FILE NO. SM-0177

SERVICE MANUAL

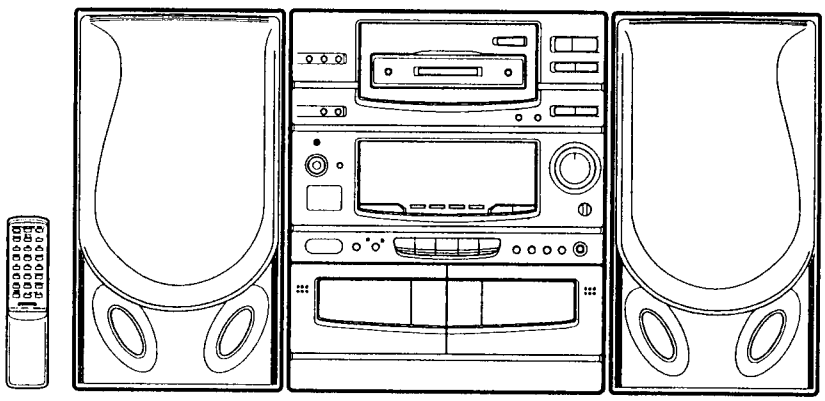
FISHER

DCS-G17

(XE)

Mini Component System

PRODUCT CODE No.
129 467 07



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This service manual consists of "TAD-G17" (Main unit), "REM-M17VD" (Remote control) and "SX-STE-G17 (Speaker system).

REFERENCE No. SM580540

SPECIFICATIONS

Note: The below mentioned specifications are mainly based on the IHF measurements standard.
They can therefore not directly be compared with specifications based on the DIN standard or other standards.

TUNER SECTION

Frequency range	FM : 87.5 - 108.0 MHz
	MW : 522 - 1,611 kHz
	LW : 144 - 288 kHz

CASSETTE DECK SECTION

Track system	4 track, 2-channel stereo
Frequency response ..	50 Hz - 14,500 Hz (CrO2 type)
	50 Hz - 13,500 Hz (Normal type)
Signal to noise ratio ..	60 dB (Dolby NR ON)
Wow & Flutter	0.12 % (WRMS)
Tape speed	4.75 cm/sec
Fast forward and rewind time	Approx. 110 sec. (C-60)

CD PLAYER SECTION

Channels	2-channel stereo
Sampling frequency ..	44.1 kHz
Pick-up	Optical 3-beam semiconductor laser
Laser output	0.6 mW (Continuous wave max.)
Wave length	790 nm
Frequency response ..	20 Hz - 20,000 Hz
Wow & Flutter	Below measurable limits

AMPLIFIER SECTION

Output power	20 W x 2 (at 4 ohms, 10% distortion)
Sound preset	Four electronic presets
Inputs	VIDEO IN : 400 mV/50k ohms
Outputs	SPEAKER : 4 ohms
	PHONES : 8 - 32 ohms

GENERAL

Power requirements ..	AC : 230 V, 50 Hz
Power consumption ..	75 W
Dimensions (WxHxD) .	Approx. 270 x 330 x 285 mm
Weight	Approx. 6.5 kg

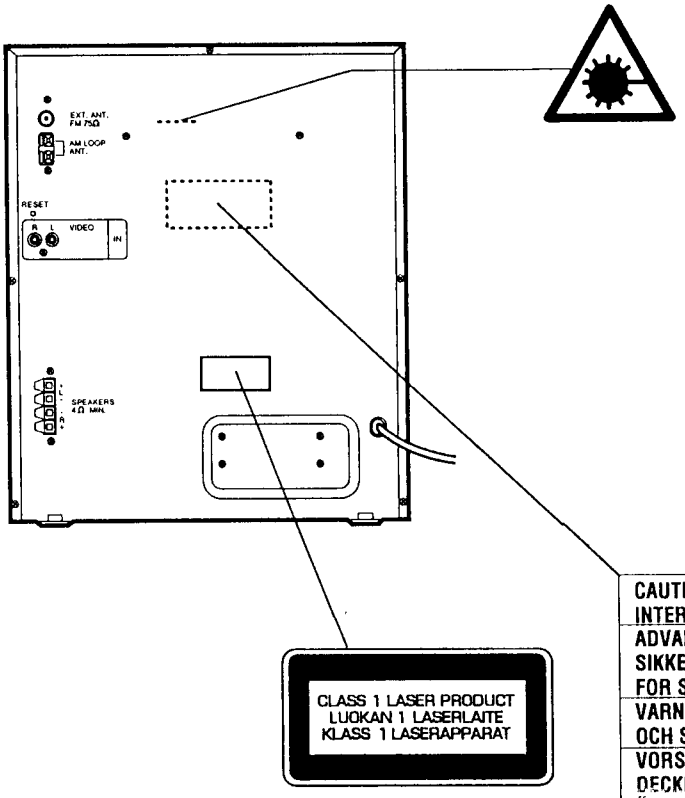
SPEAKER SYSTEMS

Type	3 way bass reflex
Unit used	Woofer: 13 cm cone type
	Mid range : 5 cm cone type
	Tweeter : piezoelectric
Maximum power-handling capacity	40 W (peak)
Nominal impedance ..	4 ohms
Dimensions (WxHxD) .	Approx. 180 x 330 x 209 mm
Weight	Approx. 2.7 kg (per speaker)

Specifications subject to change without notice.

LASER BEAM SAFETY PRECAUTIONS

- Pick-up that emits a laser beam is used in this CD player.



CAUTION :
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

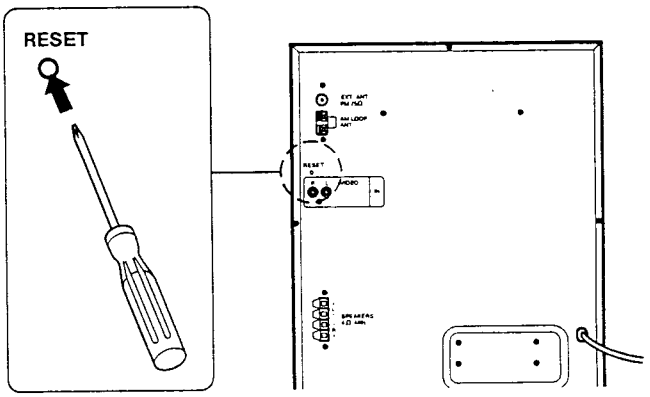
LASER OUTPUT ..... 0.6 mW Max. (CW)
WAVELENGTH ..... 790 nm

CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARNING – OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

WHAT TO DO IF

If the operation of the unit or display is not normal, or you wish to clear the contents of the memory.

1. Disconnect the power cord.
2. Press the **RESET** button for at least **20** seconds.
3. Connect the power cord.
4. Press the **POWER** button to turn the power on.

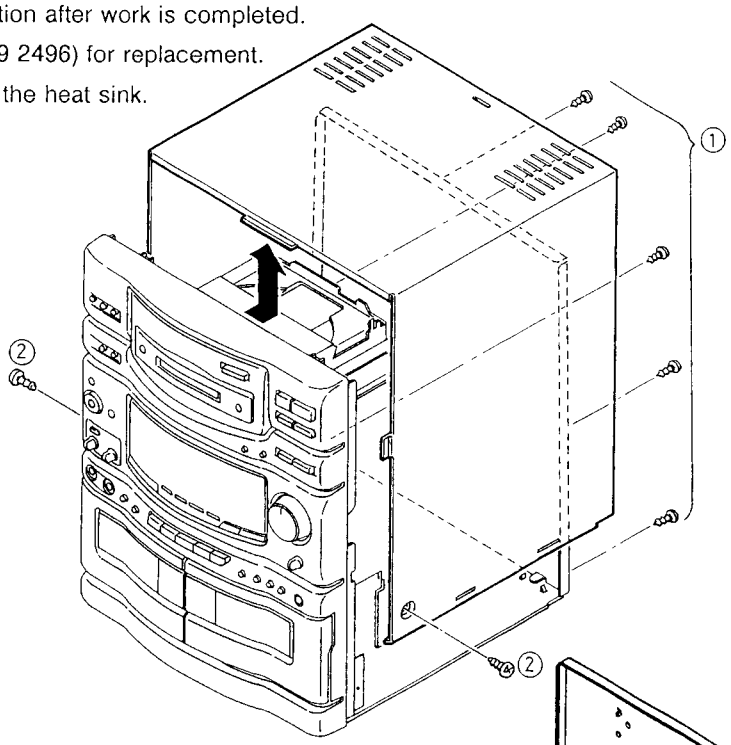


REMOVAL AND INSTALLATION

- Disconnect the power cord's plug from the electrical outlet.
- All wiring should be returned to the original position after work is completed.
- First have ready many the new FIXERS (614 129 2496) for replacement.
- Arrange the lead wires so that they are not near the heat sink.

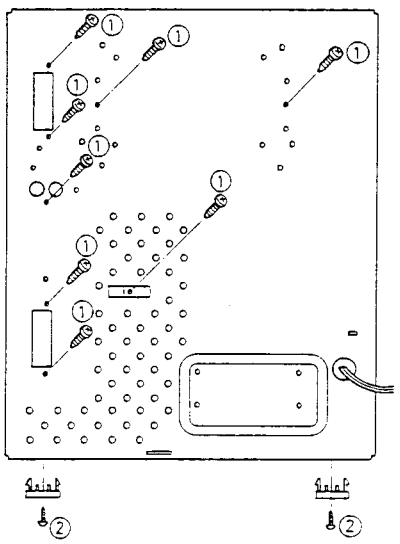
a. CABINET

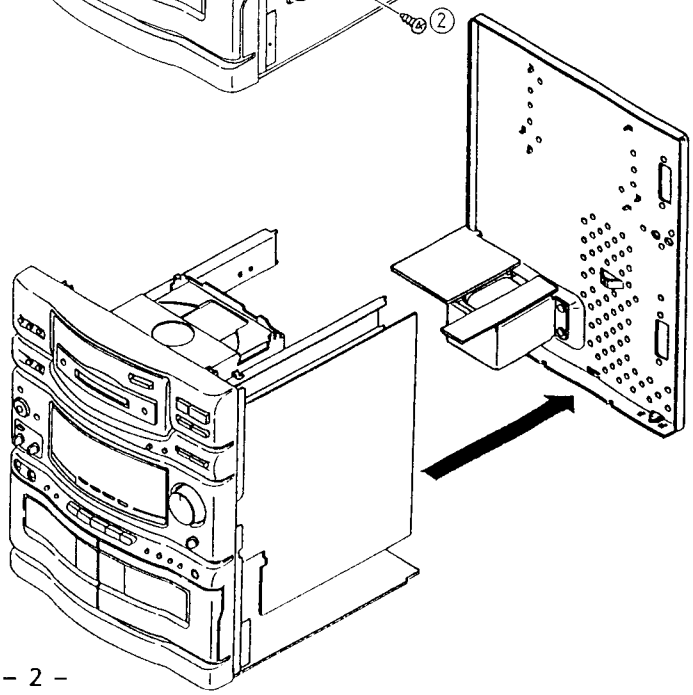
(1) Remove the 5 rear panel mounting screws. (①)
(2) Remove the 2 cabinet mounting screws. (②)



b. REAR PANEL

(1) Remove the 8 rear panel mounting screws. (①)
(2) Remove the 2 stand mounting screws. (②)

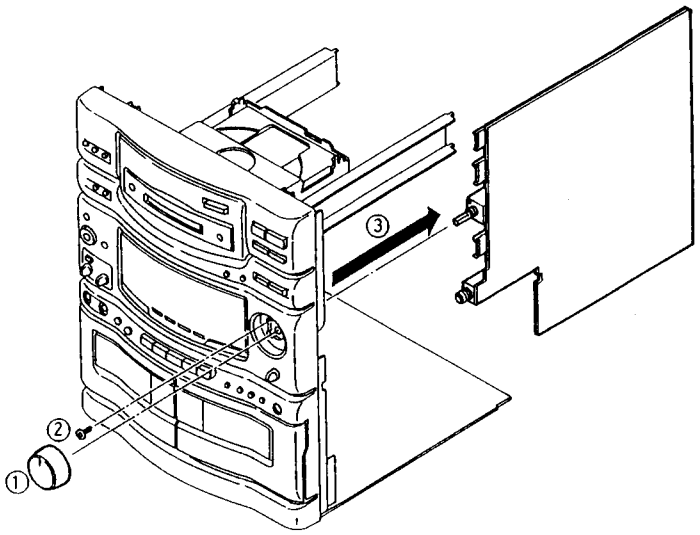




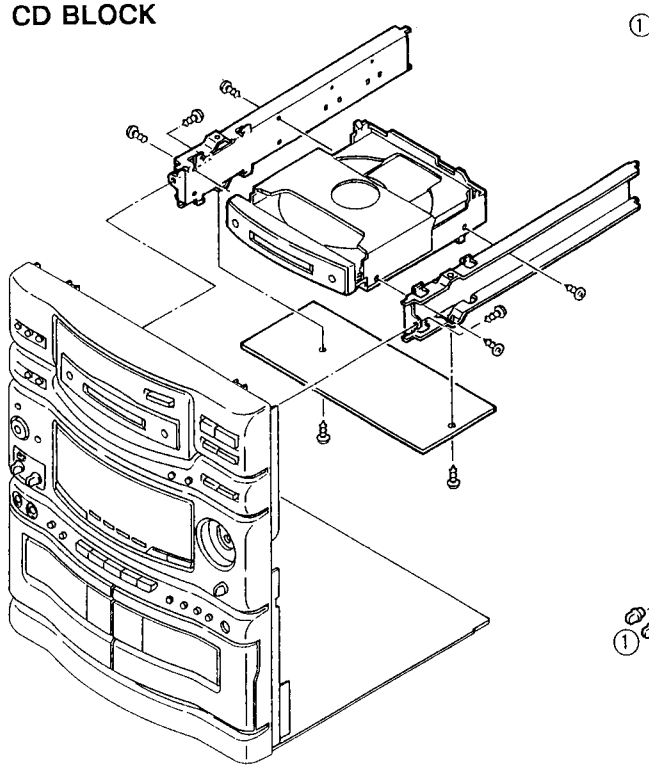
REMOVAL AND INSTALLATION

c. TUNER/AMP./TAPE DECK P.W.BOARD

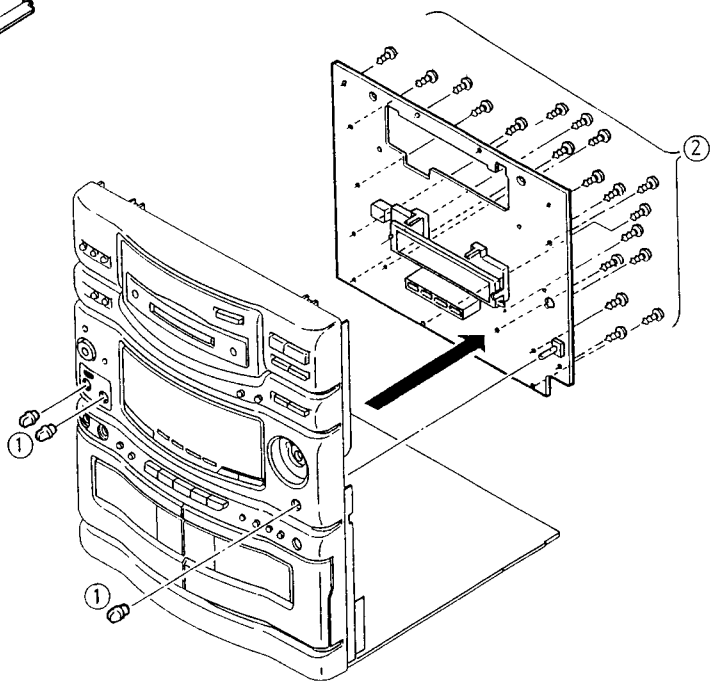
(1) Removal the VOLUME control knob. (①)
(2) Removal the VOLUME mounting screw. (②)



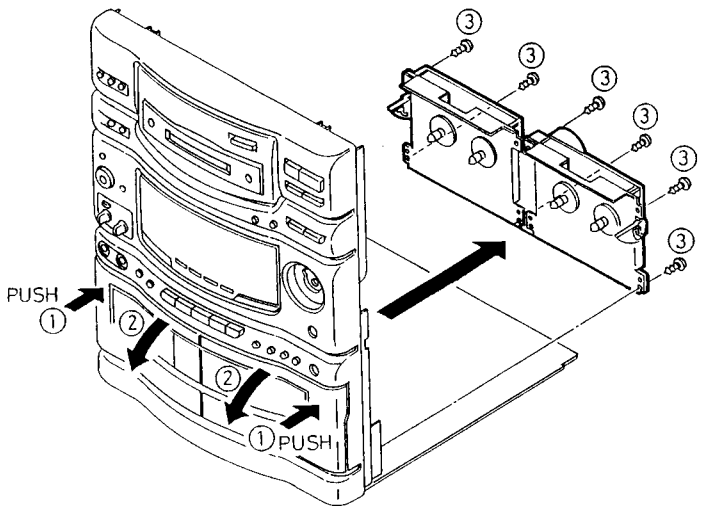
d. CD BLOCK



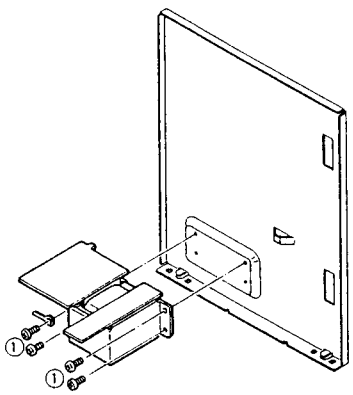
e. FRONT P.W.BOARD



f. TAPE MECHANISM



g. POWER TRANSFORMER



CD PLAYER MECHANISM ADJUSTMENTS

a. INSTALLING THE DISC TRAY

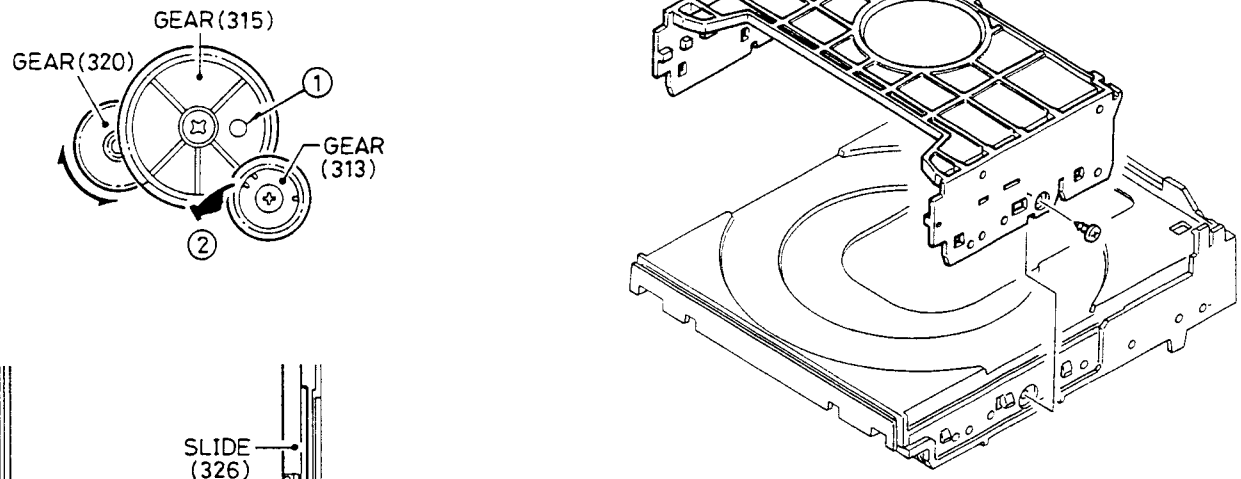
(1) Join together the gear (315) and chassis holes. (①)

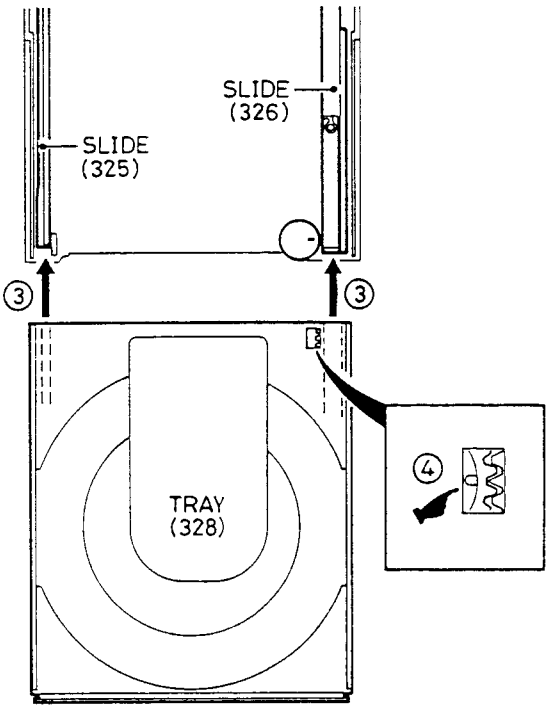
(2) Attach the gear (313) rib as indicated in the diagram. (②)

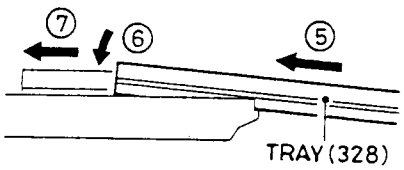
(3) Fit the disc tray into the grooves of slide (325) and slide (326). (③)

(4) Fit together the gear rib of the disc tray and the teeth in the center. (④)

(5) Attach the disc tray as indicated in the diagram. (⑤ - ⑦)

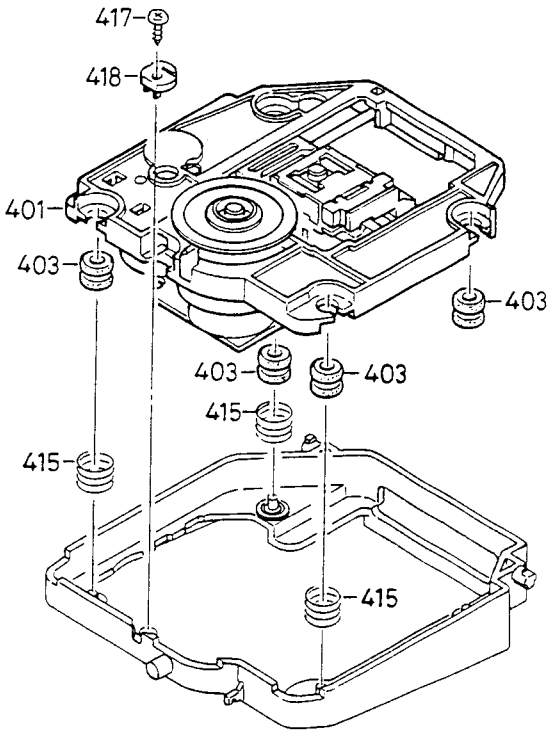






b. DISASSEMBLY OF THE CD PLAYER MECHANISM

(a) CD Mechanism



CD PLAYER MECHANISM ADJUSTMENTS

(b) Replacement of the spindle motor

- First, prepare the new turntable (401-1) and new special washer (401-4) for replacement.
  The removed turntable will be deformed by the heat of the soldering iron, and cannot be reused.
- Prepare dial-type calipers.

