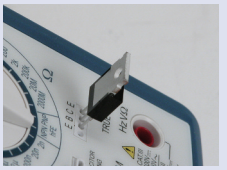
Data Sheet

Manual Ranging Tool Kit® DMM with Transistor Test

Model 2704C

hFE Transistor Test



Measures common-emitter gain.

The 2704C has all of the functionality for basic DMM applications including some high end features you might not expect. The 2000 count LCD can display resistance values up to 2 GΩ, capacitance to 20 uF or a transistors common-emitter gain value up to 1000. Value-packed features make this meter a must in every "Tool Kit®".

Features

- Magnetic hanger
- AC voltage to 750 V
- Capacitance to 20 uF
- Diode test
- hFE Transistor test
- One-handed operation
- Measures up to 10 A (AC & DC)
- DC voltage to 1000 V
- Resistance to 2000 MΩ
- Continuity test
- Logic test

Specifications

	model 2704C
DC Volts	
Ranges	200 mV, 2 V, 20 V, 200 V, 1000V
Resolution	0.1 mV, 1 mV, 10 mV, 100 mV, 1 V
Accuracy	±(0.8 % rdg + 1 dgts)
Input Impedance	10 MΩ
Overload Protection	1000 VDC or 750 VACrms*
AC Volts (50 Hz-500 Hz)	
Ranges	200 mV, 2 V, 20 V, 200 V, 750V
Resolution	0.1 mV, 1 mV, 10 mV, 100 mV, 1 V
Accuracy	200 mV & 20 V ranges: ±(1.5 % rdg + 5 dgts) 200 V & 750 V ranges: ±(2.0 % rdg + 5 dgts)
Input Impedance	10 MΩ
Overload Protection	1000 VDC or 750 VACrms*
DC Current	
Ranges	20 mA, 200 mA, 10 A
Resolution	10 uA, 100 uA, 10 mA
Accuracy	20 mA to 200 mA ranges: ±(1.0 % rdg + 1 dgts) 10 A range: ±(3.0 % rdg + 3 dgts)
Input Protection	0.5 A/500 V & 10 A/600 V fast blow ceramic fuses
10A Input	10 A for 60 sec max. followed by a 10 minute cooling period
AC Current (50 Hz-500 Hz)	
Ranges	20 mA, 200 mA, 10 A
Resolution	10 uA, 100 uA, 10 mA
Accuracy	20 mA to 200 mA ranges: ±(2.0 % rdg + 5 dgts) 10 A range: ±(3.0 % rdg + 5 dgts)
Input Protection	0.5 A/500 V & 10 A/600 V fast blow ceramic fuses
10A Input	10 A for 60 sec max. followed by a 10 minute cooling period
Resistance	
Ranges	200 Ω, 2 kΩ, 200 kΩ, 20 MΩ, 2000 MΩ
Resolution	0.1 Ω, 1.0 Ω, 100 Ω, 10 kΩ, 1 MΩ
Accuracy	200 Ω to 200 kΩ ranges: ±(1.0 % rdg + 4 dgts) 20 MΩ range: ±(2.0 % rdg + 4 dgts) 2000 MΩ range: ±(5.0 % rdg + 10 dgts)
Open Circuit Voltage (typical)	0.3 VDC (3.0 VDC on 200 Ω, 2000 MΩ range)
Overload Protection	500 VDC/ACrms
Capacitance	
Ranges	2 nF , 20 nF, 200 nF, 2.0 uF, 20 uF
Resolution	1 pF, 10 pF, 100 pF, 1 nF, 10 nF
Accuracy	±(4 % rdg + 10 dgts)
Overload Protection	Discharge capacitor before connecting
Frequency	
Ranges	2 kHz, 20 kHz, 200 kHz, 2 MHz, 20 MHz
Resolution	1 Hz, 10 Hz, 100 Hz, 1 kHz, 10 kHz
Accuracy	±(0.1 % rdg + 3 dgts)
Sensitivity	2.0 Vrms minimum
Minimum Pulse Width	>25 ns
Duty Cycle Limits	>30 % and <70 %
Overload Protection	500 VDC/AC rms
Diode Test	
Test Current	1.0 mA (typical)
Resolution	10 mV
Accuracy	±(1.5 % rdg + 3 dgts)
Open Circuit Voltage	3.0 VDC (typical)
Overload Protection	500 VDC/ACrms
Continuity	
Audible Indication	Less than 100 Ω
Response Time	100 ms
Overload Protection	500 VDC/ACrms
Transistor hFE	
Range	0 to 1000
Base Current	Approximately 10 uADC (V_{CE} = 3.0 VDC)
Logic Test	
Threshold	Logic Hi (2.8 V ±0.8 V) / Logic Lo (0.8 V ±0.5 V)
Indication	40 msec beep at logic Lo
Overload Protection	500 VDC/AC rms
General	
Display	3 1/2 digit, 2000 count LCD
Polarity	Automatic, positive implied, negative polarity indication
Overrange	OL or -OL is displayed
Low Battery Indication	Battery symbol will display when battery voltage drops below operating levels
Measurement Rate	2.5 times per second
Operating Environment	0°C to 50°C at <70 % relative humidity
Storage Environment	-20°C to 60°C at 0 to 80 % relative humidity
Accuracies	Stated accuracy at 23°C +5°C at <75 % relative humidity
Temperature Coefficient	0.1 x (specified accuracy) per °C. (°C to 18°C, 28°C to 50°C)
Power	Single standard 9 volt battery, NEDA 1604, JIS 006P, IEC 6F22
Battery Life	150 hours typical
Dimensions	165 mm (H) x 78 mm (W) x 42.5 mm (D)
Weight	Approximately 10 oz. (285 g) with battery and hanger

