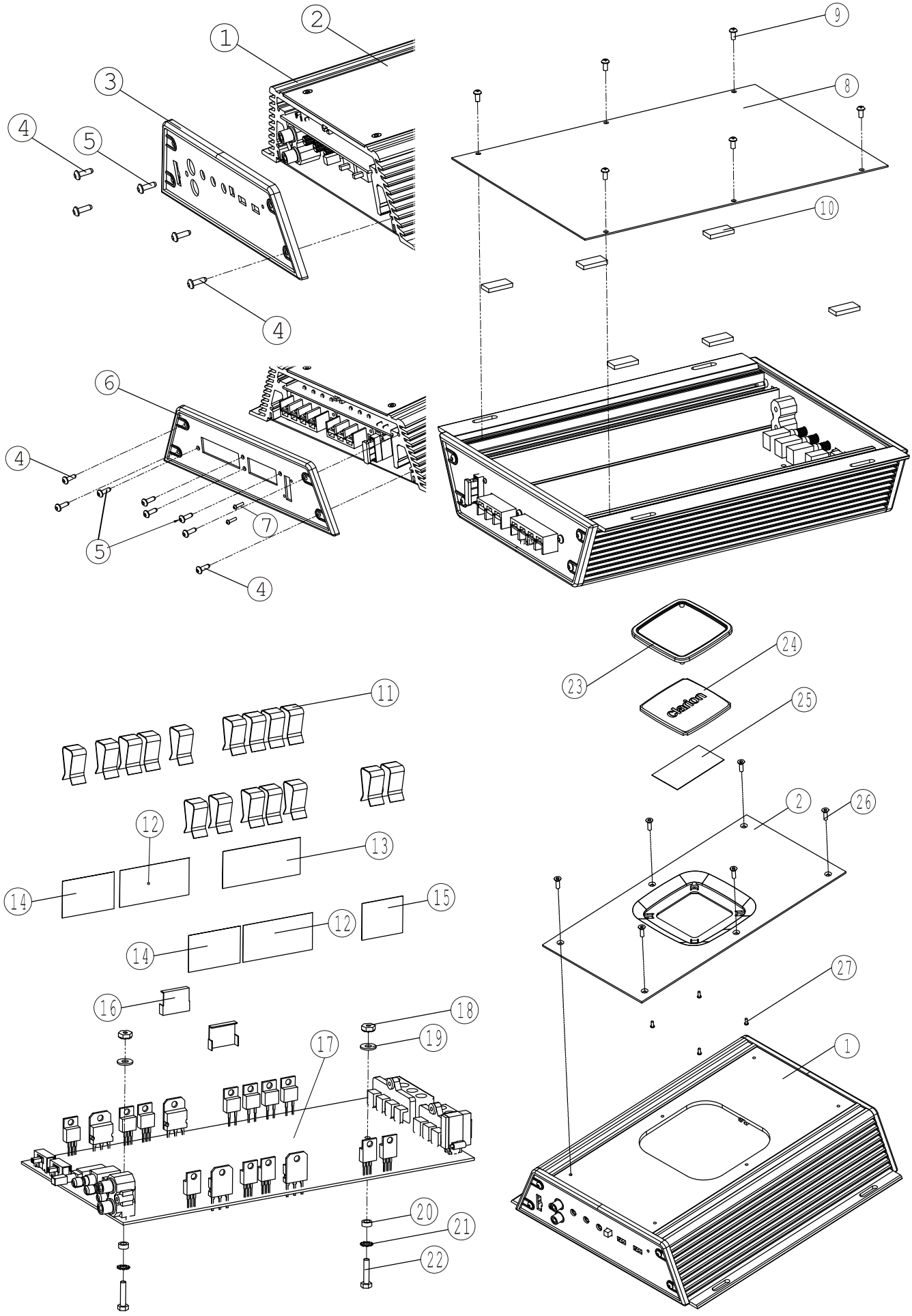
■TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
NO AUDIO	LOW OR NO REMOTE TURN-ON VOLTAGE	CHECK REMOTE CONNECTIONS AT AMPLIFIER AND SOURCE UNIT.
