

AmeriTechTM

Pressure Cleaning Systems, Inc.

READ

**Before
Operating
Pressure
Washer**



Read this manual completely before operating your pressure washer. This manual contains safety warnings to prevent possible injury to the user or others. Restrict the use of your pressure washer to users who have read, understand, and can follow operating instructions, precautions, and all safety rules.

800-292-9340

Important Information to Record

KEEP A COPY OF YOUR INVOICE WITH THIS BOOKLET

- Date of Purchase _____
- Invoice # _____
- Pressure Cleaner:
 - Model # _____
 - Serial # _____
 - Pump Serial # _____
 - Engine Serial # _____
 - Nozzle Size _____

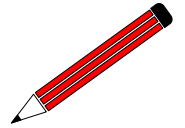


Table Of Contents

1	Most Important Safety Precautions
2	Safety Warnings
3	Nozzle Selection
4	Hook-Up Basics
5	Starting Engine
6	Shut-Down Procedures
7-9	Troubleshooting
10	Pump Maintenance
11	Engine Maintenance
12	Electric Pressure Cleaners
13	Warranty Information
14	Ameritech Contact Information

MOST IMPORTANT SAFETY PRECAUTIONS



High pressure spray can cause serious injury. Never point or aim the gun/wand at yourself or anyone else. Never put your hand, fingers and/or body directly in front of spray tip.



Always wear safety glasses or goggles when operating pressure cleaner or performing routine maintenance.



Dress safely in long pants and wear boots or shoes. Gloves are advisable when using chemicals, cleaning detergents or other corrosive or abrasive substances including bleach. Know what chemicals you are using and read precautions. If skin is hit by sprayed chemical, contact a physician immediately or contact the National Poison Control Network @ 800-962-1253



Never add gasoline to pressure cleaner while it is running. Stop engine & let cool for at least 2-3 minutes before filling with gasoline.



Keep children, pets, and bystanders a safe distance away from your work area. A minimum of 50 feet is recommended.



Caution must be used after you shut off the machine. There is high pressure trapped in the pump, hose and gun/wand. You must release the pressure by pulling the trigger on the gun. This will allow quick connects to release hose and gun.



Water spray must never be directed towards any electric wiring or directly towards an electric pressure cleaner unit or fatal electric shock may occur.



Never operate gas unit in an enclosed area. Always operate this or any gas engine in a well ventilated area. Failure to do so could result in serious injury or death.

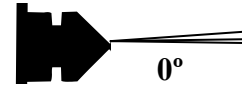
Safety Warnings



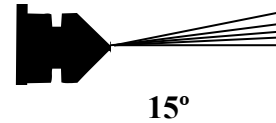
- Do not allow hose to come into contact with hot muffler.
- Use only the nozzles supplied with this machine
- Flush out all hoses and turn on the water supply to the pump before starting machine, or serious damage to the pump will result.
- Sufficient water supply must be supplied to the pump at all times.
- Never leave the wand unattended while the machine is running.
- Never tie knots or kink the high pressure hose as damage could result.
- Prior to starting the pressure cleaner in cold weather, be sure ice has not formed in any part of the equipment.
- Avoid extending the hose across traffic areas while using the cleaner and never leave the hose where it may be run over by vehicles of any type.
- Never pull on the hose to move the machine.
- Never pull the hose around a tight corner or force it into a small loop. The wire braid hose used on all models has a minimum bend radius of 5" and should not be forced into any small bend.
- When lifting or transporting pressure cleaner, secure and lift with caution. Muffler area may be hot.
- Never permanently secure or lock the trigger gun mechanism in the pullback (open) position.
- Never operate machine without ALL quick connects or other components properly connected to the machine.
- Never adjust unloader. The pressure is factory preset and should never be tampered with.
- Never smoke near this equipment.
- Never bypass manufacturer's design or any safety device on this machine. Use only the high pressure hose provided with this machine.
- Never operate machine with broken or missing parts, or without protective housing and/or covers.
- Never operate or store machine on unstable surface.
- Always hold gun/wand assembly firmly when starting and operating the machine.
- Always use both hands when operating pressure cleaner to maintain complete control of the wand.
- Check the pressure cleaner periodically for leaks (water, oil, or gas) or signs of deterioration.
- Always avoid contacting the skin with uninsulated parts of the equipment when using a hot water pressure cleaner.
- Keep the pressure cleaner clean and free of oil, mud, and other foreign matter.
- Store the pressure cleaner in a well ventilated area. If the pressure cleaner is to be stored for a long duration, store with the fuel tank empty and carburetor empty. An additive to the fuel may help keep the carburetor clean. Fuel should not be stored near the pressure cleaner.
- Clean up spilled soap, fuel, or oil immediately to avoid falls.
- Keep clutter out of the work area to avoid falls.

