SMACO HEAP1

SMACO High-Pressure Air Compressor

Model: HEAP1

Introduction

This manual provides essential information for the safe and efficient operation of your SMACO High-Pressure Air Compressor. Please read this manual thoroughly before using the compressor to ensure proper function and to prevent damage or injury. Keep this manual for future reference.

Figure 1: SMACO High-Pressure Air Compressor. This image shows the compact black unit with orange "SMACO X" branding on the fan cover, a pressure gauge, control knobs, and power switches. It also displays the high-pressure hose and battery clamps for 12V DC connection.

Safety Information

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

- Ensure the compressor is placed on a stable, level surface during operation.
- Do not operate the compressor in wet conditions or near flammable materials.
- Always wear appropriate eye protection when operating the compressor.
- Do not exceed the maximum pressure rating of 4500 PSI (300 Bar / 30 MPa).
- Allow the compressor to cool down for 10 minutes after 25 minutes of continuous operation.
- Keep children and pets away from the compressor during operation.
- Disconnect power before performing any maintenance or cleaning.

Product Overview and Features

The SMACO High-Pressure Air Compressor is designed for versatility and portability, suitable for various high-pressure air applications.

- **Integrated Power Adapter:** Built-in transformer for direct connection to 110V/220V AC outlets or 12V DC car batteries.
- **Automatic Pressure Shut-off:** Automatically stops inflation once the preset pressure is reached.
- **Oil-Free Design:** Eliminates the need for oil, ensuring clean and dry air output.
- **Fan Cooling System:** Efficient cooling to maintain optimal operating temperature.
- **Water/Oil Separator:** Filters out moisture and oil from the compressed air.
- **Compact and Portable:** Lightweight design with a convenient wire spool for easy transport and storage.

Figure 2: Portability of the SMACO Air Compressor. This image illustrates the compact size of the compressor, being held by a person, with dimensions of approximately 10 inches (height), 8.7 inches (depth), and 9.5 inches (width), highlighting its portability and integrated wire spool design.

Figure 3: Fan Cooling System. This image shows the internal fan cooling system of the compressor, emphasizing its oil-free operation and integrated oil-moisture filter. It also reminds users of the 25 minutes run / 10 minutes cool duty cycle.

Applications

The SMACO High-Pressure Air Compressor is suitable for inflating various high-pressure air devices, including:

- PCP Airguns
- Paintball Tanks
- Mini Scuba Tanks

Figure 4: Wide Range of Applications. This image displays the compressor's versatility, showing it being used for paintball airguns, PCP rifles, and mini scuba tanks, with approximate inflation times for different tank sizes (0.5L, 1.0L, 2.0L) to 200 bar.

Setup

Before operating the compressor, ensure proper power connection and preparation.

Power Supply Connection:

The compressor supports both 12V DC and 110V/220V AC power sources.

- **For 12V DC (Car Battery):** Connect the red clamp to the positive (+) terminal of your car battery and the black clamp to the negative (-) terminal. Ensure your car engine is running to provide stable power.
- **For 110V/220V AC (Household Outlet):** Plug the integrated power cord directly into a standard wall outlet. The compressor has a built-in power adapter.

