

# LARGE AIR COMPRESSOR

# **OPERATOR MANUAL**

MODELS: 1030 & 1031

# **III** READ CAREFULLY. KEEP THESE INSTRUCTIONS.



# **PRODUCT USE CRITERIA:**

- Operate at 32°F 104°F (0°C 40°C).
- For indoor use only. Protect unit from dirt & moisture.
- Pump only clean, dry air.
- Do not pump flammable or explosive gases or use in an atmosphere that contains such gases.
- Protect all surrounding items from exhaust air. This exhaust air can become very hot.

**Note to Installer:** Be sure to leave Operator Manual with the customer. **Note to Customer:** Keep Operator Manual for future reference.

**Skill level:** Professional installation is required by qualified personnel.

Product failure due to improper installation is not covered under warranty.

### **CUSTOMER SUPPORT**

If you have any questions regarding the operation or installation of the air compressor after reading this manual, contact **Keiser Customer Support:** 



1559 256 8000



a service@keiser.com



keiser.com/support

2470 S. Cherry Ave. Fresno, CA 93706

KEISER CORPORATION



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### **GENERAL INFORMATION**

### **INTRODUCTION**

Congratulations on the purchase of your new Keiser Large Air Compressor and welcome to the Keiser family. For your safety, and to ensure optimal equipment performance, please read and understand this manual before use of the air compressor.

If you have any questions regarding assembly or operation after reading this manual, our Keiser Customer Support team will be happy to assist by telephone at 1559 256 8000 or via live chat at keiser.com/support (Monday-Friday, 9 am to 5 pm Pacific Time), or by email at service@keiser.com.

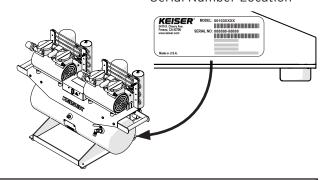
Yours in Health, **Keiser Corporation** 

### **RECORD YOUR SERIAL NUMBER**

Please take a moment at this time to record the serial number ("Serial No.") in the space provided below.

Serial No.:

Serial Number Location



NOTICE: Figures and illustrations in this Operation Manual are provided for reference only and may differ from the actual product appearance. Product design and specification may change without notice.

### REGISTER YOUR PURCHASE

Register your product to stay informed of safety notifications and for faster, more accurate warranty service.

Scan the QR Code below to access the interactive online warranty registration.



https://www.keiser.com/forms/warrantyregistration

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### **IMPORTANT SAFETY INFORMATION**

It is the sole responsibility of the purchaser of Keiser Corporation equipment to instruct all individuals, whether they are the end-user or supervising personnel, on proper usage of the equipment. Keiser Corporation recommends that all users of its equipment be informed of the following information before use.

#### **GENERAL SAFETY RULES**

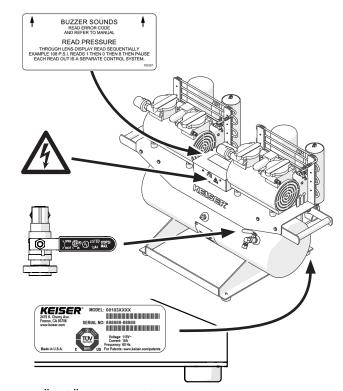
- 1. Read these instructions. Keep these instructions.
- 2. Heed all warnings. Follow all instructions.
- 3. All repairs and maintenance shall only be performed by Keiser-certified technicians. Only use replacement parts recommended by Keiser Corporation.
- 4. Use the air compressor for its intended purpose as described in this manual; for indoor use only.
- 5. The air compressor is not a toy. Children shall not play with the air compressor. Keep children and pets clear from the air compressor at all times, especially while in use. Cleaning and user maintenance shall not be performed by children.
- 6. The air compressor is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, without instruction and constant supervision.
- 7. Do not use attachments or accessories that have not been provided or recommended by the manufacturer.
- 8. The air compressor is intended for use in training areas of organizations where access and control are specifically regulated by a person responsible for determining the suitability of use and maintenance.
- 9. Operate at 32°F 104°F (0°C 40°C). Keep away from extreme temperatures and high humidity.
- 10. Locate the air compressor in a clean, dry, and well-ventilated area. Place the air compressor on a flat, level surface.
- 11. Maintain adequate air flow, minimum 3-inch (76 mm) obstacle-free perimeter required.
- 12. Use an electrical circuit with the appropriate power rating. Do not use extension cords or power cord adapters.
- 13. Do not pump flammable or explosive gases or use in an atmosphere that contains such gases. Protect all surrounding items from exhaust air. This exhaust air can become very hot.
- 14. Keep the air compressor away from the workout zone. Ensure access to the power supply and air compressor shut-off valve are easily accessible.
- 15. Before using the air compressor, perform the Pre-Operation Checklist (see page 5). If any damage is found, do not use until all repairs have been completed and tested by a Keisercertified technician.
- 16. Users, agents, and/or anyone directing the use of the air compressor shall determine the suitability of the air compressor for its intended use, and said parties are specifically put on notice that they shall assume all risk and liability in connection herewith.

