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## AUTOOL CT500

# AUTOOL CT500 Fuel Injector Cleaning & Testing Machine

Model: CT500

Brand: AUTOOL

## INTRODUCTION

The AUTOOL CT500 is a professional-grade automotive tool designed for comprehensive cleaning and testing of fuel injectors. This machine supports various injector types, including GDI, EFI, and FSI, making it suitable for a wide range of petrol vehicles and motorcycles. Its advanced features ensure accurate diagnostics and effective maintenance, contributing to optimal engine performance.

The CT500 allows for simultaneous cleaning and testing of up to six fuel injectors, providing efficient comparative analysis. It incorporates electronic pressure regulation for stable oil pressure and offers multiple voltage configurations to match different injector specifications.

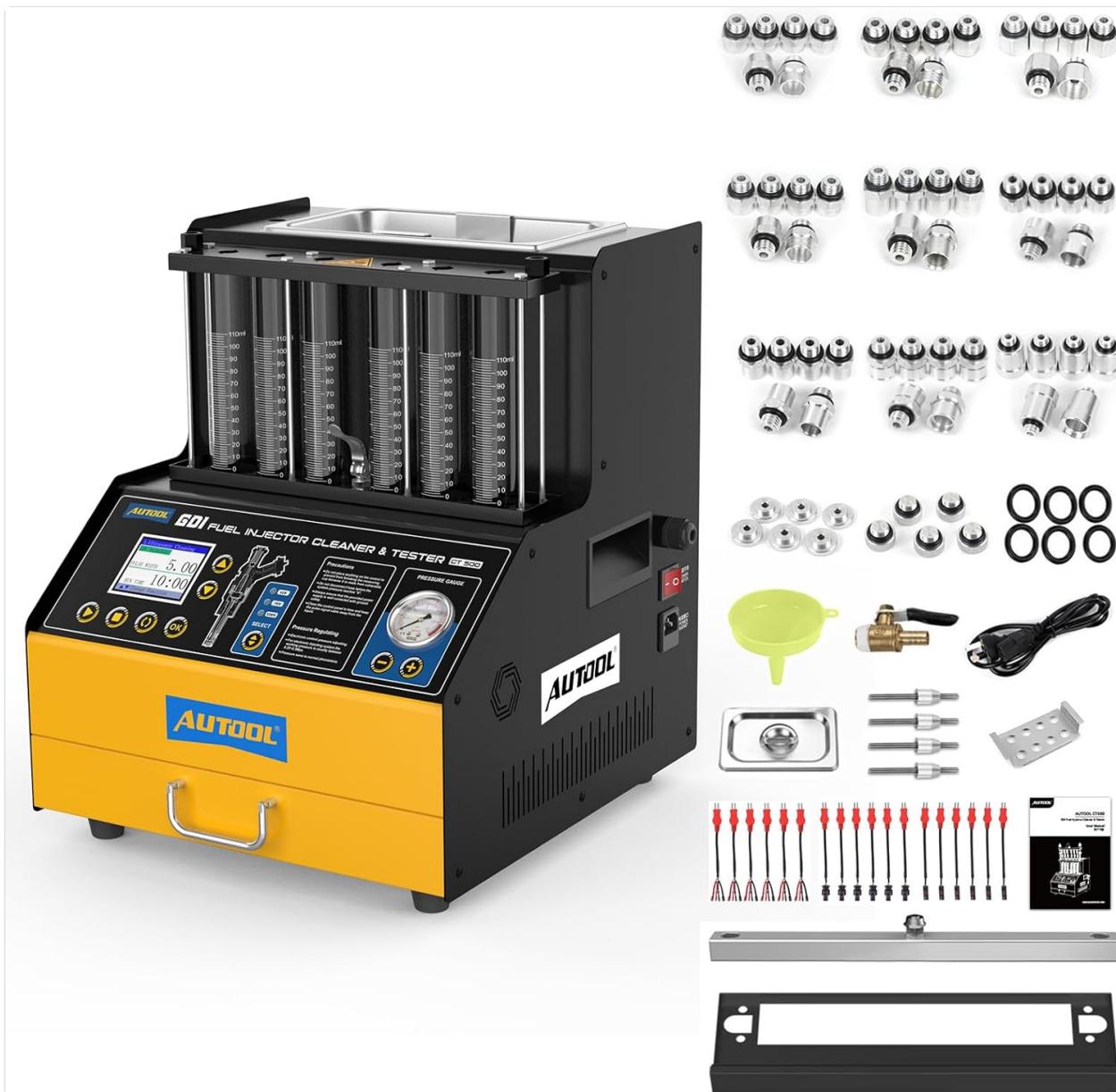


Image: The AUTOOL CT500 machine with its complete set of accessories, including various adapters, cables, and the user manual.

## KEY FEATURES

- Advanced Control Panel:** Features a vibrant TFT color display, user-friendly function selection, voltage selection, work pressure control buttons, and a precise pressure gauge for effortless operation.
- Efficient Six-Cylinder Design:** Enables simultaneous cleaning and testing of up to six fuel injectors for precise comparative analysis.
- Drawer Design:** Convenient bottom drawer with labeled compartments for organized storage of components.
- Electronic Control Technology:** Ensures stable oil pressure with a wide adjustable range through advanced electronic pressure regulation.
- Output Voltage Configuration:** Supports testing of fuel injectors with driving voltages of 12V, 70V, and 120V.
- Sprayability Observation:** Offers comprehensive observation of the nozzle's spray atomization for precise fuel dispersion analysis.
- Leakage Testing:** Evaluates sealing performance and detects potential leaks under high-pressure conditions.

- **Spray Value Test:** Accurately measures fuel injected under specific operational parameters for precise diagnostics.
- **Pressure Gauge Design:** High-resolution TFT color display and precision pressure gauge for real-time monitoring of working pressure.

