

User Manual

GDI / Gasoline Injector Tester

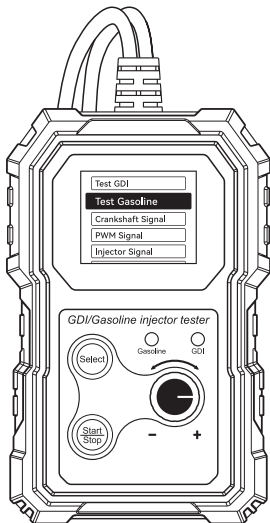


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Safety Precautions

Before testing with this device, please carefully read this user manual and operate in strict accordance with specifications to ensure safe use of the equipment.

Equipment Maintenance Precautions:

- ① Unauthorized disassembly of the tester is strictly prohibited. Any malfunction must be repaired by professional personnel.
- ② Avoid collision and dropping of the device, and keep it away from strong magnetic fields to prevent interference with test data.
- ③ Place the device in a normal-temperature and dry environment. Do not expose it to high temperatures above 40°C or low temperatures below 0°C for a long time.
- ④ Disconnect power before cleaning. Wipe with soft cloth and neutral detergent; no water or chemical solvents.
- ⑤ Operate only at DC 9V ~ 30V. AC power and over-range voltage use are prohibited.

Operation Safety Precautions:

- ① Follow automotive safety rules and device manual; guard against corrosives, toxic gas, high pressure and heavy objects.
- ② Avoid skin/eye contact with corrosive battery fluid and keep away from ignition sources.
- ③ Use only well-ventilated, dry, bright test areas; keep clear of flame and static. Do not use in damp, rainy or enclosed spaces.
- ④ Avoid hot engine parts; run engine after warming to about 80°C and turn off auxiliary electric devices.
- ⑤ Engage parking brake, set gear to P (AT) / N (MT), and lower driver window before testing.
- ⑥ Differentiate injector output ports; do not touch terminals when testing piezoelectric injectors.
- ⑦ Stay clear of heat and strong electromagnetic fields to prevent signal interference.
- ⑧ Do not disconnect live circuits or battery cables of running engines.
- ⑨ Keep magnetic objects away from working ECU to avoid damage.
- ⑩ Switch ignition OFF and wait 1 minute before installing or removing ECU and electric parts.
- ⑪ Stop and power off immediately if abnormal; contact after-sales, no unauthorized repair.
- ⑫ Power off the tester first, then disconnect wires, tidy tools and store properly.

Product Overview

The tester is an easy-to-operate and multi-functional injector tester for GDI (Gasoline Direct Injection) and EFI (Electronic Fuel Injection). Specially designed for the maintenance and diagnosis of gasoline injectors, it simulates engine ECU drive signals to quickly detect the electrical performance and working condition of injectors.

The tester can accurately simulate and set four key drive signals:

- ① Operating Frequency: Simulate injection frequency from idle speed to high speed (1–50Hz).
- ② Pulse Width: Controls injection duration and directly determines fuel injection volume. (GDI: 500–9900 μ s; Gasoline: 1–30ms)
- ③ Working Mode: Supports GDI high-voltage mode (40–65V) and Gasoline standard mode (12V).
- ④ Injection Times: Adjustable fixed injection times from 1 to 5000, convenient for multi-cylinder consistency comparison.

Users can configure each parameter according to actual operating conditions.

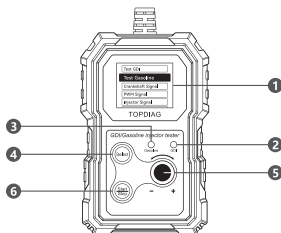
Product Features

- **Dual-mode Compatibility:** Supports EFI and GDI injector testing.
- **Adjustable Parameters:** Freely adjust operating frequency, pulse width, working mode and injection times.
- **Performance Detection:** Detect and troubleshoot injector faults such as sticking, clogging, leakage and poor atomization.
- **Fault Diagnosis:** Quickly identify electrical faults such as short circuits and open circuits in injector coils.
- **Offline Cleaning Drive:** Works with cleaning equipment and drives the injector to achieve effective cleaning results.
- **Multi-Cylinder Comparison:** Locate the faulty cylinder through testing with identical parameters.
- **Safety Protection:** Equipped with overcurrent and reverse polarity protection to avoid equipment damage.

Product Parameters

Screen Size	1.77inch Display	Product Dimensions	126*80*42mm
Input Voltage	DC 9-30V	Working Current	< 1A
Power Draw	< 12W	Operating Temperature	0°C ~ 50°C
Pulse Frequency	1 ~ 50Hz	Storage Temperature	-20°C ~ 70°C
Pulse Width	GDI (500 ~ 9900us) Gasoline (1-30ms)	Relative Humidity	60% RH

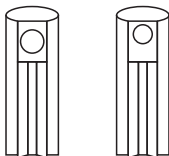
Product Description



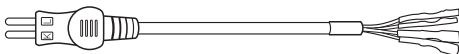
- ① **Screen:** LCD screen, clearly displaying parameters and operating status.
- ② **GDI Indicator Light:** Lights up when switching to GDI mode to indicate the current operating mode.
- ③ **EFI Indicator Light:** Lights up when switching to the traditional gasoline injector mode.
- ④ **Select Key:** Used for menu selection and switching between different function options.
- ⑤ **Knob:** Adjusts values (frequency, pulse width, etc.) for precise operation.
- ⑥ **Start / STOP Key:** Short press to confirm operation / stop working, long press to return.

