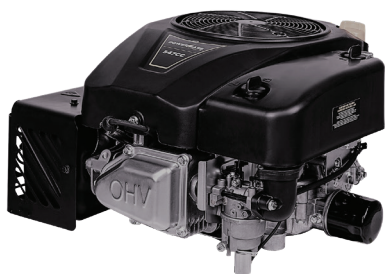


# POWER EASE



**POWEEASE 550**



**POWEEASE 740**

## OPERATOR's MANUAL



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## INTRODUCTION

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Congratulations on your purchase of a Powerease engine. You can be confident that this pressure washer is constructed and tested with optimum performance and quality in mind.

Reading this manual will help get you the best results for set-up, operation, maintenance and avoid personal injury or damage to your machine. By knowing how best to operate this machine, you will be better positioned to show others who may also operate the unit.

All the information in this manual is based on the latest product information available at the time of printing. Powerease reserves the right to make changes at any time without notice or incurring any obligation.

### Owner/Operator Responsibility

The owner/operator must have a thorough understanding of the operation, maintenance and dangers associated with using this machine. It must be understood that it is ultimately up to the owner/operator to safely use this machine as outlined in this manual.

This manual is considered a part of the machine and needs to be kept in a safe location. If the machine is resold or given to someone else, this manual needs to be included.

### Record Identification Numbers

It is recommended that you record the product identification numbers in this manual. These numbers are important to have on hand if you need to contact technical support (**1-866-850-6662**). The model and serial number can be found on the box and on decal on the machine.

### PRODUCT IDENTIFICATION

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

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

Dealer Name: \_\_\_\_\_



# SAFETY OVERVIEW

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## SAVE THESE INSTRUCTIONS - 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 (▲) is used with a signal word (**DANGER, CAUTION, WARNING**), a pictorial and a safety message to alert you to hazards.

**DANGER** indicates a hazard that, if not avoided, will result in death or serious injury.

**WARNING** indicates a hazard that, if not avoided, could result in death or serious injury.

**CAUTION** indicates a hazard that, if not avoided, might result in minor or moderate injury.

**NOTICE** indicates a situation that could result in equipment or property damage.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

**WARNING** – When using this product, the following precautions should always be observed and adhered to.

1. Read all instructions before using the product.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Know how to stop the product quickly. Be thoroughly familiar with the controls.
4. Stay alert. Watch what you are doing.
5. Do not operate the product when fatigued or under the influence of alcohol or drugs.
6. Keep operating area clear of other people.
7. Follow the maintenance instructions specified in the manual.

### GAS ENGINE SAFETY

If your pressure washer has a gas engine, the engine will have its own manual. Thoroughly review and understand the engine manual.

#### **DANGER – TOXIC FUMES**

- **ALWAYS** operate the machine outdoors in well-ventilated spaces.
- The emissions from the engine include the poisonous gas carbon monoxide. It is a colorless, odorless gas that will displace oxygen and be lethal in high enough concentrations.
- Symptoms of carbon monoxide poisoning include headache, fatigue, dizziness, nausea, confusion, vomiting, and seizures. If poisoning continues, unconsciousness and death will occur.
- At the first sign of any symptoms, **IMMEDIATELY** shut off the machine and move into a well-ventilated area and seek medical attention.
- Carbon monoxide is heavier than atmospheric air and will fill in low spaces first. Use **EXTREME CAUTION** when operating in low spaces such as trenches, tunnels or ditches.
- **NEVER** position the machine where the exhaust can go through windows, doors, ventilation or other access points that lead indoors or to confined areas.
- **NEVER** use a respirator as protection against carbon monoxide. The **ONLY** protection that can be relied on is a positive pressure fresh air supply system, such as a SCUBA system.

