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> Voltair Heavy Duty 12V Air Compressor AV12 User Manual

Voltair AV12

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Model: AV12

1. INTRODUCTION

Welcome to the user manual for your Voltair Heavy Duty 12V Air Compressor, Model AV12. This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your compressor. Please read this manual thoroughly before operating the unit to ensure proper use and to prevent damage or injury.

The Voltair AV12 is a rugged, high-performance air compressor designed for demanding applications, particularly in service and farm trucks, providing reliable air where and when you need it.

2. SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of injury or damage:

- **Read the Manual:** Familiarize yourself with all instructions and warnings before operation.
- **Eye Protection:** Always wear ANSI-approved safety goggles when operating or servicing the compressor.
- **Hearing Protection:** Use hearing protection during extended operation to prevent hearing damage.
- **Ventilation:** Operate the compressor in a well-ventilated area.
- **Electrical Safety:** Ensure the 12V power source is appropriate and connections are secure to prevent electrical hazards. Do not operate with damaged wiring.
- **Pressure Release:** Always release air pressure from the system before performing any maintenance or disconnecting hoses.
- **Hot Surfaces:** The compressor can become hot during operation. Avoid contact with hot surfaces to prevent burns.
- **Children and Bystanders:** Keep children and bystanders away from the operating compressor.

3. PRODUCT OVERVIEW AND FEATURES

The Voltair AV12 is engineered for durability and performance. Key features include:

- Rugged construction suitable for heavy-duty applications.
- Finest 1800 rpm, thermal protected permanent magnet motor on the market.

- Heavy-duty cast-iron twin cylinder, oil-lubed compressor running at only 470 rpm for extended life.
- Positive gear belt drive system for reliable power transmission.
- All steel powder-coated cabinet for protection and durability.

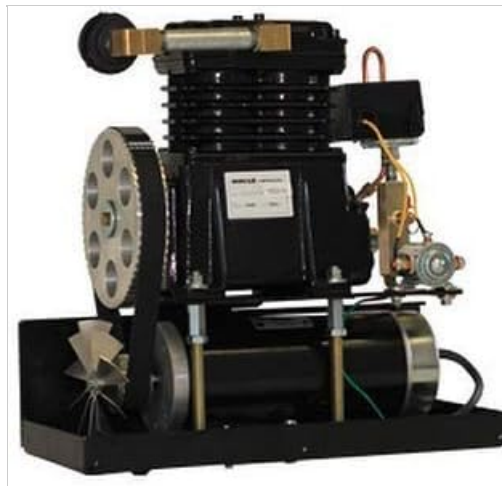


Figure 1: Main Voltair AV12 Compressor Unit. This image displays the robust construction of the compressor, highlighting its motor, twin cylinders, and belt drive system.

 A composite image for the Voltair AV12 compressor. It includes a photograph of the unit on the left, a list of key features in a blue box, a table of technical specifications, a section of customer testimonials, and three small images of accessories (air hose, air gun, and air nozzle).

•The 12-Voltair® is a rugged air compressor
 •"Air Where And When You Need It!" – hour after hour
 •Finest 1800 rpm, thermal protected permanent magnet motor on the market
 •Heavy Duty "cast-iron" twin cylinder, oil-lubed compressor runs at only 470 rpm
 •Positive gear belt drive system
 •All steel powder coated cabinet
 •In business since 1990
 •FULL One Year Warranty

MODEL #	12V6CF
VOLTAGE	12 VDC
HP	1
AMP DRAW @ 100 PSI	90 amps
DUTY CYCLE @ 90° F	80%
CFM @ 50 PSI	10
CFM @ 100 PSI	6
Fills a 10 gal. tank 0-150 PSI	00:02:55
Recoovers a 10 gal. tank from 130-150 PSI	00:00:35

•A 100 amp alternator will charge 35-40 amps at a vehicle idle
 •Motor has a 2000 hour life
 •A permanent magnet motor carries a 80% efficiency rating
 •Dimensions 19"H x 18.25"W x 8.25"D
 •Weight 108 lbs

Here is what our customers have said...

Owning this 12-Voltair® has eliminated most frustrations that I am faced with as a tow truck driver. Dwan, FL.

The unit was easy to install and it takes up very little space... Steve, MN

I purchased my 12-Voltair® 12 years ago and it is still working with the only repairs being a solenoid and a belt. Darwin, KS

I would recommend the 12-Voltair® to anyone who needs air on a daily basis. Gary, TX

Figure 2: Voltair AV12 Compressor with key features. This image provides a visual representation of the compressor unit, emphasizing its compact design and robust build quality.



