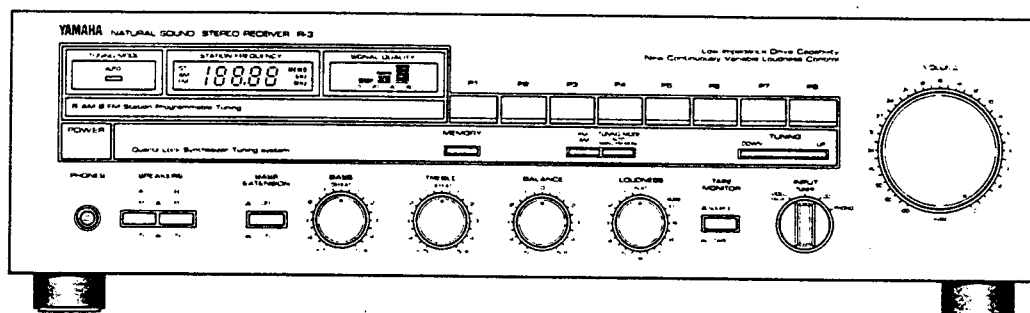


STEREO RECEIVER R-3

SERVICE MANUAL



IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

CONTENTS

TO SERVICE PERSONNEL	1
SPECIFICATIONS	1
BLOCK DIAGRAM	2/3
REAR PANELS	4
INTERNAL VIEW	5
DISASSEMBLY PROCEDURES	5

ADJUSTMENTS	6 ~ 8
IC BLOCK	9/10
WIRING	11
PRINTED CIRCUIT BOARD (Pattern side) . . .	12 ~ 15
SCHEMATIC DIAGRAM	16 ~ 18
PARTS LIST	19 ~ 25

004593

MC-Service

SINCE 1887



YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN
2.5K-453 Printed in Japan '85.3

■ TO SERVICE PERSONNEL

1. Critical Components Information.
Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Model Only).
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.

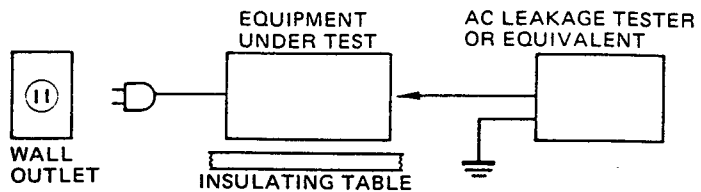
■ SPECIFICATIONS

■ AUDIO SECTION

Continuous Power Per Channel	
20Hz ~ 20kHz, 0.04% THD, 8 Ω	35W (R) (U) (C) 33W (G) (A) (B)
0.06% THD, 6 Ω	40W (R) (U) (C) 39W (G) (A) (B)
DIN Standard Output Power Per Channel	
1kHz, 1% THD, 4 Ω	47W (G) (A) (B)
Dynamic Headroom	
8 Ω	1.88dB
Power Band Width	
0.1% THD, 17.5W 8 Ω	10Hz ~ 40kHz
Damping Factor	
1kHz, 8 Ω	50
Input Sensitivity/Impedance	
Phono	2.5mV/47k Ω
AUX/TAPE/CD	150mV/50k Ω
Input Sensitivity (New IHF)	
Phono	0.42mV
AUX/TAPE/CD	25mV
Maximum Input Signal	
Phono, 1kHz, 0.01% THD	120mV
Output Level/Impedance	
REC OUT	150mV/4.7k Ω
Headphone Jack Rated Output/Impedance	
	0.55V/235 Ω
Frequency Response	
20Hz ~ 20kHz, AUX/TAPE/CD	± 0.5 dB
RIAA Equalization Deviation	
Phono	± 0.5 dB
Total Harmonic Distortion	
Phono to Rec Out 3V	0.01%
AUX/TAPE/CD to SP Out 17.5W/8 Ω	0.02%
Intermodulation Distortion	
AUX/TAPE/CD Rated Output/8 Ω	0.04%
Signal to Noise Ratio (IHF-A-Network)	
Phono (5mV Input Shorted)	88dB/82dB (G)
AUX/TAPE/CD (0 Ω)	103dB
Residual Noise (IHF-A-Network)	
	100 μ V
Channel Separation	
1kHz, Phono	55dB
AUX/TAPE/CD	52dB
Tone Control Characteristics	
BASS boost/cut	± 10 dB (at 50Hz)
turnover frequency	350Hz
TREBLE boost/cut	± 10 dB (at 20kHz)
turnover frequency	3.5kHz
Filter Characteristics	
Bass Extension	60Hz, +8dB
Continuous Loudness Control (Level-related equalization)	
Attenuation	-40dB (at 1kHz)

■ AM SECTION

Turning Range	
	520 to 1610kHz (U) (C) 522 to 1611kHz (G) (A) (B) 520 to 1620kHz or 522 to 1611kHz (R)
Usable Sensitivity (IHF)	
	250 μ V/m
Selectivity	
	24dB
Signal to Noise Ratio	
	50dB
Image Response Ratio	
	40dB
Spurious Response Ratio	
	Better than 50dB
Distortion	
	0.5%



■ FM SECTION

Tuning Range	
	87.5 to 108.1MHz (U) (C) (A) (B) (R) 87.5 to 108.0MHz (G)
50dB Quieting Sensitivity	
Mono, 75 Ω	1.55 μ V (15.1dBf)
Stereo, 75 Ω	21 μ V (37.7dBf)
Usable Sensitivity	
Mono (30dB Quieting)	0.8 μ V (75 Ω) 9.3dBf
DIN Mono (S/N 26dB), 75 Ω	1.4 μ V (G)
DIN Stereo (S/N 46dB), 75 Ω	30 μ V (G)
Image Response Ratio (98MHz)	
	40dB 75dB (G)
IF Response Ratio (98MHz)	
	90dB 75dB (G)
Spurious Response Ratio (98MHz)	
	70dB
AM Suppression Ratio (IHF)	
	55dB
Capture Ratio (IHF)	
	1.5dB
Alternate Channel	
	85dB
Signal to Noise Ratio (at 85dBf)	
Mono	81dB
Stereo	76dB
Harmonic Distortion	
Mono 1kHz	0.1%
Stereo 1kHz	0.2%
Stereo Separation 1kHz	
	40dB
Frequency Response 30Hz to 13kHz	
	0 $\pm$ 0.5dB

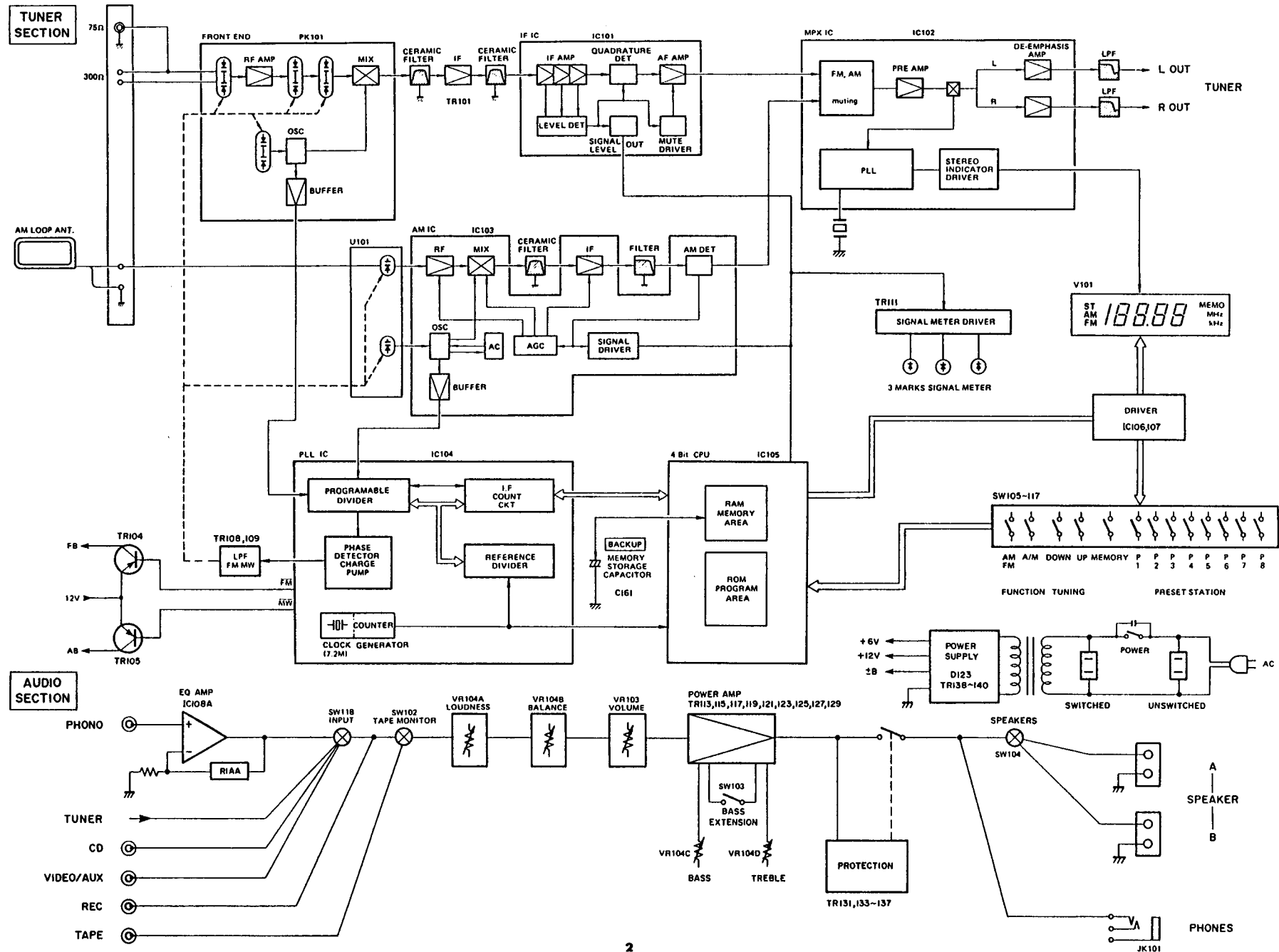
■ GENERAL

Power Supply	
U.S. & Canadian Models	120V AC, 60Hz
General Model	110V/120V/220V/240V AC 50/60Hz
European Models	220V AC, 50Hz
British & Australian Models	240V AC, 50Hz
Power Consumption	
	180W (U) (C) 145W (R) 260W (A) (G) (B)
AC Outlet (U) (C) (R)	
Switched x 1	100W max
Unswitched x 1	200W max
Dimensions (WxHxD)	
	435 x 126 x 289 mm (17-1/8" x 4-15/16" x 11-3/8")
Weight	
	5.2 kg (11 lbs 7 oz)

