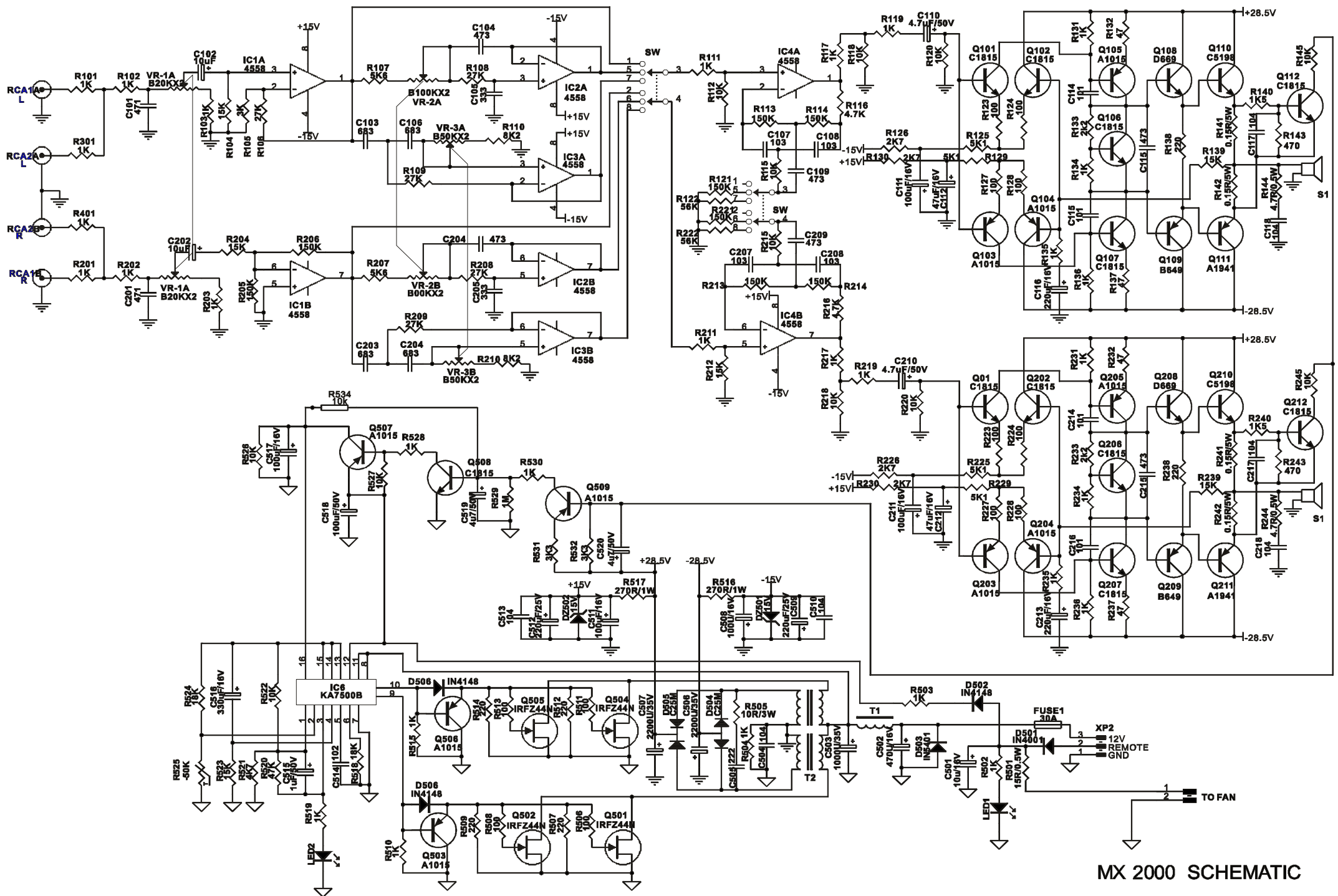




2000

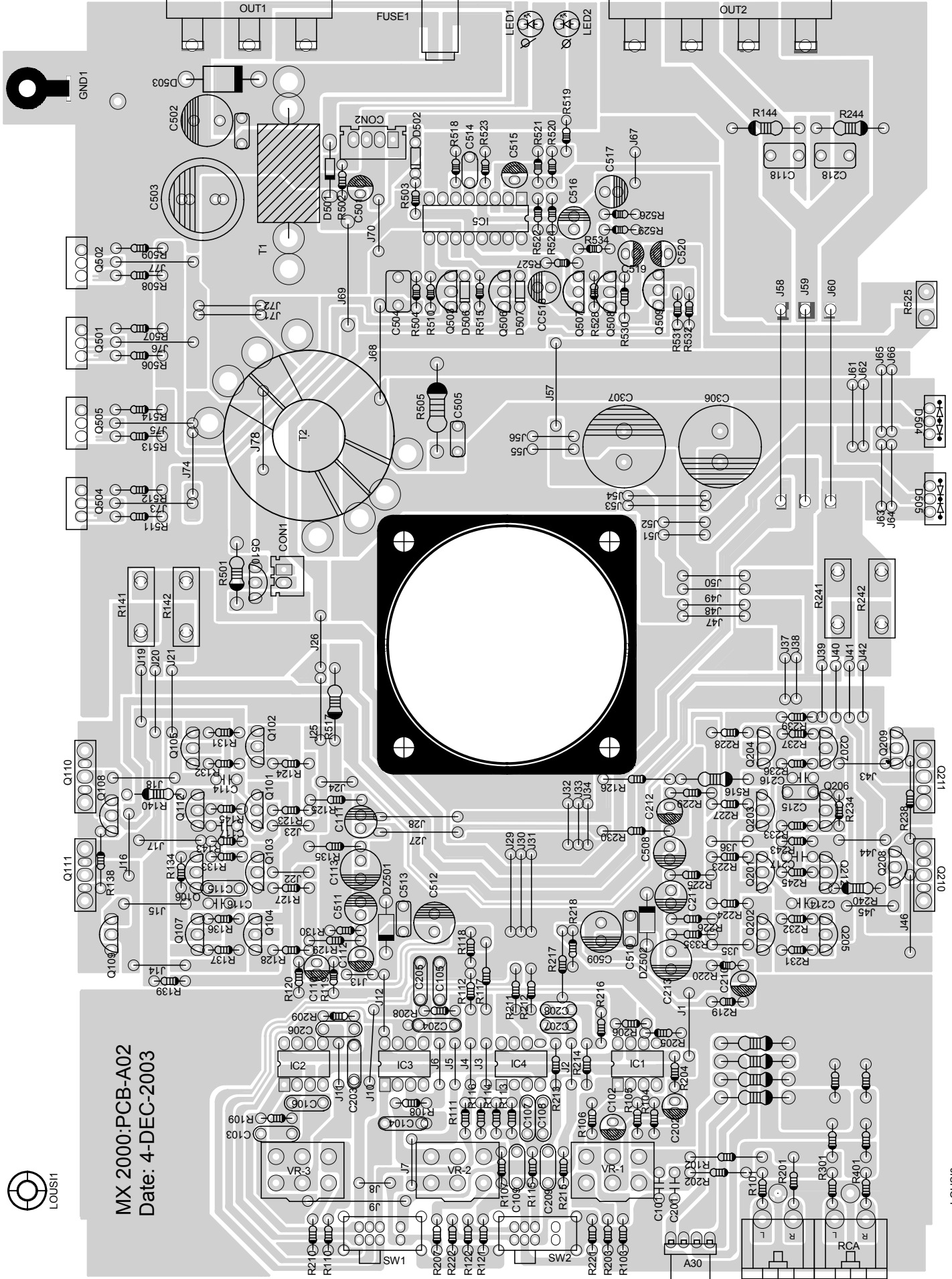


MX 2000 SCHEMATIC



LOUS11

MX 2000:PCB-A02
Date: 4-DEC-2003



LOUS13



LOUS14

MX 1000 compared to MX 2000:

- a) 2x Toshiba A1941 for power audio amplifier section (no change)
- b) 2x Toshiba C5198 for power audio amplifier section (no change)
- c) 4x IRFZ 44 N for the power supply (no change)
- d) Simple Transistor circuit (Q510 and R501 added) to switch the fan
- e) Transformer: wire turn ratio changed, lower secondary output voltage
MX 1000 / 2000
Primary side 6 / 6
Secondary side 12 / 13
- f) Side covers made out of metal instead aluminium
- g) Top covers made out of metal instead aluminium

MX 3000 compared to MX 4000:

- a) 2x Toshiba A1695 for power audio amplifier section (no change)
- b) 2x Toshiba C4468 for power audio amplifier section (no change)
- c) 4x IRFZ 44 N instead of IRFZ1010E for the power supply (change)
- d) Simple Transistor circuit (Q510 and R501 added) to switch the fan
- e) Transformer: wire turn ratio changed, lower secondary output voltage
MX 3000 / 4000
Primary side 6 / 6
Secondary side 11 / 12
- f) Side covers made out of metal instead aluminium
- g) Top covers made out of metal instead aluminium

