

WM-EX5

SONY.

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model*

SUPPLEMENT-1

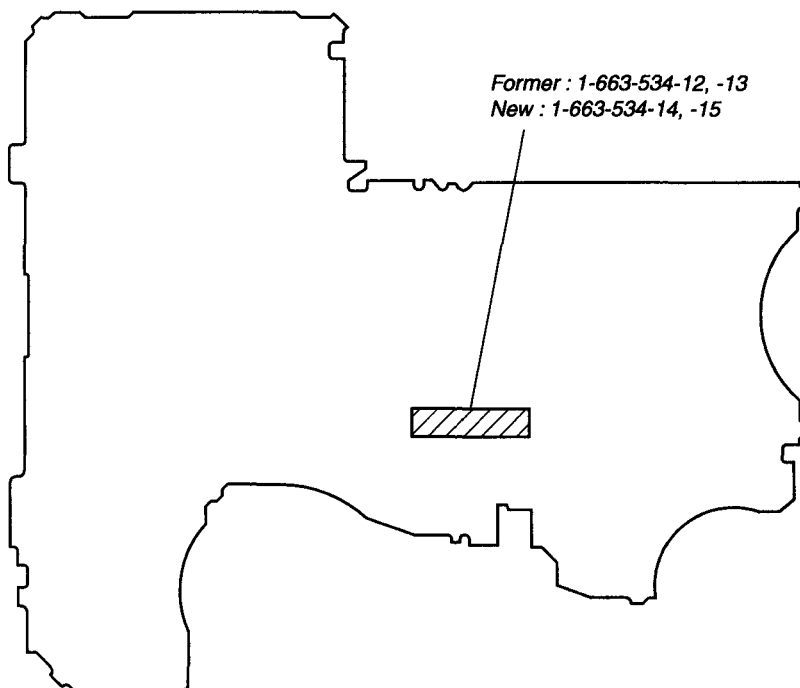
File this supplement with the service manual.

Subject: Board Modification

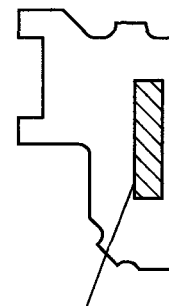
(ECN-WM700141/WM700476)

1. NEW/FORMER DISCRIMINATION

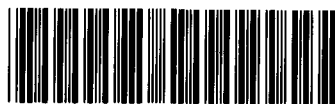
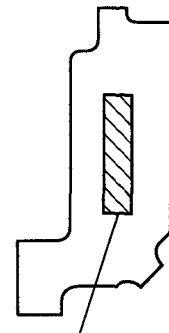
[AUDIO BOARD] (SIDE A)



[MODE SWITCH BOARD]



[DOLBY SWITCH BOARD]