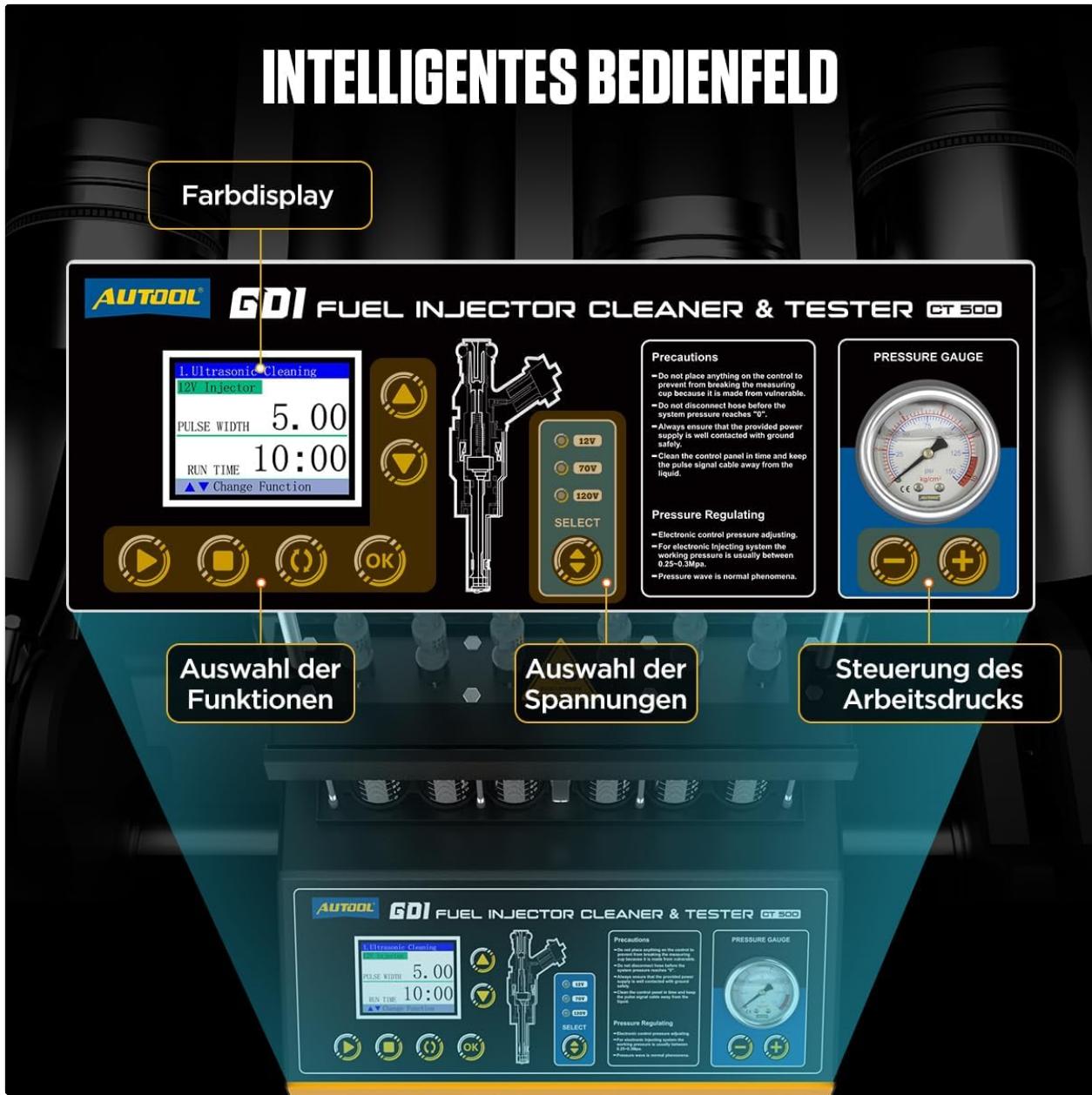


Image: Detailed view of the CT500's intelligent control panel, highlighting the TFT color display and intuitive button layout.

## SETUP GUIDE

1. **Unpacking and Inspection:** Carefully unpack all components. Verify that all parts listed in the packing list are present and undamaged.
2. **Component Identification:** Familiarize yourself with the main unit, test tubes, ultrasonic cleaning tank, various adapters, pulse signal cables, and the control panel.
3. **Initial Fluid Filling:**
  - **Cleaning Fluid:** Pour appropriate ultrasonic cleaning fluid into the ultrasonic cleaning tank. Ensure the fluid level covers the injectors when placed inside.
  - **Test Fluid:** Pour specialized test fluid into the main test fluid reservoir. Use the provided funnel to prevent spills.

# GROSSER REINIGUNGSTANK

Mit einem 2000 ml fassenden Ultraschall-Reinigungstank können auch große Einspritzdüsen vollständig gereinigt werden.

