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
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CD PN:	2634346

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Change #1

On page 6-16, replace Table 6-11 with the following:

Nominal Current	Required Standard Ammeter Accuracy	Frequency	Start Current	Increment by	Lower Limit (mA)	Upper Limit (mA)
25 mA ac	0.2 %	Line Freq.	20 μA	0.1 mA	24.75 ma	25.25 ma
250 mA ac	0.2 %	Line Freq.	210 mA	1 mA	247.5 ma	252.5 ma
2500 mA ac	0.2 %	Line Freq.	2.1 A	10 mA	2475 ma	2525 ma

Change #2

On page 7-8, replace the first *Note* with the following:

Note

The Resistance Multiplier is only used with insulation resistance testers with a third terminal, commonly called the Guard terminal. Most testers of this type use a virtual ground sensing circuit, that causes an input resistance of 0 Ω. The Calibrator can accommodate testers that have either 0 Ω input impedance or a finite input impedance. The Calibrator has a setup parameter, "R multiplier input", to accommodate different input impedances for insulation testers. The "R multiplier input" has a default setting of 0 Ω for the most common type of testers with a virtual ground sensing circuit. For other testers with an infinite input impedance, the "R multiplier input" value must be set to match the input resistance of the Unit Under Test.

To access the "R multiplier input" setting, press HI Ω*, press the softkey labeled* **Setup,** *scroll down to High Resistance Source and then press the softkey labeled* **Select.** *Choose "R multiplier input", which can be changed from 0 to 100.00 MΩ.*

Change #3, 50723

On page 1-10, under *Short Mode*:

Change: **Nominal resistance**.....<50 mΩ

To: **Nominal resistance**.....<100 mΩ

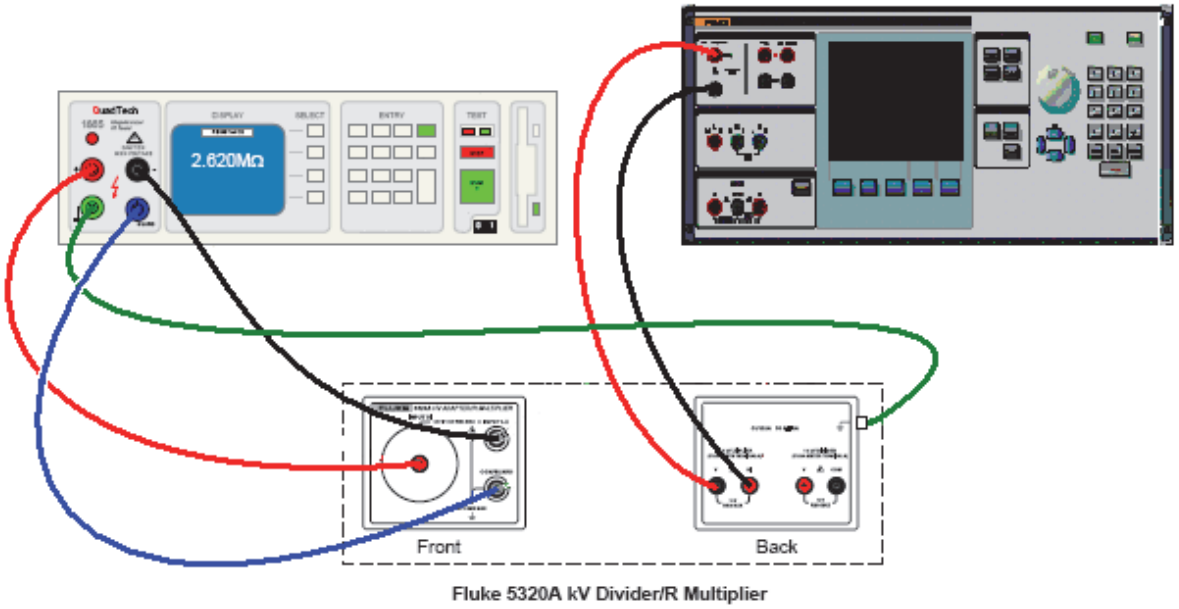
Change #4

On page 6-11, replace **Figure 6-4** with the following:

Connect the equipment as shown using low-loss, low dielectric absorption leads. Note that the polarity of the connections between the 5320A HV ADAPTER / R MULTIPLIER, OUTPUT TO 5320A, HI Ω MULTIPLIER to the 5320A HI Ω, mA~ terminals are reversed.

