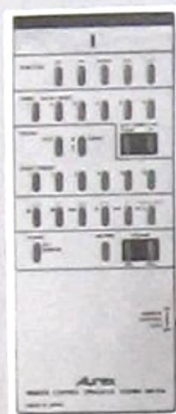


TOSHIBA

REMOTE CONTROL OPERATOR

RM-70



(RM-70A)



(RM-70B)

SPECIFICATIONS

■ Transmitter

Signal range:	Approx. 7m
Power supply:	Alkaline-manganese cell (1.5V x 3)
Dimensions (W x H x D):	70 x 12 x 170 (mm)
Weight:	118g (incl. cells)

■ Receiver

Volume control range:	-55 dB
Distortion ratio:	0.03%
Cross talk:	60 dB

Connection terminal:	Tuner control 11 pin Amp. control cord 6 pin DIN Input Output Deck control cord 7 pin DIN Player control cord 8 pin DIN
Power supply:	220V ~ 50 Hz for Europe 240V ~ 50 Hz for United Kingdom & Australia
Power consumption:	8W
Dimensions (W x H x D):	420 x 59 x 237 (mm)
Weight:	2.5kg

Specifications are subject to change without notice.

TE, TU, AY

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1. BLOCK DIAGRAM

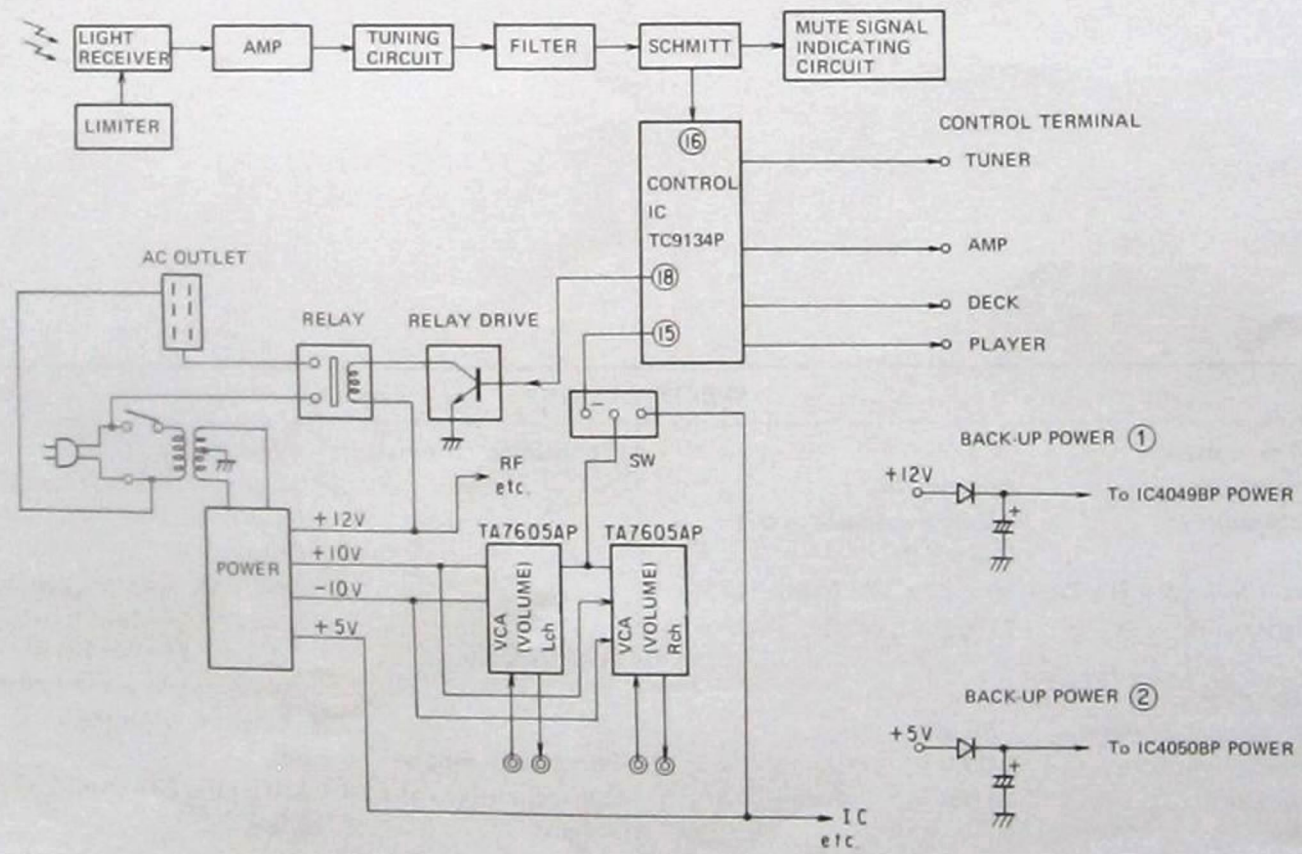


Figure 1.

■ Transmitter (RM-70A):

① Transmission indicator

Pressure on all buttons except the [REMOTE CONTROL LOCK] knob ⑪ causes the indicator to light, as long as signals are being emitted.

② [FUNCTION] button

Sources are selected by depressing the [FUNCTION] button.

AM: When the AM (medium wave) reception is desired, select the station after depressing this button.

FM: When the FM reception is desired, select the station after depressing this button.

PHONO: When listening to a music disc, depress this button and then operate the player system.

AUX: Depress this button when listening to the sounds from the appliance connected with the "AUXILIARY" terminal on the amplifier.

TAPE: When listening to sounds reproduced by the tape deck, depress this button and then operate the deck system.

③ [PHONO] button

This button serves to operate the turntable.

STOP: Depress this button when you wish to stop the playback.

CUEING (vertically): Depress this button when you want to move the arm downwards or upwards after stopping the performance tentatively.

④ [START/PRESET] button

Depress this button when the automatic performance or a skip selection is sought (For the details, consult the Player Manual [SR-M70]).

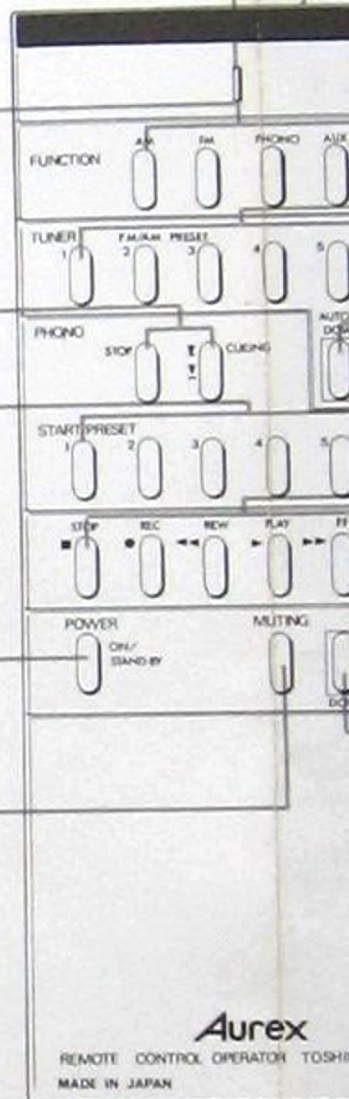
⑤ [POWER] button

Depress this button when you want to disconnect the power in the appliance connected with the receiver. Subsequent pressure on the button turns the power back on.

* Pressure on the button turns off the power in the appliance connected with the receiver but the transmitter itself is in the stand-by position.

⑥ [MUTING] button

Pressure on this button eliminates the sound in the appliance connected with the receiver. Subsequent pressure on the button restores the sound.



Aurex
REMOTE CONTROL OPERATOR TOSHIBA
MADE IN JAPAN

■ Receiver (RM-70B):

⑬ [POWER] indicator

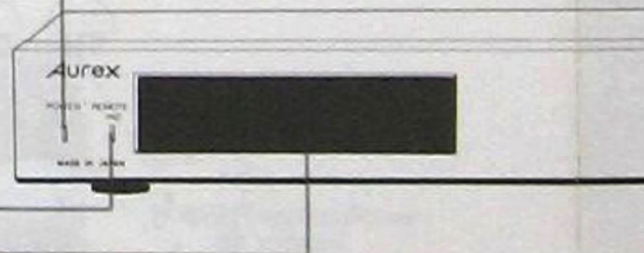
Turning power knob ⑬ to "REMOTE ON" and "REMOTE OFF" causes the indicator to light.

⑭ [REMOTE IND] remote indicator

Signal received from transmitter when the power knob ⑬ is turned to "REMOTE ON" causes the indicator to light. It will remain lit as long as the muting system operates.

⑮ Infrared receiving window

The window serves to receive the infrared rays emitted by the transmitter. Properly transmit the signal in direction of the window.



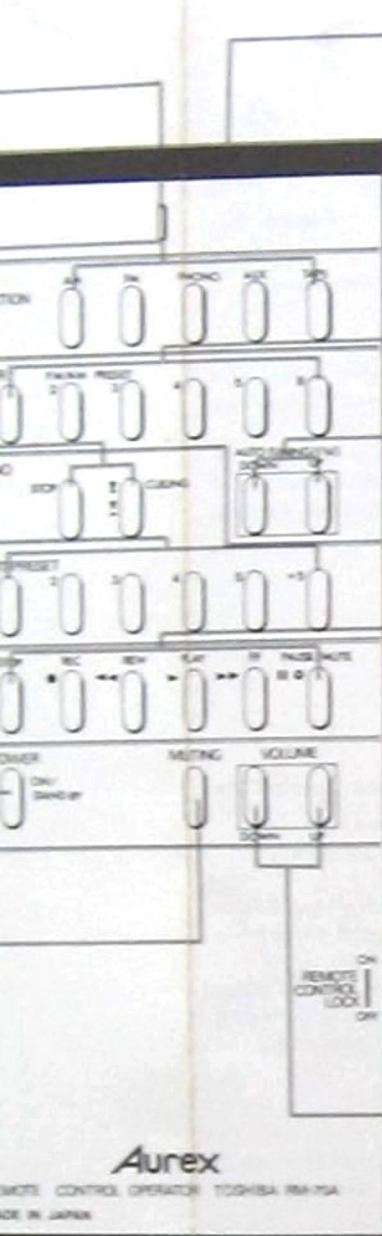


Figure 2.

