



YAMAHA

EM-150 Ensemble Mixer

SERVICE MANUAL

SPECIFICATIONS

Number of Inputs	6-input channels (each switchable for MIC, INST or LINE). 2-auxiliary stereo input (AUX and REC OUT). 1-auxiliary monaural input (FROM ECHO).
Input Channel Controls	VOLUME, BASS & TREBLE tone (± 12 dB of low and high frequency equalization), REVERB/ECHO, BALANCE (stereo pan), MIC/INST/LINE (Input Selector).
Mixing Buses	2-Program (stereo Left and Right), 1-Reverb/Echo.
Number of Outputs	2-SPEAKER, 2-MONITOR OUT, 2-RECORD OUT, 1-PHONES, 1-TO ECHO.
Master Controls	MASTER VOLUME, MONITOR VOLUME, MASTER REVERB/ECHO, AUX VOLUME, graphic equalizer ON/OFF (Left & Right).
Echo and Reverb	Built-in Accutronics spring-type reverberation unit; provisions for connection of external reverb, echo delay, or other effects devices.
Power Output	150-Watts RMS (2 X 75-W) amplifier. For 8-ohm speakers.
Graphic Equalizer	7-Band, for SPEAKER and PHONES outputs; 12dB of boost or cut at: 60Hz, 150Hz, 400Hz, 1kHz, 2.5kHz, 5kHz & 10kHz.
Level Indicators	2-illuminated VU meters; 0 VU=37.5 Watts (8-ohm termination).
Amplifier Type	All solid state, discrete and integrated circuit.
Power Requirements	110, 117, 130, 220 or 240 VAC, 50/60Hz.
Physical Dimensions	Width 24 $\frac{1}{4}$ " (61.5cm) X Height 7 $\frac{1}{4}$ " (18.2cm) X Depth 16 $\frac{1}{4}$ " (41.0cm), Weight 39.7lbs. (18kg).
Finish	Black, with protective aluminum trim.
Additional Features	Integral carrying strap, rubber feet, 2-way power switch to minimize hum, power ON indicators in VU meters, color-coded control knobs.

Connector, Level & Impedance Information

Circuit	Type Connector*	Nominal Level	Impedance
Inputs:			
LINE	standard phone (x6)	-27dBm(35mV)	50 kohms
INST	(same jack)	-33dBm(17mV)	50 kohms
MIC	(same jack)	-52dBm(2mV)	10 kohms
AUX	pin jack (x2)	-21dBm(69mV)	50 kohms
FROM ECHO	standard phone (x2)	-31dBm(22mV)	50 kohms
Outputs:			
SPEAKER	standard phone (x2)	<u>75-Watts RMS</u>	8 ohms
MONITOR OUT	standard phone (x2)	+4dBm (1.23V)	5 kohms
TO ECHO	standard phone	-20dBm(78mV)	50 kohms
RECORD OUT	pin jack (x2)	-22dBm(62mV)	50 kohms
PHONES	stereo phone	(varies w/SPEAKER)	8 ohms

**All connections are unbalanced.*

TOP CASE REMOVAL

1. Set the unit up on its side and remove the 6 wood screws, as shown in Figure 1.
2. Reset the unit in its normal position and lift up the top case, as shown in Figure 2.

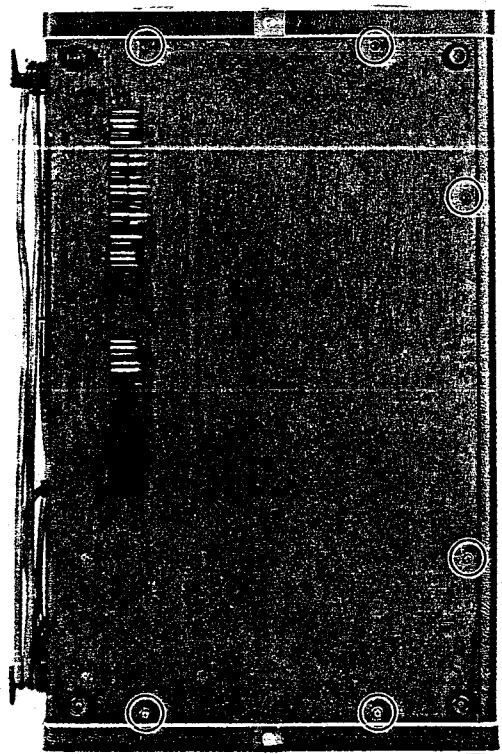


Figure 1

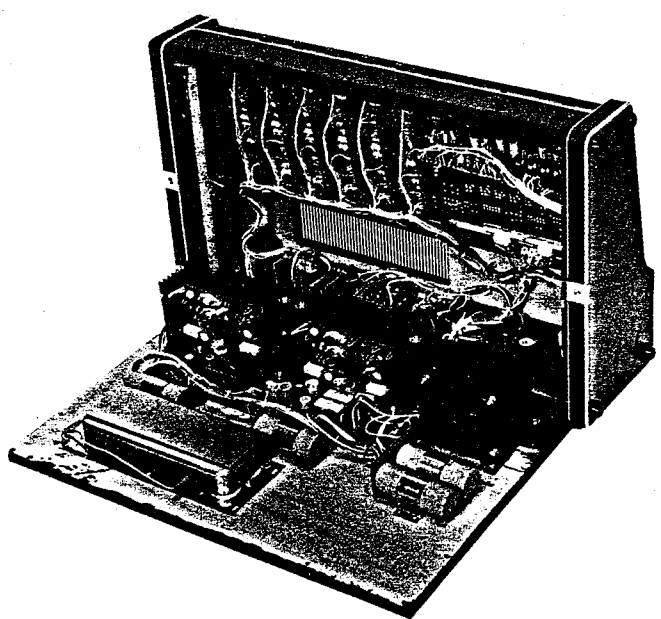


Figure 2

ELECTRICAL CHECKS AND ADJUSTMENTS

GENERAL NOTICE

Procedures for checks and adjustment, unless otherwise indicated, are for the left channel. The same procedures are to be applied to the right channel.

Value of "dBm" in this manual refers to 0dBm = 0.775V, except where specified.

Equipment Requirements

1. The output impedance of the signal generator should be less than 1 kohm.
2. The input impedance of the oscilloscope, level meter, etc. should be more than 100kohms.

Main Amp Idling Current

1. Connect an 8-ohm dummy load to the Speaker jack.
2. Adjust VR1 so that the voltage between the MA circuit board TP1 and TP2 terminals is $11 \pm 1\text{mV}$ at no signal.

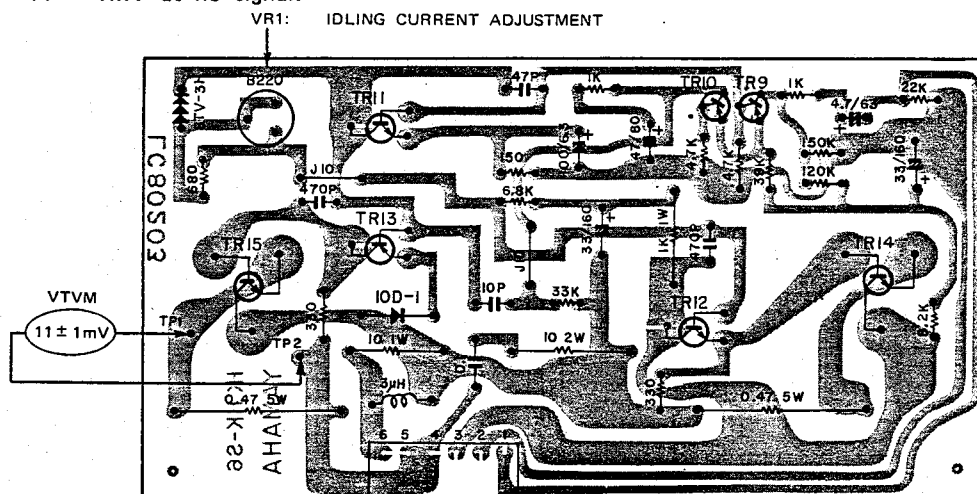


Figure 3

VU Meter Calibration

3. Feed a 1kHz signal through the input jack. Set the input level so that the output level at the Speaker jack is +27dBm (37.5 W).
4. Adjust VR2/3 for 0 VU reading on the VU meters.

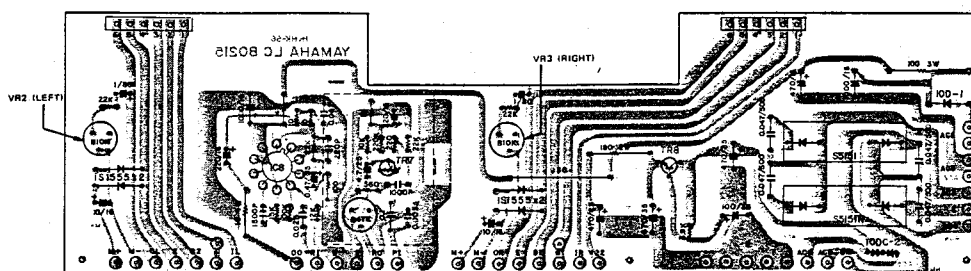


Figure 4

Gain

1. Connect an 8-ohm dummy load to the Speaker jack.
2. Set up the various controls as shown in Table 1.

VOLUME	Max. (all channels)
REVERB/ECHO	Min. (all channels)
BALANCE, BASS, TREBLE	Center (all channels)
AUX VOLUME	Min.
EQUALIZER Switch	Off (L, R)
MASTER VOLUME	Max.
MASTER REVERB/ECHO	Min.

Table 1

3. Feed a $-60\text{dBm}/1\text{kHz}$ signal through the input jack for that channel.
4. The output level at each channel should be within the limits indicated in Table 2.

Input Selector	Output Level (in dBm)
MIC	$+21.5 \pm 3$
INST	$+2.5 \pm 3$
LINE	-3.5 ± 3

Table 2

Distortion (THD)

5. With all other settings as shown in Table 1, set the Volume control for the channel to be measured to maximum, all other channels to minimum.
6. Feed a 1kHz signal through the input jack. Set the input level so that the output level at the Speaker jack is $+27\text{dBm}$ (37.5 W).
7. The distortion factor should be less than 1% on each channel (L, R).
8. At an output of $+30\text{dBm}$ (75 W) distortion factor should be less than 3%.

