

See Warranty on page 6 for important information about commercial use of this product.

## Operating Instructions

## EX8000, WL5000 Series Contractor Models

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Portable Air Compressors

## Description

Portable oilless air compressors are for home and workshop use. All models are equipped with regulators, needle and ball bearings and 1725 or 3450 RPM, 60 Hz motors with automatic overload protection. Cleaning or replacement of the inlet filter on all models and draining moisture from the air receivers are required maintenance.

## Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

**⚠ DANGER** Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**⚠ WARNING** Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

**ⓘ NOTICE** Notice indicates important information, that if not followed, may cause damage to equipment.

## Unpacking

When unpacking unit, inspect carefully for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc., are tightened before putting unit into service.

## General Safety

Air compressors are utilized in a variety of air system applications. Because air compressors and other components (material pump, spray gun, filters, lubrications, hoses, etc.) used make up a high pressure pumping system, the following safety precautions should be observed at all times. Only persons well acquainted with these rules of safe operation should be allowed to use the air compressor.

**⚠ WARNING** All electrical work should be done by a qualified (licensed or certified) electrician. On a properly wired circuit, the black wires supply a voltage potential even when the unit is off.

1. Read instruction manuals for each component carefully, before attempting to assemble, disassemble or operate your particular system.
2. Do not exceed pressure rating of any component in system.
3. Protect material lines and air lines from damage or puncture. Keep hose and power cable away from sharp objects, chemical spills, oil, solvents, and wet floors.
4. Never point a spray gun at oneself or any other person. Accidental discharge may result in serious injury.
5. Check hoses for weak or worn condition, before each use, making certain all connections are secure; do not use if deficiency is found. Notify an authorized service facility for examination or repair.
6. Release all pressures within system

## ⚠ DANGER

### Breathable Air Warning

This compressor/pump is not equipped and should not be used "as is" to supply breathing quality air. For any application of air for human consumption, the air compressor/pump will need to be fitted with suitable in-line safety and alarm equipment. This additional equipment is necessary to properly filter and purify the air to meet minimal specifications for Grade D breathing as described in Compressed Gas Association Commodity Specification G 7.1 - 1966, OSHA 29 CFR 1910. 134, and/or Canadian Standards Associations (CSA).  
**DISCLAIMER OF WARRANTIES**  
In the event the compressor is used for the purpose of breathing air application and proper in-line safety and alarm equipment is not simultaneously used, existing warranties shall be voided, and Campbell Hausfeld disclaims any liability whatsoever for any loss, personal injury or damage.

slowly; dust and debris may be harmful.

**⚠ WARNING** Disconnect power and depressurize system before servicing air compressor! (Turn pressure regulator knob fully clockwise after shutting off compressor.)

7. Follow all local electrical and safety

**REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.**

## Portable Air Compressors

### General Safety (Cont.)

- codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Wiring and fuses should follow electrical codes, current capacity, and be properly grounded.
  - Electric motors must be securely and adequately grounded. See grounding instructions and extension cord information, in this manual.
  - Always disconnect power source before working on or near a motor, or its connected load. If power disconnect point is out-of-sight, lock it in the open position and tag to prevent unexpected application of power.
  - Guard all moving parts; keep visitors away. Never allow children in work area.
  - Use only a properly grounded outlet that will accept a three pronged plug, and wear shoes to prevent shock hazards.
  - Be careful when touching exterior of operating motor; it may be hot enough to cause injury.
  - Protect power cable from coming in contact with sharp objects.
  - Clean electrical or electronic equipment with an approved cleaning agent, such as dry, nonflammable cleaning solvent.
  - To avoid spontaneous combustion, discard waste rags into approved metal waste cans.
  - Never store flammable liquids or gases in vicinity of compressor.
  - When spraying with solvent of toxic chemicals, follow instructions provided by the chemical manufacturer.
  - Spray in a well ventilated area, to keep fumes from collecting and causing health and fire hazards.
  - Do not spray in vicinity of open flames or other places where a spark can cause ignition. Do not smoke when spraying paint, insecticides, or other flammable substances.

