

# Pressure Washer / Air Compressor Combo



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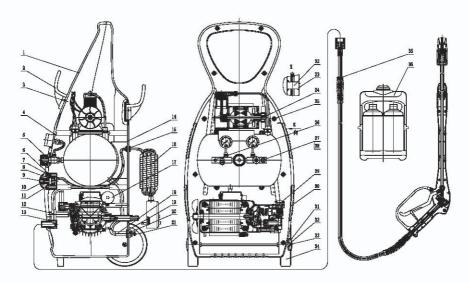
WARNING! READ AND UNDERSTAND ALL SAFETY PRECAUTIONS IN THIS MANUAL BEFORE OPERATING. FAILURE TO COMPLY WITH INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE, AND/ OR VOIDING OF YOUR WARRANTY. ALL POWER AMERICA WILL NOT BE LIABLE FOR ANY DAMAGE BECAUSE OF FAILURE TO FOLLOW THESE INSTRUCTIONS.

The APW5201 is a multifunctional product with a high pressure washer and air compressor. It is mainly used for the household. The selection knob allows you to switch from one to the other. This unit mainly consist of a motor, eccentric bowl, piston, pump body, bypass switch and spray gun.

#### **Technical Specifications**

No.	Model	Voltage/Frequency V/Hz	Washer Pressure Psi /MPa	Max pressure Psi / MPa	Flow GPM L/Min	Power W
1	APW5201	120V/6OHZ	1015~1885 7~13	1740~2610 12~18	1.6 6	1500-2000
2	APW5202	120V/6OHZ	1015~1885 7~13	1740~2610 12~18	1.6 6	1500-2000
No.	Model	Air Compressor pressure Psi/MPa	Motor KW/HP	Capacity M³/min(CFM)	Air tank L/GAL	
1	APW5201	100(0.7)	0.25(1/3)	28.3(1.0)	5.7(1.5)	
2	APW5202	100(0.7)	0.25(1/3)	28.3(1.0)	5.7(1.5)	

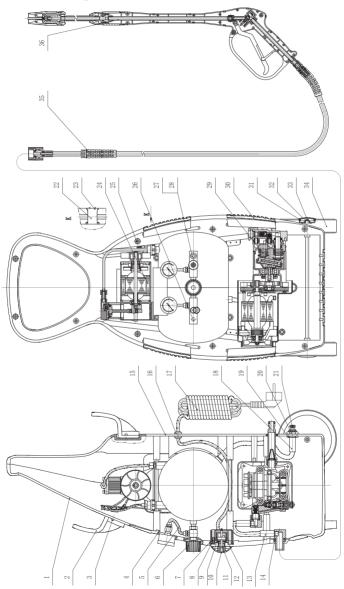
### **Parts List**



# Washer and Air Compressor Parts List

NO	NAME	QTY	NO	NAME	QTY	NO	NAME	QTY
1	Front shell	1	13	Nut	1	25	Bolt	10
2	Hook	2	14	Back Shell	1	26	Pressure reliefe valve	1
3	Housing bolt (front)	4	15	Rubber washer	1	27	Bolt	1
4	Board	1	16	Electric cord	1	28	Hexangular nut	1
5	Air compressor regulator	1	17	Capacitor	1	29	Water pump	1
6	Switch box	_ 1	18	Inlet hose	1	30	Vent shroud	4
7	Bolt	4	19	Hexangular washer	1	31	Wheel cap	2
8	Circuit board	2	20	Hexangular nut	1	32	Wheel retainer	2
9	Control knob	1	21	Hose quick-release valve	1	33	Axle	1
10	Transmission pole	1	22	Water hose clip	6	34	Wheel	2
11	Switch	1	23	Bolt	24	35	Spray gun	1
12	Water pressure outlet hose	1	24	Air compressor	1	36	Soap bottle	1

# Parts List (cont'd) Break Down Enlarge



#### **WASHER**

#### IMPORTANT SAFETY INSTRUCTIONS

**WARNING**-When using this product basic precautions should always be followed, including the following:

- 1. Read all the instructions before using the product.
- 2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
- 3. Know how to stop the product and bleed pressure quickly. Be thoroughly familiar with the controls.
- 4. Stay alert-watch what you are doing.
- 5. Do not operate the product when fatigued or under the influence of alcohol or drugs.
- 6. Keep operating area clear of all persons.
- 7. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- 8. Follow the maintenance instructions specified in the manual.
- For a grounded or double-insulated product rated 120V volts or less, single phase.
   "This Product Is Provided With A Ground Fault Circuit Interrupter Built Into The Power Cord Plug. If Replacement Of The Plug Or Cord Is Needed, Use Only Identical Replacement Parts."
   "WARNING-Risk of Injection or Injury-Do Not Direct Discharge Stream At Persons."

#### SAVE THESE INSTRUCTIONS

#### **GROUNDING INSTRUCTIONS**

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER- Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet. Have a proper outlet installed by a qualified electrician. Do not use any type of adaptor with this product. GROUND FAULT CIRCUIT IN INTERRUPTER PROTECTION

This pressure washer is provided with a ground-fault circuit-interrupter (GFCI) built into the plug of the power-supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, only identical replacement parts that include GFCI protector.

