UPCB-03 (Included)

Optional
Hard carrying case
CA-08

Clamp meter with Data recorder set
Model : CM-9930R/DL-9602SD SET

* Complete set are includes :
  1. Clamp meter CM-9930R.
  2. SD card data recorder, DL-9602SD.
  3. Interface cable, UPCB-03.
* Complete set is used to record the Clamp meter's measurement values (ACA, DCA, ACV. DCV ohms.....) with the real time information.
* Optional hard carrying case (370 x 310 x 115 mm), CA-08.
* Optional AC to DC 9V power adapter for DL-9602SD, CM-9930R are available.

RS232/USB, True RMS
2000 A DCA/ACA CLAMP METER + *DMM*
Model : CM-9930R

* RS232 computer interface output.
* Heavy duty, CATIII-1000V.
* 4,000 counts, auto range.
* ACA(2000A, 400A), DCA(2000A, 400A), DCV, ACV, Capacitance, Frequency, Duty cycle, Relative, Continuity, ohms.
* 50 mm measuring conductor size.
* 400 uA - 400 mA small direct current input.
* Size : 255 x 73 x 38 mm.
* Power : 006P DC 9V battery.
* RS232/USB computer interface.

Real time data recorder
SD CARD DATA LOGGER
Model : DL-9602SD

* Real time SD memory card Datalogger, it can cooperate with most LUTRON instruments if it is built-in the computer interface.
* Innovation and easy operation, computer is not need to setup extra software, just take away the SD card from the DL-9602SD and plug it into the computer, then the measured values with the time information (year/month/date/hour /minute/ second) can be downloaded to the Excel directly. User can make the further data or graphic analysis in the Excel by themselves.
* Built-in Clock and Calendar, real time data recorder, sampling time can be set from 2 seconds to 8 hours 59 minutes 59 seconds.

* Manual datalogger is available (set the sampling time to 0), during executing the manual datalogger function, it can set the different place location No.(place 1 to place 99).
* Signal input : Accept CM-9930R's RS232 signal via interface cable UPCB-03.
* SD card (optional) capacity : 1 GB to 16 GB.
* DC 1.5V battery (UM-3 , AA) x 6 or DC 9V adapter in.
* LCD with green light backlight, easy reading.

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USB/RS232, True RMS

2000A DCA/ACA CLAMP + DMM

Model : CM-9930R   *ISO-9001, CE, IEC1010*

LUTRON ELECTRONIC

The Art of Measurement

USB/RS232, True RMS
2000 A DCA/ACA CLAMP METER + DMM
Model : CM-9930R

FEATURES

* 2 in 1, 2000 A clamp meter + Digital multimeter.
* Design meet IEC 1010 CATIII 1000V safety requirement.
* True rms reading for ACV & ACA measurement.
* 4000 counts, Auto range, multi-functions for ACA, DCA, ACV, DCV, Ohms, Capacitance, Hz, Duty cycle, diode and continuity check.
* Wide ranges (2000A, 400 A) clamp on current measurement both for ACA & DCA.
* 4 ranges (400 uA, 4000 uA, 40 mA, 400 mA) direct current input measurement both for ACA & DCA.
* LSI circuit provides high reliability and durability.
* Overload protection circuit is provided for all ranges.
* Data hold, Relative key, Back light.
* RS232/USB PC COMPUTER interface.
* Compact & heavy duty ABS and fireproof plastic case.

