

SONY®

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

CORRECTION - 1

Correct your Service Manual as shown below.

● : Indicates corrected portion

Page

10

INCORRECT

CORRECT

14

INCORRECT

CORRECT

(SPM-99018)

Sony Corporation

Mobile Electronics Company

99G0277-1

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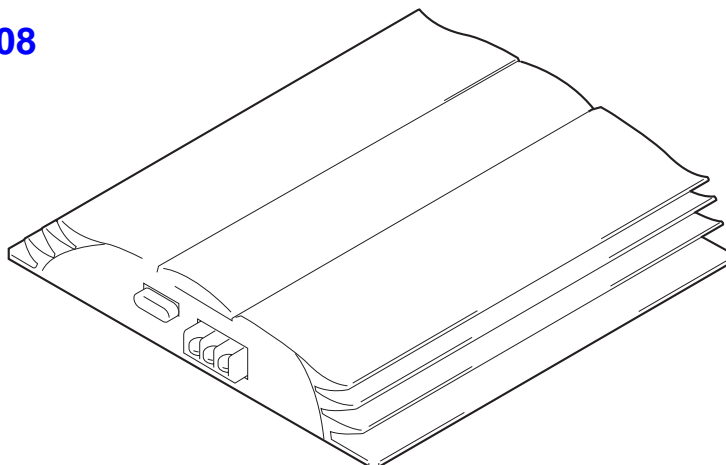
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XM-1002HX

SERVICE MANUAL

Ver 1.1 2001. 08

US Model
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SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

100/50 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.04% total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

Circuit system	OTL (output transformerless) circuit
	Pulse power supply
Inputs	RCA pin jacks
	High level input connector
Outputs	Speaker terminals
	Through out pin jacks
Speaker impedance	1* – 8 Ω (stereo)
	2* – 8 Ω (when used as a bridging amplifier)
Maximum outputs (HI-CURRENT/HI-VOLTAGE)	120/230 W x 2 (at 4 Ω)
	380/580 W (monaural) at 4 Ω
Rated outputs (HI-CURRENT/HI-VOLTAGE) (supply voltage at 14.4 V)	50/100 W x 2 (20 Hz – 20 kHz, 0.04% THD, at 4 Ω)
	70/140 W x 2 (20 Hz – 20 kHz, 0.1% THD, at 2 Ω)
	140/280 W (monaural) (20 Hz – 20 kHz, 0.1% THD, at 4 Ω)
Frequency response	5 Hz – 50 kHz ($^{+0.5}_{-3}$ dB)
Harmonic distortion	0.005% or less (at 1kHz, 4 Ω)
Input level adjustment range	0.2 – 4.0 V (RCA pin jacks)
	0.4 – 8.0 V (High level input)

High-pass filter	50 – 200 Hz, –12 dB/oct
Low-pass filter	50 – 200 Hz, –12 dB/oct
Low boost	0 – 10 dB (40 Hz)
Power requirements	12 V DC car battery (negative ground)
Power supply voltage	10.5 – 16 V
Current drain	at rated output : 26 A (4 HI-VOL TAGE mode)
	Remote input : 2 mA
Dimensions	Approx. 258 x 50 x 320 mm (10 $\frac{1}{4}$ x 2 x 12 $\frac{5}{8}$ in.) (1/h/p) not incl. projecting parts and controls
Mass	Approx. 3.3 kg (7 lb, 4 oz.) not incl. accessories
Supplied accessories	Mounting screws (4), Terminal cap (1)

Design and specifications are subject to change without notice.

* HI-CURRENT only

STEREO POWER AMPLIFIER

9-925-785-12
2001H0400-1
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Sony Corporation
e Vehicle Company
Shinagawa Tec Service Manual Production Group

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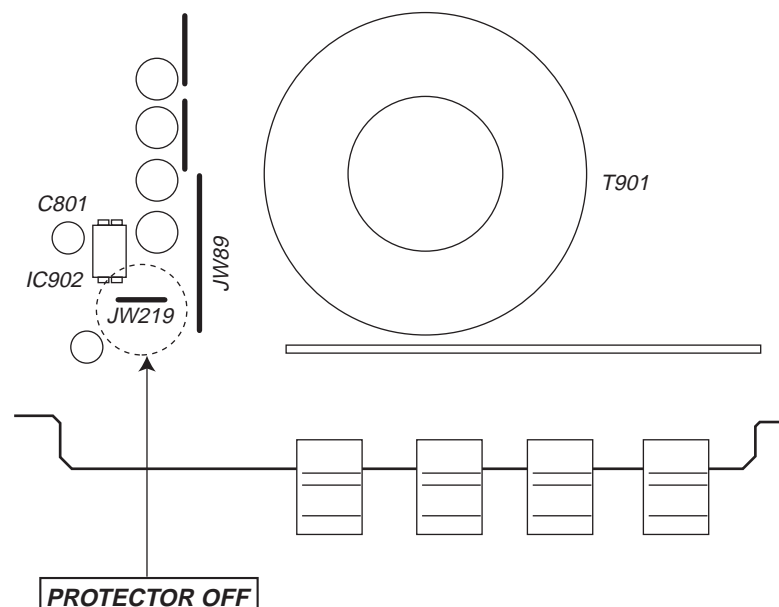
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SECTION 1 SERVICING NOTE

