

AM-140A & AM-160-A Calibration Procedures

Periodic calibration is required to conduct correct measurement. This instrument needs periodic calibration at intervals of one year. Calibrate the instrument according to the following procedures.

Cautions

- Calibrate the instrument at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and humidity of 75% R.H. or less.
- Erroneous calibrating operation may lead to the incorrect performance and measurement.

1) Start calibration mode

- 1-1) Turn Rotary Knob to "OFF" position.
- 1-2) Press and hold "SELECT" and "HOLD" buttons, and then turn Rotary Knob from "OFF" to "Ω" function position within one second.
- 1-3) If "250.00Ω" is displayed, then the meter enters calibration successfully.

2) Calibration procedures

- 2-1) Turn Rotary Knob to the function you want to calibrate.
- 2-2) Repeat procedure (2-3) to (2-5) till the completion of the function calibration.
- 2-3) Input the standard signals to meter according to the LCD indications (refer to the Calibration Table).
- 2-4) Press "RANGE" and "Hz" buttons simultaneously for ready.
- 2-5) Press "RANGE" and "HOLD" buttons simultaneously for enter.

3) Terminate calibration mode

Turn Rotary Knob to "OFF".

Calibration Table

1. AC VOLTAGE

FUNCTION	ACV
INPUT (1)	AC 2.5000V/50Hz
(2)	AC 25.000V/50Hz
(3)	AC 250.00V/50Hz
(4)	AC 1000.0V/50Hz

2. DC VOLTAGE

FUNCTION	DCV
INPUT (1)	DC 0.0000V
(2)	DC 5.0000V
(3)	DC 50.000V
(4)	DC 500.00V
(5)	DC 1000.0V

3. mV

FUNCTION	DCmV, ACmV, Hz	
INPUT (1)	DC 00.000mV	
(2)	DC 500.00mV	
	BM857a	BM859CFa
ACmV (3)	Input 250.00mV/50Hz and then press "RANGE" and "Hz" buttons at the same time.	Input 0mV and then press "RANGE" and "Hz" buttons at the same time. Tune VR2 till reading = 000.00 mVac
ACmV (4)	Press "RANGE" and "Hold" buttons at the same time.	1. Input AC 250.00mV / 50Hz . 2. Press "RANGE" and "HOLD" buttons simultaneously
Hz (5)	20.000Hz/5V square wave	

4. CAPACITANCE

FUNCTION	Cx
INPUT (1)	00.00nF (open)
(2)	40.00nF
(3)	400.0nF
(4)	4.000uF
(5)	40.00uF
(6)	100.0uF
(7)	1000uF

6. Temperature (BM859CFa only)

FUNCTION	°C
INPUT (1)	0.0°C

7. RESISTANCE

FUNCTION	RESISTANCE
INPUT (1)	250.00Ω
(2)	2.5000kΩ
(3)	25.000kΩ
(4)	250.00kΩ
(5)	2.5000MΩ
(6)	25.000MΩ

8. uA

FUNCTION	uA
INPUT (1)	DC 5000.0uA
(2)	DC 5000.0uA
(3)	AC 250.00uA/50Hz
(4)	AC 2500.0uA/50Hz

9. mA

FUNCTION	mA
INPUT (1)	DC 50.000mA
(2)	DC 250.00mA
(3)	AC 25.000 mA
(4)	AC 250.00 mA

10. A

FUNCTION	A
INPUT (1)	DC 5.0000A
(2)	DC 10.000A
(3)	AC 2.5000A/50Hz
(4)	AC 10.000A/50Hz

Additional calibration procedures for BM859CFa ACV only

FUNCTION	ACV	
INPUT (1)	AC 250.0V/20kHz	Adjust VC1 till reading = 250.0V
(2)	AC 25.00V/20kHz	Adjust VC3 till reading = 25.00V
(3)	AC 2.500V/20kHz	Adjust VC2 till reading = 2.500V