Spare part list

Product Name: Car Amplifier

Model No. : MX 2000

Brand Name : Mac Audio

Serial number	Types	Description of components	Comment	Quantity	Unit	Components
001	PCB	PCB	MX 2000:PCB-A02	1	PC	
002	Safety components	Coils	Φ36	1	PC	T2
		OSC Coils	Φ9	1	PC	T1
		Fuse	30A	1	PC	FUSE1
		Fuse Holder	one way (thiner)	1	PC	
003	Inserting components	RCA socket	AV4-7	1	PC	RCA
		Terminals	Three way	1	PC	OUT1
			Four way	1	PC	OUT2
		Cooling Fan	50×50×10mm 0.10A 12V	1	PC	
		Direct-Pulling Switch	SK23D05G12	2	PCS	SW1, SW2
004	IC	IC	4558	4	PCS	IC1, IC2, IC3, IC4
			KA7500B	1	PC	IC5
005	Transistor	MOSFET	IRFZ44	4	PCS	Q501, Q502, Q504, Q505
		Triodes	A1015	10	PCS	Q103, Q104, Q105, Q203, Q204, Q205, Q503, Q506, Q507, Q509
			C1815	11	PCS	Q101, Q102, Q106, Q107, Q112, Q201, Q202, , Q206, Q207, Q212, Q508
			A1013	1	PCS	Q510
			B649	2	PCS	Q109, Q209
			D669	2	PCS	Q108, Q208
			A1941	2	PCS	Q111, Q211
			C5198	2	PCS	Q110, Q210
		Schottky Barrier Rectifier	C25-02N	1	PC	D504
			C25-02C	1	PC	D505
		Rectifier Diodes	IN5401	1	PC	D503
			IN4001	1	PC	D501
		Switch Diodes	IN4148	3	PCS	D502, D506, D507
		LED	Φ5 Red	1	PC	LED1
			Φ5 Green	1	PC	LED2
		Voltage Stabilizing Diodes	15V/1W	2	PCS	DZ501, DZ502

Spare part list

Product Name: Car Amplifier
Brand Name : Mac Audio

Model No. : MX 2000

Serial number	Types	Description of components	Comment	Quantity	Unit	Components	
006	Resistors	Thermal Resistors	RTH-50K	1	PC	R525	
			RTX-5W-0.15Ω	4	PCS	R141, R142, R241, R242	
			RTX-1W-10Ω	1	PC	R505	
			RTX-1W-270Ω	2	PCS	R516, R517	
			RTX-1/2W-4.7Ω	2	PCS	R144, R244	
			RTX-1/4W-1.5KΩ	2	PCS	R140, R240	
			RTX-1/8W-47Ω	4	PCS	R132, R137, R232, R237	
			RTX-1/8W-100Ω	13	PCS	R123, R124, R127, R128, R223, R224, R227, R228, R503, R506, R508, R511, R513	
			RTX-1/8W-220Ω	6	PCS	R138, R238, R507, R509, R512, R514	
			RTX-1/8W-470Ω	2	PCS	R143, R243	
			RTX-1/8W-1KΩ	29	PCS	R101, R102, R103, R111, R117, R119, R131, R134, R135, R136, R201, R202, R203, R211, R219, R231, R234, R236, R301, R335, R401, R502, R504, R510, R515, R519, R528, R530, R501	
			RTX-1/8W-1.5KΩ	1	PC	R217	
			RTX-1/8W-1.8KΩ	2	PCS	R133, R233	
			RTX-1/8W-2KΩ	1	PC	R209	
			RTX-1/8W-2.7KΩ	4	PCS	R126, R130, R226, R230	
			RTX-1/8W-3KΩ	1	PC	R105	
			RTX-1/8W-3.3KΩ	1	PC	R531	
			RTX-1/8W-4.7KΩ	3	PCS	R116, R216, R521	
			RTX-1/8W-5.1KΩ	4	PCS	R125, R129, R225, R229	
			RTX-1/8W-5.6KΩ	2	PCS	R107, R207	
			RTX-1/8W-8.2KΩ	2	PCS	R110, R210	
			RTX-1/8W-10KΩ	13	PCS	R115, R118, R112, R120, R215, R218, R145, R220, R245, R522, R526, R527, R535	
			RTX-1/8W-15KΩ	6	PCS	R104, R139, R204, R212, R239, R523	
			RTX-1/8W-18KΩ	2	PCS	R518, R524	
			RTX-1/8W-27KΩ	4	PCS	R106, R108, R109, R208	
			RTX-1/8W-47KΩ	1	PC	R520	
			RTX-1/8W-56KΩ	2	PCS	R122, R222	
			RTX-1/8W-150KΩ	5	PCS	R113, R114, R121, R206, R221	
			RTX-1/8W-150KΩ	4	PCS	R205, R213, R214, R532	
			RTX-1/8W-1M	1	PC	R529	
			Trimmers	1710-15-axis-B20KΩ×2	1	PC	VR-1
				1710-15-axis-B50KΩ×2	1	PC	VR-3
				1710-15-axis-B100KΩ	1	PC	VR-2

