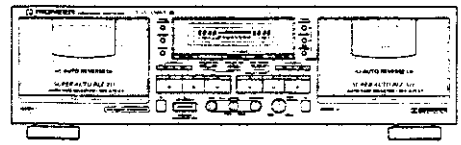
PIONEER®
The Art of Entertainment

Service Manual



• The above illustration shows CT-W704RS.

ORDER NO.
RRV1231

STEREO DOUBLE CASSETTE DECK

CT-W604RS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	CT-W604RS		
KUXJ	○	AC120V	
KCXJ	○	AC120V	

CONTENTS

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

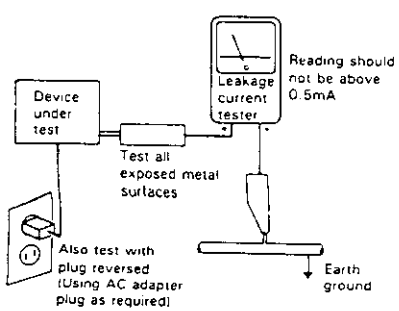
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

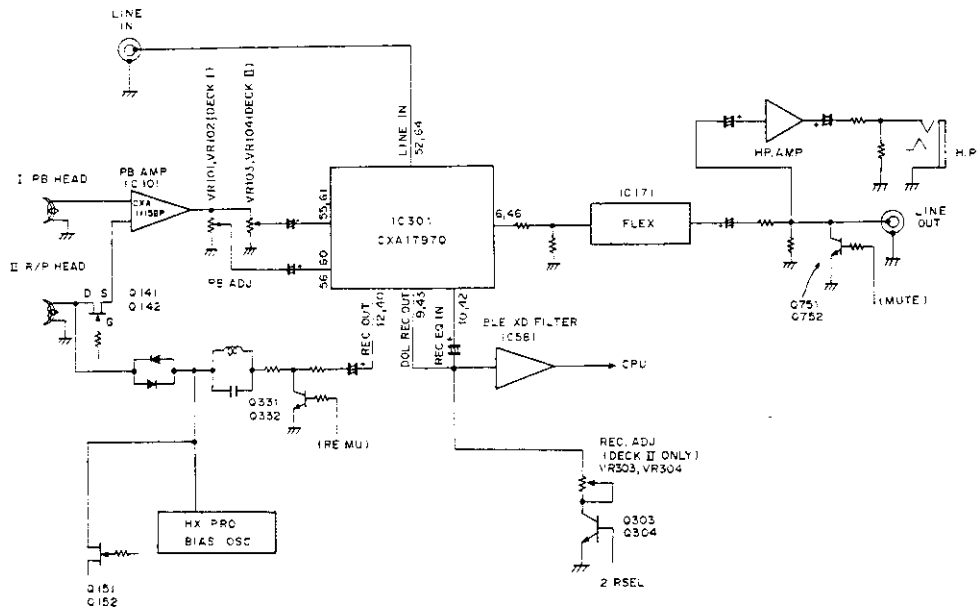
2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. BLOCK DIAGRAM



3. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

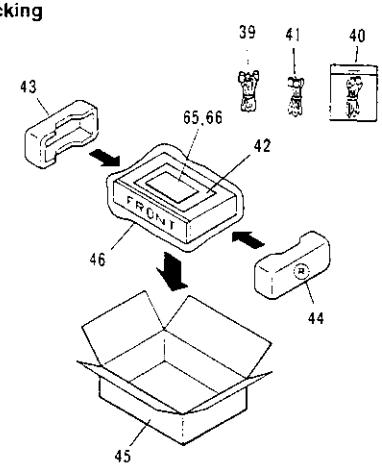
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

1. EXTERIOR AND PACKING

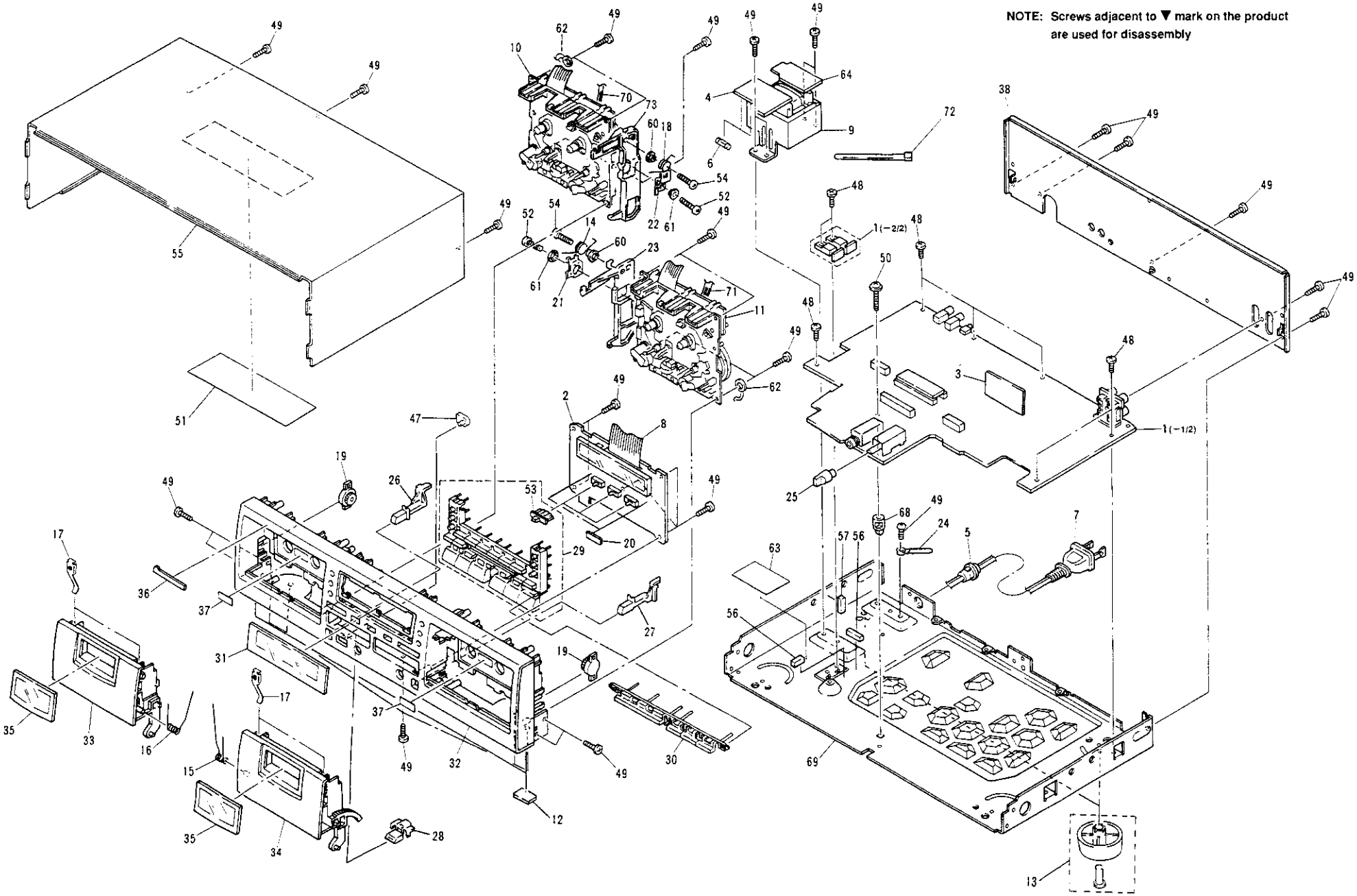
Mark	No.	Description	Parts No.
	1	Main Unit	RWZ3545
	2	Sub Unit	RWZ3546
	3	Dolby S Unit	RWX1101
NSP	4	Transformer 2 Unit	RWZ3547
⚠	5	Strain Relief	CM-22C
⚠	6	Fuse (1.5A)	REK1059
⚠	7	AC Power Cord	PDG1015
	8	Lead Card 30P	RDD1334
⚠	9	Power Transformer	RTT1223
	10	1 Mechanism Unit	RYM1237
	11	2 Mechanism Unit	RYM1238
	12	Rubber Sheet	AEB1111
	13	Foot Assy	AEC1531
	14	Eject Spring L	RBH1379
	15	Door Spring L	RBH1304
	16	Door Spring R	RBH1305
	17	Half Pressure Spring	RBK1004
	18	Eject Spring R	RBH1380
	19	Damper Assy	REC1005
	20	Knob Spacer	REC1195
	21	Eject Arm L	RNE1763
	22	Eject Arm R	RNE1764
	23	Eject Lever L	RNK2045
	24	Cord Clamper	RNH-184
	25	Balance Knob	RAC1705
	26	Eject Konb L	RAC1881
	27	Eject Konb R	RAC1882
	28	Power Knob	RAC1883
	29	Control Knob	RAC1987
	30	REC Knob B	RAC1788
	31	FL Lens	RAH2376
	32	Front Panel	RAH2507
	33	Door Pocket L	RAH2518
	34	Door Pocket R	RAH2517
	35	Door Lens	RAH2435
	36	Name Plate	RAM1007
	37	Remain Display Paper	REE-113
	38	Rear Panel (CT-W604RS/KUXJ)	RNA1903
	38	Rear Panel (CT-W604RS/KCXJ)	RNA1904
	39	Connection Cord with Mini Plug	PDE-319
	40	Connection Cord Assy	RDE1036
	41	Control Cord	RDE1030
	42	Operating Instructions (English)	RRB1154
	42	Operating Instructions (French) (CT-W604RS/KCXJ)	RRD1154
	43	Pad	RHA1115
	44	Pad R	RHA1116
	45	Packing Case	RHG1631

Mark	No.	Description	Parts No.
	46	Sheet	Z23-007
	47	LED Lens	PNW2019
	48	Screw	BBZ30P060FMC
	49	Screw	BBZ30P080FZK
	50	Screw	IBZ30P150FCU
	51	65 Label (CT-W604RS/KUXJ only)	ORW1069
	52	Screw	BCZ26P050FMC
	53	Slide Knob	REA1078
	54	Screw	BSZ26P120FMC
	55	Bonnet	REA1077
NSP	56	Spacer	REB1267
NSP	57	Spacer	REB1171
	58	.....	
	59	.....	
NSP	60	Eject Collar	RLA1283
NSP	61	Arm Collar	RLA1290
NSP	62	Earth Lead Unit	XDF-504
NSP	63	Fuse Caution Label	RRW-111
NSP	64	Transformer 1 PCB	RNZ2861
NSP	65	Warranty Card (CT-W604RS/KUXJ)	ARY1051
NSP	66	Warranty Card (CT-W604RS/KCXJ)	ARY1039
	67	.....	
	68	PCB Spacer	PNY-404
NSP	69	Chassis	RNB1091
	70	Connector Assy 3P	RKP1675
	71	Connector Assy 5P	RKP1677
NSP	72	Binder	Z09-057
	73	Eject Lever R	RNK2046

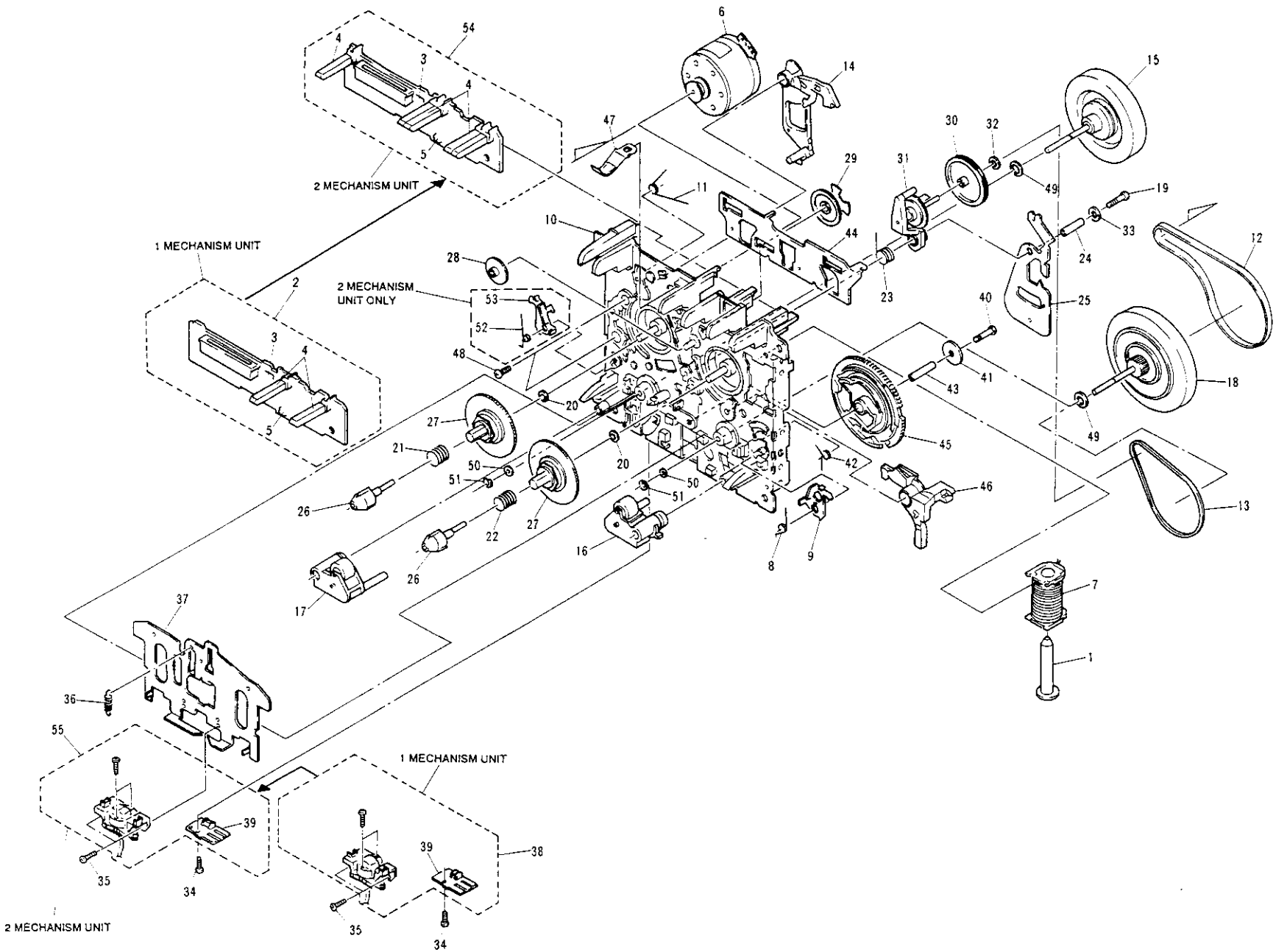
Packing



NOTE: Screws adjacent to ▼ mark on the product are used for disassembly



2. 1 MECHANISM UNIT AND 2 MECHANISM UNIT



Parts List

Mark	No.	Description	Parts No.
	1	Plunger	RLA1288
	2	PCB Control BLK (1 Mechanism Unit)	RXA1623
	3	Push Switch	RSG1018
	4	SPLF	RSN1023
	5	Photo-Transistor	SPI33534FG
	6	MTR Main BLK	RXM1081
	7	Solenoid BLK	RXP1021
	8	Spring Interlock R	RBH1386
	9	Arm Interlock R	RNE1781
	10	Chassis Base BLK	RXA1626
	11	Spring Brake	RBH1387
	12	Main Belt	REB1157
	13	F/R Belt	REB1254
	14	Lever Brake	RNK2071
	15	F/W Assy	RXA1428
	16	Pinch Roller BLK R	RXA1628
	17	Pinch Roller BLK L	RXA1629
	18	Clutch BLK Assy	RXA1631
	19	Screw	RBA1113
	20	Washer 2.1 × 0.25T	RBF1038
	21	Spring Reel (L)	RBH1388
	22	Spring Reel (R)	RBH1389
	23	Cam Spring	RBH1393
	24	Spacer	RLA1286
	25	Lever F/R	RNE1782
	26	Reel Feather	RNK2072
	27	Reel Base	RNK2073
	28	Play Gear (A)	RNK2074
	29	FF Gear (A)	RNK2075
	30	F/R Pulley	RNK2076
	31	Clutch BLK Assy	RXA1632
	32	Washer	WA17D040D025
	33	Washer	WA23F060M040
	34	Screw	PCZ20P040FMC
	35	Screw	RBA1077
	36	Spring HB	RBH1390
	37	Head Base	RNE1783
	38	Plate HD BLK (1 Mechanism Unit)	RXA1682
	39	HD PCB 5P	RXA1635
	40	Screw	RBA1113
	41	Washer 2.0 × 0.3	RBE1009
	42	Spring Arm Play	RBH1392
	43	Spacer	RLA1286
	44	Plate Slide	RNE1785
	45	Cam Gear	RNK2078
	46	Arm Play	RNK2079
	47	Spring Cassette	RNE1786
	48	Screw	BMZ26P040FZK
	49	Washer	WA26D045D025
	50	Washer	WA26D047D050
	51	Stop Ring	YE15FUC
	52	Spring Interlock L (2 Mechanism Unit only)	RBH1385
	53	Arm Interlock L (2 Mechanism Unit only)	RNE1780
	54	PCB Control BLK (2 Mechanism Unit)	RXA1624
	55	Plate HD BLK (2 Mechanism Unit)	RXA1683

4. TEST MODE

1. Entering the Test Mode

- *To enter the test mode, set both DECK I and DECK II into the STOP mode and press the TIME/COUNT key of DECK I, RESET key of DECK I and PAUSE key of DECK II all together. (Refer to Fig. 4-1)*

Exiting the Test Mode

To exit the test mode, press the RESET key of DECK I or turn off the power.

2. Tape Speed Adjustment, Auto Stop Check Mode

- The following adjustments and check are possible in the test mode.