Frequency Response

9. Feed -60dBm signals from 20kHz down to 20Hz observing the output on a level meter.
10. The indicated response should be within $\pm 3\text{dB}$ of the specified response curves.

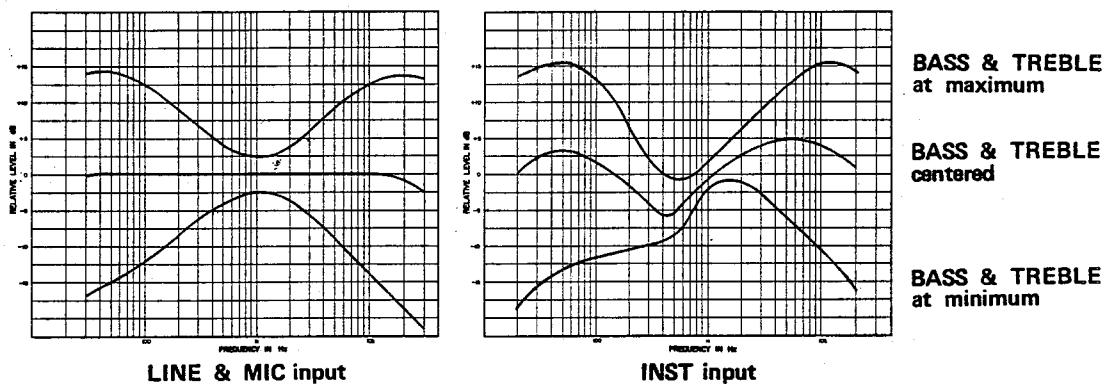


Figure 5 Frequency Response Curves

Treble Control

11. Feed a 10kHz signal through the input jack.
12. When the Treble knob is turned from maximum to minimum, variation must be $26 \pm 3\text{ dB}$.

Bass Control

13. Feed a 100Hz signal through the input jack.
14. When the Bass knob is turned from maximum to minimum, variation must be $24 \pm 3\text{ dB}$.

Graphic Equalizer

15. Set the Equalizer switch to ON.
16. Feed a -65dBm signal through the input jack.
17. Slide that frequency level control from maximum to minimum. The variation should be within the limits indicated in Table 3.

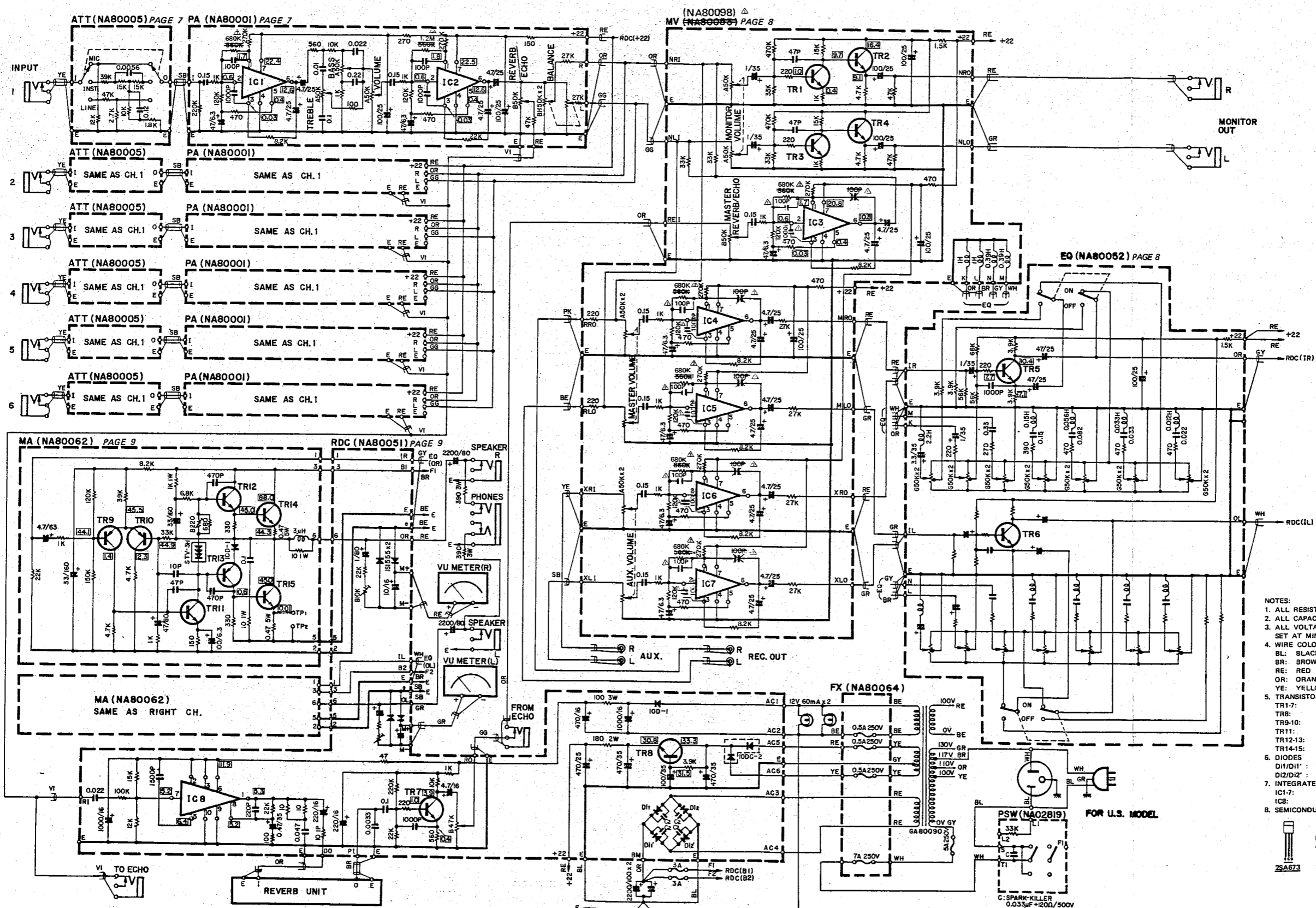
Level Controls Settings	60Hz	150Hz	400Hz	1kHz	2.5kHz	5kHz	10kHz
Max. (+12)	$+12 \pm 3$	$+12 \pm 3$	$+12 \pm 3$	$+12 \pm 3$	$+12 \pm 3$	$+12 \pm 3$	$+12 \pm 3$
Min. (-12)	-12 ± 3	-12 ± 3	-12 ± 3	-12 ± 3	-12 ± 3	-12 ± 3	-12 ± 3

Table 3

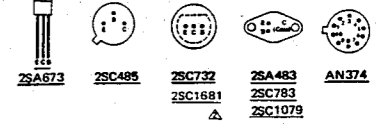
Noise Level

18. Set the Input Selector switch to MIC.
19. At no input condition noise level should be below -25dBm . During this check, make sure the power switch is set to the On position which provides the lower hum level.

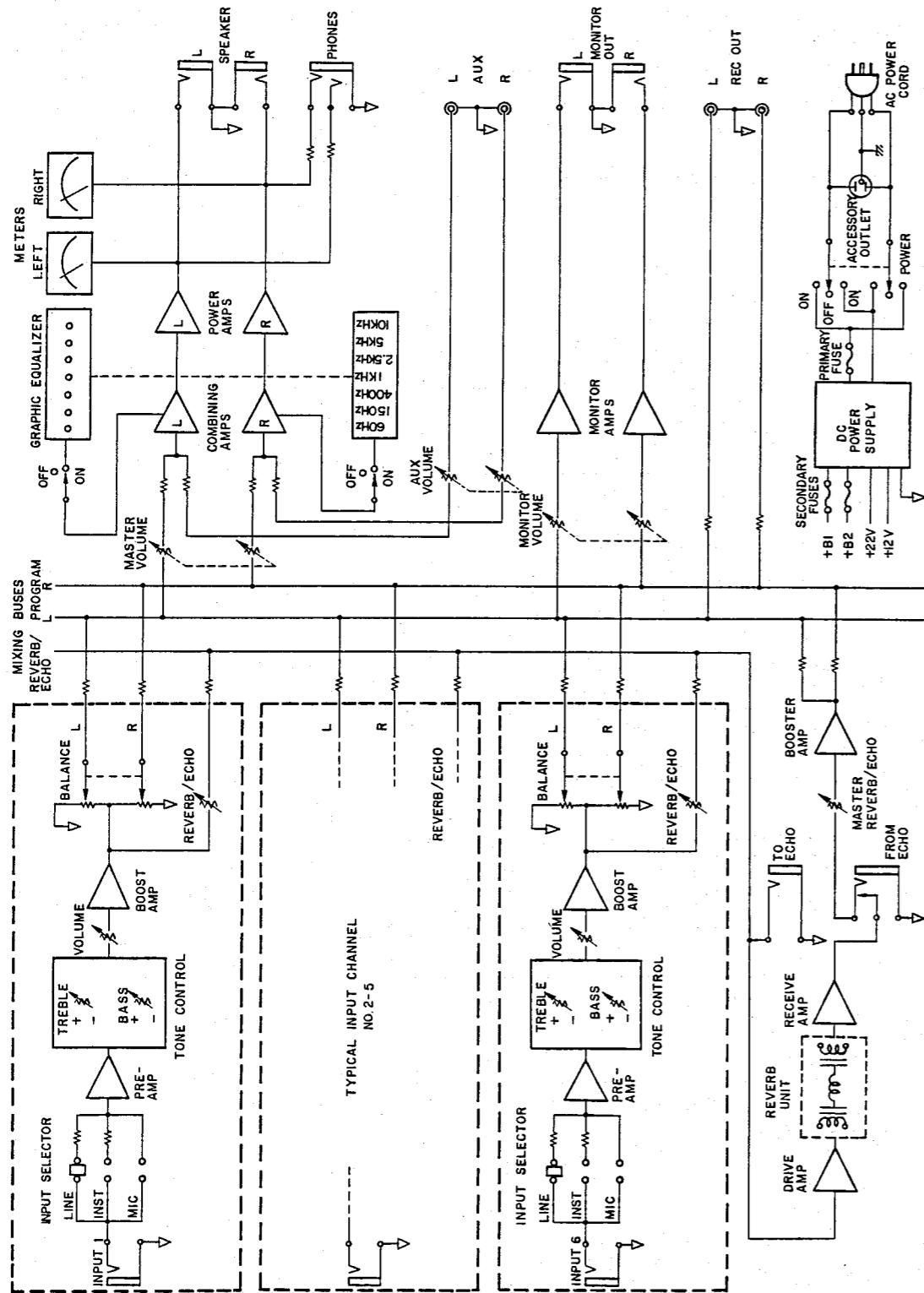
REVISIONS		
REF	DATE	UNITS AFFECTED
△	9/20/75	S/ # 2881 ~ up
△	12/24/75	S/ # 3061 ~ up
△	4/26/76	S/ # 5066 ~ up