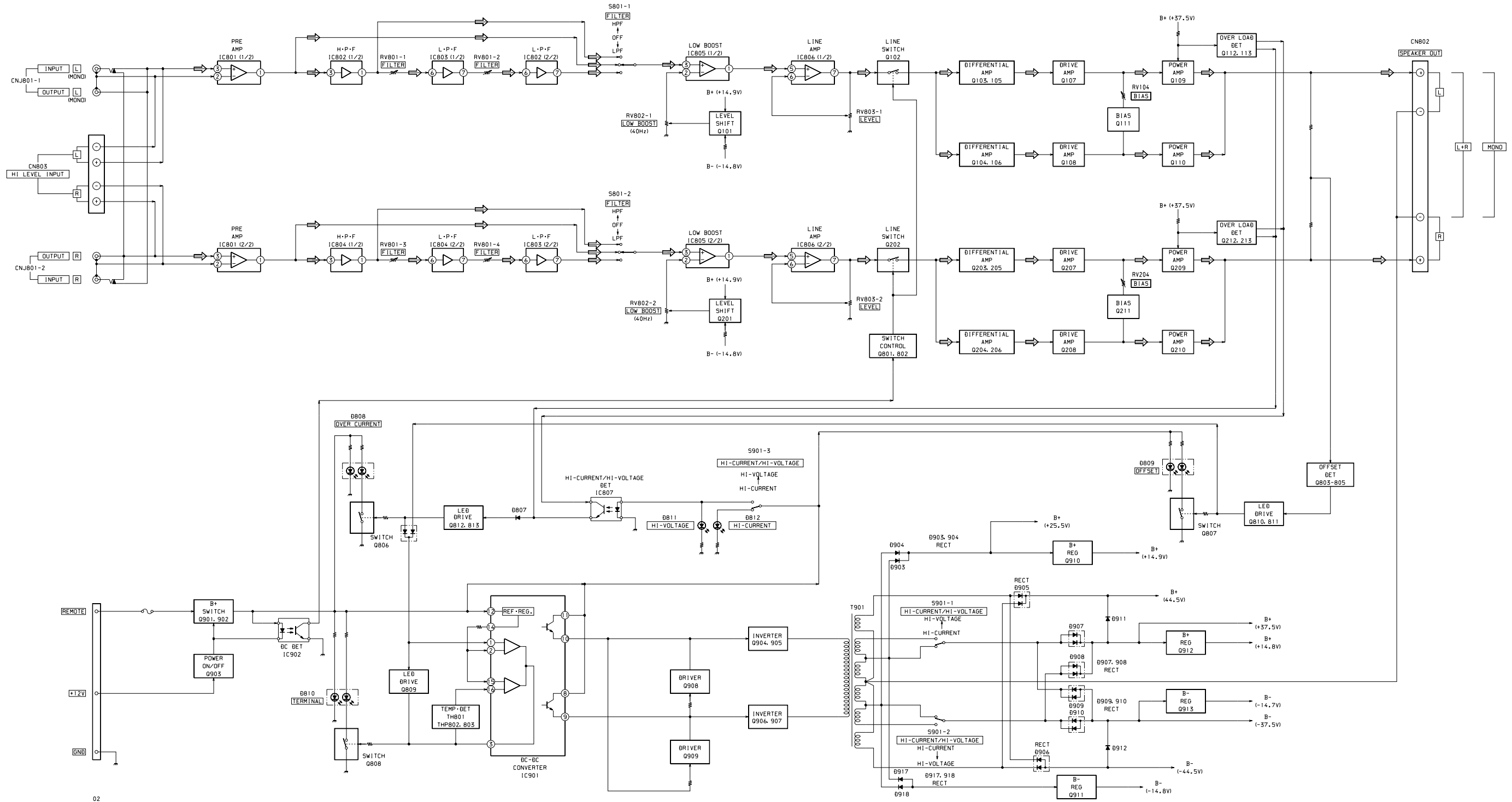
CANCELLING THE PROTECTOR DURING SERVICING

Cut JW219 on the amplifier board to cancel the protector.
After servicing always be sure to return JW219 to its original state.



