

29 Series Schematic

B I A M P[®]
—
S Y S T E M S

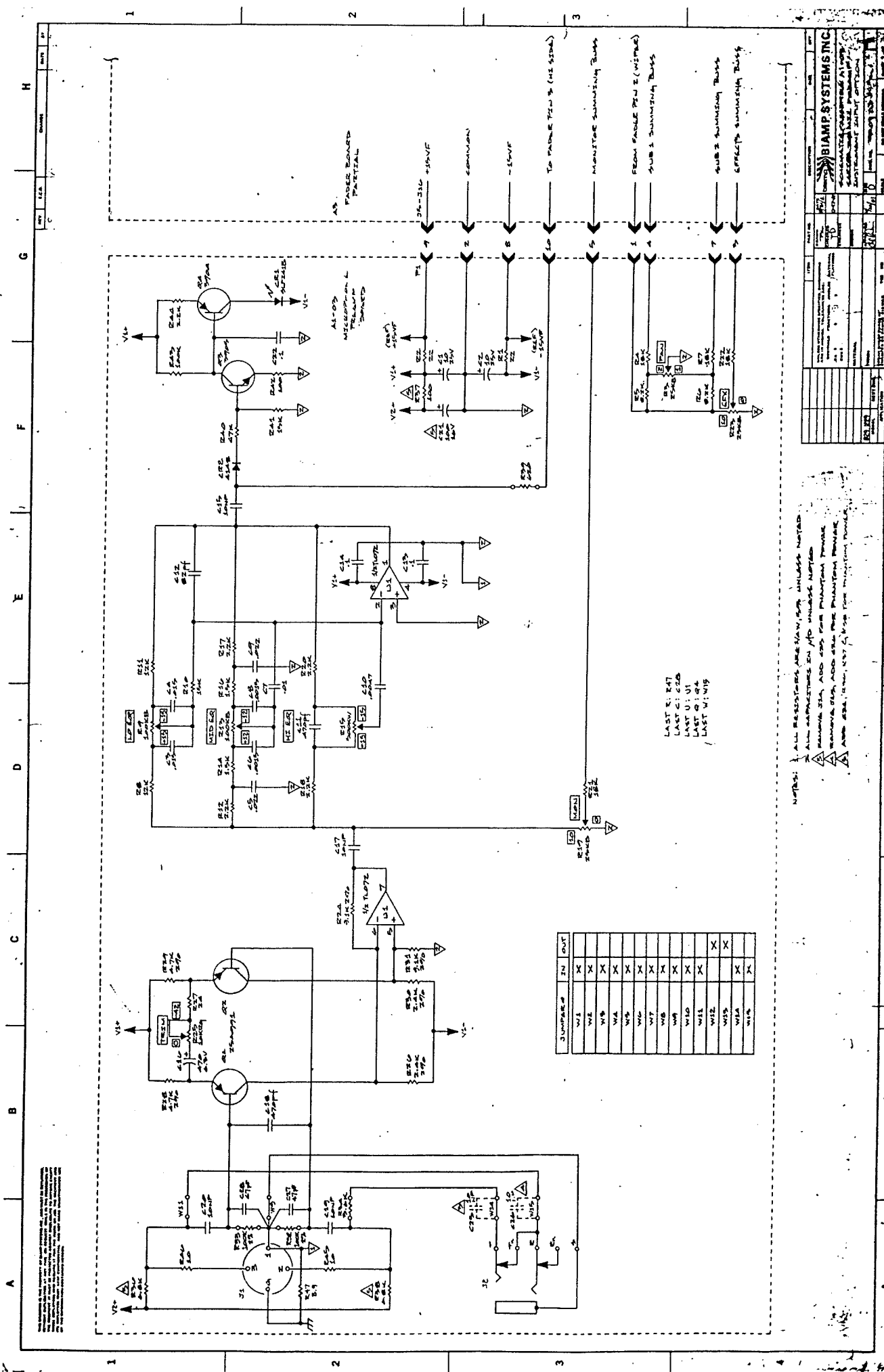
10074 SW Arctic Drive Beaverton, OR 97005 503-641-7287

December 22, 1982

29 SERIES AMPLIFIER MODULE REPAIR

WHEN A POWER AMPLIFIER MODULE IN THE 29 SERIES POWERED MIXER SUFFERS AN OUTPUT TRANSISTOR FAILURE, THE REPAIR IS DIFFICULT BECAUSE OF A RIPPLE EFFECT THROUGHOUT THE CIRCUIT AND THE PHYSICAL LOCATION AND CONSTRUCTION OF THE MODULE ASSEMBLY. THE FOLLOWING PROCEDURE HAS PROVEN TO BE A SIMPLE AND EFFECTIVE REPAIR METHOD.

1. REMOVE THE MODULE ASSEMBLY FROM THE MIXER BOTTOM PANEL. THIS REQUIRES UNPLUGGING 3 HARNESS CABLES AND REMOVING 3 SCREWS THROUGH THE BOTTOM PANEL.
2. REMOVE THE DRIVER CIRCUIT BOARD FROM THE MODULE ASSEMBLY BY USING NEEDLE NOSE PLIERS TO SQUEEZE THE LOCK TAB ON THE 4 INSULATED STANDOFFS, LIFTING ONE CORNER AT A TIME.
3. WHEN AN OUTPUT TRANSISTOR BECOMES DEFECTIVE THE 4.7ohm RESISTOR IN SERIES WITH THE BASE LEAD WILL BURN UP. REPLACE ALL BURNED RESISTORS ON THE OUTPUT BOARD AND THE TRANSISTORS THEY ARE CONNECTED TO. THE DRIVER TRANSISTOR BASE RESISTORS R25 AND R26 (22ohms) ARE USUALLY BURNED VERY BADLY. REPLACE THESE AND THE 2SA1006 (Q5) AND 2SC2336 (Q1) DRIVER TRANSISTORS.
4. TEST THE MJE 180 (Q9) BIAS TRANSISTOR.
5. INSPECT THE DRIVER BOARD FOR ANY BURNED RESISTORS AND REPLACE THEM IF FOUND.
6. REPLACE THE 2N3904 (Q9) AND 2N3906 (Q10) PROTECTION TRANSISTORS ON THE DRIVER BOARD.



NUMBER	IN	OUT
W1	X	X
W2	X	X
W3	X	X
W4	X	X
W5	X	X
W6	X	X
W7	X	X
W8	X	X
W9	X	X
W10	X	X
W11	X	X
W12	X	X
W13	X	X
W14	X	X
W15	X	X
W16	X	X

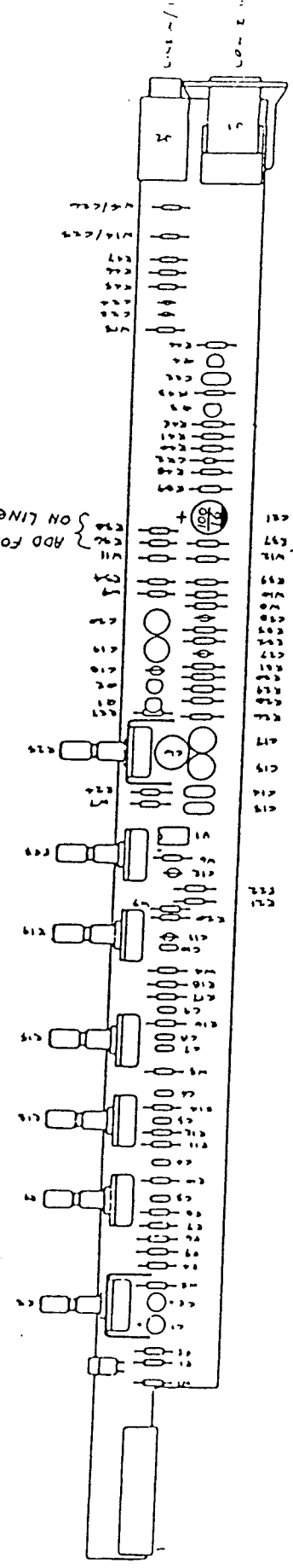
LAST R: R47
 LAST C: C26
 LAST U: U1
 LAST Q: Q4
 LAST V: V19