- NOTES:
- ALL RESISTORS IN OHMS 1/4 WATT UNLESS OTHERWISE NOTED.
 - ALL CAPACITORS IN MFD. UNLESS OTHERWISE NOTED.
 - ALL VOLTAGES MEASURED WITH A VTVM, WITH ALL CONTROLS SET AT MINIMUM.
 - WIRE COLOR ABBREVIATIONS
 BL: BLACK GR: GREEN GG: LIGHT GREEN
 BR: BROWN BE: BLUE SB: LIGHT BLUE
 RE: RED VI: VIOLET PK: PINK
 OR: ORANGE GY: GRAY TR: TRANSPARENT
 YE: YELLOW WH: WHITE TP: TIN PLATED
 - TRANSISTORS
 TR1-7: 2SC732 2SC1681 △
 TR8: 2SC485
 TR9-10: 2SA673
 TR11: 2SA483
 TR12-13: 2SC783
 TR14-15: 2SC1079
 - DIODES
 D1/D11: SS151
 D2/D12: SS151R
 - INTEGRATED CIRCUITS
 IC1-7: BA311F
 IC8: AN374
 - SEMICONDUCTOR LEAD IDENTIFICATION

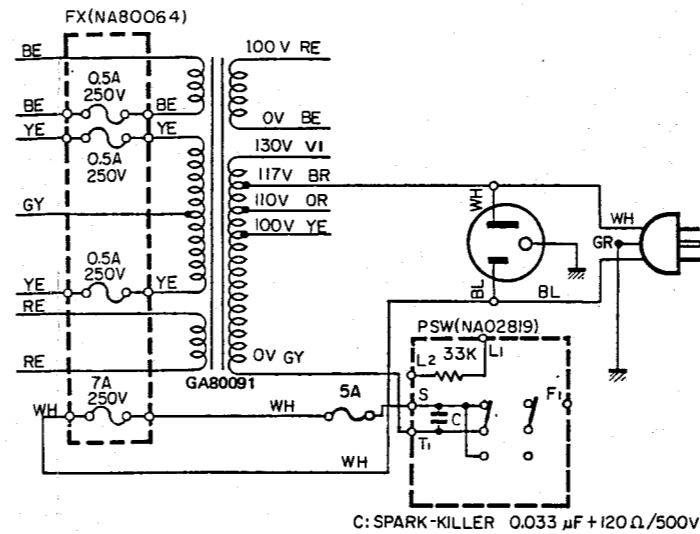


YAMAHA EM-150 ENSEMBLE MIXER SCHEMATIC DIAGRAM

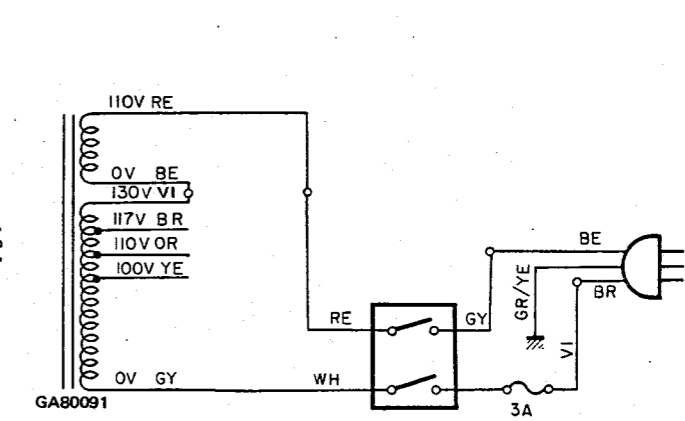


BLOCK DIAGRAM

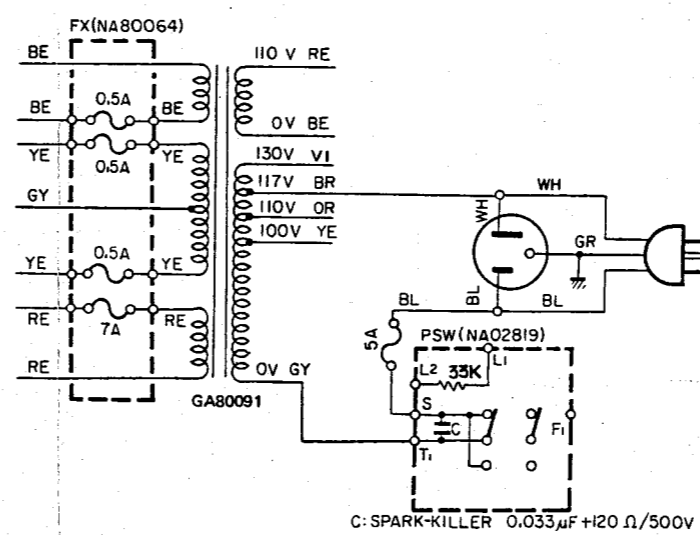
▼ FOR U.S. MODEL



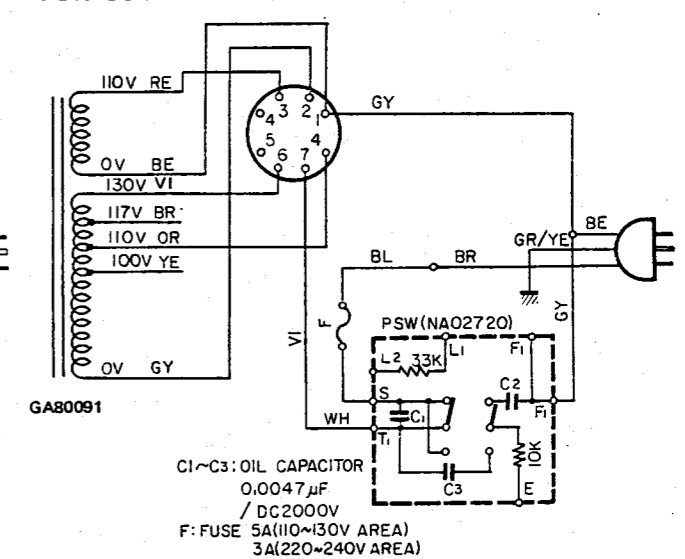
▼ FOR AUSTRALIAN MODEL



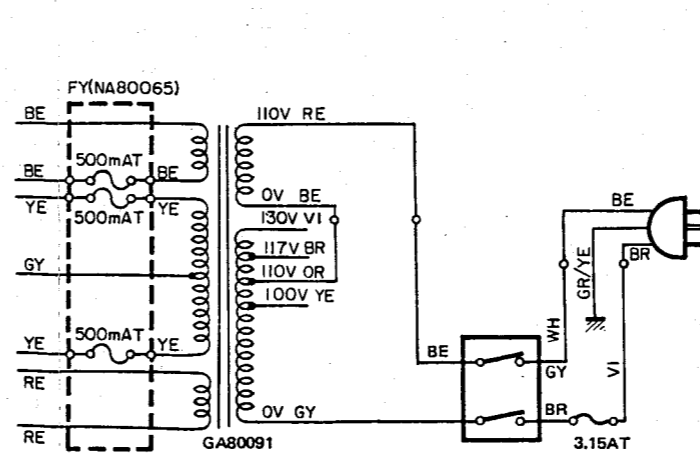
▼ FOR CANADIAN MODEL



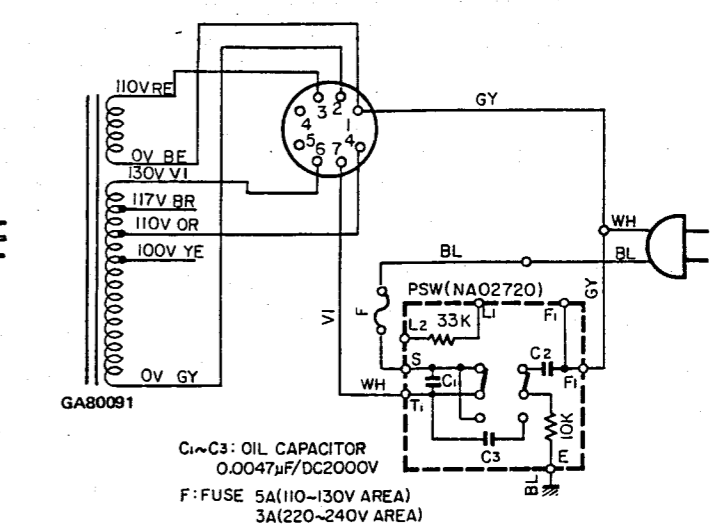
