

Part Number	Description	PG	Item Number
AA0625	CF RES 0W25 10R J	01 R	281 437
AA0633	CF RES 0W25 22R J	01 R	141 142 461
AA0649	CF RES 0W25 100R J	01 R	122 305 321 399 569 570
AA0651	CF RES 0W25 120R J	01 R	163 322
AA0659	CF RES 0W25 270R J	01 R	156 442
AA0663	CF RES 0W25 390R J	01 R	154
AA0665	CF RES 0W25 470R J	01 R	137 155
AA0665	CF RES 0W25 470R J	01 R	349
AA0667	CF RES 0W25 560R J	01 R	145 432
AA0673	CF RES 0W25 1K0 J	01 R	125 149 465 264 421 509 519 536
AA0675	CF RES 0W25 1K2 J	01 R	350
AA0677	CF RES 0W25 1K5 J	01 R	116 217 413 449
AA0681	CF RES 0W25 2K2 J	01 R	167 237
AA0683	CF RES 0W25 2K7 J	01 R	148 433
AA0689	CF RES 0W25 4K7 J	01 R	213 435 436 545 546 548 552 553 582
AA0691	CF RES 0W25 5K6 J	01 R	430
AA0695	CF RES 0W25 8K2 J	01 R	462
AA0697	CF RES 0W25 10K J	01 R	161 224 311 333
AA0699	CF RES 0W25 12K J	01 R	452 453
AA0701	CF RES 0W25 15K J	01 R	406 415 568 577
AA0705	CF RES 0W25 22K J	01 R	393 428 460
AA0707	CF RES 0W25 27K J	01 R	353
AA0709	CF RES 0W25 33K J	01 R	603
AA0713	CF RES 0W25 47K J	01 R	158 387 583
AA0719	CF RES 0W25 82K J	01 R	335
AA0721	CF RES 0W25 100K J	01 R	157 221 362 557
AA0729	CF RES 0W25 220K J	01 R	414
AA0754	CF RES 0W25 2M2 J	01 R	385 390
AA0761	CF RES 0W25 4M7 J	01 R	107 162 334
AB0585	NF RES 0W25 0R22 J	01 R	134
AB0593	NF RES 0W25 0R47 J	01 R	283 411
AB0617	NF RES 0W25 4R7 J	01 R	282
AB0625	NF RES 0W25 10R J	01 R	222
AB0635	NF RES 0W25 27R J	01 R	438
AB0637	NF RES 0W25 33R J	01 R	114
AC4441	CHIPRES 0W1 47R 5%	01 R	345
AB0649	NF RES 0W25 100R J	01 R	121 131 364
AB0785	NF RES 0W5 0R22 J	02 R	318
AB0795	NF RES 0W5 0R56 J	02 R	118 119
AB0801	NF RES 0W5 1R0 J	02 R	171
AB0803	NF RES 0W5 1R2 J	01 R	135 136 153
AC3332	CHIPRES 2K61 0W1 1%	01 R	150 206
AC3349	CHIPRES 3K92 0W1 1%	01 R	205
AC3388	CHIPRES 10K0 0W1 1%	01 R	578
AC3402	CHIPRES 14K0 0W1 1%	01 R	219
AC3405	CHIPRES 15K0 0W1 1%	01 R	520
AC3421	CHIPRES 22K0 0W1 1%	01 R	220
AC3550	CHIPRES 0W1 33K 1%	01 R	522
AC4400	CHIPRES 0W1 0R0 5%	01 R	151 521 701 702 703 704 705 706 712 720 721
AC4425	CHIPRES 0W1 10R 5%	01 R	408 410
AC4425	CHIPRES 0W1 10R 5%	01 R	419
AC4433	CHIPRES 0W1 22R 5%	01 R	309 310 316
AC4449	CHIPRES 0W1 100R 5%	01 R	317 445 446 447 448 457 571 572
AC4457	CHIPRES 0W1 220R 5%	01 R	225 407
AC4465	CHIPRES 0W1 470R 5%	01 R	120 529
AC4467	CHIPRES 0W1 560R 5%	01 R	441
AC4469	CHIPRES 0W1 680R 5%	01 R	423
AC4471	CHIPRES 0W1 820R 5%	01 R	352
AC4473	CHIPRES 0W1 1K0 5%	01 R	147 170 210 263 275 314 524 531 547 554 555
AC4475	CHIPRES 0W1 1K2 5%	01 R	209
AC4479	CHIPRES 0W1 1K8 5%	01 R	320
AC4481	CHIPRES 0W1 2K2 5%	01 R	113 164 236 306 327 346 409 514 525 559 269
AC4485	CHIPRES 0W1 3K3 5%	01 R	128 241 537 538 539 540
AC4487	CHIPRES 0W1 3K9 5%	01 R	425 455
AC4489	CHIPRES 0W1 4K7 5%	01 R	249 303 304 313 416 510 511 512 513 515 516 532 534 535 543 544 549 550 551 562 523 228
AC4491	CHIPRES 0W1 5K6 5%	01 R	244 245 247 253
AC4493	CHIPRES 0W1 6K8 5%	01 R	110 123 246
AC4495	CHIPRES 0W1 8K2 5%	01 R	576 604
AC4497	CHIPRES 0W1 10K 5%	01 R	108 111 212 234 248 261 262 301 302 338 340 341 351 403 418 530
AC4499	CHIPRES 0W1 12K 5%	01 R	208 214 260
AC4503	CHIPRES 0W1 18K 5%	01 R	226 239 451
AC4505	CHIPRES 0W1 22K 5%	01 R	168 169 227 240 517
AC4507	CHIPRES 0W1 27K 5%	01 R	242 243 255 256 257 259 401
AC4509	CHIPRES 0W1 33K 5%	01 R	339 342 127 109 508
AC4513	CHIPRES 0W1 47K 5%	01 R	215 258 386
AC4515	CHIPRES 0W1 56K 5%	01 R	218 402
AC4517	CHIPRES 0W1 68K 5%	01 R	254 330 331 463
AC4521	CHIPRES 0W1 100K 5%	01 R	560 579 580
AC4525	CHIPRES 0W1 150K 5%	01 R	324
AC4529	CHIPRES 0W1 220K 5%	01 R	344 347
AC4537	CHIPRES 0W1 470K 5%	01 R	235 319 394
AC4545	CHIPRES 0W1 1M0 5%	01 R	533
AC4553	CHIPRES 0W1 2M2 5%	01 R	211 388 389
AC4561	CHIPRES 0W1 4M7 5%	01 R	166
AD0373	COMPRES 0W5 1K0 K	01 R	332
AD0433	COMPRES 0W5 330K K	01 R	101
AG3101	MF RES 0W5 1R00 F	01 R	274
AG3119	MF RES 0W5 1R54 F	01 R	424
AG3301	MF RES 0W5 100R F	01 R	315
AG3333	MF RES 0W5 215R F	01 R	280
AG3401	MF RES 0W5 1K00 F	01 R	223

