Practical Instrument Electronics	**MODEL 535 FIELD CALIBRATION PROCEDURE**	DOCUMENT NO. **535-0300**	841 Holt Road Suite 1 Webster New York 14580 Business: (585) 872-9350 Fax: (585) 872-2638
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Rev.	Date	Appd	BRIEF CHANGE DESCRIPTION
A	6-18-02	MJK	INITIAL RELEASE
B	7-28-04	LBD	UPDATES
C	2-22-06	LBD	NEEDED EQUIPMENT UPDATED

Equipment Needed:

1. DMM with accuracy of ± 0.0083% of reading at 5V.
2. 100Ω standard resistor with accuracy and stability of ±0.003% between 18°C and 28°C.
3. DC Voltage source 0 to 60V with resolution of 0.001V and accuracy of ±0.0104% of reading at 60V.
4. DC Current source 0 to 50.000mA with resolution of 0.001mA (accuracy is irrelevant).

Enabling Calibration:

Place in fresh batteries and allow one hour for the Model 532 to stabilize to the ambient temperature. Remove the battery cover and the six black Phillips head screws. While holding the Model 532 face down in one hand, carefully separate the top and bottom of the housing. Place the unit into calibration mode by holding down the ON/OFF button and shorting the calibration via labeled on the PCB with tweezers. Verify the Model 532 is in calibration mode by viewing the bottom right of the LCD for the word "CAL".

Read mA Calibration:

Press the READ Button until "mA Read" appears in the bottom right corner of the LCD.
Connect the Model 535 terminals to a Voltage Source (See Figure 1).

LO Calibration:

1. Open the lead on the Model 535.
2. Slide the EZ-Check™ Switch to the LO position indicated by displaying a "LO" on the left side of the LCD.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed value was stored.

HI Calibration:

1. Connect a Current Source in series with a 100 Ω resistor and the UUT. Monitor the current by placing a DVM in parallel with the 100Ω resistor (See Figure 1).
2. Slide the EZ-Check™ switch to the HI position indicated by displaying a "HI" on the left side of the display.
3. Set the current source for 5.000 V on the DVM.
4. Press the STORE/CLEAR Button.
5. The display will flash "STORED" to confirm that the displayed value was stored.

Read DC Voltage Calibration:

Press the READ Button until "V Read" appears on the bottom right side of the LCD.
Connect the Model 535 terminals to a DC Voltage Source (See Figure 2).

LO Calibration:

1. Slide the EZ-Check™ switch to the LO position indicated by displaying a "LO" on the left side of the display.
2. Set the Voltage Source to 0.000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed 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 display.
2. Set the Voltage Source to 60.000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed value was stored.

Source mA Calibration:

Press the SOURCE Button until "mA SOURCE" appears on the bottom right side of the LCD.
Connect the Model 535 terminals to a Current Meter (See Figure 3).

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 535 so the meter reads 0.0000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed 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 display.
2. Dial the Model 535 so the meter reads 5.0000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed value was stored.

Two Wire Simulation Calibration:

Press the SOURCE Button until "mA 2W SIM" appears on the bottom right side of the LCD. Connect the DVM parallel with the 100Ω resistor (See Figure 4).

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 535 so the meter reads 1.0000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed 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 535 so the meter reads 5.0000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed value was stored.

Source Voltage Calibration:

Press the SOURCE Button until "V SOURCE" appears on the bottom right side of the LCD. Connect the Model 535 terminals to a Voltage Meter (See Figure 5).

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 535 so the meter reads 0.000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed 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 535 so the meter reads 24.000 V.
3. Press the STORE/CLEAR Button.
4. The display will flash "STORED" to confirm that the displayed value was stored.

Completion of Calibration:

Turn the Model 535 OFF. Next time the unit is turned on the Model 535 will be calibrated and in normal operational mode.

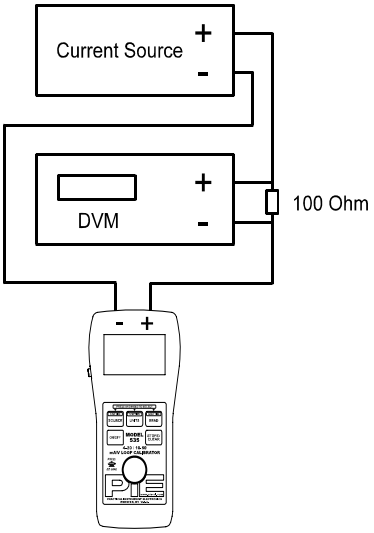

FIGURE 1 (Read mA)

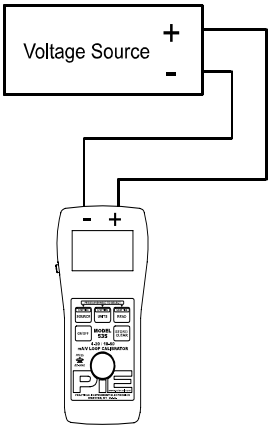

FIGURE 2 (Read V)

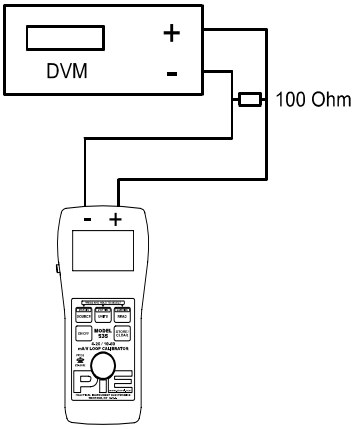

FIGURE 3 (Source mA)

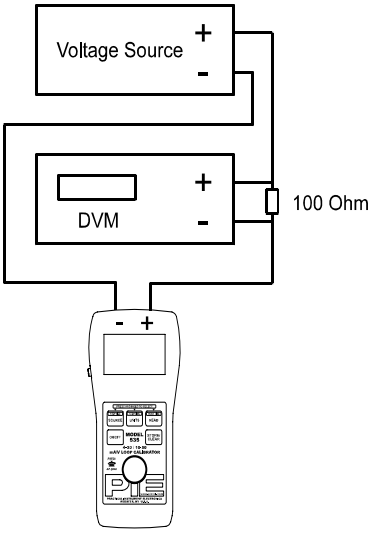

FIGURE 4 (2-Wire)

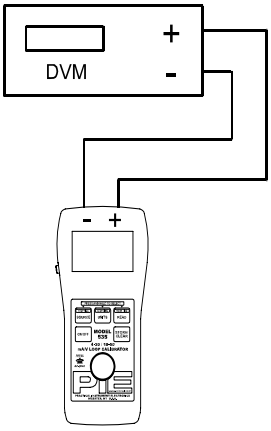

FIGURE 5 (Source V)