

Aussie Hydro-Loop System OPERATION & MAINTENANCE MANUAL

SERIES HSC



Aussie-Eco-clean
www.aussiepumps.com.au
High Pressure Cleaners

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IMPORTANT:

TO REDUCE RISK OF INJURY, READ OPERATING
INSTRUCTIONS CAREFULLY BEFORE USING EQUIPMENT



TABLE OF CONTENTS

Introduction	3
Statement of Warranty	
Safety Warnings	4
Operating Instructions	
Before start up	6
Operation	6
Shut Down & antifreeze protection	8
System Information	
Power system	9
Pumping System	9
Heating System	11
Pressure Delivery System	12
Accessories	13
Troubleshooting Guide	16
Burner Troubleshooting guide	18
Service/Maintenance Information	19
Exploded Views & Parts Lists	20
Wiring diagrams for Hydrotek units	22
Waste Water Recovery Unit	
Technical Data	24
Recovery Unit Operating Instructions	26
Recovery Unit Troubleshooting	27
Common Replacement Parts for Recovery Unit	28
Wiring Diagrams for recovery units	29
Parts breakdown	30
Trailer information	34
Risk Assessment form	36

Specifications of Steam Cleaner:

Hydrotek Model	Pump	EWP	Flow rate (lpm)	Pump Make	Pump Model	Engine	Pump rpm
HSC35005VG	3500	5200	17	Interpump	WS202	Vanguard Petrol 18HP	1450
HSC43006HAF	4300	7100	21	Bertolini	TTK2130	Honda Petrol 23HP	1450
HSC40005DBF	4000	6485	19	Bertolini	TTK2130	Kubota Diesel 17HP	1450

The training and certification of operators of Class B machines is mandatory under AS/NZS4233.1 the safety standard for operating high pressure water jetters.



INTRODUCTION

CONGRATULATIONS ON THE PURCHASE OF YOUR AUSSIE HYDRO-LOOP SYSTEM

YOUR RESPONSIBILITY: This operator's manual was compiled for your benefit. By studying and following the safety, installation, operation, maintenance, and troubleshooting information contained within, you can look forward to many years of trouble-free service from your equipment. Every person who will operate the equipment must read and follow the safety warning and operating instruction sections of this owner's manual prior to use. You are responsible for operating the product properly and safely. You are also responsible to follow the maintenance schedule on the back page of this manual to keep your warranty active.

FREIGHT DAMAGE: If delivered by a trucking company, please inspect for any concealed freight damage and note this on the paperwork from the trucking company before signing. Should you find damage has occurred during shipping, **do not return** the damaged merchandise to Aussie Pumps, but file a claim immediately with the freight carrier involved.

QUESTIONS: Help us provide you with the fastest service. Please locate the enclosed warranty registration card and return it to Aussie Pumps to register your machine. If problems occur, contact the dealer you bought your machine from, a local authorized Aussie Pumps service centre, or call the Aussie Pumps factory and ask for technical services.

THERE ARE NO USER SERVICEABLE COMPONENTS ON THIS EQUIPMENT.

GETTING STARTED: If your dealer has not prepared the machine for start up, you may need to connect the hose to the pressure outlet on the washer and connect the other end of the hose that swivels to the trigger gun inlet and tighten. Mobile Wash Skids are engine powered and shipped from the factory with the fuel tanks empty, the battery cables disconnected, and the battery dry (if included on engine powered units). Fill the battery to the fill line with electrolyte (available at a local auto parts store), connect the battery cables, and follow the operation instructions for starting.

NO-NONSENSE GUARANTEE: Aussie Pumps promises to repair Aussie Pump Hydrotek power washers if defective in materials or workmanship for one year from the date of original retail purchase including the cost of PARTS and LABOUR, but **you must pay transportation costs** and travel time. Accessories like the hose, gun & lance are covered with a 3 month warranty.

Items and Conditions Not Covered:

1. Normal wear items such as discharge hose, guns, wands, spray arms, nozzles, quick couplers, o-rings, pump packing, brushes, filters, belts, and tires.
2. Cost of regular maintenance/adjustments or damage from lack of maintenance.
3. Damage due to freezing, abrasive fluids, chemical deterioration, and scale build-up.
4. Damage from fluctuation in electrical or water supply.
5. Any product or part that has been altered, modified, over pressurized, misused, or has been in an accident.
6. Dealer installation or damage from improper installation of the machine or alteration by a dealer or promise of additional warranty from dealer. The factory warranty is not transferable from the dealer to the retail purchaser on used or rented equipment.
7. Labour is not paid if the dealer that serviced your

machine is not an authorized service centre.

8. Labour is not paid on added accessories such as surface cleaners, hose reels, wastewater recovery and filtration.

WARRANTY PROVIDED BY OTHERS: Petrol and diesel engines are warranted by the manufacturer of the engine and their warranty is provided through the manufacturer's service centres.

COIL REPLACEMENT:

Should the heater coil leak **under normal conditions** within the first 6 years of service, Aussie Pumps will provide a replacement coil free of charge. Failure from freezing is considered neglect and is therefore excluded. Freight and installation labour is not covered. Machines with Spiralast coils are covered with a lifetime coil warranty, subject to approval from Hydrotek.

GENERAL CONDITIONS:

Aussie Pumps' responsibility with respect to claims is limited to making the required repairs or replacements to the original retail user, and no claim of breach of warranty shall be cause for any cancellation or rescission of the contract of sale of any Aussie Hydrotek product.

Aussie Pumps reserves the right to change or improve the design of any of its products or illustrations without assuming any obligation to modify any product previously manufactured.

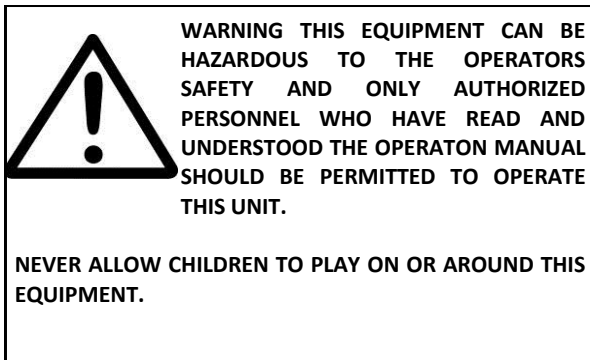
Aussie Pumps is not liable for indirect, incidental or consequential damages including any cost of substitute equipment, loss of revenue, pecuniary expense or loss, or inability to use a Aussie Hydrotek product. Aussie Pumps disclaims all implied warranties, including those of merchantability and fitness for use for a particular purpose. Some states do not allow exclusions or limitations on how long an implied warranty lasts, so the above exclusions may not apply to you. It is the buyer's responsibility to ensure installation and use of Aussie Pumps Hydrotek products conforms to local codes.

HOW TO OBTAIN WARRANTY SERVICE:

1. List washer model# _____
List serial# _____
(on base plate of machine near the motor).
2. Contact your local service dealer and return the Aussie Hydrotek washer or part within the warranty period along with your sales receipt. To locate service, call Aussie Pumps and ask for technical services or go to: www.aussiepumps.com.au.
3. You also have the option to obtain a return goods authorization and ship the questionable part freight prepaid directly to the factory. The part will be evaluated upon receipt. If found defective, Aussie Pumps will repair or replace part under the conditions of warranty and return to you.
4. If the defective component is an engine or motor made by another manufacturer, we, or your authorized Aussie Pumps dealer, can help you obtain warranty service through the specific manufacturer's local authorized service centre.

Please enclose a copy of the dated receipt, service records and explain the nature of the defect.

SAFETY WARNINGS



VENTILATION PRECAUTIONS:

1. Do not run engine or burner in an enclosed area. Exhaust gases contain carbon monoxide, an odourless, deadly poison.
2. Observe all State, Local, and National codes providing for indoor use or installation of this unit.
3. Provide adequate ventilation to prevent engine overheating and inefficient burner combustion (min. 600mm air space). Do not restrict normal engine airflow.

ELECTRICAL PRECAUTIONS:

1. Disconnect battery cable before servicing burner or engine on 12-volt systems.

FIRE PRECAUTIONS:

1. DO NOT use improper fuels or solvents in this equipment, and only fill with the correct fluids when the unit is in an OFF condition, main power is disconnected, and engine and burner are cool.
2. Fill the diesel burner fuel tank with diesel fuel, kerosene, or approved alternate fuel. NEVER use PETROL. Do not confuse PETROL and diesel fuel tanks.
3. NEVER operate this equipment in the presence of flammable vapours, dust, gases, or other potentially combustible materials.
4. AVOID contact with the exterior of the coil/heat exchanger assembly, mufflers, and exhaust port or stack to prevent burns.
5. DO NOT store fuel or other flammable materials near the burner or any other open flame.
6. **Diesel fired or PETROL power units are designed for outdoor use and installation only.**
7. Burner on/off switch must be placed in the OFF position when the pressure washer is not being used. Do not depend on engine run switch to turn the burner off – this may cause a safety hazard.
8. Warning: Burner (water heater) should start only when water is sprayed. Stop the system/engine immediately if burner continues to fire when trigger gun is off.

4. For engine driven units mounted in a van or box truck type vehicles, provide an external engine exhaust line that is larger in diameter than the factory exhaust pipe and vent the exhaust to the outside of the vehicle, but not below the vehicle's interior floor height. Also, insure adequate fresh air circulation within the van for engine cooling purposes to prevent heat build-up and for engine fresh air intake. Clearance of at least 300mm is recommended on all sides of the unit. Provide a burner exhaust vent, at least 300mm diameter, to the outside through the van roof, or through the side panel that is at least 300mm in diameter, and position this vent to avoid water, dirt and debris collection. Do not fit a chimney to the burner exhaust.
5. No flammable liquids, aerosols, or flammable materials should be stored within 1 metre of the unit and should **not be** stored under the unit. During refueling, ALL ignition sources and switches should be OFF and there should be a person with the proper fire extinguisher and training within the vicinity of the unit in case of fire. Unit should not be left running unattended or out of site.

SAFETY WARNINGS

SPRAY INJECTION PRECAUTION:

injury should joint fail.

1. Never direct spray jet at any surface that may contain asbestos material.
2. Fluid from high-pressure spray or leaks can penetrate the skin and cause serious injury. If any fluid appears to penetrate the skin, get emergency medical help at once. **DO NOT** treat as a simple cut. Tell the physician exactly what fluid was injected. For treatment instructions, have the physician call your local poison centre. Without proper treatment, complications can develop.
3. **WARNING** – Risk of injection or severe injury to persons – Keep clear of nozzle. **DO NOT** direct discharge stream at people. This machine is to be used by trained operators. Keep operating area clear of all people. Use only 48" long wands on machines producing over 3000 PSI. Also, only use straight wands or wands with a bend of 10° or less.
2. Shut unit off before moving it.
3. **NEVER** lock the trigger on the gun valve in the on position.
4. **Do not** exceed recommended operating pressure or temperature.
5. Observe all regulations when towing trailer mounted units.
6. Keep hands clear of belts: Some units equipped with auto-on may start at any time when power is connected.
7. Do not operate the product when fatigued or under the influence of alcohol or drugs.

CAUTION: Hot discharge fluid – **DO NOT** touch or direct discharge stream at people. Gun kicks back – Hold with both hands. Stay alert – Watch what you



are doing.

4. Always wear protective eye goggles when operating the equipment. Additional protective items such as a rubber suit, gloves, and respirators are advisable, particularly when using cleaning detergents with a corrosive content.
5. Know the detergents you are using. Read and follow the directions on the detergent labels.

PERSONAL HAZARD:

1. Shut unit off and disconnect power before removing belt guards or electrical covers.
2. Class B machines ... Fit hose shroud over connection between gun and hose to prevent

Emergency Stop Button

All Class B high pressure washers are fitted with a mandatory emergency stop, as per safety standard AS/NZS4233.1.

This should only be used in an emergency.

For normal shut down de-throttle the engine and run with no load before turning off using the key.

If the emergency stop button has been used, it will need to be reset before the engine will start again. To reset, turn the button clockwise.

WARNING Immediately after activating the E-stop turn the ignition key to the OFF position. **Failure to do so could result in a flat battery and shortened battery life.**

OPERATING INSTRUCTIONS

BEFORE START UP: Read all instructions

1. **CHECK PUMP OIL:** Check pump oil by locating the oil view window. Depending on your pump model, fill to the red dot or to the top of the site glass window.



2.

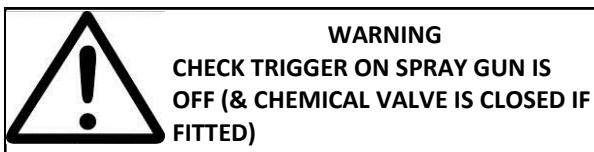
CHECK FLUID LEVELS: Check engine oil and coolant levels if unit is so equipped. (See the maintenance schedule on page 19).

local auto parts store).

WEAR EYE PROTECTION!

If the opening on your battery box measures 9" by 6", we recommend Exides' U1L/GTH 235CCA battery. Deep cycle batteries are recommended to extend battery life. Always connect the positive battery cable before the negative and coat the battery terminals with corrosion inhibitor to prevent corrosion. Do not reverse polarity.

6. If accessories, or discharge hose are not installed, see your local dealer for instructions & installation.



WARNING
CHECK TRIGGER ON SPRAY GUN IS OFF (& CHEMICAL VALVE IS CLOSED IF FITTED)



WARNING
DO NOT OPERATE MACHINE WITHOUT ADEQUATE WATER SUPPLY.



3. **CONNECT HOSE & GUN ASSEMBLY** and fit hose shroud.
4. **CONNECT THE WATER SUPPLY & FILL TANK:** Be sure there always sufficient water in tank, do not run dry.
5. **BATTERY INFORMATION:**
Batteries are available through your dealer. Depending on the type of battery you purchase, you may have to fill it with electrolyte (available at

OPERATION:

1. STARTING:

Petrol Engine Units:

Turn engine power switch to the on position, choke if necessary and turn key to start position only until engine starts.



