

## Adjustment Procedure (Manual procedure)

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### Precaution:

#### 1) Precautions before adjustment:





A. Warm up the device for 60 minutes before adjustment.

B. Retain an ambient temperature of  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , with a relative humidity below 75%.

#### 2) Equipment required:

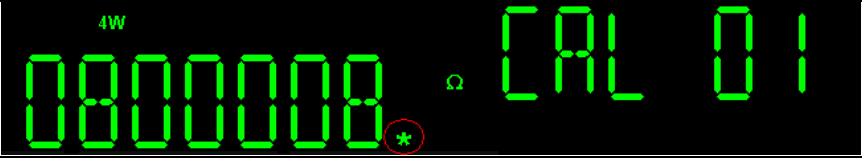
A. Fluke 5720A+ Fluke 5725A( same level or above)

B. Calibration Key(GDM-01)

Step 1	Manual ADJ MODE	<ol style="list-style-type: none"> <li>1. Power off.</li> <li>2. Press and hold “2ND” + POWER ON.</li> <li>3. CAL 01 is displayed on the right upper corner. Hexadecimal encoding value is displayed on the left.</li> <li>4. Release “2ND” to enter manual ADJ MODE</li> </ol>
Step 2	ADJ unlock	<ol style="list-style-type: none"> <li>1. Insert the Calibration Key (GDM-01) into the CAL Key Port on the rear panel of the GDM-825XA.</li> </ol> <div style="text-align: center;">  <p>CAL Key</p> </div>
Step 3	ADJ and SAVE	<ol style="list-style-type: none"> <li>1. Push the Up and Down buttons (   ) to select the CAL CODE.</li> <li>2. Select a CAL CODE and input the corresponding function signal (adjustment item). Please refer to Appendix 1 for the CAL CODE and the corresponding function signal.</li> <li>3. After inputting the function signal, users need to wait for the Fluke 5720A output signal to be stable. i.e. “u” disappears on the Fluke 5720A. At that time, users can press the AUTO button (  ) on the GDM-825XA panel to save.</li> <li>4. When the save is in process, the “*” will stop flashing. Users can't proceed to the next step until the “*” begins to flash.</li> </ol>

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Step 4	END	1. After adjustment is complete, take out the Calibration Key (GDM-01) from the CAL Key Port and reset the power switch.	

Appendix 1	CAL CODE	CAL CODE	Connection/ Function	8255A	8251A	Remark
		Please refer to appendix 2 for 4WR connection				
		1	4WR	0R	0R	It is necessary to use 4 wire resistance measurement to compensate for EMF. Wait for 60 seconds before starting adjustment
		3	4WR	100R	100R	
		4	4WR	1KR	1KR	
		5	4WR	10KR	10KR	
		6	4WR	100KR	100KR	
		7	4WR	1MR	1MR	
		8	4WR	10MR	10MR	
		Please refer to appendix 3 for 2WR connection				
		9	2WR	2W100MR	100MR	
		Remove all inputs from the terminals				
		2	OPEN	OPEN	OPEN	
		Use the INPUT V and the COM terminal for DCV or ACV calibration.				
		11	DCV	0V	0V	
		12	DCV	190mV	100mV	
		13	DCV	-190mV	-100mV	
		14	DCV	1.9V	1V	
		15	DCV	19V	10V	
		16	DCV	190V	100V	
		17	DCV	750V	750V	
		61	ACV	19mV	19mV	1kHz
		62	ACV	190mV	100mV	1kHz
		63	ACV	1.9V	1V	1kHz
		64	ACV	19V	10V	1kHz
		65	ACV	190V	100V	1kHz