- Use a respirator when spraying.
- NEVER reset safety valve or pressure switch. Keep safety valve free from paint and other accumulations. This provides safety against over pressure.
- Do regular maintenance; keep all nuts, bolts, and screws tight, to be sure equipment is in safe working condition .
- Keep cleaning rags and other flammable waste materials in a tightly closed metal container and dispose of later in the proper fashion.
- Drain tanks of moisture after each day's use. If unit will not be used for a while, it is best to leave 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.
- Inspect tank yearly for rust, pin holes or any other imperfections that could cause it to become unsafe. NEVER weld or drill holes in air tank.

### WIRING

- Local electrical wiring codes differ from area to area. Source wiring, plug and protector must be rated for at least the amperage and voltage indicated on motor nameplate, and meet all electrical codes for this minimum .
- Use a slow blow fuse type T or a circuit breaker.

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

**NOTE:** 120 volt, 10 and 13 amp units can be operated on a 115 volt, 15 amp circuit under the following conditions:

- No other electrical appliances or lights are connected to the same branch circuit.
  - Voltage supply is normal.
  - Extension cords are of the minimum gauge specified in this instruction manual.
  - Circuit is equipped with a 15 amp circuit breaker or a 15 amp slow blow fuse type T.
- If above conditions cannot be met or if nuisance tripping of current protection device occurs, it may be necessary to operate compressor from a 115 volt, 20 amp circuit.

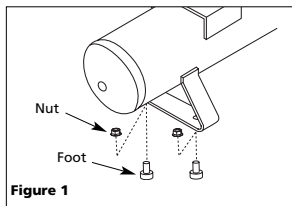
### GROUNDING INSTRUCTIONS

- This product should be grounded. In the event of an electrical short circuit, grounding reduces risk of electrical shock by providing an escape wire for electric current. This product is equipped with a cord having a grounding wire with an

## Assembly

### FEET (3 GALLON MODELS ONLY)

Insert threaded post of rubber foot into hole in ground iron. Tighten securely with locknut.



## Installation

- Check and tighten all bolts, fittings, etc., before operating compressor.
- Operate compressor in a ventilated area so that compressor may be properly cooled.

## Installation (Cont.)

appropriate grounding plug. Plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

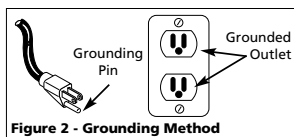


Figure 2 - Grounding Method

**⚠ DANGER** Improper use of grounding plug can result in a possible risk of electrical shock!

**NOTE:** Do not use grounding adapter.

- If repair or replacement of cord or plug is necessary, do not connect grounding wire to either flat blade terminal. The wire with insulation having an outlet surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman if grounding instructions are not completely understood, or if in doubt as to whether product is properly grounded. Do not modify plug provided; if it will not fit outlet, have proper outlet installed by a qualified electrician.

**⚠ WARNING** Never connect green (or green and yellow) wire to a live terminal.

### EXTENSION CORDS

- Use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept plug on product.
- Make sure extension cord is in good condition, and heavy enough to carry current product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
- To avoid loss of power and overheating, it is better to use

* Wire and Terminal Guide			
Wire	Color	Terminal	Hot
Power cord	White	Line	No
Motor cord	White	Load	No
Power cord	Black	Line	Yes
Motor cord	Black	Load	Yes

(\*) When the unit is not in operation

additional air hose instead of extension cords to reach work area.

- Table below shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use next heavier gauge.

**NOTE:** The smaller the gauge number, the heavier the cord.

- This product is for use on a nominal 120 volt circuit and has a grounding plug that looks like plug illustrated in Figure 2. Make sure that product is connected to an outlet having same configuration as plug.

