

- **ENC Circuit Board**



Notes)

CIRCUIT BOARD :	ENC (VP996500) XM253D0
1. MYLAR CAP.	
C101, 201, 301, 401	
501, 601, 701, 801:	220P 50V J (UA652220)
C102, 105, 202, 205	
302, 305, 402, 405	
502, 505, 602, 605	
702, 705, 802, 805:	820P 50V J (UA652820)
C107, 207, 307, 407	
507, 607, 707, 807:	0.0220 50V J (UA654220)
C113, 213, 214, 313	
314, 413, 513, 613	
614, 713, 714, 813:	0.2200 50V J (UA655220)
C122, 222, 322, 422:	2400P 50V J (UA653240)
C123, 223, 323, 423:	4700P 50V J (UA653470)
C124, 224, 324, 424:	0.2700 50V J (UA655270)
C133, 135, 233, 235	
333, 335, 433, 435:	1800P 50V J (UA653180)
C134, 141, 142, 234	
241, 242, 334, 341	
342, 434, 441, 442:	0.1000 50V J (UA655100)
C139, 239, 339, 439:	0.0330 50V J (UA654330)
C143, 145, 243, 245	
343, 345, 443, 445:	3300P 50V J (UA653330)
C146, 246, 346, 446:	330P 50V J (UA652330)
2. CERAMIC TUBULAR CAP.-B	
C108, 208, 308, 408	
508, 608, 708, 808:	100P 50V K (VF466800)
3. CERAMIC TUBULAR CAP.-X	
C130, 230, 330, 430:	3900P 16V N (VG279700)
4. CERAMIC TUBULAR CAP.-F	
C116, 152, 216, 316	
416:	0.022 25V Z (VG280100)
5. ELECTROLYTIC CAP.	
C103, 121, 203, 221	
303, 321, 403, 421	
503, 603, 703, 803:	10.00 25.0V (VE018300)
C104, 204, 304, 404	
504, 604, 704, 804:	100.00 6.3V (VG286200)
C106, 109, 206, 209	
306, 309, 406, 409	
506, 509, 606, 609	
706, 709, 806, 809:	47.00 16.0V (VE017800)
C110, 126, 137, 157	
210, 226, 237, 310	
326, 337, 410, 426	
437, 510, 610, 710	
810:	10.00 25.0V (VG288500)
C127, 132, 155, 156	
227, 232, 327, 332	
427, 432:	47.00 25.0V (VG288800)
C131, 136, 140, 231	
236, 240, 331, 336	
340, 431, 436, 440:	22.00 25.0V (VG288600)
C138, 238, 338, 438:	0.33 50.0V (VG290200)
C144, 244, 344, 444:	2.20 50.0V (VG290600)
C148, 149, 153, 154:	100.00 25.0V (VG288900)
C150, 151:	330.00 16.0V (VG287800)
6. COIL	
L101, 201, 301, 401	
501, 601, 701, 801:	1.2mH (VP764300)
L102, 202, 302, 402:	47mH(473S) (VQ522800)
L103, 203, 303, 403:	39mH(393S) (VR012700)
L104, 105:	1mH 260mA (VP764400)

