

**CENTRAL PNEUMATIC®**

# 4 Gallon, 2 HP Peak Pancake Compressor

**Model 38898**



## **ASSEMBLY and OPERATING INSTRUCTIONS**

Distributed exclusively by  
Harbor Freight Tools®.

3491 Mission Oaks Blvd., Camarillo, CA 93011

**[www.HarborFreight.com](http://www.HarborFreight.com)**

Copyright© 1999 by Harbor Freight Tools®. All Rights Reserved.

No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

**For technical questions and replacement parts, please call 1-800-444-3353**

## SPECIFICATIONS

Motor	1-3/4 Working HP
Electrical	120 V~, 11 Amps, 3450 RPM, Single Phase, 60 Hz
Power Cord	3 prong grounded 14 AWG X 3C, double insulated, UL listed
Air Outlet Fitting	1/4" NPT barbed
Drive Type	Direct
Pump Stage	Single
Air Tank Size	4 Gal.
Pressure Range	Pressure Switch On at 80 PSI; Pressure Switch Off at 115 PSI
Air Delivery	4.2 SCFM at 90 PSI; 5.2 SCFM at 40 PSI
Pressure Disconnect	Automatically releases pressure if overloaded to 120 PSI
Oil Requirement	Standard non-detergent 30 weight compressor or motor oil
Weight	51 Lbs.

**Note: When using extension cords (not included) - To avoid circuit breaker and voltage drop problems, we recommend using only 12 gauge x 50 foot extension cords (Item #41444 or #45287, available from Harbor Freight Tools).**



## FEATURES OF THIS COMPRESSOR

1. This small, portable compressor is ideal for use in shops with limited storage space.
2. 80-115 PSI operating range is ideal for most shop uses including air tools, spraying, tire inflation, air cleaning, etc.
3. Pressure switch maintains correct operating pressure at all times.
4. Pressure gauge gives continuous, real-time readout of current pressure delivery.
5. Maximum pressure disconnect safety valve prevents over-pressurization of tank.
6. Delivers enough air for continuous use in most applications.
7. Sturdy construction will deliver years of satisfactory service.
8. Your compressor is fully assembled when you receive it.

**Warning: Fill compressor with oil before using; running with NO or LOW OIL voids warranty. Optimal oil tank capacity is 7.8 ounces.**

## SAVE THIS MANUAL

You will need the manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, trouble shooting, parts list, and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep both this manual and your invoice in a safe, dry place for future reference.