#### **CONVENTIONS USED**

This Operator Manual contains the following marks:

- ⚠ **DANGER**: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ **WARNING**: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
- ⚠ CAUTION: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
- **HEAVY OBJECT:** Indicates help is required during lifting to avoid muscle strain and/or back injury.

## **SAFETY & SERIAL NUMBER LABELS**



TÜV SÜD certification mark applies to 1030 model only

Maintain safety and serial number labels. Do not remove labels for any reason. They contain important information. If unreadable or missing, contact Keiser Corporation for a replacement (see front cover for contact information).

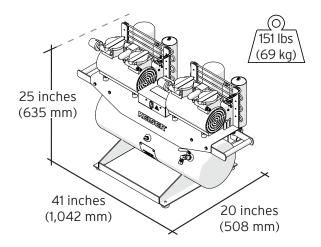




# **EQUIPMENT SPECIFICATIONS**

	Model 1030	Model 1031
Voltage:	115V~	230V~
Current:	10A	5A
Frequency:	60 Hz	50 Hz

#### Dimensions and features for both models:

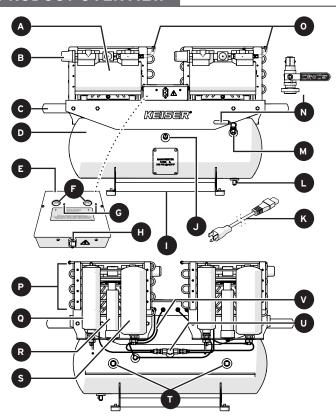


- Motor: Twin 3/4 HP
- Air Storage Tank Capacity: 10 gallons (38 L)
- Equipment Capacity: Up to 18 Keiser pneumatic machines Based on normal operating conditions
- Pressurized Air Delivery Range: 100-120 psig (6.89-8.27 bar)
- Lubrication Type: Oil-less (requires no lubrication)
- Redundant system, alternating motors to meet load demand
- Decibel Rating: 70-72 dB Under normal operating conditions, distance of 39.37 inches (1 m)



## **SETUP**

### **PRODUCT OVERVIEW**



- A. 3/4 HP Motor
- B. Inlet Muffler
- C. Handle
- D. Air Tank
- E. Circuit Board Housing
- F. Display Lens
- G. Error Alarm
- H. Power Connector
- I. Base
- J. Pressure Relief Valve
- K. Power Cord

- L. Drain Cock
- M. Air Outlet (1/2 inch)
- N. Shut-off Valve
- O. Supply Line (Clear Tubing)
- P. Cooling Coil
- Q. Dryer Tank
- R. Drain Tube with Foam
- S. Purge Tank
- T. Tank Inspection Port
- U. Tee
- V. Air Line (Black Tubing)

# PRE-OPERATION CHECKLIST

### **INSPECT FOR DAMAGE**

- 1. Before air compressor assembly or use, inspect all parts for damage, including:
  - □ Power Cord
- □ Motors
- □ Air Tank
- □ Cooling Coils
- □ Dryer Tanks
- ☐ Air Line Hoses
- □ Purge Tanks
- ☐ Shut-off Valve
- 2. Check all pipes and tubes are firmly connected.

If any damage is found, do not use until all repairs have been completed and tested by a Keiser-certified technician.

