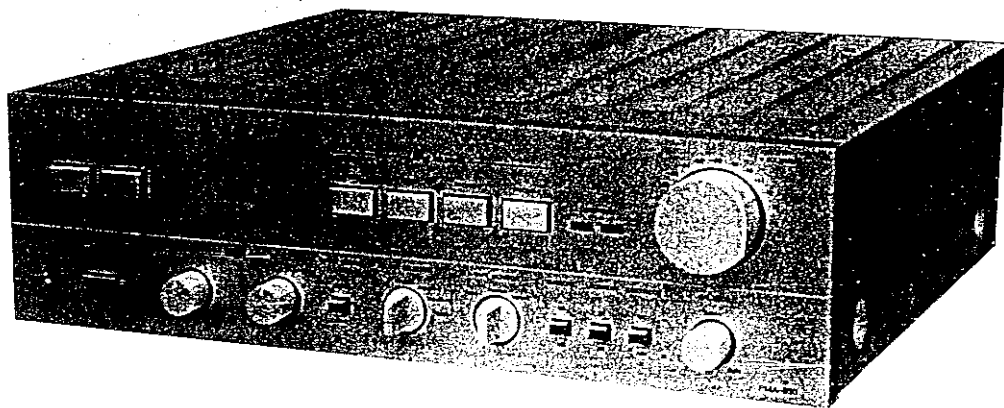


DENON

Hi-Fi Component Amplifier

SERVICE MANUAL MODEL PMA-550



SPECIFICATIONS	1
BLOCK DIAGRAM	1
METHOD OF ADJUSTMENTS	2
NOTES ON SERVICING REMOTE SWITCH	2
EXPLODED VIEW OF CHASSIS AND CABINET	3
PARTS LIST FOR EXPLODED VIEW	4
PRINTED CIRCUIT BOARD PATTERNS AND PARTS LIST	
EQ. CONTROL UNIT AUE-010	5,6
INPUT SWITCH, LED UNIT ETC-392B	7
POWER AMP UNIT PUX-028	8~10
POWER SUPPLY UNIT ETC-393B	11,12
WIRING DIAGRAM	13,14
CONNECTION DIAGRAM	15,16

NIPPON COLUMBIA CO., LTD.

SPECIFICATIONS

POWER AMPLIFIER SECTION (TUNER + SPOUT)

Rated Output: Both channels driven
 20 Hz ~ 20 kHz 100 W + 100 W (8 ohm load THD 0.005%)
 1 kHz 140 W + 140 W (4 ohm load) (MAX)
 1 kHz 100 W + 100 W (4 ohm load) (IEC)

Total Harmonic Distortion: Less than 0.005 %

Intermodulation Distortion: Less than 7 kHz/80 Hz; 1/4 0.008% (at amplitude output) equivalent to rated output)

Power Band Width: 5 Hz ~ 100 kHz (IHF, T.H.D. 0.035%)

Transmission Characteristics: 1 Hz ~ 400 kHz -10 dB (at 1 W output)

Input Sensitivity: 150 mV

Input Impedance: 40 k ohm

Output Impedance: 0.1 ohm (1 kHz)

SN Ratio (IHF Network): 108 dB (Input terminals short-circuited)

Output Terminals: Speaker A & B load 4 ~ 16 ohms, A + B load 8 ~ 16 ohms; headphones Stereo headphones

EQUALIZER AMPLIFIER SECTION

Equalizer Amplifier Output (REC OUT Terminal): Maximum output 10 V (at 50 k ohm load)
 Rated output 150 mV
 Total harmonic distortion: below 0.001% (at 1 kHz, 8 V output)

Input Sensitivity/Input Impedance:

PHONO-1 MM	2.5 mV	50 k ohm
PHONO-2 MC	125 μ V	100 ohm
TUNER	150 mV	40 k ohm
AUX, TAPE	150 mV	40 k ohm

RIAA Deviation:

PHONO-1 MM	Within ± 0.2 dB 120 Hz ~ 16 kHz
PHONO-2 MC	Within ± 0.2 dB 120 Hz ~ 16 kHz

OVERALL CHARACTERISTICS

SN Ratio (IHF Network): PHONO-1 MM 90 dB (Input terminals short-circuited at 2.5 mV input)
 PHONO-2 MC 73 dB (Input terminals short-circuited at 250 μ V input)

TUNER TAPE AUX 108 dB (Input terminals short-circuited)


Tone Control Adjustable Range:

BASS	100 Hz ± 6 dB
TREBLE	10 kHz ± 6 dB

Filtering Characteristics: EQUALIZER SUBSONIC 18 Hz, 6 dB/oct

Loudness Characteristics: Low Frequency 100 Hz + 7 dB
 High Frequency 10 kHz + 6 dB

AC OUTLET

(For U.S. and Canada): No  indicated in systems for European use

SWITCHES x 2: 100 W (Total)
 UNSWITCHED x 1: 250 W

POWER SOURCE:

Germany and France: AC 220 V, 50 Hz
 U.K.: AC 240 V, 50 Hz
 U.S.A.: AC 120 V, 60 Hz
 Hong Kong: AC 200 V, 50 Hz

POWER CONSUMPTION:

260 W (U.S.A.)
 430 VA (Canada)
 740 W (at maximum output) (IEC)

DIMENSIONS:

434 mm (W) x 132 mm (H) x 407 mm (D)
 (including rubber feet, control knobs and terminals)

WEIGHT:

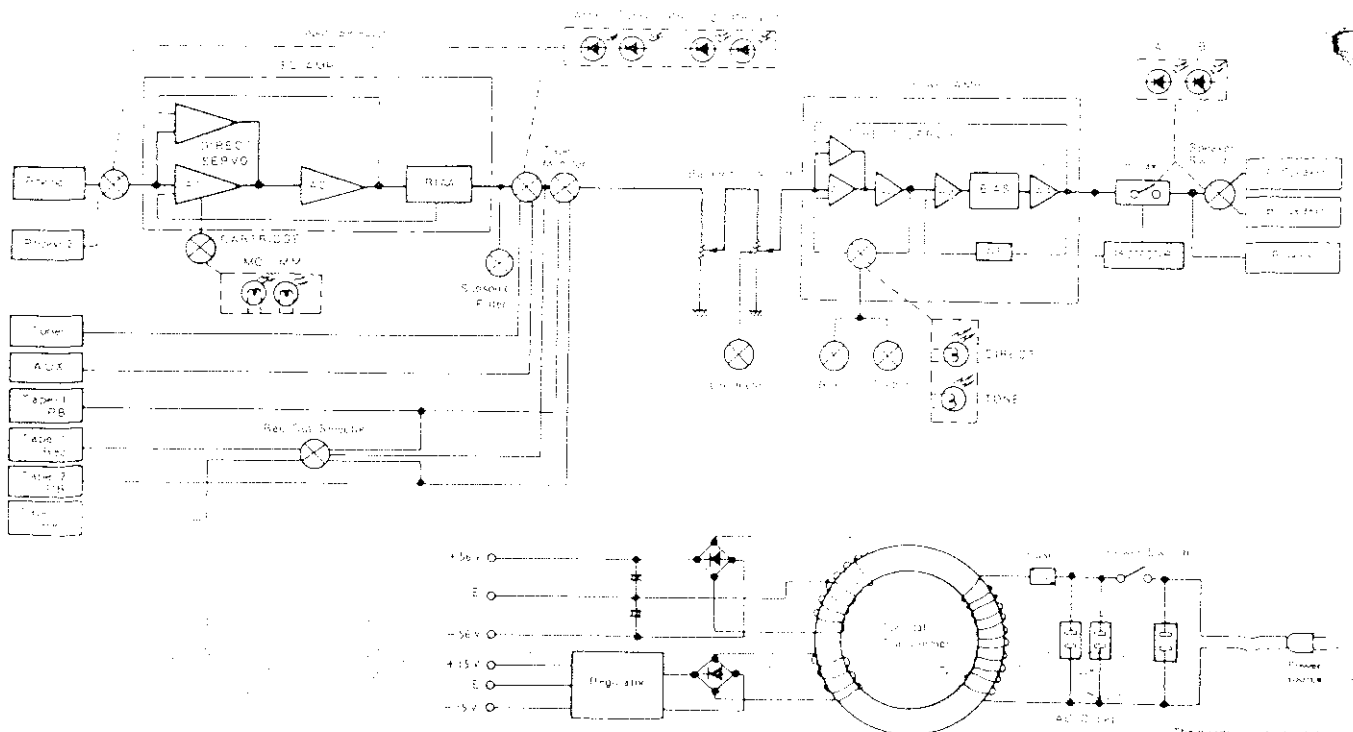
13.5 kg

Design and specifications are subject to change without prior notice.