Product Accessories

① **Injector Connector:** Equipped with two different aperture sizes to fit various injector models.



② **Injector Adapter Cable:** Used to connect injectors with different interface specifications to the original vehicle wiring harness.



Working Condition Explanation

NO	Type	Illustration
1	VL	Full load test
2	VE	Pre-injection test
3	TL	Simulated vehicle traveling at Low speed state
4	HL	High speed test
5	ML	Economics fuel mode

Operating Instructions

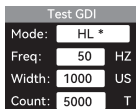
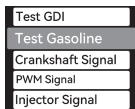
Injector Test

Press the **[Select]** key to choose **GDI Test** or **Gasoline Injector Test**, then short press **[Start/STOP]** to confirm. Adjust the four core parameters—test mode, frequency, pulse width and injection times—via the knob. After setting, short press **[Start/STOP]** to start the test.

Test Result Judgment Criteria:

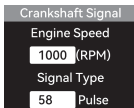
- **Acceptance Criteria:** Normal injection action, no oil leakage, and uniform atomization effect.
- **Abnormal Handling:** If there is no fuel injection, oil dripping, poor atomization, or short circuit/open circuit of the injector coil, the injector shall be replaced or repaired.

Note: The tester supports five test modes: VL, VE, TL, HL, ML. The test stops automatically when the injection count drops to 0. When the count shows 0, rotate the knob left once to enter unlimited continuous injection mode marked “-”; rotate left again to switch to the maximum 500-cycle mode.



Crankshaft Signal

Press the **[Select]** key to select **Crankshaft Signal**, then short press **[Start/STOP]** to confirm. Adjust engine speed and signal type with the knob. After completing parameter settings, short press **[Start/STOP]**. The Gasoline and GDI indicators flash synchronously, and the system enters test running mode.



PWM Signal

Press the **[Select]** key to select **PWM Signal**, then short press **[Start/STOP]** to confirm. Adjust the signal frequency and duty cycle via the knob. After setting the parameters, short press **[Start/STOP]**. The Gasoline and GDI indicators flash synchronously, and the system enters test running mode.

PWM Signal	
Frame Frequency	
500	(HZ)
Duty Cycle	
50	%

Injector Signal

Press the **[Select]** key to select **Injector Signal**, then short press **[Start/STOP]** to confirm. Adjust the injection time and engine speed with the knob. After parameter setup, short press **[Start/STOP]**. The Gasoline and GDI indicators flash synchronously, and the system enters test running mode.

Injector Signal	
Engine Speed	
1500	(RPM)
Injection Duration	
5000	US

Ignition Signal

Press the **[Select]** key to select **Ignition Signal**, then short press **[Start/STOP]** to confirm. Adjust the ignition timing and engine speed with the knob. After completing the parameter settings, short press **[Start/STOP]**. The Gasoline and GDI indicators flash synchronously, and the system enters test running mode.

Ignition Signal	
Engine Speed	
1500	(RPM)
Ignition Timing	
2000	US

Warranty Service

One-year Warranty

We warrant to provide a **one-year warranty service** starting from the original date of product purchase. This warranty applies only to products purchased through official and authorized channels and is subject to the following warranty terms.

- ① The warranty service is limited to product repair or replacement with new equipment, with no additional fees charged to the user. A formal sales invoice or a copy of the invoice shall be provided when applying for warranty service to verify product purchase information and the warranty period.
- ② Failures caused by force majeure such as natural disasters (e.g., floods, lightning strikes); product damage resulting from unauthorized disassembly or maintenance performed by non-official maintenance personnel; and product damage caused by improper use, misuse, unauthorized installation or incorrect testing by the user shall not be covered by the warranty.
- ③ Laws and regulations in some countries do not allow limitations on the duration of implied warranties. Therefore, the above disclaimers and restrictions may not apply to users in such regions, which shall be subject to local applicable laws and regulations.
- ④ All content in this product manual is based on the latest data at the time of publication. The company does not guarantee the absolute accuracy and completeness of the manual information. Meanwhile, the company reserves the right to revise the manual content at any time without prior notice to users. Users are recommended to pay attention to the latest official updates.

After-sales Service Process

If you encounter any problems during product use, or need to apply for repair or return, please contact us through the following channels:

- ① Consultation Service: Contact your local authorized distributor directly or visit the official website for inquiries regarding product usage.
- ② Repair / Return Service: Contact the local distributor or your sales consultant directly to handle repair and return procedures.

尺寸：80*120mm (出血3mm)

装订方式：折页

工艺：哑胶

材质：封面（封面和封底）128g铜版纸，内页128g铜版纸

封面内页印黑白色