NOTES: ALL RESISTORS ARE 1/4W UNLESS NOTED
 ALL CAPACITORS IN µFD UNLESS NOTED
 MINIMUM 25V A.D.C. FOR PULLDOWN TRANSISTOR
 MINIMUM 25V A.D.C. FOR PULLDOWN DIODE
 ADD 25V A.D.C. TO V19 FOR PULLDOWN TRANSISTOR

BIAMP SYSTEMS, INC.	
DATE: 10/1/74	REV: 1
DESIGNED BY: [Signature]	CHECKED BY: [Signature]
DRAWN BY: [Signature]	TESTED BY: [Signature]
PROJECT: [Blank]	QUANTITY: [Blank]
DATE: [Blank]	BY: [Blank]

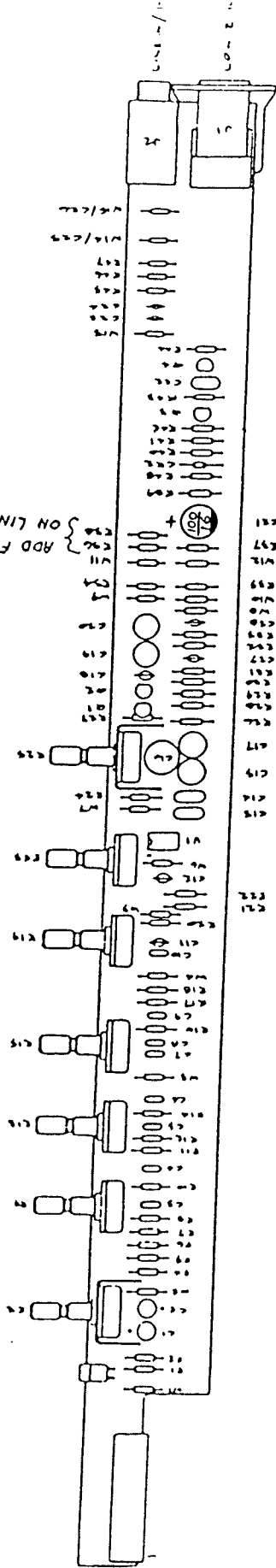
A B C D E F G H
 1 2 3 4

PHANTOM Power
 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

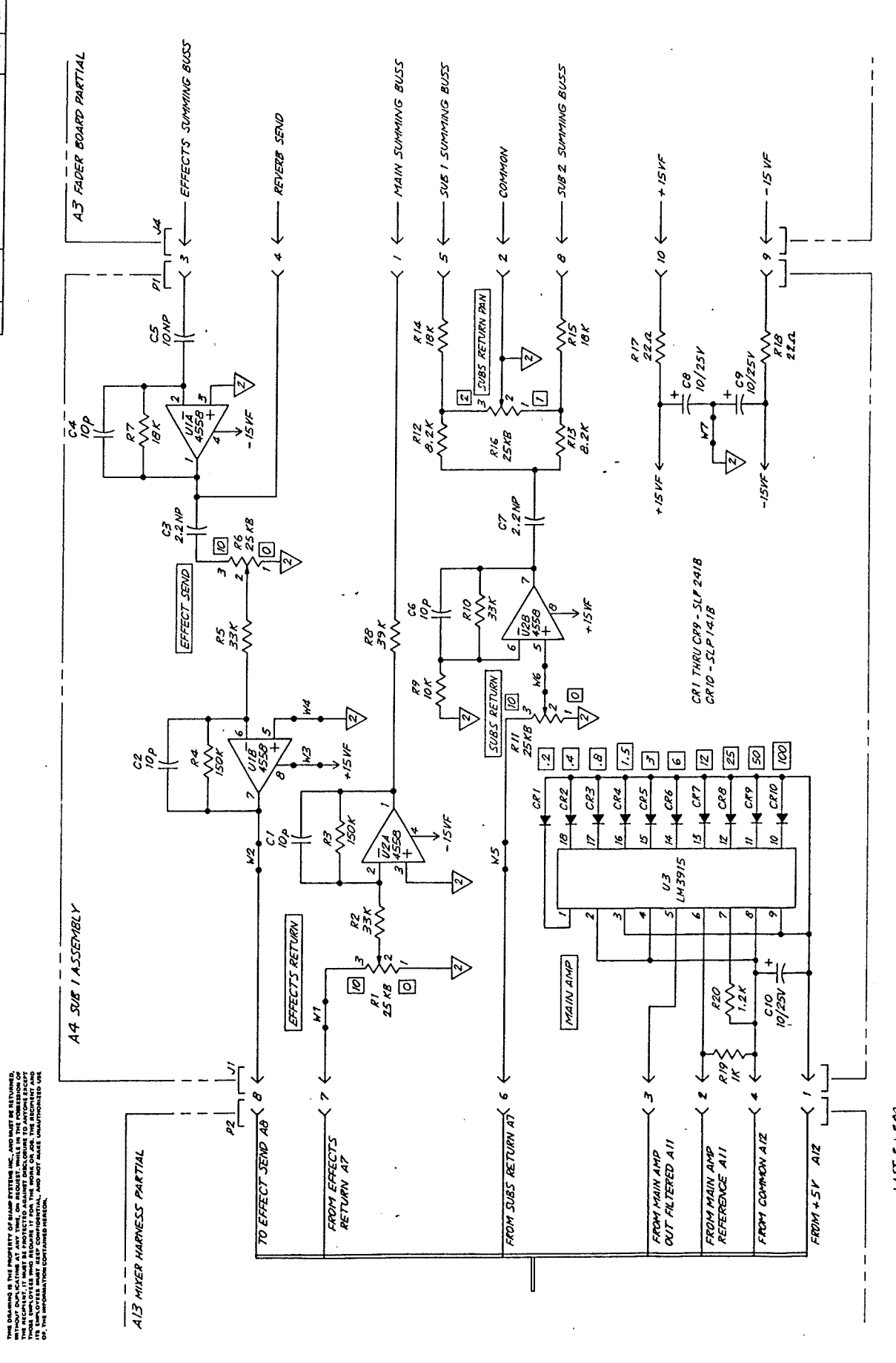


29 INPUT BOARD
 COMPONENT LAYOUT

PHANTOM Power
 { 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 }
 ADD FOR PHANTOM Power
 { 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 }
 ON LINE + INST INPUT BOARDS



29 INPUT BOARD
 COMPONENT LAYOUT



THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS INC. AND MUST BE RETURNED TO THE COMPANY. THE RECIPIENT, IT MUST BE PROTECTED AGAINST DISSEMINATION TO ANYONE EXCEPT THE PERSONS SPECIFICALLY AUTHORIZED TO DO SO. THE INFORMATION CONTAINED HEREON IS UNCLASSIFIED.

A13 MIXER HARNESS PARTIAL
A4 SUB 1 ASSEMBLY
A3 FADER BOARD PARTIAL

REV.	E.C.O.	CHANGE	DATE	BY

ITEM	DESCRIPTION	SIZE	QTY.