GENERAL SPECIFICATIONS

Display	15 mm (0.6") LCD, 4 digits, Max. indication 4000.
Measurement Range	ACA, DCA, ACV, DCV, Ohms, Diode, Hz, Capacitance, Duty cycle, Continuity beeper.
Polarity	Automatic Switching, "-" indicates negative polarity.
Current Sensor	Hall effect sensor.
Zero adjustment	*DCA :* Push bottom adjustment. *Other ranges :* Automatic adjustment.
Over-input	Indication of " OL " or " -OL ".
Sampling Time	Approx. 0.35 second.
Data Output	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug. * Connect the optional USB cable USB-01 will get the USB plug.
Battery	DC 9V battery, heavy duty or Alkaline type, 006P, MN1604 (PP3) or equivalent.
Power Consump.	Approx. DC 5 mA.
Operating Temp.	0 ℃ to 50 ℃ (32 ℉ to 122 ℉).
Operating Humidity	Less than 80% RH.
Weight	380 g/0.85 LB (including battery).
Dimension	HWD : 255 x 73 x 38 mm. (10 x 2.9 x 1.5 inch)
Max. Jaw Open Size	51 mm (2.1 inch) Dia.
Accessories Included	Operation manual...................................1 PC Test lead (red & black)..........................1 Set Fuse (500 mA, 5 mm dia. x 20 mm)....1 PC
Optional Accessories & Adapters	* RS232 cable............................... UPCB-02 * USB cable................................... USB-01 * Data Acquisition software ....SW-U801-WIN * Carrying case, EMF Adapter, Light Adapter, Anemometer Adapter, Pressure Adapter, Sound Adapter, Tachometer Adapter, High Voltage Probe.

ELECTRICAL SPECIFICATIONS (23 ± 5 ℃)

Function	Range	Reso-lution	Accuracy	Overload Protection
DC/AC Voltage	400 mV (DC only)	0.1 mV	± (0.5 % + 2d)	
	4 V	0.001V	*DCV:*	
	40 V	0.01V	± (1 % + 2d)	
	400 V	0.1 V	*ACV:*	AC/DC 1000 V.
	1000V	1 V	± (1.2 % + 5d)	
DC / AC Current (Direct input)	400 uA	0.1 uA		
	4000 uA	1 uA		
	40 mA	0.01 mA	± (1.2% + 5d)	AC/DC 500 mA
	400 mA	0.1 mA		(Fuse)
DC /AC current (Clamp on)	400 A	0.1 A	± (2 % + 5 d)	
	2000 A	1 A	± (2 % + 8 d)	AC/DC 2000A/1000V

Remark :

  * ***True rms measurement both for ACV, ACA function.***
  * *Input impedance for ACV & DCV range is 10 Mega ohm.*
  * *ACA, ACV frequency response is from 45 to 1 KHz.*
  * *ACA, ACV specification be tested on sine wave 50/60 Hz.*

Function	Range	Reso-lution	Accuracy	Overload Protection
Ohms	400 ohm	0.1 ohm		
	4 K ohm	1 ohm		
	40 K ohm	10 ohm	± (1 % + 5 d)	
	400 K ohm	100 ohm		
	4 M ohm	1 K ohm	± (2 % + 2 d)	AC / DC 400V
	40 M ohm	10Kohm	± (3.5 % + 5d)	
Capacitance	50 nF	10 pF		
	500 nF	100 pF		
	5 uF	0.001 uF	± (3 % + 5 d)	
	50 uF	0.01 uF	*See Remark*	AC / DC 400V
Frequency (> 5 V)	5 Hz	0.001 Hz		
	50 Hz	0.01 Hz		
	500 Hz	0.1 Hz		
	5 KHz	1 Hz	± (1 % + 5 d)	
	50 KHz	0.01 KHz		
	100 KHz	0.1 KHz		AC / DC 1000V
Duty cycle	1 % to 99 %	0.1 %		
Diode	Short/non conductance, good/defect test			
Continuity	If rmeasuring esistance is less than 10 ohm, the beeper will sound .			

Remark :

  * *Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.*
  * *The accuracy of capacitance range are specified under that the " zero " procedure is executed before the measurement (push " REL. button).*

* Appearance and specifications listed in this brochure are subject to change without notice.

