



Technical Manual

REMOTE CONTROL CENTER RR-700/RMR-90

REMOTE CONTROL TRANSMITTER RRT-1

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Serial Nos. Beginning
NE19661

THE ROTEL CO., LTD.
ROTEL ELECTRONICS CO., LTD.
ROTEL OF AMERICA, INC.
ROTEL HI FI LIMITED.

1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN
2ND FLOOR, EVERGLORY BLDG., NO. 305, SECTION 3,
NANKING E. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA
13528 SO. NORMANDIE, GARDENA, CALIF. 90249, U.S.A.
24 ERICA ROAD, STACEY BUSHES, MILTON KEYNES,
BUCKINGHAMSHIRE, ENGLAND

ERRATA

A. Parts List (page 3)

1. X301 Ceramic Resonator
Part No. 228641213 should read **224110008**.
2. Socket, AC Outlet,
for Europe
Part No. 648211316 should read **648211311**.
for UK
Part No. 648211311 should read **648211316**.
3. Polyethylene Bag for RR-700
Part No. 855004255 should read **855004260**.

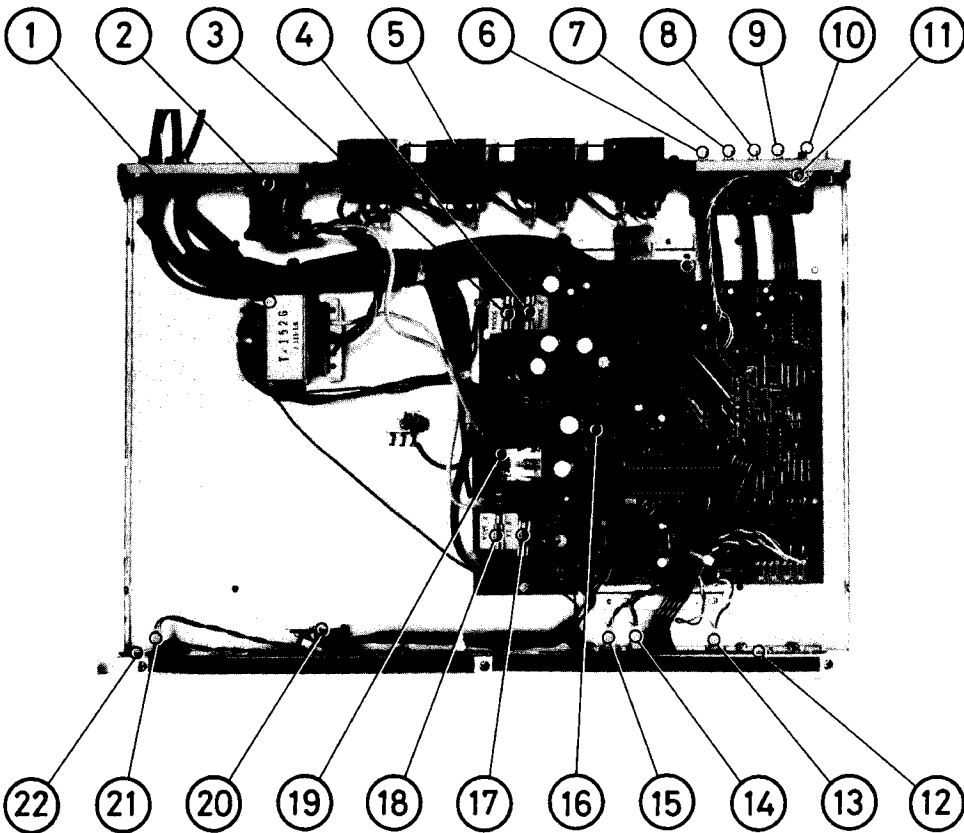
B. Schematic Diagram and P-c Board Diagrams

1. AUX should read **PHONO**.
2. R305, 10K, which is connected to p-c board pin 9
should read **R306, 10K**.
3. C001, 0.047 should read **C001, 0.022 (220/240V) or
NSK-135 (120V)** (applicable to Schematic Diagram
only).