- 7 Transmitting window**
An infrared signal is issued through the window. Properly transmit the signal in direction to the receiving window on the receiver.
- 8 [TUNER] selecting button**
Selection of the broadcasting station memorized in Channel 1 ~ 6 is carried out by depressing this button.
- 9 [AUTO TUNING] button**
Depress this button for automatic tuning of FM reception and manual tuning of AM reception. As for the details of automatic tuning, please consult with Manual of Tuner ST-S70, ST-S60. (ST-S70 has no FM auto-tuning system.)
- 10 Deck operation button**
Depress this button for deck operation. (For the operation details, consult the Manual of Deck (PC-E70).)

 - STOP: Pressure on this button causes the tape to stop.
 - REC: Depress this button for recording. (Since the device is so designed as to allow for a one-button recording, pressure on the recording button in the course of reproduction leads to recording.)
 - REW: Depress this button for rewinding the tape.
 - PLAY: Depress this button for playing back the tape.
 - FF: Depress this button for fast forwarding the tape.
 - PAUSE/MUTE: Depress this button for a temporary stop or for muting.
- 11 [REMOTE CONTROL LOCK] knob**
Turn the knob OFF for operating the transmitter. Turning the knob ON disables the transmission. When the transmitter is not in use, keep the knob to ON. (Turning the knob to ON turns the power in the transmitter OFF.)
- 12 [VOLUME] button**
Pressure on "UP" keeps increasing the volume. When the button is released, the volume will cease to vary.

 - In case that this button is kept depressed, the maximum value depends upon the VOLUME knob position on the amplifier. Hence it is necessary to adjust the VOLUME knob on the amplifier side to attain the desired volume level, because pressure on this button will fail to attain increased volume if the amplifier VOLUME knob is left in minimum position. Pressure on the "DOWN" button decreases the volume. Release of the button causes the volume to cease variation.

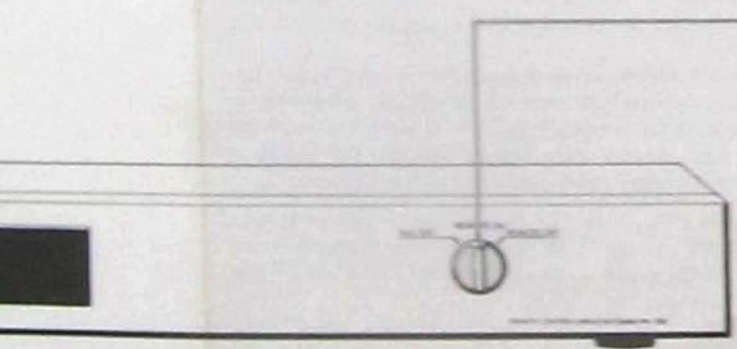


Figure 3.

- 16 [ALL OFF/REMOTE ON/REMOTE OFF] power knob**
Turning the knob to "REMOTE ON" turns the power in the main body of the controller on, permitting remote operation. Turning the knob to "REMOTE OFF" suspends the remote operation. Manual operation should be conducted with the knob turned to "REMOTE OFF". Turning the knob to "ALL OFF" turns the power off in the receiver as well as in the appliance connected to the receiver.

 - If the power is turned "OFF" by means of this knob and the knob is then immediately turned to "REMOTE ON" or "REMOTE OFF", the power in the connected appliance may remain off. Please operate the power switch slowly.

Note: In the REMOTE ON and REMOTE OFF positions, the AC mains power will still be supplied to the receiver.

Note: Capacity of AC outlet: Up to a total of 500W (For audio only).
The rear side of RM-70B is provided with four remote-controlled AC outlets. Carefully check the electric consumption of the appliance to which RM-70B is to be connected.

Note: Outlet A: Max. 350W
B - D: 50W respectively

3. CELL INSERTIONS

Insert the Alkaline-manganese cells supplied into the transmitter RM-70A.

- (1) Remove the four screws at the rear with a screw-driver.

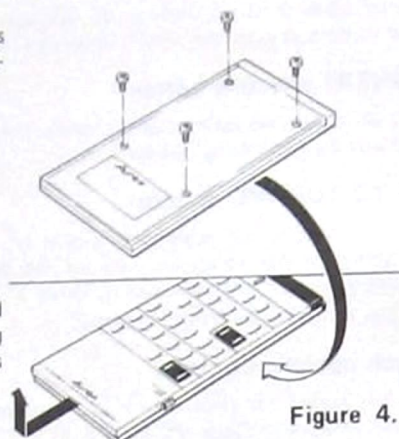


Figure 4.

- (2) Turn the set over and open the lid by pulling the upper plate towards you.

- (3) Insert the cells as per the illustration. Observe the (+) (-) polarity correspondence strictly.

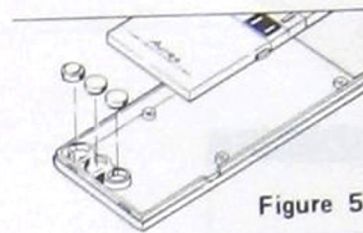


Figure 5.

- (4) Close the case in the sequence reverse to the opening sequence.

The cell service life is normally about six month in the case of this transmitter (LR44). Replace three cells altogether when the transmitter indicator lamp ceases to light or when transmitter performance becomes unstable.

When replacing the cells, use Toshiba alkaline-manganese LR44 or Toshiba silver-oxide cell SR44 (G13). When the transmitter is not used for long periods or when the cell life expires, take the cells out of the transmitter to avoid leakage.

4. OPERATIONS

1. After connecting all wires, turn the power in Receiver RM-70B and connected appliances on.
2. Turn the [REMOTE CONTROL] knob (11) of transmitter RM-70A to "OFF".
3. Adjust the volume by means of transmitter RM-70A. (Volume is controlled by means of the [VOLUME] button (12) on the transmitter. If the power of the amplifier is turned off with [POWER] button (5) and back on, the level of the volume is as previous. If, however, the power knob (16) of the receiver is turned ALL OFF and back ON, the level of the volume represents the level of VOLUME position in the connected amplifier.)

■ How to listen to FM or AM broadcasts

- (1) Depress "AM" or "FM" of the [FUNCTION] button (2).
- (2) Select your desired station by depressing [TUNER] button (8) or [AUTO TUNING] button (9).

Note: If no station is preset on the tuner side, pressure on the [TUNER] select button (8) fails to select the desired station.

■ Disc performance

- (1) Depress the [PHONO] of the [FUNCTION] button.
- (2) Pressure on the [PHONO] button (3) and the [START/PRE-SET] button (4) leads to music disc performance. (As for the performance, consult the turntable instruction manual.)

■ Tape reproduction

- (1) Depress the "TAPE" of the [FUNCTION] button.
- (2) Depress "▶PLAY" of deck operation button (10).

Note: For the particulars of other operational procedures, consult the Cassette Deck Manual.

■ How to record

- (1) Select the recording source by means of the [FUNCTION] button (2).
- (2) After depressing the "PAUSE/MUTE" button (10) of Deck Operation and then depress the "●REC" button (Ready for recording).

- (3) When recording readiness has been reached, again depress the "|| PAUSE/MUTE" button and start recording.

Note: (1) The recording level should be adjusted in advance.

(2) Recorded tape:

Since the device is so designed as to allow for a one-button-recording, break off the tab designed to prevent erroneous erasure from the recorded tape.

- (3) If the tape whose erasure prevention tab is broken is put into a deck connected to the receiver and the recording buttons on the deck and transmitter are depressed, the tape will be played back.

■ Notes on operation

- (1) Use of the transmitter in a direction opposite to that of receiver or use of the transmitter with an object between the transmitter and receiver may lead to malfunction.

The remote operational range of the control system is up to 7m approx., with an angle of about 30°.

- (2) Simultaneous pressure on more than one button leads to malfunction. Depress firmly buttons one by one.