7. CARBON RESISTOR	
R101, 104, 121, 201	
204, 221, 223, 301	
304, 321, 323, 401	
404, 421, 501, 504	
521, 601, 604, 621	
623, 701, 704, 721	
723, 801, 804, 821:	10.0 1/4 J (HF454100)
R102, 202, 302, 402	
502, 602, 702, 802:	33.0K 1/4 J (HF457330)
R103, 139, 165, 203	
239, 265, 303, 339	
365, 403, 439, 465	
503, 565, 603, 665	
703, 765, 803, 865:	100.0K 1/4 J (HF458100)
R105, 109, 205, 209	
305, 309, 405, 409	
505, 509, 605, 609	
705, 709, 805, 809:	22.0K 1/4 J (HF457220)
R106, 206, 306, 406	
506, 606, 706, 806:	68.0 1/4 J (HF454680)
R107, 108, 131, 207	
208, 231, 307, 308	
331, 407, 408, 431	
507, 508, 607, 608	
707, 708, 807, 808:	4.7K 1/4 J (HF456470)
R110, 210, 310, 410	
510, 610, 710, 810:	330.0 1/4 J (HF455330)
R111, 211, 311, 411	
511, 611, 711, 811:	120.0K 1/4 J (HF458120)
R112, 124, 212, 224	
312, 324, 412, 424	
512, 524, 612, 624	
712, 724, 812, 824:	1.0 1/4 J (HF453100)
R113, 161, 162, 213	
313, 413, 513, 613	
713, 813:	47.0K 1/4 J (HF457470)
R114, 125, 148, 158	
214, 225, 248, 258	
259, 314, 325, 348	
358, 414, 425, 448	
458, 459, 514, 614	
714, 814:	1.0K 1/4 J (HF456100)
R116, 117, 216, 217	
316, 317, 416, 417	
516, 517, 616, 617	
716, 717, 816, 817:	220.0 1/4 J (HF455220)
R118, 137, 141, 167	
218, 237, 241, 267	
318, 337, 341, 367	
418, 437, 441, 467	
518, 567, 618, 667	
718, 767, 818, 867:	2.2K 1/4 J (HF456220)
R122, 222, 322, 422	
522, 622, 722, 822:	22.0 1/4 J (HF454220)
R132, 232, 332, 432:	15.0K 1/4 J (HF457150)
R134, 234, 334, 434:	30.0K 1/4 J (HF457300)
R135, 235, 335, 435:	1.5K 1/4 J (HF456150)
R136, 236, 336, 436:	1.8K 1/4 J (HF456180)
R140, 240, 340, 440:	6.8K 1/4 J (HF456680)
R142, 144, 166, 242	
244, 266, 342, 344	
366, 442, 444, 466	
542, 544, 566, 642	
644, 666, 742, 744	
766, 842, 844, 866:	10.0K 1/4 J (HF457100)
R153, 253, 353, 453:	1.0M 1/4 J (HF459100)
R163:	39.0K 1/4 J (HF457390)

8. FLAME PROOF C. RESISTOR	
R171, 172:	4.7 1/4 J (HV753470)

9. METAL FILM RESISTOR	
R146, 246, 346, 446:	4.3K 1/4 F (VP440500)
R147, 247, 347, 447	
150, 250, 350, 450:	1.0K 1/4 F (VP439000)
R149, 149, 349, 449:	3.9K 1/4 F (VP440400)
R151, 251, 351, 451:	10.0K 1/4 F (VP441400)
R152, 252, 352, 452	
155, 255, 355, 455:	33.0K 1/4 F (VP442600)
R154, 254, 354, 454:	4.7K 1/4 F (VP440600)
R156, 256, 356, 456:	6.8K 1/4 F (VP441000)
R157, 257, 357, 457:	91.0K 1/4 F (VP443700)
10. IC	
IC101, 201, 301	
401, 501, 601	
701, 801:	NJM2068S-D (XE322A00) OP AMP
IC102, 103:	LC4966 (IG149300) ANALOG SWITCH
IC104, 105:	UPC4570HA (XB247A00) OP AMP
IC106, 107:	AN6292NK (XJ637A00) dbx
IC108:	BU4053B (IG149000) MULTIPLEXER
11. RELAY	
RY101, 201, 301	
401, 501, 601	
701, 801:	DC RY 12W-OH-K (VM640200)
12. LC FILTER	
FI101, 201, 301	
401, 501, 601	
701, 801:	85k BP (VP764800)
FI102, 202, 302	
402, 502, 602	
702, 802:	16k LPF (VR121000)
FI103, 203, 303	
403:	85k (VQ033400)
13. TRIMMER POTENTIOMETER	
VR101, 201, 301	
401, 501, 601	
701, 801:	B 150.0K 3P (VJ694300)
VR102, 202, 302	
402, 502, 602	
702, 802:	B 3.3K 3P (VJ693300)
VR103, 203, 303	
403, 503, 603	
703, 803:	B 10.0K 3P (VJ693600)
VR104, 204, 304	
404, 504, 604	
704, 804:	B 22.0K 3P (VJ693800)
VR105, 205, 305	
405:	B 4.7K 3P (VJ693400)
14. TRANSISTOR	
Q102~104, 202~204	
302~304, 402~404	
502, 503, 602, 603	
702, 703, 802, 803:	2SD1915(F) S, T (VK432900)
Q106, 206, 306, 406	
506, 606, 706, 806:	2SD1858 TV2 Q, R (VE613400)
15. DIODE	
D101, 102, 201, 202	
301, 302, 401, 402	
501, 502, 601, 602	
701, 702, 801, 8022:	1SS133 T-77 (IF004600)
16. DIGITAL TRANSISTOR	
Q105, 107, 108, 110	
112, 113, 205, 207	
208, 210, 305, 307	
308, 310, 405, 407	
408, 410, 505, 507	
605, 607, 705, 707	
805, 807:	DTA124ES TP (VH257100)
Q109, 114, 209, 309	
409:	DTC114ES (VD678700)

