

TEAC[®]

SERVICE GUIDE

Model-2A Audio Mixer



TEAC CORPORATION

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1. GENERAL INTRODUCTION

The TEAC M-2A Audio Mixer is a versatile 6 input/4 output mixer which is designed to expand the creative possibilities of true multichannel recording. Each input channel has separate input selectors, tone controls, channel assign selectors with pan, and input faders. There is also a MASTER output fader control. We invite you to read through the M-2A Operation Manual for specific operating instructions and system connection information. The service guide is written so that the M-2A can be checked out as an independent unit using common test equipment.

If any of the adjustments or repairs seem too complicated or are difficult for you to accomplish, please contact the nearest TEAC Factory Service Department or write directly to a TEAC office, the addresses of which are printed on the back cover.

PARTS ORDERING INFORMATION

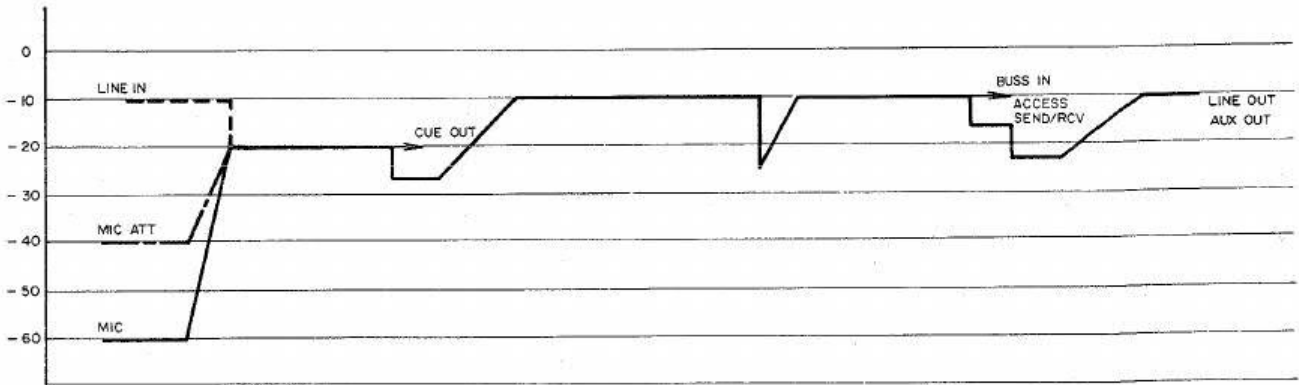
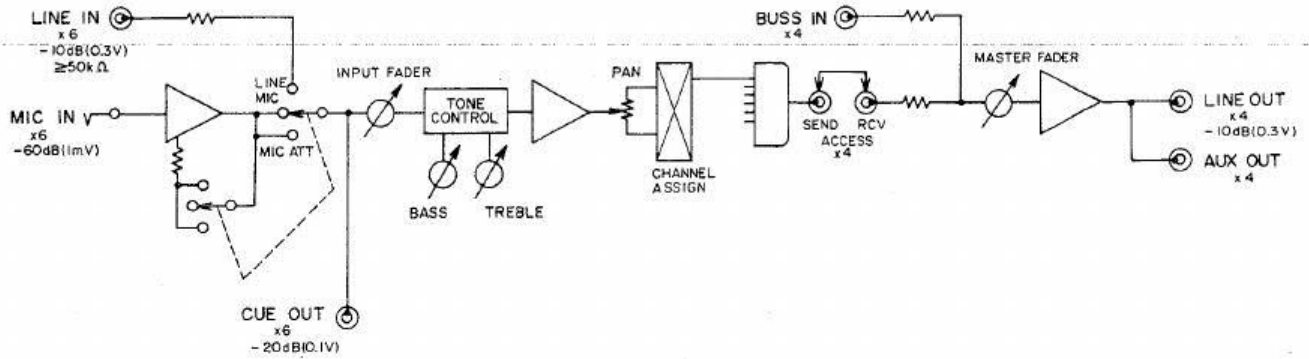
Spare parts are available through your nearest TEAC Authorized Service Center or directly from the TEAC office, the address of which is written on the back cover. When ordering parts, always include the following information:

- | | |
|--------------|--------------------|
| 1. MODEL | 4. DESCRIPTION |
| 2. REF. NO. | 5. UNIT SERIAL NO. |
| 3. PARTS NO. | 6. MANUAL CODE NO. |

NOTICE REGARDING PARTS ORDERS

1. Do not order by only REF. NO.
2. In some instances, individual minor parts are not available. In such a case, the entire assembly including the part requested will be sent to you.
3. Parts are identical between the different models with the exceptions as coded by the designations in the REMARKS column.
4. PC boards are shown viewed from component side, and foil side is made visible through the PC board. If the PC board has components mounted on both sides, the side having the greater number of components will be shown viewed from the top.
5. To understand shape coding of assembling hardware in the exploded views, ASSEMBLING HARDWARE CODING LIST is provided on page 7.