SECTION 5 DIAGRAMS

5-1. BLOCK DIAGRAM

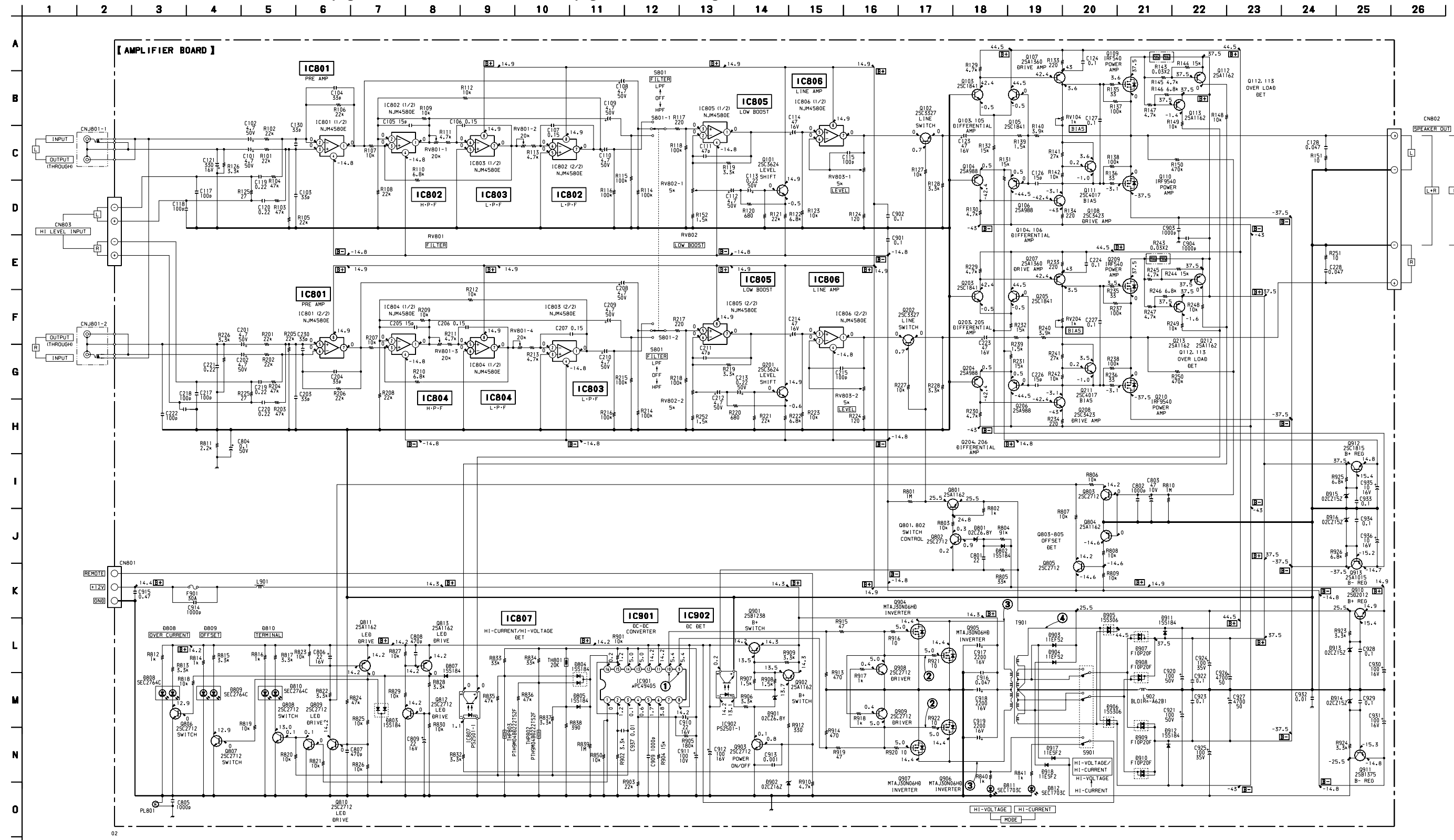


• Signal path.
➡

5-3. SCHEMATIC DIAGRAM

- Refer to page 9 for Waveforms.

- Refer to page 9 for IC Block Diagrams.



SECTION 7 ELECTRICAL PARTS LIST

AMPLIFIER

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, -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
- Abbreviation
G : German

