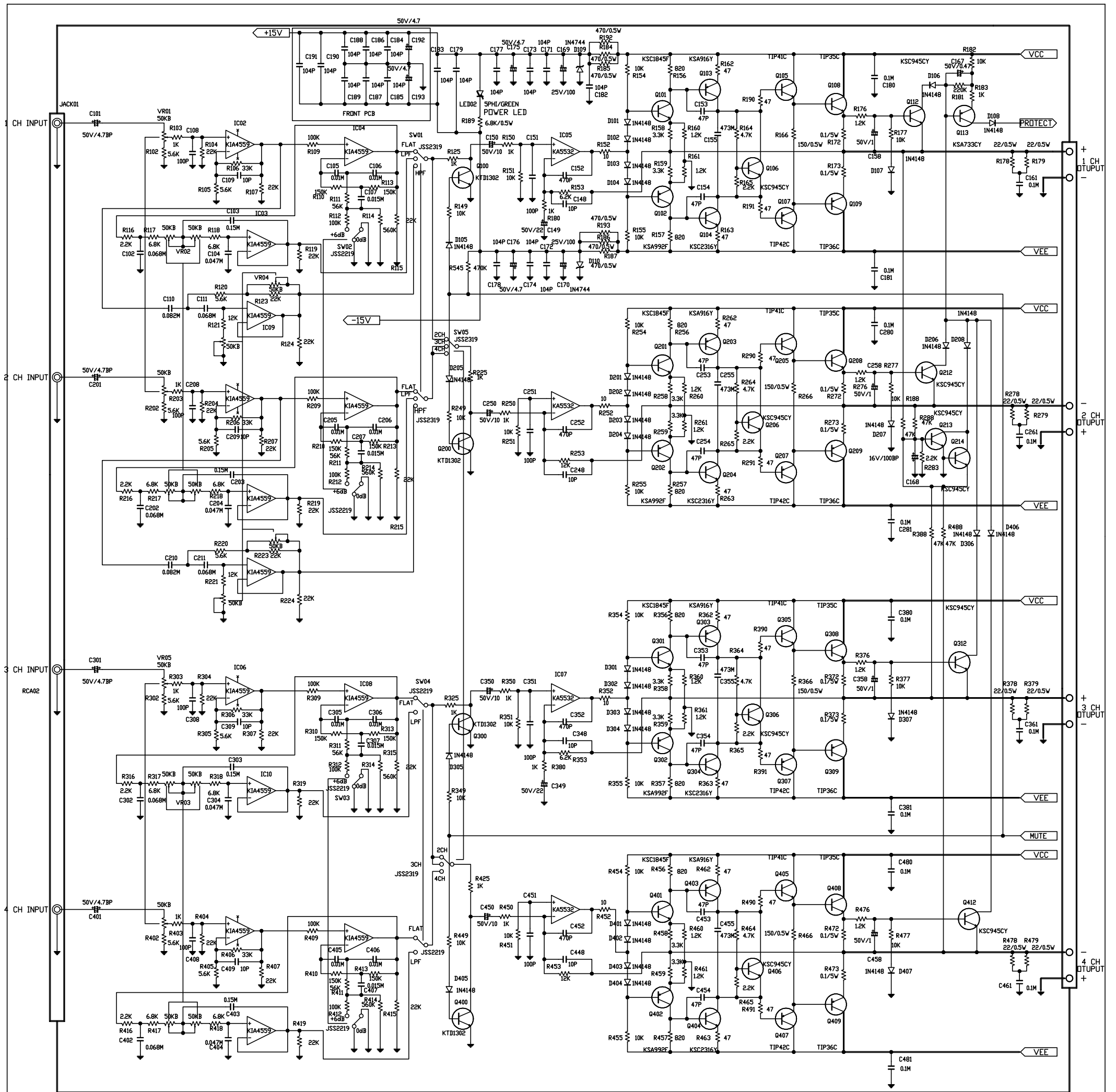
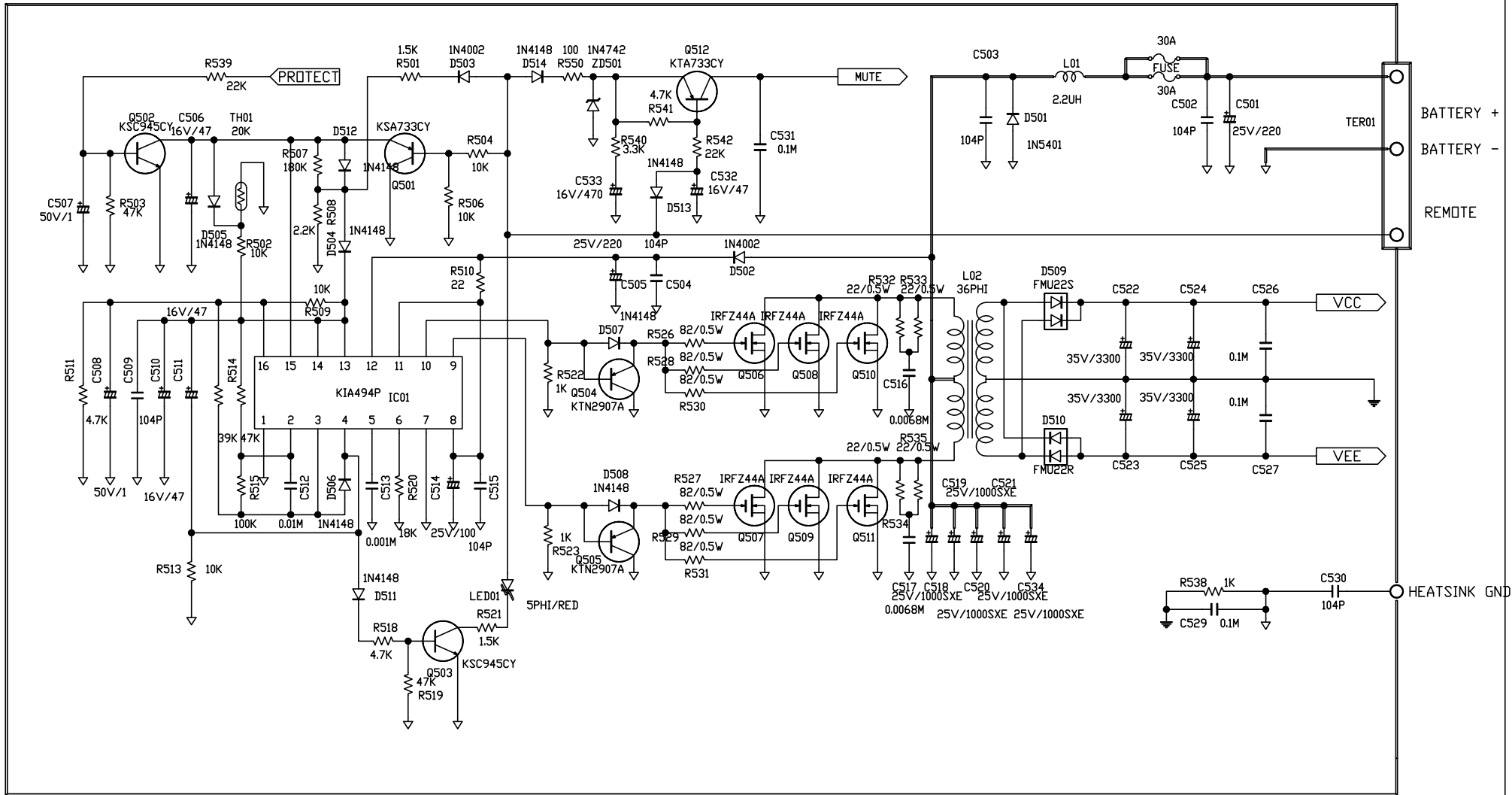




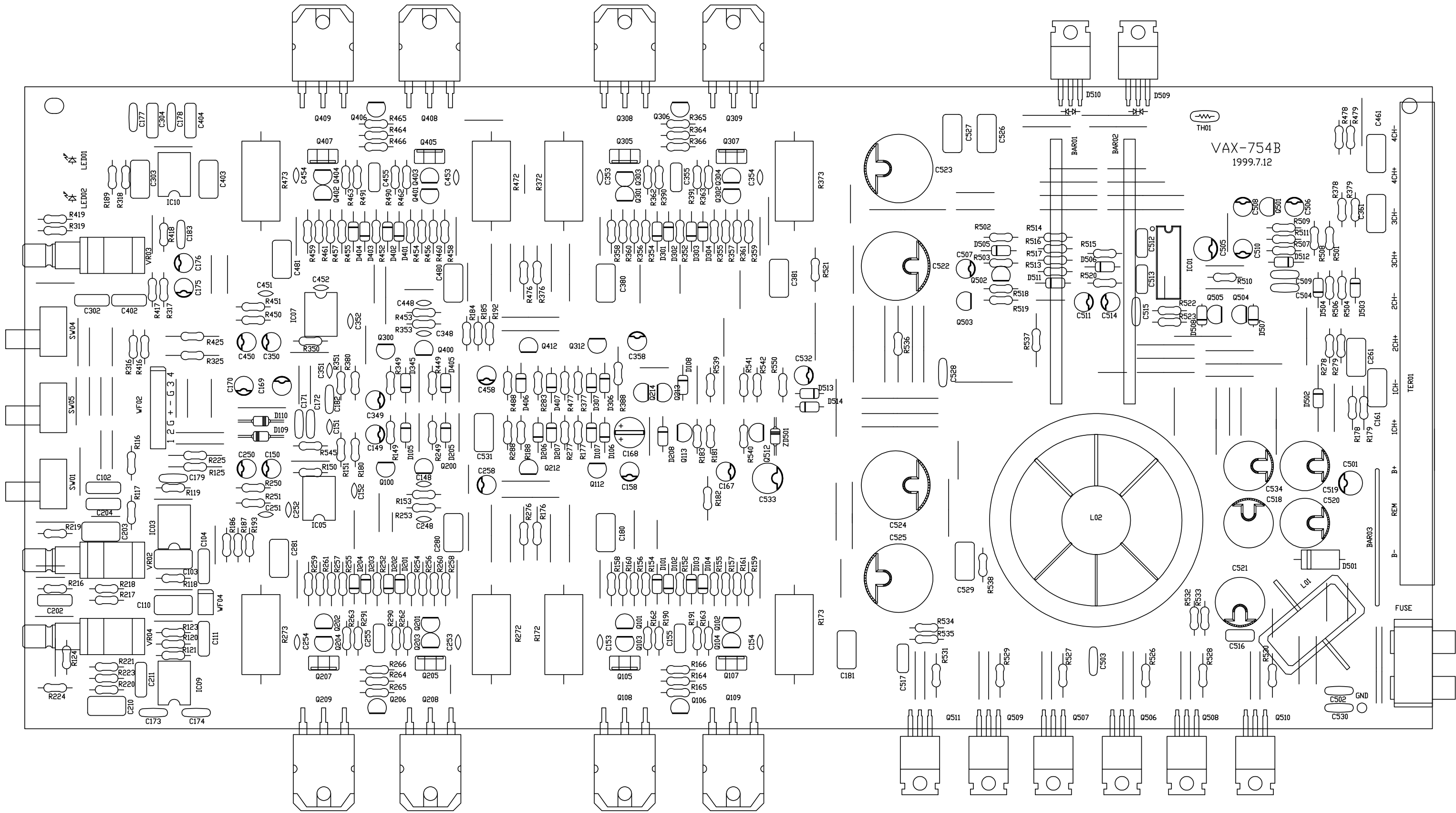
720



75Wx4 AMPLIFIER
CRUSADER-720 (AUDIO)



75WX4 AMPLIFIER
CRUSADER-720 (DC-DC)



CRUSADER 720 PART LIST(NEW)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
PCB - MAIN	1.6x168.5x369.5 FR-1(VAX754BN)	1	CRUSADER 720 PCB(NEW)	
FRONT PCB	1.6x168.5x50 FR-1	1		
POWER T.R	TIP 35 C	4	Q 108, 208, 308, 408	
	TIP 36 C	4	Q 109, 209, 309, 409	
I.C.	KIA 494 P	1	IC 01	
	KIA 4559 P	7	IC 02, 03, 04, 06, 08, 09, 10	
	KA 5532	2	IC 05, 07	
FET	IRFZ 44A	6	Q 506, 507, 508, 509, 510, 511	
DIODE	FMU 22 S	1	D 509	ESAC25M-02C
	FMU 22 R	1	D 510	ESAC25M-02N
DIODE	1N 5401	1	D 501	
	1N 4002	2	D 502, 503	
-SWITCHING	1N 4148	39	D 101, 102, 103, 104, 105, 106, 107, 108	
			D 201, 202, 203, 204, 205, 206, 207, 208	
			D 301, 302, 303, 304, 306, 307, 345, 401	
			D 402, 403, 404, 405, 406, 407, 504, 505	
			D 506, 507, 508, 511, 512, 513, 514	
-ZENNER	UZP 12 B 1[W]	1	ZD 501	1N4742A
	UZP 15 B 1[W]	2	D 109, 110	1N4744A
TRANSISTOR	KSC 945 C-Y	12	Q 106, 112, 206, 212, 213, 214, 306, 312	
			Q 406, 412, 502, 503	
	KSA 733 C-Y	3	Q 113, 501, 512	
	KSC 1845 - F	4	Q 101, 201, 301, 401	
	KSA 992 - F	4	Q 102, 202, 302, 402	
	KSC 2316 Y	4	Q 104, 204, 304, 404	
	KSA 916 Y	4	Q 103, 203, 303, 403	
	TIP 41 C	4	Q 105, 205, 305, 405	
	TIP 42 C	4	Q 107, 207, 307, 407	
	KTN 2907 A	2	Q 504, 505	
	KTD 1302	4	Q 100, 200, 300, 400	
R - CEMENT	5[W] 0.1 J	8	R 172, 173, 272, 273, 372, 373, 472, 473	
LED	KLG - 114 L	1	LED 02	
	KLR - 114 L	1	LED 01	
R - METAL	1/2[W] 22 (S)	12	R 178, 179, 278, 279, 378, 379, 478, 479	
(J)			R 532, 533, 534, 535	