17. BASE PIN IN STICK	
CN101:	PH 6P TE (VD004900) to SUB-CN11
CN102:	PH 3P TE (VD004600) to SUB-CN7
CN104:	PH 4P TE (VD004700) to SUB-CN15
CN105:	PH 7P TE (VD005000) to SUB-CN16
CN107:	PH 4P TE (VD004700) to MAS-CN43
CN109:	PH 8P TE (VD005100) to DEC-CN105
CN110:	PH 11P TE (VG699700) to MIX-CN20
CN111:	PH 6P TE (VD004900) to DEC-CN106
CN112:	PH 9P TE (VD005200) to DEC-CN112
CN114:	PH 8P TE (VD005100) to DEC-CN107
CN116:	PH 3P TE (VD004600) to DEC-CN122
CN201:	PH 6P TE (VD004900) to SUB-CN12
CN202:	PH 3P TE (VD004600) to SUB-CN9
CN203:	PH 2P TE (VD004500) No Connection
CN301:	PH 6P TE (VD004900) to SUB-CN13
CN302:	PH 3P TE (VD004600) to SUB-CN7
CN401:	PH 6P TE (VD004900) to SUB-CN14
CN402:	PH 3P TE (VD004600) to SUB-CN9
CN403:	PH 2P TE (VD004500) No Connection
CN502:	PH 3P TE (VD004600) to SUB-CN8
CN602:	PH 3P TE (VD004600) to SUB-CN10
CN702:	PH 3P TE (VD004600) to SUB-CN8
CN802:	PH 3P TE (VD004600) to SUB-CN10
18. CONNECTOR ASSEMBLY	
CN115:	ENC GND
CN120:	ENC PB OUT
19. B&C CONNECTOR ASSEMBLY	
CN106:	PH30 5P 250 (VM021100) to MIX-CN21
CN108:	PH29 4P 250 (VM019400) to MIX-CN22
CN113:	PH37 9P 100 (VM027300) to MIX-CN26
CN117:	PH42 3P 250 (VM002400)
CN118:	PH59 4P 250 (VM004100)
CN119:	PH80 5P 450 (VM006200)

SUB 1/4



Notes)

