

Errata Document for
Op Amp Applications Handbook
Prepared by Walt Jung

This document lists various errata within **Op Amp Applications Handbook**, a book published by Newnes (an Elsevier imprint) ISBN: 0-7506-7844-5.

I, Walt Jung, the author of this errata document, had editorial responsibility for the previous edition of this book while employed at Analog Devices (ADI). This earlier book was **Op Amp Applications**, ISBN: 0-916550-26-5.

Op Amp Applications Handbook was published in November of 2004. Although I am listed as Editor on the book's spine and the copyright page (with my name misspelled), I was not allowed to do a final proofing. My subsequent review of the as-published book has uncovered numerous errors. Therefore readers of this book should understand that I do not accept responsibility for the many errors in this first printing format.

This errata list has been provided to ADI, who have indicated to me that they would work to resolve the listed errors in the book's next printing.

In the interim, it is hoped that the following errata listing will be found helpful.

A handwritten signature in black ink, appearing to read 'Walt Jung', with a stylized, cursive script.

Walt Jung
April 9, 2005

Op Amp Applications Handbook – Errata by Walt Jung

Copyright Page (iii)

1. **Under Library of Congress Cataloging-in-Publication Data** – #1) change "Jung, Water, G." to " Jung, Walter, G.".

Op Amp Applications Handbook – Errata by Walt Jung

Preface And Front Matter, Pages ix – xvi

1. Page ix – #1) 3rd paragraph, 1st sentence – change "nearly 1000 pages" to "nearly 900 pages".
2. Page ix – #2) 4th paragraph, last sentence, last three words – change "about 118 pages" to "about 115 pages".
3. Page ix – #3) 5th paragraph, last sentence, last three words – change "about 52 pages" to "about 48 pages".
4. Page x – #1) 1st (partial) paragraph, last sentence, last three words – change "about 54 pages" to "about 50 pages".
5. Page x – #2) 1st full paragraph, last sentence, last three words – change "about 82 pages" to "about 78 pages".
6. Page x – #3) 2nd full paragraph, last sentence, last three words – change "about 114 pages" to "about 110 pages".
7. Page x – #4) 3rd full paragraph, last sentence, last three words – change "about 184 pages" to "about 180 pages".
8. Page x – #5) 4th full paragraph, last sentence, last three words – change "about 158 pages" to "about 154 pages".
9. Page xi – #1) 1st (partial) paragraph, last sentence, 4th through 6th words – change "about 68 pages" to "about 64 pages".
10. Page xiii – #1) 2nd full paragraph from the end (italicized) – Delete entire second sentence, beginning with "In addition, ..."
11. Page xiii – #2) TBD.
12. Page xvi – Under "1974" highlight, change second name from "David Culner" to "David Culmer".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 1, Pages 3 – 118

1. Page 7 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "Op Amp Introduction".
2. Page 9 – 5th paragraph, 2nd sentence – The " Z_F " isn't clear. Actually looks like " Z_P ".
3. Page 11 – 2nd paragraph from bottom, 2nd sentence – insert "as" just before "10,000,000".
4. Page 12 – Last paragraph, last sentence – G_{CL} and A_{VOL} should not be italic.
5. Page 13 – 1st paragraph, second sentence – A_{VOL} should not be italic.
6. Page 14 – #1) 1st partial paragraph (top) , last sentence – change "linearity" to "linearity error".
7. Page 14 – #2) same paragraph, same sentence – change "stability" to "instability".
8. Page 25 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "Op Amp Topologies".
9. Page 26 – Credit line within Fig. 1-16 – close up space between "Electronics" and ",", so as to read "Electronics,".
10. Page 33 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "Op Amp Structures".
11. Page 36 – Fig. 1-24, within graphic – apparent font problem with R23 and R24. The values should read "820 Ω ".
12. Page 40 – #1) 3rd paragraph up from bottom of page, parenthetical phrase – This should read "(as in Figure 1-27, right)".
13. Page 40 – #2) 2nd paragraph up from bottom of page, 1st sentence – Change "from200 mV" to "from 200 mV".
14. Page 41 – 2nd paragraph up from bottom of page, 5th line, very beginning – This should read "alternatively switched".
15. Page 46 – Figure 1-34 caption – The last word should read "DigiTrimTM".
16. Page 51 – An entire paragraph was deleted, prior to "Most op amp specifications"...
17. Page 53 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "Op Amp Specifications".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 1, Pages 3 – 118

18. Page 56 – 4th paragraph, last sentence, last phrase after comma – Should read as:
"or $I_B = (I_{B+} + I_{B-})/2$ ".
19. Page 62 #1) – Within Figure 1-51, Ex. 1 – " A_{VOL} " should read as " A_{VOL} ".
20. Page 62 #2) – Within Figure 1-51, Ex. 2 – " A_{VOL} " should read as " A_{VOL} ".
21. Page 63 #1-3 – 1st paragraph, 1st sentence – No italics on " R_G ", " V_Y ", or " V_{OS} ".
22. Page 63 #4) – 4th paragraph, 1st sentence, just below Eq. 1-18 – " A_{VOL} " should not be italicized.
23. Page 64 – Within Figure 1-53, 2nd line of text – " $A_{VOL,MIN}$ " should read as " $A_{VOL,MIN}$ ".
24. Page 68 – Within Figure 1-59, caption under left plot – "Full" should read as "Fully".
25. Page 72 – 1st paragraph, 1st line - "0.1 d B/division" should read as "0.1 dB/division".
26. Page 76 #1) – Eq. 1-25 – Radical over middle section should not extend over final section, i.e., it should end just prior to second "=".
27. Page 76 #2) & #3) – partial paragraph just below Eq. 1-25, 1st and 2nd lines – " F_L " and " F_C " should not be italicized.
28. Page 81 – last paragraph, 2nd sentence – " V_N " should read " V_N ".
29. Page 91 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "Precision Op Amps".
30. Page 93 #1) – 1st paragraph above figure, 2nd line – "(AD8551/AD52/AD54)" should read "(AD8551/52/54)".
31. Page 93 #2) – 1st paragraph above figure, 3rd line – "AD8571/AD72/AD74" should read "AD8571/72/74".
32. Page 93 #3) – Figure 1-92, header above left part – "AD8551/AD52/AD54" should read "AD8551/52/54".
33. Page 93 #4) – Figure 1-92, header above right part – "AD8571/AD72/AD74" should read "AD8571/72/74".
34. Page 93 #5) – Figure 1-92, caption, 2nd line – "fixed pseudorandom" should read "fixed versus pseudorandom".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 1, Pages 3 – 118

35. Page 94 #1) – Figure 1-93, header above left part – "AD8551/AD52/AD54" should read "AD8551/52/54".
36. Page 94 #2) – Figure 1-93, header above right part – "AD8571/AD72/AD74" should read "AD8571/72/74".
37. Page 94 #3) – Figure 1-94, caption – "AD8571/AD72/AD74" should read "AD8571/72/74".
38. Page 95 #1) – 2nd paragraph, 1st line – "AD8571/AD72/AD74" should read "AD8571/72/74".
39. Page 95 #2) – Figure 1-95, header above right part – "AD8571/AD72/AD74" should read "AD8571/72/74".
40. Page 99 – Odd page header, running through end of section – "Op Amp Basics" should be complemented by name of the section, i.e., "High Speed Op Amps".
41. Page 101 – Paragraph just below Eq. 1-45, 1st line – "A" should not be italicized.

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 2, Pages 121 – 169

1. Page 125 – Odd page header, running through end of section – "Specialty Amplifiers" should be complemented by name of the section, i.e., "Instrumentation Amplifiers".
2. Page 125 – 3rd full paragraph, line immediately after Eq. 2-1 – " K_R " should not be italicized.
3. Page 130 – 1st paragraph, 3rd line – Change "VOUT" to " V_{OUT} ".
4. Page 131 – 2nd full paragraph, last line – Add a comma after "including the AD627" as: " including the AD627,".
5. Page 142 – Last paragraph, 7th line – Change "VOS" to " V_{OS} ".
6. Page 146 – 1st paragraph immediately below Fig. 2-30, 2nd line – Change "RG" to " R_G ".
7. Page 153 – Odd page header, running through end of section – "Specialty Amplifiers" should be complemented by name of the section, i.e., "Programmable Gain Amplifiers".
8. Page 159 #1) – Paragraph immediately below Fig. 2-45, 3rd line – Change "RON" to " R_{ON} ".
9. Page 159 #2) – 2nd paragraph from bottom, 1st, within () – Change "AD77ss" to "AD77XX".
10. Page 163 – Odd page header, running through end of section – "Specialty Amplifiers" should be complemented by name of the section, i.e., "Isolation Amplifiers".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 3, Pages 173 – 223

1. Page 175 – Odd page header, running through end of section – "Using Op Amps with Data Converters " should be complemented by name of the section, i.e., "Introduction".
2. Page 181 – Odd page header, running through end of section – "Using Op Amps with Data Converters " should be complemented by name of the section, i.e., "ADC/DAC Specifications".
3. Page 195 – Odd page header, running through end of section – "Using Op Amps with Data Converters " should be complemented by name of the section, i.e., "Driving ADC Inputs".
4. Page 196 #1) – 1st paragraph after Fig. 3-26, 4th line – Change "AD77xx" to "AD77XX", to be consistent with usage in previous paragraph.
5. Page 196 #2) – 2nd paragraph after Fig. 3-26, 1st line – Change "AD77xx" to "AD77XX", to be consistent with usage in above paragraphs.
6. Page 196 #3) – 3rd paragraph after Fig. 3-26, 1st line – Change "AD77xx" to "AD77XX", to be consistent with usage in above paragraphs.
7. Page 197 – Fig. 3-27 caption – Change "AD77xx" to "AD77XX", to be consistent with usage in previous paragraphs, previous page.
8. Page 198 #1) and #2) – 3rd paragraph from bottom, 1st line – Change "AD789x" to "AD789X", and "AD76xx" to "AD76XX".
9. Page 201 – 1st paragraph, 3rd line – Change "open/ close" to "open/close".
10. Page 204 – 1st paragraph, 1st line – Change "independen\t" to " independent".
11. Page 206 #1) – Fig. 3-41 – Change "AD922s" to "AD922X", to be consistent with previous usage.
12. Page 206 #2) – Fig. 3-41, caption – Change "AD922x" to "AD922X", to be consistent with previous usage.
13. Page 207 #1) – 1st paragraph (partial), 2nd line – Change "AD922x" to "AD922X", to be consistent with previous usage.
14. Page 207 #2) – 3rd full paragraph, 2nd line – Change "AD922x" to "AD922X", to be consistent with previous usage.
15. Page 207 #3) – Fig. 3-42 – Change "AD922x" to "AD922X", to be consistent with previous usage.

