

Fengda FD-18-2

Fengda Mini Airbrush Compressor FD-18-2 User Manual

Model: FD-18-2

1. INTRODUCTION

Thank you for choosing the Fengda Mini Airbrush Compressor FD-18-2. This oil-free piston compressor is designed for various applications, including airbrushing, cosmetics, nail art, tattoos, hobbies, and home use. Its compact size and low noise level make it suitable for both professional and personal environments. Please read this manual thoroughly before operation to ensure safe and efficient use.

2. SAFETY INSTRUCTIONS

WARNING: Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- Always ensure the power supply matches the voltage specified on the compressor (220-240V / 50Hz).
- Do not operate the compressor in wet conditions or near flammable liquids or gases.
- Keep children and unauthorized personnel away from the operating area.
- Always disconnect the power plug before performing any maintenance or cleaning.
- Do not modify the compressor or its components. Use only original replacement parts.
- Ensure adequate ventilation during operation to prevent overheating. The compressor has thermal protection, but proper airflow is crucial.
- Never direct the air stream at people or animals.
- Wear appropriate personal protective equipment, such as eye protection, when operating the airbrush system.
- The compressor is designed for intermittent use. Avoid continuous operation for extended periods to prevent overheating.

3. PRODUCT OVERVIEW

The Fengda FD-18-2 is a compact, oil-free piston compressor featuring a pressure regulator, filter, and manometer for precise control and clean air delivery. It is designed for quiet operation and portability.

3.1 Components Included

- 1 x Fengda FD-18-2 Mini Airbrush Compressor (without air tank)
- 1 x Output Pressure Regulator with Filter and Manometer
- 1 x Power Cable
- 1 x User Manual

3.2 Key Features

- Oil-free piston design ensures clean air without oil contamination.
- Integrated pressure regulator with filter and manometer for precise pressure adjustment and moisture separation.
- Automatic start at 3 bar (43.5 PSI) and automatic stop at 4 bar (58 PSI) for efficient operation.
- Thermal protection against overload or overheating.
- Low noise level (47 dB) for comfortable use in various environments.
- Portable and lightweight design with rubber feet for stability.
- Suitable for airbrushes with nozzle sizes from 0.2 mm to 1.0 mm.
- Ideal for model painting, body painting, nail art, fine arts, car painting, touch-ups, cake decorating, textile and t-shirt painting, or other painting applications.



Figure 1: Overview of the Fengda FD-18-2 Mini Airbrush Compressor, showing the main unit, pressure regulator, filter, and power cable.

4. SETUP AND INSTALLATION

1. **Unpacking:** Carefully remove all components from the packaging. Check for any damage during transit.
2. **Placement:** Place the compressor on a stable, flat surface. Ensure the rubber feet are securely positioned to minimize vibration. Allow sufficient space around the unit for proper ventilation.
3. **Attach Regulator:** The pressure regulator with filter and manometer typically comes pre-attached or needs to be screwed onto the air outlet port of the compressor. Ensure it is hand-tightened securely to prevent air leaks.
4. **Connect Airbrush Hose:** Connect your airbrush hose to the G 1/8" air outlet thread on the pressure regulator. Ensure a tight connection.
5. **Power Connection:** Plug the power cable into a suitable grounded electrical outlet (220-240V / 50Hz).



Figure 2: Detailed view of the pressure regulator, filter, and manometer, essential for controlling air pressure and ensuring clean air.

5. OPERATION

1. **Power On:** Flip the power switch to the "ON" position. The compressor will start and build pressure until it reaches approximately 4 bar (58 PSI), then it will automatically shut off.
2. **Adjust Pressure:** Use the knob on the pressure regulator to adjust the desired working pressure. Turn clockwise to increase pressure, counter-clockwise to decrease. The manometer will display the current output pressure.
3. **Begin Airbrushing:** Once the desired pressure is set, you can begin using your airbrush. The compressor will automatically restart when the pressure drops to approximately 3 bar (43.5 PSI) and stop again when it reaches 4 bar (58 PSI).
4. **Moisture Trap:** The integrated filter acts as a moisture trap. Periodically check the transparent bowl for accumulated moisture.
5. **Power Off:** When finished, turn off the compressor using the power switch and disconnect it from the power outlet.



Figure 3: Close-up view of the manometer, indicating the adjustable air pressure output.

6. MAINTENANCE

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

- **Drain Moisture Trap:** Regularly check and drain any accumulated moisture from the filter/moisture trap. This prevents water from reaching your airbrush and paint. To drain, unscrew the small valve at the bottom of the transparent bowl.
- **Clean Exterior:** Wipe the exterior of the compressor with a damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Air Filter:** The compressor has an internal air filter. While not user-serviceable in the same way as the moisture trap, ensure the air intake vents are clear of dust and debris.
- **Storage:** When not in use, store the compressor in a clean, dry, and dust-free environment.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Compressor does not start.	No power, power switch off, thermal overload activated.	Check power connection and outlet. Ensure power switch is ON. Allow compressor to cool down if thermal protection activated.
Low or no air pressure.	Air leak in hose/connections, regulator knob set too low, airbrush clogged.	Check all connections for leaks. Adjust regulator knob clockwise. Clean airbrush.

Problem	Possible Cause	Solution
Compressor runs continuously.	Significant air leak, faulty pressure switch.	Check all connections for leaks. If problem persists, contact customer support.
Excessive moisture in air output.	Moisture trap full or not draining.	Drain the moisture trap. Ensure it is properly installed.
Unusual noise or vibration.	Loose components, compressor on uneven surface.	Check for loose screws. Ensure compressor is on a stable, flat surface.

8. SPECIFICATIONS

Feature	Specification
Model	FD-18-2
Type	Oil-free Piston Mini Compressor
Voltage	220-240 V / 50 Hz
Power	0.123 kW (1/6 HP)
Speed	1450/1700 r.p.m
Air Flow Capacity	20-23 L/min (without load)
Max Pressure	4 Bars (57 PSI)
Adjustable Pressure Range	0-4 Bars
Auto Start Pressure	3 Bars (43.5 PSI)
Auto Stop Pressure	4 Bars (57 PSI)
Noise Level	47 dB / 1 m
Air Connection Thread	G 1/8"
Power Cable Length	1.9 m
Dimensions (L x W x H)	31 x 17 x 27 cm (approx. 12.2 x 6.7 x 10.6 inches)
Weight	3.32 kg (approx. 7.32 lbs)
Certifications	CE, GS, ETL, CETL, ROHS

9. WARRANTY AND SUPPORT

This product is covered by a standard manufacturer's warranty. Please refer to the warranty card included with your purchase for specific terms and conditions. For technical support, spare parts, or warranty claims, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.

Manufacturer: Fenghua Bida Machinery Manufacture CO., LTD

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