Chassis Layout (Top View)

Installation du châssis (vue de dessus)

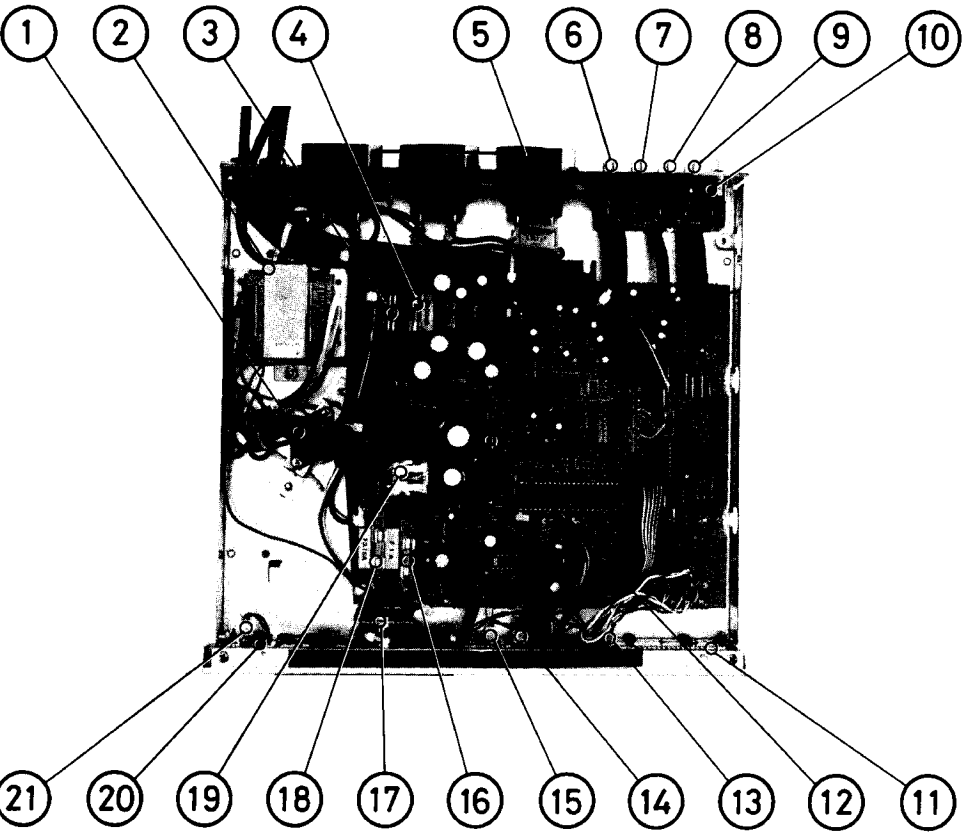
RR-700



1. POWER TRANSFORMER
2. VOLTAGE SELECTOR
3. F302, SECONDARY FUSE
4. F303, SECONDARY FUSE
5. AC OUTLETS
6. OUTPUT JACK
7. TAPE OUT JACK
8. TAPE IN JACK
9. TUNER JACK
10. INPUT JACK
11. TUNER/RECEIVER SWITCH
12. FUNCTION SWITCH PCB
13. MUTING INDICATOR
14. TUNER INDICATOR
15. TAPE INDICATOR
16. RY302, TURNTABLE RELAY
17. F304, SECONDARY FUSE
18. F301, PRIMARY FUSE
19. RY301, POWER RELAY
20. TARGET EYE PCB
21. POWER INDICATOR
22. POWER SWITCH PCB

Photo: European specification

RMR-90



1. VOLTAGE SELECTOR
2. POWER TRANSFORMER
3. F302, SECONDARY FUSE
4. F303, SECONDARY FUSE
5. AC OUTLETS
6. OUTPUT JACK
7. TAPE OUT JACK
8. TAPE IN JACK
9. TUNER JACK
10. INPUT JACK
11. FUNCTION SWITCH PCB
12. RY302, TURNTABLE RELAY
13. MUTING INDICATOR
14. TUNER INDICATOR
15. TAPE INDICATOR
16. F304, SECONDARY FUSE
17. TARGET EYE PCB
18. F301, PRIMARY FUSE
19. RY301, POWER RELAY
20. POWER SWITCH PCB
21. POWER INDICATOR

Photo: European specification

Note: Marking on transformer and installation manner of the transformer may differ from the photo above.