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 3, Pages 173 – 223

16. Page 208 #1) – 3rd paragraph, 1st line – Change "AD813x" to "AD813X", to be consistent with previous usage.
17. Page 208 #2) – Fig. 3-43 caption – Change "AD813x" to "AD813X", to be consistent with previous usage.
18. Page 215 – Odd page header, running through end of section – "Using Op Amps with Data Converters " should be complemented by name of the section, i.e., "Driving ADC/DAC Reference Inputs".
19. Page 216 – Reference # 3, 1st line – Change "Vol. 28, No.," to "Vol. 28, No. 1,".
20. Page 218 #1) – 1st paragraph, 2nd line – Change "AD976x" to "AD976X", to be consistent with previous usage.
21. Page 218 #2) – 1st paragraph, 2nd line – Change "AD977x" to "AD977X", to be consistent with previous usage.
22. Page 219 – Odd page header, running through end of section – "Using Op Amps with Data Converters " should be complemented by name of the section, i.e., "Buffering DAC Outputs".
23. Page 221 #1) – 1st paragraph above Fig. 3-57 – Change "AD813x" to "AD813X", to be consistent with previous usage.
24. Page 221 #2) – Fig. 3-57 caption – Change "AD813x" to "AD813X", to be consistent with previous usage.
25. Page 221 #3) – 2nd paragraph from bottom, 2nd line – Change "AD813x" to "AD813X", to be consistent with previous usage.
26. Page 221 #4) – Last paragraph, 1st line – Change "AD813x" to "AD813X", to be consistent with previous usage.
27. Page 221 #5) – Last paragraph, 2nd line – Change "AD813x" to "AD813X", to be consistent with previous usage.

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 4, Pages 227 –305

1. Page 229 – Odd page header, running through end of section – "Sensor Signal Conditioning" should be complemented by name of the section, i.e., "Introduction".
2. Page 233 – Odd page header, running through end of section – "Sensor Signal Conditioning" should be complemented by name of the section, i.e., "Bridge Circuits".
3. Page 245 – 1st full paragraph, 3rd and 4th lines – 3rd line should begin 3rd sentence as "The AD7730 ADC....", with the "ADC...." moved up from the 4th line.
4. Page 249 – Odd page header, running through end of section – "Sensor Signal Conditioning" should be complemented by name of the section, i.e., "Strain, Force, Pressure and Flow Measurements".
5. Page 254 – Fig. 4-32, caption – Capitalize "A".
6. Page 259 – Odd page header, running through end of section – "Sensor Signal Conditioning" should be complemented by name of the section, i.e., "High Impedance Sensors".
7. Page 266 – 2nd paragraph from bottom, 1st line, near end – Change "connections are" to "connections that are".
8. Page 287 – Odd page header, running through end of section – "Sensor Signal Conditioning" should be complemented by name of the section, i.e., "Temperature Sensors".
9. Page 295 #1) – 2nd full paragraph, 1st line – Change "AD77xx" to "AD77XX", to be consistent with previous usage.
10. Page 295 #2) – Fig. 4-77, body – Change "AD77xx" to "AD77XX", to be consistent with previous usage.
11. Page 295 #3) – Fig. 4-77, caption – Change "AD77xx" to "AD77XX", to be consistent with previous usage.
12. Page 298 #1) – 3rd paragraph, 1st line – "k" is not italic.
13. Page 298 #2) – 3rd paragraph, 1st line – "T" is not italic.
14. Page 298 #3) – 3rd paragraph, 1st line – "q" is not italic.
15. Page 298 #4) – 3rd paragraph, 2nd line – "I_S" is not italic.

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 4, Pages 227 –305

16. Page 304 – 1st paragraph, 4th line – Change "REF19x" to "REF19X", to be consistent with previous usage.

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 5, Pages 309 – 419

1. Page 311 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Introduction".
2. Page 315 #1) – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "The Transfer Function".
3. Page 315 #2) – 2nd line from bottom, just below Eq. 5-8 – Change " H_0 " to non-italic.
4. Page 320 – 1st paragraph, 2nd line, 3rd sentence – Change "square wave" to "square wave" (i.e., delete extra space).
5. Page 325 – 3rd paragraph, line just below Eq. 5-29 – Change "K" to non-italic.
6. Page 327 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Standard Responses".
7. Page 351 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Frequency Transformations".
8. Page 359 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Filter Realizations".
9. Page 371 – Sentence right above Eq. 5-91 – Change "require" to "required".
10. Page 373 – 2nd line below Fig. 5-64, last phrase – Change "at fv" to "at dc".
11. Page 378 – 2nd expression under "THEN:" – Replace "CS =" with "C2 =".
12. Page 388 – Fig. 5-78, left column, "R2" expression under "CHOSE R6 R5 C1" – Replace denominator of " $R4 = R6$ " with " $R4 + R6$ ".
13. Page 389 – Fig. 5-79A, within transfer function V_{OUT}/V_{IN} , denominator – after the 1st term s^2 , there should be a "+", before the opening square bracket.
14. Page 395 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Practical Problems in Filter Implementations".
15. Page 405 – Odd page header, running through end of section – "Analog Filters" should be complemented by name of the section, i.e., "Design Examples".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 6, Pages 423 – 603

1. Page 423 – 2nd paragraph, 1st line – Insert space between "electret," and "and", as in "electret, and".
2. Page 425 – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Audio Amplifiers".
3. Page 427 – 1st line under Eq. 6-1, end of partial sentence – Change " i_n is in $V/\sqrt{\text{Hz}}$." to " i_n is in $A/\sqrt{\text{Hz}}$ ".
4. Page 428 #1) – 1st line under Eq. 6-3 – Change " G_{total} " to " G_{total} ".
5. Page 428 #2) – 2nd line under Eq. 6-3 – Change " G_{UI} " to " G_{U1} ".
6. Page 432 #1) – Within the expression for f_1 , near page bottom, after 1st "=" – Change " $1/T_1$ " to " $1/(2 \bullet \pi \bullet T_1)$ ".
7. Page 432 #2) – Within the expression for f_2 , near page bottom, after 1st "=" – Change " $1/T_2$ " to " $1/(2 \bullet \pi \bullet T_2)$ ".
8. Page 432 #3) – Within the expression for f_3 , near page bottom, after 1st "=" – Change " $1/T_3$ " to " $1/(2 \bullet \pi \bullet T_3)$ ".
9. Page 432 #4) – Last paragraph, 2nd line, at end– Change "10 kHz-" to "10 Hz-".
10. Page 437 – Within Fig. 6-10, change capacitor labeled "C3" to "C4".
11. Page 438 – 1st line – Change " $R_5\text{-}C_3$ " to " $R_5\text{-}C_4$ ".
12. Page 440 #1) – Within listing of Fig. 6-13, line beginning with ".PARAM ENORM" – This entire line should be in boldface, as is referenced within the text. ***See how it was correct, within the original Fig. 6-13.***
13. Page 440 #2) – Within listing of Fig. 6-13, line after the one beginning "C2 21 8 10.3NF", and before the line beginning "C3 55 100 10E-6" – This line should read "R3 21 0 200 ; 199.9148". ***See how it was correct, within the original Fig. 6-13.***
14. Page 440 #3) – Within listing of Fig. 6-13, line after the one beginning "R6 100 0 100K", and before the line beginning "C4 56 0 3.0000E-9" – This line should read "R5 100 56 499". ***See how it was correct, within the original Fig. 6-13.***
15. Page 450 – Within table of Fig. 6-22, center column, lines with "72.1", "80", "100", and "109.5" – These should be in boldface, as they are referenced within the text. ***See how it was correct, within the original Fig. 6-22.***

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 6, Pages 423 – 603

16. Page 451 – Last paragraph, 1st line, third word – Change ' K_R ' to '" K_R "'; i.e., drop italics and place in (double) quotes.
17. Page 454 – Paragraph under "Alternate Balanced Line Receivers" – 2nd line is broken prematurely.
18. Page 458 #1) – 1st line under Eq. 6-16, partial sentence – Change " R_G " to " R_G ".
19. Page 458 #2) – 1st line under Eq. 6-16, 2nd sentence – Fix font size for " R_G ".
20. Page 458 #3) – Eq. 6-17 should read as " $R_G = R_1/(G - 0.5)$ ".
21. Page 475 – Fig. 6-48, caption, end of 2nd line – Change "6-48" to "6-47".
22. Page 476 – 2nd paragraph, last line – Change " $R^1 || R_2$ " to " $R_1 || R_2$ ".
23. Page 477 – Fig. 6-50, caption, towards end of 1st line – Change "6-50" to "6-49".
24. Page 478 – 2nd paragraph under "Composite Current Boosted Drivers", 2nd line @ end/3rd line beginning – Change "two-op-amp" to "two op amp".
25. Page 480 #1) – 1st paragraph under "Inverter-Follower Differential Line Driver", 3rd line near end – Change "respec t" to "respect".
26. Page 480 #2) – 1st paragraph under "Inverter-Follower Differential Line Driver", 5th line near end – Change "as shown above, in Figure 6-54" to "as shown in Figure 6-54".
27. Page 481 – 1st paragraph under Fig. 6-55, 3rd line – Fix font size for " V_{IN} ".
28. Page 487 – 1st line under Eq. 6-19 – " R_1/R_2 ", " R_4 " and " $R_{PRIMARY}$ " should not be italic.
29. Page 495 – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Buffer Amplifiers and Driving Capacitive Loads".
30. Page 507 – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Video Amplifiers".
31. Page 521 – Line under Eq. 6-21, 2nd word – Change " V_{OUT} " to " V_{OUT} ".
32. Page 522 – Last line, at end – Change "the use chip" to "the use of chip".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 6, Pages 423 – 603

33. Page 523 – 1st line under "Fully Integrated Differential Drivers" – Change "AD8131x" to "AD813X".
34. Page 525 – 1st line, 4th word – Change 'Kr' to "'Kr'" (include the double quotes).
35. Page 534 – 2nd paragraph below Fig. 6-108, 4th line – Change "AD813 CFB current feedback" to "AD813 current feedback".
36. Page 547 – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Communication Amplifiers".
37. Page 551 – Within Fig. 6-131, last line, expression for NF – close up expression after "log", should read as "10 log₁₀ F".
38. Page 552 – Within Fig. 6-132, last line, expression for NF – close up expression after "log", should read as "10 log₁₀ F".
39. Page 569 – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Amplifier Ideas".
40. Page 571 – 1st paragraph at top of page – Fix font size for "V_{IN}".
41. Page 574 – Within Fig. 6-158, the feedback resistor for the AD811 stage – Should read as "604Ω", not "604?".
42. Page 578 – 1st paragraph at top of page – Fix font size for "V_H".
43. Page 589 #1) – Odd page header, running through end of section – "Signal Amplifiers" should be complemented by name of the section, i.e., "Composite Amplifiers".
44. Page 589 #2) – 2nd paragraph, last line – Change "nonrail-rail" to "non rail-rail".
45. Page 592 – Within Fig. 6-174, resistor R9 – Should read as "10Ω", not "10?".
46. Page 596 – 3rd paragraph from top of page, line beginning with "The Q1-Q2 emitter" – Fix font size for "I_E".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 7, Pages 607 – 761