Nozzle Selection

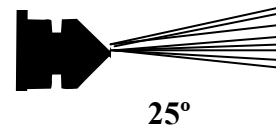
Nozzles



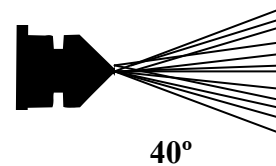
- Removing mud from construction, farm, or lawn equipment
- Cleaning tar, glue, or stains from concrete
- Removing excess mortar from masonry
- Cleaning overhead areas



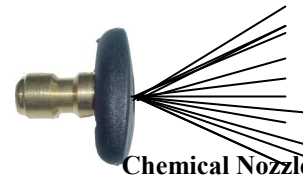
- Removing paint from wood, masonry, or metal
- Removing grease or dirt from equipment
- Removing heavy mildew stains
- Removing algae build-up from pool areas



- General cleaning of dirt, mud, and grime
- Cleaning roofs, gutters, and downspouts
- Removing light mildew stains
- Removing algae build-up from pool areas
- Rinsing surfaces in preparation for painting



- Light cleaning
- Washing and rinsing of automobiles and boats
- Cleaning roofs, windows, patios, and drive-ways

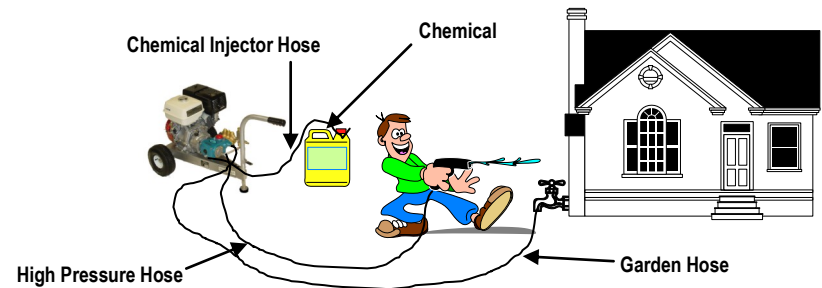


Chemical Nozzle

- To be used with the chemical injector
- This is the only nozzle that will siphon chemical

Spray nozzles can be identified by the nozzle number, a four or five digit number that is stamped on the nozzle, which indicates the spray angle and orifice size. The first two digits indicate the spray angle 0°, 15°, 25°, 40° as shown above. The last two digits indicate the orifice size. Each machine requires a specific orifice size. This orifice size is considered the “number” nozzle you need to use with your machine. **Example 2504** would be a 25° #4 nozzle. Remember your nozzle # when ordering new nozzles.

Hook-Up Basics



A. Before Operating Pressure Cleaner

1. Locate machine in well-ventilated area on level surface.
2. Check oil level in engine, pump, and gear-box depending on your model. See maintenance schedule for specific information.
3. Be sure to check all quick connects to be sure they are all in the locked position.
4. Fill the fuel tank .

B. Before Starting Pressure Cleaner

1. Flush garden hose **BEFORE** hooking it up. This removes debris from the hose.
2. Connect 5/8" or 3/4" garden hose to machine inlet.
3. Connect high pressure hose to machine outlet with quick coupler.
4. Connect control gun to high pressure hose with quick coupler.
5. Turn water supply on. If this is not done it will **DAMAGE** the pump.
6. Pull trigger for 3 minutes to flush out air pockets from high pressure hose and pump.
7. Connect wand extension to control gun with quick couplers and choose nozzle. See nozzle selection guide.