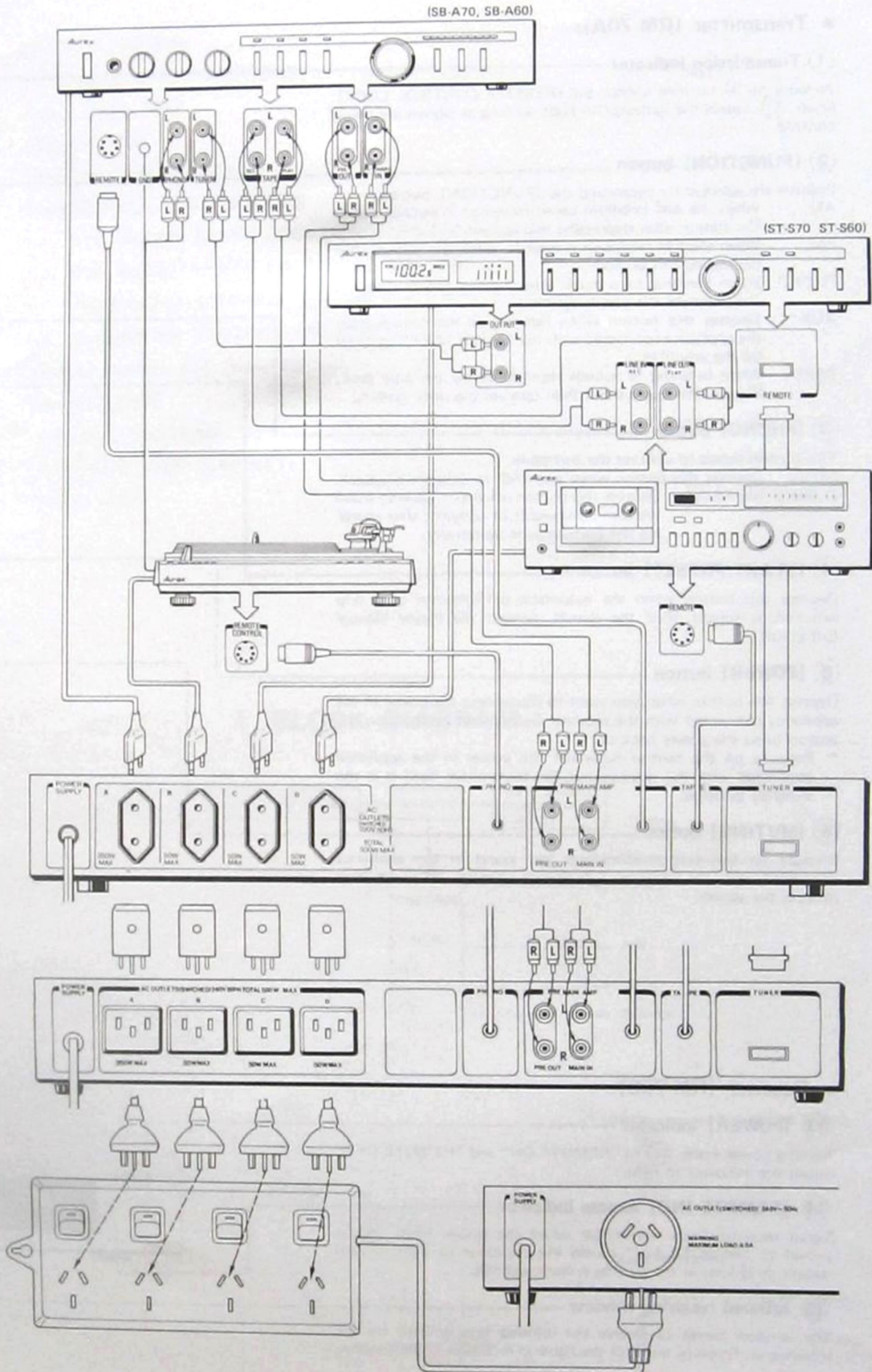
Note: Depress the transmitting button firmly. As long as the button is kept depressed, the volume may temporarily decrease but will increase to the original level when the button is released.

- (3) If the power switch of the appliance with which the remote controller is connected is turned off, the remote control does no longer function.

Note: Whenever a fluorescent lamp and other electric appliances in the vicinity are switched on or off, or whenever an object carrying static electricity comes in contact with the receiver, malfunction may occur. Use the AC outlet as far away as possible from other electric appliances.

- Note:** When you leave your house, or in the case of power failure, turn the remote control lock knob of the transmitter to "ON" and turn the power knobs of receiver "ALL OFF" and connected appliances to "OFF"

5. SYSTEM CONNECTIONS



An optional accessory available from Toshiba.

Figure 6.

6. DISASSEMBLY INSTRUCTIONS

RECEIVER (RM-70B)

TOP COVER REMOVAL

1. Remove 5 screws (1) securing the top cover to detach the top cover.

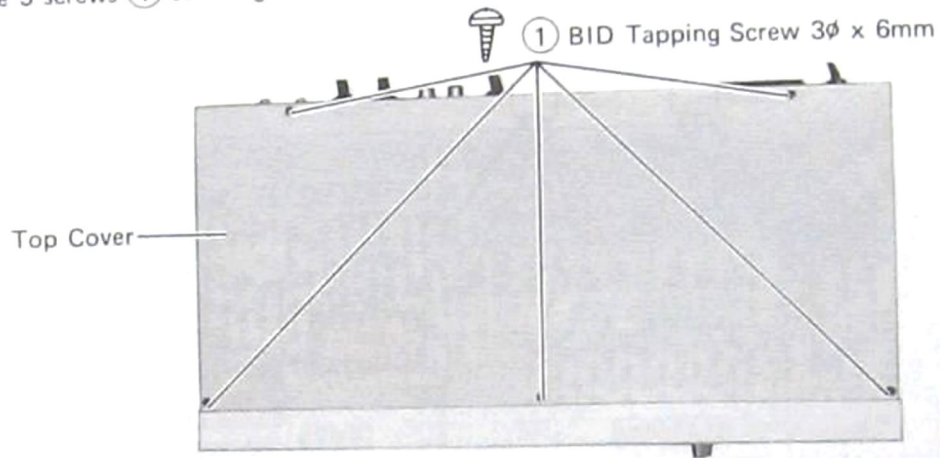


Figure 7.

FRONT COVER REMOVAL

1. Detach the top cover.
2. Remove the POWER switch knob (2).
3. Remove 6 screws (3) & (4) to detach the front cover.

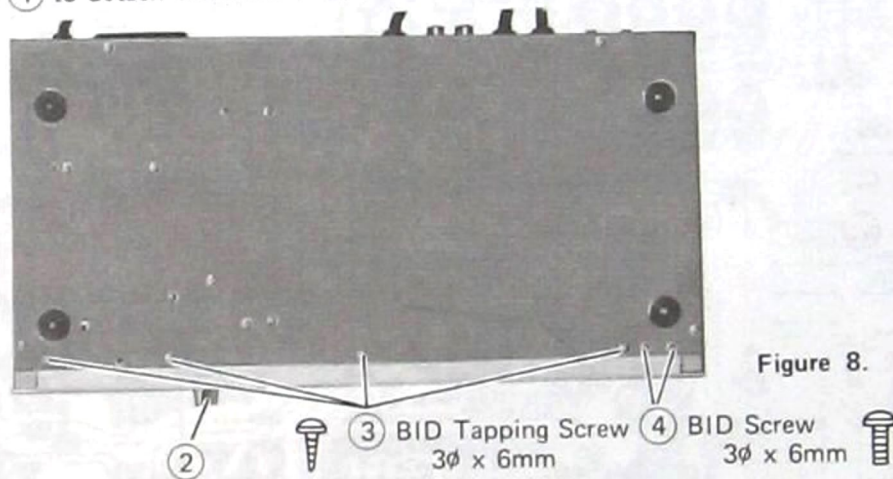


Figure 8.

P.C. BOARD REMOVAL

1. Detach the top cover.
2. Detach the front cover.
3. Remove 2 screws (5).
4. Remove 3 screws (6) and (7) on the jack plate.
5. Unsolder 3 soldering points of the grounding lead of the connecting cord.
6. Remove 5 screws (9) holding P.C. Board.
7. Remove 4 P.C. Board holders (10) to take out P.C. Board.

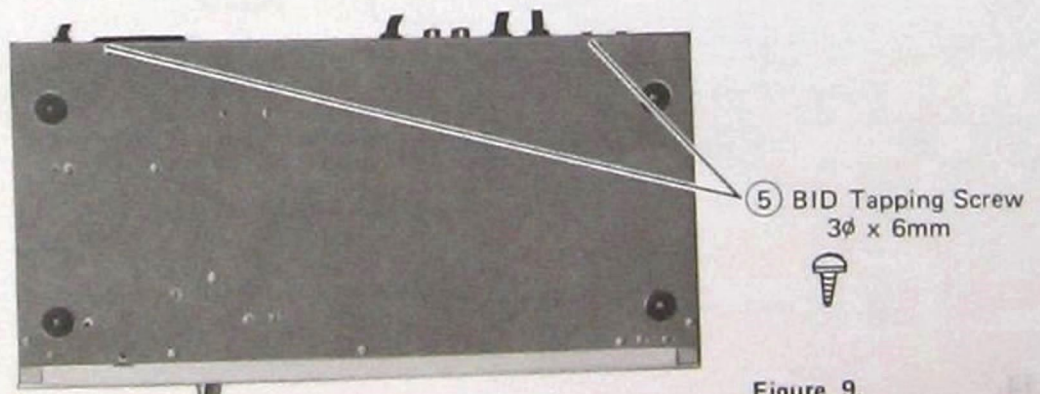


Figure 9.

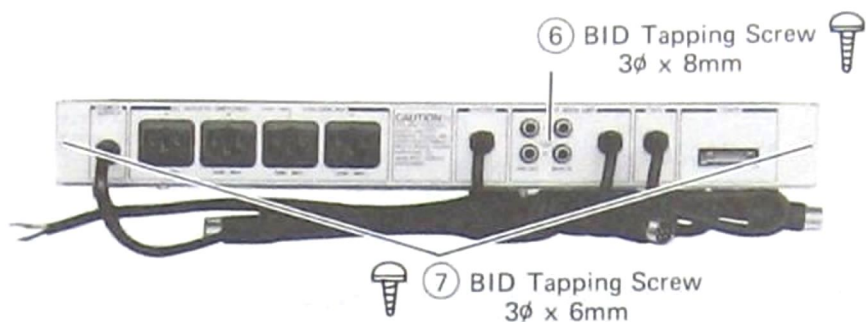


Figure 10.