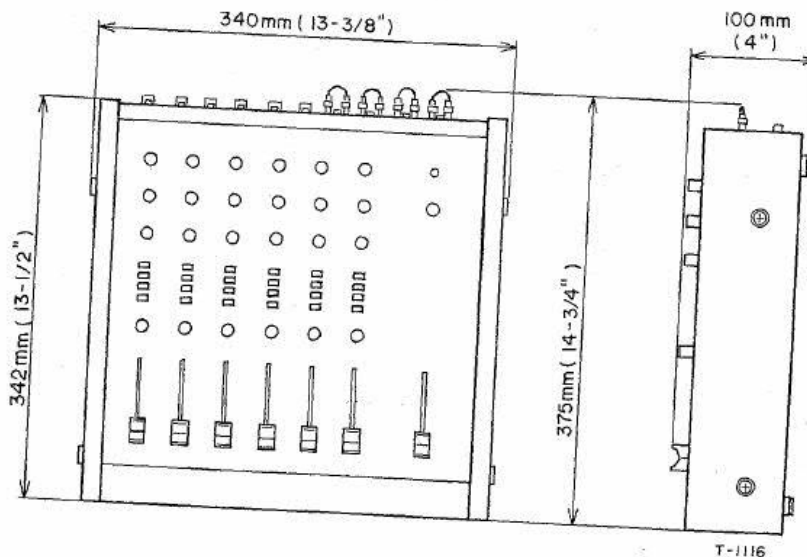
2. BLOCK DIAGRAM AND LEVEL DIAGRAM



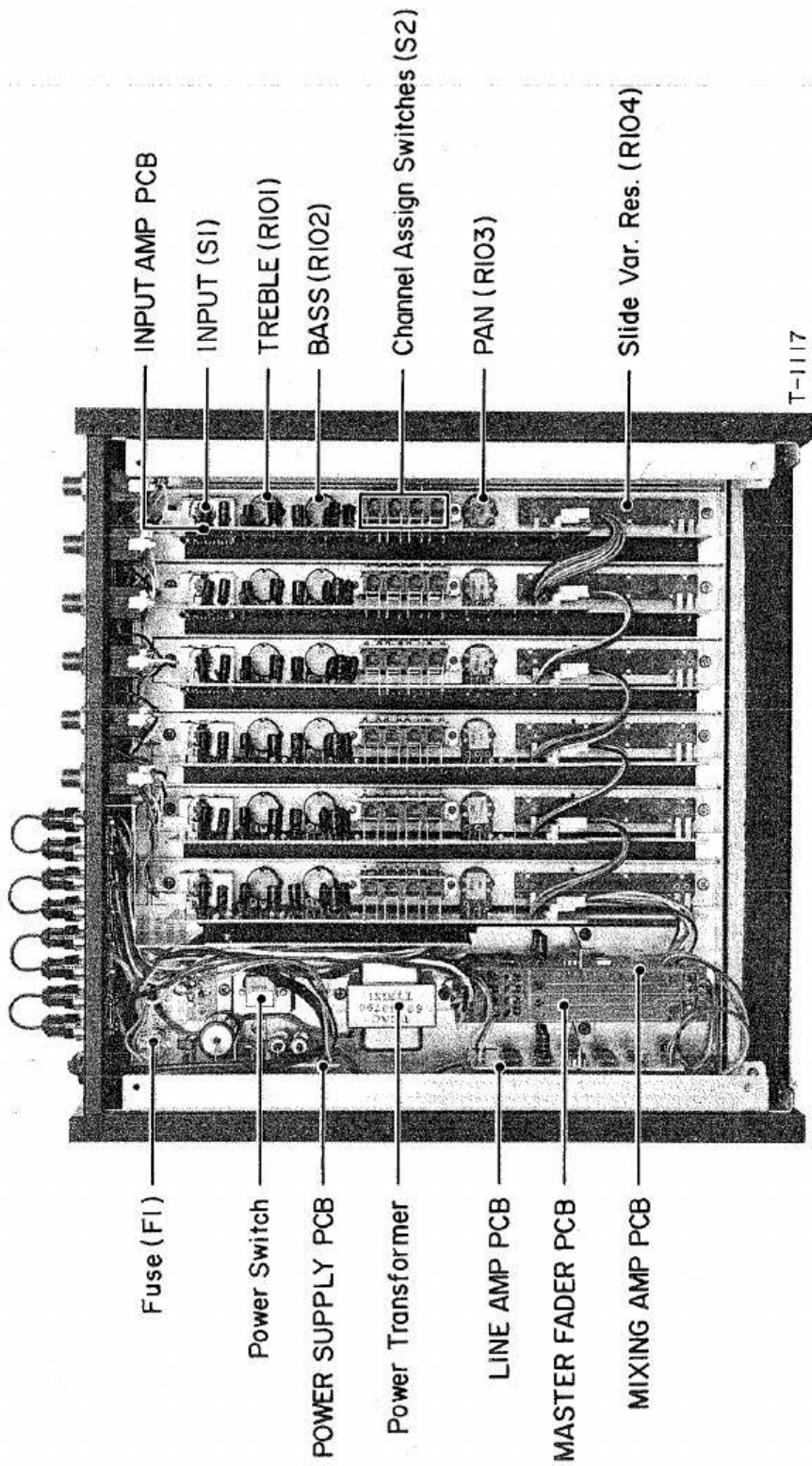
3. SPECIFICATIONS

<ol style="list-style-type: none"> 1. 6 Input/4 Output 2. Input Selector 3. Mic Input <ol style="list-style-type: none"> 1) Mic impedance 2) Input impedance 3) Input level 4. Line Input <ol style="list-style-type: none"> 1) Line impedance 2) Input level 5. Line Output/Aux. Output <ol style="list-style-type: none"> 1) Load impedance 2) Output level 6. Signal to Noise Ratio (Overall - input to output) <ol style="list-style-type: none"> 1) One input 2) 6 inputs 7. Frequency Response 8. Tone Control <ol style="list-style-type: none"> 1) Treble control 2) Bass control 9. Crosstalk 10. Overall Distortion (Input to output) 11. Fader Attenuation 12. Cue Output <ol style="list-style-type: none"> 1) Load impedance 2) Level 13. Buss Input <ol style="list-style-type: none"> 1) Input impedance 2) Nominal level 14. Accessory Send/Receive <ol style="list-style-type: none"> 1) Send load impedance 2) Nominal send level 3) Receive