### NOTICE

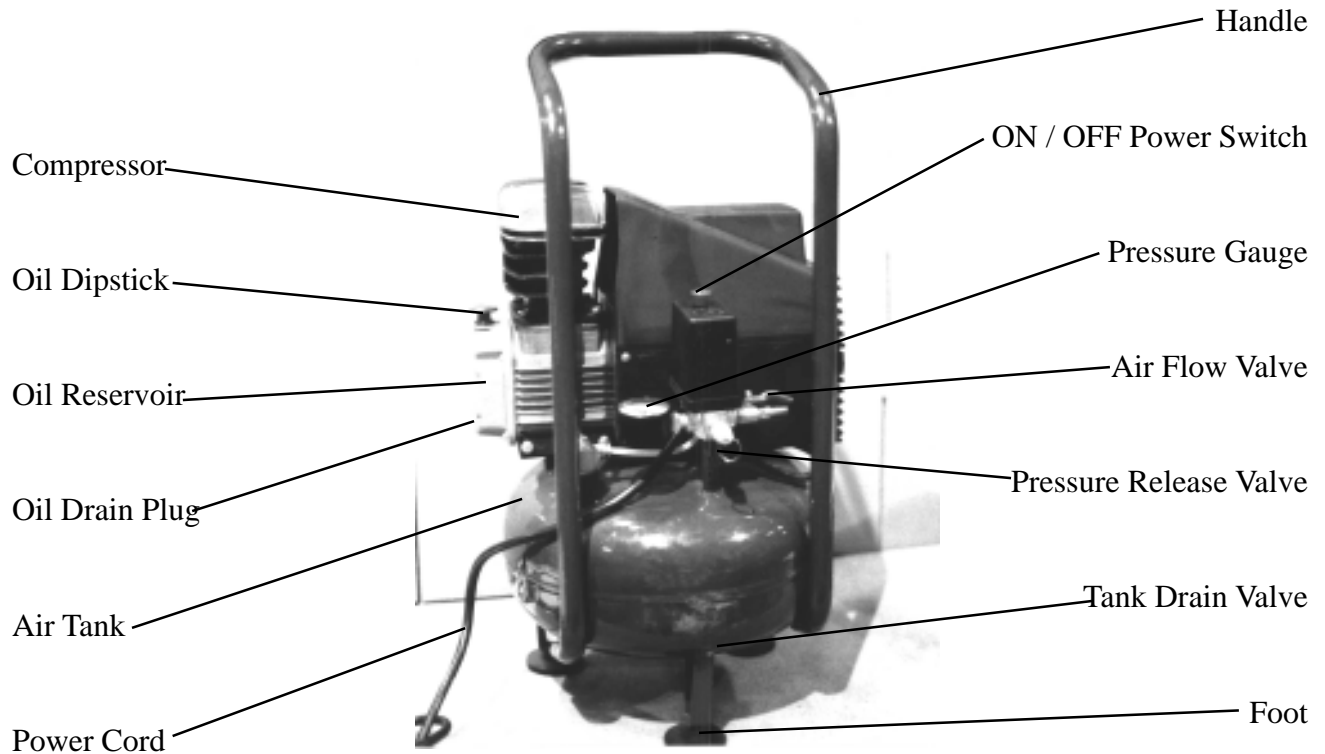
**The Warnings, Cautions, and Instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

## **SAFETY WARNING & CAUTIONS**

WARNING: When using pneumatic equipment, basic safety precautions should always be followed to reduce the risk of personal injury and hazards.

### ***READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!***

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **OBSERVE WORK AREA CONDITIONS.** Do not use tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered air compressors in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** Children must never be allowed in the work area. Do not let them handle machines, tools, or hoses.
4. **STORE IDLE EQUIPMENT.** When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **DO NOT FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.
6. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Do not use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Nonskid footwear is recommended. Wear restrictive hair covering to contain long hair.
8. **USE EYE AND EAR PROTECTION.** Always wear ANSI-approved chemical splash goggles when working with chemicals. Always wear ANSI-approved impact safety goggles at other times. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI-approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
9. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across running machines.
10. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect hydraulic lines and seals periodically and, if damaged, have them repaired by an authorized technician. Inspect all hoses for leaks prior to use. The handles must be kept clean, dry, and free from oil and grease at all times.
11. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **STAY ALERT.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
13. **CHECK DAMAGED PARTS.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.
14. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
15. **DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **MAKE SURE ALL EQUIPMENT IS RATED TO THE APPROPRIATE CAPACITY.** <>Do not attempt any operations or hook up any equipment that would not meet the rated capacities of this tool.



### **ELECTRICAL SET UP**

Your compressor has a grounded, three-prong plug. If using an extension cord, it must be a three-prong type. You must connect to a three-prong receptacles only. The third prong is for grounding; do not remove or disable the third prong, as this will create an unsafe condition.

Common household current is 110-120 Volts. As long as your compressor is rated from 110-120 Volts, there will be no complications in using power from a household receptacle. *Never try to plug a tool designed for 110-120 Volts into a 220-240 Volt receptacle. 220V plugs and outlets are shaped differently to prevent this.*

Only use rounded jacket extension cords, preferably listed by Underwriter’s Laboratories (UL).

Make sure the cord is rated for outdoor use, even if your application is indoors. Outdoor use cords have the letters “WA” on the cord jacket.

The extension cord must have a minimum wire size depending on the amperage of the tool and the length of the extension cord. The size is signified by its AWG (American Wire Gauge) rating; the smaller the gauge, the greater the cable’s capacity.