#### **EXTENSION CORDS**

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from the product. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances, store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord and do not yank on any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect the extension cord from the receptacle

before disconnecting the product from the extension cord. WARNING-To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

#### RUNNING INSTRUCTIONS

- -Connect the outlet hose to the washer and connect the spray gun to the outlet hose.
- -Connect nozzle and nozzle extension.
- -Check gauze filter is clear of any blockage.
- -Connect the water supply hose.
- -Check that the hose has no kinks in it.
- -Turn on water and check for leaks.
- -Depress trigger to allow air to be expelled though the pump and hoses, lock trigger.
- -Plug in machine and turn on side switch.
- -Unlock trigger and use the pressure washer.

#### WATER INLET SCREEN

The water inlet filter must be inspected regularly, so as to avoid blockage and restriction in the water supply to the pump.

#### LONG TERM STORAGE

The machine should be stored in a frost-free environment.

After long-term storage without operations, it is possible to form scales inside the machine making it hard to start again. In such conditions it is recommended to turn off disconnect the power supply and rotate the motor by hand several times so as to avoid excessive current draw on the motor and the power supply.

Portable High pressure Cleaning Machine is a kind of plunger-type pumps, with the special characteristic of high lift due to delivering liquid by squeezing and pressing liquid when the piston moves up and down in the pump. With features of compact structure, light weight, high pressure and elegant appearance, this machine is portable, reliable and competent, and suitable for cleaning and maintenance of household cars, cleaning of exterior walls, floors, closets, bathrooms, swimming pool of cottages, hotels and restaurants, as well as the watering of flowers, grass and trees in garden.

#### I. Preparations

- 1. Unpack the carton
- 1.1 Check for damage during transportation is necessary when the product is unpacked.
- 1.2 Check whether the parts and documents detailed in packing list is completely available.
- 2. Installation of attached parts
- 2.1 Fix the water supply hose with filter to the inlet opening on the machine, and connect the other end to the water source.
- 2.2 Connect the nozzle to the ejection tube, and join the tube with the handle by means of inserting into the handle and turning clockwise to lock it. Thus, an ejection gun is complete.
- 2.3 Trial run
- 2.3.1 Turn on the water supply, then the power to start. Let the machine run in idle state without connecting to the high pressure outflow hose, until no foam is found in the outlet (Warning: very important!). Then turn off the power.

- 2.3.2 Observe the operating state of machine.
- 2.3.3 Join the high pressure ejection gun with the high pressure outflow hose. Connect the outflow hose to the outlet of machine.
- 3. Installation of electric appliances
- 3.1 The installation shall be in accordance with technical parameters.
- 3.2 Check whether the voltage of power supply meets the specifications.
- 3.3 Enough sectional area (2mm²) is required for cables with in 20 meters. The surplus of cables shall not wind around the machine.

#### Notes: 1. Danger may occur if the length of cable is not enough.

#### Operation



Warning: Never point the gun at people, animals, the machine body,

power supply or any electric appliances.

- 1. Turn on the water.
- 2. Open the locking switch on the gun by pushing counterclockwise. Then pull the trigger.
- 3. Turn on the power to start the machine.
- 4. When the water reaches the gun, you can operate the gun in any direction.
- 5. Any kind or any shape of water flow as you desire is available by using gun with adjustable nozzle.
- 6. You can install detergent equipment to your gun to improve the cleaning effects.
- 7. Pause, if the pause is long, please turn off the power to protect the machine.
- 8. Turn off the machine.
  - 8.1 Turn off the power and disconnect the cable with power supply.
  - 8.2 Turn off the water and disconnect the machine with water supply.
  - 8.3 Keep pulling the trigger until no pressure remains in the machine.
  - 8.4 Remove any water and dirt on the case of machine to protect the electrical units.

#### Maintenance

- 1. This machine uses room temperature water. Do not use Salt Water or Hot Water to clean.
- If the nozzle has been damaged or some Calcium-based substance has been deposited there turn off the machine immediately.

- 3. The machine shall be kept in a room free of water. The freezing of water will damage the machine seriously in winter, if there s any ice in the machine, or in the hose, ejection tube, and nozzle. Don't operate. Drain the water in the machine before putting in to storage. Keep it in a dry, anti-freezing place.
- 4. Running in idle state may cause damage to the machine. So, never start the machine until the water is turned on.
- 5. Try to avoid bending the hose, and never fold it.
- 6. Remove the dirt on the filter screen of inlet regularly.
- 7. Be sure the surface of machine case, water gun and hose is free of grease, water and other dirt.
- 8. Don't cover the opening of the cooling channel. Don't operate in a dirty place.
- This machine is mainly for household use, not suitable for long-term or frequent commercial and industrial uses.

#### Miscellaneous

- Check the joint part of hose prior to each use. In case of any damage found, repair or replace immediately.
- Never touch the socket or plug with a wet hand. An electric shock protector and grounding are required for the power supply.
- Always hold the handle to carry the machine. Never move it by draging the cable. Never pull out the plug by holding the pipe.
- 4. Never operate in a place prone to fire.
- 5. Never operate the machine under water.
- 6. Always hold the gun with both hands in operation.
- 7. Never turn on the switch until the high pressure hose has been soundly connected.
- 8. Don't point the water flow to flames or heated objects. The heated particles and vapor are very hazardous.
- Never use the machine in a place which is exposed to flammable, poisonous, corrosive and harmful liquid.
- 10. Never operate with barefeet, with sandals, or slippers.
- 11. Those under 16 are not allowed to operate this machine.
- 12. Never cover your head with the packing bag. Keep the packing bag out reach of children.
- 13. Never touch the machine while it's power is on or in a working state.