#### **DANGER – FUEL RELATED FIRE AND EXPLOSIONS**

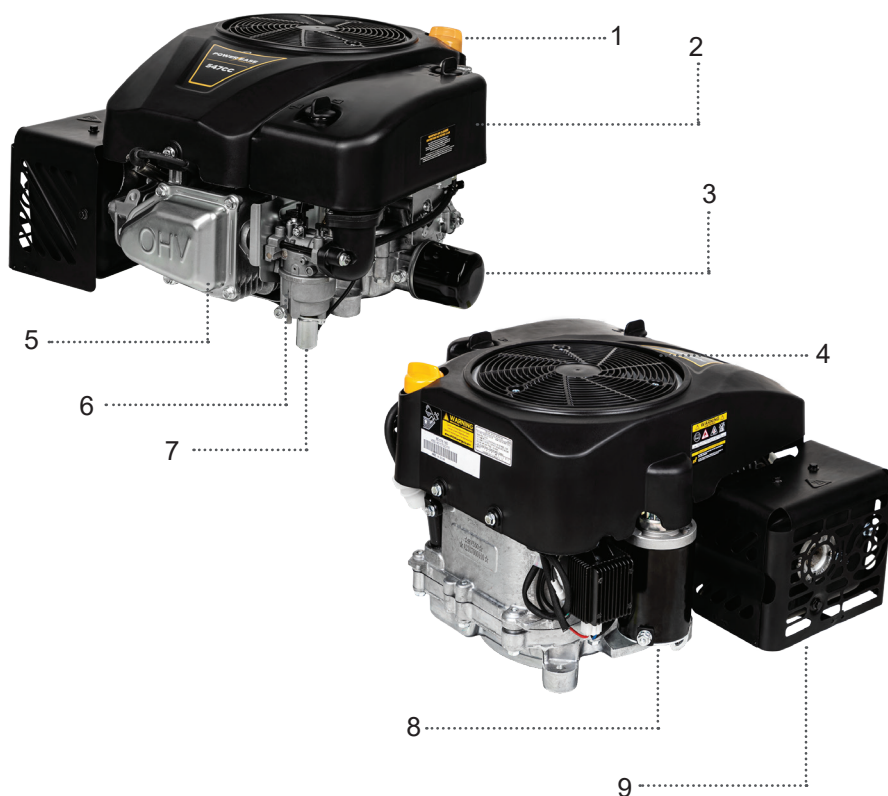
- Fuel and its vapors are highly flammable and explosive.
- Fire and explosion can cause severe burns and death.
- **NEVER** fill the fuel tank while the unit is running.
- **ALWAYS** turn the engine off and let it cool at least two minutes before removing fuel cap. Loosen the fuel cap slowly to relieve tank pressure.
- **ALWAYS** fill or drain the fuel tank outdoors.
- **DO NOT** overfill the tank. Leave an airspace in the neck of the fuel tank to allow it to breathe and for fuel expansion.
- **NEVER** have any spark or flame near the fuel, including cigarettes, open flame, pilot lights and other ignition sources.
- If fuel spills, wait until it evaporates completely. Move the unit to a new location, then wait at least two minutes before starting the engine.
- **NEVER** crank the engine with the spark plug removed and still in its boot.
- When transporting or putting the unit into storage, drain the fuel tank and carburetor and store the fuel in an airtight container. Then, move the fuel valve into the closed position.
- Never store fuel near any ignition source or hot surface.

#### **CAUTION – HOT SURFACES**

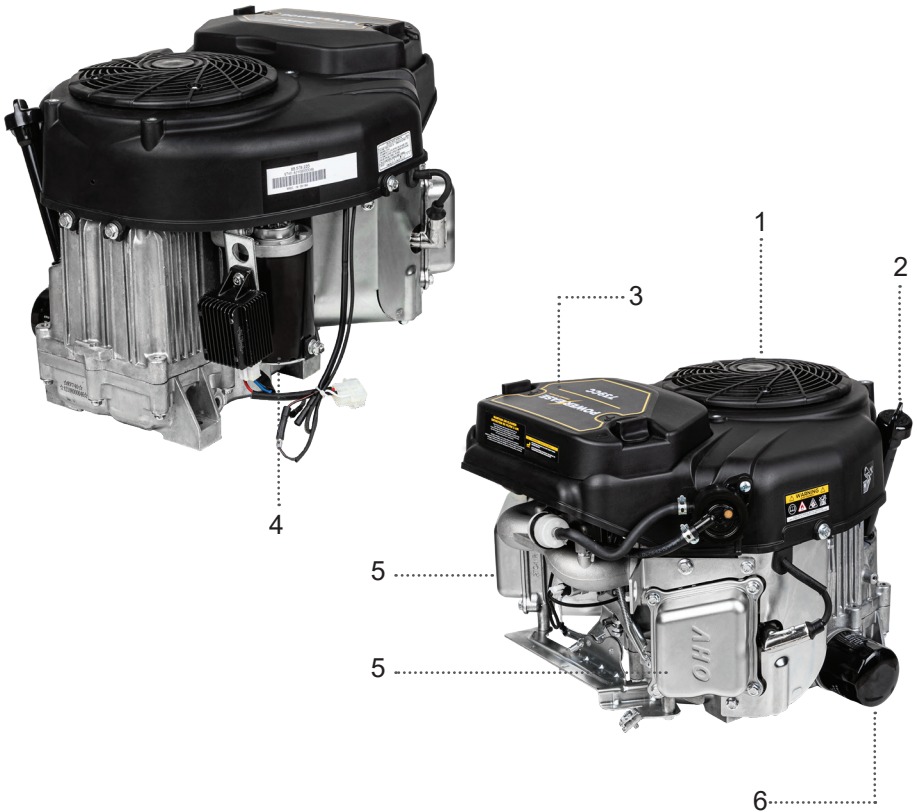
- The muffler on the engine will heat up rapidly and can cause severe burns if touched.
- Muffler exhaust will be hot and can cause burns to people and objects.
- Keep flammables away from the muffler.
- Keep at least a five-foot clearance from the exhaust to prevent damaging other surfaces such as house siding and vehicles.
- The pump will also become hot during operation and should be avoided.
- After the pressure washer has been started, **DO NOT** touch any part of the pressure washer other than the on/off switch, handle, hose and gun.

