# SchraderAir.

Schrader - Air solutions since 1845

## Air Compressor Owner's Manual

2 HP Single Stage Electric SA1520 >> SA1526 >> SA1560

4 HP Single Stage Electric SA1760

The SchraderAir Prosumer line offers advanced design and performance features. The Prosumer line is ideal for personal, hobby shop, weekend mechanic and home use.

**SA1560** 



**SA1760** 

## SA1526









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The SchraderAir Prosumer line offers advanced design and performance features. The Prosumer line is ideal for personal, hobby shop, weekend mechanic and home use.

### **SAFETY GUIDELINES - DEFINITIONS**

Safety is a combination of common sense, staying alert and knowing how your compressor works. Read this manual to understand this compressor.



Means if safety information is not followed someone will be seriously injured or killed



Means if safety information is not followed someone could be seriously injured or killed



Means if safety information is not followed someone may be seriously injured or killed

#### **IMPORTANT SAFETY INSTRUCTIONS**

#### SAVE THESE INSTRUCTIONS

Improper operation or maintenance of this product could result in serious injury and property damage. Read and understand all warnings and operation instructions before using this compressor.

#### BEFORE USING THE AIR COMPRESSOR

#### Things you should know

Air compressors are utilized in a variety of air system applications. Because air compressors and other components (hoses, connectors, air tools, blow guns, etc.) make up a high pressure pumping system, the following safety precautions should be observed at all times

# Only persons familiar with these rules of safe operation should use the air compressor.

- Read the instruction manual carefully before attempting to assemble, disassemble or operate your system. Be thoroughly familiar with the controls and the proper use of the equipment.
- 2. Review and understand all safety instructions and operating procedures in this manual.
- 3. Review the maintenance methods for this compressor (See "Maintaining Your Compressor" section).
- Hardwired compressors should be located where they can be directly wired to a circuit breaker. The compressor should be wired by a licensed electrician.
- 5. 115-volt (corded) compressors should be connected to a dedicated plug.

#### Inspect your work area

- 1. Keep work area clean.
- Cluttered areas and benches invite accidents. Floors must not be slippery from wax or dust

#### Inspect your compressor

- 1. To reduce the risk of injury from accidental starting, turn switch off and disconnect the power before checking it.
- If any part is missing, bent or broken in any way, or any electrical part does not work properly, keep the compressor off and disconnected.
- Check hoses for weak or worn condition before each use, making certain all connections are secure. Do Not use if defect is found.



Do not operate compressor if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage.



This compressor is Not designed for and should not be used in breathing air applications.

#### WHEN INSTALLING OR MOVING THE COMPRESSOR



#### **WARNING**



Vertical compressors are extremely top heavy. Stationary vertical compressors must be bolted to the floor with vibration pads before operating to prevent equipment damage, injury or death. Do not over tighten bolts as this may cause stress to the tank welds.

#### To reduce the risk of a dangerous environment

- 1. Keep work area well lit.
- 2. Operate compressor in a well-ventilated area free from flammable liquids and vapors.
- 3. Operate compressor in a ventilated area so that compressor may be properly cooled and the surrounding air temperature will not be more than 100°F.
- 4. Never use a compressor in a wet environment.
- 5. Protect material lines and air lines from damage or puncture. Keep hose and wires away from sharp objects, chemical spills, oil, solvents and wet floors.



#### **WARNING**



Do Not secure compressor with toggle bolts into drywall. Drywall sheeting or plaster will not support the weight of the compressor.

- A minimum clearance of 30 inches. between the compressor and a wall is required because objects could obstruct airflow.
- 7. Hardwired compressors should be located where they can be directly wired to a circuit breaker. The compressor should be wired by a licensed electrician.
- 8. Never store flammable liquids or gases in the vicinity of an operating compressor.
- 9. Do Not locate the compressor air inlet near steam, paint spray, sandblasting areas or any other source of contamination. The debris could damage the motor and pump.

#### WARNING



Never use plastic (PVC) pipe for compressed air. Serious injury or death could result.



#### **CAUTION**



Never use the shipping skid for mounting the compressor.