DATE	BY	CHKD	APP'D	REV.
11/10/71				

DESCRIPTION	SCALE	REV.	REV. A
BIAMP SYSTEMS INC.			
SCHEMATIC - ASSEMBLY A4			
29 SERIES SUB 1 BOARD			

LAST R: R20
 C: C10
 CR: CR10
 W: W7
 U: U3
 P: P1

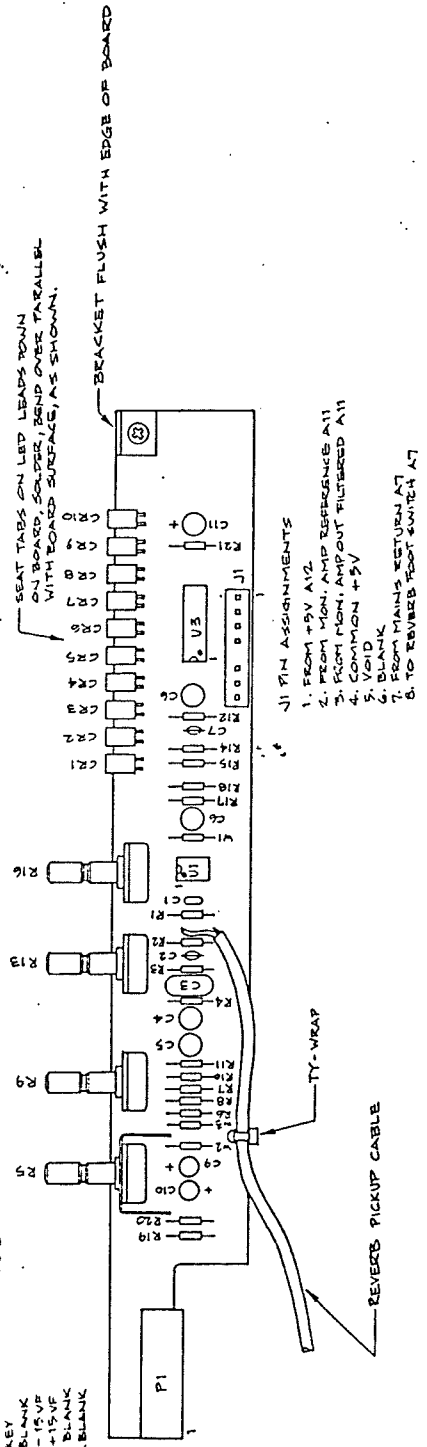
3. SEE SHEET 2 FOR PCB ASSEMBLY.
 2. ALL RESISTORS ARE 1/4 W, 5% UNLESS NOTED.
 1. ALL CAPACITORS IN μ F UNLESS NOTED.

NOTES:

REV.	REV.	DATE	BY
C	E.Z.D.	11/81	JL
CHANGE			
ADDED WIZ & W/D.			

WARNING: THE PROPERTY OF BIAMP SYSTEMS INC. AND MUST BE RETURNED TO BIAMP SYSTEMS INC. WITH ALL INFORMATION CONTAINED HEREIN. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. FOR THE MOST UP TO DATE SECURITY AND INFORMATION CONTACT BIAMP SYSTEMS INC. AND NOT JUNE UNCLASSIFIED USE

- P1 PIN ASSIGNMENTS**
1. MAIN SUMMING BUSS
 2. COMMON
 3. BLANK
 4. MONITOR SUMMING BUSS
 5. KEY
 6. BLANK
 7. -15V
 8. BLANK
 9. BLANK
 10. BLANK



DATE	11-13-81	DATE	7/2/81
DESIGNED BY	JL	CHECKED BY	JL
ENGINEER	JL	DESIGNER	JL
APPROVED BY	JL	DATE	7/2/81
REV.	1	REV.	1
DESCRIPTION	BIAMP SYSTEMS INC. ASSEMBLY AS 29 SERIES SUB 2 BOARD	SYMBOL	
QTY		DWG. NO.	