▼ FOR SOUTH AFRICAN MODEL



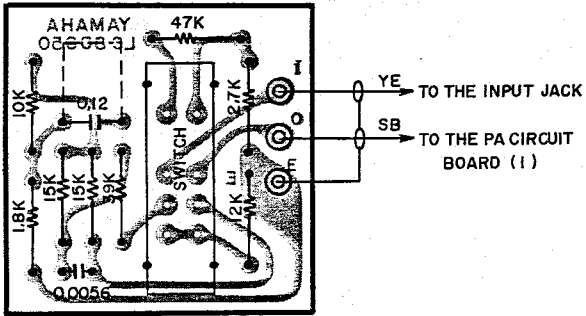
▼ FOR EUROPEAN MODEL



▼ FOR GENERAL MODEL

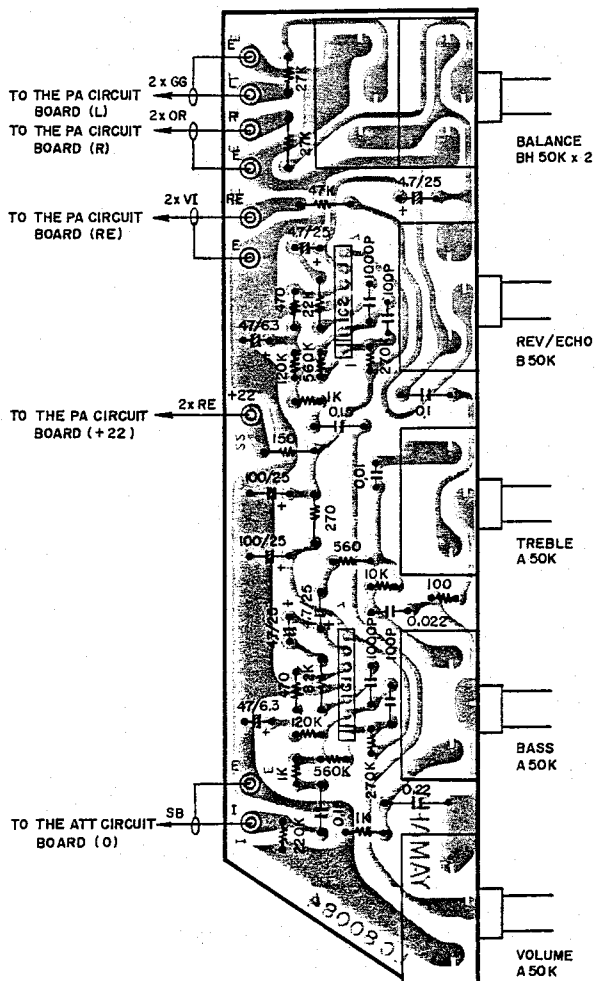


POWER CIRCUIT ARRANGEMENTS



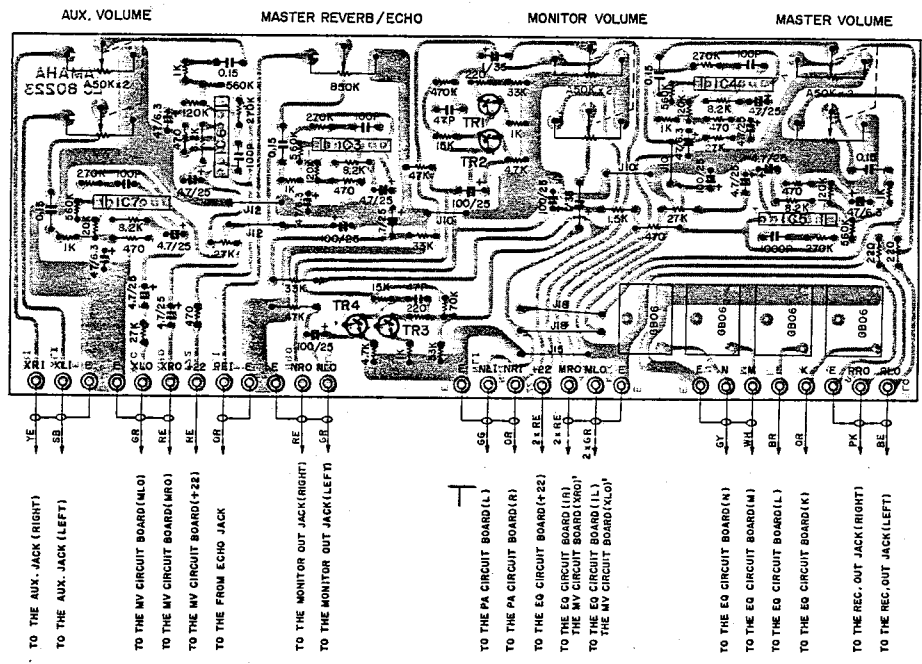
Part No.	Description
305600NA800050	ATT Circuit Board Ass'y #80050
401000KA400070	Slide Switch

ATT CIRCUIT BOARD



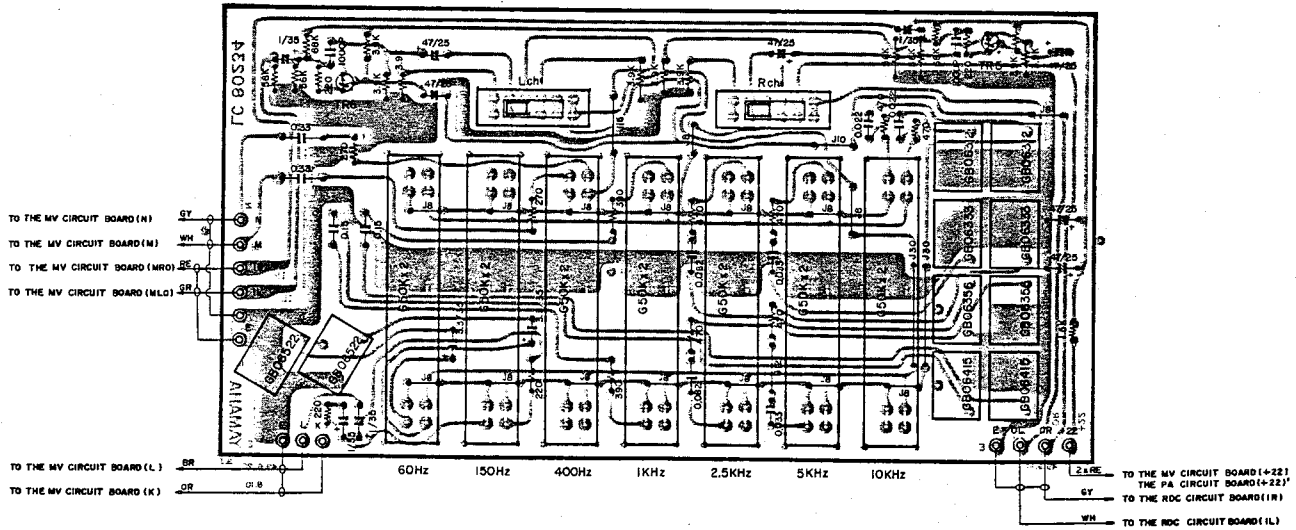
Part No.	Description
305600NA800010	PA Circuit Board Ass'y #80084
401000IG000470	IC BA311 (F)
401000HS320210	Variable Resistor A50k Ω
401000HS320220	Variable Resistor B50k Ω
401000HS320230	Variable Resistor BH50k Ω x 2

PA CIRCUIT BOARD



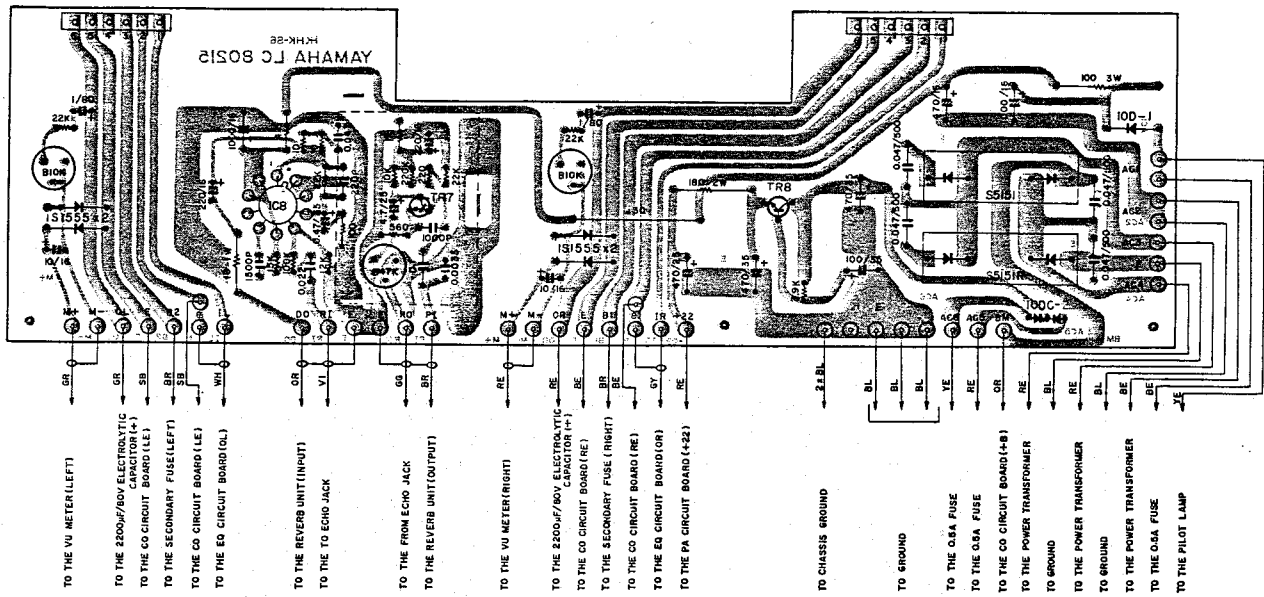
MV CIRCUIT BOARD

Part No.	Description
305600NA800530	MV Circuit Board Ass'y #80223
401000IC073240	Transistor 2SC732
401000IG000470	IC BA311(F)
401000GB065100	Filter Coil 1.0H
401000GB064390	Filter Coil 0.39H
401000HS320240	Variable Resistor A50kΩ x 2
401000HS320220	Variable Resistor B50kΩ
401000FP156100	Tantalum Capacitor 1μF/35V