NOTE: The following codes correspond to the appropriate models.

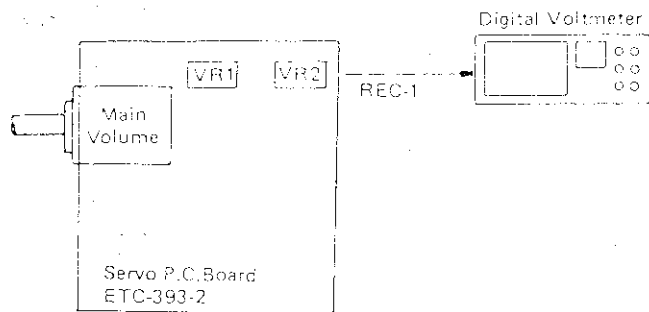
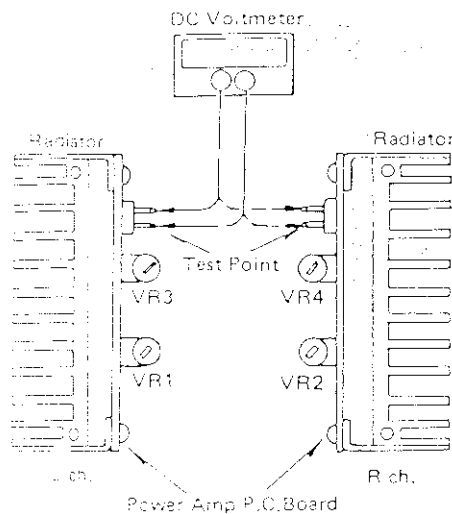
E2 for Europe, EA for Australia, EK for U.K., EC for Canada, E3 for U.S.A.

BLOCK DIAGRAM



The ground symbol is not shown for the power supply section.

METHOD OF ADJUSTMENT



IDLE CURRENT ADJUSTMENT METHOD OF POWER AMP (PUX-028 PRINTED BOARD)

1. Place the unit in normal position, not sideways or tilted. Avoid too much ventilation, since the adjustment must be done where temperature is between 15°C and 30°C.
2. Set the switches on the unit as follows:

Power	→ OFF
Volume	→ $-\infty$ dB
Direct couple	→ Direct
Speaker terminals	→ No load (no speaker connected)
3. Remove the top cover, and the VR1, VR2, VR3 and VR4 fully counter-clockwise. Connect a DC voltmeter to the test points.
4. Plug in the AC cord to power outlet of: Europe 220 V (196 ~ 231 V); U.K. and Australia 240 V (216 ~ 252 V); Canada and U.S.A. 120 V (108 ~ 126 V); and turn the power on. Immediately (within one minute), turn VR1 and VR2 clockwise and adjust the test point voltage (VTP) to 7 ± 2 mV preliminarily.
5. After about two minutes of the above preliminary adjustment, adjust VR1 and VR2 so as VTP reads 10 ± 2 mV.
6. Adjust VR3 and VR4 so as VTP reads 25 ± 2 mV preliminarily.

ADJUSTMENT OF SERVO (ETC-393-2 PRINTED BOARD)

PREPARATION

1. Insert short pins into PHONE input terminals.
2. Connect a digital voltmeter (0.01 mV ~ 1 mV DC range must be measurable) into each of REC. out terminals (L & R channels).
3. Set the FUNCTION switch to "PHONO-1" position and CARTRIDGE changeover switch to "MM" position and turn the main volume to MIN.

ADJUSTMENT

1. Turn POWER on and after two minutes warming-up conduct the following adjustments.
2. Adjust VR1 (100 kohm semi-solid volume), so as the L-channel digital voltmeter reads 0.5 mV DC or less.
3. Adjust VR2 (100 kohm semi-solid volume), so as the R-channel digital voltmeter reads 0.5 mV DC or less.

NOTE ON SERVICING REMOTE SWITCH

- (1) Hold the case when remove and install the speaker switch.

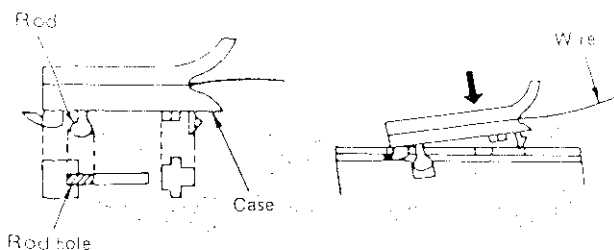


Fig. 1 How to install

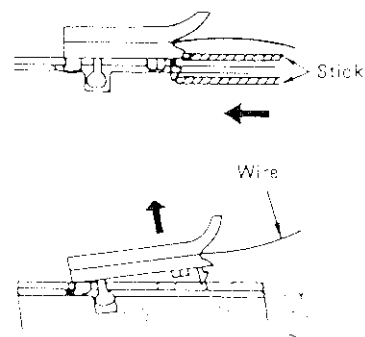
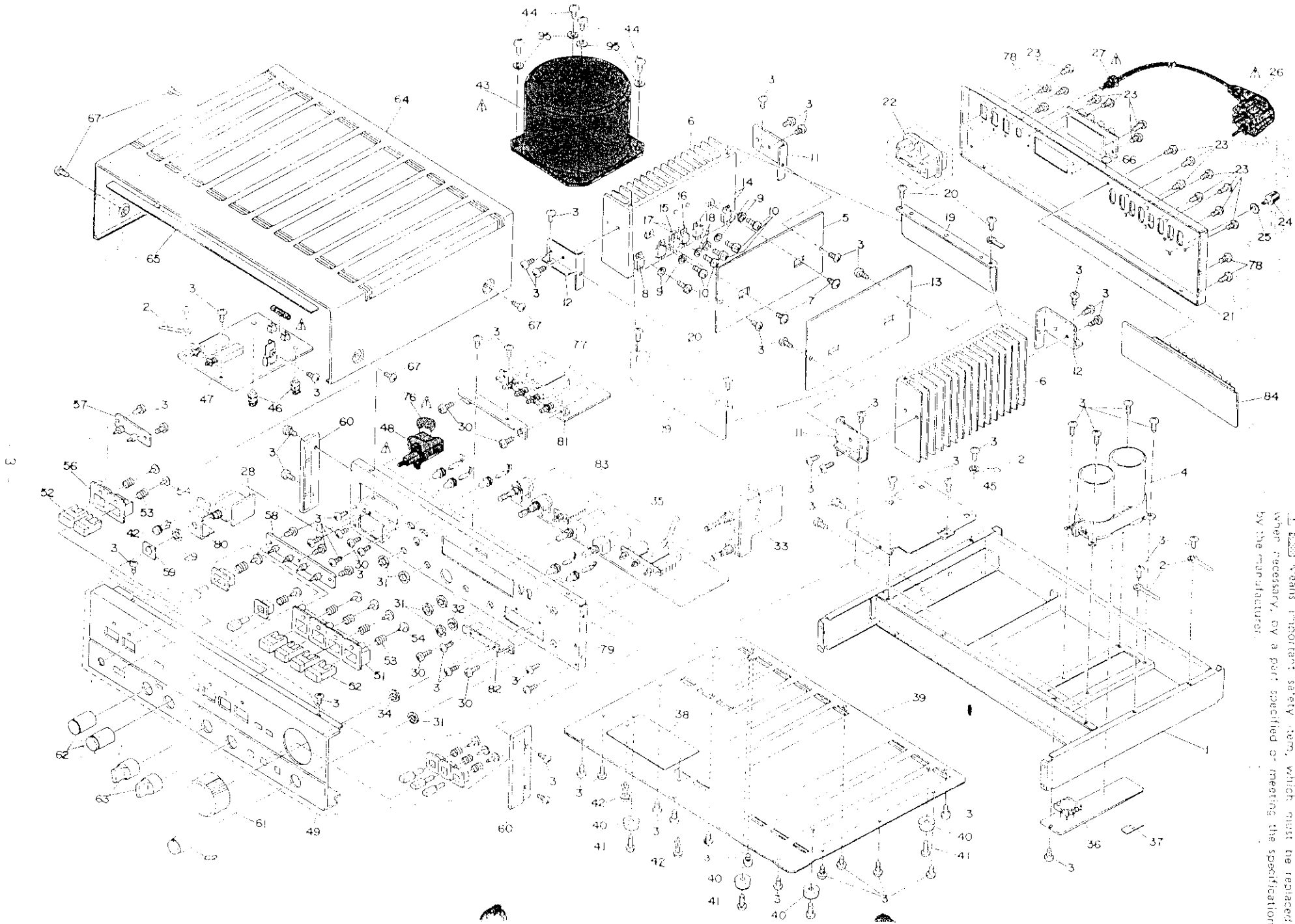