## PARTS OVERVIEW 550

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1. Dipstick
2. Air filter cover
3. Oil filter
4. Fan cover
5. OHV valve cover
6. Carburetor
7. Vertical Shaft
8. Starter Motor
9. Muffler



1. Fan cover
2. Dipstick
3. Air filter cover
4. Starter Muffler
5. OHV valve covers
6. Oil Filter



# PREOPERATION INSPECTION

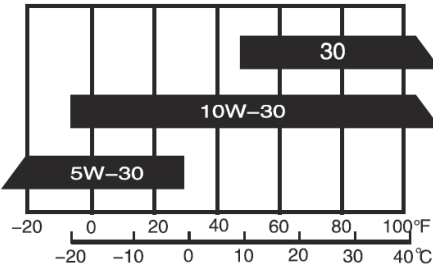
## ENGINE OIL

- Engine oil is essential for proper operation. Never use oil with additives or 2-stroke engine oil because they do not have enough lubrication and will reduce the engine service life.
- Check the oil when the engine is turned off and on level ground.
- Check the oil when the engine is warm. (Do not check engine oil for a cold engine).

ENGINE TYPE	OIL TYPE	OIL CAPACITY
Powerase 550	SAE 10W-30	1.5L / 0.4 US gal
Powerase 740	SAE 10W-30	2.0L / 0.5 US gal

## OIL CHECK METHOD

- Remove the dipstick and clean it.
- Reinsert the dipstick into the oil fill port wiout screwing it in.
- Pull out dipstick and check oil level.
- If the oil is low, add the recommended engine oil type.
- Engine oil type is temperature sensistive. Refer to below chart for different enviroments.



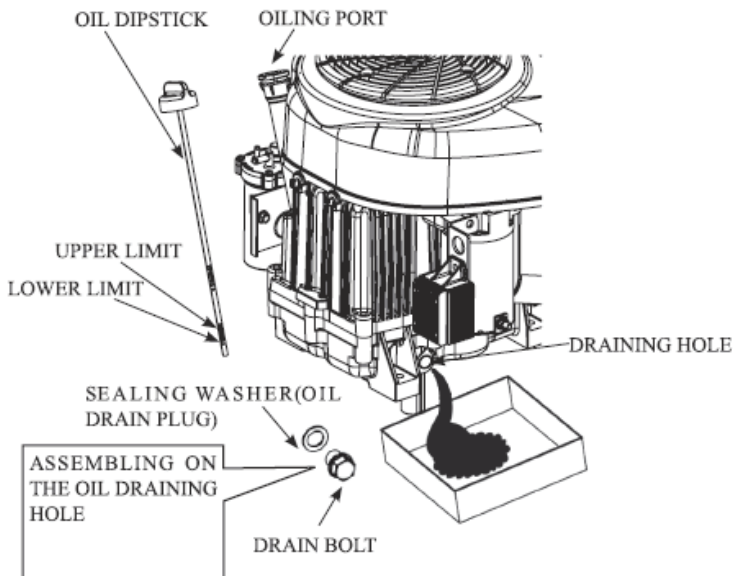
## PREOPERATION INSPECTION

### **⚠ CAUTION**

- Oil is a known carcinogenic. Avoid contact, rinse immediately.
- Dispose of oil in accordance with local regulations

### **ENGINE OIL CHANGE**

- Prepare a container to catch the old oil. Remove the oil drain plug.
- Remove the oil drain plug.
- Tilt engine to drain oil.
- Once drained, replace the oil drain plug.
- Remove the dipstick.
- Use a funnel to pour new oil into the engine. Check oil level with dipstick to ensure proper amount is in the engine.
- Replace dipstick. Dispose of used oil in accordance with local regulations.



## PREOPERATION INSPECTION

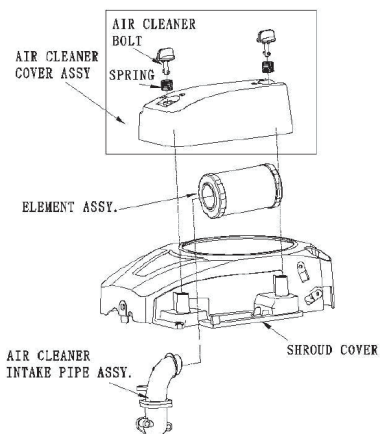
### **⚠ CAUTION**

- Never run the engine without an air cleaner. Severe wear or failure may occur.

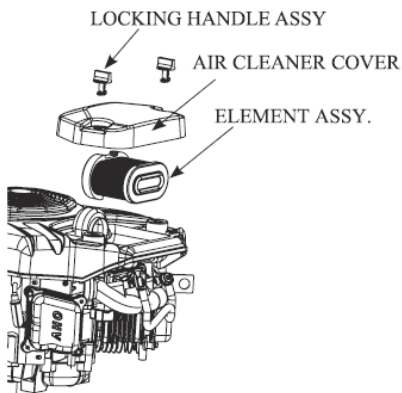
### **AIR FILTER CHECK**

- Remove the fan cover.
- Remove the filter element. Use caution to prevent dust from entering into the engine.
- Clean or replace air filter as needed.
- Reinstall the air cleaner parts.