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

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
*	A-3313-748-A	AMPLIFIER BOARD, COMPLETE *****					C214	1-126-008-51	ELECT	47uF	20%	16V	
		< CAPACITOR >					C215	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
							C217	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
							C218	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C101	1-126-047-11	ELECT	4.7uF	20%	50V		C219	1-164-222-11	CERAMIC CHIP	0.22uF		25V	
C102	1-126-047-11	ELECT	4.7uF	20%	50V		C220	1-164-222-11	CERAMIC CHIP	0.22uF		25V	
C103	1-163-239-11	CERAMIC CHIP	33PF	5%	50V								
C104	1-163-239-11	CERAMIC CHIP	33PF	5%	50V		C221	1-164-222-11	CERAMIC CHIP	0.22uF		25V	
C105	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		C222	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
							C223	1-126-008-11	ELECT	47uF	20%	16V	
C106	1-136-167-00	FILM	0.15uF	5%	50V		C224	1-104-999-11	MYLAR	0.1uF	10%	200V	
C107	1-136-167-00	FILM	0.15uF	5%	50V		C226	1-102-951-00	CERAMIC	15PF	5%	50V	
C108	1-126-047-11	ELECT	4.7uF	20%	50V								
C109	1-126-047-11	ELECT	4.7uF	20%	50V		C227	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C110	1-126-047-11	ELECT	4.7uF	20%	50V		C228	1-106-383-00	MYLAR	0.047uF	5%	200V	
							C230	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C111	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		C801	1-124-282-00	ELECT	22uF	20%	16V	
C112	1-126-047-11	ELECT	4.7uF	20%	50V		C802	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C113	1-126-957-11	ELECT	0.22uF	20%	50V								
C114	1-126-008-11	ELECT	47uF	20%	16V		C803	1-126-967-11	ELECT	47uF	20%	10V	
C115	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C804	1-126-956-11	ELECT	0.1uF	20%	50V	
							C805	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C117	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C806	1-128-551-11	ELECT	22uF	20%	25V	
C118	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C807	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C119	1-164-222-11	CERAMIC CHIP	0.22uF		25V								
C120	1-164-222-11	CERAMIC CHIP	0.22uF		25V		C808	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C121	1-104-661-11	ELECT	330uF	20%	16V		C809	1-128-551-11	ELECT	22uF	20%	25V	
							C901	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C123	1-126-008-11	ELECT	47uF	20%	16V		C902	1-165-319-11	CERAMIC CHIP	0.1uF		50V	
C124	1-104-999-11	MYLAR	0.1uF	10%	200V		C903	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C126	1-102-951-00	CERAMIC	15PF	5%	50V								
C127	1-165-319-11	CERAMIC CHIP	0.1uF		50V		C904	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C128	1-106-383-00	MYLAR	0.047uF	5%	200V		C909	1-106-343-00	MYLAR	1000PF	5%	200V	
							C910	1-128-551-11	ELECT	22uF	20%	25V	
C130	1-163-239-11	CERAMIC CHIP	33PF	5%	50V		C911	1-126-933-11	ELECT	100uF	20%	10V	
C201	1-126-047-11	ELECT	4.7uF	20%	50V		C912	1-126-933-11	ELECT	100uF	20%	16V	
C202	1-126-047-11	ELECT	4.7uF	20%	50V								
C203	1-163-239-11	CERAMIC CHIP	33PF	5%	50V		C913	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C204	1-163-239-11	CERAMIC CHIP	33PF	5%	50V		C914	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
							C915	1-136-173-00	FILM	0.47uF	5%	50V	
C205	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		C916	1-106-383-00	MYLAR	0.047uF	5%	200V	
C206	1-136-167-00	FILM	0.15uF	5%	50V		C917	1-111-044-11	ELECT	2200uF	20%	16V	
C207	1-136-167-00	FILM	0.15uF	5%	50V								
C208	1-126-047-11	ELECT	4.7uF	20%	50V		C918	1-111-044-11	ELECT	2200uF	20%	16V	
C209	1-126-047-11	ELECT	4.7uF	20%	50V		C919	1-111-044-11	ELECT	2200uF	20%	16V	
							C920	1-126-052-11	ELECT	100uF	20%	50V	
C210	1-126-047-11	ELECT	4.7uF	20%	50V		C921	1-126-052-11	ELECT	100uF	20%	50V	
C211	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		C922	1-104-999-11	MYLAR	0.1uF	10%	200V	
C212	1-126-047-11	ELECT	4.7uF	20%	50V								
C213	1-126-957-11	ELECT	0.22uF	20%	50V		C923	1-104-999-11	MYLAR	0.1uF	10%	200V	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C924	1-126-052-11	ELECT	100uF 20% 35V	IC802	8-759-711-82	IC NJM4580E	