(U) U.S.A. model (G) European model
(C) Canadian model (B) British model
(A) Australian model (R) General model

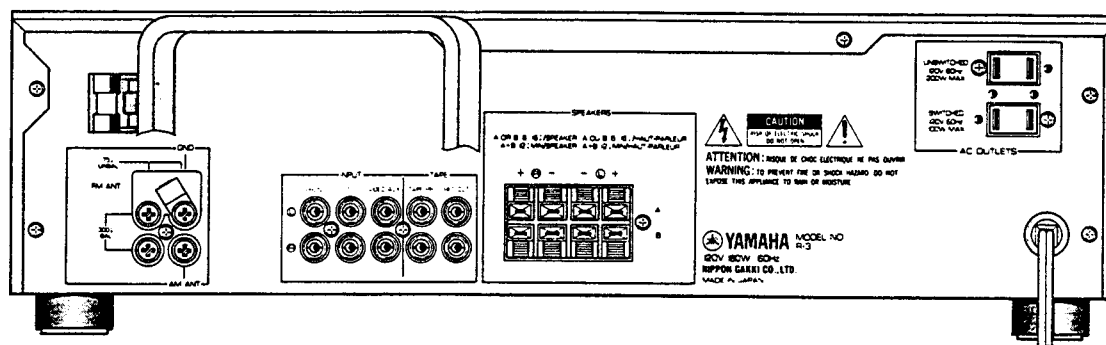
Specifications subject to change without notice.

■ BLOCK DIAGRAM

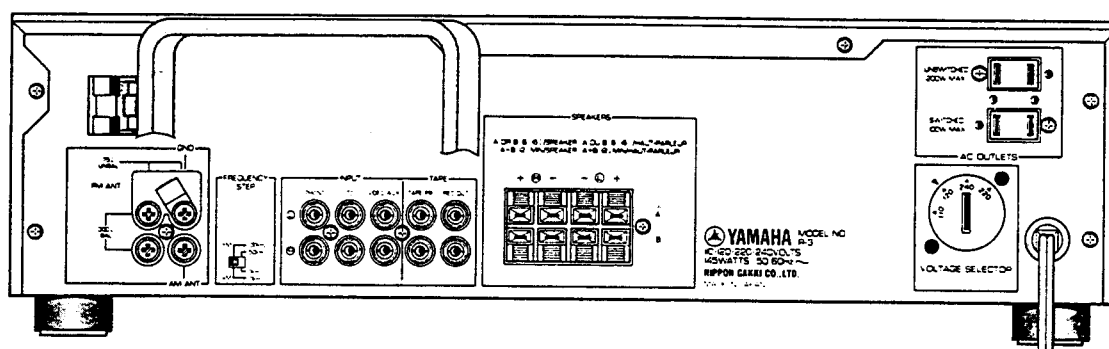


REAR PANELS

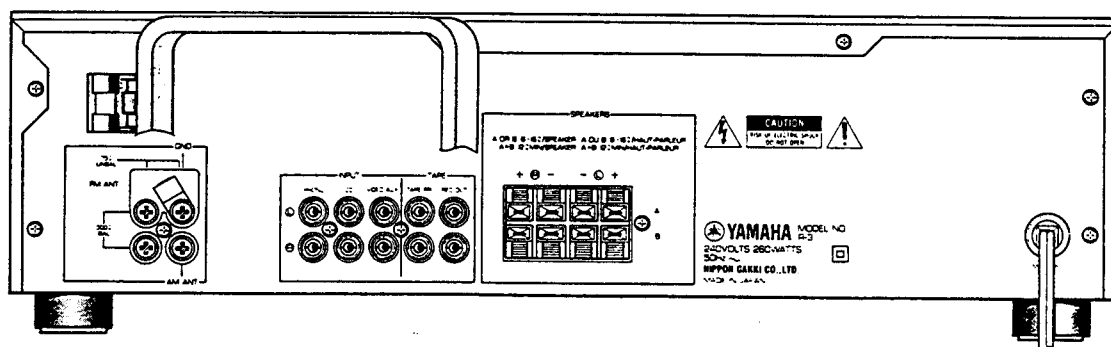
▼ U.S.A. & Canadian models



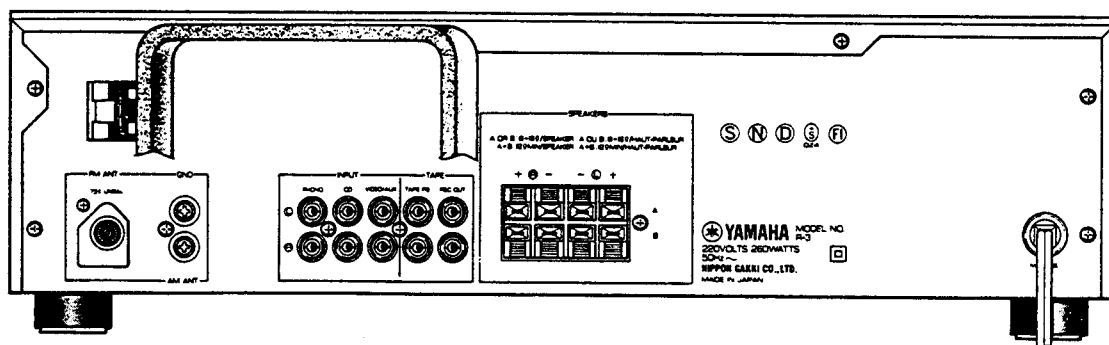
▼ General model



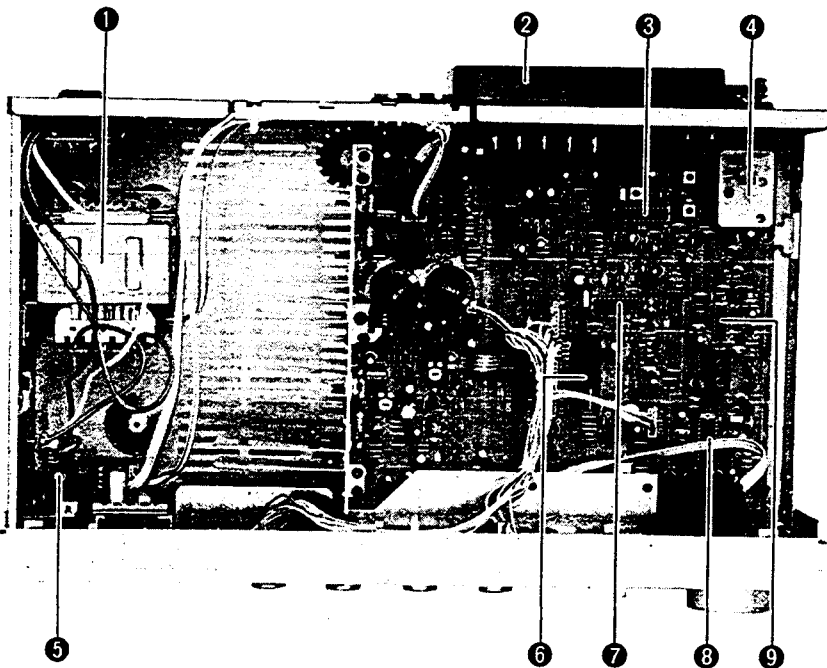
▼ Australian & British models



▼ European model



INTERNAL VIEW



- ① POWER TRANSFORMER
U.S.A. model: GA68800
Canadian model: GA68810
General model: GA68820
European model: GA68830
Australian & British models: GA68840
- ② AM LOOP ANTENNA
- ③ AM IC: LA1245
- ④ FRONT END PACK
- ⑤ POWER SWITCH
- ⑥ 4 BIT CPU IC: LC7030
- ⑦ PLL IC: LM7000
- ⑧ MPX IC: LA3400
- ⑨ FM IF IC: LA1235

DISASSEMBLY PROCEDURES

1. Removal of Top Cover

Remove 7 screws (①) in Fig. 1, and slide the Top Cover back.

2. Removal of Front Panel

Remove 4 screws (②) and 4 hooks in Fig. 1, and pull the Front Panel forward.

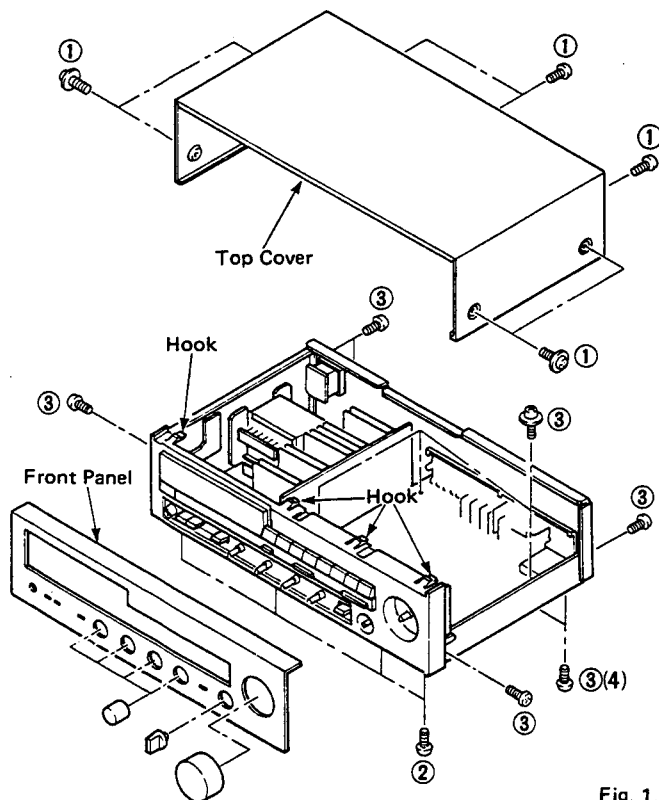


Fig. 1.