**Note: When using extension cords - To avoid circuit breaker and voltage drop problems when using extension cords, we recommend using only 12 gauge x 50 foot extension cords (Item #41444 or #45287), available from Harbor Freight Tools).**

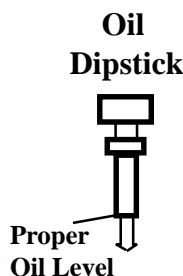
## SET UP & OPERATION

Your compressor is fully assembled when you receive it. Before using it, perform the following set up operations.

*Before using your compressor for the first time, check to be sure the oil reservoir is filled.*

**Note:** Optimal oil tank capacity is 7.8 ounces.

1. Unscrew the threaded Oil Dipstick to remove it from the oil reservoir.
2. Look at the oil level on the dip stick. The proper oil level is shown on the illustration to the right.
3. If the oil level is low, add standard, non-detergent 30-weight non detergent compressor oil, (use lighter weight oil for cold weather operation). <> Add a little at a time, and check the level before each addition. Do not overfill. If overfilled, you can remove the drain plug to allow oil to drain out.
4. When the oil level is correct, replace the dipstick.



*Figure 1. Checking the Oil Level*

*Next, connect your air hoses, filter and regulator to the compressor, as illustrated in Figure 2 below.*

---

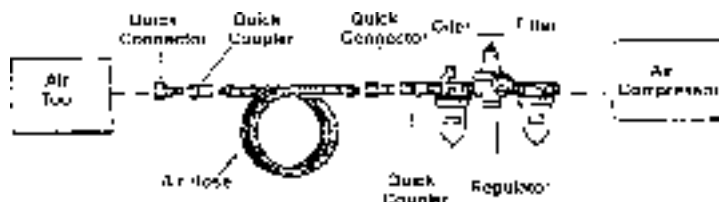
**NOTE:**

Use Pipe Thread Seal tape on all threaded connections.

---

**Warning:** Fill with compressor oil before using; running with **NO** or **LOW OIL** voids warranty.

**Warning:** Do not remove factory sealed Air Flow Valve (#9A); removal of valve voids warranty.



*Figure 2 — Connecting the Air Compressor*

1. The provided air outlet is 1/4" NPT. <> Connect the high pressure air hose to the air outlet. **Note:** For easy connection or removal, a quick coupler (included) should be installed on the end of the outlet (a female and a male coupler are also included to use with the quick coupler).
2. For best service, you should incorporate an oiler, a regulator, and a filter in line; as shown in the above diagram.
3. Hoses, Couplings, Fittings, Oilers, Regulators, and Filters are all available from Harbor Freight Tools.

## OPERATION

1. Before each use, perform the following checks: Check to be sure the drain valve at the bottom of the tank is closed.<>Check to be sure the oil level is between the marks on the dip stick. Be sure the safety pressure release valve has not been damaged, and is functional.

**Note: Always use a 120V electrical source ( $\pm 10\%$  maximum variation).**

2. Turn the Air Flow Valve to the OFF position. In the OFF position, the red handle is across (perpendicular to) the line of the air hose fitting. In the ON position, the red handle is parallel with the line of the air hose fitting.

3. Turn ON the compressor, by pulling the Red ON/OFF Switch up. Turn OFF the compressor by pushing the ON /OFF switch down.

4. Allow the compressor to build up at least 80 PSI as indicated on the pressure gauge.

5. While the compressor is building up pressure, attach the hoses, fittings, and air tools you will use.

6. When the pressure has reached 80 PSI; open the air flow valve to allow the hoses and tools to become pressurized. Check for any significant air leaks, and check the operation of your tool.