C925	1-126-052-11	ELECT	100uF 20% 35V	IC803	8-759-711-82	IC NJM4580E	
C926	1-119-761-11	ELECT	4700uF 20% 50V	IC804	8-759-711-82	IC NJM4580E	
C927	1-119-761-11	ELECT	4700uF 20% 50V	IC805	8-759-711-82	IC NJM4580E	
C928	1-165-319-11	CERAMIC CHIP	0.1uF 50V	IC806	8-759-711-82	IC NJM4580E	
C929	1-165-319-11	CERAMIC CHIP	0.1uF 50V	IC807	8-719-156-72	PHOTO COUPLER PS2501-1KA	
C930	1-126-009-11	ELECT	100uF 20% 16V	IC901	8-759-144-88	IC UPC494GS	
C931	1-126-009-11	ELECT	100uF 20% 16V	IC902	8-719-156-72	PHOTO COUPLER PS2501-1KA	
C932	1-164-232-11	CERAMIC CHIP	0.01uF 50V	< JUMPER RESISTOR >			
C933	1-165-319-11	CERAMIC CHIP	0.1uF 50V	JR1	1-216-296-00	CONDUCTOR, CHIP	
C934	1-165-319-11	CERAMIC CHIP	0.1uF 50V	JR2	1-216-295-00	CONDUCTOR, CHIP	
C935	1-126-157-11	ELECT	10uF 20% 16V	JR3	1-216-295-00	CONDUCTOR, CHIP	
C936	1-126-157-11	ELECT	10uF 20% 16V	< COIL >			
C937	1-164-232-11	CERAMIC CHIP	0.01uF 50V	L901	1-419-851-11	INDUCTOR 50uH	
< CONNECTOR >				L902	1-410-396-71	INDUCTOR 0.45uH	
CN801	1-537-477-21	TERMINAL BOARD (3P) (REMOTE, +12V, GND)		< PILOT LAMP >			
CN802	1-537-478-21	TERMINAL BOARD (4P) (SPEAKER OUT)		PL801	1-518-540-00	LAMP, PILOT	
CN803	1-784-904-11	CONNECTOR 4P (HI LEVEL INPUT)		< TRANSISTOR >			
CN804	1-537-479-11	TERMINAL		Q101	8-729-422-29	TRANSISTOR 2SD601A-S	
CN805	1-537-479-11	TERMINAL		Q102	8-729-203-48	TRANSISTOR 2SC3327-A	
< JACK >				Q103	8-729-184-53	TRANSISTOR 2SC1845-EA	
CNJ801	1-779-078-51	JACK, PIN 4P (OUTPUT THROUGH, INPUT)		Q104	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
< DIODE >				Q105	8-729-184-53	TRANSISTOR 2SC1845-EA	
D801	8-719-025-34	DIODE 02CZ6.8-TE85L		Q106	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
D802	8-719-801-78	DIODE 1SS184		Q107	8-729-209-18	TRANSISTOR 2SA1360-Y	
D803	8-719-801-78	DIODE 1SS184		Q108	8-729-203-45	TRANSISTOR 2SC3423-O	
D804	8-719-801-78	DIODE 1SS184		Q109	8-729-038-52	TRANSISTOR IRF540(H)	
D805	8-719-801-78	DIODE 1SS184		Q110	8-729-038-01	TRANSISTOR IRF9540(H)	
D807	8-719-801-78	DIODE 1SS184		Q111	8-729-954-51	TRANSISTOR 2SC1545	
D808	8-719-070-01	LED SEC2764C (OVER CURRENT)		Q112	8-729-216-21	TRANSISTOR 2SA1162-Y	
D809	8-719-070-01	LED SEC2764C (OFFSET)		Q113	8-729-216-21	TRANSISTOR 2SA1162-Y	
D810	8-719-070-01	LED SEC2764C (TERMINAL)		Q201	8-729-422-29	TRANSISTOR 2SD601A-S	
D811	8-719-070-01	LED SEC2764C (MODE HI-VOLTAGE)		Q202	8-729-203-48	TRANSISTOR 2SC3327-A	
D812	8-719-070-01	LED SEC2764C (MODE HI-CURRENT)		Q203	8-729-184-53	TRANSISTOR 2SC1845-EA	
D901	8-719-025-34	DIODE 02CZ6.8-TE85L		Q204	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
D902	8-719-025-50	DIODE 02CZ16-TE85L		Q205	8-729-184-53	TRANSISTOR 2SC1845-EA	
D903	8-719-987-67	DIODE 11EFS2		Q206	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
D904	8-719-987-67	DIODE 11EFS2		Q207	8-729-209-18	TRANSISTOR 2SA1360-Y	
D905	8-719-054-55	DIODE 1SS306(TE85L)		Q208	8-729-203-45	TRANSISTOR 2SC3423-O	
D906	8-719-054-55	DIODE 1SS306(TE85L)		Q209	8-729-038-52	TRANSISTOR IRF540(H)	
D907	8-719-210-30	DIODE F10P20F(R)		Q210	8-729-038-01	TRANSISTOR IRF9540(H)	
D908	8-719-210-30	DIODE F10P20F(R)		Q211	8-729-954-51	TRANSISTOR 2SC1545	
D909	8-719-210-30	DIODE F10P20F(R)		Q212	8-729-216-21	TRANSISTOR 2SA1162-Y	
D910	8-719-210-30	DIODE F10P20F(R)		Q213	8-729-216-21	TRANSISTOR 2SA1162-Y	
D911	8-719-801-78	DIODE 1SS184		Q801	8-729-216-21	TRANSISTOR 2SA1162-Y	
D912	8-719-801-78	DIODE 1SS184		Q802	8-729-230-49	TRANSISTOR 2SC2712-YG	
D913	8-719-025-49	DIODE 02CZ15-TE85L		Q803	8-729-230-49	TRANSISTOR 2SC2712-YG	
D914	8-719-025-49	DIODE 02CZ15-TE85L		Q804	8-729-216-21	TRANSISTOR 2SA1162-Y	
D915	8-719-025-49	DIODE 02CZ15-TE85L		Q805	8-729-230-49	TRANSISTOR 2SC2712-YG	
D916	8-719-025-49	DIODE 02CZ15-TE85L		Q806	8-729-230-49	TRANSISTOR 2SC2712-YG	
D917	8-719-987-67	DIODE 11EFS2		Q807	8-729-230-49	TRANSISTOR 2SC2712-YG	
D918	8-719-987-67	DIODE 11EFS2		Q808	8-729-230-49	TRANSISTOR 2SC2712-YG	
< IC >				Q809	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC801	8-759-711-82	IC NJM4580E					