	BLOWN AMPLIFIER FUSE	REPLACE WITH NEW FAST-BLOW FUSE (SAME RATING).
	POWER WIRES NOT CONNECTED	CHECK BATTERY AND GROUND WIRING AT AMPLIFIER; ALSO CHECK BATTERY CONNECTIONS.
	SPEAKER LEADS SHORTED	CHECK SPEAKER CONTINUITY TO GROUND, IT SHOULD NOT SHOW A COMMON GROUND.
	SPEAKERS NOT CONNECTED OR ARE BLOWN	CHECK SPEAKER CONNECTIONS AT AMPLIFIER, MEASURE COIL IMPEDANCE.
AUDIO CYCLES ON AND OFF	THERMAL PROTECTION CIRCUITS ARE SHUTTING AMPLIFIER OFF	CHECK LOCATION FOR ADEQUATE VENTILATION; CONSULT AN AUTHORIZED CLARION AUDIO DEALER.
DISTORTED AUDIO.	GAIN IS NOT SET PROPERLY, OR DAMAGED SPEAKER CONES	REVIEW SETTING GAIN; INSPECT EACH SPEAKER CONE FOR SIGNS OF DAMAGE (I.E., FROZEN CONE, BURNING SMELL, ETC.)
AMPLIFIER FUSE KEEPS BLOWING	INCORRECT WIRING OR SHORT CIRCUIT	REVIEW INSTALLATION AND CHECK ALL WIRING CONNECTION.
WHINING OR TICKING NOISE IN THE AUDIO WITH ENGINE ON.	AMPLIFIER IS PICKING UP ALTERNATION NOISE OR RADIATED NOISE	TURN DOWN INPUT GAIN AND MOVE AUDIO CABLES AWAY FROM POWER WIRES. CHECK POWER AND GROUND CONNECTIONS ON AMPLIFIER AND INSTALL AN IN-LINE NOISE FILTER ON SOURCE UNIT'S POWER WIRE. ALSO CHECK THE ALTERNATOR AND /OR VOLTAGE. TEST FOR WEAK BATTERY OR ADD WATER TO BATTERY.

■EXPLODED VIEW / PARTS LIST

REF	PART NO	DESCRIPTION	QTY
1	77-00384-00	HEATSINK L=254.1 APX290M	1
2	72-00505-00	TOP COVER ALUMI L=254.1	1
3	71-00763-00	FRONT PANEL ABS BLACK [6C]	1
4	ST-IH430-08-S	TAPPING SCREW T3.0*8mm BLACK HEX	8
5	ST-IH430-10-S	TAPPING T3.0*10mm HEX NI	5
6	71-00764-00	REAR PANEL ABS BLACK [6C]	1
7	ST-RP420-08-S	TAPPING SCREW T2.0*8mm ROUND BLACK	2
8	72-00504-00	BOTTOM COVER APX290M BLACK	1
9	ST-RP430-06-S	TAPPING SCREW T3.0*6mm ROUND BLACK	6
10	78-00296-00	SPONGE 10*20mm * 3mm	6
11	74-00153-00	CLIP BLACK	16
12	78-00476-00	MICA 25mm*51mm	2
13	78-00475-00	MICA 25mm*57mm	1
14	78-00448-00	MICA 25mm*38mm	2
15	78-00305-00	MICA 25mm*30mm	1
16	74-00213-00	TRANSISTOR CLIP	2
17	10-00720-00	PCB APX290M 1.07	1
18	YH-00026-00	K/NUT6#-32TSZ	2
19	YH-00025-00	WASHER PW4.2*10*1.0SZ	2
20	YH-00024-03	COPPER RING CUCOVER 6.3*6.5*4.0 NO	2
21	YH-00029-00	WASHER BW3.5*8*0.5SZ	2
22	YH-00027-01	SCREW	2
