

# **Coleman** **Powermate**<sup>®</sup>

## Operator's Manual

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### **IMPORTANT**

Please make certain that everyone who uses the Coleman Powermate PressureWasher thoroughly reads and understands these instructions prior to operation.

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**INDUSTRIAL ENGINE DRIVEN  
PRESSUREWASHER**

# IMPORTANT SAFETY AND OPERATION INSTRUCTIONS

Safety precautions are essential when any mechanical equipment is involved. These precautions are necessary when using, storing, and servicing mechanical equipment. Using this equipment with the respect and caution demanded will considerably lessen the possibilities of personal injury. If safety precautions are overlooked or ignored, personal injury or property damage may occur.

The following symbols shown below are used extensively throughout this manual. Always heed these precautions, as they are essential when using any mechanical equipment.



This warning symbol identifies specific instructions or procedures which if not correctly followed could result in personal injury or death.



This caution symbol identifies specific instructions or procedures which, if not strictly observed, could result in damage to, or destruction of equipment.

This unit was designed for specific applications. It should not be modified and/or used for any application other than which it was designed. If there are any questions regarding its application, *write or call*. Do not use this unit until you have been advised. For more information call Customer Service at 1-800-445-1805.

1. Read all the instructions before using the product. Read this manual carefully - **Know your equipment**. Consider the applications, limitations, and the potential hazards specific to your unit.
2. Know how to stop the product and bleed pressure quickly. Be thoroughly familiar with the controls.
3. Water spray must never be directed towards any electric wiring or fatal electric shock may occur.
4. **Stay alert** - watch what you are doing. Do not operate the pressure washer when fatigued or under the influence of alcohol or drugs.
5. Do not allow hose, skin or clothing to come in contact with hot muffler.

6. Equipment must be placed on a firm, supporting surface.
7. Engine must not be run at excessive speeds. Operating an engine at excessive speeds increases the hazard of personal injury. Do not tamper with parts which may increase or decrease the governed speed.
8. Always remove the spark plug or cable from the spark plug to prevent accidental starting, when not in use, or prior to detaching the high pressure hose.
9. Keep the pressure washer clean and free of oil, mud, and other foreign matter.
10. Store the pressure washer in a well ventilated area with the fuel tank empty. Fuel should not be stored near the pressure washer.
11. Do not wear loose clothing, jewelry, or anything that may be caught in the starter or other rotating parts.
12. The narrow pin point stream is very powerful. It is not recommended for use on painted surfaces, wood surfaces or items attached with an adhesive backing.
13. Never direct spray wand at people or pets.
14. Never allow **CHILDREN** to operate pressure washer at any time. To reduce the risk of injury, close supervision is necessary when a product is used near children.
15. Always use both hands when operating pressure washer to maintain complete control of the wand.
16. Do not touch nozzle or water spray while trigger is depressed.
17. Wear safety glasses and/or goggles while operating.
18. Only Coleman Powermate PressureWasher hoses and nozzles should be used.
19. Never tie knots or kink the high pressure hose as damage could result.
20. Prior to starting the pressure washer in cold weather, be sure ice has not formed in any part of the equipment.

21. Carefully observe all detergent and/or wax instructions and warnings before using. Only Coleman Powermate PressureWasher detergents and waxes are recommended. Other chemicals may be harmful to people or damage your pressure washer.
22. The pressure washer should not be used in areas where gas vapors may be present. An electric spark could cause an explosion or fire.
23. To minimize the amount of water getting onto the pressure washer, the unit should be placed as far as possible from the cleaning site during operation.
24. To prevent accidental discharge, the spray gun should be secured by locking the trigger when not in use.
25. Your pressure washer should never be operated under these conditions:
  - a. Change in engine speed
  - b. Engine misfire
  - c. Excessive vibration
  - d. Presence of flame or smoke
  - e. Enclosed compartment
  - f. Rain or inclement weather
26. Do not run the pressure washer for more than five minutes without depressing the trigger or damage to the pump may result.
27. Check the fuel system periodically for leaks or signs of deterioration such as chafed or spongy hose, loose or missing clamps, or damaged tank or cap. All defects should be corrected before operation.
28. The pressure washer should be operated, serviced, and refueled only under the following conditions:
  - a. Good ventilation - avoid areas where vapors may be trapped such as pits, basements, cellars, excavations, and boat bilges. Air flow and temperatures are important for air cooled units. Temperatures should not exceed 100 degrees F (40 degrees C).
  - b. Dangerous exhaust gases should be piped from enclosed areas. The engine exhaust contains carbon monoxide, a poisonous, odorless, invisible gas which, if breathed, causes serious illness and possible death.
  - c. Refuel the pressure washer in a well lighted area. Avoid fuel spills and never refuel while the pressure washer is running.
  - d. Do not refuel near open flames, pilot lights, or sparking electrical equipment such as power tools, welders, and grinders.