**⚠ DANGER** Do not use adapter with this product!

## Operation

### FOR TROUBLE-FREE OPERATION

- Read instructions: Carefully read through this owner's manual BEFORE OPERATING the new air compressor. It contains information about operation and maintenance of unit.
- Drain tank daily: Depressurize system prior to draining tank. Open drain cock and drain moisture from tank. Be sure to close cock tightly before operating compressor. This helps prevent tank corrosion and keeps oil and moisture out of air used.
- Change air filter: Never run compressor without an air filter nor with a clogged air filter. Rotate filter cover when element is dirty, or replace with a new filter.

### ASME SAFETY VALVE

- This valve automatically releases air if air receiver pressure exceeds preset maximum.

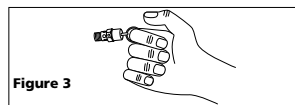


Figure 3

**⚠ DANGER** Do not attempt to tamper with this valve!

- This valve should be checked occasionally by pulling the ring by hand. If air leaks after ring has been released, or valve is stuck and cannot be actuated by ring, it MUST be replaced.

### MOISTURE IN COMPRESSED AIR

Moisture in compressed air will form into droplets as it comes from an air compressor pump. When humidity is high or when a compressor is in continuous use for an extended period of time, this moisture will collect in the tank. When using a paint spray or sandblast gun, this water will be carried from the tank through the hose, and out of the gun as droplets mixed with the spray material.

**IMPORTANT:** This condensation will cause water spots in a paint job, especially when spraying other than water based paints. If sandblasting, it will cause the sand to cake and clog the gun, rendering it ineffective.

A filter in the air line, located as near to the gun as possible, will help eliminate this moisture.

### Extension cords for 120V/15 Amp Unit

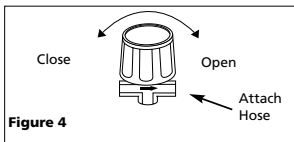
Length of Cord (ft)	25	50	100	150	200	250	300	400	500
Gauge of Cord	14	10	10	8	6	6	4	4	2

## Portable Air Compressors

### Operation (Cont.)

#### REGULATOR KNOB

1. This knob controls air pressure to an air operated tool, or paint spray gun.
2. Turning knob clockwise increases air pressure at outlet.
3. Turning counterclockwise will lower air pressure at outlet.
4. Fully counterclockwise will shut off flow of air completely.



#### REGULATED OUTLET GAUGE

1. This gauge shows at-a-glance, air pressure at outlet. Air pressure is measured in pounds per square inch (PSI).
2. Be sure this gauge reads ZERO before changing air tools or disconnecting hose from outlet.

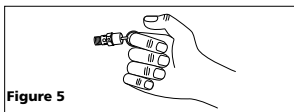
#### TANK PRESSURE GAUGE

Gauge shows pressure in air receiver indicating compressor is building pressure properly.

### Maintenance

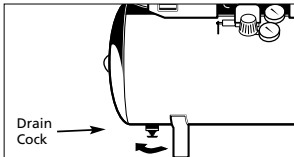
**WARNING** Release all pressure and disconnect power before making any repair.

1. Check compressor for any visible problems, especially check air filter to be sure it is clean.
2. Pull ring on safety valve and allow it to snap back to normal position.



**WARNING** Safety valve must be replaced if it cannot be actuated or it leaks air after ring is released.

3. Daily with compressor shut off: Depressurize system prior to draining tank. Drain moisture from tanks by opening drain cocks underneath end of tanks.



4. Turn power OFF and clean dust and dirt from motor, tank, air lines and pump cooling fins.

**NOTE:** The air filter in the filter housing on the side of the head must be checked and cleaned periodically, more often if used under very dusty conditions or when a great deal of fog from spraying is allowed to circulate near unit.

**IMPORTANT:** Unit should be located as far from spraying area as hose will allow to prevent over-spray from clogging filter.

#### FILTER REMOVAL, INSPECTION AND REPLACEMENT

To change a filter, pull off the filter housing cover. If filter element is dirty, rotate filter cover so the holes line up with clean element material and snap cover onto housing. If filter element has no clean areas, replace element or entire filter.

