

Manual Supplement

Manual Title:	8845A/8846A Calibration	Supplement Issue:	3
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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:	8845A/8846A
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Change #1, 45124

On pages 1-12 and 1-17, add the following prior to Maximum Crest Factor:

Crest Factor Error (applies to non sinusoid waveforms only)

Change #2

On page 3-30, add the following note below the text:

Note

Calibration steps dealing with 50/60 Hz Correction, Ratio, and 400 mA current range are only available in Meters with Outguard version 2.0 and later.

On pages 3-31 through 3-35, replace the entire Table with the following:

Table 3-20. 8845A/8846A Adjustment Steps

Step	Modes	Value Range	Input Signal	Description	Series
Open					
0	ORES	100000000	open	OHM 100 M open terminals	Y
1	ORES	1000000000	open	OHM 1 G open terminals (8846A only)	Y
2	ZCAP	1.00E-09	open	CAP 1 nF open terminals (8846A only)	N
ACV Short					
3	ZVAC	100.0E-3	4-wire lo-thermal short	AC 100 mV	Y
4	ZVACS	100.0E-3	4-wire lo-thermal short	AC 100 mV	Y
5	ZVAC	1	4-wire lo-thermal short	AC 1 V	Y
6	ZVACS	1	4-wire lo-thermal short	AC 1 V	Y
7	ZVAC	10	4-wire lo-thermal short	AC 10 V	Y
8	ZVACS	10	4-wire lo-thermal short	AC 10 V	Y
9	ZVAC	100	4-wire lo-thermal short	AC 100 V	Y
10	ZVACS	100	4-wire lo-thermal short	AC 100 V	Y
11	ZVAC	1000	4-wire lo-thermal short	AC 1000 V	Y
12	ZVACS	1000	4-wire lo-thermal short	AC 1000 V	N
DCV Short					
13	ZVDC	1000	4-wire lo-thermal short	DC 1000 V	Y
14	ZVDC	100	4-wire lo-thermal short	DC 100 V	Y
15	ZVDC	10	4-wire lo-thermal short	DC 10 V	Y
16	ZVDC	1	4-wire lo-thermal short	DC 1 V	Y
17	ZVDC	0.1	4-wire lo-thermal short	DC 100 mV	N

50/60 Hz Correction Short					
18	DFVDC60	100.0E-3	Vdc to Lo short	DC 100 mV	Y
19	DFVDC60_1	100.0E-3	Vdc to Lo short	DC 100 mV	Y
20	DFVDC50	100.0E-3	Vdc to Lo short	DC 100 mV	Y
21	DFVDC50_1	100.0E-3	Vdc to Lo short	DC 100 mV	N
4-W Ohm Short					
22	ZRES	10000000	4-wire lo-thermal short	4W 10 M Ω	Y
23	ZRES	1000000	4-wire lo-thermal short	4W 1 M Ω	Y
24	ZRES	100000	4-wire lo-thermal short	4W 100 k Ω	Y
25	ZRES	10000	4-wire lo-thermal short	4W 10 k Ω	Y
26	ZRES	1000	4-wire lo-thermal short	4W 1 k Ω	Y
27	ZRES	100	4-wire lo-thermal short	4W 100 Ω	Y
28	ZRES	10	4-wire lo-thermal short	4W 10 Ω (8846A only)	N
Ratio Short					
29	ZVDCREF	10	Vdc to Lo short	Ratio	Y
30	ZVDCREF	1	Vdc to Lo short	Ratio	Y
31	ZVDCREF	100.0E-3	Vdc to Lo short	Ratio	N
Rear Ω Short					
32	ZRESR	100000	4-wire lo-thermal short	4W 100 k Ω Rear Input	Y
33	ZRESR	10000	4-wire lo-thermal short	4W 10 k Ω Rear Input	Y
34	ZRESR	1000	4-wire lo-thermal short	4W 1 k Ω Rear Input	Y
35	ZRESR	100	4-wire lo-thermal short	4W 100 Ω Rear Input	Y
36	ZRESR	10	4-wire lo-thermal short	4W 10 Ω Rear Input (8846A only)	N
Rear DCV Short					
37	ZVDCR	1	Vdc to Lo short	DC 1 V Rear Input	Y
38	ZVDCR	0.1	Vdc to Lo short	DC 100 mV Rear Input	N
Rear Ratio Short					
39	ZVDCRREF	1	Vdc to Lo short	Rear Ratio	Y
40	ZVDCRREF	0.1	Vdc to Lo short	Rear Ratio	N
Current Short					
41	ZIDC	400.0E-3	400mA to Lo short	DC 400 mA	Y
42	ZIDC	100.0E-3	400mA to Lo short	DC 100 mA	Y
43	ZIDC	1.0E-3	400mA to Lo short	DC 1 mA	Y
44	ZIDC	10.0E-3	400mA to Lo short	DC 10 mA	Y
45	ZIDC	100.0E-6	400mA to Lo short	DC 100 μ A	Y

