1. SAFETY INFORMATION

● **GM-X432/X1H/UC, GM-X332/X1H/UC**

CAUTION

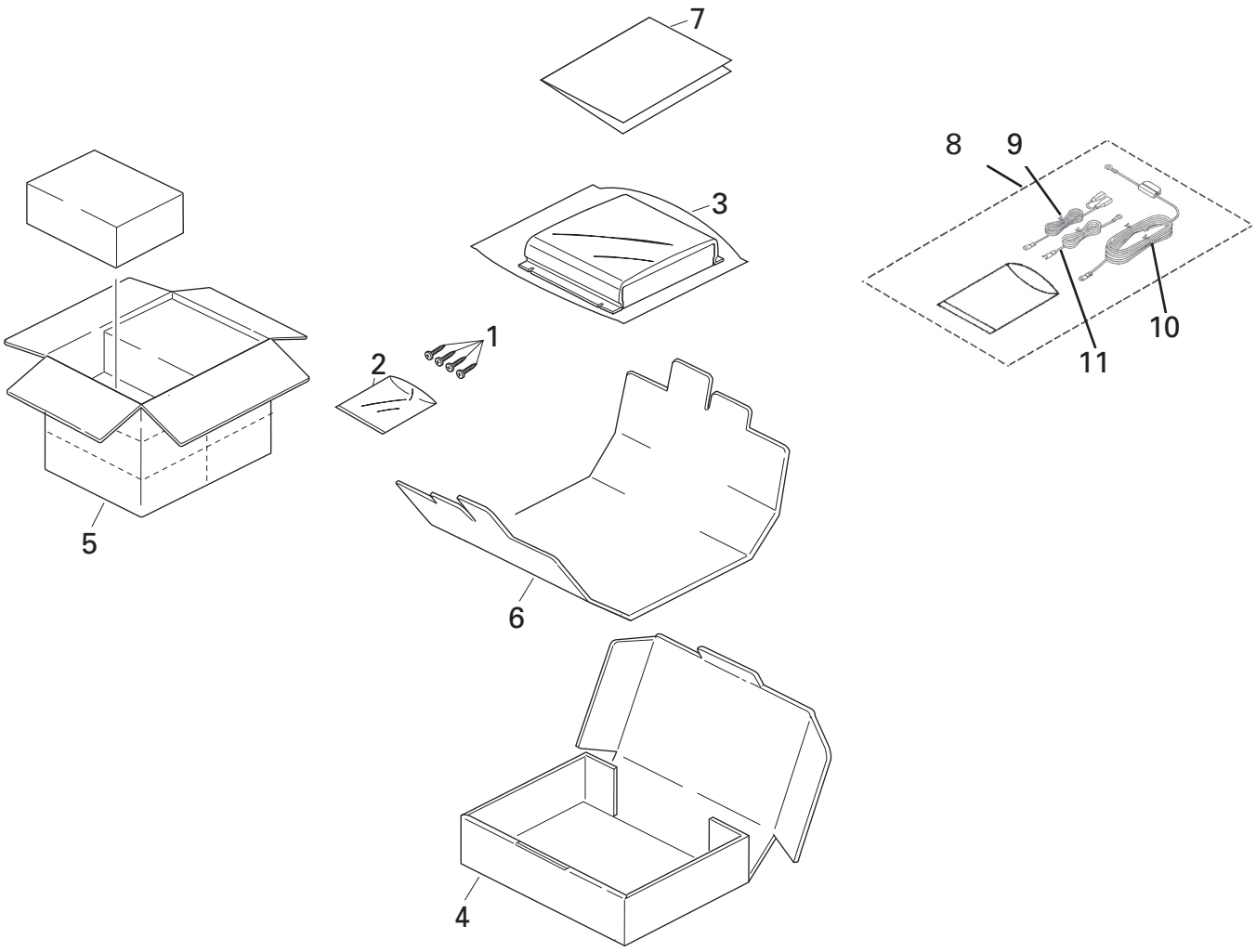
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

● Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.

● Screws adjacent to ∇ mark on the product are used for disassembly.