#### NOTICE



This compressor is not intended for outdoor installation.

#### **WARNING**



Never install a shut off valve between the compressor pump and tank. Personal injury and/or equipment damage could occur.

Note: Tank Outlet Size: 1/4" NPT for Models SA1520 & SA1526

1/2" NPT for Models SA1560 & SA1760

#### **BEFORE EACH USE**

#### Inspect your work area

#### 1. Keep work area clean. Cluttered areas and benches invite accidents.

2. The floor must not be slippery from wax or dust

#### Inspect your compressor

- 1. To reduce the risk of injury from accidental starting, turn the switch off and disconnect power.
- 2. If any part is missing, bent or broken in any way, or any electrical part does not work properly, keep the compressor off and disconnect power. Do Not use if defect is found.
- 3. Check hoses for weak or worn condition before each use, making certain all connections are secure. Do Not use if a defect is found

## Follow the safety precautions for electrical connections

- Follow all local electrical and safety codes, as well as the National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Wiring and fuses should follow electrical codes, current capacity and be properly grounded.

3. Protect wires from contact with sharp objects.



All electrical connections should be made by a licensed electrician.

## Plan ahead to protect your eyes, hands, face and ears

#### Dress for safety

- Wear safety glasses (meeting ANSI Z87.1 or in Canada CSA Z94.3-99) and use hearing protection when operating the unit. Everyday glasses are not safety glasses.
- 2. Wear shoes to prevent shock hazards.
- 3. Tie back long hair.

#### Pay attention to your hands



Keep fingers away from running compressor. Fast moving and hot parts may cause injury and/or burns.



Be careful when touching the exterior of compressor, pump, motor and air lines; they may become hot enough to cause injury.

### WARNING

Never operate the compressor without a belt guard. The compressor can start automatically without warning. Personal injury or property damage could occur from contact with moving parts.

## CAUTION

The compressor may be hot even if the unit is stopped.

#### ↑ WARNING

Use of a mask or respirator per chemical manufacturers' instructions may be necessary if there is a chance of inhaling toxic fumes. Read mask and respirator instructions carefully. Consult a safety expert if you are not sure about the use of certain masks or respirators.

## When operating

- 1. Do not exceed the pressure rating of any component of the system.
- 2. Release pressure within the system slowly to prevent flying dust and debris.
- 3. If the equipment starts to abnormally vibrate, STOP the compressor immediately and check for the cause.

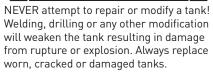
## WARNING /

Never change the safety valve or pressure switch settings. Keep safety valve free from paint and other accumulations. See compressor specification decal for maximum operating pressure. Do not operate with the pressure switch set higher than the maximum operating pressure.

## Perform these maintenance operations

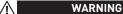
- Do regular maintenance; keep all nuts, bolts, and screws tight, to be sure equipment is in safe working condition.
- 2. Inspect tank yearly for rust, pin holes or any other imperfections that could cause it to become unsafe.





 Clean electrical equipment with an approved cleaning agent, such as a dry, non-flammable cleaning solvent.

- 4. Drain tanks of moisture after each day's use. If unit will not be used for awhile, it is best to leave the drain cock open until such time as it is to be used. This will allow moisture to completely drain out and help prevent corrosion of inside of tank.
- 5. Always disconnect from power source before working on or near a motor, or its connected load. If power disconnect point is out-of-sight, secure it in the "OFF" position and tag it to prevent unexpected application of power.





Disconnect power and depressurize system before servicing air compressor. Slightly open drain cock after shutting off compressor.

#### Daily

Check oil level. Drain moisture from tank. Verify the pressure switch un-loader is working by listening for a brief hissing sound when the compressor shuts off. Visually check the compressor for loose parts, excessive noise or vibration.



#### Monthly

(Make sure the main power is off.) Check the belts for tension. Belts should not move up and down when the compressor runs and when stopped, should not have more than ½ in of play when depressed. Be careful not to over tighten belts during adjustment.

Remove and check air filter, replace if necessary. Change oil every 3 months or 300 hours. A compressor grade 30 wt. non-detergent oil (826020) should be used.