NOTE

Minimize physical movement in the vicinity of the UUT and megohmmeter during the following measurement sequence.



ewt090.eps

Figure 6-4. Resistance Multiplier Verification Connectioons

Change #5

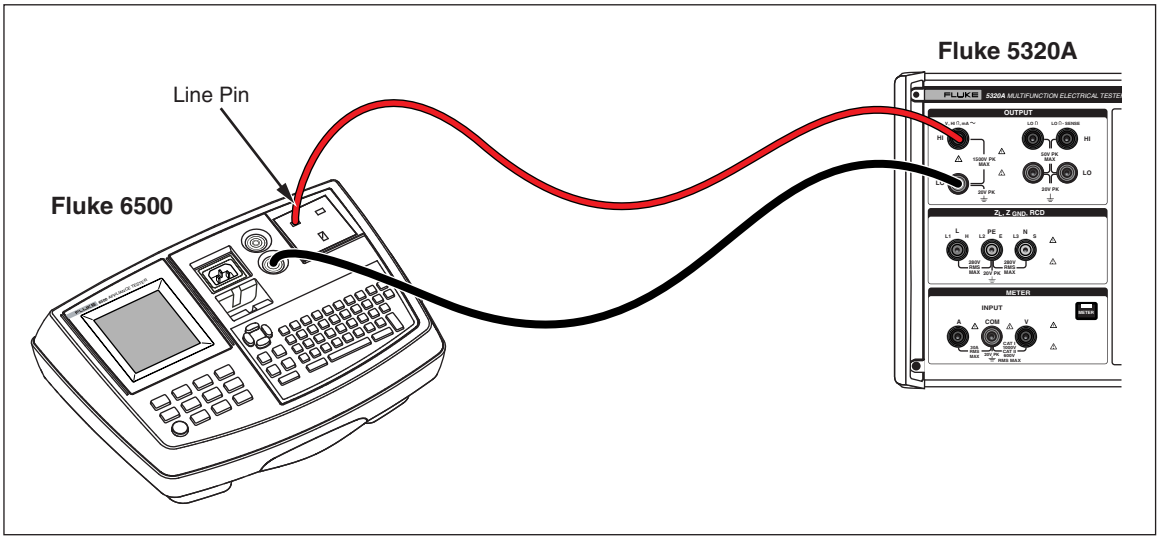
On page 6-12, replace **Table 6-8** with the following:

Table 6-8. High Test Current Ground Bond Source Limits

Nominal Value	Required Standard Calibrator/Multimeter Current/Voltage Uncertainty	DC Test Current	R_{gbr}	Lower Limit [1]	Upper Limit [1]
25 mΩ	± 0.5%	20 A		R_{disp} - 5 mΩ	R_{disp} + 5 mΩ
50 mΩ	± 0.2 %	10 A		R_{disp} - 5 mΩ	R_{disp} + 5 mΩ
100 mΩ	± 0.1 %	10 A		R_{disp} - 5 mΩ	R_{disp} + 5 mΩ
330 mΩ	± 0.1 %	5 A		R_{disp} - 7 mΩ	R_{disp} + 7 mΩ
500 mΩ	± 0.1 %	3 A		R_{disp} - 8 mΩ	R_{disp} + 8 mΩ
1 Ω	± 0.1 %	2 A		R_{disp} - 10 mΩ	R_{disp} + 10 mΩ
1.8 Ω	± 0.1 %	2 A		R_{disp} - 18 mΩ	R_{disp} + 18 mΩ
[1] R_{disp} = Displayed Value					

Change #6

On page 7-17, replace **Figure 7-14** with the following:



Ehq039.eps

Figure 7-14. Touch Leakage Current Calibration on Fluke 6500

Change #7

On page 6-14, replace Step 4 with:

4. Set the multifunction calibrator to the same voltage as the voltage on the mains input of the Calibrator (5320A). 115 V or 230 V for example. Set the multifunction calibrator frequency to 55 Hz.

Change #8

On page 6-4, prior to ***Cleaning the Air Filter*** add:

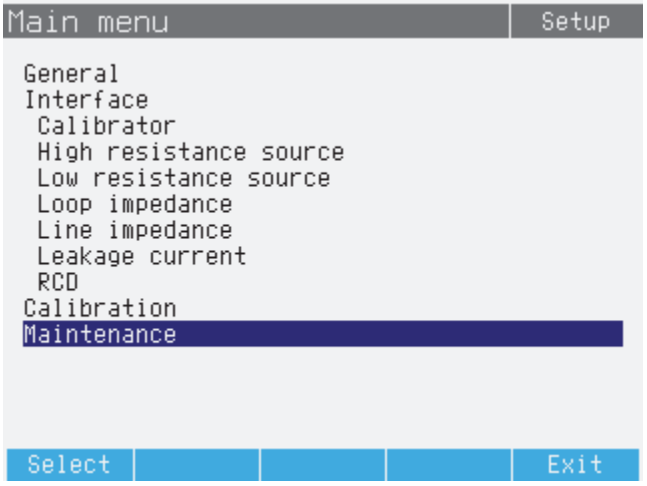
Cleaning the Ground Bond Resistance and Loop/Line Impedance Relays

The power relays used in the Ground Bond Resistance and Loop/Line Impedance functions require periodic cleaning to minimize their contact resistance. Relay cleaning should be performed once per month if the Ground Bond Resistance or Loop/Line Impedance functions are used daily. If these functions are used less often, relay cleaning should be performed every 90 days. Lastly, if the 5320A has been powered off for more than 30 days, the relay cleaning procedure should be performed before usage.