Spare part list

Product Name: Car Amplifier
Brand Name : Mac Audio

Model No. : MX 2000

Serial number	Types	Description of components	Comment	Quantity	Unit	Components
007	capacitors	Electrolytic capacitors	CD11-50V-1uF(85□)	1	PC	C515
			CD11-50V-4.7uF(85□)	4	PCS	C110, C210, C519, C520
			CD11-16V-10uF(85□)	3	PCS	C102, C202, C501
			CD11-16V-47uF(85□)	2	PC	C112, C212
			CD11-16V-100uF(85□)	6	PCS	C111, C211, C508, C511, C517, CC518
			CD11-16V-220uF(85□)	2	PCS	C113, C213
			CD11-25V-220uF(85□)	2	PCS	C509, C512
			CD11-16V-330uF(85□)	1	PC	C516
			CD11-25V-470uF(105□)	1	PC	C502
			CD11-35V-1000uF(105□)	1	PC	C503
		CD11-35V-2200uF(105□)	2	PCS	C306, C307	
		Ceramic Electric Capacitors	CCX-63V-101	4	PCS	C114, C116, C214, C216
			CCX-63V-471	2	PCS	C101, C201
		Polyester Capacitors	CL-100V-102	1	PC	C514
			CL-100V-222	1	PC	C505
			CL-100V-103	2	PCS	C207, C208
			CL-100V-103	2	PCS	C107, C108
			CL-100V-333	2	PCS	C105, C205
			CL-100V-473	3	PCS	C109, C115, C209
			CL-100V-473	3	PCS	C104, C204, C215
			CL-100V-683	3	PCS	C103, C106, C206
			CL-100V-683	1	PC	C203
			CL-100V-104	2	PCS	C510, C513
CL-100V-104	3		PCS	C118, C218, C504		
CL-100V-104	2	PCS	C117, C217			
008	Connecting line	J line(Φ0.65mm)	5mm	1	PC	J13
			6mm	3	PCS	J8, J24, J67
			7mm	4	PCS	J22, J23, J35, J36
			8mm	15	PCS	J2, J3, J4, J5, J6, J11, J32, J33, J34, J37, J38, J51, J52, J55, J56
			9mm	4	PCS	J7, J43, J44, J45
			10mm	7	PCS	J14, J19, J39, J40, J41, J42, J70
			11mm	1	PC	J12
			12mm	22	PCS	J1, J15, J16, J17, J18, J20, J21, J25, J26, J47, J72, J74, J48, J49, J50, J61, J62, J63, J64, J65, J66, J71,
			15mm	12	PCS	J27, J28, J29, J30, J31, J46, J53, J54, J73, J75, J76, J77
			16mm	1	PC	J57
			18mm	2	PCS	J10, J68
			19mm	1	PC	J9
20mm	1	PC	J69			

Spare part list

Product Name: Car Amplifier
Brand Name : Mac Audio

Model No. : MX 2000

Serial number	Types	Description of components	Specifications & Model No.	Quantity	Unit	components / Remark	
009	Hardware	Metal plate	39mm	3	PCS	J58, J59, J60	
		Alumninum Decorated covering		1	PC		
		Alumninum Covering Plate		1	PC		
		Alumninum Heat Sink(LEFT)		1	PC		
		Alumninum Heat Sink(RIGHT)		1	PC		
		Front Panel		1	PC		
		Rear Panel		1	PC		
		Bottom Panel		1	PC		
		Mesh Grille	big		2	PCS	
			small		4	PCS	
		Fit Iron Press Plate	25×11.5×2mm		3	PCS	
			36×16.5×2mm		2	PCS	
		Screw	CM3×6		28	PCS	
			CM3×10		3	PCS	
			PT2×10		2	PCS	
			BTH3×12		5	PCS	
			PM3×12		4	PCS	
Nut	M3		4	PCS			
Meson	Φ3		4	PCS			
Flexibility Meson	Φ3		4	PCS			
010	Plastics	Polybag	60×70mm	1	PC		
			320×350mm	1	PC		
		Knob		3	PCS		
011	Package	Poly-form	MX 2000	1	pair		
		Fuse	30A	1	PC		
		Screw	BA4×10	4	PCS		
		Meson	Φ5	4	PCS		
		Flexibility Meson	Φ5	4	PCS		
		User's Manual	MX 2000	1	SET		
		Gift Box	MX 2000	1	PC		
		Silicon Silk	25×45mm		2	PCS	
40×60mm			1	PC			
20×30mm			1	PC			
012	Accessories	RCA Jacks Covering		4	PCS		
		Switch Catton Pad	7×16mm	2	PCS		
		Groundwire Solder Plate	Φ3	1	PC		
		Tube	Φ1	2	PCS		
		Glue					
		Tin				few	