Diesel Engine Units:

Turn power switch to heat the glow plugs for a maximum of 30 seconds and release. Turn the power switch to the start position only until engine starts. (Do not use starter fluids.)



OPERATING INSTRUCTIONS continued**2. PURGE AIR FROM SYSTEM:**

Squeeze the trigger on the spray gun until a constant stream of water comes out. (Purging works best with nozzle removed from wand and/or dual wand in the low-pressure mode.)

3. SELECT DESIRED NOZZLE

Lock gun trigger closed. Connect selected nozzle securely into wand. Ensure nozzle is snapped in position and direct away from operator before unlocking the trigger.

Hold gun firmly, squeeze trigger for high pressure spray.



CAUTION – Gun kicks back – hold with both hands.

WARNING – risk of explosion – DO NOT spray flammable liquids.

4. START BURNER:

To create hot water on high pressure washers equipped with heat exchangers, release the trigger on the gun, turn the burner to the “on” position,



and turn the thermostat to the desired temperature.

Squeeze the trigger on the spray gun and the burner will begin heating the water. It will stop firing whenever the water spray is off or if the temperature setting is exceeded.

5. STEAM:

Insert green steam nozzle and turn thermostat to 250°F steam setting. The steam nozzle is sized for approximately 25% less water volume than the hot

water mode.

6. BYPASS MODE:

System will go into bypass mode when machine is left running and trigger gun is closed. Bypass mode is when the inlet water coming into the pump recirculates through the unloader across the pump head. If left in bypass too long – more than five minutes – friction created by the movement of the water will begin to heat the water at a rapid rate. If equipped with a THERMAL DUMP VALVE, water exceeding 62°C will cause the valve to open allowing the cool water in. The valve will reset itself when water temperature comes down to a safe level. If equipped with a bulk water tank, water can be bypassed back through the tank allowing for a larger volume of water to be recirculated through the pump head thus reducing heat on the pump seals. If equipped with By-pass-cool system, a small portion of the bypass water is routed back through the float tank to keep the pump cool.



WARNING
DO NOT LEAVE IN BYPASS FOR LONGER THAN FIVE MINUTES TO PREVENT PUMP FROM OVERHEATING.

SHUT OFF UNIT WHEN NOT SPRAYING WATER.



WARNING
Cool down burner before shutting off .
SEE Page 8 for shut down procedure.

CLASS B UNITS

These units are fitted with an emergency stop button.

After activation of the emergency stop, turn engine key to off and reset the emergency stop button by rotating until it pops out.

Emergency stop must be reset before the machine can be re-started.

OPERATING INSTRUCTIONS *continued*

7. SET CHEMICAL INJECTION:

steam.

If unit is equipped with inlet chemical injection, place chemical pickup tube in pre-mixed chemical solution and open chemical valve for desired chemical concentration. Rinse and close valve after use, do not use harsh chemicals through the inlet injector system. Drawing air into the chemical tube by leaving the chemical valve open will cause the pump to lose pressure and may cause pump damage.

If unit is equipped with a downstream chemical injector, connect the chemical injection assembly into the high-pressure discharge hose quick connects. Place the chemical pickup into chemical solution and turn brass collar to adjust concentration. The chemical will inject only when you drop the outlet pressure by opening the valve on the dual wand or changing to a low-pressure nozzle. Soap the surface from the bottom up. Close chemical valve when not in use.

For general washing use a broad pattern spray nozzle such as the 40-degree nozzle. Backing away from the surface and using the broad spray nozzle works best to perform rinsing and delicate surface washing. In areas where the cleaning is more difficult and in smaller areas such as cracks and holes, use the narrow spray nozzles, 0 or 15 degree.

Chemicals can be applied in a couple of different ways. One way is with a hand spray pump. The other is with the chemical system on the equipment; either downstream or high pressure depending on the system you have. When using the high-pressure chemical system, do not use any caustic chemical as this may cause damage to the pump. For very harsh chemicals, it is best to use a hand sprayer. First wet the surface and wash off heavy debris. Test the surface to be sure the chemical won't harm it. Then apply the chemical and let it work in for couple of minutes before rinsing. Do not allow chemicals to dry on the surface.

MAINTAIN PH BETWEEN 5 & 9

For acid washing use a suitable acid venturi head, contact Aussie Pumps for details.

8. If equipped with an AF2 (2) gun operation, select "50%" nozzle from panel and insert into coupler on spray gun for full pressure output when using two guns at the same time. Flow can be reduced by selecting flow reduction nozzles only when one operator is using the machine. Maximum temperature is 93°C.

WASHING TECHNIQUES

When washing, always start from the bottom up, and do the final rinse from the top down. This will keep the water from streaking the surfaces that are being cleaned. When applying chemicals, it is also best to start from the bottom and work up. In areas where there is no grease or oil present, and the dirt is loose, cold water will be sufficient.

When it comes to grease, oil, and hard to clean dirt, hot water and/or chemicals can make the job easier, and speed up the cleaning process. For applications that require even more heat and where water use/runoff must be minimized, switch to the steam mode (if equipped) and adjust the thermostat for up to 250°

When rising off the chemicals always start from the top down. When finished using the chemical, be sure to rise out the chemical line and valve with fresh water to prevent clogging.

SHUT DOWN

1. Turn burner switch to the off position.
2. Rinse & close chemical valve (if fitted)
3. Squeeze the trigger on the spray gun until the water becomes cool.
4. Turn motor/engine switch off with the appropriate controls. Turn off diesel engine units by pulling the throttle kill lever.
5. Turn off water supply.
6. Squeeze trigger to release any trapped pressure in discharge hose.
7. Disconnect & store hoses.
8. Antifreeze equipment:

In the event that the equipment is not to be used for an extended period, store in heated space or antifreeze the unit. Run the machine until the float tank is near empty, fill with a 50% mix of water and antifreeze and run until antifreeze appears at the high-pressure outlet. If unit is equipped with a blowout valve, it may be blown out with

SYSTEM INFORMATION

compressed air in addition to using antifreeze solution.

On direct feed units (no float tank), use a 5' garden hose to draw the antifreeze mix from a bucket or blow out the unit with compressed air until only air and no water comes out of the discharge.

APPEARANCE:

To maintain appearance of the power washer, use stainless steel cleaner on the stainless steel panels.
Do not pressure wash your Aussie Hydrotek.

POWER SYSTEMS:

PETROL ENGINE:

With the proper care and maintenance, your PETROL engine will give years of trouble free service.

Please follow the Service and Maintenance Guide and the enclosed engine sheet or contact your local authorized engine dealer for maintenance and repairs.

Use unleaded PETROL with an octane rating of 87 or higher in the engine fuel tank. Consult engine manual for proper oil type and capacity. The engine manufacturer recommends a break-in period of 25 hours at which time the engine oil and filter should be replaced. Thereafter, change oil every 50 hours and the filter every 100 hours (see engine manual). Do not rely on the low oil shutdown (if equipped) as a reminder to add oil. The engine manufacturer will typically not warranty engine damage from lack of oil even if the low oil system failed. On machines with a 115V generator or a 12V

burner, the throttle is preset at the factory (See Generator section). Engines include backfire prevention solenoids.

DIESEL ENGINE:

The diesel engine, although it has a higher initial cost, can save money with lower fuel consumption and longer life. Use clean diesel fuel and do not allow engine to run out of fuel or the system will have to be bled to restart the engine.

Clean the fuel filter periodically with kerosene (See Engine Manual). Use 10w – 30 oil with **API** classification **CC/CD** grade rated for diesel engines in the engine crankcase and change every 50 hours. If the engine is water cooled, use a 50/50 mix of antifreeze/de-ionized water solution and check daily. Never use more antifreeze than water or damage to the engine could occur from overheating.

POWER TRANSMISSION:

WARNING: Shut off power.

BELT DRIVE: Check belt condition, alignment and tension periodically. Replace belts when they show signs of wear or cracking. Tighten belts by loosening the mounting bolts on the pump and generator to permit them to slide. Turn the horizontal rail adjusting bolts to tighten belts until they deflect ¼ " to ½" with finger pressure.

DIRECT DRIVE: Pump is bolted directly to the motor/engine. If pump needs to be removed, do not force off by prying or damage may occur. When reassembling, coat the entire motor shaft with heavy grease, or a generous amount of anti-seize and use "thread locker" or "lock tight" on mounting bolts.

GENERATOR:

Some self-contained hot water units (SC and SCU Series) are equipped with a 115v, 2900w generator to power the diesel burner. The generator output voltage must be between 110 to 130 Volts, (or between 59 to 63 Hz.), when the unit is under full load. If the generator voltage falls out of this range, the RPM of the engine will need to be adjusted to proper speed. If the engine cannot maintain the proper RPM, do not use the burner or any power from the generator until the engine is repaired. An **AUXILIARY OUTLET** is available on some SC or SCU Series machines for running wastewater recovery systems, light, or other accessories off of the generator. A maximum of 1500 watts of 115v power is available when the burner is on or 2000 watts when it is off. A switch/circuit breaker located on the control panel will need to be reset if the circuit is overloaded. Use of a ground fault interrupter is recommended when plugging in accessories or lights to the auxiliary voltage outlet. To extend generator life, make sure the burner and all auxiliary power is off when the engine is started or stopped. Keep generator dry.

PUMPING SYSTEM:

PUMP: The pump is a positive displacement, oil bath crankcase, and triplex plunger type. It contains 3 plungers, which move forward and backward in a cylinder to propel water past 3 inlet valves and 3 discharge valves into a high-pressure manifold. The crank case oil window should be checked for oil level and clarity and the pump for oil or water leaks before

SYSTEM INFORMATION *continued*

each use. The sight window is located at the rear (opposite the head) of the pump and should be filled to the red dot with non-detergent 30w pump oil, available at your Aussie Hydrotek dealer. If the oil becomes milky in color, moisture is entering the crankcase. Change the oil and contact your authorized Aussie Hydrotek dealer if the problem persists.

Keeping filters clean and checking for air in pump feed lines can prevent cavitation and increase pump life. Do not run pump in the bypass mode (pump running with the trigger gun off), for a period of more than 5 minutes or the pump will begin to overheat (maximum water temperature is 62°C).

Do not run pump dry. Protect from freezing. Do not run a frozen pump until it is completely thawed.

UNLOADER AND PRESSURE RELIEF VALVE: The unloader valve is preset at the factory to govern the proper output pressure of your machine. It will release the pressure of the pump back into the inlet if the trigger on the spray gun is released. NEVER increase the set pressure on the unloader to exceed the specifications for your machine. All hot water machines are equipped with a SAFETY PRESSURE RELIEF VALVE. In the unlikely event that your unloader fails, or if the burner overheats and builds excessive pressure, the pressure relief valve will vent the pressure into the atmosphere. If this occurs, turn off the machine and have it checked by an authorized dealer. The pressure relief valve will automatically reset itself.

BURST DISC TECHNOLOGY:

This additional safety feature functions to protect the coil from the heating system and high system spikes of pressure. If this component ruptures, you should take the machine in to an authorized Aussie Hydrotek dealer. Do not plug off and continue to run.

CHEMICAL INJECTION SYSTEM:

With an inlet chemical injection system, the chemicals are introduced at the inlet of the pump and controlled with a chemical metering valve. The pump is fed by a float tank to create a light vacuum, not to exceed negative 3psi, which draws up the chemical into the inlet manifold of the pump, mixes it with water, and sprays it out of the nozzle under high pressure. Open the chemical valve only when the pickup tube is submersed in a solution or air will enter the pump causing the pump to lose pressure and run rough. Do not use highly corrosive detergents

or acid type cleaners, and be sure to rinse and close the chemical valve after each use or the chemical line and check valve may become obstructed. Chemicals should be between 5-9 PH. Consult Aussie Hydrotek for chemical compatibility. Chemical abuse is not covered under warranty.

DOWNSTREAM INJECTOR

This option is available if harsh chemicals need to be applied. The downstream injector will apply chemicals only at low pressure, by installing black soap nozzle or opening spray wand valve if equipped. If equipped standard with downstream injection, adjust concentration level by turning brass collar on the injector, or the knob on pump or control panel. Read and follow all safety instructions on the detergent label.

WATER SUPPLY:

An adequate water supply to the pump must be maintained at all times. If the inlet flow is too low or if there is air in the water supply, the pump will run rough, pulsate and lose pressure. Maximum inlet water temperature is 62°C. Do not restrict inlet water supply. If the pump is run dry, it can quickly overheat. The water is filtered by a garden hose adapter screen. Clean and replace as required or install a large capacity strainer to insure a clean supply of water.



Bulk tank water supply:

Large capacity water supply tanks can be used with most units if water is not readily available at the washing site. Belt driven, low speed pumps (less than 1750 RPM) can draw from a tank if you ensure that the vacuum does not exceed negative 3psi. A 80 mesh, 200 micron strainer and a ¾" I.D. or larger suction hose must be used to maintain a clean and adequate water supply. Larger flow (8-10gpm) machines require 1" feed and filtration. Be sure that the water supply is free from air or damage to the

SYSTEM INFORMATION *continued*

pump may result. Periodically you should clean out the strainer and water supply tank to remove debris that may accumulate on the bottom. If a water supply tank and a float tank are both utilized, a special three way valve can be used to switch between tanks.

USING DE-IONIZED OR SOFTENED WATER IN YOUR POWER WASHER:

Do not use de-ionized water through the coil on a hot water machine or coil corrosion will result. Water softeners, however, will reduce coil scale deposits and should be installed if your water is especially hard.