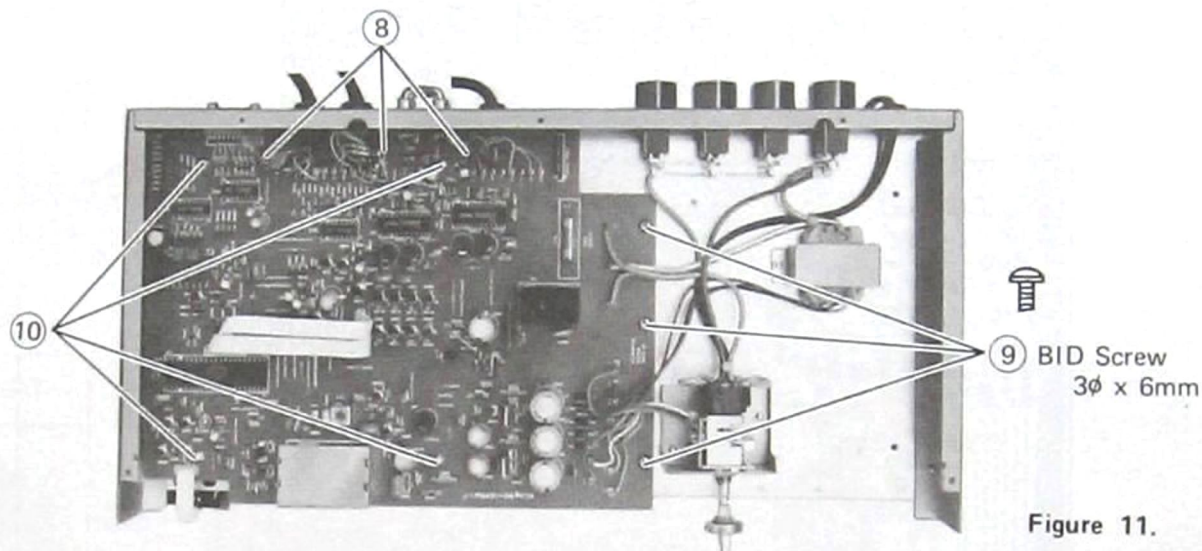


Figure 11.

TRANSMITTER (RM-70A)

CASE REMOVAL

1. Remove 4 screws (11) securing the case to detach the case.

Note: Detach by pushing in the arrow direction.

P.C. BOARD REMOVAL

1. Remove 5 screws (13) holding the P.C. Board to detach the P.C. Board.

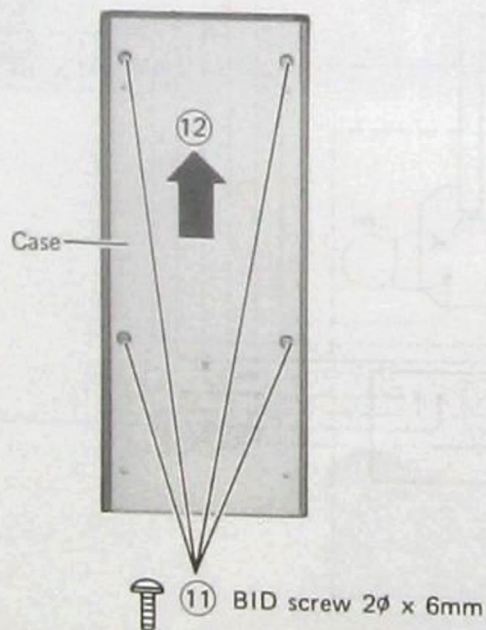


Figure 12.

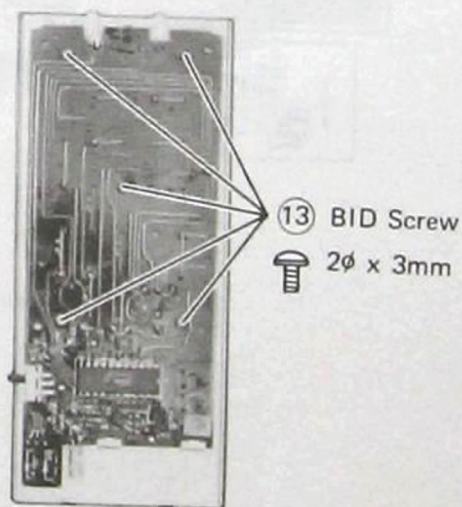


Figure 13.

7-1. P.C. BOARD PARTS LOCATIONS (RM-70B)

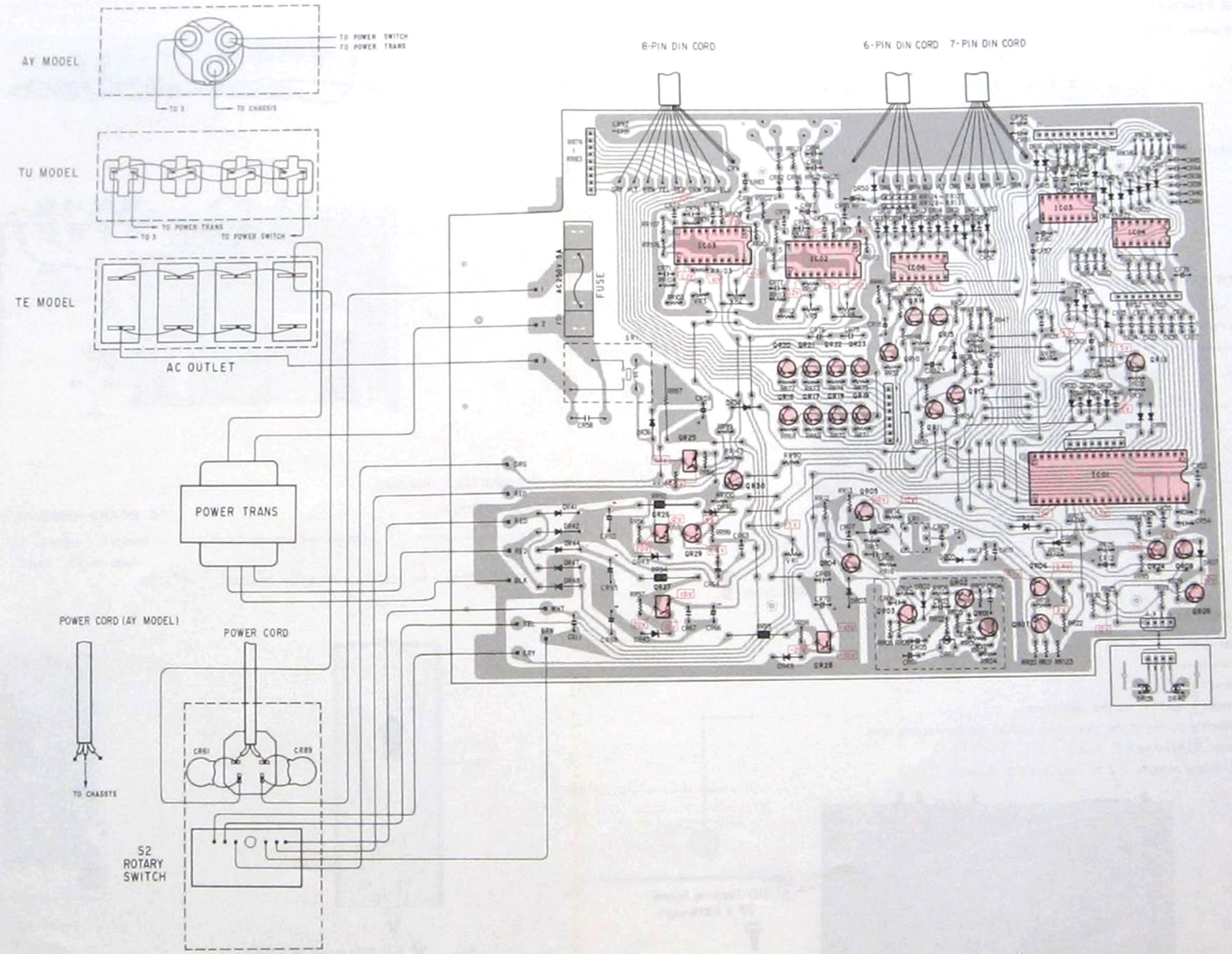
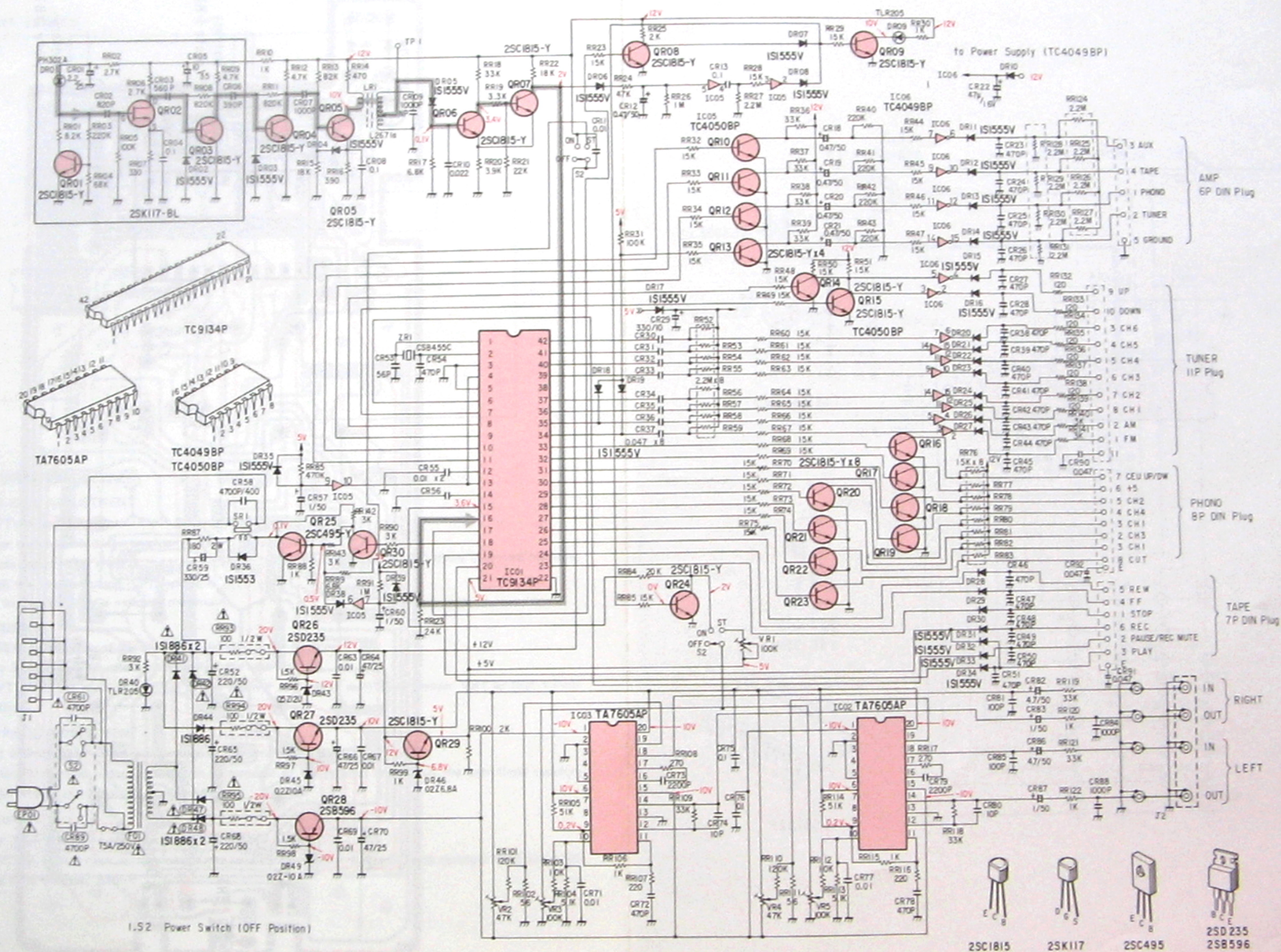


Figure 14.