23	75-00242-00	LOGO FRAME ABS	1
24	75-00241-00	LOGO CLEAR ABS	1
25	76-00443-00	LIGHT GUIDE PLATE GE_FR-1 0.25	1
26	SM-NF230-08-S	MACHING SCREW M3*8mm FLAT HEX NI	6
27	ST-RP420-05-S	TAPPING SCREW T2*5mm ROUND BLACK	4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APX290M

ELECTRICAL PART LIST

PART NO	DESCRIPTION	QTY	REF. NO
01-10001-73	RESISTOR 0.1 ohm 2W 5% MO	4	R21 R22 R170 R171
01-51000-86	RESISTOR 10 ohm 1% 1206	2	R142 R147
01-51010-85	RESISTOR 100 ohm 1% 0805	1	R68
01-51020-85	RESISTOR 1 K 1% 0805	2	R34 R116
01-51030-85	RESISTOR 10 K 1% 0805	10	R65 R74 R75 R77 R113 R125 R126 R133 R134 R151
01-51210-85	RESISTOR 121 ohm 1% 0805	1	R140
01-51420-85	RESISTOR 1.43 K 1% 0805	3	R31 R61 R82
01-51430-85	RESISTOR 14 K 1% 0805	2	R89 R92
01-51530-87	RESISTOR 15.8 K 1% 0805	1	R79
01-51830-85	RESISTOR 18.2 K 1% 0805	4	R78 R81 R85 R88
01-52020-85	RESISTOR 2 K 1% 0805	17	R10 R32 R33 R38 R39 R42 R46 R49 R51 R55 R58 R62 R97 R115 R119 R123 R150
01-52030-85	RESISTOR 20 K 1% 0805	21	R70 R71 R72 R73 R84 R86 R87 R93 R95 R98 R100 R103 R105 R110 R127 R129 R132 R135 R163 R174 R175
01-52120-85	RESISTOR 2.15 K 1% 0805	1	R131
01-52130-85	RESISTOR 21 K 1% 0805	2	R101 R102
01-52200-85	RESISTOR 22.1 ohm 1% 0805	20	R6 R9 R12 R41 R43 R45 R47 R66 R109 R118 R120 R122 R124 R154 R158 R161 R165 R166 R168 R169
01-52210-85	RESISTOR 221 ohm 1% 0805	1	R167
01-52230-85	RESISTOR 22.1 K 1% 0805	2	R141 R152
01-52520-84	RESISTOR 2.49 K 1% 0805	2	R11 R155
01-52710-85	RESISTOR 274 ohm 1% 0805	2	R4 R157
01-52730-85	RESISTOR 27.4 K 1% 0805	1	R162
01-52750-85	RESISTOR 2.7 M 1% 0805	2	R107 R108
01-53330-85	RESISTOR 33.2 K 1% 0805	2	R143 R148
01-53340-86	RESISTOR 332 K 1% 0805	1	R106
01-53520-85	RESISTOR 3.48 K 1% 0805	4	R3 R40 R53 R149
01-53530-85	RESISTOR 35.7 K 1% 0805	4	R90 R96 R112 R130
01-53630-85	RESISTOR 36.5 K 1% 0805	2	R94 R111
01-53910-86	RESISTOR 392 ohm 1% 1206	2	R59 R60
01-54340-85	RESISTOR 432 K 1% 0805	1	R104
01-54710-85	RESISTOR 475 ohm 1% 0805	4	R7 R8 R159 R160
01-54710-86	RESISTOR 475 ohm 1% 1206	1	R67
01-54720-85	RESISTOR 4.75 K 1% 0805	16	R15 R17 R20 R23 R24 R25 R36 R37 R54 R56 R57 R63 R64 R76 R80 R114