Remote Control Center RR-700/RMR-90

Schematic Location	Description	Part No.	Schematic Location	Description	Part No.		
TRANSISTORS, DIODES AND IC'S							
Q101	2SC1571 (G or H)	301201237		Fuse Clip, ϕ 6.3	648211257		
Q301 to 305, 307 to 309, 311 to 315, 319 to 322, 323*1	2SC536NP (F or G), or 2SC1815 (GR), or 2SC828 (R or S)	301201234 301201244 301201115		Fuse Clip, ϕ 5.2	648211256		
Q306, 316, 317 318,			2SA608 (F or G)	301001185		LED Socket, w/Wire (BRN), L=150	648211274
Q310					2SC2274 (E or F)	301201231	
D101			NJ1643A, Photo	300717001		LED Socket w/Wire (ORG), L=150	648211276
D102, 303, 304, 305 to 308, 310 to 330, 341			MA-150 (Si),	300111016		LED Socket w/Wire (YLRW), L=150	648211277
D301, 302	1K188, (Ge)	300111008				LED Socket w/Wire (GRN), L=300*1	648211296
D309	WZ-150, Zener, 15V, 0.5W	300313027		LED Socket w/Wire (GRN), L=200*2	648211287		
D331 to 334	SR1K-4, or DS135D, Rectifier	300919024 300919051		Pin Jack Board, 4P	624304204		
D335	KBP-02, Rectifier	300919027		Pin Jack Board, 2P	624303202		
D336, 339, 340	GL-9PR24, LED, (RED)	300414048		Voltage Selector*3	648211247		
D337, 338	GL-9NG24, LED' (GRN)	300414047		Socket, AC Outlet, for U.S.A. Canada etc.	648211255		
IC301	HA1197, Control Signal Amp	303452234		for Europe	648211316		
IC302, 303	HD14066BP, Switching	303452270		for UK	648211311		
IC304	NJM4558DD, Audio Amp	303452152		Cord Stopper,			
IC305	HA12022, Volume Control	303452286		Control Cord Mtg	675201116		
IC306	μ PC78L05, Regulator	303452271		Power Cord Mtg	675201114		
IC307	TC9134P, Controller	303452272		Power Cord Mtg, UK only	675201115		
IC308	TC9135P, Function Control	303452258		Cord Ass'y w/DIN 10P Plug*1	791001157		
IC309	HD14027BP, Tape	303452269		Cord Ass'y w/DIN 8P Plug	791001158		
				Cord Ass'y w/DIN 3P Plug	791001167		
				Signal Cord Ass'y	791001112		
				Power Supply Cord, for U.S.A. etc.	796301115		
				for Europe, etc.	796301148		
				for UK, wo/Plug	796301130		
				Insulation Cover*4 Noise Canceller	792011220		
L301	Coil, 38kHz Tune	228641213		Insulation Cover*3, Voltage Selector	792011218 792011218		
T001	Power Transformer (G-type) T-152G, for RR-700 T-155G, for RMR-90	207001535 207001537		Optical Filter	114902393		
	Power Transformer (D-type) CSA Spec Only			Front Panel Ass'y, for RR-700	111911583		
	T-152D, for RR-700	204001535		Front Panel Ass'y, for RMR-90	111911588		
	T-155D, for RMR-90	204001537		Bonnet, for RR-700	138011327		
RY301	Relay, Power, MS24D2-0(M)	240111226		Bonnet, for RMR-90	138011331		
RY302	Relay, Turntable, L-14	240111253		Button, UP, DOWN	116210107		
F301	Fuse, 7A, for 120V Area	341222700		Button, Function	116210110		
	Fuse, F3.15A, for 220/240V Area	345252315		Foot	673402027		
F302, 303	Fuse, 0.5A, for 120V Area	341222050		Collar, Rubber, ϕ 7 x ϕ 10 x H8	770302120		
	Fuse, F500mA, for 220/240V Area	345252050		Fiber Board w/Al Foil	991001179		
F304	Fuse, 1A, for 120V Area	341222100		Rubber Sheet, for RR-700	990201353		
	Fuse, F1A, for 220/240V Area	345252100		Rubber Sheet, for RMR-90	990201233		
X301	Ceramic Resonator, 455kHz	228641213		Songe, 180 x 8 x 1, Front Panel	990201337		
S1 to 7	Key Board Switch, UP, DOWN, etc.	615212297		Felt, 220 x 6 x 1, Rear Panel	990201148		
S8*1	Slide Switch, Tuner/Receiver	613000043		Sponge, ϕ 4.5 x ϕ 14 x t3	990201343		
C001	Noise Canceller, NSK-135, for 120V Area	470101118		Sponge, 20 x 6 x 12, for RR-700	990201350		
	PME256MB522, for 220/240V Area	470101136		Sponge, 20 x 6 x 8, for RMR-90	990201349		
	Main Circuit Ass'y for RR-700 120V Spec	141010216		Polyethylene Bag, for RR-700	855004255		
	220V/240V Spec	141010217		for RMR-90	855004050		
	Main Circuit Ass'y for RMR-90 120V Spec	141010221		for Owner's Manual	855002332		
	220V/240V Spec	141010222		Owner's Manual, RR-700	833201417		
				Owner's Manual, RMR-90	833201421		
				Packing Case, RR-700	812001454		
				Packing Case, RMR-90	812001457		