3. Check of Main Circuit Board (1) & replacement of parts.

- a. Remove 12 screws (③) in Fig. 1.
- b. Push the Power switch on.
- c. Remove the Main Chassis as shown in Fig. 2

In this condition it is possible for you check the Main Circuit Board (1) and replace the parts.

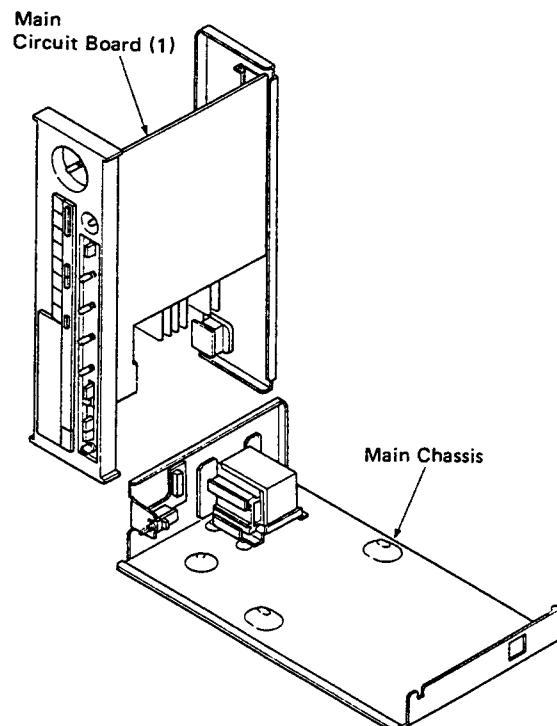


Fig. 2

ADJUSTMENTS

1. Before adjustment

- 1) After the Power switch is pushed on, wait for 5 minutes before measuring, to be sure of the most stable operation.
- 2) Adjust the OSC coil and IFT with a nonferrous screw driver.
- 3) Proceed with the AM section adjustments after having finished the FM section adjustment.
- 4) $0\text{dB}\mu = 1\mu\text{V}$ Ex: $60\text{dB}\mu = 1\text{mV}$

2. Measuring instruments abbreviation

- FM SG : FM signal generator
 SSG : Stereo signal generator
 AM SG : AM signal generator
 DIST. M : Distortion meter
 FC : Frequency counter
 A.C.V.M. : AC voltagemeter
 D.C.V.M. : DC voltagemeter

<POWER SUPPLY CHECK>

Check that the following voltages are obtained respectively across each test point and ground on main circuit.

Test point	Rating or standard	Remark								
+6	+6V ± 1V DC	Make sure that AC line voltage comes within <table><tr><th>Models</th><th>AC line voltage</th></tr><tr><td>U, C</td><td>120V ± 10%</td></tr><tr><td>G</td><td>220V ± 10%</td></tr><tr><td>A, B</td><td>240V ± 10%</td></tr></table>	Models	AC line voltage	U, C	120V ± 10%	G	220V ± 10%	A, B	240V ± 10%
Models	AC line voltage									
U, C	120V ± 10%									
G	220V ± 10%									
A, B	240V ± 10%									
+12	+12V ± 1V DC									
−12	−12V ± 1V DC									

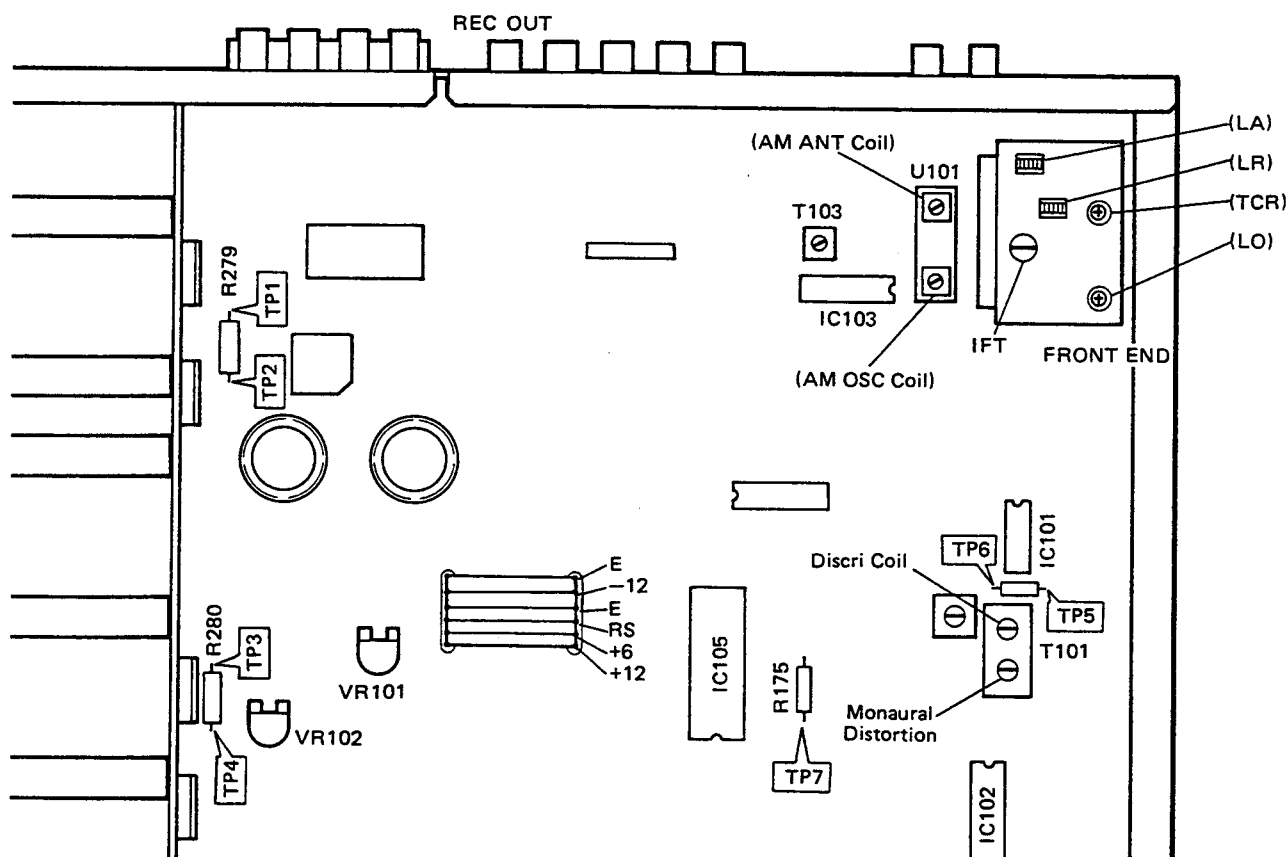
<AUDIO SECTION>

• IDLING CURRENT ADJUSTMENT

When replacing the power and drive transistors, adjust idling current. After the power has been turned on, age about 5 minutes in non loaded condition. Adjust VR101 (Lch) and VR102 (Rch) so that the voltage across the terminals of R279 (TP1 - TP2) and R280 (TP3 - TP4) come to $8\text{mV} \sim 15\text{mV DC}$.

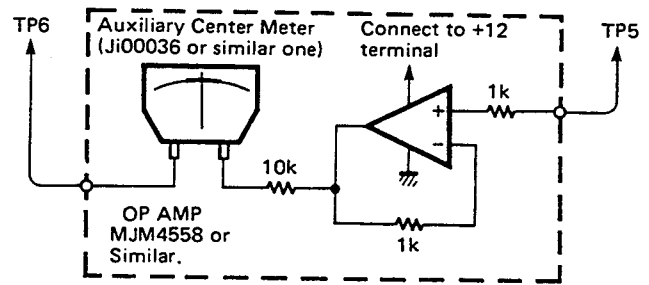
Test points	Adjustment points	Rating
Lch Across the terminals of R279 (TP1 - TP2)	VR101	$8\text{mV} \sim 15\text{mV DC}$
Rch Across the terminals of R280 (TP3 - TP4)	VR102	$8\text{mV} \sim 15\text{mV DC}$

• TEST POINTS



<FM TUNER SECTION>

- Use 19kHz L.P.F. to measure the output.
- On step 1 and 2 connect the auxiliary center meter (ji00036 or similar) to confirm the best tuned point.
- 100% modulation means that the Frequency Deviation is 75kHz. (R, U, C, A, B)
- For the G model, Frequency Deviation is 40kHz.
- For the G model, install the Matching Transformer and connect FM SG.

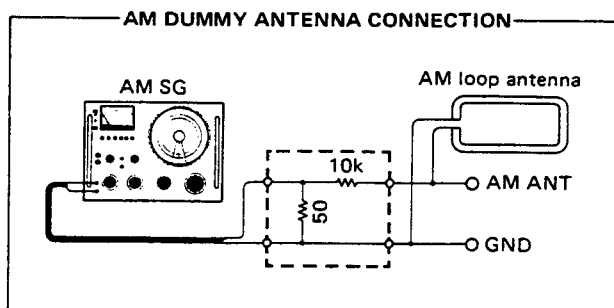


Step	Adjustment item	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard	Remarks
1	Discriminator balance	TP5 ~ TP6	Auxiliary center meter	T101 (Discr Coil)	Adjust the pointer of the auxiliary center meter point to "0" at detuned point.		After the adjustment of step 1 to 5, confirm it again.
2	Confirmation of station center set	300Ω FM ANT TP5 ~ TP6	FM SG 98MHz ± 1kHz 70dBμ (75.2dBf) MONO 1kHz 100% MOD Auxiliary center meter	TUNING Key → UP or DOWN	Confirm that the auxiliary center meter deflects to "0" when tuned to signal of FM SG.		
3	Monaural distortion	300Ω FM ANT REC OUT L, R	FM SG 98MHz ± 1kHz 70dBμ (75.2dBf) MONO 100Hz 100% MOD DIST. M L.P.F.	T101 (Monaural Distortion) SIGNAL QUALITY indicator	Reduce distortion to minimum.	Less than -43dB	Confirm that all signal quality indicators lights
4	Stereo distortion	300Ω FM ANT REC OUT L, R	FM SG, SSG 98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD DIST. M L.P.F.	Front end IFT ST indicator	Same as step 3	Less than -33dB	Confirm that ST indicator lights up.
5	Confirmation of separation	300Ω FM ANT REC OUT L, R	FM SG, SSG 98MHz ± 1kHz 70dBμ (75.2dBf) STEREO L, R 1kHz, 100% MOD L.P.F. A.C.V.M.		Reduce output level to minimum.	Separation more than 28dB	
6	Confirmation of auto search reception	300Ω FM ANT	FM SG 98MHz ± 1kHz 25dBμ (30.2dBf) MONO 1kHz 100% MOD	TUNING Key → Up or DOWN		Confirm that auto search reception is possible with the tuning key.	Confirm that muting is performed at auto reception.

