

ANCEL AJ600 GDI Piezo

ANCEL AJ600 GDI Piezo Ultrasonic Fuel Injector Cleaner and Tester

MODEL: AJ600 GDI PIEZO

1. Introduction

The ANCEL AJ600 is a professional automotive diagnostic and maintenance tool designed for cleaning and testing fuel injectors, including GDI and Piezo injectors. It features ultrasonic cleaning capabilities and various testing modes to accurately assess injector performance, ensuring optimal engine efficiency and fuel economy. This manual provides comprehensive instructions for the safe and effective operation of the device.

2. Safety Information

Always observe the following safety precautions when operating the ANCEL AJ600:

- Ensure the work area is well-ventilated to prevent the accumulation of fuel vapors.
- Wear appropriate personal protective equipment (PPE), including safety glasses and chemical-resistant gloves.
- Keep fire extinguishers readily available. Do not smoke or use open flames near the equipment.
- Disconnect power before performing any maintenance or cleaning.
- Use only recommended cleaning and testing fluids.
- Do not operate the machine if any parts are damaged or missing.
- Dispose of used fluids according to local environmental regulations.

3. Product Components

The ANCEL AJ600 system includes the main unit and various accessories. Familiarize yourself with all components before operation.



Figure 3.1: Front view of the ANCEL AJ600 GDI Piezo Fuel Injector Cleaner and Tester. This image displays the main control panel, the six graduated cylinders for testing, and the injector mounting rail at the top. The ANCEL logo is prominently displayed at the bottom front.

- **Main Unit:** Houses the control panel, fluid reservoirs, test cylinders, and ultrasonic bath.
- **Injector Adapters:** Various sizes and types for different injector models.
- **Fuel Rail:** For mounting injectors during testing.

- **Pressure Gauge:** Displays system pressure.
- **Drain Valve:** For emptying test and cleaning fluids.
- **Power Cable:** For connecting the unit to an AC power source.

4. Setup

1. **Unpacking and Inspection:** Carefully remove the unit and all accessories from the packaging. Inspect for any signs of damage during transit. Report any damage to your supplier immediately.
2. **Placement:** Place the ANCEL AJ600 on a stable, level surface in a well-ventilated area, away from direct sunlight and heat sources.
3. **Fluid Filling:**
 - **Test Fluid:** Pour the recommended test fluid into the designated reservoir. Ensure the fluid level is between the MIN and MAX marks.
 - **Cleaning Fluid:** Pour the recommended ultrasonic cleaning fluid into the ultrasonic bath. Do not overfill.
4. **Power Connection:** Connect the power cable to the unit's AC input and then to a grounded electrical outlet. Ensure the power switch is in the OFF position before connecting.
5. **Injector Installation:** Select the appropriate adapters for the injectors to be tested. Securely mount the injectors onto the fuel rail, ensuring a tight seal to prevent leaks. Connect the pulse signal cables to each injector.

5. Operating Instructions

The ANCEL AJ600 offers various modes for comprehensive injector testing and cleaning.

5.1 Control Panel Overview

The control panel features a digital display, function buttons, and adjustment knobs. Refer to the labels on the panel for specific functions.

- **Display Screen:** Shows current mode, parameters, and results.
- **Mode Selection Buttons:** To choose between different test and cleaning functions.
- **+/- Buttons:** To adjust parameters like pressure, pulse width, and RPM.
- **Start/Stop Button:** To initiate or terminate a test/cleaning cycle.

5.2 Test Modes



Figure 5.1: The ANCEL AJ600 demonstrating its three primary test functions: Uniformity & Sprayability Test, Injection Flow Test, and Leakage Test. The image shows the main unit with an inset highlighting the different colored injector adapters, indicating various types of injectors being tested.

1. Uniformity & Sprayability Test:

This test assesses the uniformity of fuel delivery and the spray pattern of each injector. A good injector should produce a fine, conical spray without streaks or drips.

- Select "Uniformity Test" mode.
- Adjust pressure and RPM as required.
- Start the test and observe the spray patterns and the volume of fluid collected in each cylinder.

2. Injection Flow Test:

Measures the volume of fuel delivered by each injector over a set period. This helps identify clogged or restricted injectors.

- Select "Flow Test" mode.
- Set the desired test duration and pressure.

- Start the test and compare the fluid levels in the graduated cylinders. Significant differences indicate an issue.

3. Leakage Test:

Checks for fuel leaks from the injector nozzle or body under pressure. A leaking injector can cause poor fuel economy and hard starting.