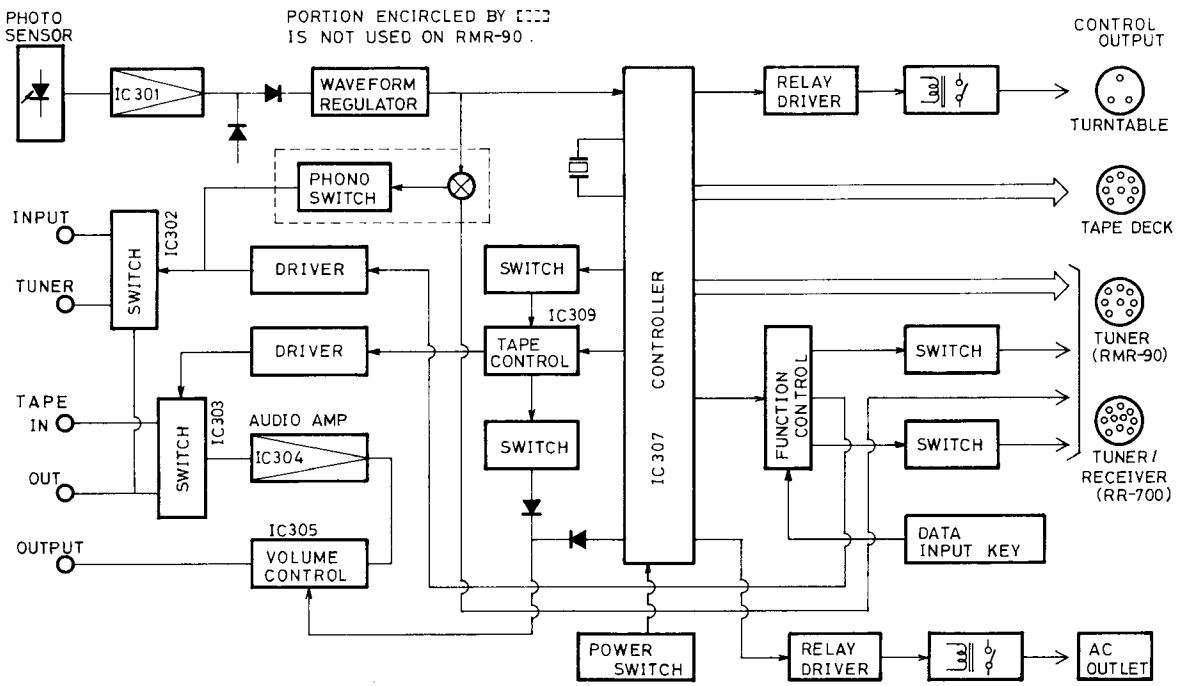
Schematic Location	Description	Part No.
	Stylofoam Moulding, RR-700	815001285
	Stylofoam Moulding, RMR-90	815001286
	Screw, M2 x 4 (BLZ), Bind	705222004
	Screw, M3 x 6 (Ni), Bind	705213006
	Screw, M3 x 8 (BLZ), Bind	705223008
	Screw, M4 x 8 (BLZ) w/FW, Bind*1	755224008
	Screw, M3 x 6 (Ni), countersunk	701213006
	Screw, TP3 x 8 (Ni)	726213008
	Screw, TP3 x 8 (BLZ)	726223008
	Screw, TP3 x 10 (BLZ)	726223010
	Screw, TP3 x 6 (Ni), Oval-countersunk	722213006
	Screw, TP3 x 8 (Ni), Oval-countersunk	722213008
	Screw, Tap-tight, 2.6 x 6 (BLK), Bind*2	765222606
	Screw, Tap-tight, 3 x 8 (Ni), Bind	765213008
	Screw, M3 x 5.5 (BLZ), Flat	770911166
	Insertion, M3, L=12	770911268
	GND Screw	770911282
	Nut, M3, Hexagonal	770402201
	Washer, Flat, M3	770500003
	Washer, Spring, M3	770500010

- Notes:**
- *1 Not used on model RMR-90.
 - *2 Not used on model RR-700.
 - *3 Not used for CSA version.
 - *4 Not used on 120 V units.

Remote Control Transmitter RRT-1

Schematic Location	Description	Part No.
TRANSISTORS, DIODES AND IC		
Q101, 102	2SAG08NP (F or G),	301001185
Q103	2SC2274 (E or F),	301201231
D101	LN221RP, LED (RED)	300414050
D102, 103	MA150, (Si),	300111016
D104, 105	NJL1102L, LED (INFRARED)	300414049
IC101	TC9132P, Remote Control Sender	303452273
OTHERS		
X101	Ceramic Resonator, 455kHz	224110008
S101 to 121	Key Board Switch	615212297
	Transmitter P-c Board Ass'y	141811225
	Mould Case w/Optical Filter	114902394
	Panel Ass'y	111911599
	Button, Key Switch	116210108
	Contact Plate, Battery	648211317
	Sponge, 30 x 30 x 3	990201356
	Rubber	990201357
	Polyethylene Bag	855001030
	Screw, TP 3 x 6	726213006