2. ALL COMPONENTS TO BE FULLY SEATED DOWN ON BOARD.
1. SEE SHEET 1 FOR SCHEMATIC.

12 CHANNEL ER PARTIAL

TO MAIN CIRCUIT

COMMON

EFFECTS BUS

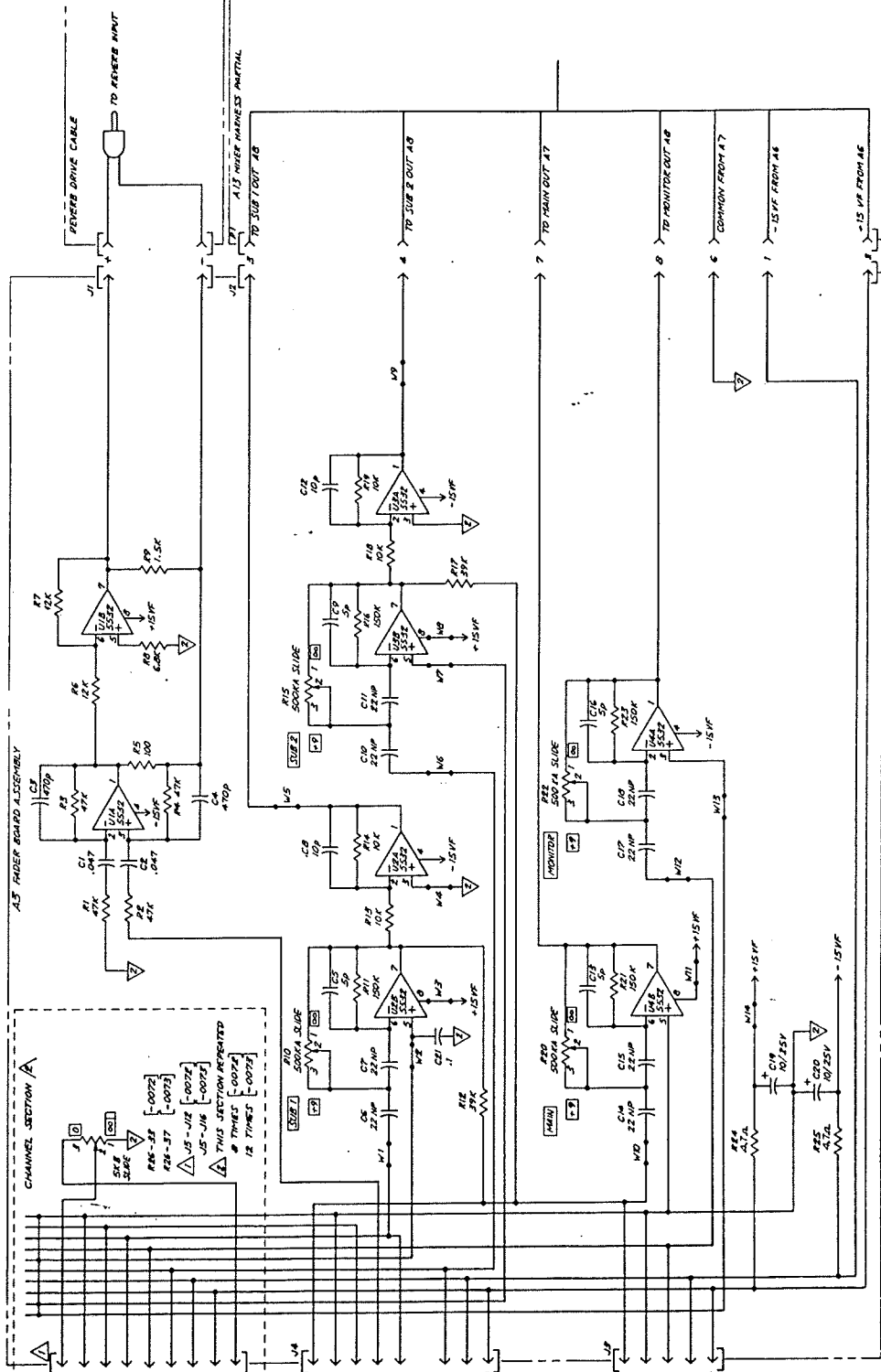
SUB 1 BUS

MONITOR BUS

SUB 2 BUS

+15V

POWER AMP OUT



800-0076
 1-517 P 1
 C: C81
 J: J18
 M: M46

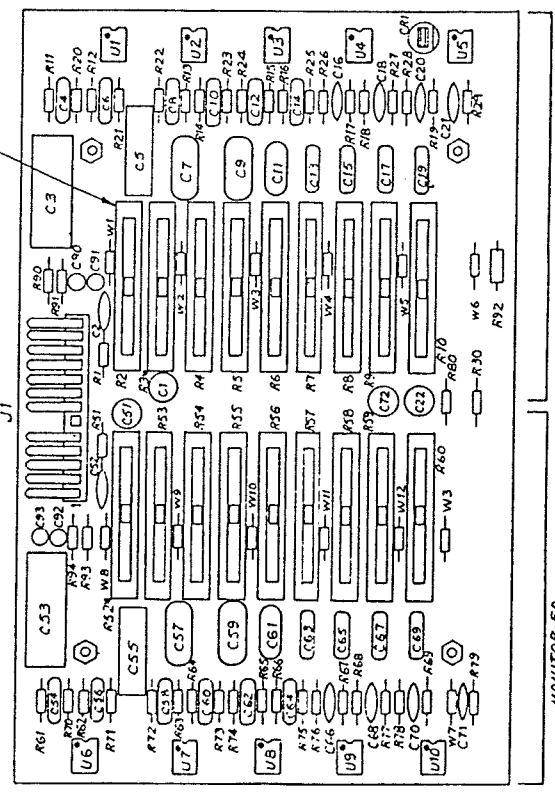
3 SEE SHEET 2 FOR PCB ASSEMBLY.
 4 ALL RESISTORS ARE 1/4 W, 5% UNLESS NOTED.
 5 ALL CAPACITORS IN μD UNLESS NOTED.

REV	DATE	BY	CHKD
1	10/10/70	J. J. J.	M. J. M.
TITLE: 12 CHANNEL ER PARTIAL PROJECT: 800-0076 DRAWING NO.: 800-0076-1 SHEET NO.: 1 OF 2			

1. ALL COMPONENTS TO BE FULLY SEATED DOWN ON BOARD.
2. SEE SHEET 1 FOR SCHEMATIC.

- J1 PIN ASSIGNMENTS**
1. +15V FROM A12
 2. -15V FROM A12
 3. FROM MON. EQ IN AND A8
 4. FROM MON. EQ IN A8
 5. TO MON. EQ OUT A8
 6. VOID
 7. TO MON. EQ OUT AND A8
 8. TO MAIN EQ OUT A7
 9. TO MAIN EQ OUT AND A7
 10. FROM MAIN EQ IN A7
 11. FROM MAIN EQ IN A7
 12. -15V FROM A12
 13. +15V FROM A12

SEAT POTS DOWN ON BOARD; MAINTAIN .40" CENTER-TO-CENTER.

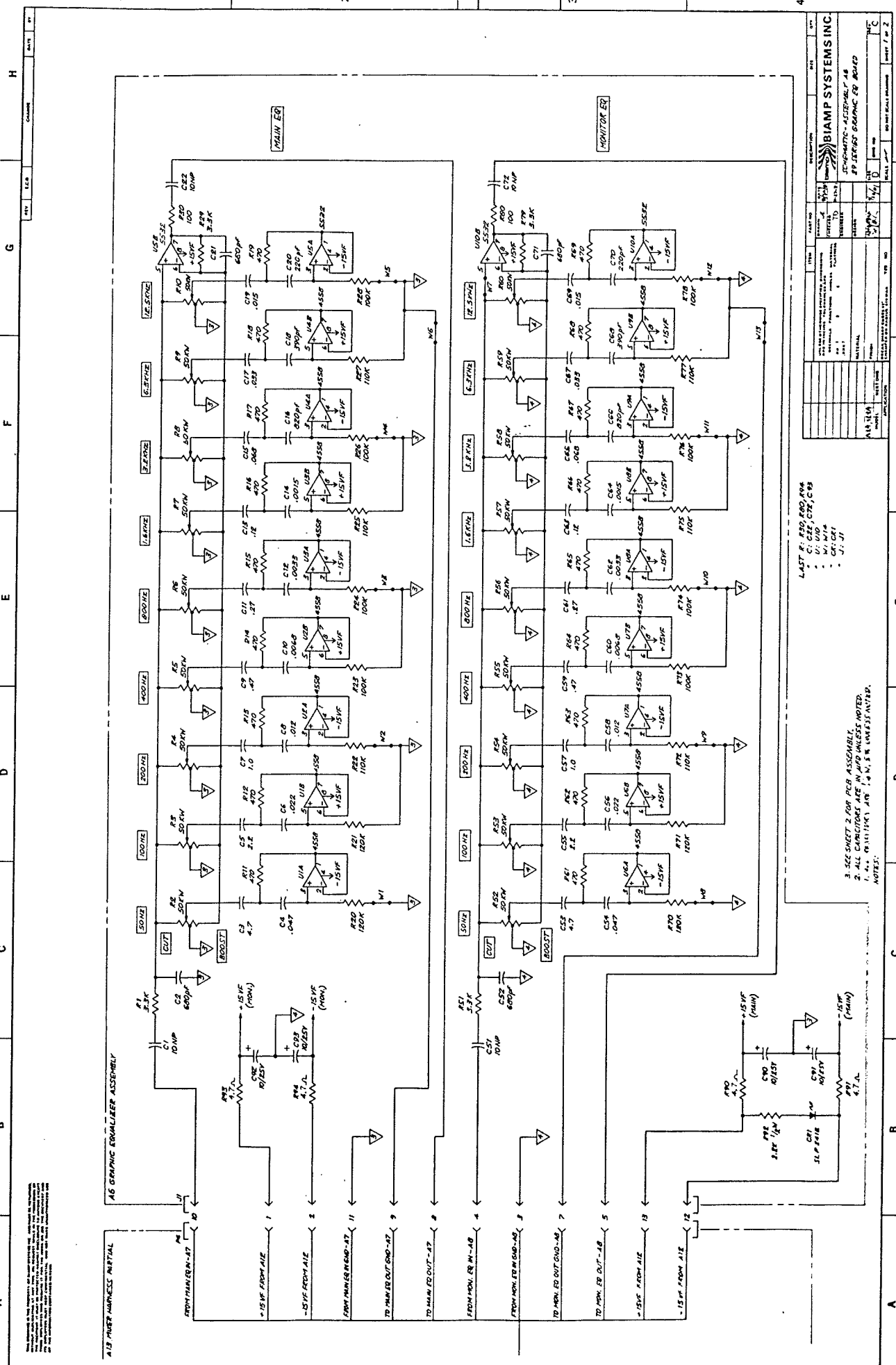


USE STRAIN BETWEEN LED & SOCKET TO ESTABLISH CORRECT HEIGHT.

USE MTR. PAD 540-00047-00 UNDER SOCKET

ITEM	DESCRIPTION	SIZE	QTY
1	BIAMP SYSTEMS INC.		
2	ASSEMBLY 46		
3	29 SERIES GRAPHIC EQ BOARD		
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

NOTE:
1. ALL COMPONENTS TO BE FULLY SEATED DOWN ON BOARD.
2. SEE SHEET 1 FOR SCHEMATIC.



REV.	DATE	BY	CHKD.	DESCRIPTION
1	10/15/67	J. J. JI	J. J. JI	ISSUED FOR PRODUCTION
2	11/15/67	J. J. JI	J. J. JI	REVISION TO R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24

REV.	DATE	BY	CHKD.	DESCRIPTION
1	10/15/67	J. J. JI	J. J. JI	ISSUED FOR PRODUCTION
2	11/15/67	J. J. JI	J. J. JI	REVISION TO R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24

3. SEE SHEET 2 FOR PCB ASSEMBLY
 2. ALL CAPACITORS ARE IN μ D UNLESS NOTED.
 1. ALL RESISTORS ARE 1/4 W, 5% UNLESS NOTED.

NOTES:
 1. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED.