46	ZIAC	0.0	400mA to Lo short	AC 100 μ A	Y
47	ZIACS	0.0	400mA to Lo short	AC 100 μ A	Y
48	ZIAC	1.0E-3	400mA to Lo short	AC 1 mA	Y
49	ZIACS	1.0E-3	400mA to Lo short	AC 1 mA	Y
50	ZIAC	10.0E-3	400mA to Lo short	AC 10 A	Y
51	ZIACS	10.0E-3	400mA to Lo short	AC 10 mA	Y
52	ZIAC	100.0E-3	400mA to Lo short	AC 100 mA	Y
53	ZIACS	100.0E-3	400mA to Lo short	AC 100 mA	Y
54	ZIAC	400.0E-3	400mA to Lo short	AC 400 mA	Y
55	ZIACS	400.0E-3	400mA to Lo short	AC 400 mA	N
Hi I Short					
56	ZIDC	10	10 A to Lo short	DC 10 A	Y
57	ZIDC	1	10 A to Lo short	DC 1 A	Y
58	ZIAC	1	10 A to Lo short	AC 1 A	Y
59	ZIACS	1	10 A to Lo short	AC 1 A	Y
60	ZIAC	10	10 A to Lo short	AC 10 A	Y
61	ZIACS	10	10 A to Lo short	AC 10 A	N
AC Linearity					
62	ACLIN	1.19	1.19 @ 1200 Hz	AC 1 V	N
63	ACLIN	0.8	0.8 @ 1200 Hz	AC 1 V	N
64	ACLIN	0.4	0.4 @ 1200 Hz	AC 1 V	N
65	ACLIN	0.005	0.05 @ 1200 Hz	AC 1 V	N
ACV Gain					
66	GVAC	0.1	0.1 @ 1200 Hz	AC 100 mV	Y
67	GVACS	0.1	0.1 @ 1200 Hz	AC 100 mV	N
68	ACPOLE	0.1	0.1 @ 50000 Hz	AC 100 mV	N
69	GVAC	1	1 @ 1200 Hz	AC 1 V	Y
70	GVACS	1	1 @ 1000 Hz	AC 1 V	N
71	FVAC	1	1 @ 10 Hz	AC 1 V	N
72	ACPOLE	1	1 @ 50000 Hz	AC 1 V	N
73	GVAC	10	10 @ 1200 Hz	AC 10 V	Y
74	GVACS	10	10 @ 1200 Hz	AC 10 V	N
75	ACPOLE	10	10 @ 50000 Hz	AC 10 V	N
76	GVAC	100	100 @ 1200 Hz	AC 100 V	Y
77	GVACS	100	100 @ 1200 Hz	AC 100 V	N