992309984

AUDIO

2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA... : μ A... uPA... : μ PA...
uPB... : μ PB... uPC... : μ PC...
uPD... : μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3061-372-A	AUDIO BOARD, COMPLETE *****		C216	1-164-677-11	CERAMIC CHIP 0.033uF 10% 16V	
		< CAPACITOR >		C217	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C101	1-162-963-11	CERAMIC CHIP 680PF 10% 50V		C301	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C102	1-162-963-11	CERAMIC CHIP 680PF 10% 50V		C302	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C103	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V		C303	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C104	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V		C304	1-109-935-11	TANTAL. CHIP 4.7uF 20% 6.3V	
C105	1-115-156-11	CERAMIC CHIP 1uF 10V		C305	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C106	1-162-965-11	CERAMIC CHIP 0.0015uF 10% 50V		C306	1-162-974-11	CERAMIC CHIP 0.01uF 50V	
C107	1-164-174-11	CERAMIC CHIP 0.0082uF 10% 25V		C307	1-107-815-11	TANTAL. CHIP 2.2uF 20% 4V	
C108	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		C308	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C109	1-115-156-11	CERAMIC CHIP 1uF 10V		C309	1-109-930-11	TANTAL. CHIP 220uF 20% 2.5V	
C110	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V		C310	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C111	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V		C311	1-135-201-11	TANTALUM CHIP 10uF 20% 4V	
C112	1-115-156-11	CERAMIC CHIP 1uF 10V		C312	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C113	1-165-128-11	CERAMIC CHIP 0.22uF 16V		C313	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C114	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		C314	1-115-156-11	CERAMIC CHIP 1uF 10V	