Check motor pulley set screw and pump flywheel bolt for tightness.



#### WARNING LABELS

Find and read all warning labels found on the air compressor.



Sample Warning Labels shown. Your decals may vary.



## **GLOSSARY OF TERMS**

#### Air Filter

Porous element contained within a metal or plastic housing attached to the compressor cylinder head which removes impurity from the intake air of the compressor.

#### Air Tank

Cylindrical component which contains the compressed air.

#### **Check Valve**

Device which prevents compressed air from flowing back from the air tank to the compressor pump.

#### **Electric Motor**

Device which provides the rotational force necessary to operate the compressor pump.

#### **Pressure Gauge**

Device which shows the tank or regulated pressure of the compressed air.

#### **Pressure Switch**

Device which automatically controls the on/off cycling of the compressor. It stops the compressor when the cut-off pressure in the tank is reached and starts the compressor when the air pressure drops below the cut-in pressure.

#### PSI (Pounds per Square Inch)

Measurement of the pressure exerted by the force of air. The actual psi is measured by a pressure gauge on the compressor.

#### **Pump**

Device which produces the compressed air with a reciprocating piston contained within a cylinder.

#### **Safety Valve**

Device which prevents air pressure in the air tank from rising over a predetermined limit.

#### Thermal Overload Switch

Device, integrated into the electric motor winding, which automatically "shuts off" the compressor if the temperature of the electric motor exceeds a predetermined limit.

#### WIRING



#### WARNING



ALL FLECTRICAL WIRING SHOULD BE DONE BY A LICENSED ELECTRICIAN

#### General Information

Adequate wiring and motor protection should be provided for all stationary compressors. Wiring used for other machinery should not be used. A licensed electrician familiar with local electrical codes in your area should be used.



#### WARNING



To reduce the risk of electrical hazards. fire hazards or damage to the compressor, use proper circuit protection. Your compressor is wired at the factory for operation using the voltage shown. Connect the compressor to a power source with the correct breaker size.



#### WARNING



Electrical connections must be properly grounded. Ground connections should be connected at the grounding screw.



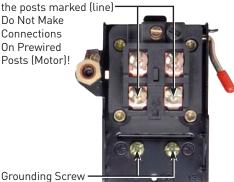
#### **CAUTION**



Overheating, short circuiting and fire damage will result from inadequate wiring.

Incoming power should be connected to

Do Not Make Connections On Prewired Posts (Motor)!



	SA1520	
	SA1526	
	SA1560	SA1760
Valtaga	115V	208/230V
Voltage	1 phase	1 phase
FLA	15	17.5
Breaker Size	20 amp	30 amp

The motor is equipped with a manual, resettable overload device to protect it from overheating. In the event the compressor will not run and power is properly connected and on, press the motor overload reset button located on the non drive end of the motor.

### STARTING THE COMPRESSOR

Prior to actually running the compressor, check the following items:

Crankcase oil - Ensure appropriate level on the dipstick.

Make sure all rags, tools, oil, etc. are away from the unit.

Open the air system to free it of any pressure.

Switch the compressor on for a few revolutions to make sure the rotation is correct. Correct rotation is counterclockwise when facing the pump flywheel.

If tank is empty at start-up, the unit is designed to blow off head pressure until it reaches 25 PSI. This is normal - not a leak.



#### **CAUTION**



Make sure the pressure in the tank does not exceed its rating. Single stage compressors should operate at a maximum of 125 psi. If the pressure gauge indicates a pressure that is higher than these maximum pressures, shut off compressor immediately and call 1-800-345-0578 ext. 620.