	1/2[W] 82 (S)	14	R 166, 167, 266, 267, 366, 367, 466, 467	
			R 526, 527, 528, 529, 530, 531	
	1/2[W] 680 (S)	6	R 184, 185, 186, 187, 192, 193	
	1/2[W] 6.8 K (S)	1	R 189	
R - CARBON	1/4[W] 10	4	R 152, 252, 352, 452	
(J)	1/4[W] 22	1	R 510	

CRUSADER 720 PART LIST(NEW)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
	1/4[W] 47	16	R 162, 163, 190, 191, 262, 263, 290, 291	
			R 362, 363, 390, 391, 462, 463, 490, 491	
	1/4[W] 100	1	R 550	
	1/4[W] 1 K	26	R 103, 125, 150, 156, 157, 180, 183, 203	
			R 225, 250, 256, 257, 303, 325, 350, 356	
			R 357, 380, 403, 425, 450, 456, 457, 522	
			R 523, 538	
	1/4[W] 1.2 K	12	R 160, 161, 176, 260, 261, 276, 360, 361	
			R 376, 460, 461, 476	
	1/4[W] 1.5 K	2	R 501, 521	
	1/4[W] 2.2 K	6	R 116, 216, 283, 316, 416, 508	
	1/4[W] 2.7 K	4	R 165, 265, 365, 465	
	1/4[W] 3.3 K	9	R 158, 159, 258, 259, 358, 359, 458, 459	
			R 540	
	1/4[W] 4.7 K	6	R 164, 264, 364, 464, 511, 518, 541	
	1/4[W] 5.6 K	10	R 102, 105, 120, 202, 205, 220, 302, 305	
			R 402, 405	
	1/4[W] 6.2 K	2	R 153, 353	
	1/4[W] 6.8 K	8	R 117, 118, 217, 218, 317, 318, 417, 418	
	1/4[W] 10 K	26	R 149, 151, 154, 155, 177, 182, 249, 251	
			R 254, 255, 277, 349, 351, 354, 355, 377	
			R 449, 451, 454, 455, 477, 504, 506, 509	
			R 513, 541	
	1/4[W] 11 K	1	R 502	
	1/4[W] 12 K	4	R 121, 221, 253, 453	
	1/4[W] 18 K	1	R 520	
	1/4[W] 22 K	22	R 104, 107, 115, 119, 123, 124, 204, 207	
			R 215, 219, 223, 224, 304, 307, 315, 319	
			R 404, 407, 415, 419, 539, 542	
	1/4[W] 33 K	4	R 106, 206, 306, 406	
	1/4[W] 39 K	1	R 551	
	1/4[W] 47 K	7	R 188, 288, 388, 488, 503, 514, 519	
	1/4[W] 56 K	4	R 111, 211, 311, 411	