(1) PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BYC40P180FZK
	2	Polyethylene Bag	HEG0011
	3	Polyethylene Bag	HEG0010
	4	Carton	See Contrast table(2)
	5	Contain Box	See Contrast table(2)
	6	Protector	HHP0048
	7-1	Owner's Manual	See Contrast table(2)
	7-2	Owner's Manual	See Contrast table(2)
*	7-3	Warranty Card	See Contrast table(2)
*	7-4	Card	See Contrast table(2)
*	7-5	PRC	See Contrast table(2)
	8	Cord Assy	See Contrast table(2)
	9	Cord(Remote)	See Contrast table(2)
	10	Cord(Power)	See Contrast table(2)
	11	Cord(Ground)	See Contrast table(2)

(2) CONTRAST TABLE

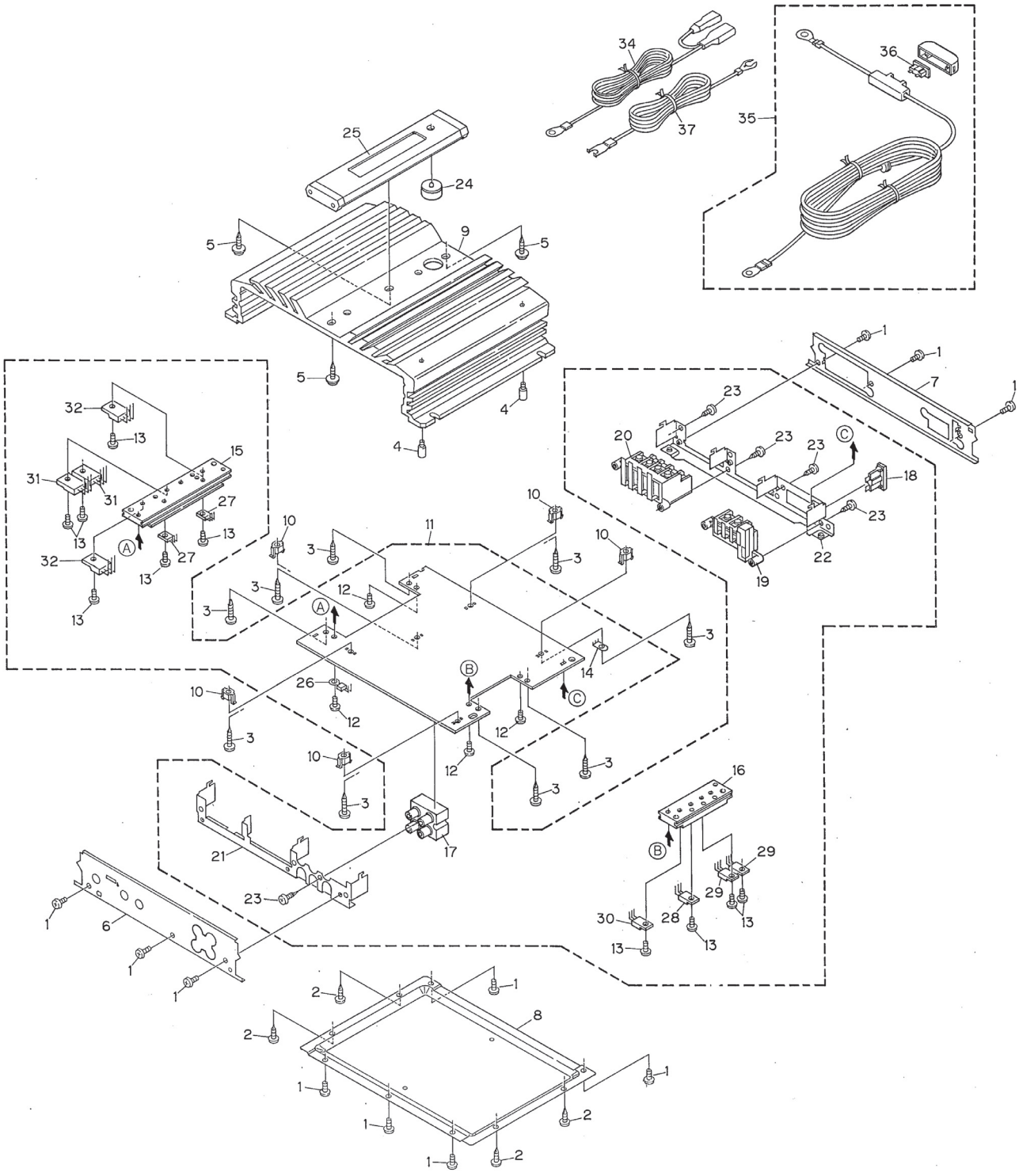
GM-X432/X1H/UC, GM-X332/X1H/UC, GM-X332/X1H/EW and GM-X332/X1H/ES are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			
			GM-X432/X1H/UC	GM-X332/X1H/UC	GM-X332/X1H/EW	GM-X332/X1H/ES
	4	Carton	HHG0197	HHG0180	HHG0182	HHG0183
	5	Contain Box	HHL0197	HHL0180	HHL0182	HHL0183
	7-1	Owner's Manual	HRD0081	HRD0080	HRD0082	HRD0083
	7-2	Owner's Manual	Not used	Not used	Not used	HRD0084
*	7-3	Warranty Card	HRY1070	Not used	HRY1087	Not used
*	7-4	Card	Not used	ARY1048	Not used	Not used
*	7-5	PRC	HRY0007	HRY0007	Not used	Not used
	8	Cord Assy	Not used	Not used	HDW0004	HDW0004
	9	Cord(Remote)	Not used	Not used	HDE0007	HDE0007
	10	Cord(Power)	Not used	Not used	HDE4423	HDE4423
	11	Cord(Ground)	Not used	Not used	HDE4455	HDE4455