SMA188D/189D

1

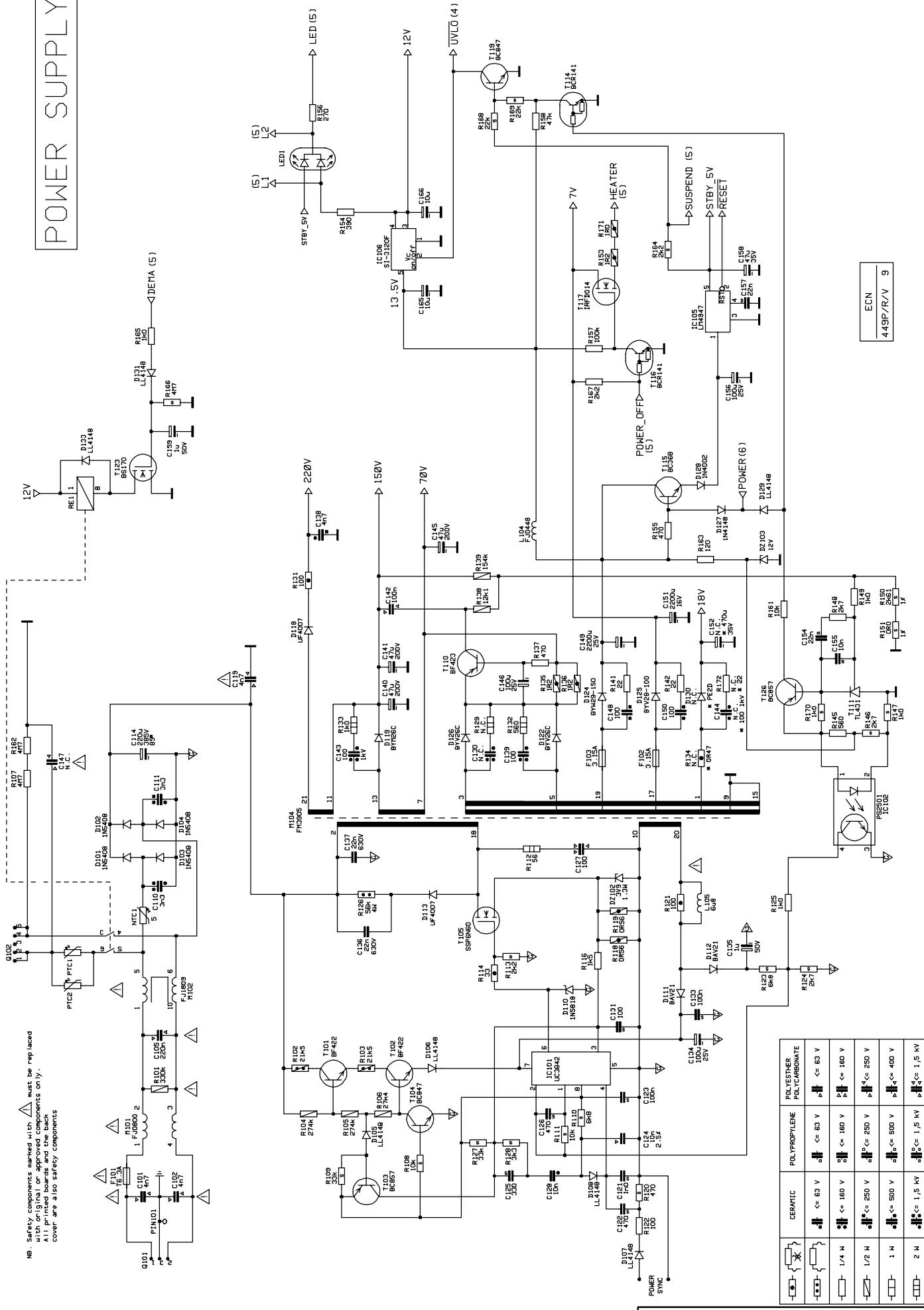
Part Number	Description	PG	Item Number
AG3425	MF RES 0W5 1K78 F	01	R 273
AG3433	MF RES 0W5 2K15 F	01	R 348 398 439 459
AG3451	MF RES 0W5 3K32 F	01	R 270 271
AG3501	MF RES 0W5 10K0 F	01	R 518
AG3509	MF RES 0W5 12K1 F	03	R 138 343
AG3533	MF RES 0W5 21K5 F	01	R 102 103
AG3543	MF RES 0W5 27K4 F	01	R 106 308
AG3557	MF RES 0W5 38K3 F	01	R 431 434
AG3565	MF RES 0W5 46K4 F	01	R 307
AG3601	MF RES 0W5 100K F	01	R 323 405
AG3619	MF RES 0W5 154K F	01	R 139
AG3643	MF RES 0W5 274K F	01	R 104 105
AG3657	MF RES 0W5 383K F	01	R 412
AJ2523	MO RES 2W0 10R J	02	R 422
AJ2603	MO RES 2W0 22R J	02	R 420 429
AJ2763	MO RES 2W0 100R J	02	R 426
AJ2703	MO RES 2W0 56R J	02	R 112 417
AJ2923	MO RES 2W0 470R J	02	R 458 440
AJ2943	MO RES 2W0 560R J	02	R 132
AJ3003	MO RES 2W0 1K0 J	02	R 133
AJ3425	MO RES 4W0 56K J	03	R 126
AQ2215	TPMET.AA H10 2K2	03	RT 402
AQ2216	TPMET.AA H10 4K7	03	RT 403
AQ2219	TPMET.AA H10 47K	03	RT 301 401
AW0079	PTC-THERMISTOR 18R/25°C RM5	07	PTC 1 2
AW0111	NTC-THERMISTOR 5R0/25°C RM5+2,5	07	NTC 1
CA0322	CERCAP Y5P 2N2 K 1KV	02	C 318
CA0324	CERCAP Y5P 100P K 1KV	02	C 139 143 148 150
CA0423	ELCAP 47U 50V		C 610
CA0453	CERCAP X6V 4N7 M 500V	02	C 138
CB3129	CHIPCERCAP NPO 15P 50V J	03	C 517 518
CB3133	CHIPCERCAP NPO 22P 50V J	01	C 339
CB3145	CHIPCERCAP NPO 68P 50V J	01	C 302
CB3151	CHIPCERCAP NPO 100P 50V J	01	C 131 301 303 313 406
CB3155	CHIPCERCAP NPO 150P 50V J	01	C 407
CB3159	CHIPCERCAP NPO 220P 50V J	01	C 403 217
CB3163	CHIPCERCAP NPO 330P 50V J	01	C 314 125
CB3167	CHIPCERCAP NPO 470P 50V J	02	C 122 126 202
CB3171	CHIPCERCAP NPO 680P 50V J	01	C 212
CB3175	CHIPCERCAP NPO 1N0 50V J	03	C 525 121
CC3240	CHIPCERCAP X7R 2N2 10% 50V	01	C 308
CC0110	CERCAP Y5P 150P K 500V	01	C 439
CC0130	CERCAP Y5P 220P K 500V	01	C 418 419 442 334 416
CC0240	CERCAP Y5P 2N2 K 500V	01	C 420
CC0284	CERCAP Y5P 4N7 K 50V	01	C 337
CC0530	CERCAP Z5U 4N7 S 500V	01	C 417
CC0513	CERCAP Y5V 3N3 S 1KV	02	C 110 111
CC0772	CERCAP Z5V 10N Z 50V	01	C 128
CC3320	CHIPCERCAP X7R 10N 10% 50V	01	C 204 205 214 219 220 221 222 223 224 304 340 404 512 234 155
CC3360	CHIPCERCAP X7R 22N 10% 50V	01	C 154 157
CC4380	CHIPCAP X7R 33N K 50V	02	C 209 216 227 402 432 433 434 435 527
CC4400	CHIPCAP X7R 47N K 50V	02	C 210 211 123 133 316
CC4440	CHIPCAP 100N 1206		C 530
CE0083	X2-CAP 220N M 275VAC	08	C 105
CE0127	*NEW* 4N7 M 400VAC	04	C 101 102 119
CE0522	PCACAP MKC 100N J 63V	04	C 319
CE2004	IMPCAP 100P K 1K6V	03	C 127
CE2154	IMPCAP 1N5 K 1K5V	04	C 307
CE2286	IMPCAP 4N7 J 2KV	08	C 413
CE2850	IMPCAP 68N J 250V	04	C 415 426
CE2931	IMPCAP 100N J 250V	04	C 411
CE2960	IMPCAP 150N J 250V	04	C 427
CE3060	IMPCAP 330N J 250V	04	C 428
CE3080	IMPCAP 390N J 250V	04	C 421
CE3170	IMPCAP 800N J 160V	04	C 429
CG2665	PPRCAP KP 4N7 J 63V	04	C 438
CG2717	PPRCAP KP 10N H 63V	03	C 124
CK0165	PESCAP MKT 22N K 630V	02	C 136 137
CK0221	PESCAP MKT 47N J 250V	02	C 408
CK0284	PESCAP MKT 100N K 250V	02	C 142
CK1388	PESCAP MKT 10N K 250V	02	C 305
CK2464	PESCAP MKT 22N K 63V	02	C 206
CK2544	PESCAP MKT 47N K 63V	02	C 312 323
CK2626	PESCAP MKT 100N K 63V	02	C 336 410
CK2663	PESCAP MKT 150N J 63V	03	C 225
CK2664	PESCAP MKT 150N K 63V	02	C 233
CK2704	PESCAP MKT 220N K 63V	03	C 310
CK2784	PESCAP MKT 470N K 63V	03	C 228
CN0088	ELCAP 220U M 385V	18	C 114
CN2553	ELCAP 0U47F M 50V	01	C 213 309
CN2017	ELCAP 1U0 M 50V	02	C 135 159 335
CN0204	ELCAP 2U2 M 50V	01	C 201 235 430 504 505 506 507 508 509 510 511 513 519 520 521 522 524 528 317 523
CN0258	ELCAP 4U7 M 50V	01	C 203
CN2032	ELCAP 10U M 50V	01	C 165 166 311 405 514 516 526
CN0423	ELCAP 47U M 50V	02	C 208 226
CN2228	ELCAP 4U7 M 200V	05	C 440
CN2435	ELCAP 47U M 35V	02	C 158
CN3249	ELCAP, 47U M 200V	09	C 140 141
CN2546	ELCAP 100UF M 100V	05	C 145