TROUBLESHOOTING GUIDE						
Low discharge pressure	1. Compressor too small for application 2. Air leaks 3. Restricted intake air 4. Blown gasket(s) 5. Broken or misaligned valves	1. Reduce air demand or use a compressor with more air capacity. 2. Listen for air leaks. Apply a soap solution to all fittings and connections.  Bubbles will form at points of leakage. Tighten or replace fittings or connections. 3. Clean or replace air filter. 4. Replace necessary gaskets. 5. Remove head and inspect for broken or misaligned valves. Replace valves, if necessary.  CAUTION  Install a new head gasket each time head is removed				
Excessive noise "knocking"	1. Loose drive pulley or flywheel 2. Low on oil 3. Worn connecting rod or connecting rod bearing 4. Noisy check valve	1. Tighten drive pulley or flywheel bolt. 2. Check for proper oil level. Low or dirty oil may cause bearing damage. 3. Replace connecting rod and/or connecting rod bearings. 4. Replace check valve.  DANGER  Do not remove check valve with air pressure in tank				
Excessive oil carryover	Worn piston rings     Restricted intake air     Too much oil in compressor     Incorrect oil viscosity	<ol> <li>Replace with new piston rings.</li> <li>Clean or replace air filter.</li> <li>Drain oil to proper oil level.</li> <li>Use a quality non-detergent 30 or 40 wt oil specified for each model (Page 4).</li> </ol>				
Water in tank and/ or discharge line	Normal. Amount of water will increase as humidity in the air increases.	Drain tank at least once per day.     Add an in-line filter to reduce moisture in the air line.				
Will not run or motor hums.	Low voltage     Malfunctioning pressure switch     Malfunctioning check valve	1. Check voltage with volt meter across both legs of incoming power. Check reset button on motor.  2. Repair or replace pressure switch.  3. Replace check valve or pressure switch.  DANGER  Do not remove check valve with air pressure in tank				

Breaker or reset repeatedly trips	1. Incorrect breaker size 2. Low voltage 3. Malfunctioning motor 4. Loose electrical connections 5. Malfunctioning pressure switch 6. Malfunctioning check valve	1. Make sure the breaker is sized properly. See page 6 in this manual. 2. Check voltage with volt meter across both legs of incoming power. 3. Replace motor. 4. Check all electrical connections. 5. Adjust or replace pressure switch. 6. Replace check valve.  DANGER  Do not remove check valve with air pressure in tank
Tank does not hold pressure when not running and shut off valve is closed	1. Malfunctioning check valve 2. Loose fittings or connections 3. Crack or pin hole in tank	1. Replace check valve.  DANGER  Do not remove check valve with air pressure in tank 2. Tighten or replace fittings or connections. 3. Replace tank. Do not attempt to repair tank.
Pressure switch unloader constantly leaking air	1. Malfunctioning check valve	Replace check valve if unloader bleeds constantly.     DANGER     Do not remove check valve with air pressure in tank
Pressure switch not unloading	1. Malfunctioning pressure switch	1. Replace pressure switch if it does not release air pressure briefly when unit shuts off.  DANGER  Do not remove pressure switch with air pressure in tank
Excessive vibration	Improper installation     Loose belts     Misaligned flywheel or drive pulley	Make sure unit is mounted on a level surface with vibration pads.     Replace belts. Align and tighten properly.     Align flywheel and drive pulley.
Overheating	Compressor too small for application     Cooling surfaces dirty     Improper cooling	1. Reduce air demand or use a compressor with more air capacity. 2. Clean all cooling surfaces of dirt and dust. 3. Install compressor in an area with adequate cool dry air.