AMPLIFIER

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description				Remark
Q810	8-729-230-49	TRANSISTOR	2SC2712-YG				R139	1-249-419-11	CARBON	1.5K	5%	1/4W	
Q811	8-729-216-21	TRANSISTOR	2SA1162-Y				R140	1-249-424-11	CARBON	3.9K	5%	1/4W	
Q812	8-729-230-49	TRANSISTOR	2SC2712-YG				R141	1-216-685-11	METAL CHIP	27K	0.5%	1/10W	
Q813	8-729-216-21	TRANSISTOR	2SA1162-Y				R142	1-208-462-11	RES,CHIP	10K	2%	1/10W	
Q901	8-729-041-38	TRANSISTOR	2SB1241TV2Q				R143	1-240-179-11	METAL PLATE	0.03X2	5W		
Q902	8-729-216-21	TRANSISTOR	2SA1162-Y				R144	1-208-810-11	RES,CHIP	15K	2%	1/10W	
Q903	8-729-230-49	TRANSISTOR	2SC2712-YG				R145	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
Q904	8-729-030-73	TRANSISTOR	MTAJ30N06HD				R146	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W	
Q905	8-729-030-73	TRANSISTOR	MTAJ30N06HD				R147	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
Q906	8-729-030-73	TRANSISTOR	MTAJ30N06HD				R148	1-208-510-11	RES,CHIP	10K	2%	1/8W	
Q907	8-729-030-73	TRANSISTOR	MTAJ30N06HD				R149	1-208-510-11	RES,CHIP	10K	2%	1/8W	
Q908	8-729-230-49	TRANSISTOR	2SC2712-YG				R150	1-208-550-11	RES,CHIP	470K	2%	1/10W	
Q909	8-729-230-49	TRANSISTOR	2SC2712-YG				R151	1-215-857-11	METAL OXIDE	10	5%	1W	
Q910	8-729-209-15	TRANSISTOR	2SD2012				R152	1-216-202-00	RES,CHIP	1.5K	2%	1/8W	
Q911	8-729-141-83	TRANSISTOR	2SB1094-LK				R201	1-208-518-11	RES,CHIP	22K	2%	1/10W	
Q912	8-729-119-78	TRANSISTOR	2SC403SP-51				R202	1-208-518-11	RES,CHIP	22K	2%	1/10W	
Q913	8-729-173-38	TRANSISTOR	2SA733-K				R203	1-208-526-11	RES,CHIP	47K	2%	1/10W	
< RESISTOR >							R204	1-208-526-11	RES,CHIP	47K	2%	1/10W	
R101	1-208-518-11	RES,CHIP	22K	2%	1/10W		R205	1-208-518-11	RES,CHIP	22K	2%	1/10W	
R102	1-208-518-11	RES,CHIP	22K	2%	1/10W		R206	1-208-518-11	RES,CHIP	22K	2%	1/10W	
R103	1-208-526-11	RES,CHIP	47K	2%	1/10W		R207	1-208-462-11	RES,CHIP	10K	2%	1/10W	
R104	1-208-526-11	RES,CHIP	47K	2%	1/10W		R208	1-208-518-11	RES,CHIP	22K	2%	1/10W	
R105	1-208-518-11	RES,CHIP	22K	2%	1/10W		R209	1-208-462-11	RES,CHIP	10K	2%	1/10W	
R106	1-208-518-11	RES,CHIP	22K	2%	1/10W		R210	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W	
R107	1-208-462-11	RES,CHIP	10K	2%	1/10W		R211	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
R108	1-208-518-11	RES,CHIP	22K	2%	1/10W		R212	1-208-462-11	RES,CHIP	10K	2%	1/10W	
R109	1-208-462-11	RES,CHIP	10K	2%	1/10W		R213	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
R110	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W		R214	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R111	1-208-453-11	RES,CHIP	4.7K	2%	1/10W		R215	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R112	1-208-462-11	RES,CHIP	10K	2%	1/10W		R216	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R113	1-208-453-11	RES,CHIP	4.7K	2%	1/10W		R217	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R114	1-208-534-11	RES,CHIP	100K	2%	1/10W		R218	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R115	1-208-534-11	RES,CHIP	100K	2%	1/10W		R219	1-208-449-11	RES,CHIP	3.3K	2%	1/10W	
R116	1-208-534-11	RES,CHIP	100K	2%	1/10W		R220	1-216-647-11	METAL CHIP	680	0.5%	1/10W	
R117	1-216-635-11	METAL CHIP	220	0.5%	1/10W		R221	1-208-518-11	RES,CHIP	22K	2%	1/10W	
R118	1-208-534-11	RES,CHIP	100K	2%	1/10W		R222	1-208-506-11	RES,CHIP	6.8K	2%	1/8W	
R119	1-208-449-11	RES,CHIP	3.3K	2%	1/10W		R223	1-208-462-11	RES,CHIP	10K	2%	1/10W	
R120	1-216-647-11	METAL CHIP	680	0.5%	1/10W		R224	1-208-760-11	RES,CHIP	120	2%	1/10W	
R121	1-208-518-11	RES,CHIP	22K	2%	1/10W		R225	1-216-471-11	METAL OXIDE	27	5%	3W	F
R122	1-208-506-11	RES,CHIP	6.8K	2%	1/8W		R226	1-208-437-11	RES,CHIP	1K	2%	1/10W	
R123	1-208-462-11	RES,CHIP	10K	2%	1/10W		R227	1-208-510-11	RES,CHIP	10K	2%	1/8W	
R124	1-208-760-11	RES,CHIP	120	2%	1/10W		R228	1-208-449-11	RES,CHIP	3.3K	2%	1/10W	
R125	1-216-471-11	METAL OXIDE	27	5%	3W	F	R229	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
R126	1-216-210-00	RES,CHIP	3.3K	2%	1/8W		R230	1-208-453-11	RES,CHIP	4.7K	2%	1/10W	
R127	1-208-510-11	RES,CHIP	10K	2%	1/8W		R231	1-208-810-11	RES,CHIP	15K	2%	1/10W	
R128	1-208-449-11	RES,CHIP	3.3K	2%	1/10W		R232	1-208-810-11	RES,CHIP	15K	2%	1/10W	
R129	1-208-453-11	RES,CHIP	4.7K	2%	1/10W		R233	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R130	1-208-453-11	RES,CHIP	4.7K	2%	1/10W		R234	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R131	1-208-810-11	RES,CHIP	15K	2%	1/10W		R235	1-208-401-11	RES,CHIP	33	2%	1/8W	
R132	1-208-810-11	RES,CHIP	15K	2%	1/10W		R236	1-208-401-11	RES,CHIP	33	2%	1/8W	
R133	1-216-635-11	METAL CHIP	220	0.5%	1/10W		R237	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R134	1-216-635-11	METAL CHIP	220	0.5%	1/10W		R238	1-208-534-11	RES,CHIP	100K	2%	1/10W	
R135	1-208-401-11	RES,CHIP	33	2%	1/8W		R239	1-249-419-11	CARBON	1.5K	5%	1/4W	
R136	1-208-401-11	RES,CHIP	33	2%	1/8W		R240	1-249-424-11	CARBON	3.9K	5%	1/4W	
R137	1-208-534-11	RES,CHIP	100K	2%	1/10W		R241	1-216-685-11	METAL CHIP	27K	0.5%	1/10W	
R138	1-208-534-11	RES,CHIP	100K	2%	1/10W		R242	1-208-462-11	RES,CHIP	10K	2%	1/10W	
							R243	1-240-179-11	METAL PLATE	0.03X2	5W		

