

CROMMELINS™ PRESSURE CLEANERS

OPERATION & INSTRUCTION MANUAL

Thank you for your selection of a CROMMELINS™ Pressure Cleaner.
This Operation Manual explains its use, installation, checking and maintenance.
We highly recommend that you retain this manual for ready reference regarding
proper handling of the CROMMELINS™ Pressure Cleaner.



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Thank you very much for purchasing a CROMMELINS™PRESSURE CLEANER.
 This manual covers operation and maintenance of the CROMMELINS™PRESSURE CLEANER. This CROMMELINS™PRESSURE CLEANER can be used in the agricultural, mining, construction, hire industries and general use.

Please take a moment to familiarise yourself with the proper operation and maintenance procedures in order to maximise the safe and efficient use of this product.

Keep this owner’s manual at hand, so that you can refer to it at anytime.
 Due to constant efforts to improve our products, certain procedures and specifications are subject to change without notice.

When ordering spare parts please have handy your products model number and serial number. Record these numbers in the boxes below for future reference.

MODEL NO.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SERIAL NO.

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SAFETY INSTRUCTIONS

WARNING! High pressure spray can cause serious injury. This product must be used **ONLY** by personnel that have been instructed in the safe use of this machine. Observe all warnings when you operate, maintain and repair the pressure cleaner.

To prevent injury wear the following protective items: Gloves, hard hat, mask, work boots, ear plugs, safety glasses and any other protective item required by job conditions.



INJECTION HAZARD: Fluids under high pressure from spray or leaks can penetrate the skin and cause extremely serious injury, including death or the need for amputation. You must observe these precautions:

- **NEVER** point the spray gun at people, animals or plants.
- **NEVER** put your hand or fingers over the spray tip.
- **NEVER** try to stop or deflect leaks with your hand or body.
- **NEVER** purchase and use chemicals or detergents that are toxic, flammable, or high acidic/alkaline base, and always request a material safety data sheet (MSDS) for the product your are purchasing.
Never use a powder type detergent or chemical that is not manufactured for pressure washer use, i.e. dish detergent, laundry soap.

General Warnings

- Seek emergency medical treatment at once if any fluid seems to penetrate your skin even if the wound does not appear serious, tell the doctor exactly what fluid was injected and give him the material safety sheet for the detergent or chemical product used.
- Understand ALL the information in this section before you begin to use the pressure cleaner.
- Be sure that all system components and accessory items are original equipment, using other accessories voids any warranty offered by the manufacturer.
- Be sure that the machine is properly located for safe operation.
- **NEVER** alter or modify the pressure cleaner as personal injury or death could result to humans, animals or plants, and voids any warranty offered by the manufacturer.
- **NEVER** locate the equipment near combustible materials, combustible fumes, or dust, as personal injury or death could result from fire or explosion.

SAFETY INSTRUCTIONS

- NEVER attempt any repairs or maintenance with the engine running or the pump and gun primed.
- NEVER spray flammable liquids, toxic chemicals (such as insecticide or weed killer) as personal injury or death could result from fire, explosion, or poisoning while damaging the environment.
- NEVER allow children or untrained adults to operate the machine.
- NEVER wear loose clothing or place hands on engine or pump, keep your body and clothing clear of moving parts when the machine is running.
- NEVER leave the pressure cleaner unattended once you have started it. If you must leave, follow complete shutdown instructions to prevent unauthorized and untrained personnel from operating the machine.
- NEVER move the machine by pulling the hose.
- NEVER put any type of trigger lock onto the gun.
- NEVER allow children or animals around your working area.
- ALWAYS face nozzle and wand to the ground when testing.
- NEVER exceed the pressure rating of the unit's recommended pressure.
- NEVER change quick couplers with the nozzle under pressure and without the gun safety in the "on" or "lock" position.
- NEVER run the machine without water, this will damage the pump and void warranty.