#### Problems and troubleshooting

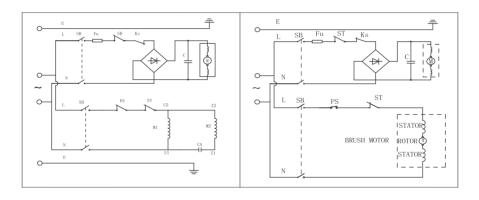
Notes: Turn the power supply OFF before repairing the machine. Only professional electricians are allowed to check the electric circuit.

The following are common problems which may help you.

Problems	Possible	Solutions			
	Insufficient power supply voltage.	Check the socket. Plug. Fuse and voltage. In			
Fail to work	Power cable is damaged.	case of extra low voltage the power cable.			
Fall to work	The seal components of pump are too tight	Turn the motor a few cycles manually prior to			
	in initial use.	starting the machine.			
Insufficient water	The filter screen in the inlet is clogged.	Clean the filter screen.			
Outflow or serious	The joint of inlet is not sound and light. Or	Check the joints for cleanness and tighten			
Pressure fluctuation.	there is air in the water supply hose.	them check whether leakage appears			

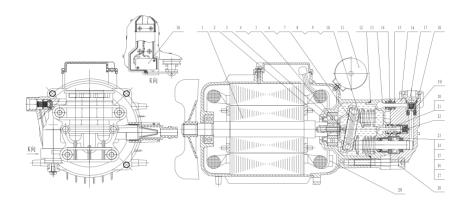
	The inlet and outlet valves stuck.	water supply hose. Or water is insufficient. Or
	The ejection nozzle is abnormal or wearing.	the intake opening of hose is floating over the
		water. If in that case. Connect it and remove
		the air in the hose.
		Clean and reinstall the valves.
		Replace the nozzle and remove the dirt.
	Leakage of 3 drips per minute is allowed for	
Leakage of pump	this pump.	Danair or raplace the goal components
Leakage of pump	However if larger leakage occurs. The seal	Repair or replace the seal components.
	components may have been damaged.	
		Check whether the outflow hose is clogged. If
The motor stops	The pressure controller trips.	yes. Solve it.
· ·	The switch of circuit breaker is out of order.	Repair or replace the switch.
suddenly	The temperature controller trips.	Turn off the machine for several minutes to let
		it cool down.

#### W Circuit



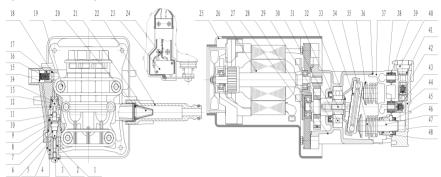
- Fu FUSE
- C ELECTEIC CAPACITY
- **M** MOTOR
- Ks AIR PRESSURE SWITCH
- **SB** POWER SWITCH
- PS PRESSURE SWITCH
- ST THERMOSNAP
- CA ELECTRIC CAPACITY
- M1 MAIN WINDING OF ELECTRIC MOTOR
- M2 SECONDARY WINDING OF ELECTRIC MOTOR

### (Induction motor)



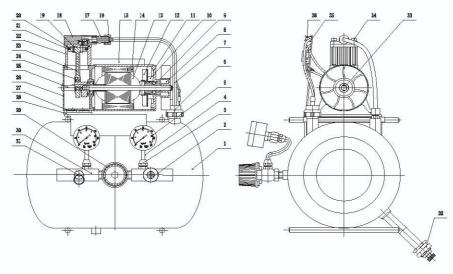
NO	NAME	QTY	NO	NAME	QTY	NO	NAME	QTY
1	MOTOR	1	11	CAPACITOR	1	21	O-RING	6
2	FRAME OIL SEAL	1	12	O-RING	1	22	INLET VALVE	3
3	BEARING	1	13	PUMP BODY	1	23	WATER SEAL	6
4	BOLT	1	14	BRIDGE PIPE	3	24	OIL SEAL	3
5	WASHER	1	15	O-RING	6	25	COPPER WASHER	3
6	THRUST BEARING	1	16	PUMP COVER	1	26	OIL SEAL	3
7	ECCENTRIC BOWL	1	17	VALVE CAP	3	27	PISTON BRACKET	3
8	PISTON	3	18	O-RING	3	28	BOLT	4
9	SPRING	3	19	OUTLET VALVE	3	29	THERMOSNAP	1
10	PISTON WEDGE	3	20	INLET VALVE BASE	3	30	MICRO-SWITCH	1

#### (Brush motor)



No	Name	QTY	No	Name	QTY	No	Name	QTY
1	NUT	1	17	BYPASS BLOCKER	1	33	THRUST BEARING	1
2	SWITCH ADJUSTOR	1	18	O-RING	1	34	SPRING	3
3	BOLT	1	19	BOLT	4	35	PISTON WEDGE	3
4	SPRING	1	20	RUBBER WASHER	1	36	O-RING	1
5	BYPASS VALVE BASE	1	21	FILTER MESH	1	37	PUMP BODY	1
6	BYPASS CORE	1	22	INLET CONNECTOR	1	38	O-RING	6
7	O-RING	1	23	MICRO-SWITCH	1	39	BRIDGE PIPE	3
8	O-RING	1	24	SWITCH BOX	1	40	LONG/SHORT VALVE CAP	3
9	O-RING	1	25	MOTOR COVER	1	41	O-RING	3
10	O-RING	1	26	MOTOR	1	42	OUTLET VALVE	3
11	VALVE FRAME	1	27	BIG GEAR	1	43	INLET VALVE	3
12	O-RING	1	28	CONNECTION BASE	1	44	PUMP COVER	1
13	VALVE SLICE	1	29	FRAME OIL SEAL	1	45	WATER SEAL	3
14	O-RING	1	30	BEARING	1	46	PISTON	3
15	BYPASS WEDGE	1	31	BOLT	1	47	OIL SEAL	3
16	SPRING	1	32	WASHER	1	48	PISTON BRACKET	3