- e. The muffler and air cleaner must be installed and in good condition at all times as they function as flame arresters if backfiring occurs.
- f. Do not smoke near the pressure washer.
- g. Follow the maintenance instructions specified in the manual.
29. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
30. Keep operating area clear of all persons.

## **SAVE THESE IMPORTANT SAFETY INSTRUCTIONS!!**

### **2.0 SAFETY AND PROTECTIVE FEATURES**

#### **RECYCLING VALVE**

The high pressure pump is fitted with a safety valve (recycling valve) which recycles the water inside the pump when the spray gun is closed or a nozzle is blocked.

#### **THERMAL RELIEF VALVE**

A thermal relief valve is provided to protect the pump from overheating if the spray gun is closed for an extended length of time or the nozzle becomes plugged. However, it is intended to be used as a backup system and every effort should be made to not permit the pump to heat up.

We recommend turning the pressure washer off if it will not be used for more than five minutes. This saves wear on the unit, reduces fuel consumption and extends life of the pump by avoiding heat.

#### **PRESSURE GAUGE**

The pressure gauge indicates the operating pressure of the pressure washer, as well as indicating possible problems. Pressure readings above the normal operating range may indicate a clogged nozzle or an obstruction in the high pressure outlet or hose.

### SAFETY LOCK OFF LATCH

To prevent accidental discharge of high pressure water, the safety latch on the trigger should be engaged whenever the pressure washer is not in use. (See page 13)

### LOW-OIL SHUTDOWN

The engine is equipped with low-oil shutdown. If the engine oil level becomes lower than required, the pressure washer will automatically shut off. This protects your pressure washer engine from operating without proper lubrication.

If the pressure washer engine shuts off and the oil level is according to specifications, check to see if pressure washer is sitting at an angle that forces oil to shift. Place on an even surface to correct this. If engine fails to start, the oil level may not be sufficient to deactivate low oil level switch. Be sure sump is completely full of oil.