● **Owner's Manual**

Model	Part No.	Language
GM-X432/X1H/UC	HRD0081	English, French
GM-X332/X1H/UC	HRD0080	English, French
GM-X332/X1H/EW	HRD0082	English, Spanish, German, French, Italian, Dutch
GM-X332/X1H/ES	HRD0083	English, Spanish
	HRD0084	Portuguese(B), Arabic

2.2 EXTERIOR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(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw	BSZ30P050FZK
2	Screw(M3×6)	CBA1320
3	Screw(M3×12)	CBA1323
4	Screw(M3×5)	HBA0006
5	Screw(M2.6×8)	HBA1462
6	Panel	See Contrast table(2)
7	Panel	See Contrast table(2)
8	Lower Case	HNB2417
9	Heat Sink	See Contrast table(2)
10	Spacer	HNV3975
11	Amp Unit	See Contrast table(2)
12	Screw	BMS30P060FZK
13	Screw	BMS30P080FMC
14	Terminal(CN902)	CKF1059
15	Sub Heat Sink	HNR1523
16	Sub Heat Sink	HNR1524
17	Pin Jack(CN801)	See Contrast table(2)
18	Fuse(20A)	HEK0020
19	Terminal(CN901)	See Contrast table(2)
20	Terminal(CN151)	See Contrast table(2)
21	Holder	HNC8118
22	Holder	HNC8119
23	Screw	PPZ30P060FZK
24	Light Pipe Unit	HXB3450
25	Plate Unit	See Contrast table(2)
26	Thermistor(TH951)	CCX1013
27	Transistor(Q154, 254)	2SD2343
28	Diode(D956)	FML22S
29	FET(Q956, 957)	IRFIZ44N
30	Diode(D957)	FML22R
31	Transistor(Q156, 256)	2SB1587
32	Transistor(Q155, 255)	2SD2438
33	•••••	
34	Cord	See Contrast table(2)
35	Cord	See Contrast table(2)
36	Fuse(30A)	See Contrast table(2)
37	Cord	See Contrast table(2)

(2) CONTRAST TABLE

GM-X432/X1H/UC, GM-X332/X1H/UC, GM-X332/X1H/EW and GM-X332/X1H/ES are constructed the same except for the following:

Mark No.	Symbol and Description	Part No.			
		GM-X432/X1H/UC	GM-X332/X1H/UC	GM-X332/X1H/EW	GM-X332/X1H/ES
6	Panel	HNB2405	HNB2406	HNB2404	HNB2404
7	Panel	HNB2414	HNB2411	HNB2411	HNB2411
9	Heat Sink	HNR1517	HNR1515	HNR1515	HNR1515
11	Amp Unit	HWH0103	HWH0086	HWH0084	HWH0085
17	Pin Jack(CN801)	CKB1020	CKB1011	CKB1019	CKB1019
19	Terminal(CN901)	HKE0002	HKE0001	HKE0001	HKE0001
20	Terminal(CN151)	HKE0025	HKE0024	HKE0024	HKE0024
25	Plate Unit	HXB3555	HXB3554	HXB3554	HXB3554
34	Cord	Not used	Not used	HDE0007	HDE0007
35	Cord	Not used	Not used	HDE4423	HDE4423
36	Fuse(30A)	Not used	Not used	HEK0030	HEK0030
37	Cord	Not used	Not used	HDE4455	HDE4455

5. ELECTRICAL PARTS LIST

NOTES:

● Parts whose parts numbers are omitted are subject to being not supplied.