Location Warnings

- The machine must be at or near the working area and always under trained operator supervision.
- The machine should be located as close as possible to the water supply.
- Locate the machine on a solid and level surface so that engine and pump crankcase oil lubricate components properly. Avoid areas where water can build up in the working area as possible injury can occur caused by the surface becoming slippery from water build up.
- Locate the machine in a well ventilated area and away from flammable materials or fumes. Be sure ventilation WARNINGS are observed. Keep pressure cleaner away from flammable materials.
- Locate the machine so the operator has easy access to the pressure cleaner and its controls.
- Locate the machine so that it is protected from external damage.
- To prevent excessive hose damage, locate the pressure washer so that the hose does not cross traffic areas.

ENGINE PRECAUTIONS

WARNING!!! Read engine owners/operators manual before using or attempting to service this machine. A fire or explosion can occur resulting in personal injury if the following instructions are not followed:

- DO NOT fill fuel tank while engine is running. Allow engine to cool before refuelling.
- DO NOT operate the engine when an odour of fuel is present, or other explosive conditions exist.
- IF FUEL IS SPILT, move the machine away from the area of the spill and avoid creating any source of ignition until the fuel has been removed.
- DO NOT store, spill, or use fuel near an open flame or devices such as a stove, furnace, water heater which utilize a pilot light, or devices which can create a spark.
- RE-FUEL OUTDOORS or in well ventilated area.
- DO NOT operate engine if the air cleaner or cover directly over the carburettor air intake is removed.
- DO NOT choke the carburettor to stop the engine.
- DO NOT tamper with the governor springs, governor links or other parts which may increase the governed engine speed.
- DO NOT tamper with the engine speed selected by the original equipment manufacturer.
- **CAUTION!!!** DO NOT run at excessive speeds. Operating the engine at excessive speeds increases the danger of personal injury.
- DO NOT touch hot mufflers, cylinders or fins, as contact may cause burns.

PRESSURE PUMP PRECAUTIONS

- NEVER allow the pump to run for more than a 3 minute period without opening the gun. (This will cause pump damage due to excessive water temperature and void the warranty)
- NEVER let the pump run when the machine is not connected to the water supply.
- NEVER run acid or hard caustics through the pump.
- Never use chemicals or agents which are not compatible with the Buna-N and PVC (polyvinyl) or neoprene covering of the hose. (Always use citrus based detergents.)
- Never use hot water through the pump.
- Check for leaks, tighten connections if necessary. Machine must be turned off and pressure released from pump and gun.

PRE-OPERATION CHECK LIST

- Be sure you understand all the safety precautions and have been instructed in the safe use of the machine.
- Wear face, feet and eye protection to prevent injury from spray and flying debris.
- Wear protective gloves, rubber boots, and other protective clothing as required.
- Understand all safety precautions and first aid for any detergent or chemical being used.
- Check that all lines and hoses are not kinked, twisted or damaged. Replace any damaged hose.
- Check that the machine is connected to a water supply and that the water supply is on.
- Tighten all fluid connections securely.
- Check that oil and fuel levels are at the correct levels before operating.
- Before starting machine, be sure pump is primed and air is purged from the system by allowing water to flow through the pump.

SET-UP & USE

Follow these instructions for set-up and use of your high pressure cleaner.

1. Position the machine on a solid level surface with slopes for drainage to prevent water build-up on the floor or surface. Position the machine so that the operator has easy access to the pressure cleaner and its controls. Be sure ventilation WARNINGS are observed.
2. Check and determine that the water supply source is capable of exceeding the output in litres per minute of the pump. If you are drawing water from a clean static source, rather than a pressure main, the pressure cleaner must be primed and placed as close as possible to the water source. Be sure the machine is placed on a solid level surface and cannot be pulled or bumped into the static source, and the intake hose used must be as large as possible. When drawing water from a pressure source, you need a hose with 16mm or 5/8" outside diameter.
3. Connect the high pressure hose to the pressure washer and tighten securely.

