




# MR CARTOOL em276 12V Auto Injector Tester User Manual

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MUCAR-LOGO

## MR CARTOOL em276 12V Auto Injector Tester

MUCAR-VO8-Directiona-Scan-Tool-PRODUCTY

## Product Display

MUCAR-VO8-Directiona-Scan-Tool-01

1. DC input port (12V)
2. Working mode indication window
3. Output status indicator light
4. Power indicator + short circuit protection indicator
5. Pulse output button
6. Mode selection button
7. Pulse output terminal
8. Battery clamp

## 9. Injector adapter

### Product Introduction

- This instrument can help you diagnose injector problems and can be used to test injectors one by one or two at the same time to help confirm sticking, leaking, damage or burnout conditions. It has 2 output voltage levels and 4 pulse signal output modes. Users can choose any one according to their needs. It uses the 12V battery on the vehicle or an external DC 12V (recommended at least 1.5A) power adapter as the power supply to work continuously. Mode helps identify good and bad injectors with the engine off. This instrument can be used with any fuel pressure tester.

### Operating Instructions

1. Turn off the car's engine.
2. Remove the wire plug of the vehicle injector to be tested, and then connect the two pulse output terminals of the instrument to the vehicle injector.
3. Then connect the red clip of the instrument to the positive terminal of the 12V car battery and connect the black clip of the instrument to the negative terminal of the car battery.
4. Insert the DC plug into the port of the instrument.
5. Press MODE SET key to select the desired pulse signal output mode, and the screen will display the currently selected mode.

### Mode Description

- Mode 0: standby state, no output
- Mode 1: Single pulse low power mode, in this mode, when the PULSE key is pressed, the instrument will send out a pulse with a pulse width of about 255 milliseconds.
- Mode 2: short pulse low power mode, in this mode, when the PULSE key is pressed, the instrument will send out 50 pulses with a pulse width of about 7 milliseconds.
- Mode 3: long pulse low power mode, in this mode, when the PULSE key is pressed, the instrument will send out 100 pulses, and the pulse width is about 3.5 milliseconds.
- Mode 4: continuous pulse low power mode, in this mode, when the PULSE key is pressed, the instrument will output pulses continuously, the pulse rate is about 50 pulses every 1450 milliseconds, and the pulse width is about 7 milliseconds.

**NOTE:** During the pulse output period, the MODE SET button is invalid, and the working mode can only be selected by pressing the PULSE button again to terminate the output.

- Mode 5: Single pulse high power mode, in this mode, when the PULSE key is pressed, the instrument will send out a pulse with a pulse width of about 255 milliseconds.
- Mode 6: short pulse high power mode, in this mode, when the PULSE key is pressed, the instrument will send out 50 pulses with a pulse width of about 7 milliseconds.
- Mode 7: Long pulse high power mode, in this mode, when the PULSE key is pressed, the instrument will send out 100 pulses, and the pulse width is about 3.5 milliseconds.

- Mode 8: continuous pulse high power mode, in this mode, when the PULSE key is pressed, the instrument will output pulses continuously, the pulse rate is about 50 pulses every 1450 milliseconds, and the pulse width is about 7 milliseconds.

**NOTE:** During the pulse output period, the MODE SET button is invalid, and the working mode can only be selected by pressing the PULSE button again to terminate the output.

## Point

1. This product includes power input reverse connection protection and output short circuit protection functions. In the case of a damaged fuel injector or a short circuit of the pulse output terminal, the power indicator light will flash.
2. This product can be modified for relay testing or solenoid valve testing, and other modifications should be carried out under the guidance of professionals

## Electrical Specifications

- **Power supply:** 12V battery or DC 12V (recommended 2A) power adapter Working conditions: 0°C-40°C; relative humidity ≤80%
- **Storage conditions:** -20°C-50°C; relative humidity ≤85%
- **Size:** 120\*80\*25mm (main part only)
- **Weight:** 0.34kg


## Warn

1. Before using this instrument, the engine of the car must be turned off.
2. Do not smoke or ignite near the car.
3. Do not splash the fuel of the car on the hot engine parts.
4. Only use this instrument in a ventilated place.
5. Do not inhale exhaust fumes from vehicles and vapors.
6. Do not get close to any rotating (or moving) parts of the car, and do not touch any heat-generating parts of the car.
7. Do not short-circuit the positive and negative poles of the car battery.
8. Do not touch any car parts with dangerous voltage.
9. Always follow the warnings, cautions and related maintenance instructions in the vehicle maintenance manual.
10. Wear qualified goggles.
11. After the test is complete, all disconnected vehicle connections should be properly restored.

## Illustrate

1. The company reserves the right to modify the content of the manual.
2. The company is not responsible for any other losses caused by use.
3. The content of this manual cannot be used as a reason for using the product for special purposes

**Documents / Resources**

	<p><a href="#">MR CARTOOL em276 12V Auto Injector Tester</a> [pdf] User Manual em276 12V Auto Injector Tester, em276, 12V Auto Injector Tester, Auto Injector Tester, Injector Tester, Tester</p>
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**References**

- [User Manual](#)