#### 550 ENGINE



#### 740 ENGINE

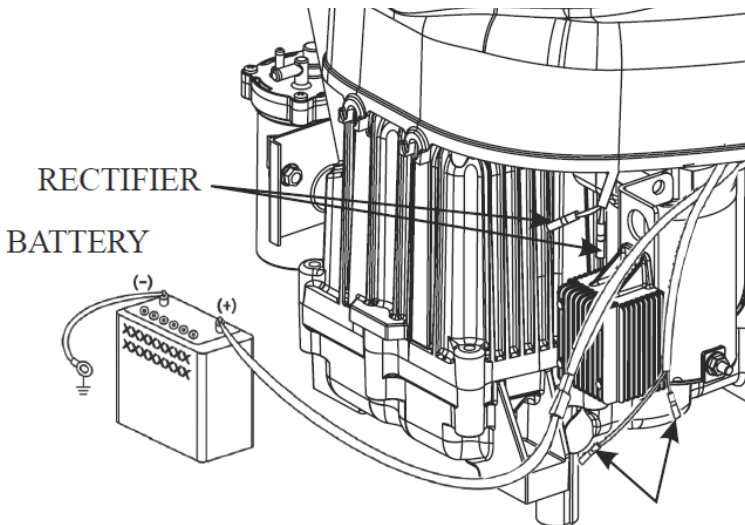


### **⚠ WARNING**

- A battery may release explosive gas. Keep sparks, flames and cigarettes away from fumes.
- A battery will contain potentially toxic chemicals or acids. Always use caution when handling a battery. Seek medical attention if you have been exposed.
- Never use a cracked, warped or otherwise damaged battery.
- Clean any rust.

### **BATTERY CONNECTION**

- Use a 12 volt battery that has more than 45 AH.
- Connect the positive lead to the start relay terminal.
- Connect the negative lead to the engine mounting screw or with a different grounding point.
- Ensure all connections are secure.



## **OPERATION PROCEDURES**

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### **START PROCEDURE**

1. Before starting the engine, check each pre-operation step previously discussed. Do not start the engine until all of those requirements have been met.
2. Activate Choke if the engine is cold.
3. Switch on the power supply and turn on the engine.
4. Once the engine has warmed up, turn off the choke.

### **STOP PROCEDURE**

5. Remove engine load.
6. Turn off engine.

## **TRANSPORTATION**

1. Never incline the engine during transport. Always keep it level.
2. Completely drain fuel out of the fuel tank and carburetor.

## **STORAGE**

1. Turn the fuel valve to the OFF/CLOSED position and remove the drain plug of the carburetor.
2. Position container to catch fuel coming out of carburetor. Turn the fuel valve to the ON/OPEN position to completely drain the fuel.
3. Reinstall the carburetor drain plug.
4. Disconnect the battery.
5. Store in a safe and dry location. Use a cover to keep dust off the engine during prolonged storage.

## MAINTENANCE SCHEDULE

Always follow the maintenance schedule to minimize damage or wear to the engine.

1. Always check for fluid leaks before starting.
2. Always check for damage or broken parts before starting.
3. Never tamper or alter parts.
4. Only use OEM replacement parts.

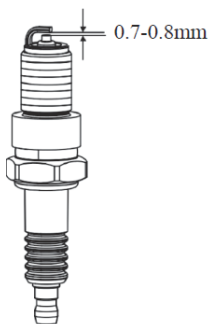
ENGINE MAINTENANCE SCHEDULE		
Engine Oil	Check	Every Use
	Replace	After the first 20 hours of operation. After every 100 hours there after. Inspection shows oil is dirty.
Air Filter	Check	Every Use.
	Replace	After the first 20 hours of operation. After every 50 hours there after. Inspection shows filter is dirty.
Spark Plug	Check	Every 6 months.
	Replace	Every 6 months or 100 hours.
Oil Filter	Check	Every oil change.
	Replace	Every oil change.
Valve Clearance	Check/adjust	Every 300 hours.*
Cylinder head	Check/clean	Every 300 hours.*
*Have serviced at an authorized service center.		

## MAINTENANCE

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### SPARK PLUG MAINTENANCE

In order to ensure the normal operation of the engine, the spark plug gap must be correct and clean of any deposits.



#### SPARK PLUG MODEL

NGK: BP5ES/BPR5ES

TORCH: F5TC/F5RTC

1. Never check the spark plug when the engine is hot.
2. Remove the spark plug cap. Clear away any dirt at the base of the spark plug.
3. Remove spark plug with a spark plug wrench.
4. Visually check the spark plug. Clean with a steel brush. If the insulator is damaged, replace the spark plug instead.
4. Measure the spark plug clearance with a feeler. The clearance should be 0.7 to 0.8mm. If adjustment is necessary, bend the side electrode carefully.
5. To avoid cross-threading, start off by screwing in the spark plug carefully by hand. Once the threads cleanly catch then use a wrench to seat the spark plug on the gasket.
6. If a new spark plug is used, give it another half turn after compressing gasket.
7. If reinstalling a the spark plug, only turn it another 1/8 to 1/4 turns after compressing the gasket.

