

ANCEL AJ400 GDI

ANCEL AJ400 GDI Injector Cleaning Machine User Manual

Detailed instructions for the setup, operation, and maintenance of your ANCEL AJ400 GDI Injector Cleaning Machine.

1. SAFETY PRECAUTIONS

Always prioritize safety when operating the ANCEL AJ400 GDI Injector Cleaning Machine. Failure to follow these guidelines may result in injury or damage to the equipment.

- **No Naked Flame:** Ensure there are no naked flames or ignition sources within 2 meters (approximately 6.5 feet) of the machine during operation.
- **Eye Protection:** Always wear appropriate eye protection, such as safety goggles, to prevent contact with cleaning solutions or fuel.
- **Hand Protection:** Wear chemical-resistant gloves to protect your hands from cleaning agents and fuel.
- **Electrical Safety:** Ensure the machine is properly grounded and connected to a stable power supply (110V as specified). Avoid operating with wet hands or in damp environments.
- **Ventilation:** Operate the machine in a well-ventilated area to prevent the buildup of hazardous fumes.
- **Emergency Shutdown:** Familiarize yourself with the power switch location for quick shutdown in emergencies. The fuel circuit depressurization technology automatically depressurizes the machine in case of sudden shutdown.

Discharge and Recycle Cleaning & Testing Fluids

Manual one pull drainage, convenient and fast. The internal slope effectively filters impurities



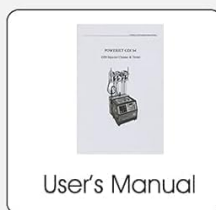
Safety warning labels on the side of the ANCEL AJ400 GDI Injector Cleaning Machine, indicating important precautions such as avoiding open flames, wearing eye protection, and being aware of electrical hazards.

2. PACKAGE CONTENTS

Before beginning, verify that all components are present in your package. If any items are missing or damaged, please contact customer support.

- ANCEL AJ400 GDI Injector Cleaning Machine (Main Unit)
- Main Pulse Cable
- Fuel Separator Assembly
- Extended Pole
- Pulse Signal Cable
- Power Cable
- Resistance Test Cable

- Vice Adaptor
- Fuel Separator Stopper
- Universal GDI Adaptor
- Main Adaptor
- Lock Handwheel
- GM GDI Adaptor
- Thread GDI Adaptor
- User's Manual (PDF version available online)
- Injector Shims
- O-ring assortment



A comprehensive view of all accessories and components included with the ANCEL AJ400 GDI Injector Cleaning Machine, essential for various cleaning and testing procedures.

3. SETUP GUIDE

3.1 Unboxing and Initial Assembly

Carefully unbox the ANCEL AJ400 GDI machine and its components. The main unit is securely packed with protective foam. Remove all packaging materials.

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Official unboxing video for the ANCEL AJ400 GDI Injector Cleaning Machine, demonstrating how to safely remove the unit and its components from the packaging.

3.2 Installing Glass Tubes and Fuel Outlet Pipe

Install the glass tubes onto the main unit. Ensure they are securely seated. Connect the fuel outlet pipe to the designated port on the machine.

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Video demonstrating the process of replacing the glass tubes on the ANCEL AJ400 GDI Injector Cleaning Machine, which is similar to the initial installation process.

Operation step

Ultrasonic cleaning

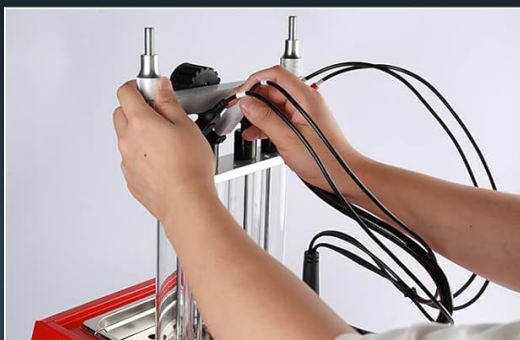


1 Pour in the detergent and place the fuel injector in the ultrasonic cleaner



2 Connect the pulse signal wire & select the ultrasonic cleaning function to start working.

Fuel Injector Testing



1 Pour in the test liquid, install the fuel injector to the fuel distributor and fix it to main unit by bolts.



2 Test if the fuel injector is leaking or blocked under different functions.

An operational step diagram showing how to pour detergent into the ultrasonic cleaner and connect the pulse signal wire for the cleaning function.

4. OPERATING INSTRUCTIONS

4.1 Connecting Injectors

Connect the fuel injectors to the fuel distributor assembly. Ensure a secure connection to prevent leaks during testing. Use the appropriate adaptors for different injector types (standard, GDI, etc.).