Block Diagram Schéma synoptique



BLOCK DIAGRAM MODEL RR-700 / RMR-90

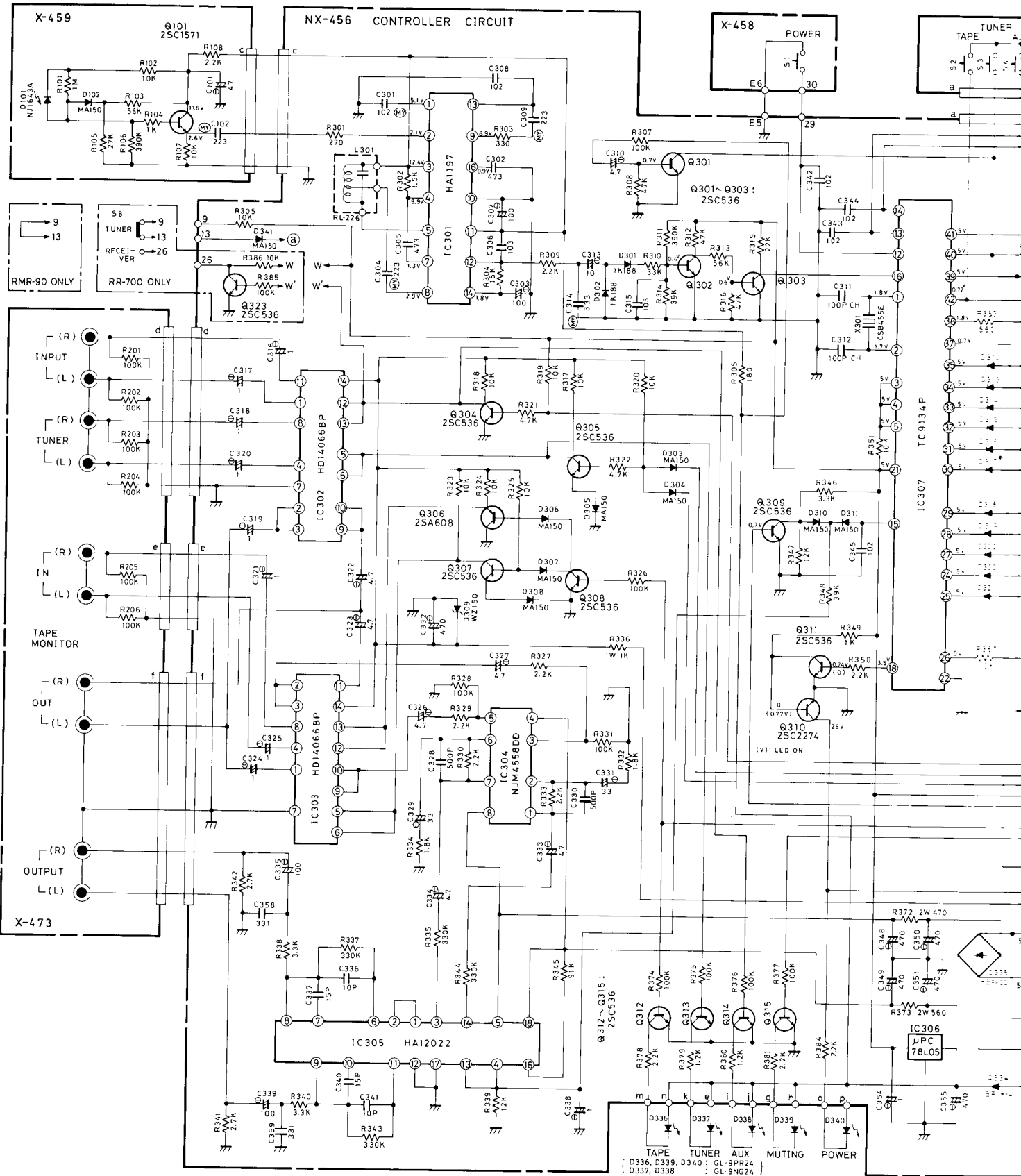
Addendum


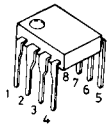
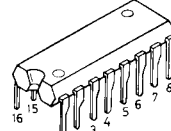
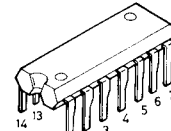
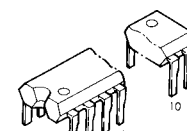
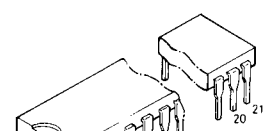

1. A ceramic capacitor, 0.1 mfd, 50 V is additionally installed between pin 21 of IC307 (TC-9134) and grounding.
Reason: To prevent malfunction of IC307, possibly resulting from spark induction when the relay is turned on or off.

