

# 78 and 88V Automotive Meters

## The right meters for auto-electric diagnosis

Perhaps the most important tool you'll use in troubleshooting auto electrical systems is the multimeter. Basic multimeters measure voltage, current and resistance, while automotive multimeters like the Fluke 78 or Fluke 88V have features that can check things such as frequency,

duty cycle, make diode tests, and measure temperature, pressure and vacuum.



Fluke 78



Fluke 88V

### Features

	78	88V/A
Continuity for detecting open and shorts	●	●
Frequency for "pulsed-DC" and AC tests	●	●
Duty cycle to verify operation of feedback carburetors	●	●
Diode test for alternator testing	●	●
Built-in thermometer; thermocouple probe included	●	●
Min/Max Recording	●	
Min/Max/Average recording with Min/Max Alert		●
Peak capture to record transients as fast as 250 μs		●
Relative mode to remove test lead resistance from low ohms measurements		●
Millisecond pulse width measurements for fuel injectors		●
AutoHOLD to capture stable readings		●
Large display with bright, two-level backlight		●
Magnet hanger to attach meter to the vehicle		●
RPM80 Inductive Pickup for both conventional and distributorless (DIS) ignitions	optional	●
Hard Meter Case		●
Safety rating	Cat II 300 V	CAT III 1000V, CAT IV 600 V



On all inputs  
Fluke 88



### Specifications

	Fluke 78			Fluke 88V		
	Range	Resolution	Accuracy	Range	Resolution	Accuracy
Voltage DC	300V	0.1mV	0.3%	1000V	0.01mV	0.1%
Voltage AC	300V	1mV	2.5%	1000V (5 kHz)	0.01mV	0.5%
Current DC	10A	1mA	1%	10A	0.01μA	0.4%
Current AC	10A	10mA	2%	10A	0.01μA	1.2%
Resistance	40MΩ	0.1Ω	0.5%	40Ω	0.01Ω	0.4%
Capacitance				10mF	0.01nF	1%
Frequency	100kHz	0.01Hz	0.1%	200kHz	0.01Hz	0.01%
Temperature	1000°C	1°C	1%	1090°C	0.1°C	1%

### Included Accessories

**Fluke 88V/A:** H80M Holster with TPAK Meter Hanging Solution, TL224 SureGrip Silicone Test Lead Set, TP220 SureGrip Test Probe Set, AC285 SureGrip Large Jaw Alligator Clip Set, 80BK Integrated Temperature Probe, RPM80 Inductive Pickup Probe, 2 Automotive Back Probe Pins, Insulation Piercing Clip, C800 Hard Case, User's Manual + Quick Reference Guide  
**Fluke 78:** C70Y Holster, TL75 Test Lead Set, AC72 Alligator Clip Set, 80BK Integrated Temperature Probe, User's Manual + Quick Reference Guide

### Ordering Information

Fluke 88V/A Automotive Meter Combo Kit  
 Fluke 78 Automotive Meter

**Battery Life:** 88V – Over 400 hours typical (alkaline)  
 78 – 2000 hours typical

**Weight:** 88V – 0.6 kg; 78 – 0.42 kg  
**Lifetime Warranty**

**Size (HxWxD):** 88V – 200 mm x 95 mm x 48 mm  
 78 – 190 mm x 89 mm x 45 mm



88V/A - Automotive Meter Combo Kit

# Automotive Accessories

## TP81 and TP82 Insulation Piercing Clip Set

- Banana jack accepts all DMM and banana jack leads
- Non-rotating banana jack prevents leads from tangling, allowing you to tighten/loosen clamp while still connected to the test lead
- Available for 4 mm input, modular connection with TP81 or available as a 2 mm input to slip onto probe tips with the TP82
- Tested to 60 V DC



## TP84 Oxygen Sensor Insulation Piercing Clip

- Banana jack accepts all DMM and banana jack leads
- Non-rotating banana jack prevents leads from tangling, allowing you to tighten/loosen clamp while still connected to the test lead
- Tested to 60 V DC



## TP88 Rigid Back Probe Pin Set

- Slides onto test probes measuring 2 mm
- Tested to 60 V DC



## TP40 Automotive Back Probe Pins (five)

- Banana jack accepts all DMM and banana jack leads
- Tested to 60 V DC



## BP880 BNC to Female Double Stacking Banana Plug BP881 BNC to Male Double Stacking Banana Plug

- Allows for hands-free testing in controlled voltage environments 500 VRMS maximum
- Banana plug is nickel-plated, beryllium copper for low contact resistance
- The BNC shell is plated for tarnish resistance
- Operating temperature +50°C maximum



BP880



BP881

## PV350 Pressure Vacuum Module

- Compatible with all Fluke and most popular DMMs
- Digital pressure and vacuum measurements in a single module
- Transducer sealed in 316 stainless steel compatible with variety of liquids and gases
- Measures vacuum to 76 cm Hg
- Display results in English (psig or Hg) or metric (kPa or cm Hg) units
- Measures pressure to 500 psig (3447 kPa)



## TL28A Automotive Test Lead Set

- Flexible silicone insulated leads are heat and cold resistant
- Cat I 30 V, 10 A



## TLK282 SureGrip™ Deluxe Automotive Test Lead Kit

### Kit contains:

- TP81 Insulation Piercing Clip Set
- TP40 Automotive Back Probe Pins (five)
- TL224 Suregrip™ Silicone Test Lead Set
- TP220 Suregrip™ Test Probe Set
- AC220 Suregrip™ Alligator Clip Set
- AC285 Suregrip™ Large Jaw Alligator Clip Set
- AC280 Suregrip™ Hook Clip Set
- Soft Case



## TLK281 SureGrip™ Automotive Test Lead Kit

### Kit contains:

- TP81 Insulation Piercing Clip Set
- TL224 Suregrip™ Silicone Test Lead Set
- TP220 Suregrip™ Test Probe Set
- AC220 Suregrip™ Alligator Clip Set
- AC285 Suregrip™ Large Jaw Alligator Clip Set
- Soft Case



## 90i-610s AC/DC Current Probe (600 A)

- Current Range: 2 to 600A DC or AC Peak
- Basic Accuracy (DC to 400Hz): +/- (2% of reading + 1A)
- Output Signal: 100A range: 10mV/A  
600A range: 1mV/A
- Frequency Range: 40Hz to 400Hz
- Working Voltage: 600V AC rms
- Maximum Conductor Diameter: 34 mm



## RPM80 Inductive Pick-up

- Provides RPM readings



**Fluke.** *Keeping your world up and running.*

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