Real time

SD CARD DATA LOGGER

Model : DL-9602SD   *ISO-9001, CE, IEC1010*

SD
1GB

UPCB-03 (included)

m/s

4.3

Ch 5

POWER   Backlight   LOGGER
         ESC   ENTER

Channel / ▲   Start / Pause

TIME / ▼   SET

DATA LOGGER
Real time , SD Card

Lutron **DL-9602SD**

LUTron

LUTRON ELECTRONIC

The Art of Measurement

real time
SD CARD DATA LOGGER
Model : DL-9602SD

FEATURES

* Real time SD memory card Datalogger, it can cooperate with most LUTRON instruments if it build in the computer interface.

* Built-in Clock and Calendar, real time data recorder , sampling time set from 1 second to 8 hours 59 minutes 59 seconds.

* Manual datalogger is available (set the sampling time to 0), during execute the manual datalogger function, it can set the different place (location) No. (place 1 to place 99).

* Innovation and easy operation, computer is not need to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the measured value with the time information (year/month/date/ hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves.

* SD card capacity : 1 GB to 16 GB.

* Can set the numerical decimal point character to " . " or " , " with default, then Datalogger data that saved into the SD card can be used in different country.

* Can set max. 9 channels data input with default.

* DC 1.5V battery (UM-3 , AA) x 6 or DC 9V adapter in.

* LCD with green light backlight, easy reading.

* RS232 signal output, can connect the external computer.

SPECIFICATIONS

Application	* Real time SD memory card Datalogger can cooperate with all LUTRON instruments if it build in the computer interface. * Innovation and easy operation, computer no need to setup extra software, after execute datalogger, just plug in the SD card into the computer, it can down load the all the measured value and unit along with the time information (year/month/date/ hour/minute/second) to the Excel directly, user can make the further data or graphic analysis by themselves.
Circuit	Custom one-chip of microprocessor LSI circuit.
Display	LCD size : 52 mm x 38 mm LCD with Backlight (ON/OFF).
Input Signal	Direct RS232 signal input. Isolate RS232 signal input.

Advanced setting	* SD memory card Format	
	* Set input channel No. Set clock time (Year/Month/Date, Hour/Minute/ Second)	
	* Set sampling time (Hour/Minute/ Second)	
	* Auto power OFF management	
	* Set LCD backlight ON/OFF	
	* Set beeper sound ON/OFF	
Power off	Auto shut off saves battery life or manual off by push button.	
Sampling Time Setting range	Auto	2 seconds to 8 hours 59 min. 59 seconds. *@ Sampling time can set to 1 second, but memory data may loss*
	Manual	Push the data logger button once will save data one time. *@ Set the sampling time to 0 second.*
Data error no.	0.1% of total saved data max.	
Data Output	RS 232/USB PC computer interface. * *The output data structure are same as the input data.* * *Connect the optional RS232 cable UPCB-02 will get the RS232 plug.* * *Connect the optional USB cable USB-01 will get the USB plug.*	
Operating Temp. and Humidity	0 to 50 ℃. Less than 85% R.H.	
Power Supply	* *.Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent.* * *.DC 9V adapter input. (AC/DC power adapter is optional).*	
Power Current	Normal operation (w/o SD card save data and LCD Backlight is OFF) : *Approx. DC 7 mA.* When SD card save the data and LCD Backlight is OFF) : *Approx. DC 28 mA.* * *.If LCD backlight on, the power consumption will increase approx. 17 mA.*	
Weight	468 g/1.03 LB.	
Dimension	178 x 68 x 44 mm (7.0 x 2.7x 1.7 inch)	
Standard Accessories Included	* Instruction manual..........................1 PC * Double earphone cable, UPCB-03 ....1 PC	
Optional Accessory	Hard carrying case, CA-06	

PATENT	CHINA : ZL 2008 2 0189918.5 ZL 2008 2 0189917.0	TAIWAN : M 358970 M 359043
	Germany : Nr. 20 2008 016 337.4	JAPAN : 3151214 U.S.A. : Pending

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