● The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

A Unit Number : HWH0103(GM-X432/X1H/UC)
Unit Number : HWH0086(GM-X332/X1H/UC)
Unit Number : HWH0084(GM-X332/X1H/EW)
Unit Number : HWH0085(GM-X332/X1H/ES)
Unit Name : Amp Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	101	IC	NJM2068L
IC	102	IC	NJM2068L
IC	103	IC	NJM2068L
IC	104	IC	NJM2068L
IC	151	IC	NJM2068L
IC	651	IC	PA2027A
IC	801	IC	NJM2068D
IC	802	IC	NJM2068D
IC	951	IC	UPC494C
Q	151	Transistor	2SA1145
Q	152	Transistor	2SC2705
Q	154	Transistor	2SD2343
Q	155	Transistor	2SD2438
Q	156	Transistor	2SB1587
Q	251	Transistor	2SA1145
Q	252	Transistor	2SC2705
Q	254	Transistor	2SD2343
Q	255	Transistor	2SD2438
Q	256	Transistor	2SB1587
Q	601	Transistor	2SD1768S
Q	602	Transistor	2SD1768S
Q	605	Transistor	2SC2412K
Q	606	Transistor	2SC2412K
Q	609	Transistor	DTA124EK
Q	651	Transistor	2SA1037K
Q	652	Transistor	2SC1740S
Q	653	Transistor	2SC1740S
Q	654	Transistor	2SC1740S
Q	655	Transistor	2SA933S
Q	656	Transistor	2SC1740S
Q	657	Transistor	2SA933S
Q	658	Transistor	2SB1243
Q	951	Transistor	DTA114ES
Q	952	Transistor	2SA933S
Q	953	Transistor	2SA933S
Q	956	FET	IRFIZ44N
Q	957	FET	IRFIZ44N
Q	960	Transistor	2SD1864
Q	961	Transistor	2SB1243
D	601	Diode	1SS133
D	602	Diode	1SS133
D	651	Diode	1SS133
D	652	Diode	HZS7L(A2)
D	653	Diode	1SS133
D	654	LED	SML210LT(LMN)

=====Circuit Symbol and No.		===Part Name	Part No.
D	901	Diode	ERA15-02VH
D	902	Diode	ERA15-02VH
D	951	Diode	1SS133
D	954	Diode	1SS133
D	955	Diode	1SS133
D	956	Diode	FML22S
D	957	Diode	FML22R
D	958	Diode	HZS16L(1)
D	959	Diode	HZS16L(1)
L	801	Ferri-Inductor	CTF1007
L	802	Ferri-Inductor	CTF1007
L	901	Choke Coil 50μH(Idc=3A)	CTH1218
T	951	Transformer	CTT1091
TH	951	Thermistor	CCX1013
TH	953	Thermistor	CCX1035
S	101	Switch(OFF/LPF/HPF)	CSH1029
S	951	Switch(BFC)	See Contrast table
VR	101	Volume 10kΩ(A)	CCS1241
VR	102	Volume 10kΩ(C)	CCS1240
VR	103	Volume 50kΩ(C)	See Contrast table
		Fuse 20A	HEK0020

RESISTORS

R	101		RS1/10S153J
R	102		RS1/10S153J
R	103		RS1/10S153J
R	104		RS1/10S123J
R	105		RS1/10S223J
R	107		RS1/10S222J
R	108		RS1/10S181J
R	111		RS1/10S102J
R	112		RS1/10S101J
R	113		RD1/4PU221J
R	114		See Contrast table
R	115		See Contrast table
R	151		RS1/10S222J
R	152		RS1/10S822J
R	153		RS1/10S471J
R	154		RS1/10S223J
R	155		RS1/10S153J
R	156		RS1/10S153J
R	157		RD1/4PU561J
R	158		RD1/4PU561J
R	159		RD1/4PU161J
R	160		RD1/4PU161J
R	161		RD1/4PU473J
R	162		RD1/4PU473J
R	163		RD1/4PU221J
R	164		RD1/4PU562J
R	165		RD1/4PU222J
R	166		RD1/4PU473J
R	167		RD1/4PU473J
R	168	0.22Ω	CCN1013