AMPLIFIER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R244	1-208-810-11	RES,CHIP	15K 2% 1/10W	R908	1-216-202-00	RES,CHIP	1.5K 2% 1/8W
R245	1-208-453-11	RES,CHIP	4.7K 2% 1/10W	R909	1-208-449-11	RES,CHIP	3.3K 2% 1/10W
R246	1-216-671-11	METAL CHIP	6.8K 0.5% 1/10W	R910	1-208-453-11	RES,CHIP	4.7K 2% 1/10W
R247	1-208-453-11	RES,CHIP	4.7K 2% 1/10W	R911	1-249-429-11	CARBON	10K 5% 1/4W
R248	1-208-510-11	RES,CHIP	10K 2% 1/8W	R912	1-208-474-11	RES,CHIP	330 2% 1/8W
R249	1-208-510-11	RES,CHIP	10K 2% 1/8W	R913	1-208-478-11	RES,CHIP	470 2% 1/8W
R250	1-208-550-11	RES,CHIP	470K 2% 1/10W	R914	1-208-478-11	RES,CHIP	470 2% 1/8W
R251	1-215-857-11	METAL OXIDE	10 5% 1W	R915	1-208-405-11	RES,CHIP	47 2% 1/8W
R252	1-216-202-00	RES,CHIP	1.5K 2% 1/8W	R916	1-216-150-00	RES,CHIP	10 2% 1/8W
R801	1-208-558-11	RES,CHIP	1M 2% 1/10W	R917	1-208-437-11	RES,CHIP	1K 2% 1/10W
R802	1-208-437-11	RES,CHIP	1K 2% 1/10W	R918	1-208-437-11	RES,CHIP	1K 2% 1/10W
R803	1-208-510-11	RES,CHIP	10K 2% 1/8W	R919	1-208-405-11	RES,CHIP	47 2% 1/8W
R804	1-216-698-11	METAL CHIP	91K 0.5% 1/10W	R920	1-216-150-00	RES,CHIP	10 2% 1/8W
R805	1-208-522-11	RES,CHIP	33K 2% 1/10W	R921	1-216-150-00	RES,CHIP	10 2% 1/8W
R806	1-208-462-11	RES,CHIP	10K 2% 1/10W	R922	1-216-150-00	RES,CHIP	10 2% 1/8W
R807	1-208-462-11	RES,CHIP	10K 2% 1/10W	R923	1-208-449-11	RES,CHIP	3.3K 2% 1/10W
R808	1-208-462-11	RES,CHIP	10K 2% 1/10W	R924	1-208-449-11	RES,CHIP	3.3K 2% 1/10W
R809	1-208-462-11	RES,CHIP	10K 2% 1/10W	R925	1-208-506-11	RES,CHIP	6.8K 2% 1/8W
R810	1-208-558-11	RES,CHIP	1M 2% 1/10W	R926	1-208-506-11	RES,CHIP	6.8K 2% 1/8W
R811	1-208-494-11	RES,CHIP	2.2K 2% 1/8W			< VARIABLE RESISTOR >	
R812	1-208-486-11	RES,CHIP	1K 2% 1/8W	RV104	1-241-761-11	RES, ADJ, CARBON 1K (BIAS)	
R813	1-216-210-00	RES,CHIP	3.3K 2% 1/8W	RV204	1-241-761-11	RES, ADJ, CARBON 1K (BIAS)	
R814	1-208-486-11	RES,CHIP	1K 2% 1/8W	RV801	1-225-647-11	RES, VAR 20K/20K/20K/20K (FILTER)	
R815	1-216-210-00	RES,CHIP	3.3K 2% 1/8W	RV802	1-225-648-11	RES, VAR 5K/5K (LOW BOOST)	
R816	1-208-486-11	RES,CHIP	1K 2% 1/8W	RV803	1-225-648-11	RES, VAR 5K/5K (LEVEL)	
R817	1-216-210-00	RES,CHIP	3.3K 2% 1/8W			< SWITCH >	
R818	1-208-462-11	RES,CHIP	10K 2% 1/10W	S801	1-572-185-11	SWITCH, SLIDE (FILTER)	
R819	1-208-462-11	RES,CHIP	10K 2% 1/10W	S901	1-771-387-11	SWITCH, TOGGLE (HI-CURRENT/HI-VOLTAGE)	
R820	1-208-462-11	RES,CHIP	10K 2% 1/10W			< TRANSFORMER >	
R821	1-208-462-11	RES,CHIP	10K 2% 1/10W	T901	1-431-882-11	TRANSFORMER, DC-DC CONVERTER	
R822	1-216-210-00	RES,CHIP	3.3K 2% 1/8W			< TRANSFORMER >	
R823	1-208-462-11	RES,CHIP	10K 2% 1/10W	TH801	1-808-877-11	THERMISTOR	
R824	1-216-238-00	RES,CHIP	47K 2% 1/8W	THP802	1-809-664-51	THERMISTOR, POSITIVE	
R825	1-208-462-11	RES,CHIP	10K 2% 1/10W	THP803	1-809-664-51	THERMISTOR, POSITIVE	
R826	1-208-462-11	RES,CHIP	10K 2% 1/10W			*****	
R827	1-208-462-11	RES,CHIP	10K 2% 1/10W			MISCELLANEOUS	
R828	1-208-449-11	RES,CHIP	3.3K 2% 1/10W			*****	
R829	1-208-510-11	RES,CHIP	10K 2% 1/8W	CN804	1-537-479-11	TERMINAL	
R830	1-208-462-11	RES,CHIP	10K 2% 1/10W	CN805	1-537-479-11	TERMINAL	
R832	1-216-210-00	RES,CHIP	3.3K 2% 1/8W	D907	8-719-210-30	DIODE F10P20F(R)	
R833	1-208-522-11	RES,CHIP	33K 2% 1/10W	D908	8-719-210-30	DIODE F10P20F(R)	
R834	1-208-522-11	RES,CHIP	33K 2% 1/10W	D909	8-719-210-30	DIODE F10P20F(R)	
R835	1-208-526-11	RES,CHIP	47K 2% 1/10W	D910	8-719-210-30	DIODE F10P20F(R)	
R836	1-208-526-11	RES,CHIP	47K 2% 1/10W	F901	1-532-947-11	FUSE (BLADE TYPE) (AUTO FUSE) (30A)	
R837	1-208-449-11	RES,CHIP	3.3K 2% 1/10W	Q109	8-729-038-52	TRANSISTOR IRF540(H)	
R838	1-208-772-11	RES,CHIP	390 2% 1/10W	Q110	8-729-038-01	TRANSISTOR IRF9540(H)	
R839	1-208-558-11	RES,CHIP	1M 2% 1/10W	Q209	8-729-038-52	TRANSISTOR IRF540(H)	
R840	1-208-486-11	RES,CHIP	1K 2% 1/8W	Q210	8-729-038-01	TRANSISTOR IRF9540(H)	
R841	1-208-486-11	RES,CHIP	1K 2% 1/8W	Q904	8-729-030-73	TRANSISTOR MTAJ30N06HD	
R850	1-208-462-11	RES,CHIP	10K 2% 1/10W	Q905	8-729-030-73	TRANSISTOR MTAJ30N06HD	
R901	1-208-462-11	RES,CHIP	10K 2% 1/10W	Q906	8-729-030-73	TRANSISTOR MTAJ30N06HD	
R902	1-208-449-11	RES,CHIP	3.3K 2% 1/10W	Q907	8-729-030-73	TRANSISTOR MTAJ30N06HD	
R903	1-208-518-11	RES,CHIP	22K 2% 1/10W				
R904	1-208-810-11	RES,CHIP	15K 2% 1/10W				
R905	1-216-103-00	METAL CHIP	180K 5% 1/10W				
R906	1-216-210-00	RES,CHIP	3.3K 2% 1/8W				
R907	1-216-202-00	RES,CHIP	1.5K 2% 1/8W				