(1) The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the upper part of the turntable for about one minute.

(2) The turntable can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turntable.

(3) Remove the two screws (401-2) and remove the spindle motor (401-5).

(4) Attach the special washer (401-4) to the spindle motor.

(5) Clean the spindle motor's shaft.
To clean them, use a soft cloth soaked in isopropyl alcohol.

(6) Apply a small amount of a mixture of the **"Three Bond 2001"** and **"2015F"** bonding materials to the motor's shaft.

(7) Install the turntable as shown in the figure.

(8) Secure the turntable by pressing gently.
Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.

(c) Replacing the pick-up

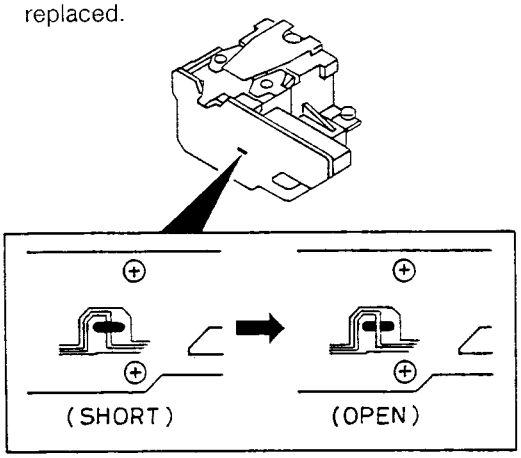
(1) Insert the pick-up rail (404) into the base chassis. (401-3)

(2) If the lach of the base chassis (401-3) are missing when the pick-up rails have been installed, first wipe the tips of the rail with alcohol.

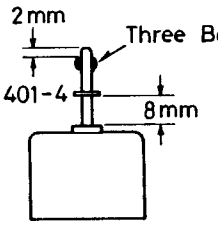
(3) After the pick-up has been replaced, apply grease (**FLOIL G-474B**) to the  sections.

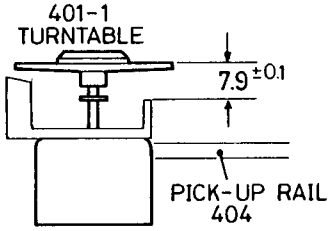
(4) The pick-up P.W.Board pattern is **"shorted"**, as shown in the figure, so that the new pick-up will not be susceptible to the effects of static.

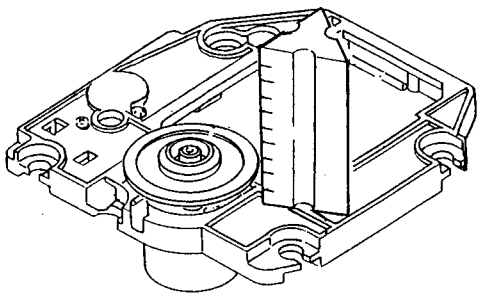
(5) Set the pattern to **"open"** after the pick-up has been replaced.

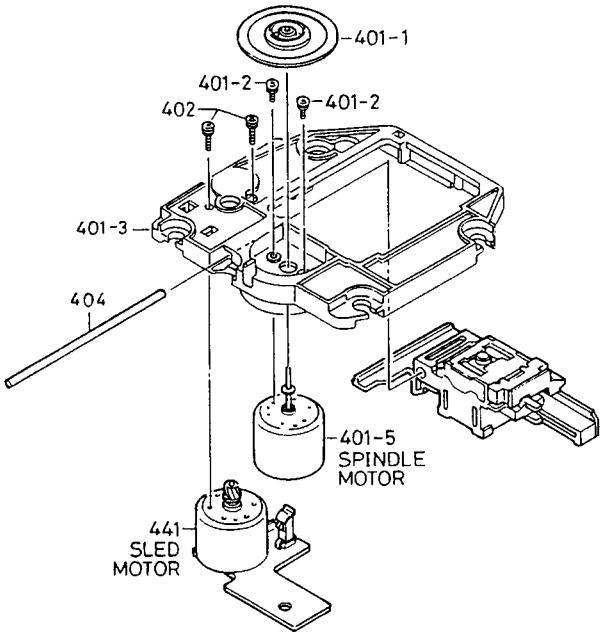


Don't attached bonding material at the top of shaft.
Bonding material
Be sure to wipe away the bonding material

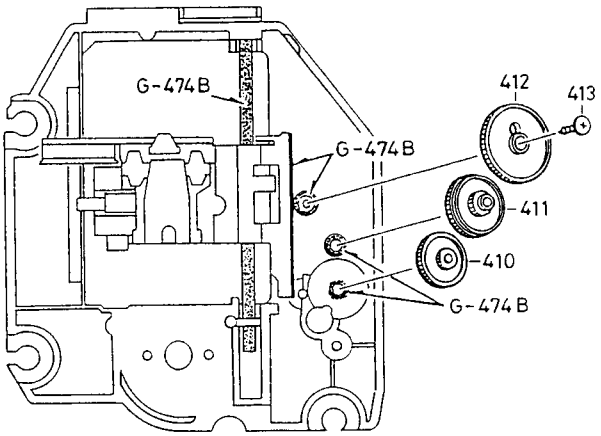






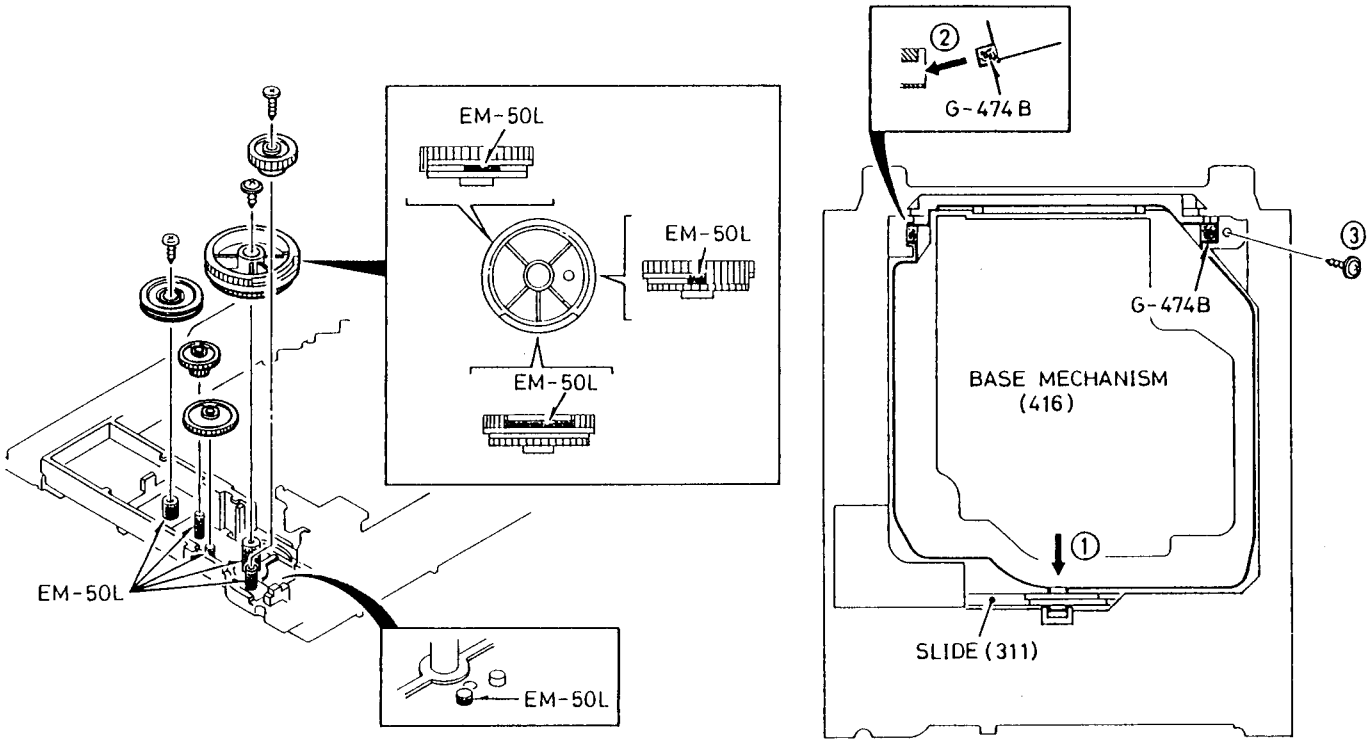


(BE SURE AT THIS TIME, NOT TO TOUCH ANY OTHER PART.)



CD PLAYER MECHANISM ADJUSTMENTS

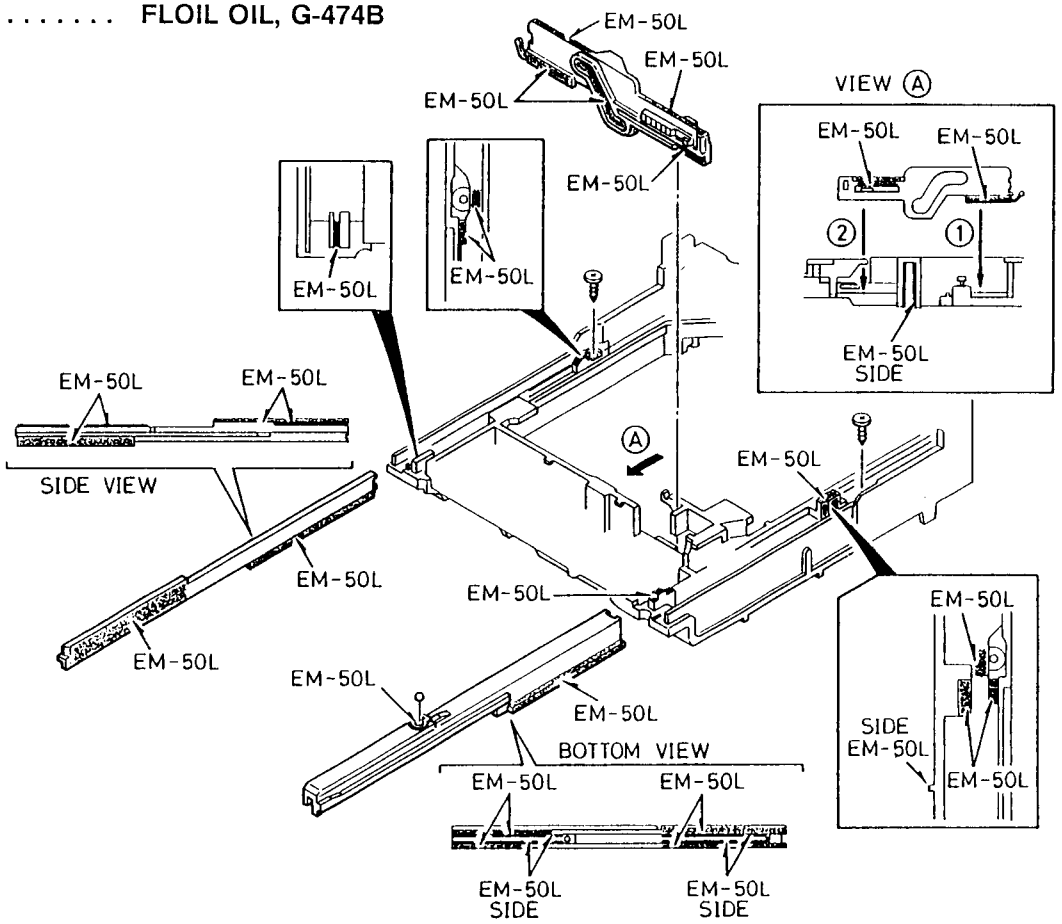
(d) Replacement and lubrication of the CD mechanism



Note :

EM-50 ..... MOLYKOTE, EM-50L

G-474B ..... FLOIL OIL, G-474B



CD PLAYER ADJUSTMENTS

a. PREPARATIONS

(a) Measuring instruments, tools and filter

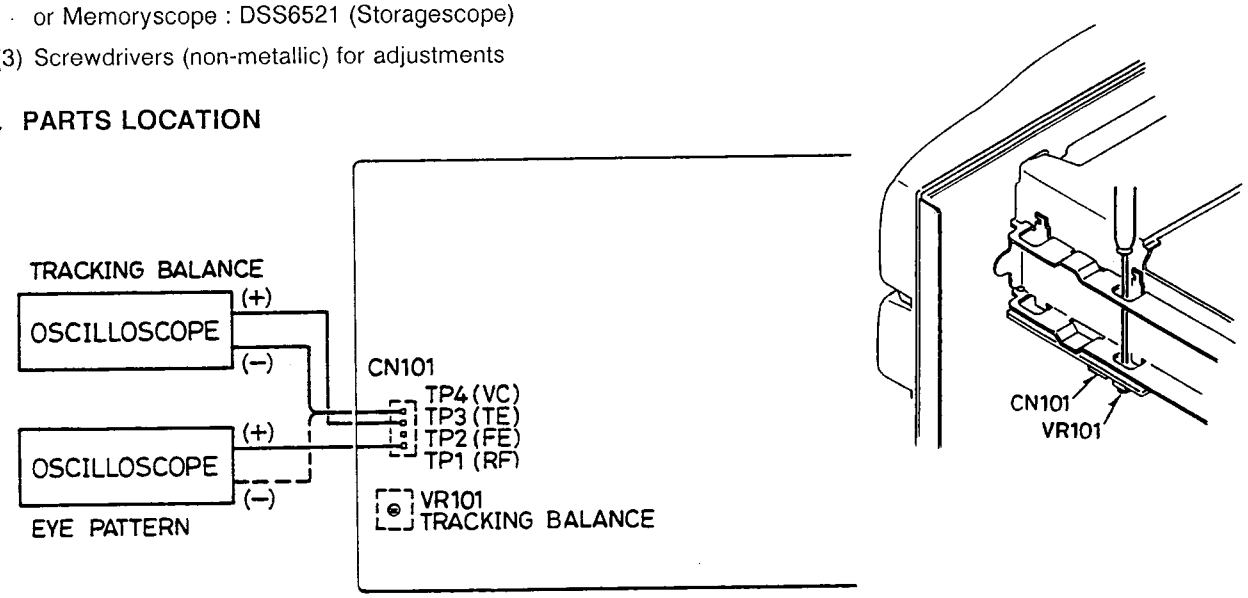
(1) Test disc. : YEDS 18 (SONY) or etc.

(2) Oscilloscope : SS5711 (10 MHz or dual-phenomenon)

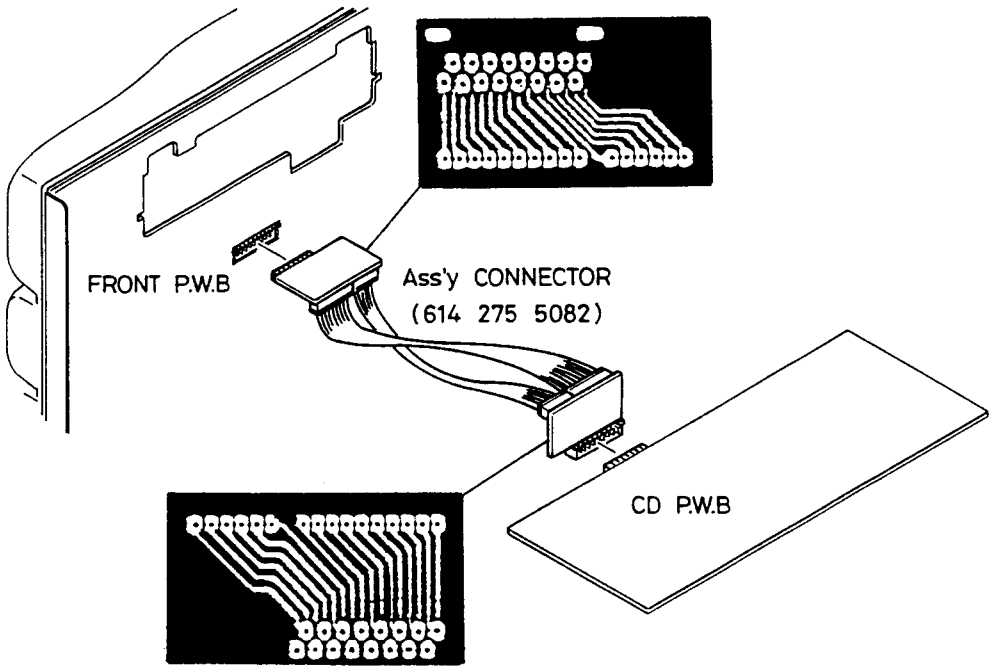
or Memoryscope : DSS6521 (Storagescope)

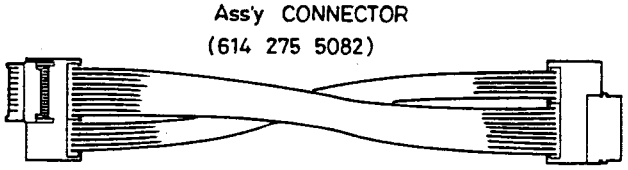
(3) Screwdrivers (non-metallic) for adjustments

b. PARTS LOCATION



c. TEST CABLES CONNECTION



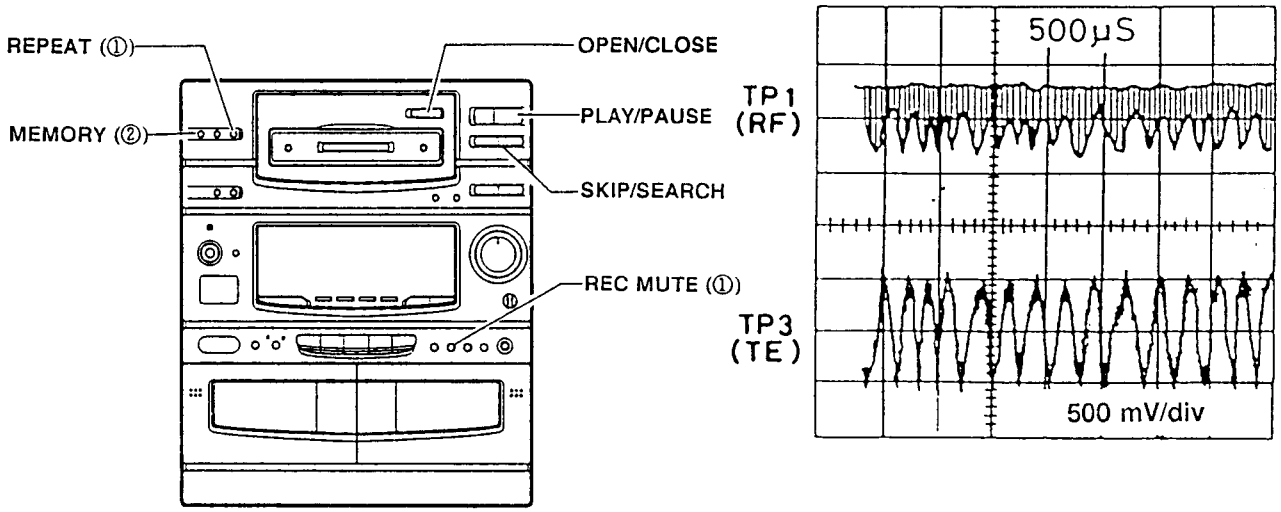


CD PLAYER ADJUSTMENTS

d. ADJUSTMENTS

Adjustment Item	Measuring instrument	Input connection	Output connection	Adjustment location	Adjustment value
(a) Tracking balance	Oscilloscope	—	TP 3 : TE TP 4 : VC	VR101	Waveform symmetry A = B
(b) Checking the "eye" pattern	Oscilloscope	—	TP 1 : RF TP 4 : VC	—	Check be sure that the "eye" pattern is at the center of the waveform and that the diamond shape is clearly defined

(a) Tracking balance adjustment

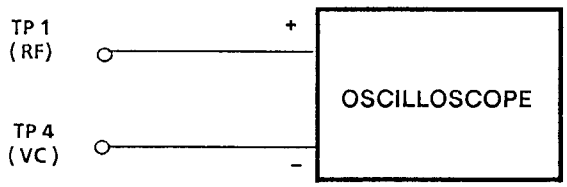


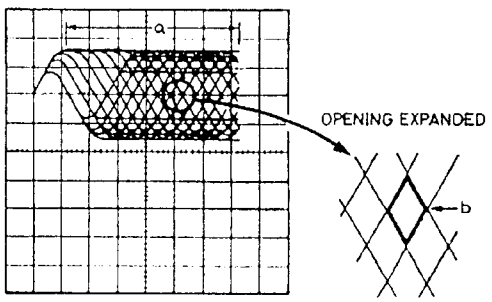
(1) Within one second after pressing **REC MUTE** & **REPEAT** switches at the same time, press the **MEMORY** switch. (①,②)
(Service mode : TRACKING BALANCE)

(2) Connect an oscilloscope to TP3 (TE) and TP4 (VC).
(3) Set the test disc. (DISC 1)
(4) PLAY / PAUSE switch push "ON".
(5) Adjust **VR101** so that the oscilloscope's waveform is symmetrical, as shown in the illustration.
(6) To cancel service mode, disconnect the power cord's plug from the electrical outlet.

(b) Checking the "eye" pattern

(1) Switch "ON" the POWER.
(2) Connect an oscilloscope to TP1 (RF) and TP4 (VC).
(3) Load the test disc.
(4) PLAY switch push ON.
(5) Check to be sure that the " **eye** " pattern is at the center of waveform and that the diamond shape is clearly defined.
(6) Press the STOP button.
(7) Switch "OFF" the **POWER**.