MODE No. (Deck II Display)	Adjustment and Check (The mechanism will operate even in the "no-half" state only for this mode.)
10	• Tape speed adjustment mode · During play (except during the assist), the speed can be doubled by pressing the FAST key (FF or REW key of DECK I or II). During double speed play, the play can be returned to normal speed by pressing the FWD or REV key.
10	• Auto stop check · The RELAY mode will be turned on forcibly. But the REC is not relayed from DECK II to DECK I. · Auto stop is carried out at tape end for one second only in this mode. (Usually four seconds.) · Reverse is carried out as normally, but if the reverse is carried out in double speed, the tape will be played at constant speed.

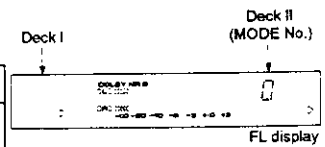


Fig. 4-1 FL display example 1
(The state of TEST MODE)

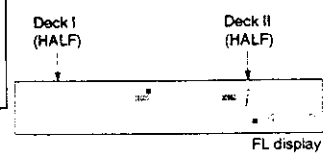


Fig. 4-2 FL display example 2
(The state of TIME/COUNT key ON
on the Deck I side)

3. CD SYNCHRO, SW Check Modes

- Test mode setting.

MODE No. (Deck II Display)	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and check
20	CD SYNC	ON	ON	OFF	• CD SYNCHRO Check · Short-circuit one of the CD SYNCHRO cord's plugs. Connect the other plug to the CD SYNCHRO jack of the cassette deck. Press the CD SYNC key. If "CD SYNC" is displayed, the CD SYNCHRO mode is normal.
1 (When there is no half on the deck II side, "HALF" will be displayed.)	TIME/COUNT for Deck I	ON	ON	OFF	• SW Check · When there is no-half, the corresponding counter will display "HALF". · Mistaken Erasure Detection Check When FWD recording is possible : " ► " lights up When REW recording is possible : " ◄ " lights up · Reverse SW Check ⇄ : " I " lights up ⇉ : " II " lights up • Tape Detection Check Deck II Check NORMAL : Lch -3dB lights up CR02 : Lch 0dB lights up METAL : Lch +3dB lights up Deck I Check NORMAL : Lch -20dB lights up CR02 : Lch -10dB lights up METAL : Lch -6dB lights up

BLE Adjustment Mode

● Entering the BLE Adjustment Mode

Press the STOP KEY when the DECK II display is other than 10.
To set the BLE adjustment mode, press the BLE KEY of DECK II. When the key is pressed continuously, the BLE adjustment mode will change in order.

● Exiting the BLE Adjustment Mode

To exit the BLE adjustment mode, press the STOP KEY. The deck will set into the mechanism operation check mode.

Deck I Display	Deck II Display	Key Input	LINE OUT	REC MUTE	BIAS	Adjustment and Check
	30	2-BLE	OFF	ON	OFF	———
400	31XX	2-BLE	OFF	ON	OFF	• For AUTO BLE 400 Hz OSC output level adjustment mode □ □ ⊏ ■ □ □ ■ ■ ■ ⊐ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
10k	32XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 10 kHz OSC output level adjustment mode □ □ □ ■ □ □ ■ ■ ■ □ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
12k	33XX	2-BLE	OFF	ON	OFF	· For AUTO BLE12 kHz OSC output level adjustment mode ⊏ □ -□- -□- -□- ⊐ ■ ■ ■ □ ■ ■ Make sure that the meter becomes as shown in the above diagram (LINE OUT output = −10 dBV)
8k	34XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 8 kHz OSC output level adjustment mode □ □ □ ■ □ □ ■ ■ ■ □ ■ ■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = −10 dBV)
3k	35XX	2-BLE	OFF	ON	OFF	· For AUTO BLE 3 kHz OSC output level adjustment mode □ □ -□- -□- -□- □ ■ ■ ■ □ ■ ■ Make sure that the meter becomes as shown in the above diagram. (LINE OUT output = −23 dBV)
HPFL	36XX	2-BLE	OFF	ON	OFF	· For BLE XD HIGH PASS FILTER Lch adjustment Input the 12.5 kHz, −10 dBV signal to LINE IN. □ □ -□- -□- -□- □ ■ ■ □ ⊐ □ ■ Adjust so that the meter becomes as shown in the above diagram.
HPFr	37XX	2-BLE	OFF	ON	OFF	· For BLE XD HIGH PASS FILTER Rch adjustment Input the 12.5 kHz, −10 dBV signal to LINE IN. □ □ -□- -□- -□- □ ■ ■ □ □ □ ■ Adjust so that the meter becomes as shown in the above diagram.

※ ■ : Indicates lit □ : Indicates OFF -□-: Indicates lit or blinking

5. ADJUSTMENTS

1. MECHANICAL ADJUSTMENT

1.1 Door Damping Check and Adjustment

Set the door spring of the DECK I side to position (A) as shown in Fig. 5-1. Then, erect the front panel assembly vertically.
Open the doors of DECK I and DECK II at the same time. At this point, confirm that the difference between the door completely opened and the other door is within 15mm. If this standard is not satisfied install the door spring of DECK I at another position and adjust as follows:

- When the door of DECK I opens later than that of DECK II : Change the door spring of DECK II form A to B.
- When the door of DECK I opens faster than that of DECK II : Change the door spring of DECK I form A to B.

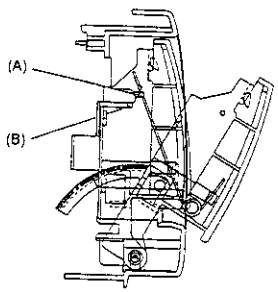


Fig. 5-1

1.2 Tape Speed

- Perform this adjustment in the test mode.
- TEST mode setting.

1. Press the TIME/COUNT and RESET keys of DECK I together with the PAUSE key of DECK II.
2. The speed becomes normal when the PLAY key is pressed, and double when the FF key is pressed.
3. To cancel the TEST mode, press the RESET key of DECK I.

1. Tape Speed Adjustment and Chack

No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Double speed PLAY	STD-301 (3 kHz)	check	6000 Hz ± 600 Hz	
2	II			VR801	Within ± 10 Hz against the measurement value of the step 1 (deck I)	
3	I	MORMAL speed PLAY		VR851	2980 Hz ± 5 Hz	
4	II			VR802	Within ± 5 Hz against the measurement value of the step 3 (deck I)	

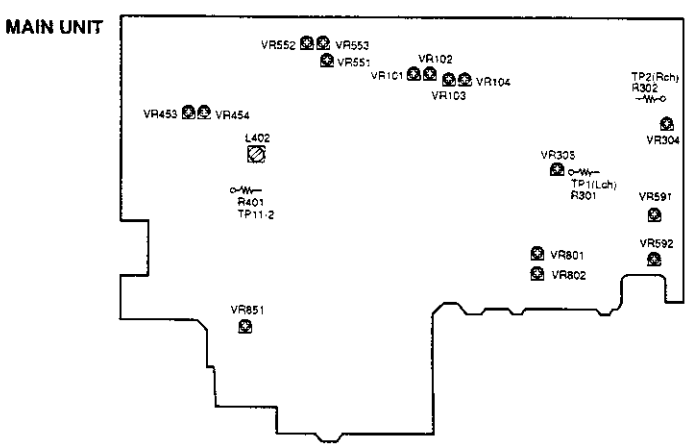


Fig. 5-2 Adjusting points

2. ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0 dBV = 1 Vrms.
5. Connect a 10 kΩ load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD-331E	: Playback adjustments (See Fig. 5-3)
STD-631 or STD-632	: NORMAL blank tape
STD-621	: CrO_2 blank tape
STD-610	: METAL blank tape

* As the reference recording level is 250 nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160 nwb/m). When adjusting, pay careful attention to the type of tape used.

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Bias oscillator adjustment.
2. Recording bias adjustment.
3. Recording level adjustment.
4. Level meter check.
5. AUTO BLE adjustment.

NOTE:This unit has an automatic tape selection feature.

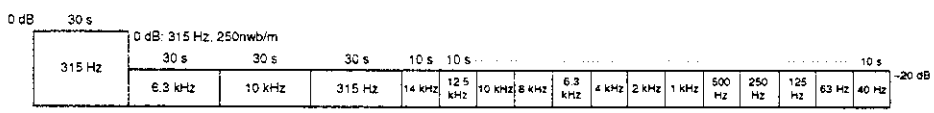


Fig. 5-3 Constants of the test tape STD-331E

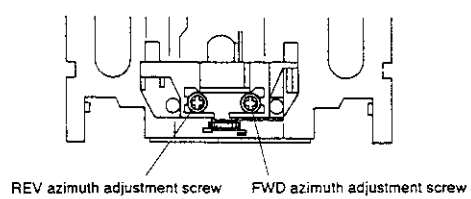


Fig. 5-4 Head azimuth adjustment

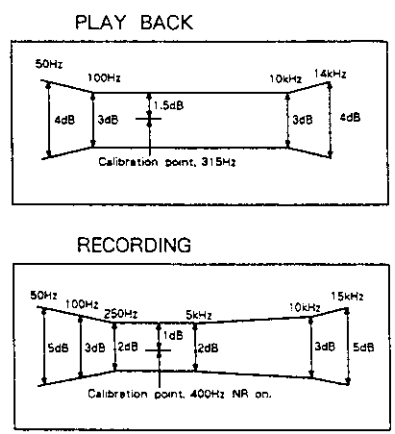


Fig. 5-5 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

• Turn VR101, 102 (Deck I) or VR103, 104 (Deck II) to mechanical center positions

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10 kHz/–20 dB section of STD-331E test tape.	Head azimuth adjustment screw. (See Fig. 5–4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with silicon bond after completing adjustment.				

2. Playback Level Adjustment

• This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1	PLAY	Play the 315 Hz/0 dB section of the STD-331E test tape.	Deck II	VR 103 (Lch) VR 104 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–7.2 dBV	
			Deck I	VR 101 (Lch) VR 102 (Rch)			

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck II	L402	TP. 11 – 2	105 kHz ± 0.3 kHz	If the values on the left cannot be attained by adjusting, the value should be below 105 ± 2 kHz.

2. Recording Bias Adjustment

• After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Record the 315 Hz and 10kHz signals at –26 dBV input level and playback. (STD-631 or STD-632)	Deck II	VR 453 (Lch) VR 454 (Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 10 kHz signal becomes 0 dB ± 0.5 dB when compared with the 315 Hz signal.	

3. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/0 dBV signal to the line input terminals, load the STD-631 or STD-632 test tape.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV	
2.	REC/ PLAY	Record the above signal onto the STD-631 or STD-632 test tape, and playback.	Deck II	VR 303 (Lch) VR 304 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes –11.2 dBV.	
3.	REC/ PLAY	Record the above signal onto the STD-621 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.0 dB	
4.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.0 dB	

4. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment Value	Remarks
1.	REC PAUSE	Apply a 315 Hz/–6 dBV (500 mV) signal to the Line input terminals.	REC level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0dB" light up within –7.2 dBV ± 1 dB of the signal output level.	

5. AUTO BLE Adjustment (Deck II only)

- BLE adjusiment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.
  For details of how to enter the test mode, refer to the "Mechanical Adjustment" section (Page 12)
- Refer to Page 11 "BLE Adjustment Mode".

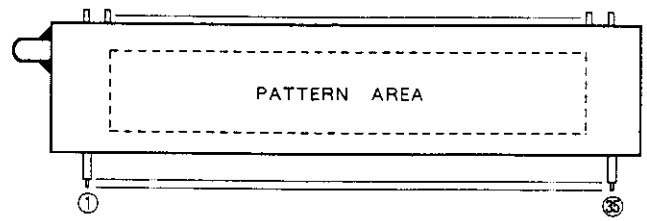
No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment Value	Remarks
1.	—	Set to test mode.	—	—	—	
2.		Press the 2 BLE XD key on the front panel.	VR552	Level meter (R channel)	Adjust so that – 3 dB on the level meter turn on.	400 Hz adjustment
3.		Press the 2 BLE XD key on the front panel.	VR551			10 kHz adjustment
4.		Press the 2 BLE XD key on the front panel.	VR553			8 kHz adjustment
5.	REC PAUSE	Apply a 12kHz/0 dBV signal to the line input terminals. Load the STD631 or STD632 test tape.	LINE OUT	REC level control volume	–10 dBV	
6.	—	Press the 2 BLE XD key on the front panel.	VR591	Level meter (R Channel)	Adjust so that – 3 dB on the level meter turn on.	12 kHz adjustment
7.	—	Press the 2 BLE XD key on the front panel.	VR592	Level meter (R Channel)	Adjust so that – 3 dB other level meter turn on.	12 kHz adjustment

Reference: The output of LINE OUT after completing the adjustments for 400 Hz, 10kHz, 3 kHz becomes – 23dBV ± 1dB. (Refer to page 11.)

CT-W604RS

6. FL INFORMATION

■ RAW1146 (V1501)

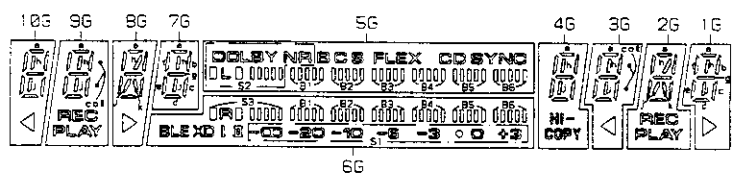


Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
CONNECTION	F1	F2	NC	NC	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

NOTE 1) F1,F2 --- Filament 4) 1G~10G --- Grid
2) NP ------ No pin
3) NC ------ No connection

Grid Assignment



Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	B1	B1	a	a	a	a
P2	b	b	b	b	B2	B2	b	b	b	b
P3	f	f	f	f	B3	B3	f	f	f	f
P4	g	g	g	g	B4	B4	g	g	g	g
P5	c	c	c	c	B5	B5	c	c	c	c
P6	e	e	e	e	B6	B6	e	e	e	e
P7	d	d	d	d	BLE	CD SYNC	d	d	d	d
P8	h,j	h,j	h,j	h,j	XD	B	h,j	h,j	h,j	h,j
P9	-	col	k	-	D	FLEX	HI-	col	k	-
P10	◁	PLAY	▷	-	C	C	COPY	◁	PLAY	▷
P11	-	REC	-	-	S1	B	-	-	REC	-
P12	-	-	-	-	S3	S2	-	-	-	-

7. SCHEMATIC AND PCB CONNECTION DIAGRAMS

1. DOLBY S UNIT

NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

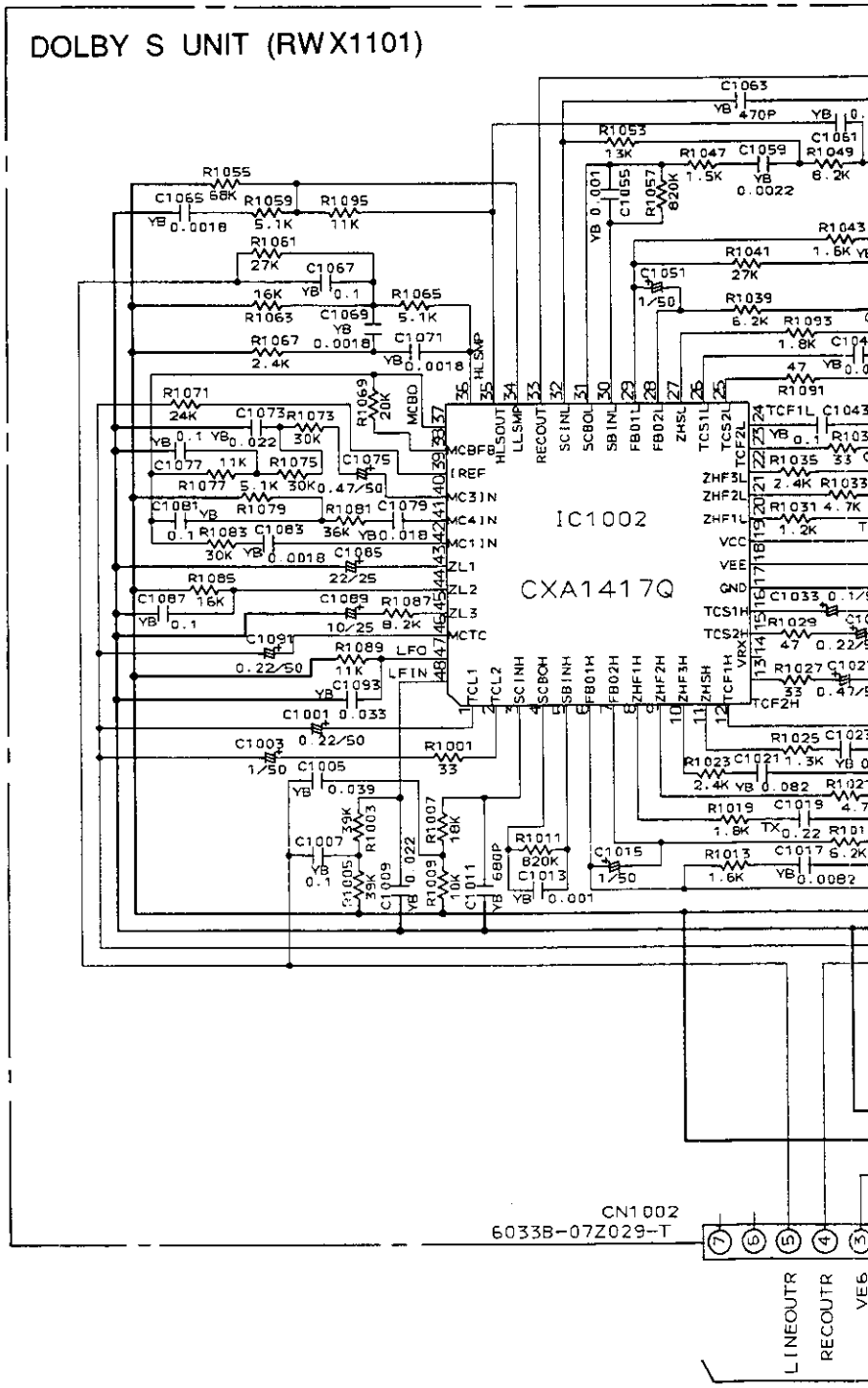
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ⎓ or ⏤ V :
   DC voltage (V) in STOP mode unless otherwise noted.
   ⇦ mA or ⇤ mA :
   DC current in STOP mode unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

