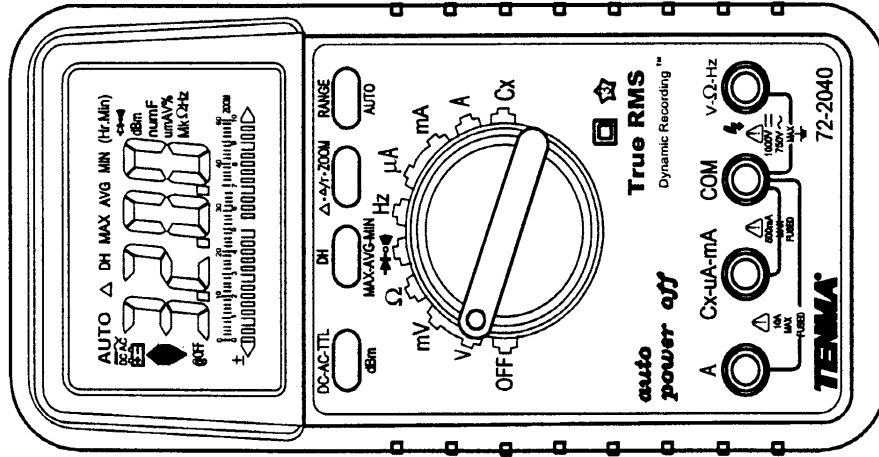


356-2530

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
430	A	RELEASED	JWM	12/12/00	JC	1/3/01	DJC	1/8/01



Features:

- y 3 3/4 digit, 5000 count display with 53 segment bar graph
- y Auto/manual range selection
- y 3.3 times per second measuring rate
- y True RMS with 20KHz bandwidth
- y Capacitance measurement
- y Frequency measurement
- y dBm measurement with 20 selectable impedances
- y Diode test
- y Continuity beeper
- y Dual tone/dual display logic level detection
- y Dynamic recording with time stamp
- y Auto-power off with sleep mode
- y Splash proof sealed case
- y Fused mA and A overload protection
- y Current input warning
- y Meets IEC-1010 safety std. for 600V CAT III and 1000V CAT II applications
- y Includes 9V battery, protective rubber holster, test leads and owner's manual
- y Size: 3 1/2"(W) x 1 1/2"(H) x 7 1/2"(L)
- y Weight: 1 lb. with battery



DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jeff McVicker	12/12/00
CHECKED BY:	DATE:
JOHN COLE	1/3/01
APPROVED BY:	DATE:
Daniel Carey	1/8/01

DRAWING TITLE:

Autorangeing True RMS DMM

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	72-2040A	84N1412.dwg	A
SCALE:	NTS	U.O.M.: INCHES [mm]	SHEET: 1 OF 2

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Electrical Specifications

(Accuracies are $\pm(\%rdg + no. of digits)$ at 23°C $\pm 5^{\circ}C$; less than 70% R.H.)

Frequency (Auto-Ranging)				
Range	Resolution	Accuracy	Min. Input Frequency	Sensitivity
100Hz	0.01Hz	$\pm (0.02\% \text{rdg} + 2 \text{dg})$	10Hz	300mV rms to 5V rms
1kHz	0.1Hz			
10kHz	1Hz			
100kHz	10Hz			
1MHz	100Hz			
10MHz	1kHz			500mV to 5V rms

Overload protection: 500V rms; $<10^{-6}$ V-Hz

True RMS AC coupled 10% to 100% or range					
Range	Resolution	Accuracy			Overload Protection
		@ 50Hz-60Hz	@ 45Hz-5KHz	@ 5KHz-20KHz	
500mV	100 μ V	$\pm(1.0\%rdg + 5\text{ dg})$	$\pm(1.5\%rdg + 5\text{ dg})$	$\pm(3\%rdg + 5\text{ dg})$	
5V	1mV				
50V	10mV				
500V	100mV				
750V	1V	$\pm(2\%rdg + 5\text{ dg})$ @45Hz-1kHz			

Input impedance: 10M Ω (1000M Ω of 500mV range) less than 100pF

AC Current (Frequency Range: 45Hz-2MHz)			
Range	Resolution	Accuracy	Overload Protection
5000 μ A	1 μ A	$\pm(1.5\%rdg + 5dg)$	1A/600V High
500mA	100 μ A		Energy fused
10A	10mA		15A/600V High
			Energy fused

Diode Check			
Range	Resolution	Accuracy	Test Current
	1mV	$\pm(1.0\%rdg + 2dg)$	Approx. 1.65mA
			<3.3V

Overload protection: 500Vrms AC or 500VDC

DC Current			
Range	Resolution	Accuracy	Overload Protection
5000 μ A	1 μ A	$\pm(0.5\%rdg + 2dg)$	1A/600V High
500mA	100 μ A		Energy fused
10A	10mA		15A/600V High
			Energy fused

dBm			
Range	Resolution	References	Accuracy
50dBm	0.01dBm	20 References	$\pm 0.3dBm$
>50dBm	0.1 dBm	4 Ω - 1200 Ω	

The twenty reference impedances are 4 Ω , 8 Ω , 16 Ω , 32 Ω , 50 Ω , 75 Ω , 93 Ω , 110 Ω , 125 Ω , 135 Ω , 150 Ω , 200 Ω , 250 Ω , 300 Ω , 500 Ω , 600 Ω , 800 Ω , 900 Ω , 1000 Ω , and 1200 Ω

DC Voltage (Autorange)			
Range	Resolution	Accuracy	Input Impedance
500mV	100 μ V	$\pm(0.1\%rdg + 1 dg)$	1000M Ω
5V	1mV		11M Ω
50V	10mV		10M Ω
500V	100mV		
1000V	1V		

Overload Protection: 1200VDC or 850VAC rms (5V to 1000V) 500VDC or 350VAC rms (500mV)

Resistance (Auto-Ranging)				
Range	Resolution	Accuracy	Max. Test Voltage	Overload Protection
500 Ω	0.1 Ω	$\pm(0.5\%rdg + 3dg)$	3.3V	500VDC or 500VAC rms
5k Ω	1 Ω	$\pm(0.6\%rdg + 2dg)$	1.28V	
50k Ω	10 Ω			
500k Ω	100 Ω			
5M Ω	1k Ω	$\pm(0.8\%rdg + 2dg)$		
50M Ω	10k Ω	$\pm(3.0\%rdg + 5dg)$		

Capacitance Measurement(Auto-ranging)			
Range	Resolution	Accuracy*	Overload Protection
5nF	1pF	$\pm(2.0\%rdg + 4dg)$	500VDC or 500VAC rms
50nF	10pF		
500nF	100pF		
5000nF	1nF		
50 μ F	10nF		
500 μ F	100nF	$\pm(3\%rdg + 5dg)$ at <2mF, >2mF No Spec	
5000 μ F	1 μ F		
50mF	10 μ F		

* Film Capacitor or better

*For 5nF to 500nF Temp. Coef.=0.15 (specified accuracy)/ $^{\circ}C$

*For 500nF to 50mF Temp Coef.=0.3 (specified accuracy)/ $^{\circ}C$

Audible Continuity Test			
Range	Resolution	Description	Max. Test Current
	1mV	Built-in buzzer sounds when reading is below approx. 100mV	1.65mA
			3.3V

Overload protection: 500V rms AC or 500VDC

SIZE	DWG. NO.	ELECTRONIC FILE		REV
A	72-2040A	84N1412.dwg		A
SCALE:	NTS	U.O.M.: INCHES [mm]	SHEET:	2 OF 2