1. Page 607 – Chapter author listing – Add "Joe Buxton, Wes Freeman" after "Walt Jung".
2. Page 611 – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "Passive Components".
3. Page 625 – Paragraph below Fig. 7-14, 2nd line – Change "1 CH" to "1 μ H".
4. Page 627 – Reference # 18 – Change "www.precisionresistor.com>" to "www.precisionresistor.com"
5. Page 631 – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "PCB Design Issues".
6. Page 655 – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "Op Amp Power Supply Systems".
7. Page 657 #1) – 2nd paragraph above Fig. 7-50, 2nd line – Change "ADP330x" to "ADP330X".
8. Page 657 #2) – Last paragraph, just above Fig. 7-50, 1st line – Change "ADP330x" to "ADP330X".
9. Page 657 #3) – Fig. 7-50, caption – Change "ADP330x" to "ADP330X".
10. Page 658 – 1st paragraph above Fig. 7-51, 1st line – Change "ADP330x" to "ADP330X".
11. Page 669 – 2nd paragraph from bottom, 3rd line – Change "1 MHZ" to "1 MHz".
12. Page 673 – Reference # 6 – Change spelling of "Bill Chesnut" to "Bill Chestnut".
13. Page 677 – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "Op Amp Protection".
14. Page 678 – Within fig. 7-67, value for R_{LIMIT} – Change "10k?" to "10k Ω ".
15. Page 680 – 3rd paragraph, 1st line – Change "ADG46x" to "ADG46X".
16. Page 685 #1) – Within fig. 7-73, two resistors in input legs, at left of D1, D2 – Change to show bodies *dotted*. ***See how it was correct, within the original Fig. 7-73.***

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 7, Pages 607 – 761

17. Page 685 #2) – Within fig. 7-73, an extra resistor is shown over Q2A, Q2B – Delete this resistor. *See how it was correct, within the original Fig. 7-73.*
18. Page 687 –Paragraph just above Fig. 7-76, change last line as follows – "It can use two-thirds of a triple ADG466 channel protector for the in amp differential inputs, or a pair of ADG465 single channel parts as shown."
19. Page 696 #1) – 2nd paragraph – Change "ADMxxx-E" to "ADMXXX-E".
20. Page 696 #2) – Within Fig. 7-88, under 3rd bullet – Change "ADMxxx-E" to "ADMXXX-E".
21. Page 697 – Ref. 19 – Delete www.vishay.com (ending with a period after the phone #).
22. Page 699 – The paragraph immediately under Fig. 7-89 is completely redundant, since it repeats word-for-word what is in the figure.
23. Page 700 – 1st paragraph under Fig. 7-90, 1st line – Change "Figure 7-91" to "Figure 7-90".
24. Page 701 – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "Thermal Considerations".
25. Page 704 – 2nd paragraph under Fig. 7-95, 2nd line – Change "AD8107" to "AD8017".
26. Page 710 – Within Fig. 7-100 – The final bullet should not be there. Text of 4th bullet covers two lines.
27. Page 720 – 4th paragraph under "Background:" ..., 3rd line. Change "Ics" to "ICs".
28. Page 739 #1) – Odd page header, running through end of section – "Hardware and Housekeeping" should be complemented by name of the section, i.e., "Simulation, Breadboarding and Prototyping".
29. Page 739 #2) – Last paragraph, last line, last word – Change "next" to "later on".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 8, Pages 765 – 829

1. Page 766 – 3rd bullet – "implies" should not be italicized.
2. Page 768 #1) – 2nd paragraph from bottom – there is an extra blank line just before Bell Telephone Labs.
3. Page 768 #2) – Same paragraph – ending reference callout should be #12.
4. Page 768 #3) – Odd page header, running through end of section – "Op Amp History" should be complemented by name of the section, i.e., "Introduction".
5. Page 769 – #1) 2nd full paragraph – ending reference callout should be #16.
6. Page 769 – #2) 2nd paragraph from end – ending reference callout should be #21.
7. Page 775 – Odd page header, running through end of section – "Op Amp History" should be complemented by name of the section, i.e., "Vacuum Tube Op Amps".
8. Page 778 – 4th paragraph, 3rd line under "The M9 from a Bell Labs View" – capitalize "Bell Labs" (as in 5th line instance).
9. Page 781 – Last paragraph, last line – "different ad compensation" should be "different ac compensation".
10. Page 782 – Last paragraph, 2nd and 3rd lines – The hyphenation of "devic-es" is extremely awkward and non-phonetic. Why not "de-vices"?
11. Page 793 #1) – Odd page header, running through end of section – "Op Amp History" should be complemented by name of the section, i.e., "Solid-State Modular and Hybrid Op Amps".
12. Page 793 #2) – First paragraph, 1st line – "G-AP/R" should be "GAP/R", as in 3rd line.
13. Page 799 – 3rd paragraph, beginning of 5th line – "igh" should be "high".
14. Page 805 – #1) 1st paragraph, 1st sentence, at the end – " μ A702" should be fully italicized, as " *μ A702*".
15. Page 805 – #2) 2nd paragraph, 1st sentence, 2nd line – " μ A709" should be fully italicized, as " *μ A709*".
16. Page 807 – Odd page header, running through end of section – "Op Amp History" should be complemented by name of the section, i.e., "IC Op Amps".
17. Page 808 – 3rd paragraph, 1st sentence, 2nd line – " μ A741" should be fully italicized, as " *μ A741*".

Op Amp Applications Handbook – Errata by Walt Jung

Chapter 8, Pages 765 – 829

18. Page 809 – 2nd paragraph, under 'Multiple 741 Types, ...', 2nd sentence, 2nd line – "general=purpose" should be "general purpose".
19. Page 814 – 2nd paragraph, 2nd sentence, 2nd line – "μA725" should be fully italicized, as "*μA725*".
20. Page 819 – 3rd full paragraph, 1st sentence, 2nd line – "μA740" should be fully italicized, as "*μA740*".
21. Page 824 – Reference # 8, last line – change "Ics" to "ICs".
22. Page 825 – #1) Reference # 22 – Change "super-beta" to "superbeta" to be consistent.
23. Page 825 – #2) Reference 23, 2nd line – "μA725" should be fully italicized, as "*μA725*".
24. Page 826 – Reference # 41 – Change "Dale May " to "Dave May".
25. Page 827 – Reference # 58 – Change "US Patent 4.969,823" to "US Patent 4,969,823".
26. Page 829 – Widlar picture – The gray overlay makes the photo excessively dark.

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 833:

1. Page 833 – Under citation "AD210:" – Change "key specifications and circuit," to "key specifications,".
2. Page 833 – Under citation "AD215: isolation amplifier," – Change page reference "164" to "165".
3. Page 833 – Under citation "AD275:" – Change "AD275:" to "OP275:", and move to proper order in index (page reference is OK).
4. Page 833 – Under citation "AD503:" – Change page reference "802" to "818".
5. Page 833 – Under citation "AD506:" – Change page reference "802" to "818".
6. Page 833 – Under citation "AD506L:" – Change page reference "810" to "819, 826".
7. Page 833 – Under citation "AD508J:" – Change page reference "809" to "825".
8. Page 833 – Under citation "AD509:" – Change page reference "811" to "827".
9. Page 833 – Under citation "AD515:" – Change page reference "804" to "820".
10. Page 833 – Under citation "AD526: Programmable Gain Instrumentation Amplifier" – Change "AD526:" to "AD625:", and move to proper order in index (page reference is OK).
11. Page 833 – Under citation "AD549: monolithic IC electrometer grade op amp" – Change page reference "805" to "821, 826".
12. Page 833 – Under citation "AD549: schematic" – Change page reference "805" to "821".
13. Page 833 – Under citation "AD620: CMR as a function of frequency" – Change page reference "138-139" to "139".
14. Page 833 – Under citation "AD620: schematic" – Change citation to "AD620: simplified schematic" and page reference "686" to "133".
15. Page 833 – Under citation "AD620: single supply in amp" – Delete citation.
16. Page 833 – Under citation "AD620B: bridge amplifier DC error budget" – Change page reference "140-141" to "142-143".
17. Page 833 – Under citation "AD620B: specifications" – Change page reference "140, 141, 143" to "142".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 834:

18. Page 834 – Under citation "AD623: single supply" – Change page reference "586" to "585, 586".
19. Page 834 – Under citation "AD704: quad op amp" – Change page reference "797" to "825".
20. Page 834 – Under citation "AD705: single op amp" – Change page reference "797" to "825".
21. Page 834 – Under citation "AD706: dual op amp" – Change page reference "797" to "825".
22. Page 834 – Under citation "AD708: dual op amp" – Change page reference "800" to "825".
23. Page 834 – Under citation "AD741 precision monolithic IC op amp" – Change page reference "793-794" to "809-810".
24. Page 834 – Under citation "AD741J, K, L, S..." – Change page reference "808" to "824".
25. Page 834 – Under citation "AD743: Low noise JFET IC op amp" – Change page reference "806" to "822, 827".
26. Page 834 – Under citation "AD745: Low noise JFET IC op amp" – Change page reference "806" to "822, 827".
27. Page 834 – Under citation "AD795: SOIC package" – Change page reference "273" to "272".
28. Page 834 – Under citation "AD797: family of distortion curves" – Change page reference "474" to "474, 475".

Page 835:

29. Page 835 – Under citation "AD820: single low-power op amp (Note that 'AD820:' started on page 834, and 'single low-power op amp' appears on 835)" – Change page reference "806" to "822".
30. Page 835 – Under citation "AD822: dual low-power op amp" – Change page reference "820" to "822".
31. Page 835 – Under citation "AD823: photodiode preamp, dark current compensation" – Change page reference "275" to "276".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 835 (continued):

- 32. Page 835 – Under citation "AD77XX family: equivalent input circuit" – Change page reference "196" to "196, 197".
- 33. Page 835 – Under citation "AD813X family: differential op amp" – Change citation to "differential ADC output". Page reference is OK.
- 34. Page 835 – Under citation "AD922X family: dual op amp" – Change citation to "dual op amp driver". Page reference is OK.

Page 836:

OK as is.

Page 837:

- 35. Page 837 – Under citation "ADC: single-supply, scaled output" – Change citation to "single-supply, scaled input". Page reference is OK.

Page 838:

- 36. Page 838 – Under citation "ADI, birth" – Change page reference "780" to "796".
- 37. Page 838 – Under citation "ADI model 44 FET op amp" – Change page reference "783" to "799".
- 38. Page 838 – Under citation "ADI model 44 FET op amp, schematic" – Change page reference "783" to "799".
- 39. Page 838 – Under citation "ADI model 45 FET op amp" – Change page reference "783" to "799".
- 40. Page 838 – Under citation "ADI model 48 FET op amp" – Change page reference "783" to "799".
- 41. Page 838 – Under citation "ADI model 48 FET op amp, schematic" – Change page reference "783" to "799".
- 42. Page 838 – Under citation "ADI model 50 FET op amp" – Change page reference "800" to "810".
- 43. Page 838 – Under citation "ADI model 121 wideband DC op amp, schematic" – Change page reference "782-783" to "798".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 838 (continued):

44. Page 838 – Under citation "ADI Modular Products" – Change page reference "787" to "803".
45. Page 838 – Under citation "ADI Staff" – Change page reference "787" to "803".
46. Page 838 – Under citation "Allpass filter, transfer function" – Change page reference "318" to "319".
47. Page 838 – Under citation "Amplification frequency response, RIAA equalizer" – Change page reference "437" to "436".
48. Page 838 – Under citation "Amplifier: biological" – Change page reference "757" to "773".
49. Page 838 – Under citation "Amplifier: difference" – Change page reference "125-127" to "124-127".

