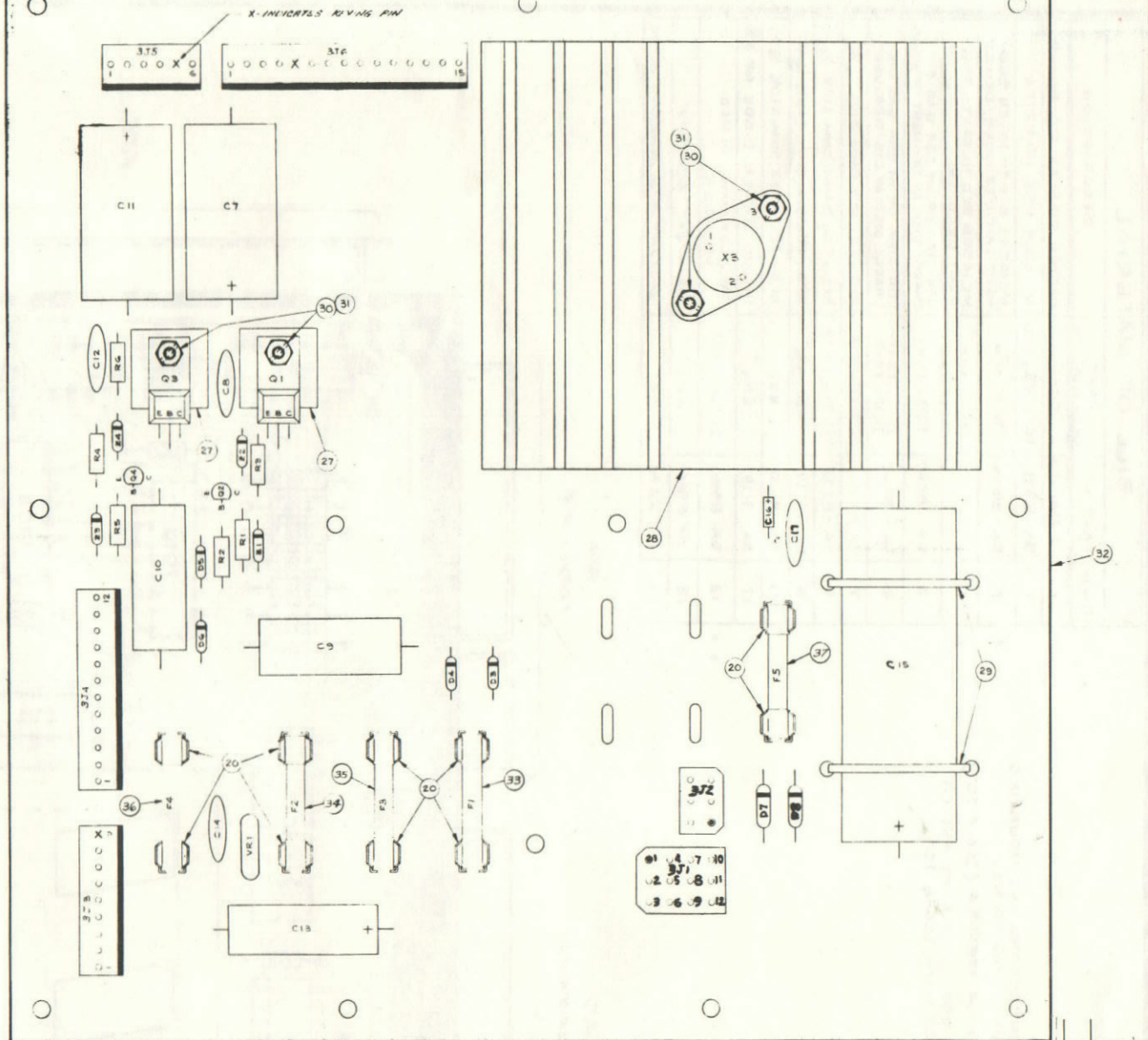


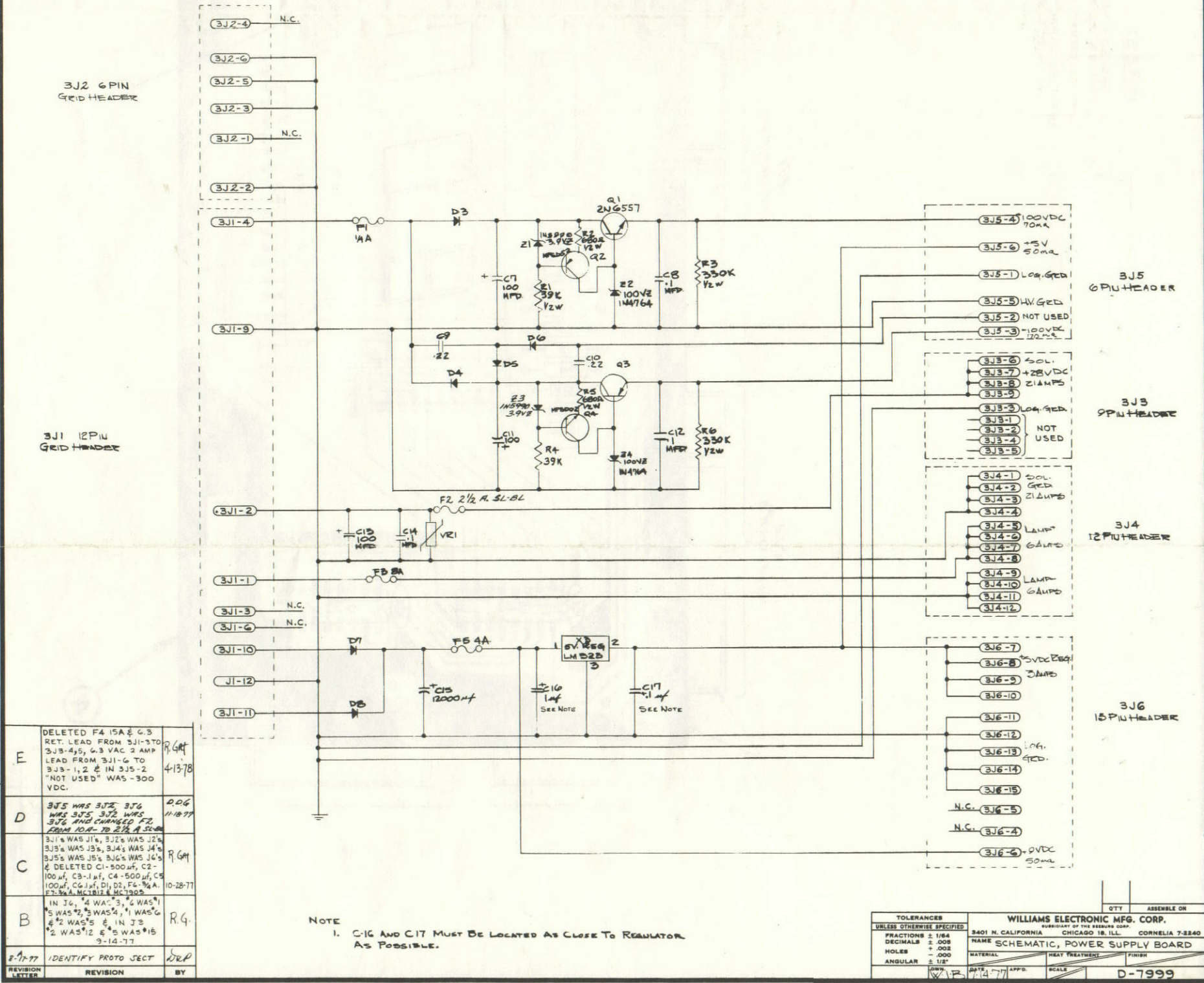
BILL OF MATERIAL

ITEM NO.	PART NO.	PART DESIGNATION	DESCRIPTION
1	5A-9043	X 5	3 AMP 5 VOLT POSITIVE VOLTAGE REGULATOR
2	5A-9057	Q1	TRANSISTOR NPN 2N202
3	5A-9055	Q2	TRANSISTOR PNP MP6053
4	5A-9058	Q3	TRANSISTOR PNP 2N202
5	5A-9056	Q4	TRANSISTOR NPN MP6053
6	5A-9054	D1 THRU D4	DIODE 1N4004
7	5A-9045	D7, D8	DIODE 1N4000
8	5A-9059	Z1, Z2	ZENER DIODE 1N4750
9	5A-9060	Z3, Z4	ZENER DIODE 1N4754
10	5A-9064	VR1	VARIABLE
11	5A-9062	R1, R4	RESISTOR 39 K Ω 1/2 W.
12	5A-9061	R2, R5	RESISTOR 680 Ω 1/2 W.
13	5A-9069	R3, R6	RESISTOR 390 K Ω 1/2 W.
14	5A-9055	C7, C11	CAPACITOR 100 MFD. 100 VDC.
15	5A-9070	C15	CAPACITOR 100 MFD. 100 VDC.
16	5A-9046	C15	CAPACITOR 12,000 MFD. 16 VDC.
17	5A-9072	C8, C12, C14, C17	CAPACITOR .1 MFD. 500 VDC.
18	5A-9047	C9, C10	CAPACITOR .22 MFD. 400 VDC.
19	5A-9051	C16	CAPACITOR .1 MFD. 25 VDC.
20	5A-9052	IO-REQ'D.	FUSEHOLDER
21	5A-9065	J1	12 PIN CONNECTOR
22	5A-9035	J2	6 PIN HEADER CONNECTOR