SUB UNIT

S1501 : ▶▶/MS
S1502 : ◀◀/MS
S1503 : ◀
S1504 : ▶
S1506 : ■
(DECK I)

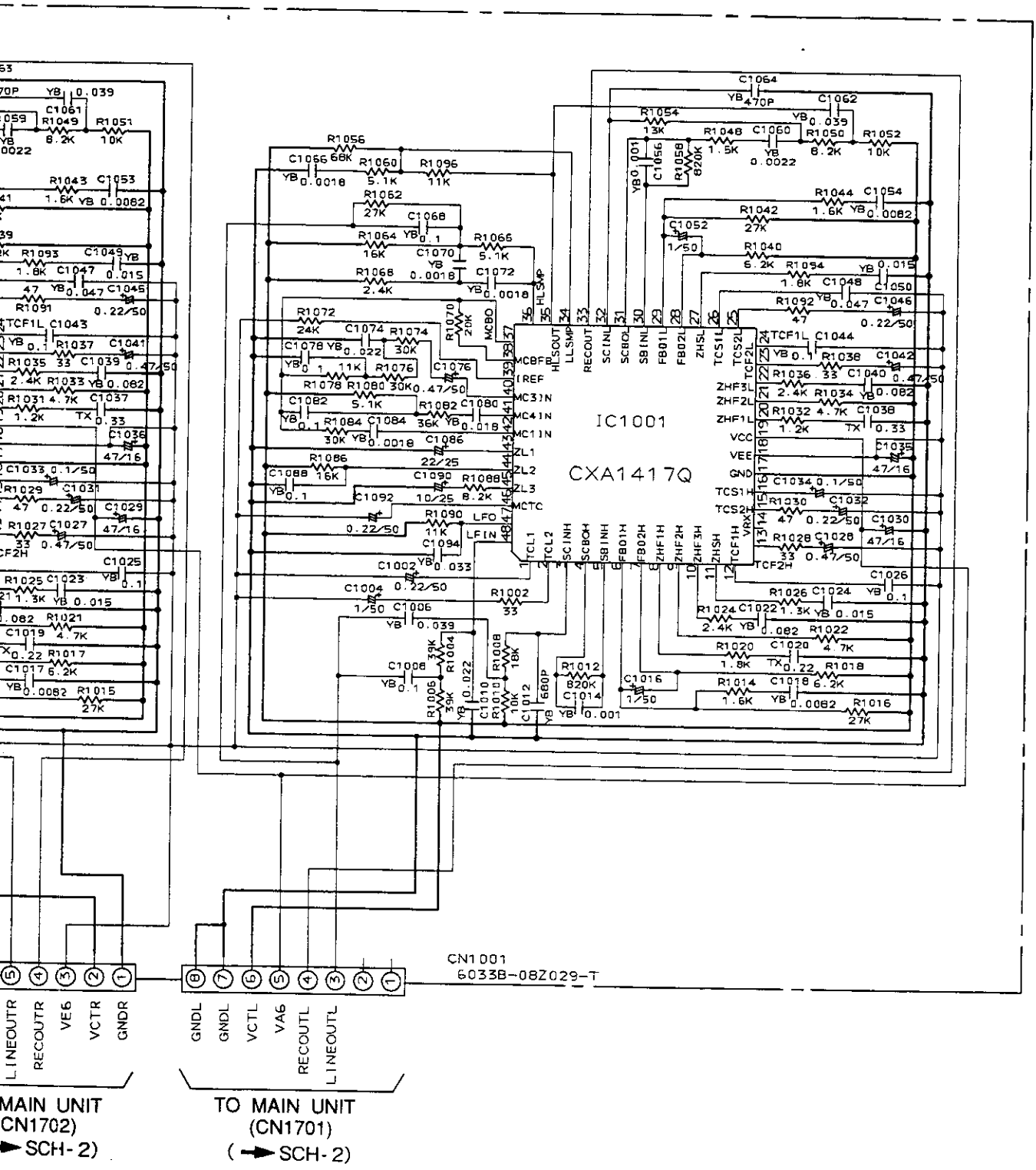
S1509 : ▶▶/MS
S1510 : ◀◀/MS
S1511 : ◀
S1512 : ▶
S1513 : O
S1514 : ■
S1515 : ●
S1516 : II
(DECK II)

S1518 : COPY I▶II NORMAL
S1519 : COPY I▶II HIGH
S1520 : FLEX
S1521 : TIME/COUNT (DECK II)
S1522 : RESET (DECK I)
S1523 : TIME/COUNT (DECK I)
S1524 : RESET (DECK II)
S1525 : CD SYNC
S1528 : POWER ON/OFF
S1529 : DOLBY B – C – S
S1530 : REV • MODE RELAY/SKIP ⇆ – ⇄ – ⇆
S1531 : DOLBY OFF/ON

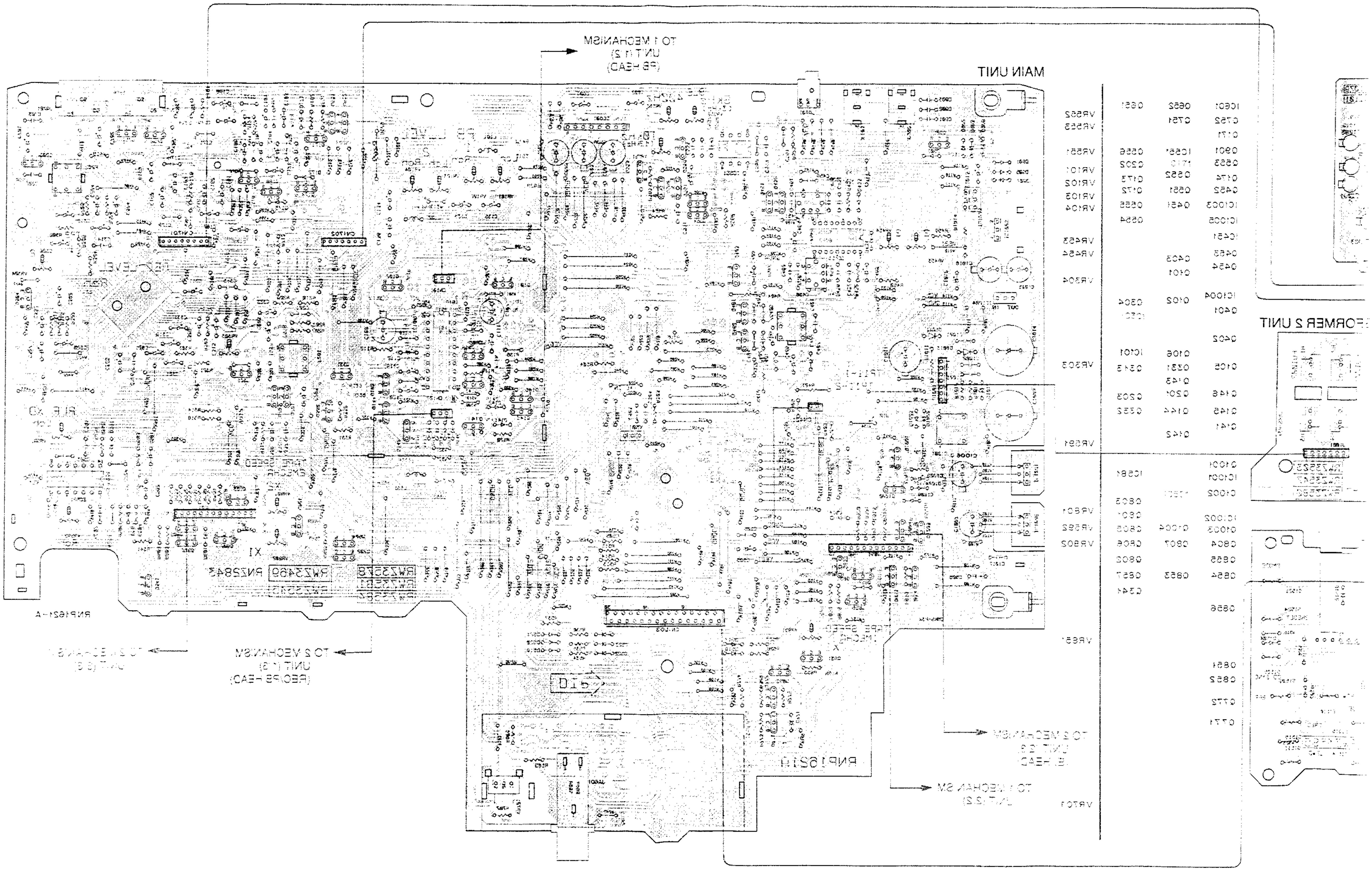


DOLBY S UNIT

SCH—1


IC1001
CXA1417Q
CN1001
6033B-08Z029-T
L I NEOUTR
RECOUTR
VE6
VCTR
GNDR
GNDL
GNDL
VCTL
VA6
RECOUTL
L I NEOUTL
MAIN UNIT
(CN1702)
(→ SCH-2)
TO MAIN UNIT
(CN1701)
(→ SCH-2)

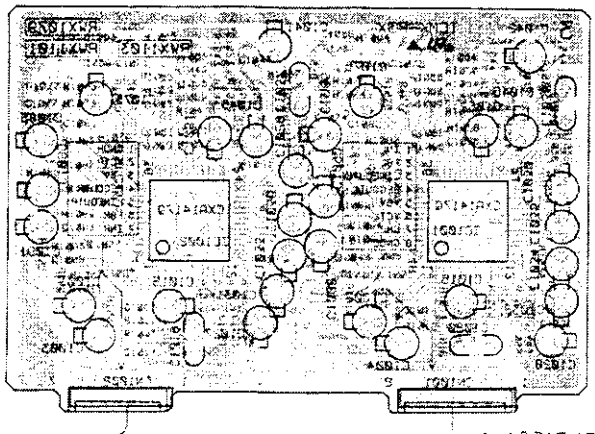
DOLBY S UNIT



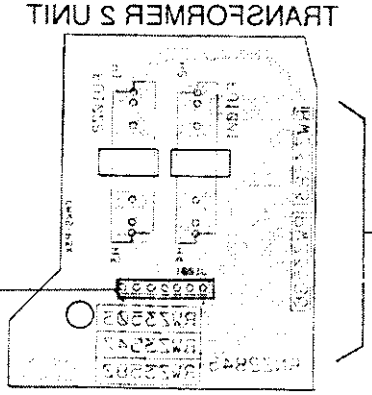
MAIN UNIT
TO 1 MECHANISM
UNIT (1/2)
(PB HEAD)
TO 2 MECHANISM
UNIT (1/3)
(REC/PB HEAD)
RNP1621-A
RNP1621
TAPE SPEED
X1
RWZ3460
RNZ2843
RWZ3578
FORMER 2 UNIT
VR552
VR553
VR551
VR101
VR102
VR103
VR104
VR453
VR454
VR304
VR503
VR591
VR801
VR592
VR802
VR851
VR701
Q651
Q652
IC601
Q751
Q752
Q171
Q556
IC551
Q901
Q202
Q553
Q173
Q552
Q174
Q172
Q551
Q452
Q555
Q451
IC1003
Q554
IC1005
IC451
Q403
Q453
Q101
Q454
Q304
Q102
IC1004
Q401
Q402
IC101
Q106
Q313
Q231
Q105
Q143
Q203
Q201
Q146
Q232
Q144
Q145
Q141
Q142
Q1001
IC581
IC1001
Q1002
Q803
Q801
IC1002
Q805
Q1004
Q1003
Q806
Q807
Q804
Q802
Q855
Q657
Q853
Q854
Q344
Q856
Q851
Q852
Q772
Q771

- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

DOLBY S UNIT



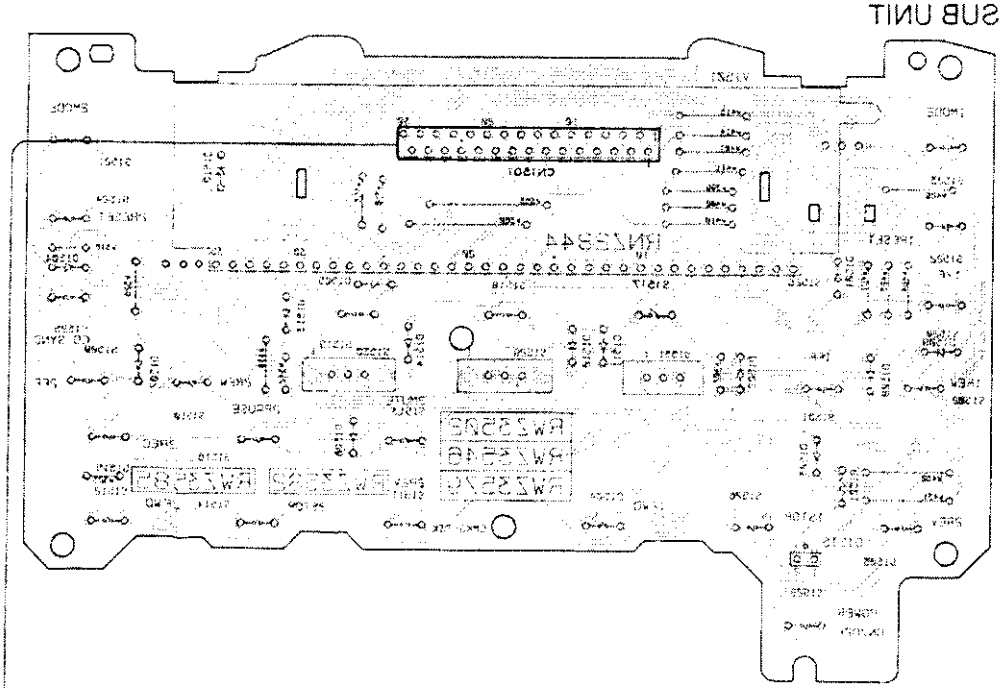
TRANSFORMER S UNIT



TO POWER TRANSFORMER

- This diagram is viewed from the foil side.

SUB UNIT



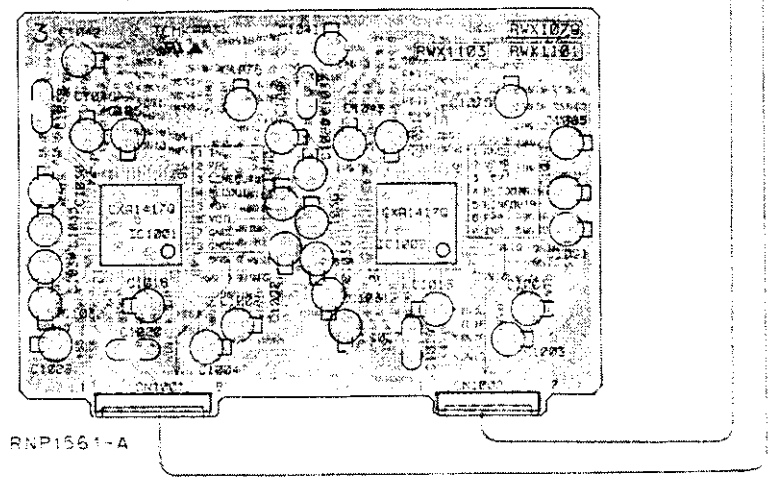
- **This diagram is viewed from the pink colored foil side.**
- **This PCB is double sided.**

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

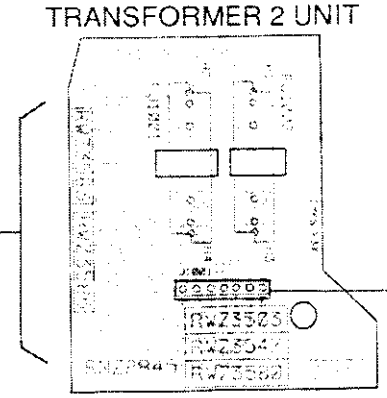
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