7. As long as the power switch is pulled ON, the operation of the compressor is automatic, controlled by an internal pressure switch. The compressor will turn on automatically when the pressure drops to 80 PSI, and will turn off when the pressure reaches 115 PSI.<>**Warning: This pressure switch is adjustable but changes to the pressure levels are not recommended; any change to the automatic ON/OFF pressure levels will cause additional stress on the motor which may result in shortened motor life.**

*NOTE: If it is necessary to quickly depressurize the air compressor;*

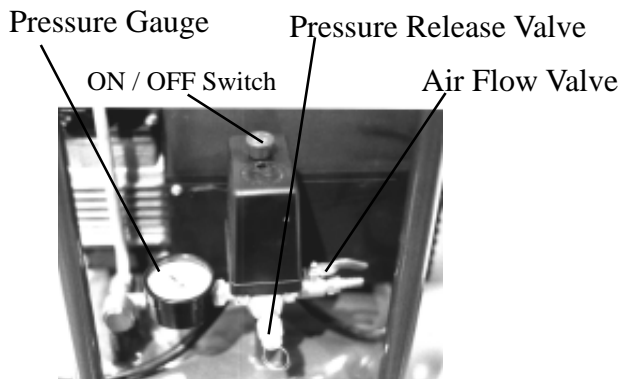
*First: Turn it off by pushing the ON / OFF switch down.*

*Then: Pull out on the ring on the pressure release valve to quickly release stored pressure.*

**Note:** Compressor has a **Thermal Overload Switch** (#41).<>If Compressor shuts down from overheating or related problems, turn Compressor OFF and allow it to cool down for 10 minutes.<>Once cooled, push in Thermal Overload Switch and restart Compressor.

## WARNING

1. To reduce the risk of fire or explosion, never spray flammable liquids in a confined area. Always operate the compressor in a well ventilated area. Do not smoke while spraying. Do not spray where sparks or flame are present. Keep the compressor as far away from the spray area as possible.
2. Never directly inhale the compressed air produced by the compressor. It is not suitable for breathing purposes.
3. Never weld on the tank of this compressor. Welding of the tank could affect tank strength and result in an extremely hazardous condition.
4. To avoid the potential for electric shock, never use this compressor outdoors when it is raining, and never use the compressor on a wet surface.
5. Never point any nozzle or sprayer towards a person or animal.
6. Never work on or make adjustments to the tank when the tank is under pressure.
7. Never service or make adjustments to this product without first unplugging the electrical cord.
8. Never place flammable objects near the compressor. Never spray water or flammable liquids toward or near the compressor.
9. Always push the ON/OFF switch down into the OFF position when the unit is not in use.
10. Do not transport the pancake compressor when the tank is under pressure.
11. Only operate in a well-ventilated area which has proper air circulation.



*Fig. 3. Controls*

## *Compressor Assembly*

<u>Part #</u>	<u>Description</u>	<u>Part#</u>	<u>Description</u>
1	Screw	22	Connecting Rod
2	Screw	23	Crankshaft
3	Washer	24	Gasket, Front Cover
4	Washer	25	Front Cover
5	Air Filter	26	Washer
6	Cylinder Case	27	Washer
7	Gasket, Crankshaft Cover	28	Bolt
8	Valve Seat	29	Screw
9	Gasket, Valve Seat	30	Crankshaft Case
10	Valve Plate	31	Nut
11	Valve Seat	32	Seal Washer
12	Gasket, Valve Seat	33	Bearing
13	Cylinder	34	Electric Capacitor
14	Cylinder Gasket	35	Bolt
15	Compression Ring	36	Screw
16	Scraping Oil Ring	37	Motor
17	Piston	38	Washer
18	Piston Pin	39	Radiating Fan Wheel
19	Crankshaft Retainer	40	Radiating Cover
20	Oil Stick	41	Thermal Switch
21	Screw		