23	5A-9027	J3	9 PIN HEADER CONNECTOR
24	5A-9043	J4	12 PIN HEADER CONNECTOR
25	5A-9074	J5	15 PIN HEADER CONNECTOR
26	5A-9067	J6	6 PIN CIRCUIT CONNECTOR
27	5A-9042	2-REQ'D.	HEAT SINK
28	5A-9041	1-REQ'D.	4" X 4" HEAT SINK
29		2-REQ'D.	TIE WRAP
30		4-REQ'D.	5-40 X 1/2 R.H. MECH. SCREW
31		4-REQ'D.	5-40 HEX. NUT
32	1D-2001-134	1-REQ'D.	P.C. BOARD
33	5A-9071	F1	5.0 FUSE 1/4 AMP
34	5A-9076	F2	5.0 FUSE 2 1/2 AMP
35	5A-9071	F3	FUSE 5 AMP
36		F4	NOT USED
37	5A-9074	F5	5.0 FUSE 4 AMP



G	ADD FUSES - FUSE 1, 2, 3, 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, 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	BY
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TOLERANCES		WILLIAMS ELECTRONIC MFG. CORP.	
UNLESS OTHERWISE SPECIFIED		8400 N. CALIFORNIA CHICAGO 18, ILL. CORNELIA 7-22	
FRACTIONS	1/16	NAME: JAMES L. WILLIAMS	
DECIMALS	1.000	DATE: 10-1-67	
HOLDERS	1.000	BY: JAMES L. WILLIAMS	
ANGULAR	1.000	CHECKED: JAMES L. WILLIAMS	
DATE	10-1-67	APP. JAMES L. WILLIAMS	