DOLBY S UNIT



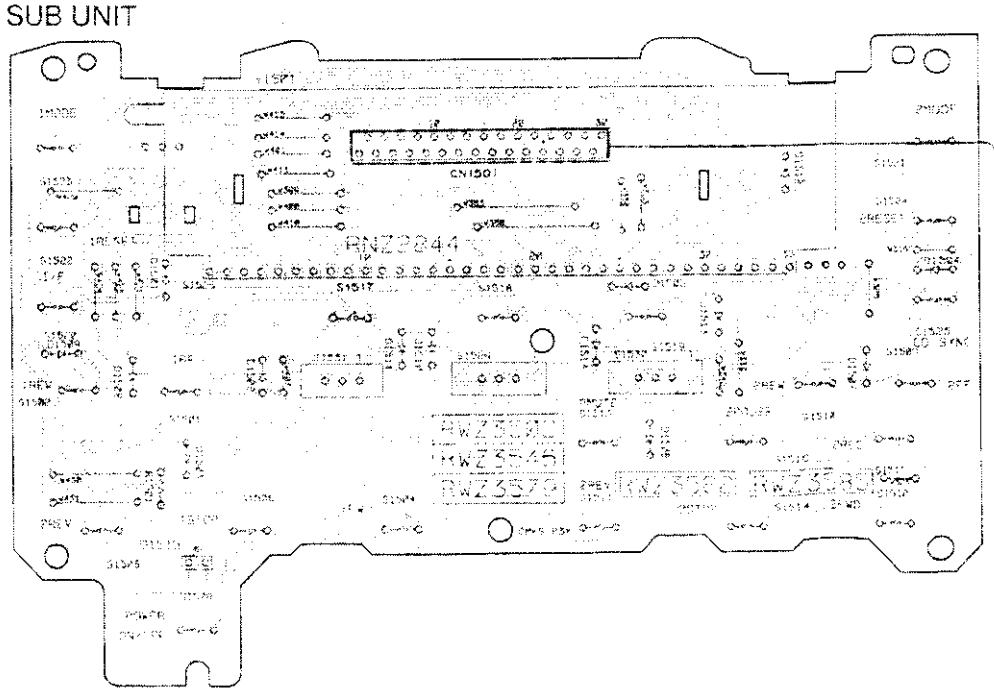
TRANSFORMER 2 UNIT

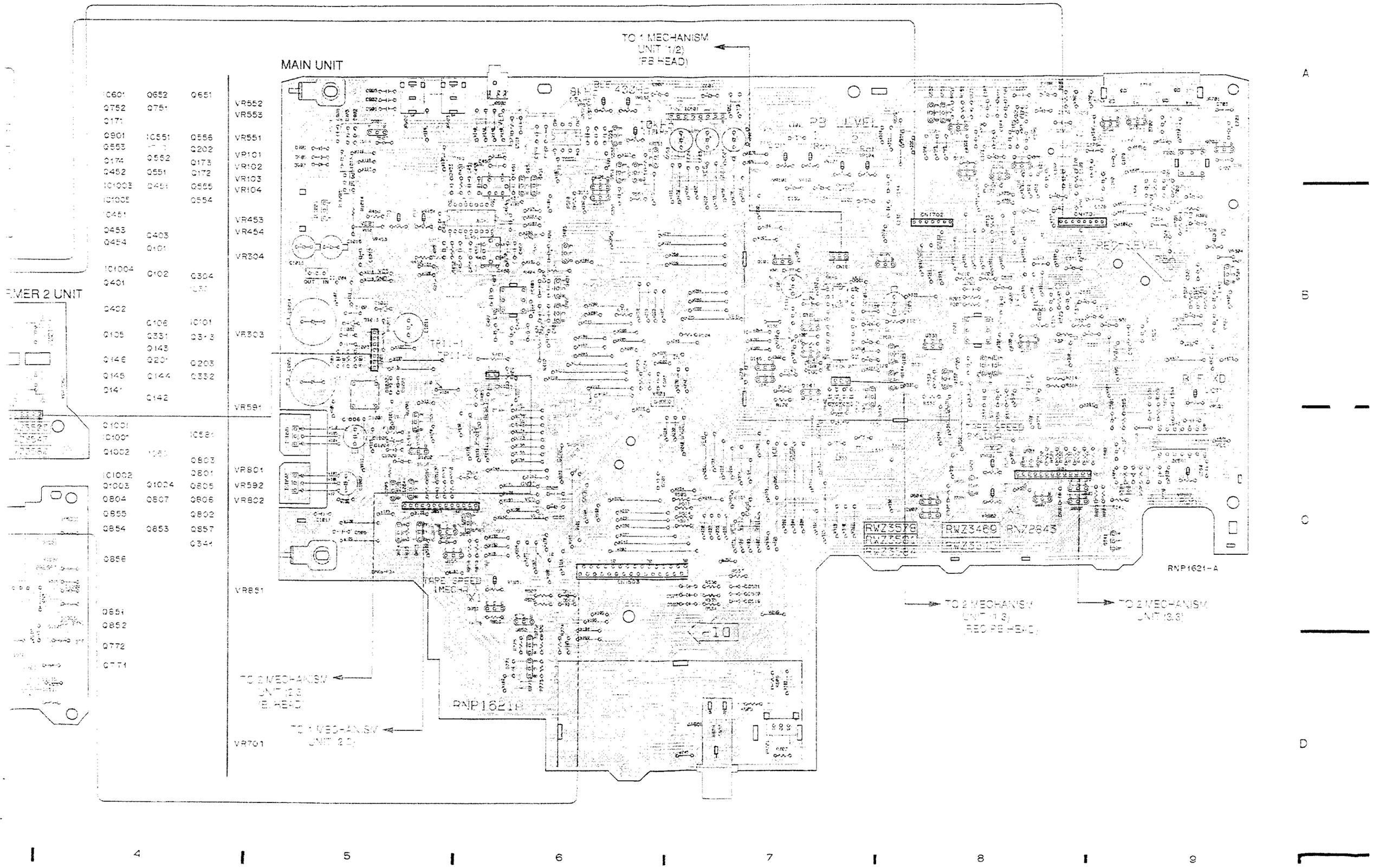
TO POWER TRANSFORMER

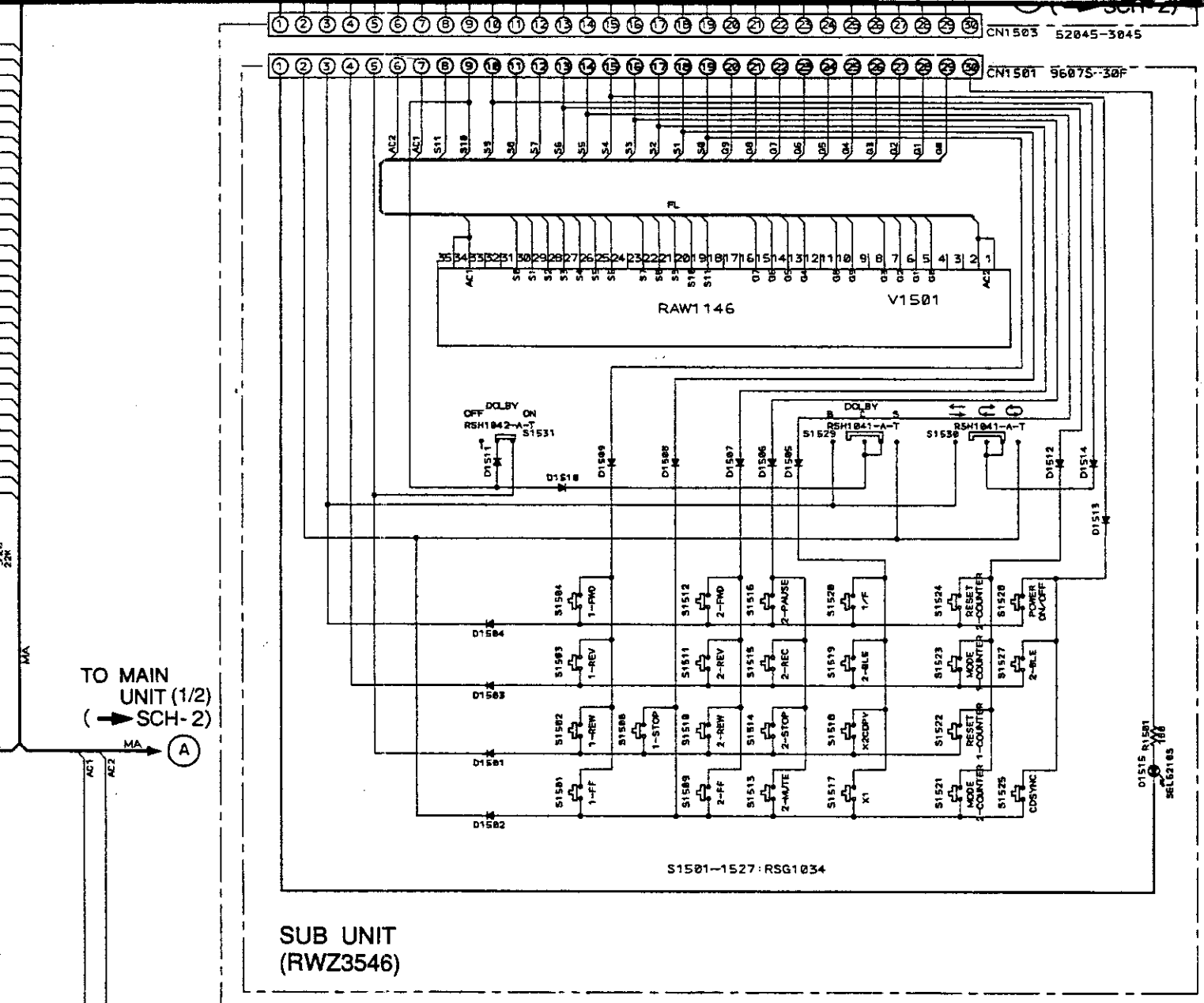


- **This diagram is viewed from the mounted parts side.**

SUB UNIT



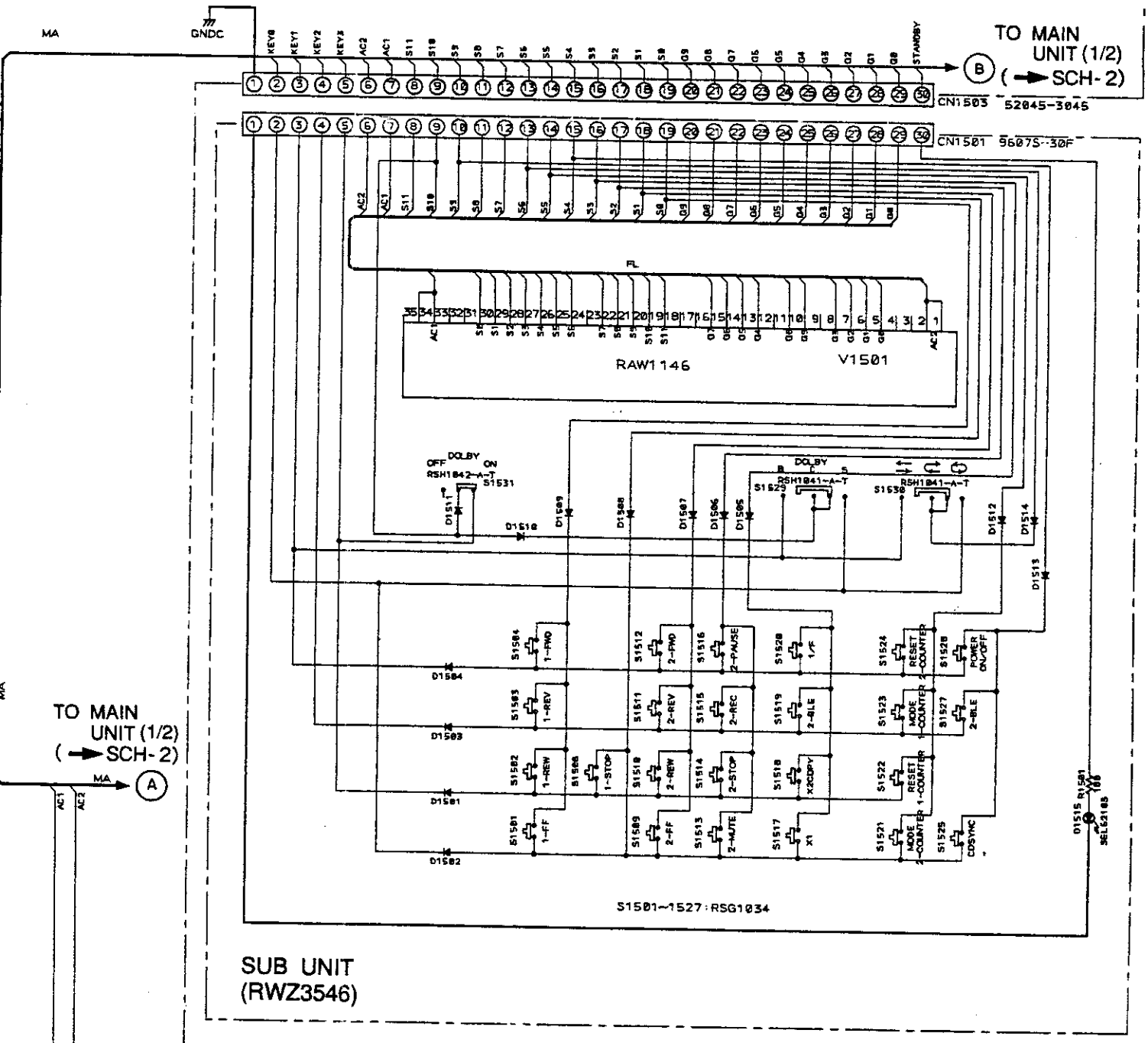

MAIN UNIT
TO 1 MECHANISM
UNIT (1/2)
(PB HEAD)
PB LEVEL
REC LEVEL
RFXD
RNP1621-A
RNP1621-B
TAPE SPEED
(MECH)
TO 2 MECHANISM
UNIT (2/3)
(REC HEAD)
TO 1 MECHANISM
UNIT (2/2)
TO 2 MECHANISM
UNIT (1/3)
(REC PB HEAD)
TO 2 MECHANISM
UNIT (3/3)
VR552
VR553
VR551
VR101
VR102
VR103
VR104
VR453
VR454
VR304
VR303
VR591
VR801
VR592
VR802
VR851
VR701
Q601 Q652 Q651
Q752 Q751
Q171
Q901 IC551 Q556
Q553 Q202
Q174 Q552 Q173
Q452 Q551 Q172
IC1003 Q451 Q555
IC1005 Q554
Q451
Q453 Q403
Q454 Q101
IC1004 Q102 Q304
Q401
Q402
Q106 IC101
Q105 Q331 Q313
Q143
Q146 Q201 Q205
Q145 Q144 Q332
Q141 Q142
Q1001
Q1001 IC551
Q1002 Q803
Q1002 Q801
Q1003 Q1004 Q805
Q804 Q807 Q806
Q855 Q802
Q854 Q853 Q857
Q341
Q856
Q851
Q852
Q772
Q771
RWZ3578
RWZ3480
RWZ2843



SUB UNIT
(RWZ3546)

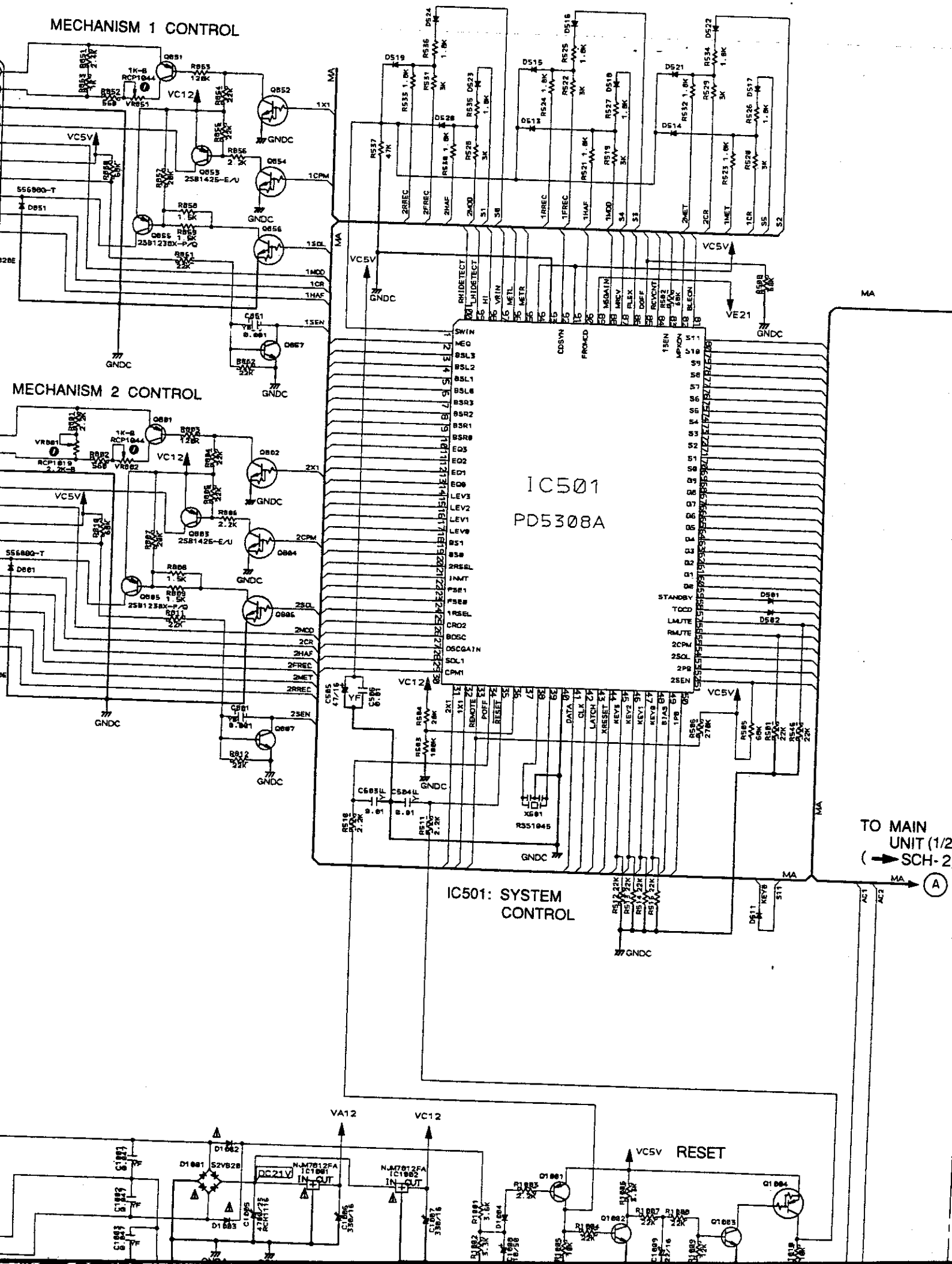
NOTE : If the parts are not identified in the diagram the followings are used.