impedance 4) Nominal receive level 15. Power Requirements 16. Weight 	<p>MIC ATT/MIC/LINE</p> <p>150Ω ~ 10KΩ 50KΩ or higher -60 dB, Hi-Z input</p> <p>20KΩ or higher -10 dB (0.3V)</p> <p>10KΩ or higher, unbalanced -10 dB (0.3V)</p> <p>Greater than 62 dB, WTD Greater than 55 dB, WTD 30 Hz ~ 20 KHz, ±2 dB</p> <p>Variable ±12 dB Variable ±12 dB Greater than 50 dB 0.1% THD maximum, at nominal -10 dB output Greater than 60 dB</p> <p>Greater than 50KΩ -20 dB (0.1V) with nominal input</p> <p>15KΩ -10 dB (0.3V)</p> <p>Greater than 10KΩ -10 dB (0.3V) 15KΩ -10 dB (0.3V) 117V A.C., 60 Hz, 5W 13.2 lbs.</p>
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*Specifications subject to change without notice.



4. PARTS LOCATION



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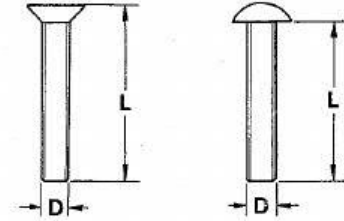
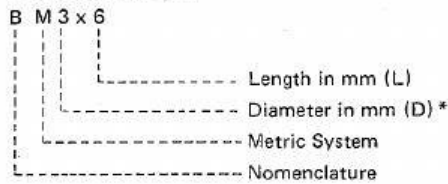
5. ASSEMBLING HARDWARE CODING LIST

All screws conform to ISO standards, and have cross-recessed heads, unless otherwise noted.

ISO screws have the head inscribed with a point as in the figure to the right.