Three-Year Warranty

Supplied Accessories: User manual, one set of test leads, one spare fuse, and 9V battery (installed)

*= 600 VDC/Acrms for 15 seconds on 200 mV range

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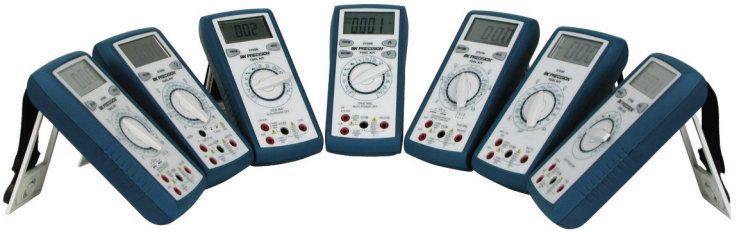
B&K Precision's 2700 Tool Kit® Series

Models 2703C, 2704C, 2705B, 2706B, 2707B, 2708B, 2709B & 2712

These excellent meters are for most jobs that require flexibility, accuracy and speed. Value-packed features make these meters a must for everyone's "Tool Kit®".

Common Features:

- DC Voltage to 1000V
- AC Voltage to 750V
- DC Current to 10A
- Continuity test
- Diode test
- Drop resistant case
- Magnetic hanging strap



Magnetic Hanging Strap

This convenient feature allows you to hang your DMM on any magnetic metallic surface freeing up your hands for troubleshooting.

Back Light / Easy-to-Read LCD

Model 2706B

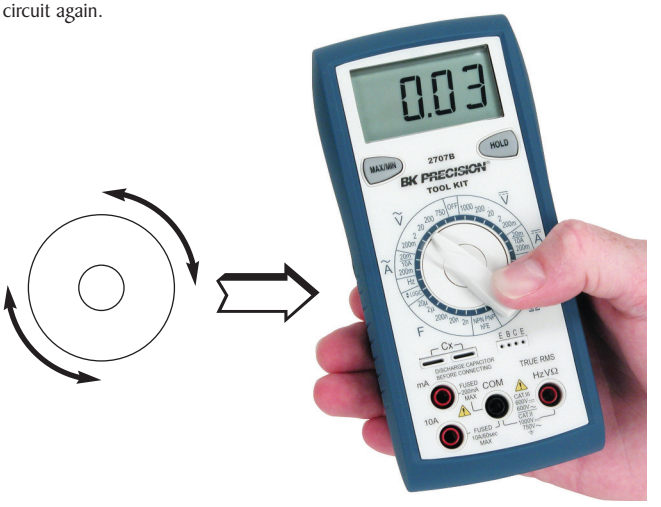
Ultra-bright blue LCD back light for low ambient light measurements

Models 2709B & 2712

Large easy-to-read LCD with green LED backlight

Single-handed operation

The ergonomic design allows both left and right handed users to rotate the knob while holding the meter in one hand. While one hand keeps the probe on the circuit, the other hand changes the meter's function. This speeds up troubleshooting because you don't have to locate the probe point in the circuit again.



Features

	2712	2709B	2708B	2707B	2706B	2705B	2704C	2703C
	models							
Ranging	Auto/Manual	Auto/Manual	Auto/Manual	Manual	Manual	Auto/Manual	Manual	Manual
True RMS	AC + DC	√	√	√	-	-	-	-
Current	10 A AC/DC	10 A AC/DC	10 A AC/DC	10 A AC/DC	200 mA AC/DC	10 A AC/DC	10 A AC/DC	10 A DC
Capacitance	to 40 uF	to 66 mF	-	to 20 uF	to 20 mF	-	to 20 uF	-
Transistor Test	-	-	-	√	-	-	√	-
Frequency Counter	to 500 kHz	to 66 MHz	-	to 20 MHz	to 40 kHz	-	to 20 MHz	-
Temperature	-	-	-	-	√	-	-	-
Logic Probe	-	-	-	√	-	-	√	-
Backlight LCD	√	√	-	-	√	-	-	-
Analog Bar Graph	√	-	√	-	-	-	-	-
Battery Test	-	-	-	-	-	-	-	√
Auto Power off	√	√	√	-	√	√	-	-

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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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