#### AIR COMPRESSOR



No	Name	QTY	No	Name	QTY	No	Name	QTY
1	Air Storage Tank	1	13	Rotator	1	25	Rocker	1
2	Venthole	1	14	Alnico	2	26	End Cover	1
3	Nut	2	15	Motor Base	1	27	Connector Base	1
4	Windpipe	2	16	Nut	2	28	MAT	2
5	Pressure Meter	2	17	Connector	1	29	Adjusting Valve	1
6	Pressure Switch	1	18	Cylinder Cover	1	30	Connector	2
7	Purple Cooper Pipe	1	19	Screw	1	31	Relief Valve	1
8	Fan	1	20	Seal	1	32	Discharge Valve	1
9	Bearing	2	21	Bow1	1	33	Clamp	1
10	Carbon Brush	2	22	Cylinder	1	34	Screw	4
11	Rear Cover	1	23	Piston	1	35	Circuit Board	1
12	Fan	1	24	Bearing	1	36	Fuse	1



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### Compressor Inspection

Prior to installation and usage, thoroughly inspect air compressor for damage or flaws.

- Check tank, compressor, compressor motor and pump for any signs of damage or corrosion.
- Check all screws, bolts, nuts and fasteners. Confirm that they are secure.
- Confirm that all fittings, tank petcock and hardware are free of paint, rust and corrosion.
- Confirm that all compressor settings are correct prior to set-up and usage.

# **Safety Guidelines - Definitions**

This manual contains important information that you need to know and understand in order to protect YOUR SAFETY and to PREVENT EQUIPMENT PROBLEMS. The following symbols help you recognize this information. Please read the manual and pay attention to these sections.



WARNING! WARNINGS INDICATE A CERTAINTY OR STRONG POSSIBILITY OF PERSONAL INJURY OR DEATH IF INSTRUCTIONS ARE NOT FOLLOWED.



CAUTION: CAUTIONS INDICATE A POSSIBILITY OF EQUIPMENT DAMAGE IF INSTRUCTIONS ARE NOT FOLLOWED.



Note: Notes give helpful information.



WARNING! IMPROPER OPERATION OR MAINTENANCE OF THIS PRODUCT COULD RESULT IN SERIOUS INJURY AND PROPERTY DAMAGE. READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. WHEN USING AIR TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF PERSONAL INJURY.

# Save These Important Safety Instructions!

Read and understand all of these safety instructions. Be sure to retain them for future use.



# **Hazard Warnings**

#### **Dust**



WARNING! SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

These chemicals may include (but are not limited to) the following:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products
- Arsenic and chromium from chemically-treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear MSHA/NIOSH approved, properly fitting face masks or respirators when using such tools.

Always follow basic safety precautions when using air tools to reduce the risk of personal injury.

### **Bursting**

Rust can weaken the tank. Drain the condensed water from the tank after each use to reduce rusting. If a leak is detected in the tank, replace the tank immediately. Do not weld, drill or modify the air tank of this compressor. Welding or modifications on the air compressor tank can severely impair

tank strength and cause an extremely hazardous condition. Welding or modifying the tank in any manner will void the warranty.

Check the manufacturer's maximum pressure rating for air tools and accessories. Compressor outlet pressure must be regulated so as to never exceed the maximum pressure rating of the tool. Relieve all pressure through the hose before attaching or removing accessories.

Do not adjust the pressure switch or relief valve for any reason. Doing so voids all warranties. They have been preset at the factory for the maximum pressure of this unit. Personal injury and/ or property damage may result if the pressure switch or the relief valve are tampered with.

Do not use plastic or pvc pipe for compressed air. Use only galvanized steel pipe and fittings for compressed air distribution lines.

# Risk of Eye or Head Injury

What could happen:

- Air powered equipment and power tools are capable of propelling materials such as fasteners, metal chips, saw dust, and other debris at high speed, which could result in serious eye injury.
- Compressed air can be hazardous. The air stream can cause injury to soft tissue areas such as eyes, ears, etc. Particles or objects propelled by the stream can cause injury.
- Tool attachments can become loose or break and fly apart propelling particles at the operator and others in the work area.





#### How to prevent it:

- Always wear ANSI approved Z87.1 safety glasses with side shields.
- Never leave operating tool unattended. Disconnect air hose when tool is not in use.
- For additional protection, use an approved face shield in addition to safety glasses.
- Make sure that any attachments are securely assembled.
- Never point any nozzle or sprayer toward a person or any part of the body. Equipment can cause serious injury if the spray penetrates the skin.

# Risk of Fire or Explosion

What could happen:

- Abrasive tools such as sanders and grinders, rotating tools such as drills, and impact tools such as nailers, staplers, wrenches, hammers, and reciprocating saws are capable of generating sparks which could result in ignition of flammable materials.
- It is normal for the compressor motor and pressure switch to produce sparks while operating. If sparks come into contact with vapors from gasoline or other solvents, they may ignite, causing fire or explosion.
- Exceeding the maximum pressure rating of tools or accessories could cause an explosion resulting in serious injury.