C115	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V		C315	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C116	1-164-677-11	CERAMIC CHIP 0.033uF 10% 16V		C316	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C117	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C317	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C201	1-162-963-11	CERAMIC CHIP 680PF 10% 50V		C318	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C202	1-162-963-11	CERAMIC CHIP 680PF 10% 50V		C319	1-109-930-11	TANTAL. CHIP 220uF 20% 2.5V	
C203	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V		C320	1-115-156-11	CERAMIC CHIP 1uF 10V	
C204	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V		C321	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C205	1-115-156-11	CERAMIC CHIP 1uF 10V		C601	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C206	1-162-965-11	CERAMIC CHIP 0.0015uF 10% 50V		C602	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C207	1-164-174-11	CERAMIC CHIP 0.0082uF 10% 25V		C603	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C208	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		C604	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
C209	1-115-156-11	CERAMIC CHIP 1uF 10V		C606	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C210	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V		C607	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C211	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V		C608	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C212	1-115-156-11	CERAMIC CHIP 1uF 10V		C609	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C213	1-165-128-11	CERAMIC CHIP 0.22uF 16V		C610	1-164-695-11	CERAMIC CHIP 0.0022uF 5% 50V	
C214	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		C701	1-115-156-11	CERAMIC CHIP 1uF 10V	
C215	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V		C702	1-115-156-11	CERAMIC CHIP 1uF 10V	
				C703	1-115-156-11	CERAMIC CHIP 1uF 10V	
				C704	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