	1/4[W] 100 K	9	R 109, 112, 209, 212, 309, 312, 409, 412	
			R 515	
	1/4[W] 150 K	8	R 110, 113, 210, 213, 310, 313, 410, 413	
	1/4[W] 180 K	1	R 507	
	1/4[W] 220 K	1	R 181	
	1/4[W] 470 K	1	R 545	
	1/4[W] 560 K	4	R 114, 214, 314, 414	
C-CAPACITOR	10 pF J CH	8	C 109, 148, 209, 248, 309, 348, 409, 448	

CRUSADER 720 PART LIST(NEW)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
	47 pF J CH	8	C 153, 154, 253, 254, 353, 354, 453, 454	
	100 pF J SL	8	C 108, 151, 208, 251, 308, 351, 408, 451	
	560 pF BK	4	C 152, 252, 352, 452	
	0.1 uF ZF	23	C 171, 172, 173, 174, 177, 178, 179, 182	
			C 183, 184, 185, 186, 187, 188, 189, 190	
			C 191, 502, 503, 504, 509, 515, 530	
M-CAPACITOR (BOX)	63 [V] 102 J	1	C 513	
M-CAPACITOR	100[V] 682 J	2	C 516, 517	
	100[V] 103 J	9	C 105, 106, 205, 206, 305, 306, 405, 406	
			C 512	
	100[V] 153 J	4	C 107, 207, 307, 407	
	100[V] 473 J	8	C 104, 155, 204, 255, 304, 355, 404, 455	
	100[V] 683 J	6	C 102, 111, 202, 211, 302, 402	
	100[V] 823 J	2	C 110, 210	
	100[V] 104 J	12	C 180, 181, 280, 281, 380, 381, 480, 481	
			C 526, 527, 529, 531	
	100[V] 124 J	4	C 103, 203, 303, 403	
	100[V] 154 J	4	C 161, 261, 361, 461	
E-CAPACITOR	50[V] R47 uF	1	C 167	
	50[V] 1 uF	6	C 158, 258, 358, 458, 507, 508	
	50[V] 4R7 uF	4	C 175, 176, 192, 193	
	50[V] 10 uF	4	C 150, 250, 350, 450	
	50[V] 22 uF	2	C 149, 349	
	35[V] 3300 uF (SRF)	4	C 522, 523, 524, 525	
	25[V] 100 uF	3	C 169, 170, 514	
	25[V] 220 uF	2	C 501, 505	
	25[V] 1000 uF (SXE)	5	C 518, 519, 520, 521, 534	105°C
	16[V] 47 uF	4	C 506, 510, 511, 532	
	16[V] 470 uF	1	C 533	
	35[V] 4R7 uF (B.P)	4	C 101, 201, 301, 401	
	16[V] 100 uF (B.P)	1	C 168	
THERMISTOR	20 [.]	1	TH 01	