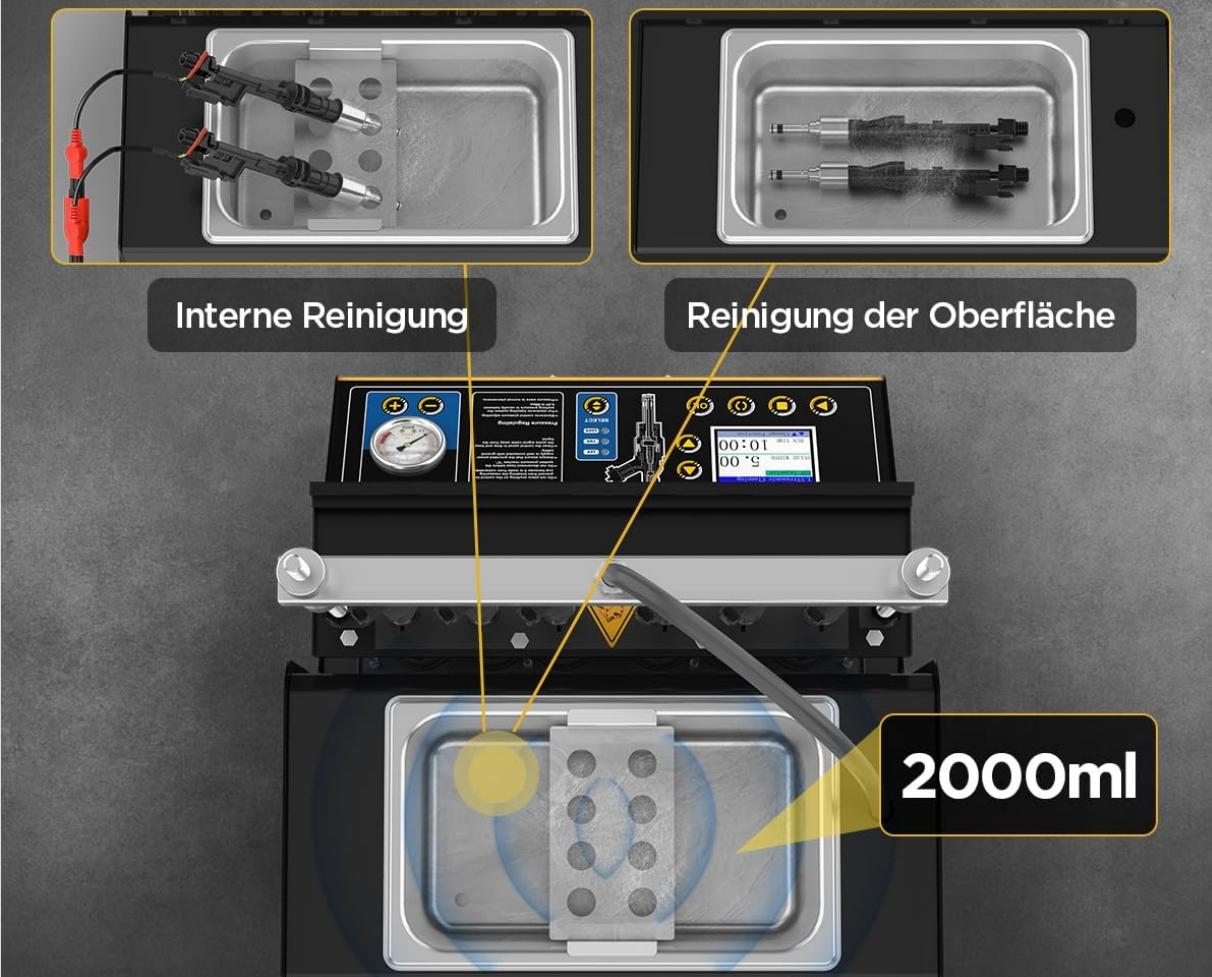


Image: The large 2000ml ultrasonic cleaning tank, capable of both internal and surface cleaning of injectors.

#### 4. Injector Installation:

- Select the correct adapters for your injectors from the built-in storage drawer.
- Install the injectors onto the fuel rail, ensuring a secure fit with the chosen adapters.
- Connect the appropriate pulse signal cables (12V, 70V, or 120V) to each injector and the machine's corresponding ports.

# KOMMT MIT VERSCHIEDENEN ANSCHLÜSSEN



Ø 11



Ø 12



Ø 12.5



Ø 13



Ø 13.6



Ø 14



Ø 15



Ø 15.8

for BMW

Image: A selection of various adapters provided with the CT500, ensuring compatibility with a wide range of injector sizes and types.

5. **Power Connection:** Connect the machine to a stable 110V power supply.