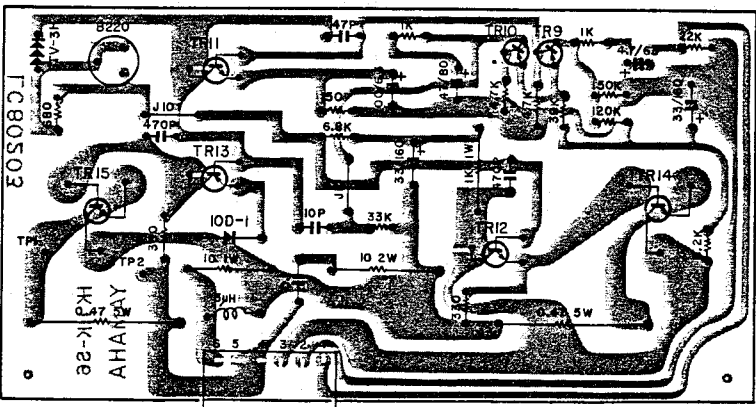
EQ CIRCUIT BOARD

Part No.	Description
305600NA800520	EQ Circuit Board Ass'y #80234
401000IC073240	Transistor 2SC732
401000GB065220	Filter Coil 2.2H
401000GB064150	Filter Coil 0.15H
401000GB063560	Filter Coil 0.056H
401000GB063330	Filter Coil 0.033H
401000GB063120	Filter Coil 0.012H
401000HQ100030	Slide Variable Resistor G50kΩ x 2
401000FP156100	Tantalum Capacitor 1μF/35V
401000FP156330	Tantalum Capacitor 3.3μF/35V
401000KA400340	Slide Switch



RDC CIRCUIT BOARD

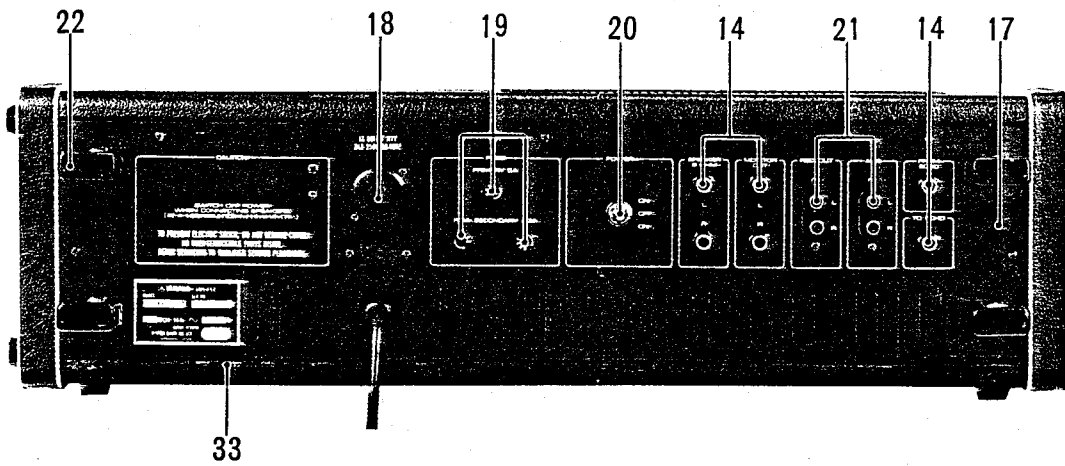
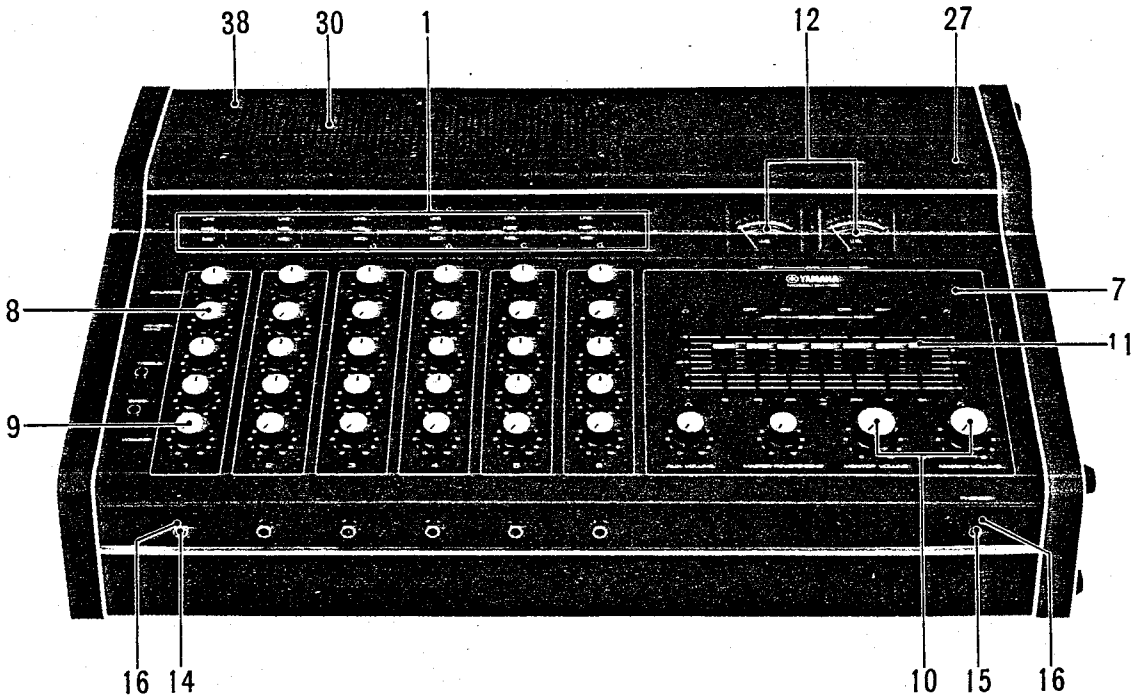
Part No.	Description
305600NA800510	RDC Circuit Board Ass'y #80215
401000IC048520	Transistor 2SC485
401000IC073240	Transistor 2SC732
301000BA005120	Heat-sinker (for 2SC485)
401000IG000150	IC AN374
401000IF000040	Diode 1S1555
401000IH000040	Diode 10DC-2
401000IH000030	Diode 10DC-1
401000IH000210	Diode S5151
401000IH000220	Diode S5151R
401000HL31410	Metal Oxide Resistor 10Ω 1P
401000HL325180	Metal Oxide Resistor 180Ω 2P
401000HM535100	Cement Molded Resistor 100Ω 3P
401000HT410070	Trimmer B10kΩ
401000HT410140	Trimmer B47kΩ
401000FP155470	Tantalum Capacitor 0.47μF/35V
401000LB600270	6P Connector Plug

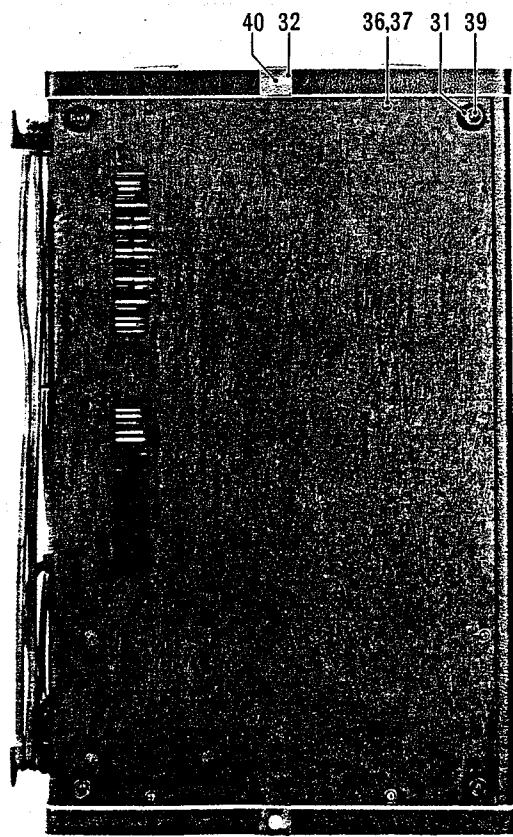
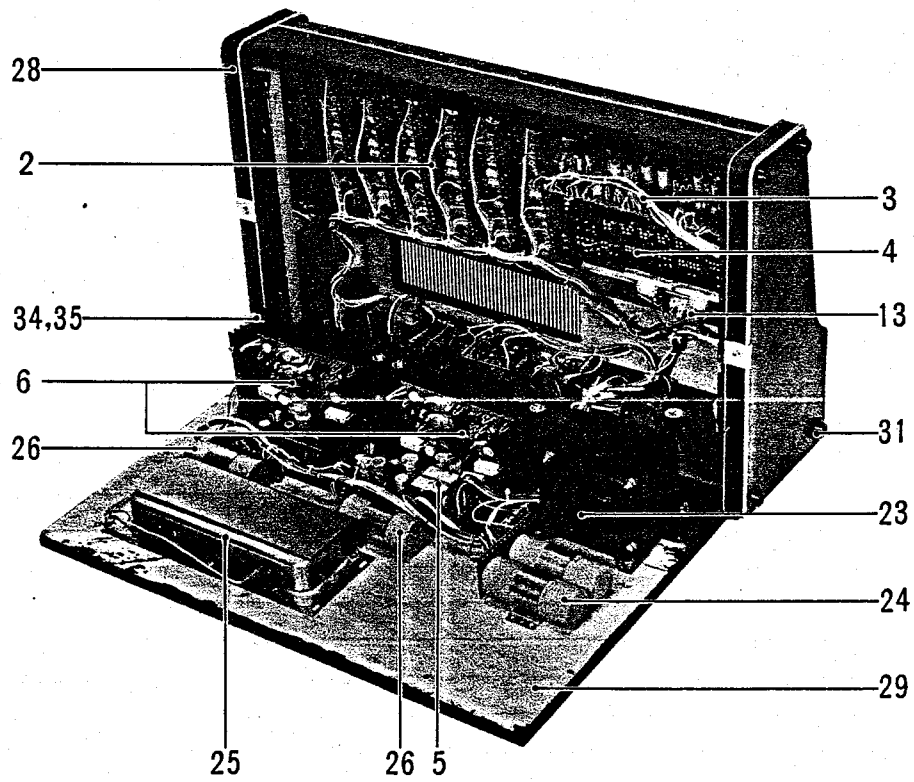