01-54730-85	RESISTOR 47.5 K 1% 0805	2	R69 R164
01-54740-85	RESISTOR 475 K 1% 0805	1	R172
01-55001-87	RESISTOR 5.1 ohm 1% 1206	6	R13 R18 R30 R35 R83 R91
01-55101-85	RESISTOR 5.11 K 1% 0805	1	R173
01-55618-85	RESISTOR 56.2 ohm 1% 0805	4	R26 R29 R136 R139
01-55910-85	RESISTOR 590 ohm 1% 0805	2	R144 R153
01-56000-85	RESISTOR 60.4 ohm 1% 1206	2	R50 R52
01-56320-86	RESISTOR 6.34 K 1% 1206	2	R1 R2
01-56800-85	RESISTOR 681 ohm 1% 0805	4	R27 R28 R137 R138
01-56820-85	RESISTOR 6.81 K 1% 0805	2	R5 R156
01-57530-85	RESISTOR 75 K 1% 0805	2	R99 R128
01-58220-85	RESISTOR 8.25 K 1% 0805	5	R14 R44 R48 R117 R121
01-59010-85	RESISTOR 909 ohm 1% 0805	2	R19 R145
01-59320-85	RESISTOR 9.31 K 1% 0805	1	R146
02-21000-41	E/C 1uf 50V 5*11	1	C61
02-21001-41	E/C 10uf 50V 5*11	9	C37 C38 C39 C40 C41 C83 C86 C95 C99
02-21002-00	NP CAPACITOR 100uf 16V 8*11	2	C15 C70
02-21003-41	E/C 1000uf 50V LOW ESR 16*26	2	C25 C46
02-24701-31	E/C 47uf 25V 105° 6.3*11	2	C2 C84
02-24702-21	E/C 470uf 16V 105° 8*11	2	C51 C52
02-26803-21	E/C 6800uf 16V LOW ESR 18*30	2	C62 C77
04-20100-86	CERAMIC 10P/J 50V 0805	2	C22 C71
04-20330-86	CERAMIC 33P/J 50V 0805	6	C49 C50 C56 C57 C81 C98
04-20680-85	CERAMIC 68P/J 50V 0805	8	C9 C18 C19 C33 C34 C87 C91 C96
04-21020-85	CERAMIC 102/K 50V 0805	2	C14 C69
04-21030-85	CERAMIC 103/K 50V 0805	2	C48 C65

PART NO	DESCRIPTION	QTY	REF. NO
04-21040-87	CERAMIC 104/Z 50V 0805	31	C1 C5 C7 C10 C11 C13 C20 C21 C31 C32 C35 C36 C45 C47 C54 C55 C59 C64 C68 C72 C74 C75 C76 C78 C79 C80 C82 C89 C93 C94 C97
04-21500-85	CERAMIC 150P/J 50V 0805	4	C6 C8 C88 C90
04-22720-85	CERAMIC 272/J 50V 0805	2	C67 C85
04-22730-85	CERAMIC 273/K 50V 0805	2	C4 C92
04-24720-86	CERAMIC 472/K 50V 0805	1	C28
04-24730-85	CERAMIC 473/K 50V 0805	1	C42
04-24740-86	CERAMIC 474/Z 25V 0805	2	C43 C63
04-26820-85	CERAMIC 682/K 50V 0805	2	C44 C53
06-00104-03	CAP MMYL ECQV 1H104JL 50V P=5	6	C3 C12 C58 C60 C66 C73
06-00562-00	CAP MMYL ECQB 1H562JF 50V P=5	4	C23 C24 C26 C27
06-00563-00	CAP MMYL ECQB 1H563JF 50V P=5	4	C16 C17 C29 C30
07-00072-85	IC TL072CDR 'TI' SOIC SMD	3	U2 U5 U7
07-00074-85	IC TL074CDR 'TI' SOIC SMD	3	U4 U10 U12
07-00317-00	IC KA317TU TO-220 'FSC'	1	U15