## OPERATING INSTRUCTIONS

The AUTOOL CT500 offers a variety of cleaning and testing functions. Follow these general steps for operation:

1. **Power On:** Flip the main power switch to turn on the machine. The TFT color display will illuminate.
2. **Function Selection:** Use the function selection buttons on the control panel to navigate through the available cleaning and testing modes.
3. **Voltage Selection:** Based on your injector type, select the appropriate driving voltage (12V, 70V, or 120V) using the voltage selection buttons.
4. **Parameter Adjustment:** For testing functions, adjust parameters such as RPM, Pulse Width, and Run Time using the control buttons. The display will show the current settings.

# EINSTELLBARE ARBEITSPARAMETER

Während des Erfassungsprozesses können die Parameter jeder Funktion jeder Funktion, wie Analoggeschwindigkeit, Impulsbreite, Impulszahl und Arbeits Zeit. Dies ermöglicht eine umfassendere und professionellere Detektion.

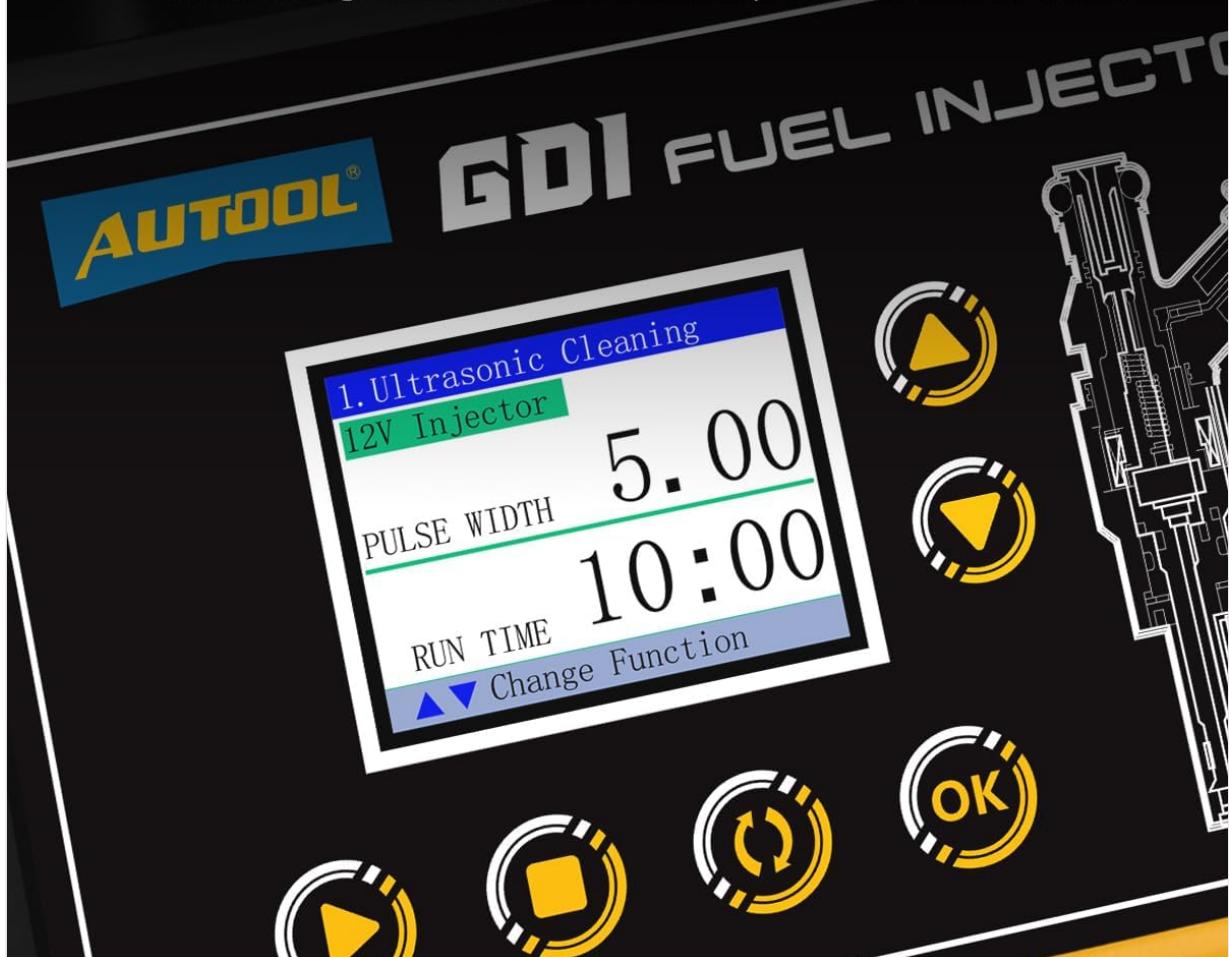


Image: The adjustable parameters screen on the CT500, allowing users to fine-tune test conditions such as pulse width and run time.

5. **Pressure Regulation:** Monitor the pressure gauge and use the work pressure control buttons to adjust the system pressure as required for the selected test.
6. **Start Operation:** Press the 'OK' or 'Start' button to begin the selected cleaning or testing cycle.
7. **Observation:** During testing, observe the spray pattern, atomization, and volume in the graduated test tubes. For leakage tests, monitor for any drips.
8. **Completion:** Once the cycle is complete, the machine will stop automatically. Review the results on the display and visually inspect the injectors.

## Available Functions:

The CT500 offers 3 cleaning functions and 12 testing functions:

# 15 FUNKTIONEN VERFÜGBAR



## 3 REINIGUNGSFUNKTIONEN

- 1 Ultraschall-Reinigung
- 2 Umkehrspülung
- 3 Reinigung ohne Demontage

## 12 TESTFUNKTIONEN

- 1 Test der Leerlaufdrehzahl
- 2 Test für mittlere Geschwindigkeit
- 3 Test bei hoher Geschwindigkeit
- 4 Beschleunigungstest
- 5 Test mit variabler Geschwindigkeit
- 6 Leckage-Test
- 7 Sprühwerttest im Leerlauf
- 8 Sprühwerttest bei mittlerer Geschwindigkeit
- 9 Hochgeschwindigkeits-Sprühwerttest
- 10 Impulseinspritzung Test
- 11 Test mit breiter Pulseinspritzung
- 12 Test der kontinuierlichen Einspritzung

