Calibrating Instruction

Part Number: 72-7222

OHM

1. Inspection Item:

Diode, Continuity Buzzer and Resistance

2. Calibrating Instruments:

1. Standard IN4007 Diode and 10Ω Resistor.
2. One set of standard 10 series single resistor or a resistance box

3. Calibrating Procedures:

Turn the rotary switch to Ω, range, connect tested resistors or diode to VΩHz → COM one by one corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjusting Parts	Notes
1		OL	Forward Voltage Drop	0.5V ~ 0.8V	-	-	-	-
2			10Ω resistor	It must beep				>10Ω not necessarily beep
3	200Ω		100Ω	(99.0~101.0)+R	5	±(1.2%+2)		-
4	2KΩ		1kΩ	0.992 ~ 1.008	4	±(1%+2)		
5	20KΩ		10kΩ	9.92~10.08				
6	200KΩ		100kΩ	99.2~100.8				
7	2MΩ		1MΩ	0.990~1.01		±(1.2%+2)		
8	20MΩ		10MΩ	9.88~10.12	6	±(1.5%+2)		

Remarks:

1) The test readings hereinbefore are compressed as a rate of 70%. When the specification can not reach the requirement, inform the engineers to broaden the relevant specification, then carry out the specification as clients required.
2) R is the display value when input terminals are short-circuited

4. Notes

1. Be sure display for no input signal becomes steady before inputting stated value.
2. Pack the reading after the input value becomes steady, and bouncing digits are less than bouncing value.
3. Calibrate the Meter on/in bubble bags, and put defects or eligible meters into different plastic box orderly with bags on.
4. Before the calibrator gives input to the Meter, make sure a proper function has been selected, forbid output first or change function in output state.
5. Inspect the LCD display when opening the Meter, there should be no extra stroke, shadow, leakage, scratch, damage or dirt.
6. Turn the Rotary Switch to OFF position or take out the battery after the calibration has been finished.

DCV

1. Inspection Item:

DCV Calibration

2. Calibrating Instruments:

1. NJ19 or YJI90 standard DC voltage & current source
2. Non-inductive screwdriver and 0Ω short-circuit device

3. Calibrating Procedures:

Turn the rotary switch to DCV range, input the tested signal from VΩHz → COM one by one corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjusting Parts	Notes
1	200mV	Short-Circuited ±00.1	100mV	99.3~100.7	4	±(0.8%+3)	VR1	-
2	2V	±0.000	1V	0.995~1.005	3	±(0.8%+1)	-	
3	20V	±0.00	10V	9.95~10.05				
4	200V	±0.00	100V	99.5~100.5				
5	600V	±000	1000V	992~1008	5	±(1%+3)		

Remarks: The test readings hereinbefore are compressed as a rate of 60%.When the specification can not reach the requirements, inform the Engineers to broaden the relevant specification, then carry out the specification as clients required.

4. Notes:

1. Be sure display for no input signal becomes steady before inputting stated value.
2. Pack the reading after the input value becomes steady, and bouncing digits are less than bouncing value.
3. Calibrate the Meter on/in bubble bags, and put defects or eligible meters into different plastic box orderly with bags on.
4. Before the calibrator gives input to the Meter, make sure a proper function has been selected, forbid output first or change function in output state.
5. Inspect the LCD display when opening the Meter, there should be no extra stroke, shadow, leakage, scratch, damage or dirt.
6. Turn the Rotary Switch to OFF position or take out the battery after the calibration has been finishe

ACV

1. Inspection Item:

ACV Calibration

2. Calibrating Instruments:

1. NJ20 or YS200 AC standard voltage & current source
2. Non-inductive screwdriver and 0Ω short-circuit device

3. Calibrating Procedures:

Turn the rotary switch to ACV range, input the tested signal from VΩHz→COM one by one corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjusting Parts	Notes
1	2V	Short-Circuited -0.003~0.003	1.9V/60Hz	1.897~1.903	6	±(1.2%+5)	VR4	-

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjusting Parts	Notes
2	20V	±0.00	19V/60Hz	18.83~19.17	6	±(1.2%+5)	-	-
3	200V	±00.0	190V/60Hz	188.3~191.7				
4	1000V	±000	750V/400Hz	740~760	7	±(1.5%+5)		

Remarks: The test readings hereinbefore are compressed as a rate of 60%. When the specification can not reach the inform the Engineers to broaden the relevant specification, then carry out the specification as clients required.