Fig. 2 How to remove

EXPLODED VIEW OF CHASSIS AND CABINET



† Means important safety item, which must be replaced, when necessary, by a part specified or meeting the specification by the manufacturer.

EXPLODED VIEW OF PARTS LIST

Note: Get addendum list below for the Parts with asterisk (*) on the Ref. No. and the other Part not included in this list Ref. No. in () for packing parts and not appear on the exploded view.

Ref. No.	Part No.	Part Name & Descriptions	Ref. No.	Part No.	Part Name & Descriptions
1	4110251208	MAIN CHASSIS ASS.	44	4730455015	TAPPING SCREW (2) 4x10
2	EP-4772	CORD HOLDER	45	4120725106	BOARD BRACKET
3	4730354019	TAPPING SCREW (2) 3x8	46	MD-5271	P.C.B. SUPPORT
4	2546027008	CHEMICON 22000 μ x2 53V	47	ETC-393B-1	POWER SUPPLY UNIT
5	PUX 028-1	POWER AMP (L) UNIT	*48	2124202012	PUSH SWITCH
6	4170125002	POWER RADIATOR	49	1440698107	FRONT PANEL ASS.
7	4700026005	TAPPING SCREW (2) WITH WASHER 3x8	50	—	—
8	2710139049	TRANSISTOR 2SA1146(R)/OILB	51	1140054009	PANEL BUSH
9	4150175001	WASHER	52	1130217005	PUSH KNOB ASS.
10	4700012006	CROSS PAN SCREW WITH S. WASHER 3x12	53	4630220007	SPRING
11	4120129005	RADIATOR BRACKET (A)	54	1190014002	STOPPER
12	4120730007	RADIATOR BRACKET (B)	55	1240029015	FELT SHEET (A)
13	PUX 0282	POWER AMP (R) UNIT	56	1140055008	PANEL BUSH
14	2730241043	TRANSISTOR 2SC2706(R)/OILB	57	ETC 392B6	SP LED UNIT
15	2710140025	TRANSISTOR 2SA968(Y)/OILB110A	58	ETC-392B-7	INPUT LED UNIT
16	2730740028	TRANSISTOR 2SC2238(Y)/OILB110A	59	4610149001	RUBBER SHEET
17	4150052001	INSULATING SHEET	60	1460783107	ESCUTCHEON PLATE
18	4150171005	WASHER	61	1120265106	KNOB (FOR MAIN VRI)
19	4140217102	SHIELD BRACKET	62	1120309004	KNOB (FOR TONE & BALANCE)
20	4730353010	TAPPING SCREW (2) 3x6	63	1120308005	KNOB (FOR TAPE)
*21	1050339005	BACK PANEL	64	1020103106	TOP COVER
22	—	—	65	1220069011	SPACER
23	—	—	66	1040034006	STOPPER
24	2050071016	TERMINAL	67	4734801005	TAPPING SCREW (2) 4x8
25	4770018001	WASHER	(68)	5040064001	CABINET SHEET
*26	2062016001	AC CORD	(69)	5030253000	CUSHION
*27	4450020005	CORD BUSH	(70)	5010647021	CARTON CASE
28	ETC 392B-4	HEADPHONE UNIT	(71)	5110803008	INST. MANUAL
29	—	NUT 12mm SP	(72)	—	—
30	4111300018	CROSS PAN SCREW 3x6	(73)	—	—
31	—	NUT 7mm SP	(74)	—	—
32	—	TOOTH WASHER 7mm SP	(75)	—	—
33	ETC 393B-2	VR SERVO UNIT	*76	2518001007	CAPACITOR 0.01 μ F 450V OIL
34	—	NUT 8mm SP	77	ETC 392B-1	CAPACITOR
35	4350051006	FLEXIBLE SLIDER	78	4770064107	INPUT UNIT
36	ETC-393B-3	POWER REC. UNIT	79	4120726103	FIXING SCREW
37	2050125001	EARTH PLATE	80	4120727104	FRONT CHASSIS
38	4140218004	SHIELD PLATE	81	4120724107	HEADPHONE BRACKET
39	1050336202	BOTTOM COVER	82	4120726105	4P SWITCH BRACKET
40	1048001002	FOOT	83	AQE-010	3P SWITCH BRACKET
41	4730355018	TAPPING SCREW (2) 3x10	84	ETC-392B-2	EQ. CONTROL UNIT
42	4770096007	PUSH RIVET	*85	2061015087	INPUT LED UNIT
43	2335241008	POWER TRANS.	86	2048070003	FUSE (4A)
					5P CONNECTOR (DIN)