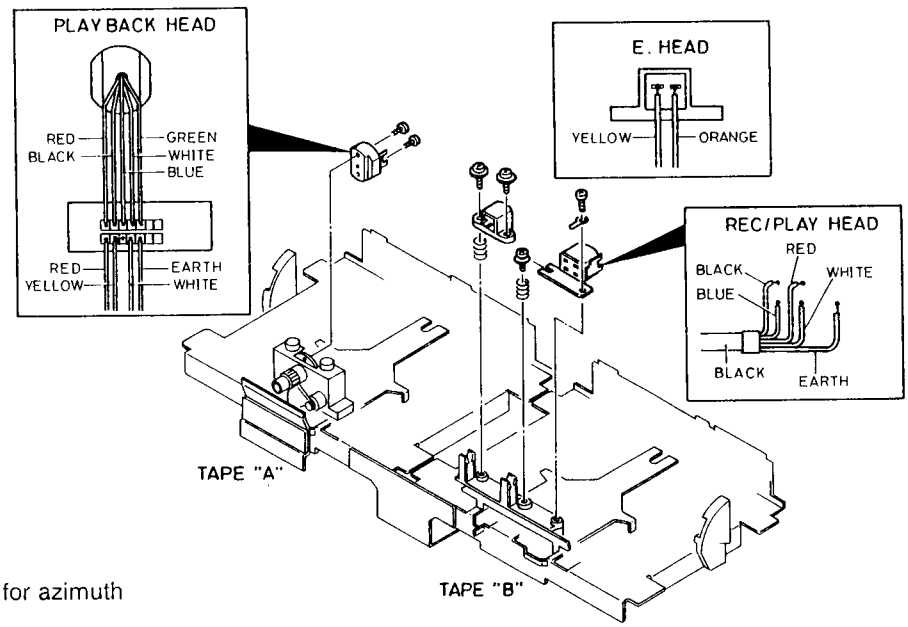
TAPE DECK ADJUSTMENTS

Adjustment Item	Test Tape	Measuring Instrument	Output connection	Adjust location	Adjust value	Note
(a) HEAD AZIMUTH TAPE "B"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW (FWD)	Max.	---
(b) HEAD AZIMUTH TAPE "A"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW (FWD / REVERSE)	Max.	---
(c) MOTOR SPEED (NORMAL)	MTT-111 (3,000 Hz)	FREQUENCY COUNTER	SPEAKER TERMINAL	VR311	3,000 Hz	JUMPER (J478& J479) "OPEN"
(d) MOTOR SPEED (HIGH)	TCW-211 (1,500 Hz)	FREQUENCY COUNTER	SPEAKER TERMINAL	Checking	3,000 Hz	JUMPER (J478& J479) "SHORT"

a. HEAD REPLACEMENT AND AZIMUTH ADJUSTMENT

(a) Head replacement

(1) After replacement, demagnetize the heads by using a degausser.
(2) Be sure to clean the heads before attempting to make any adjustments.
(3) Be sure both channels (1 and 2) are the same level (Using a dual-channel oscilloscope).
(4) All wiring should be returned to the original position after work is completed.



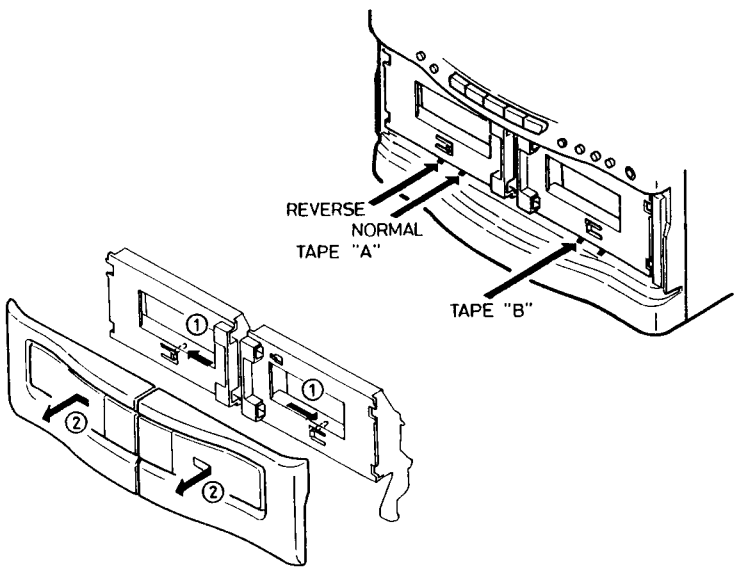
(b) Head azimuth

- **TAPE "A"**

(1) Load a test tape (VTT-738, etc.: 10 kHz) for azimuth adjustment.
(2) Press the Forward PLAY button (normal playback).
(3) Use a flat-tip (-) screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback.
(4) Press the Tape "A" Reverse PLAY button.
(5) Play the tape in the reverse mode.
(6) Use a flat-to- (-) screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
(7) Press the STOP button.

- **TAPE "B"**

(1) Load a test tape for azimuth adjustment.
(2) Press the PLAY button.
(3) Azimuth screw adjustment.
(4) Press the STOP button.

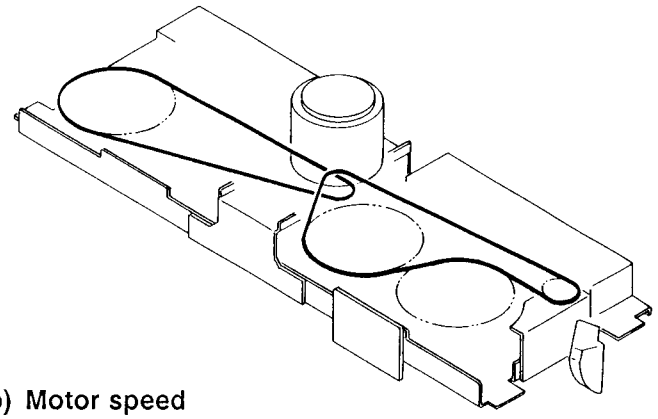


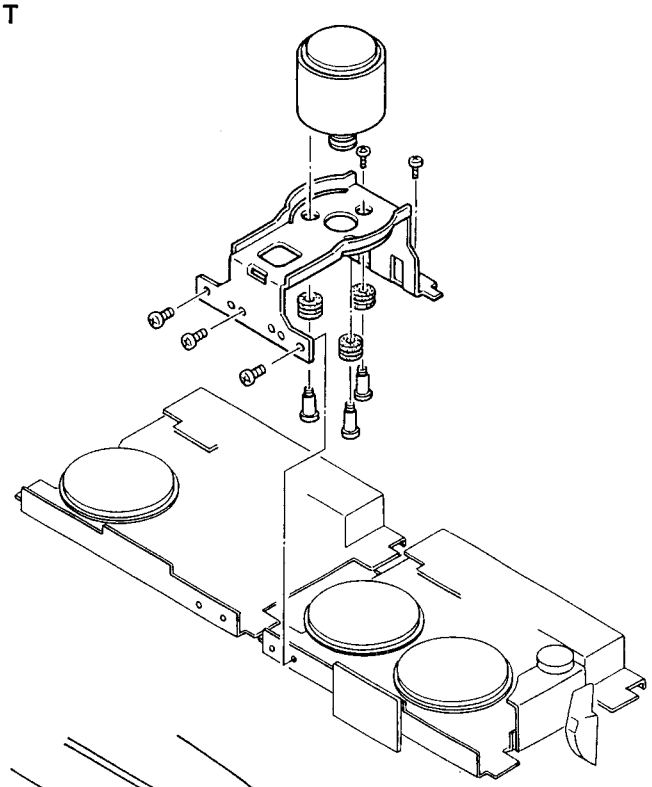
- After making the adjustment, secure the azimuth adjustment screw by applying screw lock (TB-1401B).

TAPE DECK ADJUSTMENTS

b. MOTOR REPLACEMENT AND SPEED ADJUSTMENT

(a) Motor replacement





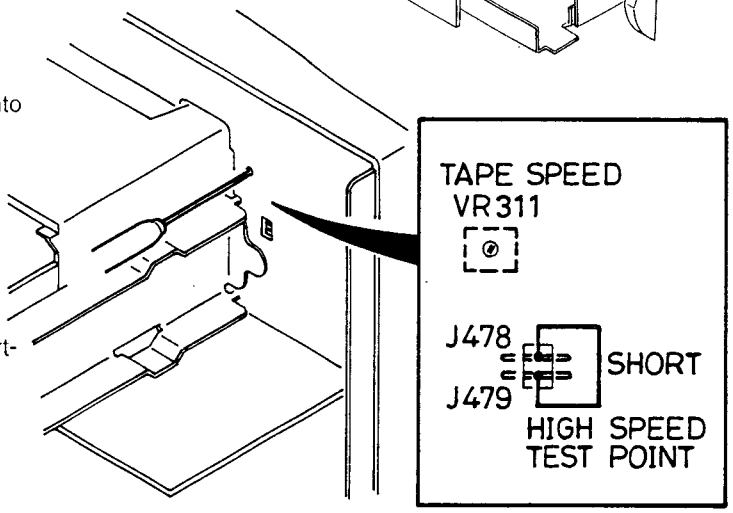
(b) Motor speed

- **NORMAL SPEED**

(1) Insert the test tape (MTT-111, etc. 3,000 Hz) into Tape"A".
(2) Press PLAY button.
(3) Adjust VR311 so that the frequency counter shows a reading of 3,000Hz.
(4) Press STOP button.

- **HIGH SPEED**

(1) Insert the test tape (TCW-211, etc. 1,500 Hz optional) into Tape"B".
(2) Press PLAY button.
(3) Set to the high-speed condition.
(4) Short-circuit test points jumper (J478 & J479).
(5) Checking the frequency counter reading is 3,000 Hz.
(6) Press STOP button.
(7) After the completion of the adjustment, remove the short-circuit between jumper (J478 & J479).



c. CHECKING THE MECHANISM TORQUES

- Clean the head, capstan and pinch roller before making any measurement.
- Check during both normal and reverse playback.

TAPE "A"

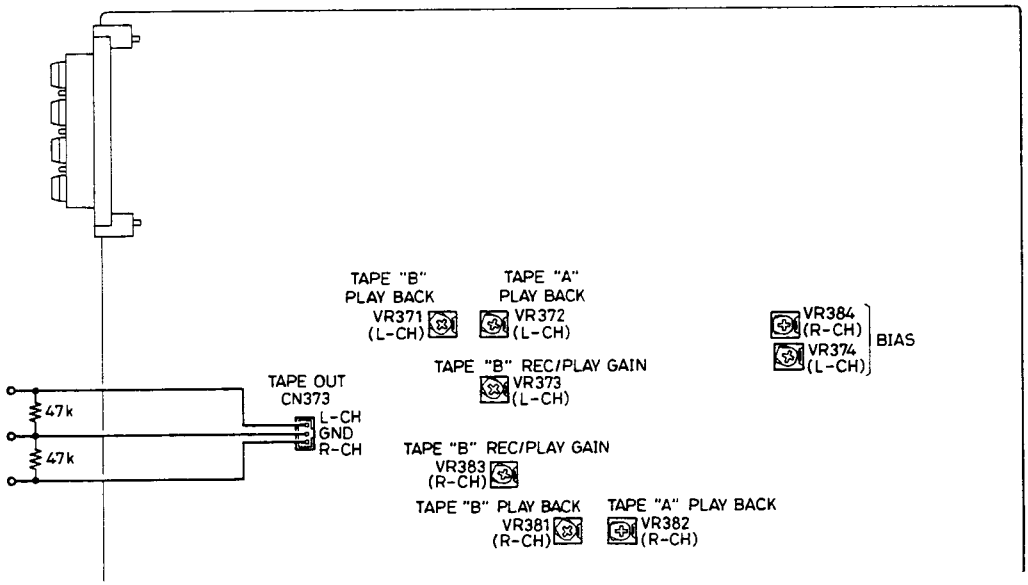
Measurement	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY:TW-2111A (FWD) PLAY:TW-2121A (REV) F.FWD/REW:TW-2231	PLAY:TW-2111A (FWD) PLAY:TW-2121A (REV)	Drive-power cassette TW-2412 (FWD) TW-2422 (REV)
PLAY	30~ 60 gr.cm	2.0~ 4.5 gr.cm	100 gr or more
F.FWD / REW	55~ 120 gr.cm	–	–

TAPE "B"

Measurement	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY:TW-2111A F.FWD/REW:TW-2231	PLAY:TW-2111A	Drive-power cassette TW-2412
PLAY	30~ 60 gr.cm	2.0~ 4.5 gr.cm	100 gr or more
F.FWD / REW	55~ 120 gr.cm	–	–

AMPLIFIER ADJUSTMENTS

- Make the following adjustments after first cleaning the head assembly and checking the adjustment of the head azimuth.



Adjustment Item	Test Tape	DOLBY NR SW.	Measuring Instrument	Input Connection	Output connection	Adjust location	Adjust value
(a) Playback output	TCC-130 (DOLBY TAPE)	OFF	AC-Voltmeter	---	TAPE OUT	(TAPE"A") VR372 VR382 (TAPE"B") VR371 VR381	580 mV
(b) Recording / Playback gain	AC-224 (NORMAL)	OFF	AC-Voltmeter AF-Oscillator	VIDEO - 11 dB, 1 kHz	TAPE OUT	(TAPE"B") VR373 VR383	400 mV
(c) Recording / Playback frequency response	AC-224 (NORMAL)	ON	AC-Voltmeter AF-Oscillator	VIDEO - 31 dB, 1 kHz, 10 kHz	TAPE OUT	(TAPE"B") VR374 VR384	0 dB at 1 kHz and 10 kHZ

a. ADJUSTMENTS

(a) Playback output adjustment

Dolby NR switch : OFF

(1) TAPE "A"
Play the test tape and adjust VR372 (L-CH) and VR382 (R-CH) so that playback output becomes 580 mV.

(2) TAPE "B"
Play the test tape and adjust VR371 (L-CH) and VR381 (R-CH) so that playback output becomes 580 mV.

(b) Recording / Playback frequency gain adjustment

Input signal : - 11 dB, 1 kHz
Tape to be used : NORMAL (AC-224, etc.)

(1) Introduce input signals to the VIDEO terminals, and, with the unit in the REC. PAUSE mode, adjustment input level for 400 mV out.
(2) Record the input signal.
(3) Press the REWIND button and rewind tape to the beginning of the recording just made.
(4) Press the PLAY button.
(5) Adjust VR373 (L-CH) and VR383 (R-CH) so that the recording and playback output level differences become ± 1 dB.
(6) Repeat steps (1) to (5).

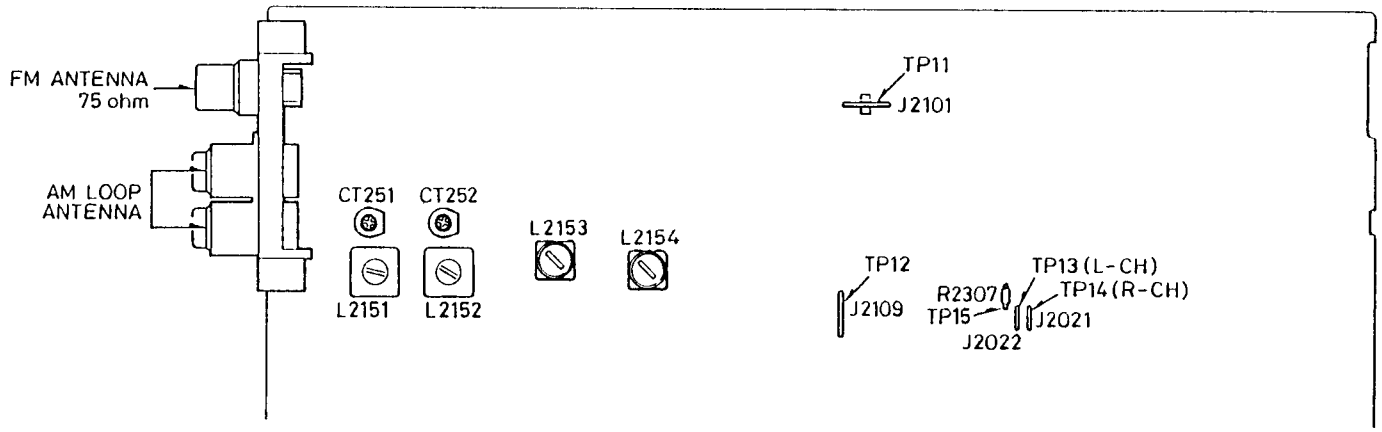
(c) Recording / Playback response adjustment

Input signal : - 31 dB, 1 kHz, 10 kHz
Tape to be used : NORMAL (AC-224, etc.)
Dolby NR switch : ON

(1) Introduce input signals to the VIDEO terminals.
(2) With the unit in the REC. mode.
Record these input signals (1 kHz → 10 kHz → 1 kHz → 10 kHz).
(3) Press the REWIND button and rewind tape to the beginning of the recording just made.
(4) Press the PLAY button.
(5) Adjust VR374 (L-CH) and VR384 (R-CH) so that the 10 kHz and 1 kHz and output level differences become ± 1 dB.
(6) Repeat steps (1) to (5).

TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments. • Speaker impedance : 4 ohm • Standard Output : 500 mW
- FM MODE switch : STEREO
- TUNING FM : 87.5 - 108.0 MHz (50 kHz step) MW : 522 - 1,611 kHz (9 kHz step) LW : 144 - 288 kHz (9 kHz step)



a. ADJUSTMENTS OF FM BAND

SG RF Level : 75 ohm Open Voltage dBμV
Antenna : 75 ohm unbalanced , Modulation : 1 kHz,
Dev. : ± 75 kHz (MONO) ± 40 kHz (STEREO) ± 6.75 kHz (PILOT)

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	---	Connect to Digital DC voltmeter TP 11 (H), TP 12 (G)	87.5 MHz	Low end	---	(0.9~1.6V)
				108.0 MHz	High end	---	(less than 9.0V)
2	Tracking	FM Antenna (SG = 8dBμV)	Connect to VTVM TP 13 (H) or TP 14 (H), TP 15 (G)	90.0 MHz	90.0 MHz	---	Max.
				106.0 MHz	106.0 MHz	---	

b. ADJUSTMENTS OF MW BAND

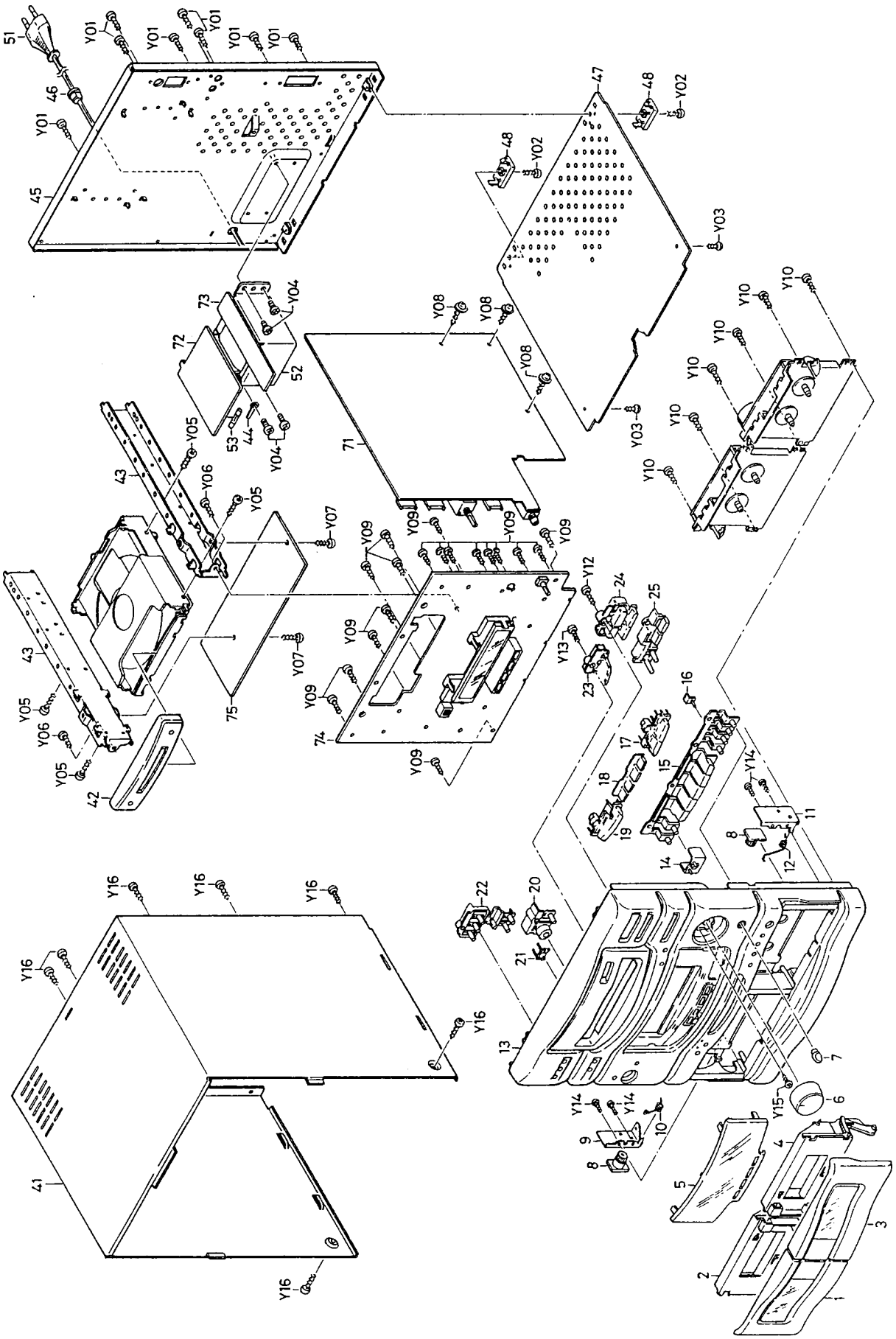
SG Modulation : 1,000 Hz, 30% IRE Loop Antenna

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	---	Connect to Digital DC voltmeter TP11 (H), TP12 (G)	522 kHz	Low end	L2153	1.1 ± 0.05V
				1611 kHz	High end	---	(less than 9.0V)
2	Tracking	Connect AM SG to Test Loop (SG = 80dBμV)	Connect VTVM TP13 (H) or TP14 (H), TP15 (G)	603 kHz	603 kHz	L2152	Max.
				1404 kHz	1404 kHz	CT252	

c. ADJUSTMENTS OF LW BAND

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	---	Connect to Digital DC voltmeter TP11 (H), TP12 (G)	144 kHz	Low end	L2154	1.5 ± 0.05V
				288 kHz	High end	---	(less than 9.0V)
2	Tracking	Connect AM SG to Test Loop (SG = 85dBμV)	Connect to VTVM TP13 (H) or TP14 (H), TP15 (G)	162 kHz	162 kHz	L2151	Max.
				279 kHz	279 kHz	CT251	

EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION: Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

N.S.P : Not available as service parts.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 272 4453	CARTON CASE,SET
	614 265 7447	CUSHION TOP,TOP
	614 265 7454	CUSHION BOTTOM
	614 272 4637	INSTRUCTION MANUAL
	614 271 6656	CUSHION,SET
	614 229 4635	ANTENNA,FM
or	614 023 7344	ANTENNA,FM
	645 005 1227	ASSY,ANTENNA,LOOP,AM
	645 007 8507	REMOCON,REM-M17VD
	645 005 7007	BATTERY COVER,REMOTE CONTROL