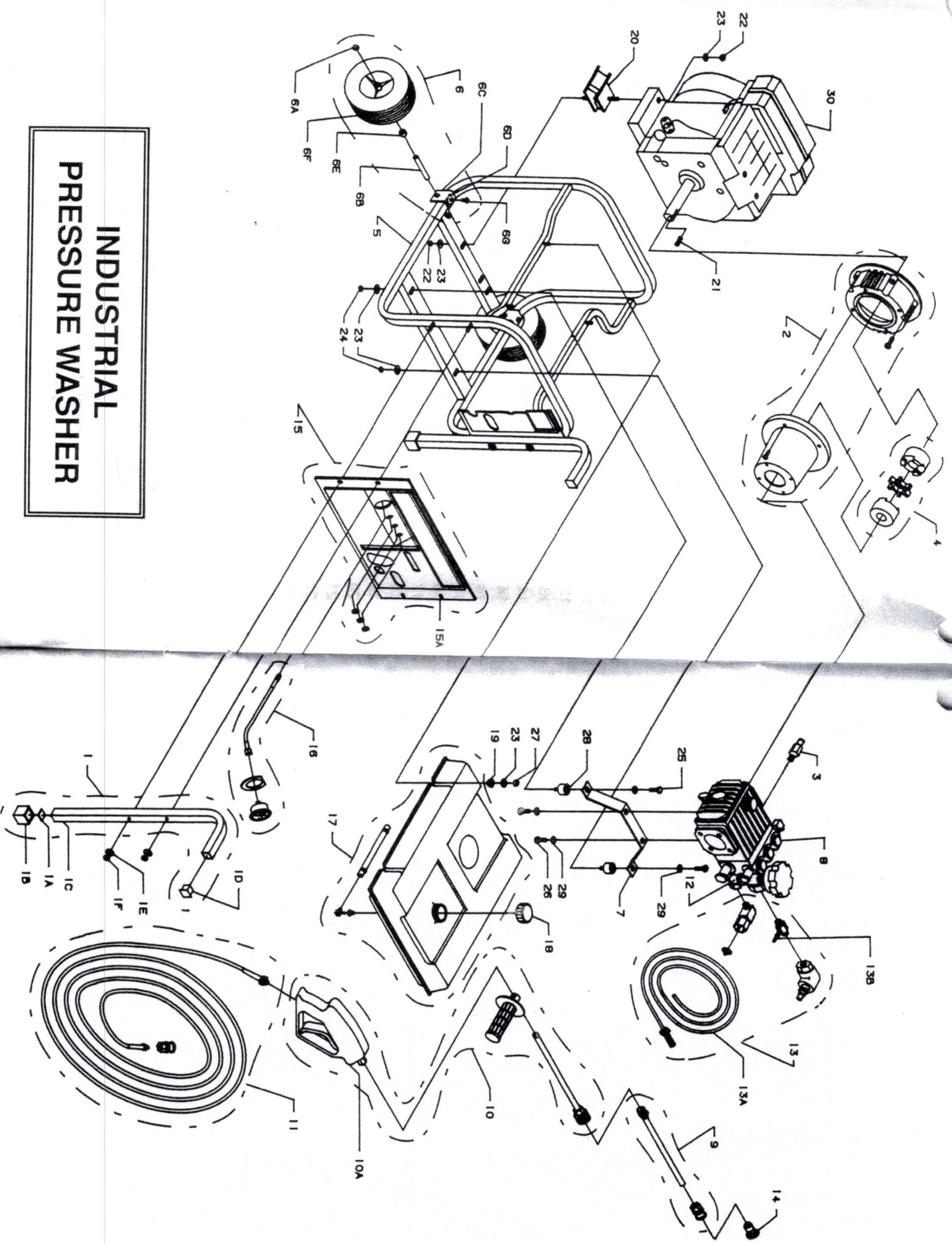
## PARTS LIST MODEL PW85-2800

REF NO.	PART NO.	DESCRIPTION	QUANTITY
1	PR04A9749	Handle, Port Kit	1
2	PWR0-0418	Assy, Engine Adapter	1
3	PWR0-0419	Valve, Thermal Relief	1
4	PWR0-0422	Assy, L-099 Coupling	1
5	PWR0A0444	Carrier, 2800 PW	1
6	PWR0-0445	Kit, Wheel	1
7	PWR0A0452	Bracket, Pump	1
8	PWR0-0453	Pump, Giant P313	1
9	PWR0-0495	Assy, Wand Nozzle	1
10	PWR0-0496	Assy, Gun & Handle	1
11	PWR0-0497	Assy, Hose 3/8"	1
12	PWR0-0417	Assy, Giant Unloader	1
13	PWR0-0515	Kit, Unloader Fittings	1
14	PWR0-0440	Nozzle, 0 Deg x 04, Red	1
14	PWR0-0441	Nozzle, 15 Deg x 04, Red	1
14	PWR0-0442	Nozzle, 50 Deg x 50	1
15	PWR0-0512	Kit, Panel Assy	1
16	PWR0-0513	Kit, Gauge Assy	1
17	PR05-0240	Assy, Tank Complete	1
18	PR05-0322	Cap, Fuel	1
19	PR04-8243	Bushing Step	4
20	PR04-8831	Isolator, 45 Degree	2
21	Note B	Key 1/4" x 1/4" x 1"	1
22	Note B	Nut, Nyloc 5/16-24	4
23	Note B	Washer, Flat 5/16	10
24	Note B	Nut, Nyloc 5/16-18	2
25	Note B	Bolt, Hex 5/16-18 x 5/8	2
26	Note B	Bolt, Hex 8 mm-1.25 x 16 mm	2
27	Note B	Nut, Nyloc 1/4-20	4
28	PR04-8894	Isolator	2
29	Note B	Washer, Lock 5/16	4
30	Note A	Engine, 9 hp Vanguard	1

**Note A:** Coleman Powermate will not provide engines as replacement parts. Engines are covered through the engine manufacturer's warranty. Consult the accompanying engine manual or contact our service department for assistance.

**Note B:** These are standard parts available at your local hardware store.

# INDUSTRIAL PRESSURE WASHER



**NOTE:** Item numbers referred to throughout this manual reference the drawing on pages 7 and 8.

### 3.0 BEFORE OPERATION

**NOTE:** The engine and pump on your Powermate PressureWasher will often have improved performance after a break-in period of several hours.