C. Chemical Usage

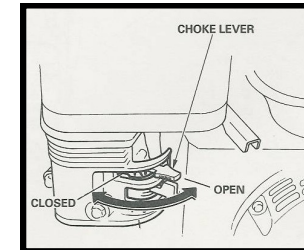
1. If chemical is needed, connect inline chemical injector between machine outlet and high pressure discharge hose with quick coupler. Insert pick-up tube into chemical container such as bleach or all purpose cleaner.
2. Remember that you must have the **CHEMICAL NOZZLE** in the end of the gun in order to pull chemical through the injector, however, you may switch back & forth from any high pressure nozzle at any time. It is not necessary to remove pick-up tube from the chemical to stop the flow of chemical. Changing to any high pressure nozzle will stop the flow of chemical. The injector will automatically dilute the chemical either 5 to 1 or 10 to 1.

Starting Engine

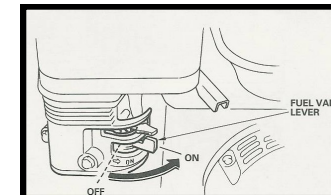
MAKE SURE WATER IS TURNED ON BEFORE STARTING!

D. Starting Engine (Refer to Engine Booklet for more details)

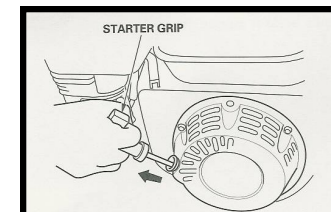
1. Close choke for cold starting.



2. Move the fuel valve lever to the ON position.



3. Pull the starter rope. Adjust throttle about 1/3 of the way toward the FAST position. Put choke on the open position.



4. Never let engine run more than 1-3 minutes without pulling the trigger on the gun to let cool water into the pump, unless your pressure cleaner is equipped with a thermal valve.

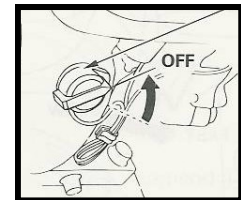
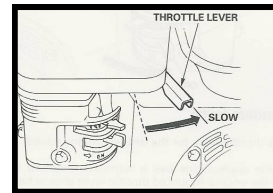
Shut-Down Procedures

E. Flushing out Chemical Injector

1. The chemical injector **must be flushed out after each use** or corrosion will cause the injector to fail.
2. When you have completed pressure cleaning for the day, insert the chemical pick up tube into a clean gallon of water. Make sure that the black chemical nozzle is in the end of your gun or wand. With the pressure cleaner running, pull the trigger and flush the injector out for 2-3 minutes. This will greatly lengthen the life of the injector system.

F. Shutting-Down Engine *(See Engine Booklet for more Details)*

1. Let engine idle for 30-45 seconds with control gun closed.
2. Stop engine by moving the throttle lever to slow and then turn the engine switch to the OFF position.



G. Completion & Storage

1. Turn off water supply and disconnect garden hose.
2. Open control gun to allow pressure and water to escape **BEFORE** disconnecting control gun or high pressure hose.
3. For long periods of non-use drain gasoline from fuel tank, fuel line, fuel valve and carburetor or add a gas treatment such as STA-BIL or Sea Foam.
4. Protect from freezing temperatures. If you must store your pressure cleaner where the temperature is below 32°, drain water from pump and add antifreeze by tipping the unit on its side, insert a funnel into the inlet, and pour in approximately 2 cups of antifreeze.
5. Disconnect spark plug wire.
6. Without connecting garden hose, pull the recoil several times to circulate the antifreeze in the pump system. Continue to add antifreeze and pull the recoil until the antifreeze is expelled when the trigger is pulled. The antifreeze will serve as a rust preventative during storage and help prevent the valves from sticking.



Troubleshooting



Engine won't start ...

No Fuel	Check & fill.
Spark Plug	Replace. <i>(BPR6ES)</i>
Oil Level Low	Check & fill. <i>(30 w detergent)</i>

Engine shuts down ...

No Fuel	Check & fill.
Oil Level Low	Check & fill.

Pump running normally, but does not come up to pressure ...

Water supply re- stricted	Check water supply and filter screen for blockage. Check hoses for blockage, kinks, leaks, etc.
Pump sucking air	Check that hoses and fittings are air tight.
Nozzle incorrect or worn	Check & replace.
Worn piston packing	Check & replace. <i>Refer to pump manual</i>
Adjustable nozzle in low PSI position	Turn to high PSI position.
Unloader Problem	Call for assistance.

Quick connects ...

