

 Practical Instrument Electronics	MODEL 512 FIELD CALIBRATION PROCEDURE	DOCUMENT NO. 512-0300	841 Holt Road Suite 1 Webster New York 14580 Business: (585) 872-9350 Fax: (585) 872-2638
Created by: M. Kieck	DATE: 10-15-03	Sheet 1 of 3	

Rev.	Date	Appd	BRIEF CHANGE DESCRIPTION
A	10-15-03	MJK	INITIAL RELEASE
B	7-28-04	LBD	UPDATES AND ADDED FIGURES
C	5-5-05	MJK	REQUIRED EQUIPMENT CHANGED

Equipment Needed:

1. Precision OHM Meter with accuracy of 0.0068% at 400Ω.
2. Precision OHM Source with accuracy of 0.0068% at 400Ω.

Enabling Calibration:

Place in a fresh battery and allow 15 minutes for the Model 512 to stabilize to the ambient temperature. Remove the EZ-Dial™ Knob, battery cover and the four black Phillips head screws. While holding the Model 512 face down in one hand, carefully separate the top and bottom of the housing. Place the unit into calibration mode by shorting the calibration via located on the bottom right side on the PCB with tweezers and turning the UUT on. Verify the Model 512 is in calibration mode by viewing the bottom center of the LCD for the word “CAL”.

Simulate Ω Calibration:

Connect the Model 512 terminals to an OHM Meter in four-wire configuration (See Figure 1). Switch the Model 512 to SIMULATE Mode.

LO Calibration:

1. Slide the EZ-Check™ Switch to the LO position indicated by displaying a “LO” on the left side of the LCD.
2. Dial the Model 512 so the meter reads 0.00 Ω.
3. Press the EZ-Dial™ Knob down.
4. The display will flash “STORED” to confirm that the value was stored.

HI Calibration:

1. Slide the EZ-Check™ Switch to the HI position indicated by displaying a “HI” on the left side of the LCD.
2. Dial the Model 512 so the meter reads 400.00 Ω.
3. Press the EZ-Dial™ Knob down.
4. The display will flash “STORED” to confirm that the value was stored.

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Read Ω Calibration:

Switch the Model 512 into READ Mode.

LO Calibration:

1. Slide the EZ-Check™ switch to the LO position indicated by displaying a “LO” on the left side of the LCD.
2. Short all 4 input terminals of the UUT.
3. Press the EZ-Dial™ Knob down.
4. The display will flash “STORED” to confirm that the value was stored.

HI Calibration:

1. Slide the EZ-Check™ switch to the HI Position indicated by displaying a “HI” on the left side of the LCD.
2. Connect a precision 400 Ω standard resistor to the UUT (See Figure 2).
3. Press the EZ-Dial™ Knob down.
4. The display will flash “STORED” to confirm that the value was stored.

Completion of Calibration:

Turn the Model 512 OFF. Next time the unit is turned on the Model 512 will be calibrated and in normal operational mode.

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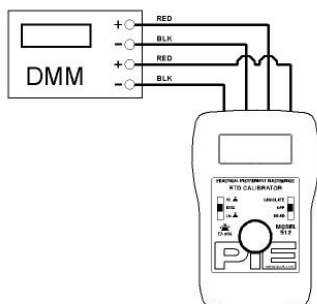


FIGURE 1 (Source OHM)

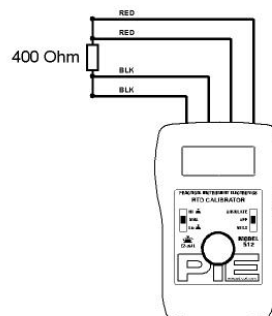


FIGURE 2 (Read OHM)