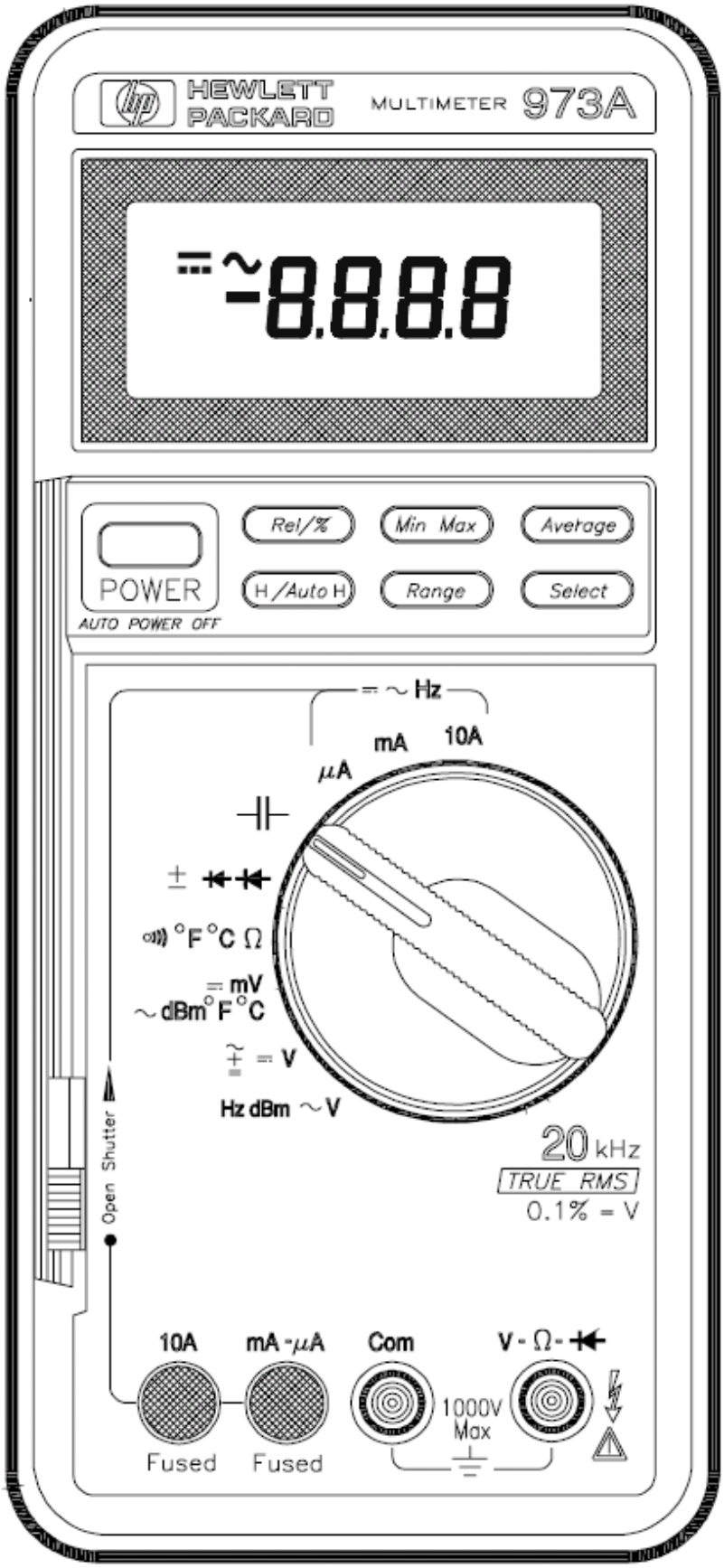
HEWLETT PACKARD
MULTIMETER 973A
8.8.8.8
POWER
AUTO POWER OFF
Rel/%
Min Max
Average
H/Auto H
Range
Select
Hz
mA
10A
µA
°F °C Ω
mV
dBm °F °C
V
Hz dBm V
Open Shutter
20 kHz
TRUE RMS
0.1% = V
10A
mA - µA
Com
V - Ω -
1000V Max
Fused
Fused

HP 973A Multimeter

Specifications
Calibration period : one year minimum. Specifications apply at 23°C ± 5°C, < 80% RH
Accuracy = ±(% of reading + number of digits)
Temperature Coefficient = Accuracy X 0.1/°C (-10° C to 18°C ; 28°C to 55°C)

General
Do not expose product to moisture or rain. Do not use product in flammable atmosphere.
Operating Temperature : -10°to 50℃.
Humidity : 0℃ to 40℃ / 80% RH max, 40℃ to 50℃ / 70% RH max (no condensation).
Storage Temperature : -25°to 60℃ / 70% RH max (no condensation).
Display reading rate :

ACV, DCV, Diode, Continuity	Approximately 2.3 / second
Frequency	Approximately 1 / second
Capacitance	Approximately 0.03 to 2 / second
AC + DC	Approximately 0.5 to 1 / second
Bargraph reading rate :	Approximately 23 / second
Battery life	Approximately 600 hours