COIL RING	0.8φ X 7 X 8 (T) CORE24pie	1	L 01	
COIL-TROID	1st : 0.8φ X 14 X 6 (T)			
1st :PEW	2nd: 0.8φ X 6 X 14 (T)	1	L 02	
2nd:UEW	CORE:49φ ISU			
VOLUME	V9MG(4R)PH15KC3B50Kx4	3	VR 02, 03, 04	
	V9MG3 PH15KC3B50Kx2	2	VR 01, 05	
SLIDE SWITCH	JSS - 2319	2	SW 01, 05	
	JSS - 2219	3	SW 02, 03, 04	
RCA JACK	2 pin GOLD (WJ-9104A1)	2	JACK 01, 02	

CRUSADER 720 PART LIST(NEW)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
TERMINAL	11pin GOLD "L"type (9325)	1	TER 01	
FUSE HOLDER	WF - 9604P	1	FUSE	
FUSE	30 [A]	4		
LUG TERMINAL	#20 BLK 80m/m 3.2Φ	1	GND	STRIP : 7mm
WIRE-ASSY	8P (WIRE-ASSY & WAFER) 1SET	1	WF 01, 02	1 SET
	2P (WIRE-ASSY & WAFER) 1SET	1	WF 03, 04	1 SET
WIRE	#26 GREEN 40M/M	1		
VOLUME KNOB	RA	5		
LED SUPPORT	10 m/m	2		
CUTION	10 X 10 X 6T	7		
SILICON-RUBBER	AR2330P	420	M/M	
JUMP	COPPER (L=36 m/m)	2	BAR 03,04	
	COPPER (L=55 m/m)	1	BAR 05	
	COPPER (L=71 m/m)	2	BAR 01, 02	
TR B.K.T	C 48 X 12 X 5T	1		FR,TH
	D 45 X 12 X 5T	4		POWER(2)
	E-1 30 X 12 X 5T	3		FR
PCB B.K.T	A TYPE	2		
SCREW	T/T PH 3 X 8	15		
(BLACK)	T/T PH 3 X 15	8		
	T/T BH 3 X 4	2		
	T/T WPH 3 X 6	8		
	T/S-2 BH 2 X 6			
	T/T PH 2.6 X 6			
	T/S-1 BH 4 X 16	4		
	SPRING WASHER 4Φ	4		
	PLANE WASHER 4Φ	4		
HEAT SINK	370 m/m	1	CRUSADER 720 HEATSINK	
BOTTOM	369 m/m	1	CRUSADER 720 BOTTOM	
FRONT		1	CRUSADER 720 FRONT	
REAR		1	CRUSADER 720 REAR	
POLY BAG	350 X 550 X 0.05T	1		
	80 X 110 X 0.05T	1		
SILICONE COMPOUND	2 [g]	1		
SILICAGEL	3 [g]	1		
OPP TAPE		0,83		[M]
TUBE	YELLOW 1 Φ	0,05		[M]
LOCKING PAINT	THREE BOND 1 [Kg]	0,001		[kg]
MAXBOND	1603HFR 1 [Kg]	0,004		[kg]
PE SHEET	400 X 600 X 1T	0,5		
GIFT BOX	CRUSADER 720	1		