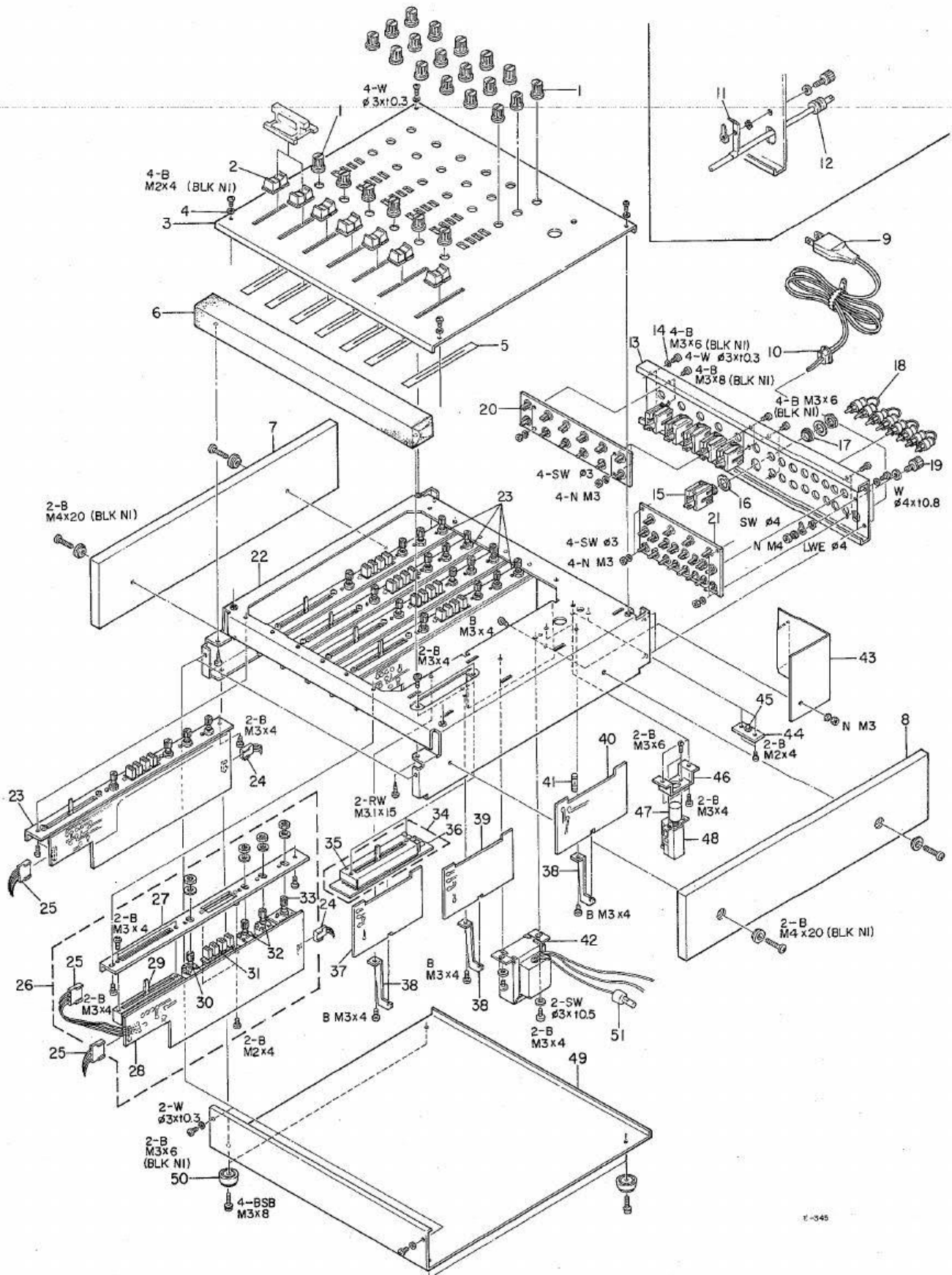
FOR EXAMPLE:



* Inner dia. for washers and nuts

	Code	Name	Type		Code	Name	Type
MACHINE SCREW	R	Round Head Screw		TAPPING SCREW	BTA	Binding Head Tapping Screw(A Type)	
	P	Pan Head Screw			BTB	Binding Head Tapping Screw(B Type)	
	T	Stove Head Screw (Truss)			RTA	Round Head Tapping Screw(A Type)	
	B	Binding Head Screw			RTB	Round Head Tapping Screw(B Type)	
	F	Flat Countersunk Head Screw		SETScrew	SF	Hex Socket Setscrew(Flat Point)	
	O	Oval Countersunk Head Screw			SC	Hex Socket Setscrew(Cup Point)	
WOOD SCREW	RW	Round Head Wood Screw		SS	Slotted Socket Setscrew(Flat Point)		
	FW	Flat Countersunk Wood Screw		WASHER	E	E-Ring (Retaining Washer)	
	OW	Oval Countersunk Wood Screw			W	Flat Washer(Plain)	
SEMS SCREW	BSA	Binding Head SEMS Screw(A Type)			SW	Lock Washer (Spring)	
	BSB	Binding Head SEMS Screw(B Type)			LWI	Lock Washer (Internal Teeth)	
	BSF	Binding Head SEMS Screw(F Type)			LWE	Lock Washer (External Teeth)	
	PSA	Pan Head SEMS Screw(A Type)		TW	Trim Washer (Countersunk)		
	PSB	Pan Head SEMS Screw(B Type)		NUT	N	Hex Nut	