Page 839:

50. Page 839 – Under citation "Amplifier: differential, development" – Change page reference "757-760" to "773-776".
51. Page 839 – Under citation "Amplifier: differential, defined gain, precision DC" – Change page reference "757" to "773".
52. Page 839 – Under citation "Amplifier: feedback" – Change page reference "750" to "766".
53. Page 839 – Under citation "Amplifier: high gain, general purpose" – Change page reference "761" to "777".
54. Page 839 – Under citation "Amplifier: long-tailed pair" – Change page reference "757-758" to "774-775".
55. Page 839 – Under citation "Analog computing: developments" – Change page reference "760-763" to "776-778".
56. Page 839 – Under citation "Analog computing: first op amp application" – Change page reference "760" to "776".
57. Page 839 – Under citation "Analog Devices Inc., birth" – Change page reference "780" to "796".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 839 (continued):

- 58. Page 839 – Under citation "Analog Dialogue magazine" – Change page reference "786-787" to "798-799".
- 59. Page 839 – Under citation "Analog Dialogue magazine began" – Change page reference "782" to "798".
- 60. Page 839 – Under citation "Artillery Director" – Change page reference "761" to "777".
- 61. Page 839 – Under citation "Artz, Maurice" – Change page reference "753, 755, 764, 772" to "769, 771, 780, 788".
- 62. Page 839 – Under citation "Audio amplifier" – Change page reference "493-504" to "423-492".
- 63. Page 839 – Under citation "Audio buffer, THD+N performance" – Change page reference "466" to "466-467".
- 64. Page 839 – Under citation "Audion" – Change page reference "749" to "765".

Page 840:

- 65. Page 840 – Under citation (main carried from Page 839) "Balanced line receiver, buffered input, CM error vs. freq., plots" – Change page reference "456, 470-471" to "460-461".
- 66. Page 840 – Under citation "Balanced line receiver, buffered input, performance" – Change page reference "456-457, 459-461" to "459-461".
- 67. Page 840 – Under citation "Balanced line receiver, TD+N" – Change citation to "THD+N". Page reference is OK.
- 68. Page 840 – Under citation "1-Bandpass notch filter design" – Change page reference "382" to "372".
- 69. Page 840 – Under citation "Bardeen, J." – Change page reference "786" to "802".
- 70. Page 840 – Under citation "Bardeen, John" – Change page reference "775" to "791".
- 71. Page 840 – Under citation "Bell Telephone Laboratories" – Change page reference "749, 762, 765, 775" to "765, 778, 781, 791".
- 72. Page 840 – Under citation "Bell Telephone Laboratories, M9 gun director" – Change page reference "760" to "776, 777".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 840 (continued):

- 73. Page 840 – Under citation "Biasing" – Change page reference "760" to "776".
- 74. Page 840 – Under citation "Biological amplifier" – Change page reference "757" to "773".
- 75. Page 840 – Under citation "Bishop, P.O." – Change page reference "759, 770" to "775, 786".
- 76. Page 840 – Under citation "Black, Harold" – Change page reference "762" to "778".
- 77. Page 840 – Under citation "Black, Harold S." – Change page reference "751, 754" to "767, 770".
- 78. Page 840 – Under citation "Black, H. S." – Change page reference "754" to "770".
- 79. Page 840 – Under citation "Black's feedback amplifier" – Change page reference "752" to "768".
- 80. Page 840 – Under citation "Blattner, D. G. " – Change page reference "771" to "787".
- 81. Page 840 – Under citation "Blumlein, A. D." – Change page reference "757, 769" to "773, 785".

Page 841:

- 82. Page 841 – Under citation "Bode, Heindrick" – Change page reference "753, 754-755, 762, 21" to "21, 769, 770-771, 778".
- 83. Page 841 – Under citation "Boghosian, W. H." – Change page reference "771" to "787".
- 84. Page 841 – Under citation "Boghosian, William" – Change page reference "761" to "777".
- 85. Page 841 – Under citation "Bowers, Derek" – Change page reference "xii, 504, 603, 760, 797, 802" to " xii, 504, 603, 760, 813, 818".
- 86. Page 841 – Under citation "Bradley-McCoy circuit" – Change page reference "765" to "781".
- 87. Page 841 – Under citation "Bradley, Frank" – Change page reference "765" to "781".
- 88. Page 841 – Under citation "Bradley, Frank R." – Change page reference "772" to "788".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 841 (continued):

89. Page 841 – Under citation "Brattain, Walter" – Change page reference "775" to "791".
90. Page 841 – Under citation "Brattain, W. H. " – Change page reference "786" to "802".
91. Page 841 – Under citation "Bridge: circuit" – Change page reference "231" to "232".
92. Page 841 – Under citation "Bridge: configurations" – Change page reference "235" to "233".
93. Page 841 – Under citation "Bridge: design considerations" – Change page reference "235" to "233-235".
94. Page 841 – Under citation "Brokaw, Adrian P." – Change page reference "304-305, 810" to "304-305, 826".
95. Page 841 – Under citation "Brown, Thomas" – Change page reference "776" to "792".
96. Page 841 – Under citation "Buder, Robert" – Change page reference "771" to "787".
97. Page 841 – Under citation "Buffer: dual amplifier, THD+N vs. freq. plots" – Change page reference "467" to "468".

Page 842:

98. Page 842 – Under citation "Burr-Brown Applications Staff" – Change page reference "786" to "802".
99. Page 842 – Under citation "Burr-Brown Research Corporation" – Change page reference "776, 781, 805" to "792, 797, 821".
100. Page 842 – Under citation "Burr, Robert Page" – Change page reference "776" to "792".
101. Page 842 – Under citation "Burwen, Dick" – Change page reference "xii, 782, 787, 810" to "xii, 798, 803, 826".
102. Page 842 – Under citation "Butler, Jim" – Change page reference "804" to "820".
103. Page 842 – Under citation "Butterworth filter" – Change page reference "311, 323, 325, 328, 330" to "311, 323, 325, 327, 328, 330".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 842 (continued):

- 104. Page 842 – Under citation "CA3130" – Change page reference "803" to "819".
- 105. Page 842 – Under citation "CA3140" – Change page reference "803" to "819".
- 106. Page 842 – Under citation "Cadigan, John" – Change page reference "783" to "799".
- 107. Page 842 – Under citation "Capsule Listing of ADI Op Amps" – Change page reference "787" to "803".
- 108. Page 842 – Under citation "Cascaded NPN differential pair ..." – Change page reference "778" to "794".

Page 843:

- 109. Page 843 –Delete citation "Chesnut, Bill".
- 110. Page 843 – Under citation "Chestnut, Bill" – Change page reference "230" to "230, 673".
- 111. Page 843 – Under citation "Chip Center's "Signal Integrity" page" – Change page reference "734" to "735".
- 112. Page 843 – Under citation "Classic Cameo" – Change page reference "149, 813" to "20, 149, 305, 829".
- 113. Page 843 – Under citation "Close, JoAnn" – Change page reference "xii, 586, 804, 805-806, 810" to "xii, 586, 820, 821-822, 826".
- 114. Page 843 – Under citation "CM over-voltage protection using high CM in amp" – Change page reference "679-680" to "680".
- 115. Page 843 – Under citation "common-mode feedback " – Change page reference "757" to "773".
- 116. Page 843 – Under citation "common-mode rejection" – Change page reference "757" to "773".
- 117. Page 843 – Under citation "Communication network, available power gain, circuit" – Change page reference "550" to "551".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 844:

- 118. Page 844 – Under citation "Computer Labs" – Change page reference "784-785" to "800-801".
- 119. Page 844 – Under citation "Counts, Lew" – Change page reference "804-805, 810" to "820-821, 826". Note: The remaining page references are OK.
- 120. Page 844 – Under citation "Crosstalk, multiplexer" – Change page reference "197" to "198".
- 121. Page 844 – Under citation "Damping ratio, filter" – Change page reference "314" to "315".
- 122. Page 844 – Under citation "Darlington buffer" – Change page reference "783" to "799".
- 123. Page 844 – Under citation "Darlington, Sidney" – Change page reference "761" to "777".

Page 845:

- 124. Page 845 – Under citation "Data Sheet for Model K2-W Operational Amplifier" – Change page reference "772" to "788".
- 125. Page 845 – Under citation "Davis, William" – Change page reference "795, 808" to "811, 824".
- 126. Page 845 – Under citation "Differential line receiver, balanced feedback" – Change page reference "565" to "454".
- 127. Page 845 – Under citation "Differential pair biasing" – Change page reference "758" to "774".
- 128. Page 845 – Under citation "Discrete transistor, for op amp" – Change page reference "776" to "792".
- 129. Page 845 – Under citation "Dobkin, Bob" – Change page reference "807" to "823, 827".
- 130. Page 845 – Under citation "Dos Santos, Francisco" – Change page reference "806" to "822".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 846:

131. Page 846 – Under citation "Dual 16MHz Rail-Rail FET" – Change page reference "811" to "827".
132. Page 846 – Under citation "Dual FET, 3 to +/-18V" – Change page reference "811" to "827".
133. Page 846 – Under citation "Dobkin, Bob" – Delete, covered by # 129 above.
134. Page 846 – Under citation "Effective number of bits, see ENOB" – Should read as " Effective number of bits, see ENOB" (end of citation). Move "Effective series" to next line with "inductance" (see next).
135. Page 846 – Create new citation "Effective series inductance", but *not* as subset of "Effective number of bits, see ENOB". Citation should read as "Effective series inductance, 612".
136. Page 846 – Under citation "Electrical Gun Director Demonstrated" – Change page reference "771" to "787".
137. Page 846 – Under citation "Electrometer IC op amp" – Change page reference "804-806" to "820-822".
138. Page 846 – Under citation "Erdi, George " – Change page reference "xii, 50, 504, 792, 796, 798-799, 800, 803, 808-809" to "xii, 50, 504, 808, 812, 814-815, 816, 819, 824-825".

Page 847:

139. Page 847 – Under citation "Fagan, M. D." – Change page reference "770" to "786".
140. Page 847 – Under citation "Fairchild Semiconductor Corporation" – Change page reference "775-776, 789, 792-793, 798-799, 803" to "791-792, 805, 808-809, 814-815, 819".
141. Page 847 – Under citation "Farnsley, Larry" – Change page reference "796" to "812".
142. Page 847 – Under citation "Fast FET Op Amp" – Change page reference "810" to "826".
143. Page 847 – Under citation "Fast Op Amp, High Performance, Low Power, Low Cost" – Change page reference "811" to "828".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 847 (continued):

- 144. Page 847 – Under citation "FET input op amp, low noise, in high-output moving coil microphone preamp" – Change page reference "553" to "442", and also change citation to " low noise, in high-output moving coil preamp".
- 145. Page 847 – Under citation " FET-input AD545" – Change page reference "810" to "826".
- 146. Page 847 – Under citation " FET-input ICs Can Slew at 50V/us" – Change page reference "810" to "826".
- 147. Page 847 – Under citation " FET-input Op Amp Has Lowest Combined V and I Noise" – Change page reference "811" to "827".
- 148. Page 847 – Under citation " Fieldbusses: Look Before You Leap" – Change page reference "230, 5751, 768" to "230".

Page 848:

- 149. Page 848 – Under citation "Filter: low pass, peaking vs. quality factor, plot" – Change page reference "314" to "315".