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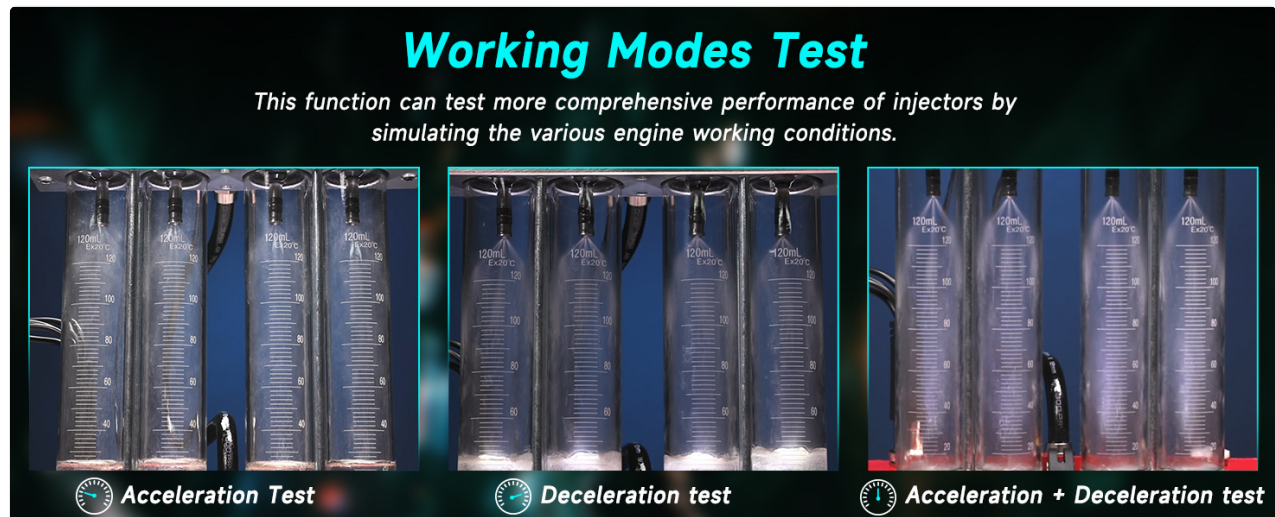
Official video demonstrating the setup and operation of the ANCEL AJ400 GDI Fuel Injector Cleaner & Tester, including injector connection.

4.2 Fuel Injector Testing

The ANCEL AJ400 GDI supports various testing functions to assess injector performance.

Resistance Test

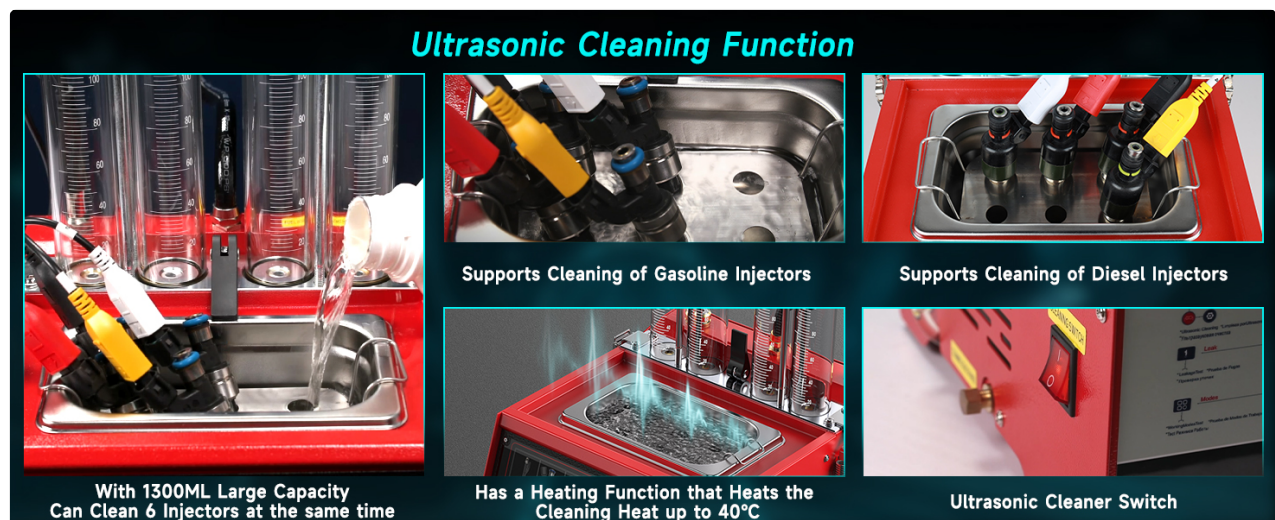
This test measures the electrical resistance of each injector to identify potential electrical faults. Connect the resistance test cable to the injector and observe the reading on the display.



Visual guide for conducting the resistance test on fuel injectors, showing the connection points and display readings.

Uniformity / Sprayability Test

This test evaluates the consistency of fuel injection quantity and the atomization pattern of each injector. Observe the spray pattern and the liquid levels in the glass tubes.