Note: $X \text{ dB}\mu = x + 5.2\text{dB}\mu\text{f}$

<AM TUNER SECTION>

- Connect the AM loop antenna to the AM ANT terminals.
- Connect the AM dummy antenna for adjustment.



- Shorting TP7 (P SET) and ground (between chassis) while set at FM will result in automatic memory of each preset from P1 to P3 as given in the right table. This is convenient when making an adjustment.
<Addition> P SET : 4 Pin of IC105 (LC7030)

	P1	P2	P3
FM	98.0MHz		
AM	630kHz	1080kHz	1440kHz

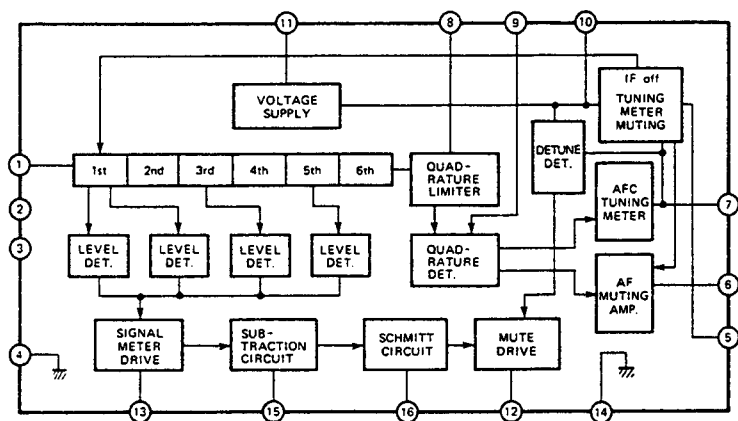
Step	Adjustment item	Connection terminal	Instrument required	Adjustment locations	Adjustment method	Rating or standard
1	AM IFT	AM ANT	AM SG AM dummy antenna [630kHz $\pm$ 0.1kHz 50dB μ 400Hz, 30% MOD]	T103	Adjust T103 to maximize detector output.	
		REC OUT	A.C.V.M.			
2	Confirmation of sensitivity	AM ANT	AM SG AM dummy antenna [630kHz $\pm$ 0.1kHz 1080kHz $\pm$ 0.1kHz 1440kHz $\pm$ 0.1kHz 400Hz, 30% MOD]		Obtain AM SG output level where distortion become 10%.	Less than 58dB μ
		REC OUT	A.C.V.M. DIST. M			
3	Confirmation of auto search reception	AM ANT	AM SG AM dummy antenna [1080kHz $\pm$ 0.1kHz 60dB μ 400Hz, 30% MOD]	TUNING key UP or DOWN		Confirm the auto search reception with the tuning key

<DIGITAL CONTROL SECTION>

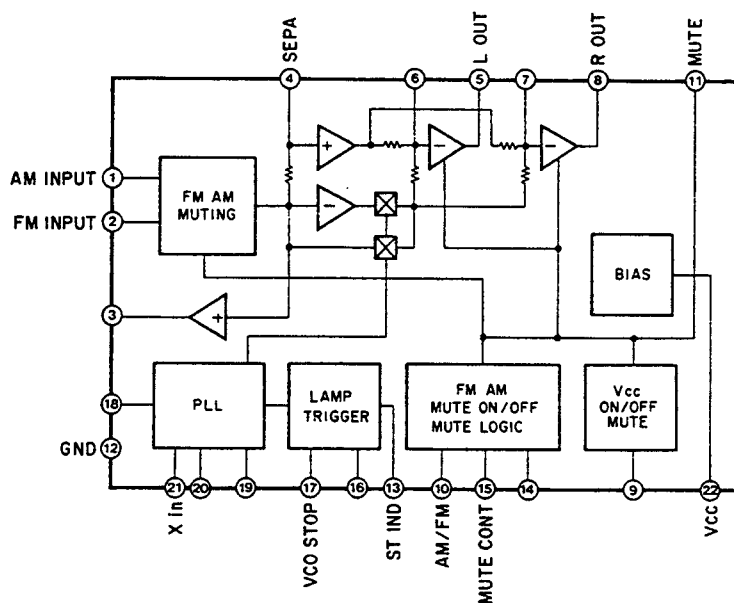
Step	Confirmation item	Connection terminal	Instrument required	Operation key	Confirmation method
1	Preset memory	300 Ω FM ANT	FM SG. SSG [98MHz $\pm$ 1kHz 70dB μ (75.2 dBf) STEREO L, R 1kHz, 100% MOD]	FUNCTION key TUNING MODE key TUNING key (UP or DOWN)	① Receive FM 98MHz by means of auto search. ② Press MEMORY key $\rightarrow$ MEMORY indicator flashes about 5 seconds. ③ Press P1 $\rightarrow$ MEMORY indicator goes OFF
		AM ANT	AM SG AM dummy antenna [1080kHz $\pm$ 0.1kHz 80dB μ 400Hz, 30% MOD]	MEMORY key PRESET STATION key	④ Receive AM 1080kHz ⑤ Press MEMORY key $\rightarrow$ MEMORY indicator flashes about 5 seconds. ⑥ Press P2 $\rightarrow$ MEMORY indicator goes OFF
		300 Ω FM ANT AM ANT	FM SG. SSG AM SG AM dummy antenna		⑦ Press P1 and P2 and check that content is read out. $\rightarrow$ P1 and P2 of PRESET STATION indicator lights.
2	Tuning mod	Same as step 1	Same as step 1	FUNCTION key TUNING MODE key TUNING key (UP or DOWN)	Tune to FM 98MHz and AM 1080kHz, and check that when receiving MAN'L/MONO, FM reception become forced mono TUNING MODE indicator $\rightarrow$ Goes out ST indicator $\rightarrow$ Goes out Check that tuning operation stops when tuned while AUTO searching. TUNING MODE indicator $\rightarrow$ lights up ST indicator $\rightarrow$ lights up
3	Last channel memory			POWER key	① Read out P2. ② Turn OFF POWER Switch. ③ Turn ON POWER Switch after 5 seconds. ④ P2 content should come out.