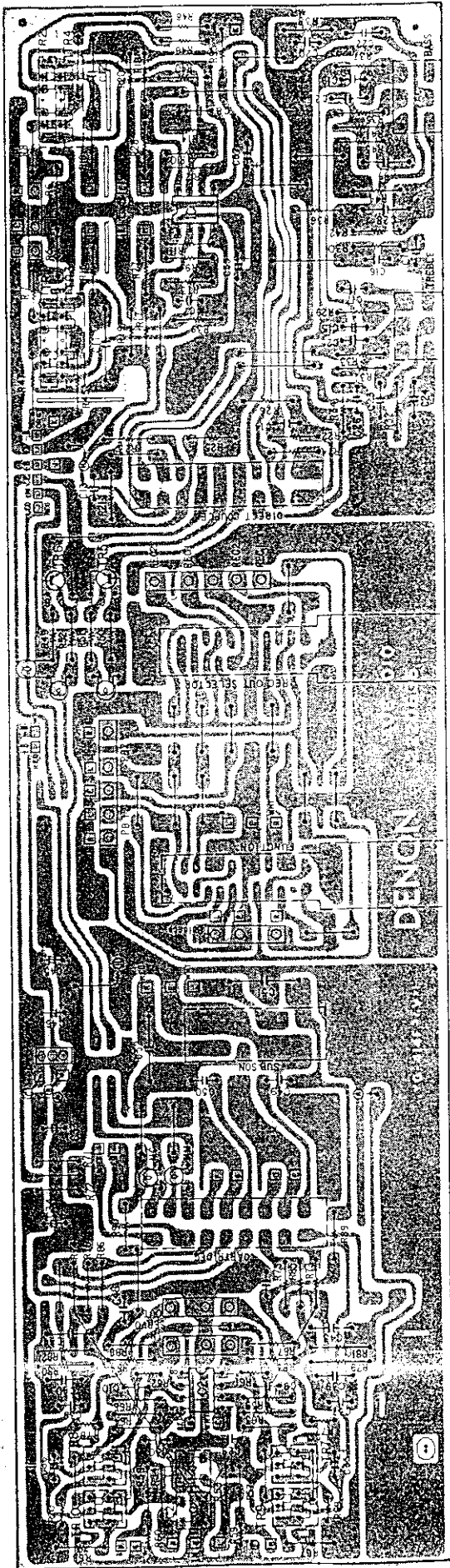
ADDENDUM LIST

Ref. No.	Part Name & Descriptions	EF For France	EK For U.K	E3 For U.S.A
21	BACK PANEL	1050339102	1050339102	1050349008
*26	ACCORD	2062016001	2062020000	2062019008
*27	CORD BUSH	4450020005	MD-2982H	MD-3802
*43	POWER TRANS.	2335241008	2335246003	2335257005
*48	PUSH SWITCH	2124202012	2124202012	2124202025
70	CARTON CASE	5010647089	5010647089	5010647089
(72)	GUARANTEE CARD	5150183...	5150230000	—
(73)	IMPORTANT LABEL	—	5130372001	—
(74)	CAUTION SHEET	—	5130364006	—
(75)	FUSE LABEL	5130159185	5130159185	—
*76	CAPACITOR	2518001007 OIL CAP. 0.01 μ F 450V	2518001007 OIL CAP. 0.01 μ F 450V	2568005121 METALIZ. ED. 0.022 μ F 150V
	AC SOCKET	—	—	2032052008
	3mm TOOTH WASHER	—	4753001051	—
	3T LUG	—	2050003000	—
	EARTH LABEL	—	5130140000	—
	VOLTAGE LABEL	—	5130362008	—
	S. NO. PLATE	—	—	—
	4mm TOOTH WASHER	—	4753100004	5130398153
85	FUSE (TIMELOG TYPE)	2061015087 (4A)	2061015087 (4A)	2061023095 (8A)

PRINTED CIRCUIT BOARD PATTERNS AND PARTS LIST

AUE-010 EQ. CONTROL UNIT

AUE-010 PARTS LIST



Ref. No.	Part No.	Part Name & Descriptions	
SEMICONDUCTORS			
IC01	2630118001	NJM4560D	INTEGRATED CIRCUIT
IC02	2630118014	NJM4560DD	INTEGRATED CIRCUIT
TR01	2750024033	μPA68H(M/L)	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR02	2750024033	μPA68H(M/L)	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR03	2750024033	μPA68H(M/L)	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR04	2750024033	μPA68H(M/L)	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR05	2730111063	2SC1213(D)/IC	TRANSISTOR
TR06	2730111063	2SC1213(D)/IC	TRANSISTOR
TR07	2750029009	2SK240(BL)/V	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR08	2750029009	2SK240(BL)/V	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR09	2750029009	2SK240(BL)/V	FIELD EFFECT TRANSISTOR (DUAL TYPE)
TR10	2750029009	2SK240(BL)/V	FIELD EFFECT TRANSISTOR (DUAL TYPE)
COILS			
L01	2318017000	INDUCTOR	
L02	2318017000	INDUCTOR	
RESISTORS			
R05	2412292909	510 kohm ±5% 1/4W FIXED CARBON FILM	
R06	2412292909	510 kohm ±5% 1/4W FIXED CARBON FILM	
R07	2412219908	470 ohm ±5% 1/4W FIXED CARBON FILM	
R08	2412219908	470 ohm ±5% 1/4W FIXED CARBON FILM	
R09	2412239904	3.3 kohm ±5% 1/4W FIXED CARBON FILM	
R10	2412239904	3.3 kohm ±5% 1/4W FIXED CARBON FILM	
R11	2412239904	3.3 kohm ±5% 1/4W FIXED CARBON FILM	
R12	2412239904	3.3 kohm ±5% 1/4W FIXED CARBON FILM	
R13	2412215902	330 ohm ±5% 1/4W FIXED CARBON FILM	
R14	2412215902	330 ohm ±5% 1/4W FIXED CARBON FILM	
R15	2412275900	100 kohm ±5% 1/4W FIXED CARBON FILM	
R16	2412275900	100 kohm ±5% 1/4W FIXED CARBON FILM	
R17	2412299902	1M ohm ±5% 1/4W FIXED CARBON FILM	
R18	2412299902	1M ohm ±5% 1/4W FIXED CARBON FILM	
R19	2412275900	100 kohm ±5% 1/4W FIXED CARBON FILM	
R20	2412275900	100 kohm ±5% 1/4W FIXED CARBON FILM	
R21	2412252907	11 kohm ±5% 1/4W FIXED CARBON FILM	
R22	2412252907	11 kohm ±5% 1/4W FIXED CARBON FILM	
R23	2412252907	11 kohm ±5% 1/4W FIXED CARBON FILM	
R24	2412252907	11 kohm ±5% 1/4W FIXED CARBON FILM	
R25	2412227903	1 kohm ±5% 1/4W FIXED CARBON FILM	
R26	2412227903	1 kohm ±5% 1/4W FIXED CARBON FILM	
R27	2412203901	100 ohm ±5% 1/4W FIXED CARBON FILM	
R28	2412203901	100 ohm ±5% 1/4W FIXED CARBON FILM	
R29	2412245901	5.6 kohm ±5% 1/4W FIXED CARBON FILM	
R30	2412245901	5.6 kohm ±5% 1/4W FIXED CARBON FILM	
R31	2412271904	68 kohm ±5% 1/4W FIXED CARBON FILM	
R32	2412271904	68 kohm ±5% 1/4W FIXED CARBON FILM	
R33	2412236907	2.4 kohm ±5% 1/4W FIXED CARBON FILM	
R34	2412236907	2.4 kohm ±5% 1/4W FIXED CARBON FILM	
R35	2412227903	1 kohm ±5% 1/4W FIXED CARBON FILM	
R36	2412227903	1 kohm ±5% 1/4W FIXED CARBON FILM	
R37	2412262900	30 kohm ±5% 1/4W FIXED CARBON FILM	
R38	2412262900	30 kohm ±5% 1/4W FIXED CARBON FILM	
R39	2412215902	330 ohm ±5% 1/4W FIXED CARBON FILM	
R40	2412215902	330 ohm ±5% 1/4W FIXED CARBON FILM	
R41	2412279906	150 kohm ±5% 1/4W FIXED CARBON FILM	
R42	2412279906	150 kohm ±5% 1/4W FIXED CARBON FILM	

(Cont.)