- CIRCUIT BOARD : SUB XM254D0
 CIRCUIT BOARD : SUB 1/4 (NX812340) J
 CIRCUIT BOARD : SUB 1/4 (NX812350) U, C, V
 CIRCUIT BOARD : SUB 1/4 (NX812360) H, B, W
 CIRCUIT BOARD : SUB 2/4 (NX812370)
 CIRCUIT BOARD : SUB 3/4 (NX812380)
 CIRCUIT BOARD : SUB 4/4 (NX812390)
1. MYLAR CAP.
 C24: 4700P 50V J (UA653470)
 C25, 26: 1000P 50V J (UA653100)
 2. POLYPROPYLENE FILM CAP.
 C22: 1000P 100V J (UT653100)
 C101, 201, 301, 401: 5600P 100V J (UT653560)
 3. CERAMIC CAP.
 C 1: 0.01 250V (VA891300) J
 C 1: 0.010 400V (FI384100) U, C, V
 H, B, W
 C102, 202, 302, 402: 150P 50V J (VA777500)
 C103, 104, 203, 204
 303, 304, 403, 404: 100P 50V J (VA761800)
 4. CERAMIC CAP.-F
 C 3, 6, 7, 9, 10, 11
 12: 0.0100 50V Z (FG644100)
 5. CERAMIC TUBULAR CAP.-F
 C19: 0.022 25V Z (VG280100)
 C54~56: 0.1 50V Z (VJ599100)
 6. ELECTROLYTIC CAP.
 C 2, 13: 100.00 25.0V (VG288900)
 C 4: 220.00 50.0V (UJ868220)
 C 5: 4.700 25.0V (VG288400)
 C 8: 220.00 6.3V (VG286300)
 C14-16: 4700 25.0V (VK181300)
 C17: 470.00 25.0V (UJ848470)
 C18, 21: 10.00 50.0V (VG290900)
 C20, 23: 10.00 25.0V (VG288500)
 7. COIL
 L 1: 85KHZ P-P (VP764500)
 L101, 201, 301, 401: 85KHZ (VP769100)
 8. CARBON RESISTOR
 R 1, 6: 1.0K 1/4 J (HF456100)
 R 2: 4.7K 1/4 J (HF456470)
 R 5: 47.0K 1/4 J (HF457470)
 R 7: 27.0K 1/4 J (HF457270)
 R 8: 1.8K 1/4 J (HF456180)
 R 9, 103, 203, 303
 403: 10.0K 1/4 J (HF457100)
 R10: 3.9K 1/4 J (HF456390)
 R11: 5.6K 1/4 J (HF456560)
 R12: 13.0K 1/4 J (HF457130)
 R13: 36.0K 1/4 J (HF457360)
 R16, 101, 201, 301
 401: 100.0 1/4 J (HF455100)
 R17, 18: 220.0K 1/4 J (HF458220)
 R43: 2.7K 1/4 J (HF456270)
 R102, 202, 302, 402: 22.0K 1/4 J (HF457220)
 R104, 105, 204, 205
 304, 305, 404, 405: 470.0K 1/4 J (HF458470)
 R106, 206, 306, 406: 33.0K 1/4 J (HF457330)
 9. FLAME PROOF C. RESISTOR
 R 3, 4: 100.0 1/4 J (HV755100)
 R14, 15: 39.0 1/4 J (HV754390)
 10. PUSH SWITCH
 SW 1: ESB82 TV-3 (VQ040100) POWER
 11. FUSE
 F 1, 2: 3.00A (KB003590) J, U, C, V
 F1, 2: 2.00A (KB003070) H, B, W
 12. PHONE JACK
 JK 2: YKB21-5009 (VL080300) PHONES
 JK 3: YKB21-5076 (VL080500) PUNCH I/O
 13. AC INLET
 JK 1: M1779-B (VL327300) J, H, B, W
 JK 1: M1770-A (VI042900) U, C, V
 14. DIN JACK
 JK 4: 8P CMS 5008 (VL105500) REMOTE CONTROL
 15. FUSE HOLDER
 EYF-52BC (VP206500)
 16. TRANSISTOR
 Q 1, 3, 4: 2SC2603 E, F (IC260320)
 Q 2: 2SA933S Q, R (IA093320)
 Q101, 201, 301, 401: 2SC2878 A, B (IC287820)
 Q102, 103, 202, 203
 302, 303, 402, 403: 2SC1318 R, S (VQ032900)
 17. DIODE
 D 1, 2: 1SR139-100 T-32 (VH770800)
 D 3, 5-7, 10: 1SS133 T-77 (IF004600)
 D 4, 8, 9, 11: 1SR139-100 T-62 (VH801600)
 18. DIODE STACK
 DB 1: S4VB20 2.6A 200 (IH001090)
 19. ZENER DIODE
 ZD 1: MTZ J 4.7C 4.7V (VG437200)
 ZD 2: MTZ J 5.1A 5.1V (VG437300)
 20. BASE POST CONNECTOR
 CN 1: VA 2P TE (VG879900) to P.T. primary
 CN 2: VH 5P TE (LB932050) to P.T. secondary
 CN 3: XH 7P TE (LB918070) to MIX-CN25
 21. BASE PIN IN STICK
 CN 4: PH 4P TE (VD004700) to MAS-CN46
 CN 7: PH 6P TE (VD004900) to ENC-CN102, 302
 CN 8: PH 6P TE (VD004900) to ENC-CN502, 702
 CN 9: PH 6P TE (VD004900) to ENC-CN202, 402
 CN10: PH 6P TE (VD004900) to ENC-CN602, 802
 CN11: PH 6P TE (VD004900) to ENC-CN101
 CN12: PH 6P TE (VD004900) to ENC-CN201
 CN13: PH 6P TE (VD004900) to ENC-CN301
 CN14: PH 6P TE (VD004900) to ENC-CN401
 22. BASE PIN
 CN 5: FPC 16P SE (VP534700) to ERACE HEAD
 CN 6: FPC 16P SE (VP534700) to REC/PLAY HEAD
 23. PH CONNECTOR ASSEMBLY
 CN15: 4P 70mm B&C (VB709900) to ENC-CN104
 CN16: 7P 120mm B&C (VB715200) to ENC-CN105
 CN17: 3P 300mm B&C (VB709000) to MAS-CN41
 CN18: 6P 70mm B&C (VB713300) to MIX-CN30