#### LOCATION AND PLACEMENT

# **MARNING**



#### **FIRE HAZARD**

- It is normal for the air compressor motor and pressure switch to produce sparks while operating. If sparks come in contact with vapors from solvents or gasoline, they may ignite and cause a fire or explosion.
- Always operate the air compressor a safe distance away from flammable items. Use in well-ventilated areas.
- Protect all surrounding items from exhaust air; exhaust air can become hot.
- · Never exceed the maximum rated pressure.

# **A** CAUTION



### **HOT SURFACE**

- Air compressor surfaces become hot during operation.
- Do not touch hot surfaces (motors, cooling coils) during operation as they can cause severe burns.
- Allow the air compressor to cool before touching it.
- Do not place a storage cover on the unit during operation.

# HEAVY OBJECT: Equipment weighs 151 lbs (69 kg).

Help is required during lifting to avoid muscle strain and/or back injury.

- Locate the air compressor in a clean, dry, and wellventilated area. Place the air compressor on a flat, level surface.
- Maintain adequate air flow, minimum 3-inch (76 mm) obstacle-free perimeter required.
- Use an electrical circuit with the appropriate power rating, avoid the use of an extension cord.
- Keep the air compressor away from the workout zone. Ensure access to the power supply and air compressor shut-off valve are easily accessible.



### **ELECTRICAL POWER REQUIREMENTS**

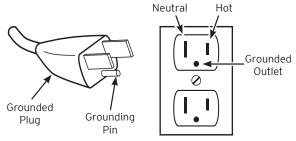
# **⚠ DANGER**





#### **ELECTRIC SHOCK HAZARD**

- Install this product where it will not come into contact with water or other liquids.
- Ensure the power cord is free of damage before connecting to the power supply.
- If the power cord is damaged, or shows signs of excessive wear, stop use of the equipment immediately. Do not use the equipment until the power cord is replaced. Only use power cords provided by Keiser Corporation.
- This product must be properly grounded. For 120-volt or 220/240-volt circuits, connect power supply cord grounding plug to a matching grounded outlet. Do not use an adapter (See diagram below).



120-volt grounded connectors shown. 220/240-volt grounded connectors will differ in shape.

- The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Do not modify the power cord provided. Check with a qualified electrician or serviceperson if grounding instructions are not completely understood.
- Failure to follow these instructions can result in death, fire or electrical shock.

Before using the air compressor, check that supply voltage agrees with that listed on product serial number label or refer to the Equipment Specifications section (page 4). Low voltage or an overload circuit can cause the overload protection system circuit breaker to trip.

### **ASSEMBLY**

- 1. **Plumbing:** Attachthe 1/2-inch air line to the male connector at the shut-off valve with a 1/2-inch compression nut (Tools: Adjustable Wrench or 13/16-inch Wrench). Reduce to a 3/8-inch air line using a 1/2x3/8-inch Union Reducer (Tools: Adjustable Wrench and 5/8-inch Wrench).
- 2. **Power Cord:** Ensure shut-off valve is in the SHUT (OFF) position. Connect the power cord to the power connector on the circuit board housing.
- 3. Proceed to the Test Run section.

### TEST RUN

# **AWARNING**



#### **EXPLOSION HAZARD**

- Exercise caution when using pressurized air.
- Wear safety glasses.
- Only use hoses and air fittings provided by the manufacturer.
- Inspect all hoses and fittings for leaks or wear. If leaks or wear are detected, stop use and replace parts immediately.
   Do not use until repairs have been completed and tested by a Keiser-certified technician.
- Never leave pressurized air in the air tank when storing the air compressor or during scheduled downtime (maintenance).
- If the air tank develops a leak, replace the air tank immediately. Never repair, weld or make modifications to the air tank or its attachments.
- Never make adjustments to the factory-set pressures.
- 1. Plug the power cord to the appropriate power supply. Within the first 10 seconds, the software version will display "1.23," followed by the air tank pressure, sequentially.

Example: 85 psig will display as 8-5 [pause]

- 2. Slowly purge the air tank until both motors power ON, then close the shut-off valve.
- 3. Allow the air tank to fill (approximately 2-5 minutes).
- 4. Check for display to reach between 118-120 psig (8.14-8.27 bar).

### **TEST PASS:**

- The software will automatically power OFF the motors when the display reads between 118-120 psig (8.14-8.27 bar).
- No air leaks detected.