6. EXPLODED VIEW AND PARTS LIST

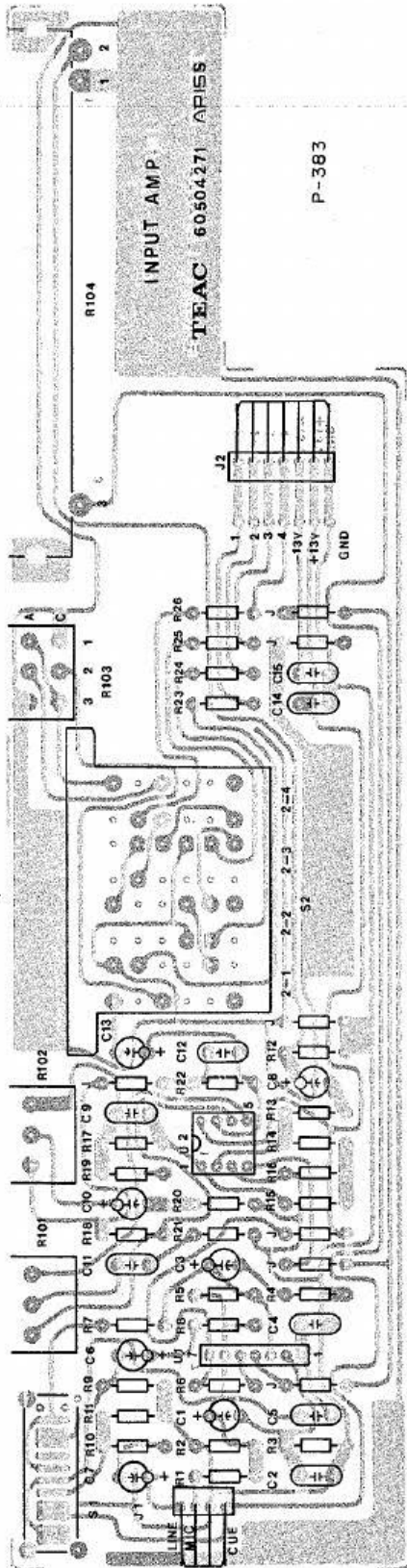


1-345

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	60060160	Knob, B-15S	
2	60060170	Knob, Slide Var. Res.	
3	60362210	Panel, Front Dress	
4	60030230	Washer, Mylar	
5	60530140	Cover, Var. Res. Dust	
6	60382610	Pad, Arm Rest	
7	60374190	Sideboard, L	
8	60374200	Sideboard, R	
9	51280340	Cord, AC Power	JAPAN
	50471661	Cord, AC Power	GENERAL EXPORT, U.S.A.
	60490960	Cord, AC Power	CANADA
	60491250	Cord, AC Power	EUROPE
	60491320	Cord, AC Power	U.K.
	60491180	Cord, AC Power	AUSTRALIA
10	50276810	Strain Relief, AC Power Cord	JAPAN, GENERAL EXPORT, EUROPE, U.S.A.
11	60372200	Strain Relief, AC Power Cord	AUSTRALIA, U.K., CANADA
12	50323011	Bushing, Rubber	
13	60362220	Panel, Rear	
14	16496057	Washer	
15	60520370	Jack, 2-cond. Phone	
16	50272620	Washer, Insulating; B	
17	60030210	Spacer, Jack	
18	60490520	Cable, Strapping	
19	50454071	Post, GND	
20	60521290	Board, RCA Pin Jack; A	
21	60521300	Board, RCA Pin Jack; B	
22	60374100	Chassis, Main	
23	60853870-01	Module, INPUT	
24	60491780	Cable, A (w/connector)	
25	60491790	Cable, B (w/connector)	
26	60853870-02	Module, INPUT (w/connector)	
27	60374150	Frame Assy, Unit	
28	60504271	Input Ampl. PC Board	
29	60412080	Var. Res., Slide 10k ohm - A	
30	60421040	Var. Rec., Dual 5k ohm - A, C	
31	60514280	Switch, Push	
32	60421030	Var. Res., 50k ohm - W	
33	60510690	Switch, Rotary	
34	60853910	MASTER FADER Assy	
35	60412090	Var. Res., 4-gang Slide 10k ohm - A	
36	60504311	PC Board, MASTER FADER	
37	60853880	PC Board Assy, MIXING AMPL.	
38	60371820	Clamp, PC Board	
39	60853890	PC Board Assy, LINE AMPL.	
40	60853900	PC Board Assy, POWER SUPPLY	
41	50411310	Fuse, 250V 1A	U.S.A., CANADA
	50411410	Fuse, 250V 1A	AUSTRALIA, U.K., EUROPE
	50411010	Fuse, 250V 1A	JAPAN
42	60400790	Transformer, Power	JAPAN, CANADA, U.S.A.
	60400800	Transformer, Power	AUSTRALIA, U.K., EUROPE
43	60374400	Plate, Shield	
44	60504321	PC Board, LED	
45	60501550	LED	
46	60374140	Bracket, Power Push Switch	
47	50252320	Button, Push Switch; A	
48	51340180	Switch, Power Push	
49	60374180	Plate, Bottom	
50	55040500	Foot	
51	50332880	Cap, Insulating	