#### How to prevent it:

- Never operate tools near flammable substances such as gasoline, cleaning solvents, etc.
- Work in a clean, well ventilated area free of combustible materials.
- Never use oxygen, carbon dioxide or other bottled gases as a power source for air tools.
- Use compressed air regulated to maximum pressure at or below the rated pressure of any attachments.
- Never connect to an air source that is capable of exceeding 200 psi.
- Always verify prior to using the tool that the air source has been adjusted to the rated air pressure range.
- Never spray flammable liquids in a confined area. Do not spray where sparks or flame are present.
- Do not smoke while spraying.
- Keep compressor as far from spray area as possible.

# Risk of Hearing Loss

What could happen:

 Long term exposure to noise produced from the operation of air tools can lead to permanent hearing loss.



#### How to prevent it:

Always wear ANSI S3.19 hearing protection when using a compressor.

# Risk to Breathing/Inhalation Hazard

#### What could happen:

- Abrasive tools such as grinders, sanders, and cut-off tools generate dust and abrasive materials which can be harmful to human lungs and respiratory system.
- Some materials such as adhesives and tar contain chemicals whose vapors could cause serious injury with prolonged exposure.

#### How to prevent it:

- Always wear MSHA/NIOSH approved, properly fitting face mask or respirator when using such tools. Read all instructions and be sure that your respirator mask will protect you.
- Always work in a clean, dry, well ventilated area.
- Never directly inhale the compressed air produced by a compressor. It is not suitable for breathing purposes.
- Be certain to read all labels when you are spraying paints or toxic materials, and follow the safety instructions.

# Risk of Injury

#### What could happen:

- Tools left unattended, or with the air hose attached can be activated by unauthorized persons leading to their injury and/or injury to others.
- Air tools can propel fasteners or other materials throughout the work area.
- A wrench or key that is left attached to a rotating part of the tool increases the risk of personal injury.
- Using inflator nozzles for duster applications can cause serious injury.
- Air tools can become activated by accident during maintenance or tool changes.
- Air tools can cause the work-piece to move upon contact leading to injury.
- Loss of control of the tool can lead to injury to self or others.





- Poor quality, improper, or damaged tools such as grinding wheels, chisels, sockets, drills, nailers, staplers, etc., can fly apart during operation, propelling particles throughout the work area causing serious injury.
- Fasteners could ricochet or be propelled causing serious injury or property damage.
- Improperly maintained tools and accessories can cause serious injury.
- There is a risk of bursting if the tool is damaged.
- The compressor unit starts automatically. Serious injury could occur from contact with moving parts.





#### How to prevent it:

- Remove air hose when tool is not in use and store tool in secure location away from reach of children and or untrained users.
- Use only parts, fasteners, and accessories recommended by the manufacturer.
- Keep work area clean and free of clutter. Keep children and others away from work area during operation of the tool.
- Keep work area well lit.
- Remove adjusting keys and wrenches before turning the tool on.
- DO NOT use inflator nozzles for duster applications.
- Remove air hose to lubricate or add grinding attachments, sanding discs, drills, etc. to the tool.
- Never carry the tool by the hose.
- Avoid unintentional starting. Don't carry hooked-up tool with finger on trigger.
- Repair servicing should be done only by an authorized service representative.
- Use clamps or other devices to prevent movement.
- Never operate tool while under the influence of drugs or alcohol.
- Don't overreach. Keep proper footing and balance of all times.
- Keep handles dry, clean and free from oil and grease.

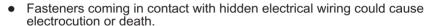
- Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- Always use tool attachments rated for the speed of the power tool.
- Never use tools which have been dropped, impacted or damaged by use.
- Use only impact grade sockets on an impact wrench.
- Do not apply excessive force to the tool. Let the tool perform the work.
- Never point discharge of tool at self or others.
- Do not pull trigger unless tool contact safety device is against work surface.
- Never attempt to drive fasteners into hard surfaces such as steel, concrete, or tile.
- Take care to avoid driving a fastener on top of another fastener.
- Position tool carefully so that fasteners will be delivered to the proper location.
- Use only accessories identified by the manufacturer to be used with specific tools.
- Maintain the tool with care.
- Keep a cutting tool sharp and clean. A properly maintained tool, with sharp cutting edges reduces the risk of binding and is easier to control.
- Check for misalignment of binding or moving parts, breakage of parts, and any other condition that effects the tool's operation. If damaged, have the tool serviced before using.
- Use of an accessory not intended for use with the specific tools increases the risk of injury to persons.
- Always shut off the compressor, remove the plug from the outlet, and bleed all pressure from the system before servicing the compressor, and when the compressor is not in use.
- Do not operate the unit with the shroud removed.

#### Risk of Electric Shock

What could happen:

- Using air tools to attach electrical wiring can result in electrocution or death.
- Improper electrical connections can result in fires, electrocution or death.





#### How to prevent it:

- Never use nailer/staplers to attach electrical wiring while energized.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Thoroughly investigate the work piece for possible hidden wiring before performing work.
- A licensed electrician in accordance with all local and national codes must install all wiring.
- Never use an electric air compressor outdoors when it is raining or on a wet surface, as it may cause an electric shock.

# **Risk of Entanglement**

What could happen:

 Tools containing moving elements or driving other moving tools (grinding wheels, sockets, sanding discs, etc.) can become entangled in hair, clothing, jewelry, and other loose objects, resulting in injury.