				C705	1-164-156-11	CERAMIC CHIP 0.1uF 25V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C801	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V		Q303	8-729-422-39	TRANSISTOR XN4404	
C802	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V		Q304	8-729-426-36	TRANSISTOR XP1215-TXE	
C803	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V		Q305	8-729-040-12	TRANSISTOR MUN5215T1	
C804	1-109-935-11	TANTAL. CHIP 4.7uF 20% 6.3V		Q306	8-729-426-36	TRANSISTOR XP1215-TXE	
C805	1-107-685-11	TANTAL. CHIP 15uF 20% 6.3V		Q307	8-729-426-36	TRANSISTOR XP1215-TXE	
C807	1-104-847-11	TANTAL. CHIP 22uF 20% 4V		Q601	8-729-025-88	TRANSISTOR 2SB1386-T100-R	
C901	1-115-156-11	CERAMIC CHIP 1uF 10V		Q602	8-729-030-54	TRANSISTOR MSB1218A-RT1	
C902	1-115-156-11	CERAMIC CHIP 1uF 10V		Q603	8-729-040-13	TRANSISTOR MUN5115T1	
< CONNECTOR >				Q604	8-729-039-36	TRANSISTOR MDC06TR	
CN301	1-766-336-21	CONNECTOR, FFC/FPC 6P		Q701	8-729-230-72	TRANSISTOR 2SA1362YG	
< DIODE >				Q702	8-729-020-99	TRANSISTOR UN5215-RS-TX	
D701	8-719-989-53	DIODE CL-200HR-C-TSL (BATT)		Q703	8-729-230-72	TRANSISTOR 2SA1362YG	
D702	8-719-404-49	DIODE MA111		Q704	8-729-425-46	TRANSISTOR XP4315-TXE	
D901	8-719-056-89	DIODE MA8120-TX		Q705	8-729-427-51	TRANSISTOR XP4215-TXE	
D902	8-719-056-89	DIODE MA8120-TX		Q706	8-729-020-99	TRANSISTOR UN5215-RS-TX	
< FUSE >				Q708	8-729-040-12	TRANSISTOR MUN5215T1	
△F701	1-533-792-11	FUSE (SMD)		< RESISTOR >			
< FERRITE BEAD >				R101	1-218-944-11	METAL GLAZE 180 5% 1/16W	
FB101	1-414-385-11	INDUCTOR, FERRITE BEAD		R102	1-218-963-11	METAL GLAZE 6.8K 5% 1/16W	
FB201	1-414-385-11	INDUCTOR, FERRITE BEAD		R103	1-218-270-11	METAL GLAZE 1.1K 5% 1/16W	
FB301	1-414-235-11	INDUCTOR, FERRITE BEAD		R104	1-216-834-11	METAL CHIP 12K 5% 1/16W	
< IC >				R105	1-216-852-11	METAL CHIP 390K 5% 1/16W	
IC301	8-759-440-52	IC TA2103F		R106	1-216-821-11	METAL CHIP 1K 5% 1/16W	
IC601	8-759-431-31	IC LB1899M-TLM		R107	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