### **TEST FAIL:**

- Motors do not power OFF when the display reads between 118-120 psig (8.14-8.27 bar).
- An air leak detected.
- An error buzz sound and error code displays ("*E-r-*#").

If the test fails, make note of the error code (if present) and disconnect the power cord from the power supply to power OFF. Refer to the troubleshooting section (page 8) for possible corrective action and perform the Test Run procedure again. If failure persists, contact your Keiser dealer, distributor, or Keiser Customer Support (see front cover for contact information).

Air compressor maintenance shall only be performed by Keiser-certified technicians.



### **DAILY OPERATION**

 Power ON: Plug the power cord to the appropriate power supply to power ON the air compressor.

The air compressor is not equipped with a power ON/OFF switch. Power is controlled by the power cord plugged at the electrical outlet.

The air compressor software is factory preset to shut off the motors at 118-120 psig (8.14-8.27 bar) and to re-start at  $97 \pm 5$  psig  $(6.69 \pm 0.34 \text{ bar})$ .

2. **Power OFF:** The air compressor is designed to remain in the power ON condition. There is no need to power OFF the air compressor, other than for care and maintenance purposes (see the Care and Maintenance section below for complete instructions).

### **CARE AND MAINTENANCE**

### **CLEANING**

# **⚠ CAUTION**



#### **HOT SURFACE**

Before cleaning the air compressor:

- 1. Disconnect the power cord from the power supply.
- 2. Allow the air compressor to cool down.

Clean the air compressor exterior with a soft brush or wipe with a moistened cloth using only water and mild soap. Wipe dry the air compressor.

Do not use cleaning solvents as they can be toxic and flammable.

Always keep parts clean from dirt and dust for optimal equipment performance.

#### **MAINTENANCE**

**Lubrication:** The motors are oil-less and require no lubrication.

**Drain Tube with Foam:** Check the foam for tears, damage or excessive wear. If worn, damaged, or missing, Contact Keiser Customer Support for replacement.

**Inspect:** Periodically inspect the air compressor for damaged, worn, or broken parts; check for normal operating sounds and any error codes. Make note of any error code and contact Keiser Customer Support for service and corrective action.

All repairs and maintenance shall only be performed by Keiser-certified technicians. Do not open any parts or components of the air compressor or attempt to resolve any issue on your own. Only use replacement parts recommended by Keiser Corporation.

#### **TEST FOR LEAKS**

Make sure all connections are tight. Do not overtighten. Any leaks at hose or pipe connections will diminish air compressor performance.

To test for leaks, spray a small amount of soapy water on the area suspected of leaking. If the soap bubbles, try tightening the connection or replace the broken part. Do not install used compression nuts. Do not use the air compressor until all repairs have been completed and tested by a Keiser-certified technician.

### **STORAGE**

- Disconnect the power cord to power OFF, and wrap the power cord around the air compressor handle to reduce the risk of damage.
- 2. Close the shut-off valve.
- 3. Disconnect the 1/2-inch air line at the air compressor.
- 4. Open the shut-off valve slowly to release all air pressure in the air tank.
- 5. Clean the air compressor to remove all dirt and dust.
- 6. Place a cover over the air compressor to protect the unit from dust and moisture.
- 7. Do not stack or store any items on top of or around the air compressor.
- 8. Store indoors.



# **TROUBLESHOOTING**

If you suspect a problem with the air compressor, check each Display Lens for an error code ("E r" followed by a number). An error code will remain on the display until the error self-corrects or when the compressor is reset (disconnect and re-connect to power supply) in an attempt to fix the error. The following table lists the error code descriptions, probable causes, and solutions.

⚠ WARNING: Repair or maintenance shall only be performed by Keiser-certified technicians. Failure to follow these instructions can result in death, electrical shock, or fire.

⚠ WARNING: Risk of Unsafe Operation. The air compressor cycles automatically when power is on. When troubleshooting, you may be exposed to voltage sources or compressed air. Before troubleshooting, unplug or disconnect the electrical supply to the air compressor, purge air pressure, and allow the air compressor to cool.