Part Number	Description	PG	Item Number
CN2521	ELCAP 100U M 25V	02	C 134 146 215 401
CN2521	ELCAP 100U M 25V	02	C 401
CN2523	ELCAP 100U M 25V	03	C 156
CN2543	ELCAP 100U M 50V	02	C 231
CN2712	ELCAP 1000U M 16V	05	C 412
CN3427	ELCAP,2200U M 25V	05	C 149
CN2642	ELCAP 470U M 16V	04	C 232
CN2749	ELCAP 2200U M 16V	04	C 151
FJ0448	CHOKE 15UH FERRITE	02	L 104
FJ0517	CHOKE 6.8UH 10% TAPED AXIAL	03	L 105
FJ0516	CHOKE 1MH 5% TAPED AXIAL	02	L 401
FJ0800	EMI/RFI CHOKE 60MH 3A(AC)	03	M 101
FJ1827	INPUT CHOKE E25/7	03	M 102
FM0630	FLYBACK TRAFO 30...65KHZ 449R	12	M 301
FM2560	DYNAMIC FOCUS TRAFO E20/6 445R	12	M 403
FM2524	DRIVER TRAFO E20/6 447C/H	12	M 401
FM2562	CENTERING COIL E25/7 1.42MH 449R	12	M 402
FM2563	CHOKE E20/6 1.22MH 449R	11	M 404
FM3904	SMPMS-TRAFO ETD39 449V/R	17	M 104
FU0717	FIXED LIN.COIL W/DC-COIL 449R	11	L 403
FJ0725	BEAD INDUCTOR MIN IMP360HM	02	FR 401
JB0047	DI GB30M	D	101 102 103 104
JF0022	DI 1N4148	01	D 127 206 303 405 406 415 418 505 507
JF0032	DI UF4007 1000V 1A 75N	04	D 113 118
JF0033	DI UF5404 400V 3A 50NS	04	D 409
JF0034	DI UF5406 600V 3A 75N	09	D 306
JF0060	DI 1N4002 100V 1A	01	D 128
JF0062	DI BA159 1000V 400MA 500N	02	D 423
JF0072	DI BAV21 200V 250MA 50N	01	D 111 112
JF0073	DI RGP10G 400V 1A 150N	04	D 412 414 417 419 420 421 422 424
JF0096	DI BYV28-100 100V 3.5A 30N	07	D 125
JF0106	DI UF2D-7000 200V 2A 50N MUOVI	03	D 207 408
JF0107	DI BYV26C 600V 1A 30N	05	D 122 126
JB0043	DIODE BY359X 1500V 5A FULLISOL	09	D 410
JF0166	DIODE BYM26C 600V 2.3A SOD-64	06	D 119
JF0033	DI UF5404 400V 3A 50NS	04	D 404
JF0172	DI BYW29-150 150V 8A 35NS TO-220	08	D 124
JF0206	SCHOTTKY RECTIFIER 30V 1A 1N5818	04	D 110 202 203
JF4005	DI LL4148 75V 150MA 4N (JF4006)	01	D 105 106 107 108 131 133 201 301 302 304 305 317
		01	318 319 401 402 403 416 425 503 508 316 129 320
JH0054	ZDI BZX83C12 12V 0.5W 5%	01	DZ 103 401 402 302
JH0081	ZDI ZPY 3.9 3.9V 1.3W 5%	02	DZ 102
JH4118	ZDI BZX84C12 12V 0.35W 5%	06	DZ 301
JL0056	LED DUALCOLOR RED/GREEN 5X2MM	04	LED 1
JL0069	OPTOCOUPLER VRMS 5KV	03	IC 102
JM0203	TR MPSA42 N 300V 500MA TO92	03	T 413
JM0205	TR BF423 P 250V 25MA 60M:	03	T 110 315 404
JM0244	TR BF422 N 250V 25MA 60M:	02	T 101 311 314 408 412 102
JM0255	TR BC637-6/-10 N 60V 1A 50M:	04	T 421
JM0273	TR 2N5551 NPN 160V 0,6A	02	T 206 316 317
JM0280	TR 2N5401 P 150V 0,6A 100M	02	T 409
JM0281	TR BC368 N 20V 1A 60M:	04	T 115
JM0344	TR BU2527AF N 1500V 12A SOT199	17	T 407
JM4105	TR BC847B N 45V 0.1A SOT23	04	T 104 119 204 301 305 307 309 313 319 401 402 422
JM4114	TR BC857B P 45V 100MA 150M:	02	T 103 126 202 205 302 306 308 312 318 320 403 420
		02	423 508
JM4401	TR BCR141W 50V 0.1A (2X22K)SOT323	02	T 114 116 510 511
JS0016	FET SSP6N60 N 600V 6.A 1R2 TO220	11	T 105
JS0033	FET IRFD014 N 60V 1.7A HD-1	07	T 117
JS0058	FET IRF9620 P 200V 1R5 3A TO220FI	10	T 405 303
JS0063	FET IRFIBE30G N 800V 2,1A 3R0 220	23	T 304
JS0067	FET IRFR9024 P 60V 8.8A 0.29R	08	T 406
JS0068	FET IRF1520G N 100V 7.0A 0.27R	07	T 416 417
JS0069	FET IRFI530G N 100V 9.0A 0.16R	08	T 418 419
JS1006	FET BS170 N 60V 500MA	10	T 123
JZ0005	SILICONE INSUL. PAD 19*13*0.22MM	01	T 105
LM0909	IC LM2927 +5V LOWDR.REG TO220(5)	13	IC 105
LM0455	IC LM358N DUAL OP-AMP DIL-8	06	IC 302
LM0942	IC TL431 VOLTAGE REFERENCE TO-92	04	T 111
LM0763	IC UC3842 CURRENT MODE PWM CONT	.12	IC 101
LM0908	IC TDA4866 VERTICAL BOOSTER SIL-9	14	IC 203
LM0921	IC SI-3120F 12V LOWDROP REG	10	IC 106
LM0937	IC TDA9105 DEFLECTION PROCESSOR	20	IC 201
LM0938	IC ST72E72 MONITOR UC,DDC DIP-56	34	IC 501
LM4006	IC 74HC02 4X2 INPUT NOR	03	IC 202
LM4017	IC 74HCT02 QUAD 2-INPUT NOR SO-14	04	IC 502
LM4022	IC 74HCT74 DUAL D-FLIP-FLOP SO-14	05	IC 503
LM4111	IC 4538BT	05	IC 301 401
LM4406	IC LM324 QUAD OP-AMP SO-14	05	IC 304
LZ0063	IC-SOCKET 56-POLE DUAL LEAF 1.78	10	IC 501
QA0095	CRYSTAL 8,00 MHZ HC-49/U	04	X 501
QG0328	DOUBLE TACTILE SWITCH 12VDC 50MA	08	SW 1 2 3
QH0065	RELAY PCB-MOUNTING 12V 5A/250V	12	RE 1
QK0851	TAP CONN RTM 1,3/5/8.002	01	PIN 401
QK1285	ROW CONN 1X05 5,08/7,62 VERT/LOCK	03	Q 102
QK1372	MAINS CONN MALE FOR PCB 90-DEG	08	Q 101
QK1415	CRIPLET CONN FOR 2-SIDED PCB	01	
QK1464	ROW CONN "JST" 1X03 2,5 VERT	04	Q 301
QK1493	CONN PLUG CMI 1506-0301 FOR DY	04	Q 401