#### **WARNING**

- The spark plug must be tightened securely or it may become very hot and damage the engine.
- Only use the recommended spark plug or the equivalent. Incorrect heat range of the spark plug may damage the engine.

## TROUBLESHOOTING

### ENGINE NOT STARTING

TROUBLE			CAUSE	REMEDY
Normal cylinder compression	Normal spark plug spark	Something wrong with the fuel system.	Fuel supply is not smooth or no fuel supply.	There is not enough fuel in fuel tank and fuel cock is closed. Fill fuel, open fuel cock.
				Air vent in the fuel filler cap is clogged. Dredge air vent.
				Fuel cock is clogged. Clean first and then dredge
				Improper or clogged main oil flow hole. Readjust or clean, blow to get through.
				Needle valve is not closed properly or start hole is clogged. Dismantle needle valve and repair, clean, blow to get through.
				Float is damaged or sticking. Repair float
		Fuel supply is normal.	Fuel is too filthy or deteriorated	Replace
			There is water in fuel.	Replace
			Too much fuel in engine	Drain extra fuel, dry up spark plug electrodes.
			Wrong fuel brand	Select proper fuel brand corresponding with the requirements.
	Normal fuel supply system.	Normal high-tension line spark.	Spark plug is in bad conditions	Too much carbon deposit and dirt around electrodes. Clear away.
				Electrodes are burn damaged seriously or insulators damaged. Replace spark plug.
				Improper electrodes gap. Adjust to proper value.
		High-tension line no spark ignition system.	Normal spark plug	High-tension line is damaged. Replace
				Ignition coil is damaged. Replace
				Magneto loses magnetism. Replace
				Piston ring is worn to or even over its wear limit. Replace
				Piston ring is broken. Replace
				Piston ring is sticking. Clear up carbon fouling.
				Spark plug is not installed tighten or without a gasket. Tighten with a gasket in.
Abnormal cylinder compression.			Air leakage between cylinder block and cylinder head.	Check cylinder gasket, and the flatness of the surface by which cylinder block contacting with cylinder head
				Tighten cylinder head bolts in stipulated order to stipulated torque.
			Air leakage in the valves	Check valve. Clearance and tightness, repair if necessary.



# TROUBLESHOOTING

## LOW ENGINE POWER

TROUBLE		CAUSE	REMEDY
When increasing throttle, speed increase slow or even decrease and stop running	Fuel supply system	Air in fuel line or fuel line clogged	Exhaust air or dredge fuel line
		Main oil flow hole is not adjusted properly	Readjust
		In carburetor, needle valve hole and main oil flow hole clogged.	Clean and blow to get through
		Fuel cock is clogged up.	Clean, replace damaged part
		Too much carbon deposit in combustng chamber.	Clear away
		Too much carbon fouling in muffler and exhaust pipe.	Clear away
		Air cleaner is clogged up.	Clean air cleaner filter element
		Intake pipe is leaking	Repair or replace
	Poor compression	Piston or cylinder or piston ring is worn	Replace the worn
		Air leakage from the surface by which cylinder block contacting with cylinder head.	Replace cylinder gasket
		Too big or too small valve clearance.	Readjust
		Valve tightness is poor.	Repair

## ENGINE RUNS ROUGH

TROUBLE	CAUSE	REMEDY
Knocking sound	Piston, cylinder or piston ring is worn excessively.	Replace the worn
	Piston pin and piston pin hole are worn excessively.	Replace piston or piston pin
	Tie rod small head is worn excessively.	Replace tie rod
	Roller bearing for crankshaft main shaft is worn.	Replace roller bearing
Abnormal combustion	Engine is too hot	Shoot trouble
	Too much carbon deposit in combustion chamber	Clear away
	Improper gasoline brand or low gasoline quality	Replace with qualified gasoline
Spark lacking	There is water in float chamber	Clean
	improper spark plug electrodes clearance	Adjust
	Incorrect ignition time	Readjust
	Something wrong with induced coil, and so on	Check and replace damaged parts

### ENGINE SUDDENLY STOPS

TROUBLE	CAUSE		REMEDY
Stop suddenly when running.	Fuel supply system	Fuel is finished	Refill fuel
		Carburetor is clogged	Check fuel line and dredge
		Float is leaking	Repair
		Needle valve is stuck	Dismantle float chamber and eliminate it
	Ignition system	Spark plug is punctured, or short-circuited by carbon deposit	Replace spark plug
		Side electrode of spark plug is dropped out	Replace spark plug
		High-tension wire is dropped out	Weld on
		Ignition coil is punctured or short-circuited	Replace ignition coil
		Parking wire is located on engine body	Find out meeting and insulate
	The other	Cylinder is seriously scored and valve dropped out	Repair or replace damaged parts

