

Data Sheet

Auto Ranging Tool Kit® DMM

Model 2705B



The 2705B is a full-featured auto-ranging DMM that combines performance, value and functionality. The 3400 count LCD can display resistance values up to 40 M Ω . With the auto-power-off feature, you won't have to worry about accidental battery consumption. Value-packed features make this meter a must in every "Tool Kit".

Features

- Magnetic hanger
- One-handed operation
- Auto/manual ranging
- Auto power off
- Measures up to 10 A (AC & DC)
- DC voltage to 1000 V
- AC voltage to 750 V
- Resistance to 40 M Ω
- Continuity test
- Diode test

Specifications

model

2705B

DC Volts

Ranges	400 mV, 4 V, 40 V, 400 V, 1000V
Resolution	0.1 mV, 1 mV, 10 mV, 100 mV, 1 V
Accuracy	$\pm(1.0 \% \text{ rdg} + 2 \text{ dgts})$
Input Impedance	400 mV: $>100 \text{ M}\Omega$; 4 V: $10 \text{ M}\Omega$; 40 V to 1000 V: $9.1 \text{ M}\Omega$
Overload Protection	1000 VDC or 750 VACrms

AC Volts (50 Hz-500 Hz)

Ranges	400 mV, 4 V, 40 V, 400 V, 750V
Resolution	0.1 mV, 1 mV, 10 mV, 100 mV, 1 V
Accuracy	50 Hz to 100 Hz $\pm(2.0 \% \text{ rdg} + 5 \text{ dgts})$
Input Impedance	400 mV: $>100 \text{ M}\Omega$; 4 V: $10 \text{ M}\Omega$; 40 V to 750 V: $9.1 \text{ M}\Omega$
Overload Protection	1000 VDC or 750 VACrms

DC Current

Ranges	400 μA , 4000 μA , 40 mA, 400 mA, 10 A
Resolution	0.1 μA , 1 μA , 10 μA , 100 μA , 10 mA
Accuracy	400 μA to 400 mA ranges: $\pm(2.0 \% \text{ rdg} + 2 \text{ dgts})$ 10 A range: $\pm(3.0 \% \text{ rdg} + 3 \text{ dgts})$
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	400 μA , 4000 μA , 40 mA, 400 mA, 10 A
Resolution	0.1 μA , 1 μA , 10 μA , 100 μA , 10 mA
Accuracy	400 μA to 400 mA ranges: $\pm(2.5 \% \text{ rdg} + 5 \text{ dgts})$ 10 A range: $\pm(3.5 \% \text{ rdg} + 5 \text{ dgts})$
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	400 Ω , 4 k Ω , 40 k Ω , 400 k Ω , 40 M Ω
Resolution	0.1 Ω , 1.0 Ω , 10 Ω , 100 Ω , 10 k Ω
Accuracy	400 Ω to 400 k Ω ranges: $\pm(1.5 \% \text{ rdg} + 4 \text{ dgts})$ 4 M Ω range: $\pm(2.5 \% \text{ rdg} + 4 \text{ dgts})$ 40 M Ω range: $\pm(5.0 \% \text{ rdg} + 4 \text{ dgts})$
Open Circuit Voltage (typical)	-0.45 VDC (-1.2 VDC on 400 Ω range)
Overload Protection	500 VDC/ACrms

Diode Test

Test Current	1.0 mA (typical)
Resolution	10 mV
Accuracy	$\pm(3.0 \% \text{ rdg} + 3 \text{ dgts})$
Audible Indication	$<0.25 \text{ V}$
Open Circuit Voltage	3.0 VDC (typical)
Overload Protection	500 VDC/ACrms

Continuity

Audible Indication	Less than 25 Ω
Response Time	500 ms
Overload Protection	500 VDC/ACrms

General

Display	3 3/4 digit, 4000 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 times per second
Auto Power Off	Approximately 10 minutes
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 $\pm 5^\circ\text{C}$ at $<75 \%$ relative humidity
Temperature Coefficient	0.1 x (specified accuracy) per $^\circ\text{C}$. ($^\circ\text{C}$ to 18°C, 28°C to 50°C)
Power	Single standard 9 volt battery, NEDA 1604, JIS 006P, IEC 6F22
Battery Life	200 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)

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

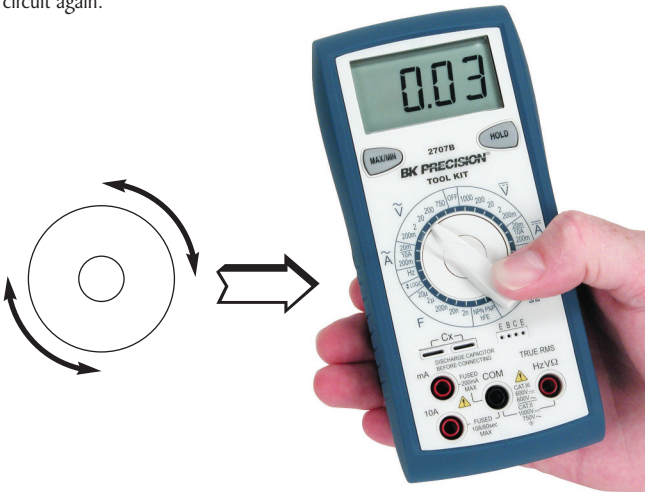
Models 2709B & 2712



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

	models							
	2712	2709B	2708B	2707B	2706B	2705B	2704C	2703C
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	√	√	√	-	√	√	-	-