IC BLOCK

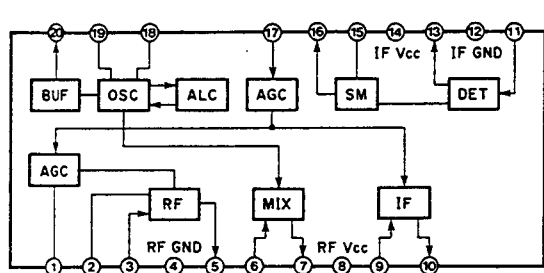
IC101 : LA1235



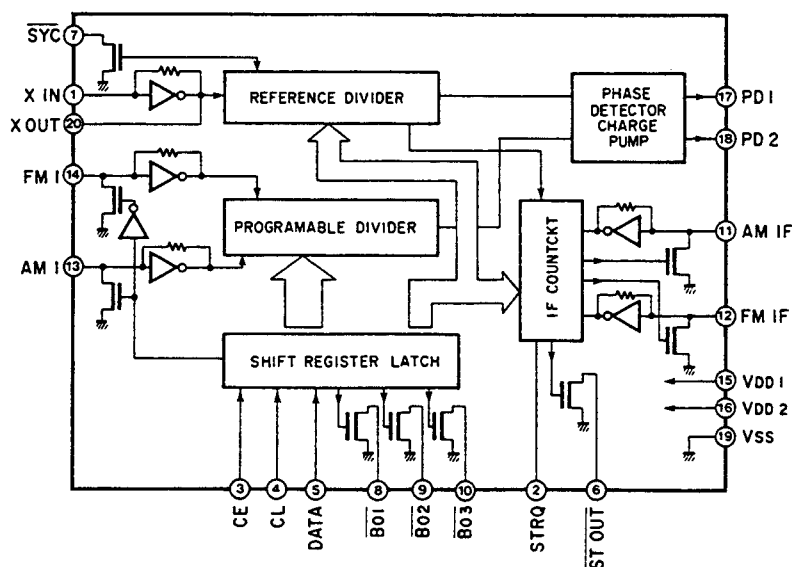
IC102 : LA3400



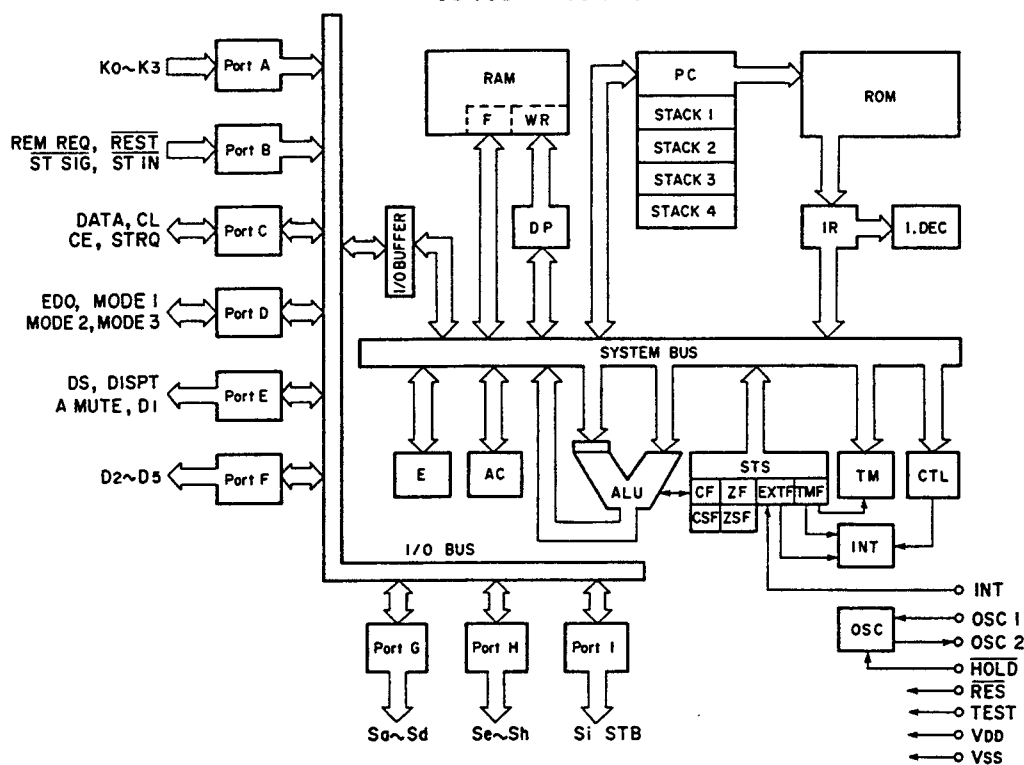
IC103 : LA1245



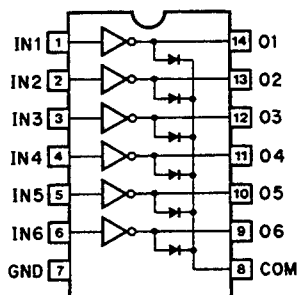
IC104 : LM7000



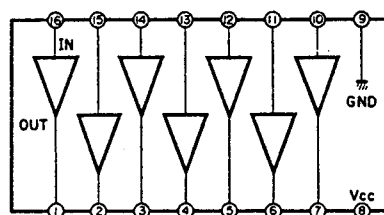
IC105 : LC7030



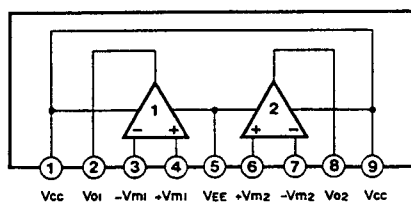
IC106 : LB1274



IC107 : BA618



IC108 : NJM2043S, AN6557 or M5220L



Main Circuit Board (1)



	U, C	R	A, B	G
R110	OPEN	OPEN	OPEN	100
R101	SHORT	SHORT	SHORT	100K
R102	OPEN	OPEN	OPEN	1M
R116	OPEN	OPEN	OPEN	4.7K
J251, 252	SHORT	SHORT	SHORT	OPEN
T102	OPEN	OPEN	OPEN	GE20053
C121	0.047	0.047	0.047	0.022
R131, 132	47K	47K	47K	100K
C125, 126	1500P/100	1500P/100	1000P/50	470P/50
R151	22K	22K	22K	47K
D125	1S1555	1S1555	1S1555	SHORT
D107, 110	OPEN	SET	OPEN	OPEN
D108	OPEN	OPEN	SET	SET
R182	OPEN	10K	OPEN	OPEN
SW101	OPEN	SET	OPEN	OPEN
R203 ~ 208	SHORT	SHORT	SHORT	2.2K
C167 ~ 172	OPEN	OPEN	OPEN	390P
C175, 176	OPEN	OPEN	OPEN	220P
R213, 214	150	150	150	2.2K
C227 263 ~ 266	OPEN	OPEN	OPEN	0.022
C262, 226	OPEN	OPEN	OPEN	0.01
C267, 268	OPEN	OPEN	OPEN	0.047
C223	OPEN	OPEN	OPEN	0.1/25
PK101	PA00081	PA00081	PA00081	PA00085
C173, 174 269, 270	OPEN	OPEN	OPEN	100P
R113	6.8K	6.8K	6.8K	15K
R130	56K	56K	56K	15K

VIR
VOR
E
VOL
VIL

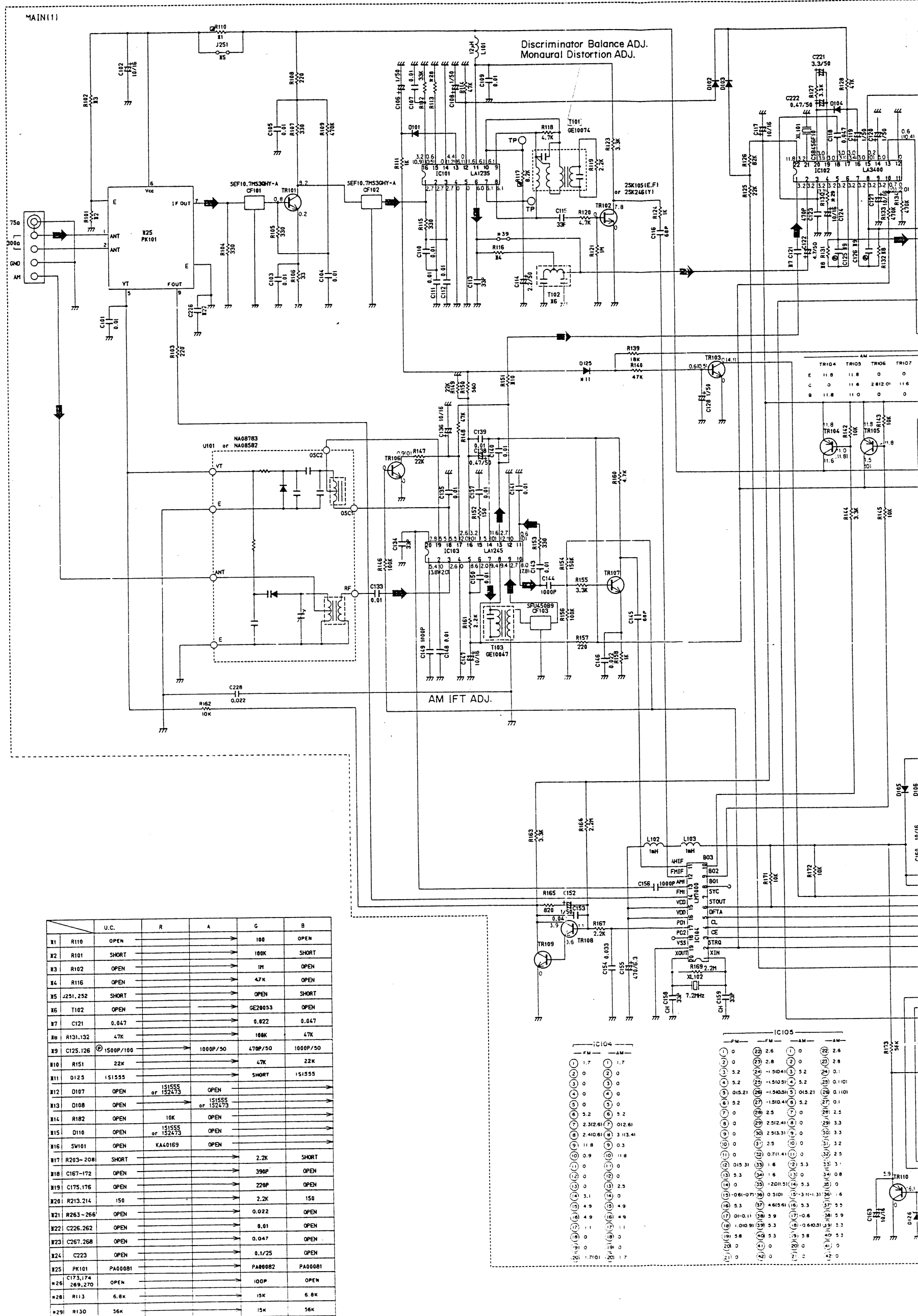
VRI03

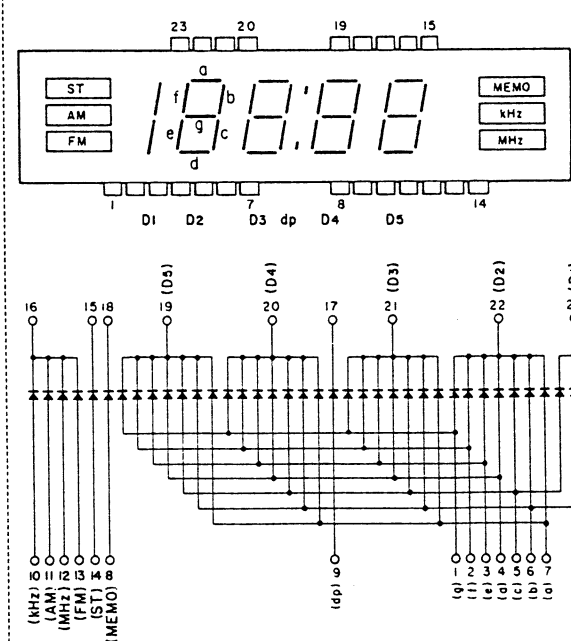
FROM: MAIN(1)
VOLUME

[illegible]

■ SCHEMATIC DIAGRAM

• Tuner Section





Pin No.	Function	Pin No.	Function
1	segment "g" Anode	13	"FM" Anode
2	segment "f" Anode	14	"ST" Anode
3	segment "e" Anode	15	"ST" Cathod
4	segment "d" Anode	16	"AM" "FM" "kHz" "MHz"
5	segment "c" Anode		
6	segment "b" Anode	17	decimal point Cathode
7	segment "a" Anode	18	"MEMO" Cathode
8	"MEMO" Anode	19	digit "5" Cathod
9	decimal point Anode	20	digit "4" Cathod
10	"kHz" Anode	21	digit "3" Cathod
11	"AM" Anode	22	digit "2" Cathod
12	"MHz" Anode	23	digit "1" Cathod