LAST R: R20, R21, R22, R23, R24, R25, R26, R27, R28
 C: C22, C23, C24
 W: W1, W2
 CR: CR1
 J: J1, J2

BIAMP SYSTEMS INC.
 15400 WILSON AVENUE
 VAN NUYS, CALIF. 91411
 TEL: (818) 708-1111
 FAX: (818) 708-1112

REV.	ECO.	CHANGE	DATE	BY
C	118-5117-B	ADDED R45 & R44	11/81	JL

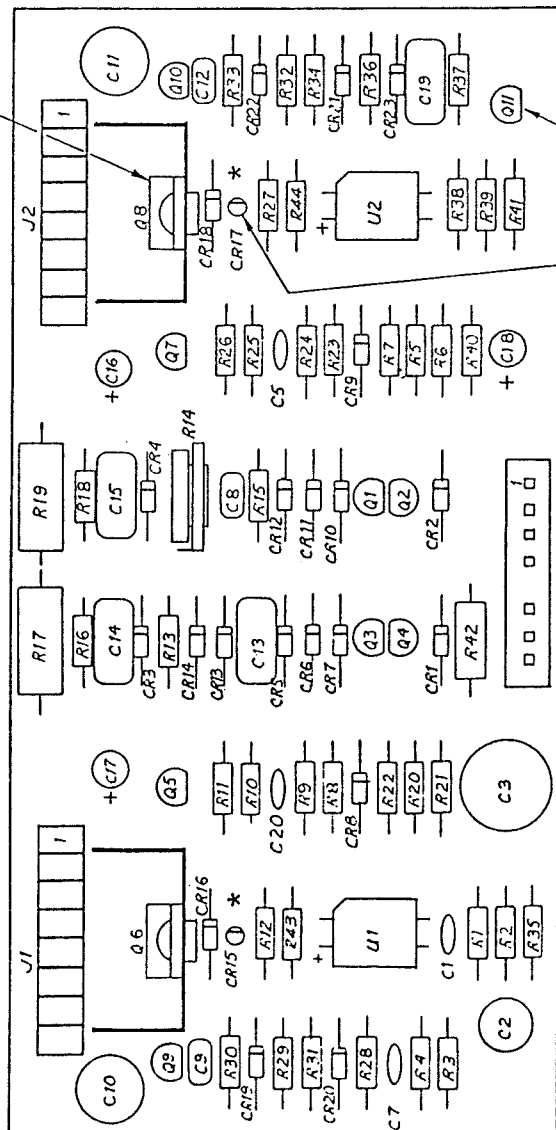
THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS INC. AND MUST BE RETURNED TO THE ORIGINATOR. IT MUST BE PROTECTED AGAINST DISCLOSURE TO ANYONE EXCEPT AUTHORIZED PERSONNEL. THIS DRAWING IS UNCLASSIFIED AND ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED.

J1 PIN ASSIGNMENTS

1. OUTPUT
2. THERMAL RESISTOR - T5
3. THERMAL RESISTOR - T1
4. VISENSE
5. + DRIVE/BIAS
6. + Vcc 2
7. + Vcc 1
8. + Vcc 1

J2 PIN ASSIGNMENTS

1. GROUND
2. -Vcc 1
3. -Vcc 2
4. -Vcc 2
5. -Vcc 2
6. -Vcc 2
7. - DRIVE/BIAS
8. BIAS



- J3 PIN ASSIGNMENTS**
1. FILTERED LED CONTROL VOLTAGE
 2. LED REFERENCE GROUND
 3. FAST OFF CONTROL
 4. +Vcc 1 LED REFERENCE VOLTAGE
 5. V01D (-DC INPUT)
 6. +DC INPUT
 7. INPUT GROUND
 8. SIGNAL INPUT

HEIGHT (FROM BOARD TO TOP OF CASE) TO BE 3/8". (FOR Q1-Q5, Q7, Q9-Q11)

HEIGHT (FROM BOARD TO TOP OF LED) TO BE 5/8". (FOR CR15 & CR17)

* CR15 & CR17 replaced with 1N5226B (3.3v Zener) with reversed polarity.