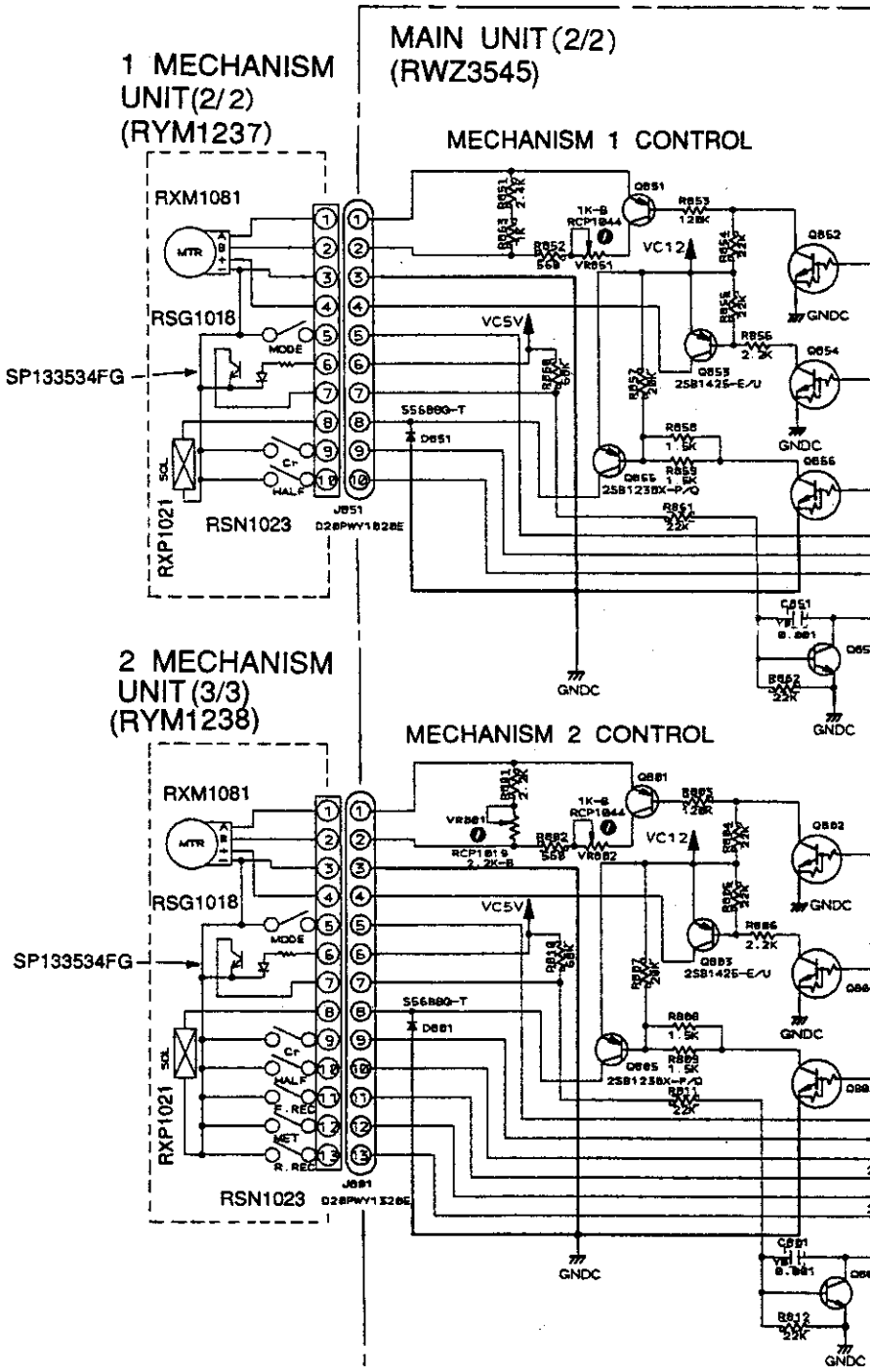
- 1SS254
- 2SA1309A-R/S
- 2SC3311A-R/S
- DTA114TS
- DTC114TS
- XDA114ES
- XDC124ES



NOTE : If the parts are not identified in the diagram the followings are used.

MAIN UNIT (2/2)
(RWZ3545)

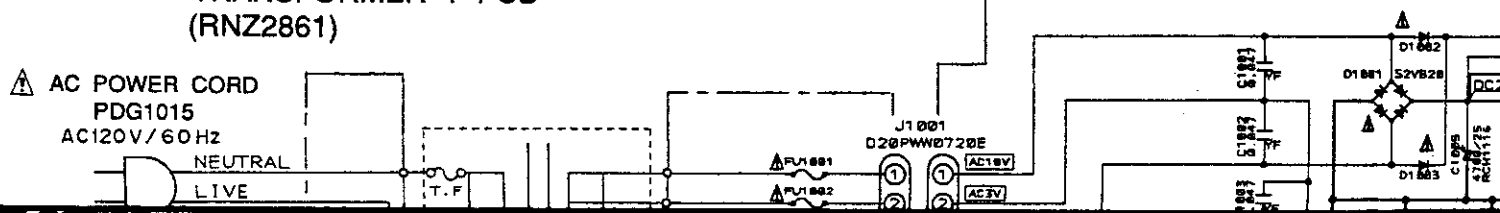


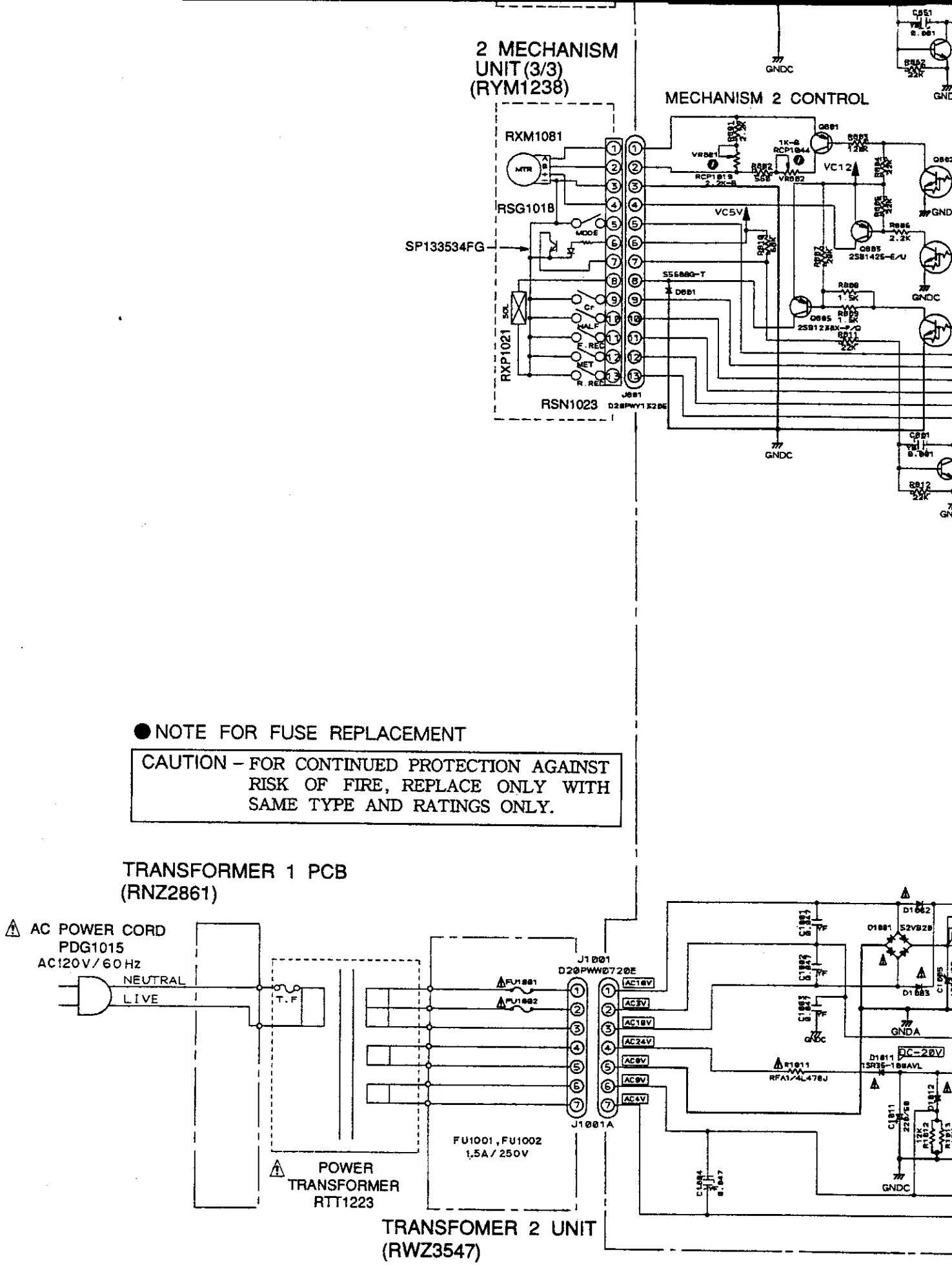


● NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

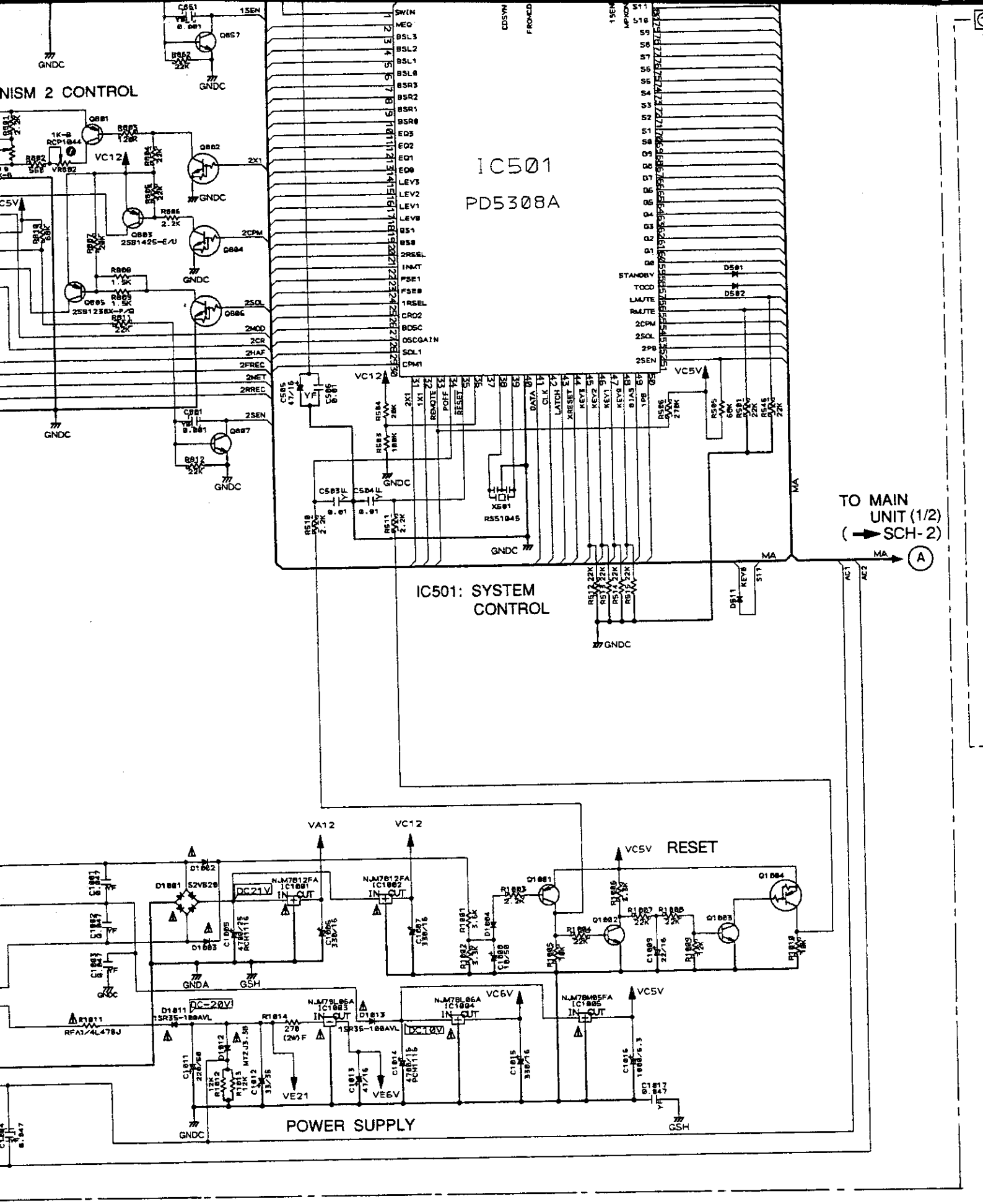
TRANSFORMER 1 PCB
(RNZ2861)

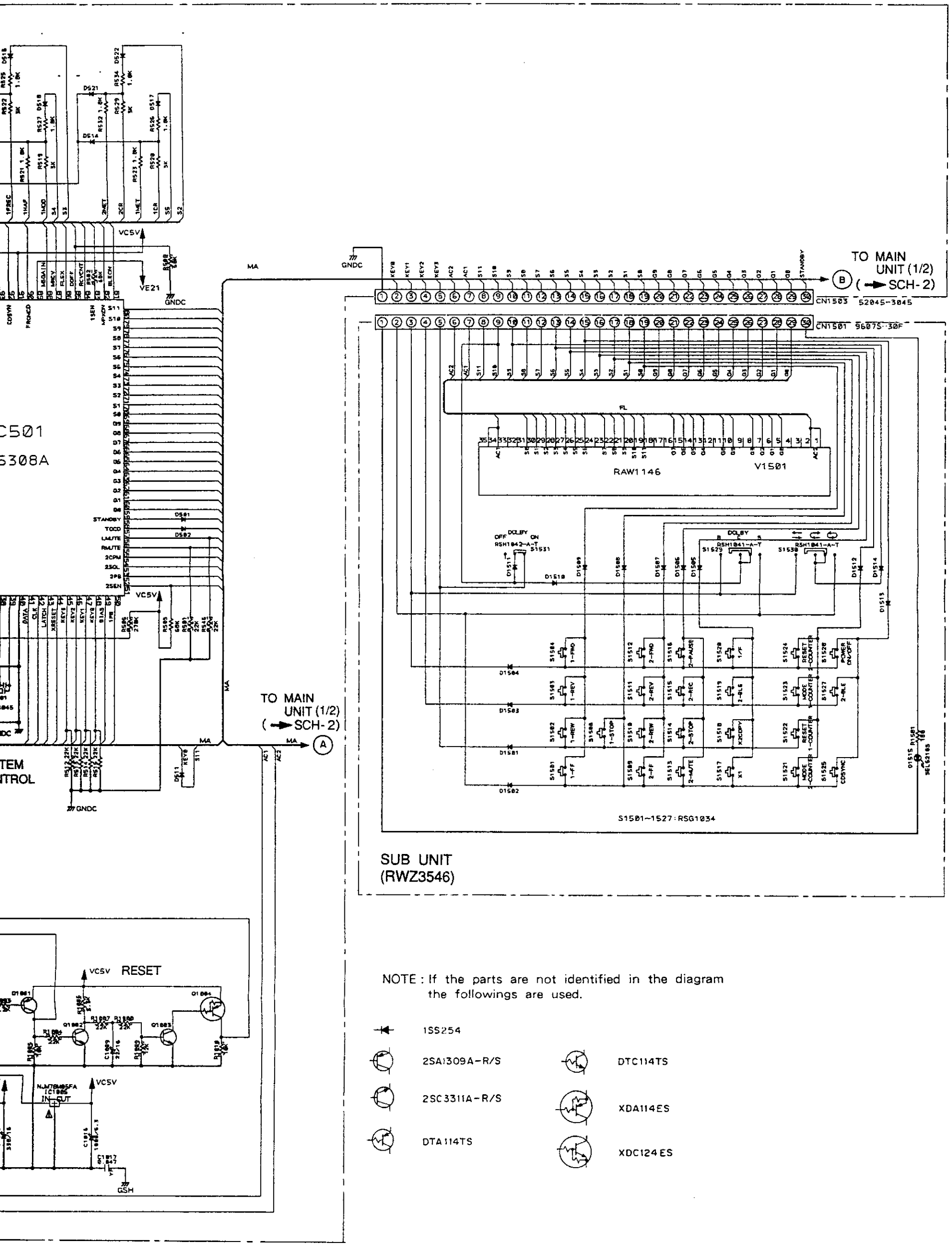




● NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

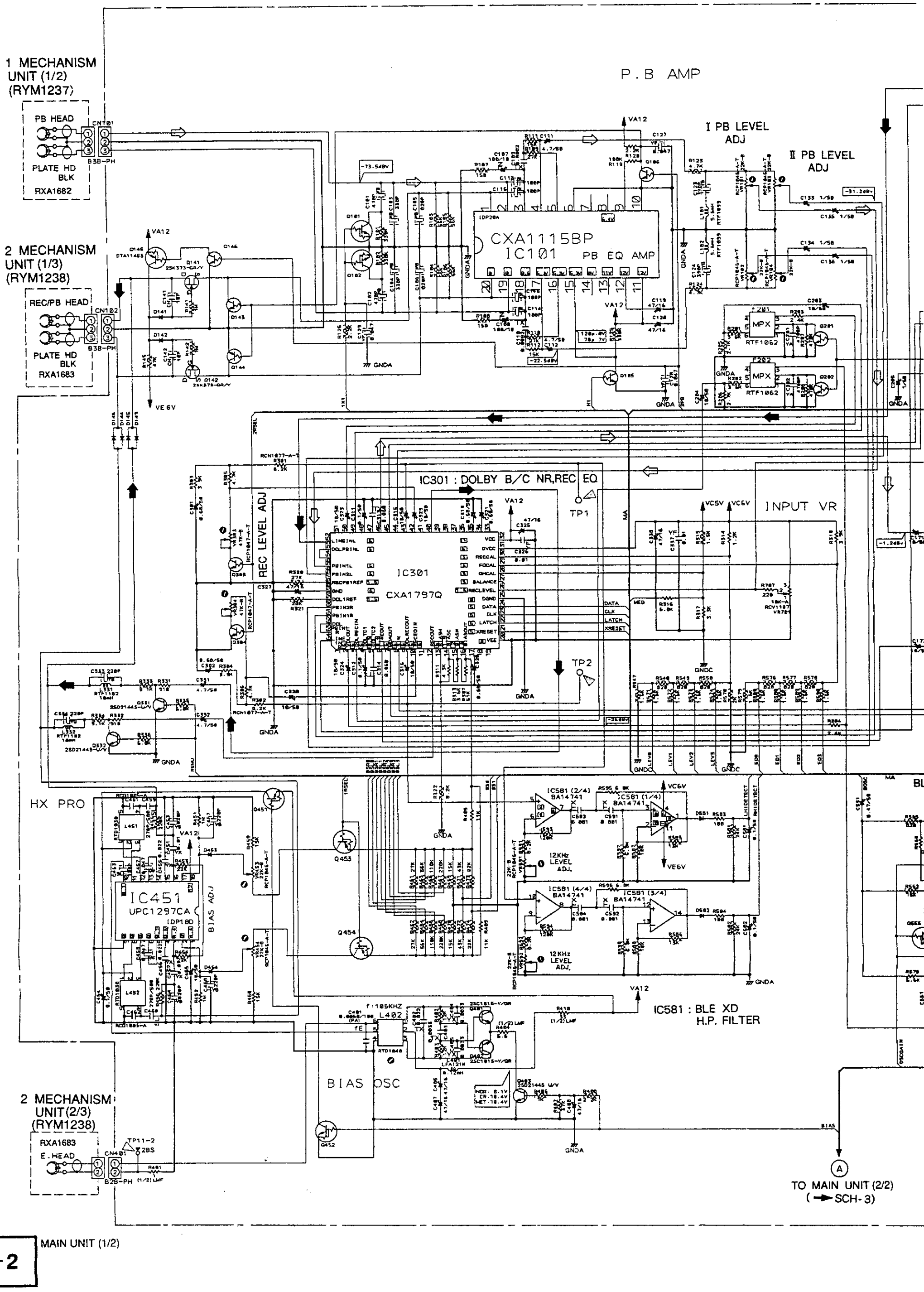

IC501
PD5308A
IC501: SYSTEM CONTROL
TO MAIN UNIT (1/2) (→ SCH-2)
POWER SUPPLY
RESET
VC12
VC5V
VA12
VC6V
GNDC
GNDA
GSH



NOTE : If the parts are not identified in the diagram the followings are used.