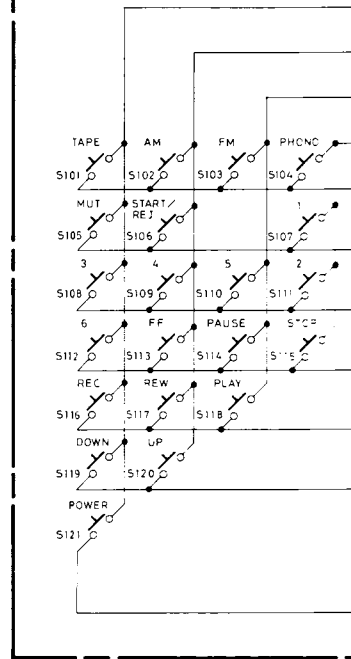
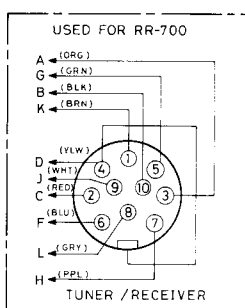
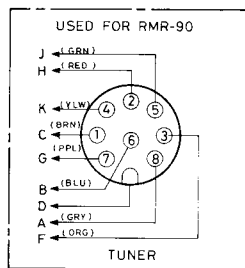
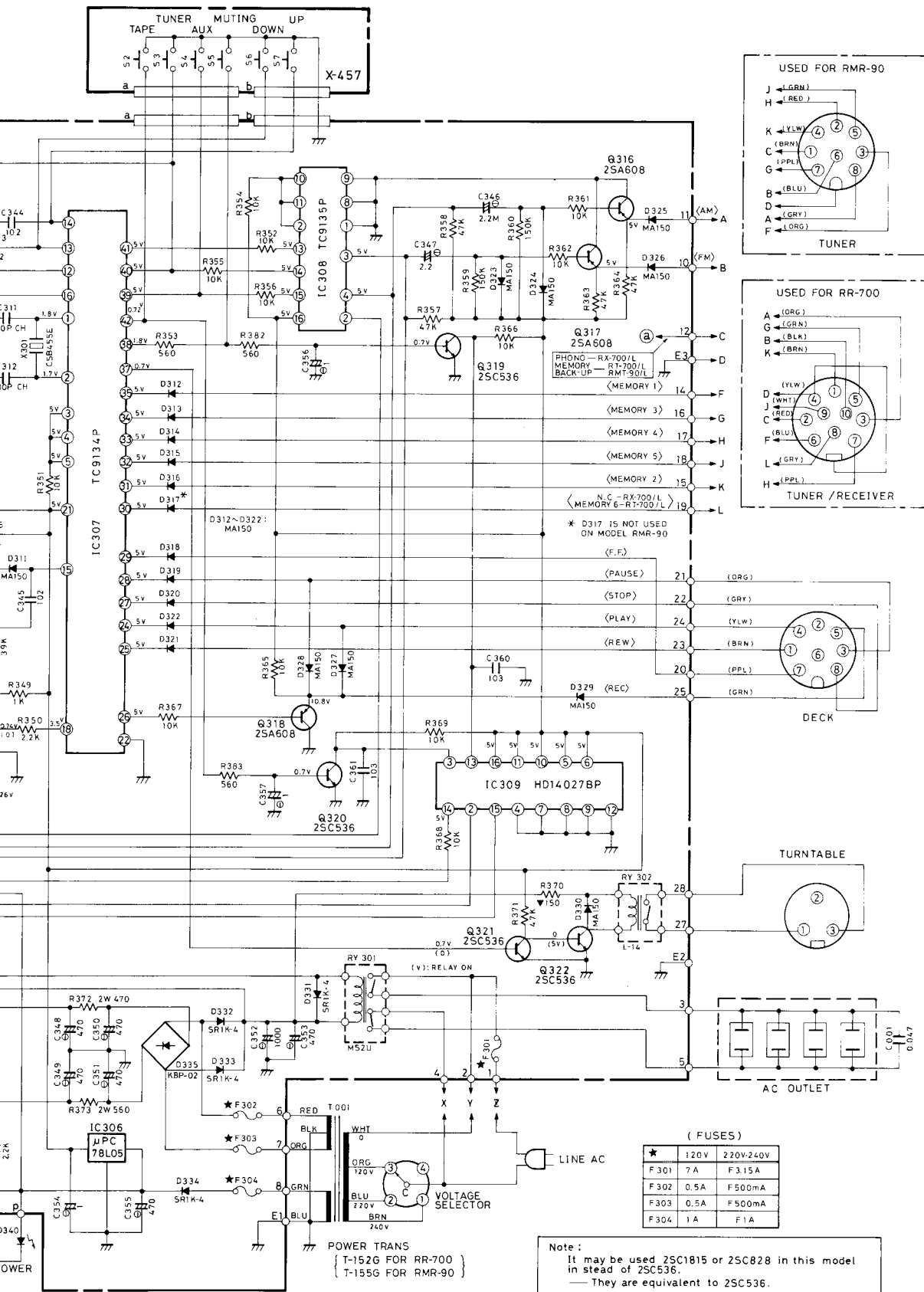
Schematic Diagram

