

# Manual Supplement

Manual Title:	742A	Supplement Issue:	<b>3</b>
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This supplement contains information necessary to ensure the accuracy of the above manual. Enter the corrections in the manual if either one of the following conditions exist:

1. The revision letter stamped on the indicated PCA is equal to or higher than that given with each change.
2. No revision letter is indicated at the beginning of the change.

## Change #1

On page 5, under Cable Recommendations,

Change: For optimum results, use two sets of the Fluke 5440A-7004.....

To: For optimum results, use two sets of the Fluke 5440A-7002.....

## Change #2

On page 2, replace the entire table with the following:

**Table 1. 742 Series Resistance Standard Specifications**

MODEL	NOMINAL RESISTANCE AT 23 °C	DEVIATION FROM NOMINAL (PPM)	TIME STABILITY		CALIBRATION UNCERTAINTY	MAXIMUM DEVIATION FROM THE 23 °C VALUE (18 to 28 °C)	MAXIMUM CURRENT (VOLTAGE)	± 1 PPM ERROR ADDER WHEN CURRENT EXCEEDS THE FOLLOWING
			180 DAY	1 YEAR				
742A-1	1Ω	17	±5.0 ppm	±8.0 ppm	±1.0 ppm	3.0 ppm	500 mA (500mV)	200 mA
742A-1.9	1.9Ω	17	±5.0 ppm	±8.0 ppm	±1.0 ppm	3.0 ppm	200 mA (380mV)	100 mA
742A-10	10Ω	17	±5.0 ppm	±8.0 ppm	±1.0 ppm	3.0 ppm	100 mA (1V)	20 mA
742A-25	25 Ω	17	±5.0 ppm	±8.0 ppm	±1.0 ppm	3.0 ppm	40 mA (1V)	8 mA
742A-100	100Ω	13	±4.0 ppm	±6.0 ppm	±1.0 ppm	3.0 ppm	20 mA (2V)	5 mA
742A-1k	1 kΩ	14	±4.0 ppm	±6.0 ppm	±1.5 ppm	2.0 ppm	10 mA (10V)	2 mA
742A-10k	10 kΩ	9	±2.5 ppm	±4.0 ppm	±1.0 ppm	1.5 ppm	3 mA (30V)	600μA
742A-19k	19 kΩ	10	±2.5 ppm	±4.0 ppm	±1.5ppm	2.0 ppm	1.5 mA (28.5V)	600 μA
742A-100k	100 kΩ	15	±4.0 ppm	±6.0 ppm	±2.5 ppm	2.0 ppm	1 mA (100V)	400 μA
742A-1M	1 MΩ	21	±6.0 ppm	±8.0 ppm	±5.0 ppm	2.0 ppm	100 μA (100V)	100 μA
742A10M	10 MΩ	28	±6.0 ppm	±9.0 ppm	±10.0 ppm	4.0 ppm	20 μA (200V)	20 μA
742A-19M	19 MΩ	40	±8.0 ppm	±10.0 ppm	±20.0 ppm	5.0 ppm	10 μA (190V)	10 μA

**GENERAL SPECIFICATION:**

**Accuracy:** The measured value is printed on the report of calibration.

**Retrace Error (Hysteresis):** 23 °C-18 °C cycle: Negligible resistance shift  
23 °C-28 °C cycle: Negligible resistance shift  
23 °C-0 °C-23 °C cycle: <2 ppm resistance shift  
23 °C-40 °C-23 °C cycle: <2 ppm resistance shift

**Operating Temperature Range:** 23 ± 5 °C

**Storage Temperature Range:** 0 to 40 °C

**Report of Calibration:** The report of calibration includes a table of resistance values in 0.5° increments from 18 to 28 °C

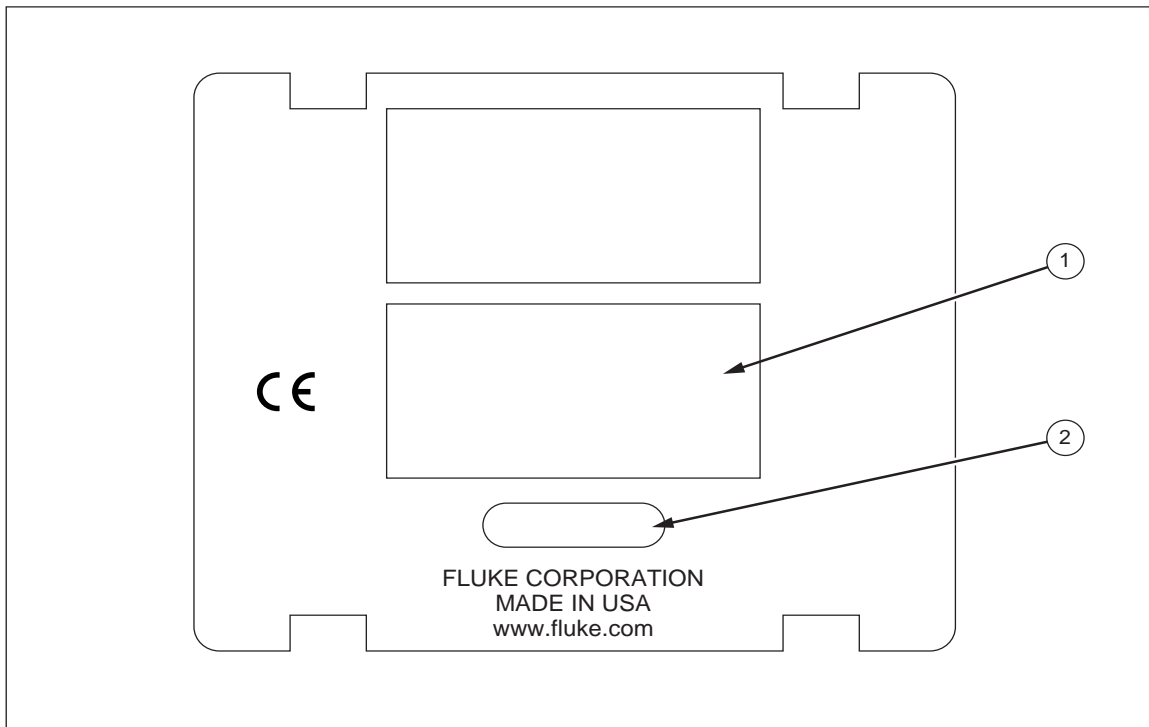
**Size:** 8.6 cm H x 10.5 cm W x 12.7 cm L (including binding posts)

(3.4 in H x 4.15 W x 5 in L (including binding posts)

Binding posts; 2.5 cm (1.0 in)

**Weight:** 0.68 to 0.91 kg (1.5 to 2.0 lbs), depending on model

On page 4, replace Figure 2 and Table 3, with the following:



**Figure 2. Typical Rear Panel View**

fig2.eps

**Table 3. Contents of the Rear Panel Labels**

REF NO.	LABEL INFORMATION
①	Fluke Primary Standards Lab Calibration Label documents traceability to the U.S. National Institute of Standards and Technology [NIST].
②	Serial number label. Shows the standard's serial number. This number and the full model number (i.e., 742A-1) positively identify a particular unit.