OPERATION INSTRUCTIONS

WARNING!!! High pressure spray, improperly used could damage the equipment you wish to clean or the surrounding environment. Practice on scrap materials, gradually increasing pressure applied to the object by adjusting the nozzle or moving the nozzle closer to the object until it is cleaned without being damaged.

The manufacturer does not accept responsibility for damage caused by the consumer's failure to adjust or operate the machine in accordance with the instruction provided in the owner manual supplied with the machine.

OPERATION INSTRUCTIONS

Follow these instructions to operate the machine:

1. Use the pre-operation checklist to help avoid personal injury.
2. Prime the pump and purge air from the system by squeezing the gun trigger before starting the machine, with the unit attached to a pressure main. Let the water flow from the wand until air is purged from system.
3. Turn the engine fuel valve to ON.
4. Close choke lever located on engine carburettor as per engine manufacturer instructions.
5. Turn engine switch to ON.
6. Set engine throttle lever position to half throttle - pull starter cord to start engine.
7. For easier starting, squeeze the trigger on the spray gun allowing water to pass through gun and pull the engine starter handle.
8. As engine begins to warm up, gradually move the choke lever to open.
9. Set the engine throttle lever position to full throttle.
10. The manufacturer has adjusted the pump pressure to its maximum operating pressure. Simply adjust the pressure required for cleaning with a selected nozzle from the quick connect nozzle set.
Change nozzles to desired spray pattern (0°,15°, 40°) or BLACK detergent nozzle. DO THIS ONLY WHEN THE TRIGGER IS NOT SQUEEZED AND THE GUN SAFETY LOCK IS ON.
11. You are now ready to start cleaning with your pressure cleaner. Hold the spray gun firmly and squeeze the trigger. CAUTION: NEVER POINT THE SPRAY GUN AT PEOPLE, ANIMALS OR PLANTS. Always begin high pressure cleaning with the nozzle at least 1 metre from the object being cleaned and gradually move the nozzle closer to the object until it is cleaned.
12. To draw chemical/detergent, be sure the pick-up tube is installed into the chemical/detergent container with the tube submerged in the solution. Change quick connection nozzle to the detergent nozzle and squeeze the gun trigger. The detergent will be drawn up and out of the lance. When the object is covered replace the detergent nozzle with a high pressure one.
13. Never allow the pump to run for more than a 3 minute period without opening the gun. This will cause the pump damage due to excessive water temperature and void the warranty. (A thermal relief valve has been added to the pump to reduce the possibility of overheating, however, malfunction of this device does not constitute pump warranty for damage caused by overheating.)
14. As you operate the machine, be sure the water inlet supply hose does not become kinked.
15. The maximum engine RPM has been set by the manufacturer. Tampering with the engine governor will void pump warranty.
16. Do not exceed the manufacturer's maximum pressure by increasing the unloader adjustment. (This will void pump warranty.)

SHUTDOWN INSTRUCTIONS

1. Make sure the gun is closed, reduce the engine speed to half rev's and turn the engine switch to OFF and turn the fuel valve to OFF.
2. Pull the gun trigger to release any built up pressure (make sure you do not spray people or objects.) Turn off the water supply and remove the water supply hose from the pump.
3. Disconnect the pressure hose from the pump and gun and store on the hooks provided on the trolley.
4. For safety and your liability protection, remove high pressure hose and store gun/wand in a secure place with this manual to eliminate possibility of unauthorized and untrained personnel from operating the machine.

CHECK & MAINTENANCE

Daily Checks

Regular inspection of your pressure cleaner is the key to prolonging its life. Follow these simple daily checks. This must be done with the engine OFF.

1. Check air filter for dirt and clean or replace as required. Refer to engine owner manual.
2. Check engine oil level. (Dipstick is attached to inside of oil cap.) Refer engine owner manual.
3. Check engine fuel level.
4. Check high pressure hose for kinks, twists or damage. Replace any damaged hose.
5. Check that the pump oil level is within operation range on the pump dipstick (model CPV2700X21) Model CPV2700X17 has a sealed oil filled gearbox and must be refilled by service dealer.
6. Check that the water supply is adequate for your machine.
7. Check water inlet filter (situated behind the water inlet connector) remove with long nose pliers and clean when as necessary.

