ratchet Guide	1
10	45.060008.00	Screw, Ratchet Guide	1
11	1.5789.0612	Flange Bolt M6 x 12	12
12	27.080100.09.48	Fan cover, Yellow	1
13	5.1000.011	Switch	1
14	23.061006.01	Handle, Recoil	1
15	2.02.006	Nut M14	1
16	23.060001.01	Pulley, Start	1
17	27.080001.00	Cooling Fan	1
18	24.120100.02	Flywheel	1
19	2.08.156	Flange Bolt Assembly M6 x 33	1
20	2.03.021.1	Washer Ø6.4 x Ø13 x 1	1
21	21.110100.00	Gear, Governor	1
22	2.11.001	Oil Seal Ø25 x Ø41.3 x 6	2
23	21.110013.00	Shaft, Governor Gear	1
24	21.110011.00	Clip, Governor Gear	1
25	152.070800.00	Reversal Valve	1
26	2.03.020.1	Washer Ø6.2 x Ø15 x 0.5	2
27	21.110012.01	Bushing, Govornor Gear	1
28	23.080600.00	Air Guide, Right	1
29	2.08.037	Drain Bolt M10 x 1.25 x 25	2
30	2.03.016	Washer Ø10 x Ø16 x 1.5, Drain Bolt	2
31	27.030100.06	Crankcase	1
32	27.120300.00	Ground Lead	1
33	21.120400.00	Diode Assembly	1
34	21.127000.02	Oil Level Sensor	1
35	27.101000.12.2	Muffler Assembly, Black	1
36	27.050200.00	Connecting Rod	1
37	27.050100.01	Crankshaft, Q	1
38	1.276.6205	Bearing 6205	2
39	24.030008.00	Gasket, Crankcase Cover	1

#	Part Number	Description	Qty.
40	21.031000.00.48	Oil Dipstick Assembly, Yellow	1
41	27.091000.05	Air Cleaner Assembly	1
42	24.030007.00	Cover, Crankcase	1
43	1.5789.0832	Flange Bolt M8 x 32	6
44	21.031000.01.48	Oil Filler Cap, Yellow	1
45	23.110005.01	Spring, Throttle Return	1
46	27.110003.00	Arm, Governor	1
47	1.6177.06	Nut M6	3
48	21.110001.00	Shaft, Governor Arm	1
49	22.123000.07	Ignition Coil	1
50	1.5789.0625	Flange Bolt M6 x 25	3
51	23.110006.00	Rod, Governor	1
52	23.110007.00	Spring, Governor	1
53	2.08.040	Bolt M6 x 21, Governor Arm	1
54	21.110008.00	Pin, Shaft	1
55	24.070014.06	Pipe, Reversal Valve	1
56	27.111000.00	Control Assembly	1
57	25.040013.00	Lifter, Valve	2
58	2.04.001	Dowel Pin Ø9 x 14	2
59	27.041000.01	Camshaft	1
60	2.14.012	Woodruff Key 4 x 7.5 x 19	1
61	27.050005.00	Piston	1
62	23.050003.00	Pin, Piston	1
63	2.09.001	Circlip Ø18 x Ø1	2
64	27.050303.00	Ring, Oil	1
65	27.050302.00	Ring, Second Piston	1
66	27.050301.00	Ring, First Piston	1
67	27.030009.01	Gasket, Cylinder Head	1
68	2.04.003	Dowel Pin Ø10 x 14	2
69	23.040002.02	Valve, Intake	1
70	23.040006.02	Valve, Exhaust	1
71	26.080400.00	Air Guide, Lower	1
72	2.15.002	Spark Plug F6RTC	1
73	1.5789.0865	Flange Bolt M8 x 65	3
74	23.040017.00	Valve Oil seal	2
75	21.040003.00	Oil Seal, Valve	2
76	21.040007.00	Retainer, Exhaust Valve Spring	1
77	21.040001.00	Retainer, Intake Valve Spring	1
78	21.040008.00	Rotator, Exhaust Valve	1
79	27.072000.00	Fuel Gauge Assembly	1

#	Part Number	Description	Qty.
80	21.040009.00	Rocker Arm	2
81	21.040020.00	Screw, Valve Adjustment	2
82	21.040021.00	Nut M6, Lock	2
83	1.5789.0608	Flange Bolt M6 x 8	3
84	2.06.006	Clamp Ø7 x Ø1	1
85	21.080002.00	Support, Diode	1
86	21.040010.00	Bolt, Rocker Arm	2
87	23.040004.00	Guide Plate, Push Rod	1
88	27.040005.00	Push Rod	2
89	21.020002.00	Gasket, Cylinder Head Cover	1
90	15.021000.00	Cover, Cylinder Head	1
91	21.020001.00	Breather Tube	1
92	2.06.005	Clamp Ø9 x Ø1	2
93	2.01.010	Stud Bolt M8 x 35	2
94	26.100001.00	Gasket, Exhaust Pipe	1
95	2.08.121	Flange Bolt M10 x 65	1
96	27.071000.01.2	Fuel Tank	1
97	24.070011.03	Pipe	1
98	24.070030.00	Venthole	1
99	21.070600.03	Fitting, Fuel Tank	1
100	27.061000.02	Recoil Assembly	1
101	27.120300.01	Off Line	1
102	1.6175.08	Nut M8	2
103	1.848.08	Washer Ø8	2