- ## MC-Service

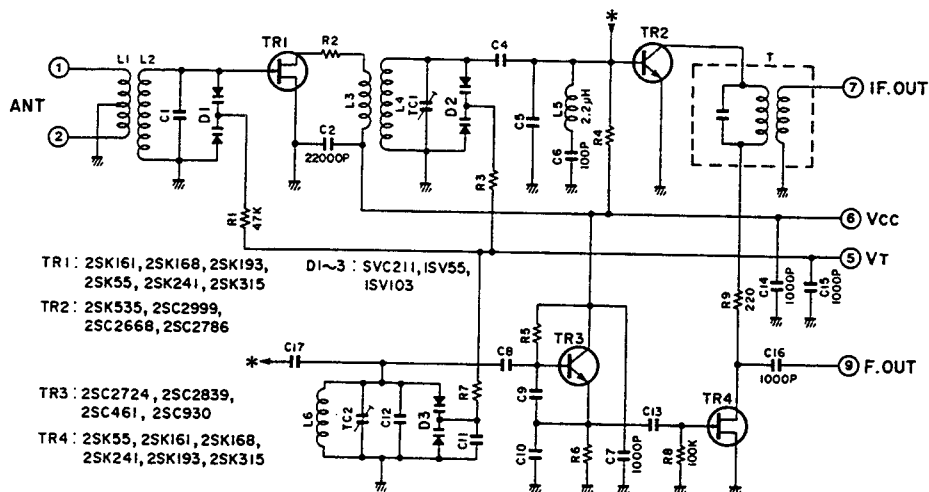


- All voltages measured with a 10M Ω /VDC electric volt meter, under no-signal condition.
- Components having special characteristics are marked $\perp$, and must be replaced with parts having specifications equal to those originally installed.
- Schematic Diagram is subject to change without notice.

SCHEMATIC DIAGRAM

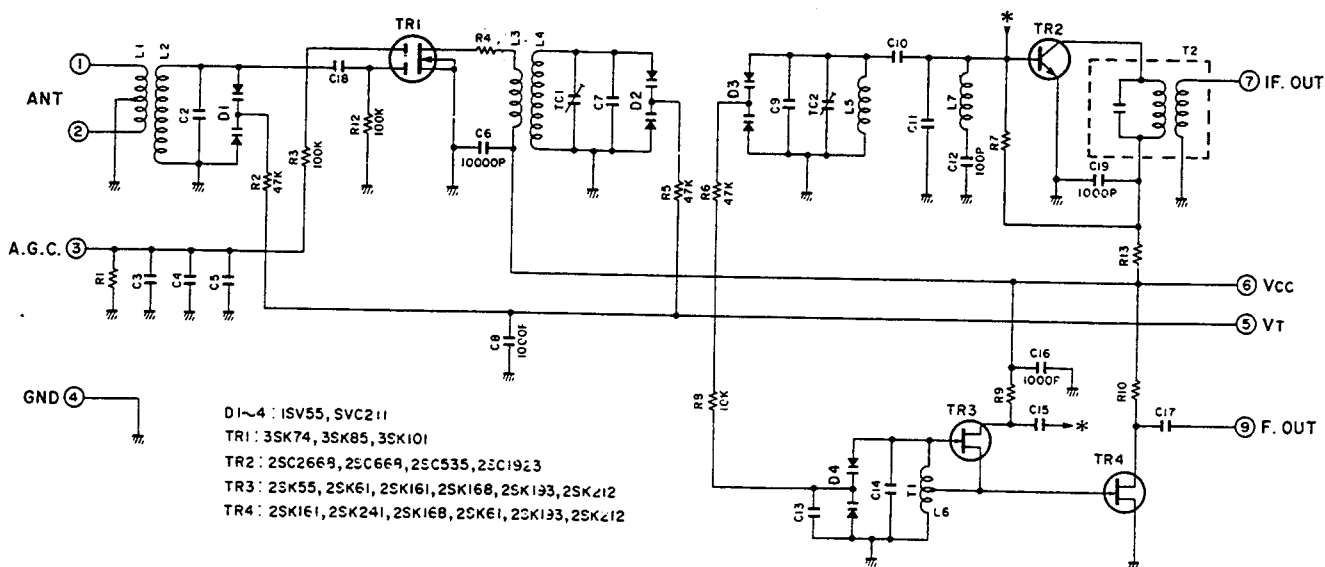
• FRONT END PACK (PK101)

