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Digital kit for basic theory + assembly training



DIGITAL MULTI MESTER

PC20TK

Wide range of experiments in conjunction with the PC

Measured data can be saved on a CSV file, so it is easily processed on Excel, The ease of use in a variety of applications from data retrieval, processing and analysis results in its extensive acceptance for business, education and personal use.



CE

*Holster is an optional accessory.



Analog kit for basic theory + assembly training

Easy to assemble
Break-proof body cover
Soldered test leads providing better safety
Portable analog multitester.

ANALOG MULTI TESTER

KIT-8D



CE

Distributed by

sanwa

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Can be used in training of basic theory of analog and assembly

Can also be used as a textbook, and easy-to-understand manual

We have described in detail the principles and characteristics of analog tester.

It can be manually assembled, so that customers can also use it as a textbook, have been incorporated in line with teaching contents.

In addition to the basis of the electrical circuit is also discussed, and the contents are made easier to understand.

Therefore, after assembly, you can use it as reference material of the electrical circuit.

After assembly, the performance of our equivalent commercially available tester

After assembly of the training kit, Sanwa guarantees the same levels of performance and accuracy in our self assembly kits as our factory made kits.

The kit's scale plate gives maximum visibility when used on-site

The scale plate has been designed with on-site use in mind and therefore measurements can be clearly read.

The scale plate is clearly laid out, and also features a mirror to improve accuracy of measurements.



Drop shock proof taut-band meter

The kit is equipped with a taut-band meter that can withstand being dropped onto concrete floor from 1m.

Protective cover

The included protective cover can also be used as a stand to make it easier to take measurements, and can also be folded behind the meter for mobile use.

Test lead

Test lead can be stored in the body reducing the risk of students losing the test lead.

The kit also features an easy-to-carry hand strap

Function	Measuring range	Accuracy
DCV	0.3/3/12/30/120/300/600V (20kΩ/V)	±3% of full scale
ACV	12/30/120/300/600V (9kΩ/V)	±4% of full scale
DCA	60μ/3m/30m/0.3A	±3% of full scale
Resistance	20/200/20kΩ	±3% of arc
Battery check	1.5V	
Bandwidth	50 or 60Hz (sine wave)	
Battery	UM-3(1.5V)×2	
Fuse	φ 5.2×20mm (250V/0.5A)	
Size / Mass	H159.5×W129×D41.5mm/approx.320g	

Standard accessories included
Instruction manuals

ANALOG MULTI TESTER

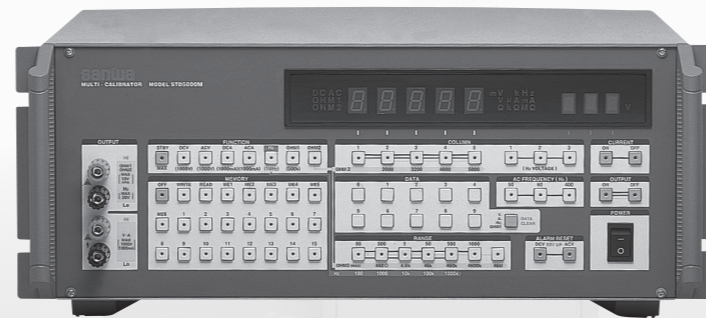
KIT-8D



For Post-assembly Calibration.
Why not use the Sanwa Calibrator!!

CALIBRATOR

STD5000M



Function	Measuring range	Generation range	Resolution	Set accuracy	Maximum load
DCV	50mV	0~50mV	1μV	±(0.05%+30μV)	10mA
	500mV	0~500mV	10μV	±(0.03%+30μV)	
	5V	0~5V	100μV	±(0.03%+200μV)	
	50V	0~50V	1mV	±(0.03%+2mV)	
	500V	0~500V	10mV	±(0.03%+20mV)	
	1000V	0~1000V	100mV	±(0.05%+0.3V)	
ACV	50mV	0~50mV	1μV	±(0.1%+50μV)	10mA
	500mV	0~500mV	10μV	±(0.06%+100μV)	
	5V	0~5V	100μV	±(0.06%+0.4mV)	
	50V	0~50V	1mV	±(0.06%+4mV)	
	500V	0~500V	10mV	±(0.06%+40mV)	
	1000V	0~1000V	100mV	±(0.1%+0.4V)	
DCA	50μA	0~50μA	1nA	±(0.05%+30nA)	13V (Open circuit voltage)
	500μA	0~500μA	10nA	±(0.05%+30nA)	
	5mA	0~5mA	100nA	±(0.05%+0.2μA)	
	50mA	0~50mA	1μA	±(0.05%+2μA)	
	500mA	0~500mA	10μA	±(0.05%+20μA)	
	2000mA	0~2000mA	100μA	±(0.1%+300μA)	
ACA	50μA	0~50μA	1nA	±(0.12%+60nA)	13V (Open circuit voltage)
	500μA	0~500μA	10nA	±(0.12%+80nA)	
	5mA	0~5mA	100nA	±(0.1%+0.5μA)	
	50mA	0~50mA	1μA	±(0.1%+5μA)	
	500mA	0~500mA	10μA	±(0.1%+50μA)	
	2000mA	0~2000mA	100μA	±(0.15%+0.5mA)	
OHM1 Frequency	—	0~500kΩ	10Ω	—	—
	40~99.9Hz	—	—	±(0.1%+0.1Hz)	—
	40~999Hz	—	—	±(0.1%+1Hz)	—
	40~9.99kHz	—	—	±(0.1%+10Hz)	—
	100~99.9kHz	—	—	±(0.1%+100Hz)	—
	1k~999kHz	—	—	±(0.1%+1kHz)	—
0~7V	—	—	—	±(2%+0.2V)	—