7. PC BOARDS (Diagrams & Parts List)

1. INPUT MODULE PC BOARD ASSY



REF. NO.	PARTS NO.	DESCRIPTION
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	60853870-01	Input Module
	60853870-02	Input Module (w/connector)
	60504271	PC Board

IC's

U1	60486240	TA7136P
U2	60486260	RC4558D-D

CARBON RESISTORS

All resistors are rated $\pm 5\%$ tolerance and $\frac{1}{4}$ watt.

R1	100 ohm
R2, R3	100k ohm
R4	1k ohm
R5	100k ohm
R6	82k ohm
R7	10k ohm
R8	100 ohm
R9	100k ohm
R10	18k ohm
R11~R13	100k ohm
R14	91k ohm
R15	7.5k ohm
R16	1k ohm
R17~R19	10k ohm
R20, R21	3.3k ohm
R22	10k ohm
R23~R26	22k ohm

CAPACITORS

C1	60430160	Elec.	22 mfd	10V
C2	50547420	Dip. Mica	47 pfd	50V
C3	60430180	Elec.	47 mfd	10V
C4	50547420	Dip. Mica	47 pfd	50V
C5	50547400	Dip. Mica	10 pfd	50V
C6~C8	60430160	Elec.	22 mfd	10V
C9	60445550	Mylar	0.1 mfd	50V
C10	60430180	Elec.	47 mfd	10V
C11	60445210	Mylar	0.0068 mfd	50V
C12	60445550	Mylar	0.1 mfd	50V
C13	60430160	Elec.	22 mfd	10V
C14, C15	60440050	Ceramic	0.01 mfd	50V

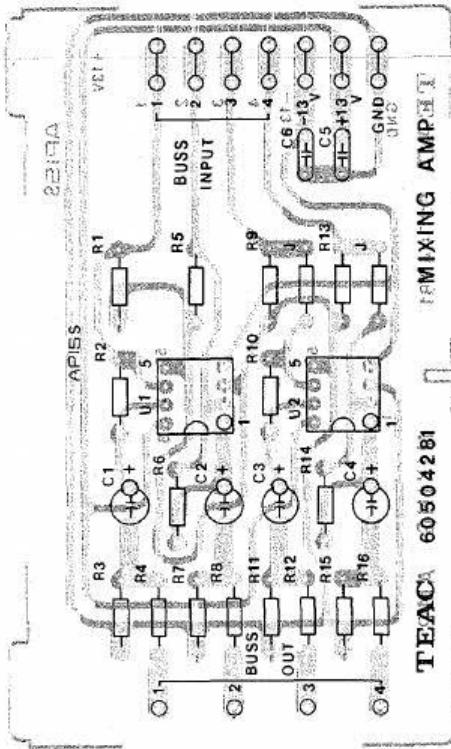
VARIABLE RESISTORS

R101, R102	60421030	50k ohm - W
R103	60421040	Dual, 5k ohm - A, C
R104	60412080	Slide, 10k ohm - A

MISCELLANEOUS

S1	60510690	Switch, Rotary
S2	60514280	Switch, Push
	60500082	PC Board, Push Switch
J1	60522820-04	Connector, 4
J2	60522820-07	Connector, 7
P2	60491790	Cable, B (w/connector)
J	60374150	Bracket Assy, Module Jumper (7 used)

2. MIXING AMP PC BOARD ASSY



REF. NO.	PARTS NO.	DESCRIPTION
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	60853880	PC Board Assy
	60544280	PC Board

IC's

U1, U2	60486070	RC4558DN
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CARBON RESISTORS

All resistors are rated $\pm 5\%$ tolerance and $\frac{1}{4}$ watt.