Part Number	Description	PG	Item Number
QK1587	COOLING & SUPP.PART FOR RESISTOR	01	R 126 458
QM0294	SIGNAL CABLE VGA-45 449V/R	23	
QM1719	CONNECTOR 2X8 POS 1,27MM	Q	502
QM1013	PICOFLEX ASSY BI-DC 10-POS 400MM	10	Q 501
QM1026	PICOFLEX ASSY 450MM		
QT0003	SPARK GAP 1,5KV +-500V R=5,0MM	03	GL 302
QT0102	FUSEHOLDER CLIPS 5*20MM R=5,0MM	01	F 101
QT0207	GLIMM LAMP 95V 6*12,5MM	04	GL 301
QT0733	FUSE R=5,0MM T 3,15A 250V IEC127	04	F 102 103
QT0775	FUSE 5*20MM T 6,3A 250V 1500A	03	F 101
SE1410	WIRE L=60MM		
SE2404	GROUNDING WIRE L=80MM 44BQ	06	PIN 302
SE2610	DYN. FOCUSJOHTO 449M	06	PIN 301 402
UC0859	FASTENING SPRING FOR THYRISTOR DN4	02	D 124 105 303 304 405 419 105 106
UC6877	J HDYTYSLLEVY/COOLING PLATE 449R	01	D 124 119 126 303 304 405
UC1142	COOLINGPLATE DN45204	03	T 105 106
UC1371	COOLINGPLATE DN45940 14" ACM MON	03	IC 105
UC1371	COOLINGPLATE DN45940 14" ACM MON	03	TA 419
UC6551	FASTENING SPRING 44BQ	03	D 410
UC6552	FASTENING SPRING 44BQ	03	IC 203 407
UC6564	COOLING PLATE 449A DN303153	05	IC 203
UC6752	MOUNTING PLATE 447E	01	
UC6776	H IRITSUOJA 44BS	19	
UC6801	VEDONPOISTAJA 447E	09	
UC6858	J HDYTYSLLEVY/COOLING PLATE	05	D 410 407
UC6876	TUKI/SUPPORT 449R01	01	
UG0770	WIRE SUPPORT	03	
UG1008	CHOCK / KIILA PN30169		
WC0036	HEXAGONHEADTA01PPING SCREW COLLAR	03	
WC0446	HEXAGONHEAD -BLUNT 2,9X8 FE/ZN	01	
XW0032	DOW CORNING 340 SILICON GREASY 100	09	D 410 106 203 105 407