MA CIRCUIT BOARD

Part No.	Description
305600NA800620	MA Circuit Board Ass'y #80203
401000IA076370	Transistor 2SA763
401000IA048320	Transistor 2SA483
401000IC078320	Transistor 2SC783
401000IC107920	Transistor 2SC1079
401000LB300110	Transistor Socket (for 2SC1079)
401000IH000030	Diode 10D-1
401000IF000450	Varistor STV-3H
401000HL314100	Metal Oxide Resistor 10Ω 1P
401000HL316100	Metal Oxide Resistor 1kΩ 1P
401000HL324100	Metal Oxide Resistor 10Ω 2P
401000HM552470	Cement Molded Resistor 0.47Ω 5P
401000HT410010	Trimmer B220Ω
401000GD900050	Coil 3μH
401000LB600280	6P Connector Socket
305400BA008130	Heat-sinker

PARTS LIST



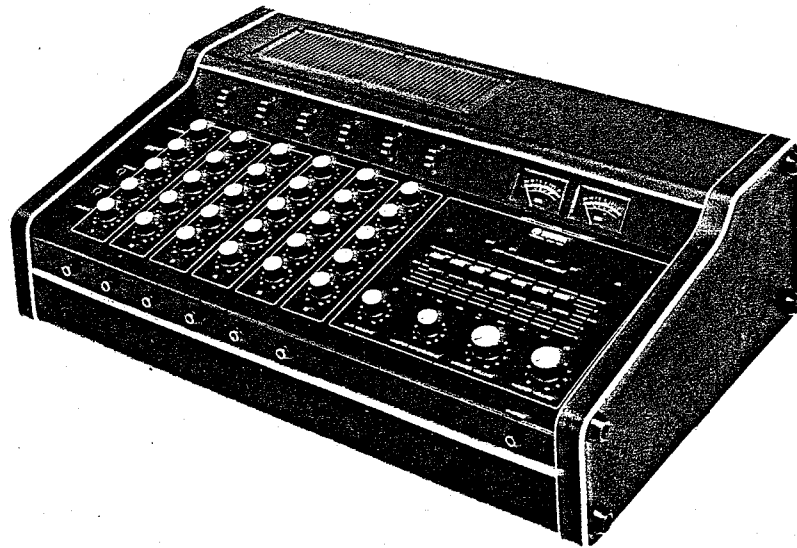


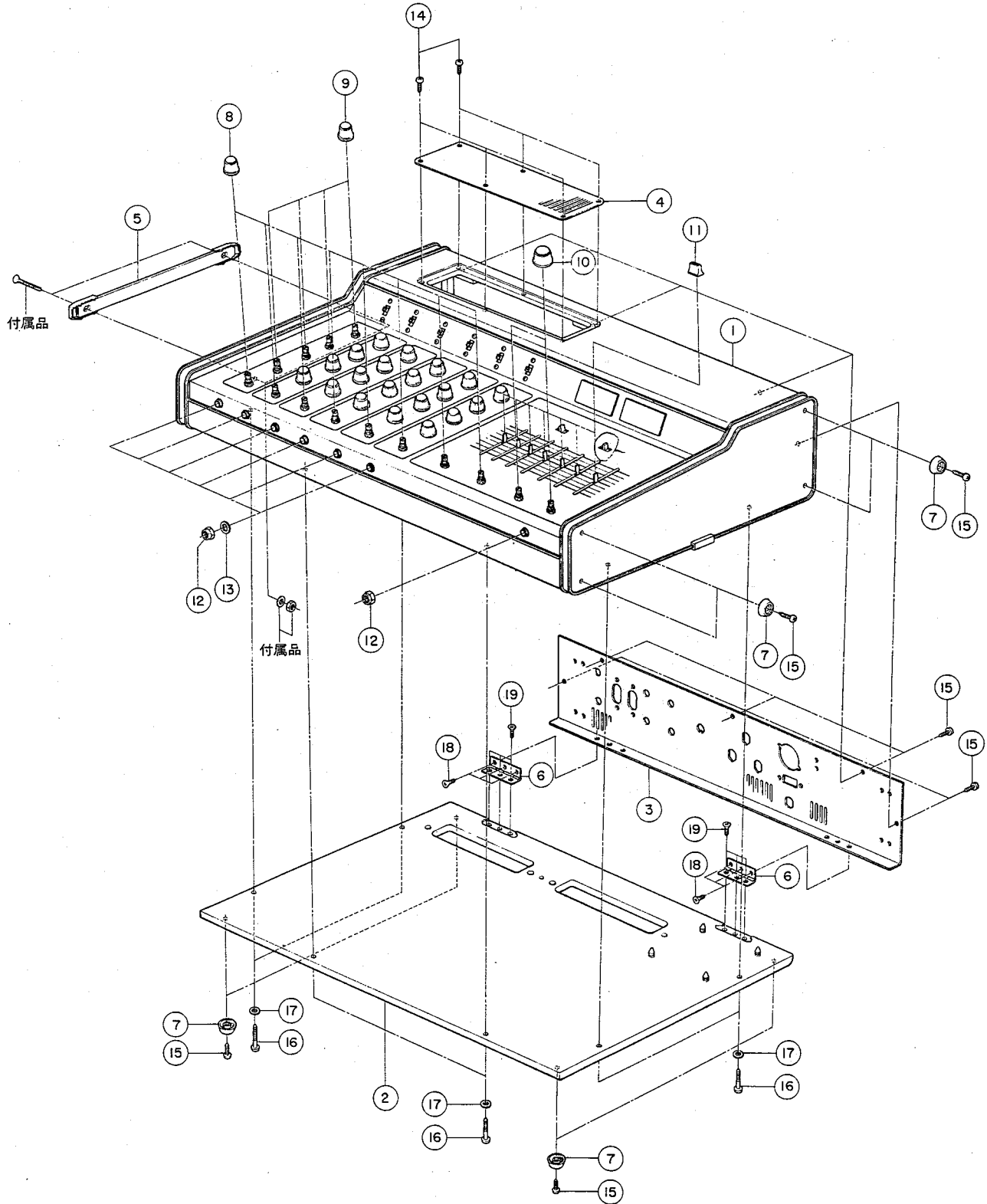
Ref. No.	Part No.	Description	Remarks	Common Models
1	305600NA800050	ATT Circuit Board # 80050	A T T シ ー ト	
2	305600NA800010	PA Circuit Board # 80084	P A シ ー ト	
3	305600NA800530	MV Circuit Board # 80223	M V シ ー ト	
4	305600NA800520	EQ Circuit Board # 80234	E Q シ ー ト	
5	305600NA800510	RDC Circuit Board # 80215	R D C シ ー ト	
6	305600NA800620	MA Circuit Board # 80203	M A シ ー ト	
7	305600AA801050	Panel	パ ネ ル	
8	305600CB801080	Knob, Light Blue	ツマミ、ライトブルー	
9	305600CB800780	Knob, White	ツマミ、アイボリー	
10	305600CB800760	Knob, Orange	ツマミ、オレンジ	
11	305400CB018340	Knob	ツ マ ミ	
	305400CB024190	Spacer, Circuit Boards	ス ペ ー サ ー	
12	401000J1000210	VU Meter	レ ベ ル メ ー タ	
13	401000JB000020	Lead Type Lamp 12V 60mA	リ ー ド 付 ラ ン プ	
14	401000LB200630	Jack	ジ ャ ッ ク	
15	401000LB300060	Jack, Phones	ジ ャ ッ ク	
16	305600CB062010	Phone Nut	ホ ー ン ナ ッ ト	
17	305600AA801110	Rear Panel	リ ア パ ネ ル	
18	401000LB300250	3P AC Outlet	3 P A C コ ン セ ン ト	U.S./Canadian Model only
	401000LB200250	Voltage Selector	電 圧 切 換 器	General & South African Models
19	401000LB200480	Fuse Holder	ヒ ュ ー ズ ホ ル ダ ー	except for European Model
19	401000LB200590	Fuse Holder	ヒ ュ ー ズ ホ ル ダ ー	European Model only
	401000KB001040	Fuse 3A 250V	ヒ ュ ー ズ	except for European Model
	401000KB001100	Fuse 5A 250V	ヒ ュ ー ズ	U.S./Canadian, General & South African Models (110~130V area) only
	401000KB000360	Miniature Fuse 3AT	ミ ニ ヒ ュ ー ズ	European Model only
20	305400NA028190	PSW (Power Switch) Circuit Board #15681	P S W シ ー ト	U.S./Canadian Model only
20	305400NA027200	PSW (Power Switch) Circuit Board #14990	P S W シ ー ト	General & South African Models only
20	401000KA300010	Power Switch	ト グ ル ス イ ッ チ	European & Australian Models only
21	401000LB200190	Pin Jack	ピ ン ジ ャ ッ ク	
22	305400CB022570	Power Cord Holder	コ ー ド 巻 付 コ ラ ム	
23	401000GA800900	Power Transformer	電 源 ト ラ ン ス	
	305600NA800640	FX (Fuse) Circuit Board #80290	F X シ ー ト	U.S./Canadian Model only
	305600NA800650	FY (Fuse) Circuit Board #80290	F Y シ ー ト	European Model only
24	305600NA800630	CO (Capacitor) Circuit Board #80281	C O シ ー ト	
25	401000JH000070	Reverb Unit	リ バ ー ブ ユ ニ ッ ト	
26	401000FM259220	Electrolytic Capacitor 2200 μ F/80V	電 解 コ ン デ ン サ	
27	30560900000010	Cabinet Ass'y	外 装 組 立	
28	30560900000020	Top Case	上 ケ ー ス	
29	30560900000030	Bottom Cover	底 板	
30	305600AA801140	Grille	放 熱 グ リ ル	
	305400NB801550	Carrying Strap Ass'y	把 手 Ass'y	
31	401000CB801180	Foot	ス ベ リ 座	
32	305600AA801130	Trim Holder	サ ッ シ 押 え 金 具	
33	305600AA801120	Hinge	蝶 番	
34	401000EG051090	⊕ Pan Head Screw M5 x 109, MA Circuit Board	ナ ベ 小 ネ ジ	
35	401000EV430050	Toothed Washer AB 5S, MA Circuit Board	歯 付 座 金	
36	401000EQ341320	⊕ Round Head Screw 4.1 X 32, Bottom Cover	丸 木 ネ ジ	FCM-BL
37	401000EV200040	Washer 4S, Bottom Cover	平 座 金	FCM-BL
38	401000EZ980130	⊕ Tapping Screw 3 x 12S, Grille	ト ラ ス タ ッ ピ ン ネ ジ I 種	FCM3-BL