Figure 3: Voltair AV12 Compressor in its protective cabinet. The image shows the durable, powder-coated steel enclosure that protects the internal components of the compressor.

4. SETUP INSTRUCTIONS

Follow these steps for the initial setup of your Voltair AV12 compressor:

1. **Unpacking:** Carefully remove the compressor from its packaging. Inspect for any shipping damage.
2. **Mounting:** Securely mount the compressor in a stable, well-ventilated location in your service or farm truck. Ensure it is protected from direct weather exposure and vibrations.
3. **Electrical Connection:** Connect the compressor to a suitable 12V DC power source. Ensure the wiring is correctly sized for the compressor's amperage draw (approximately 90 amps at 100 PSI). A 100 amp alternator is recommended for optimal performance.
4. **Hose Connection:** Attach your air hose and desired air tools to the compressor's output port. Ensure all connections are tight to prevent air leaks.

5. OPERATING INSTRUCTIONS

The Voltair AV12 is designed for straightforward operation:

1. **Power On:** Ensure the compressor is securely connected to the 12V power source. Activate the power switch. The compressor will begin to build pressure.
2. **Automatic Operation:** The compressor features an automatic pressure switch. It will turn on when pressure drops below a set threshold (e.g., 130 PSI) and turn off when it reaches the maximum pressure (e.g., 150 PSI).
3. **Using Air Tools:** Connect your air tools (e.g., impact wrenches, drills, spray guns) to the air hose. The compressor is capable of running various air tools.
4. **Duty Cycle:** The Voltair AV12 has an 80% duty cycle, meaning it can run for 50 minutes out of every hour. Allow for a 10-minute cool-down period after 50 minutes of continuous operation.
5. **Recommended Uses:** This compressor is suitable for air brushing, drilling, nailing, and spraying applications.



Figure 4: Voltair AV12 Compressor in use. This image demonstrates the compressor being used to inflate a tire, showcasing its practical application.

6. MAINTENANCE AND CARE

Regular maintenance ensures the longevity and optimal performance of your compressor:

- **Oil Level Check:** Regularly check the oil level in the compressor. Use ISO-46, non-detergent, synthetic compressor oil for lubrication. Do not use automotive engine oil.
- **Air Filter:** Inspect and clean or replace the air filter as needed. A clogged filter can reduce efficiency and damage the compressor.
- **Belt Inspection:** Periodically check the gear belt for wear, tension, and damage. Adjust or replace if necessary.
- **General Cleaning:** Keep the exterior of the compressor clean and free of dust and debris to ensure proper cooling.
- **Electrical Connections:** Ensure all electrical connections remain tight and free of corrosion.

7. TROUBLESHOOTING COMMON ISSUES

Refer to the table below for solutions to common operational problems:

Problem	Possible Cause	Solution
Compressor does not turn on.	No power, loose electrical connection, faulty switch.	Check 12V power source, verify connections, inspect power switch.
Compressor runs but does not build pressure.	Air leak, clogged air filter, worn piston rings/valves.	Check all hose connections for leaks, clean/replace air filter, consult support for internal issues.
Compressor cycles too frequently.	Air leak in the system, pressure switch malfunction.	Inspect for air leaks, verify pressure switch operation.
Reduced air output.	Clogged air filter, low oil level, worn components.	Clean/replace air filter, check and replenish oil, inspect internal components.
Compressor overheats.	Poor ventilation, extended operation beyond duty cycle, low oil.	Ensure adequate ventilation, observe duty cycle, check oil level.

Note on Air Tanks: The Voltair AV12 is designed for direct use and does not include an integrated air tank. It is intended

for applications where continuous air supply is needed without the need for a large reservoir.

8. TECHNICAL SPECIFICATIONS

Detailed specifications for the Voltair Heavy Duty 12V Air Compressor AV12:

Specification	Value
Brand	Voltair
Model Name	Voltair
Item Model Number	AV12
Manufacturer Part Number	AV12
Voltage	12 Volts
Power Source	Corded Electric
Noise Level	62 dB
Special Feature	Heavy Duty
Color	Black
Style	Portable
Recommended Uses	Air Brushing, Drilling, Nailing, Spraying
UPC	068811306131

9. WARRANTY INFORMATION

The Voltair Heavy Duty 12V Air Compressor AV12 comes with a **FULL One Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty card included with your product or contact customer support.

10. CUSTOMER SUPPORT

If you encounter any issues not covered in the troubleshooting section or require further assistance, please contact Voltair customer support. Have your model number (AV12) and purchase information ready when contacting support.

For the most up-to-date contact information, please visit the official Voltair website or refer to the packaging materials.