

Checking 5 mA to 20 mA with 100 Ω

- o. Change the following 370 settings:

LEFT-RIGHT-STANDBY STANDBY
Protective Cover Open

- p. Replace the 1 k Ω resistor with the 100 Ω resistor.

- q. Change the following 370 settings:

Protective Cover Closed
LEFT-RIGHT-STANDBY LEFT

- r. **CHECK** that the spot width for STEP/OFFSET AMPLITUDE settings between 5 mA and 20 mA is within the limits given in Table 4-14.

Checking 50 mA to 200 mA with 10 Ω

- s. Change the following 370 settings:

LEFT-RIGHT-STANDBY STANDBY
Protective Cover Open

- t. Replace the 100 Ω resistor with the 10 Ω resistor.

- u. Change the following 370 settings:

Protective Cover Closed
LEFT-RIGHT-STANDBY LEFT

- v. **CHECK** that the spot width for STEP/OFFSET AMPLITUDE settings between 50 mA and 200 mA is within the limits given in Table 4-14.

Checking INVERT

- w. Change the following 370 settings:

LEFT-RIGHT-STANDBY STANDBY
Protective Cover Open

- x. Remove the 10 Ω resistor and replace it with the 1 M Ω resistor.

- y. Change the following 370 settings:

Protective Cover Closed
STEP GENERATOR
POLARITY INVERT On
STEP/OFFSET AMPLITUDE 50 nA
LEFT-RIGHT-STANDBY LEFT

- z. **CHECK** all settings of the STEP/OFFSET AMPLITUDE control for INVERT by repeating parts a through x.

Table 4-14
Step Generator Current Mode Ripple and Noise

Resistance	STEP/OFFSET AMPLITUDE	Maximum Spot Width
1 M Ω	50 nA	10 mV
1 M Ω	100 nA	11 mV
1 M Ω	200 nA	11 mV
1 M Ω	500 nA	13 mV
1 M Ω	1 μ A	15 mV
1 M Ω	2 μ A	20 mV
100 k Ω	5 μ A	4 mV
100 k Ω	10 μ A	6 mV
100 k Ω	20 μ A	11 mV
10 k Ω	50 μ A	3 mV
10 k Ω	100 μ A	5 mV
10 k Ω	200 μ A	10 mV
1 k Ω	500 μ A	3 mV
1 k Ω	1 mA	5 mV
1 k Ω	2 mA	10 mV
100 Ω	5 mA	3 mV
100 Ω	10 mA	5 mV
100 Ω	20 mA	10 mV
10 Ω	50 mA	3 mV
10 Ω	100 mA	5 mV
10 Ω	200 mA	10 mV

F5. Checking Incremental Accuracy in Voltage Mode and Number of Steps

Specifications:

- Absolute accuracy of the Step Generator is less than 1.5% of the output voltage +3% of the STEP/OFFSET AMPLITUDE setting +1 mV.
- Incremental accuracy is 1.5%.
- The number of steps ranges from 0 to 10.

NOTE

See **Test Point and Adjustment Locations 1** for the location of the circuit board and jumper associated with this step.

Moving the Store/Non-Store Jumper

- a. Change the following 370 setting:

POWER OFF

- b. Remove the A3 A/D Board from the card cage located on the right side of the 370.

See **Test Point and Adjustment Locations 1** for the location of A3 and jumper J34. For details on removing and replacing Plug-In Boards, see the instructions under "Component Removal and Replacement" in Section 4, Maintenance.