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 265 6679	ASSY,COVER,TAPE"A"
2	614 265 7898	ASSY,LID,CASSETTE,TAPE"A"
3	614 265 6686	ASSY,COVER,TAPE"B"
4	614 265 7904	ASSY,LID,CASSETTE,TAPE"B"
5	614 265 7003	DEC,WINDOW,DISPLAY
6	614 265 7126	KNOB,ROTARY,VOLUME
7	614 265 7133	KNOB,ROTARY,BALANCE
8	614 270 8316	ASSY,GEAR
9	614 265 7164	MOUNTING BRACKET,FRONT FIX(L)
10	614 265 7263	SPRING WIRE,CASSETTE OPEN(L)
11	614 265 7171	MOUNTING BRACKET, FRONT FIX(R)
12	614 265 7270	SPRING WIRE,CASSETTE OPEN(R)
13	614 272 4170	ASSY,PANEL FRONT
14	614 265 6969	DEC,WINDOW,A/B
15	614 265 6761	BUTTON,DECK A/B
16	614 265 6976	DEC,WINDOW,REC
17	614 265 6754	BUTTON,FUNCTION
18	614 265 6945	DEC,WINDOW,FUNCTION
19	614 265 6785	BUTTON,SOUND PRESET
20	614 265 6747	BUTTON,POWER
21	614 265 6952	DEC,WINDOW,STANDBY
22	614 265 6730	BUTTON,CD/TUNER
23	614 265 6778	BUTTON,OPEN/CLOSE
24	614 265 6716	BUTTON,CD PLAY/STOP
25	614 265 6723	BUTTON,TUNING
41	614 265 6846	CABINET
42	614 265 7027	DEC,ESCUTCHEON,CD TRAY
43	614 265 7065	HOLDER BRACKET,CD FIX
45	614 272 4293	PANEL,REAR
46	614 129 1901	FIXER,AC POWER CORD
47	614 273 9174	CABINET,BOTTOM
48	614 265 7249	STAND
	614 129 4971	FIXER,NYLON,LEAD

Ref. No.	Part No.	Description
	614 232 0464	LABEL,SAFETY,LASER
	614 191 3698	LABEL,SAFETY,LASER,PICKUP
	614 231 6832	LABEL,SAFETY,LASER,CLASS 1

FIXING PARTS

Ref. No.	Part No.	Description
Y01	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-ELECTRICAL PARTS
Y01	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-HEAT SINK
Y01	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-CD BRACKET
Y02	411 021 3503	SCR S-TPG BIN 3X10MM, BOTTOM-STAND
Y03	411 021 3503	SCR S-TPG BIN 3X10MM, BOTTOM-FRONT
Y04	411 001 3905	SCR S-TPG BIN 4X6MM, REAR-POWER TRANSFORMER
Y05	411 021 6405	SCR S-TPG BIN 3X8MM, CD MECHA-CD BRACKET
Y06	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT-CD BLOCK
Y07	411 021 6405	SCR S-TPG BIN 3X8MM, CD PWB FIX
Y09	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT PWB
Y10	411 021 3503	SCR S-TPG BIN 3X10MM, TAPE MECHANISM FIX
Y12	411 021 3503	SCR S-TPG BIN 3X10MM, CD PLAY BUTTON
Y13	411 021 3503	SCR S-TPG BIN 3X10MM, OPEN/CLOSE BUTTON
Y14	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT-UNDER BRACKET
Y15	411 021 3503	SCR S-TPG BIN 3X10MM, VOLUME FIX
Y16	411 021 6603	SCR S-TPG BIN 3X8MM,CABINET
	411 020 9902	SCR S-TPG BRZ+FLG 3X8MM, HEAT SINK-Q4904 MTG.
	411 021 6405	SCR S-TPG BIN 3X8MM, HEAT SINK-HEAT SINK
	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, HEAT SINK POWER IC(IC455)
	411 021 6405	SCR S-TPG BIN 3X8MM, HEAT SINK-Q4900,Q4901 MTG.

PARTS LIST

ELECTRICAL PARTS

Ref. No.	Part No.	Description
51	⚠614 255 2513	POWER CORD,AC
or	⚠614 233 8971	POWER CORD,AC
or	⚠614 023 3148	POWER CORD,AC
52	⚠645 010 0871	TRANSFORMER,POWER
53	⚠423 016 9902	FUSE,250V,800MA,FU499
CN381	614 268 2944	ASSY,WIRE,4P,TAPE"A",HEAD
CN382	614 268 2951	ASSY,WIRE,7P,TAPE"B",HEAD
	⚠614 265 7034	HEAT SINK,Q4900,Q4901 MTG.
	⚠614 265 7041	HEAT SINK,IC455 MTG.
	614 129 9082	LUG,GROUND

TUNER / AMP. / TAPE DECK P.W.BOARD ASSY

Ref. No.	Part No.	Description
71	614 269 7702	ASSY,PWB,TUNER/AMP/TAPE DECK
C2152	403 082 0201	POLYPRO 470P J 100V
C2155	403 082 2205	POLYPRO 560P J 100V
C2463	403 106 1603	NP-ELECT 1U Q 50V
C3305	403 058 9900	POLYESTER 0.018U K 50V
C3306	403 058 1102	POLYESTER 1500P K 50V
C4505	403 058 9900	POLYESTER 0.018U K 50V
C4605	403 058 9900	POLYESTER 0.018U K 50V
C4789	403 057 2803	POLYESTER 0.1U K 50V
C4797	403 057 2803	POLYESTER 0.1U K 50V
C4798	403 057 2803	POLYESTER 0.1U K 50V
C4897	403 057 2803	POLYESTER 0.1U K 50V
C4898	403 057 2803	POLYESTER 0.1U K 50V
C4900	403 189 4706	ELECT 4700U M 35V
CF221	614 254 3214	I.F FILTER,FM
CF222	614 254 3214	I.F FILTER,FM
CF231	614 246 0849	FILTER,AM
CF232	645 009 5856	DISCRIMINATOR,CERAMIC,FM
CN201	614 255 5750	TERMINAL
CN202	614 239 1839	TERMINAL
CN371	645 005 8110	PLUG,4P
CN372	645 006 0861	PLUG,7P
CN373	645 005 7373	PLUG,3P
CN401	614 260 7411	SOCKET,VIDEO
CN402	614 227 0011	SOCKET,10P
CN403	614 227 0011	SOCKET,10P
CN404	614 226 9985	SOCKET,6P
CN470	645 008 5314	TERMINAL,SPEAKER
CN471	645 006 1141	JACK,PHONES
CN491	614 020 6586	SOCKET,6P
or	614 223 9247	SOCKET,6P
CT251	645 004 2317	TERMINAL,30PF
CT252	614 007 6356	TRIMMER,11PF
D2151	407 091 5004	VARACTOR DIODE,SVC321SPA-C-2
D2152	407 091 5004	VARACTOR DIODE,SVC321SPA-C-2
D2153	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2301	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2451	407 007 9904	DIODE GMA01(D2451,D2452, D2453,D2454,D2455)
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041

Ref. No.	Part No.	Description
D4440	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4730	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4731	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4732	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4901	407 070 2109	ZENER DIODE GZS18X
or	407 099 7505	ZENER DIODE MTZJ18A
D4902	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4906	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4907	407 051 4405	ZENER DIODE GZS13Y
or	407 099 6805	ZENER DIODE MTZJ13B
D4921	⚠407 141 2809	DIODE IN5402
D4922	⚠407 141 2809	DIODE IN5402
D4923	⚠407 141 2809	DIODE IN5402
D4924	⚠407 141 2809	DIODE IN5402
D4930	407 051 7406	ZENER DIODE GZS6.8X
or	407 099 5600	ZENER DIODE MTZJ6.8A
D4931	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4932	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4933	407 051 6904	ZENER DIODE GZS5.6Y
or	407 127 3905	ZENER DIODE MTZJ5.6B
HS301	614 215 9347	HEAT SINK,IC372 MTG.
HS401	614 266 6500	HEAT SINK,Q4904 MTG.
IC231	409 345 5204	IC TA2057N
IC245	409 066 7600	IC LM7001
IC311	409 303 5109	IC BU4094B
IC351	409 199 1209	IC HA12136A
or	409 270 2101	IC HA12136AT
IC371	409 228 0302	IC M51167BFP
IC372	409 241 5308	IC BA3126N
IC451	409 051 2801	IC TC4052BP
or	409 003 9407	IC BU4052B
or	409 030 5700	IC MC14052BCP
IC452	409 051 2801	IC TC4052BP
or	409 003 9407	IC BU4052B
or	409 030 5700	IC MC14052BCP
IC453	409 211 6601	IC NJM4558L
IC454	409 303 5109	IC BU4094B
IC455	⚠409 245 5601	IC LA4705
IC457	409 211 6601	IC NJM4558L (ONLY UK)
L2151	614 255 5798	TRANSFORMER,RF,LW ANT
L2152	614 255 5781	TRANSFORMER,RF,MW ANT
L2153	614 255 5767	TRANSFORMER,OSC,MW OSC
L2154	614 255 5774	TRANSFORMER,OSC,LW OSC
L2155	645 004 0580	INDUCTOR,1M J
L2451	645 001 4581	INDUCTOR,100U K
L3301	614 212 0804	TRANSFORMER,OSC
L3501	614 270 4295	FILTER,LC
L3551	614 270 4295	FILTER,LC
L3701	645 004 0580	INDUCTOR,1M J
L3702	614 029 3142	MX COIL,85 KHZ
or	614 029 3937	MX COIL,85 KHZ
L3801	645 004 0580	INDUCTOR,1M J
L3802	614 029 3142	MX COIL,85 KHZ
or	614 029 3937	MX COIL,85 KHZ
L4901	645 006 3886	INDUCTOR

Ref. No.	Part No.	Description
Q2152	405 021 0600	TR 2SD1012-G-SPA (Q2152,Q2153,Q2154, Q2155,Q2156)
Q2157	405 026 9004	TR 2SK222-D
Q2201	405 016 0806	TR 2SC2839-E
Q2301	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
Q2302	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q2461	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q2462	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q2491	405 000 0508	TR DTA114ES (Q2491,Q2492,Q2493)
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
Q3154	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3155	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3156	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3157	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3160	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3301	405 008 2405	TR 2SB698-F
Q3302	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q3303	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q3304	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3305	405 018 0200	TR 2SC3331-U
Q3306	405 018 5403	TR 2SC3495
Q3701	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207

Ref. No.	Part No.	Description
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3702	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3703	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3752	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3753	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3801	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q3802	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3803	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3852	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3853	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
or	405 068 4807	TR BA1A4P
Q4440	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4441	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4442	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q4443	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q4444	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4445	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4446	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q4447	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y

PARTS LIST

Ref. No.	Part No.	Description
Q4550	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4551	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4552	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4561	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4563	405 021 0600	TR 2SD1012-G-SPA
Q4580	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4650	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4651	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4652	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4663	405 021 0600	TR 2SD1012-G-SPA
Q4680	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4710	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
Q4900	405 035 7107	TR 2SD1913-R
or	405 035 7206	TR 2SD1913-S
or	405 095 1602	TR 2SD2061-E
or	405 095 1701	TR 2SD2061-F

Ref. No.	Part No.	Description
Q4901	405 035 7107	TR 2SD1913-R
or	405 035 7206	TR 2SD1913-S
or	405 095 1602	TR 2SD2061-E
or	405 095 1701	TR 2SD2061-F
Q4902	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4903	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4904	⚠405 035 7107	TR 2SD1913-R
or	⚠405 035 7206	TR 2SD1913-S
or	⚠405 095 1602	TR 2SD2061-E
or	⚠405 095 1701	TR 2SD2061-F
Q4905	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4906	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q4907	⚠405 013 6801	TR 2SC2274-E
or	⚠405 013 7006	TR 2SC2274-F
or	⚠405 013 7204	TR 2SC2274K-E
or	⚠405 013 7303	TR 2SC2274K-F
Q4908	405 023 5306	TR 2SD400-F-MP
Q4909	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
R4448	⚠402 047 0409	RESISTOR 47 J- 1/2W
R4705	⚠402 004 5300	FUSIBLE RES 2.2 J- 1/4W
R4706	⚠402 004 5300	FUSIBLE RES 2.2 J- 1/4W
R4741	⚠402 048 1702	RESISTOR 100 J- 1W
R4805	⚠402 004 5300	FUSIBLE RES 2.2 J- 1/4W
R4806	⚠402 004 5300	FUSIBLE RES 2.2 J- 1/4W
R4841	⚠402 048 1702	RESISTOR 100 J- 1W
R4903	⚠402 048 1504	RESISTOR 1 J- 1W
R4908	⚠402 047 0409	RESISTOR 47 J- 1/2W
R4918	⚠402 044 6008	RESISTOR 0.1 J- 1/2W
R4919	⚠402 044 6008	RESISTOR 0.1 J- 1/2W
R4985	⚠402 047 0409	RESISTOR 47 J- 1/2W (UK)
S4900	614 215 9828	SWITCH,TACT,RESET
SA401	411 021 6405	SCR S-TPG BIN 3X8MM, Q4904 MTG.
TU201	614 241 7447	TUNER,FM
T2301	614 255 8119	FILTER,LC
VR371	614 250 7247	POTENTIOMETER,10K
VR372	614 250 7247	POTENTIOMETER,10K
VR373	614 250 7247	POTENTIOMETER,10K
VR374	614 250 7285	POTENTIOMETER,10K
VR381	614 250 7247	POTENTIOMETER,10K
VR382	614 250 7247	POTENTIOMETER,10K
VR383	614 250 7247	POTENTIOMETER,10K
VR384	614 250 7285	POTENTIOMETER,10K
VR401	645 007 8897	VR,ROTARY 100KBX2,VOLUME
X2301	645 009 5832	OSC,CERAMIC,456 KHZ
X2451	614 229 2457	CRYSTAL,7.2 MHZ
or	614 240 1118	RESONATOR,7.2 MHZ
or	614 204 0317	CRYSTAL,7.2 MHZ

PARTS LIST

POWER TRANSFORMER, PRIMARY P.W.BOARD ASSY

Ref. No.	Part No.	Description
72	614 269 7719	ASSY,PWB,POWER TRANSFORMER, PRIMARY
	645 006 4760	HOLDER,FUSE
	614 017 8203	TERMINAL BOARD
F4999	⚠614 229 0422	INDUCTOR,FERITE,2.2A

POWER TRANSFORMER, SECONDARY P.W.BOARD ASSY

Ref. No.	Part No.	Description
73	614 269 7726	ASSY,PWB,POWER TRANSFORMER, SECONDARY
CN496	614 020 6586	SOCKET,6P
or	614 223 9247	SOCKET,6P
D4960	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4961	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4962	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4963	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4964	407 051 6003	ZENER DIODE GZS33X
or	407 099 9806	ZENER DIODE MTZJ33A
R4971	⚠402 044 0907	FUSIBLE RES 1.0 J- 1/4W
R4972	⚠402 004 4303	FUSIBLE RES 10 J- 1/4W

FRONT P.W.BOARD ASSY

Ref. No.	Part No.	Description
74	614 269 7641	ASSY,PWB,FRONT
BR261	614 265 7119	HOLDER,FL MOUNT
BR262	614 266 3783	REFLECTOR
C2700	403 262 8607	DL-ELECT 0.047F Z 5.5V
CN261	645 009 0080	PLUG,16P
CN263	614 226 9978	PLUG,10P
CN264	614 226 9978	PLUG,10P
CN265	614 226 9930	PLUG,6P
CN311	645 012 2743	SOCKET,DIP 9P,FRONT-TAPE A
CN312	614 020 6562	SOCKET,4P,FRONT-DECK MOTOR
or	614 223 9223	SOCKET,4P,FRONT-DECK MOTOR
CN313	614 035 5000	SOCKET,DIP 11P,FRONT-TAPE B
CN321	614 268 2913	ASSY,WIRE,LEAD,9P (CN311)
CN323	614 268 2920	ASSY,WIRE,LEAD,10P (CN313)
D2661	408 021 2209	LED SLZ-938C-19-AB-T1, STAND BY
D2662	408 013 2903	LED SLZ-181C-09-A-T1
D2663	408 013 3207	LED SLZ-381C-09-A-T1
D2664	408 013 2903	LED SLZ-181C-09-A-T1
D2665	408 019 4703	LED SLZ-981B-09-AB-T1
D2666	408 019 4703	LED SLZ-981B-09-AB-T1
D2667	408 019 4703	LED SLZ-981B-09-AB-T1
D2668	408 019 4703	LED SLZ-981B-09-AB-T1
D2671	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2672	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2673	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2674	407 051 7208	ZENER DIODE GZS6.2Y
or	407 099 5402	ZENER DIODE MTZJ6.2B
D2676	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2677	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2678	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2679	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2680	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2681	408 023 3105	LED SLZ-781C-09-AB-T1
D2682	408 023 3105	LED SLZ-781C-09-AB-T1
D2683	408 023 3105	LED SLZ-781C-09-AB-T1
D2684	408 023 3105	LED SLZ-781C-09-AB-T1
D2685	408 023 3105	LED SLZ-781C-09-AB-T1
D2686	408 023 3105	LED SLZ-781C-09-AB-T1
D2687	408 023 3105	LED SLZ-781C-09-AB-T1
D2688	408 023 3105	LED SLZ-781C-09-AB-T1
FL261	645 007 7920	FLUORESCENT TUBE,FL
IC261	410 234 3508	IC M38184M8-166FP
L2671	645 001 4550	INDUCTOR,10U K
Q2661	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2662	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2663	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2664	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2665	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2666	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2667	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q2668	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048

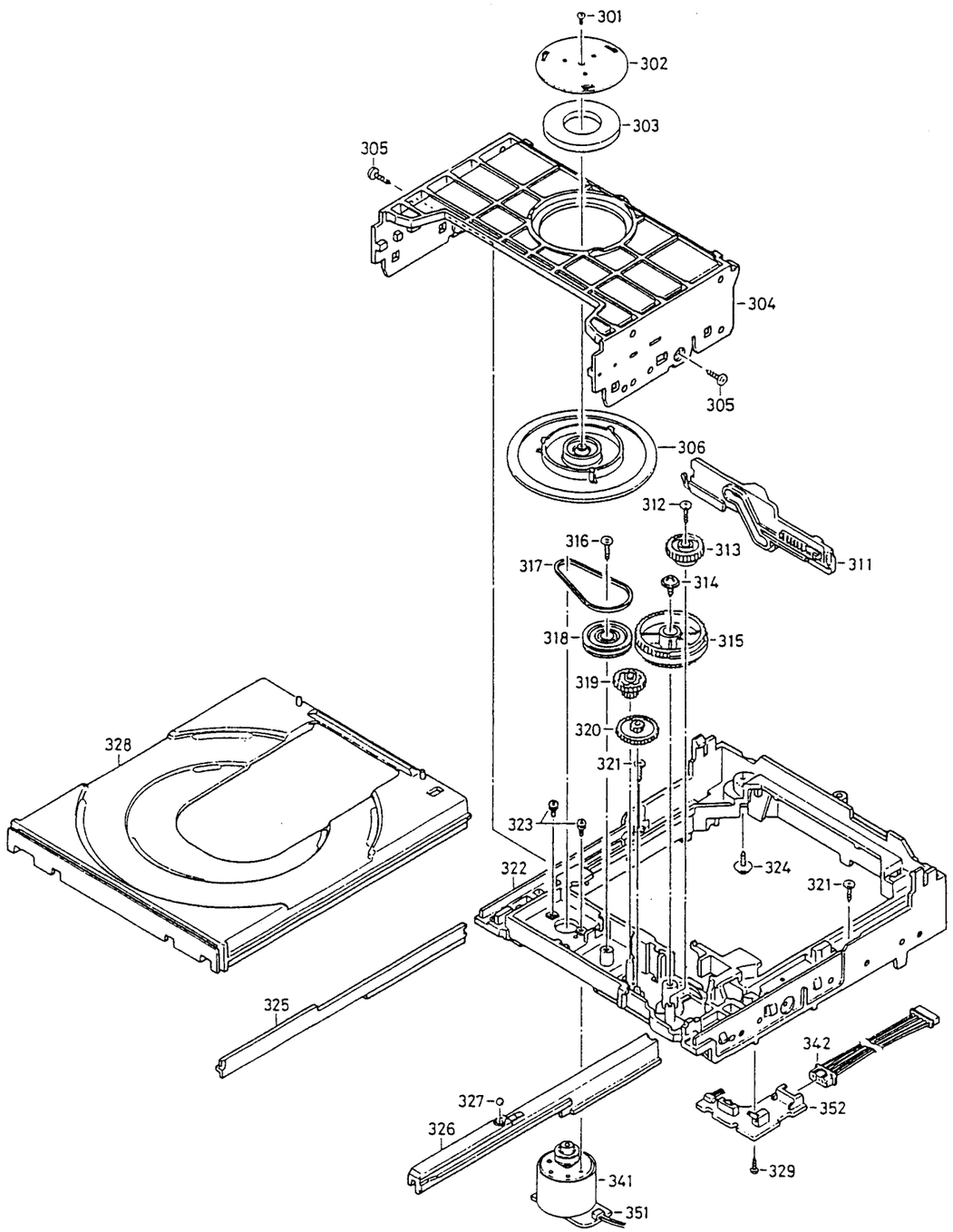
PARTS LIST

Ref. No.	Part No.	Description
Q2671	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q2672	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q2673	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q3111	405 007 6701	TR 2SB598-F-NP
or	405 007 6404	TR 2SB598-E-NP
Q3112	405 007 6701	TR 2SB598-F-NP
or	405 007 6404	TR 2SB598-E-NP
Q3113	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q3114	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q3121	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q3122	405 007 6701	TR 2SB598-F-NP
or	405 007 6404	TR 2SB598-E-NP
Q3123	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q3124	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q3131	405 007 6701	TR 2SB598-F-NP
or	405 007 6404	TR 2SB598-E-NP
Q3132	405 007 6701	TR 2SB598-F-NP
or	405 007 6404	TR 2SB598-E-NP
Q3133	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q3134	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
S2600	614 240 1002	SWITCH,TACT,STOP
S2601	614 240 1002	SWITCH,TACT,PLAY/PAUSE
S2602	614 240 1002	SWITCH,TACT,SKIP/SEARCH(-)
S2603	614 240 1002	SWITCH,TACT,SKIP/SEARCH(+)
S2604	614 240 1002	SWITCH,TACT,OPEN/CLOSE
S2605	614 240 1002	SWITCH,TACT,COMPU.REC
S2606	614 240 1002	SWITCH,TACT,REPEAT
S2620	614 240 1002	SWITCH,TACT,POWER
S2621	614 240 1002	SWITCH,TACT,CD MEMORY
S2622	614 240 1002	SWITCH,TACT,FM MODE
S2623	614 240 1002	SWITCH,TACT,BAND
S2624	614 240 1002	SWITCH,TACT,TUNING(-)
S2625	614 240 1002	SWITCH,TACT,TUNING(+)
S2626	614 240 1002	SWITCH,TACT,RESET(-)
S2627	614 240 1002	SWITCH,TACT,RESET(+)
S2628	614 240 1002	SWITCH,TACT,DYNAMIC BASS
S2629	614 240 1002	SWITCH,TACT,FUNCTION
S2630	614 240 1002	SWITCH,TACT,SELECTING SOUND MODE
S2640	614 240 1002	SWITCH,TACT,REVERSE MODE
S2641	614 240 1002	SWITCH,TACT,TAPE DECK A/B
S2642	614 240 1002	SWITCH,TACT,REW
S2643	614 240 1002	SWITCH,TACT,PLAY (TAPE"A" ONLY)
S2644	614 240 1002	SWITCH,TACT,STOP
S2645	614 240 1002	SWITCH,TACT,PLAY
S2646	614 240 1002	SWITCH,TACT,F.FWD
S2647	614 240 1002	SWITCH,TACT,REC PAUSE
S2648	614 240 1002	SWITCH,TACT,REC MUTE
S2649	614 240 1002	SWITCH,TACT,DUBBING,HIGH
S2650	614 240 1002	SWITCH,TACT,DOLBY NR
S2651	614 240 1002	SWITCH,TACT,DISPLAY
SE261	407 138 4700	PHOTO DIODE SPS-420-1,IR
VR261	614 249 9238	VR,ROTARY,BALANCE
VR311	614 250 7230	POTENTIOMETER,TAPE SPEED ADJ
X2671	614 215 5561	RESONATOR,CERAMIC