Page 849:

- 150. Page 849 – Under citation "First Monolithic Op Amp with 1uV/ C drift" – Change page reference "810" to "826".
- 151. Page 849 – Under citation "Fleming diode" – Change page reference "749" to "765".
- 152. Page 849 – Under citation "Fleming, J. A." – Change page reference "754" to "770".
- 153. Page 849 – Under citation "44, FET op amp" – Change page reference "783" to "799".
- 154. Page 849 – Under citation "45, FET op amp" – Change page reference "783" to "799".
- 155. Page 849 – Under citation "48, FET op amp" – Change page reference "783" to "799".
- 156. Page 849 – Under citation "Franz, Rich" – Change page reference "810" to "826".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

157. Page 849 – Under citation "Frederiksen, Thomas" – Change page reference "793, 808" to "809, 824".
158. Page 849 – Under citation "Frost, Seymour" – Change page reference "764, 772" to "780, 788".
159. Page 849 – Under citation "Fullagar, Dave" – Change page reference "792, 808, 810" to "808, 824, 826".
160. Page 849 – Under citation "GAP/R" – Change page reference "766-767" to "782-783".
161. Page 849 – Under citation "GAP/R, op amp firm" – Change page reference "776-778, 780-781" to "792-793, 796-797".
162. Page 849 – Under citation "GAP/R, K2-P" – Change page reference "767" to "783".
163. Page 849 – Add new citation "GAP/R, K2-W" – Add page reference "783".
164. Page 849 – Under citation "GAP/R, model P2 varactor bridge op amp" – Change page reference "779-780" to "795-796".
165. Page 849 – Under citation "GAP/R, model P45 solid state op amp" – Change page reference "777" to "794".
166. Page 849 – Under citation "GAP/R, model P65 solid state op amp" – Change page reference "777" to "793".
167. Page 849 – Under citation "GAP/R, model PP65 solid state op amp" – Change page reference "779" to "795".
168. Page 849 – Under citation "Germanium semiconductor" – Change page reference "775" to "791".
169. Page 849 – Under citation "Gerstenhaber, Moshe" – Change page reference "586, 603, 800" to "586, 603, 816".
170. Page 849 – Under citation "Ginzton, Edward L." – Change page reference "29, 753, 755, 764, 772" to "29, 769, 771, 780, 788".
171. Page 849 – Under citation "Goldberg, E. A." – Change page reference "772" to "788".
172. Page 849 – Under citation "Goldberg, Harold" – Change page reference "758-759, 769" to "774-775, 785".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 850:

173. Page 850 – Under citation "Goodenough, Frank" – Change page reference "673, 807, 811" to "673, 823, 827".
174. Page 850 – Under citation "Grant, Doug" – Change page reference "627, 652, 809" to "xiii, 627, 825".
175. Page 850 – Under citation "Grown junction silicon transistor" – Change page reference "775" to "791".
176. Page 850 – Under citation "Grundfest, Harry" – Change page reference "759-760, 770" to "775-776, 786".
177. Page 850 – Under citation "HA2500" – Change page reference "807" to "823".
178. Page 850 – Under citation "Hageman, E. C." – Change page reference "771" to "787".
179. Page 850 – Under citation "Higgins, H. C." – Change page reference "770" to "786".
180. Page 850 – Under citation "High-Performance Dual FET Op Amps" – Change page reference "810" to "826".
181. Page 850 – Under citation "High-Performance Electrometer Op Amp in Plastic – Pin DIP" – Change page reference "811" to "827".
182. Page 850 – Under citation "Highest-Performing Low Cost BiFET Op Amps" – Change page reference "810" to "826".
183. Page 850 – Under citation "Hoerni, Jean" – Change page reference "776" to "792".
184. Page 850 – Under citation "Hoerni, Jean A." – Change page reference "786" to "802".
185. Page 850 – Under citation "Holst, Per" – Change page reference "760" to "776".
186. Page 850 – Under citation "Holst, Per A." – Change page reference "770" to "786".
187. Page 850 – Under citation "Horn, Geoffrey" – Change page reference "754" to "770".
188. Page 850 – Under citation "HOS-050 high speed FET hybrid op amp" – Change page reference "784-785" to "800-801".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 851:

- 189. Page 851 – Under citation "Husky, Harry" – Change page reference "768, 773" to "784, 789".
- 190. Page 851 – Under citation "Hybrid op amp" – Change page reference "776" to "792".
- 191. Page 851 – Under citation "IC op amp" – Change page reference "776" to "792".
- 192. Page 851 – Under citation "ICL8007, monolithic P-channel FET input op amp" – Change page reference "803" to "819, 826".
- 193. Page 851 – Under citation "Improvements in and Relating to Arrangements for Amplifying Electrical Oscillations" – Change page reference "754" to "770".
- 194. Page 851 – Under citation "In amp, CMR" – Change page reference "123, 138" to "124, 138".
- 195. Page 851 – Under citation "In-circuit over-voltage" – Change page reference "689-693" to "689".

Page 852:

- 196. Page 852 – Under citation "Input bias current cancellation" – Change page reference "796" to "812".
- 197. Page 852 – Under citation "Integrated circuit: invention" – Change page reference "775" to "791".
- 198. Page 852 – Under citation "Integrated circuit: planar process, invention" – Change page reference "775" to "792".
- 199. Page 852 – Under citation "Integrator: digitally variable, circuit diagram" – Change page reference "415" to "416".
- 200. Page 852 – Under citation "Intersil" – Change page reference "803" to "819".
- 201. Page 852 – Under citation "Isolation amplifier" – Change page reference "161-168" to "161-169".
- 202. Page 852 – Under citation "Jofeh, Lionel" – Change page reference "758, 769" to "774, 785".
- 203. Page 852 – Under citation "Johnston, Denis L." – Change page reference "759, 770" to "775, 786".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 852 (continued):

- 204. Page 852 – Under citation "Julie, Loeb" – Change page reference "763" to "779".
- 205. Page 852 – Under citation "Jung, Walt" – Change (*last 3 only*) page references "749, 809, 811" to "765, 825, 827".
- 206. Page 852 – Under citation "K2-W op amp" – Change page reference "766-767" to "782-783".

Page 853:

- 207. Page 853 – Under citation "Kester, Walt" – Change (*2 only*) page references, adding "213", deleting "604".
- 208. Page 853 – Under citation "Kilby, Jack" – Change page reference "xvi, 775" to "xvi, 791".
- 209. Page 853 – Under citation "Kilby, J. S." – Change page reference "786" to "802".
- 210. Page 853 – Under citation "Konigsberg, R. L." – Change page reference "768, 773" to "784, 789".
- 211. Page 853 – Under citation "Korn, Granino" – Change page reference "765-766, 768, 772-773" to "781-782, 784, 788-789".
- 212. Page 853 – Under citation "Korn, Theresa" – Change page reference "765, 772-773" to "781, 788-789".
- 213. Page 853 – Under citation "Lapham, Jerome F." – Change page reference "810" to "826".
- 214. Page 853 – Under citation "Lapham, Jody" – Change page reference "806" to "822".
- 215. Page 853 – Under citation "Lee, P." – Change page reference "795, 808" to "811, 824".
- 216. Page 853 – Under citation "LF155" – Change page reference "803, 805" to "819, 821".
- 217. Page 853 – Under citation "LF156" – Change page reference "803, 805" to "819, 821".
- 218. Page 853 – Under citation "LF157" – Change page reference "803, 805" to "819, 821".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 853 (continued):

- 219. Page 853 – Under citation "LH101, monolithic IC op amp, hybrid topology" – Change page reference "793" to "809".
- 220. Page 853 – Under citation "Lightning Empiricist, periodical" – Change page reference "767" to "783".
- 221. Page 853 – Under citation "Line driver: audio" – Change page reference "465-480" to "465-492".
- 222. Page 853 – Under citation "Line receiver: balanced," – Correct citation "TD+N, 456", as " THD+N, 456".
- 223. Page 853 – Under citation "Line receiver: buffered balanced, advantages" – Change page reference "464" to "458".
- 224. Page 853 – Under citation "Line receiver: CM rejection vs. frequency, plot" – Change page reference "452" to "456-457".
- 225. Page 853 – Under citation "Linear IC Pioneer" – Change page reference "813" to "829".
- 226. Page 853 – Under citation "Linear Technology Corporation" – Change page reference "796" to "812".
- 227. Page 853 – Under citation "LM101: monolithic IC op amp, design objectives" – Change page reference "790" to "806".
- 228. Page 853 – Under citation "LM101: monolithic IC op amp, schematic" – Change page reference "791" to "807".
- 229. Page 853 – Under citation "LM101: monolithic IC op amp, second generation" – Change page reference "790-792" to "806-808".

Page 854:

- 230. Page 854 – Under citation "LM101: monolithic IC op amp, two-stage topology" – Change page reference "790" to "806".
- 231. Page 854 – Under citation "LM101A: monolithic IC op amp, greater stability" – Change page reference "793" to "809".
- 232. Page 854 – Under citation "LM102: voltage follower" – Change page reference "795" to "811".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 854 (continued):

- 233. Page 854 – Under citation "LM107: monolithic IC op amp" – Change page reference "793" to "809".
- 234. Page 854 – Under citation "LM108" – Change page reference "798" to "810".
- 235. Page 854 – Under citation "LM108, superbeta input monolithic IC op amp" – Change page reference "795" to "811".
- 236. Page 854 – Under citation "LM108, superbeta input monolithic IC op amp, schematic" – Change page reference "795" to "811".
- 237. Page 854 – Under citation "LM108A, superbeta input monolithic IC op amp" – Change page reference "796" to "812".
- 238. Page 854 – Under citation "LM118" – Change page reference "807" to "823".
- 239. Page 854 – Under citation "LM148" – Change page reference "793" to "809".
- 240. Page 854 – Under citation "LM218" – Change page reference "807" to "823".
- 241. Page 854 – Under citation "LM318" – Change page reference "807" to "823".
- 242. Page 854 – Under citation "LM324, quad op amp, industry standard" – Change page reference "793" to "809".
- 243. Page 854 – Under citation "LM358, dual op amp" – Change page reference "793" to "809".
- 244. Page 854 – Under citation "Long-tailed pair" – Change page reference "98, 757" to "98, 773".
- 245. Page 854 – Under citation "Lorber, Matt" – Change page reference "780" to "796".
- 246. Page 854 – Under citation "Losmandy, Bela" – Change page reference "768, 773" to "784, 789".
- 247. Page 854 – Under citation "Lovell, C. A. " – Change page reference "760, 771" to "776, 787".
- 248. Page 854 – Under citation "Low-cost HOS-050C is Internally Compensated .." – Change page reference "787" to "803".
- 249. Page 854 – Under citation "Low-Noise, Low-Drift Precision Op Amps.." – Change page reference "811" to "827".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 854 (continued):

- 250. Page 854 – Under citation "low-pass filter" – Change page reference "210" to "215", and "330-348" to "330-342". Others are OK.
- 251. Page 854 – Under citation "LT1008, superbeta op amp" – Change page reference "796" to "812".
- 252. Page 854 – Under citation "LT1012, superbeta op amp" – Change page reference "796" to "812".
- 253. Page 854 – Under citation "M9 gun director" – Change page reference "760" to "776".
- 254. Page 854 – Under citation "M9 designers" – Change page reference "762" to "778".
- 255. Page 854 – Under citation "M9 Medal of Merit for designers" – Change page reference "762" to "778".
- 256. Page 854 – Under citation "M9 with SCR584 radar system" – Change page reference "762" to "778".
- 257. Page 854 – Under citation "M9 op amp, schematic" – Change citation to "M9 op amp (later), schematic", change page reference "765" to "781".
- 258. Page 854 – Under citation "uA702, first monolithic IC op amp" – Change page reference "789" to "805".
- 259. Page 854 – Under citation "The uA702 Wideband Amplifier" – Change page reference "808" to "824".
- 260. Page 854 – Under citation "uA709: monolithic IC op amp" – Change page reference "789-790" to "805-806".
- 261. Page 854 – Under citation "uA709: monolithic IC op amp, schematic" – Change page reference "789" to "805".
- 262. Page 854 – Under citation "uA725," – Change page reference "796, 798-802" to "812, 814, 825".
- 263. Page 854 – Under citation "uA725, monolithic IC op amp, schematic" – Change page reference "798" to "814".
- 264. Page 854 – Under citation "uA740," – Change page reference "803" to "819".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 854 (continued):

- 265. Page 854 – Under citation "uA741: monolithic IC op amp" – Change page reference "792-793" to "808-809".
- 266. Page 854 – Under citation "uA741: monolithic IC op amp, schematic" – Change page reference "792" to "808".
- 267. Page 854 – Under citation "uA741: similarity to AD741" – Change page reference "793-794" to "809-810".
- 268. Page 854 – Under citation "uA748, externally compensated monolithic IC op amp" – Change page reference "793" to "809".
- 269. Page 854 – Under citation "McCoy, Rawley" – Change page reference "765, 772" to "781, 788".
- 270. Page 854 – Under citation "McFee, Richard" – Change page reference "759, 770" to "775, 786".