Preventative Maintenance

Change pump oil after first 50 hours of use or first season, then every 300 hours or as needed. Please use SAE30 Universal Pump Oil and follow the below steps:

1. Un-thread the oil cap on the top of the pump; model CPV2700X21 ONLY.
2. Put a container under the pump then unscrew the drain plug on the bottom of the pump;
3. After oil drains away completely, screw the drain plug into the drain hole again, make sure the o-ring is with the plug.
4. Refill pump oil via the top hole of the pump until the oil level is to the top of the oil dipstick level indicator.
5. Screw on the oil cap.

N.B. Dispose of used oils as per your local environmental disposal by laws.

CPV SERIES PETROL SPECIFICATION CHART

MODEL	CPV2700X17	CPV2700X21
Pressure PSI max	2700	2700
Bar (max)	180	180
Water Flow (L/min max)	9.5L	11.4L
Water Flow (L/hr max)	570L	684L
Water Pump	Axial	Triplex
Fuel Type	Petrol	Petrol
Engine Make	Subaru	Subaru
Engine	6.0hp EX17	7.0hp EX21
Starting System	Recoil Start	Recoil Start
Fuel Tank (L)	3.6L	3.6L
Noise Level db@7m	66.0	68.0
Lance & Spray Gun	Single Lance HD Gun	Single Lance HD Gun
Nozzles	0° /15° /40°/ detergent	0° /15° /40°/ detergent
Hose Type & Length	7.5m HD Braided Hose	10m HD Braided Hose
Detergent Tank (L)	Detergent Suction Pickup	Detergent Suction Pickup
Weight (kg)	37.0	43.0
Dimensions (LxWxH)mm	670x520x960	670x520x480
Folded Dimensions	670x520x480	670x520x480
Manufacturers Warranty	2yrs	2yrs
Engine Warranty	3yrs	3yrs
Pressure Pump Warranty	1yr	1yr

CPV SERIES PETROL SPECIFICATION CHART

MODEL	CPV3200X27	CPV3200H25
Pressure PSI max	3200	3200
Bar (max)	150	150
Water Flow (L/min max)	14L	14L
Water Flow (L/hr max)	840L	840L
Water Pump	Triplex	Triplex
Fuel Type	Petrol	Petrol
Engine Make	Subaru	Subaru
Engine	9.0hp EX27	8.5hp EH25
Starting System	Recoil Start	Recoil Start
Fuel Tank (L)	6.1L	6.0L
Noise Level db@7m	70.0	74.0
Lance & Spray Gun	Single Lance HD Gun	Single Lance HD Gun
Nozzles	0° /15° /40° / detergent	0° /15° /40° / detergent
Hose Type & Length	10m HD Braided Hose	10m HD Braided Hose
Detergent Tank (L)	Detergent Suction Pickup	Detergent Suction Pickup
Weight (kg)	21.0	48.0
Dimensions (LxWxH)mm	720x520x960	720x520x960
Folded Dimensions	720x520x530	720x520x530
Manufacturers Warranty	2yrs	2yrs
Engine Warranty	3 yrs	3yrs
Pressure Pump Warranty	1 yr	1yr