- Select "Leakage Test" mode.
- The system will pressurize the injectors. Observe for any drips or leaks from the injector tips for a specified duration.

5.3 Ultrasonic Cleaning



Figure 5.2: The ANCEL AJ600 demonstrating its ultrasonic cleaning capability. The main unit is shown alongside a separate ultrasonic bath where injectors are submerged in cleaning fluid. Blue waves indicate the ultrasonic action, effectively removing carbon deposits and contaminants from the injectors.

The ultrasonic cleaning function uses high-frequency sound waves to agitate the cleaning fluid, effectively removing carbon deposits and varnish from the injector nozzles and internal components.

1. Remove injectors from the fuel rail and place them into the ultrasonic bath basket.
2. Ensure injectors are fully submerged in the ultrasonic cleaning fluid.
3. Select "Ultrasonic Cleaning" mode on the main unit.
4. Set the desired cleaning time (typically 10-20 minutes).
5. Start the cleaning cycle. The unit will generate ultrasonic waves.
6. After cleaning, remove injectors, rinse them with clean test fluid, and proceed with re-testing to verify improvement.

6. Maintenance

Regular maintenance ensures the longevity and accurate performance of your ANCEL AJ600.

- **Fluid Drainage:** After each use or at regular intervals, drain the used test and cleaning fluids. Use the drain valve for the test fluid reservoir and carefully empty the ultrasonic bath.
- **Cleaning the Unit:** Wipe down the exterior of the unit with a soft, damp cloth. Avoid using abrasive cleaners or solvents.
- **Filter Inspection:** Periodically inspect the fluid filters (if accessible) for clogs and clean or replace as necessary.
- **Storage:** When not in use, store the unit in a clean, dry environment, away from extreme temperatures.

7. Troubleshooting

Problem	Possible Cause	Solution
Unit does not power on.	Power cable not connected; power switch off; faulty power outlet.	Check power cable connection; ensure power switch is ON; test power outlet.
Fluid leaks from injectors during test.	Improperly seated injectors; worn O-rings; damaged injector.	Re-seat injectors firmly; replace O-rings; inspect injector for damage.
Inconsistent test results.	Contaminated test fluid; air in the system; faulty pressure sensor.	Replace test fluid; bleed air from system; contact support if sensor is suspected.
Ultrasonic cleaning not effective.	Incorrect cleaning fluid; insufficient cleaning time; heavily clogged injectors.	Use recommended fluid; increase cleaning time; pre-soak heavily clogged injectors.

8. Specifications

Parameter	Value
Brand	ANCEL
Model Number	AJ600 GDI Piezo
Item Weight	20 Kilograms
Package Dimensions	53.4 x 42 x 41 cm
Manufacturer Reference	AJ600 GDI Piezo

Parameter	Value
ASIN	B0CL9G53QM
Date First Available on Amazon.com.be	October 18, 2023

9. Warranty and Support

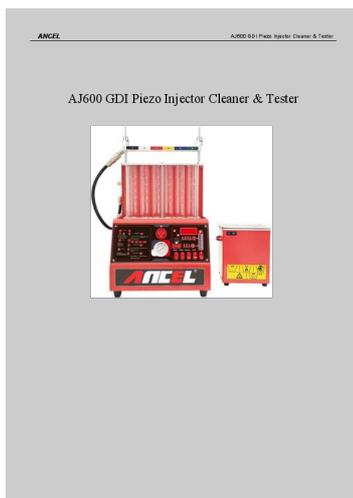
The ANCEL AJ600 comes with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official ANCEL website. For technical support, troubleshooting assistance, or spare parts, please contact ANCEL customer service through their official channels. Provide your model number and purchase details when contacting support.

Official ANCEL Website: www.anceltech.com (Example link, actual link may vary)



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Documents - ANCEL – AJ600 GDI Piezo

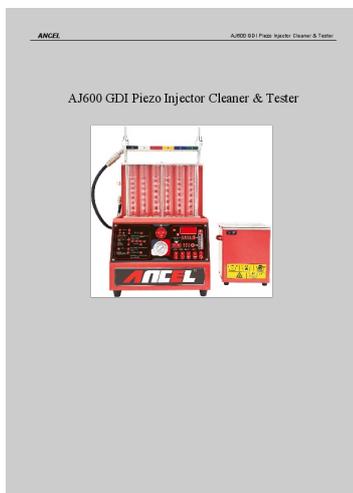


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