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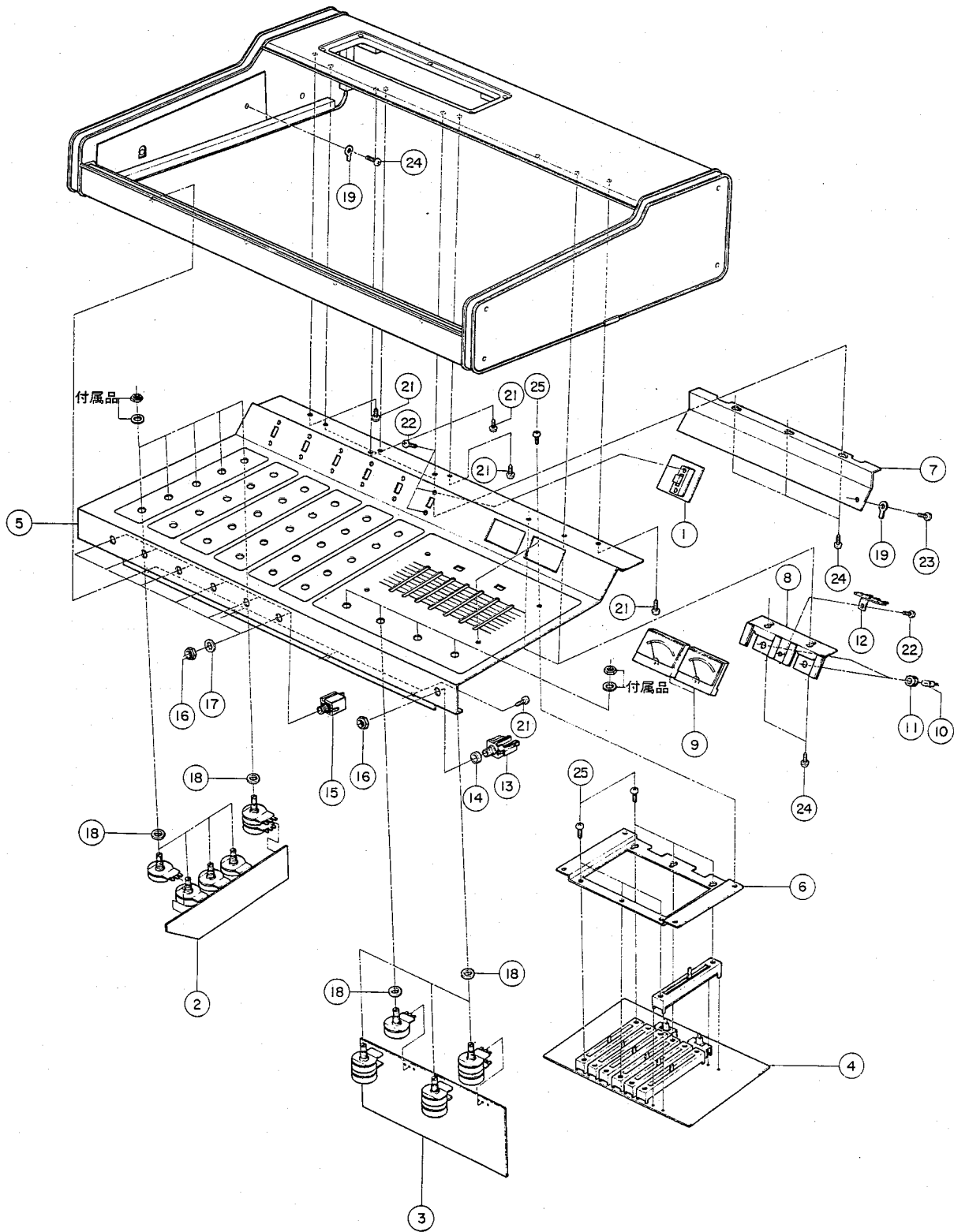
YAMAHA ENSEMBLE MIXER

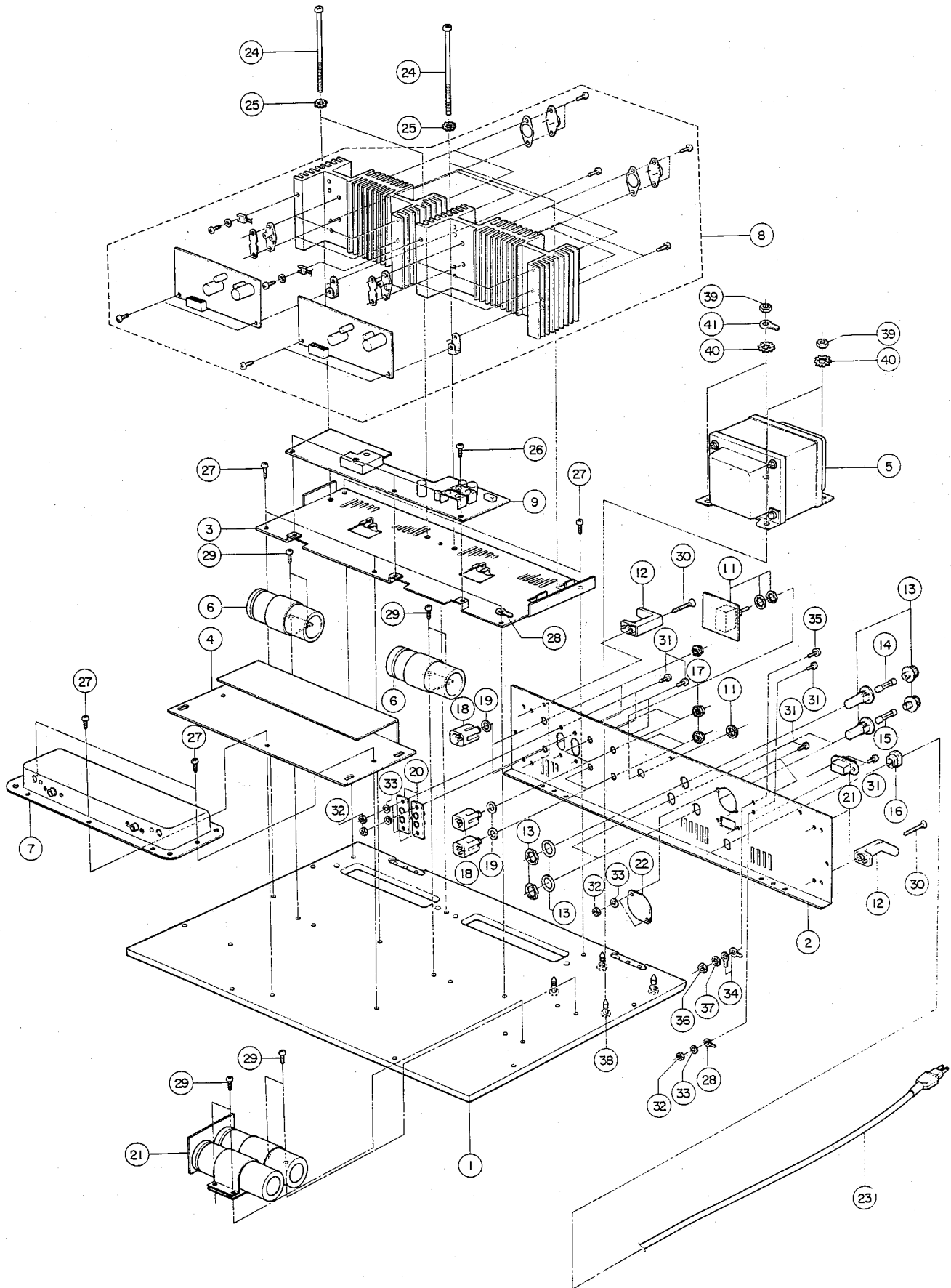
EM-150 部品表





No.	コード No.							品 名	備 考	卸 価	小 売 価
1	30	56	09	OO	00	00	10	外装組上がり		5,250	7,000
2	30	56	09	OO	00	01	00	底 板		1,800	2,400
3	30	56	00	AA	80	11	10	リヤパネル		750	1,000
4	30	56	00	AA	80	11	40	放熱グリル		300	400
5	30	54	00	NB	80	15	50	取手 Ass'y		600	800
6	30	56	00	AA	80	11	20	蝶 番		45	60
7	30	56	00	CB	80	11	80	滑り座, C, H, G, NO-4130(黒)	EM-80共通	30	40
8	30	56	00	CB	80	07	80	ツمامミ(小), アイボリー		30	40
9	30	56	00	CB	80	10	80	ツمامミ(小), ラクトグレー		30	40
10	30	56	00	CB	80	07	60	ツمامミ(大), オレンジ		30	40
11	30	54	00	CB	01	83	40	ツمامミ	スライドVR用	23	30
12	30	56	00	CB	06	20	10	ホーンナット, SK-6003		15	20
13	40	10	00	EK	00	23	70	ファイバーワッシャー	入力ジャック用	4	5
14	40	10	00	EC	33	01	20	トラススタッピングネジ1種, 3×12S	FMC3-BI, 放熱グリル取付	4	5
15	40	10	00	EQ	33	51	60	丸木ネジ, 3.5×16, FCM3-BI	リヤパネル, 滑り座取付	4	5
16	40	10	00	EQ	34	13	20	丸木ネジ, 4.1×32, FCM3-BI	底板取付	8	10
17	40	10	00	EV	20	00	40	平座金, 4S, FCM3-BI	底板取付	4	5
18	40	10	00	EB	33	00	60	皿小ネジ, M3×6, ZMC2-BI	蝶番取付	4	5
19	40	10	00	EB	33	11	00	皿木ネジ, 3.1×10, ZMC2-BI	蝶番取付	4	5