CPV & CPC SERIES PETROL SPECIFICATION CHART

CPV4000X40	CPC2000SP	CPC3000SP
4000	2000	3000
275	138	206
15L	12L	15L
900L	720L	900L
Triplex	Triplex	Triplex
Petrol	Petrol	Petrol
Subaru	Subaru	Subaru
14.0hp EX40	6.0hp EX17	13.5hp EH41
Recoil Start	Recoil Start	Recoil Start
7.0L	3.6L	7.0L
72.0	66.0	74.0
Single Lance HD Gun	Twin Lance HD Gun	Twin Lance HD Gun
0° /15° /40°/ detergent	Detergent Nozzle, Turbo Optional	Detergent Nozzle, Turbo Optional
15m HD Braided Hose	10m Braided HP Hose	10m Braided HP Hose
Detergent Suction Pickup	Detergent Suction Pickup	Detergent Suction Pickup
67.0	63.0	83.0
	900x650x586	1020x700x860
	-	-
2yrs	2yrs	2yrs
3yrs	3yrs	3yrs
1yrs	1yr	1yr

CPC PETROL SPECIFICATION CHART

MODEL	CPC4000SP
Pressure PSI max	4000
Bar (max)	275
Water Flow (L/min max)	15L
Water Flow (L/hr max)	900L
Water Pump	Triplex
Fuel Type	Petrol
Engine Make	Subaru
Engine	14.0hp EX40
Starting System	Recoil Start
Fuel Tank (L)	7.0L
Noise Level db@7m	72.0
Lance & Spray Gun	Twin Lance HD Gun
Nozzles	Detergent Nozzle, Turbo Optional
Hose Type & Length	10m Braided HP Hose
Detergent Tank (L)	Detergent Suction Pickup
Weight (kg)	85.0
Dimensions (LxWxH)mm	1020x700x860
Folded Dimensions	-
Manufacturers Warranty	2yrs
Engine Warranty	3yrs
Pressure Pump Warranty	1yr

CPC SERIES DIESEL SPECIFICATION CHART

MODEL	CPC2000SD	CPC3000SDE
Pressure PSI max	2000	3000
Bar (max)	138	206
Water Flow (L/min max)	12L	15L
Water Flow (L/hr max)	720L	900L
Water Pump	Triplex	Triplex
Fuel Type	Diesel	Diesel
Engine Make	Subaru	Subaru
Engine	4.8hp DY23	9.4hp DY42
Starting System	Recoil Start	Electric Start
Fuel Tank (L)	3.2L	4.5L
Noise Level db@7m	74.0	78.0
Lance & Spray Gun	Twin Lance HD Gun	Twin Lance HD Gun
Nozzles	Detergent Nozzle, Turbo Optional	Detergent Nozzle, Turbo Optional
Hose Type & Length	10m Braided HP Hose	10m Braided HP Hose
Detergent Tank (L)	Detergent Suction Pickup	Detergent Suction Pickup
Weight (kg)	78.0	117.0
Dimensions (LxWxH)mm	900x650x860	900x650x860
Folded Dimensions	-	-
Manufacturers Warranty	2yrs	2yrs
Engine Warranty	3yrs	3yrs
Pressure Pump Warranty	1yr	1yr

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Engine won't start	<ol style="list-style-type: none"> 1. Engine switch in OFF position 2. Throttle lever on/off switch in OFF position 3. No fuel in engine 4. Worn, fouled or dirty spark plug 5. Pressure build up in pump 	<ol style="list-style-type: none"> 1. Turn engine switch to ON position 2. Turn throttle lever to ON position 3. Fill fuel tank or turn on fuel supply 4. Replace with factory recommended spark plug 5. Squeeze trigger on spray wand to release pressure in hose line
Units with Oil Alert System	<ol style="list-style-type: none"> 1. Engine not level or engine oil level too low 	<ol style="list-style-type: none"> 1. Place engine on level surface or fill crankcase with oil (refer to engine manufacturers instruction manual)
Engine with low power	<ol style="list-style-type: none"> 1. Throttle control lever not set to full throttle position 2. Partially clogged gun nozzle 	<ol style="list-style-type: none"> 1. Set throttle control lever to full position 2. Clean nozzle of any blockage
Engine runs well at no load but 'bogs' down under full load	<ol style="list-style-type: none"> 1. Engine speed too low 	<ol style="list-style-type: none"> 1. Contact your pressure cleaner dealer
Engine will not start: or starts and runs rough	<ol style="list-style-type: none"> 1. Low oil level 2. Dirty air filter 3. Out of petrol 4. Stale petrol 5. Spark plug wire not connected to spark plug 	<ol style="list-style-type: none"> 1. Fill crankcase to proper level 2. Clean or replace air cleaner 3. Fill fuel tank 4. Drain fuel tank, fill with fresh fuel 5. Connect wire to spark plug

