

# 78 and 88V Automotive Meters



Fluke 78



Fluke 88V



# Accessories and Ordering Information

#### **Included Accessories**

Fluke 88V/A: H8OM 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, 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

# 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.

#### Features

	78	88V/A
Continuity for detecting open and shorts	٠	•
Frequency for "pulsed-DC" and AC tests	٠	•
Duty cycle to verify operation of feedback carburetors	•	•
Diode test for alternator testing	•	•
Built-in thermometer; thermocouple probe included	•	•
Min/Max Recording	٠	
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

# Specifications

	Fluke 78			Fluke 88V		
	Range	Resolution	Accuracy	Range	Resolution	Accuracy
Voltage DC	300V	0.1mV	0.3%	1000V	0.1mV	0.1%
Voltage AC	300V	1mV	2.5%	1000V (5 kHz)	0.1mV	0.5%
Current DC	10A	1mA	1%	10A	0.1_A	0.4%
Current AC	10A	10mA	2%	10A	0.1_A	1.2%
Resistance	40MΩ	0.1Ω	0.5%	40Ω	0.1Ω	0.4%
Capacitance				10mF	0.01nF	1%
Frequency	100kHz	0.01Hz	0.1%	200kHz	0.01Hz	0.005%
Temperature	1000°C	1°C	1%	1090°C	0.1°C	1%

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

 $\label{eq:weight: 88V - 0.36 kg; 78 - 0.34 kg} \mbox{Lifetime Warranty}$ 

Size (HxWxD) : 88V – without holster 186 mm x 86 mm x 32 mm 78 – without holster 166 mm x 75 mm x 28 mm





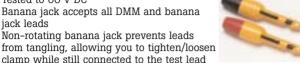
88V/A - Automotive Meter Combo Kit



# **Automotive Accessories**

#### TP81 and TP82 Insulation Piercing Clip Set

- Tested to 60 V DC
- · Banana jack accepts all DMM and banana iack leads · Non-rotating banana jack prevents leads



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

#### TP84 Oxygen Sensor Insulation Piercing Probe

- Tested to 60 V DC
- 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

#### **TP88 Rigid Back Probe Pin Set**

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



#### TP40 Automotive Back Probe Pins (five)

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



#### TL82 Automotive Pin & Socket Adapter Kit

#### • Tested to 60 V DC

- Kit contains:
- · Set of retractable shrouded test leads
- Complete set of 8 pin-and-socket adapters with flexible tips; one red and one black in the following sizes: Size 22 contact 0.76 mm rated 5 A Size 20 contact 1.02 mm rated 7.5 A Size 16 contact 1.60 mm rated 13 A Size 12 contact 2.36 mm rated 23 A



#### 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

## **PV350 Pressure Vacuum Module**

- Measure pressure up to 500 psig (3447 kPa)
- Measure vacuum down to 76 cm in Hg

## **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

- Tested to 60 V DC
- Kit contains:
- TP81 Insulation Piercing Clip Set
- TP40 Automotive Back Probe Pins (five) • TL224 Suregrip<sup>™</sup> Silicone Test Lead
- Set • TP220 Suregrip<sup>™</sup> Test Probe Set
- AC220 Suregrip<sup>™</sup> Alligator Clip Set
- AC285 Suregrip<sup>™</sup> Large Jaw Alligator Clip Set
- AC280 Suregrip<sup>™</sup> Hook Clip Set
- Soft Case

#### TLK281 SureGrip<sup>™</sup> Automotive Test Lead Kit

• Tested to 60 V DC

- Kit contains:
- TP81 Insulation Piercing Clip Set • TL224 Suregrip<sup>™</sup> Silicone Test
- Lead Set
- TP220 Suregrip<sup>™</sup> Test Probe Set
- AC220 Suregrip<sup>™</sup> Alligator Clip Set AC285 Suregrip<sup>™</sup> 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.

**Fluke Corporation** P.O. Box 90 Everett, WA USA 98206

Fluke Europe B.V. P.O. Box 1186 5602 BD Eindhoven The Netherlands

For more information call: In the U.S.A. (800) 443-5853 or Fax (425) 446 -5116 In Europe/M-East/Africa +31 (0)40 2 675 200 or Fax +31 (0)40 2 675 222 In Canada (905) 890-7600 or Fax (905) 890-6866 From other countries +1 (425) 446 -5500 or Fax +1 (425) 446 -5116

### Visit us on the world wide web at: http://www.fluke.com

Fluke (UK) Ltd. 52 Hurricane Way Norwich Norfolk NR6 6JB United Kingdom Tel.: 0207 942 0700 Fax: 0207 942 0701 E-mail: industrial@uk.fluke.nl

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