78	ACPOLE	100	100 @ 50000 Hz	AC 100 V	N
79	GVAC	1000	1000 @ 1200 Hz	AC 1000 V (750 V range 8845A)	Y
80	GVACS	1000	1000 @ 1200 Hz	AC 1000 V (750 V range 8845A)	N
81	ACPOLE	1000	750 @ 50000 Hz	AC 1000 V (750 V range 8845A)	N
VDC Gain					
82	GVDC	1000	1000	DC 1000 V	N
83	GVDC	-1000	-1000	DC 1000 V	N
84	GVDC	100	100	DC 100 V	N
85	GVDC	-100	-100	DC 100 V	N
86	GVDC	10	10	DC 10 V	N
87	GVDC	-10	-10	DC 10 V	N
88	GVDC	1	1	DC 1 V	N
89	GVDC	-1	-1	DC 1 V	N
90	GVDC	0.1	0.1	DC 100 mV	N
91	GVDC	-0.1	-0.1	DC 100 mV	N
Hi IDC Gain					
92	GIDC	1	1	DC 1 A	N
93	GIDC	-1	-1	DC 1 A	N
94	GIDC	10	10	DC 10 A	N
95	GIDC	-10	-10	DC 10 A	N
Hi IAC Gain					
96	GIAC	10	10 A @ 1200 Hz	AC 10 A	Y
97	GIACS	10	10 A @ 1200 Hz	AC 10 A	N
98	GIAC	1	1 A @ 1200 Hz	AC 1 A	Y
99	GIACS	1	1 A @ 1200 Hz	AC 1 A	N
Lo IAC Gain					
100	GIAC	400.0E-3	0.329 A @ 1200 Hz	AC 400 mA	Y
101	GIACS	400.0E-3	0.329 A @ 1200 Hz	AC 400 mA	N
102	GIAC	100.0E-3	0.1 A @ 1200 Hz	AC 100 mA	Y
103	GIACS	100.0E-3	0.1 A @ 1200 Hz	AC 100 mA	N
104	GIAC	10.0E-3	0.01 A @ 1200 Hz	AC 10 mA	Y
105	GIACS	10.0E-3	0.01 A @ 1200 Hz	AC 10 mA	N
106	GIAC	1.0E-3	0.001 A @ 1200 Hz	AC 1 mA	Y
107	GIACS	1.0E-3	0.001 A @ 1200 Hz	AC 1 mA	N
108	GIAC	100.0E-6	0.0001 A @ 1200 Hz	AC 100 μ A	N

109	GIACS	100.0E-6	0.0001 A @ 1200 Hz	AC 100 μ A	N
Lo IDC Gain					
110	GIDC	100.0E-6	100.0E-6	DC 100 μ A	N
111	GIDC	-100.0E-6	-100.0E-6	DC 100 μ A	N
112	GIDC	1.0E-3	1.0E-3	DC 1 mA	N
113	GIDC	-1.0E-3	-1.0E-3	DC 1 mA	N
114	GIDC	10.0E-3	10.0E-3	DC 10 mA	N
115	GIDC	-10.0E-3	-10.0E-3	DC 10 mA	N
114	GIDC	100.0E-3	100.0E-3	DC 100 mA	N
115	GIDC	-100.0E-3	-100.0E-3	DC 100 mA	N
116	GIDC	400.0E-3	329.0E-3	DC 400 mA	N
117	GIDC	400.0E-3	329.0E-3	DC 400 mA	N
Ω Gain					
118	GRES	100000000	100000000	R 100 M Ω	N
119	GRES	10000000	10000000	4W 10 M Ω	N
120	GRES	1000000	1000000	4W 1 M Ω	N
121	GRES	100000	100000	4W 100 k Ω	N
122	GRES	10000	10000	4W 10 k Ω	N
123	GRES	1000	1000	4W 1 k Ω	N
124	GRES	100	100	4W 100 Ω	N
125	GRES	10	10	4W 10 Ω (8846A only)	N
Misc Gain					
126	GRES	1000000000	1000000000	R1 G Ω (8846A only)	N
127	GCAP1	10.0E-9	100.0E-9	C100NF (8846A only)	Y
128	GCAP2	10.0E-9	10.0E-9	C10NF (8846A only)	N