8-1. SCHEMATIC DIAGRAM (RM-70B)



I.S.2 Power Switch (OFF Position)

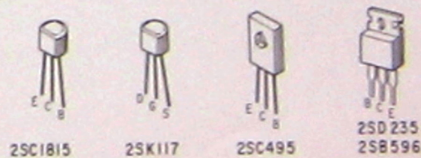


Figure 15.

7-2. P.C. BOARD PARTS LOCATIONS (RM-70A)

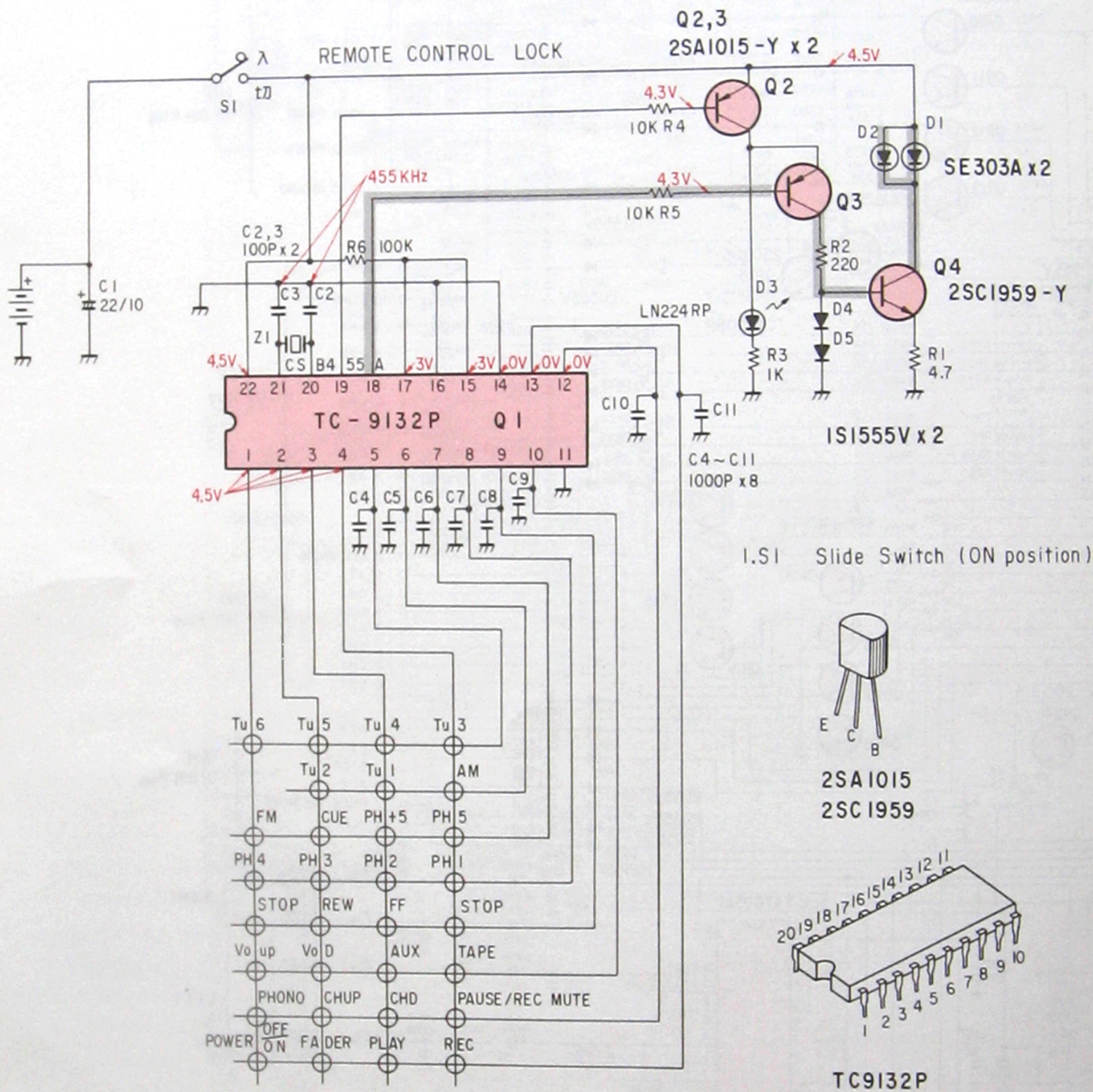


Figure 16.

8-2. SCHEMATIC DIAGRAM (RM-70A)

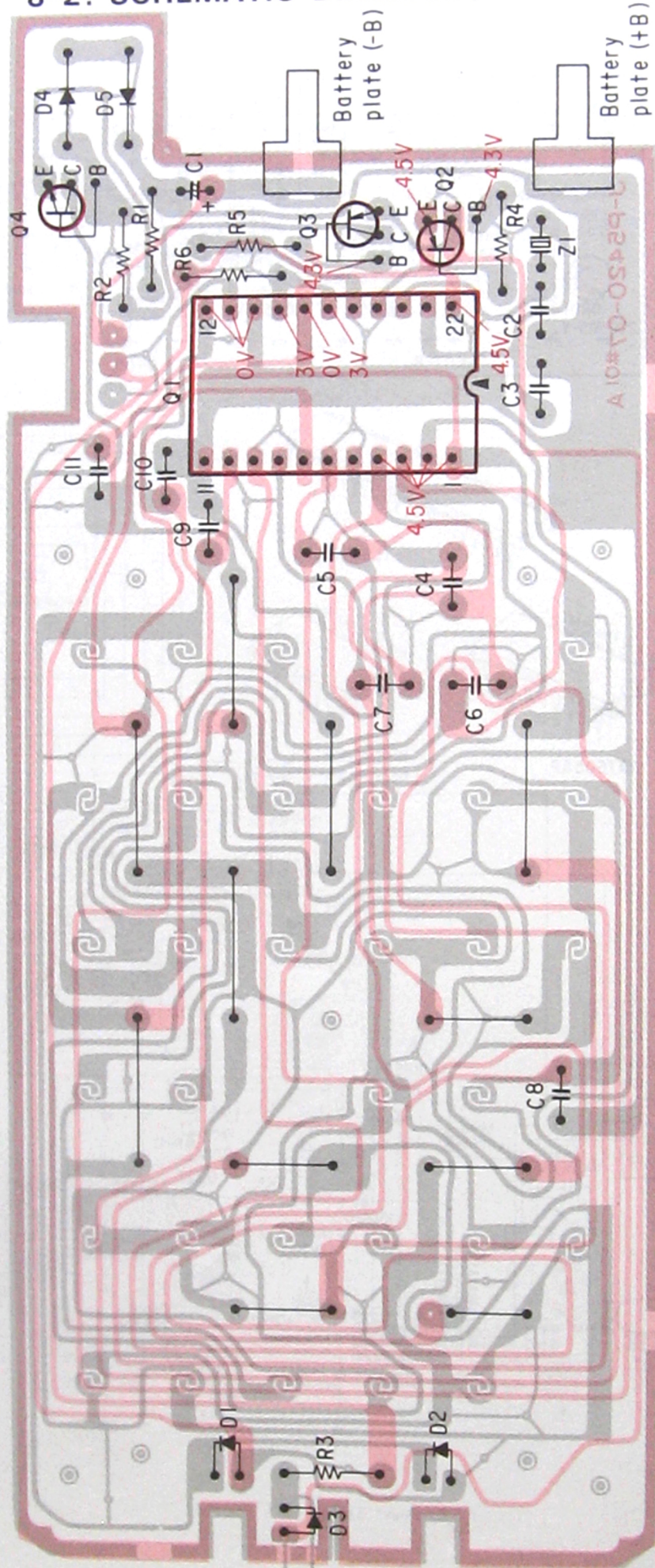


Figure 17.