**CAUTION:** Remove the shipping plug from the pump oil fill and replace it with the vented cap provided or damage to your pump will occur.

Before starting the pressure washer, check for loose or missing parts and for any damage which may have occurred during shipment.

### 3.1 INSTALLING PORTABILITY KIT

Refer to drawing and parts list on pages 6 to 8.

**TOOLS REQUIRED:** Hammer, two small adjustable wrenches or ratchet wrench with 7/16" and 1/2" socket, and a block of wood.

### WHEEL KIT INSTALLATION:

1. Block up engine end of pressure washer carrier so wheel kit can be installed.
2. Place axle cap (item 6A) onto one end of axle (item 6B) with hammer.
3. Place wheel bracket (item 6C) over square tubing as shown.
4. Place the steel 1" x 1" plate (item 6D) under wheel bracket directly under tightening bolt hole.
5. Slide axle (item 6B) through the wheel bracket holes from the inside.
6. Slide spacer (item 6E) and wheel (item 6F) onto axle.
7. Brace the end of the axle with a block of wood and tap on 2nd axle cap (item 6A).
8. Thread 5/16" x 5/8" bolt (item 6G) into top of wheel bracket and tighten so that axle is pulled up tight against 1" tubing. **NOTE: Do not over tighten or threads in wheel bracket may strip.**
8. Repeat above instructions to install second wheel.

### HANDLE INSTALLATION:

9. Drop the 1" x 1" steel plate (item 1A) into each rubber foot (item 1B) opening.
10. Push a rubber foot with steel plate onto the bottom end of each handle (item 1C).

11. Push the endcap (item 1D) into the top end of each handle.
12. Block up handle end of the pressure washer so the bottom of carrier tubing is level and horizontal.
13. Remove the 1/4" nuts and flat washers from studs holding the panel (item 15A) onto the end of the carrier. Do not reuse these nuts. Leave panel on studs.
14. Place the handle (item 1C) over the panel and studs on end of the pressure washer.
15. Install 1/4" flat washer (item 1E) and nylon nut (item 1F) onto stud and tighten securely. Do not overtighten.
16. Repeat steps 9-15 for other handle.
17. Remove block.

### 3.2 HOSE AND GUN ASSEMBLY

**NOTE:** Align threaded connections carefully to prevent damaging threads during assembly. Tighten connections securely to prevent all leaks during operation.

Attach the hose (item 11) to the inlet of the trigger gun (item 10A).

### 3.3 LUBRICATION

**DO NOT** attempt to start the pressure washer engine without filling the engine crank case with the proper amount and type of oil. (See accompanying engine manual for this information.) Your pressure washer engine has been shipped from the factory without oil in the engine crankcase. Operating the unit without oil can ruin the engine.

The pump has been shipped with oil. Before operating the pressure washer, check the oil level of the pump. The oil level should be at the FULL MARK on the dipstick. Add Mobil 1 Formula 15W-50 synthetic oil or equivalent if required. **DO NOT OVERFILL!**

### 3.4 FUEL

Fill the tank with clean, fresh unleaded automotive gasoline. Regular grade gasoline may be used provided a high octane rating is obtained (at least 85 pump octane).



**CAUTION**

**WARNING:** Risk of fire - Do not fill fuel tank in an enclosed area or while unit is running.



**WARNING**

**CAUTION:** Do not overfill the tank. Keep maximum fuel level 1/4 inch below the top of the fuel tank. This will allow for expansion in hot weather and prevent overflow.



**WARNING:** Gasoline is very dangerous. Serious injury may result from fire caused by gasoline contacting hot surfaces.

## 4.0 OPERATING CONNECTIONS

### 4.1 HIGH PRESSURE HOSE

Attach the high pressure hose to the pressure washer by pulling back the collar on the quick disconnect coupling on the hose and pushing it over the coupling half on the pressure washer outlet.

**NOTE:** Only Coleman Powermate PressureWasher high pressure hoses should be used.

### 4.2 WATER CONNECTION

Before connecting to the unit, run water through garden hose (not supplied) to flush out any foreign matter. Check that the screen is clean and is in the inlet of the pump. Attach garden hose to pressure washer water inlet.



**CAUTION:** The water supply must provide a minimum of 4 gpm at 20 psi or the pump will be damaged.

### 4.3 NOZZLE CONNECTION

Remove the nozzle package attached to the bottom of the fuel tank and install them in the proper position in the panel.