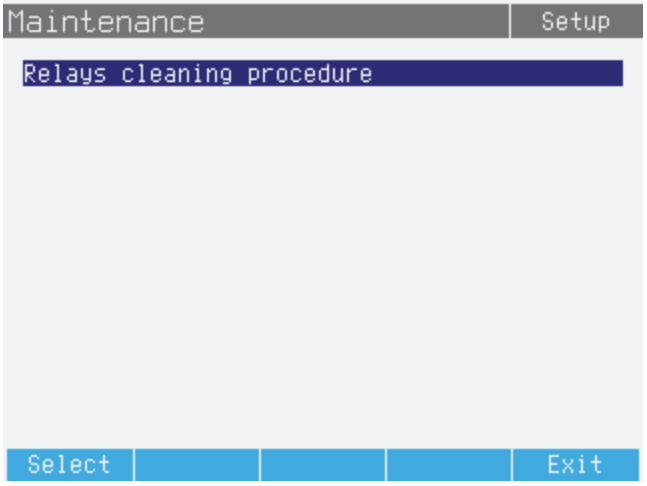
The 5320A, with serial numbers higher than 548xxxxxx is equipped with an internal power source that provides current during the cleaning procedure. For 5320As with serial numbers lower than 548xxxxxx, an external power supply must be connected to the PE and N terminals. See the next section for details.

Relay cleaning is started manually from the SETUP menu, and exercises the relays on the REL board a number of times with current flowing through them. To perform the relay cleaning procedure, disconnect all external connections to the 5320A front panel.

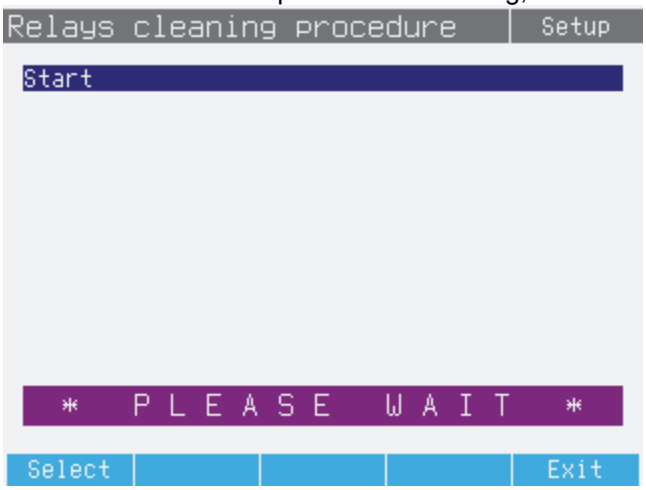
Select Maintenance



Then select Relays cleaning procedure



Select Start. When the procedure is running, the following information is displayed:



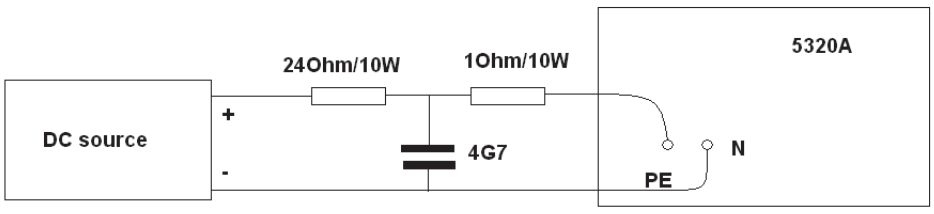
The procedure lasts about 30 seconds. During the procedure the 5320A cannot be operated. When the cleaning procedure is complete, push the soft key Exit a number of times to return to the main menu.

Cleaning the Relays for Serial Numbers Lower than 548xxxxxx.

5320As with serial number lower than 548xxxxxx do not have an internal power supply for relay cleaning, and have to be connected to an external power supply for this procedure. This power supply must be able to provide at least 20V with 3 A of current.

The relay cleaning procedure is as follows:

1. Remove all external connections to the 5320A front panel.
2. Navigate to the Relay cleaning procedure as outlined above. Do not start the procedure yet.
3. Set the external power supply to 20V and connect as shown to the PE and N terminals of the 5320A. It is best to use an external analog (linear) supply source. If a switching DC supply source is used, two resistors and one capacitor should be inserted between the power supply output and the 5320A input as shown in the diagram. Analog (linear) power supplies do not require this external resistor and capacitor network.
4. Start the Relay cleaning procedure.
5. Remove the external power supply connections when complete.
6. Push the Exit soft key a number of times to return to the main menu.



Note

For units with serial number lower than 548xxxxxx, do not run the cleaning procedure without connecting the external power supply. When the cleaning procedure is performed without connecting the external power supply, the relay contact resistance may become even worse. Changing the polarity of the DC supply source is recommended from cleaning to cleaning to avoid one-way transport of contact material from one side of the contacts to the other.