

BK 2712 CALIBRATION PROCEDURE

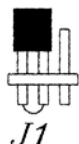
Before removing the BK 2712 from service check that the necessary calibration requirement, listed below, is available.

FLUKE 5500A AUTOCAL MULTIFUNCTION CALIBRATOR

Perform calibration at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and at relative humidity $< 70\%$. Allow the meter to stabilize at this temperature for at least 30 minutes prior to performing the calibration procedure.

CALIBRATION:

Step 1: Set the function switch to OFF position. Remove the case bottom. Set the 3-pin short circuit connector, mounted on upper left side of PC board, from J2 to J1 position. Replace the case bottom of the meter.



Step 2: Press MAX/MIN button while turning on the meter from OFF to any position. Release the MAX/MIN button when the LCD displays normally.

Step 3: Set the function switch to DC mA range for Auto Zero Adjustment. Press HOLD button once, and a beep sound is audible indicating that the setting is saved. The HOLD symbol appears in the display. Wait for about 5 seconds, and press HOLD button again. The HOLD symbol in the display disappears, and Zero Adjustment begins. Wait for about 5 seconds until the reading in the display descends to less than 10 counts. Zero Adjustment is completed.

Step 4: DCV Auto Adjustment

Set the function switch to DCV range. Press RANGE button to select the 400mV range.

- a. On 400mV range: Apply DC +389.80mV to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select the next range.
- b. On 4V range: Apply DC +3.9000V to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select the next range.
- c. On 40V range: Apply DC +39.000V to the meter. Press HOLD button to save the setting

(a beep sound is audible). The HOLD symbol appears on the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select the next range.


- d. On 400V range: Apply DC +390.00V to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select the next range.
- e. On 1000V range: Apply DC +600.0V to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.
- f. After above 5 steps are completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the DCV auto calibration is completed.


Step 5: ACV Auto Adjustment

Set the function switch to ACV range. Press RANGE button to select the 4V range.

- a. On 4V range: Apply AC +3.9150V/50Hz to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.
- b. After above step is completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the ACV auto calibration is completed.

Step 6: ACV+DCV () Auto Adjustment

Set the function switch to DCV range. Press ACV+DCV () button to select the ACV+DCV function. Press RANGE button to select 1000V range.

- a. On 1000V range: Apply DC 0mV to the meter. After 30 seconds when the LCD is settled, press HOLD button to save the setting (a beep sound is audible), and the HOLD symbol appears in the display. Press HOLD button again, and the HOLD symbol in the display disappears. Zero adjustment is completed. Press RANGE button to select 4V range.
- b. On 4V range: Apply DC +3.9000V to the meter. Press HOLD button to save the setting (a beep sound is audible), and the HOLD symbol appears in the display. Press HOLD button again, and the HOLD symbol in the display will disappear.
- c. After above 2 steps are completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the ACV+DCV () auto calibration is completed.

Step 7: DC 400mA and AC 40mA Auto Adjustment

Set the function switch to DC/AC mA range. Press DCA/ACA button to select DCA function, and press RANGE button to select 400mA range.

- a. On DC 400mA range: Apply DC +389.50mA to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press DCA/ACA button to select ACA function, and press RANGE button to select 40mA range..
- b. On AC 40mA range: Apply 39.100mA/50Hz to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.
- c. After above 2 steps are completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the DC 400mA and AC 40mA auto calibration is completed.

Step 8: DC 10A Auto Adjustment

Set the function switch to DC 10A range.

- a. On DC 10A range: Apply DC +1.999A to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.
- b. After above step is completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the DC 10A range auto calibration is completed.

Step 9: Ohm (Ω) Auto Adjustment

Set the function switch to OHM (Ω) range. Press RANGE button to select 40K Ω range.

- a. On 40K Ω range: Apply 20.000K Ω to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.
- b. After above step is completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the Ohm (Ω) range auto calibration is completed.

Step 10: Capacitance Auto Adjustment

Set the function switch to Capacitance range. Press RANGE button to select the 40nF range.

- a. On 40nF range: Insert a standard 20.00nF capacitor to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select 400nF range.
- b. On 400nF range: Insert a standard 200.0nF capacitor to the meter. Press HOLD button to save the setting (a beep sound is audible). The HOLD symbol appears in the display. Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed. Press RANGE button to select 40 μ F range.
- c. On 40 μ F range: Insert a standard 20.00 μ F capacitor to the meter. Press HOLD button to

save the setting (a beep sound is audible). The HOLD symbol appears in the display.

Press HOLD button again to delete the HOLD symbol in the display, and adjustment is completed.

- d. After above 3 steps are completed, press BACKLIGHT button to save the setting (a beep sound is audible), and the Capacitance auto calibration is completed.

Step 11: Calibration on all functions has been completed. Set the Function Switch back to OFF.

Remove the case bottom. Set the 3-pin short circuit connector on PC board from J1 to J2 position. Replace the case bottom.