HEATING SYSTEM:

COIL/HEAT EXCHANGER SYSTEM:

The heat exchanger contains a continuous coil of pipe, which forms a cold water jacket around the outside of the heating area. It is double wrapped with ceramic blanket insulation and a stainless steel cover. The inside of the coil assembly can become covered with soot if the burner is out of adjustment or if it is fired by diesel fuel. This can be cleaned by removing both end caps on the coil enclosure and brushing or spraying off debris, or by adding a soot removal agent (Part #CB200) to the diesel fuel. Both a diesel fuel pressure gauge and smoke test device is required for proper burner adjustment, and must be performed by a qualified technician. When the water is heated, scale (calcium) will begin to form on the inside of the coil pipe depending upon the hardness of the water in your area. To remove build-up in the coil, use a scale remover (Part #CB100) available at your authorized Aussie Hydrotek dealer. Perform this descaling service only when a noticeable pressure drop is detected across the coil. Follow directions to avoid damage.

Wear safety glasses.

TEMPERATURE SWITCH:

The burner is equipped with a high temperature limit switch, which will shut off the burner when the water temperature becomes too hot. Hot water machines are equipped with an adjustable thermostat so that the operator can control the outlet water temperature. The burner will automatically cycle on and off to maintain the desired temperature.

STEAM INSTRUCTIONS:

To run the unit in steam mode, install the green steam nozzle and turn thermostat to 250° F.

PRESSURE/FLOW SWITCH:

The burner is equipped with either a pressure switch or a flow switch to control the burner. When the trigger on the spray gun is squeezed, water begins to move through the coil and pressurize. The flow/pressure switch turns the burner on and begins to heat the water. Whenever the water spray stops or if the water is shut off, the burner will shut off.

WARNING: Burner should fire only when the trigger is squeezed and spraying water, if it comes on at any other time, shut off machine and have it serviced.

DIAGNOSTIC LIGHT:

The burner diagnostic light on the rocker switch (if equipped) can help in determining problems with the burner. The red light indicates that power is going to the fuel solenoid valve. The burner should be firing and heating the water whenever the red light is on. When the trigger on the spray gun is released or if the temperature set point is exceeded, the red light will go off and the burner will stop firing.

DIESEL FIRED BURNER:

The diesel-fired burner is a forced draft pressure-atomizing burner. Diesel fuel is sprayed out of an atomizing nozzle, mixed with air, and ignited by a high voltage spark. The flame is directed towards the coils of pipe, which in turn, heats the water flowing through it. Use clean DIESEL FUEL for the burner.

AIR BAND

Adjustments may need to be made to compensate for higher elevations, or if more than a trace of smoke is observed in the burner exhaust.

ELECTRODES

These may need to be cleaned and adjusted periodically. These adjustments have to be made precisely and should be performed only by qualified personnel. Set between #1 & #2 on the smoke gauge.

FUEL PUMP

This is a self priming, low volume pump which is propelled by the burner motor. The fuel pump pressure is typically set at 100 PSI but can be turned as high as 140 PSI during the winter when the incoming water temperature is lower. Before adjusting the fuel pressure, connect a fuel pressure gauge and an outlet water temperature gauge, turn the pump and burner on, and turn the fuel pressure screw clockwise until the desired water temperature is obtained. Be sure not to exceed the commended

SYSTEM INFORMATION *continued*

specifications of the machine.

FUEL FILTER

This will need to be replaced often if the diesel fuel quality is poor. A fuel filter with a water separator is recommended if the fuel quality is consistently poor.

FUEL SOLENOID

This is an electric fuel valve that shuts off the fuel whenever the trigger on the spray gun is released or if the set temperature on the heat switch is exceeded.

IGNITION TRANSFORMER

This provides a high voltage spark that travels down the electrodes to ignite the diesel fuel. Disconnect all power before servicing.

The 12V burner operates from the battery on the SS Series (and a limited number of SC Series). The engine has a 15 to 20 amp charging system that keeps the battery charged which runs the burner. The burner motor and transformer stop when the trigger gun is released and is controlled through a high amperage contactor. To help keep the battery fully charged, and for safely cooling down the burner, turn off the burner during the last minute of rinsing. When leaving the machine unattended, shut off burner and engine switch. Replace 12 VDC battery regularly (2 year maximum interval) on 12V burner systems to help ensure consistent performance.

PRESSURE DELIVERY SYSTEM:

DISCHARGE HOSE:

Use only a wire braid hose rated for the output pressure and temperature of the machine. Single wire braid hoses are generally rated from 2500 to 4000psi. Additional hose lengths can be added with quick twist couplers with a minimal loss in pressure of about .5 PSI per foot. Inspect hoses for wear and replace if necessary. Avoid kinking or running over the hose to extend the hose life.

WARNING: Aussie Hydrotek hot water machines require a special 120°C rated hose to operate in the steam mode. If the hose is not replaced when worn or if it is not replaced by a Aussie Hydrotek original equipment hose, it may burst and serious injury and burns could result.

QUICK COUPLERS:

The swivel connectors on the high-pressure hose and quick couplers on the spray nozzle make it easy to change nozzles or hoses. When connecting hoses or nozzles, be certain that the collar on the quick couplers snap into the locked position to prevent them from becoming loose. If the quick connect begins to leak, replace the O-ring (specify Viton or EDPM material) located in the female socket coupler. Grease the coupler periodically to make it work smoothly. Replace if it becomes worn. Twist couplers are also used on most wands so they can be interchanged.

TRIGGER GUNS:

The trigger gun is merely a valve that turns water spray on and off. If it begins to leak or fails to shut off, replace or repair the valve assembly.

Never lock any gun in the on position for any reason. Never point spray at a person or any part of the body.

SPRAY WAND:

Wands are available in 2 to 6 foot lengths for various cleaning applications. If the unit is equipped with a dual wand, you can adjust the pressure by turning the knob on the valve to divert part of the water through the low-pressure nozzle.



Optional Aussie Telewand

ACCESSORIES

NOZZLES:

The spray nozzle is a precisely machined orifice made of hardened stainless steel. The orifice size is matched to the output of your machine to attain the proper flow and pressure in which your machine was designed. The orifice, or hole, of the nozzle will enlarge with wear. For optimum performance, replace the spray nozzle to maintain the full output pressure of your machine.

The nozzle installed on your machine from the factory is designed to allow only about 90% of the water being pumped to discharge out of the nozzle. The remaining 10% is bypassed back into the inlet water supply by the unloader/regulator valve. If an incorrect nozzle size is used, the maximum flow and pressure of the machine cannot be achieved and the pressure unloader valve can wear prematurely.

When replacing the nozzle, match to one size under the flow and pressure output of the pump. The nozzle is usually connected to the wand with a quick coupler. Be sure the collar on the quick coupler snaps into the locked position, or the nozzle could be lost when the trigger on the spray gun is squeezed.

Never connect the spray nozzle directly to the trigger gun without a wand or injury could result. Never place hands or fingers over the nozzle tip.



The nozzles generally come in four different spray angles: 0°, 15°, 25°, and 40°. The different spray angles of a given size of nozzle does not change the output pressure of the machine, just the impact force and surface coverage of the water spray.

The **0° nozzle** sprays a straight stream which impacts the surface very hard but does not cover a very wide area. Use the 0° red nozzle with care because it can damage the surface you are spraying with its high impact and long reaching spray.

The **15° yellow nozzle** sprays out a flat stream at a 15° width. It gives you less impact power than the above, but covers a wider area with one pass of the

spray wand. As you back away, the spraying nozzle from the surface, the spray impact will decrease.

The **25° green nozzle** is wider than the 15° and is most commonly referred to as the “steam nozzle”. The steam nozzles are sized to spray less water than the other high-pressure nozzles, so the water is discharged at a higher temperature. (Up to 120°C.)

The **40° nozzle spreads** the water stream over a wide area to give you less impact for delicate surfaces.

WET SANDBLASTER: (OPTIONAL)

The wet sandblaster is a system that introduces sand (or other media such as baking soda) into the water stream for abrasive blasting. It is especially effective for graffiti or paint removal.



Performance of the unit is directly related to the output of your high-pressure washer. The sand is mixed with the water at the sand head in a tungsten carbide nozzle. A vacuum is created in the sand nozzle, which draws a sand and air mixture up the sand hose. If the sand becomes wet or the sand nozzle becomes plugged, the vacuum will be lost and the sand will quit flowing.

The sand probe can be poked directly into a bag or bucket of sand to draw it up the sand hose. Do not cover the air intake port on the top of the sand probe or the sand flow will be disrupted. Uncoil the sand hose completely before use to improve the sand flow and replace the sand hose when it becomes worn.

The carbide sand-mixing nozzle can be unscrewed and replaced when worn. Use bagged silica sand for best results through the sandblaster. Use 16 to 20 grit (course) sand for rust or concrete. Use 30 grit (fine) for fine metal surfaces or wood. Do not use wet sand or mix different grits of sand. A sand hopper is available for convenient sand storage. An air valve is available for adjusting feed rate on the hopper and should be fully open when using fine media such as

ACCESSORIES continued

baking soda. Always use safety goggles and protective clothing when operating the wet sandblaster.

TURBO NOZZLE: (OPTIONAL)

The "Rotomax" type nozzle can be used up to 170°. Turn off burner or reduce temperature setting before using. Simply remove regular spray nozzle, replace with the turbo nozzle and squeeze the trigger on the spray gun. Do not point the turbo nozzle upward when starting.



EXTENSION HOSES: (OPTIONAL)

Connecting additional hose lengths by means of twist couplers can extend the length of your high-pressure discharge hose. Specify maximum pressure and temperature of your machine when ordering. Low-pressure inlet garden hoses are available in 50' and 100' lengths. Premium quality, 200psi rated hoses are recommended.



HOSE REELS:

Hose reels are available for convenient and quick storage of both discharge and inlet hoses. Different hose reels options are available for trailer mounting, machine mounting, or as base mount options. To keep the hose from unreeling, lock the drum in place and secure the gun or the end of the hose or it may drag on the road. The low-pressure hose should be of sufficient quality that it will not flatten out when reeled up, or water supply to the machine will be cut off. If the reel swivel begins to leak, replace or connect the hose directly to the machine until the leak is repaired. Hose reel swivels with lubrication are pre-lubricated at the factory. Additional lubrication intervals depend on application and frequency of use. However, a minimum for re-lubrication at 40 hours is recommended. Standard Moly-Lith grease is recommended. Do not over grease. Using a hand held grease gun, dispense one pump of grease into the grease fitting. Depress the ball bearing at the end of the grease fitting to allow the grease and air to escape. **WARNING:** Replace discharge hose with original equipment hose rated for 120°C, available at Aussie Hydrotek dealers.

AUSSIE SPINNER – Surface Cleaners: (OPTIONAL)

The Aussie Spinner is a flat surface cleaner that connects to a pressure washer and uses a spray bar rotating at a high speed within 1" of the ground. It will clean concrete more consistent than an operator with a spray wand, with less fatigue, and 10-20 times faster. Simply move the twister over the surface and watch a clean path appear behind the unit. The Aussie Spinner can be used with hot water up to 90° C on most models for extra stubborn grease or grime, eliminated the need for soap pre-treatment in most applications. Rated to be used with a pressure washer up to 4000psi and up to 37lpm. See your dealer for proper nozzle size configurations to match your pressure washer.



ACCESSORIES continued**HYDRO-TWISTER:**

Hydro-twisters are flat surface cleaners with an integrated vac hose port. The vac hose is connected from the Hydro-twister to the vacuum recovery system. Wastewater is sucked up directly leaving a virtually dry, clean surface. The dirty water then passes through the seven stage filtration system and is returned to the supply tank for re-use.