Image: An overview of the 15 distinct functions available on the AUTOOL CT500, categorized into cleaning and testing modes.

## Official Product Video:

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Video: This official AUTOOL video demonstrates the setup and various operational aspects of the CT500 Fuel Injector Cleaner and Tester, including ultrasonic cleaning, fluid filling, injector installation, and different testing modes.

## MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your AUTOOL CT500 machine.

- Cleaning the Unit:** After each use, wipe down the exterior of the machine with a clean, damp cloth. Avoid using abrasive cleaners or solvents that could damage the surface or display.
- Fluid Management:** Regularly drain and replace the cleaning and test fluids according to their respective manufacturer's recommendations. Proper disposal of used fluids is crucial.
- Injector Cleaning:** Utilize the machine's ultrasonic cleaning function to thoroughly clean injectors. Ensure injectors are fully submerged in the cleaning fluid during this process.
- Accessory Storage:** Keep all adapters, cables, and other accessories neatly organized in the built-in drawer to prevent loss or damage.

## TROUBLESHOOTING

If you encounter issues with your AUTOOL CT500, consider the following common troubleshooting steps:

- Machine Not Powering On:** Check the power cable connection to both the machine and the power outlet. Ensure the main power switch is in the 'ON' position. Verify the power source is providing the correct voltage (110V).
- No Fluid Flow During Test:** Ensure the test fluid reservoir has sufficient fluid. Check for any blockages in the fluid lines or injectors. Verify that the pressure is set correctly and the pump is operating.
- Inconsistent Spray Pattern/Volume:** This may indicate clogged or faulty injectors. Perform an ultrasonic cleaning cycle. If the issue persists, the injector may need replacement. Ensure the correct voltage and pulse width settings are applied for the injector type.
- Pressure Gauge Reading Incorrect:** Check for any leaks in the system. Ensure all connections are tight. If the issue persists, contact customer support.
- Display Issues:** If the screen is blank or showing errors, try restarting the machine. If the problem continues, refer to the warranty and support section.