An illustration of the uniformity and sprayability test, highlighting how to observe the injection quantity and atomization effect.

Leakage Test

This test checks for any leakage from the injector nozzle when under pressure, ensuring proper sealing performance.



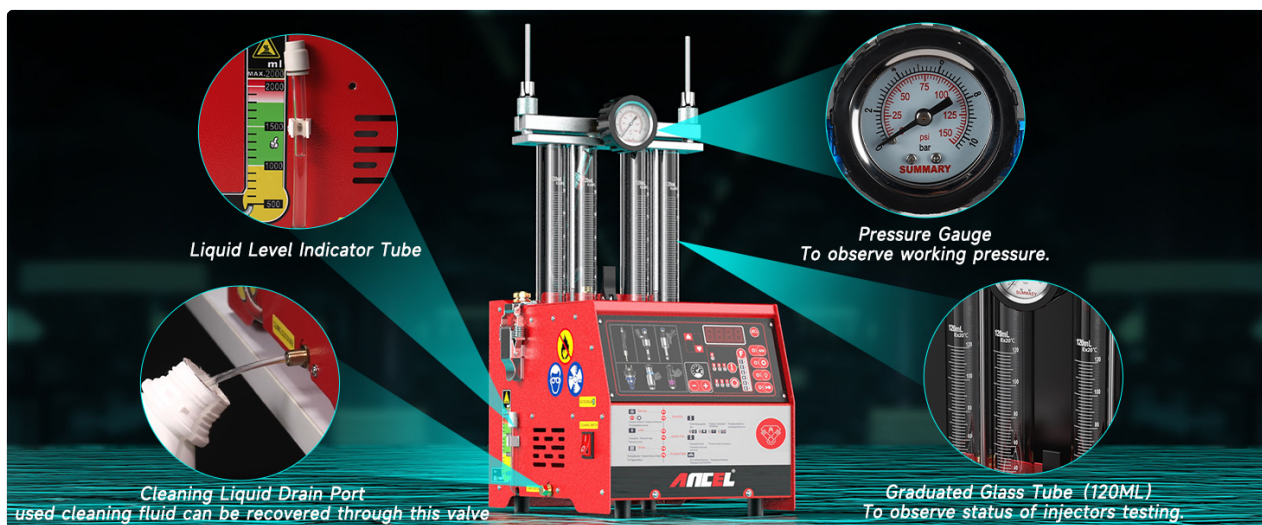
A split image showing both the leakage test (left) and the injecting flow test (right), demonstrating how to check for drips and measure injection volume.

Injecting Flow Test

Measures the amount of fuel injected over a specific time period to determine the injector's flow rate and identify any blockages.

Working Modes Test

Simulates various engine working conditions (e.g., acceleration, deceleration) to comprehensively test injector performance under different loads.



Visual examples of the Working Modes Test, including Acceleration Test, Deceleration Test, and Acceleration + Deceleration Test, to simulate real-world engine conditions.

4.3 Ultrasonic Cleaning

The ultrasonic cleaning function uses high-frequency sound waves to effectively remove carbon deposits and impurities from the injectors. The AJ400 GDI also features a heating function to improve cleaning efficiency.



A detailed view of the ultrasonic cleaning function, illustrating the cleaning tank with injectors, the heating element, and the ultrasonic cleaner switch.

5. MAINTENANCE

5.1 Motherboard Replacement

In the event of a motherboard issue, it can be replaced. This procedure should only be performed by qualified personnel. Ensure the machine is unplugged and all safety precautions are followed.

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Video tutorial on how to replace the motherboard of the ANCEL AJ400 GDI Injector Cleaning Machine.

5.2 Cleaning Solution Discharge and Recycle

After cleaning and testing, the used solution can be discharged and recycled through the designated drain port. The built-in slope design helps filter impurities, promoting environmental friendliness and cost savings.

Discharge and Recycle Cleaning & Testing Fluids

Manual one pull drainage, convenient and fast. The internal slope effectively filters impurities