Ref. No.	Part No.	Part Name & Descriptions
R69	2442007067	120 ohm ±5% ¼W FIXED METAL OXIDE FILM
R70	2442007067	120 ohm ±5% ¼W FIXED METAL OXIDE FILM
R71	2440041025	1 kohm ±5% 1W FIXED METAL OXIDE FILM
R72	2440041025	1 kohm ±5% 1W FIXED METAL OXIDE FILM
R73	2440041025	1 kohm ±5% 1W FIXED METAL OXIDE FILM
R74	2440041025	1 kohm ±5% 1W FIXED METAL OXIDE FILM
R75	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R76	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R77	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R78	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R79	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R80	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R81	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R82	2440013024	4.7 ohm ±5% 1W FIXED METAL OXIDE FILM
R83	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R84	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R85	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R86	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R87	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R88	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R89	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R90	2412191903	33 ohm ±5% ¼W FIXED CARBON FILM
R91	2432026003	0.47 ohm ±10% 3.15W FIXED WIRE WOUND
R92	2432026003	0.47 ohm ±10% 3.15W FIXED WIRE WOUND
R93	2432026003	0.47 ohm ±10% 3.15W FIXED WIRE WOUND
R94	2432026003	0.47 ohm ±10% 3.15W FIXED WIRE WOUND
R95	2440022028	27 ohm ±10% 1W FIXED METAL OXIDE FILM
R96	2440022028	27 ohm ±10% 1W FIXED METAL OXIDE FILM
R97	2440029021	100 ohm ±10% 1W FIXED METAL OXIDE FILM
R98	2440029021	100 ohm ±10% 1W FIXED METAL OXIDE FILM
R99	2440051026	6.8 kohm ±10% 1W FIXED METAL OXIDE FILM
100	2440051026	6.8 kohm ±10% 1W FIXED METAL OXIDE FILM
101	2440051026	6.8 kohm ±10% 1W FIXED METAL OXIDE FILM
102	2440051026	6.8 kohm ±10% 1W FIXED METAL OXIDE FILM
CAPACITORS		
101	2554121006	100 pF ±5% 50V FIXED PLASTIC FILM
102	2554121006	100 pF ±5% 50V FIXED PLASTIC FILM
103	2554145008	0.001 µF ±5% 50V FIXED PLASTIC FILM
104	2554145008	0.001 µF ±5% 50V FIXED PLASTIC FILM
105	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
106	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
107	2544035005	10 µF ±5% 35V FIXED ELECTROLYTIC
108	2544035005	10 µF ±5% 35V FIXED ELECTROLYTIC

Ref. No.	Part No.	Part Name & Descriptions
C09	2544035005	10 µF ±5% 35V FIXED ELECTROLYTIC
C10	2544035005	10 µF ±5% 35V FIXED ELECTROLYTIC
C11	2521008000	8 pF ±0.5 pF 50V FIXED MICA FILM
C12	2521008000	8 pF ±0.5 pF 50V FIXED MICA FILM
C13	2521018003	22 pF ±5% 50V FIXED MICA FILM
C14	2521018003	22 pF ±5% 50V FIXED MICA FILM
C15	2521081001	7 pF ±0.5 pF 500V FIXED MICA FILM
C16	2521081001	7 pF ±0.5 pF 500V FIXED MICA FILM
C17	2554129008	220 pF ±5% 50V FIXED PLASTIC FILM
C18	2554129008	220 pF ±5% 50V FIXED PLASTIC FILM
C19	2544060025	1 µF ±5% 100V FIXED ELECTROLYTIC
C20	2544060025	1 µF ±5% 100V FIXED ELECTROLYTIC
C21	2554129008	220 pF ±5% 50V FIXED PLASTIC FILM
C22	2554129008	220 pF ±5% 50V FIXED PLASTIC FILM
C23	2554121006	100 pF ±5% 50V FIXED PLASTIC FILM
C24	2554121006	100 pF ±5% 50V FIXED PLASTIC FILM
C25	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C26	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C27	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C28	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C29	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C30	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C31	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C32	2554161008	0.0047 µF ±5% 50V FIXED PLASTIC FILM
C33	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C34	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C35	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C36	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C37	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C38	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C39	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C40	2544059036	4.7 µF ±5% 63V FIXED ELECTROLYTIC
C41	2544169000	0.01 µF ±5% 50V FIXED PLASTIC FILM
C42	2544169000	0.01 µF ±5% 50V FIXED PLASTIC FILM
C43	2521005003	5 pF ±0.5 pF 50V FIXED MICA FILM
C44	2521005003	5 pF ±0.5 pF 50V FIXED MICA FILM
C45	2521081014	1 pF ±0.5 pF 500V FIXED MICA FILM
C46	2521081014	1 pF ±0.5 pF 500V FIXED MICA FILM
C47	2521014007	15 pF ±0.5 pF 50V FIXED MICA FILM
C48	2521014007	15 pF ±0.5 pF 50V FIXED MICA FILM
C49	2521010001	10 pF ±0.5 pF 50V FIXED MICA FILM
C50	2521010001	10 pF ±0.5 pF 50V FIXED MICA FILM
C51	2544060025	1 µF ±5% 100V FIXED ELECTROLYTIC
C52	2544060025	1 µF ±5% 100V FIXED ELECTROLYTIC
C53	2544044009	1 µF ±5% 50V FIXED ELECTROLYTIC
C54	2544044009	1 µF ±5% 50V FIXED ELECTROLYTIC
C55	2544044009	1 µF ±5% 50V FIXED ELECTROLYTIC
C56	2544044009	1 µF ±5% 50V FIXED ELECTROLYTIC
OTHER PARTS		
	2220634005	P.W. BOARD
	2090042908	0.6 JUMPER WIRE USED 16
	2090008117	JUMPER SHORT LEAD P=12.5mm USED 8
	2050075025	2P. TERMINAL USED 2
	2050122033	3P. CONNECTOR PIN ASS.
	2035622008	3P. CONNECTOR BASE
VR01	2116014014	SEMI FIXED RESISTOR 1 kohm
VR02	2116014014	SEMI FIXED RESISTOR 1 kohm
VR03	2116014030	SEMI FIXED RESISTOR 100 kohm
VR04	2116014030	SEMI FIXED RESISTOR 100 kohm
	2030200030	1P. CONTACT (D) ASS FOR Rq+H
	2030208016	1P. CONTACT (D) ASS FOR Rq+B
	2030208029	1P. CONTACT (D) ASS FOR Rq-B
	2030207017	1P. CONTACT (D) ASS FOR Rq+A
	2030207020	1P. CONTACT (D) ASS FOR Rq+B
	2030207033	1P. CONTACT (D) ASS FOR RqOut
	2030199015	1P. CONTACT (D) ASS FOR RqOut

ETC-393B PARTS LIST

Ref. No.	Part No.	Part Name & Descriptions	
SEMICONDUCTORS			
IC01	2630133002	μPC741C	INTEGRATED CIRCUIT
IC02	2630133002	μPC741C	INTEGRATED CIRCUIT
IC03	7630138007	μPC78L15A	INTEGRATED CIRCUIT
IC04	2630102004	HA12002W	INTEGRATED CIRCUIT
TR01	2730177007	2SC1626(Y)	TRANSISTOR
TR02	2710102005	2SA1015(Y)	TRANSISTOR
TR03	2710117003	2SA1020(Y)	TRANSISTOR
TR04	2750018009	2SK30A(D)	FOR FIELD EFFECT TRANSISTOR
TR05	2730198044	2SC1815(Y)(R)	FOR FIELD EFFECT TRANSISTOR
D01	2760158	W06A	DIODE
D02	2760244007	MZ230	DIODE
D03	2760237001	RV06	DIODE
D04	2760239009	S1RBA2CF	DIODE
RESISTORS			
R01	2412229903	1 kohm	±5% 1/4W FIXED CARBON FILM
R02	2412229903	1 kohm	±5% 1/4W FIXED CARBON FILM
R03	2412251908	10 kohm	±5% 1/4W FIXED CARBON FILM
R04	2412251908	10 kohm	±5% 1/4W FIXED CARBON FILM
R05	2412247909	6.8 kohm	±5% 1/4W FIXED CARBON FILM
R06	2412247909	6.8 kohm	±5% 1/4W FIXED CARBON FILM
R07	2412251908	10 kohm	±5% 1/4W FIXED CARBON FILM
R08	2412251908	10 kohm	±5% 1/4W FIXED CARBON FILM
R09	2412258901	20 kohm	±5% 1/4W FIXED CARBON FILM
R10	2412258901	20 kohm	±5% 1/4W FIXED CARBON FILM
R11	2412203901	100 ohm	±5% 1/4W FIXED CARBON FILM
R12	2412258903	16 kohm	±5% 1/4W FIXED CARBON FILM
R13	2412258904	15 kohm	±5% 1/4W FIXED CARBON FILM
R14	2410175002	390 ohm	±5% 1/4W FIXED CARBON FILM
R15	2412242903	4.7 kohm	±5% 1/4W FIXED CARBON FILM
R16	2412293903	910 kohm	±5% 1/4W FIXED CARBON FILM
R17	2412179909	100 ohm	±5% 1/4W FIXED CARBON FILM
R18	2412251908	10 kohm	±5% 1/4W FIXED CARBON FILM
R19	2412264908	36 kohm	±5% 1/4W FIXED CARBON FILM
R20	2412264908	36 kohm	±5% 1/4W FIXED CARBON FILM
R21	2412275900	100 kohm	±5% 1/4W FIXED CARBON FILM
R22	2440041025	1 kohm	±5% 1W FIXED METAL OXIDE FILM
R23	2440041025	1 kohm	±5% 1W FIXED METAL OXIDE FILM
R24	2412195909	47 ohm	±5% 1/4W FIXED CARBON FILM
R25	2412195909	47 ohm	±5% 1/4W FIXED CARBON FILM
R26	2440017020	10 ohm	±5% 1W FIXED METAL OXIDE FILM
R27	2440017020	10 ohm	±5% 1W FIXED METAL OXIDE FILM
R28	2412203901	100 ohm	±5% 1/4W FIXED CARBON FILM
R29	2412203901	100 ohm	±5% 1/4W FIXED CARBON FILM
R31	2412255904	15 kohm	±5% 1/4W FIXED CARBON FILM
R32	2412255904	15 kohm	±5% 1/4W FIXED CARBON FILM
R33	2412238905	3 kohm	±5% 1/4W FIXED CARBON FILM
R34	2412238905	3 kohm	±5% 1/4W FIXED CARBON FILM
R41	2440033020	220 ohm	±5% 1W FIXED METAL OXIDE FILM
R42	2440033020	220 ohm	±5% 1W FIXED METAL OXIDE FILM
R43	2440027023	58 ohm	±5% 1/4W FIXED METAL OXIDE FILM
R45	2440017020	10 ohm	±5% 1W FIXED METAL OXIDE FILM