CD P.W.BOARD ASSY

Ref. No.	Part No.	Description
75	614 266 3332	ASSY,PWB,CD
C1153	403 058 5209	POLYESTER 0.15U K 50V
CN101	645 005 8110	PLUG,4P
CN111	645 010 1472	SOCKET,FPC 13P,CD PICK
CN113	645 006 0939	PLUG,6P
CN114	645 006 0922	PLUG,5P
CN131	645 009 0165	SOCKET,16P,CD-FRONT
D1371	407 063 8606	ZENER DIODE MTZJ5.1A
or	407 051 6607	ZENER DIODE GZS5.1X
D1601	⚠407 004 9709	DIODE DSK10C
D1602	⚠407 004 9709	DIODE DSK10C
D1603	⚠407 004 9709	DIODE DSK10C
IC101	409 327 3402	IC CXA1782BQ
IC102	409 317 8509	IC BA6398FP
IC104	409 322 2707	IC CXD2518Q
IC106	409 039 7408	IC NJM4558D
or	409 018 4305	IC LA6458D
IC132	⚠409 114 4803	IC LB1641
L1401	645 001 4550	INDUCTOR,10U K
Q1101	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q1102	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q1201	405 009 5207	TR 2SB927-S
or	405 001 9302	TR 2SA1020-Y
Q1202	405 008 6809	TR 2SB808-F-SPA
Q1211	405 000 3806	TR DTC114YS
or	405 128 9001	TR RN1207
or	405 037 0809	TR 2SC4048
Q1321	405 019 3903	TR 2SC536-G-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q1371	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
R1371	⚠402 049 2500	RESISTOR 18 J- 2W
VR101	645 001 9326	VR,SEMI,100K N
X1401	614 254 6932	RESONATOR,XTAL,33.86MHZ
or	614 259 2137	RESONATOR,CERAMIC,33.86MHZ

EXPLODED VIEW (CD MECHANISM, LOADING)



PARTS LIST

CD MECHANISM (PM-CDLMSS2SH)

Ref. No.	Part No.	Description
301	411 162 1901	SCR S-TPG PAN PCS 2X3MM, PLATE FIX
302	614 226 6885	PLATE,MAGNET FIX
or	614 233 0227	PLATE,MAGNET FIX
303	614 262 8904	MAGNET,CHUCK
304	614 237 7017	MOUNT-M,CHUCK MOUNTING
or	614 255 2605	MOUNT-M,CHUCK MOUNTING
305	411 021 3107	SCR S-TPG BIN 2.6X8MM, MOUNT-M FIX
306	614 228 5848	ASSY,PULLEY,CHUCK
311	614 237 7208	SLIDE,BASE UP/DOWN
312	412 047 3904	SPECIAL SCREW, LOADING GEAR FIX
313	614 237 7079	GEAR,LOADING GEAR
314	411 020 9902	SCR S-TPG BRZ+FLG 3X8MM, GEAR FIX
315	614 237 7062	GEAR,LOADING CAM GEAR
316	411 021 3107	SCR S-TPG BIN 2.6X8MM, PULLEY FIX
317	614 237 7178	BELT,SQUARE,LOADING
318	614 237 7161	PULLEY,LOADING RELAY PULLEY
319	614 237 7048	GEAR,LOADING RETARD GEAR 1
320	614 237 7055	GEAR,LOADING RETARD GEAR 2
321	412 047 3904	SPECIAL SCREW,TRAY GUIDE FIX
322	614 237 6973	CHASSIS,LOADING CHASSIS
or	614 255 2575	CHASSIS,LOADING CHASSIS
323	411 044 7502	SCR PAN+SW 2X5MM, LOADING MOTOR FIX
324	411 020 9803	SCR S-TPG BRZ+FLG 3X6MM, CHASSIS SUB FIX
325	614 237 7192	SLIDE,TRAY GUIDE(L)
or	614 255 3954	SLIDE,TRAY GUIDE(L)
326	614 237 7185	SLIDE,TRAY GUIDE(R)
or	614 255 3947	SLIDE,TRAY GUIDE(R)
327	614 118 5927	STEEL BALL, TRAY GUIDE(R) LOCK
328	614 237 7215	TABLE,LOADING,TRAY
or	614 255 2612	TABLE,LOADING,TRAY
329	411 022 7807	SCR S-TPG PAN 2X6MM, SWITCH PWB FIX
341	645 007 7906	ASSY,MOTOR,LOADING MOTOR
342	614 266 2809	ASSY,WIRE,5P,SWITCH PWB
401	614 265 7881	ASSY,CHASSIS,BASE MECHA
401-1	614 216 9841	TURNTABLE
or	614 238 0413	TURNTABLE
401-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR
401-3	614 255 2582	CHASSIS,BASE MECHANISM
401-4	412 032 0208	SPECIAL WASHER
401-5	645 007 7821	COMMUTATE MOTOR,SPINDLE

Ref. No.	Part No.	Description
402	411 044 8004	SCR PAN+SW 2X8MM, SLED MOTOR FIX
403	614 237 7031	CUSHION,RUBBER, BASE MECHANISM FLOATING
404	614 237 7024	SHAFT,PICK UP RAIL
405	411 152 4301	SCR S-TPG PAN PLS 1.7X6MM
406	614 262 2599	GEAR,PICK RACK GEAR
407	614 238 6934	SPRING,COMP,PICK RACK GEAR
408	645 006 7983	PICKUP,LASER,PICK UP
409	645 007 8873	FLEXIBLE FLAT CABLE, PICK UP
410	614 237 7093	GEAR,SLED RETARD GEAR 1
411	614 237 7109	GEAR,SLED RETARD GEAR 2
412	614 237 7116	GEAR,SLED GEAR
413	412 047 3904	SPECIAL SCREW,SLED GEAR FIX
414	614 234 1872	ASSY,WIRE,6P, BASE MECHANISM PCB
415	614 247 4907	SPRING,COMP, BASE MECHANISM FLOATING
416	614 237 7000	CHASSIS,SUB, BASE MECHANISM MOUNTING
or	614 255 2599	CHASSIS,SUB, BASE MECHANISM MOUNTING
417	411 021 3107	SCR S-TPG BIN 2.6X8MM, BASE MECHANISM FIX
418	412 044 3907	SPECIAL WASHER, BASE MECHANISM FIX
441	645 007 7814	ASSY,MOTOR, SLED MOTOR

LOADING MOTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
351	614 254 0657	ASSY PWB,LOADING MOTOR
C599	403 121 9509	CERAMIC 0.1U Z 50V

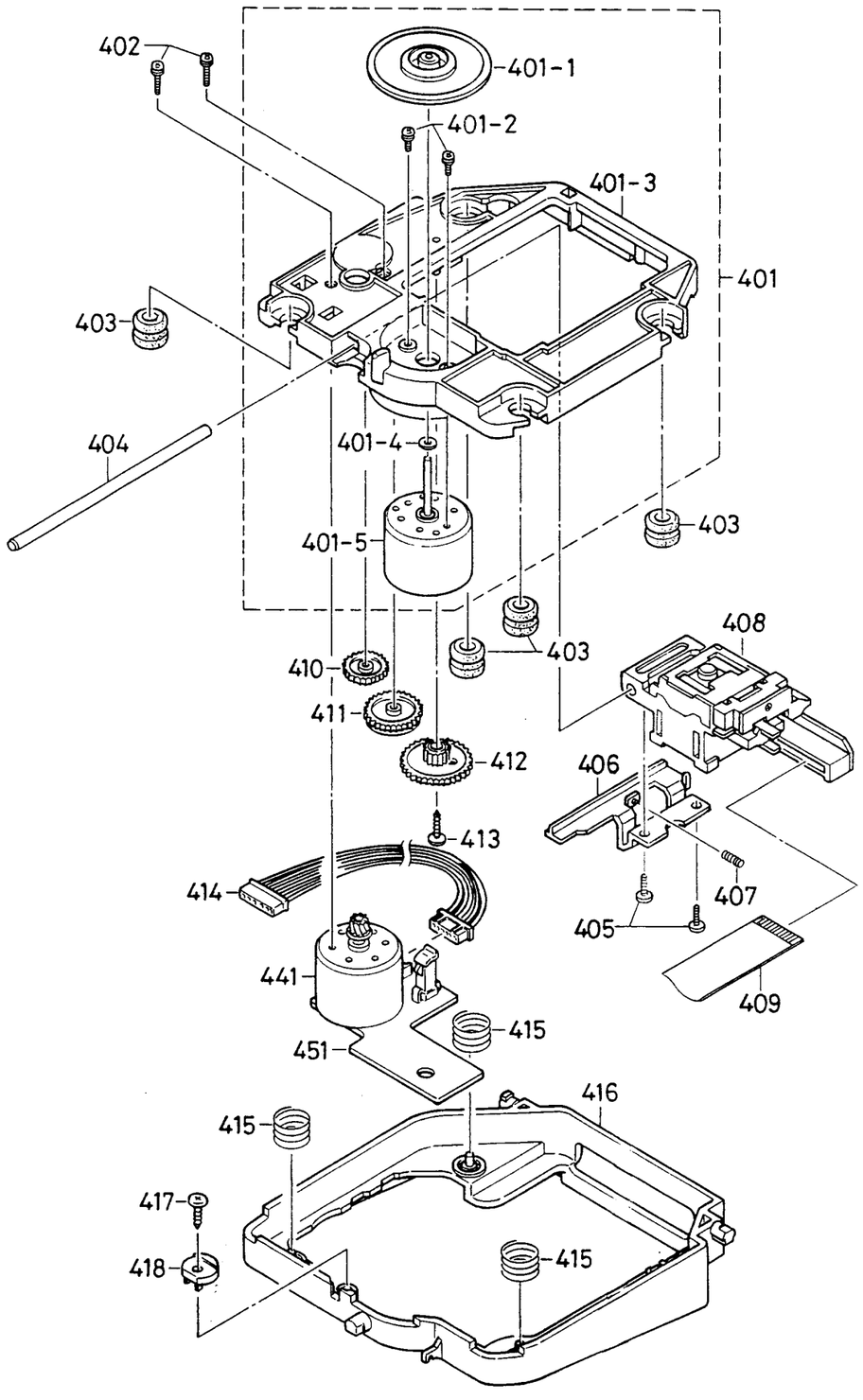
OPEN / CLOSE SWITCH P.W.BOARD ASSY

Ref. No.	Part No.	Description
352	614 254 0640	ASSY PWB,OPEN/CLOSE SWITCH
CN011	645 006 0922	PLUG,5P,SWITCH PWB CONNECTOR
S011	614 231 3992	SWITCH,PUSH,CHUCK END
S012	614 241 9489	SWITCH,SLIDE,TRAY OPEN/END

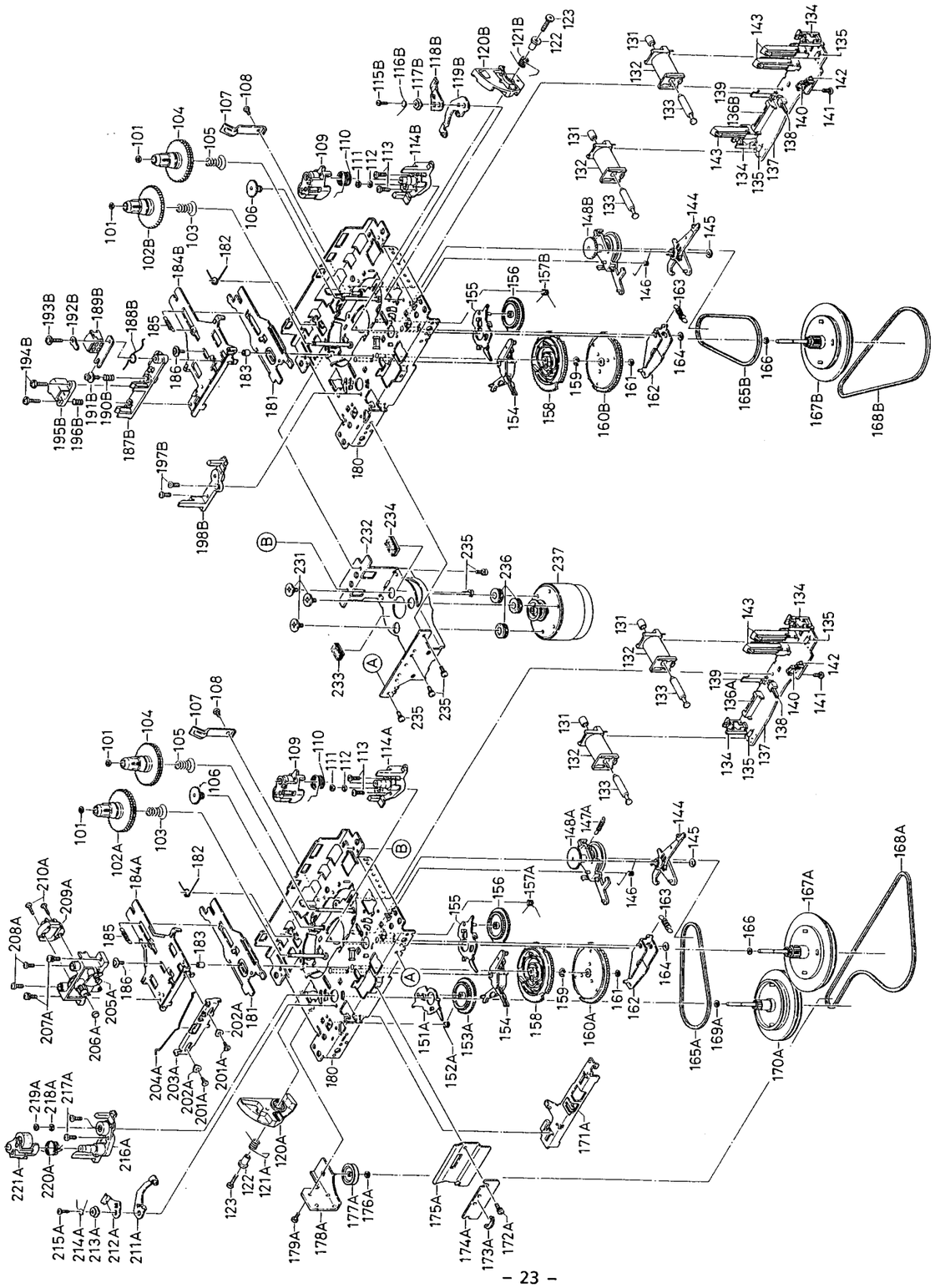
SLED / SPINDLE MOTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
451	614 254 0664	ASSY,PWB,SLED/SPINDLE MOTOR
CN001	645 006 0939	PLUG,6P,MOTOR PWB CONNECTOR
S001	614 231 4005	SWITCH,LEAF,LIMIT

EXPLODED VIEW (CD MECHANISM, MAIN)



EXPLODED VIEW (TAPE MECHANISM)



TAPE MECHANISM (TM-D17TN-SH)

Ref. No.	Part No.	Description
101	645 009 7072	HL WASHER CUT 1.4X3.1X0.5MM
102A	614 233 5062	ASSY,REEL,TAKE-UP REEL ASSY(R) (102A=TAPE A)
102B	614 269 3025	ASSY,REEL,TAKE-UP REEL ASSY(R) (102B-TAPE B)
103	614 236 4604	SPRING,COMP,BACK TENSION
104	614 233 5055	ASSY,REEL, TAKE-UP REEL ASSY (F)
105	614 236 4611	SPRING,COMP,BACK TENSION
106	614 233 1521	GEAR,FF GEAR
107	614 236 4581	PLATE,PACK SPRING
108	412 042 9604	SPECIAL SCREW,C TAPP M2X3
109	614 233 5109	ASSY,PINCH ROLLER,ARM(F)
110	614 206 3354	SPRING,WIRE,P ARM(F)
111	645 009 7768	HL WASHER 2.3X3.8X0.13MM
112	412 043 0808	SPECIAL WASHER, HLW CUT 1.8X4X0.5MM
113	412 043 0303	SPECIAL SCREW,C TAPP M2X5
114A	614 233 5048	ASSY,BRACKET-E,FL METAL(F)
114B	614 269 3018	ASSY,BRACKET-E,FL METAL(F)
115B	645 009 7713	CAMERA S TAP SCREW G 2X6MM
116B	645 009 7676	EJECT STOPPER SPRING(F)
117B	645 009 8017	EJECT STOPPER COLLAR
118B	645 009 7690	EJECT STOPPER A(F)S
119B	645 009 7638	EJECT STOPPER B(F)
120A	645 009 7621	LOCK LEVER
120B	645 009 7652	LOCK LEVER(R)
121A	645 009 7669	EJECT LEVER SPRING(F)
121B	645 009 7645	EJECT LEVER SPRING(R)
122	645 009 7577	LOCK LEVER COLLAR
123	645 009 7706	C TAP BIND SCREW 2.3X10MM
131	614 206 4627	HOLDER,PLUNGER
132	614 233 2160	MAGNETIC COIL,SOLENOID
133	614 206 2906	SHAFT,PLUNGER
134	614 233 1392	BRACKET-E,P BASE STUD
135	407 004 9105	DIODE DSF10C
136A	645 006 0960	PLUG,9P
136B	645 006 0977	PLUG,10P
137	614 233 2139	P.C.BOARD
138	614 233 2184	SWITCH,LEAF,F.FWD/REW
139	614 233 2191	SWITCH,LEAF,PLAY
140	409 128 5209	IC LB9051A
141	412 043 0204	SPECIAL SCREW,C TAPP M2X4
142	614 233 1507	HOLDER,IC PROTECTOR
143	614 233 2177	SWITCH,LEAF,PACK/CRO2/ UN-RECORD SENSOR
144	614 233 1798	LEVER,RF TRIGGER ARM
145	412 043 0600	SPECIAL WASHER, HLW CUT 2.1X5X0.4MM
146	614 233 2047	SPRING,WIRE,TRIGGER ARM
147A	614 233 1989	SPRING,TENS,RF PULLEY ARM
148A	614 233 5093	ASSY,PULLEY,RF CLUTCH ASSY
148B	614 257 7646	ASSY,PULLEY,RF CLUTCH ASSY
151A	614 233 5130	ASSY,LEVER,T GEAR ARM(R)
152A	614 233 2061	SPRING,WIRE,TG ARM(R)
153A	614 233 1613	GEAR,T GEAR

Ref. No.	Part No.	Description
154	614 233 1811	LEVER,M TRIGGER ARM
155	614 233 5123	ASSY,LEVER,T GEAR ARM(F)
156	614 233 1613	GEAR,T GEAR
157A	614 233 2054	TG ARM(F) SPRING
157B	645 009 6969	TG ARM(F) SPRING
158	614 233 1538	GEAR,M GEAR
159	412 043 1201	SPECIAL WASHER,E RING 2.0MM
160A	614 233 1545	GEAR,RF CAM GEAR
160B	645 009 8024	RF CAM GEAR
161	412 043 0709	SPECIAL WASHER,HLW CUT 1.55X3.5X0.5MM
162	614 233 1804	LEVER,PACK KICK
163	614 215 7404	SPRING,TENSION,PK LEVER
164	412 043 0600	SPECIAL WASHER,HLW CUT 2.1X5X0.4MM
165A	614 237 5426	BELT,SQUARE,RF BELT
165B	645 009 6976	RF BELT
166	645 009 7744	NYLON WASHER 2.1X3.5X0.5MM
167A	614 238 1441	ASSY,FLYWHEEL(F)
167B	614 269 3032	ASSY,FLYWHEEL(R)
168A	645 009 6990	MAIN BELT
168B	645 009 6983	MAIN BELT
169A	645 009 7751	NYLON WASHER 2.05X3.5X0.5MM
170A	614 238 1458	ASSY,FLYWHEEL(F)
171A	614 233 1958	SLIDE,CH SLIDE LEVER
172A	412 043 0105	SPECIAL SCREW,S TAPP TAMS SCREW 2X5MM
173A	614 206 2975	FIXER,WIRE CLAMP
174A	645 009 6907	RELAY BOARD
175A	614 248 0786	PLATE,SHIELD
176A	645 009 7737	P WASHER CUT 0.85X2.8X0.25MM
177A	645 009 7607	RELAY PULLEY
178A	645 009 7614	PULLEY BRACKET ASSY
179A	412 043 0204	SPECIAL SCREW, C TAPPING SCREW,M2X4
180	614 233 5017	ASSY,CHASSIS
181	614 233 5147	ASSY,SLIDE,HEAD PANEL(B)
182	614 233 2030	SPRING,WIRE,HEAD PANEL
183	645 009 8895	PANEL COLLAR
184A	614 233 1941	SLIDE,HEAD PANEL(A)
184B	645 009 6945	HEAD PANEL(A)
185	614 206 3286	SPRING,TENSION,RC SPRING(V)
186	645 009 7720	CAMERA S TAP SCREW G 2X5MM
187B	645 009 6952	HEAD BASE
188B	645 009 6914	PINCH ROLLER SPRING
189B	614 208 4052	HEAD,R/P
190B	645 009 1551	AZIMUTH SPRING
191B	645 009 7034	AZIMUTH SCREW 2X9.5MM
192B	645 009 3401	LUG,R/P HEAD,GROUND
193B	645 009 7058	(+)(-)CAP SCREW 2X9.5MM
194B	645 009 7041	(+)(-)CAP SCREW 2X11MM
195B	614 021 8831	MAGNETIC HEAD,AC-E HEAD
196B	645 009 6891	E HEAD SPRING
197B	412 043 0303	SPECIAL SCREW,C TAPP M2X5
198B	645 009 6921	TAPE GUIDE