TROUBLE SHOOTING

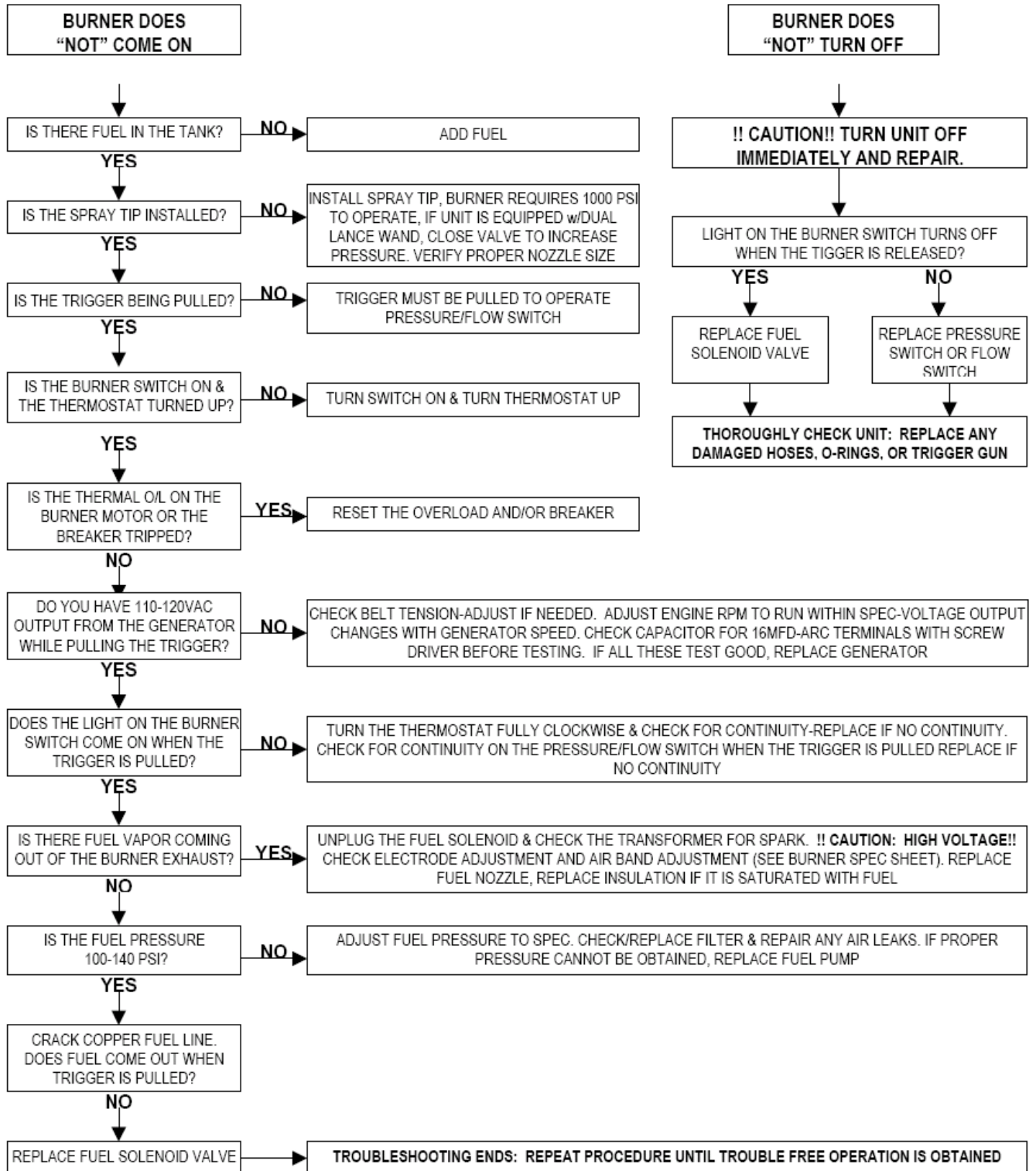
PROBLEM	PROBABLE CAUSE (The most recurring probable cause is listed first) REMEDY (Repairs should only be made by a qualified technician)	
	Power System: PETROL or Diesel Engine Driven	
Engine will not start or crank over	Battery dead. Dirty battery connection. Battery cables disconnected. Engine, pump, or gearbox is seized. Key-switch, solenoid and starter on engine defective	Charge or replace battery, add electrolyte if battery is new. Clean connections / Carefully check polarity. Connect or replace damaged cables. Replace or repair seized part. Repair or replace.
Engine will not start but will crank over	Engine power switch is off or defective. Low oil shut down is activated. Low water switch engaged or defective (not on all models). Low on fuel. Fuel filter is clogged. Engine flooded or starved.	Check engine power switch. Add oil to engine, check more frequently. Add water to bulk tank feeding pressure washer. Fill with appropriate fuel, bleed injector pump on diesel engine. Replace or clean fuel filter Choke only as required.
Engine bogs down under load whenever spray gun is triggered	Engine needs to be repaired or replaced. Operating in high elevation. Carbon deposits on cylinder head	See engine manual or engine dealer. Lower the pressure on the unit and check for correct engine speed (RPM). Remove head and wire brush deposits.
	Pumping System	
Trigger gun leaks or will not shut off	Debris in gun valve assembly.	Clean valve assembly or replace gun.
Pump runs but has low spray pressure	Water turned off. Nozzle is plugged or sized incorrectly. Inlet chemical injection valve is open without the end of the pickup tube inserted into detergent. Coil on hot water machines is obstructed. Priming of pump after run dry.	Turn water on. Clean or replace with proper size. Close soap valve or submerge detergent pickup tube into solution. Clean obstruction or scale deposits from coil with coil cleaner. Crack open fitting on high-pressure outlet of pump.
Pump runs but has low spray pressure	Nozzle not installed. Dual wand valve is open. Leaky discharge hose or quick coupler. Water sprays out around nozzle. Inlet strainer clogged. Worn or wrong size nozzle. Belt slippage. Unloader valve worn or improperly adjusted. Air leak in inlet plumbing. EZ start valve is leaking.	Install nozzle. Close dual wand valve and install high-pressure nozzle. Replace hose, quick coupler, or o-ring in the quick coupler. Clean and check more frequently. Replace with nozzle of proper size. Tighten or replace with correct belt Install pressure gauge on pump head to adjust pressure. Check valve seat on unloader. Reseal fittings and inspect inlet hoses for air leaks. Remove hose to check for internal leaks.
Pump runs but there is erratic,	Inadequate incoming water supply.	Remove hose to check for internal leaks.
fluctuating pressure	Stuck inlet or discharge valves. Restricted inlet or air entering the inlet plumbing on pump. Leaking High Pressure seals Leaking Low Pressure seals	Increase water supply flow. Clean out or replace worn valves. Check fittings and hose for airtight seal, clean inlet strainer screen. Replace seals. Pressure feed the pump and replace L.P. seals if water leaks from the pump head.
Excessive crankshaft play or loud, knocking noise in pump	Broken or worn bearing or connecting rod in crankcase	Replace pump or bearing.
Oil leaking from pump	Loose drain plug or damaged seal	Locate point of oil leakage and replace damaged o-ring/seal.

TROUBLE SHOOTING continued

PROBLEM	PROBABLE CAUSE (The most recurring probable cause is listed first) REMEDY (Repairs should only be made by a qualified technician)	
Inlet injection will not siphon chemical	Check valve in strainer clogged. Chemical valve not open or clogged. Strainer not submerged in solution. Detergent hose cut or kinked.	Clean or replace. Rinse after each use. Open chemical valve or clean. Submerge strainer and replenish chemical. Inspect hose, replace as necessary.
Water is emitted from the chemical pickup tube	Check-valve malfunctioning.	Repair or replace check-valve.
Downstream injector will not siphon chemical	Brass knob on injector is closed. Unit not in low-pressure mode. Detergent hose cut or kinked. Strainer plugged or not submerged. Internal injector parts corroded or stuck. Outlet water temperature too high.	Open by turning counter clockwise. Open dual wand or install low-pressure tip. Inspect hose, replace as required. Check screen on strainer pickup tube. Disassemble, clean or replace. Use with cold water (150° Maximum)
Pressure relief relieving water	Un-loader failure/Coil overheating/ Excessive pressure.	Turn machine off, wait a few minutes and restart. If problem continues, take in for repair.
Burst disk relieving water	Excessive over-pressurizing and system spikes.	Take in for system check.
Battery		
Battery keeps losing voltage (For 12v systems)	Battery voltage low. RPM too low. Engine charging system faulty. Electrodes misadjusted. Fuel pump pressure too high. Air band too far open. Burner amp draw too high.	Have battery checked and load test, charge if low and replace if necessary. Allow water to cool 2 minutes before shutting off engine. Engine RPM should be 3600 RPM with no load. Check engine charging system – must have 16 amp output. Adjust electrodes to maximum 1/8" gap. Fuel pump pressure should be approximately 100 to 110 PSI. Adjust for proper burn. Check amp draw of burner motor – should be 11 amp or less. Check amp draw of transformer – should be 4.8 or less.
Water Temperature		
Discharge water temperature exceeds recommended operating temperature	Burner input too high for conditions.	Decrease fuel pump pressure and/or fuel nozzle size.
	Water flow restricted. High temperature limit switch faulty or set too high.	Clean or replace nozzle of proper size. De-scale coil and clear obstructions. Replace or reset temperature limit switch.
Discharge water temperature not reaching maximum operating temperature	Burner input too low for conditions.	Increase fuel pump pressure and/or fuel nozzle size.
Burner System – Diesel Fired		
Refer to Burner Troubleshooting Chart on following pages		

TROUBLE SHOOTING continued

**BURNER TROUBLESHOOTING
SC / SCU Series - 120V AC**



MAINTENANCE INFORMATION

While your pressure washer has been produced with quality materials and craftsmanship, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Aussie Hydrotek dealer for maintenance. A small investment in preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions. Do not spray high-pressure water onto the machine.

Not all maintenance items apply to all machines.

MAINTENANCE SCHEDULE**

Engine Oil	Inspect	Daily
	Change	After first 8 hours then every 50 hours especially in high ambient temperatures
	Filter	Every 100 hours
Air Cleaner	Inspect	Every 50 hours
	Clean	Every 3 months
Diesel Engine Coolant		Check daily (maximum 50% antifreeze)
Battery Level		Check monthly 12V DC Burner Systems: Replace battery every 2 years
Engine Fuel Filter		500 hours or 6 months
Spark Plug Maintenance		500 hours or 6 months
Clean Fuel Tank(s)		Annually
Replace Fuel Lines		Annually
Pump Oil	Inspect	Daily
	Change	After first 25 hours, then every 6 months or 500 hours
	Axial pumps come filled with synthetic oil, which does not require changing	
Clean/Replace Burner Filter		Monthly (More often if fuel quality is poor)
Remove Burner Soot		Annually
Burner Adjustment/Cleaning		Annually
De-scale Coil		Annually (More often if required)
Replace Spray Nozzle		Every 6 months
Replace Quick Connects		Annually
Clean Water Screen/Filter		Weekly
Clean Float/Supply Tank		Every 6 months
Replace HP Hose		Annually
Belts	Tighten	Every 6 months
	Inspect/Replace	Annually
Trailer Tires/Bearings		Monthly (Check tires for condition, tighten lug nuts, grease & check bearings)
MAINTENANCE INFORMATION		
DESCRIPTION OIL TYPE CAPACITY		
Gas Engine 10w 30 motor oil ** .63 to 3 qt.		
Diesel Engine 10w 30 API cc/cd 3.25 qt.		
Pump, Cat Hydraulic, non-detergent 10w 40 ISO 68 11 – 42 oz.		
Pump, AR Non-detergent SAE 30w 10 – 41 oz.		
Pump, General, non-detergent SAE 30w 11 – 42 oz.		

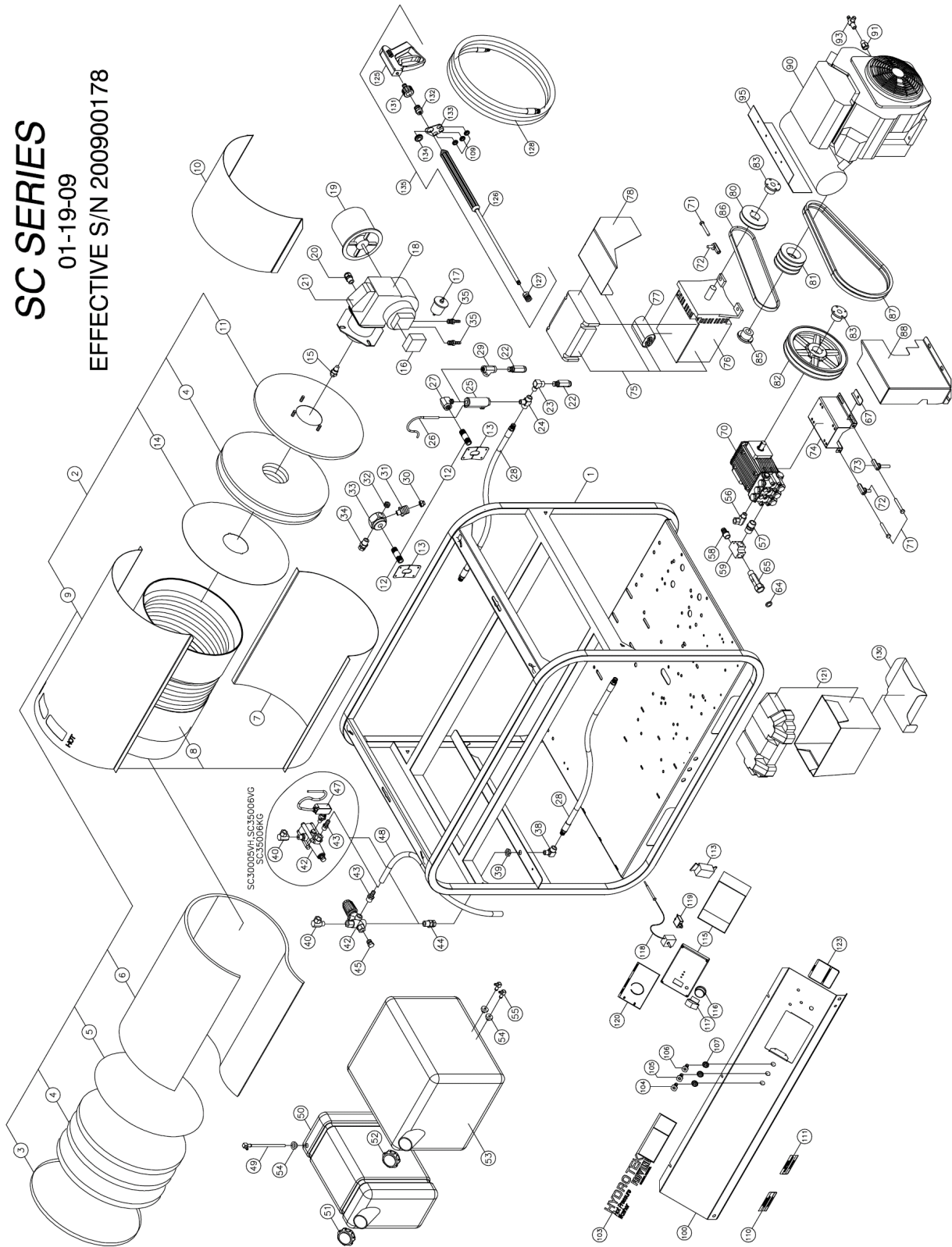
Check the engine manufacturer's service guide for additional maintenance items and specific high ambient temperature oil selection