10. ADJUSTMENTS

ALIGNMENT POINTS

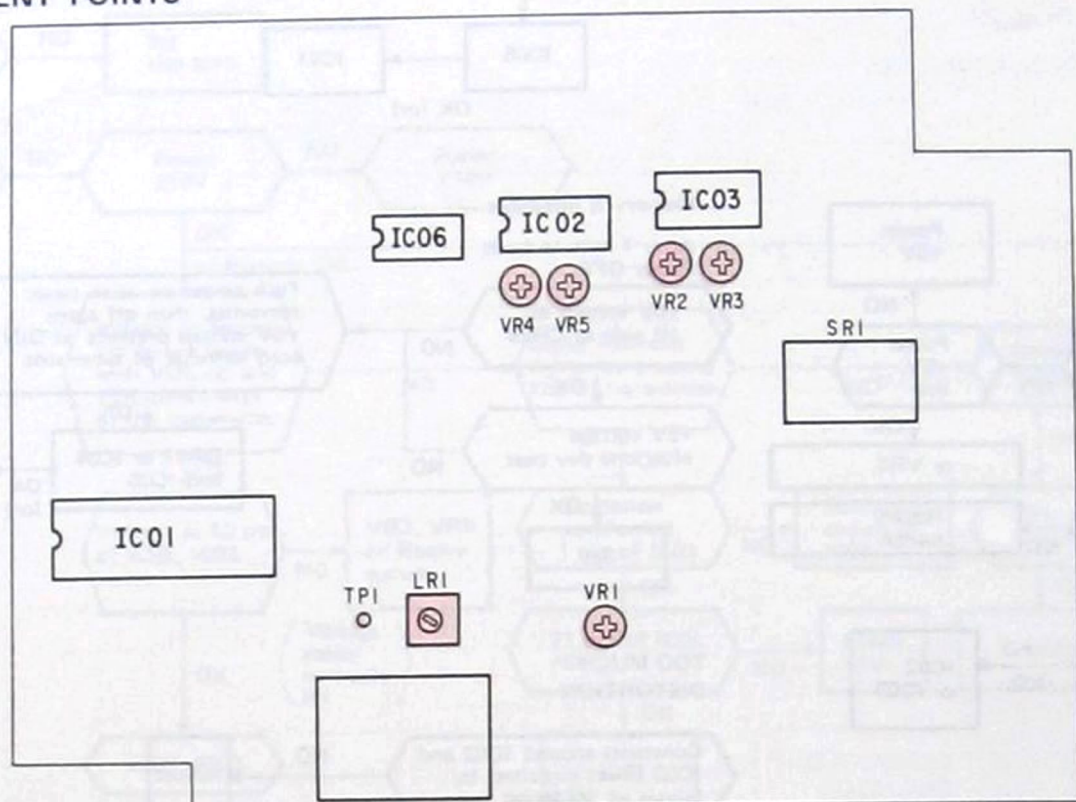


Figure 18.

ADJUSTMENTS (RECEIVER)

○ FINE TUNING COIL ADJUSTMENT

1. Connect a VTVM to the terminal TP1 of the receiver.
2. Set the power switch knob of the receiver to REMOTE ON position.
3. Set the remote control lock knob of the transmitter to OFF and apply signal to LED diode (Infrared receiving window) with the volume button (UP) depressing.
4. Adjust LR1 so that the VTVM indicates maximum.

○ VOLUME ADJUSTMENT

1. Set the POWER switch knob of the receiver to REMOTE ON position.
2. Apply 1 kHz 300mV signal to pre-out terminal of the receiver.
3. Connect a VTVM to the main in terminal of the receiver and adjust semi-fixed resistor VR1 so that VTVM indicates 300mV.

○ DISTORTION RATIO ADJUSTMENT

1. Apply 1 kHz 300mV signal to pre-out terminal of the receiver.
2. Connect a distortion ratio meter to the main in terminal of the receiver and adjust the semi-fixed resistors VR2 and VR4 so that the distortion is minimum.

○ GAIN ADJUSTMENT

1. Apply 1 kHz 300mV signal to the pre-out terminal of the receiver.
2. Connect a VTVM to the main in terminal of the receiver and adjust the semi-fixed resistors VR3 and VR5 so that the VTVM indicates 300mV.

11. IC BLOCK DIAGRAM

TC-9132P

PIN CONNECTION

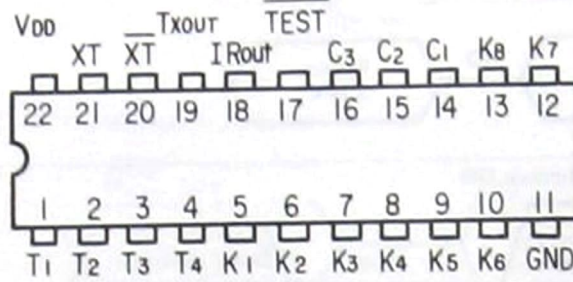
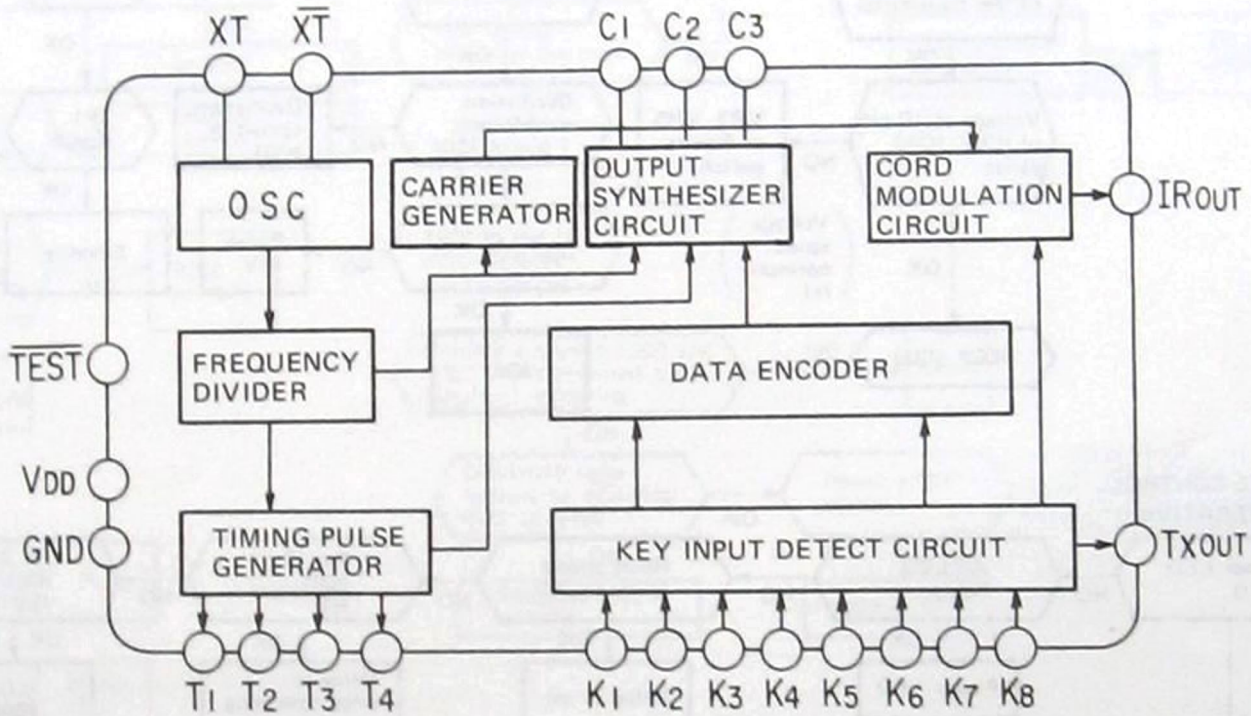


Figure 19.

BLOCK DIAGRAM



FUNCTION OF TERMINALS

Pin No.	Parts Location	Name of Terminal	Function
1 ~ 4	T ₁ ~ T ₄	Timing signal output	Timing Digit output terminal for Key matrix.
5 ~ 10, 12, 13	K ₁ ~ K ₈	Key Input	Key input terminal for Key matrix. 32 Kinds of command are capable by operating T ₁ ~ T ₄ x K ₁ ~ K ₈ .
14 ~ 16	C ₁ ~ C ₃	Cord pit input	Cord pit input terminal, available for cord mating between transmission and reception. 7 Kinds of command are capable.
17	TEST	Test terminal	Usually set to "H" level.
18	IR _{OUT}	Transmitting output	Available for transmitting signal output. 16 bits per 1 cycle modulated by 38 kHz carrier frequency.
19	TX _{OUT}	Indicator output during Transmission	"H" level is normal but while transmitting, it varies to "L" level.
20, 21	XT, XT-bar	Oscillator terminal	Terminal for oscillator 455 kHz ceramic oscillation element is used.

PIN CONNECTION

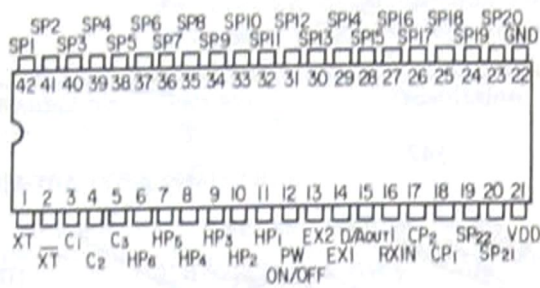


Figure 20.