Ref. No.	Part No.	Description
201A	645 009 7027	CAMERA TS M SCREW 1.7X3MM
202A	614 206 3118	COLLAR,CHP LEVER
203A	614 206 3194	LEVER,CHP
204A	614 248 0809	SPRING,WIRE,PINCH ROLLER
205A	614 269 3001	ASSY,BRACKET-E,HEAD BASE
206A	614 206 2937	SPACER
207A	412 043 0006	SPECIAL SCREW,TAMS M2X5
208A	412 042 9901	SPECIAL SCREW, (+,-) SCREW 2X6MM
209A	614 236 9197	HEAD,PLAY
210A	412 042 9802	SPECIAL SCREW,HEAD COLLAR
211A	645 009 7003	EJECT STOPPER B(R)
212A	645 009 7010	EJECT STOPPER A(R)S
213A	645 009 8017	EJECT STOPPER COLLAR
214A	645 009 7683	EJECT STOPPER SPRING(R)
215A	645 009 7713	CAMERA S TAP SCREW G 2X6MM

Ref. No.	Part No.	Description
216A	614 233 5024	ASSY,BRACKET-E,FL METAL(R)
217A	412 043 0303	SPECIAL SCREW,C TAPPW M2X5
218A	645 009 7768	HL WASHER 2.3X3.8X0.13MM
219A	645 009 8031	HL WASHER 1.7X3.5X0.5MM
220A	614 206 3361	SPRING,WIRE,P ARM(R)
221A	614 233 5116	ASSY,PINCH ROLLER(R)
231	412 032 4008	SPECIAL SCREW,MOTOR COLLAR
232	614 253 2522	BRACKET-M,MOTOR BRACKET
233	614 238 1069	CUSHION,MAT
234	614 238 1052	CUSHION,MAT
235	645 009 7065	(+)C TAPPING SCREW 2X5MM
236	614 206 2944	CUSHION,RUBBER
237	614 275 3279	MOTOR ASSY

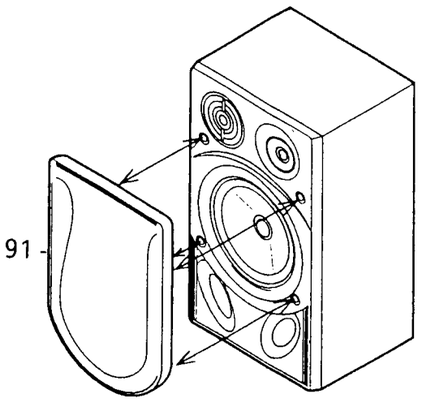
SPEAKER SYSTEM

SPEAKER BOX, LEFT (SX-STE-G17L/XE)

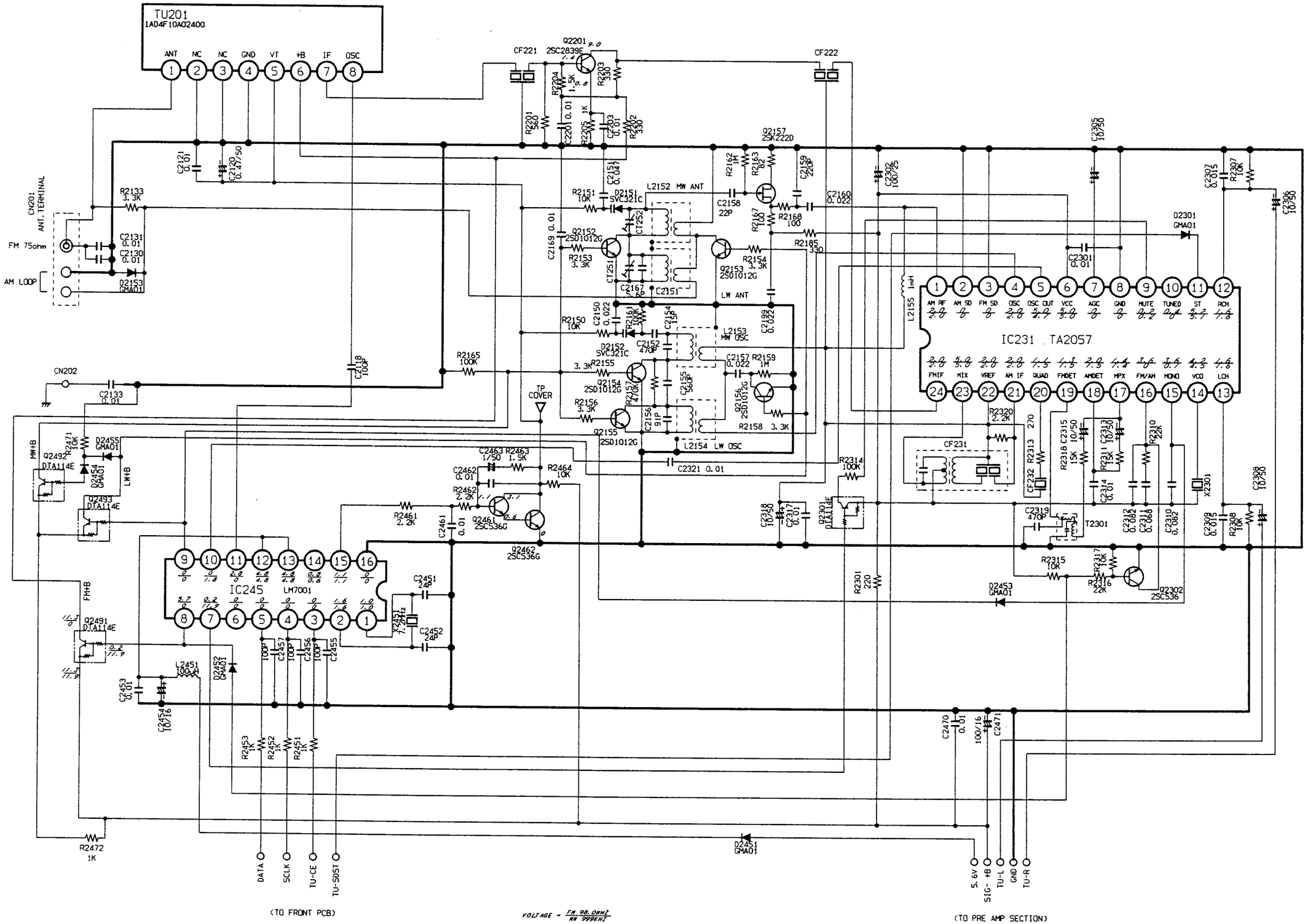
Ref. No.	Part No.	Description
91	645 010 3759	ASSY,GRILLE,LEFT
	645 010 3643	POLY COVER
	645 010 3612	SHEET

SPEAKER BOX, RIGHT (SX-STE-G17R/XE)

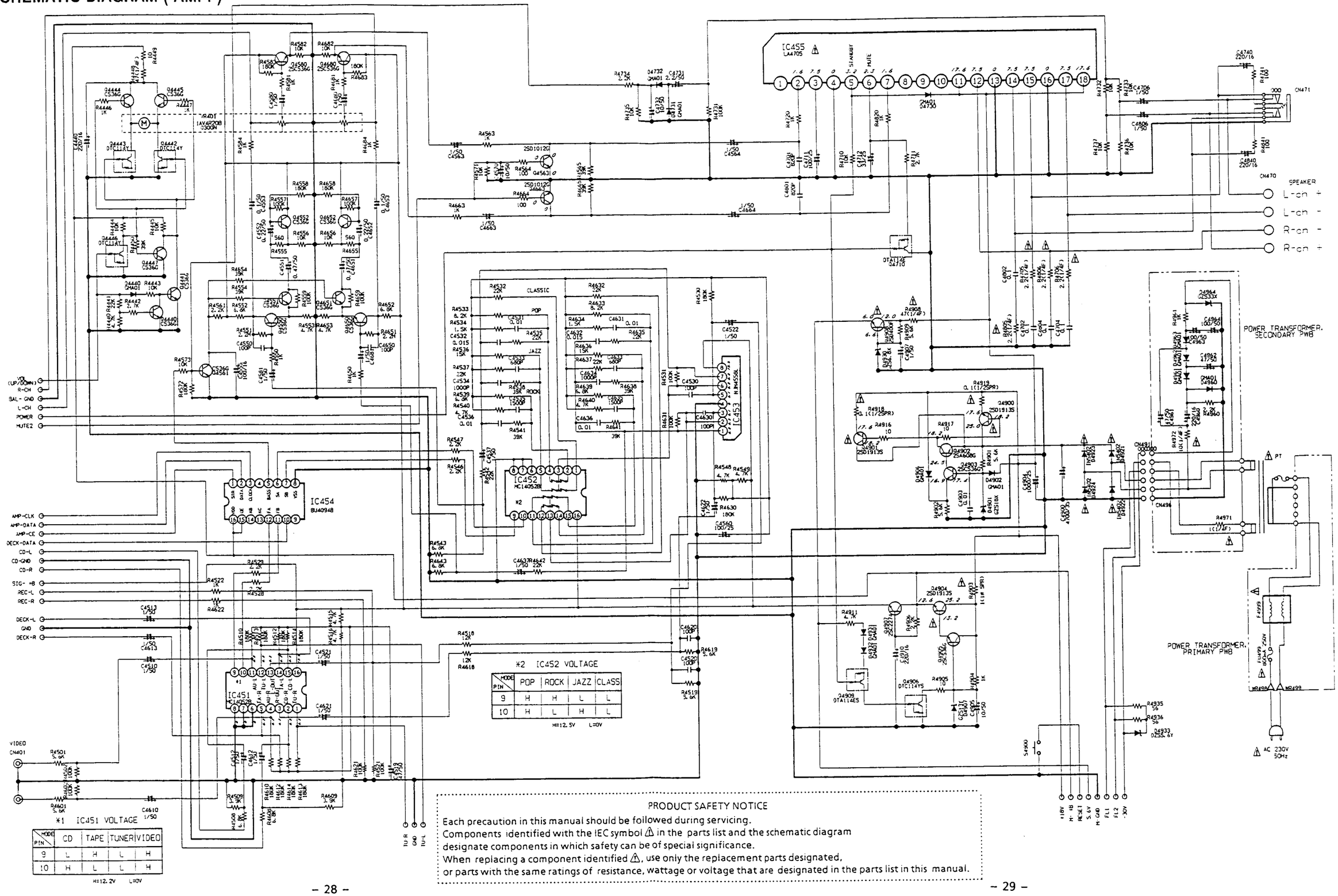
Ref. No.	Part No.	Description
91	645 010 3780	ASSY,GRILLE,RIGHT
	645 010 3643	POLY COVER
	645 010 3612	SHEET



SCHEMATIC DIAGRAM (TUNER)



SCHEMATIC DIAGRAM (AMP.)



*1 IC451 VOLTAGE

MODE / PIN	CD	TAPE	TUNER	VIDEO
9	L	H	L	H
10	H	L	L	H

H=12.2V L=0V

*2 IC452 VOLTAGE

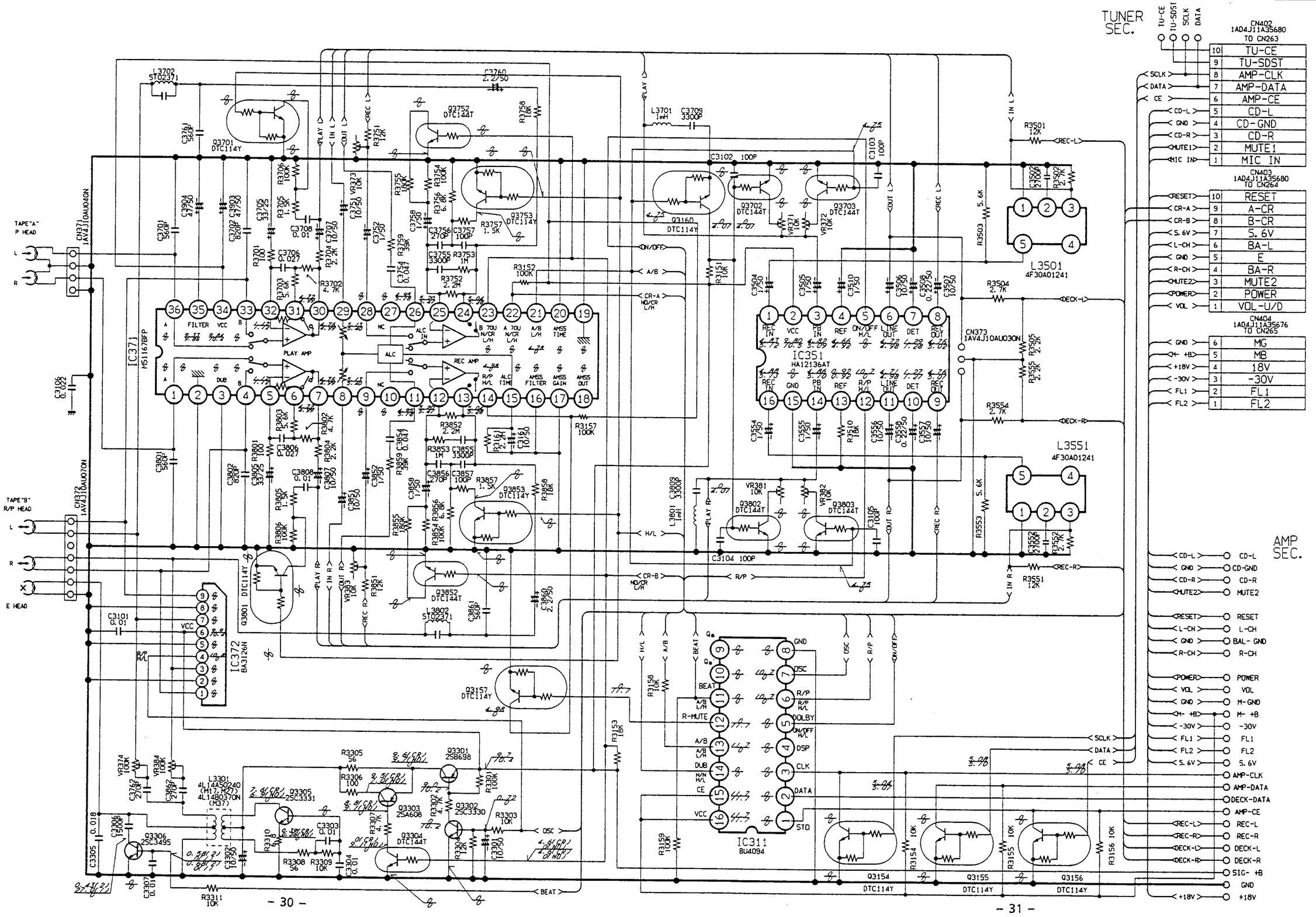
MODE / PIN	POP	ROCK	JAZZ	CLASS
9	H	H	L	L
10	H	L	H	L

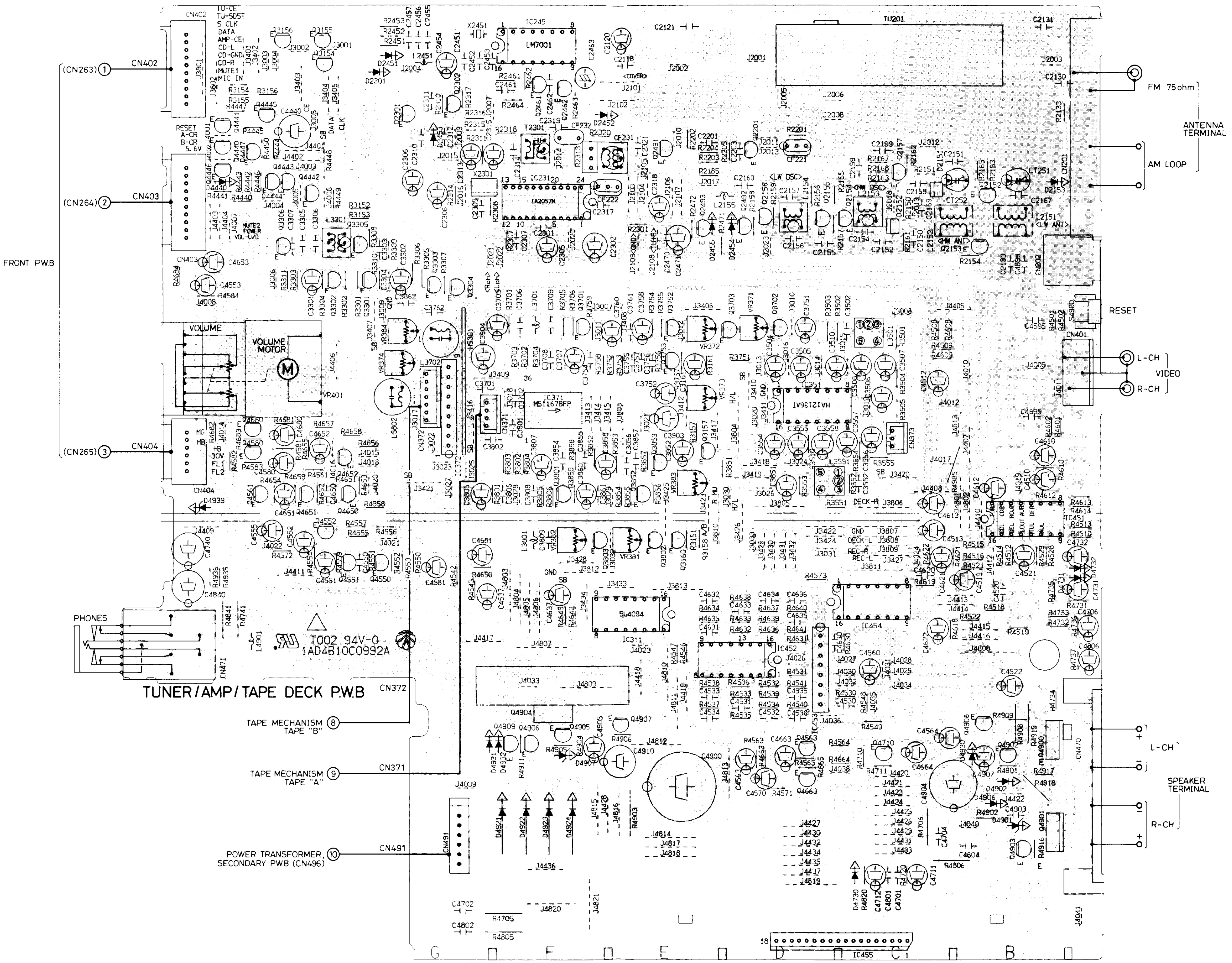
H=12.5V L=0V

PRODUCT SAFETY NOTICE

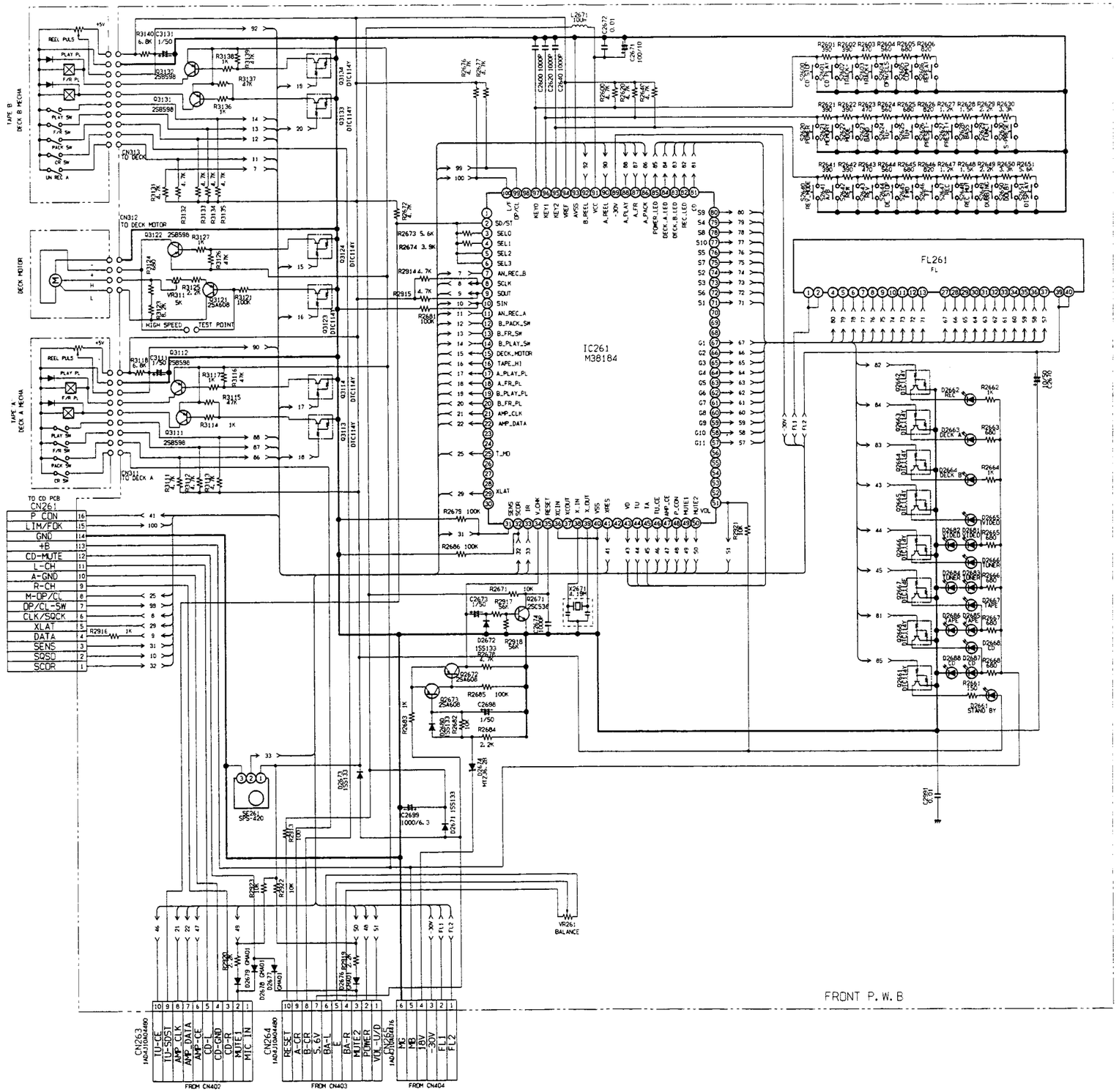
Each precaution in this manual should be followed during servicing.
Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance.
When replacing a component identified ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.