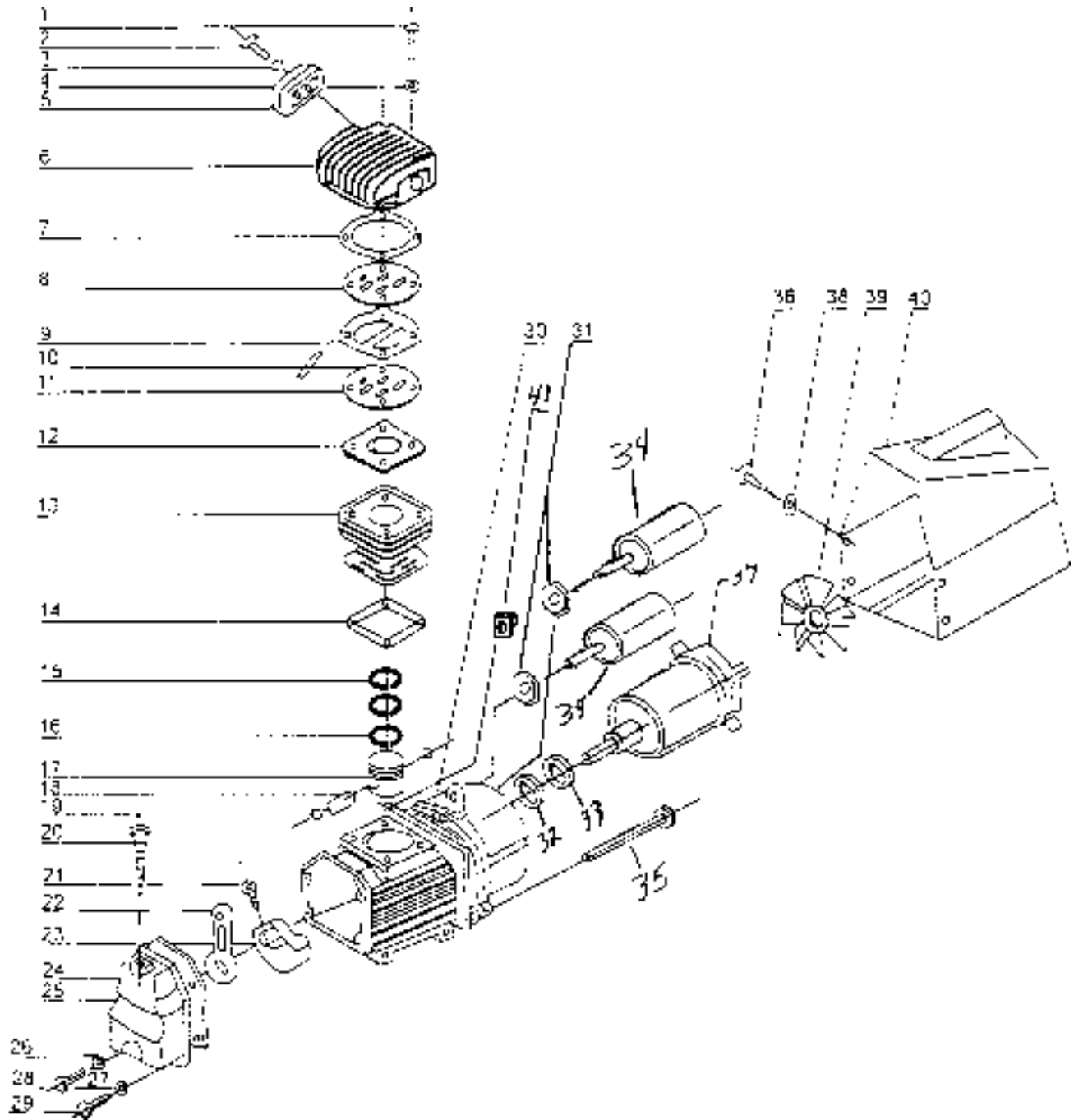
### MAINTENANCE

1. Check the oil before each use to be sure the level of oil is correct (see illustration on page 5).<>If the oil level is too low, add oil. If it is too high, drain some oil out by removing the drain plug.
2. Drain and replace the oil once per year. Replace more often if the compressor is used heavily or the oil appears dirty.
3. Check the air filter every six months, or more often if compressor is used in a dirty or dusty environment. Replacement air filters are available from Harbor Freight Tools.
4. Drain the air tank after each use, by turning the drain petcock clockwise to open it. Turn the petcock counterclockwise to close it. It is a good practice to leave the drain plug open between uses to ensure that the tank remains dry.
5. Never use flammable liquids or solvents to clean the compressor. For cleaning, unplug the unit, and clean with a mild detergent and water. Be careful not to introduce water into any electrical components.

**PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY: NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT: IN FACT THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

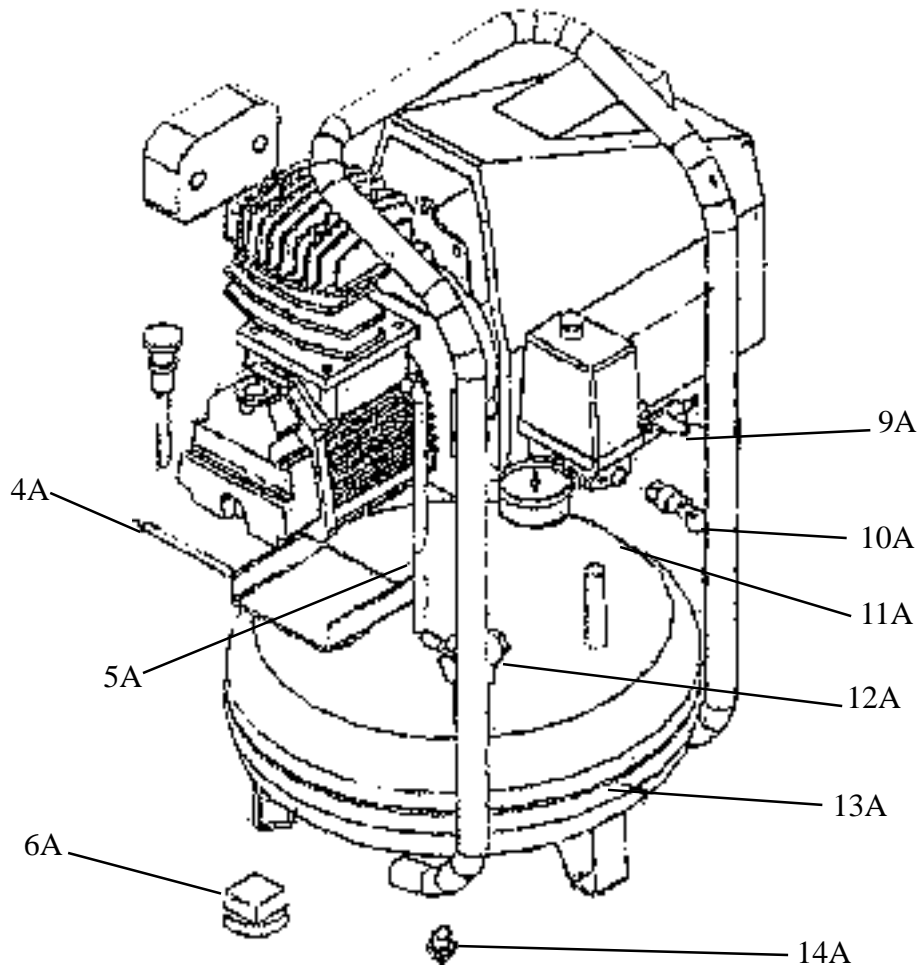
# PARTS DIAGRAM



**NOTE:** Part # 7,8,9,10,11,12 are only available as a kit ( Rebuild Kit SKU 27349 )



**PARTS DIAGRAM (CONTINUED)**



**Parts List A**

- |     |                        |
|-----|------------------------|
| 4A  | Bolt                   |
| 5A  | Hose                   |
| 6A  | Rubber Foot            |
| 9A  | Air Flow Valve         |
| 10A | Pressure-release Valve |
| 11A | Pressure Gauge         |
| 12A | No-return Valve        |
| 13A | Tank                   |
| 14A | Tank Drain Valve       |