#### How to prevent it:

- Never wear loose fitting clothes, or apparel which contains loose straps or ties, etc. which could become entangled in moving parts.
- Remove any jewelry, watches, identifications, bracelets, necklaces, etc. which might become caught by the tool.
- Keep hands away from moving parts. Tie up or cover long hair.



#### Risk of Cut or Burns

What could happen:

- Tools which cut, shear, drill, staple punch, chisel, etc. are capable of causing serious injury.
- The pump and manifold generate high temperatures.

#### How to prevent it:

- Keep the working part of the tool away from hands and body.
- Do not touch the pump, manifold or transfer tube while the pump is running. Allow them to cool before handling or servicing.
- Keep children away from the compressor at all times.



WARNING! THE POWER CORD ON THIS PRODUCT CONTAINS LEAD, A CHEMICAL, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING.

### **Precautions**

- Drain the moisture from the tank daily to help prevent corrosion.
- Pull the pressure relief valve ring daily to ensure proper function and clear possible obstructions.
- To provide proper ventilation for cooling, the compressor must be kept at least 12 inches (31 cm) from the nearest wall, in a well-ventilated area.
- Fasten the compressor securely and release tank pressure before transporting.
- Protect the air hose and electric cord from damage and puncture.
   Inspect them weekly for weak or worn spots, and replace if necessary.
- To reduce the risk of electric shock, do not expose to rain. Store indoors.
- Never operate the compressor if the power cord or plug are damaged.
   Take the equipment to the nearest Authorized Service Center, and a specialist technician will replace it.



# **Basic Air Compressor Components**

Oilless air compressors are factory lubricated for life and do not require any oil.

The basic components of the air compressor are the electric motor, pump, pressure switch, and tank. The electric motor powers the pump. The electric motor is equipped with an overload protector and an automatic reset. If the motor becomes overheated, the overload protector will shut it down to prevent damage to the motor. When the motor sufficiently cools, it will automatically restart.

The pump compresses the air and discharges it into the tank.

The tank stores the compressed air.

The pressure switch (located internally) shuts down the motor and relieves air pressure in the pump and transfer tube when the air pressure in the tank reaches the kick-out pressure. As compressed air is used and the pressure level in the tank drops to the kick-in pressure, the pressure switch restarts the motor automatically, without warning, and the pump resumes compressing air.

# **Assembling the Compressor**

- 1 Unpack the air compressor. Inspect the unit for damage. If the unit has been damaged in transit, contact the carrier and complete a damage claim. Do this immediately because there are time limitations to damaged claims.
- 2 Locate the compressor according to the following guidelines:
  - **a** Position the compressor near a grounded electrical outlet (see GROUNDING INSTRUCTIONS, above).
  - **b** The compressor must be at least 12 inches (31 cm) from any wall or obstruction, in a clean, well-ventilated area, to ensure sufficient air flow and cooling.
  - **c** In cold climates, store portable compressors in a heated building when not in use. This will reduce problems with motor starting and freezing of water condensation.
  - **d** Remove the compressor from the shipping pallet or carton and place it on the floor or a hard, level surface. The compressor must be level to ensure proper drainage of the moisture in the tank.

### **Compressor Controls**

- Power switch: This switch turns the compressor power ON and OFF.
- Pressure switch: This switch turns on the compressor. It is operated
  automatically when the power switch is in the ON position, it allows the
  compressor to start up or shut down automatically, without warning,
  upon air demand.
- Pressure Relieve Valve: If the pressure switch does not shut down the motor when pressure reaches the preset level, this valve will pop open automatically to prevent over pressurization. To operate manually, pull the ring on the valve to relieve air pressure in the tank.
- Tank Pressure Gauge: This gauge measures the pressure level of the air stored in the tank. It is not adjustable by the operator, and does not indicate line pressure.
- Air Pressure Regulator: This air pressure regulator enables you to adjust line pressure to the tool you are using.



WARNING! NEVER EXCEED THE MAXIMUM WORKING PRESSURE OF THE TOOL. TURN THE KNOB CLOCKWISE TO INCREASE PRESSURE, AND COUNTERCLOCKWISE TO DECREASE PRESSURE.

### **Electrical Power Requirements**

#### **Electrical Wiring**

Refer to the air compressor's serial label for the unit's voltage and amperage requirements.

Use a dedicated circuit. For best performance and reliable starting, the air compressor must be plugged into a dedicated circuit, as close as possible to the fusebox or circuit breaker. The compressor will use the full capacity of a typical 15 amp household circuit. If other devices are on the same circuit, the compressor may fail to start. Low voltage or an overloaded circuit can result in sluggish starting that causes the motor overload protection system circuit breaker to trip, especially in cold conditions.



Note: A circuit breaker is recommended. If the air compressor is connected to a circuit protected by a fuse, use dual element time delay fuses (Buss Fusetron type "1" only).



Note: Avoid use of extension cords.

For optimum performance, plug the compressor power cord directly into a grounded wall socket. Do not use an extension cord unless absolutely necessary. Instead, use a longer air hose to reach the area where the air is needed

#### **Grounding Instructions**

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current.

This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded accordance with all local codes and ordinance.