Ref. No.	Part No.	Part Name & Descriptions	
CAPACITORS			
C01	2544003008	100 μF	6.3V FIXED ELECTROLYTIC
C02	2544003008	100 μF	6.3V FIXED ELECTROLYTIC
C03	2554169000	0.01 μF	±5% 50V FIXED PLASTIC FILM
C04	2554169000	0.01 μF	±5% 50V FIXED PLASTIC FILM
C05	2544015009	10 μF	16V FIXED ELECTROLYTIC
C06	2544015009	10 μF	16V FIXED ELECTROLYTIC
C07	2544015009	10 μF	16V FIXED ELECTROLYTIC
C08	2544015009	10 μF	16V FIXED ELECTROLYTIC
C09	2544042001	1000 μF	35V FIXED ELECTROLYTIC
C10	2544039001	220 μF	35V FIXED ELECTROLYTIC
C11	2544044009	1 μF	50V FIXED ELECTROLYTIC
C12	2544066003	2.2 μF	50V FIXED ELECTROLYTIC
C13	2544005006	330 μF	6.3V FIXED ELECTROLYTIC
C14	2549015004	22 μF ±10%	10V FIXED ELECTROLYTIC
C15	2549015004	22 μF ±10%	10V FIXED ELECTROLYTIC
C16	2554177005	0.022 μF	±5% 50V FIXED PLASTIC FILM
C16	2544073016	2200 μF	25V FIXED ELECTROLYTIC
C17	2554177005	0.022 μF	±5% 50V FIXED PLASTIC FILM
C17	2521018003	22 μF	±5% 50V FIXED MICA FILM
C19	2554142001	0.01 μF	±5% 50V FIXED PLASTIC FILM
C20	2554142001	0.01 μF	±5% 50V FIXED PLASTIC FILM
C21	2554193005	0.1 μF	±5% 50V FIXED PLASTIC FILM
C22	2554193005	0.1 μF	±5% 50V FIXED PLASTIC FILM
OTHER PARTS			
	2220636003	P.W. BOARD	
	2090042908	0.6 JUMPER WIRE USED 7	
	2050070004	8P TERMINAL FOR SPEAKER	
	2124247001	SLIDE SWITCH REMOTE FOR LLOUDNESS	
VR01	2116014030	SEMI FIXED RES STOP 100 kohm	
VR02	2116014030	SEMI FIXED RES STOP 100 kohm	
L01	2320017001	INDUCTOR	
L02	2320017001	INDUCTOR	
RL01	2140041008	RELAY	
	2020014003	FUSE C.P	
	EP-5667H1	TERM NA. FOR WRAPPING PIN USED 1	
	2050087039	3P TERMINAL	
	2050087055	5P TERMINAL	
	2050122033	3P CONNECTOR PIN ASS.	
	2055622008	3P CONNECTOR BASE	
	2035622024	4P MINI CONNECTOR PIN	
	2035622082	6P CONNECTOR BASE	
VR	2110257000	VARIABLE RESISTOR 50 kohm FOR MAIN VR	
VR	2110256001	VARIABLE RESISTOR 100 kohm FOR BALANCE	
SW	2124243000	2P PUSH SWITCH FOR SPEAKER SWITCH	
	2034146006	3P CONNECTOR CORD FOR L... B	
	2034149003	3P CONNECTOR CORD FOR BALANCE IN	
	2034149029	3P CONNECTOR CORD FOR VOLUME OUT	
	2034151004	3P CONNECTOR CORD FOR SERVO OUT IN	
	4170021009	RADIATOR	
	4730354019	TAPPING SCREW 3x8 FOR TAP. FIXED	
	5130159185	FUSE LABEL	
	4730354019	TAPPING SCREW 3x8 FOR RADIATOR TAP. IN	

WIRING DIAGRAM

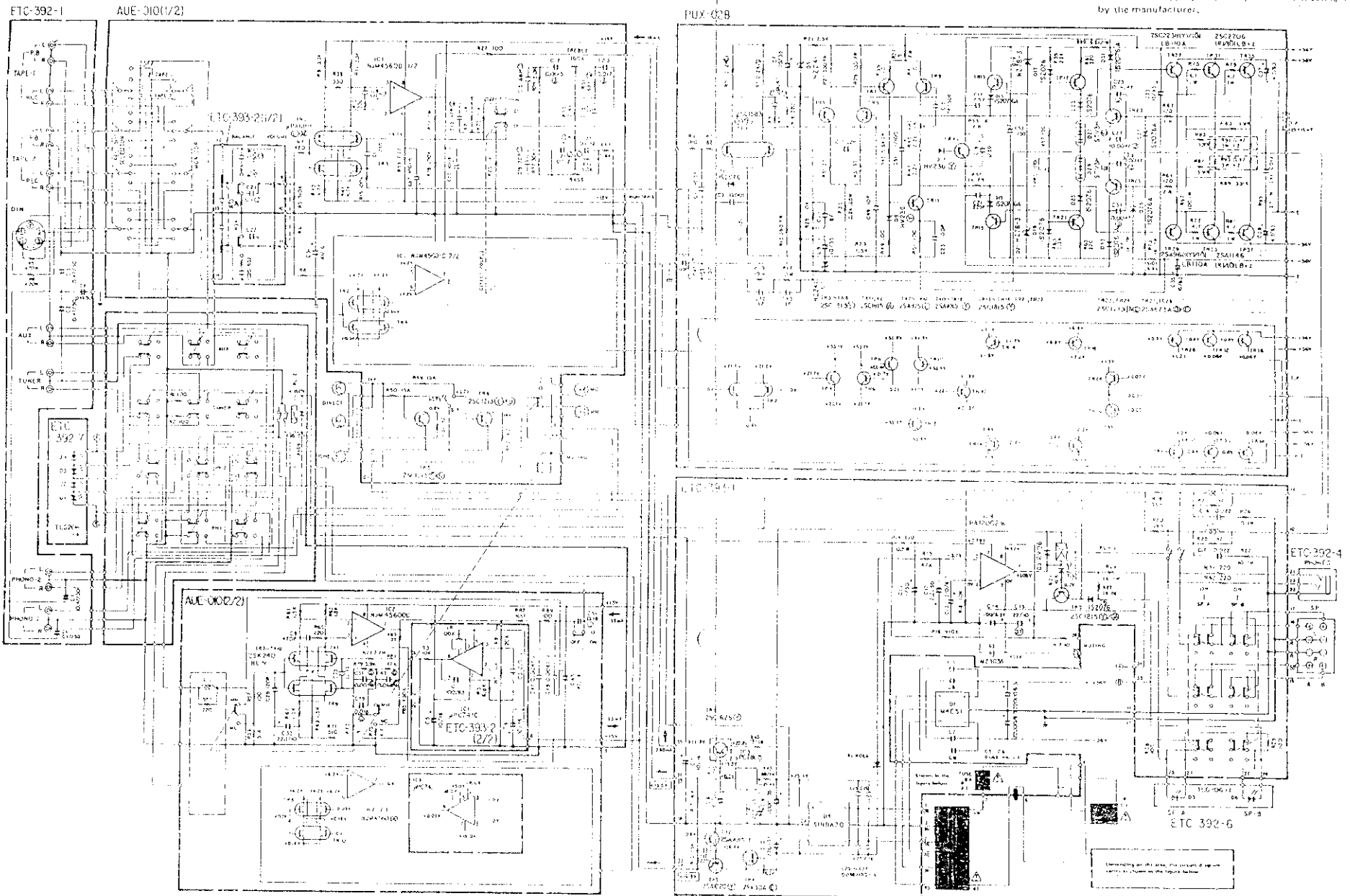
Means important safety item, which must be replaced when necessary, by a part specified or meeting the specification by the manufacturer.