#	Part Number	Description	Qty.
104	1.93.08	Lock Washer Ø8	2
105	26.010100.01	Cylinder Head, 224cc	1
106	2.01.009	Stud Bolt M6 x 110	2
107	24.130002.00	Gasket, Insulator	1
108	23.130001.00	Insulator, Carburetor	1
109	22.130003.00	Gasket, Carburetor	1
110	27.131000.20	Carburetor	1
111	27.130100.00	Choke Handle	1
112	21.130004.00	Gasket, Air Cleaner	1
113	2.05.005	Clamp Ø6 x 6.5	1
114	1.5789.0620	Flange Bolt M6 x 20	1
115	27.091003.05	Element, Air Cleaner	1
116	27.010000.00	Cylinder Head Assembly	1
117	27.210003.00	Wire Sheath	1
118	24.070100.04	Cap, Fuel Tank	1
119	46.070300.00	Fuel Filter, Fuel Tank	1
120	1.6187.1.06	Nut M6	2
121	27.131017.04	Main Jet, Standard	1
	27.131017.04.01	Main Jet, Altitude	/
122	27.091200.05	Cover, Air Cleaner	1
123	27.091100.05	Base, Air Cleaner	1

## TROUBLESHOOTING

Problem	Cause	Solution
<b>Pressure washer will not start.</b>	No fuel.	Add fuel.
	Faulty spark plug.	Replace spark plug.
<b>Pressure washer will not start; Pressure washer starts but runs roughly.</b>	Low oil level.	Fill crankcase to the proper level. Place pressure washer on a flat, level surface.
	Choke in the wrong position.	Adjust choke.
	Spark plug wire loose.	Attach wire to spark plug.
<b>Pressure washer gallops.</b>	Engine governor defective.	Contact the help line.
<b>Unit does not reach high pressure.</b>	Water supply is restricted.	Check hoses for leaks, blockage, kinks.
	Garden hose is too small.	Replace with 5/8 in. garden hose or larger.
	Garden hose inlet filter is clogged.	Remove garden hose, clean filter and rinse out.
	Not enough inlet water.	Turn garden hose water on full force.
<b>Spray pressure varies from high to low.</b>	Poor inlet water supply.	Turn garden hose water on full force. Check hose for leaks, blockage, or kinks.
	Garden hose inlet filter is clogged.	Remove garden hose, clean filter and rinse out.
	Spray nozzle is obstructed.	Remove particles with small wire rod (see maintenance section in manual).
	Pump is sucking air.	Check all hoses and fittings, make sure they are securely tightened down and fastened. Turn off engine and purge pump by squeezing trigger gun until a steady stream of water flows.
<b>Low pressure detergent wash is not functioning properly.</b>	Detergent is too thick.	Dilute detergent
	Spray wand has high pressure quick connect nozzle installed.	Detergent only works with low pressure quick connect nozzle (black).
	Detergent hose is not connected to the pump housing.	Check connection.
	Spray nozzle is obstructed.	Clean nozzle and remove debris.
	Filter on detergent hose is clogged.	Clean with warm water or replace.
	Chemical Injector valve (inside pump) partially blocked or stuck.	Quickly pull and release the gun trigger 4-5 time to clear the chemical injector valve.
	Detergent tube not connected to the brass fitting on the pump outlet.	Install detergent tube to detergent injector inlet near pump outlet.
<b>Garden hose connection leaks.</b>	Loose fittings.	Tighten.
	Missing/worn-out rubber washer.	Replace rubber washer.
<b>Spray wand leaks</b>	Spray wand not properly attached.	Tighten all connections.
<b>Can't pull recoil</b>	Pump will build pressure with each pull.	Pull gun trigger after 2 pulls of recoil, to release pump pressure.

### For other issues and technical support:

Technical Support Team

Toll Free 1-877-338-0999

[support@championpowerequipment.com](mailto:support@championpowerequipment.com)

# **WARRANTY\***

CHAMPION POWER EQUIPMENT

2 YEAR LIMITED WARRANTY

## **Warranty Qualifications**

To register your product for warranty and FREE lifetime call center technical support please visit:

<https://www.championpowerequipment.com/register>

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from date of purchase.