POWER SUPPLY

NB - Safety components marked with  must be replaced with original or approved components only.
All printed boards and the back cover are also safety components



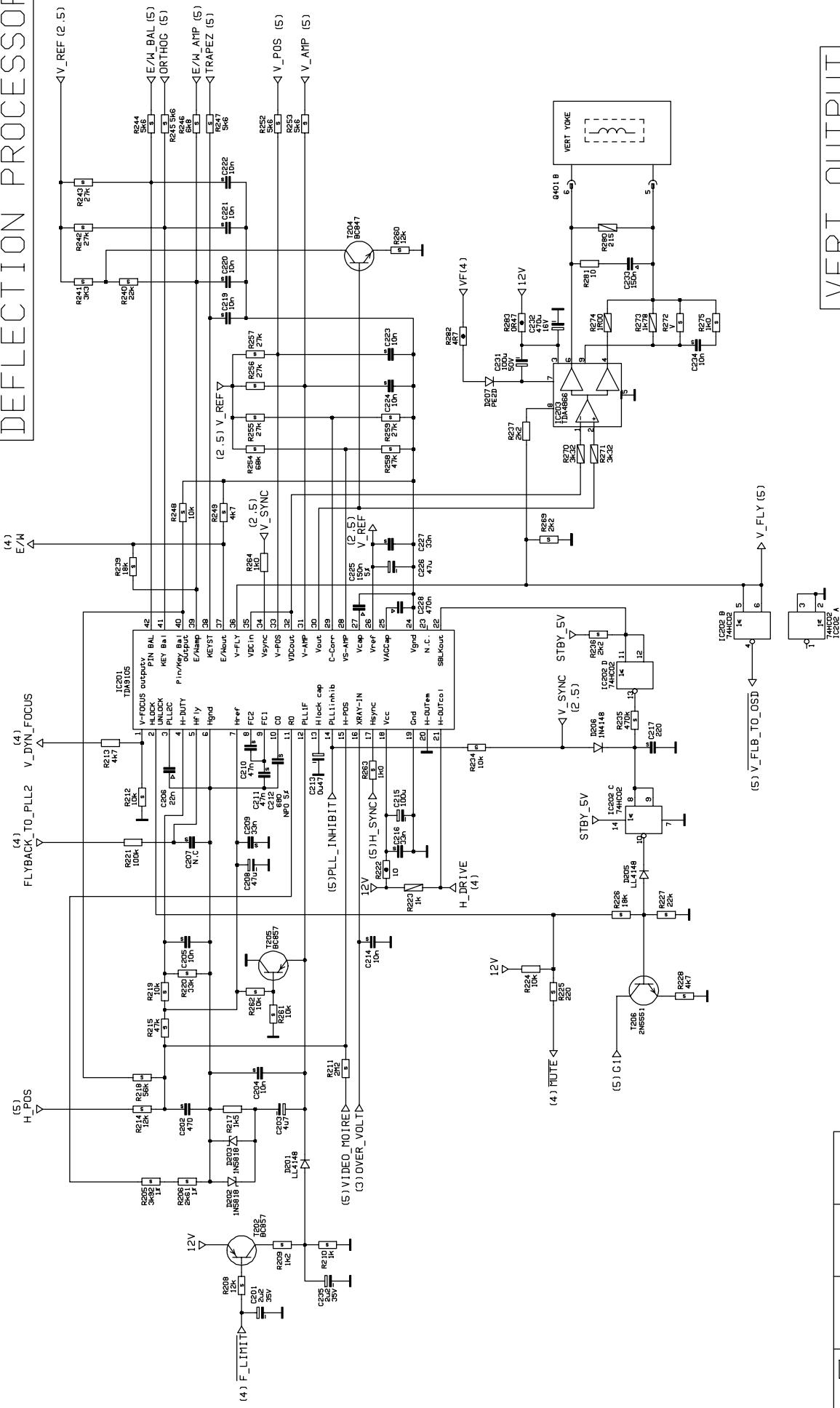
SMA188D/189D

D3103D

11.96