#### LUBRICATION

This is an oilless type compressor requiring no lubrication.

#### THERMAL OVERLOAD PROTECTOR

**CAUTION** This compressor is equipped with an automatic reset thermal overload protector which will shut off motor if it becomes overheated.

If thermal overload protector shuts motor OFF frequently look for the following causes.


1. Low voltage.
2. Wrong gauge wire or length of extension cord.
3. Clogged air filter.
4. Lack of proper ventilation.

**CAUTION** The motor must be allowed to cool down before start-up is possible. The motor will automatically restart without warning if left plugged into electrical outlet, if the motor is turned on.

#### STORAGE

1. When not in use, hose and compressor should be stored in a cool dry place.
2. Tank should be drained of moisture.
3. Hose should be disconnected and hung open ends down to allow any moisture to drain.

**Troubleshooting Chart**

Symptom	Possible Cause(s)	Corrective Action
Compressor will not run	<ol style="list-style-type: none"> <li>1. Loss of power or overheating</li> <li>2. No electrical power</li> <li>3. Blown fuse</li> <li>4. Breaker open</li> <li>5. Thermal overload open</li> <li>6. Pressure switch bad</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for proper use of extension cord (see EXTENSION CORDS, page 3)</li> <li>2. Plugged in? Check fuse/breaker or motor overload</li> <li>3. Replace blown fuse</li> <li>4. Reset, determining why problem happened</li> <li>5. Motor will restart when cool</li> <li>6. Replace</li> </ol>
Motor hums but cannot run or runs slowly	<ol style="list-style-type: none"> <li>1. Low voltage</li> <li>2. Wrong gauge wire or length of extension cord</li> <li>3. Shorted or open motor winding</li> <li>4. Defective check valve or unloader</li> </ol>	<ol style="list-style-type: none"> <li>1. Check with voltmeter</li> <li>2. Check gauge chart, under Operation for proper gauge wire and cord length</li> <li>3. Replace motor</li> <li>4. Replace or repair</li> </ol>
Fuses blow/circuit breaker trips repeatedly	<ol style="list-style-type: none"> <li>1. Incorrect size fuse, circuit overloaded</li> <li>2. Wrong gauge wire or length of extension cord</li> <li>3. Defective check valve or under loader</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for proper fuse, use time-delay fuse. Disconnect other electrical appliances from circuit or operate compressor on its own branch circuit</li> <li>2. Check gauge chart, under Operation</li> <li>3. Replace or repair</li> </ol>
Thermal overload protector cuts out repeatedly	<ol style="list-style-type: none"> <li>1. Low voltage</li> <li>2. Clogged air filter</li> <li>3. Lack of proper ventilation/room temperature too high</li> <li>4. Wrong gauge wire or length of extension cord</li> </ol>	<ol style="list-style-type: none"> <li>1. Check with voltmeter</li> <li>2. Clean filter (see Maintenance section)</li> <li>3. Move compressor to well ventilated area</li> <li>4. Check gauge chart, under Operation</li> </ol>
Air receiver pressure drops when compressor shuts off	<ol style="list-style-type: none"> <li>1. Loose connections (fittings, tubing, etc.)</li> <li>2. Loose drain lock</li> <li>3. Check valve leaking</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all connections with soap and water solution and tighten</li> <li>2. Tighten</li> <li>3. Disassemble check valve assembly, clean or replace</li> </ol>
<p><b> <i>Do not disassemble check valve with air in tank; bleed tank</i></b></p>		
Excessive moisture in discharge air	<ol style="list-style-type: none"> <li>1. Excessive water in air receiver</li> <li>2. High humidity</li> </ol>	<ol style="list-style-type: none"> <li>1. Drain receiver</li> <li>2. Move to area of less humidity; use air line filter</li> </ol>
Compressor runs continuously	<ol style="list-style-type: none"> <li>1. Defective pressure switch</li> <li>2. Excessive air usage</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace switch</li> <li>2. Decrease air usage; compressor not large enough for a requirement</li> </ol>
Compressor vibrates	Loose mounting bolts	Tighten
Air output lower than normal	<ol style="list-style-type: none"> <li>1. Broken inlet valves</li> <li>2. Intake filter dirty</li> <li>3. Connections leaking</li> </ol>	<ol style="list-style-type: none"> <li>1. Have authorized service representative repair unit</li> <li>2. Clean or replace intake filter</li> <li>3. Tighten connections</li> </ol>