## **Repair/Replacement Warranty**

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of two years (parts and labor) from the original date of purchase and 90 days (parts and labor) for commercial and industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

## **Do Not Return The Unit To The Place Of Purchase**

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

## **Warranty Exclusions**

This warranty does not cover the following repairs and equipment:

### **Normal Wear**

Products with mechanical and electrical components need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

### **Installation, Use and Maintenance**

This warranty will not apply to parts and/or labor if the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

## **Other Exclusions**

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Accessory parts such as high pressure hoses, spray nozzles, wands or guns.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

When applicable, this warranty does not apply to products used for prime power in place of a utility.

## **Limits of Implied Warranty and Consequential Damage**

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product.

THIS WARRANTY AND THE ATTACHED U.S. EPA and/or CARB EMISSION CONTROL SYSTEM WARRANTIES (WHEN APPLICABLE) ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

## **Contact Information**

### **Address**

Champion Power Equipment, Inc.  
12039 Smith Ave.  
Santa Fe Springs, CA 90670 USA  
[www.championpowerequipment.com](http://www.championpowerequipment.com)

### **Customer Service**

Toll Free: 1-877-338-0999  
[info@championpowerequipment.com](mailto:info@championpowerequipment.com)  
Fax no.: 1-562-236-9429

### **Technical Service**

Toll Free: 1-877-338-0999  
[tech@championpowerequipment.com](mailto:tech@championpowerequipment.com)  
● EMERGENCY 24 HOUR SUPPORT: 1-562-204-1188

**CHAMPION POWER EQUIPMENT, INC. (CPE)  
AND THE UNITED STATES ENVIRONMENT PROTECTION AGENCY (U.S. EPA)  
EMISSION CONTROL SYSTEM WARRANTY**

Your Champion Power Equipment (CPE) engine complies with U.S. EPA emission regulations.

**YOUR WARRANTY RIGHTS AND OBLIGATIONS:**

The US EPA AND CPE are pleased to explain the Federal Emission Control Systems Warranty on your 2020 small off-road engine (SORE) and engine powered equipment. New engines and equipment must be designed, built and equipped, at the time of sale, to meet U.S. EPA regulations for small off-road engines (SORE). CPE warrants the emission control system on your small off-road engine (SORE) and equipment for the period of time listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your equipment.

Your emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter and fuel lines. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exists, CPE will repair your small off-road engine (SORE) at no cost to you including diagnosis, parts and labor.

**MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:**

This emission control system is warranted for two years, subject to provisions set forth below. If, during the warranty period, an emission related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by CPE.

**OWNER WARRANTY RESPONSIBILITIES:**

As the small off-road engine (SORE) owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine (SORE), but CPE cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine (SORE) owner, you should however be aware that CPE may deny you warranty coverage if your small, off-road engine (SORE) or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine (SORE) to an Authorized CPE service outlet or alternate service outlet as described in (3)(f.) below, CPE dealer or CPE, Santa Fe Springs, Ca. as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact:

Champion Power Equipment, Inc.  
Customer Service  
12039 Smith Ave.  
Santa Fe Springs, CA 90670  
1-877-338-0999  
[tech@championpowerequipment.com](mailto:tech@championpowerequipment.com)

## **EMISSION CONTROL SYSTEM WARRANTY**

**The following are specific provisions relative to your Emission Control System (ECS) Warranty Coverage.**

**1. APPLICABILITY:** This warranty shall apply to 1997 and later model year small off-road engines (SORE). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.

### **2. GENERAL EMISSIONS WARRANTY COVERAGE**

CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines (SORE) is:

2a. Designed, built and equipped so as to conform to U.S. EPA emissions standards for spark-ignited engines at or below 19 kilowatts.

2b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.

### **3. THE WARRANTY ON EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:**

3a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.

3b. Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

3c. Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection "d" below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

3d. Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.

3e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.

3f. CPE shall pay for covered emissions warranty repairs at non-authorized service outlets under the following circumstances:

i. The service is required in a population center with a population over 100,000 according to U.S. Census 2000 without a CPE Authorized Service Outlet AND

ii. The service is required more than 100 miles from a CPE Authorized Service Outlet. The 100 mile limitation does not apply in the following states: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, Texas, Utah and Wyoming.

3g. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.

3h. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

3i. Any CPE Authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.

3j. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

**EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)**

<b>Systems covered by this warranty</b>	<b>Parts Description</b>
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems.
Evaporative Emissions	Fuel Tank, Fuel Cap, Fuel Line (for liquid fuel and fuel vapors), Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Gaskets, Vapor Hoses, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector

**TO OBTAIN WARRANTY SERVICE:**

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Alternate service locations defined in Section (3)(f.) above must be approved by CPE prior to service. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

**If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call Customer Service at Champion Power Equipment, Inc.**

**Champion Power Equipment, Inc.**  
12039 Smith Ave.  
Santa Fe Springs, CA 90670  
1-877-338-0999  
Attn.: Customer Service  
[tech@championpowerequipment.com](mailto:tech@championpowerequipment.com)