BLOCK DIAGRAM

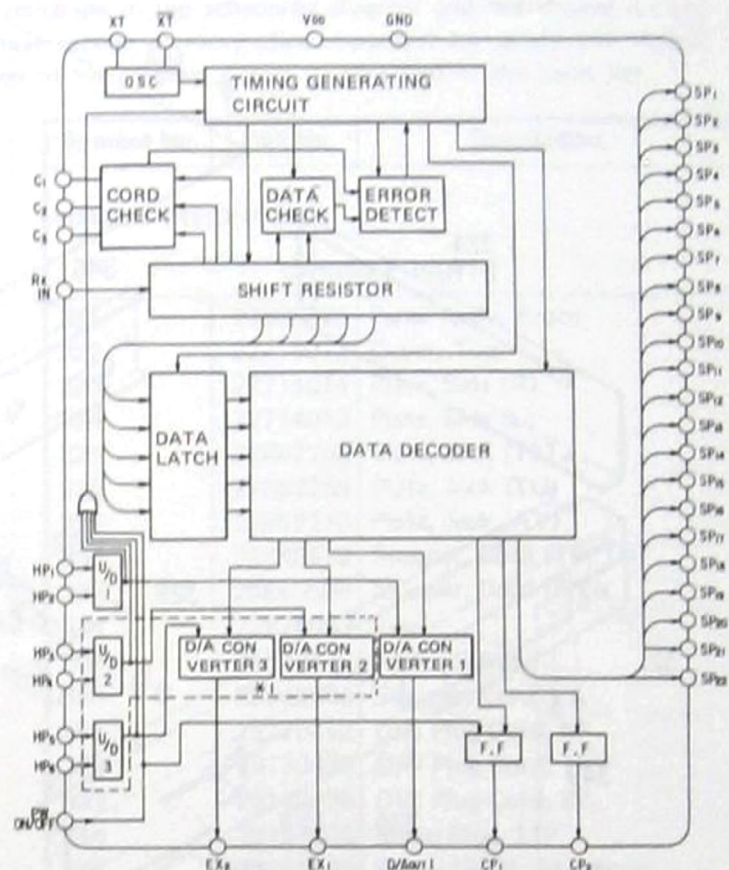
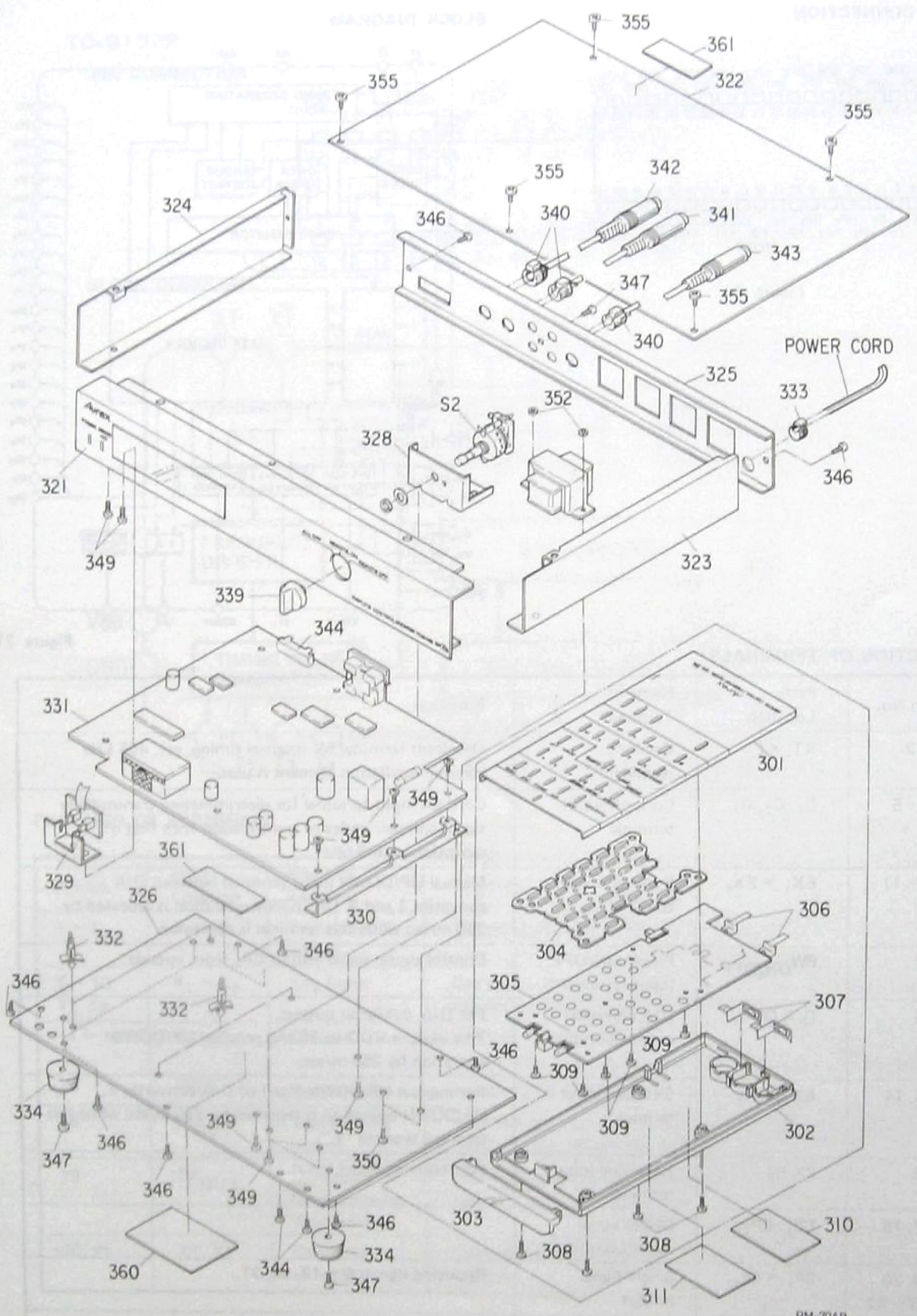


Figure 21.

FUNCTION OF TERMINALS

Pin No.	Parts Location	Name of Terminal	Function
1, 2	XT, XT	Oscillator terminal	Oscillator terminal for internal timing, etc. 455 kHz ceramic oscillation element is used.
3 ~ 5	C ₁ , C ₂ , C ₃	Cord pit input terminal	Cord pit input terminal for discriminating transmitting signal compair codes of transmission with that of reception with 3 bits.
6 ~ 11	EX ₁ ~ EX ₆	External input terminal	Manual UP/DOWN input terminal between D/A converter 1 and 3. UP/DOWN operation is repeated by 250 m/sec while this terminal is depressed.
12	PW _{ON/OFF}	Power ON/OFF input terminal	Control cyclic signal output CP ₁ from outside.
15	D/A OUT ₁	D/A converter output terminal	For D/A converter output. This devides VDD to 32 and proceed UP/DOWN operation by 250 m/sec.
13, 14	EX ₁ , EX ₂	External input terminal	For manual UP/DOWN input of D/A converter 1. UP/DOWN operation is repeated by 250 m/sec while this terminal is set to "L".
16	PX-IN	Receiving input terminal	For receiving signal input.
17, 18	CP ₁ , CP ₂	Cyclic signal output terminal	
19, 20 23 ~ 42	SP ₁ ~ SP ₂₂	Single signal output	Receiving signals 0 ~ 19, 30, 31.
21, 22	VDD, GND		For applying power voltage.

12. EXPLODED VIEW (CABINET)



RM-70AB

Figure 23.

13. PARTS LIST

CAUTION: The \triangle mark, the symbol No. circled with rectangle in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

Symbol No.	Part No.	Description
RM-70A (TRANSMITTER)		
CABINET PARTS		
301	22825022	Case Ass'y
302	22881079	Case
303	22837406	Filter
304	22751195	Sheet, Rubber
305	22191914	P.C. Board
306	22725235	Terminal, Battery
307	22725236	Terminal, Battery
308	22701373	Screw (BID), 2 ϕ x 6mm
309	22701314	Screw (BID), 2 ϕ x 3mm
310	25828967	Nameplate
311	22900122	Label, Caution
IC, TRANSISTORS AND DIODES		
Q1		IC, TC9132P
Q2, 3		Transistor, 2SA1015-Y
Q4		Transistor, 2SC1959-Y
D1, 2	22115606	Diode (LED), SE303A
D3	22115680	Diode (LED), LN224RP
D4, 5		Diode, 1S1555V
ELECTRICAL PARTS		
Z1	22153173	Oscillator, Ceramic (CSB455A)
S1	22195781	Switch, Slide, Remote Control
CAPACITORS		
J = $\pm 5\%$, Z = -20 +80%		
ABBREVIATIONS: CD = Ceramic Disk, EL = Electrolytic		
C1	22443220	EL, 22mfd, 10V
C2, 3	22340102	CD, 100pF, 50V, Z
C4, 5, 6, 7, 8, 9, 10, 11	22341102	CD, 1000pF, 50V, J
RESISTORS		
Resistors are carbon film $\frac{1}{4}W$ $\pm 5\%$, unless otherwise noted. K = 1000		
R1	22555479	4.7 ohm
R2	22555221	220 ohm
R3	22555102	1K ohm
R4, 5	22555103	10K ohm
R6	22555104	100K ohm

Symbol No.	Part No.	Description
RM-70B (RECEIVER)		
CABINET PARTS		
321	22825023	Panel Ass'y, Front
322	22714012	Cover, Top
323	22714014	Plate, Side (R)
324	22714013	Plate, Side (L)
325	22852268	Plate, Jack (TE)
325	22852269	Plate, Jack (TU)
325	22852270	Plate, Jack (AY)
333	25845528	Stopper, Cord (TE, TU)
333	25845556	Stopper, Cord (AY)
334	22874033	Leg
339	25837379	Knob, Select
340	25845556	Stopper, Cord
341	22170440	DIN Plug Cord, 6P
342	22170436	DIN Plug Cord, 7P
343	22170435	DIN Plug Cord, 8P
344	22167935	Micro Plug, 11P
346	22707490	Screw (BID), 3 ϕ x 6mm, Tapping
347	22707327	Screw (BID), 3 ϕ x 8mm, Tapping
349	22701457	Screw (BID), 3 ϕ x 6mm
350	22707536	Screw (BID), 3 ϕ x 8mm
355	22701237	Screw (BID), 3 ϕ x 6mm Tapping
360	25828968	Nameplate (TE)
360	25828971	Nameplate (TU, AY)
TRANSISTORS, ICS AND DIODES		
QR01		Transistor, 2SC1815-Y
QR02		Transistor (FET), 2SK117-BL
QR03, 04		Transistor, 2SC1815-Y
QR05, 06		Transistor, 2SC1815-Y
QR07, 08		Transistor, 2SC1815-Y
QR09, 10		Transistor, 2SC1815-Y
QR11, 12		Transistor, 2SC1815-Y
QR13, 14		Transistor, 2SC1815-Y
QR15, 16		Transistor, 2SC1815-Y
QR17, 18		Transistor, 2SC1815-Y
QR19, 20		Transistor, 2SC1815-Y
QR21, 22		Transistor, 2SC1815-Y
QR23, 24		Transistor, 2SC1815-Y
QR25		Transistor, 2SC495-Y
QR26, 27		Transistor, 2SD235-Y
QR28		Transistor, 2SB596-O
QR29		Transistor, 2SC495-Y
QR30		Transistor, 2SC1815-Y