## SPECIFICATIONS

Specification	Value
Power Supply	AC110V/220V±10%
Cleaning Tank Volume	2000ML
Speed Range	0-7500RPM
Injection Times	0-9900 times
PWM Pulse Width	0-40 ms, step size 0.1ms
System Pressure	0-0.8Mpa adjustable
Time Setting	0-10min adjustable
Ultrasonic Cleaning Power	70W
Ambient Temperature	0°C-+40°C
Relative Humidity	<85%
External Magnetic Field Strength	<400A/m
Item Weight	44.3 pounds
Product Dimensions	19.69 x 15.75 x 22.05 inches
Country of Origin	China

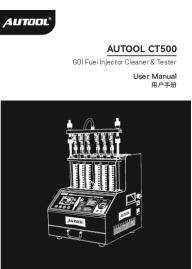
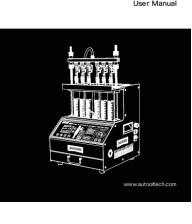
## WARRANTY AND SUPPORT

AUTOOL provides a three-year warranty and lifetime maintenance services for the CT500. This warranty guarantees free replacement of parts for non-human-caused damages. Our dedicated team is available 24/7

to promptly assist you with any inquiries or support needs.

For technical assistance or warranty claims, please contact AUTOOL customer support through the official channels provided at the time of purchase or on the AUTOOL website.

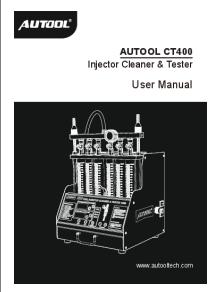
## Related Documents - CT500

	<p><a href="#"><u>AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester User Manual</u></a></p> <p>The AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester User Manual provides comprehensive instructions for operating and maintaining this mechatronics product, designed for ultrasonic cleaning and diagnostic testing of fuel injectors in automobiles and motorcycles.</p>
	<p><a href="#"><u>AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester User Manual</u></a></p> <p>Explore the AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester, a professional mechatronics device for comprehensive cleaning and diagnostic testing of fuel injectors in automobiles and motorcycles. This user manual provides detailed instructions for operation, maintenance, and troubleshooting.</p>
	<p><a href="#"><u>AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester User Manual</u></a></p> <p>This user manual provides comprehensive instructions for the AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester, a professional automotive diagnostic and cleaning equipment. It details operation, safety guidelines, product features, and maintenance procedures for efficient fuel injector servicing.</p>
	<p><a href="#"><u>AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester User Manual</u></a></p> <p>The AUTOOL CT500 GDI Fuel Injector Cleaner &amp; Tester is a professional mechatronics product designed for diagnosing and cleaning fuel injectors in automobiles and motorcycles. This user manual provides comprehensive instructions for operation, maintenance, and safety, covering ultrasonic cleaning, uniformity detection, atomization observation, tightness testing, and fuel injection volume detection.</p>



#### [AUTOOL CT450 Fuel Injector Cleaner & Tester User Manual](#)

User manual for the AUTOOL CT450, a fuel injector cleaner and tester. This guide provides detailed information on product overview, safety rules, operating instructions, and technical specifications for automotive repair professionals.



#### [AUTOOL CT400 GDI Fuel Injector Cleaner and Tester User Manual](#)

User manual for the AUTOOL CT400 GDI Fuel Injector Cleaner and Tester, detailing its functions, operation procedures, maintenance, and safety precautions for automotive diagnostics and cleaning.