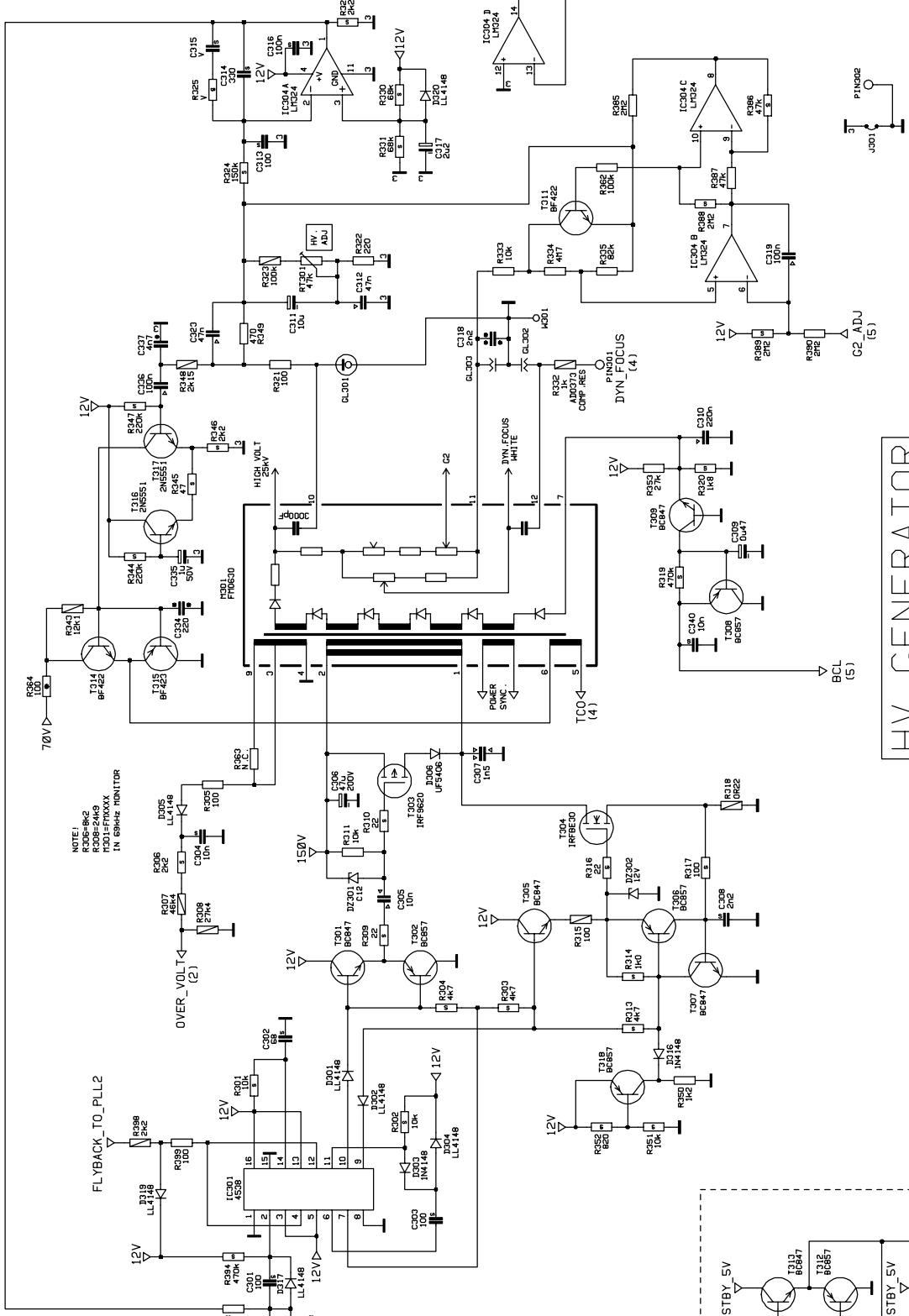
Page 5

DEFLECTION PROCESSOR



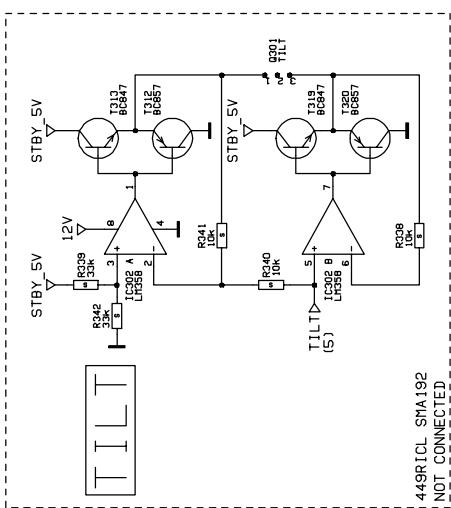
VERT.OUTPUT

ECN
449P/R/V 9

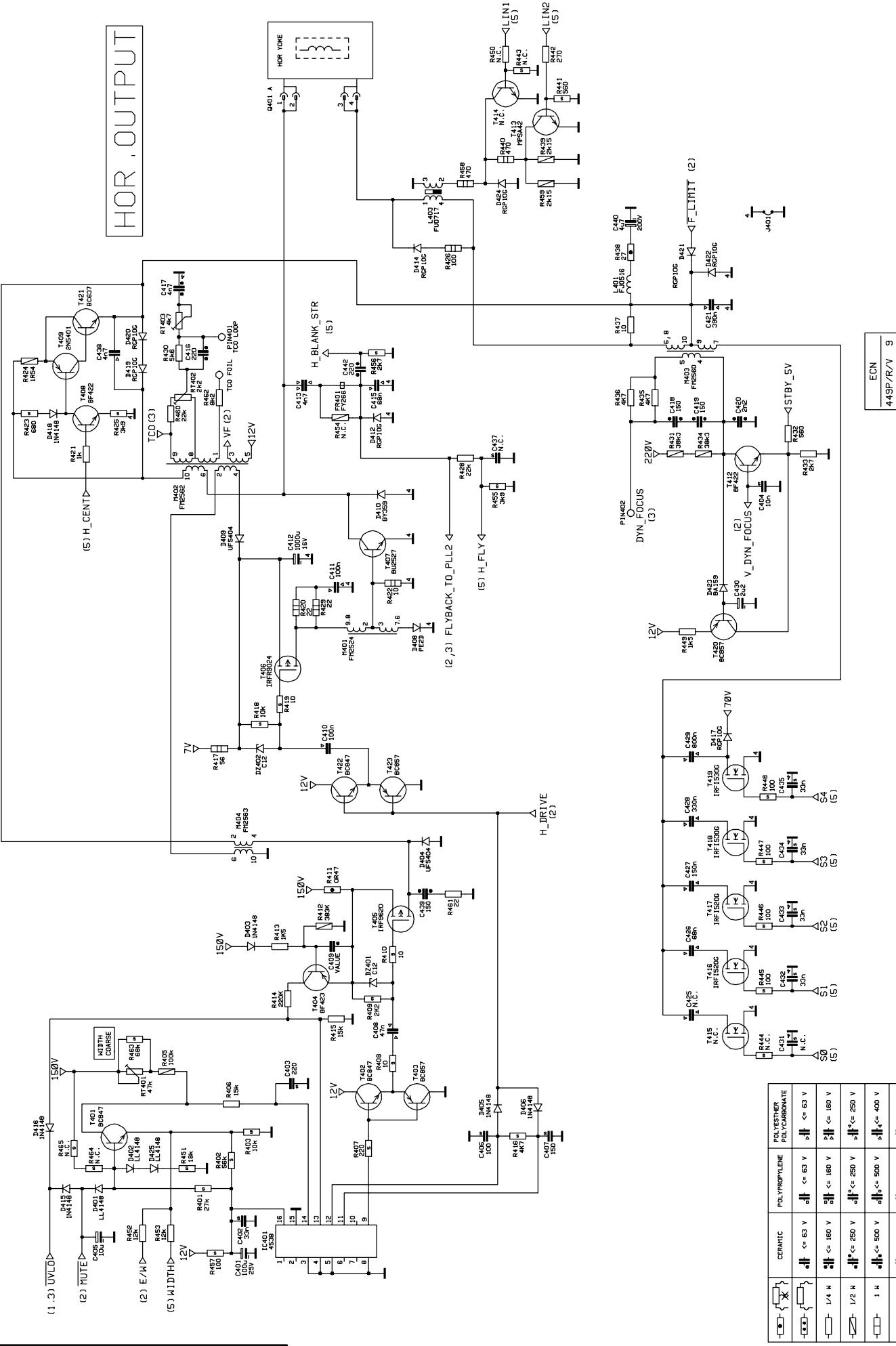


HV GENERATOR

ECN
449P/R/V 9



HOR. OUTPUT

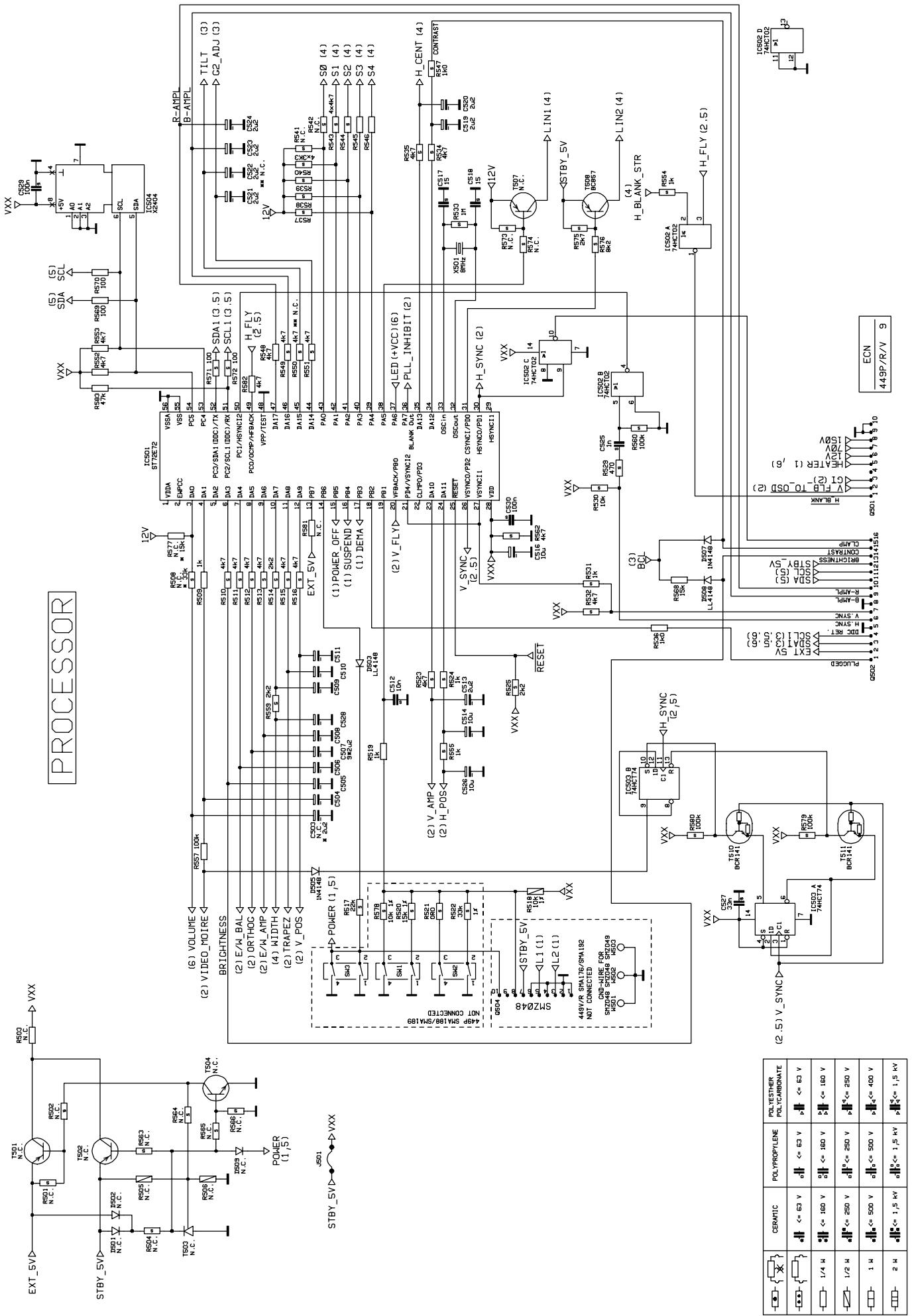