Circuit Symbol and No.		Part Name	Part No.
R	169	0.22Ω	CCN1013
R	170	0.22Ω	CCN1013
R	171	0.22Ω	CCN1013
R	172		RD1/2PM100J
R	201		RS1/10S153J
R	202		RS1/10S153J
R	203		RS1/10S153J
R	204		RS1/10S123J
R	205		RS1/10S223J
R	207		RS1/10S222J
R	208		RS1/10S181J
R	211		RS1/10S102J
R	212		RS1/10S101J
R	213		RD1/4PU221J
R	214		See Contrast table
R	215		See Contrast table
R	251		RS1/10S222J
R	252		RS1/10S822J
R	253		RS1/10S471J
R	254		RS1/10S223J
R	255		RS1/10S153J
R	256		RS1/10S153J
R	257		RD1/4PU561J
R	258		RD1/4PU561J
R	259		RD1/4PU161J
R	260		RD1/4PU161J
R	261		RD1/4PU473J
R	262		RD1/4PU473J
R	263		RD1/4PU221J
R	264		RD1/4PU562J
R	265		RD1/4PU222J
R	266		RD1/4PU473J
R	267		RD1/4PU473J
R	268	0.22Ω	CCN1013
R	269	0.22Ω	CCN1013
R	270	0.22Ω	CCN1013
R	271	0.22Ω	CCN1013
R	272		RD1/2PM100J
R	601		RD1/4PU393J
R	602		RD1/4PU393J
R	605		RD1/4PU564J
R	606		RD1/4PU564J
R	609		RD1/2PM473J
R	610		RD1/2PM473J
R	613		RS1/10S472J
R	614		RS1/10S472J
R	651		RS1/10S104J
R	652		RS1/10S103J
R	653		RS1/10S472J
R	654		RD1/4PU392J
R	655		RS1/10S472J
R	656		RS1/10S222J
R	657		RS1/10S221J
R	658		RS1/10S102J
R	659		RS1/10S473J
R	660		RS1/10S103J
R	661		RS1/10S103J
R	662		RS1/10S222J
R	663		RS1/10S472J
R	664		RD1/4PU392J
R	665		RS1/10S392J
R	666		RS1/10S103J
R	667		RS1/10S472J
R	668		RS1/10S473J
R	669		RS1/10S223J

Circuit Symbol and No.		Part Name	Part No.
R	670		RS1/10S223J
R	671		RS1/10S223J
R	672		RS1/10S472J
R	673		RD1/4PU101J
R	674		RD1/4PU221J
R	675		RD1/4PU152J
R	676		RD1/2PM681J
R	801		RS1/10S471J
R	802		RS1/10S471J
R	803		RS1/10S223J
R	804		RS1/10S223J
R	805		RN1/4PC1002D
R	806	(RN1/10SE1002D)	GGC1320
R	807	(RN1/10SE1002D)	GGC1320
R	808	(RN1/10SE1002D)	GGC1320
R	809		RS1/10S104J
R	810		RS1/10S104J
R	811	(RN1/10SE1002D)	GGC1320
R	812	(RN1/10SE1002D)	GGC1320
R	813	(RN1/10SE1002D)	GGC1320
R	814	(RN1/10SE1002D)	GGC1320
R	831		RS1/10S473J
R	832		RS1/10S473J
R	953		RD1/4PU392J
R	954		RD1/4PU101J
R	955		RS1/10S153J
R	956		RS1/10S102J
R	957		RS1/10S153J
R	958		See Contrast table
R	959		RD1/4PU101J
R	960		RD1/4PU332J
R	961		RD1/4PU101J
R	962		RS1/10S332J
R	963		RS1/10S472J
R	964		RS1/10S472J
R	965		RS1/10S472J
R	966		RD1/4PU272J
R	967		RD1/4PU272J
R	969		RD1/4PU221J
R	972		RD1/2PM560J
R	973		RD1/4PU560J
R	976		RD1/4PU220J
R	977		RD1/4PU220J
R	978		RD1/2PM220J
R	979		RD1/2PM220J
R	980		RD1/4PU100J
R	981		RD1/4PU100J
R	982		RD1/4PU472J
R	983		RD1/4PU472J