REV.	ECO.	CHANGE	DATE	BY
C	118-5117-B	ADDED R45 & R44	11/81	JL

ITEM	PART NO.	DESCRIPTION	QTY
1	U1	OPAMP	1
2	U2	OPAMP	1
3	CR15	ZENER	1
4	CR17	ZENER	1
5	CR18	DIODE	1
6	CR19	DIODE	1
7	CR20	DIODE	1
8	CR21	DIODE	1
9	CR22	DIODE	1
10	CR23	DIODE	1
11	CR24	DIODE	1
12	CR25	DIODE	1
13	CR26	DIODE	1
14	CR27	DIODE	1
15	CR28	DIODE	1
16	CR29	DIODE	1
17	CR30	DIODE	1
18	CR31	DIODE	1
19	CR32	DIODE	1
20	CR33	DIODE	1
21	CR34	DIODE	1
22	CR35	DIODE	1
23	CR36	DIODE	1
24	CR37	DIODE	1
25	CR38	DIODE	1
26	CR39	DIODE	1
27	CR40	DIODE	1
28	CR41	DIODE	1
29	CR42	DIODE	1
30	CR43	DIODE	1
31	CR44	DIODE	1
32	CR45	DIODE	1
33	CR46	DIODE	1
34	CR47	DIODE	1
35	CR48	DIODE	1
36	CR49	DIODE	1
37	CR50	DIODE	1
38	CR51	DIODE	1
39	CR52	DIODE	1
40	CR53	DIODE	1
41	CR54	DIODE	1
42	CR55	DIODE	1
43	CR56	DIODE	1
44	CR57	DIODE	1
45	CR58	DIODE	1
46	CR59	DIODE	1
47	CR60	DIODE	1
48	CR61	DIODE	1
49	CR62	DIODE	1
50	CR63	DIODE	1
51	CR64	DIODE	1
52	CR65	DIODE	1
53	CR66	DIODE	1
54	CR67	DIODE	1
55	CR68	DIODE	1
56	CR69	DIODE	1
57	CR70	DIODE	1
58	CR71	DIODE	1
59	CR72	DIODE	1
60	CR73	DIODE	1
61	CR74	DIODE	1
62	CR75	DIODE	1
63	CR76	DIODE	1
64	CR77	DIODE	1
65	CR78	DIODE	1
66	CR79	DIODE	1
67	CR80	DIODE	1
68	CR81	DIODE	1
69	CR82	DIODE	1
70	CR83	DIODE	1
71	CR84	DIODE	1
72	CR85	DIODE	1
73	CR86	DIODE	1
74	CR87	DIODE	1
75	CR88	DIODE	1
76	CR89	DIODE	1
77	CR90	DIODE	1
78	CR91	DIODE	1
79	CR92	DIODE	1
80	CR93	DIODE	1
81	CR94	DIODE	1
82	CR95	DIODE	1
83	CR96	DIODE	1
84	CR97	DIODE	1
85	CR98	DIODE	1
86	CR99	DIODE	1
87	CR100	DIODE	1
88	CR101	DIODE	1
89	CR102	DIODE	1
90	CR103	DIODE	1
91	CR104	DIODE	1
92	CR105	DIODE	1
93	CR106	DIODE	1
94	CR107	DIODE	1
95	CR108	DIODE	1
96	CR109	DIODE	1
97	CR110	DIODE	1
98	CR111	DIODE	1
99	CR112	DIODE	1
100	CR113	DIODE	1
101	CR114	DIODE	1
102	CR115	DIODE	1
103	CR116	DIODE	1
104	CR117	DIODE	1
105	CR118	DIODE	1
106	CR119	DIODE	1
107	CR120	DIODE	1
108	CR121	DIODE	1
109	CR122	DIODE	1
110	CR123	DIODE	1
111	CR124	DIODE	1
112	CR125	DIODE	1
113	CR126	DIODE	1
114	CR127	DIODE	1
115	CR128	DIODE	1
116	CR129	DIODE	1
117	CR130	DIODE	1
118	CR131	DIODE	1
119	CR132	DIODE	1
120	CR133	DIODE	1
121	CR134	DIODE	1
122	CR135	DIODE	1
123	CR136	DIODE	1
124	CR137	DIODE	1
125	CR138	DIODE	1
126	CR139	DIODE	1
127	CR140	DIODE	1
128	CR141	DIODE	1
129	CR142	DIODE	1
130	CR143	DIODE	1
131	CR144	DIODE	1
132	CR145	DIODE	1
133	CR146	DIODE	1
134	CR147	DIODE	1
135	CR148	DIODE	1
136	CR149	DIODE	1
137	CR150	DIODE	1
138	CR151	DIODE	1
139	CR152	DIODE	1
140	CR153	DIODE	1
141	CR154	DIODE	1
142	CR155	DIODE	1
143	CR156	DIODE	1
144	CR157	DIODE	1
145	CR158	DIODE	1
146	CR159	DIODE	1
147	CR160	DIODE	1
148	CR161	DIODE	1
149	CR162	DIODE	1
150	CR163	DIODE	1
151	CR164	DIODE	1
152	CR165	DIODE	1
153	CR166	DIODE	1
154	CR167	DIODE	1
155	CR168	DIODE	1
156	CR169	DIODE	1
157	CR170	DIODE	1
158	CR171	DIODE	1
159	CR172	DIODE	1
160	CR173	DIODE	1
161	CR174	DIODE	1
162	CR175	DIODE	1
163	CR176	DIODE	1
164	CR177	DIODE	1
165	CR178	DIODE	1
166	CR179	DIODE	1
167	CR180	DIODE	1
168	CR181	DIODE	1
169	CR182	DIODE	1
170	CR183	DIODE	1
171	CR184	DIODE	1
172	CR185	DIODE	1
173	CR186	DIODE	1
174	CR187	DIODE	1
175	CR188	DIODE	1
176	CR189	DIODE	1
177	CR190	DIODE	1
178	CR191	DIODE	1
179	CR192	DIODE	1
180	CR193	DIODE	1
181	CR194	DIODE	1
182	CR195	DIODE	1
183	CR196	DIODE	1
184	CR197	DIODE	1
185	CR198	DIODE	1
186	CR199	DIODE	1
187	CR200	DIODE	1
188	CR201	DIODE	1
189	CR202	DIODE	1
190	CR203	DIODE	1
191	CR204	DIODE	1
192	CR205	DIODE	1
193	CR206	DIODE	1
194	CR207	DIODE	1
195	CR208	DIODE	1
196	CR209	DIODE	1
197	CR210	DIODE	1
198	CR211	DIODE	1
199	CR212	DIODE	1
200	CR213	DIODE	1
201	CR214	DIODE	1
202	CR215	DIODE	1
203	CR216	DIODE	1
204	CR217	DIODE	1
205	CR218	DIODE	1
206	CR219	DIODE	1
207	CR220	DIODE	1
208	CR221	DIODE	1
209	CR222	DIODE	1
210	CR223	DIODE	1
211	CR224	DIODE	1
212	CR225	DIODE	1
213	CR226	DIODE	1
214	CR227	DIODE	1
215	CR228	DIODE	1
216	CR229	DIODE	1
217	CR230	DIODE	1
218	CR231	DIODE	1
219	CR232	DIODE	1
220	CR233	DIODE	1
221	CR234	DIODE	1
222	CR235	DIODE	1
223	CR236	DIODE	1
224	CR237	DIODE	1
225	CR238	DIODE	1
226	CR239	DIODE	1
227	CR240	DIODE	1
228	CR241	DIODE	1
229	CR242	DIODE	1
230	CR243	DIODE	1
231	CR244	DIODE	1
232	CR245	DIODE	1
233	CR246	DIODE	1
234	CR247	DIODE	1
235	CR248	DIODE	1
236	CR249	DIODE	1
237	CR250	DIODE	1
238	CR251	DIODE	1
239	CR252	DIODE	1
240	CR253	DIODE	1
241	CR254	DIODE	1
242	CR255	DIODE	1
243	CR256	DIODE	1
244	CR257	DIODE	1
245	CR258	DIODE	1
246	CR259	DIODE	1
247	CR260	DIODE	1
248	CR261	DIODE	1
249	CR262	DIODE	1
250	CR263	DIODE	1
251	CR264	DIODE	1
252	CR265	DIODE	1
253	CR266	DIODE	1
254	CR267	DIODE	1
255	CR268	DIODE	1
256	CR269	DIODE	1
257	CR270	DIODE	1
258	CR271	DIODE	1
259	CR272	DIODE	1
260	CR273	DIODE	1
261	CR274	DIODE	1
262	CR275	DIODE	1
263	CR276	DIODE	1
264	CR277	DIODE	1
265	CR278	DIODE	1
266	CR279	DIODE	1
267	CR280	DIODE	1
268	CR281	DIODE	1
269	CR282	DIODE	1
270	CR283	DIODE	1
271	CR284	DIODE	1
272	CR285	DIODE	1
273	CR286	DIODE	1
274	CR287	DIODE	1
275	CR288	DIODE	1
276	CR289	DIODE	1

1 2 3 4

C

B

A

THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS INC., AND MUST BE RETURNED WITHOUT DELAY TO THE OFFICE OF ORIGIN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED.

P1 PIN ASSIGNMENTS

1. OUTPUT
2. THERMAL RESISTOR - TS
3. THERMAL RESISTOR - T
4. +VI SENSE
5. +DRIVE/BIAS
6. +VCC 2
7. +VCC 1
8. -VCC 1

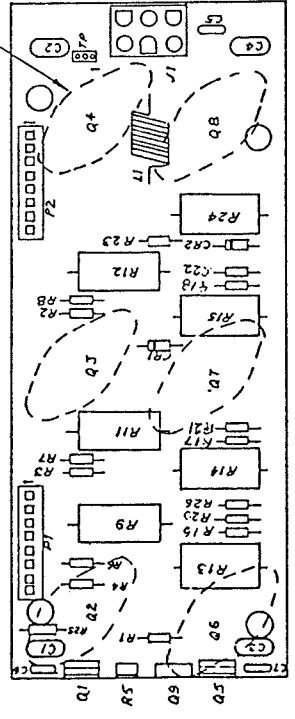
P2 PIN ASSIGNMENTS

1. GROUND
2. -VCC 1
3. -VCC 2
4. +VCC 2
5. OUTPUT
6. -VI SENSE
7. -DRIVE/BIAS
8. BIAS

J1 PIN ASSIGNMENTS

1. -VCC 2
2. AMP GROUND
3. +VCC 2
4. -VCC 1
5. AMP OUT
6. +VCC 1

HAND ADD SOCKETS ON BACK OF BOARD AT TIME OF AMP MODULE ASSEMBLY.