CRUSADER 720 PART LIST(NEW)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
MANUAL		1		
SERIAL NO.		1		
WARRANTY CARD		1		
CARTON BOX		0,333		
INNER BOX		1		

CRUSADER 720 PART LIST(OLD)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
PCB - MAIN	1.6x168.5x369.5 FR-1(VAX754B)	1	CRUSADER 720 PCB(OLD)	
FRONT PCB	1.6x168.5x50 FR-1	1		
POWER T.R	TIP 35 C	4	Q 108, 208, 308, 408	
	TIP 36 C	4	Q 109, 209, 309, 409	
I.C.	KIA 494 P	1	IC 01	
	KIA 4559 P	7	IC 02, 03, 04, 06, 08, 09, 10	
	KA 5532	2	IC 05, 07	
FET	IRFZ 44A	6	Q 506, 507, 508, 509, 510, 511	
DIODE	FMU 22 S	1	D 509	ESAC25M-02C
	FMU 22 R	1	D 510	ESAC25M-02N
DIODE	1N 5401	1	D 501	
	1N 4002	2	D 502, 503	
-SWITCHING	1N 4148	39	D 101, 102, 103, 104, 105, 106, 107, D 108, 201, 202, 203, 204, 205, 206, D 207, 208, 301, 302, 303, 304, 306, D 307, 345, 401, 402, 403, 404, 405, D 406, 407, 504, 505, 506, 507, 508, D 511, 512, 513, 514	
-ZENNER	UZP 12 B 1[W]	1	ZD 501	1N4742A
	UZP 15 B 1[W]	2	D 109, 110	1N4744A
TRANSISTOR	KSC 945 C-Y	12	Q 106, 112, 206, 212, 213, 214, 306, Q 312, 406, 412, 502, 503	
	KSA 733 C-Y	3	Q 113, 501, 512	
	KSC 1845 - F	4	Q 101, 201, 301, 401	
	KSA 992 - F	4	Q 102, 202, 302, 402	
	KSC 2316 Y	4	Q 104, 204, 304, 404	
	KSA 916 Y	4	Q 103, 203, 303, 403	
	TIP 41 C	4	Q 105, 205, 305, 405	
	TIP 42 C	4	Q 107, 207, 307, 407	
	KTN 2907 A	2	Q 504, 505	
	KTD 1302	4	Q 100, 200, 300, 400	
R - CEMENT	5[W] 0.1 J	8	R 172, 173, 272, 273, 372, 373, 472, R 473	
LED	KLK - 114 L	1	LED 02	
	KLR - 114 L	1	LRD 01	
R - CARBON	1/2[W] 22 (S)	12	R 178, 179, 278, 279, 378, 379, 478, R 479, 532, 533, 534, 535	
(J)	1/2[W] 82 (S)	6	R 526, 527, 528, 529, 530, 531	
	1/2[W] 150 (S)	4	R 166, 266, 366, 466	