07-00337-00	IC KA337TU TO-220 'FSC'	1	U1
07-00393-85	IC LM393DT 'SGS' SMD	1	U11
07-00817-00	IC H11A817 'FSC'	2	U8 U9
07-00837-85	IC MC33079N LM837N 'ON' SMD	1	U14
07-03525-85	IC SG3525AP SO16 SMD 'ST'	1	U13
07-05532-85	IC NJM5532M JRC SOIC SMD	2	U3 U6
08-00031-00	TRANSISTOR TIP31C 4A/100V 'ST'	2	Q2 Q27
08-00032-00	TRANSISTOR TIP32C 4A/100V 'ST'	2	Q3 Q26
08-00035-00	TRANSISTOR TIP35C 25A/100V 'ST'	2	Q1 Q28
08-00036-00	TRANSISTOR TIP36C 25A/100V 'ST'	2	Q5 Q24
08-02807-00	HEXFET IRF2807 82A 75V ^	2	M1 M2
08-10006-01	TRANS MPSA06 TO-92 'ON'	2	Q4 Q25
08-10006-85	TR MMBTA06LT1 SOT-23 'ON'	7	Q6 Q9 Q10 Q13 Q17 Q18 Q23
08-10056-85	TR MMBTA56LT1 SOT-23 'ON'	6	Q11 Q12 Q14 Q15 Q16 Q19
08-10647-01	TRANS 2SB647 1A TO-92	2	Q7 Q22
08-10667-01	TRANS 2SD667 1A TO-92	2	Q8 Q21
08-26715-00	TR MPS651G 'ON' 2N6715 TO-237	1	Q20
09-04934-85	DL4934-MELF 1A 100V SMD	4	D10 D11 D16 D20
09-14148-85	DIODE 1N4148-SOD80 miniMELF	13	D5 D6 D7 D8 D9 D12 D13 D14 D15 D17 D18 D21 D22
09-15401-01	1N5402 3A/200V DC-201AD	1	D19
09-20100-85	ZENER 10V DL-35 miniMELF	1	DZ1
09-20120-85	ZENER 12V DL-35 miniMELF	1	DZ2
09-20160-85	ZENER 16V DL-35(miniMELF)	2	DZ3 DZ6
09-20680-85	ZENER 68V DL-35 miniMELF	2	DZ4 DZ5
09-40008-00	MUR820PBF/U08A20C 'MOSPEC'	4	D1 D2 D3 D4
13-00207-00	TRIM-6-VERT-500 500 ohm ^	2	VR1 VR5
13-11003-00	TH 100K NTC 6mm DIA	2	TH1 TH2
15-20203-29	B20K*2 F09125G B20Kb L15KQA	2	VR3 VR4
15-40050-11	C50K*4 F09145G C50Kb L15KQA	1	VR2
18-00159-00	SW-4P2T JFPB-41S-A(N)	1	S1
18-30001-01	SW SV65020F-0203-6H-01-FN	2	SW1 SW2
19-00302-04	LED SB434C -DOT- BLUE	1	LED1
20-00184-00	OUTPUT COIL SE-1000-ZIB	2	L1 L2
20-00249-00	TRANSFORMER APX2180-2	1	X1
32-00637-01	TERMINAL BLOCK 3P JSZ3-01 NI	1	J2
32-00638-04	TERMINAL BLOCK 4P JSZ4-01 NI	1	J1
32-20223-06	JACK 2P RED/ WSP-202V-06 NI	1	J3
34-00150-01	5P BASE H7755R-05 L-160mm	1	CH1+ CH1- CH2+ CH2- GND
76-00239-00	FUSE HOLDER JEF-703E	1	FH1
76-00276-01	FUSE ATC-40A 'UL	1	FH1
76-00407-00	TEST PIN JT-1P-CIW	3	P2 P3 P6
78-00284-00	SILICONE TUBE 2mm*6mm	8	Q1 Q5 Q24 Q28
78-00323-00	SILICONE TUBE 1mm*10mm	4	Q4 Q25
78-00348-00	SILICONE TUBE 1mm*8mm	26	D1 D2 D3 D4 U1 Q2 Q3 U15 Q26 Q27 TH2 M1 M2