### ENGINE OVERHEATS

TROUBLE	CAUSE	REMEDY
Gasoline engine is overheat	Oil insufficient or wrong oil ratio in the gasoline	Refill engine oil
	Exhaust pipe blocked up	Clean exhaust pipe
	Shroud leaking	Repair damaged part
	Cooling fins blocked by foreign matter	Clear cooling fins
	Cooling fan is loosen and malfunction	Reinstall well
	Connection rod deformation to make piston and cylinder bushing side wear	Replace connection rod
	Cylinder or piston or piston ring is worn to make hunting between cylinder and crankcase	Replace the worn parts
	Improper adjustment of engine governor to produce speed high.	Readjust engine governor
	Crankshaft main bearing burnt out	Replace main bearing

**1. MAIN SPECIFICATION**

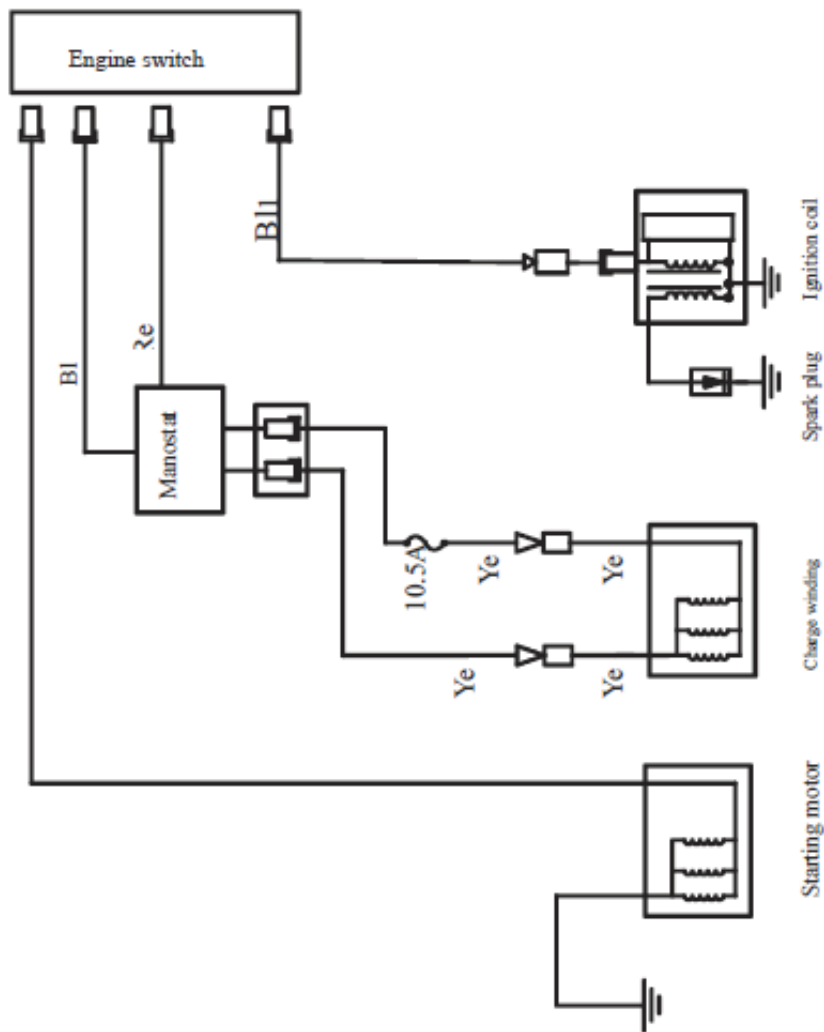
Model	550
L×W×H(not including crankshaft output terminal)	480×470×315 (WITH MUFFLER)
Dry Weight	35
Engine Type	Single cylinder horizontal, 4-stroke, (OHV)
Displacement	547
Bore × Stroke	94.5×78
Theoretical Maximum Power	12.2kw/3600r/min
Recommended Using Power	10kw/3200r/min
Maximum Torque	36.2N·m/2500r/min
Fuel Consumption	390g/kw·h
Cooling System	Forced air
Ignition System	Transistorized Magneto Ignition(TCI)
PTO Shaft Rotation	vertical shaft output

**DATA ADJUSTMENT:**

Items	Technical data	Service
Spark plug clearance	0.7~0.8mm	To see P20
Valve clearance (cold engine)	intake:0.10~0.15mm exhaust:0.15~0.20mm	to see our company authorized dealer
Igniter clearance	0.4±0.1mm	

**2. TORQUE OF IMPORTANT BOLTS:**

Items	Thread dia.	Torque value	
		N·m	Kg·m
Connection-rod bolt	M8	16	1.6
Cylinder head bolt	M10	45	4.5
Flywheel nut	M16×1.5	115	11.5
Crankcase cover bolt	M8	24	2.4
Valve clearance adjusting nut	M6	10	1.0
Valve rocker bolt	M8	24	2.4
Spark plug	M14×1.25	22	2.2