Remove the desired nozzle (see section 5.4) from the panel nozzle holder and attach to the wand by pulling back the collar on the quick connect coupling on the wand and firmly inserting the nozzle and pushing the collar forward.



**WARNING:** If nozzle is not securely locked into place, it could be ejected under high pressure when operating the gun, possibly causing injury or property damage.

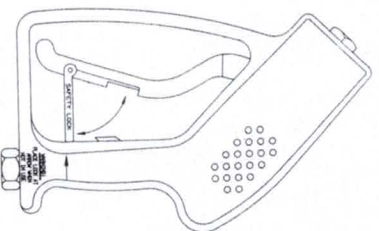
## 5.0 OPERATING INSTRUCTIONS



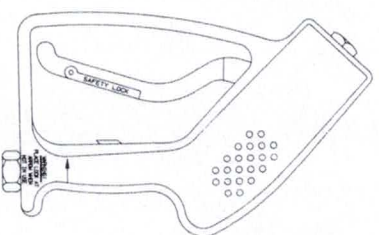
**WARNING:** Risk of injection or severe injury. Keep clear of nozzle. Do not direct discharge stream at persons. This product is to be used only by qualified operators.

### 5.1 START-UP PROCEDURE

1. Make sure water supply is connected and turned on.
2. Release gun safety if locked.



a. Safety lock "locked"



b. Safety lock "unlocked"

3. To allow air to escape from the hoses, squeeze the trigger until there is a steady stream of water.
4. Remove any dirt or foreign matter from the gun wand outlet and the connector of the wand.
5. Insert the nozzle wand into the gun wand and tighten the twistfast fitting securely by hand.
6. Adjust side handle to a comfortable position and tighten securely.



**WARNING:** If wand is not securely locked into place, it could be ejected under high pressure when operating gun, possibly causing injury or damage.

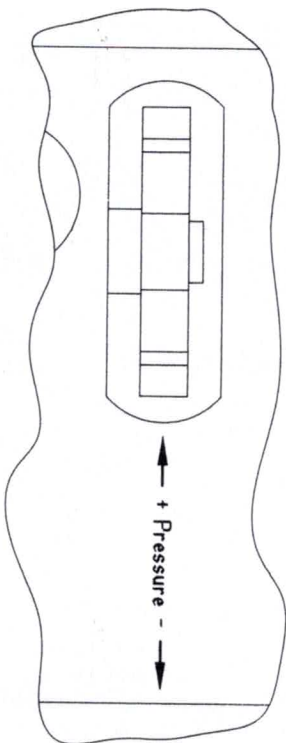
### 5.2 STARTING THE ENGINE

1. Check oil and fuel level.
2. Adjust choke as necessary.
3. Set the engine switch to the "ON" position.
4. Squeeze trigger to release pressure while pulling on the starter rope with a fast steady pull. Pressure may otherwise build up making starting the unit difficult.
5. As the engine warms up, readjust the choke.

### 5.3 PRESSURE ADJUSTMENT

The pressure is adjustable by turning the pressure adjustment knob located on the panel of the pressure washer. The knob must be set at the extreme clockwise position for maximum pressure and turned several turns counter clockwise for minimum pressure.

**NOTE:** With the pressure adjustment knob turned to the maximum pressure position (clockwise), the pump pressure may exceed the rated pressure of the machine which could overload the engine. Adjust the knob counterclockwise to reduce the pressure and lower the power requirements of your pressure washer pump.



The pressure may also be regulated by the use of the engine throttle.

### 5.4 SPRAY NOZZLE SELECTION

Following is information concerning the three nozzles provided with your pressure washer.

**NOTE:** The force of the spray on the surface you are cleaning increases as you move the wand closer to the surface.

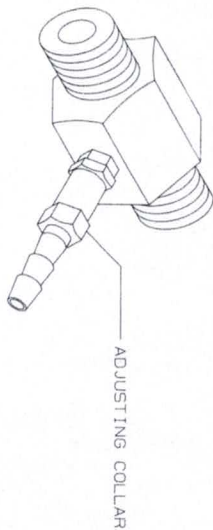
**0° High Pressure: (Red)** The water stream discharged with this nozzle is very aggressive. Use with extreme caution to prevent damage to the surface being cleaned or injury to persons or animals.