R, U, C, A, B models

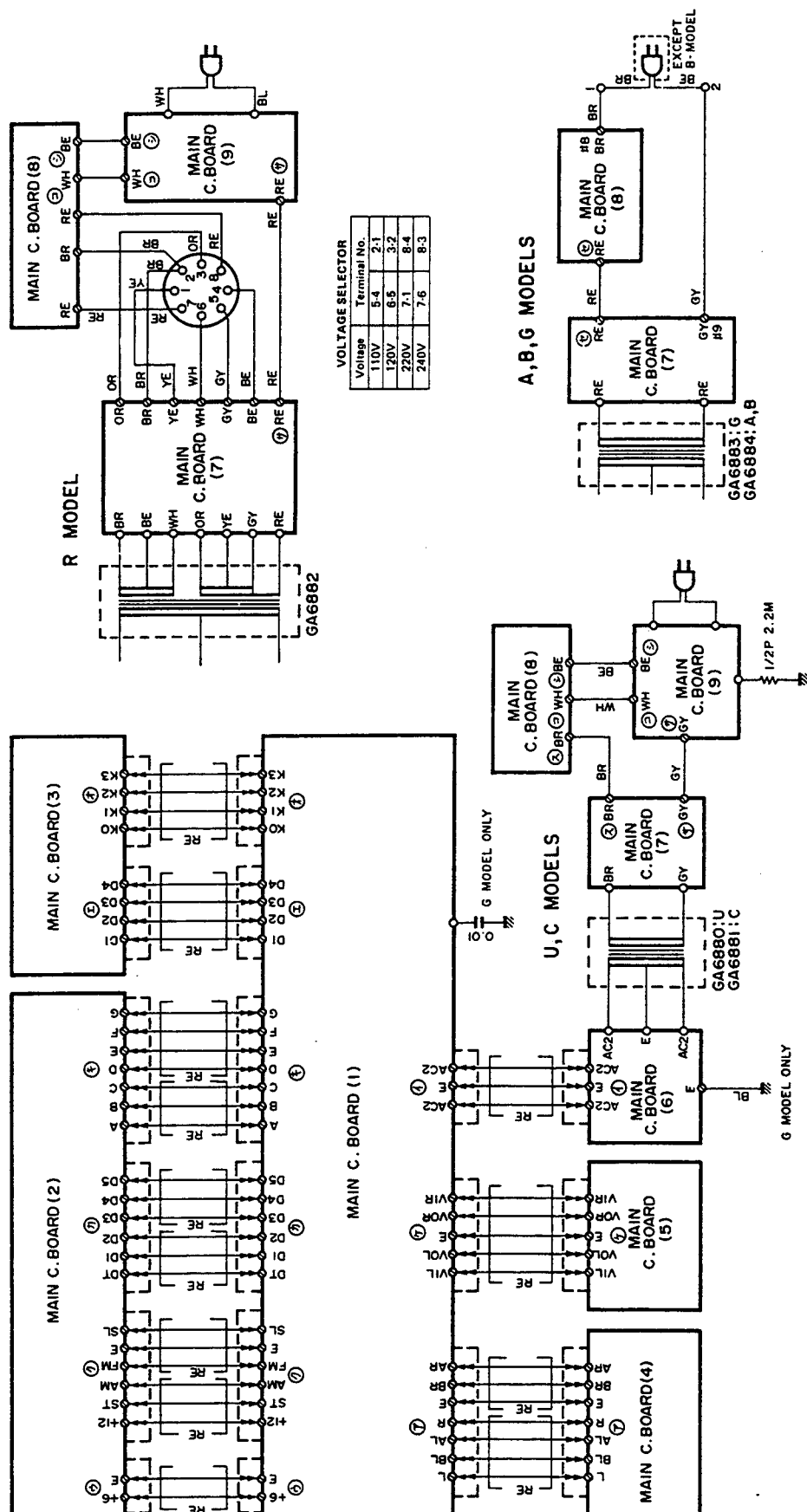


MC-Service

G model



■ WIRING



Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets
	GD 90 06 80	Coil	0.74 μ H	空 芯 コ イ ル	L105,106	
	GE 30 05 00	Inductor	12 μ H	円筒型インダクター	L101	
	GE 30 04 50	"	1mH	"	L102,103	
	GE 10 04 70	AM IFT Coil	AM	AM IFT コ イ ル	T103	
	GE 10 07 40	Quadrature Detectorcoil		クオドラチャー検波コイル	T101	
	GE 20 05 30	Anti-Birdie Filter	114KHz	アンチバーディーフィルター	T102	G
	GG 00 05 60	FM Ceramic Filter	SFE 10.7MS3GHY-A	FMセラミックフィルター	CF101,102	
	GG 00 06 60	AM "	SFU 450B9	AMセラミックフィルター	CF103	
	GG 00 07 00	Ceramic Resonator	FCR 400K	セラミック振動子	XL103	
	GG 00 07 40	"	CSB 456F10	"	XL101	
	QU 00 38 00	Quartz Crystal Unit	7.2MHz	水 晶 振 動 子	XL102	
	HL 51 22 20	Metal Oxide Film Resistor	0.22 Ω 1W	酸 金 抵 抗	R279~282	
	HV 45 32 20	Flame Proof Carbon	2.2 Ω ERD25FV	不燃化カーボン抵抗	R316,325,326	
	HV 45 42 20	"	22 Ω "	"	R293	
	HV 45 43 90	"	39 Ω "	"	R309,310	
	HV 45 51 00	"	100 Ω "	"	R110	G
	HV 45 54 70	"	470 Ω "	"	R272,278,319~322	
	HV 45 61 00	"	1K Ω "	"	R271,272,327,328	
	HV 45 68 20	"	8.2k Ω RDF25SL	"	R117	
	HS 41 25 40	Potentiometer	100KA $\times$ 2	可 変 抵 抗 器	VR103 VOL.	
	HS 41 25 30	" (4-Ganged)	100Kトク $\times$ 2,80Kトク $\times$ 2 250KMN,300Kトク $\times$ 2	"	VR104 LOUD.BAL. TRE.BAS.	
	HT 37 03 50	Pre-Set Potentiometer	B2K Ω	半 固 定 抵 抗	VR101,102	
	iA 09 70 00	Transistor	2SA970 (GR,BL)	ト ラ ン ジ ス タ	TR119,120,131,132	
	iA 11 15 10	"	2SA1115 (E,F)	"	TR104,105,110,117,118, 134~137	Inter- changeable
	iX 60 31 70	"	2SA1310 (R,S,T)	"	"	
	iC 22 40 00	"	2SC2240 (GR,BL)	"	TR121,122	Inter- changeable
	iC 26 03 10	"	2SC2603 (E,F)	"	TR101,103,106~109,111, 113~116,140,133	
	iX 60 31 80	"	2SC3312 (R,S,T)	"	"	
	iC 20 60 00	"	2SC2060	"	TR138	Inter- changeable
	iD 04 00 10	"	2SD400	"	"	
	iC 36 77 00	"	2SC3677	"	TR139	Inter- changeable
	iD 14 05 00	"	2SD1405	"	"	
	iB 05 60 10	"	2SB560 (E,F)	"	TR125,126	
	iD 04 38 10	"	2SD438 (E,F)	"	TR123,124	
	iE 10 12 30	FET	2SK105 (E,F)	F E T	TR102	Inter- changeable
	iE 10 26 00	"	2SK246	"	"	
	iF 00 06 70	Diode	1S2473	ダ イ オ ー ド	D101~106,109,111~114, 119	Inter- changeable
	iF 00 00 40	"	1S1555	"	"	
	iF 00 06 70	"	1S2473	"	D107,110	Inter- changeable
	iF 00 00 40	"	1S1555	"	"	
	iF 00 06 70	"	1S2473	"	D108	Inter- changeable
	iF 00 00 40	"	1S1555	"	"	
	iF 00 00 40	"	1S1555	"	D125	R,U,C,A,B
	iF 00 14 00	"	1SS82	"	D124	
	iF 00 16 70	Zener Diode	RD6.8EB2	ツェナーダイオード	D120	
	iF 00 35 50	"	HZ12B-2	"	D121	

*New Parts (新規部品)

PARTS LIST

ELECTRICAL PARTS

■WARNING

Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.

• Carbon resistors of this stereo receiver are 1/4W. There is no description about them in this parts list. Use the "Part No." HJ350000 or equivalent.

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets
	NA 08:68:60	Main Circuit Board	メ イ ン シ ー ト			R
	NA 08:68:80	"	"			U
	NA 08:68:90	"	"			C
	NA 08:69:00	"	"			A,B
	NA 08:69:20	"	"			G
	FG 20:03:00	Ceramic Cap.	セ ラ コ ン	C201,202		
	FG 21:11:00	"	"	C233,234		
	FG 21:13:30	"	"	C113,115,134		
	FG 21:16:80	"	"	C116,241~244,145		
	FG 21:22:20	"	"	C165,179,180,195,196		
	FG 21:22:20	"	"	C175,176		G
	FG 21:24:70	"	"	C123,164,189,190		
	FG 21:21:00	"	"	C173,174,269,270		G
	FG 21:23:90	"	"	C167~172		G
	FG 41:31:00	"	"	C144,149,156,231,232		
	FG 41:32:20	"	"	C131,132		
	FG 44:42:20	"	"	C227,263~266		G
	FG 44:41:00	"	"	C101,103~105,107,109~112,258,259,133,137,139~141,143,148,150		
	FG 44:41:00	"	"	C262		G
	FG 44:42:20	"	"	C146,254,191,192,228		
	FG 44:44:70	"	"	C267,268		G
	FG 44:44:70	"	"	C118,153		
	FG 44:42:20	"	"	C121		G
	FG 44:44:70	"	"	"		R,U,C,A,B
	Fi 19:13:30	"	"	C158,159		
	Fi 41:41:00	"	"	C261		
	FZ 00:41:30	"	"	C223		G
	FZ 00:41:30	"	"	C229		
	FZ 00:35:80	Capacitor	ス ー パ ー キ ャ パ シ タ	C161	Inter-changeable	
	FZ 00:64:00	"	"	"		
	UA 25:32:70	Mylar Cap.	マ イ ラ ー コ ン	C213,214		
	UA 25:39:10	"	"	C183,184		
	UA 25:41:80	"	"	C207,208,215,216,224,225		
	UA 25:43:30	"	"	C185,186,245,246		
	FA 15:48:20	"	"	C209,210,260		
	FG 21:24:70	Ceramic Cap.	セ ラ コ ン	C125,126		G
	FG 41:31:00	"	"	"		A,B
	UT 45:31:50	Polypropylene Film Cap.	ポ リ プ ロ コ ン	"		R,U,C
	FZ 00:39:50	Electrolytic Cap.	ブ ロ ッ ク ケ ミ コ ン	C256,257		
	UK 16:63:30	"	B P コ ン	C217~220		
	UW 91:81:00	"	ケ ミ コ ン	C181,182,250		
	UW 91:84:70	"	"	C155		
	FZ 00:74:70	"	"	C166		
	UW 82:74:70	"	"	C259,249,203,204,211,212		
	UW 83:71:00	"	"	C102,117,124,127,136,147,160,163		
	UW 84:74:70	"	"	C237,238,255		
	UW 56:51:00	"	"	C193,194		
	UW 86:54:70	"	"	C138,222		
	UW 56:61:00	"	"	C106,108,119,120,128~130,152,177,178,221,239,240,248		
	UW 86:62:20	"	"	C114,187,188,197,198,235,236		
	UW 86:64:70	"	"	C162,199,200,253,122		
	UW 86:83:30	"	"	C247		

*New Parts (新規部品)

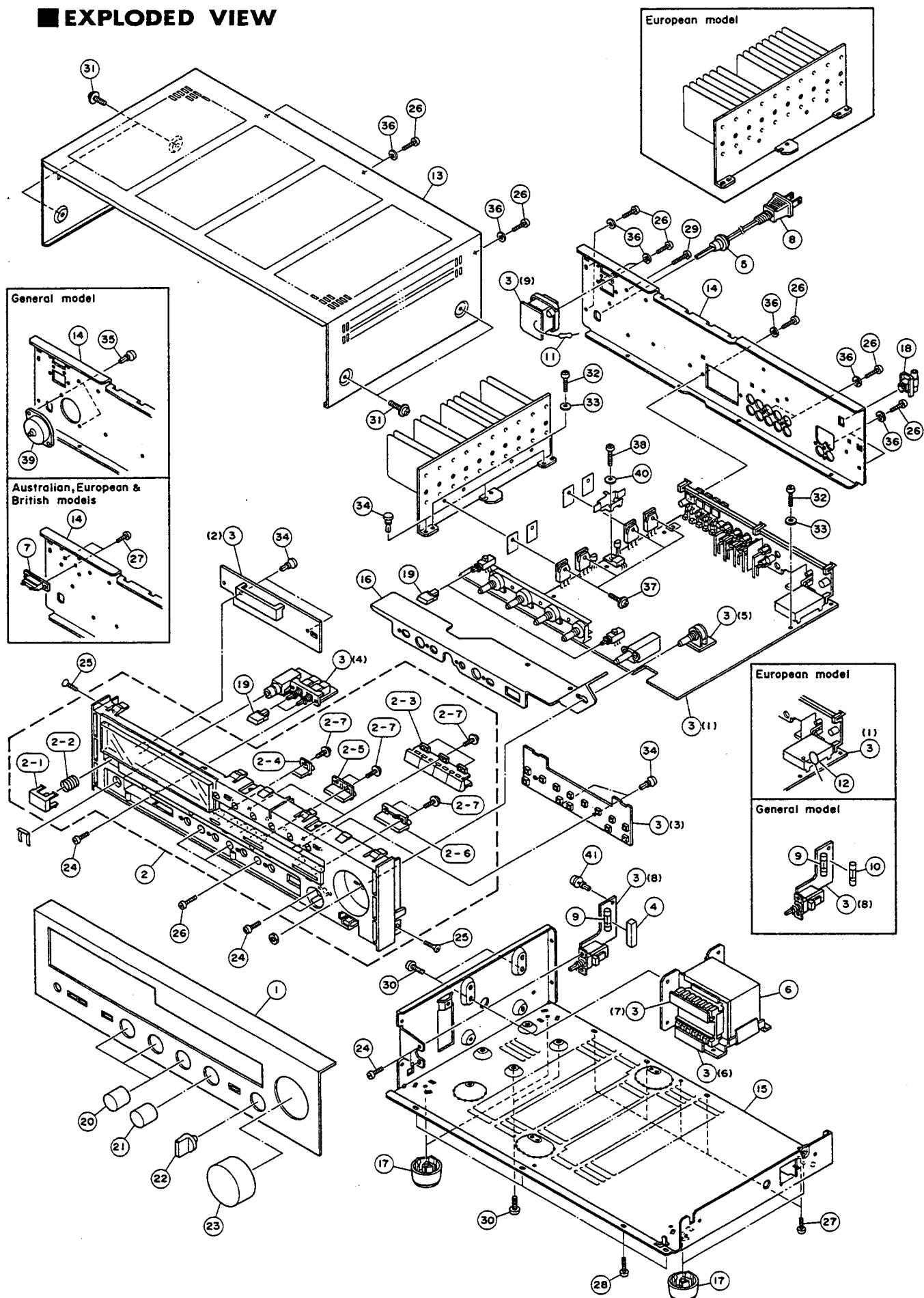
Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets
	iF 00:33:20	Zener Diode	HZ9C-3	ツェナダイオード	D126	
※	iF 00:87:30	LED (Red)	SLR-34URC3H	L E D	D118	
※	iF 00:87:40	" (Green)	SLR-34MC3H	"	D115~117	
	iH 00:10:30	Diode	3D4B41	ダイオードブリッジ	D123	
※	iF 00:82:90	Frequency Display		周 波 数 表 示 器	V101	
	iG 04:78:00	IC	LA1245	I C	IC103	
	iG 04:94:10	"	LB1274	"	IC106	
	iG 08:02:00	"	NJM2043S	"	IC108	
	iG 08:52:00	"	AN6557	"	"	Inter-changeable
	iG 09:20:00	"	M5220L	"	"	
	iG 13:20:00	"	BA618	"	IC107	
	iG 13:95:00	"	LA1235	"	IC101	
	iG 14:25:00	"	LA3400	"	IC102	
	iG 14:26:00	"	LM7000	"	IC104	
	iG 14:27:00	"	LC7030	"	IC105	
※	KA 40:16:90	Slide Switch		スライドスイッチ	SW101	R
※	KA 50:20:80	Rotary Switch	SRZ-S 4-4NS	ロータリースイッチ	SW118	
	KA 80:32:10	Push Switch	SDL-1P	プッシュスイッチ	SW119	
※	KA 80:51:40	"	SUL2-2NS	"	SW102	
※	KA 80:51:00	"	SUL2-2	"	SW104	
※	KA 80:51:30	"	SUL2-2S	"	SW103	
	KA 90:63:80	Push Switch	EVQ-QRB-04M	ライトタッチスイッチ	SW105~117	
	KC 00:19:40	Relay	DH2TU24VDC	リ レ -	RY101	Inter-changeable
※	KC 00:20:00	"	JR2a-DC24V	"	"	
	LB 30:17:20	Jack, Head Phone	Black	ホ ー ン ジャ ッ ク	JK101	
※	NA 08:78:30	Tuning Block	AM	電子同調用ブロック	U101	
	PA 00:08:10	FM Front End Pack	FE343U	FMフロントエンドパック	PK101	R,U,C,A,B
	PA 00:08:50	"	BFE446U16	"	"	G
	iL 00:05:70	Insulation Washer		マイカーベース		
※	BA 09:22:20	Heat Sink		放 熱 板		R,U,C,A,B
※	BA 09:22:30	"		"		G
	EZ 00:13:50	Cup Screw	3×14FCM3-Bi	カップスクリュー		
	iX 60:35:60	Transistor	2SA1264(O,R)	ト ラ ン ジ ス タ	TR129,130	
	iX 60:35:70	"	2SC3181(O,R)	"	TR127,128	
※	LA 00:54:90	Terminal	834T-1100	ボ ー ド イ ン タイ		R
	LB 20:14:80	Voltage Selector		電 圧 切 換 器		R
※	LB 40:14:50	AC Outlet		A C ア ウ ト レ ッ ト		R,U
※	LB 40:14:60	"		"		C
	LB 20:18:80	Pin, Fuse Holder	PC-FH1	ヒューズホルダーピン		
※	NB 62:58:50	Terminal Unit		ターミナルユニット		R,U,C,A,B
※	NB 62:58:60	"		"		G
	Mi 07:06:50	Parallel Cable	6P $\ell=60$	パラレルケーブル		
	BB 06:83:70	Metal, Earth		ア ー ス 金 具		
※	BB 07:09:10	TR Pusher		T R プ ッ シ ャ ー		
	CB 60:56:20	Plastic Rivet		プラスチックリベット		