4. Notes:

1. Be sure display for no input signal becomes steady before inputting stated value.
2. Pack the reading after the input value becomes steady, and bouncing digits are less than bouncing value.
3. Calibrate the Meter on/in bubble bags, and put defects or eligible meters into different plastic box orderly with bags on.
4. Before the calibrator gives input to the Meter, make sure a proper function has been selected, forbid output first or change function in output state.
5. Inspect the LCD display when opening the Meter, there should be no extra stroke, shadow, leakage, scratch, damage or dirt.
6. Turn the Rotary Switch to OFF position or take out the battery after the calibration has been finished.

ACA

1. Inspection Item:

ACA Calibration

2. Calibrating Instruments:

1. YS300 AC clamp calibration meter or FULKE5500/5520
2. 20 times amplification self-made coils
3. Non-inductive flat screwdriver

3. Calibrating Procedures:

Set the rotary switch to ACA range, move the ring sensor horizontally toward the tested instrument and enclose it in the centre, test step by step corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjusting Parts
1	2A	±0.00	0.095A(×20) 50Hz~60Hz	1.859~1.941A	7	±(3%+12)	-
2	20A	±0.00	0.95A(×20) 50Hz~60Hz	18.72~19.28A UT202A (18.72~19.28)		±(2%+8) 72-7218±(2%+5)	VR3
3	200A	±.000	9.5A(×20) 50Hz~60Hz	188.0~192.0A	10	±(1.5%+5) 72-7218 ACA600A ±(2.0%+8)	VR2
4	400A	±00.0	20A(×20) 50Hz~60Hz	393~407A UT202A (391~409)	14		-

Notes: for ACA function, adjust VR2 first(190A/55HZ), then VR3(190A/55HZ);
Remarks:

1. The test readings hereinbefore are compressed as a rate of 60%. When the specification can not reach the requirements inform the Engineers to broaden the relevant specification, then carry out the specification as clients required.
2. To ensure the accuracy, the tested conductor needs to go through the center of clamp vertically. When calibrating AC current, adjust VR2 first and then VR3

4. Notes:

1. Be sure display for no input signal becomes steady before inputting stated value.
2. Pack the reading after the input value becomes steady, and bouncing digits are less than bouncing value.
3. Calibrate the Meter on/in bubble bags, and put defects or eligible meters into different plastic box orderly with bags on.
4. Before the calibrator gives input to the Meter, make sure a proper function has been selected, forbid output first or change function in output state.
5. Inspect the LCD display when opening the Meter, there should be no extra stroke, shadow, leakage, scratch, damage or dirt.
6. Turn the Rotary Switch to OFF position or take out the battery after the calibration has been finished.

°C

1. Inspection Item:

°C, °F Calibration

2. Calibrating Instruments:

1. UJ36a DC protential difference meter and monitoring digital meter.
2. Non-inductive flat screwdriver

3. Calibrating Procedures:

1. Turn the rotary switch to °C range, input the tested signal from VΩHz →COM one by one corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjust-ing Parts	Notes
1	°C	OL	Room Temp.(Insert K type thermocouple probe or short-circuited)°C	Room Temp. ±1°C	1	±(1%+3)	VR6	Only for 72-7222
2			12.21mV	(296~304) +Room Temp.°C	5		VR5	

2. Press “SELECT” to switch into °F range, input the tested signal from VΩHz →COM one by one corresponding to the following table:

Step	Range	Display for No Input	Input Value	Reading Range	Bouncing Digits	Accuracy	Adjust-ing Parts	Notes
1	°C	OL	Room Temp.(Insert K type thermocouple probe or short-circuited)°F	Room Temp. ±1°F	1	±(1%+6)	VR6	Only for 72-7222
2			12.21mV	(565~579) +Room Temp.°F	5		VR5	

Remarks:

1. The test readings hereinbefore are compressed as a rate of 60%. When the specification can not reach the requirements inform the Engineers to broaden the relevant specification, then carry out the specification as clients required.
2. 300°C corresponds to the voltage 12.21mV.

4. Notes:

1. Be sure display for no input signal becomes steady before inputting stated value.
2. Pack the reading after the input value becomes steady, and bouncing digits are less than bouncing value.
3. Calibrate the Meter on/in bubble bags, and put defects or eligible meters into different plastic box orderly in bubble bags.
4. Before the calibrator gives input to the Meter, make sure a proper function has been selected, forbid output first or change function in output state.
5. Inspect the LCD display when opening the Meter, there should be no extra stroke, shadow, leakage, scratch, damage or dirt.
6. Turn the Rotary Switch to OFF position or take out the battery after the calibration has been finished.