**15° High Pressure: (Yellow)** This is the nozzle used for most cleaning applications. It provides wide coverage and a powerful water stream.

**50° Low Pressure: (Black)** Provides low pressure spray and a wide coverage. Used primarily when operating the chemical injector to apply soap or wax.

### 5.5 INJECTION RATE ADJUSTMENT

Coleman Powermate PressureWasher Soap and Wax are designed to be applied at a 2% dilution (injection) rate. This equals 10 oz. of soap used in a minute. The injection rate is variable by adjusting the collar on the injector. (See drawing)



When not in use, close injector by turning the collar clockwise until it stops. The injection can be set up to a 10% injection rate by turning the collar counterclockwise.

### 5.6 USE OF SOAP AND WAX

**CAUTION:** This pressure washer is intended for use only with liquid car wash detergents, developed specifically for pressure washers and with mild soaps. We recommend the use of Coleman Powermate PressureWasher Soap and Wax. Only use chemicals compatible with the steel and brass parts of the pressure washer. Powdered soaps may clog the injection system. Always use soaps or cleaners according to manufacturers directions. Coleman Powermate assumes no responsibility for any damages caused by chemicals injected through this pressure washer.



**CAUTION**

1. Attach injection tube assembly (item 13A) to the siphon injector (item 13B) on the pump.
2. Open a container of Coleman Powermate PressureWasher Soap or Wax and place next to the unit near the injection tube.
3. Visually inspect strainer at the end of the injection tube to verify that it is not clogged.
4. Insert the injection tube into the container all the way to the bottom.



5. Remove the high pressure nozzle from the wand and install the black injection nozzle. The soap/wax will automatically be mixed with the water and discharged through the nozzle.

**NOTE:** 1) When a high pressure nozzle is installed, soap/wax will not be discharged. 2) If the engine throttle is not in the "fast" position, the injection of the soap or wax may be decreased or stopped.

## 5.7 CLEANING TECHNIQUES

When cleaning with the pressure washer, many cleaning tasks can be solved with water alone. For most tasks it is advantageous to use a detergent also. A detergent ensures a quick soaking of the dirt allowing the high pressure water to penetrate and remove the dirt more effectively.

Coleman Powermate PressureWasher Soap and Wax are specially formulated to be used with your Coleman Powermate PressureWasher.

## APPLICATION OF SOAP

1. Apply the Coleman Powermate PressureWasher Soap solution to a DRY work surface. **NOTE: WETTING THE SURFACE FIRST IS NOT RECOMMENDED, AS IT DILUTES THE DETERGENT AND REDUCES ITS CLEANING ABILITY.** On a vertical surface, apply soap horizontally from side to side starting from the bottom to avoid streaking.



**CAUTION:** Avoid working on hot surfaces or in direct sunlight to minimize the chances of the soap damaging painted surfaces.

2. Allow the soap to remain on the surface for a short time before rinsing.



**CAUTION:** Damage may occur to painted surface if soap is allowed to dry on the surface. Wash and rinse a small section at a time.

3. Rinse with clean water under high pressure. On a vertical surface, first rinse from the bottom up, then rinse from the top down. Hold nozzle an appropriate distance from the work surface at a 45° angle using the flat spray as a peeling tool rather than a scrub brush.



**CAUTION:** Hold nozzle far enough away from surface to prevent damage to the surface.

## APPLICATION OF WAX

1. Immediately after cleaning, apply Coleman Powermate PressureWasher Wax using low pressure. Place injection tube in container of wax.
2. Apply the wax sparingly in an even layer. Apply to wet surfaces from the bottom up for even distribution and to minimize streaking.
3. Remove the suction tube from the wax bottle and rinse off the surplus wax from your vehicle under low pressure.

**NOTE: IF SURPLUS WAX IS NOT REMOVED, A HAZY FINISH MAY RESULT.**

4. Wipe dry to reduce water spotting.

## 5.8 END OF OPERATION

When you have completed use of the soap/wax injection line, remove tube from container. Continue to run in low pressure position and inject clean water through the tube and injection system by placing end of tube in container of clean water. Continue to run until it is thoroughly cleaned.

## 6.0 MAINTENANCE

### 6.1 CONNECTIONS

Connections on pressure washer hoses, spray wand, and nozzle should be cleaned regularly and lubricated with grease to prevent leakage and damage to the o-rings.

### 6.2 NOZZLE

Clogging of the nozzle causes the pump pressure to be above the appropriate pressure. Cleaning is immediately required.