Page 855:

- 271. Page 855 – Under citation "Maidique, Modesto" – Change page reference "808-810" to "824-826".
- 272. Page 855 – Under citation "Maidique, Modesto 'Mitch'" – Change page reference "797, 802" to "813, 818".
- 273. Page 855 – Under citation "Malter, Bob" – Change page reference "777, 780" to "793, 796".
- 274. Page 855 – Under citation "Matthews, B. H. C." – Change page reference "757, 769" to "773, 785".
- 275. Page 855 – Under citation "May, Dale" – Change citation to "May, Dave", and change page reference "810" to "826".
- 276. Page 855 – Under citation "MC1458, dual IC op amp" – Change page reference "793" to "809".
- 277. Page 855 – Under citation "MC1556, superbeta op amp" – Change page reference "795" to "811".
- 278. Page 855 – Under citation "MC1558, dual IC op amp" – Change page reference "793" to "809".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 855 (continued):

- 279. Page 855 – Under citation "MC4741, quad IC op amp" – Change page reference "793" to "809".
- 280. Page 855 – Under citation "MD3257" – Change page reference "782" to "798".
- 281. Page 855 – Under citation "Melliar-Smith, C. Mark" – Change page reference "786" to "802".
- 282. Page 855 – Under citation "Mesa process, for IC development" – Change page reference "776" to "792".
- 283. Page 855 – Under citation "Mezger, Robert" – Change page reference "759, 769" to "775, 785".
- 284. Page 855 – Under citation "Micro-Gee Products" – Change page reference "768" to "784".
- 285. Page 855 – Under citation "Microphone preamp: audio" – Change page reference "423-431" to "424-431".
- 286. Page 855 – Under citation "Microphone preamp: single-ended, single-supply high-impedance" – Change page reference "624-625" to "424-425".
- 287. Page 855 – Under citation "Millaway, Steve" – Change page reference "805, 810" to "821, 826".
- 288. Page 855 – Under citation "Miller-compensated low drift system" – Change page reference "764" to "780".
- 289. Page 855 – Under citation "Miller, Stewart" – Change page reference "753, 764" to "769, 780".
- 290. Page 855 – Under citation "Miller, Stewart E." – Change page reference "29, 755, 772" to "29, 771, 788".
- 291. Page 855 – Under citation "Mindell, David" – Change page reference "752, 762" to "768, 778".
- 292. Page 855 – Under citation "Mindell, David A." – Change page reference "754, 770-771" to "770, 786-787".
- 293. Page 855 – Under citation "Model 3xx series varactor bridge op amps" – Change page reference "781" to "797".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 855 (continued):

- 294. Page 855 – Under citation "Model 44 Fast Settling ..." – Change page reference "787" to "803".
- 295. Page 855 – Under citation "Model 45 Fast Settling ..." – Change page reference "787" to "803".
- 296. Page 855 – Under citation "Model 48 Fast Settling ..." – Change page reference "787" to "803".
- 297. Page 855 – Under citation "Model 50: Wideband, Fast Settling ..." – Change page reference "787" to "803".
- 298. Page 855 – Under citation "Model 50 Fast Settling 100mA ..." – Change page reference "787" to "803".
- 299. Page 855 – Under citation "Model 310, 311 Ultra Low Bias current ..." – Change page reference "787" to "803".
- 300. Page 855 – Under citation "Modular op amp" – Change page reference "776" to "792".
- 301. Page 855 – Under citation "Monolithic IC electrometer amplifier " – Change page reference "804-806" to "820-822".
- 302. Page 855 – Under citation "Monolithic IC op amp birth" – Change page reference "789-795" to "805".

Page 856:

- 303. Page 856 – Under citation "Motorola Semiconductor" – Change page reference "793, 795" to "809, 811".
- 304. Page 856 – Under citation "MPS6521" – Change page reference "783" to "799".
- 305. Page 856 – Under citation "National Semiconductor Corporation" – Change page reference "790, 793, 803, 807" to "806, 809, 819, 823".
- 306. Page 856 – Under citation "New Modular Op Amps" – Change page reference "787" to "803".
- 307. Page 856 – Under citation "Nexus Research Laboratories" – Change page reference "778-781" to "794-797".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 856 (continued):

- 308. Page 856 – Under citation "Nobel Prize: for IC" – Change page reference "775" to "791".
- 309. Page 856 – Under citation "Nobel Prize: for transistor" – Change page reference "775" to "791".
- 310. Page 856 – Under citation "Nobel, Roger R. (Tim)" – Change page reference "778" to "794".

Page 857:

- 311. Page 857 – Under citation "Nova Devices" – Change page reference "797" to "813".
- 312. Page 857 – Under citation "Noyce, Robert" – Change page reference "775-776" to "791-792".
- 313. Page 857 – Under citation "Noyce, Robert N." – Change page reference "786" to "802".
- 314. Page 857 – Under citation "Nyquist, shift" – Change page reference "759" to "775".
- 315. Page 857 – Under citation "Nyquist, Harry" – Change page reference "753-755" to "769-771".
- 316. Page 857 – Under citation "Nyquist's criterion" – Change page reference "753" to "769".
- 317. Page 857 – Under citation "Och, Henry" – Change page reference "761" to "777".
- 318. Page 857 – Under citation "Offner, Franklin" – Change page reference "757, 759, 769-770" to "773, 775, 785-786".
- 319. Page 857 – Under citation "101: monolithic IC op amp, second generation" – Change page reference "790-792" to "806-808".
- 320. Page 857 – Under citation "101: pole splitting..." – Change page reference "792" to "808".
- 321. Page 857 – Under citation "101: two-stage voltage amplifier..." – Change page reference "792" to "808".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 857 (continued):

- 322. Page 857 – Under citation "121, wideband DC op amp" – Change page reference "782" to "798".
- 323. Page 857 – Under citation "180, low drift chopper-less op amp" – Change page reference "781" to "797".
- 324. Page 857 – Under citation "183, low drift chopper-less op amp" – Change page reference "781" to "797".
- 325. Page 857 – Under citation "Op Amp: bipolar transistor" – Change page reference "781" to "797".
- 326. Page 857 – Under citation "Op Amp: categories" – Change page reference "781" to "797".
- 327. Page 857 – Under citation "Op Amp: chopper-stabilized" – Change page reference "764-765, 781" to "780-781, 797".
- 328. Page 857 – Under citation "Op Amp: chopper-stabilized, advantages" – Change page reference "764" to "780".
- 329. Page 857 – Under citation "Op Amp: chopper-stabilized, limitations" – Change page reference "764-765" to "780-781".

Page 858:

- 330. Page 858 – Under citation "Op Amp: developments" – Change page reference "760-763" to "776-779".
- 331. Page 858 – Under citation "Op Amp: drift problem" – Change page reference "763-764" to "779-780".
- 332. Page 858 – Under citation "Op Amp: dual triode front end" – Change page reference "766" to "782".
- 333. Page 858 – Under citation "Op Amp: dual-supply" – Change page reference "118-119" to "17-18".
- 334. Page 858 – Under citation "Op Amp: electrometer IC" – Change page reference "804-806" to "820-822".
- 335. Page 858 – Under citation "Op Amp: FET technology" – Change page reference "781" to "797".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 858 (continued):

- 336. Page 858 – Under citation "Op Amp: FET-output, phase-reversal, summary" – Change citation to read " FET-input, phase-reversal, summary". Page reference is OK.
- 337. Page 858 – Under citation "Op Amp: fully differential design, schematic" – Change page reference "768" to "784".
- 338. Page 858 – Under citation "Op Amp: general introduction" – Change page reference "751-755" to "767-771".
- 339. Page 858 – Under citation "Op Amp: general-propose, DC-coupled, high gain, inverting feedback amplifier" – Change page reference "750" to "766".
- 340. Page 858 – Under citation "Op Amp: high gain" – Change page reference "750" to "766".
- 341. Page 858 – Under citation "Op Amp: high speed, FET, family" – Change page reference "783-785" to "788-801".
- 342. Page 858 – Under citation "Op Amp: high speed IC" – Change page reference "807" to "823".
- 343. Page 858 – Under citation "Op Amp: historical background" – Change page reference "749" to "765".
- 344. Page 858 – Under citation "Op Amp: history" – Change page reference "749-813" to "765-829".
- 345. Page 858 – Under citation "Op Amp: hybrid" – Change page reference "775-787" to "791-803".
- 346. Page 858 – Under citation "Op Amp: hybrid, designs" – Change page reference "776-785" to "792-801".
- 347. Page 858 – Under citation "Op Amp: IC" – Change page reference "776, 789-813" to "792, 805-829".
- 348. Page 858 – Under citation "Op Amp: IC, monolithic, birth" – Change page reference "789-794" to "805-810".
- 349. Page 858 – Under citation "Op Amp: input and output dynamic ranges" – Change page reference "18" to "16-17".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 859:

- 350. Page 859 – Under citation "Op Amp: integrated circuit" – Change page reference "789-813" to "805-829".
- 351. Page 859 – Under citation "Op Amp: inverting mode operation" – Change page reference "750" to "766".
- 352. Page 859 – Under citation "Op Amp: JFET IC" – Change page reference "806" to "818-822".
- 353. Page 859 – Under citation "Op Amp: Karl Swartzel" – Change page reference "761-762" to "777-778".
- 354. Page 859 – Under citation "Op Amp: Low noise JFET IC" – Change page reference "806" to "822".
- 355. Page 859 – Under citation "Op Amp: Low-drift, high gain" – Change page reference "767" to "783".
- 356. Page 859 – Under citation "Op Amp: model 3xx series varactor bridge" – Change page reference "781" to "797".
- 357. Page 859 – Under citation "Op Amp: modern IC packages, scale" – Change page reference "801" to "817".
- 358. Page 859 – Under citation "Op Amp: modular" – Change page reference "H776" to "792".
- 359. Page 859 – Under citation "Op Amp: modular, designs" – Change page reference "776-785" to "792-801".
- 360. Page 859 – Under citation "Op Amp: naming" – Change page reference "763" to "779".
- 361. Page 859 – Under citation "Op Amp: non-IC, solid-state" – Change page reference "749" to "765".
- 362. Page 859 – Under citation "Op Amp: non-ideal, static errors from finite amplifier gain" – Change page reference "111-116" to "11-16".
- 363. Page 859 – Under citation "Op Amp: noninverting input" – Change page reference "776" to "782".
- 364. Page 859 – Under citation "Op Amp: output stages" – Change page reference "43-48" to "43-45".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 859 (continued):

- 365. Page 859 – Under citation "Op Amp: overall loop feedback" – Change page reference "751" to "767".
- 366. Page 859 – Under citation "Op Amp: packaging" – Change page reference "801" to "817".
- 367. Page 859 – Under citation "Op Amp: precision bipolar IC" – Change page reference "708-802" to "814-818".
- 368. Page 859 – Under citation "Op Amp: precision JFET IC" – Change page reference "802-807" to "818-823".
- 369. Page 859 – Under citation "Op Amp: single-ended to differential conversion, circuit" – Change page reference "204-205" to "207".