## 740 SPECS

### 1. MAIN SPECIFICATION

Model	RV740E
L×W×H(not including crankshaft output terminal)	475×448 ×365mm
Dry Weight	39kg
Engine Type	Twin cylinder V type , 4-stroke, OHV
Displacement	739.3ml
Bore × Stroke	82×70mm
Theoretical Maximum Power	17.5kw/3600r/min
Recommended Using Power	13.5kw/3150r/min
Maximum Torque	48N•m/2500r/min
Fuel Consumption	374g/kw•h
Cooling System	Forced air
Ignition System	Inductance discharge type
PTO Shaft Rotation	vertical shaft output

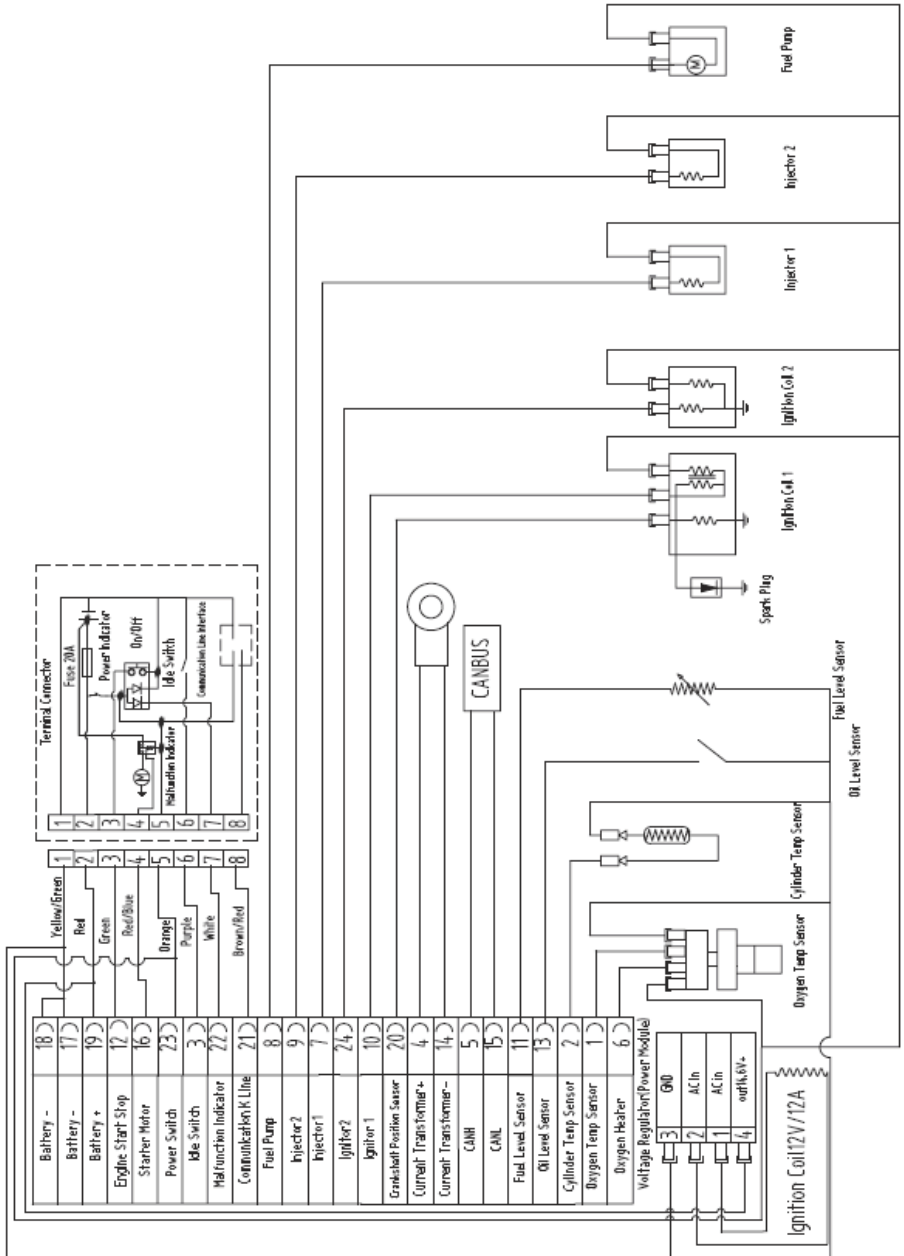
### DATA ADJUSTMENT:

Items	Technical data	Service
Spark plug clearance	0.7~0.8mm	To see P20
Valve clearance (cold engine)	intake:0.15±0.02mm exhaust:0.20±0.02mm	to see our company authorized dealer
Igniter clearance	3mm	