WARNING! IMPROPER INSTALLATION OF THE GROUNDING PLUG CAN RESULT IN A RISK OF ELECTRIC SHOCK. IF REPAIR OR REPLACEMENT OF THE CORD OR PLUG IS NECESSARY, DO NOT CONNECT THE GROUNDING WIRE TO EITHER FLAT BLADE TERMINAL. THE WIRE INSULATION HAVING AN OUTER SURFACE THAT IS GREEN WITH OR WITHOUT YELLOW STRIPES IS THE GROUNDING WIRE.

This product is for use on a nominal 100 to 120 volt circuit. An outlet with a grounding plug must be used.

Make sure that the product is connected to an outlet having the same configuration as the plug. No adapter should be used with this product.

# **Breaking In the Pump**

- 1 Turn the pressure switch to the OFF position.
- 2 Open the petcock. Turn counterclockwise.
- 3 Plug in the power cord.
- **4** Turn the power switch to the ON position. The compressor will start. Allow the compressor to run for 15 minutes, to break in the internal parts.



CAUTION: AFTER ABOUT 15 MINUTES. IF THE UNIT DOES NOT OPERATE PROPERLY. SHUT DOWN IMMEDIATELY, AND CONTACT PRODUCT SERVICE. 888.896.6881

- **5** After about 15 minutes, turn the power switch to the OFF position.
- 6 Close the petcock. Turn in the clockwise direction
- **7** Turn the power switch to the ON position. The compressor will start and fill the tank to the kick-out pressure and stop.

### **Operating Instructions**

#### **Daily Startup**

- 1 Turn the power switch to the OFF position.
- 2 Close the tank petcock. Turn in the clockwise direction.
- 3 Plug in the power cord.



WARNING! HIGH TEMPERATURES ARE GENERATED BY THE ELECTRICAL MOTOR AND THE PUMP. TO PREVENT BURNS OR OTHER INJURIES, DO NOT TOUCH THE COMPRESSOR WHILE IT IS RUNNING. ALLOW IT TO COOL BEFORE HANDLING OR SERVICING. KEEP CHILDREN AWAY FROM THE COMPRESSOR AT ALL TIMES.

4 Turn the power switch to the ON position.



WARNING! WHEN ADJUSTING FROM A HIGHER TO A LOWER PRESSURE, TURN THE KNOB COUNTERCLOCKWISE TO REACH THE DESIRED PRESSURE. DO NOT EXCEED OPERATING PRESSURE OF THE TOOL OR ACCESSORY BEING USED.

**5** Adjust the regulator to the working pressure of the tool.

#### **Shutdown**

- 1 Turn the power switch to the OFF position.
- 2 Unplug the power cord.
- 3 Reduce pressure in the tank through the outlet hose. You can also pull the relief valve ring and keep it open to relieve pressure in the tank.



WARNING! ESCAPING AIR AND MOISTURE CAN PROPEL DEBRIS THAT MAY CAUSE EYE INJURY. WEAR SAFETY GOGGLES WHEN OPENING PETCOCK.

4 Tip the compressor (if necessary for your model) so the petcock is at the bottom of the tank(s). Then open the petcock to allow moisture to drain from the tank.

### **Maintenance**



WARNING! TO AVOID PERSONAL INJURY, ALWAYS SHUT OFF AND UNPLUG THE COMPRESSOR AND RELIEVE ALL AIR PRESSURE FROM THE SYSTEM BEFORE PERFORMING ANY SERVICE ON THE AIR COMPRESSOR.

Regular maintenance will ensure trouble free operation. Your electric powered air compressor represents high quality engineering and construction; however, even high quality machinery requires periodic maintenance. The items listed below should be inspected on a regular basis.

#### **Draining the Tank**

Relieve the air pressure in the system and open the petcock on the bottom of the tank to drain.



WARNING! CONDENSATION WILL ACCUMULATE IN THE TANK. TO PREVENT CORROSION OF THE TANK FROM THE INSIDE, THIS MOISTURE MUST BE DRAINED AT THE END OF EVERY WORKDAY. BE SURE TO WEAR PROTECTIVE EYEWEAR.



Note: In cold climates, drain the tank after each use to reduce problems with freezing of water condensation.

#### Checking the Relief Valve

Pull the relief valve daily to ensure that it is operating property and to clear the valve of any possible obstructions.

#### **Testing for Leaks**

Check that all connections are tight. A small leak in any of the hoses or pipe connections will substantially reduce the performance of your air compressor. If you suspect a leak, spray a small amount of soapy water around the area of the suspected leak with a spray bottle. If bubbles appear, repair or replace the faulty component. Do not overtighten any connections.

### **Storage**

Before storing the compressor for a prolonged, use an air blow gun to clean all dust and debris from the STORAGE compressor. Disconnect the power cord and coil it up. Pull the pressure relief valve to release all pressure from the tank. Drain all moisture from the tank. Cover the entire unit to protect it from moisture and dust.

### Servicing

Perform the following maintenance at the intervals indicated below:

- Operate the pressure relief valve: Daily
- Drain tank: Daily

# **Troubleshooting**



Note: Troubleshooting problems may have similar causes and solutions.

# Low pressure, or not enough air ,or compressor does not stop

- Tank petcock is open
  - Close petcock
- Prolonged excessive use of air
  - Decrease amount of air used
- Compressor not large enough
  - Check air requirement of accessory. If it is higher than CFM and pressure supplied by compressor, you need a larger compressor. Most accessories are rated at 25% of actual CFM while running continuously.
- Restricted check valve
  - Remove and clean or replace.
- Hole in air hose
  - Check and replace if necessary.
- Tank leaks
  - Replace tank



WARNING! IMMEDIATELY REPLACE TANK. DO NOT ATTEMPT TO REPAIR.