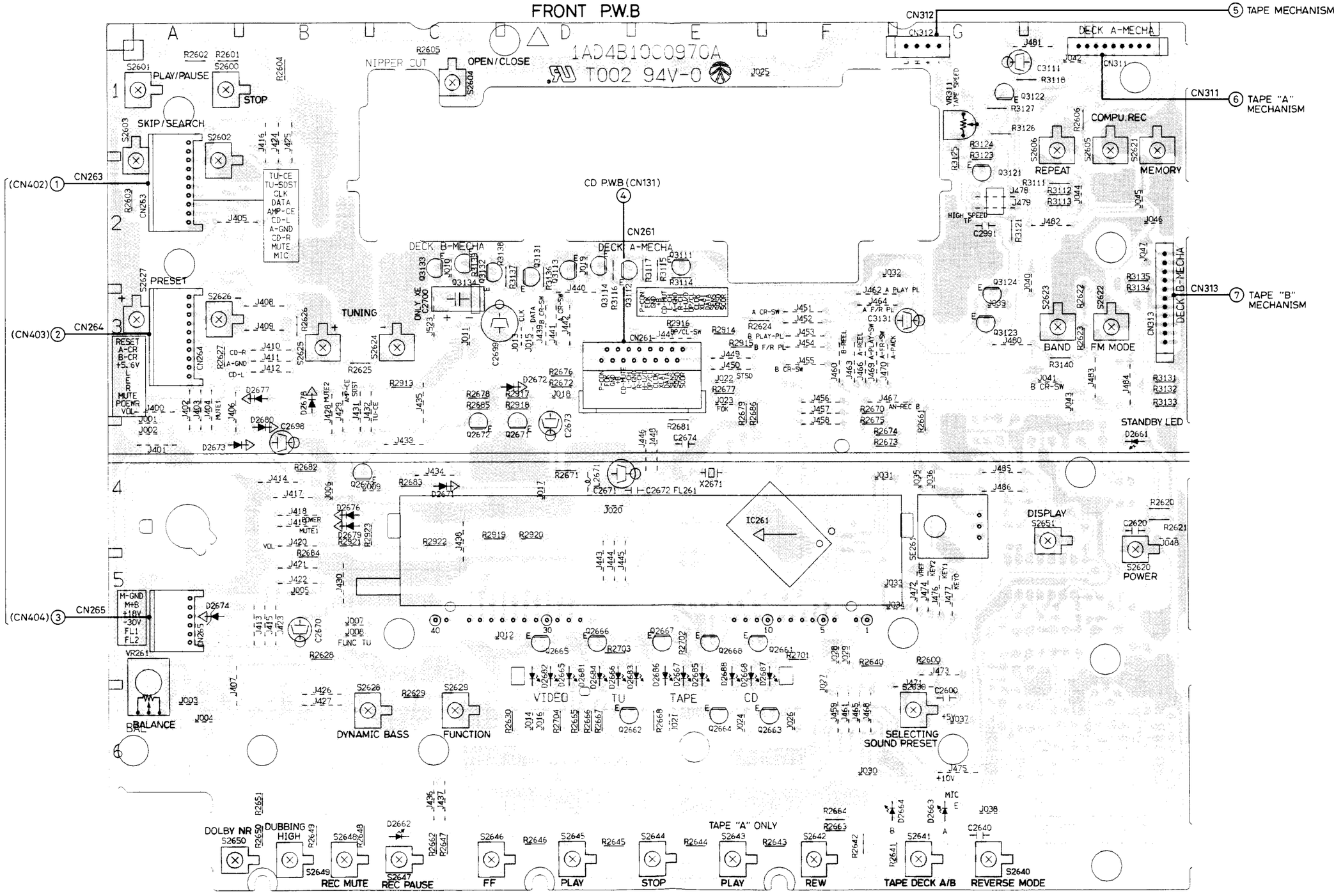
SCHEMATIC DIAGRAM (TAPE DECK)



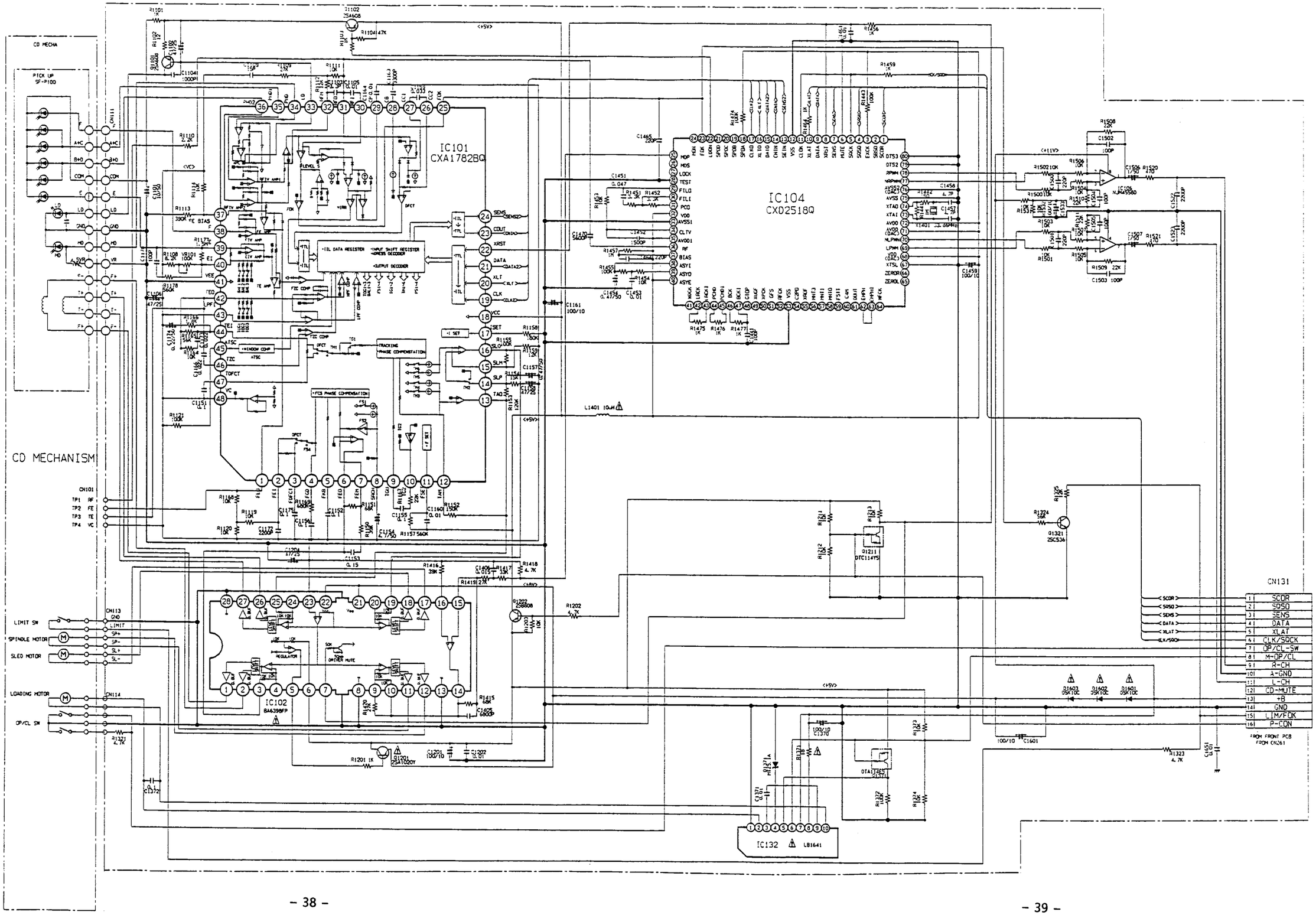

(CN263) ① CN402
(CN264) ② CN403
(CN265) ③ CN404
FRONT PWB
VOLUME
VOLUME MOTOR
PHONES
T002 94V-0
1AD4B10C0992A
TUNER / AMP / TAPE DECK P.W.B
CN372
TAPE MECHANISM ⑧ TAPE "B"
TAPE MECHANISM ⑨ TAPE "A"
CN371
POWER TRANSFORMER ⑩ SECONDARY PWB (CN496)
CN491
TU201
LM7001
TA2057N
M51167BFP
HA12136AF
BU4094
FM 75ohm
ANTENNA TERMINAL
AM LOOP
RESET
L-CH
VIDEO
R-CH
L-CH
SPEAKER TERMINAL
R-CH

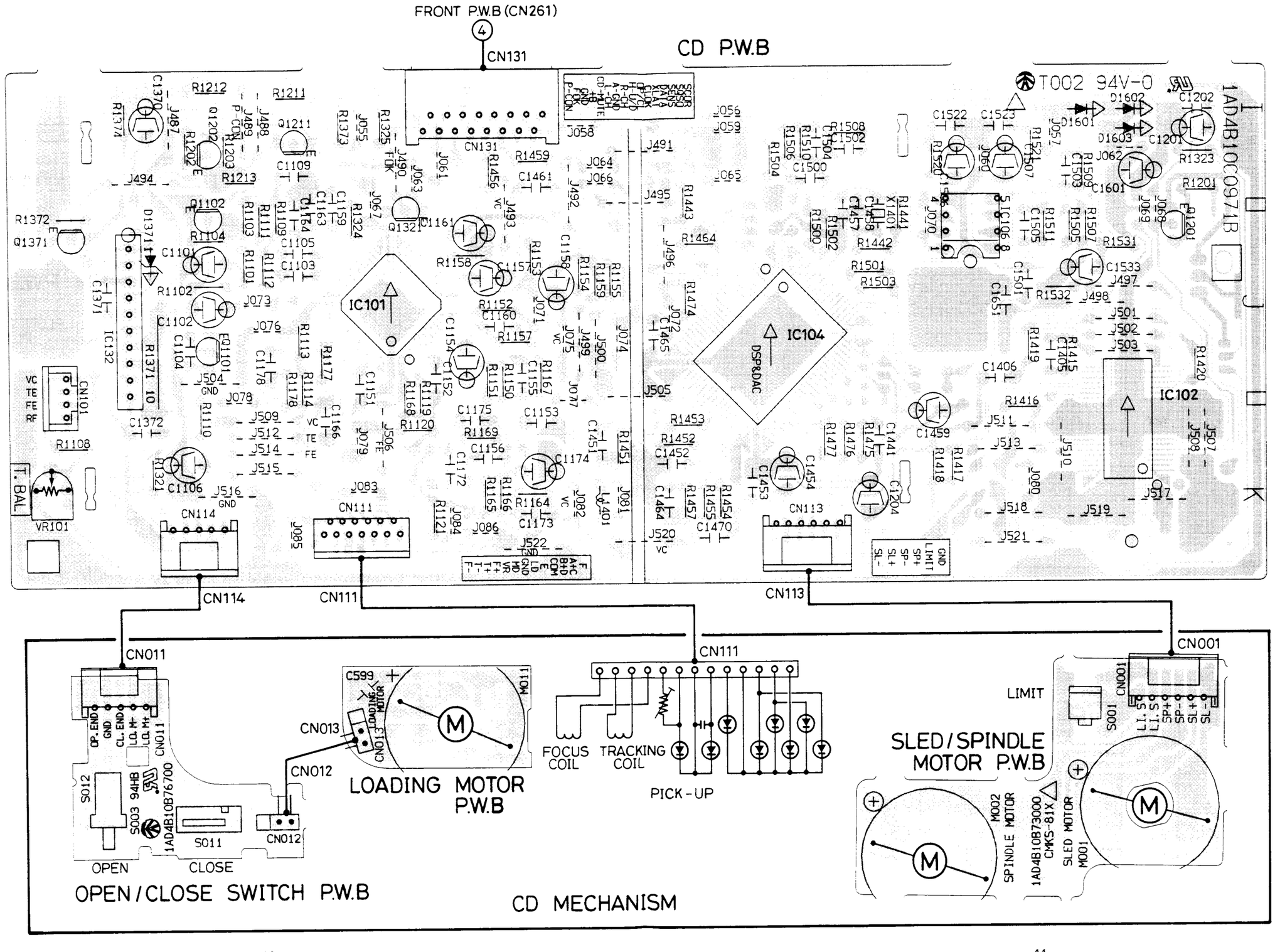
SCHEMATIC DIAGRAM (FRONT)



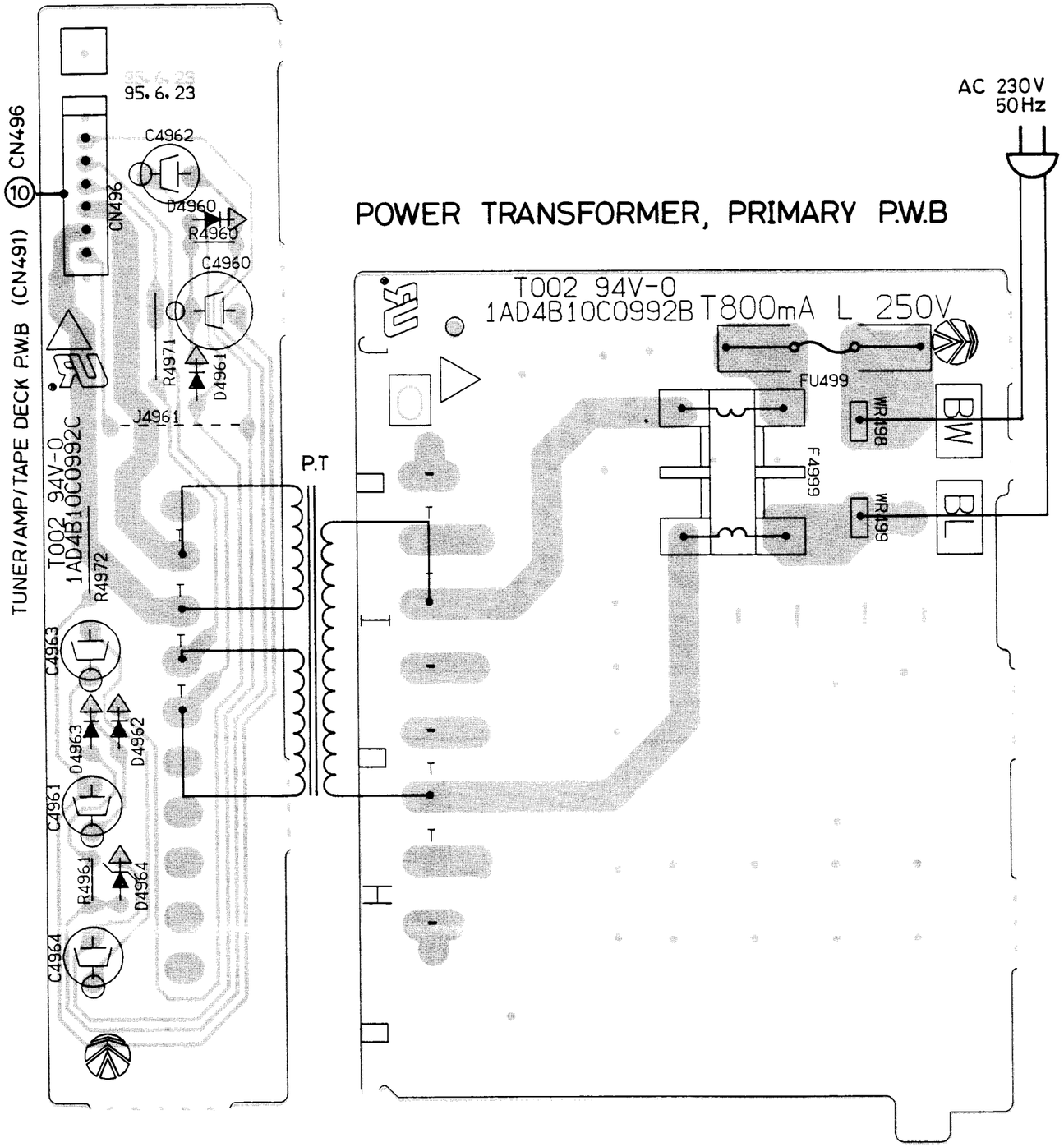

FRONT P.W.B
1AD4B10C0970A
T002 94V-0
TUNER / AMP / TAPE DECK P.W.B
CD P.W.B (CN131)
CN312
CN311
CN313
DECK A-MECHA
DECK B-MECHA
5 TAPE MECHANISM
6 TAPE "A" MECHANISM
7 TAPE "B" MECHANISM
(CN402) 1 CN263
(CN403) 2 CN264
(CN404) 3 CN265
4 CN261
PLAY/PAUSE
STOP
SKIP/SEARCH
PRESET
TUNING
NIPPER CUT
OPEN/CLOSE
REPEAT
COMPU.REC
MEMORY
BAND
FM MODE
STANDBY LED
DISPLAY
POWER
BALANCE
DYNAMIC BASS
FUNCTION
SELECTING SOUND PRESET
VIDEO
TU
TAPE
CD
DOLBY NR
DUBBING HIGH
REC MUTE
REC PAUSE
FF
PLAY
STOP
PLAY
REW
TAPE "A" ONLY
TAPE DECK A/B
REVERSE MODE
IC261
X2671
C2671
C2672 FL261
TU-CE
TU-SDST
CLK
DATA
AMP-CE
CD-L
A-GND
CD-R
MUTE
MIC
M-GND
M+B
+18V
-30V
FL1
FL2
+5.6V
+5V
+10V

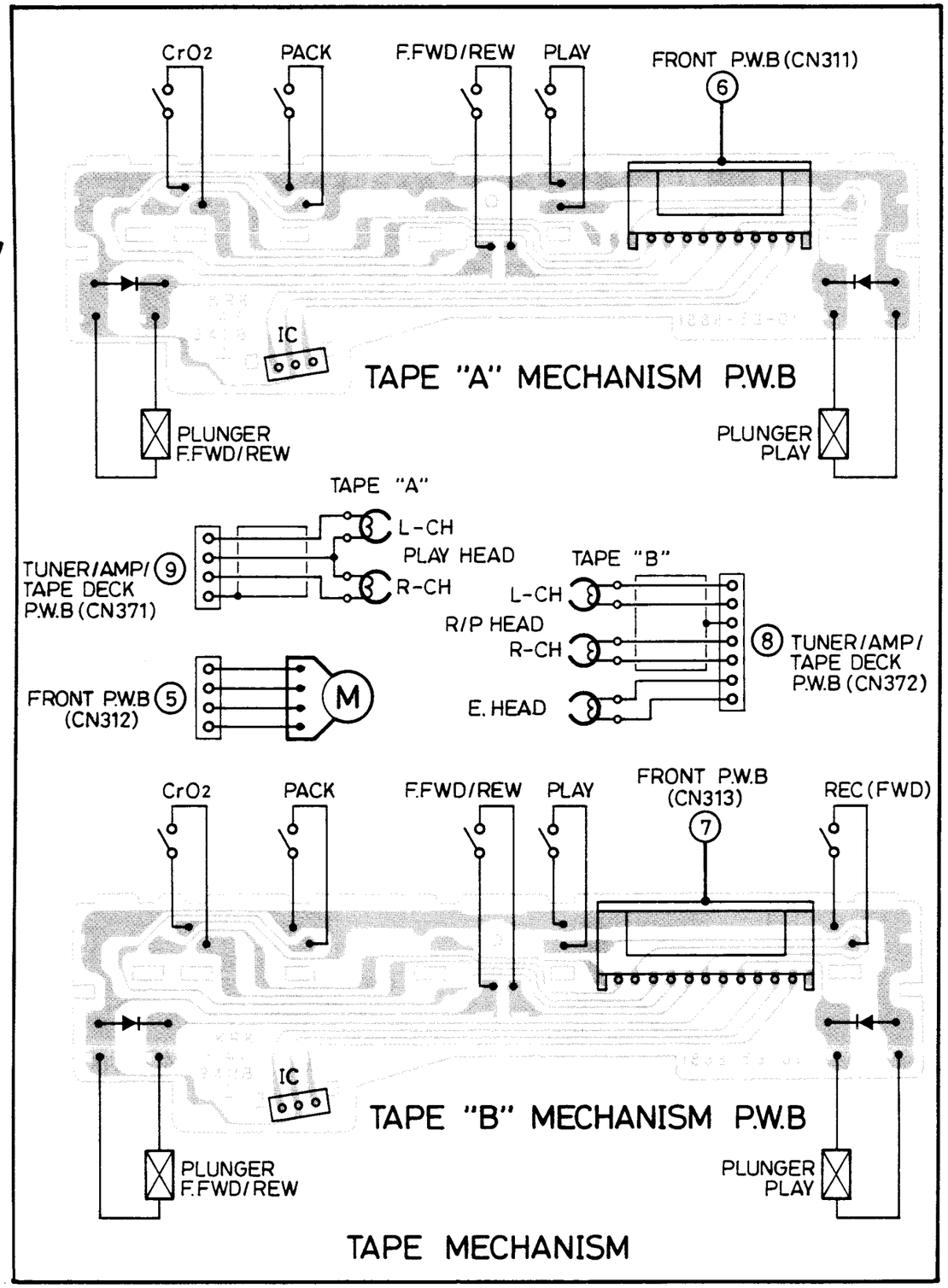
SCHEMATIC DIAGRAM (CD)




FRONT P.W.B (CN261)
CN131
CD P.W.B
1AD4B10C0971B
IC101
IC104
DSP&DAC
IC102
VR101
T. BAL
CN114
CN111
CN113
CN011
CN012
CN013
CN001
OPEN/CLOSE SWITCH P.W.B
LOADING MOTOR P.W.B
PICK-UP
SLED/SPINDLE MOTOR P.W.B
CD MECHANISM
OPEN
CLOSE
FOCUS COIL
TRACKING COIL
LIMIT
SPINDLE MOTOR
SLED MOTOR