Symbol No.	Part No.	Description
IC01		IC, TC9134P
IC02, 03		IC, TA7605AP
IC04, 05		IC, TC4050BP
IC06		IC, TC4049BP
DR01	22115605	Diode, PH302A
DR02, 03		Diode, 1S1555V
DR04, 05		Diode, 1S1555V
DR06, 07		Diode, 1S1555V
DR08		Diode, TLR205
DR10, 11		Diode, 1S1555V
DR12, 13		Diode, 1S1555V
DR14, 15		Diode, 1S1555V
DR16 ~ 39		Diode, 1S1555V
DR40		Diode, TLR205
DR41, 42		Diode, 1S1886
DR43		Diode, 05Z12U
DR44		Diode, 1S1886
DR45		Diode, 02Z10A
DR46		Diode, 02Z6.8A
DR47, 48		Diode, 1S1886
DR49		Diode, 02Z10A
DR50		Diode, 1S1555V

ELECTRICAL PARTS

LR1	22264806	Coil
T1	22223968	Transformer, Power (TE)
T1	22223975	Transformer, Power (TU)
T1	22223982	Transformer, Power (AY)
F01	22144437	Fuse, T 5A, 250V
ZR1	22153174	Oscillator, Ceramic
SR1	22148674	Relay
S2	22195816	Switch, Rotary
J1	22167941	AC Outlet, 3P (TE)
J1		AC Outlet, 3P (TU)
		TUK lead procurements are required
J1		AC Outlet, 3P (AY)
		TAP lead procurements are required.
J2	22163831	Jack, US 4P
EP01	22176286	Cord, Power (TE)
EP01	22176536	Cord, Power (TU)
EP01	22176489	Cord, Power (AY)

CAPACITORS

J=±5%, K=±10%, Z=-20 +80%, P=0 +100%, D=±0.5pF

ABBREVIATION: EL = Electrolytic,
CD = Ceramic Disk,
PP = Polypropylene, MY = Mylar

CR01	22401010	EL, 2.2mfd, 25V
CR02	22349821	CD, 820pF, 50V, K
CR03	22349561	CD, 560pF, 50V, K

Symbol No.	Part No.	Description
CR04	22372104	MY, 0.1mfd, 50V, K
CR05	22487100	EL, 10mfd, 35V
CR06	22349391	CD, 390pF, 50V, K
CR07	22349102	CD, 1000pF, 50V, K
CR08	22372104	MY, 0.1mfd, 50V, K
CR09	22321057	PP, 1000pF, 50V, J
CR10	22372223	MY, 0.022mfd, 50V, K
CR11	22340074	CD, 0.01mfd, 50V, Z
CR12	22488478	EL, 0.47mfd, 50V
CR13	22372104	MY, 0.1mfd, 50V, K
CR18 ~ 21	22488478	EL, 0.47mfd, 50V
CR22	22485470	EL, 47mfd, 16V
CR23 ~ 28	22341471	CD, 470pF, 50V, J
CR29	22483331	EL, 330mfd, 10V
CR30 ~ 37	22340093	CD, 0.047mfd, 50V, Z
CR38 ~ 45	22341471	CD, 470pF, 50V, J
CR46 ~ 51	22341471	CD, 470pF, 50V, J
CR53	22361560	CD, 56pF, 50V, J
CR54	22341471	CD, 470pF, 50V, J
CR55, 56	22340074	CD, 0.01mfd, 50V, Z
CR57	22488109	EL, 1mfd, 50V
CR58	22340150	CD, 4700pF, 400V, P
CR59	22486331	EL, 330mfd, 25V
CR60	22488109	EL, 1mfd, 50V
CR61	22340150	CD, 4700pF, 400V, P
CR62	22488221	EL, 220mfd, 50V
CR63	22340074	CD, 0.01mfd, 50V, Z
CR64	22485470	EL, 47mfd, 16V
CR65	22488221	EL, 220mfd, 50V
CR66	22485470	EL, 47mfd, 16V
CR67	22340074	CD, 0.01mfd, 50V, Z
CR68	22488221	EL, 220mfd, 50V
CR69	22340074	CD, 0.01mfd, 50V, Z
CR70	22486470	EL, 47mfd, 25V
CR71	22340074	CD, 0.01mfd, 50V, Z
CR72	22341471	CD, 470pF, 50V, J
CR73	22349222	CD, 2200pF, 50V, K
CR74	22360314	CD, 10pF, 50V, D
CR75, 76	22372104	MY, 0.1mfd, 50V, K
CR77	22340074	CD, 0.01mfd, 50V, Z
CR78	22341471	CD, 470pF, 50V, J
CR79	22349222	CD, 2200pF, 50V, D
CR80	22360314	CD, 10pF, 50V, D
CR81	22349101	CD, 100pF, 50V, K
CR82	22488479	EL, 4.7mfd, 50V
CR83	22488109	EL, 1mfd, 50V
CR84	22372102	MY, 1000pF, 50V, J
CR85	22349101	CD, 100pF, 50V, K
CR86	22488479	EL, 4.7mfd, 50V
CR87	22488109	EL, 1mfd, 50V
CR88	22372102	MY, 1000pF, 50V, K
CR89	22340150	CD, 4700pF, 400V, P
CR90, 91, 92	22342473	CD, 0.047mfd, 50V, Z

Symbol No.	Part No.	Description
CR93	22340074	CD, 0.01mfd, 50V, Z
CR94	22485470	EL, 47mfd, 16V
RESISTORS		
Resistors are carbon film ¼W, ±5%, unless otherwise noted. K = 1000, M = 1000000		
RR01	22555822	8.2K ohm
RR02	22555272	2.7K ohm
RR03	22555224	220K ohm
RR04	22555683	68K ohm
RR05	22555104	100K ohm
RR06	22555272	2.7K ohm
RR07	22555331	330 ohm
RR08	22555824	820K ohm
RR09	22555472	4.7K ohm
RR10	22555102	1K ohm
RR11	22555824	820K ohm
RR12	22555472	4.7K ohm
RR13	22555823	82K ohm
RR14	22555471	470 ohm
RR15	22555183	18K ohm
RR16	22555391	390 ohm
RR17	22555682	6.8K ohm
RR18	22555333	33K ohm
RR19	22555332	3.3K ohm
RR20	22555392	3.9K ohm
RR21	22555223	22K ohm
RR22	22555183	18K ohm
RR23	22555153	15K ohm
RR24	22555473	47K ohm
RR25	22550235	2K ohm
RR26	22555105	1M ohm
RR27	22555225	2.2M ohm
RR28	22555153	15K ohm
RR29	22555153	15K ohm
RR30	22555102	1K ohm
RR31	22555104	100K ohm
RR32 ~ 35	22555153	15K ohm
RR36 ~ 39	22555333	33K ohm
RR40 ~ 43	22555224	220K ohm
RR44 ~ 47	22555153	15K ohm
RR48 ~ 51	22555153	15K ohm
RR52 ~ 59	22130608	2.2M ohm x 8, Composite Part
RR60 ~ 75	22555153	15K ohm
RR76 ~ 83	22130609	15K ohm x 8, Composite Part
RR84	22555103	20K ohm (10K ohm + 10K ohm)
RR85	22555153	15K ohm
RR86	22555474	470K ohm
RR87	22570310	180 ohm, 2W, Metal Oxide Film
RR88	22555102	1K ohm

Symbol No.	Part No.	Description
RR89	22555682	6.8K ohm
RR90	22555152	3K ohm (1.5K ohm + 1.5K ohm)
RR91	22555105	1M ohm
RR92	22555152	3K ohm (1.5K ohm + 1.5K ohm)
RR93, 94	22500220	100 ohm, 1/2W, Fusible
RR95	22500220	100 ohm, 1/2W, Fusible
RR96, 97, 98	22555152	1.5K ohm
RR99	22555102	1K ohm
RR100	22555102	2K ohm (1K ohm + 1K ohm)
RR101, 110	22555124	120K ohm
RR102, 111	22555560	56 ohm
RR103, 112	22555103	10K ohm
RR104, 113	22555392	5.1K ohm (3.9K ohm + 1.2K ohm)
RR105, 114	22555393	51K ohm (39K ohm + 12K ohm)
RR106, 115	22555102	1K ohm
RR107, 116	22555221	220 ohm
RR108, 117	22555271	270 ohm
RR109, 118	22555333	33K ohm
RR119, 121	22555333	33K ohm
RR120, 122	22555102	1K ohm
RR123	22555123	24K ohm (12K ohm + 12K ohm)
RR124 ~ 127	22130629	2.2M ohm x 4, Composite Part
RR128 ~ 131	22130629	2.2M ohm x 4, Composite Part
RR132 ~ 139	22555121	120 ohm
RR140, 141	22555152	3K ohm (1.5K ohm + 1.5K ohm)
RR142, 143	22555152	3K ohm (1.5K ohm + 1.5K ohm)
VR1, 3, 5	22658542	100K ohm, Semi-fixed
VR2, 4	22658541	47K ohm, Semi-fixed
ACCESSORIES		
AC01	22902982	Owner's Manual (TE)
AC01	22903013	Owner's Manual (TU, AY)
AC02	22170398	Cord, PIN Plug
AC03	22170441	Cord, 11 Pin Plug, 3P (TU)
AC04		TUK lead procurements are required.