DC Voltage

Range	Resolution	Accuracy	Input Resistance
40 mV	10 µV	± (0.3% + 5)	10 MΩ (nominal)
400 mV	100 µV	± (0.1% + 1)	
4 V	1 mV		11 MΩ (nominal)
40 V	10 mV		10 MΩ (nominal)
400 V	100 mV		
1000 V	1 V	± (0.2% + 1)	

Normal Mode Rejection Ratio : > 60 dB @ 50 or 60 Hz
Effective Common Mode Rejection Ratio (1 kΩ imbalance) : > 120 dB @ 50 or 60 Hz

AC Voltage (True rms, calibrated for sinewave)

Range	Resolution	Accuracy				Input Impedance (nominal)
		40 Hz to 50 Hz	50 Hz to 1 kHz	1 kHz to 5 kHz	5 kHz to 20 kHZ	
40 mV	10 µV	± (1% + 3)	± (1% + 3)	Not Specified		10 MΩ < 70 pF
400 mV	0.1 mV					
4 V	1 mV		± (0.7% + 3)	± (1.2% + 4)	± (2% + 15)	11 MΩ < 50 pF
40 V	10 mV					10 MΩ < 50 pF
400 V	100 mV					
1000 V	1 V	± (1% + 4) (40 Hz to 500 Hz)		Not Specified		

Measurement range :

40 Hz to 1 kHz	40 mV to 400 V	range 5 % to 100 % of range
	1000 V range	100 V to 1000 V
1 kHz to 20 kHz	4 V to 400 V range	10 % to 100 % of range

Response time : < 2 seconds on fixed range
Crest factor : < 3
Common Mode Rejection Ratio (1 kΩ imbalance) : > 60 dB @ DC to 60 Hz

AC + DC Voltage (True rms, computed from acV, dcV)

Range	Resolution	Accuracy			Input Impedance (nominal)
		DC, 40 Hz to 1 kHz	DC, 1 kHz to 5 kHz	DC, 5 kHz to 20 kHZ	
4 V	1 mV	± (1% + 4)	± (1.5% + 6)	± (3% + 18)	11 MΩ < 50 pF
40 V	10 mV				10 MΩ < 50 pF
400 V	100 mV				
1000 V	1 V	± (1% + 6) DC, to 500 Hz	Not Specified		

Measurement range :

DC, 40 Hz to 1 kHz	4 V to 400 V range	5 % to 100 % of range
	1000 V range	200 V to 1000 V
DC, 1 kHz to 20 kHz	4 V to 400 V range	10 % to 100 % of range

Response time : < 5 seconds on fixed range
Crest factor : < 3
Common Mode Rejection Ratio (1 kΩ imbalance) : > 60 dB @ DC to 60 Hz

DC Current

Range	Resolution	Accuracy	Input Resistance	Maximum Input
400 µA	100 nA	± (0.5% + 2)	< 550 Ω	± 0.5 A (fused)
4000 µA	1 µA	± (0.8% + 2)		
40 mA	10 µA		< 8 Ω	
400 mA	100 µA	± (1.0% + 2)		
10 A	10 mA		< 0.05 Ω	± 15 A (fused)

AC Current

Range	Resolution	Accuracy (40 Hz to 2 kHz)	Input Resistance	Maximum Input
400 µA	100 nA	± (1.5% + 4)	< 550 Ω	0.5 Arms (fused)
4000 µA	1 µA			
40 mA	10 µA		< 8 Ω	
400 mA	100 µA			
10 A	10 mA		< 0.05 Ω	15 Arms (fused)

rms responding, crest factor < 3, specified for 5 % to 100 % of range

Resistance

Range	Resolution	Accuracy	Test Current	Max Open Circuit Voltage
400 Ω	100 mΩ	± (0.2% + 1) [1]	< 0.8 mA	< 3.2 V
4.0 kΩ	1 Ω	± (0.2% + 1)	< 80 µA	< 1.1 V
40 kΩ	10 Ω		< 10 µA	
400 kΩ	100 Ω		< 1.1 µA	
4.0 MΩ	1 kΩ	± (0.5% + 1)	110 nA	
40 MΩ	10 kΩ	± (1.2% + 1)		

[1] After zero adjust of input leads. Zero adjust range up to 9.9 Ω.

Capacitance

Range	Resolution	Accuracy
10 nF	10 pF [1]	± (2% + 3)
100 nF	100 pF	
1000 nF	1 nF	± (1.2% + 2)
10 µF	10 nF	
100 µF	100 nF	± (3% + 2)
1000 µF	1 µF	

[1] After zero adjust of input leads
Method used : Charge/Discharge of capacitor under test
Maximum display 1199

Frequency (Volts)

Frequency Range	Resolution	Accuracy	Input Voltage (rms)	Maximum Input
2 Hz to 99.99 Hz	0.01 Hz	± (0.02% + 1)	0.2 V to 400 V	660 Vrms
90 Hz to 999.0 Hz	0.1 Hz			
900 Hz to 9999 Hz	1 Hz		0.4 V to 400 V	
9.00 kHz to 99.99 kHz	10 Hz		0.8 V to 100 V	100 Vrms
90 kHz to 200 kHz	100 Hz		2 V to 100 V	