1. Separate the nozzle from the wand.
2. Clear the nozzle with a small rigid piece of wire such as a paper clip.



**CAUTION:** The nozzle must be cleaned only when the nozzle is disconnected from the wand or personal injury could result.

3. Flush the nozzle backwards with water.
4. Reconnect the nozzle to the wand.

Restart the pressure washer and depress the trigger on the spray gun. If the pressure is still too high, repeat items 1-4.

If the previous procedure does not clear the nozzle, replace with a new nozzle.

### 6.3 LUBRICATION

The pump oil should be changed after the first 50 hours of operation, then at regular intervals of 500 hours or less depending on operating conditions. A synthetic oil such as Mobil 1 Formula 15W-50 or equivalent is required. Add oil to the crankcase so that the oil level is at the FULL MARK on the dipstick. DO NOT OVERFILL!

**NOTE:** The number of operating hours allowed between oil changes will be affected by conditions such as high ambient temperature, high humidity and severity of use (operating at maximum RPM and pressure for extended periods of time). You must decrease the number of hours between changes when operating under these conditions.

### 6.4 WATER SCREEN

The pressure washer is equipped with a water inlet screen to protect the pump.



- CAUTION:** 1) If the screen is not kept clean it will restrict the flow of water to the pressure washer and may cause damage to the pump.  
2) Do not damage the screen while removing or cleaning screen. Any foreign particles entering the pump may damage the pump.  
3) DO NOT operate pressure washer without the screen in place.

Remove screen and backflush to remove impurities from screen. Replace immediately.

### 6.5 ENGINE MAINTENANCE

During the winter months, rare atmospheric conditions may develop which will cause an icing condition in the carburetor. If this develops, the engine may run rough, lose power, and may stall. This temporary condition can be overcome by deflecting some of the hot air from the engine over the carburetor area.

**NOTE:** Refer to the engine manufacturer's manual for service and maintenance of the engine.

## 7.0 STORAGE

### 7.1 PUMP STORAGE



**CAUTION:** Always store your pressure washer in a location where the temperature will not fall below 32°F. The pump in this machine is susceptible to permanent damage if frozen. **FREEZE DAMAGE IS NOT COVERED BY THE WARRANTY.**

If you must store your pressure washer in a location where the temperature is below 32°F, you can minimize the chance of damage to your machine by utilizing the following procedure:

1. Stop the pressure washer, shut off water supply and detach supply hose and high pressure hose. Squeeze the trigger of the discharge gun to drain all water from the wand and hose.
2. Disconnect spark plug wire.
3. Tip the unit on its side with the inlet connection pointing up.
4. Insert a small funnel (to prevent spilling) into the inlet and pour in approximately 1/2 cup of antifreeze.
5. Without connecting garden hose, pull the recoil several times to circulate the antifreeze in the pump system. Continue to add antifreeze and pull the recoil until the antifreeze is expelled from the outlet connection. Disconnect the high pressure hose. The anti-freeze will serve as a rust preventative during storage and help prevent the pistons from sticking.
6. Turn the unit upright.

Another method of reducing risks of freeze damage is to drain your machine as follows:

1. Stop the pressure washer, shut off water supply and detach supply hose and high pressure hose. Squeeze the trigger of the discharge gun to drain all water from the wand and hose.
2. Restart pressure washer and let it run briefly (about 10 seconds) until water no longer discharges from the high pressure outlet.

## 7.2 ENGINE STORAGE

When the pressure washer is not being operated or is being stored more than one month, follow these instructions:

1. Replenish engine oil to upper level.
2. Drain gasoline from fuel tank, fuel line, fuel valve and carburetor.
3. Pour about one teaspoon of engine oil through the spark plug hole, pull the recoil starter several times and replace the plug. Then pull the starter slowly until you feel increased pressure which indicates the piston is on its compression stroke and leave it in that position. This closes both the intake and exhaust valves to prevent the inside of the cylinder from rusting.
4. Cover the pressure washer and store in a clean, dry place that is well ventilated away from open flame or sparks.

**NOTE:** The use of a fuel additive, such as STA-BIL<sup>®</sup>, or an equivalent, will minimize the formulation of fuel gum deposits during storage. Such an additive may be added to the gasoline in the fuel tank of the engine, or to the gasoline in a storage container.