IC701	8-759-479-59	IC MB89133LPFV-G-3878ND		R108	1-218-979-11	METAL GLAZE 150K 5% 1/16W	
IC702	8-759-438-27	IC MM1305BWB		R109	1-216-821-11	METAL CHIP 1K 5% 1/16W	
IC703	8-759-445-09	IC XC61AS0VXXMR		R110	1-218-956-11	METAL GLAZE 1.8K 5% 1/16W	
IC704	8-759-445-08	IC XC61AS0TXXMR		R111	1-218-957-11	METAL GLAZE 2.2K 5% 1/16W	
IC801	8-759-440-53	IC MPC1850DTBEL		R112	1-216-839-11	METAL CHIP 33K 5% 1/16W	
< JACK >				R113	1-218-971-11	METAL GLAZE 33K 5% 1/16W	
J301	1-778-930-21	JACK 7P (○/REMOTE)		R114	1-216-809-11	METAL CHIP 100 5% 1/16W	
< JUMPER RESISTOR >				R115	1-216-844-11	METAL CHIP 82K 5% 1/16W	
JC901	1-216-864-11	METAL CHIP 0 5% 1/16W		R201	1-218-944-11	METAL GLAZE 180 5% 1/16W	
< PHOTO INTERRUPTER >				R202	1-218-963-11	METAL GLAZE 6.8K 5% 1/16W	
PH701	8-719-988-15	PHOTO REFLECTOR PR-11-C		R203	1-218-270-11	METAL GLAZE 1.1K 5% 1/16W	
PH702	8-719-988-15	PHOTO REFLECTOR PR-11-C		R204	1-216-834-11	METAL CHIP 12K 5% 1/16W	
< TRANSISTOR >				R205	1-216-852-11	METAL CHIP 390K 5% 1/16W	
Q301	8-729-800-71	TRANSISTOR 2SB815B7-TB		R206	1-216-821-11	METAL CHIP 1K 5% 1/16W	
Q302	8-729-040-12	TRANSISTOR MUN5215T1		R207	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
				R208	1-218-979-11	METAL GLAZE 150K 5% 1/16W	
				R209	1-216-821-11	METAL CHIP 1K 5% 1/16W	
				R210	1-218-956-11	METAL GLAZE 1.8K 5% 1/16W	
				R211	1-218-957-11	METAL GLAZE 2.2K 5% 1/16W	
				R212	1-216-839-11	METAL CHIP 33K 5% 1/16W	
				R213	1-218-971-11	METAL GLAZE 33K 5% 1/16W	
				R214	1-216-809-11	METAL CHIP 100 5% 1/16W	
				R215	1-216-844-11	METAL CHIP 82K 5% 1/16W	
				R301	1-218-891-11	METAL GLAZE 68K 0.50% 1/16W	
				R302	1-218-879-11	METAL GLAZE 22K 0.50% 1/16W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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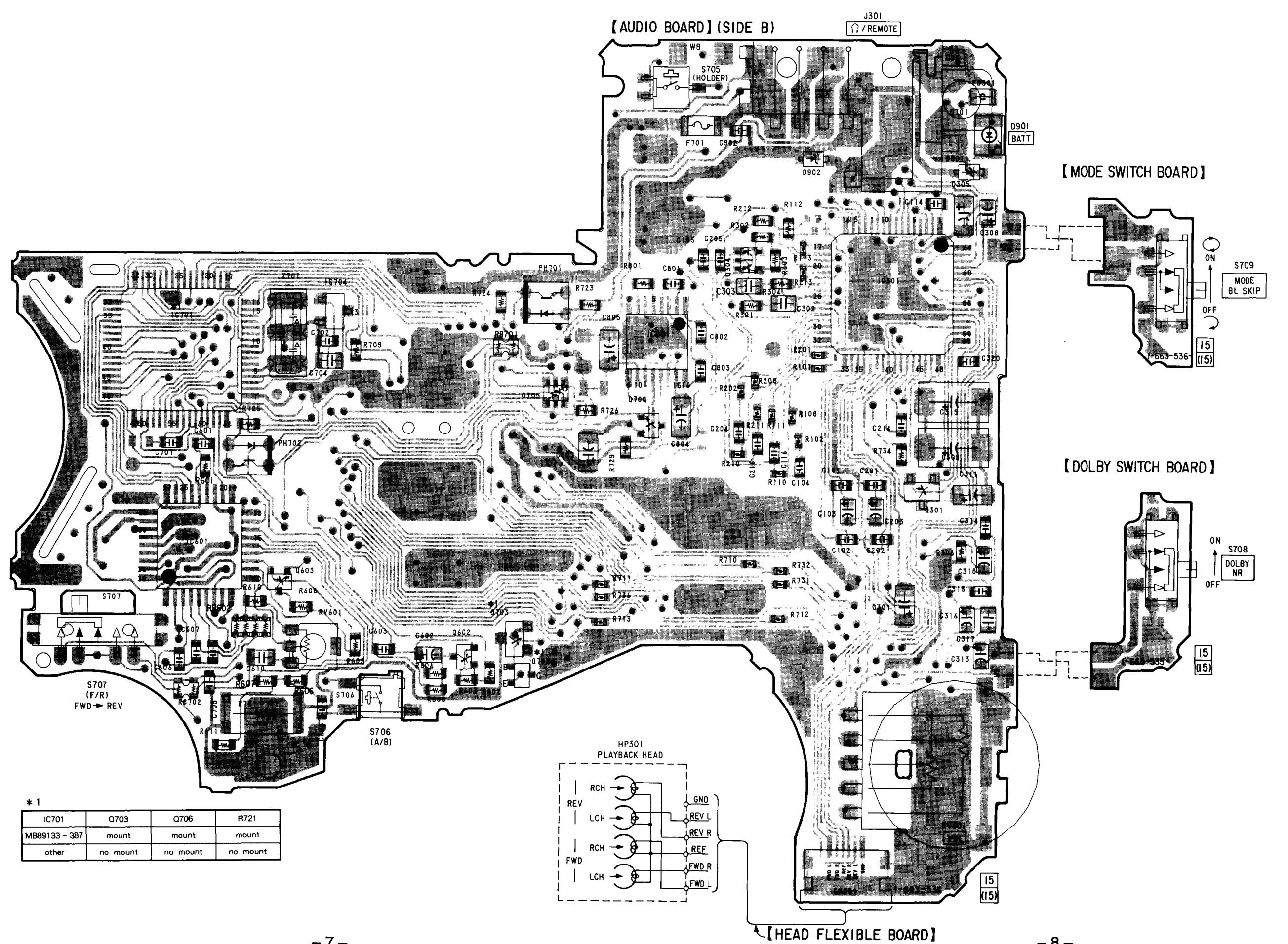
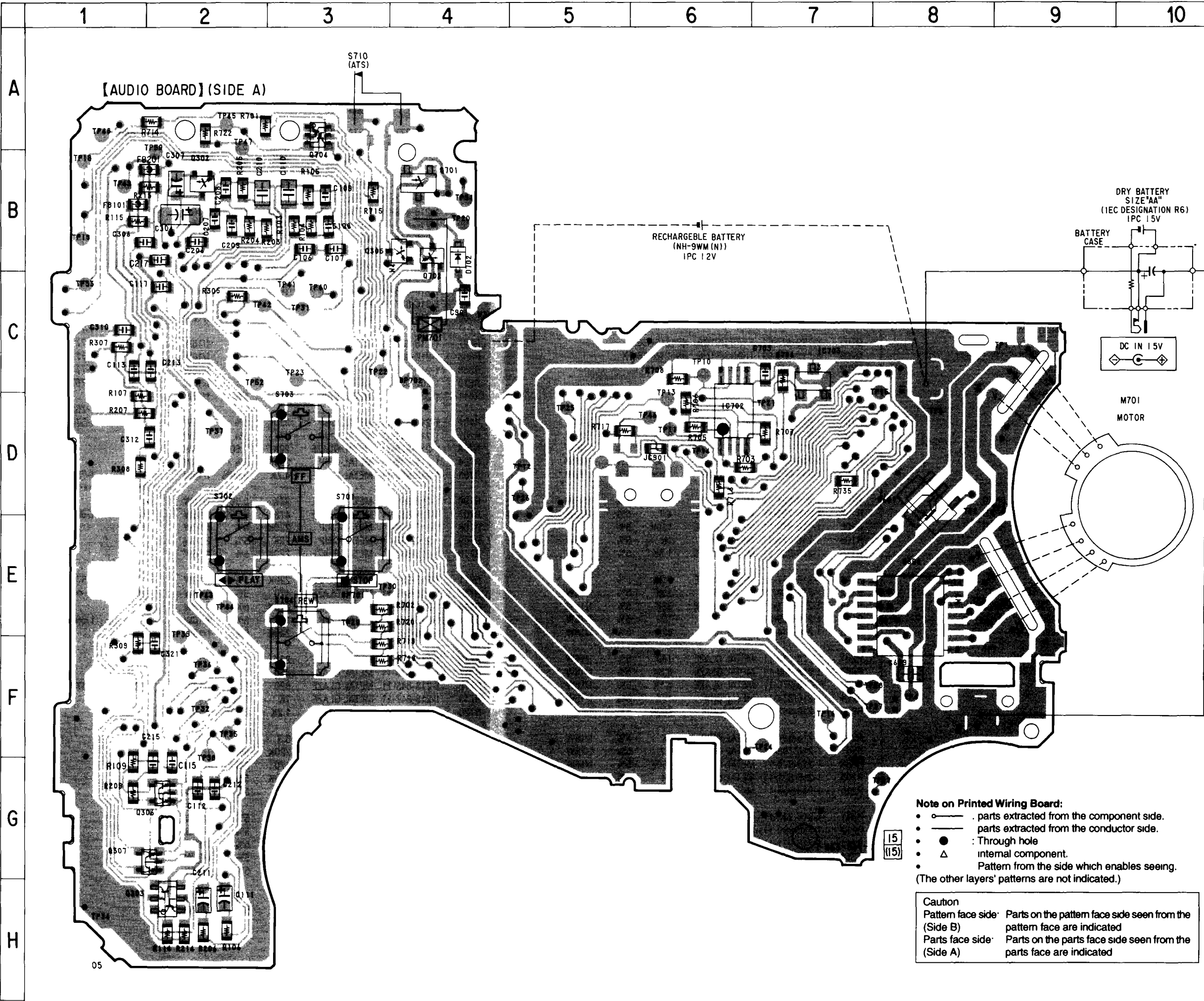
AUDIO**DOLBY SWITCH****MODE SWITCH**