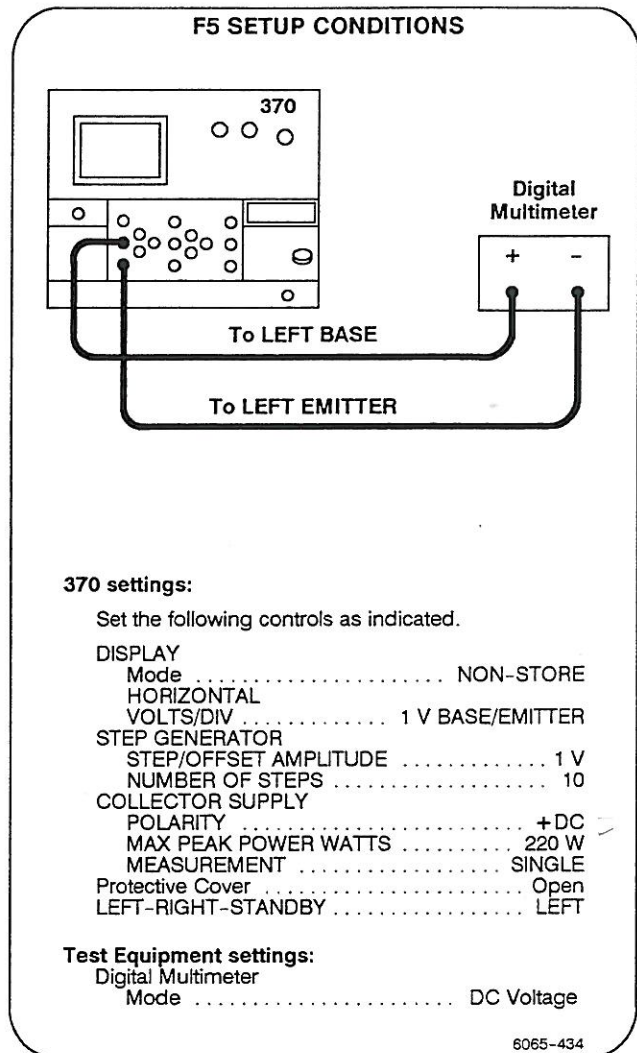
- c. Change the position of jumper J34 from pins 1-2 to pins 2-4 (CAL position).

When the jumper is moved from pins 1-2 to pins 2-4, STORE Mode is disabled.

- d. Replace the A3 A/D Board in the 370 card cage. Do not re-install the circuit board retainers.

- e. Change the following 370 setting:

POWER ON





F5. Checking Incremental Accuracy in Voltage Mode and Number of Steps

Specifications:

- Absolute accuracy of the Step Generator is less than 1.5% of the output voltage +3% of the STEP/OFFSET AMPLITUDE setting + 1 mV.
- Incremental accuracy is 1.5%.
- The number of steps ranges from 0 to 10.

NOTE

See **Test Point and Adjustment Locations 1** for the location of the circuit board and jumper associated with this step.

Moving the Store/Non-Store Jumper

- a. Change the following 370 setting:

POWER OFF

- b. Remove the A3 A/D Board from the card cage located on the right side of the 370.

See **Test Point and Adjustment Locations 1** for the location of A3 and jumper J34. For details on removing and replacing Plug-In Boards, see the instructions under "Component Removal and Replacement" in Section 4, Maintenance.

- c. Change the position of jumper J34 from pins 1-2 to pins 2-4 (CAL position).

When the jumper is moved from pins 1-2 to pins 2-4, STORE Mode is disabled.

- d. Replace the A3 A/D Board in the 370 card cage. Do not re-install the circuit board retainers.

- e. Change the following 370 setting:

POWER ON

F5 SETUP CONDITIONS

370 settings:

Set the following controls as indicated.

DISPLAY	
Mode	NON-STORE
HORIZONTAL	
VOLTS/DIV	1 V BASE/EMITTER
STEP GENERATOR	
STEP/OFFSET AMPLITUDE	1 V
NUMBER OF STEPS	10
COLLECTOR SUPPLY	
POLARITY	+DC
MAX PEAK POWER WATTS	220 W
MEASUREMENT	SINGLE
Protective Cover	Open
LEFT-RIGHT-STANDBY	LEFT

Test Equipment settings:

Digital Multimeter	
Mode	DC Voltage

6065-434