Manual Supplement

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This supplement contains information necessary to ensure the accuracy of the above manual. This manual is distributed as an electronic manual on the following CD-ROM:

CD Title:	5320A
CD Rev. & Date:	9/2006
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FLUKE®

Change #1

On page 7-26, replace Figure 7-23 with the following:

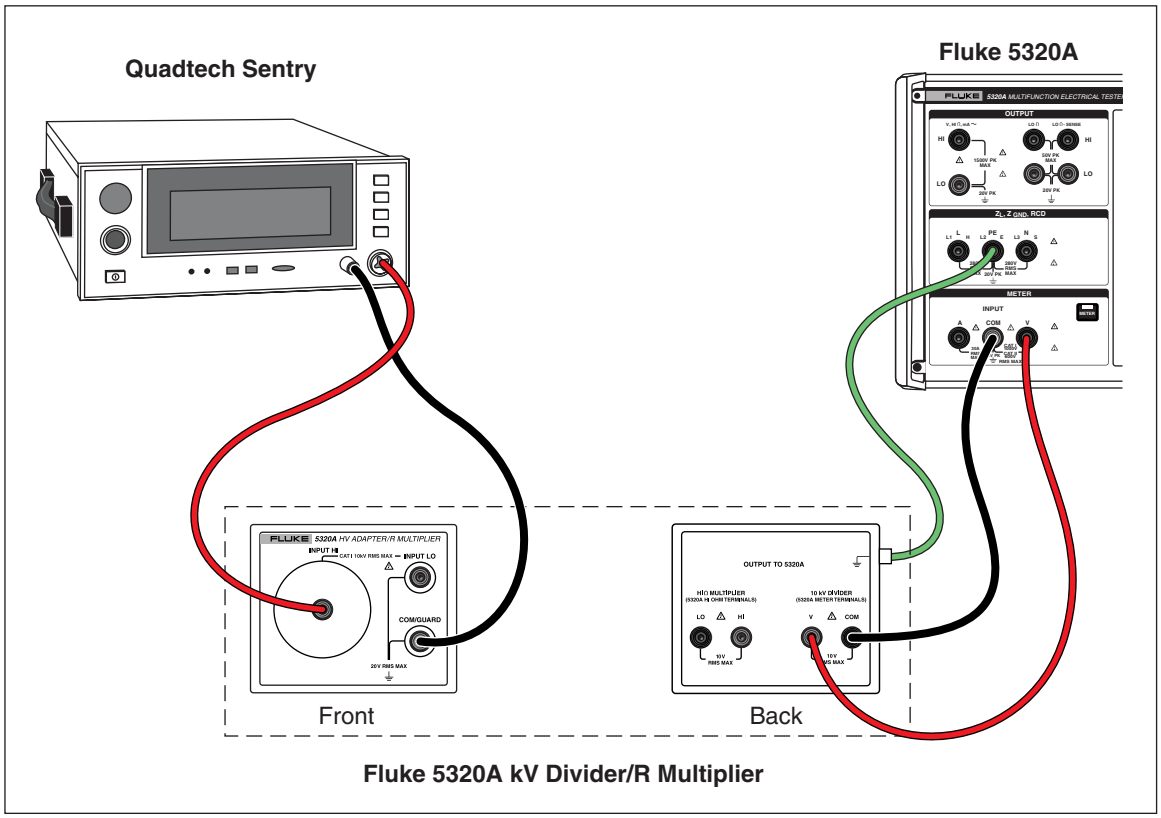

Figure 7-23. 10 kV High Voltage Adapter Application

Change #2

On page 5-15, change the following:

From: ***OUTPute[:STATus](?)<CPD>{ON/OFF}***

To: ***OUTPut[:STATe](?)<CPD>{ON/OFF}***

Change #3

On page 5-25, change the following:

From: *[SOUR]:SAF:IDP[:CURR]:RES?*

Description: This command returns the measured current flowing through the UUT. If not already selected, it also switches the Calibrator to the Passive Leakage Current function.

Query: SAF:IDP:RES? Returns the value of the instantaneous current flowing through the Calibrator.

To: *[SOUR]:SAF:IDP[:CURR]:RES?*

Description: This command returns the measured current flowing through the UUT. If not already selected, it also switches the Calibrator to the Passive Leakage Current function.

Query: SAF:IDP:RES? Returns the value of the resulting measured UUT current.

On page 5-26, change the following:

From: *[SOUR]:SAF:IDD[:CURR]: RES?*

Description: This command returns the measured current flowing through the UUT. If not already selected, it also switches the Calibrator to the Differential Leakage Current function.