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R303	1-218-877-11	METAL GLAZE	18K	0.50%	1/16W	R801	1-216-859-11	METAL GLAZE	1.5M	5%	1/16W
R304	1-216-825-11	METAL CHIP	2.2K	5%	1/16W			< CONPOSITION CIRCUIT BLOCK >			
R305	1-218-295-11	METAL GLAZE	43K	5%	1/16W						
R306	1-216-821-11	METAL CHIP	1K	5%	1/16W	RB602	1-236-907-11	NETWORK RESISTOR (CHIP) 100K			
R307	1-216-793-11	METAL GLAZE	4.7	5%	1/16W	RB701	1-236-883-11	RES, NETWORK			
R308	1-216-849-11	METAL CHIP	220K	5%	1/16W	RB702	1-236-875-11	RES, NETWORK			
R309	1-216-837-11	METAL CHIP	22K	5%	1/16W			< VARIABLE RESISTOR >			
R601	1-216-849-11	METAL CHIP	220K	5%	1/16W						
R602	1-216-853-11	METAL CHIP	470K	5%	1/16W	RV301	1-225-333-31	RES, VAR, CARBON 10K/10K (VOL)			
R603	1-216-857-11	METAL CHIP	1M	5%	1/16W	RV601	1-225-476-11	RES, ADJ METAL GLAZE 330K			
R604	1-216-845-11	METAL CHIP	100K	5%	1/16W			< SWITCH >			
R605	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R606	1-216-845-11	METAL CHIP	100K	5%	1/16W	S701	1-771-053-21	SWITCH, KEY BOARD (STOP)			
R607	1-216-837-11	METAL CHIP	22K	5%	1/16W	S702	1-771-053-21	SWITCH, KEY BOARD (PLAY)			
R608	1-216-855-11	METAL CHIP	680K	5%	1/16W	S703	1-771-053-21	SWITCH, KEY BOARD (FF)			
R609	1-216-863-11	METAL GLAZE	3.3M	5%	1/16W	S704	1-771-053-21	SWITCH, KEY BOARD (REW)			
R610	1-202-931-11	METAL GLAZE	910K	5%	1/16W	S705	1-762-835-11	SWITCH, PUSH (1 KEY) (HOLDER)			
R611	1-216-857-11	METAL CHIP	1M	5%	1/16W						
R701	1-216-849-11	METAL CHIP	220K	5%	1/16W	S706	1-762-516-11	SWITCH, PUSH (1 KEY) (A/B)			
R702	1-216-841-11	METAL CHIP	47K	5%	1/16W	S707	1-572-581-11	SWITCH, SLIDE (FWD/REV)			
R703	1-218-879-11	METAL GLAZE	22K	0.50%	1/16W			< VIBRATOR >			
R704	1-216-849-11	METAL CHIP	220K	5%	1/16W						
R705	1-218-863-11	METAL GLAZE	4.7K	0.50%	1/16W	X701	1-767-289-11	VIBRATOR, CERAMIC (4MHz)			
R706	1-218-881-11	METAL GLAZE	27K	0.50%	1/16W	*****					
R707	1-218-887-11	METAL GLAZE	47K	0.50%	1/16W	*	1-663-535-11	DOLBY SWITCH BOARD			
R708	1-216-849-11	METAL CHIP	220K	5%	1/16W			*****			
R709	1-216-837-11	METAL CHIP	22K	5%	1/16W			< SWITCH >			
R710	1-218-981-11	METAL GLAZE	220K	5%	1/16W						
R711	1-218-981-11	METAL GLAZE	220K	5%	1/16W	S708	1-572-922-11	SWITCH, SLIDE (DOLBY NR)			
R712	1-218-949-11	METAL GLAZE	470	5%	1/16W	*****					
R713	1-218-981-11	METAL GLAZE	220K	5%	1/16W						
R714	1-216-833-11	METAL CHIP	10K	5%	1/16W	*	1-663-536-11	MODE SWITCH BOARD			
R715	1-216-849-11	METAL CHIP	220K	5%	1/16W			*****			
R716	1-218-879-11	METAL GLAZE	22K	0.50%	1/16W			< SWITCH >			
R717	1-218-836-11	METAL GLAZE	360	0.50%	1/16W						
R718	1-218-845-11	METAL GLAZE	820	0.50%	1/16W	S709	1-572-922-11	SWITCH, SLIDE (MODE, BL SKIP)			
R719	1-218-847-11	METAL GLAZE	1K	0.50%	1/16W						
R720	1-218-849-11	METAL GLAZE	1.2K	0.50%	1/16W						
R721	1-218-608-11	METAL CHIP	3.3	5%	1W						
R722	1-216-849-11	METAL CHIP	220K	5%	1/16W						
R723	1-216-817-11	METAL CHIP	470	5%	1/16W						
R724	1-216-848-11	METAL CHIP	180K	5%	1/16W						
R725	1-216-817-11	METAL CHIP	470	5%	1/16W						
R726	1-216-848-11	METAL CHIP	180K	5%	1/16W						
R729	1-216-849-11	METAL CHIP	220K	5%	1/16W						
R731	1-218-973-11	METAL GLAZE	47K	5%	1/16W						
R732	1-218-973-11	METAL GLAZE	47K	5%	1/16W						
R734	1-216-833-11	METAL CHIP	10K	5%	1/16W						
R735	1-216-843-11	METAL CHIP	68K	5%	1/16W						
R736	1-218-981-11	METAL GLAZE	220K	5%	1/16W						

3. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location
D701	B-19
D702	B-4
D901	B-19
D902	B-18
IC301	C-18
IC601	E-12
IC701	D-12
IC702	D-6
IC703	C-7
IC704	C-14
IC801	D-16
Q301	E-18
Q302	B-2
Q303	H-2
Q304	C-17
Q305	B-4
Q306	G-2
Q307	G-2
Q601	D-8
Q602	F-15
Q603	F-13
Q604	E-8
Q701	B-4
Q702	B-4
Q703	F-15
Q704	A-3
Q705	D-15
Q706	F-15
Q708	D-16



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