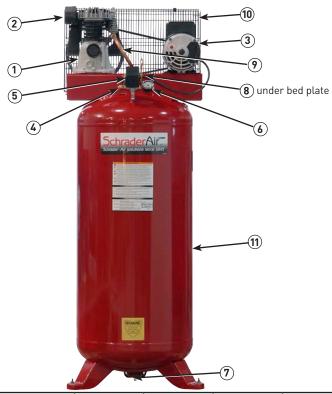


Illustration Part		SA1520	SA1526	SA1560	SA1760
Number	Description	0.1.00000./	0.1.00000./	0.1.00000./	0.1.00000./
1	Pump	SA289084	SA289084	SA289084	SA289084
2	Air Filter	SA317001000	SA317001000	SA317001000	SA317001000
	3 Electric Motor		289085	289085	289091
4	Safety Valve	283802	283802 283802		283802
5	Pressure Switch	283662	283662	283662	283662
6	Tank Gauge	283495	283495 283495		283495
7	Tank Drain	82650	82650	82650	82650
8	Check Valve	82C5050	82C5050	82P7575	82P7575
	Check Valve Bleed Fitting	82620	82620	82630	82630
9	Discharge Tube	82602-1520	82602-1526	82604-1560	82604-1760
	Compression Fitting - Check Valve		82614A	829011	829011
	Compression Fitting - Pump		82614B	82625	82625
10	Belt Guard	289086	289086	289086	289086
11	11 Tank		289088	289090	289090
	Unloader Line		82600-1526	82600-1560	82600-1760
Drive Belt		289101	289101	289101	82817
Drive Pulley		289099	289099	289099	289098
Handle		289087	289089	n/a	n/a
Regulator		292250	292250	n/a	n/a
	Power Cord	289096	289096	289096	n/a
	Wheel	289083	81287561	n/a	n/a
		9			

## Compressor Models SA1520, SA1526, SA1560, SA1760 Pump (Part Number SA289084)

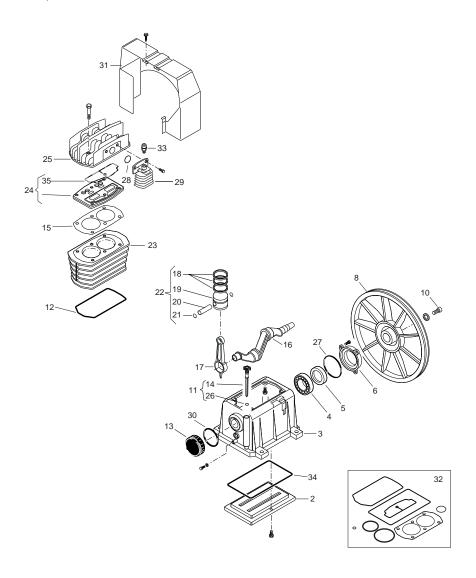


Diagram Number	PN	Description	
2	SA113149015	Lower Cover	
3	SA113167034	Crankcase	
4	SA033027000	Bearing	
5	SA010053000	Oil Seal	
6	SA113149008	Front Support	
8	SASM001317	Flywheel	
10	SA014001057	Screw Left	
11	SA312036000	Dipstick Assembly	
12	SA113149012	Seal	
13	SA113149009	End Cover	
14	SA012036000	Oil Dipstick	
15	SA113167007	Cylinder Gasket	
16	SA113167003	Crankshaft	
17	SA113150004	Rod	
18	SA213167001	Piston Ring Kit	
19	SA113164009	Piston	
20	SA116025006	Piston Pin	
21	SA015023000	Clip	
22	SA413167006	Complete Piston	
23	SA113167002	Cylinder	
24	SA413167005	Valve Plate	
25	SA113167021	Head	
26	SA010025000	0-Ring	
27	SA010023000	0-Ring	
28	SA010085000	0-Ring	
29	SA116004019	Aftercooler	
30	SA010121000	0-Ring	
31	SA113150002	Shroud	
32	SA213167002	Seal Kit	
33	SA011158000	Cold Start Valve	
34	SA113149013	Seal	
35	SA113167008	Seal	
NOT SHOWN	SA317001000	Intake Filter	
NOT SHOWN	SA014002029	Intake Filter Bolt	

## Maintenance supplies and accessories





The NEW standard for solenoid drains. BUILT IN, SELF CLEANING STAINER

- · Self cleaning, resists clogging
- Does not stick open NO wasted air
- Built in strainer
- · Easy installation
- 4" long x 3.5" wide
- Weight is 1.3 Lbs.

Drain Specifications

- 0.5 to 10 second open cycle, 30 second to 45 minute off cycle
- 250 PSI
- 115v / 60 Hz
- 0.156 diameter precision orifice
- Includes LED lights and test button

Item No.	Description
827001	Automatic air compressor drain



#### 02407

AIR COMPRESSOR MOUNTING PADS install on most air compressors. Includes:

- (4) Rubber floor mounting pads
- (4) Metal / rubber bushings

Item No.	Description
824679	Stationary Air Compressor
	Mounting Pads & Bushings



Order Schrader Compressor Oil (826020) and Air Filter elements (SA317001000) directly from Schrader by calling technical support at 1.800.288.1804.