XM-1002HX

Ver 1.1

Ref. No.	Part No.	Description	Remark
THP802	1-809-664-51	THERMISTOR, POSITIVE	
THP803	1-809-664-51	THERMISTOR, POSITIVE	

ACCESSORIES & PACKING MATERIALS			

	3-013-264-01	COVER, 3P TERMINAL TABLE	
	3-367-410-01	SCREW (DIA. 5X15), TAPPING	
	3-701-639-00	BAG, POLYETHYLENE	
	3-862-334-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
		(AEP,UK,E)	
	3-862-334-21	MANUAL, INSTRUCTION (GERMAN, ITALIAN)	
		(AEP,UK,G,E)	
	3-862-334-31	MANUAL, INSTRUCTION (SPANISH,	
		PORTUGUESE) (AEP,UK,E)	
	3-862-334-41	MANUAL, INSTRUCTION (DUTCH, SWEDISH)	
		(AEP,UK,E)	
	3-862-334-51	MANUAL, INSTRUCTION (RUSSIAN,GREEK)	
		(AEP,UK,E)	
	3-862-334-61	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	
		(US,Canadian)	

HARDWARE LIST			

#1	7-685-544-14	SCREW +BTP 3X5 TYPE2 N-S	
#2	7-685-546-19	SCREW +BTP 3X8 TYPE2 N-S	
#3	7-685-646-79	SCREW +P 3X8 TYPE2 N-S	
#4	7-685-649-79	SCREW +P 3X14 TYPE2 N-S	
#5	7-685-144-11	SCREW +P 3X5 TYPE2 N-S	
#6	7-682-949-01	SCREW +PSW 3X10	
#7	7-685-660-79	SCREW +P 4X10 TYPE2 N-S	
#8	7-685-645-79	SCREW +P 3X6 TYPE2 N-S	
#9	3-912-431-11	SCREW M 4X8 (P)	