	1/2[W] 680 (S)	6	R 184, 185, 186, 187, 192, 193	
	1/2[W] 6.8 K (S)	1	R 189	
	1/4[W] 10	4	R 152, 252, 352, 452	

CRUSADER 720 PART LIST(OLD)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
	1/4[W] 22	1	R 510	
	1/4[W] 47	16	R 162, 163, 190, 191, 262, 263, 290,	
			R 291, 362, 363, 390, 391, 462, 463,	
			R 490, 491	
	1/4[W] 100	1	R 550	
	1/4[W] 820	8	R 156, 157, 256, 257, 356, 357, 456,	
			R 457	
	1/4[W] 1 K	18	R 103, 125, 150, 180, 183, 203, 225,	
			R 250, 303, 325, 350, 380, 403, 425,	
			R 450, 522, 523, 538	
	1/4[W] 1.2 K	12	R 160, 161, 176, 260, 261, 276, 360,	
			R 361, 376, 460, 461, 476	
	1/4[W] 1.5 K	2	R 501, 521	
	1/4[W] 2.2 K	10	R 116, 165, 216, 265, 283, 316, 365,	
			R 416, 465, 508	
	1/4[W] 3.3 K	9	R 158, 159, 258, 259, 358, 359, 458,	
			R 459, 540,	
	1/4[W] 4.7 K	7	R 164, 264, 364, 464, 511, 518, 541	
	1/4[W] 5.6 K	10	R 102, 105, 120, 202, 205, 220, 302,	
			R 305, 402, 405	
	1/4[W] 6.2 K	2	R 153, 353	
	1/4[W] 6.8 K	8	R 117, 118, 217, 218, 317, 318, 417,	
			R 418	
	1/4[W] 10 K	26	R 149, 151, 154, 155, 177, 182, 249,	
			R 251, 254, 255, 277, 349, 351, 354,	
			R 355, 377, 449, 451, 454, 455, 477,	
			R 502, 504, 506, 509, 513	
	1/4[W] 12 K	4	R 121, 221, 253, 453	
	1/4[W] 18 K	1	R 520	
	1/4[W] 22 K	22	R 104, 107, 115, 119, 123, 124, 204,	
			R 207, 215, 219, 223, 224, 304, 307	
			R 315, 319, 404, 407, 415, 419, 539,	
			R 542	
	1/4[W] 33 K	4	R 106, 206, 306, 406	
	1/4[W] 39 K	1	R 551	
	1/4[W] 47 K	7	R 188, 288, 388, 488, 503, 514, 519	
	1/4[W] 56 K	4	R 111, 211, 311, 411	
	1/4[W] 100 K	9	R 109, 112, 209, 212, 309, 312, 409,	
			R 412, 515	
	1/4[W] 150 K	8	R 110, 113, 210, 213, 310, 313, 410,	