Call SchraderAir at 1.800.288.1804 for filters/regulators/lubricators, couplers & plugs, oil and air filters as well as compressor maintenance and air line accessory needs. Specifications subject to change without notice. Product may not be exactly as pictured.

## Maintenance Record

	Change	Air Filter Change	Belt Check/ Change	Check motor pulley screw	Check pump flywheel bolt	Notes
See Page 4	V	~	V	<b>V</b>	V	

## SA1520, SA1526, SA1560

Oil capacity: 0.52 qts • Belt: 289101 • Air Filter: SA317001000

SA1760

Oil capacity: 0.52 qts • Belt: 82817 • Air Filter: SA317001000

## SCHRADER INTERNATIONAL, INC'S LIMITED WARRANTY Product: Prosumer Air Compressor

For [1] one year from the date of purchase or 18 months from date of shipment from factory, Schrader International, Inc. will at its option, replace or repair for the original purchaser free of charge, any part or parts found upon examination by manufacturer to be defective in material or workmanship or both. This will be your sole and exclusive remedy.

#### No Other Warranties:

THERE IS NO OTHER EXPRESSED WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MER-CHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE AND TO THE EXTENT PERMITTED BY LAW, ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. THIS IS THE EXCLUSIVE REMEDY AND LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT PERMITTED BY LAW.

#### What You Must Do:

Any and all Returns to Schrader International require an RFI number to be issued by Technical Service prior to returning part or parts. All transportation charges for parts submitted for replacement under this warranty must be borne by the purchaser. Consumer compressors used in commercial, industrial or rental applications (determined at the discretion of Schrader International) will be covered by warranty for (90) ninety days from date of purchase only. Notice of alleged defect must be communicated to Schrader International, Inc. Technical Service within (30) days of discovery of defect during the warranty period.

All claims pertaining to the merchandise must be communicated with Schrader International Inc. within 12 months of the invoice date or 18 months from date of shipment from the factory or they will not be honored. All shipments are carefully inspected before leaving the factory. Please inspect carefully at time of receipt of merchandise, noting any discrepancy or damage on the carrier's freight bill at time of delivery. Discrepancies or damage, including hidden or obvious damage that occurred in transit are the carrier's responsibility and related claims should be made by the customer directly with the carrier.

#### What Is Not Covered Under this Warranty:

- Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with compressor.
- Cosmetic defects that do not interfere with the compressor's functionality.
- Damage due to incorrect voltage or improper wiring (example using extension cord).
- Pump wear or valve damage caused by any oil contamination or by failure to follow proper oil
  maintenance guidelines.
- This warranty is invalid if the factory-applied serial number has been altered or removed from the product, or an electric compressor has been used in conjunction with a generator.
- Freight damage.
- Pre-delivery service, e.g. assembly, oil or lubricants, and adjustment.
- Items or service that is normally required to maintain the product, e.g. lubricants, filters and gaskets, etc.
- Tank drain valve
- Pressure switches modified from factory settings.
- Damage from inadequate air filter and/or oil maintenance.
- Damage to the unit caused by impacts from foreign objects, acts of God, fire, explosion or other
  casualty, vibration, excessive heat or moisture, incorrect or unreasonable use (including failure to
  provide reasonable and necessary maintenance), improper installation, misuse, abuse, neglect,
  negligence or vandalism.
- Loss of profit or revenue or for any incidental, consequential, indirect, special or punitive damages.

For Warranty claims and considerations, please have the following information when calling Technical Service: a copy of the invoice, date of purchase, serial number, alleged warranty issue and a call back telephone number. To locate the closest Authorized Service Center for service assistance, resolution of a service problem or for product information and operation, call, e-mail or write to:

Schrader International, Inc.

205 Frazier Road Altavista. VA 24517

Telephone: 1.800.288.1804 Tech Service, ext. 620, Fax: 1.434.369.3577

e-mail: TechSvc@SchraderIntl.com

If a service center is used (you must acquire prior factory approval from Technical Service), the complete unit must be transported at customer's expense to and from the service center.