Function	Measuring range	Accuracy
OHM2	160/260/360/460Ω	±(0.05%+0.1Ω)
	1.6k/2.6k/3.6k/4.6kΩ	±(0.05%)
	16k/26k/36k/46kΩ	±(0.05%)
	160k/260k/360k/460kΩ	±(0.05%)
	1,600k/2,600k/3,600k/4,600kΩ	±(0.05%~0.08%)
	16M/26M/36M/46MΩ	±(0.05%~0.2%)
Memory	6×15(90)	

50mV adjust digit 4-1/2 digit(except for 1000V, 2000mA,OHM2)
Max. display 50099
Output adjust LOCAL(surface panel)
Operating range 23°C ± 3°C below 70%RH
Preheating time 30~60m.
Power supply AC100V±10%, 50Hz, 60Hz
Power consumption 30VA

Protection DC and 50V or higher AC ranges: Overload protection device with reset switch. DC and 5V or lower AC ranges: Overload protection circuitry.

Size / Mass H180×W480×D580mm/25kg
Standard accessories included Instruction manual

DIGITAL MULTI METER

PC20TK



*Holster is an optional accessory.

4000 count

If you connect the PC20TK to your PC by using the optionally available PC Link Software(PC Link 7) and PC Link cable(KB-USB20), changes in electric quantity can be displayed as values or graphs on the PC monitor.

A safety cover that prevents the user from inserting a test lead into it by mistake.

Capacitance measurement(40nF~100μF)

Temperature measurement(-50 to 300°C) by using the optionally available temperature probe(T-300PC).

Micro-current can be measured in both DC and AC in the range 400μA.



Function	Measuring range	Best accuracy	Resolution	Input impedance
DCV	400m/4/40/400/750V	±(1.0%rdg+2dgt)	0.1mV	DCV:
ACV	4/40/400/750V	±(1.5%rdg+5dgt)	0.001V	
DCA	400μ/4000μ/40m/400m	±(1.5%rdg+2dgt)	0.1μA	10M~
ACA	400μ/4000μ/40m/400m	±(2.0%rdg+5dgt)	0.1μA	100MΩ
Resistance	400/4k/40k/400k/4M/40M	±(1.5%rdg+5dgt)	0.1Ω	ACV:10M
Capacitance	40n/400n/4μ/40μ/100μF	±(7%rdg+6dgt)	0.01nF	
Continuity	Buzzer sounds at between 10Ω and 120Ω. Open voltage: approx. 0.4V			
Diode test	Open voltage: approx. 1.5V			
Bandwidth	40~400Hz (sine wave)			
Fuse / Battery	0.5A/250V IR300 A φ 6.3X30mm R6×2			
Size / Mass	H158×W70×D41mm/230g			

Standard accessories included
Test lead (TL-21a), Instruction manual

Optional accessories

Software : PC Link7, Optical PC Link cable : KB-USB20
Clamp probe : CL-20D, CL-22AD, CL33DC
Temperature probe : T-300PC(PC Link software is necessary.)
Clip adapter : CL-11, CL-13, CL-15, CL-DG3a, TL-8IC
Holster : H-70

Max 8 Channels PC Link 7



Major features:

- Automatically detects a port connected with a digital multimeter
- No additional driver installation required with Windows standard USB drivers
- The retrieval interval can be set by seconds. The shortest reading interval of 0.2 - 0.3 seconds depending on the digital multimeter measuring function.
- Allows setting for vertical/horizontal zoom, reading at the cursor position, and Y axis split while retrieving data.
- Allows automatic retrieval by schedule setting.
- Allows data saving into CSV files and sending e-mails of alert information with alarm setting.
- Allows data saving into CSV files with the date and time appended.
- Multi-window, separated graphs by each channel
- Allows automatic e-mail of measurement data.
- Allows limited operations depending on the user with usage restriction function.
- Allows conditional recording by event function.



KB-USB20