R1	220k ohm
R2	22k ohm
R3	47k ohm
R4	100 ohm
R5	220k ohm
R6	22k ohm
R7	47k ohm
R8	100 ohm
R9	220k ohm
R10	22k ohm
R11	47k ohm
R12	100 ohm
R13	220k ohm
R14	22k ohm
R15	47k ohm
R16	100 ohm

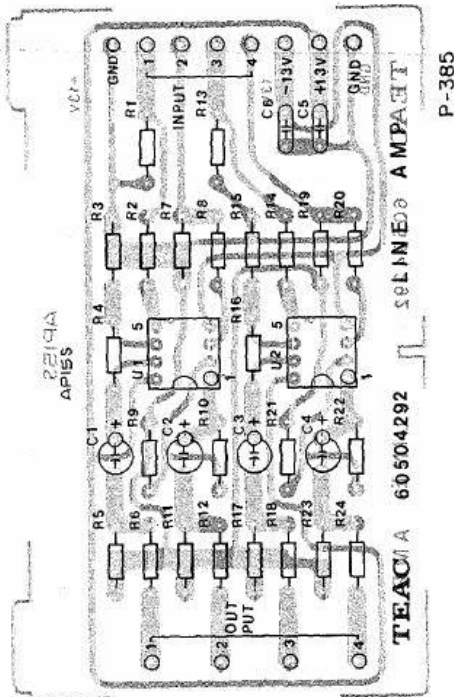
CAPACITORS

C1~C4	60430160	Elec.	22 mfd	10V
C5, C6	60440050	Ceramic	0.01 mfd	50V

MISCELLANEOUS

J	Jumper
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3. LINE AMP PC BOARD ASSY



REF. NO.	PARTS NO.	DESCRIPTION
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	60853890	PC Board Assy
	60504291	PC Board

IC's

U1, U2	60486070	RC4558DN
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CARBON RESISTORS

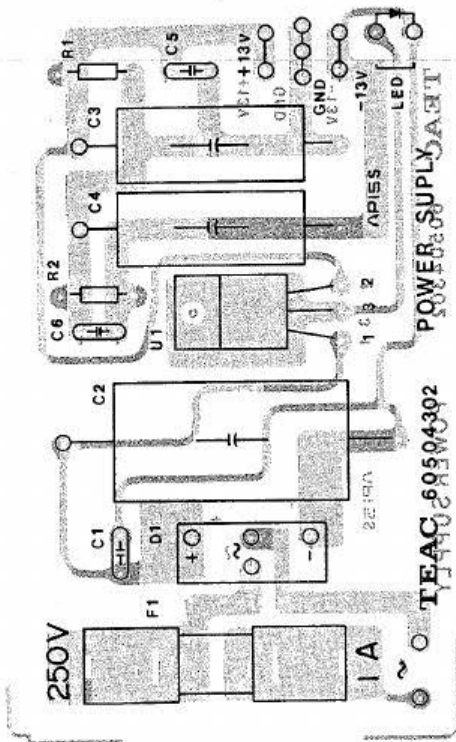
All resistors are rated $\pm 5\%$ tolerance and $\frac{1}{4}$ watt.

R1	100k ohm
R2	1k ohm
R3	1.8k ohm
R4	6.2k ohm
R5	47k ohm
R6	100 ohm
R7	100k ohm
R8	1k ohm
R9	1.8k ohm
R10	6.2k ohm
R11	47k ohm
R12	100 ohm
R13	100k ohm
R14	1k ohm
R15	1.8k ohm
R16	6.2k ohm
R17	47k ohm
R18	100 ohm
R19	100k ohm
R20	1k ohm
R21	1.8k ohm
R22	6.2k ohm
R23	47k ohm
R24	100 ohm

CAPACITORS

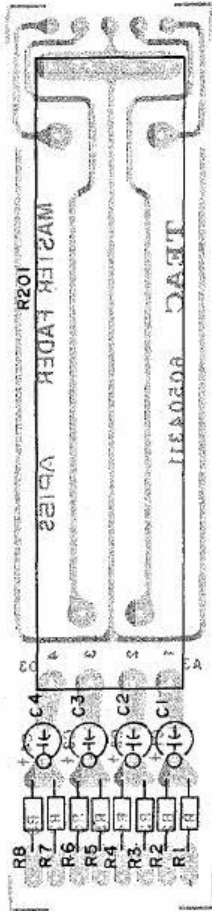
C1~C4	60430160	Elec.	22 mfd	10V
C5, C6	60440050	Ceramic	0.01 mfd	50V

4. POWER SUPPLY PC BOARD ASSY



REF. NO.	PARTS NO.	DESCRIPTION
	60853900	PC Board Assy
	60504300	PC Board
U1	60486160	Regulator, FS7824M
D1	60483440	Diode, S1RBA20
	50411310	Fuse, 1A 250V (U.S.A., CANADA)
	50411410	Fuse, 1A 250V (AUSTRALIA, U.K., EUROPE)
	50411010	Fuse, 1A 250V (JAPAN)
	60529010	Fuse Holder
R1, R2		Resistor, Carbon 10k ohm 1/4W 5%
C1	60440050	Capacitor, Ceramic 0.01 mfd 50V
C2	50555560	Capacitor, Elec 470 mfd 50V
C3, C4	50555030	Capacitor, Elec 220 mfd 25V
C5, C6	60440050	Capacitor, Ceramic 0.01 mfd 50V