Diagramme schématique

MAIN UNIT RR-700/RMR-90 UNITE PRINCIPALE RR-700/RMR-90



- 
2SC2274
2SA608
2SC536NP
2SC1571
- 
NJM4558DD
- 
TC9135P
HA1197
HD14066BP
HD14027BP
- 
HD14066BP
- 
TC9132P
- 
TC9134P
- 
HA12022



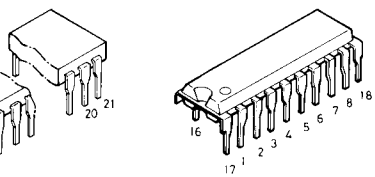
MODEL RR-700 / RMR 90

RESISTORS

Unless otherwise specified, resistors are 1/4 watts, low noise type carbon film type with a tolerance of 5%.
 K Kilohm
 M Megohm
 ▼ Uninflamable carbon film resistor, 1/2 watts

CAPACITORS

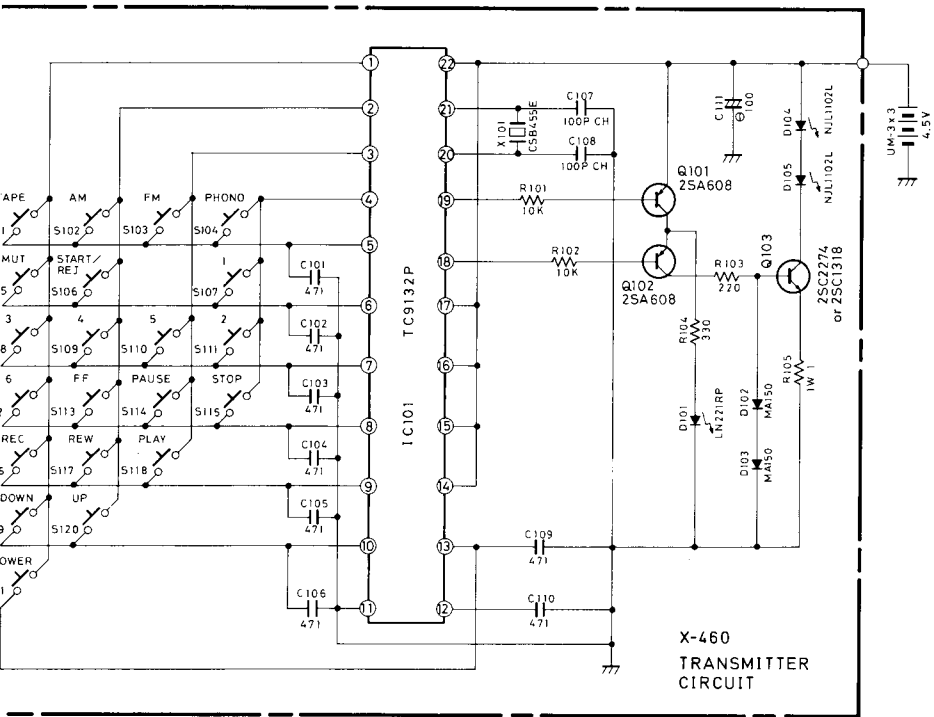
Unless otherwise specified, all capacitance values are expressed in mfd.
 MY Mylar film capacitor
 T Tantalum capacitor
 E Electrolytic capacitor
 Non mark Ceramic capacitor



HA12022

- Voltage read with VTVM across the point shown and the chassis ground (line voltage: 120V)
- Voltage reading tolerance: ±20%