			R 413	
	1/4[W] 180 K	1	R 507	

CRUSADER 720 PART LIST(OLD)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
	1/4[W] 220 K	1	R 181	
	1/4[W] 470 K	1	R 545	
	1/4[W] 560 K	4	R 114, 214, 314, 414	
C-CAPACITOR	10 pF J CH	8	C 109, 148, 209, 248, 309, 348, 409,	
			C 448	
	47 pF J CH	8	C 153, 154, 253, 254, 353, 354, 453,	
			C 454	
	100 pF J SL	8	C 108, 151, 208, 251, 308, 351, 408,	
			C 451	
	470 pF BK	4	C 152, 252, 352, 452	
	0.1 uF ZF	23	C 171, 172, 173, 174, 177, 178, 179,	
			C 182, 183, 184, 185, 186, 187, 188,	
			C 189, 190, 191, 502, 503, 504, 509,	
			C 515, 530	
M-CAPACITOR	100[V] 102 J	1	C 513	
	100[V] 682 J	2	C 516, 517	
	100[V] 103 J	9	C 105, 106, 205, 206, 305, 306, 405,	
			C 406, 512	
	100[V] 153 J	4	C 107, 207, 307, 407	
	100[V] 473 J	8	C 104, 155, 204, 255, 304, 355, 404,	
			C 455	
	100[V] 683 J	6	C 102, 111, 202, 211, 302, 402	
	100[V] 823 J	2	C 110, 210	
	100[V] 104 J	16	C 161, 180, 181, 261, 280, 281, 361,	
			C 380, 381, 461, 480, 481, 526, 527,	
			C 529, 531	
	100[V] 124 J	4	C 103, 203, 303, 403	
E-CAPACITOR	50[V] R47 uF	1	C 167	
	50[V] 1 uF	6	C 158, 258, 358, 458, 507, 508	
	50[V] 4R7 uF	4	C 175, 176, 192, 193	
	50[V] 10 uF	4	C 150, 250, 350, 450	
	50[V] 22 uF	2	C 149, 349	
	35[V] 3300 uF (SRF)	4	C 522, 523, 524, 525	
	25[V] 100 uF	3	C 169, 170, 514	
	25[V] 220 uF	2	C 501, 505	
	25[V] 1000 uF (SXE)	5	C 518, 519, 520, 521, 534	105°C
	16[V] 47 uF	4	C 506, 510, 511, 532	
	16[V] 470 uF	1	C 533	
	35[V] 4R7 uF (B.P)	4	C 101, 201, 301, 401	
	16[V] 100 uF (B,P)	1	C 168	
THERMISTOR	20 [.]	1	TH 01	STRIP : 7mm
COIL RING	0.8φ X 7 X 8 (T) CORE24pie	1	L 01	