- Blown seals
  - Replace any faulty seals.
  - Replace worn parts and reassemble with new seals.

# Excessive starting and stopping, while not in use

- Fittings leak
  - Check fittings with soapy water. Tighten or reseal leaking fittings. DO NOT OVERTIGHTEN.
  - Replace worn parts and reassemble with new seals.
  - Replace any faulty seals.
- Air leaks from regulator, or regulator does not regulate pressure
  - Dirty or damaged regulator internal parts.
  - Replace regulator or internal parts.
- Regulated pressure gauge reading drops when air accessory is being used
  - This is normal
  - Compressor not large enough
  - If pressure drops too low, adjust regulator while accessory is used.
  - Check air requirement of accessory. If it is higher than CFM and I pressure supplied by compressor. Most accessories are rated at 25% of actual CFM while running continuously.

# Circuit breaker trips (fuse blows) too often

- Low voltage
  - Consult electrician.
- Excessive wire length
  - Furnish adequate power. If using extension cord, try without.
- Restricted air passages
  - Contact authorized service center.
- Back pressure in pump head
  - Replace check valve, pressure switch bleeder valve.

# **Overheating**

- Poor ventilation
  - Relocate compressor to an area with cool, dry and well-circulated air.
- Dirty cooling surfaces
  - Clean all cooling surfaces of pump and motor thoroughly.
- Leaking valve
  - Replace worn parts and reassemble with new seals.

#### **Motor stalls**

- Low voltage
  - Furnish adequate power.
- Defective pressure switch bleeder valve
  - Replace pressure switch bleeder valve

### Pressure relief valve opens

- Tank pressure exceeded normal operating pressure
  - Replace pressure switch
- Pressure switch stuck
  - Replace pressure switch

### Motor will not run

- Tank pressure exceeds preset pressure switch limit
  - Motor will start automatically when tank pressure drops below kick-in pressure of pressure tank.
- Motor overload protection has tripped
  - Let motor cool off and overload switch will automatically reset. This
    may take several minutes.

- Fuse blown or circuit breaker tripped
  - Replace blown fuse or reset circuit breaker. Do not use fuse or circuit breaker with higher rating than specified for your branch circuit.
  - Check for proper fuse; "Fusetron" type T is acceptable.
  - Check for low voltage and proper extension cord size.
  - Disconnect other applications from circuit. Operate compressor on a dedicated circuit.
- Check valve stuck open
  - Remove and clean or replace.
- Pressure bleeder valve on pressure switch has not unloaded head pressure
  - Bleed line by moving pressure switch lever to OFF position before restarting. If bleeder valve does not open. Replace bleeder valve.
- Wrong wire gauge in extension cord
  - Check for proper gauge and extension cord length.
- Loose electrical connections
  - Contact authorized service center.
- Paint spray on internal motor parts
  - Have checked at service center. Do not operate compressor in the paint spray area.
- Possible defective motor
  - Have checked at service center.

#### **Limited Warranty**

All-Power warrants to the original purchaser who uses the product in a consumer application (personal, residential or household usage) that all products covered under this warranty are free from defects in material and workmanship for one year from the date of purchase. All products covered by this limited warranty which are used in commercial applications (i.e. income producing) are warranted to be free of defects in material and workmanship for 90 days from the date of original purchase. Products covered under this warranty include air compressors, air tools, service parts, pressure washers and generators.

All-Power will repair or replace, at All-Power sole option, products or components which have failed within the warranty period. Service will be schelduled according to the normal work flow and business hours at the service center location, and the availibility of replacement parts. All decisions of All-Power with regard to this limited warranty shall be final

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### RESPONSIBILITY OF ORIGINAL PURCHASER (initial User):

To process a warranty claim on this product, DO NOT return item to the retailer. The product must be evaluated by an Authorized Warranty Service Center. For the location of the nearest Authorized Warranty Service Center call 888.896.6881.

#### Retain original cash register sales receipt as proof of purchase for warranty to work.

Use reasonable care in the operation and maintenance of the product as described in the Owner's Manual(s).

Deliver or ship the product to the Authorized Warranty Service Center. Freight costs, if any must be paid by the purchaser.

If the purchaser does not receive satisfactory results form the Authorized Warranty Sercive Center, the purchser should contact All-Power.

#### **Limited Warranty (cont'd)**

THIS WARRANTY DOES NOT COVER:

- Merchandise sold as reconditioned, used as rental equipment, or floor or display models.
- Merchandise that has become damaged or inoperative because of ordinary wear, misuse, cold, heat, rain, excessive humidity, freeze damage, use of improper chemicals, negligence, accident, failure to operate the product in accordance with the instructions provided in the Owner's Manual(s) supplied with the product, improper maintenance, the use of accessories or attachments not recommended by All-Power, or unauthorized repair or alterations.
- Repair and transportation costs of merchandise determine not to be defective.
- Costs assoiciated with assembly, required oil, adjustments or other installation and start-up costs.
- Expendable parts or accessories supplied with the product which are expected to become inoperative or unusable after a reasonable period of use.
- Merchandise sold by All-Power which has been manufactured by and identified as the
  product of another company, such as gasoline engines. The product manufacturer's warranty, if
  any, will apply.
- ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECTS, FAILURE OR MALFUNCTION OF THE PRODUCT IS NOT COVERED BY THIS WARRANTY. Some states do not allow the exclusion, so it may not apply to you.
- IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.