SMA188D/189D

D3103D

11.96

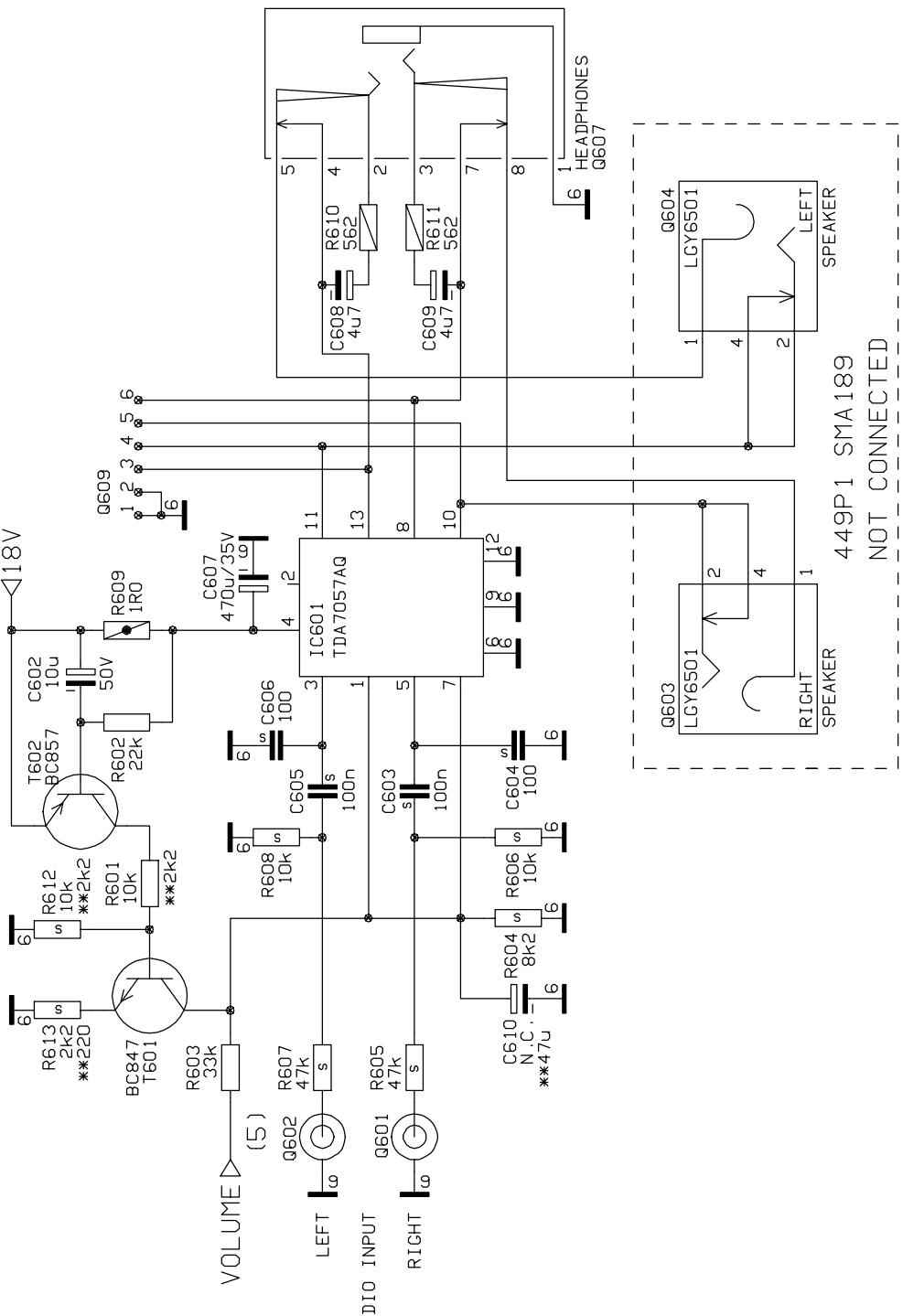
Page 8



SMA188D/189D

D3103D

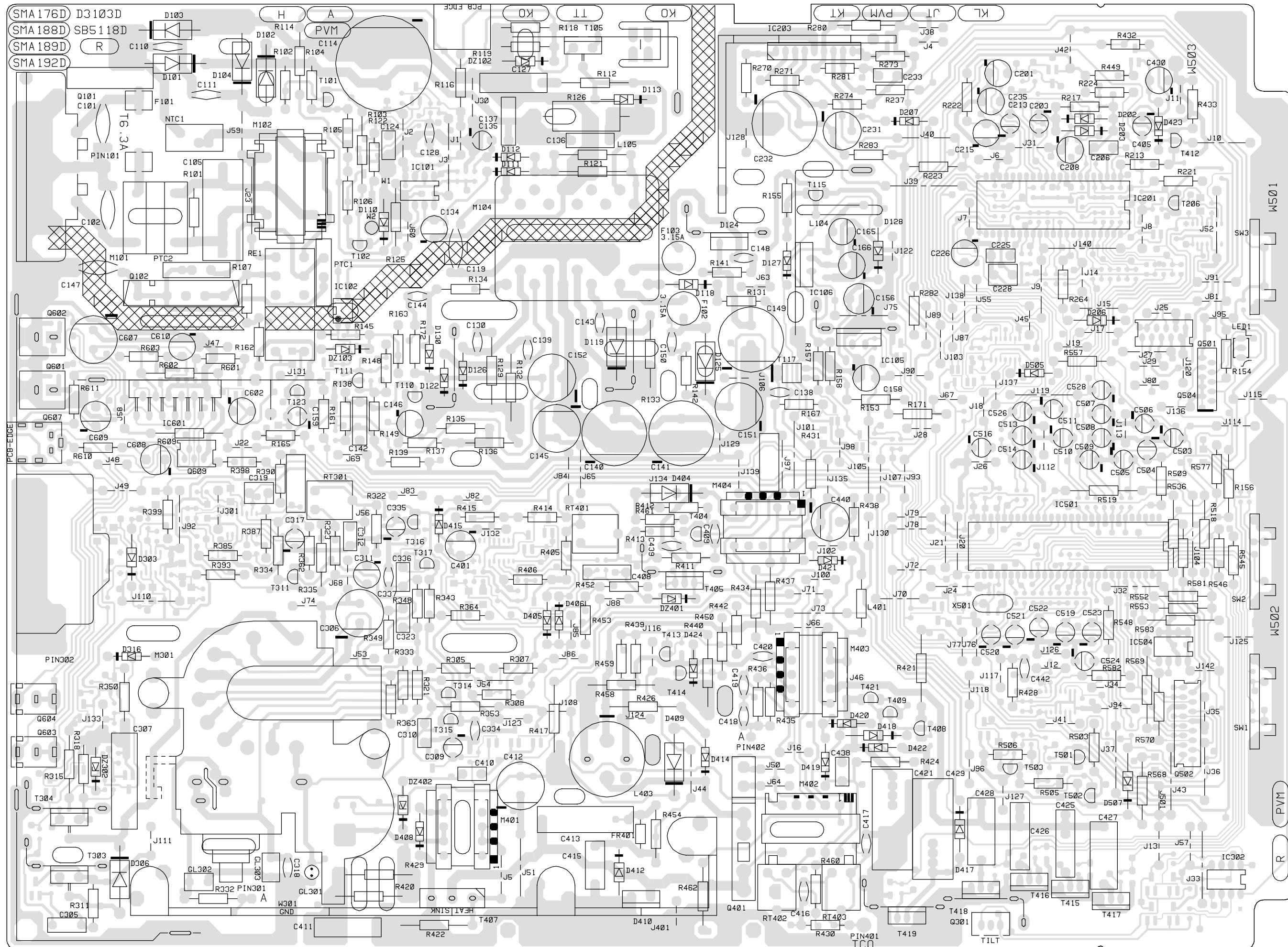
11.96 Page 9



-●-	RNONFL	CERAMIC	POLYPROPYLENE	POLYESTHER	POLYCARBONATE
-●-	RLIFT	$\leq 63 \text{ V}$			
-	1/4 W	$\leq 160 \text{ V}$			
-	1/2 W	$\leq 250 \text{ V}$			
-	1 W	$\leq 500 \text{ V}$	$\leq 500 \text{ V}$	$\leq 400 \text{ V}$	$\leq 400 \text{ V}$
-	2 W	$\leq 1.5 \text{ kV}$			

449R/V SMA176
NOT CONNECTED

ECN
449P/R/V G



SMA188D/189D

1

D3103D

11.96

Page 11