Will not release	Pull trigger on gun to relieve pressure
Hard to uncouple	<i>Lubricate with white lithium grease. Do not use WD-40</i>

Control gun...

Dripping water from end	Put a repair kit in it. If gun continues to leak, the unloader valve will wear out prematurely.
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Troubleshooting



Excessive vibration in pump ...

Air in water supply	Check all connections. Make sure they are tight.
Insufficient Water Supply	Make sure water is turned on & that you have sufficient GPM.
Clogged garden hose filter	Clean out garden hose filter near spigot and machine.
Clogged or damaged nozzle	Unclog nozzle or replace nozzle.
Dirt in pump valves	Check, clean, or replace

Fluctuations or pulsations ...

Air in water supply	Check all connections. Make sure they are tight.
Incorrect fuel or bad fuel	Check fuel.
Bad spark plug	Check & replace.
Excessive pump pressure causing engine overload	Check unloader valve.
Dirt in pump valves	Refer to Pump Manual. Check, clean or replace.

Presence of water in pump oil (milky) ...

Piston packing & low pressure seal worn	Refer to Pump Manual. Check & replace.
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Control gun leaking water....

Control Gun needs a gun kit	Order a gun kit item #1009856 (also called a unitized valve)
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Troubleshooting



Water dripping from pump ...

Piston packing worn	Check & replace.
O rings of piston guide or retainer worn	Check & replace.
Fittings loose.	Check & tighten.
Thermal Relief Valve Opens (more than a drip)	This is designed to open and release hot water from the pump allowing cold water to enter pump if the trigger gun has not been pulled for a period of time. This prevents seal failure in your pump. Some pressure cleaners do not have this feature. It is important to have this feature.

Oil dripping from pump ...

Oil level is too high	Drain level to center of sight glass
Oil seal is worn	Check & replace.
Sight glass is loose	Tighten sight glass.

Water dripping from quick connects ...

O ring is damaged or missing	Check & replace.
Thread tape missing	Check & replace.

Engine recoil hard to pull ...

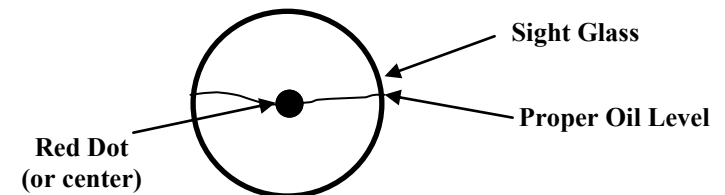
Pressure built up in system.	Squeeze trigger to relieve pressure.
Engine Oil Level Low	Check & Fill Engine Oil (30 w detergent)

Pump Maintenance

***DO NOT START MACHINE WITHOUT
FIRST TURNING ON THE WATER!***






FLUSH ALL HOSES BEFORE USING!

Before running your pressure cleaner, check the pump oil level by viewing the sight glass on the end of the pump. When properly filled, the pump oil level will be to the center of the red dot, (or center of sight glass) when on a level surface.



Do not overfill your pump. Add a 30 weight non-detergent oil.

Oil should be changed after first (25) hours of operation, with subsequent changes every forty to eighty (100) hours. To drain oil, simply remove the oil plug from the under carriage or back drain plug of the pump using a crescent wrench. If the pump oil begins to look “milky” you are getting water into the oil and it must be changed immediately to avoid damage to the pump’s crankcase. Water intrusion can take place when a pump’s packing seals are worn.

TYPE OF PUMP	TYPE OF OIL	WHEN TO CHANGE	IF PUMP HAS GEAR BOX
	CAT OIL OR 30 W NON-DET	100 HRS	80-90 W GEAR OIL
	COMET OIL OR 30 W NON-DET	100 HRS	80-90 W GEAR OIL
	GENERAL OIL OR 30 W NON-DET	100 HRS	80-90 W GEAR OIL
	15/50 SYNTHETIC OIL Or 30 W NON-DET	100 HRS	80-90 W GEAR OIL
	30 W NON-DETERGENT	100 HRS	80-90 W GEAR OIL

Engine Maintenance

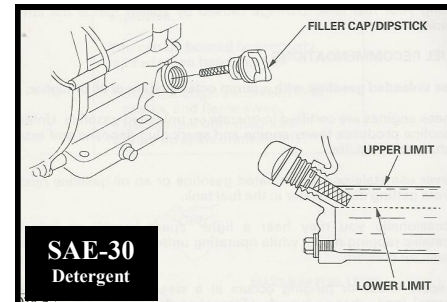
Engine Oil Recommendations

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil. SAE-30 is recommended for general use.