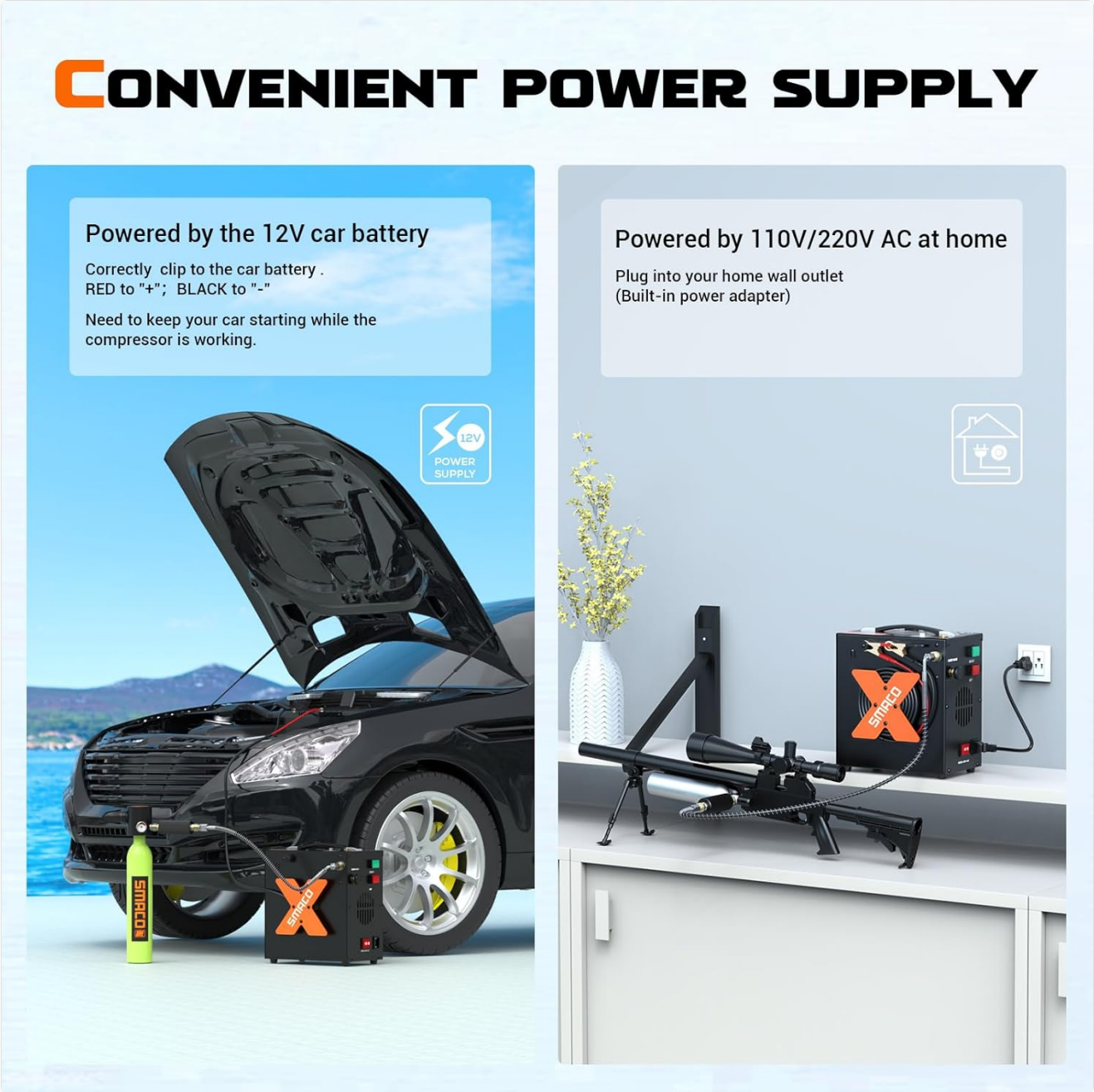

Figure 5: Convenient Power Supply. This image illustrates the two power options: connecting to a 12V car battery (with the car running) and plugging into a 110V/220V AC home outlet, demonstrating the integrated power adapter.

Operating Instructions

Follow these steps for safe and effective operation:

1. **Connect Power:** Select the appropriate power source (12V DC or 110V/220V AC) and connect the compressor. Ensure the AC voltage switch (if applicable) is set correctly (110V is default).
2. **Connect Air Tank:** Securely connect the high-pressure hose from the compressor to your air tank (PCP airgun, paintball tank, or mini scuba tank). Ensure all connections are tight to prevent leaks.
3. **Tighten Bleed Valve:** Ensure the bleed valve (usually a knob on the side) is fully tightened before starting inflation.
4. **Set Desired Pressure:** Use the pressure setting knob to set your target pressure. The compressor will automatically stop when this pressure is reached. The maximum setting is 4500 PSI (300 Bar).
5. **Start Inflation:** Turn on the main power switch, then press the "START" button. The compressor will begin filling the tank.

6. **Monitor Operation:** Observe the pressure gauge during inflation. The compressor will automatically shut off when the preset pressure is achieved.
7. **After Filling:** Once the compressor stops, turn off the main power switch. Slowly loosen the bleed valve to release residual pressure from the hose before disconnecting the air tank.
8. **Cool Down:** Allow the compressor's fan to run for 2-3 minutes after operation to aid cooling, then turn off the fan.

Figure 6: Intelligent Pressure System. This image highlights the automatic pressure setting and shut-off feature, showing a user relaxing while the compressor inflates a tank, with a close-up of the pressure gauge indicating the automatic stop function.

Figure 7: Detailed Operation Steps. This image provides a four-step visual guide to operating the compressor: 1) Connecting power (AC or DC), 2) Tightening the bleed valve and connecting the hose to the air tank, 3) Setting the air pressure and starting inflation, and 4) Post-filling procedures including turning off the compressor, loosening the bleed valve, disconnecting the hose, and turning off the fan.

Maintenance

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

- **Cooling:** Adhere to the duty cycle of 25 minutes run time followed by 10 minutes cool down. This prevents overheating and extends the life of the compressor.
- **Oil-Free System:** This compressor is oil-free, eliminating the need for oil changes.
- **Filter Maintenance:** The dual filtration system (5µm fiber and activated carbon) helps ensure clean, dry air. Periodically check and replace filter elements as needed to maintain air quality.
- **Cleaning:** Keep the exterior of the compressor clean and free of dust and debris. Ensure the fan vents are unobstructed for proper airflow.
- **Storage:** Store the compressor in a dry, cool place away from direct sunlight and extreme temperatures.

Troubleshooting

If you encounter issues with your SMACO compressor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Compressor does not start.	No power, loose connection, power switch off.	Check power source, ensure connections are secure, turn on power switch.
Compressor stops prematurely.	Preset pressure reached, overheating, power interruption.	Check preset pressure, allow unit to cool down, verify stable power supply.
Air leaks from connections.	Loose hose connections, worn O-rings.	Tighten all connections, inspect and replace O-rings if damaged.
Slow inflation.	Clogged filter, low power supply.	Check and replace filter elements, ensure adequate power (e.g., car engine running for 12V DC).

If the problem persists, contact SMACO customer support for assistance.

Specifications

Feature	Detail
Model Number	HEAP1
Dimensions (L x W x H)	9.5 x 5.6 x 10 cm (approx. 3.7 x 2.2 x 3.9 inches)
Weight	9.7 kg (approx. 21.4 lbs)
Power Source	12V DC (car battery), 110V/220V AC (household electricity)
Wattage	250 W
Max Pressure	4500 PSI / 30 MPa / 300 Bar
Noise Level	70 dB
Cooling System	Fan Cooling
Filtration	Oil-free, 5µm fiber filter, activated carbon
Duty Cycle	25 minutes run / 10 minutes cool

Warranty and Support

For warranty information or technical support, please contact SMACO customer service. Keep your purchase receipt as proof of purchase.

Note: Specific warranty terms may vary by region and retailer. Please refer to the documentation provided at the

time of purchase or contact SMACO directly for details.