# Pro**Meister**



# **User Guide**

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CE

# **Multi-Function Automotive Tester**

Multifunktionstester Multifunktionstestare Multifunksjonstester Multifunktionstester Monitoimitesteri

Art. Nr: PT8111

# **Product Specifications**

- 1. Power Source: 12-24V DC System
- 2. DC Voltage Measurement Range: 0-70V
- 3. DC Current Measurement Range: 0-5A
- 4. Frequency Measurement Range: 0-100KHz (Square Wave)
- 5. Resistance Measurement Range: 0-200KΩ
- 6. Working Temperature: 0-50°C
- 7. Storage Temperature: -10-60°C
- 8. Working Humidity:  $\leq 85\%$

# **Product Description**



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- 1 Screen
- 2 Illumination
- 3 Polarity Indication Light Positive: Red Negative: Green
- 4 Testing Probe
  - Available to take off
- 5 Power Providing Switch
- 6 Mode Button
  - a. Short Press: To switch the measurement function
  - b. Long Press for 3 seconds: To switch on & off the illumination during voltage measurement. c. Long Press for 3 seconds: To switch between max & min voltage value and frequency
  - measurement

during AC measurement.

- 7 Fuse Box Cap
  - Open it to change the fuse
- 8 Fuse

Fixed auto-recover fuse is 5A, replaceable fuse can be any The tester will use the smallest value to protect the circuit For example, if Fixed auto-recover fuse is 5A, and replaceable fuse is 10A, the current limitation will be 5A. If Fixed auto-recover fuse is 5A, and replaceable fuse is 1A, the current limitation will be 1A.

- 9 Power Clips
- 10 Cigarette Lighter Plug
- 11 Auxiliary Ground Connector
- 12 Accessory
  - d. Connector e. Wire Piercing Probe
  - f. Long Testing Probe
- 13 6m Extension Cable (Optional)





#### Operation

- Shortly press MODE button to switch function between Voltage, Resistance, Current, Signal Frequency and Voltage.
- Connect the red clip to positive of battery, and black clip to negative of battery.
- Auxiliary ground connector is used to connect with the negative of testing object when it is necessary.

#### 1) DC Voltage Measurement (External Voltage Test)



- (a) Short press MODE button to switch function to DC Voltage Measurement.
- (b) Connecting the testing probe and auxiliary ground connector to the two polarity of the testing object. (CAUTION: DO NOT PRESS THE POWER PROVIDING SWITCH DURING THE MEASUREMENT.)
- (c) Read the voltage value from the screen.

#### 2) Signal Frequency And Max/Min Voltage Measurement



Frequency Mode A. Frequency Value B. Frequency Unit



Max Voltage Mode C. Maximum Voltage D. Voltage Unit E. Max Signal



Min Voltage Mode F. Minimum Voltage G. Voltage Unit H. Min Signal

#### Operation

- (a) Short press MODE button to switch function to Signal frequency and voltage measurement.
- (b) Connecting the auxiliary ground connector to the negative or ground, and probe to the positive or the testing target.
- (c) Read the frequency value from the screen.
- (d) Long press MODE button for 3s to switch to max voltage value display.
- (e) Long press MODE button for 3s again to switch to min voltage value display.
- (f) Long press MODE button f for 3s again to switch to frequency measurement.

#### 3) Resistance Measurement



- Resistance Measurement A. Resistance Measurement B. Resistance Value
- C. Resistance Unit
- (a) In order to prevent electrical hazard, please disconnect the power connection and make sure all capacitor has been discharged before the measurement.
- (b) Short press MODE button to switch function to Resistance Measurement.
- (c) Connecting the testing probe and auxiliary ground connector to the two side of the resistor, and read the value from the screen.
- (d) Continuity Test: If the resistance is less than 30 ohms, the buzzer will buzz.

#### 4) Testing Power Providing

(This function can be activated any time when the "POWER PROVIDING SWITCH has been pressed.)

- (a) Press POWER PROVIDING SWITCH forward, the positive voltage will be sent to the testing probe, and positive polarity indicator will light up (Red Color).
- (b) Press POWER PROVIDING SWITCH backward, the negative voltage will be sent to the testing probe and negative polarity indicator will light up (Green Color).
- (c) The providing voltage value will depend on the supply voltage level. For example, the providing voltage will be 12V as supply voltage is a 12V battery.

## Operation

#### 5) DC Current Measurement

Short press MODE button to switch the function to DC Current Measurement.



1.1 Providing Current to External

(a) Connecting the testing probe to the positive of testing load, and auxiliary ground connector to the negative of testing load. Press the **POWER PROVIDING SWITCH** forward.

(b) Read the current value from the screen.



# Operation

#### 1.2

(a) Connecting the testing probe to the negative of testing load, and auxiliary ground connector to the ground of the circuit. Press the POWER PROVIDING SWITCH backward.

(b) Read the current value from the screen.



#### Caution

During the power providing, If the short circuit protection has activated, the PPTC fuse will jump off, and it will self-recover within about 60 seconds. Please do not touch the testing probe when short circuit protection is activated because high temperature generally comes with short circuit.

## Accuracy

DC Voltage	0 – 70V ± (2% + 2 digits)
Signal frequqency and Voltage	Frequency 0 – 100 KHz ± (1% + 1 digits)
Resistance	0 – 200K ± (5% + 3 digits)
Current	0 – 5A ± (3% + 10 digits)