See your engine manual for more specific information.

Check the engine oil when the engine is stopped and in a level position.

- Remove the filler cap/dipstick and wipe it clean.
- Insert and remove dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
- If the oil level is low, fill to the edge of the oil filler hole.
- Screw the filler cap/dipstick securely.






**RUNNING THE ENGINE WITH
A LOW OIL LEVEL CAN CAUSE
ENGINE DAMAGE!**

**Never rely on oil alert!
Check oil with each use!**

Refer to engine manual on how to change oil.

Basic Maintenance Schedule

See Your Engine Booklet for More Detailed Information	Check Each Use	Change
 Oil	X	Every 3 months or 50 hours
 Air Filter	X	Every 3 months or 50 hours
 Spark Plug	X	Every year or 300 hours

Electric Pressure Cleaners

The Electric Pressure Cleaner comes with a Ground Fault Circuit Interrupter (G.F.C.I.). This device is designed to protect you from electric shock by turning the pressure cleaner off .

If the G.F.C.I. fails to trip when the test button is pressed or fails to reset, the G.F.C.I. is defective and should be returned for replacement. Test your G.F.C.I. before each use.



Test Button

G.F.C.I.

Do not bypass the G.F.C.I. If the G.F.C.I. is bypassed, a shock hazard may exist.

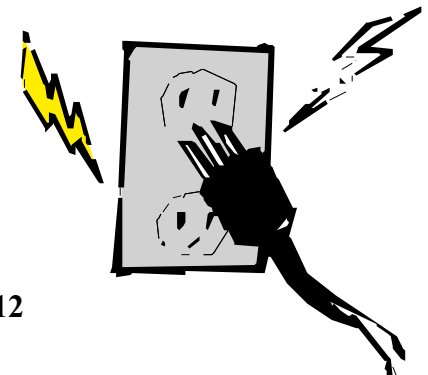
It is always desirable to use a 3 wire grounded receptacle because a ground provides additional protection against electrical shock hazard.

Do not use the electric pressure cleaner with an extension cord.

Do not use the electric pressure cleaner if any part of the cord or the G.F.C.I. unit is damaged.

The pump on the electric pressure cleaner requires the same maintenance as the gasoline powered unit.

The electric motor requires no maintenance.



Warranty Information

Ameritech Pressure Cleaning Systems will replace upon examination by the factory or an authorized agent, any parts found to be defective in material or workmanship free of charge. All transportation and freight charges incurred in shipping a defective pressure cleaner or part to the factory or authorized agent shall be paid by the claimant (buyer).

Warranty shall not apply to any unit or part damaged due to normal wear, alteration, misuse, misapplication or operated in a manner not recommended by Ameritech Pressure Cleaning Systems. Equipment damaged or worn because of the use of caustic materials or the operation in abrasive or corrosive environments or under any conditions which causes cavitation (low water pressure) will also void warranty.









Ameritech Pressure Cleaning Systems' responsibility is to repair or replace defective parts only. We will not be responsible for loss of use of the unit, loss of rental, inconvenience or consequential damages. This warranty is in lieu of all other warranties, expressed or implied.

The user shall determine the suitability of the product for its intended use prior to placing the unit in service. Said user assumes all risk and liability in connection with determining the suitability of the unit for its particular use. Neither the seller nor the manufacturer shall be liable for any injury, loss or damage arising out of the improper use of equipment.

The following items (normal wear parts) are covered for ninety (90) days from the date of purchase:

Unloaders High Pressure Hoses Trigger Guns G.F.C.I. Plugs	Wheels Turbo Nozzles Wands	Quick Couplings Ball Valves Chemical Injectors Safety Switches
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The following components have warranties as follows:

Component	Warranty	Component	Warranty
	5 Years (On Most Models)		2 Years (On Most Models)
	5 Years (On Most Models)		1 Years (On Most Models)
	2 Years (On Most Models)		Up to lifetime (Each model varies)
	2 Years (On Most Models)		Lifetime