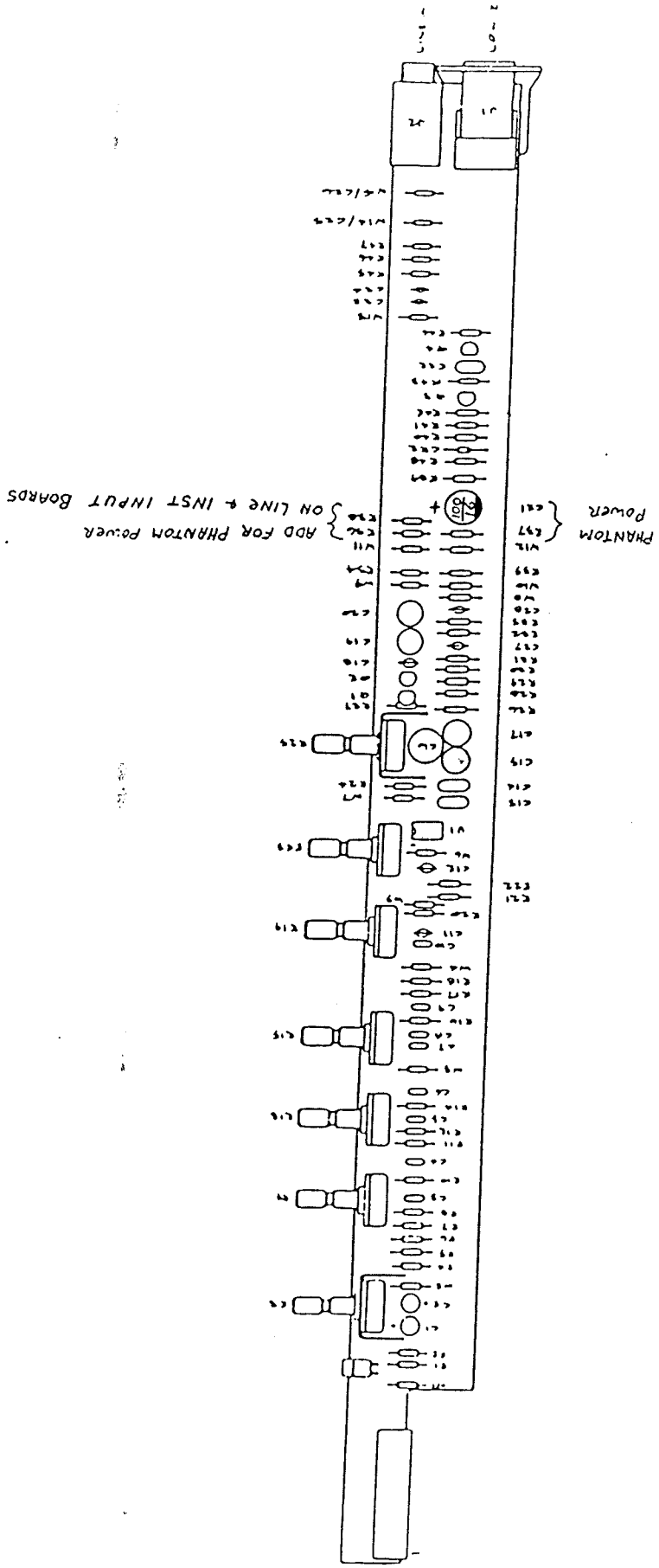


2. ALL COMPONENTS TO BE FULLY SEATED DOWN ON BOARD.
1. SEE SHEET 1 FOR SCHEMATIC.

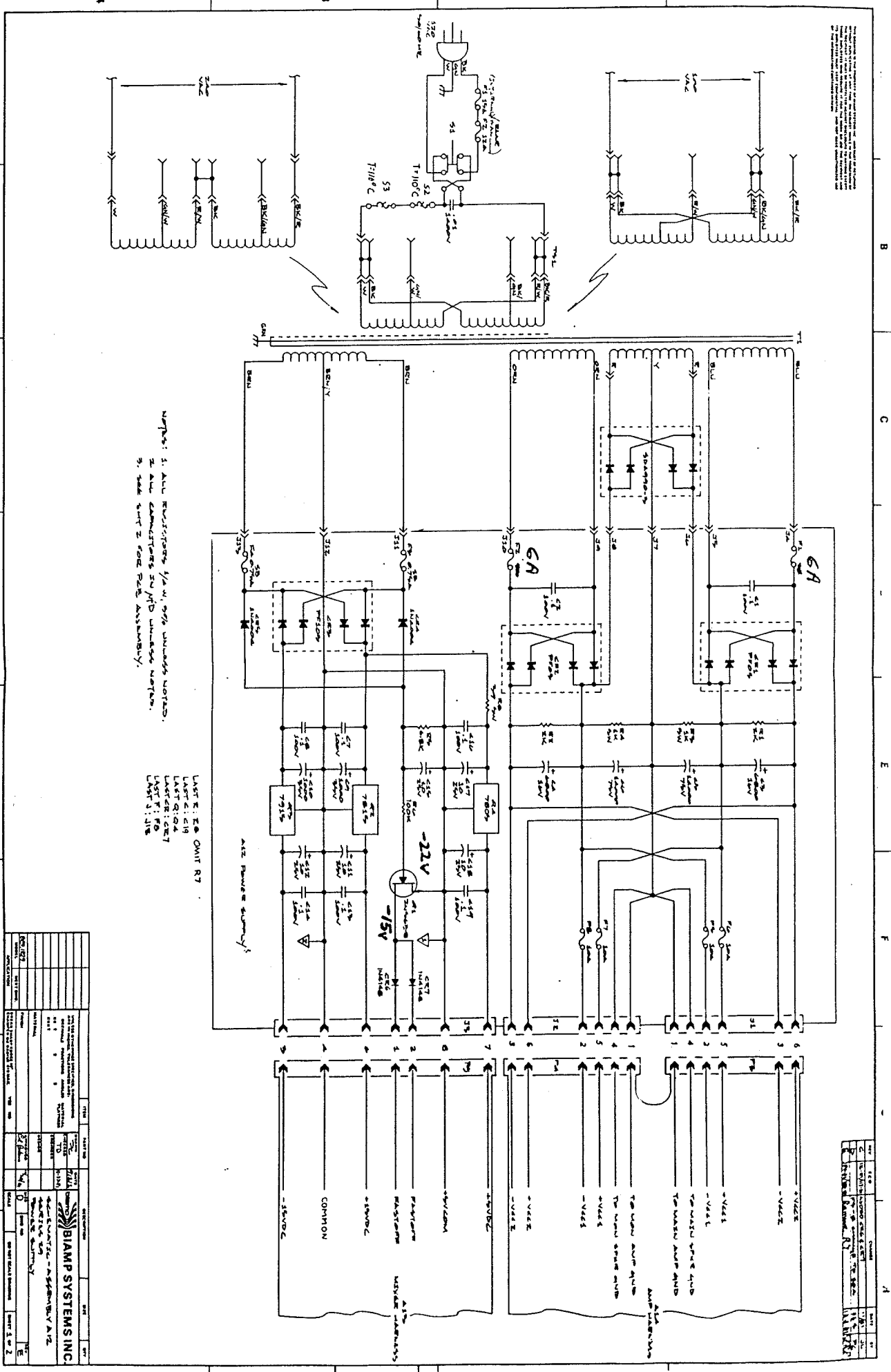
NOTE :

ITEM	PART NO.	DESCRIPTION	DATE	BY
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE:				
FRACTIONS				
DECIMALS				
ANGLES				
MATERIAL				
FINISH				
MOUL				
APPLIC				
SCALE				
DO NOT SCALE DRAWING				
BIAMP SYSTEMS INC.				
ASSEMBLY A 10				
29 SERIES OUTPUT STAGE BOARD				
DATE				
DESIGN				
DRW				
CHKD				
APP'D				
SCALE				
DO NOT SCALE DRAWING				
BIAMP SYSTEMS INC.				
ASSEMBLY A 10				
29 SERIES OUTPUT STAGE BOARD				
DATE				
DESIGN				
DRW				
CHKD				
APP'D				
SCALE				
DO NOT SCALE DRAWING				

29. INPUT BOARD COMPONENT LAYOUT



THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND QUANTITY SPECIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BIAMP SYSTEMS, INC.



NOTE: 1. ALL RESISTORS 1/4 W. 5% UNLESS NOTED.
 2. ALL CAPACITORS 50 VDC UNLESS NOTED.
 3. SEE SET I FOR PCB ASSEMBLY.