SC EXPLODED VIEW

SC SERIES

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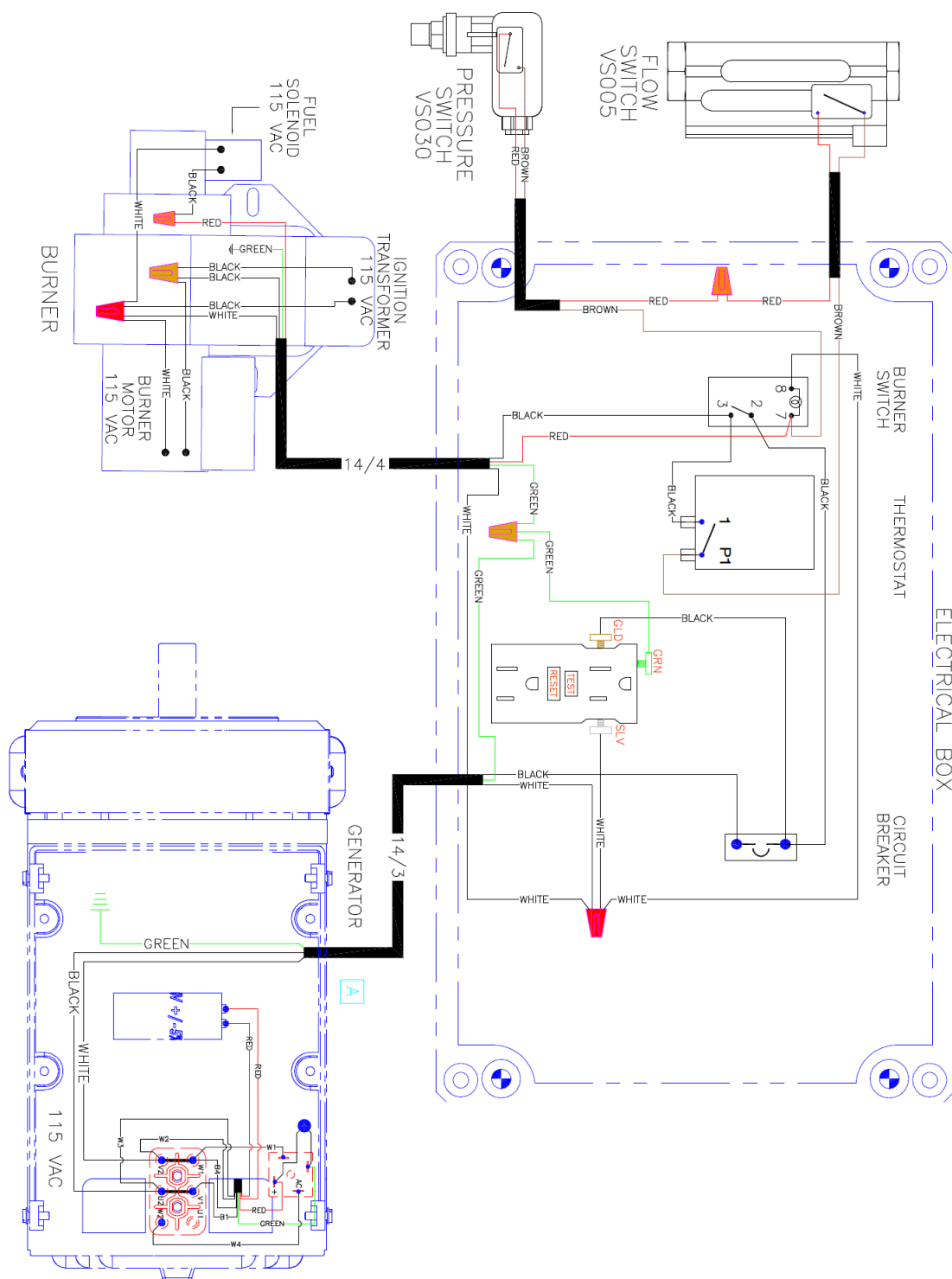
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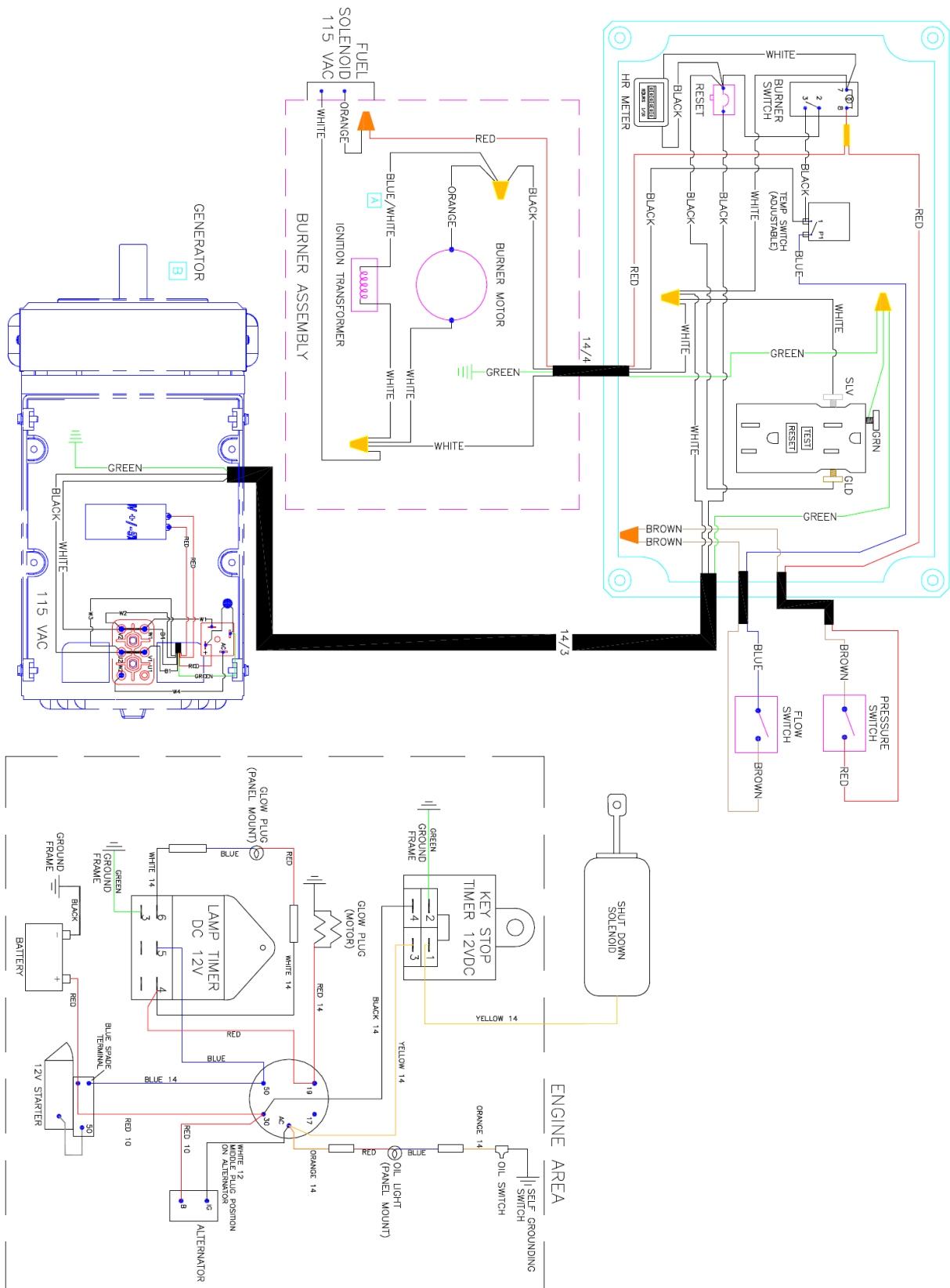
SC PARTS LIST (Jan 09 effective s/n 200900178)

1 HSC00	SC FRAME, P COATED PRO TEC	ALL	72 HPR60	PUMP RAIL BOLT	ALL
2 BC225	COIL ASM 4PK (FLAT END COIL)	ALL	73 HPR61	PUMP RAIL BOLT,EXTENDED LENGTH	ALL
3 B0029	COIL CAP (FLAT END COIL) NO HOLE	ALL	74 HPR07	PUMP MOUNTING RAIL STAINLESS	SC35006VG, SC35006KG
4 BN053	8' SECTION OF INSUL BLKT(BN053) CUT x (5) 1	ALL	HPR10	PUMP ANGLE RAIL AR 4000	SC30004VH,SC30005VH
5 BN125	INSULATION DISC RETAINER 17.5DIA	ALL	75 MB050	SC GENERATOR & GUARD ASSEMBLY	ALL
6 BN053	INSUL BLKT 5OSQ' 1/2X24 8# 25'	ALL	76 MB020	GENERATOR 2500w LSA321L10	ALL
7 B0088	COIL WRAP (FLAT END COIL) BOTTOM	ALL	77 MB025	CAPACITOR, MB020 GENERATOR	ALL
8 BC480	COIL, 4PK SCH 80 18 "	ALL	78 HS033	SC GEN BELT GUARD	ALL
9 B0089	COIL WRAP (FALT END COIL) TOP	ALL	80 KT040	SHEAVE BK40H	SC30004VH, SC35006VG, SC35006KG
10 HHP15	BURNER RAIN GUARD-HP-2004	ALL	KT047	SHEAVE BK47H	SC30005VH
11 B0017	END CAP (FLAT END COIL) 18IN BU W/HOLE	ALL	81 KV038	SHEAVE 3TB38	SC30004VH, SC35006VG, SC35006KG
12 BC850	BURNER NIPPLE, 1/2 x 5 SCH80	ALL	KV046	SHEAVE 3TB46	SC30005VH
13 B2324	COIL NIPPLE RETAINER 1/2in	ALL	82 KU100	SHEAVE 2BK100H	SC30004VH, SC35006VG, SC35006KG
14 BN126	INSUL DISC RETAINER 17.5DIA W/HOLE	ALL	KU090	SHEAVE 2BK90H	SC30005VH
15 BZ250	FUEL NOZZLE 2.5 80B	SC30004VH	83 KSH19	BUSHING H24MM	ALL
BZ300	FUEL NOZZLE 3.00 90B	SC30005VH	85 KSP16	BUSHING P1 X 1	ALL
BZ325	FUEL NOZZLE 3.25 90B	SC35006VG	86 KSA30	BELT 5L230	SC30004VH, SC35006VG
BZ350	FUEL NOZZLE 3.5 90B	SC35006KG	KSA32	BELT 5L250	SC30005VH
16 BPA13	FUEL PUMP, BECKETT SM/BU600	ALL	KSA33	BELT 5L240	SC35006KG
17 BF015	FUEL FILTER; INLINE	ALL	87 KSB42	BELT BX42	SC30004VH
18 BU600	BURNER; BECKETT SM 110V	ALL	KSB4X	BELT BX40	SC30005VH, SC35006VG, SC35006KG
19 BM513	BURNER MOTOR, BECKETT SM 110V	ALL	88 HS036	SC PUMP BELT GUARD 16HP VAN	SC30004VH, SC30005VH, SC35006VG
20 EWC08	STRAIN RELIEF 1/2 HEYCO (3/8)	ALL	HSC54	SC PUMP BELT GUARD KOHLER 25HP	SC35006KG
21 BMT23	IGN TRANS, BECKETT 110VAC SM	ALL	90 MS145	ENGINE 14 HP VANGUARD E/S	SC30004VH
22 UP137	PRESSURE RELIEF 3700psi, black	SC30004VH, SC30005VH, SC35006VG, SC35006KG	MS150	ENGINE GAS 16HP VANGUARD E/S	SC30005VH
UP045	PRESSURE RELIEF 4500+15% , red	SC30004VH	MS210	ENGINE GAS 21HP VANGUARD E/S	SC35006VG
23 DC568	STREET ELL 3/8	SC30004VH	MK200	ENGINE 20 HP KOHLER CS W/MUFFL	SC35006KG
24 DEB66	BRANCH TEE 3/8 STEEL	SC30004VH	93 MS006	OIL DRAIN VALVE 3/8	ALL
25 VS005	FLOW SWITCH 8 @ 4200 ST5	SC30004VH	95 HS021	VANGUARD MUFF/BURNER HEAT SHIELD	SC30004VH, SC30005VH
26 VS003	REED SWITCH FOR(AP500)	SC30004VH	HS074	KOHLER MUFF/BURNER HEAT SHIELD	SC35006VG
27 DE586	STREET ELL 1/2F X 3/8M STEEL	ALL	HS022	KOHLER MUFF/BURNER HEAT SHIELD NEW 12/00	SC35006KG
28 DH034	HOSE 3/8 x 3/4IN 4000psi NO WIP	ALL	100 HSC24	CONTROL PANEL SC KEY SWITCH/CHOKE/ LIGHT HOLES	ALL
29 DE066	TEE 3/8 STEEL "	SC30005VH, SC35006VG, SC35006KG	LABEL HYDRO TEK 34 x 3 *** HOT MOBILE		
30 UPB80	BURST DISC 8000psi	ALL	103 GLL79	SKID	ALL
31 UPB05	ADAPTER FITTING-BURST DISC	ALL	104 NQ450	NOZZLE/QDC 045 x 0	SC30004VH
32 D1061	PLUG 3/8 FLUSH HEAD HEX STEEL	ALL	NQ550	NOZZLE/QDC 055 x 0	SC30005VH, SC35006VG, SC35006KG
33 HHA00	HEX MANIFOLD OUTLET 1/2 X 1/2 X 3/8 X1/2	ALL	105 NQ452	NOZZLE/QDC 045 x 15	SC30004VH
34 DE568	SWIVEL 3/8F X 1/2M STEEL	ALL	NQ552	NOZZLE/QDC 055 x 15	SC30005VH, SC35006VG, SC35006KG
35 D8044	BARB; HOSE 1/4 BRASS	ALL	106 NQ454	NOZZLE/QDC 045 x 40	SC30004VH
38 DC568	STREET ELL 3/8	ALL	NQ554	NOZZLE/QDC 055 x 40	SC30005VH, SC35006VG, SC35006KG
39 D7061	HEX NUT 3/8 BRASS-REMOTE UNLOADER	ALL	107 HLB09	GROMET NOZZLE HOLDER	ALL
40 DE866	SWIVEL 3/8F X 3/8M 90 BRAZED	SC30004VH, SC30005VH, SC35006VG, SC35006KG	110 GLL10	LABEL GASOLINE ONLY	ALL
DE766	SWIVEL 3/8F X 3/8F 90 STEEL	SC30004VH, SC30005VH, SC35006VG, SC35006KG	111 GLL20	LABEL DIESEL FUEL ONLY	ALL
42 UU323	UNLOADER 4200PSI 8GPM AR	SC30004VH	113 EP154	GFCI DUPLEX RECEPTACLE 20 AMP	ALL
UU371	UNLOADER 3-5 @ 3000 K7-1	SC30005VH, SC35006VG	115 HSC51	LASER CUT SC BOX ASM/TOP AND BOTTOM	ALL
UU375	UNLOADER K7-2 W/BYPASS #1	SC35006KG	116 ECH70	KNOB, BLUE .25 X 1.50D	ALL
43 D8068	HOSE BARB 1/2H X 3/8 BRASS	ALL	117 EC410	ROCKER SWITCH 110V RED SPST	ALL
44 DE566	SWIVEL 3/8 STEEL	ALL	118 ECH55	THERMOSTAT .60-190F	ALL
45 D1061	PLUG 3/8 BRASS	SC30004VH, SC30005VH, SC35006VG, SC35006KG	119 ECF10	CIRCUIT BREAKER 15 AMP	ALL
47 VS030	PRESSURE SWITCH 4000 PA/PR16]	ALL	120 GLL57	LABEL,SC/SS PANEL CONTOL BOX	ALL
48 DHC80	HOSE, 1/2 LO PRESS BLACK	ALL	121 HB100	BATTERY BOX ATTWOOD G24 (LARGE)	ALL
49 DF599	FUEL TANK ADAPTER W/PLASTIC TUBE	ALL	123 GLL30	MAINTENANCE LABEL 4x4 SC,SS,SM	ALL
50 WT07R	FUEL TANK 7.5 GAS RED	ALL	125 VG200	GUN VALVE 12 @ 4000 ST1500	ALL
51 WT081	FUEL CAP, GASOLINE	ALL	126 VW045	WAND 1/4 x 48in MOLDED GRIP	ALL
52 WT080	FUEL CAP, DIESEL	ALL	127 DQ04S	COUPLER 1/4 SOCK FEM	ALL
53 WT078	FUEL TANK 18 DIESEL CLEAR	ALL	128 DH050	HOSE 3/8 x 50' 3000psi 250F BL	SC30004VH, SC30005VH
54 DFF04	FUEL TANK BUSHING 1/4	ALL	DH057	HOSE 3/8 x 50' 4000psi BLK/RED	SC35006VG, SC35006KG
55 DFE04	FUEL TANK ELL 1/4	ALL	130 HB025	LARGE BATTERY BOX TRAY 12-03 NEW	ALL
56 DE866	SWIVEL 3/8F X 3/8M 90	ALL	131 DQ74T	M22 TWIST COUPLER 1/4 MALE "	ALL
57 D2088	NIPPLE 1/2 BRASS	ALL	132 DQ74F	TWIST COUPLER 1/4 PLUG FEM-SUT "	ALL
58 D8088	HOSE BARB 1/2 BRASS	ALL	133 HNZ05	NOZZLE HOLDER (FOR WAND)	ALL
59 D6088	TEE 1/2 BRASS	ALL	132 HLB30	GROMET; WAND 1 "	ALL
64 D0021	SCREEN WASHER GARDEN H A	ALL	135 AVGH3	WAND ASSEM 48 MOLDED GRIP W/NOZZLE HOLDER "	ALL
65 D009M	GARDEN H A 3in LONG 1/2 NPT	ALL	PHK40	VALVE KIT FOR PH411	SC30004VH, SC30005VH
67 HRR07	REINFORCEMENT BRACKET-PUMP RAIL	SC35006VG, SC35006KG	PHK30	PACKING KIT HYDROTEK 4@3200	SC30004VH, SC30005VH
70 PH411	PUMP 4@4000 & 4.8@3000 RIGHT HAND	SC30004VH, SC30005VH	PGK01	VALVE KIT ; (6) GP K01	SC35006VG, SC35006KG
PG563	PUMP 5.6/3500 NICKEL PLATED	SC35006VG, SC35006KG	K69	KIT 69; PACKING REPLACEMENT	SC35006VG, SC35006KG