Page 860:

- 370. Page 860 – Under citation "Op Amp: solid state, schematic" – Change page reference "777" to "793".
- 371. Page 860 – Under citation "Op Amp: solid state, varactor bridge" – Change page reference "779-780" to "795-797".
- 372. Page 860 – Under citation "Op Amp: solid state, modular" – Change page reference "775-787" to "791-803".
- 373. Page 860 – Under citation "Op Amp: superbeta IC" – Change page reference "794-797" to "810-814".
- 374. Page 860 – Under citation "Op Amp: two signal inputs" – Change page reference "763-764" to "779-780".
- 375. Page 860 – Under citation "Op Amp: two-chip hybrid IC, bias current specification" – Change page reference "803" to "819".
- 376. Page 860 – Under citation "Op Amp: two-tube design" – Change page reference "763" to "779".
- 377. Page 860 – Under citation "Op Amp: use, with data converters" – Change page reference "202-223" to "173-223".
- 378. Page 860 – Under citation "Op Amp: vacuum tube" – Change page reference "757-773" to "773-789".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 860 (continued):

- 379. Page 860 – Under citation "Op Amp: vacuum tube, chopper stabilized" – Change page reference "764-765" to "780-781".
- 380. Page 860 – Under citation "Op Amp: vacuum tube, declining years" – Change page reference "768" to "784".
- 381. Page 860 – Under citation "Op Amp: vacuum tube, evolution" – Change page reference "763-768" to "779-784".
- 382. Page 860 – Under citation "Op Amp: varactor bridge design" – Change page reference "804" to "796".
- 383. Page 860 – Under citation "Op Amp: voltage feedback, in current-to-voltage converter, and input capacitance" – Change page reference "111" to "113".
- 384. Page 860 – Under citation "Op Amp Settles to 0.01% in 300 ns" – Change page reference "787" to "803".
- 385. Page 860 – Under citation "Op Amps Combine Superb DC Precision and Fast Settling" – Change page reference "811" to "827".
- 386. Page 860 – Under citation "OP07: monolithic IC op amp, schematic" – Change page reference "799" to "815".
- 387. Page 860 – Under citation "OP07: monolithic IC op amp, single-supply and micro-packaged compatibles" – Change page reference "801" to "817".
- 388. Page 860 – Under citation "OP27: monolithic IC op amp, schematic" – Change page reference "801" to "816".
- 389. Page 860 – Under citation "OP37: monolithic IC op amp, schematic" – Change page reference "801" to "816".
- 390. Page 860 – Under citation "OP97: composite op amp, gain vs. frequency, plots" – Change page reference "588" to "591".
- 391. Page 860 – Under citation "OP97/297/497, superbeta input monolithic IC op amp, schematic" – Change page reference "797" to "813".

Page 861:

- 392. Page 861 – Under citation "OP275, microphone preamplifier" – Change page reference "428-429" to "427-428".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 861 (continued):

- 393. Page 861 – Under citation "OP297: dual op amp" – Change page reference "796-797" to "812-813".
- 394. Page 861 – Under citation "OP497: quad op amp" – Change page reference "797" to "813".
- 395. Page 861 – Under citation "OP727, dual op amp" – Change page reference "802" to "818".
- 396. Page 861 – Under citation "OP747, quad op amp" – Change page reference "802" to "818".
- 397. Page 861 – Under citation "OP777: single op amp" – Change page reference "802" to "818".
- 398. Page 861 – Under citation "OP777/OP727/OP747 Precision Low Noise.." – Change page reference "95" to "96".
- 399. Page 861 – Under citation "OP1177: single op amp" – Change page reference "802" to "818".
- 400. Page 861 – Under citation "OP2177: dual op amp" – Change page reference "802" to "818".
- 401. Page 861 – Under citation "OP4177, quad op amp" – Change page reference "802" to "818".
- 402. Page 861 – Under citation "OPA111, monolithic IC electrometer amplifier" – Change page reference "805" to "821".
- 403. Page 861 – Under citation "Opamp Labs" – Change page reference "773" to "789".
- 404. Page 861 – Under citation "Open-loop gain, measurement circuit" – Change page reference "62" to "63".
- 405. Page 861 – Under citation "Operational amplifier, named by Ragazzini" – Change page reference "763" to "779".
- 406. Page 861 – Under citation "Output voltage phase-reversal, fixes" – Change page reference "783-785" to "683".
- 407. Page 861 – Under citation "Overvoltage, in-circuit protection" – Change page reference "689-693" to "675-689".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 861 (continued):

- 408. Page 861 – Under citation "Palimpsest" – Change page reference "767" to "783".
- 409. Page 861 – Under citation "Palmer, Wyn" – Change page reference "29, 807" to "29, 803".
- 410. Page 861 – Under citation "Parkinson, David" – Change page reference "760" to "776".
- 411. Page 861 – Under citation "Parnum, D. H." – Change page reference "759, 770" to "775, 786".

Page 862:

- 412. Page 862 – Under citation "Patterson, Omar" – Change page reference "766" to "782".
- 413. Page 862 – Under citation "Patterson, Omar L." – Change page reference "772" to "788".
- 414. Page 862 – Under citation "Paynter, Henry" – Change page reference "773, 780, 786" to "789, 796, 802".
- 415. Page 862 – Under citation "Pearlman, Alan" – Change page reference "777, 778" to "793, 794".
- 416. Page 862 – Under citation "Pease, Bob" – Change page reference "xii, 697, 772, 780, 786, 813" to "xii, 697, 788, 796, 802, 829".
- 417. Page 862 – Under citation "Pease, Robert A." – Change page reference "627, 761, 786" to "627, 761, 802".
- 418. Page 862 – Under citation "Pentode" – Change page reference "757" to "773".
- 419. Page 862 – Under citation "Phister, C." – Change page reference "771" to "787".
- 420. Page 862 – Under citation "Philbrick Solid-State Operational Amplifiers" – Change page reference "786" to "802".
- 421. Page 862 – Under citation "Philbrick, George" – Change page reference "xii, 777, 778-780" to "xii, 793-794, 796".
- 422. Page 862 – Under citation "Philbrick, George A." – Change page reference "760, 763, 766-767, 770, 772-773, 786" to "776, 779, 782-783, 786, 788-789, 802".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 862 (continued):

423. Page 862 – Under citation "Photoconductive photodiode" – Change page reference "458" to "258".

Page 863:

424. Page 863 – Under citation "Pinchoff voltage" – Change page reference "806" to "822".
425. Page 863 – Under citation "Pippenger, Dale" – Change page reference "810" to "826".
426. Page 863 – Under citation "Planar IC process, invention" – Change page reference "775-776" to "791-792".
427. Page 863 – Under citation "PM1008, superbeta op amp" – Change page reference "796" to "812".
428. Page 863 – Under citation "PM1012, superbeta op amp" – Change page reference "796" to "812".
429. Page 863 – Under citation "Posthumus, K." – Change page reference "751" to "767".
430. Page 863 – Under citation "Precision bipolar IC op amps" – Change page reference "708-802" to "814-818".
431. Page 863 – Under citation "Precision Bipolar Op Amp Has Lowest Offset, Drift" – Change page reference "809" to "825".
432. Page 863 – Under citation "Precision JFET IC op amp" – Change page reference "802-807" to "818-823".
433. Page 863 – Under citation "Precision Low Noise Low Input Bias Current..." – Change page reference "809" to "825".
434. Page 863 – Under citation "Precision Micropower Single-Supply Op Amps Have 100uV max Offset" – Change page reference "809" to "825".
435. Page 863 – Under citation "Precision Monolithics Incorporated " – Change page reference "796, 798" to "812, 814".
436. Page 863 – Under citation "Precision Op Amp" – Change page reference "809" to "825".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 863 (continued):

437. Page 863 – Under citation "Printed Circuit Board: embedding traces" – Change page reference "728-729" to "730-732".

Page 864:

438. Page 864 – Under citation "Quad JFET Single-Supply Op Amp" – Change page reference "811" to "827".
439. Page 864 – Under citation "Quad Op Amp" – Change page reference "809" to "825".
440. Page 864 – Under citation "Ragazzini, John" – Change page reference "21, 763, 772" to "21, 779, 788".
441. Page 864 – Under citation "Randall, Robert H." – Change page reference "21, 772" to "21, 788".
442. Page 864 – Under citation "Ratiometric voltage output temperature sensor" – Change page reference "303-304" to "302-304".
443. Page 864 – Under citation "RCA" – Change page reference "803" to "819".
444. Page 864 – Under citation "REAC" – Change page reference "764" to "780".
445. Page 864 – Under citation "Recognition of Harold Black" – Change page reference "771" to "787".
446. Page 864 – Under citation "Recognition of M9 Designers C. A. Lovell, D. B. Parkinson, J.J. Kuhn" – Change page reference "771" to "787".
447. Page 864 – Under citation "Rectifier: two-element vacuum tube-based" – Change page reference "749" to "765".
448. Page 864 – Under citation "Reeves Instrument Corporation" – Change page reference "764-765" to "780-781".