CAPACITORS

C	101	CKSYB184K16
C	102	CKSYB474K16
C	103	CKSQYB273K50
C	104	CFTLA124J50
C	105	CFTLA124J50
C	106	CFTLA273J50
C	107	CEAS4R7M50
C	108	CFTLA334J50
C	151	CEAS101M10
C	152	CCSQSL680J50
C	153	CFTLA224J50
C	154	CFTLA224J50
C	155	CCSQCH220J50
C	156	CCPUSL330J50
C	157	CCPUSL330J50

=====Circuit Symbol and No.	===Part Name	Part No.
C 158		CCSQCH220J50
C 159		CFTLA223J50
C 160		CFTLA333J50
C 161		CKSYB104K50
C 201		CKSYB184K16
C 202		CKSYB474K16
C 203		CKSQYB273K50
C 204		CFTLA124J50
C 205		CFTLA124J50
C 206		CFTLA273J50
C 207		CEAS4R7M50
C 208		CFTLA334J50
C 251		CEAS101M10
C 252		CCSQSL680J50
C 253		CFTLA224J50
C 254		CFTLA224J50
C 255		CCSQCH220J50
C 256		CCPUSL330J50
C 257		CCPUSL330J50
C 258		CCSQCH220J50
C 259		CFTLA223J50
C 260		CFTLA333J50
C 261		CKSYB104K50
C 651	220µF/10V	CCH1036
C 652		CKSYB103K50
C 653		CKSQYB103K50
C 654		CKSQYB103K50
C 655		CEAS100M16
C 656		CEAS100M16
C 657		CEAS101M16
C 658		CKSQYB103K50
C 659		CKSQYB103K50
C 660		CEAS220M16
C 661	470µF/16V	CCH1183
C 662		CKSQYB103K50
C 663		CQMA223J50
C 801		CKSQYB471K50
C 802		CKSQYB471K50
C 803		CEAS100M16
C 804		CEAS100M16
C 805		CKSQYB472K50
C 806		CKSQYB472K50
C 807		CCSQCH470J50
C 808		CCSQCH470J50
C 809		CCSQCH470J50
C 810		CCSQCH470J50
C 811		CKSQYB103K50
C 812		CKSQYB103K50
C 831		CEAS100M16
C 832		CEAS100M16
C 901		CFTLA224J50
C 951		CEAS100M16
C 952		CEAS221M10
C 953		CQMA102J50
C 954		CEAS2R2M50
C 955		CEAS101M16
C 956	3300µF/16V	CCH1130
C 958		CQMA472J50
C 959		CQMA472J50
C 960		CQMA102J50
C 961		CQMA102J50
C 962	3300µF/35V	CCH1200
C 963	3300µF/35V	CCH1200
C 968		CEAS101M35
C 969		CEAS101M35

=====Circuit Symbol and No.	===Part Name	Part No.
C 970		CEAS100M50
C 971		CEAS100M50
C 972		CKSQYB473K50
C 973		CKSQYB473K50

CONTRAST TABLE of AMP UNIT

GM-X432/X1H/UC, GM-X332/X1H/UC, GM-X332/X1H/EW and GM-X332/X1H/ES are constructed the same except for the following:

Symbol and Description	Part No.			
	GM-X432/X1H/UC	GM-X332/X1H/UC	GM-X332/X1H/EW	GM-X332/X1H/ES
S 951 Switch(BFC)	Not used	Not used	HSH-156	HSH-156
VR 103 Volume 50kΩ(C)	CCS1242	Not used	CCS1242	CCS1242
R 114	RS1/10S512J	Not used	RS1/10S512J	RS1/10S512J
R 115	Not used	RS1/10S223J	Not used	Not used
R 214	RS1/10S512J	Not used	RS1/10S512J	RS1/10S512J
R 215	Not used	RS1/10S223J	Not used	Not used
R 958	Not used	Not used	RS1/10S105J	RS1/10S105J