Aussie Hydro-Loop System ... Operation & Maintenance Manual June 2016



WIRING DIAGRAM HSC40005DBF



WASTE WATER RECOVERY UNIT



Protecting the environment from wash water runoff and complying with governmental storm drain regulations is simple, economical and effective with the AZV55 or AZV88 when cleaning concrete on driveways, floors and parking lots.

Wash water is trapped and filtered through 7 stages with reduction to 5 microns and stored in your trailer tank for repeated use by the pressure washer. The unit is equipped with 2 large capacity pleated filters. No outside power supply is required and with an almost unlimited reusable water supply it is the ultimate in conservation.

THE MODEL AZV55 IS PROVIDED WITH A DAMMING SYSTEM AND GROUND PICK UP SCUPPER WITH VACUUM HOSE FOR WATER COLLECTION AND PICK UP SUCTION TO THE SYSTEM FOR PROCESSING AND STORAGE FOR RE-USE.

Minimum Requirements

- 115 volt 2.9kw generator, 12 volt 15 amp (20 amp on AZV88) engine charging system and 12 volt battery.
- 600 litre bulk supply tank
- Specially designed trailer hose reels available
- Drain all tanks and replace cartridges daily, use Hydrotek replacements or exact equivalents to avoid damage to the pressure washer.

VACUUM SYSTEM SPECS

	AZV55	AZV88
VACUUM MOTOR	104CFM, 2 stage motor, 91" lift, recovers 5gpm+	104CFM, 2 stage motor, 91" lift, recovers 8gpm+
VACUUM POWER	115v/8.6 amp (Powered by SC or SCU Series Generator)	115v/8.6 amp (Powered by SC or SCU Series Generator)
BARRIER	10' dual water tubes, 10' sand dam tube	ZMAT7 rubberized water barriers, 10' sand dam tube
PICK UP VACUUM HOSE	1 X 1.5" x 50' spiral vacuum hose	1 X 1.5" x 50' spiral vacuum hose
SEPARATOR TANK HOPPER	polyethylene seamless molded, slant cone bottom, 40 gallon capacity	polyethylene seamless molded, slant cone bottom, 40 gallon capacity
OIL SEPARATAION	center water column removal process, single oil skimmer bag 40# capacity	center water column removal process, single oil skimmer bag 40# capacity
SOLIDS SEPARATION	gravity separation with 1-1/2" sludge/solids drain	gravity separation with 1-1/2" sludge/solids drain
MOUNTING	seven bolt mounting on rear of Hydrotek trailer (6 bolts on AZV88)	six bolt mounting on rear of Hydrotek trailer
FILTRATION	7 stage	7 stage
TRANSFER PUMP	4.9 gpm 45 psi triplex diaphragm with pressure shutoff & automatic level control	9 gpm 20 psi triplex diaphragm with pressure shutoff & automatic level control
PUMP POWER	12vdc/13 amp, circuit breaker protected, lighted switch (Powered by SC or SCU battery)	12vdc/13 amp, circuit breaker protected, lighted switch (Powered by SC or SCU battery)
INLET FILTER (HVFB41)	1 X Duo Flow dirt bag, mounted inside separator tank	1 X Duo Flow dirt bag, mounted inside separator tank
FINAL FILTER (HVFB05)	1 X 5 micron polyester felt bag 7" x 32" mounted on lid in storage tank	1 X 5 micron polyester felt bag 7" x 32" mounted on lid in storage tank
OIL SKIMMER (HVB040)	8" x 24" absorbent skimmer, sludge drain	8" x 24" absorbent skimmer, sludge drain
CARTRIDGE FILTER (HVFH07)	1 X 20 micron pleated polyethylene filtering material, 32 sq ft	1 X 20 micron pleated polyethylene filtering material, 32 sq ft
CARBON FILTER (HVFH10)	1 X 10 micron pleated, activated carbon filter, oil and odour removal, 32 sq ft	1 X 10 micron pleated, activated carbon filter, oil and odour removal, 32 sq ft
WARRANTY	90 day accessory warranty	90 day accessory warranty

RECOVERY UNIT OPERATING INSTRUCTIONS



Caution – when using the unit as a vacuum recovery unit, ensure the area to be cleaned is thoroughly brushed and swept, to remove debris which may otherwise affect the operation of the vacuum system and block the filters.

Caution – ensure the instructions regarding filter cleaning are followed to ensure effective operation of the recovery system.

- Place the sand dam and water dike system at the low area to create a seal to capture wash water runoff.
- Install the vacuum hose provided between the scupper pick-up device and the inlet to the filtration system.
- Have extra duo flow dirt bags readily available, as it is quicker to change the bag when they get dirty during a job. After the job, clean all used filter bags for reuse.
- Start engine on the Hydrotek pressure washer and turn on auxiliary power switch (if equipped)
- Turn on vacuum motor switch. Turn on transfer pump switch. Switches must remain in the “ON” position while working.
- When washing and recovery is completed, shut off vacuum system prior to turning off Hydrotek unit.
- Turn off switch for transfer pump system after transfer pump completes pump out cycle.
- Drain hopper into a bucket; replace oil skimmer absorber as required, dispose of sludge properly at hazardous materials collection center (do not exceed 6” of sludge in hopper). Drain hopper before towing if unit is trailer mounted.
- Clean or replace cartridges at consistent 25 psi running pressure. Bag filters can be cleaned and reused until plugged. Clean daily (or every 9 hours of use, whichever is less)
- Drain water in bulk supply tank daily to prevent bacterial contamination or treat with chlorine.

DO NOT drink water! Dispose of grey water properly and with proper permits as required by your local regulations.

NOTE: Depending on the dry sweeping clean up done before pressure washing, the inlet filter may have service intervals between 15-20 minutes or as long as 45-60 minutes.

Replace carbon filter monthly, or after 40 hours usage as required. Replace or clean cartridge filters daily or more often under severe conditions. (Keep a large supply of replacement filters on hand). Do not use soap or other additives.

Note: The AZV systems have a FILTRATION BYPASS/RECOVER MODE ONLY. Simply disconnect fitting at the filter inlet to allow direct discharge to a controller permitted sewer line, landscape area or discharge area (when legally available). Disconnect the hose at the filters, to bypass filters, and attach ¾ garden hose to fitting and route to permitted discharge point. If discharging to sewer, change the Duo Flow Dirt Bag filter to the optional capture strainer bag.



Scupper pick-up



Vacuum system power switch

Transfer pump power switch



Vac hose inlet connection



RECOVERY UNIT TROUBLESHOOTING

Submersible pick up pump;

- If sump pump is on but will not pump, remove discharge hose and run pump to allow it to prime itself.
- To reset timer on sump pump, unplug and restart.
- Check auxiliary switch position, if equipped.
- Check output voltage at plug receptacle of Hydrotek unit
- Check GFCI reset on Hydrotek unit

Reduced filter flow;

- Clean or replace cartridges at consistent 25 psi running pressure
- Bag filters can be cleaned and reused until blocked. Clean daily (or every 8 hours of use which ever is less).
- Replace or clean cartridge filters daily or more often under severe conditions. (Keep a large supply of replacement filters on hand)

Unit will not pump;

- Check fuse in fuse holder and replace
- Check battery connections
- Check battery charge
- Check reset breaker at panel

Vacuum won't come on:

- Check auxiliary switch position, if equipped.
- Check output voltage at plug receptacle of Hydrotek system
- Check GFCI reset on Hydrotek unit

Vacuum shuts off

- Check water level in tank. This unit is equipped with a high level shut off system. If indicator light is off this condition is probably due to blocked filters. Check filters for reduced flow, follow procedures for cleaning filters.

Reduced vacuum pick up:

- This unit is provided with 15 metres and not recommended for additional hose.
- Check scupper for blockages
- Check inlet bag filter, follow procedure for cleaning or replace.

COMMON REPLACEMENT PARTS FOR RECOVERY UNIT

Part Number	Description
VFH07	Cartridge, 4.5" x 20" 20 micron
VFH10	Cartridge 4.5" x 20" 10 micron carbon
VB040	Oil skimmer bag
VFB41	Duo flow dirt bag
VFB05	Bag filter 7 x 32 - 5 micro
VFB8S	Capture strainer bag, 800 micron (optional)
ASF01	Filter start up pack , completer series of filters
MEV15	Vacuum motor 115v AC
PS120	Transfer pump 12v
DHV20	Vacuum hose 15 metres x 2"
ZMAT6	Sand berm 10' - sand not included
ATP75	Vacuum scupper pick up device 12"
ZMAT7	Deluxe sand berm 6' - sand not included
ATP40	Hydro vacuum arch, 6' ground pick device
ANTV3	Hydro twister flat surface cleaner

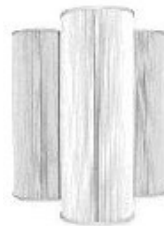


Always be armed with an extra carbon filter for improved water quality when recycling.

The VFB41 duo-flow dirt bag works as you debris catcher when recovering and processing. Switch to VFB8S strainer bag when capture pump only is used.



The ANTV5 cleans large flat surfaces fast and recovers waste water at the same time.