1SS254			
2SA1309A-R/S		DTC114TS	
2SC3311A-R/S		XDA114ES	
DTA114TS		XDC124ES	

2. MAIN UNIT (1/2)



SCH—2 MAIN UNIT (1/2)

MAIN UNIT(1/2)
(RWZ3545)

II PB LEVEL ADJ

INPUT VR

TO DOLEY S UNIT CN1001 (→SCH-1)

TO DOLBY S UNIT CN1002 (→SCH-1)

H. PHONE AMP

IC601 (1/2) XRA1521BN

IC601 (2/2) XRA1521BN

JA601 RKN1002

TO MAIN UNIT (2/2) (→SCH-3)

CD SYNC.

SR

SR JACK

PA0059AM IC171

IC171 : * FLEX (1/f) SYSTEM

* FLEX System: Freguency Level Expander System.

BLE PILOT SIGNAL FILTER

10KHz(12KHz) LEVEL ADJ.

8kHz(3KHz) LEVEL ADJ.

400Hz LEVEL ADJ.

IC551 (2/2) XRA15218

XRA15218 IC551 (1/2)

TO MAIN UNIT (2/2) (→SCH-3)

SIGNAL ROUTE

⇨ : PLAY BACK SIGNAL

➡ : RECORDING SIGNAL

NOTE : If the parts are not identified in the diagram the followings are used.

SCH-2

1SS254		DTC114TS	
2SA1309A-R/S		XDA114ES	
2SC3311A-R/S		XDC124ES	
DTA114TS			

MAIN UNIT (1/2)

SCH-

8. PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/8PM 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PS 4 7 3 J
0.5 Ω → OR5 ..... RN2H 0 R 5 K
1 Ω → 010 ..... RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

NSP	MOTHER UNIT	RWM1816
	├MAIN UNIT	RWZ3545
	│ └ DOLBY S UNIT	RWX1101
	├SUB UNIT	RWZ3546
	└TRANSFORMER 2 UNIT	RWZ3547

DOLBY S UNIT

SEMICONDUCTORS

IC1001, IC1002	DOLBY S-TYPE IC	CXA1417Q

CAPACITORS

C1001, C1002	ELECT. CAPACITOR	CEJAR22M50-TS
C1003, C1004	ELECT. CAPACITOR	CEJA010M50-TS
C1005, C1006	CHIP CAPACITOR	CKSQYB393K50
C1007, C1008	CERAMIC CAPACITOR	CKSQYB104K25
C1009, C1010	CHIP CAPACITOR	CKSQYB223K50
C1011, C1012	CERAMIC CAPACITOR	CKSQYB681K50
C1013, C1014	CHIP CAPACITOR	CKSQYB102K50
C1015, C1016	ELECT. CAPACITOR	CEJA010M50-TS
C1017, C1018	CERAMIC CAPACITOR	CKSQYB822K50
C1019, C1020	AUDIO FILM CAPACITOR	CFTYA224J50
C1021, C1022	CERAMIC CAPACITOR	CKSQYB823K25
C1023, C1024	CERAMIC CAPACITOR	CKSQYB153K50
C1025, C1026	CERAMIC CAPACITOR	CKSQYB104K25
C1027, C1028	ELECT. CAPACITOR	CEJAR47M50-TS
C1029, C1030	ELECTR. CAPACITOR	RCH1095
C1031, C1032	ELECT. CAPACITOR	CEJAR22M50-TS
C1033, C1034	ELECT. CAPACITOR	CEJAR10M50-TS
C1035, C1036	ELECTR. CAPACITOR	RCH1095
C1037, C1038	AUDIO FILM CAPACITOR	CFTYA334J50
C1039, C1040	CERAMIC CAPACITOR	CKSQYB823K25
C1041, C1042	ELECT. CAPACITOR	CEJAR47M50-TS
C1043, C1044	CERAMIC CAPACITOR	CKSQYB104K25
C1045, C1046	ELECT. CAPACITOR	CEJAR22M50-TS
C1047, C1048	CERAMIC CAPACITOR	CKSQYB473K50
C1049, C1050	CERAMIC CAPACITOR	CKSQYB153K50
C1051, C1052	ELECT. CAPACITOR	CEJA010M50-TS
C1053, C1054	CERAMIC CAPACITOR	CKSQYB822K50
C1055, C1056	CHIP CAPACITOR	CKSQYB102K50
C1059, C1060	CHIP CAPACITOR	CKSQYB222K50
C1061, C1062	CHIP CAPACITOR	CKSQYB393K50
C1063, C1064	CERAMIC CAPACITOR	CKSQYB471K50
C1065, C1066	CERAMIC CAPACITOR	CKSQYB182K50
C1067, C1068	CERAMIC CAPACITOR	CKSQYB104K25
C1069-C1072	CERAMIC CAPACITOR	CKSQYB182K50
C1073, C1074	CHIP CAPACITOR	CKSQYB223K50
C1075, C1076	ELECT. CAPACITOR	CEJAR47M50-TS
C1077, C1078	CERAMIC CAPACITOR	CKSQYB104K25
C1079, C1080	CERAMIC CAPACITOR	CKSQYB183K50
C1081, C1082	CERAMIC CAPACITOR	CKSQYB104K25
C1083, C1084	CERAMIC CAPACITOR	CKSQYB182K50
C1085, C1086	ELECT. CAPACITOR	CEJA220M25-TS
C1087, C1088	CERAMIC CAPACITOR	CKSQYB104K25
C1089, C1090	ELECT. CAPACITOR	CEJA100M25-TS
C1091, C1092	ELECT. CAPACITOR	CEJAR22M50-TS
C1093, C1094	CERAMIC CAPACITOR	CKSQYB333K50

RESISTORS

R1001, R1002	CHIP RESISTOR	RS1/10S330J
R1003-R1006	CHIP RESISTOR	RS1/10S393J
R1007, R1008	CHIP RESISTOR	RS1/10S183J
R1009, R1010	CHIP RESISTOR	RS1/10S103J
R1011, R1012	CHIP RESISTOR	RS1/10S824J
R1013, R1014	CHIP RESISTOR	RS1/10S162J
R1015, R1016	CHIP RESISTOR	RS1/10S273J
R1017, R1018	CHIP RESISTOR	RS1/10S622J
R1019, R1020	CHIP RESISTOR	RS1/10S182J
R1021, R1022	CHIP RESISTOR	RS1/10S472J
R1023, R1024	CHIP RESISTOR	RS1/10S242J
R1025, R1026	CHIP RESISTOR	RS1/10S132J
R1027, R1028	CHIP RESISTOR	RS1/10S330J
R1029, R1030	CHIP RESISTOR	RS1/10S470J
R1031, R1032	CHIP RESISTOR	RS1/10S122J
R1033, R1034	CHIP RESISTOR	RS1/10S472J

Mark	No.	Description	Part No.
	R1035, R1036	CHIP RESISTOR	RS1/10S242J
	R1037, R1038	CHIP RESISTOR	RS1/10S330J
	R1039, R1040	CHIP RESISTOR	RS1/10S622J
	R1041, R1042	CHIP RESISTOR	RS1/10S273J
	R1043, R1044	CHIP RESISTOR	RS1/10S162J
	R1047, R1048	CHIP RESISTOR	RS1/10S152J
	R1049, R1050	CHIP RESISTOR	RS1/10S822J
	R1051, R1052	CHIP RESISTOR	RS1/10S103J
	R1053, R1054	CHIP RESISTOR	RS1/10S333J
	R1055, R1056	CHIP RESISTOR	RS1/10S683J
	R1057, R1058	CHIP RESISTOR	RS1/10S824J
	R1059, R1060	CHIP RESISTOR	RS1/10S512J
	R1061, R1062	CHIP RESISTOR	RS1/10S273J
	R1063, R1064	CHIP RESISTOR	RS1/10S163J
	R1065, R1066	CHIP RESISTOR	RS1/10S512J
	R1067, R1068	CHIP RESISTOR	RS1/10S242J
	R1069, R1070	CHIP RESISTOR	RS1/10S203J
	R1071, R1072	CHIP RESISTOR	RS1/10S243J
	R1073-R1076	CHIP RESISTOR	RS1/10S303J
	R1077, R1078	CHIP RESISTOR	RS1/10S113J
	R1079, R1080	CHIP RESISTOR	RS1/10S512J
	R1081, R1082	CHIP RESISTOR	RS1/10S363J
	R1083, R1084	CHIP RESISTOR	RS1/10S303J
	R1085, R1086	CHIP RESISTOR	RS1/10S163J
	R1087, R1088	CHIP RESISTOR	RS1/10S822J
	R1089, R1090	CHIP RESISTOR	RS1/10S113J
	R1091, R1092	CHIP RESISTOR	RS1/10S470J
	R1093, R1094	CHIP RESISTOR	RS1/10S182J
	R1095, R1096	CHIP RESISTOR	RS1/10S113J
OTHERS			
	CN1001	CONNECTOR	6033B-08Z029
	CN1002	CONNECTOR	6033B-07Z029

MAIN UNIT

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC1001, IC1002	REGULATOR IC	NJM7812FA
⚠	IC1003	REGULATOR IC	NJM79L06A
⚠	IC1004	REGULATOR IC	NJM78L06A
⚠	IC1005	REGULATOR IC	NJM78M05FA
	IC101	PB-EQ AMP IC	CXA1115BP
	IC171	FLEX IC	PA0059AM
	IC301	DOLBY/REC IC	CXA1797Q
	IC451	DOLBY HX PRO IC	UPC1297CA
	IC501	U-COM IC	PD5308A
	IC551	OP-AMP IC	XRA15218
	IC581	OP-AMP IC	BA14741
	IC601	OP-AMP IC	XRA15218N
	Q1001	TRANSISTOR	2SA1309A
	Q1002, Q1003	TRANSISTOR	2SC3311A
	Q1004	DIGITAL TRANSISTOR	XDA114ES
	Q101, Q102	TRANSISTOR	XDC124ES
	Q105, Q106	DIGITAL TRANSISTOR	DTC114TS
	Q141, Q142	N-FET	2SK373
	Q143, Q144	DIGITAL TRANSISTOR	DTC114TS
	Q145	DIGITAL TRANSISTOR	XDA114ES
	Q146	DIGITAL TRANSISTOR	DTC114TS
	Q171, Q172	TRANSISTOR	XDC124ES
	Q173	DIGITAL TRANSISTOR	DTC114TS
	Q174	TRANSISTOR	2SA1309A
	Q201, Q202	DIGITAL TRANSISTOR	DTC114TS
	Q203	TRANSISTOR	XDC124ES
	Q303, Q304	DIGITAL TRANSISTOR	DTC114TS
	Q331, Q332	TRANSISTOR	2SD2144S
	Q341	TRANSISTOR	2SC3311A
	Q401, Q402	TRANSISTOR	2SC1815
	Q403	TRANSISTOR	2SD2144S
	Q451	DIGITAL TRANSISTOR	XDA114ES
	Q452	TRANSISTOR	XDC124ES
	Q453, Q454	DIGITAL TRANSISTOR	XDA114ES
	Q551, Q552	DIGITAL TRANSISTOR	DTC114TS
	Q553	N-FET	2SK246
	Q554-Q556	DIGITAL TRANSISTOR	XDC114ES
	Q651, Q652	TRANSISTOR	XDC124ES
	Q751, Q752	TRANSISTOR	2SD2144S
	Q771, Q772	DIGITAL TRANSISTOR	DTA114TS
	Q801	TRANSISTOR	2SA1309A
	Q802	TRANSISTOR	XDC124ES
	Q803	TRANSISTOR	2SB1425
	Q804	TRANSISTOR	XDC124ES
	Q805	TRANSISTOR	2SB1238X
	Q806	TRANSISTOR	XDC124ES
	Q807	TRANSISTOR	2SC3311A
	Q851	TRANSISTOR	2SA1309A
	Q852	TRANSISTOR	XDC124ES
	Q853	TRANSISTOR	2SB1425
	Q854	TRANSISTOR	XDC124ES
	Q855	TRANSISTOR	2SB1238X
	Q856	TRANSISTOR	XDC124ES
	Q857	TRANSISTOR	2SC3311A
	Q901	TRANSISTOR	XDC124ES
	D1001		S2VB20
⚠	D1002, D1003	DIODE	1SS254
	D1004	DIODE	1SS254
⚠	D1011	DIODE	ISR35-100AVL
⚠	D1012	ZENER DIODE	MTZJ3.3B
⚠	D1013	DIODE	1SR35-100AVL
	D141-D146	DIODE	1SS254
	D171-D174	DIODE	1SS254
	D453, D454	DIODE	1SS254
	D501, D502	DIODE	1SS254
	D513, D514	DIODE	1SS254
	D517-D524	DIODE	1SS254
	D581, D582	DIODE	1SS254
	D771	ZENER DIODE	MTZJ3.9B
	D801, D851	DIODE	S5688G
	D901-D903	DIODE	1SS254
	D905-D907	DIODE	1SS254

COILS AND FILTERS

Mark	No.	Description	Part No.
	F201, F202	FILTER	RTF1062
	L101, L102	COIL	RTF1099
	L331, L332	COIL	RTF1102
	L401	RADIAL INDUCTOR	LFA121K
	L402		RTD1048
	L451, L452	COIL	RTD1030