## 7.3 AFTER EXTENDED STORAGE



**CAUTION**

**CAUTION:** Prior to restarting, thaw out any possible ice from the pressure washer hoses, spray gun and wand.

## 8.0 TROUBLESHOOTING

Problem	Possible Cause	Correction
Engine will not start or stops while operating	Low oil shutdown Engine switch not "ON" Pressure build up in hose	Fill engine with oil Turn switch "ON" Squeeze trigger
Engine is overloaded	Nozzle partially blocked Excessive pressure	Clean nozzle as instructed in Section 6.2 Reduce pressure by using pressure adjustment knob.
Water or oil leaking from bottom of pump	A small amount of leakage is normal	If excessive leaking occurs, call Coleman Powermate Customer Service Department
Pressure increases when gun is closed	Bypass valve not operating properly	Call Coleman Powermate Customer Service Department
Engine running but pump not building maximum pressure or has irregular pressure	Faucet is off Unit has been stored in freezing temperatures Inadequate water supply Water inlet screen clogged Kink in garden hose Wand nozzle worn or damaged	Turn on faucet Thaw out unit completely including hose, gun, and wand Provide a minimum of 4 gpm at 20 psi Clean screen. See Section 6.4 Straighten hose Replace nozzle. See Section 6.2

**TROUBLESHOOTING Continued. . .**

**Problem**

**Possible Cause**

**Correction**

<p>Engine running but pump not building maximum pressure or has irregular pressure</p>	<p>Air in pump  Adjustable pressure knob not set to maximum position  Suction or discharge valves clogged or worn out  By-pass valve not operating effectively</p>	<p>Let pressure washer run with gun open and nozzle removed until steady stream of water is released  Set to maximum position. See Section 5.3  Call Coleman Powermate Customer Service Department  Call Coleman Powermate Customer Service Department</p>
<p>No intake of soap/wax</p>	<p>Injection tube not securely inserted onto pressure washer  Tube cracked or split  Wrong nozzle  Injector turned off  Injection tube strainer clogged  Nozzle blocked</p>	<p>Push firmly onto injector  Replace tubing  Switch to low pressure nozzle  Turn collar counter-clockwise. See section 5.5  Clean strainer  Clean nozzle. See section 6.2</p>
	<p>Dried soap/wax in injector</p>	<p>Clear dried soap/wax from injector or injection tube</p>

**TROUBLESHOOTING Continued. . .**

**Problem**

**Possible Cause**

**Correction**

<p>Trigger will not move</p>	<p>Gun safety lock engaged</p>	<p>Release safety lock</p>
<p>Water in crankcase</p>	<p>High humidity  Worn seals</p>	<p>Change oil more frequently  Call Coleman Powermate Customer Service Department</p>
<p>Noisy operation</p>	<p>Worn bearings  Air mixed with water</p>	<p>Call Coleman Powermate Customer Service Department  Check inlet lines for restrictions and/or proper sizing. Also see Section 5.1 #3</p>
<p>Rough/pulsating operation with pressure drop</p>	<p>Worn packing  Inlet restriction  Unloader  Air mixed in water</p>	<p>Call Coleman Powermate Customer Service Department  Check system for stoppage, air leaks, correctly sized inlet plumbing to pump  Check unloader for proper operation  Check inlet lines for restrictions and/or proper sizing. Also see Section 5.1 #3</p>
<p>High crankcase temperatures</p>	<p>Wrong grade of oil  Improper amount of oil in crankcase</p>	<p>Use recommended oil  Adjust oil level to proper amount</p>

**NOTE:** The engine and pump on your Coleman Powermate PressureWasher will often have improved performance after a break-in period of several hours.

## 9.0 TECHNICAL DATA

Model	Coleman Powermate Pressure Washer Industrial 2800 p.s.i.
Part number	PW85-2800
Pump pressure	100-2800 p.s.i.
Engine, Briggs & Stratton	9 hp. Vanguard
Engine speed, no load	3600 r.p.m.
Engine speed, loaded	3300 r.p.m.
Fuel capacity	3 gallons
High pressure hose	50 ft.
Flow rate at rated pressure	3.5 g.p.m.
Maximum flow rate	4.1 g.p.m.
Pressure of inlet water	20 - 90 p.s.i.
Injection rate	Adjustable 0 - 10%
Inlet water	160°F maximum
Pump oil	Mobil 1 Formula 15W-50
Crankcase oil capacity	14 ounces
Maximum water temperature	160°F