※New Parts (新規部品)

[illegible]

※ New Parts (新規部品)

EXPLODED VIEW



MECHANISM PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	
※ 1	NB 62 56 80	Panel Unit	パ ネ ル ユ ニ ッ ト	Silver			
※ "	NB 62 56 90	"	"	Black			
※ 2	NB 62 57 00	Sub Chassis Unit	サ ブ シ ャ ー シ ュ ニ ッ ト	Silver			
※ "	NB 62 57 10	"	"	Black			
2-1	CB 63 51 20	Button	ボ タ ン	POWER Silver	A-520		
"	CB 63 51 30	"	"	" Black	"		
2-2	AA 61 78 80	Spring	ス プ リ ン グ				
※ 2-3	CB 63 99 00	Button, Push	4P ボ タ ン プ ッ シ ュ	P1~P8 Silver			
※ "	CB 63 99 10	"	"	" Black			
※ 2-4	CB 63 99 20	"	1P	" MEMORY Silver			
※ "	CB 63 99 30	"	"	" Black			
※ 2-5	CB 63 99 40	"	2P	" TUNING MODE Silver			
※ "	CB 63 99 50	"	"	" Black			
※ 2-6	CB 63 99 60	Button, Seesaw	ボ タ ン シ ー ソ ー	TUNING Silver			
※ "	CB 63 99 70	"	"	" Black			
※ 2-7	EX 60 02 00	Cup Screw	2×6 FCM3-BI カ ッ プ ス ク リ ュ ー				
※ 3	NA 08 68 60	Main Circuit Board	メ イ ン シ ー ト			R	
※ "	NA 08 68 80	"	"			U	
※ "	NA 08 68 90	"	"			C	
※ "	NA 08 69 00	"	"			A,B	
※ "	NA 08 69 20	"	"			G	
4	CB 09 95 80	Fuse Holder Cover	SB-0664U ヒ ュ ー ズ ホ ル ダ ー カ バ ー			U	
5	CB 61 68 10	Cord Stopper	CM-22A コ ー ド ス ト ッ パ ー			U	
"	CB 62 01 90	"	CM-22B	"		R,A,G,B	
"	CB 62 02 00	"	CM-22C	"		C	
※ 6	GA 68 80 00	Power Transformer	電 源 ト ラ ン ス			U	△
※ "	GA 68 81 00	"	"			C	△
※ "	GA 68 82 00	"	"			R	△
※ "	GA 68 83 00	"	"			G	△
※ "	GA 68 84 00	"	"			A,B	△
7	LA 00 29 50	Terminal Board	2P 中 継 端 子 台			A,G,B	△
8	MG 00 09 80	Power Cord	10A 125V 2m 電 源 コ ー ド	Inter-changeable		U	△
"	MG 00 12 40	"	10A 125V 2m			U	△
"	MG 00 09 20	"	7.5A 250V 2.5m	Inter-changeable		A	△
"	MG 00 14 90	"	7.5A 250V 2.5m			A	△
"	MG 00 09 60	"	2.5A 250V 2m	Inter-changeable		G	△
"	MG 00 16 20	"	2.5A 250V 2m			G	△
"	MG 00 18 60	"	2.5A 250V 2m			B	△
"	MG 00 16 30	"	6A 250V 2m			R	△
※ "	MG 00 22 20	"	10A 125V 1.98m			C	△
9	KB 00 03 60	Fuse	T3.0A 250V ヒ ュ ー ズ			R	△
"	KB 00 06 80	"	T1.25A 250V	"		A,G,B	△
※ "	KB 00 26 50	"	3.0A 250V	"		U,C	△
10	KB 00 03 40	"	T1.5A 250V	"		R	△
11	HG 30 92 20	Carbon Resistor	2.2MΩ 1/2W カ ー ボ ン 抵 抗			U,C	△
12	FG 24 41 00	Ceramic Cap.	0.01μF 50V セ ラ コ ン	C226		G	
※ 13	AA 62 55 10	Top Cover	ト ッ プ カ バ ー	Silver			
※ "	AA 62 55 20	"	"	Black			
※ 14	AA 62 55 30	Rear Panel	リ ア パ ネ ル			R	
※ "	AA 62 55 40	"	"			U,C	
※ "	AA 62 55 50	"	"			G	
※ "	AA 62 55 60	"	"			A,B	
※ 15	AA 62 55 00	Chassis	シ ャ ー シ				

※New Parts (新規部品)

[illegible]

※ New Parts (新規部品)

VEED-04-07-85

Betr.: STK-2030 im YAMAHA R-300

Von Nippon Gakki erhielten wir folgende Mitteilung:

Das IC-303 (STK-2030) wurde intern schaltungstechnisch geändert. Zwischen die Anschlüsse 3, 4, 5, (12,13,14) wurden Widerstände geschaltet.

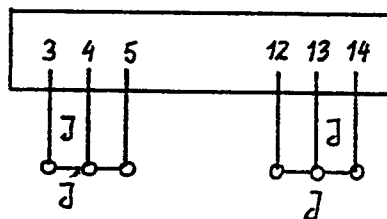
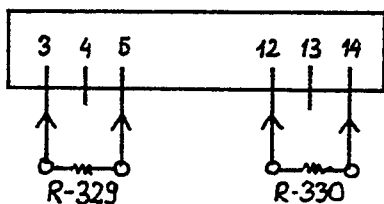
Bei der alten STK-2030-Ausführung lagen diese Widerstände extern an den Anschlüssen als "R-329/330".

In der neuen Ausführung sind in der Platine statt der Widerstände Drahtbrücken.

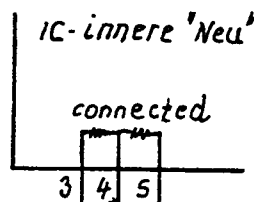
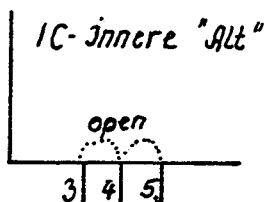
Bitte prüfen Sie deshalb vor dem Einbau des IC-303 ob zwischen dem Pin 3, 4 und 5 (12,13,14) eine Verbindung besteht (neue Ausführung) bzw. zwischen den Pins keine Verbindung besteht (alte Ausführung).

Achten Sie bitte auch bei der neuen Ausführung darauf, daß die Widerstände auf der Platine "R-329/330" durch Drahtbrücken bzw. die Brücken durch Widerstände ersetzt werden.

STK-2030
"ALT"



STK-2030
"Neu"



Mit freundlichen Grüßen

YAMAHA Elektronik Europa GmbH
Elektrotechn. Abt.