Error Code	Description/Symptoms	Probable Cause	Solution
Er!	Check Valve leak detected.	Check Valve failure. Once the compressor builds up pressure and shuts off, the pressure bleeds down rapidly to a low pressure (approximately 10 psi).	Replace Check Valve.
Er2, Er8	Motor run-time is too long (over one hour); failure to reach shut-off pressure (approximately 120 psi).  NOTE: Shut-off will occur every 5 minutes to purge the dryer assembly (display: E r B). If after 20 cycles the unit fails to reach the shut-off pressure, the compressor will shut down and not restart (display: E r 2).	Air leak within the system.	Check for air leaks in the compressor and air line system:  1. Disconnect all exercise machines from the compressor.  2. Reset the compressor (disconnect, then reconnect to power supply).  3. Run the compressor.  Check the display for building pressure and shut-off pressure at approximately 120 psi.  If the compressor builds pressure and shuts down at shut-off pressure, the leak is likely at an exercise machine or in the air supply line. Check the Air Line system for leaks; connect exercise machines one at a time to check for leaks.  If the compressor fails to shut down (exercise machines are disconnected), the leak is likely in the compressor. Check the compressor hoses/fittings for leaks.
Er 3, Er 4, Er 5	Purge tank pressure did not drop fast enough.  NOTE: The purge tank must bleed air through the dryer to regenerate. This must happen before the compressor can restart. If this takes too long, these error codes will display.	Blockage in the Dryer Module.	Replace the Dryer Module and Elbow Connector if corrosion is detected.
		Mechanical failure of the Solenoid Valve	Replace the Solenoid Valve.



Error Code	Description/Symptoms	Probable Cause	Solution
Er 6	Motor START signal was not received by the Computer Control System (CCS).  NOTE: The motor may have been given a signal to start, however no pressure increase was detected in the Purge Tank.	Major air leak in the system.	Check compressor hoses and fittings for leaks; connect exercise machines to the compressor one at a time to check for leaks (see leak check procedure in the "Solution" column for E r 2, E r 8)
		Motor failure or Start circuit failure.	Disconnect, then reconnect the compressor to power supply. Listen for the motor start and the Solenoid Valve click:
			<ul> <li>If the motor runs then check plumbing to ensure that all hoses are connected.</li> <li>If the motor does not start and the Solenoid Valve clicks, the motor is faulty and must be replaced.</li> <li>If the motor does not start and the Solenoid Valve does not click, the Circuit Board is faulty and must be replaced.</li> </ul>
Er7	Insufficient/no pressure build in Air Tanks.	Major air leak in one of the exercise machines or in the compressor plumbing.	Check compressor hoses and fittings for leaks; connect exercise machines to the compressor one at a time to check for leaks (see leak check procedure in the "Solution" column for E r 2, E r 8)
Er9	Air pressure building too slow.	Dirty or blocked Inlet- Muffler Assembly.	Ensure the compressor located in a clean, dry, and wellventilated area; vents are not blocked. Replace Inlet-Muffler Assembly.
Er ID Formerly "Er A" 1030X, 1031X models only	Communication failure between the two computer Circuit Boards.	Damaged Communication Cable.	Replace the Communication Cable.
		Circuit Board failure.	Replace the Circuit Board(s).
		NOTE: Either Circuit Board can cause itself or the other to display the error.	
Er II	Purge Valve leak detected.	Loose hose/fitting, o-ring failure, or loose canister.	Check for loose hose/fitting; ensure the o-ring is not damaged/torn and canister is threaded properly and snug on the bushing.



## **REGULATORY AND COMPLIANCE NOTICES**

#### COMPLIANCE

This device complies with Industry Canada Licence-Exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

#### REGULATORY NOTICE

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

⚠ California Proposition 65 Warning: This product contains chemicals known in the State of California to cause cancer, birth defects, and/or other reproductive harm.

### WARRANTY STATEMENT

For information about Keiser's product warranty and thereto related information, refer to keiser.com/support/warranty.



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### **CUSTOMER SUPPORT**

If you have any questions regarding the operation or installation of the air compressor after reading this manual, contact Keiser Customer Support:



1 559 256 8000



a service@keiser.com



keiser.com/support

Telephone and Live Chat Monday-Friday 9 am to 5 pm PST



2470 S. Cherry Ave. Fresno, CA 93706