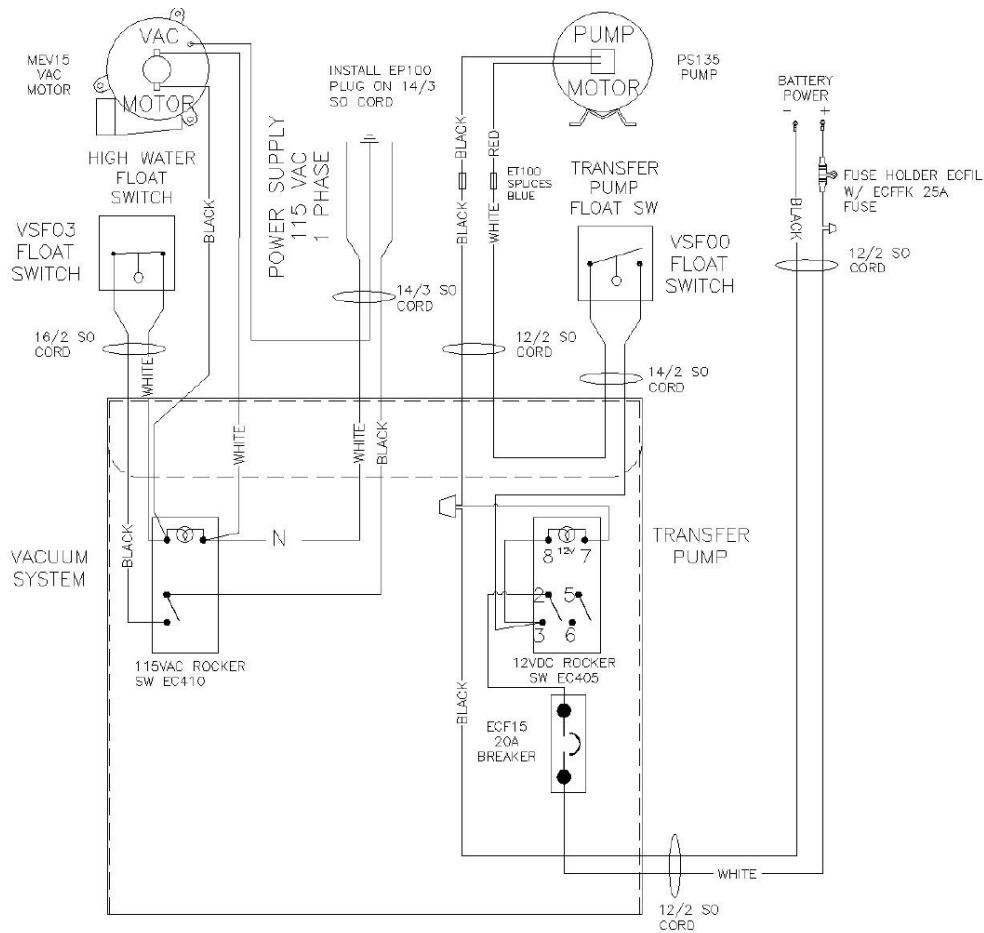


It's quicker to have extra filters cleaned and ready to change out while working.

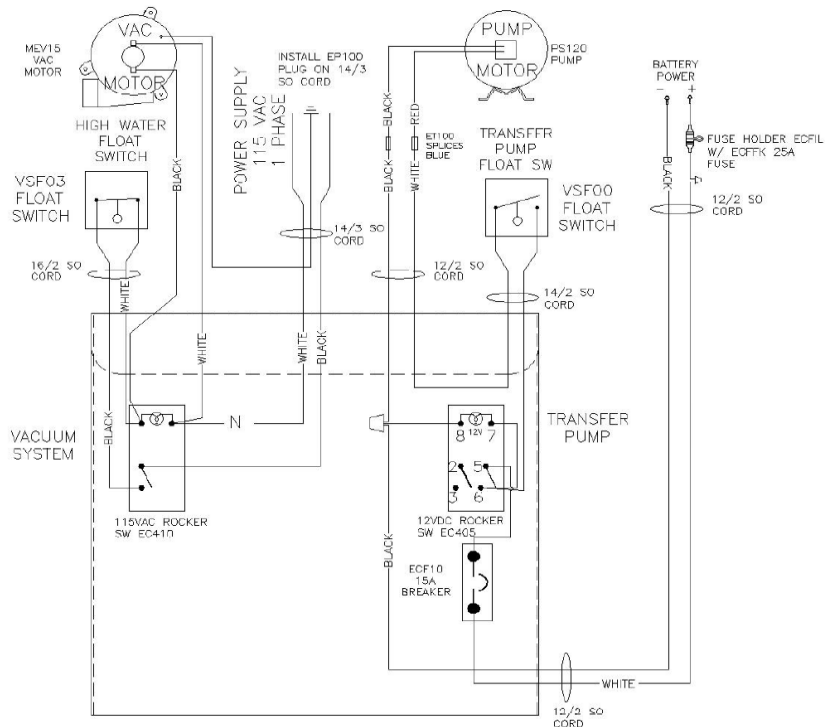
ZMAT7 Deluxe berm for water retention and recovery using the ATP75.