**SMITTER UNIT RRT-1
E EMETTEUR RRT-1**

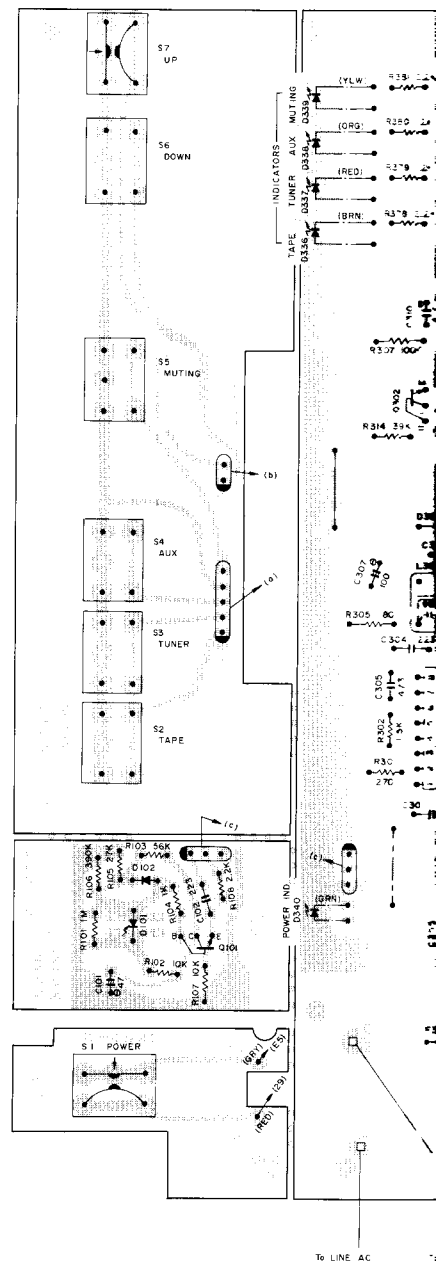


**CONTROL CENTER CIRCUIT RR-700
CIRCUIT DU UNITE PRINCIPALE RR-700**

Schematic Diagram
RRT-1
1981, 6, 18 TERAYAMA

GUIDE OF REMOTE CONTROL TERMINALS					
	PIN No.	FUNCTIONS		COLOR OF WIRE	
		RR-700	RMR-90	RR-700	RMR-90
TUNER/RECEIVER	10	FM		BLK	BLU
	11	AM		ORG	GRY
	12	PHONO/MEMORY BACK-UP	MEMORY BACK-UP	RED	BRN
	14	MEMORY 1		BLU	ORG
	15	MEMORY 2		BRN	YLW
	16	MEMORY 3		GRN	PPL
TAPE DECK	17	MEMORY 4		PPL	RED
	18	MEMORY 5		WHT	GRN
	19	MEMORY 6 (RT-700/-L ONLY)	NOT USED	GRY	—
	20	F.F		PPL	
	21	PAUSE		ORG	
	22	STOP		GRY	
TURN-TABLE	23	REW		BRN	
	24	PLAY		YLW	
	25	REC		GRN	
TURN-TABLE	27	START/REJECT		ORG	
	28			BRN	

Note: Pin 12 on RR-700:
When switch S8 on the rear panel is set to "RECEIVER": PHONO
When switch S8 is set to "TUNER": MEMORY BACK-UP

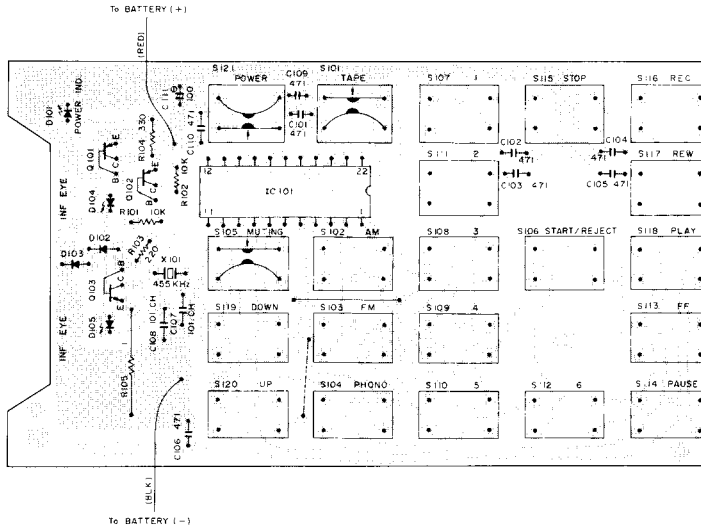


capacitance values are

itor
tor
citor
or

ross the point shown and
ge: 120V)
20%

REMOTE CONTROL TRANSMITTER CIRCUIT RRT-1 CIRCUIT DU UNITE EMETTEUR RRT-1



CONTROL CENTER CIRCUIT RR-700/RMR-90 CIRCUIT DU UNITE PRINCIPALE RR-700/RMR-90

- Notes:
- *1 and are used on model RR-700 only.
 - For RR-700, *2 is connected to TUNER/RECEIVER SWITCH. For RMR-90, pin 9 is short-circuited to pin 13.