TIC
LM
LM
TIC
TIC
TIC
TIC
TIC
TIC
TIC
TIC
TIC
LM
LM
LM
LM

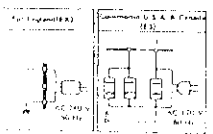
31

CR

3



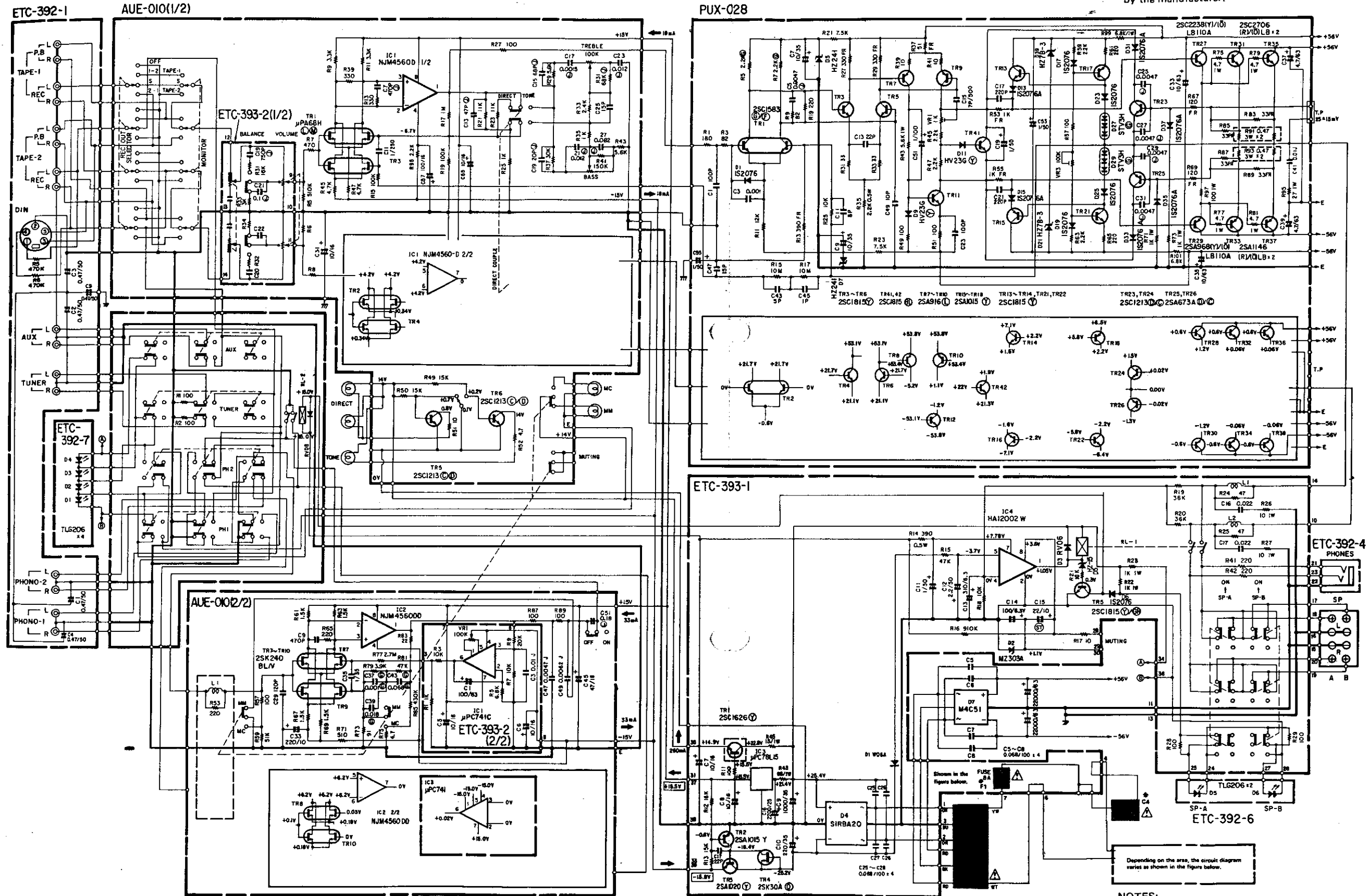
MARK	PA	PI
Capacitors for Europe (ETZ & ET)	0.01 (1000)	1A
Capacitors for U.S.A. & Canada (ETZ & ET)	0.01 (1000)	1A
Resistors for U.S.A. & Canada (ETZ & ET)	0.01 (1000)	1A



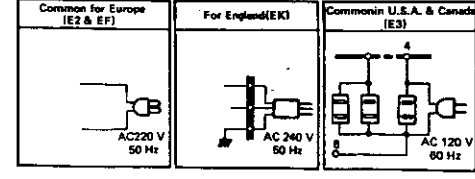
NOTES:
 ALL RESISTANCE VALUES IN OHM, K - 1,000 OHM,
 M = 1,000,000 OHM.
 ALL CAPACITANCE VALUES IN MICROFARAD, P - MICRO-MICRO FARAD.
 EVERY VOLTAGES AND CURRENTS IS MEASURED AT NO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

WIRING DIAGRAM

⚠ Means important safety item, which must be replaced, when necessary, by a part specified or meeting the specification by the manufacturer.