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Engine shuts down during operation	<ol style="list-style-type: none"> 1. Low fuel level 2. Low oil level 	<ol style="list-style-type: none"> 1. Fill fuel tank 2. Fill crankcase with oil to proper level or level machine
Engine lacks power	<ol style="list-style-type: none"> 1. Dirty air filter 	<ol style="list-style-type: none"> 1. Clean or replace air filter
Engine 'hunts' or falters	<ol style="list-style-type: none"> 1. Choke is opened too long 2. Blocked spray nozzle 	<ol style="list-style-type: none"> 1. Move choke to halfway position until engine runs smoothly 2. Remove and clean nozzle tip
No low pressure detergent delivery	<ol style="list-style-type: none"> 1. High pressure nozzle on wand 2. Syphon hose or hose filter blocked 	<ol style="list-style-type: none"> 1. Fit black detergent nozzle 2. Clean or unblock hose and filter
Unit does not reach required pressure	<ol style="list-style-type: none"> 1. Restricted or insufficient water supply, ore pump sucking air 2. Detergent nozzle fitted to lance 3. Water leak in high pressure fittings, hose or gun 4. Pump has operated more than 3 minutes without pulling trigger 5. Thermal relief valve stuck open 	<ol style="list-style-type: none"> 1. Check water supply and supply hose, and inlet water filter 2. Replace with high pressure nozzle 3. Use Teflon tape or pipe sealant to tighten hose fitting, replace hose or gun 4. Pull trigger at least 30 seconds every 3 minutes 5. Return unit to your pressure washer dealer
<p>If problem continues, take your pressure cleaner to a dealer for servicing.</p>		

NOTE

Most detergent delivery problems can be prevented by:

1. Using citrus based detergents
2. Flushing the chemical/detergent system before storing
3. NEVER use powdered detergents that are not manufactured specifically for use in pressure cleaners (ie dish detergent)

WARRANTY (FAQ) Frequently Asked Questions

Q. My Pressure cleaner won't start...

A. Are all engine controls set properly?

A. Do you have fuel in your machine?

A. Check that the engine oil level correct?

Q. How do I get the soap suction to work?

A. Replace the high pressure nozzle with the BLACK detergent nozzle..

Q. I don't have any water pressure...

A. Do you have any kinks, leakage or blockage in hoses, fittings and nozzles?

A. Is the Black detergent nozzle attached to the end of the lance?

A. Have you let the unit run in bypass for longer than 3 minutes (pump running, gun trigger not depressed)

A. Have you checked the nozzle for excessive wear?

WARRANTY

- CROMMELINS Machinery cold water pressure cleaner models are covered by Manufacturers Limited Warranty for faulty parts and workmanship.
- The SUBARU engine warranty is 3 years for faulty parts and workmanship.
- AR Annovi Reverberi pump warranty is 1 year for faulty parts and workmanship

Exclusions to AR Annovi Reverberi pump warranty.

- Pump Components subject to normal wear and tear. These being, valves, pistons
- (plunger's) water gaskets, oil gaskets and seals, springs, o'rings and accessories guns, nozzles, hoses, wheels etc.
- Defects caused by or resulting from incorrect use, abuse or neglect.
- Failure to maintain the unit as specified in the owner's manuals.
- Unauthorised repairs.
- Use of non-original accessories.
- CROMMELINS Machinery and or their authorised agents do not take any responsibility for lost time of use or expenses incurred by the owner during the warranty period.
- Freight to and from the repair agent is at the owner's expense.
- Proof of purchase must be provided for any warranty claims.