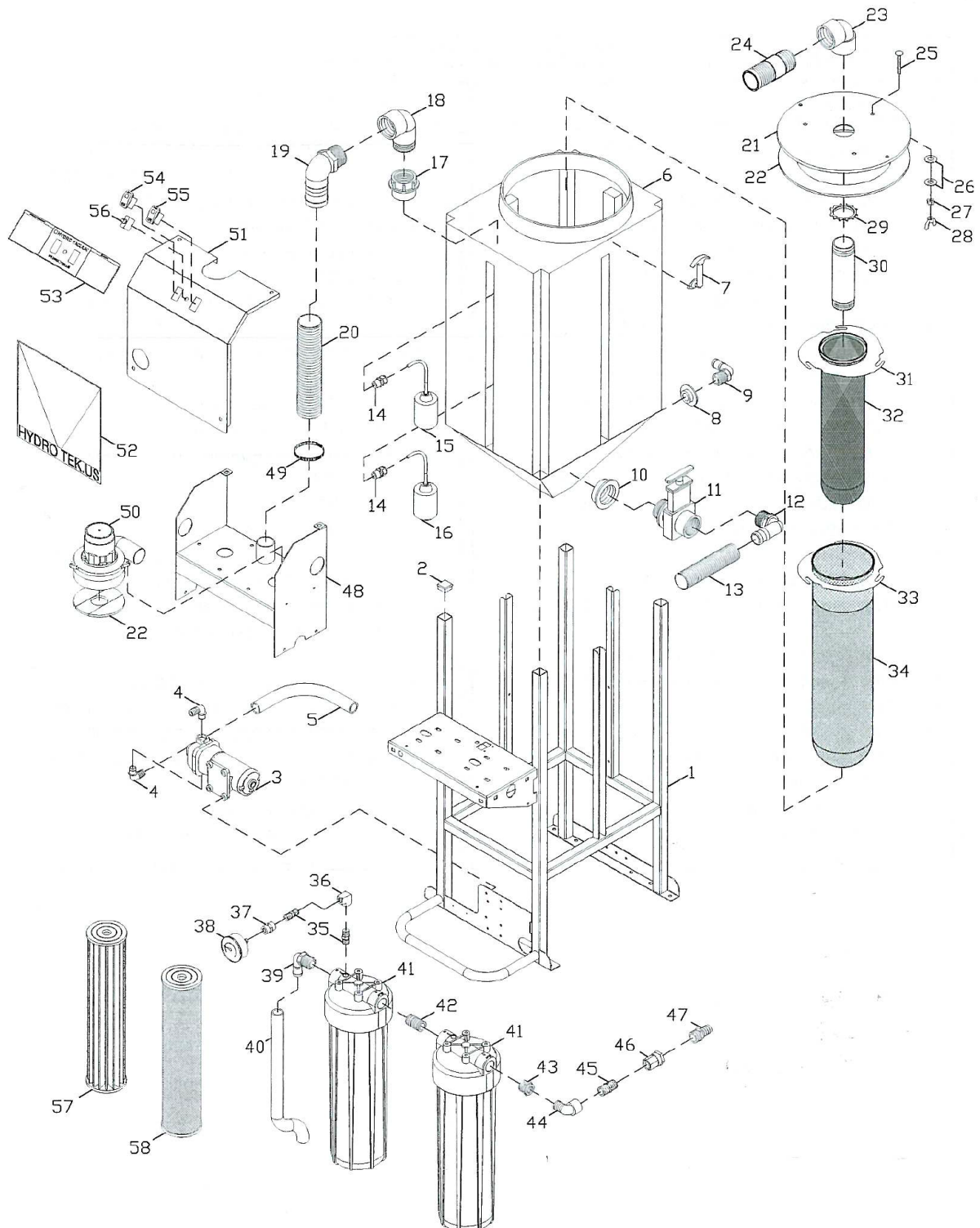
AVZ 88 Wiring diagram



AVZ 55 Wiring diagram



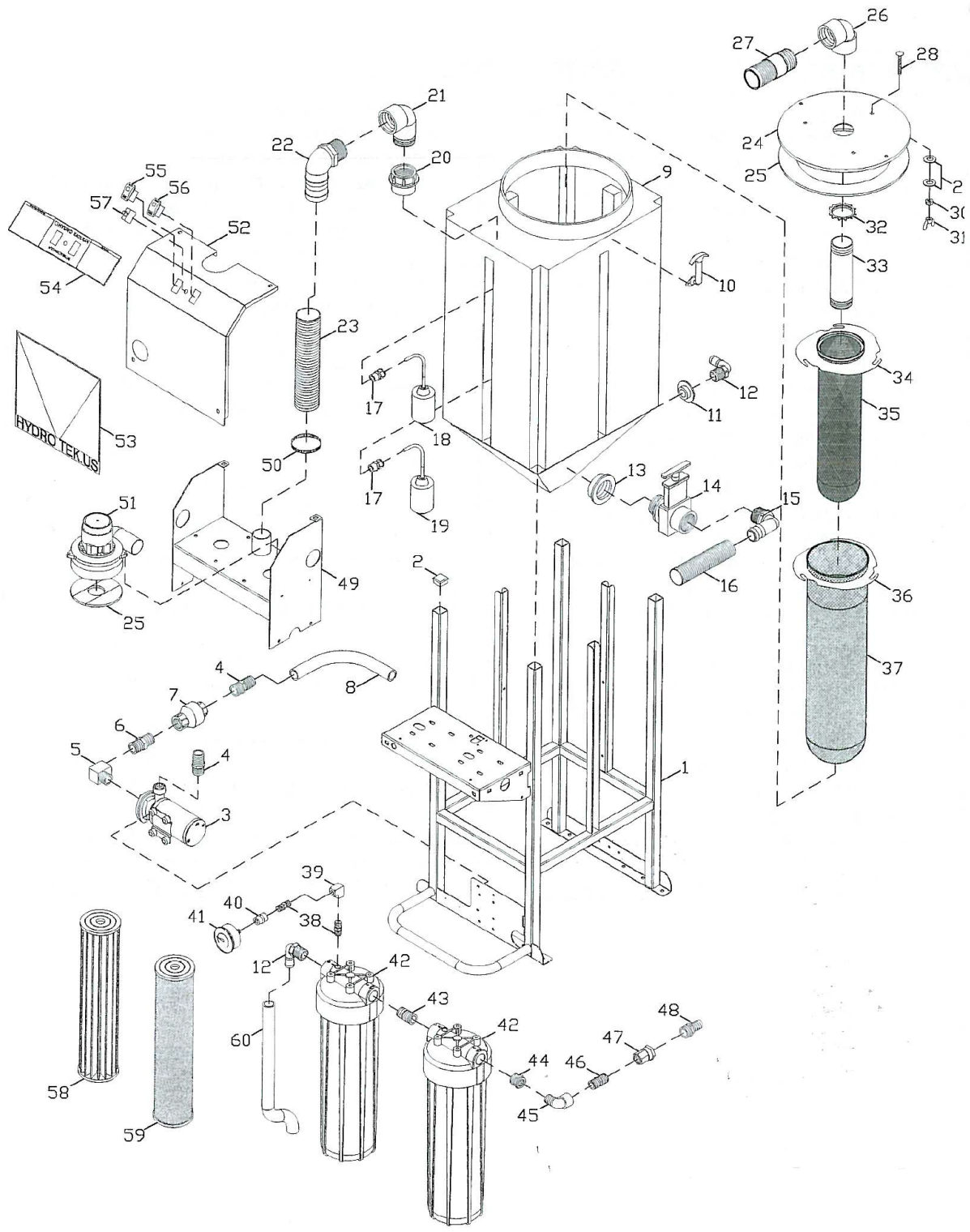
PARTS BREAKDOWN AZV55 RECOVERY UNIT



PARTS LIST AZV55 RECOVERY UNIT

1	HF126	AZV RZV FRAME ASSEMBLY 08 NEW	30	DB524	NIPPLE 2 x 8SCH 80 PVC
2	HLO12	SQUARE HOLE PLUG 1 1/4 PLASTIC (4REQ)	31	HF148	AZV/RZV BAG FILTER ADAPTER SMALL BAG
3	PS120	PUMP; TRANSFER 12V 5@ 45 PSI F	32	VFB45	INSIDE STRAINER BAG FOR AZV/RVZ
4	PS130	HOSE BARB, QUAD PUMP PORT	33	HF148	AZV/RZV BAG FILTER ADAPTER LARGE
5	DHL12	HOSE; 3/4 BLACK INLET 200 PSI	34	VFB41	DIRT BAG DUO FLOW 26" 400/100M
6	WTU40	TANK, 40 GALLON PURPLE	35	D2044	NIPPLE 1/4 BRASS
7	HL096	HOOD CATCH BLACK (2 REQ)	36	D5044	ELL 1/4 BRASS
8	DSW20	SPIN WELD FITTING 3/4 FPT FLUSH	37	D3044	COUPLING 1/4 BRASS
9	D5617	HOSE BARB 3/4MP x 3/4HB 90 POLY	38	UG006	GAUGE; 60 PSI CENTER BACK MOUNT
10	DSW25	SPIN WELD FITTING 1 1/2 FLUSH	39	D5631	1.0 MT x 75 HOSE BARB POLY 90
11	WB10	GATE VALVE 1 1/2 PVC	40	DHL12	HOSE: 3/4 BLACK INLET 200 PSI (20.00")
12	D5626	1.5 MT x 1.5 HOSE SHANK POLY 90	41	VFH08	BIG GREY VESSEL ASSM 1 INCH
13	DHV20	VACUUM HOSE GREY/BLCK RIBD 1.5	42	D1616	NIPPLE 1 CLOSE BRASS
14	EWC08	STRAIN RELIEF 1/2 HEYCO (3/8)	43	D1612	REDUCING BUSHING 1M x 3/4F PO
15	FSF03	FLOAT SWITCH N/C IN DOWN	44	D5612	STREET ELL 3/4 POLY
16	FSF00	FLOAT SWITCH N/O IN DOWN	45	D2120	NIPPLE 3/4 POLY
17	DSW30	SPIN WELD FITTING 2 FT 1SN	46	D012F	GARDEN HOSE ADAPTER 3/4 NPT FEM
18	D5615	STREET ELBOW 2 POLY	47	D012M	GARDEN HOSE ADAPTER-MALE x
19	D5645	HOSE BARB 2 x 2 MT POLY 90	48	HF128	AZV/RZV VACUUM HOUSING
20	DHV02	VACUUM HOSE GREY/BLACK RIBD	49	FC023	WORM GEAR 1 13/16-2 3/4 SS
21	HF147	AZV/RZV VAC TANK LID 3-2011	50	MEV15	VACUUM MOTOR 110V
22	HL031	FOAM TAPE WEATHERSTRIP 2 x 1/4	51	HF135	AZV/RZV VAC HOUSING COVER SS
23	D5127	ELBOW 2 POLY	52	GLL37	LABEL HT LOGO, CLEAR, 1175" x 1175"
24	D3322	HOSE 2" x 2" MPT ADAPTER	53	GLL15	LABEL AZV/RZV 2 MIL BR CHROME
25	FB879	CARRIAGE BOLT-3/8-16 x 2" (3 REQ)	54	EC405	ROCKER SWITCH CLEAR 12V 20A DPST
26	FWC08	WASHER SAE 1/2 PLATED (6 REQ)	55	EC410	ROCKER SWITCH 110V RED SPST
27	FNJ06	NUT LOCK JAM 3/8-16 PLATED (3 REQ)	56	ECF10	CIRCUIT BREAKER 15 AMP
28	FNW06	WING NUT 3/8-16 STAINLESS (3 REQ)	57	VFH07	FILTER CARTRIDGE 20 MICRON 4 1/2
29	EWN26	2in CONDUIT LOCKNUT	58	VFH10	FILTER CARTRIDGE PLEATED CARBON

PARTS BREAKDOWN AZV88 RECOVERY UNIT



PARTS LIST AZV88 RECOVERY UNIT

1	HF126	AZV RZV FRAME ASSEMBLY 08 NEW STYLE	31	FNW06	WING NUT 3/8-16 STAINLESS (3 REQ)
2	HL012	SQUARE HOLE PLUG 1 1/4 PLASTIC	32	EWN26	2in CONDUIT LOCKNUT
3	PS135	12V DC 25 A SS CENTRIFUGAL PUMP	33	DB524	NIPPLE 2 x 8SCH 80 PVC
4	D8169	HOSE BARB 1in.H x 3/4P BRASS	34	HF148	AZV/RZV BAG FILTER ADAPTER SMALL BAG
5	D5512	STREET ELBOW 3/4 BRASS	35	VFB45	INSIDE STRAINER BAG FOR AZV/RVZ
6	D2089	NIPPLE 3/4 BRASS	36	HF148	AZV/RZV BAG FILTER ADAPTER LARGE BAG
7	VR088	3/4 SWING CHECK VALVE PVC	37	VFB41	DIRT BAG DUO FLOW 26" 400/100M
8	DHB18	PVC SPRING WIRE SUCTION HOSE	38	D2044	NIPPLE 1/4 BRASS
9	WTU40	TANK, 40 GALLON PURPLE	39	D5044	ELL 1/4 BRASS
10	HL096	HOOD CATCH BLACK (2 REQ)	40	D3044	COUPLING 1/4 BRASS
11	DSW11	SPIN WELD FITTING 1 FT 2SN	41	UG006	GAUGE; 60 PSI CENTER BACK MOUNT
12	D5634	1.0 MT x 1.0 HOSE SHANK POLY 90	42	VFH08	BIG GREY VESSEL ASSM 1 INCH
13	DSW25	SPIN WELD FITTING 1 1/2 FLUSH	43	D1616	NIPPLE 1 CLOSE BRASS
14	WB10	GATE VALVE 1 1/2 PVC	44	D1612	REDUCING BUSHING 1M x 3/4F PO
15	D5626	1.5 MT x 1.5 HOSE SHANK POLY 90	45	D5612	STREET ELL 3/4 POLY
16	DHV20	VACUUM HOSE GREY/BLCK RIBD 1.5 (18.00")	46	D2120	NIPPLE 3/4 POLY
17	EWC08	STRAIN RELIEF 1/2 HEYCO (3/8)	47	D012F	GARDEN HOSE ADAPTER 3/4 NPT FEM
18	FSF03	FLOAT SWITCH N/C IN DOWN POSITION	48	D012M	GARDEN HOSE ADAPTER-MALE x 3/4MNPT
19	FSF00	FLOAT SWITCH N/O IN DOWN POSITION	49	HF128	AZV/RZV VACUUM HOUSING
20	DSW30	SPIN WELD FITTING 2 FT 1SN	50	FC023	WORM GEAR 1 13/16-2 3/4 SS
21	D5615	STREET ELBOW 2 POLY	51	MEV15	VACUUM MOTOR 110V
22	D5645	HOSE BARB 2 x 2 MT POLY 90	52	HF135	AZV/RZV VAC HOUSING COVER SS
23	DHV02	VACUUM HOSE GREY/BLACK RIBD 2" (8.00")	53	GLL37	LABEL HT LOGO, CLEAR, 11.75" x 11.75"
24	HF147	AZV/RZV VAC TANK LID 3-2011	54	GLL15	LABEL AZV/RZV 2 MIL BR CHROME
25	HL031	FOAM TAPE WEATHERSTRIP 2 x 1/4	55	EC405	ROCKER SWITCH CLEAR 12V 20A DPST D5127 ELBOW2 POLY
26	D5127	ELBOW 2 POLY	56	EC410	ROCKER SWITCH 110V RED SPST
27	D3322	HOSE 2" x 2" MPT ADAPTER	57	ECF15	CIRCUIT BREAKER 20 AMP
28	FB879	CARRIAGE BOLT-3/8-16 x 2" (3 REQ)	58	VFH07	FILTER CARTRIDGE 20 MICRON 4 1/2
29	FWC08	WASHER SAE 1/2 PLATED (6REQ)	59	VFH10	FILTER CARTRIDGE PLEATED CARBON
30	FNJ06	NUT LOCK JAM 3/8-16 PLATED (3 REQ)	60	DHB18	PVC SPRING WIRE SUCTION HOSE 1" (23.00")

TRAILER INFORMATION

The loaded mass of your trailer must not exceed:

- . the capacity of the towbar
- . the maximum towing mass specified by the tow vehicle's manufacturer
- . the maximum ball weight specified by the tow vehicle's manufacturer

Do not overload your trailer. You should not exceed the maximum load specified on the trailer (check plate on drawbar).

The ball mass (the weight carried by the tow ball) should be about 10% of total laden trailer weight. This can be measured by placing jockey wheel only on scales.

The trailer's drawbar should be level when being towed. Vehicle handling and braking may be affected if ball weight is too heavy causing the back of the towing vehicle to dip.

Regular maintenance of the trailer is essential for safe towing. Have it checked regularly to ensure it is in a safe and roadworthy condition.

The trailer's wheel-bearings, suspension and brakes must all be in good working order and tyres must be properly inflated. If attaching items to the rear, do not overload as the balance and towability of the trailer could be adversely affected. Also, make sure you do not obscure the number plate or lighting.

Before you tow....

- . Inspect all tyres carefully and ensure they are suitably inflated. Remember, when towing heavily loaded trailers your tow vehicle's tyre pressures should be increased to the level recommended in the owner's handbook or on the tyre placard.
- . Check the trailers wheel nuts have been tightened to the manufacturer's specifications. To tighten the nuts, use a torque wrench to the torque recommended by the manufacturer (around 90ft lb or 125Nm). Wheel nuts should then be re-tightened after each 100 kms for the first 400 kms and checked every 1,000 kms or at six monthly intervals thereafter or after having your trailer serviced.
- . Check brakes are correctly adjusted.
- . Ensure the coupling socket and ball match in size.
- . Check that the coupling is correctly and securely fastened.
- . Ensure that your load is properly secured.
- . Check that the safety chains are correctly connected (D shackle must be suitably rated).
- . Check that the light connections are secure and that all lights work.
- . Disengage reversing catch fitted to the trailer coupling (as used with over-run brakes).
- . Ensure that the hand brake of the trailer has been correctly released.
- . Make one or two test stops to check that the brakes are working properly.



TRAILER INFORMATION

- Limit the amount of load in the boot of the tow vehicle.
- Ensure that the rear vision mirrors on the tow vehicle are properly adjusted.
- Lock the jockey wheel in the travelling position.



Reversing trailer ...

- Engage reversing latch before reversing trailer. Damage may result to the trailer if latch is not engaged correctly.
- Do not reverse over gutters, kerbs or culverts. These may cause damage to the trailer's suspension.

Once trailer is parked ...

- Engage hand brake, disconnect electrics and safety chain, and lower jockey wheel before unhitching from tow vehicle.



For further information on the trailer please consult the trailer manufacturer.

AUSSIE HYDRO-LOOP RISK ASSESSMENT

MODELS:

In line with the National Occupation Health & Safety Commission's requirements the data below applies to the Aussie Hydro-loop range of high pressure hot water clean & capture systems.



DESCRIPTION:

Engine drive high pressure hot water steam cleaners with waste water recovery vacuum and filter system designed for professional cleaning applications.

MATERIAL CONSTRUCTION:

Aussie Hydrotek clean and capture systems are mounted on heavy duty trolley trailers. They consist of a hot water pressure cleaner, vacuum recovery unit and a filter system that returns cleaned water to the on-board water tank. The machines are supplied with two hose reels, one with low pressure supply hose and the other with up to 75 metres of high pressure hose to increase operator convenience.

RISK RANKING METHOD:

Risk is the combination of the likelihood of a specific unwanted event and the potential consequences if it should occur.

RISK RANKING METHOD:

For each event, the appropriate probability (a letter A to E) and consequences (a number 1 to 5) is

PROBABILITIES:

- A. Common or repeating occurrence.
- B. Known to occur or "it has happened".
- C. Could occur, or "I've heard of it happening".
- D. Not likely to occur.
- E. Practically impossible.

CONSEQUENCES FOR PEOPLE:

- 1. Fatality or permanent disability.
- 2. Serious lost time, injury or illness.
- 3. Moderate lost time, injury or illness.
- 4. Minor lost time, injury or illness.
- 5. No lost time.

selected.

RISK RANKING TABLE:

The consequences (loss outcomes) are combined with the probability (of those outcomes) in the risk ranking table to identify the risk rank of each loss event (e.g. a consequence of 3 with a probability of B yields a risk rank of 9).

The table yields a risk rank from 1 to 25 for each set of probabilities and consequences. A rank of 1 is the highest magnitude or risk that is a highly likely, very serious event.

A rank of 25 represents the lowest magnitude of risk, an almost impossible very low consequence event.

Controls must be taken to either eliminate or minimise the risk.

C O N S E Q U E N C E		PROBABILITY				
		A	B	C	D	E
	1	1	2	4	7	11
	2	3	5	8	12	16
	3	6	9	13	17	20
	4	10	14	18	21	23
	5	15	19	22	24	25

POTENTIAL HAZARD:

Hazard	Yes/ No	Risk	Risk Rating	Controls
Entanglement with hose (tripping, falling)	Yes	Personal injury of the operator or bystanders	13	<ul style="list-style-type: none"> ◆ Warning stickers ◆ hose reel option
Injury from high pressure water	Yes	Personal injury of the operator or bystanders	13	<ul style="list-style-type: none"> ◆ Warning notice on blaster ◆ Warning in Operator's Manual, ◆ Use of safety protection clothing (Aussie Pro-operator) ◆ Use of barriers to keep bystanders away from work area
Burns from steam or hot water	Yes	Personal injury	21	Warning in either Operating Instructions and decals on machine
Suffocation from engine fumes	Yes	Fatality is the risk	7	<ul style="list-style-type: none"> ◆ Machine decal warning about operation in confined spaces ◆ Operator training in working in confined spaces
Ergonomic lifting or movement on site,	Yes	Personal injury	8	<ul style="list-style-type: none"> ◆ Machine decal warning about correct lifting procedures ◆ Operator's Manual ◆ Staff training
High temperature (from engine muffler and other components)	Yes	Burns from muffler	15	◆ Warning sticker on machine
Battery exploding if not charged correctly	Yes	Acid burns	12	<ul style="list-style-type: none"> ◆ Warning sticker on battery ◆ Wear eye & face protection when working near battery
Fire or explosion caused by refuelling engine while running	Yes	Serious injury, burns	8	◆ Warning sticker on machine
Noise	Yes	Hearing damage	15	◆ Warning sticker regarding ear muffs to be used during operation
Dislodged particles in atmosphere	Yes	Sight damage	6	◆ Warning regarding wearing safety glasses.
Slipping on wet surface	Yes	Personal injury	9	◆ Use of proper footwear
Contact with chemical cleaners used to clean surfaces	Yes	Skin contact could result in burns, skin irritation etc. Fumes from some chemicals may lead to respiratory problems	4	<ul style="list-style-type: none"> ◆ Chemical cleaners to only be used as a last resort when other methods have failed. ◆ Areas to be kept well ventilated. ◆ Staff to follow manufacturers' instructions at all times for use, storage & disposal. ◆ Staff to wear the appropriate PPE ◆ Respiratory protection when required

Signed originator

Job title

Date Completed

NOTES

[illegible]

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Reliable Products ... Reliable People



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