## Portable Air Compressors

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### Limited Warranty

1. **DURATION:** From the date of purchase by the original purchaser as follows: Standard Duty - One Year; Serious Duty - Two Years; Extreme Duty - Three Years; Maxus Model Series - Five Years.
2. **WHO GIVES THIS WARRANTY (WARRANTOR):**  
Campbell Hausfeld / Scott Fetzer Company, 100 Production Drive, Harrison, Ohio, 45030, Telephone: (800) 543-6400
3. **WHO RECEIVES THIS WARRANTY (PURCHASER):** The original purchaser (other than for purposes of resale) of the Campbell Hausfeld compressor.
4. **WHAT PRODUCTS ARE COVERED BY THIS WARRANTY:** Any Campbell Hausfeld air compressor.
5. **WHAT IS COVERED UNDER THIS WARRANTY:** Substantial defects due to material and workmanship with the exceptions noted below.
6. **WHAT IS NOT COVERED UNDER THIS WARRANTY:**
  - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. If this compressor is used for commercial, industrial or rental purposes, the warranty will apply for ninety (90) days from the date of purchase. Extreme Duty Contractor Compressors are not limited to a ninety (90) day warranty when used in contractor applications. Four cylinder single-stage and two-stage compressors are not limited to a ninety (90) day warranty when used in commercial or industrial applications. Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
  - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CAMPBELL HAUSFELD PRODUCT. Some States do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
  - C. 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.
  - D. Pre-delivery service, i.e. assembly, oil or lubricants, and adjustment.
  - E. Items or service that are normally required to maintain the product, i.e. lubricants, filters and gaskets, etc.
  - F. Gasoline engines and components are expressly excluded from coverage under this limited warranty. The Purchaser must comply with the warranty given by the engine manufacturer which is supplied with the product.
  - G. Additional items not covered under this warranty:
    1. All Compressors
      - a. Any component damaged in shipment or any failure caused by installing or operating unit under conditions not in accordance with installation and operation guidelines or damaged by contact with tools or surroundings.
      - b. Pump or valve failure caused by rain, excessive humidity, corrosive environments or other contaminants.
      - c. Cosmetic defects that do not interfere with compressor functionality.
      - d. Rusted tanks, including but not limited to rust due to improper drainage or corrosive environments.
      - e. Electric motors, check valves and pressure switches after the first year of ownership.
      - f. Drain cocks.
      - g. Damage due to incorrect voltage or improper wiring.
      - h. Other items not listed but considered general wear parts.
      - i. Pressure switches, air governors and safety valves modified from factory settings.
    2. Lubricated Compressors
      - a. Pump wear or valve damage caused by using oil not specified.
      - b. Pump wear or valve damage caused by any oil contamination or by failure to follow proper oil maintenance guidelines.
    3. Belt Drive / Direct Drive / Gas Driven Compressors
      - a. Belts.
      - b. Ring wear or valve damage from inadequate filter maintenance.
      - c. Manually adjusted load/unload and throttle control devices.
7. **RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY:** Repair or replace, at Warrantor's option, compressor or component which is defective, has malfunctioned and/or failed to conform within duration of the warranty period.
8. **RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:**
  - A. Provide dated proof of purchase and maintenance records.
  - B. Portable compressors or components must be delivered or shipped to the nearest Campbell Hausfeld Authorized Service Center. Freight costs, if any, must be borne by the purchaser.
  - C. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
9. **WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:** Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.

This Limited Warranty applies in the U.S., Canada and Mexico only and gives you specific legal rights. You may also have other rights which vary from State to State or country to country.