5. MASTER FADER PC BOARD ASSY

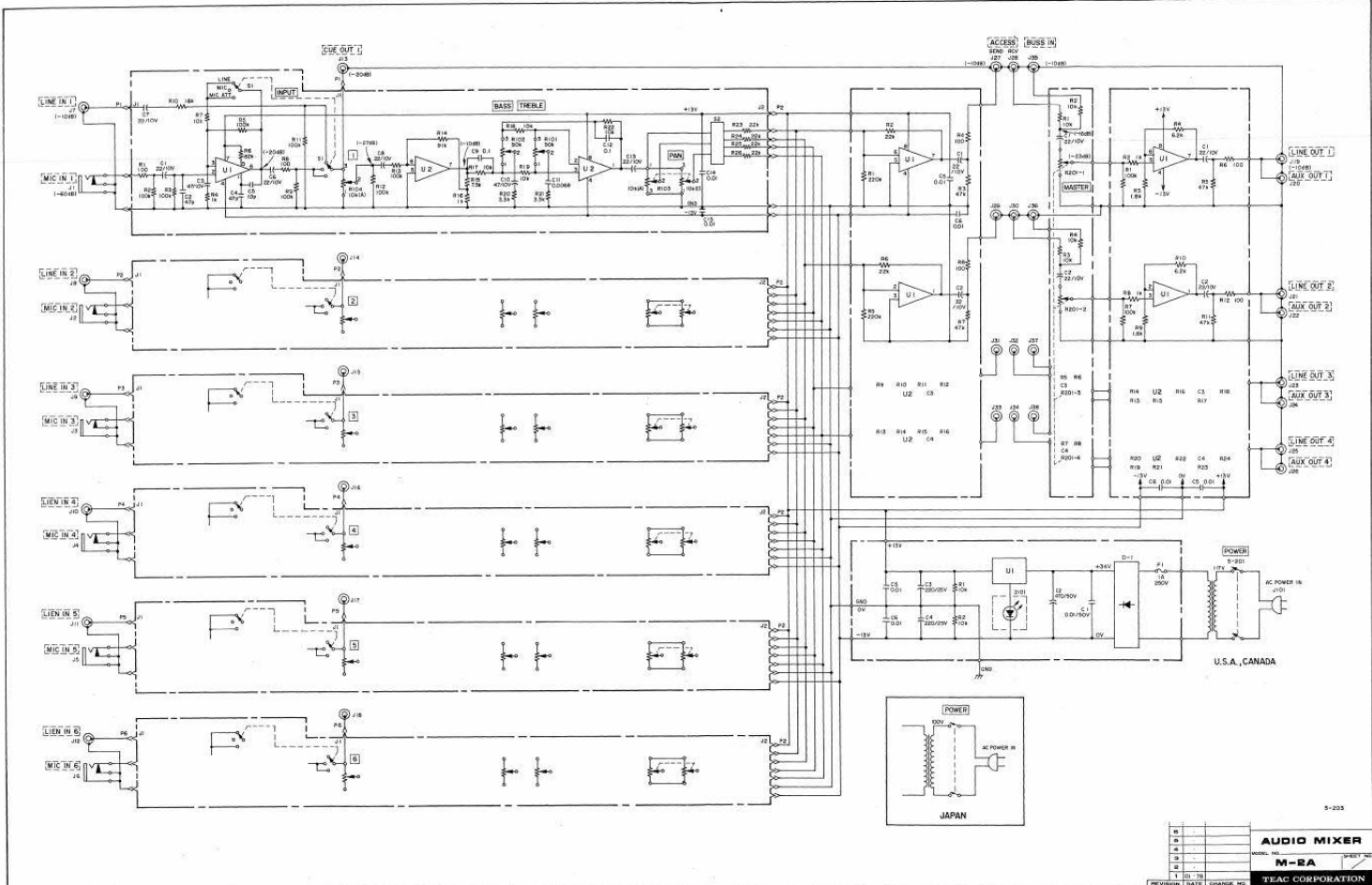


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REF. NO.	PARTS NO.	DESCRIPTION
	60853910	Master Fader Assy
	60504311	PC Board
R201	60412090	Var. Res., 4-gang Slide 10k ohm - A
R1~R8		Resistor, Carbon 10k ohm ¼W 5%
C1~C4	60430160	Capacitor, Elec. 22 mfd 10V

8. INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	60060380	Adaptor Knob, 2-gang	
	60090400	Model-2A Operation Manual	JAPAN
	60090410	Model-2A Operation Manual	All except JAPAN



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REV	DATE	CHANGE	BY

AUDIO MIXER
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