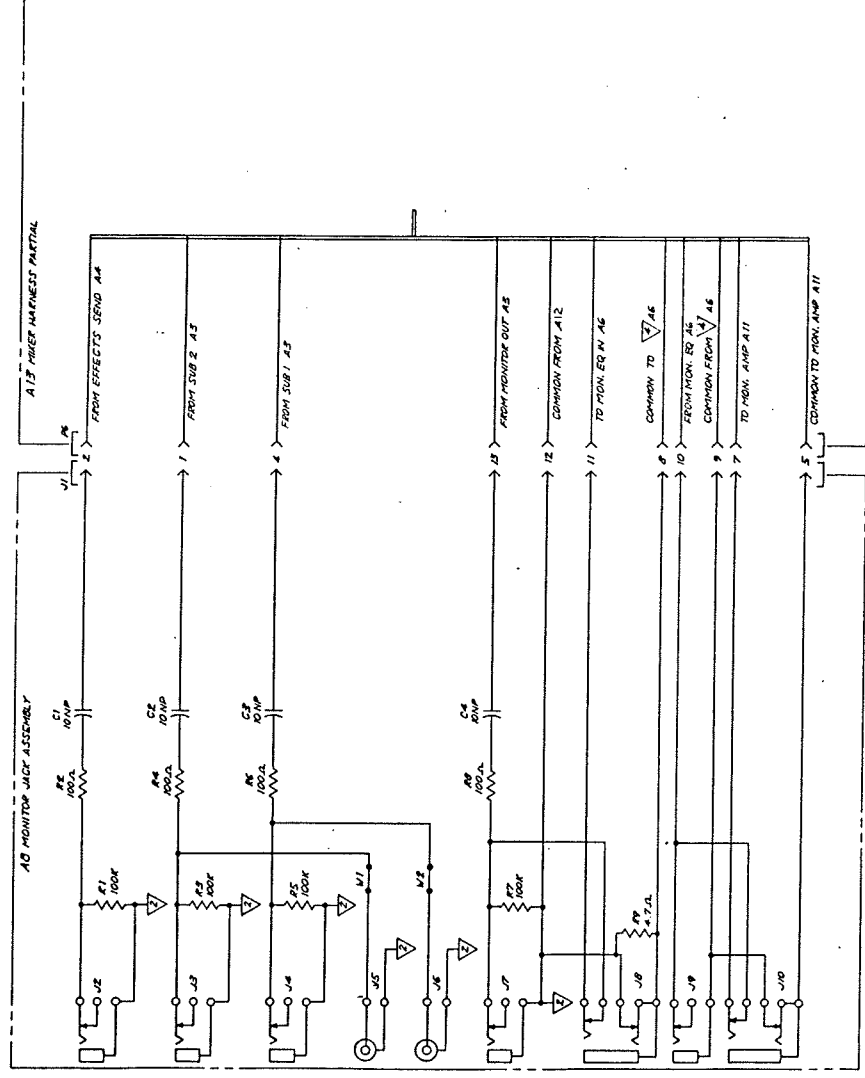
LAST E: EA OMIT R7
 LAST F: C18
 LAST G: C18
 LAST H: C18
 LAST I: C18
 LAST J: C18

REV	DATE	DESCRIPTION
1		ISSUED FOR BIDDING
2		REVISED TO SHOW REVISIONS
3		REVISED TO SHOW REVISIONS
4		REVISED TO SHOW REVISIONS
5		REVISED TO SHOW REVISIONS
6		REVISED TO SHOW REVISIONS
7		REVISED TO SHOW REVISIONS
8		REVISED TO SHOW REVISIONS
9		REVISED TO SHOW REVISIONS
10		REVISED TO SHOW REVISIONS

BIAMP SYSTEMS, INC.
 1000 W. 10TH AVENUE
 DENVER, CO 80202
 (303) 733-1100

REV	DATE	DESCRIPTION
1		ISSUED FOR BIDDING
2		REVISED TO SHOW REVISIONS
3		REVISED TO SHOW REVISIONS
4		REVISED TO SHOW REVISIONS
5		REVISED TO SHOW REVISIONS
6		REVISED TO SHOW REVISIONS
7		REVISED TO SHOW REVISIONS
8		REVISED TO SHOW REVISIONS
9		REVISED TO SHOW REVISIONS
10		REVISED TO SHOW REVISIONS

THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR THE PURPOSES SPECIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BIAMP SYSTEMS, INC.



LAST P: 49
 C: C4
 J: J10

3- SEE SHEET 2 FOR PCB ASSEMBLY.
 4- ALL CAPACITORS ARE 1/2 WATT UNLESS NOTED.
 5- ALL CAPACITORS ARE 5% UNLESS NOTED.
 NOTES:

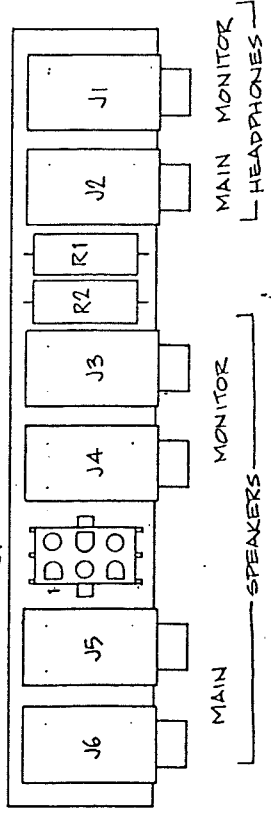
ITEM	DESCRIPTION	QTY	DATE
1	AD MONITOR JACK ASSEMBLY	1	10/10/80
2	BIAMP SYSTEMS, INC.		
3	DESIGNED BY: J. J. JONES		
4	CHECKED BY: J. J. JONES		
5	DATE: 10/10/80		
6	BY: J. J. JONES		
7	FOR: BIAMP SYSTEMS, INC.		
8	PROJECT: AD MONITOR JACK ASSEMBLY		
9	REV: 1.0		
10	BY: J. J. JONES		
11	DATE: 10/10/80		
12	BY: J. J. JONES		
13	DATE: 10/10/80		
14	BY: J. J. JONES		
15	DATE: 10/10/80		
16	BY: J. J. JONES		
17	DATE: 10/10/80		
18	BY: J. J. JONES		
19	DATE: 10/10/80		
20	BY: J. J. JONES		

REV.	E.C.O.	CHANGE	DATE	BY
------	--------	--------	------	----

THIS DRAWING IS THE PROPERTY OF BIAMP SYSTEMS INC. AND MUST BE RETURNED TO THE DRAWING OFFICE ON REQUEST. WHILE IN THE POSSESSION OF ANY OTHER PARTY IT MUST BE PROTECTED AS A CONFIDENTIAL DRAWING. EMPLOYEES WHO REQUIRE IT FOR THE WORK OR JOB THE RECIPIENT AND EMPLOYEES MUST KEEP CONFIDENTIAL, AND NOT MAKE UNAUTHORIZED USE OF INFORMATION CONTAINED HEREON.

- JT PIN ASSIGNMENTS**
1. FROM MAIN AMP OUT A10
 2. BLANK
 3. MAIN AMP GND A12
 4. FROM MON. AMP OUT A10
 5. BLANK
 6. MON. AMP GND A12

MATES WITH PS OF A14 AMP HARNESS
JT



- NOTES:**
1. ALL COMPONENTS TO BE FULLY SEATED DOWN ON BOARD.
 2. REFER TO SHEET 1 FOR SCHEMATIC DIAGRAM.

ITEM	PART NO.	DATE	DESCRIPTION	SIZE	QTY
BIAMP SYSTEMS INC.					
ASSEMBLY A9					
29 SPEAKER JACK PC BRD					
DRAWN		AL	9/2/81	SIZE	REV
CHECKED		TD	10/14/81	B	A
ENGINEER				DWG. NO.	
DESIGN				SCALE	
MATERIAL				1:1	DO NOT SCALE DRAWING
FINISH					SHEET 2 OF 2
MODEL					
NEXT DIV.					
APPLICATION					