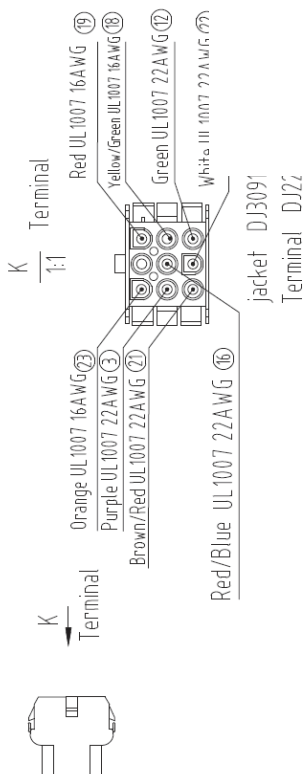
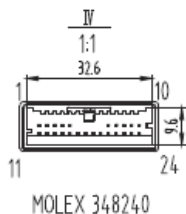
### 2. TORQUE OF IMPORTANT BOLTS:

Items	Thread dia.	Torque value	
		N•m	Kg•m
Connection-rod bolt	M6×1.25	15	1.5
Cylinder head bolt	M10	40	4.0
Flywheel nut	M14×1.5	110	11.0
Crankcase cover bolt	M8×1.5	20	2.0
Valve clearance adjusting nut	M6×0.5	10	1.0
Valve rocker bolt	M8×1.25	24	2.4

# 740 WIRING DIAGRAM



## 740 WIRING DIAGRAM



### ECU Pin definition

Battery -	18
Battery -	17
Battery +	19
Engine Start Stop	12
Starter Motor	16
Key Switch	23
Idle Switch	3
Malfunction Indicator	22
Communication K Line	21
Fuel Pump	8
Fuel Injector 2	9
Fuel Injector 1	7
Ignitor 2	24
Ignitor 1	10
Crankshaft Position Sensor	20
Current Transformer+	4
Current Transformer-	14
CANH	5
CANL	15
Fuel Level Sensor	11
Oil Level Sensor	13
Cylinder Temperature Sensor	2
Oxygen Temperature Sensor	1
Oxygen Heater	6

## WARRANTY

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Powerase warranty is managed through it's North American partner; BE Power Equipment.

Powerase warrants the original retail purchaser that our engines are free from defects in material and workmanship for the time frames set forth below. If a defect is found in a Powerase engine within the limitations outlined in this warranty statement, Powerase, at its sole discretion, will repair or replace the product free of charge.

The basic warranty coverage begins on the date of the retail purchase by the end-user. Valid proof of purchase must be presented with the warranty claim.

This warranty is limited to defects that occurred during regular operational use. This warranty does not cover failures due to lack of service, negligence, abuse or misuse. Including, but not limited to, freezing damage, alterations, chemical deterioration, scale build-up, rust, corrosion, thermal shock, thermal expansion, transportation damage, oil changes, valve adjustments, fuel system maintenance or using incorrect repair parts. Furthermore, Using the wrong fuel, water or power supply is considered a form of misuse.

This warranty also does not cover normal wearing items such as O-rings, valves, seals, filters, sparkplugs or packings. These are considered to be maintenance items.

Powerase expressly disclaims liability for injuries to persons or property or for incidental damages, rental loss, time loss, transportation costs, or consequential damages. It is the buyer's responsibility to ensure the correct installation and application of the product purchased.

THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR FITNESS FOR A PARTICULAR PURPOSE. Powerase does not authorize any of its dealers, service centers, agents, employees or any other party to expand, extend or modify the scope of this warranty in any manner on behalf of Powerase.

To obtain warranty, the claimant must take the product, with their original proof of purchase, to an authorized BE Power Equipment service center. These service centers are located on the website:

<https://www.bepowerequipment.com/service-centers>

If you cannot resolve the warranty claim satisfactorily, contact the BE Power Equipment Warranty Department (1-866-850-6662). Be prepared with details of the defect, proof of purchase, model, and the product serial number.

Time Frames

Basic Warranty: 2 YEARS

Registered Warranty: 5 YEARS



# WARRANTY

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[illegible]

[illegible]

**DO NOT RETURN THIS PRODUCT TO THE RETAILER**  
**CONTACT OUR CUSTOMER SERVICE** if you need assistance  
with the assembly, operation, or if you experience a problem with your  
pressure washer, please call 1-866-850-6662  
Monday - Friday. 8AM to 430PM PST.

**NE RENVOYEZ PAS CE PRODUIT AU DÉTAILLANT, CONTACTEZ**  
**NOTRE SERVICE À LA CLIENTÈLE** si vous avez besoin d'aide pour  
l'assemblage, le fonctionnement ou si vous rencontrez un problème avec  
votre nettoyeur haute pression, veuillez appeler le 1-866-850-6662  
Lundi à Vendredi. De 8h à 430h PST.

**NO DEVUELVA ESTE PRODUCTO AL MINORISTA**  
**COMUNÍQUESE CON NUESTRO SERVICIO DE ATENCIÓN AL**  
**CLIENTE** si necesita ayuda con el ensamblaje, el funcionamiento o si  
tiene algún problema con su hidrolimpiadora, llame al 1-866-850-6662  
Lunes a Viernes, de 8AM a 430PM PST.

# OPERATOR's MANUAL

MANUEL D'UTILISATION DU LAVEUSES À PRESSION  
MANUAL DEL OPERADOR DE LA LAVADORA A PRESIÓN