Page 865:

449. Page 865 – Under citation "RIAA Preamp: topology, actively equalized" – Change page reference "17-23" to "436-443".
450. Page 865 – Under citation "Richter, Walther" – Change page reference "759, 769" to "775, 785".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 865 (continued):

- 451. Page 865 – Under citation "Roedel, Jerry" – Change page reference "773" to "789".
- 452. Page 865 – Under citation "Ross, Ian M." – Change page reference "786" to "802".
- 453. Page 865 – Under citation "Rostky, George" – Change page reference "772" to "788".
- 454. Page 865 – Under citation "RS-232 Device, ESD testing" – Change page reference "695" to "696".
- 455. Page 865 – Under citation "RS-485 Device, ESD testing" – Change page reference "695" to "696".
- 456. Page 865 – Under citation "Rudin, Marv" – Change page reference "796" to "812".
- 457. Page 865 – Under citation "Russel, Frederick A." – Change page reference "21, 772" to "21, 788".
- 458. Page 865 – Under citation "Russel, Rod" – Change page reference "803" to "819".
- 459. Page 865 – Under citation "Russel, Ronald" – Change page reference "793, 808" to "809, 824".
- 460. Page 865 – Under citation "Russel, Ronald W." – Change page reference "810" to "826".
- 461. Page 865 – Under citation "Shade, Otto Jr." – Change page reference "810" to "826".
- 462. Page 865 – Under citation "Sharf, Brad" – Change page reference "806" to "822".
- 463. Page 865 – Under citation "Sharf, Brad W." – Change page reference "811" to "827".
- 464. Page 865 – Under citation "Schmitt, O. H." – Change page reference "769" to "785".
- 465. Page 865 – Under citation "Schmitt, Otto" – Change page reference "757-758" to "773-774".
- 466. Page 865 – Under citation "Schwartz, Tom" – Change page reference "809" to "825".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 866:

- 467. Page 866 – Under citation "Schweber, Bill" – Change page reference "809" to "825".
- 468. Page 866 – Under citation "SEL resistors" – Change page reference "777" to "793".
- 469. Page 866 – Under citation "Selection Handbook and Catalog Guide to Operational Amplifiers" – Change page reference "787" to "803".
- 470. Page 866 – Under citation "Semiconductor temperature sensor" – Change page reference "286, 298-304" to "286, 298-305".
- 471. Page 866 – Under citation "Sensor: semiconductor" – Change page reference "298-304" to "298-305".
- 472. Page 866 – Under citation "702, first monolithic IC op amp" – Change page reference "789" to "805".
- 473. Page 866 – Under citation "709, monolithic IC op amp" – Change page reference "789-790" to "805-806".
- 474. Page 866 – Under citation "741, monolithic IC op amp" – Change page reference "792-793" to "808-809".
- 475. Page 866 – Under citation "SFDR, definition and plot" – Change page reference "189" to "190".
- 476. Page 866 – Under citation "SFDR, multi-tone" – Change page reference "189" to "191".
- 477. Page 866 – Under citation "Shannon, Claude" – Change page reference "762" to "778".
- 478. Page 866 – Under citation "Sheingold, Dan" – Change page references as follows: "viii, xi, xii, xvi, 21, 88, 246, 256, 283, 304" are OK as is. Change page reference "767, 773, 781, 786-787" to "783, 789, 797, 802-803".
- 479. Page 866 – Under citation "Shockley, W." – Change page reference "775, 786" to "791, 802".
- 480. Page 866 – Under citation "Silicon transistor, invention" – Change page reference "775" to "791".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 867:

- 481. Page 867 – Under citation "Single-Supply FET" – Change page reference "811" to "827".
- 482. Page 867 – Under citation "SM3087" – Change page reference "777" to "793".
- 483. Page 867 – Under citation "Small, James S." – Change page reference "760, 770" to "776, 786".
- 484. Page 867 – Under citation "Smith, Lewis R." – Change page reference "781, 787" to "797, 803".
- 485. Page 867 – Under citation "Soderquist, Donn" – Change page reference "50, 809" to "50, 825".
- 486. Page 867 – Under citation "Solomon, James" – Change page reference "793, 808" to "809, 824".
- 487. Page 867 – Under citation "Solomon, James E." – Change page reference "813" to "829".
- 488. Page 867 – Under citation "Solomon, Jim" – Change page reference "808, 813" to "824, 829".
- 489. Page 867 – Under citation "SS op amp, output phase reversal" – Change page reference "688,-689" to "683-683".
- 490. Page 867 – Under citation "SSS725 precision bipolar op amp" – Change page reference "796, 798-799" to "812, 815".
- 491. Page 867 – Under citation "Stata, Ray" – Change page reference "20-21, 780-782, 786" to "viii, 20-21, 796-798, 802".

Page 868:

- 492. Page 868 – Under citation "Stray capacitance" – Change page reference "647-651" to "647-648".
- 493. Page 868 – Under citation "Sullivan, Doug" – Change page reference "810" to "826".
- 494. Page 868 – Under citation "Sullivan, Douglas" – Change page reference "802" to "818".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 868 (continued):

- 495. Page 868 – Under citation "Summing amplifier" – Change page reference "761" to "777".
- 496. Page 868 – Under citation "Superbeta bipolar input bias compensated op amp, circuit" – Change page reference "37" to "38".
- 497. Page 868 – Under citation "Superbeta bipolar transistor technique" – Change page reference "794-795" to "810-811".
- 498. Page 868 – Under citation "Surface microstrip" – Change page reference "728-729" to "729".
- 499. Page 868 – Under citation "Swartzel M9 design" – Change page reference "764" to "780".
- 500. Page 868 – Under citation "Swartzel op amp, diagram" – Change page reference "761" to "777".
- 501. Page 868 – Under citation "Swartzel, Karl, op amp" – Change page reference "761-762" to "777-778".
- 502. Page 868 – Under citation "Swartzel, Karl D. Jr." – Change page reference "21" to "21, 777".
- 503. Page 868 – Under citation "Swartzel, K. D. Jr." – Change page reference "771" to "787".
- 504. Page 868 – Under citation "T10 prototype gun director" – Change page reference "761" to "777".
- 505. Page 868 – Under citation "Teal, Gordon" – Change page reference "775" to "791".
- 506. Page 868 – Under citation "Teldyne Corporation" – Change page reference "780" to "796".
- 507. Page 868 – Under citation "Tellegen, B. D. H." – Change page reference "751, 754" to "767, 770".
- 508. Page 868 – Under citation "Terman, F. E." – Change page reference "755" to "771".
- 509. Page 868 – Under citation "Terman, Frederick" – Change page reference "753" to "769".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 868 (continued):

- 510. Page 868 – Under citation "Texas Instruments" – Change page reference "755, 776, 803-804" to "791, 792, 819-820".
- 511. Page 868 – Under citation "THD, definition" – Change page reference "89, 189" to "83, 189".
- 512. Page 868 – Under citation "Thermalloy 227" – Change citation to "Thermalloy 2227". Page reference is OK.

Page 869:

- 513. Page 869 – Under citation "Thermocouple: parasitic" – Change page reference "243, 617" to "243, 618".
- 514. Page 869 – Under citation "TL06x" – Change page reference "803" to "819".
- 515. Page 869 – Under citation "TL07x" – Change page reference "803" to "819".
- 516. Page 869 – Under citation "TL08x" – Change page reference "803" to "819".
- 517. Page 869 – Under citation "TN56" – Change page reference "782" to "798".
- 518. Page 869 – Under citation "Toennies, J. F." – Change page reference "757, 769" to "773, 785".
- 519. Page 869 – Under citation "Townsend, Jeff" – Change page reference "807" to "823".
- 520. Page 869 – Under citation "TQ56" – Change page reference "782" to "798".
- 521. Page 869 – Under citation "Transformer: driver, galvanic isolation" – Change page reference "449" to "448".
- 522. Page 869 – Under citation "Transformer-coupled microphone preamp, THD+N" – Change page reference "428" to "429".
- 523. Page 869 – Under citation "Transistor: germanium, limitations" – Change page reference "775" to "791".
- 524. Page 869 – Under citation "Transistor: invention" – Change page reference "775" to "791".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 870:

- 525. Page 870 – Under citation "Tucker, D. G." – Change page reference "754" to "770".
- 526. Page 870 – Under citation "Twin T notch filter: schematic" – Change page reference "416" to "417".
- 527. Page 870 – Under citation "Two Precision Dual Op Amp Families" – Change page reference "809" to "825".
- 528. Page 870 – Under citation "210, chopper op amp" – Change page reference "781" to "797".
- 529. Page 870 – Under citation "211, chopper op amp" – Change page reference "781" to "797".
- 530. Page 870 – Under citation "220, chopper op amp" – Change page reference "781" to "797".
- 531. Page 870 – Under citation "232, chopper op amp" – Change page reference "781" to "797".
- 532. Page 870 – Under citation "233, chopper op amp" – Change page reference "781" to "797".
- 533. Page 870 – Under citation "260, chopper op amp" – Change page reference "781" to "797".
- 534. Page 870 – Under citation "Valley-Wallman MIT Radiation Laboratory textbook" – Change page reference "753" to "769".
- 535. Page 870 – Under citation "Valley, George E. Jr." – Change page reference "755, 772" to "771, 788".
- 536. Page 870 – Under citation "Varactor bridge solid state op amp" – Change page reference "779-780" to "795-796".
- 537. Page 870 – Under citation "Varactor bridge solid state op amp, block diagram" – Change page reference "780" to "796".
- 538. Page 870 – Under citation "Verhagen, C. M." – Change page reference "760-770" to "776-786".
- 539. Page 870 – Under citation "Voigt, Paul" – Change page reference "751" to "767".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 870 (continued):

540. Page 870 – Under citation "Voigt, Paul G. A. H." – Change page reference "754" to "770".

Page 871:

541. Page 871 – Under citation "Wagner, Richard" – Change page reference "50, 809" to "50, 825".
542. Page 871 – Under citation "Wallman, Henry" – Change page reference "755, 772" to "771, 788".
543. Page 871 – Under citation "Weeks, J. R." – Change page reference "771" to "787".
544. Page 871 – Under citation "Western Electric Company" – Change page reference "751, 752" to "767, 768".
545. Page 871 – Under citation "Whitney, Dave" – Change page reference "504, 544, 807, 811" to "504, 544, 823, 827".
546. Page 871 – Under citation "Wide dynamic range ultra low distortion driver" – Change page reference "673-675" to "473-475".
547. Page 871 – Under citation "Widlar, Bob" – Change page reference "789-790, 793, 794-796, 808, 813" to "805-806, 809, 810-812, 824, 829".
548. Page 871 – Under citation "Widlar, R. J." – Change page reference "808" to "824".
549. Page 871 – Under citation "Widlar, Robert. J." – Change page reference "808" to "824".
550. Page 871 – Under citation "Williams, Jim" – Change page reference "760, 808" to "760, 824".
551. Page 871 – Under citation "Wilson, Garth" – Change page reference "796" to "812".
552. Page 871 – Under citation "Wurcer, Scott" – Change page reference "x, xii, xiii, 227, 257, 492, 544, 603, 627, 652, 804, 806-807, 811" to "x, xii, xiii, 227, 257, 492, 544, 603, 627, 820, 822-823, 827".
553. Page 871 – Under citation "Zener diode" – Change page reference "26, 678, 687, 696, 799" to "26, 678, 687, 696, 815".

Op Amp Applications Handbook – Errata by Walt Jung

Subject Index, Pages 833 – 871

Page 871 (continued):

- 554. Page 871 – Under citation "Zener zapping" – Change page reference "799, 803" to "815, 816".
- 555. Page 871 – Under citation "Zicko, Peter" – Change page reference "787" to "803".
- 556. Page 871 – Under citation "Zis, Jerry" – Change page reference "795" to "812".

Op Amp Applications Handbook – Errata by Walt Jung
Analog Devices Parts Index, Pages 873 – 876

NOTE: This portion of the index can be considered redundant and was not fully evaluated for errors. If it is to be retained, a rigorous full line-by-line verification should be done. Any citations that reference pages 760 or above should be examined for a possible 16 page offset (see example below and Subject index).

1. Page 873 – Under citation "AD108" – Change page reference "796" to "812".

Op Amp Applications Handbook – Errata by Walt Jung
Standard Device Parts Index, Pages 877 – 878

NOTE: This portion of the index can be considered redundant and was not fully evaluated for errors. If it is to be retained, a rigorous full line-by-line verification should be done. Any citations that reference pages 760 or above should be examined for a possible 16 page offset (see example below and Subject index).

1. Page 877 – Under citation "6CS7" – Change page reference "759" to "775".