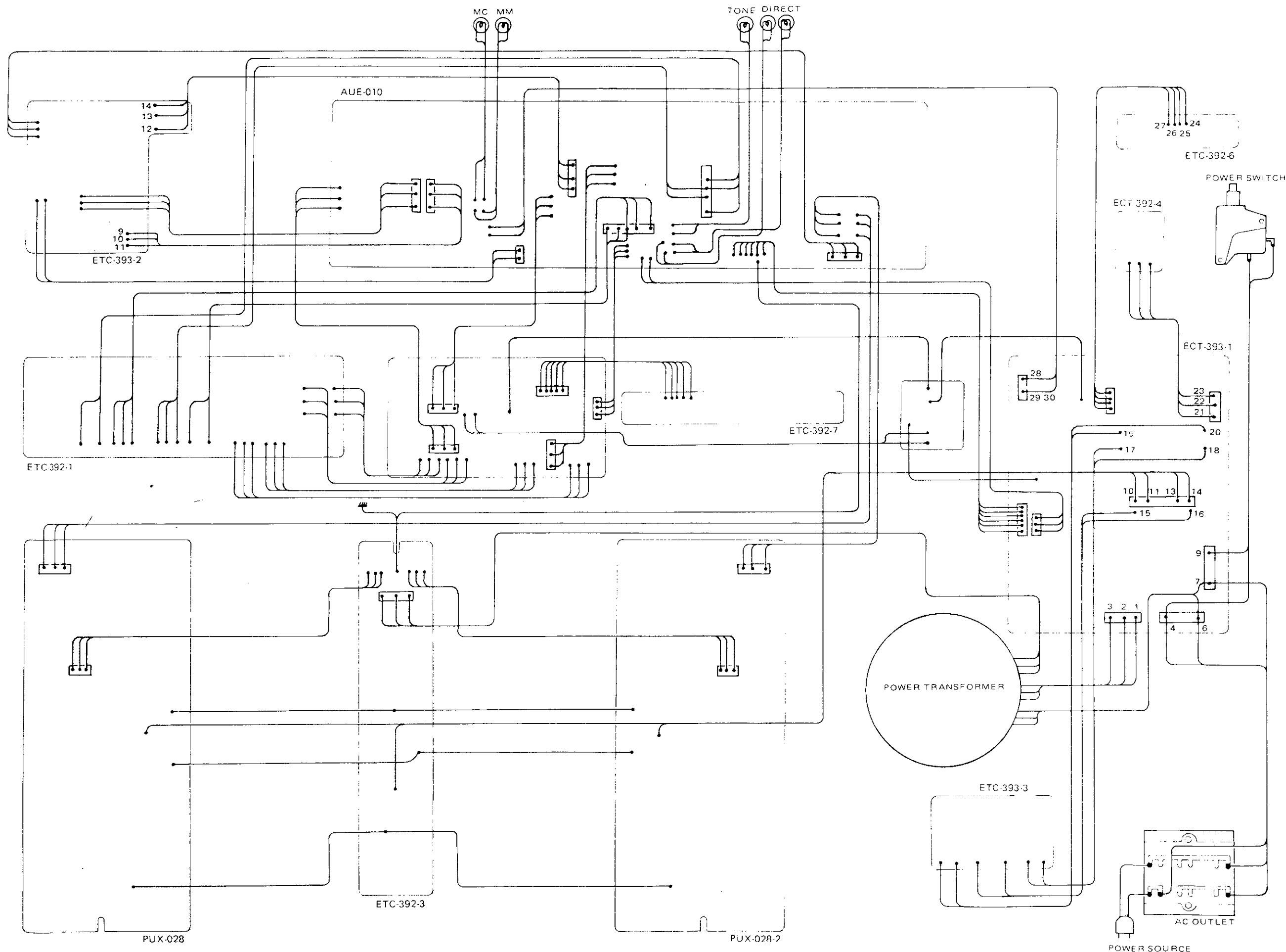


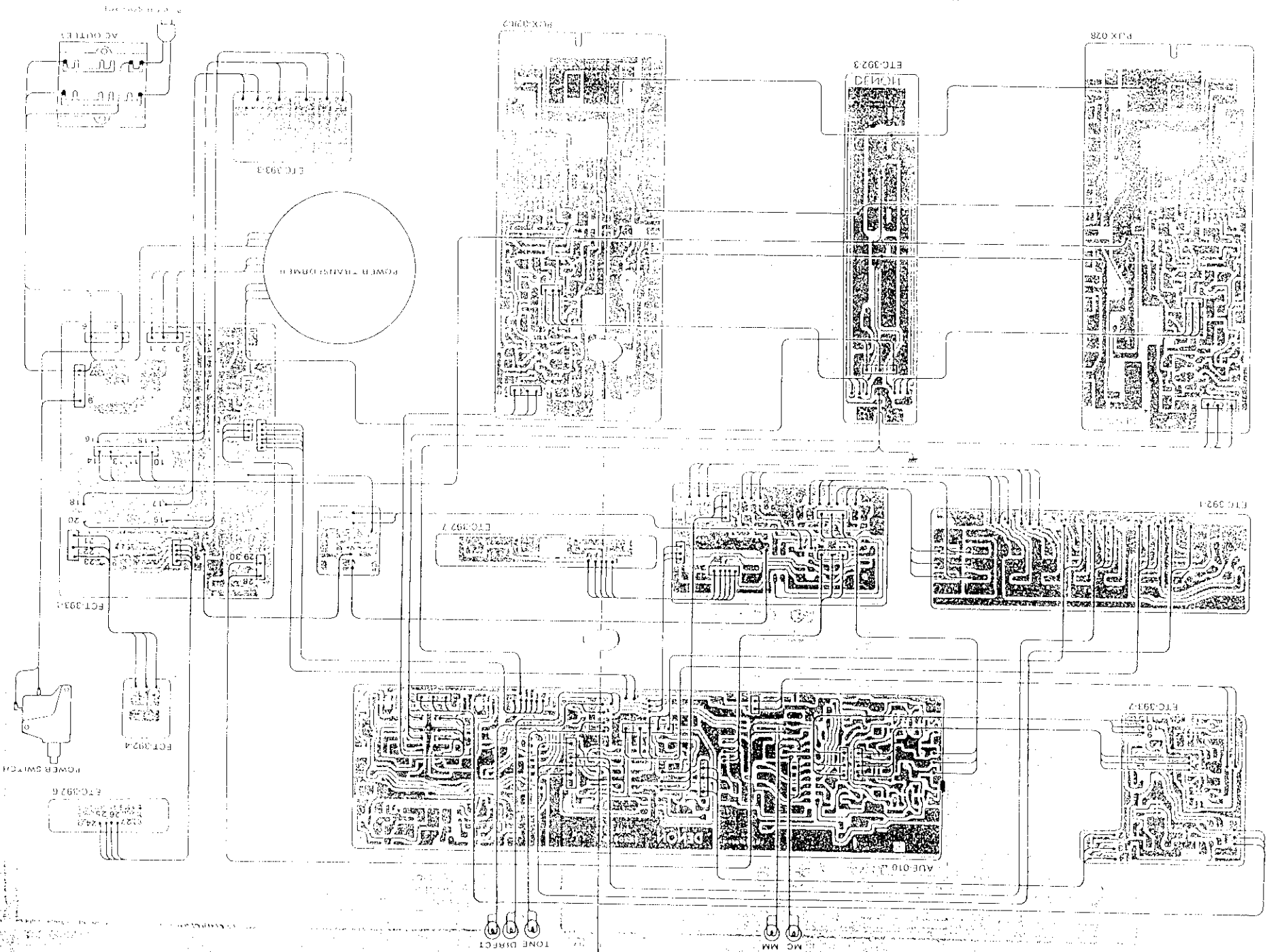
MARK	C4	F1
Common for Europe (E2 & EF)	0.01 (450V)	4A
For England (EK)	0.01 (450V)	4A
Common U.S.A. & Canada (E3)	0.022 (125V)	5A



NOTES:
 ALL RESISTANCE VALUES IN OHM, K = 1,000 OHM, M = 1,000,000 OHM.
 ALL CAPACITANCE VALUES IN MICROFARAD, P = MICRO-MICRO FARAD.
 EVERY VOLTAGES AND CURRENTS IS MEASURED AT NO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

CONNECTION DIAGRAM This connection diagram is viewed from the printed pattern side and used E3 (U.S.A. & Canada) version.





DENON

NIPPON COLUMBIA CO., LTD.

1-14-14, 4-CHOME AKASAKA,

MINATO-KU, TOKYO 107 JAPAN

TEL: 03-584-8111

TELEX: JAPANOLA J22591

TELEGRAMS: NIPPONCOLUMBIA TOKYO

Printed in Japan