CAPACITORS

Mark	No.	Description	Part No.
	C1001-C1003	CERAMIC CAPACITOR	CKCYF473Z50
	C1004	CERAMIC CAPACITOR	CKSQYF473Z50
	C1005	ELECTROLYTIC CAPACIT	RCH1116
	C1006, C1007	ELECT. CAPACITOR	CEAS331M16
	C1008	ELECT. CAPACITOR	CEAS100M50
	C1009	ELECT. CAPACITOR	CEAS220M16
	C101	CERAMIC CAPACITOR	CKSQYB471K50
	C1011	ELECT. CAPACITOR	CEAS221M50
	C1012	ELECT. CAPACITOR	CEAS330M35
	C1013	ELECT. CAPACITOR	CEAS470M16
	C1014	ELECTROLYTIC CAPACIT	PCH1116
	C1015	ELECT. CAPACITOR	CEAS331M16
	C1016	ELECT. CAPACITOR	CEAS102M6R3
	C1017	CERAMIC CAPACITOR	CKCYF473Z50
	C102	CERAMIC CAPACITOR	CKSQYB471K50
	C103, C104	CERAMIC CAPACITOR	CKSQYB331K50
	C105, C106	CERAMIC CAPACITOR	CKSQYB821K50
	C107, C108	ELECT. CAPACITOR	CEANL101M10
	C109, C110	AUDIO FILM CAPACITOR	CFTXA822J50
	C111, C112	ELECT. CAPACITOR	CEAS4R7M50
	C113-C116	CHIP CAPACITOR	CCSQSL101J50
	C119, C120	ELECT. CAPACITOR	CEAS470M16
	C123, C124	CERAMIC CAPACITOR	CKSQYB391K50
	C127-C129	CERAMIC CAPACITOR	CKSQYF473Z50
	C133-C136	ELECT. CAPACITOR	CEAS010M50
	C141, C142	CHIP CAPACITOR	CCSQCH100D50
	C148, C149	CHIP CAPACITOR	CCSQCH100D50
	C171, C172	ELECT. CAPACITOR	CEAS100M50
	C175, C176	AUDIO FILM CAPACITOR	CFTXA103J50
	C177, C178	AUDIO FILM CAPACITOR	CFTXA222J50
	C179-C182	ELECT. CAPACITOR	CEAS4R7M50
	C183	ELECT. CAPACITOR	CEAS470M16
	C184	ELECT. CAPACITOR	CEAS101M10
	C185	ELECT. CAPACITOR	CEAS4R7M50
	C186	ELECT. CAPACITOR	CEAS010M50
	C187-C189	ELECT. CAPACITOR	CEAS101M10
	C191, C198	ELECT. CAPACITOR	CEAS4R7M50
	C199	ELECT. CAPACITOR	CEAS4R7M50
	C201, C202	AUDIO FILM CAPACITOR	CFTXA472J50
	C203, C204	ELECT. CAPACITOR	CEAS100M50
	C205	ELECT. CAPACITOR	CEAS010M50
	C301, C302	ELECT. CAPACITOR	CEASR68M50
	C311, C312	ELECT. CAPACITOR	CEASR10M50
	C313, C314	AUDIO FILM CAPACITOR	CFTXA683J50
	C315, C316	ELECT. CAPACITOR	CEAS100M50
	C319-C321	ELECT. CAPACITOR	CEASR68M50
	C323, C324	ELECT. CAPACITOR	CEAS100M50
	C325	ELECT. CAPACITOR	CEAS470M16
	C326	CERAMIC CAPACITOR	CKCYF103Z50
	C327	ELECT. CAPACITOR	CEAS470M16
	C328, C329	ELECT. CAPACITOR	CEAS100M50
	C331, C332	ELECT. CAPACITOR	CEAS4R7M50
	C333, C334	CERAMIC CAPACITOR	CKSQYB221K50
	C337	CERAMIC CAPACITOR	CKCYF103Z50
	C338	ELECT. CAPACITOR	CEAS470M16
	C401	POLYPROPYLEN FILM CAPACITOR	CQPA682J100
	C402	AUDIO FILM CAPACITOR	CFTXA223J50
	C403	AUDIO FILM CAPACITOR	CFTXA332J50
	C404, C405	CERAMIC CAPACITOR	CGCYX332K25
	C406-C408	ELECT. CAPACITOR	CEAS470M16
	C451, C452	CERAMIC CAPACITOR	CGCYX103K25
	C453, C454	CERAMIC CAPACITOR	CKSQYB821K50
	C455, C456	CERAMIC CAPACITOR	CGCYX223K25
	C457, C458	CERAMIC CAPACITOR	CKSQYF473Z50
	C459, C460	CERAMIC CAPACITOR	CCCSL271K500
	C461, C462	CERAMIC CAPACITOR	RCG1005
	C463	CHIP CAPACITOR	CCSQSL101J50
	C464	ELECT. CAPACITOR	CEASR10M50
	C465	ELECT. CAPACITOR	CEAS100M50
	C467, C468	CHIP CAPACITOR	CKSQYB222K50
	C503, C504	CERAMIC CAPACITOR	CKCYF103Z50
	C505	ELECT. CAPACITOR	CEAS470M16
	C506	CERAMIC CAPACITOR	CKCYF103Z50
	C551	ELECT. CAPACITOR	CEASR47M50
	C552	CERAMIC CAPACITOR	CKCYB682K50
	C553	CERAMIC CAPACITOR	CKCYB272K50
	C557	CERAMIC CAPACITOR	CKCYB221K50
	C559	CERAMIC CAPACITOR	CGCYX333K25
	C560	CERAMIC CAPACITOR	CKCYB472K50
	C561	CERAMIC CAPACITOR	CGCYX104K25
	C581, C582	ELECT. CAPACITOR	CEASR10M50
	C583, C584	AUDIO FILM CAPACITOR	CFTXA102J50
	C591, C592	AUDIO FILM CAPACITOR	CFTXA102J50
	C601, C602	ELECT. CAPACITOR	CEASR22M50
	C603, C604	ELECT. CAPACITOR	CEAS101M16
	C605	ELECT. CAPACITOR	CEAS331M16
	C606	CERAMIC CAPACITOR	CKCYF473Z50
	C701, C702	ELECT. CAPACITOR	CEAS010M50
	C703	CERAMIC CAPACITOR	CKCYF473Z50
	C711	CERAMIC CAPACITOR	CKSQYF473Z50
	C751, C752	CHIP CAPACITOR	CCSQSL101J50
	C771	CERAMIC CAPACITOR	CKSQYF473Z50
	C801, C851	CHIP CAPACITOR	CKSQYB102K50
	C901	CERAMIC CAPACITOR	CKCYF103Z50
	C902	CERAMIC CAPACITOR	CKCYF473Z50
	C903	CERAMIC CAPACITOR	CKCYF103Z50

RESISTORS

Mark	No.	Description	Part No.
	R1001	CARBON FILM RESISTOR	RD1/6PM362J
	R1002	CHIP RESISTOR	RS1/10S332J
	R1003	CHIP RESISTOR	RS1/10S222J

Mark	No.	Description	Part No.
	R1004	CHIP RESISTOR	RS1/10S223J
	R1005	CHIP RESISTOR	RS1/10S103J
	R1006	CHIP RESISTOR	RS1/10S332J
	R1007, R1008	CHIP RESISTOR	RS1/10S223J
	R1009	CHIP RESISTOR	RS1/10S123J
	R101	CHIP RESISTOR	RS1/16S334J
	R1010	CHIP RESISTOR	RS1/10S103J
⚠	R1011	FUSLIBLE RESISTOR	RFA1/4L470J
	R1012, R1013	CARBON FILM RESISTOR	RD1/6PM123J
	R1014	METAL OXIDE RESISTOR	RS2LMF271J
	R102	CHIP RESISTOR	RS1/10S334J
	R103-R106	CHIP RESISTOR	RS1/10S563J
	R107, R108	CHIP RESISTOR	RS1/10S151J
	R109, R110	CHIP RESISTOR	RS1/10S273J
	R111	CHIP RESISTOR	RS1/10S153J
	R112	CARBON FILM RESISTOR	RD1/6PM153J
	R119	CARBON FILM RESISTOR	RD1/6PM104J
	R120	CARBON FILM RESISTOR	RD1/6PM222J
	R123, R124	CHIP RESISTOR	RS1/10S472J
	R125	CHIP RESISTOR	RS1/10S334J
	R126	CHIP RESISTOR	RS1/10S222J
	R141, R142	CHIP RESISTOR	RS1/10S105J
	R145	CHIP RESISTOR	RS1/10S473J
	R171, R172	CHIP RESISTOR	RS1/10S562J
	R173, R174	CHIP RESISTOR	RS1/10S512J
	R175	CHIP RESISTOR	RS1/10S122J
	R176	CARBON FILM RESISTOR	RD1/6PM122J
	R177, R178	CHIP RESISTOR	RS1/10S472J
	R179	CHIP RESISTOR	RS1/10S563J
	R180	CHIP RESISTOR	RS1/10S102J
	R181	CARBON FILM RESISTOR	RD1/6PM223J
	R182	CARBON FILM RESISTOR	RD1/6PM122J
	R183	CHIP RESISTOR	RS1/10S681J
	R185, R186	CHIP RESISTOR	RS1/10S822J
	R187	CHIP RESISTOR	RS1/10S103J
	R201, R202	CHIP RESISTOR	RS1/10S362J
	R203, R204	CARBON FILM RESISTOR	RD1/6PM242J
	R205	CHIP RESISTOR	RS1/10S272J
	R206	CARBON FILM RESISTOR	RD1/6PM272J
	R207	CARBON FILM RESISTOR	RD1/6PM474J
	R208	CHIP RESISTOR	RS1/10S474J
	R209	CARBON FILM RESISTOR	RD1/6PM302J
	R210	CARBON FILM RESISTOR	RD1/6PM123J
	R303, R304	CARBON FILM RESISTOR	RD1/6PM392J
	R305, R306	CARBON FILM RESISTOR	RD1/6PM472J
	R307	CARBON FILM RESISTOR	RD1/6PM513J
	R311	CARBON FILM RESISTOR	RD1/6PM432J
	R313	CARBON FILM RESISTOR	RD1/6PM362J
	R314	CARBON FILM RESISTOR	RD1/6PM122J
	R315	CHIP RESISTOR	RS1/10S152J
	R316	CARBON FILM RESISTOR	RD1/6PM682J
	R317	CARBON FILM RESISTOR	RD1/6PM332J
	R318	CARBON FILM RESISTOR	RD1/6PM392J
	R320	CHIP RESISTOR	RS1/10S273J
	R321	CHIP RESISTOR	RS1/10S203J
	R322	CHIP RESISTOR	RS1/10S822J
	R331, R332	CARBON FILM RESISTOR	RD1/6PM911J
	R333, R334	CHIP RESISTOR	RS1/10S912J
	R335, R336	CHIP RESISTOR	RS1/10S682J
	R341	CARBON FILM RESISTOR	RD1/6PM222J
	R401	CARBON FILM RESISTOR	RD1/2LMF010J
	R402, R403	CHIP RESISTOR	RS1/10S123J
	R404	CARBON FILM RESISTOR	RD1/2LMF5R6J
	R405	CARBON FILM RESISTOR	RD1/6PM113J
	R406	CHIP RESISTOR	RS1/10S102J
	R407	CHIP RESISTOR	RS1/10S473J
	R408	CHIP RESISTOR	RS1/10S222J
	R409	CARBON FILM RESISTOR	RD1/6PM113J
	R410	CARBON FILM RESISTOR	RD1/2LMF330J
	R451, R452	CARBON FILM RESISTOR	RD1/6PM105J
	R453, R454	CHIP RESISTOR	RS1/10S223J
	R455, R456	CHIP RESISTOR	RS1/10S224J
	R459, R460	CARBON FILM RESISTOR	RD1/6PM153J
	R461, R462	CHIP RESISTOR	RS1/10S273J
	R463, R464	CHIP RESISTOR	RS1/10S563J
	R465, R466	CHIP RESISTOR	RS1/10S114J
	R467, R468	CHIP RESISTOR	RS1/10S224J
	R469, R470	CHIP RESISTOR	RS1/10S153J
	R471, R472	CHIP RESISTOR	RS1/10S433J
	R473, R474	CHIP RESISTOR	RS1/10S223J
	R501	CHIP RESISTOR	RS1/10S223J
	R502	CHIP RESISTOR	RS1/10S683J
	R503	CARBON FILM RESISTOR	RD1/6PM104J
	R504	CARBON FILM RESISTOR	RD1/6PM203J
	R505	CARBON FILM RESISTOR	RD1/6PM683J
	R506	CHIP RESISTOR	RS1/10S274J
	R508	CHIP RESISTOR	RS1/10S683J
	R510, R511	CHIP RESISTOR	RS1/10S222J
	R512	CHIP RESISTOR	RS1/10S223J
	R513-R515	CARBON FILM RESISTOR	RD1/6PM223J
	R519, R520	CARBON FILM RESISTOR	RD1/6PM302J
	R521, R526	CARBON FILM RESISTOR	RD1/6PM182J
	R527	CARBON FILM RESISTOR	RD1/6PM182J
	R528, R529	CARBON FILM RESISTOR	RD1/6PM302J
	R530	CARBON FILM RESISTOR	RD1/6PM182J
	R531	CARBON FILM RESISTOR	RD1/6PM302J
	R532-R536	CARBON FILM RESISTOR	RD1/6PM182J
	R537	CARBON FILM RESISTOR	RD1/6PM473J
	R546	CHIP RESISTOR	RS1/10S223J
	R547	CHIP RESISTOR	RS1/10S162J
	R548-R550	CHIP RESISTOR	RS1/10S821J
	R552	CHIP RESISTOR	RS1/10S153J
	R553	CHIP RESISTOR	RS1/10S392J
	R554	CHIP RESISTOR	RS1/10S242J
	R555	CHIP RESISTOR	RS1/10S393J
	R556	CHIP RESISTOR	RS1/10S104J
	R557, R558	CHIP RESISTOR	RS1/10S103J

CT-W604RS

Mark	No.	Description	Part No.
	R559	CHIP RESISTOR	RS1/10S560J
	R560	CARBON FILM RESISTOR	RD1/6PM431J
	R561	CHIP RESISTOR	RS1/10S242J
	R563	CARBON FILM RESISTOR	RD1/6PM683J
	R564	CARBON FILM RESISTOR	RD1/6PM473J
	R565	CHIP RESISTOR	RS1/10S821J
	R566, R567	CHIP RESISTOR	RS1/10S223J
	R568	CHIP RESISTOR	RS1/10S104J
	R570	CHIP RESISTOR	RS1/10S202J
	R571-R574	CHIP RESISTOR	RS1/10S162J
	R575	CARBON FILM RESISTOR	RD1/6PM562J
	R576-R578	CHIP RESISTOR	RS1/10S821J
	R579, R580	CHIP RESISTOR	RS1/10S162J
	R581, R582	CHIP RESISTOR	RS1/10S243J
	R583, R584	CARBON FILM RESISTOR	RD1/6PM101J
	R585, R586	CHIP RESISTOR	RS1/10S133J
	R587, R588	CHIP RESISTOR	RS1/10S103J
	R589, R590	CHIP RESISTOR	RS1/10S162J
	R591, R592	CHIP RESISTOR	RS1/10S822J
	R593, R594	CHIP RESISTOR	RS1/10S124J
	R595, R596	CARBON FILM RESISTOR	RD1/6PM682J
	R597, R598	CHIP RESISTOR	RS1/10S682J
	R599	CHIP RESISTOR	RS1/10S104J
	R600	CHIP RESISTOR	RS1/10S162J
	R601-R604	CHIP RESISTOR	RS1/10S823J
	R605, R606	CARBON FILM RESISTOR	RD1/6PM470J
	R607, R608	CHIP RESISTOR	RS1/10S561J
	R609	METAL OXIDE RESISTOR	RS2LMF750J
	R651	CARBON FILM RESISTOR	RD1/6PM223J
	R652	CHIP RESISTOR	RS1/10S223J
	R701, R702	CHIP RESISTOR	RS1/10S184J
	R703, R704	CHIP RESISTOR	RS1/10S273J
	R707	CARBON FILM RESISTOR	RD1/6PM221J
	R713	CARBON FILM RESISTOR	RD1/6PM222J
	R751, R752	CHIP RESISTOR	RS1/10S152J
	R753, R754	CHIP RESISTOR	RS1/10S104J
	R755, R756	CHIP RESISTOR	RS1/10S471J
	R771, R772	CHIP RESISTOR	RS1/10S681J
	R773	CARBON FILM RESISTOR	RD1/6PM681J
	R774, R775	CARBON FILM RESISTOR	RD1/6PM104J
	R801	CHIP RESISTOR	RS1/10S222J
	R802	CHIP RESISTOR	RS1/10S561J
	R803	CHIP RESISTOR	RS1/10S124J
	R804, R805	CHIP RESISTOR	RS1/10S223J
	R806	CARBON FILM RESISTOR	RD1/6PM222J
	R807	CHIP RESISTOR	RS1/10S203J
	R808, R809	CARBON FILM RESISTOR	RD1/6PM152J
	R810	CHIP RESISTOR	RS1/10S683J
	R811, R812	CHIP RESISTOR	RS1/10S223J
	R851	CHIP RESISTOR	RS1/10S242J
	R852	CHIP RESISTOR	RS1/10S561J
	R853	CARBON FILM RESISTOR	RD1/6PM124J
	R854, R855	CHIP RESISTOR	RS1/10S223J
	R856	CARBON FILM RESISTOR	RD1/6PM222J
	R857	CHIP RESISTOR	RS1/10S203J

Mark	No.	Description	Part No.
	R858, R859	CARBON FILM RESISTOR	RD1/6PM152J
	R860	CHIP RESISTOR	RS1/10S683J
	R861, R862	CHIP RESISTOR	RS1/10S223J
	R863	CHIP RESISTOR	RS1/10S102J
	R901	CHIP RESISTOR	RS1/10S274J
	R902	CHIP RESISTOR	RS1/10S223J
	VR101-VR104	VR (22K)	RCP1046
	VR305, VR304	VR (47K)	RCP1047
	VR453, R454	VR (22K)	RCP1046
	VR551	VR (10K)	RCP1045
	VR552	VR (22K)	RCP1046
	VR553	VR (47K)	RCP1047
	VR591, VR592	VR (22K)	RCP1046
	VR701	VARIABLE RESISTOR	RCV1107
	VR801	VR (2.2K)	RCP1019
	VR802, VR851	VR (1K)	RCP1044

OTHERS

CN101, CN102	CONNECTOR POST	B3B-PH-K
CN1503	30P CONNECTOR	52045-3045
CN401	CONNECTOR POST	B2B-PH-K
JA601	JACK	RKN1002
JA701	JACK	RKB-020
JA901	JACK	PKN1005
JA902, JA903	JACK	RKN1004
X501	CERAMIC RESONATOR	RSS1045

SUB UNIT

SEMICONDUCTORS

D1501-D1514	DIODE	1SS254
D1515	LED	SEL6210S

SWITCHES AND RELAYS

S1501-S1504	SWITCH	RSG1034
S1506, S1509	SWITCH	RSG1034
S1510-S1525	SWITCH	RSG1034
S1528	SWITCH	RSG1034
S1529, S1530	SWITCH	RSH1041
S1531	SWITCH	RSH1042

RESISTORS

R1503	CARBON FILM RESISTOR	RD1/6PM181J

OTHERS

CN1501	CONNECTOR	96075-30F
V1501	FL	RAW1146

TRANSFORMER 2 UNIT

OTHERS

	FUSE CLIP	AKR1003

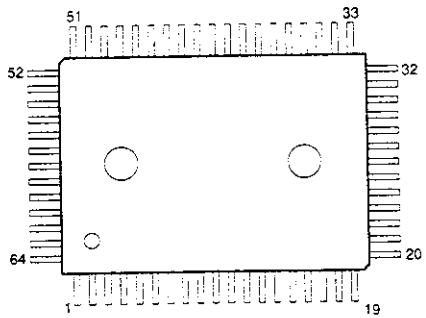
9. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