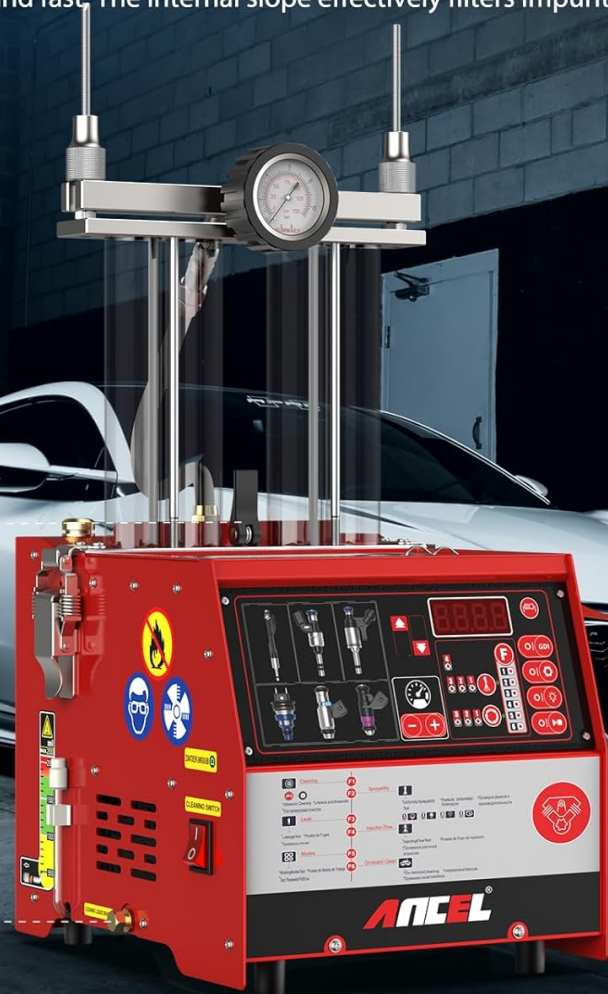
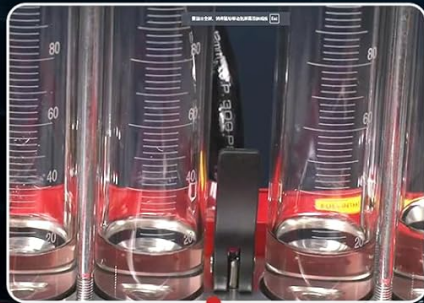


Illustration of the manual one-pull drainage method for discharging and recycling cleaning and testing fluids, highlighting the internal slope for impurity filtration.

6. TROUBLESHOOTING

If you encounter any issues with your ANCEL AJ400 GDI Injector Cleaning Machine, please refer to the following general troubleshooting steps:

- **Power Issues:** Ensure the power cable is securely connected and the power switch is in the 'ON' position. Verify the power outlet is functional.
- **Display Not Working:** Check power connections. If the issue persists, contact customer support.
- **No Spray/Uneven Spray:** Verify injectors are correctly installed and connected. Ensure sufficient cleaning solution/test fluid. Check for blockages in the injectors or fluid lines.
- **Pressure Irregularities:** Check the fuel pressure gauge. Ensure all connections are tight and there are no leaks.
- **Error Codes:** If an error code appears on the LED display, consult the detailed user manual (PDF) for specific code meanings and resolutions.

For complex issues or problems not covered here, please contact ANCEL customer service for expert assistance.


7. TECHNICAL SPECIFICATIONS

Below are the key technical specifications for the ANCEL AJ400 GDI Injector Cleaning Machine:

Specification	Value
Model	AJ400 GDI
Main Unit Power Supply	AC110V±10% 60Hz (Fit for US)
Input Power	230W
Ultrasonic Cleaner Power	100W
Resistance Test Accuracy	0.1Ω
Simulated RPM Range	100 - 9900rpm (step: 10rpm)
Time Range	5 ~ 300s (step: 5s)
Pulse Width	0.1 ~ 25ms (step: 0.1ms)
Fuel Tank Capacity	2000ml
Work Pressure	0-7bar
Item Weight	24.8 pounds
Product Dimensions	14.17 x 14.17 x 15.75 inches

ANCEL AJ400 Working Conditions & Specifications

Working conditions
Temperature: -10~+40°C Relative humidity: < 85%
Intensity of outer magnetic field: < 400A/m



AC220V for EU

Power switch

AC110V for US

Main unit power supply:	AC220V±10% 50Hz/60Hz (Fit for EU) Or AC110V±10% 60Hz (Fit for US)
Input power:	230
Ultrasonic cleaner power:	100W
Resistance test accuracy:	0.1Ω
Simulated RPM range:	100 ~ 9900rpm
step:	10rpm
Time range:	5 ~ 300s, step:5s
Pulse width:	0.1 ~ 25ms, step: 0.1ms
Fuel tank capacity:	2000ml
Work pressure:	0-7bar

⚠ No naked flame within 2m.

A visual summary of the ANCEL AJ400 GDI's working conditions and detailed technical specifications.

8. WARRANTY AND CUSTOMER SUPPORT

The ANCEL AJ400 GDI fuel injector cleaner and tester comes with a **24-month warranty** to ensure your peace of mind. ANCEL is committed to providing excellent customer service.

- **Customer Service:** ANCEL offers 7x24 hour friendly customer service. If you have any questions or require assistance, please do not hesitate to contact us.
- **Warranty Claims:** No additional fees are required for warranty services.

For more information or to explore other ANCEL products, please visit the [ANCEL Store on Amazon](#).