Query: SAF:IDD:RES? Returns the value of the instantaneous current flowing through the Calibrator.

To: *[SOUR]:SAF:IDD[:CURR]: RES?*

Description: This command returns the measured current flowing through the UUT. If not already selected, it also switches the Calibrator to the Differential Leakage Current function.

Query: SAF:IDD:RES? Returns the value of the resulting measured UUT current.

Change #4

On page 6-6, after step 2 of High Resistance Source Verification, add the following note:

Note

For some megohmmeters, when using the Calibrator's 100 GΩ value or when using the resistance multiplier adapter, the leads must be swapped between the Calibrator's HI and LO ohms resistance output. The ground must be turned on (GDN ON) when swapping HI and LO lead positions in the high ohms resistance function. For example to make a proper measurement with the Quadtech 1865 megohmmeter, connect the HI terminal on the megohmmeter to the LO terminal on the Calibrator and connect the LO terminal on the megohmmeter to the HI terminal on the Calibrator. Turn the ground on and proceed to make the measurement.

Change #5

On page 1-8, delete the following from the Table:

Plug adapter (x2)	2743474

Change #6

On page 1-11, replace the entire table with the following:

Uncertainty and Maximum Ratings

Range	Resolution	Maximum Voltage (ac+dc) Peak	Uncertainty[1] (tcal ±5 °C)
10.000 to 39.99 kΩ	1 Ω	55 V	0.2 %
40.00 to 99.99 kΩ	10 Ω	300 V	0.2 %
100.00 to 199.99 kΩ	10 Ω	800 V	0.2 %
200.0 to 999.9 kΩ	100 Ω	1100 V	0.2 %
1.0000 to 9.999 MΩ	100 Ω	1100 V	0.3 %
10.000 to 999.9 MΩ	1 kΩ	1575 V[2]	0.5 %
1.0000 to 10.000 GΩ	100 kΩ	1575 V[2]	1.0 %
100 GΩ	NA	1575 V[2]	3.0 %[3]

Notes:

[1] Uncertainty is valid to 500 volts. For test voltages above 500 V, add 0.1% for each 200 V above 500 V.

[2] Maximum test voltage with the supplied banana leads is 1000 Vrms. For higher voltages, use leads rated at 1575 V or above.

[3] Calibration value uncertainty is specified in the table. Nominal value uncertainty is 15 %.

Replace the *Resistance Multiplier Adapter (x1000 multiplier)* section with the following:

Resistance Multiplier Adapter (x1000 multiplier)

Resistance range..... 350 MΩ to 10 TΩ

Uncertainty and Maximum Ratings

Range	Resolution	Maximum Voltage (ac+dc) Peak	Uncertainty (tcal ±5 °C)
350.0 MΩ to 99.99 GΩ	100 kΩ	5500 V	1.0 % + R[1]
100.00 GΩ to 999.9 GΩ	10 MΩ	5500 V	2.0 % + R[1]
1.0000 TΩ to 10.000 TΩ	100 MΩ	5500 V	3.0 % + R[1]

Notes:

[1] R is the uncertainty of resistor to be multiplied by 1000.

On page 6-6, under ***Performing Calibrator Verification***, add the following under the last bullet:

- Voltage divider to 10 kV

On page 6-8, add the following section under the Note:

10 kV AC/DC Voltage Divider Verification

1. Connect 10 kV divider adapter to the 5320A meter input terminals (V and COM). From the front panel of the 5320A, set the active function to METER mode.
2. Activate the 10 kV probe selection by pressing the Probe softkey until 10 kV is selected in the probe parameter.
3. Set the meter to DC mode by pressing the AC/DC softkey.
4. Apply DC voltage from a high voltage source to the 10 kV probe input terminals. The voltage reading on the calibrator display should not exceed specified limits (in Table 6-13).
5. Set the meter to AC mode by pressing the AC/DC softkey.
6. Apply AC voltage from a high voltage source to the 10 kV probe input terminals. The voltage reading on the calibrator should not exceed specified limits (in Table 6-13).

On page 6-12, following Table 6-12, add Table 6-13 and the note:

Table 6-13. 10 kV AC/DC Voltage Divider Verification

Nominal HV source voltage	Required standard voltage accuracy	Frequency (Hz)	Lower Limit (V)	Upper Limit (V)
1 kV DC	0.1 %	-	992	1008
1 kV AC	0.1 %	55	990	1010
5 kV DC	0.1 %	-	4980	5020
5 kV AC	0.1 %	55	4970	5030

Note

5 kV nominal voltage is recommended. If HV DC/AC source is not available, use multifunction calibrator with output voltage 1000 V.