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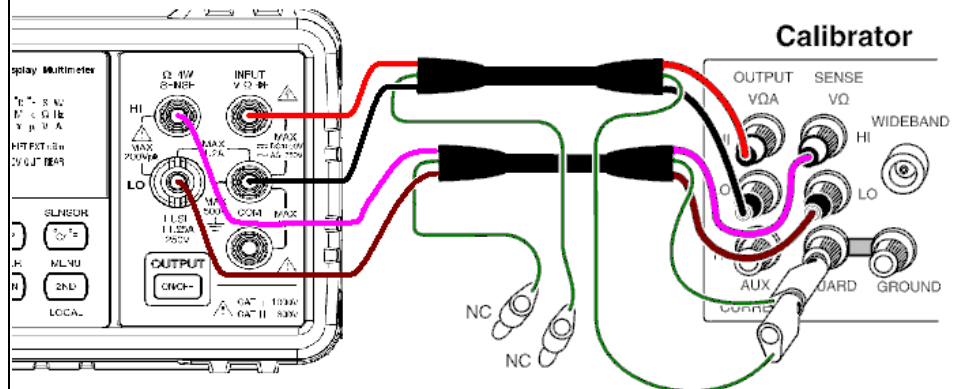
66	ACV	750V	750V	1kHz
Use the 2A input and the COM terminal for DCmA or ACmA calibration.				
41	DCmA	0A	0A	
42	DCmA	10mA	10mA	
43	DCmA	100mA	100mA	
21	ACmA	1.9mA	1.9mA	1kHz
22	ACmA	19mA	10mA	1kHz
23	ACmA	100mA	100mA	1kHz
Use the 10A input and the COM terminal for DCA or ACA calibration.				
31	DCA	0A	0A	
32	DCA	10A	10A	
51	ACA	1.9A	1A	1kHz
52	ACA	10A	10A	1kHz

- a. 4WR is a connection method for 4 wires.
- b. When 4WR is performed, **EX SNS** in Fluke5720A should be turned **ON**
- c. The 4WR connection method is shown as the diagram below.

4Wire

☒ EX SNS : ON    ☐ EX GRD : OFF

Appendix 2  
4WR  
Connection



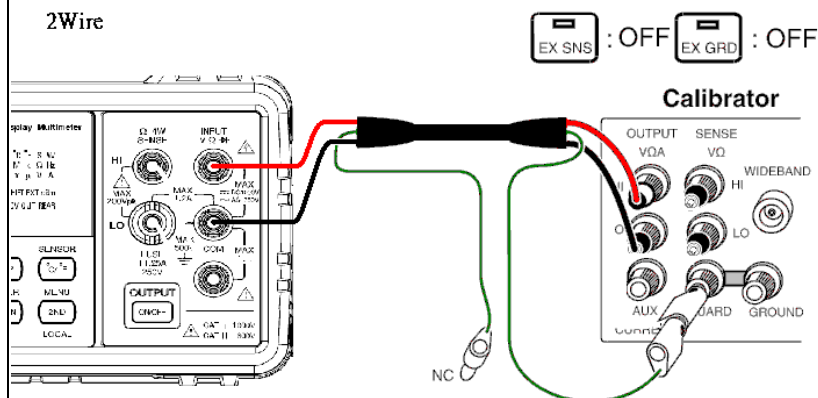
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### Appendix 3

#### 2WR Connection

- a. 2WR is a connection method for 2 wires.
- b. When 2WR is performed, **EX SNS** in Fluke5720A should be turned **OFF**
- c. 2WR connection method is shown as the diagram below.



### Appendix 4

#### Common problems

1. If there is no display on the screen after turning the power on → Please plug out the Calibration Key, and turn the power on again.
2. If the resistance value is unstable at the 100MΩ range → When calibrating the high resistance, users need to use a high-voltage insulated cable (over 1KV rating) as the test connection cable.
3. If the device is still not accurate after all resistance ranges have been adjusted → Because the 0R and OPEN affect all resistance ranges parameter, users need to adjust CAL CODE1 through to 9 all at once. You cannot calibrate each CAL CODE 1 separately.
4. AC10mV & AC1mA is not accurate → Because AC10mV and AC1mA is calculated from the ATE program, users can't adjust this manually. If AC10mV or AC1mA is not accurate, it is necessary to use the ATE program to calibrate them again.