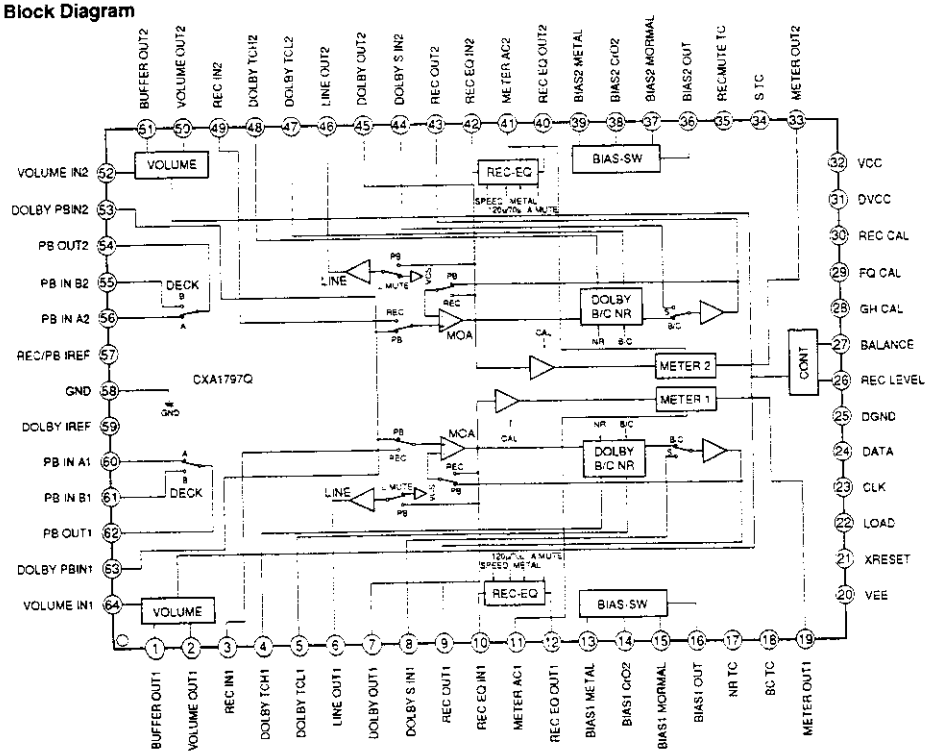
■ CXA1797Q (MAIN UNIT, IC301)

DOLBY B/C NR, REC EQ

● **Pin Arrangement (Top view)**



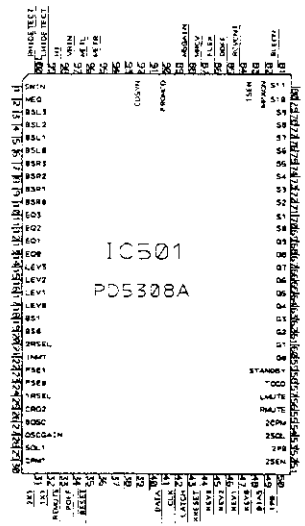
● **Block Diagram**



■ PD5308A (MAIN UNIT, IC501)

System Control IC

● **Pin Arrangement (Top view)**



● **Pin Function**

Pin No.	NAME	I/O	FUNCTION
1	SWIN	I	Mechanism switch input pin (Shared with key scan)
2	MEQ	O	BLE MID-EQ control pin
3	BIASL3	O	BLE-XD L-CH BIAS control pin
4	BIASL2	O	
5	BIASL1	O	
6	BIASL0	O	
7	BIASR3	O	BLE-XD R-CH BIAS control pin
8	BIASR2	O	
9	BIASR1	O	
10	BIASR0	O	
11	EQ3	O	BLE EQ control pin
12	EQ2	O	
13	EQ1	O	
14	EQ0	O	
15	LEVEL3	O	BLE LEVEL control pin
16	LEVEL2	O	
17	LEVEL1	O	
18	LEVEL0	O	
19	BIAS1	O	BLE BIAS control pin
20	BIAS0	O	
21	2RSEL	O	Recording head selection pin ("L" in 1 mechanism recording)
22	INMUTE	O	LINE input MUTE pin
23	FSEL1	O	BLE oscillator frequency selection pin
24	FSEL0	O	

Selection Frequency	FSEL 1	FSEL 0
400Hz 3kHz, 8kHz 10kHz, 12kHz	H H L	H L H

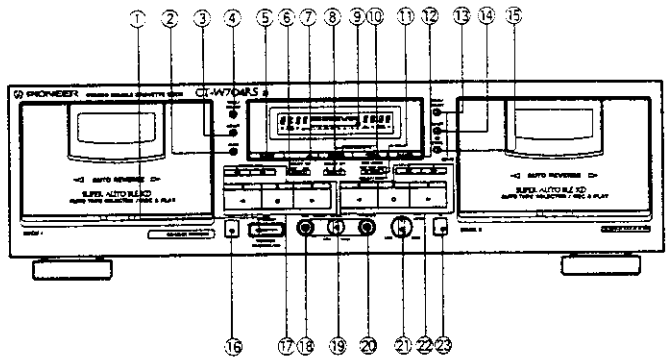
CT-W604RS

Pin No.	NAME	I/O	FUNCTION
25	1RSEL	O	Recording head selection pin ("H" in 1 mechanism recording)
26	RECHI	O	"L" when the normal tape position is selected at the recording side mechanism (Only output is executed when not used.)
27	BLEOSC	O	BLE square wave output pin
28	OSCGAIN	O	BLE oscillator gain switching pin ("L":HIGH GAIN)
29	SOL1	O	1 mechanism solenoid control pin
30	CPM1	O	1 mechanism motor control pin
31	2X1	O	2 mechanism tape speed selection pin
32	1X1	O	1 mechanism tape speed selection pin
33	REMOTE	I	Remote control signal input pin
34	POFF	I	Power OFF signal input pin ("H" when the power is OFF.)
35	XRESET	I	Reset signal input pin ("L" in reset.)
36	XCIN	I	XCIN is connected to GND.
37	XCOUT	O	
38	XIN	I	Main clock connection pin (6.3 MHz)
39	XOUT	O	
40	Vss	I	Connected to GND.
41	ICDATA	O	CX1797Q serial communication pins: DATA, CLOCK, LATCH, RESET
42	ICCLK	O	
43	ICLTH	O	
44	ICRST	O	
45	KEY3	I	Key scan input pin
46	KEY2	I	
47	KEY1	I	
48	KEY0	I	
49	BIAS	O	Bias control pin ("H" in bias ON)
50	PB1	O	Playback head selection pin ("H" in 1 mechanism playback)
51	SENS2	I	2 mechanism sensing pulse input pin
52	PB2	O	PLayback head selection pin ("H" in 2 mechanism playback)
53	SOL2	O	2 mechanism solenoid control pin
54	CPM2	O	2 mechanism motor control pin
55	RMUTE	O	REC MUTE control pin ("H" when MUTE is OFF)
56	LMUTE	O	LINE MUTE control pin ("H" when MUTE is OFF)
57	TOCD	O	CD SYNC output pin
58	STANBY	O	Standby LED lighting pin
59	G0	O	FL grid scan output pin (Built-in pull-down resistor)
60	G1	O	
61	G2	O	
62	G3	O	
63	G4	O	
64	G5	O	
65	G6	O	
66	G7	O	
67	G8	O	
68	G9	O	

Pin No.	NAME	I/O	FUNCTION
69	S0	O	FL segment scan output pin (Built-in pull down resistor)
70	S1	O	
71	S2	O	
72	S3	O	
73	S4	O	
74	S5	O	
75	S6	O	
76	S7	O	
77	S8	O	
78	S9	O	
79	S10	O	
80	S11	O	
81	BLEON	O	BLE oscillator ON/OFF pin ("H" when BLE oscillator is ON)
82	MPXOFF	O	MPX FILTER ON/OFF pin ("L" when MPX FILTER is ON)
83	SENS1	I	1 mechanism sensing pulse input pin
84	NC	I	Connected to pull down resistor
85	DOLOFF	O	Dolby control pin ("H" when dolby is OFF)
86	FLEXOFF	O	FLEX IC ON/OFF control pin ("H" when FLEX is OFF)
87	MRCV	O	Meter circuit recovery control pin ("H" when recovery is FAST)
88	MGAIN	O	Meter circuit gain switching pin ("H" when high gain)
89	VEE	I	Built-in pull down resistor power supply pin
90	FROMCD	I	CD SYNC input pin
91	Vcc	I	Power supply pin (+5V)
92	SYNCJ	I	CD SYNC JACK detection pin
93	AVSS	I	A/D conversion GND
94	VREF	I	A/D conversion power supply pin (+5V)
95	NC	I	Connected to pull down resistor
96	METL	I	L-CH level meter input pin
97	METR	I	R-CH level meter input pin
98	PBNOR	O	"H" when the normal tape position is selected at the recording side mechanism (Only when not used and in output.)
99	HIDETL	I	L-CH BLE-XD high-pass filter output level input pin
100	HIDETR	I	R-CH BLE-XD high-pass filter output level input pin

10. PANEL FACILITIES

The illustration shows model CT-W704RS.



① **POWER STANDBY/ON switch/indicator**
The POWER switch activates the secondary transformer only. Even when the switch is in the STANDBY position, there will be a power flow to the deck's circuits as long as the power cord is connected to a power outlet. The indicator lights when the unit functions enter STANDBY,and it goes off when the power is turned on.

② **FLEX button**

③ **DECK I counter reset button (RESET)**

④ **DECK I counter mode button (TIME/COUNT)**

⑤ **DECK I BLE XD button (Except for CT-W604RS)**

⑥ **DOLBY NR ON/OFF switch**

⑦ **(CT-W604RS only) Synchro copy button (COPY I ► II)**
Normal: Normal speed copy

⑧ **DOLBY* NR switch (B/C/S)**

- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑨ **Function display**

⑩ **(CT-W704RS) Synchro copy buttons (COPY I ►II)**
NORMAL: Normal speed copy
HIGH : Double speed copy
(CT-W604RS only) Synchro copy button (COPY I ►II)
HIGH: Double speed copy

DECK II BLE XD button

⑪ **Reverse mode switch (REV MODE RELAY/SKIP)**

⑫ **DECK II BLE XD button (CT-W704RS)**

⑬ **DECK II counter mode button (TIME/COUNT)**

⑭ **DECK II counter reset button (RESET)**

⑮ **CD • DECK SYNCHRO recording button (CD SYNC)**

⑯ **DECK I eject button (⏏)**
- If the tape is moving (recording playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

⑰ **DECK I operation buttons**
◄ : Reverse playback
► : Forward playback
◄◄/MS : Fast reverse/music search
■ : Stop
►►/MS : Fast forward/music searchrs
(CT-W704RS only):
O : Recording mute
II : Pause
● : Recording

⑱ **Microphone jack (MIC) (CT-W704RS only)**

⑲ **MIC LEVEL control (CT-W704RS only)**

⑳ **Headphones jack (PHONES)**

㉑ **Recording level control (REC LEVEL)**

㉒ **DECK II operation buttons**
◄ : Reverse playback
► : Forward playback
◄◄/MS : Fast reverse/music search
■ : Stop
►►/MS : Fast forward/music search
O : Recording mute
II : Pause
● : Recording

㉓ **DECK II eject button (⏏)**
- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

11. SPECIFICATIONS

System ..... 4-track, 2-channel stereo
Heads
CT-W704RS ..... "Hard Permalloy" recording/playback head X 2
"Ferrite" erasing head X 2
CT-W604RS ..... "Hard Permalloy" recording/playback head X 1
"Hard Permalloy" playback head X 1
"Ferrite" erasing head X 1
Motor ..... DC servo motor X 2
Wow and Flutter ..... 0.09% (WRMS)
Fast Winding Time ..... Approximately 100 seconds (C-60 tape)

Frequency Response
-20 dB recording:
TYPE IV (Metal) tape ..... 20 to 20,000 Hz
TYPE II (High/CrO_2) tape ..... 20 to 19,000 Hz
TYPE I (Normal) tape ..... 20 to 18,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB
Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)
Dolby S-type NR ON ..... More than 22 dB (at 5 kHz)
Harmonic Distortion ..... No more than 0.8% (at –4 dB: 160 nwb/m)

Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 68 kΩ)
MIC(INPUT) 0.63mV
(CT-W704RS : U.S. and Canadian models only)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 1.9 kΩ
Headphones ..... 1.33 mW (Load impedance 32Ω)

Subfunctions

- Super AUTO BLE XD tuning system
- Automatic reverse
- Double recording/playback reverse (CT-W704RS only)
- DOLBY HX PRO recording function
- DOLBY B/C/S type NR
- Relay recording (CT-W704RS only)
- Music search over ±15 selections
- Synchronized copy start
- High-speed and normal-speed copy (DECK I → DECK II)
- Relay playback/blank skip
- CD • DECK SYNCHRO recording capability
- Peak level meter with peak-hold function
- MPX FILTER ((Interlocks with DOLBY NR switch) (CT-W704RS only))
- Automatic space recording mute
- Automatic tape selector
- System remote control available
- 2-mode electronic 4-digit twin tape counter
- Microphone jack
(CT-W704RS : U.S. and Canadian models only)
- Headphone jack
- FLEX system

Miscellaneous

Power Requirements
U.S. and Canadian models ..... AC 120 V, 60 ~
U.K. model ..... AC 230–240 Volts~, 50/60 ~
Power Consumption
CT-W704RS/CT-W604RS ..... 19 W
Dimensions ..... 420(W) X 125(H) X 250(D) mm
16-1/2(W) X 4-7/8(H) X 9-13/16(D) in
Weight (without package)
CT-W704RS/CT-W604RS ..... 4.0 kg (8 lb 13 oz)

Accessories

Operating instructions .....
Connection cord with pin plugs .....
Remote control cord .....
CD • DECK SYNCHRO control cord .....

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.

PIONEER
The Art of Entertainment

Service Manual

ORDER NO.
RRV1611

STEREO DOUBLE CASSETTE DECK

CT-W604RS

● Refer to the service manual RRV1231 for CT-W604RS/KUXJ.

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	CT-W604RS		
SDXJ	O	AC110V/120–127V/220V/230–240V	With the voltage selector

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U. S. A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

T-SZR MAY 1996 Printed in Japan

CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

■ CONTRAST OF SDXJ AND KUXJ TYPES

SDXJ and KUXJ types have the same construction except for the following:

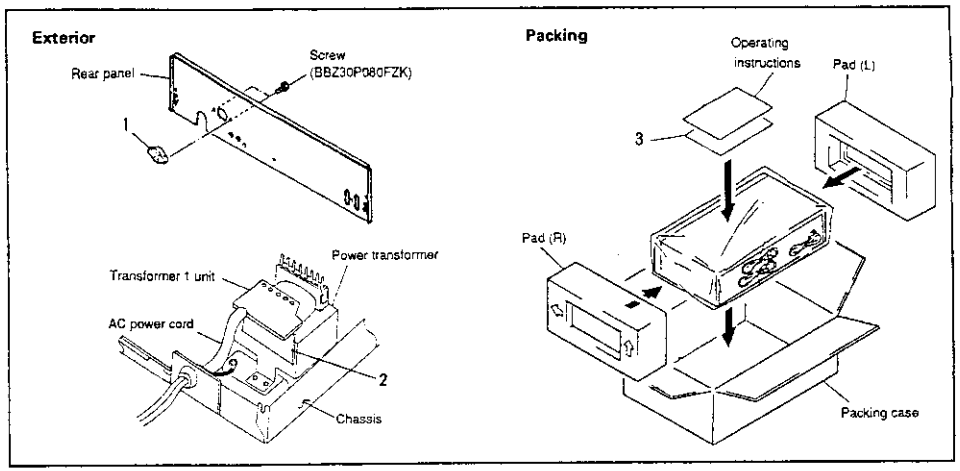
Mark	Symbol & Description	Part No.		Remarks
		KUXJ type	SDXJ type	
NSP	Mother unit	RWM1816	RWM1767	
	Main unit	RWZ3545	RWZ3548	
	Sub unit	RWZ3546	RWZ3549	
NSP	Transformer 2 unit	RWZ3547	RWZ3380	
NSP	Transformer 1 unit	Not Used	RWZ4030	*1
⚠	AC power cord	PDG1015	ADG1157	
⚠	Fuse (1.5A)	REK1059	Not Used	
⚠	Fuse (T1.6A)	Not Used	REK1024	
⚠	Strain relief	CM-22C	CM-22B	
⚠	Power transformer (AC120V)	RTT1223	Not Used	
⚠	Power transformer (AC110V/120–127V/220V/240V)	Not Used	RTT1272	
⚠	Voltage selector	Not Used	RSB1022	*2 No. 1
	Rear panel	RNA1903	RNA2087	
	Repellent Panel	Not Used	DEC1158	*2 No. 2
	Fuse Caution label	RRW111	Not Used	
	65 Label	ORW1069	Not Used	
	Packing case	RHG1631	RHG1757	
NSP	Warranty card	ARY1051	Not Used	
	Caution 220V label	Not Used	ARR1003	*2 No. 3
	Connection cord assy	RDE1002	RDE1026	
NSP	Earth lead	XDF-504	DE015VFO	
	Operating instructions (English)	RRB1154	Not Used	
	Operating instructions (English/Spanish/Chinese)	Not Used	RRE1141	

*1 : Refer to "SCHEMATIC AND PCB DIAGRAMS".

*2 : The numbers in the remarks column correspond to the numbers on the exploded diagram. Refer to "EXPLODED VIEWS".

CT-W604RS

• EXPLODED VIEWS



■ CONTRAST OF PCB ASSEMBLIES

MAIN UNIT

RWZ3548 and RWZ3545 types have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		RWZ3545	RWZ3548	
	C1005	RCH1116 (4700µF/25V)	RCH1120 (4700µF/35V)	

SUB UNIT

Althoug RWZ3549 and RWZ3546 are different in part number, they consist of the same components.

TRANSFORMER 2 UNIT

Althoug RWZ3380 and RWZ3547 are different in part number, they consist of the same components.

TRANSFORMER 1 UNIT

Transformer 1 unit has no service part.

■ SCHEMATIC AND PCB DIAGRAMS

The differences of adjacencies to power supply are as follows.

For SDXJ type