REV. 1		REV. 1	
REV. 1		REV. 1	



E	DELETED F4 15A & G.3 RET. LEAD FROM 3J1-3 TO 3J3-4, 5, G.3 VAC 2 AMP LEAD FROM 3J1-6 TO 3J3-1, 2 & IN 3J5-2 "NOT USED" WAS -300 VDC.	R.G.H.	4-13-78
D	3J5 WAS 3J2, 3J6 WAS 3J5, 3J7 WAS 3J6 AND CHANGED F2 FROM 10A TO 2 1/2 A 50-60	R.D.G.	11-18-77
C	3J1 WAS 3J6, 3J2 WAS 3J5, 3J3 WAS 3J4, 3J4 WAS 3J5, 3J5 WAS 3J6, 3J6 WAS 3J4 & DELETED C1-500uF, C2-100uF, C3-1uF, C4-500uF, C5-100uF, C6-1uF, D1-D2, F4-3A, F7-3A, MC181 & MC7905	R.G.H.	10-28-77
B	IN J6, "4" WAS "3", "6" WAS "5" WAS "2", "3" WAS "4", "1" WAS "6", "2" WAS "5" & IN J3 "2" WAS "12" & "5" WAS "15" 9-14-77	R.G.	
8-7-77	IDENTIFY PROTO SECT	SRP	
REVISION	REVISION	BY	

TOLERANCES UNLESS OTHERWISE SPECIFIED		WILLIAMS ELECTRONIC MFG. CORP. SUBSIDIARY OF THE REEDER CORP.		
FRACTIONS	± 1/64	3401 N. CALIFORNIA	CHICAGO 18, ILL.	CORNELIA 7-3240
DECIMALS	± .008	NAME SCHEMATIC, POWER SUPPLY BOARD		
HOLES	± .005	MATERIAL	HEAT TREATMENT	FINISH
ANGULAR	± 1/8°	DATE 7-14-77	SCALE	D-7999