

ADDENDUM

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TM6675A-C-00_v1 Replace pages in VOLUME I TECHNICAL MANUAL FOR MODEL 6675A with pages provided to include H.V. spec. and updated adjustment procedure.

2.2. GENERAL SPECIFICATIONS (continued)

6675A AUTOMATIC DCC RESISTANCE BRIDGE General Specifications			
Measurement Resistance Range		1 m to 1 G	Ω
Resistance Ratio (Rx/Rs) Range		0.078 to 13.4	
Linearity		±0.01	ppm of full scale
Temperature Coefficient (+10 to +18)°C (+28 to +40)°C		±0.01	ppm/°C
Warm-up time to full rated accuracy		60	minutes
Display update rate (digital filter off)		2 X Current Reversal rate	seconds
Automatic Current Reversal Rate (programmable)		4 to 32000 in steps of 2	seconds
Analog output	Range	±5.0	VDC
	Accuracy	±5	mV
	Digital Resolution	12	binary bit
	Maximum Ratio Resolution (programmable)	0.001	ppm
Digital Communication		IEEE488, RS232	
Test Currents	Range (to 30Vdc compliance)	±0.5μ to ±150m	A
	Steps	0.5 μ	A
	Accuracy	±100 ±10 μ	ppm + A
	Stability (10 minutes)	±1	ppm
Test Voltages	Range	±16 to ±990	VDC
	Steps	4.3 ±0.3	VDC
	Accuracy	±3 ±0.3	%+VDC
	Stability (10 Minutes)	±100	ppm

Table 2-2 : General Specifications (continued)

15. Set the current to 0 mA.
16. Remove the 100 k Ω resistor and reconnect the 1 k Ω 0.1% resistor across Rx C₁ and Rx C₂.
17. Repeat Steps 4 to 15.
18. Record the voltages and the voltage swings.
19. Remove the 100 k Ω resistor from across Rx C₁ and Rx C₂ and remove the short from across Rs C₁ and Rs C₂.
20. Repeat the Primary Current Calibration.
21. Record the voltages.

7.2.4.3.3.High Voltage Check

1. Turn the 6675A Power ON.
2. Enter the Sofcal Diagnostic menu.
3. Using a DMM, monitor the DC voltage at the HIGH VOLTAGE OUT terminal with respect to. the Rx Ground terminal.
4. Set the mode to "High Ohm" and the speed to "Fast".
5. Set the voltage to 990 V.

NOTE:

- **There will be a delay when switching to and from “High Ohm “ if “Volts” is set to a voltage other than 0.**
 - **To set the voltage, press the menu key under "More x-x" until the "Sign/milliAmps/Volts/More 2-4" menu appears. Press the menu key under "Volts", key in the voltage and press the menu key under "Volts" again.**
6. Ensure that the voltage indicated on the DMM is between 963 V and 1017 V. If the output is too low, the H.V. module must be replaced.

7. Record the voltage.
8. Set the voltage to 0 V.
9. Using a DMM, monitor the ac voltage (noise level) at the Rx Ground terminal.
10. Set the voltage to 990 V. Ensure that the noise level is ≤ 120 mV rms.
11. Record the noise level.
12. Set the voltage to 0 V and disconnect the DMM.
13. Ensure that the Primary Current Drive module covers have been re-installed (if removed).

7.2.4.3.4.Servo-loop/Comparator Toroid Gain Adjustment

1. Remove the $10\ \Omega$ 0.01% resistors and the links connected to the Rs and Rx test set front panel terminals, and install one of the $10\ \Omega$ 0.01% resistors across the Rx C₁ and C₂ terminals.
2. Set the number of turns to 1 and the current to 0 mA.

NOTE:

To set the number of turns, press the menu key under "More x-x" until the "Monitor/Dacs/Turns/More 1-4" screen appears. Press the menu key under "Turns", key in the number of turns and press the menu key under "Turns" again.

3. Using the Scopemeter, observe the waveform on the Servo-loop PCB at TP200 with respect to TP302.
4. Check the sense amp gain as follows :
 - a) Set the current to 1 mA while remaining in Sofcal diagnostic mode.
 - b) The DC level of TP200 should be between +0.43 and +0.53 Volts.
 - c) Exit Sofcal Diagnostic mode