No.	コ ー ド No.							品 名	備 考	卸 価	小 売 価
1	30	56	09	00	01	00	底 板		1,800	2,400	
2	30	56	00	AA	80	11 10	リヤパネル		750	1,000	
3	30	56	00	AA	80	10 90	フレーム		375	500	
4	30	56	00	AA	80	00 60	シールド板		225	300	
5	40	10	00	GA	80	09 00	電源トランス		5,625	7,500	
6	40	10	00	FM	25	92 20	ケミコン, 2,200 μ , 180V		375	500	
7	40	10	00	JH	00	00 70	リバーブユニット		3,750	5,000	
8	30	56	00	NA	80	06 20	MAシート		5,250	7,000	
9	30	56	00	NA	80	05 10	RDCシート		3,300	4,400	
10	30	56	00	NA	80	06 30	COシート		1,500	2,000	
11	30	54	00	NA	02	72 00	P,SWシート		1,050	1,400	
12	30	54	00	CB	02	25 70	コード巻付コラム		135	180	
13	40	10	00	LB	20	04 90	ヒューズホルダー, SN2052	ネジ付	113	150	
14	40	10	00	KB	00	10 40	ヒューズ耐ラッシュ, 3A 250V		60	80	
15	40	10	00	KB	00	11 00	ヒューズ耐ラッシュ, 5A 250V		60	80	
16	40	10	00	CB	00	44 10	コードストッパー(大)		23	30	
17	30	56	00	CB	06	20 10	ホーンナット, SK-6003		15	20	
18	40	10	00	LB	20	06 30	ジャック		75	100	
19	40	10	00	EK	00	23 70	ファイバーワッシャー		4	5	
20	40	10	00	LB	20	01 90	ピンジャック, 2P, P=15mm		45	60	
21	40	10	00	LB	20	03 00	ACソケット		30	40	
22	30	54	00	AA	02	43 10	電圧切換器盲板		75	100	
23	40	10	00	MG	00	02 30	電源コード, #0066, 3.3m		225	300	
24	40	10	00	EG	05	10 90	ナベ小ネジ, M5 \times 109, ZMC2-Y	MAシート取付	12	15	
25	40	10	00	EV	43	00 50	歯付座金, AB5S, ZMC2-Y	MAシート取付	4	5	
26	40	10	00	EL	03	00 60	セルフタッピングネジ2種 3 \times 6, ZMC2-Y	RDCシート取付	4	5	
27	40	10	00	EQ	03	51 30	丸木ネジ, 3.5 \times 13, ZMC2-Y	フレーム取付	4	5	
28	40	10	00	LA	00	02 80	アースラグ, 3 ϕ	束線附属品	4	5	
29	40	10	00	EQ	03	11 30	丸木ネジ, 3.1 \times 13, ZMC2-Y	コンデンサー, Coシート取付	4	5	
30	40	10	00	EB	34	02 50	皿小ネジ, M4 \times 25, クロプロ	コラム取付	4	5	
31	40	10	00	EA	33	01 00	ナベ小ネジ, M3 \times 10, クロプロ	ピンジャック取付	8	10	
32	40	10	00	EV	10	00 30	六角ナット, 3S, ZMC2-Y	ピンジャック取付	4	5	
33	40	10	00	EV	41	00 30	歯付座金, A3S, ZMC2-Y	ピンジャック取付	4	5	
34	40	10	00	LA	00	02 90	アースラグ, 4 ϕ		4	5	
35	40	10	00	EA	13	01 00	ナベ小ネジ, M4 \times 10, FCM-BI	アースラグ取付	4	5	
36	40	10	00	EV	10	00 40	六角ナット, 4S, ZMC2-Y	アースラグ取付	4	5	
37	40	10	00	EV	41	00 40	歯付座金, A4S, ZMC2-Y	アースラグ取付	4	5	
38	40	10	00	EV	66	02 50	ヒレ付ボルト, M6 \times 25, ZMC2-BI	トランス取付	8	10	
39	40	10	00	EV	10	00 60	六角ナット, M6, ZMC2-Y	トランス取付	4	5	
40	40	10	00	EV	43	00 60	歯付座金, AB6S, ZMC2-Y	トランス取付	4	5	
41	40	10	00	LA	00	14 80	アースラグ, 6 ϕ	束線附属品	8	10	

No.	コード No.						品名	備考	卸 価	小売価
30	56	00	NA	80	00	50	ATTシート		450	600
40	10	00	KA	40	00	70	スライドスイッチ		135	180
30	56	00	NA	80	00	10	PAシート		2,250	3,000
40	10	00	IG	00	04	70	IC BA311F		225	300
40	10	00	HS	32	02	10	ボリューム A50k Ω	VOLUME BASS・TREBLE	113	150
40	10	00	HS	32	02	20	ボリューム B50k Ω	REVECHO	113	150
40	10	00	HS	32	02	30	ボリューム BH50k Ω ×2	BALANCE	225	300
30	56	00	NA	80	09	80	MVシート		3,750	5,000
40	10	00	IC	16	81	10	トランジスター 2SC1681		75	100
40	10	00	IG	00	04	70	IC BA311F		225	300
40	10	00	GB	06	51	00	フィルターコイル 1.0H		150	200
40	10	00	GB	06	43	90	フィルターコイル 0.39H		150	200
40	10	00	HS	32	02	40	ボリューム A50k Ω ×2	MASTER AUX MONITOR	225	300
40	10	00	HS	32	02	20	ボリューム B50k Ω	REVERB	113	150
40	10	00	FP	15	61	00	タンタルコンデンサ 1/35		45	60
30	56	00	NA	80	05	20	EQシート		4,500	6,000
40	10	00	IC	07	32	40	トランジスター 2SC732		75	100
40	10	00	GB	06	52	20	フィルターコイル 2.2H		150	200
40	10	00	GB	06	41	50	フィルターコイル 0.15H		150	200
40	10	00	GB	06	35	60	フィルターコイル 0.056H		150	200
40	10	00	GB	06	33	30	フィルターコイル 0.033H		150	200
40	10	00	GB	06	31	20	フィルターコイル 0.012H		150	200
40	10	00	HQ	10	00	30	スライドボリューム G50k Ω ×2		300	400
40	10	00	FP	15	61	00	タンタルコンデンサ 1/35		45	60
40	10	00	FP	15	63	30	タンタルコンデンサ 3.3/35		60	80
40	10	00	KA	40	03	40	スライドスイッチ		150	200
30	56	00	NA	80	05	10	RDCシート		3,300	4,000
40	10	00	IC	04	85	20	トランジスター 2SC485		188	250
40	10	00	IC	16	81	10	トランジスター 2SC1681		75	100
30	54	00	BA	00	51	20	放熱板(2SC485用)		23	30
40	10	00	IG	00	01	50	IC AN374		375	500
40	10	00	IF	00	00	40	ダイオードIS1555		23	30
40	10	00	IH	00	01	40	ダイオード10DC-2	10DC-4でサービス	75	100
40	10	00	IH	00	01	40	ダイオード10DC-1	10DC-4でサービス	75	100
40	10	00	IH	00	02	10	ダイオードS5151		338	450
40	10	00	IH	00	02	20	ダイオードS5151R		338	450
40	10	00	HL	31	41	00	酸化金属皮膜抵抗 10 Ω 1P		12	15
40	10	00	HL	32	51	80	酸化金属皮膜抵抗 180 Ω 2P		15	20
40	10	00	HM	53	51	00	セメント抵抗 100 Ω 3P		38	50
40	10	00	HT	41	00	70	ソリッドボリューム B10k Ω		53	70
40	10	00	HT	41	01	40	ソリッドボリューム B47k Ω		53	70
40	10	00	FP	15	54	70	タンタルコンデンサ 0.47/35		45	60
40	10	00	LB	60	02	70	6P コネクタープラグ		38	50
30	56	00	NA	80	06	20	MAシート		5,250	7,000
40	10	00	IA	07	63	30	トランジスター 2SA763		113	150

No.	コード No.						品名	備考	卸 価	小売 価
	40	10	00	IA	04	83 20	トランジスタ 2SA483		375	500
	40	10	00	IC	07	83 20	トランジスタ 2SC783		188	250
	40	10	00	IC	10	79 20	トランジスタ 2SC1079		525	700
	40	10	00	LB	30	01 10	トランジスタソケット(2SC1079用)		60	80
	40	10	00	IH	00	01 40	ダイオード10DC-1	10DC-4でサービス	75	100
	40	10	00	IF	00	04 50	バリスタ-STV-3H		150	200
	40	10	00	HL	31	41 00	酸化金属皮膜抵抗 10Ω, 1P		12	15
	40	10	00	HL	32	41 00	酸化金属皮膜抵抗 10Ω, 2P		15	20
	40	10	00	HL	31	61 00	酸化金属皮膜抵抗 1kΩ, 1P		12	15
	40	10	00	HM	55	24 70	セメント抵抗 0.47Ω, 5P		45	60
	40	10	00	HT	41	00 10	ソリッドボリューム B220Ω		53	70
	40	10	00	GD	90	00 50	コイル 3μF		75	100
	40	10	00	LB	60	02 80	6Pコネクタソケット		75	100
	30	54	00	BA	00	81 30	放熱板		1,875	2,500
	40	10	00	HW	11	43 30	ヒューズ抵抗 330Ω, 1W(55mA)		45	60
	40	10	00	EA	03	00 60	⊕ナベ小ネジ 3×6	シート取付用	4	5
	40	10	00	EA	03	01 00	⊕ナベ小ネジ 3×10	シートホルダー 2SC783 2SA483取付用	4	5
	40	10	00	EA	03	01 50	⊕ナベ小ネジ 3×15	2SC783 2SA483 取付用	4	5
	40	10	00	EV	41	00 30	歯付座金 A3S	2SC783 2SA483 取付用	4	5
	40	10	00	EI	03	01 00	バインドタッピング 3×10	STV-3H-O 取付用	4	5
	40	10	00	EV	20	00 30	平座金 A3S	STV-3H-O 取付用	4	5