CRUSADER 720 PART LIST(OLD)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
COIL-TROID	1st : 1.0Φ X 10 X 7 (T)			
1st :PEW	2nd: 1.0Φ X 6 X 16 (T)	1	L 02	
2nd:UEW	CORE:49Φ ISU			
VOLUME	V9MG(4R)PH15KC3B50Kx4	3	VR 02, 03, 04	NUT WASHER
	V9MG3 PH15KC3B50Kx2	2	VR 01, 05	
SLIDE SWITCH	JSS - 2319	2	SW 01, 05	
	JSS - 2219	3	SW 02, 03, 04	
RCA JACK	2 pin GOLD (WJ-9104A1)	2	JACK 01, 02	
TERMINAL	11pin GOLD "L" type (9325)	1	TER 01	
FUSE HOLDER	WF - 9604P	1	FUSE	
FUSE	30 [A]	4		
LUG TERMINAL	#20 BLK 80m/m 3.2Φ	1	GND	STRIP : 7mm
WIRE-ASSY	8P (WIRE-ASSY & WAFER) 1SET	1	WF 01, 02	1 SET
	2P (WIRE-ASSY & WAFER) 1SET	1	WF 03, 04	1 SET
VOLUME KNOB	RA	5		
LED SUPPORT	10 m/m	2		
CUTION	10 X 10 X 6T	7		
CR PAD	25 X 15	1		
SILICON-RUBBER	AR 130 NP	8		
	AR 3020P	4		
JUMP	COPPER (L=36 m/m)	1	BAR 03	
	COPPER (L=71 m/m)	2	BAR 01, 02	
TR B.K.T	C 48 X 16 X 2T	1		FR,TH
	D 45 X 16 X 2T	4		POWER(2)
	E 25 X 16 X 2T	3		FR
SCREW	T/T PH 3 X 8	15		
(BLACK)	T/T PH 3 X 12	8		
	T/T BH 3 X 4	2		
	T/T WPH 3 X 6	6		
	T/S-2 BH 2 X 6			
	T/T PH 2,6 X 6			
	T/S-1 BH 4 X 16	4		
	SPRING WASHER 4Φ	4		
	PLANE WASHER 4Φ	4		
HEAT SINK	370 m/m	1	CRUSADER 720 HEATSINK	
BOTTOM	369 m/m	1	CRUSADER 720 BOTTOM	
FRONT		1	CRUSADER 720 FRONT	
REAR		1	CRUSADER 720 REAR	
POLY BAG	350 X 550 X 0.05T	1		
	80 X 110 X 0.05T	1		
SILICAGEL	3 [g]	1		
OPP TAPE		0,83		[M]

CRUSADER 720 PART LIST(OLD)

DESCRIPTION	SPECIFICATION	Q'TY	DWG NO.	REMARK
TUBE	YELLOW 1 ϕ	0,05		[M]
LOCKING PAINT	THREE BOND 1 [Kg]	0,001		[kg]
MAXBOND	1603HFR 1 [Kg]	0,004		[kg]
PE SHEET	400 X 600 X 1T	0,5		
GIFT BOX	CRUSADER 720	1		
MANUAL		1		
SERIAL NO.		1		
WARRANTY CARD		1		
CARTON BOX		0,333		
INNER BOX		1		