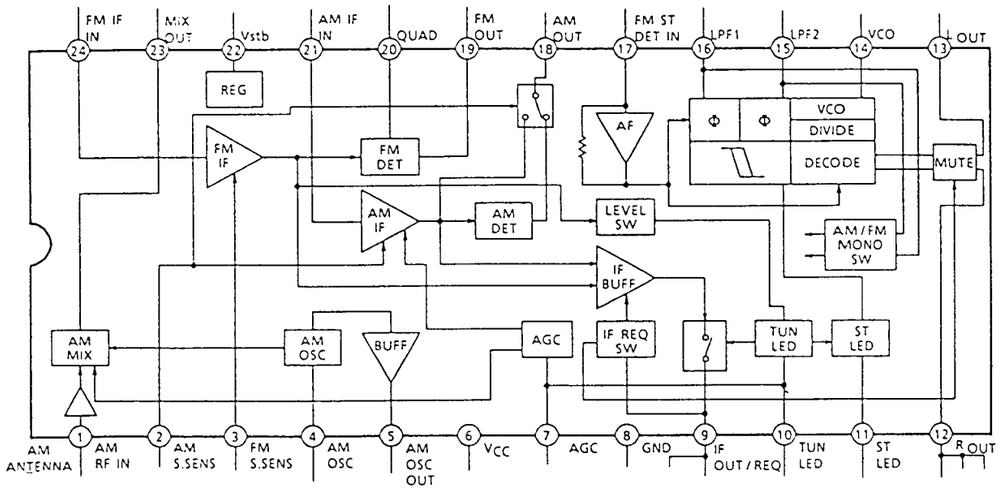
POWER TRANSFORMER, SECONDARY P.W.B



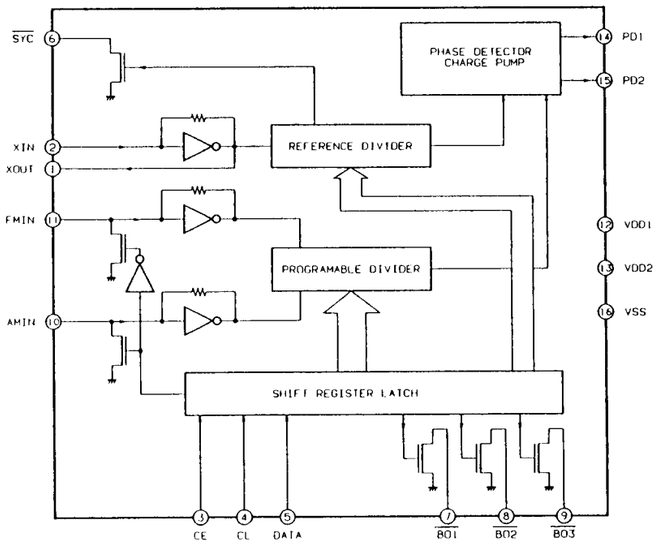


IC BLOCK DIAGRAM & DESCRIPTION

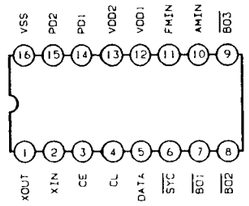
IC231 TA2057 (AM/FM IF & FM MPX)



IC245 LM7001 (PLL SYNTHSIZER)

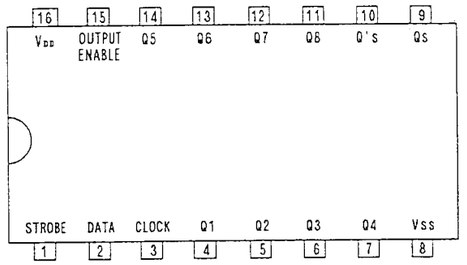


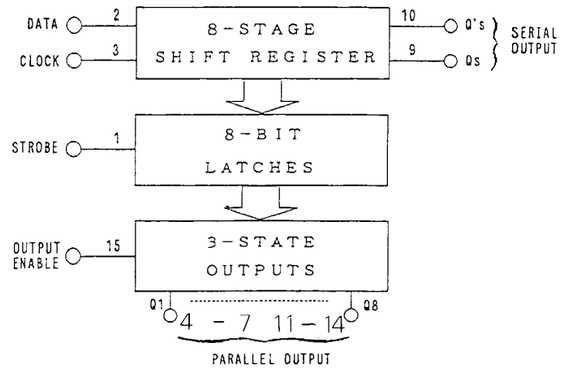
SYC ; CLOCK CONTROLLER (400HZ)
XIN, XOUT ; XTAL OSC (7.2MHZ)
FMIN, AMIN ; LOCAL OSCILLATION SIGNAL INPUT
CD, CL, DATA ; DATA INPUT
B01 B02 B03 ; BAND DATA OUTPUT
VDD1 VDD2 VSS ; POWER SUPPLY (VDD2 IS BACK-UP BATTERY)
PD1, PD2 ; CHARGE PUMP OUTPUT



IC BLOCK DIAGRAM & DESCRIPTION

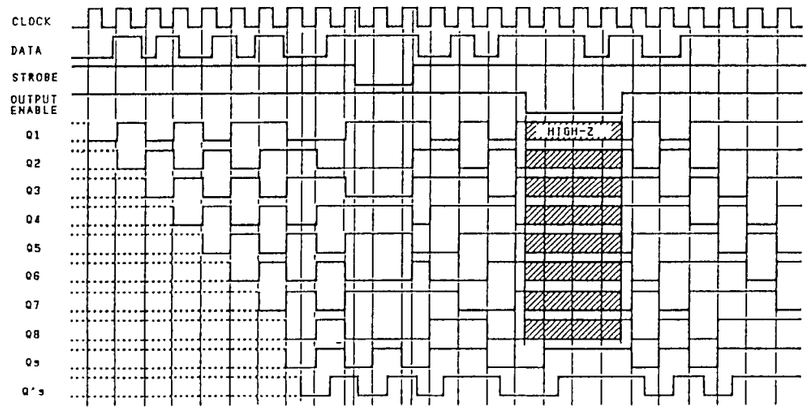
IC311, BU4094B (8-STAGE SHIFT/STORE REGISTER)
IC454





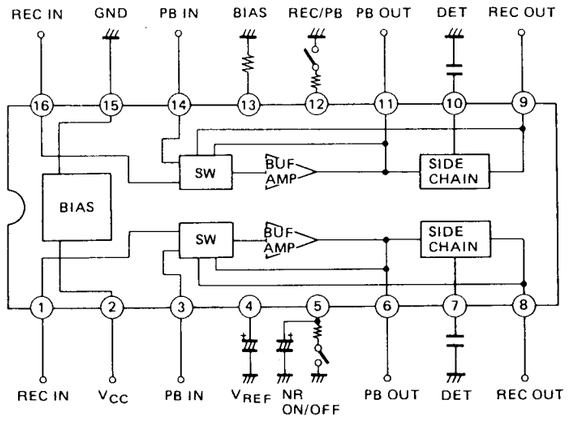
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↓	L	×	×	Z	Z	Q7	No Chg.
↑	L	×	×	Z	Z	No Chg.	Qs
↓	H	L	×	No Chg.	No Chg.	Q7	No Chg.
↓	H	H	L	L	Qn−1	Q7	No Chg.
↓	H	H	H	H	Qn−1	Q7	No Chg.
↑	H	×	×	No Chg.	No Chg.	No Chg.	Qs

Z=High Impedance
×=Don't Care

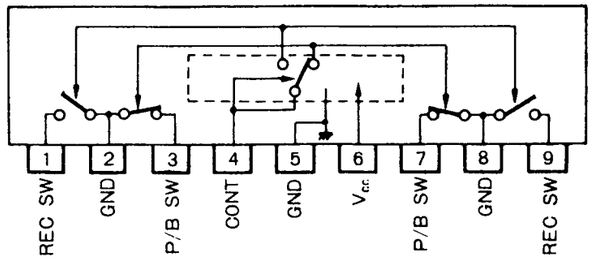


IC BLOCK DIAGRAM & DESCRIPTION

IC351 HA12136A (DOLBY B-TYPE NOISE REDUCTION)



IC372 BA3126N (HEAD CHANGEOVER SWITCHES)

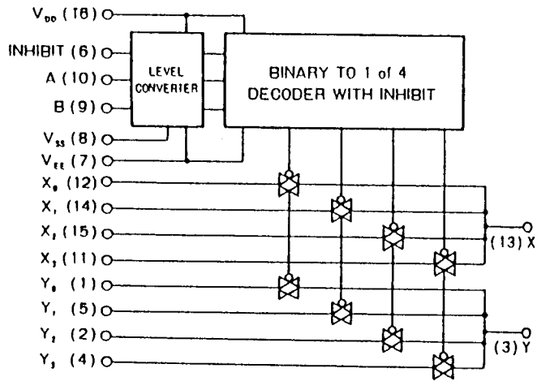


IC451, BU4052 (FUNCTION)
IC452

Truth Table

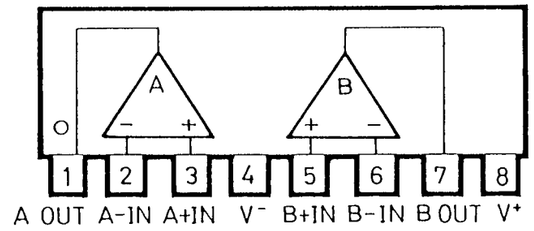
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X : Don't Care

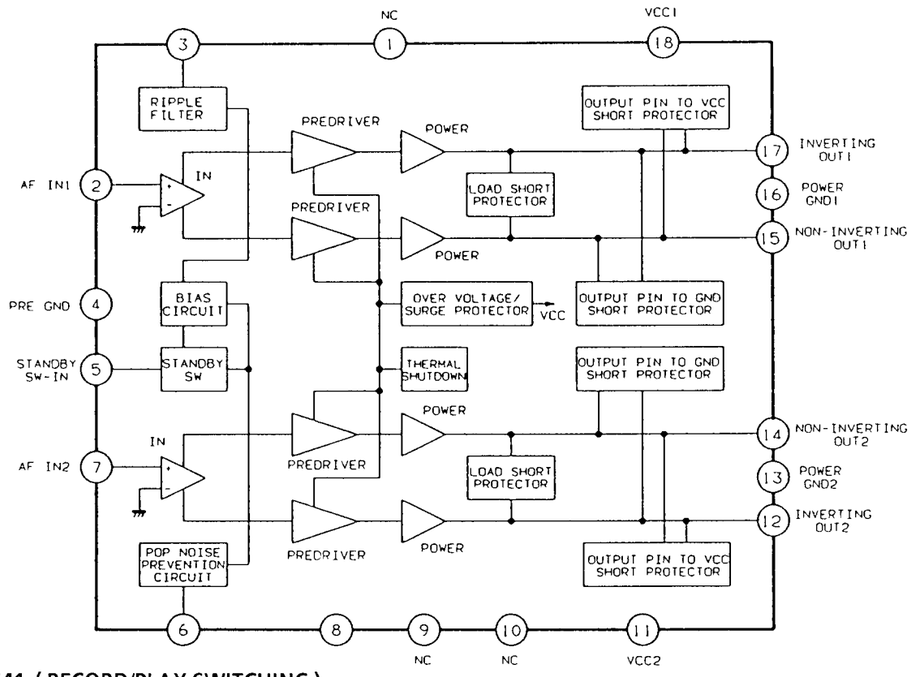


IC BLOCK DIAGRAM & DESCRIPTION

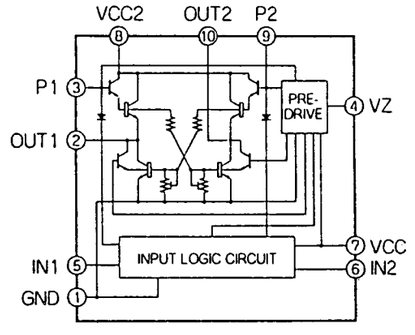
IC453 NJM4558L (OP. AMP.)



IC455 LA4705 (AF POWER AMP.)



IC132 LB1641 (RECORD/PLAY SWITCHING)



Input		Output		Action
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Normal(Reverse)Rotary
0	1	0	1	Reverse(Normal)Rotary
1	1	0	0	Brake

IC BLOCK DIAGRAM & DESCRIPTION

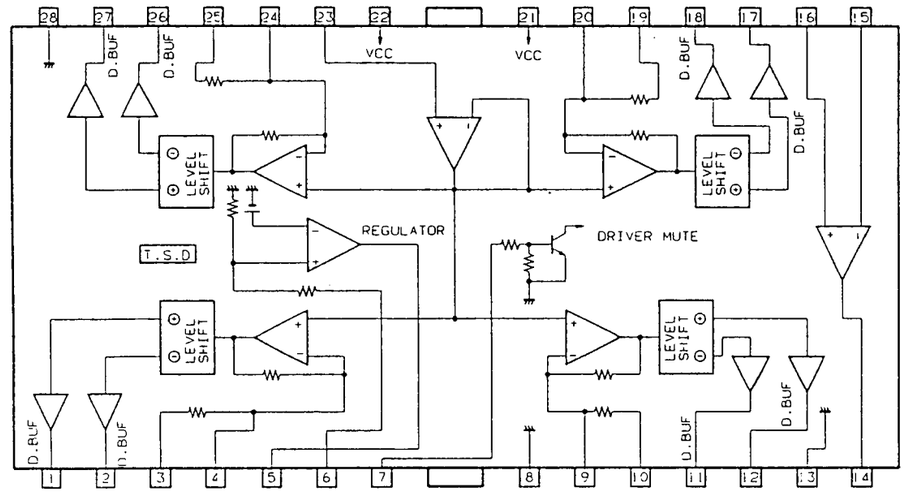
IC101 CXA1782BQ (SERVO SIGNAL PROCESSOR)

No.	Name	I / O	Description
1	FEO	O	Focus error amplifier output.
2	FEI	I	Focus error input.
3	FDFCT	I	Capacitor connection pin for detect time constant.
4	FGD	I	Ground this pin through a capacitor when decreasing the focus servo high-frequency
5	FLB	I	External time constant setting pin for increasing the focus servo low frequency.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier negative input.
8	SRCH	I	External time constant setting pin for generating focus servo waveform.
9 10	TGU TG2	I I	External time constant setting pin for switching tracking high-frequency gain.
11	FSET	I	High cut off frequency setting pin for focus and tracking phase compensation amplifier.
12	TAM	I	Tracking amplifier negative input.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input.
15	SLM	I	Sled amplifier negative input.
16	SLO	O	Sled drive output
17	ISET	I	Setting pin for Focus search, Tracking jump, and Sled kick current.
18	V_{CC}	-	+5.0V
19	CLK	I	Serial data transfer clock input from CPU.
20	XLT	I	Latch input from CPU.
21	DATA	I	Serial data input from CPU.
22	XRST	I	Reset input; resets at Low.
23	C.OUT	O	Track number count signal output.
24	SENS	O	Outputs FZC, DFCT, TZC, gain, balance, and others according to the command from CPU.

No.	Name	I / O	Description
25	FOK	O	Focus OK comparator output.
26	CC2	O	Input pin for the DEFECT bottom hold output capacitance-coupled.
27	CC1	I	DEFECT bottom hold output.
28	CB	I	Connection pin for DEFECT bottom hold capacitor.
29	CP	I	Connection pin for MIRR hold capacitor. MIRR comparator non-inversed input.
30	RFI	I	Input pin for the RF summing amplifier output capacitance-coupled.
31	RFO	O	RF summing amplifier output. Eye pattern check point.
32	RFM	I	RF summing amplifier inverted input. The RF amplifier gain is determined by the resistance connected between this pin and RFO pin.
33	LD	O	APC (Auto Power Control) amplifier output.
34	PHD	I	APC (Auto Power Control) amplifier input.
35 36	PHD1 PHD2	I I	RF I-V amplifier inverted input.
37	FEBIAS	I	Bias adjustment of focus error amplifier.
38 39	F E	I I	F I-V and E I-V amplifier inverted input.
40	EI	-	I-V amplifier E gain adjustment.
41	V_{EE}	-	GND
42	TEO	O	Tracking error amplifier output.
43	LPFI	I	Comparator input for balance adjustment.
44	TEI	I	Tracking error input.
45	ATSC	I	Window comparator input for ATSC detection.
46	TZC	I	Tracking zero-cross comparator input.
48	VC	O	$(V_{CC} + V_{EE}) / 2$ DC voltage output.

IC BLOCK DIAGRAM & DESCRIPTION

IC102 BA6398FP (POWER DRIVER)



T.S.D ; THERMAL SHUT DOWN D.BUF ; DRIVE BUFFER

No.	NAME	DESCRIPTION
1	CH1-OUT A	DRIVER CH1 (-)
2	CH1-OUT B	DRIVER CH1 (+)
3	CH1-IN A	DRIVER CH1
4	CH1-IN B	NOT USED
5	Tr-B	REGULATOR
6	Vreg OUT	Vreg
7	MUTE	MUTE CONTROL
8	GND	GND
9	CH2-IN B	DRIVER CH2 GAIN
10	CH2-IN A	DRIVER CH2
11	CH2-OUT B	DRIVER CH2 (+)
12	CH2-OUT A	DRIVER CH2 (-)
13	GND	GND
14	OP OUT	OP. AMP
15	OP IN (-)	OP. AMP
16	OP IN (+)	OP. AMP
17	CH3-OUT A	DRIVER CH3 (-)
18	CH3-OUT B	DRIVER CH3 (+)
19	CH3-IN A	DRIVER CH3
20	CH3-IN B	NOT USED
21	VCC	VCC
22	VCC	VCC
23	BIAS IN	BIAS
24	CH4-IN B	NOT USED
25	CH4-IN A	DRIVER CH4
26	CH4-OUT B	DRIVER CH4 (+)
27	CH4-OUT A	DRIVER CH4 (-)
28	GND	GND

IC BLOCK DIAGRAM & DESCRIPTION

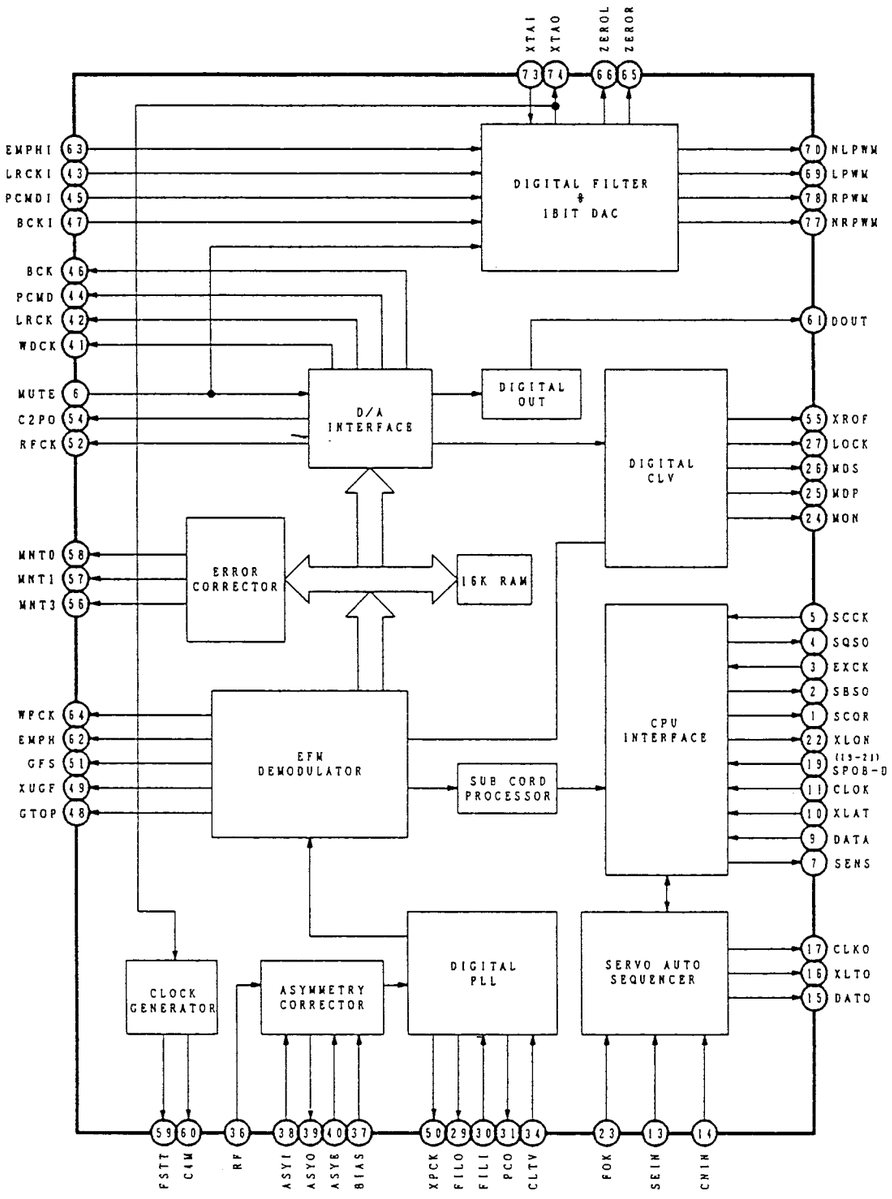
IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)

No.	Name	I / O	Description
1	SCOR	O	Turns "H" when sync S0 or S1 is detected.
2	SBSO	O	Serial output of sub-code P ~ W.
3	EXCK	I	Clock input for reading SBSO.
4	SQSO	O	Serial output of SUBQ & SOBIT.
5	SQCK	I	Clock input for reading SQSO.
6	MUTE	I	"H" at muting, "L" at muting cancel.
7	SENS	O	SENS signal output to CPU.
8	XRST	I	System reset, "L" at resetting.
9	DATA	I	Inputs serial data from CPU.
10	XLAT	I	Latches input from CPU. Serial data latches at falling edge.
11	CLOK	I	Inputs serial data transfer clock from CPU.
12	V_{SS}	-	GND.
13	SEIN	I	Inputs SENS signal from SSP.
14	CNIN	I	Inputs track jump count signal
15	DATO	O	Outputs serial data to SSP
16	XLTO	O	Outputs latches to SSP. Serial data latches at falling edge.
17	CLKO	O	Outputs serial data transfer clock to SSP.
18	TEST2	I	Pin for TEST. Normal used state: V_{DD}.
19	SPOB	I	Not used
20	SPOC	I	Not used
21	SPOD	I	Not used
22	XLON	O	Interface for extension of M. processor(output)
23	FOK	I	Focus OK signal input pin. Used servo auto sequencer with SENS output.
24	MON	O	ON/OFF control signal for spindle motor.
25	MDP	O	Servo control signal for spindle motor.
26	MDS	O	Not used
27	LOCK	O	Not used
28	TEST	I	GND.
29	FILO	O	Output of filter for master PLL.(Slave = Digital PLL)
30	FILI	I	Inputs to filter for master PLL.
31	PCO	O	Outputs of charge pump for master PLL.
32	V_{DD}	-	Power supply for digital.(+ 5V)
33	AV_{SS1}	-	Power supply for analog.(0V)
34	CLTV	I	VCO control voltage input for master PLL.
35	AV_{DD1}	-	Power supply for analog.(+ 5V)
36	RF	I	EFM signal input.
37	BIAS	I	Inputs constant current for asymmetry correction circuit.
38	ASYI	I	Inputs comparator voltage for asymmetry correction circuit.
39	ASYO	O	EFM fill swing output.("L" = V_{SS}, "H" = V_{DD})
40	ASYE	I	"L" : OFF of asymmetry correction. "H" : ON of asymmetry correction.

No.	Name	I / O	Description
41	WDCK	O	Not used
42	LRCK	O	D/A interface for 48-bit slot. LR clock (f = FS)
43	LRCKI	I	Inputs LR clock to DAC.(48-bit slot)
44	PCMD	O	D/A interface. Serial data(2'SCOMP,MBS first)
45	PCMDI	I	Inputs audio data to DAC.(48-bit slot)
46	BCK	O	D/A interface. Bit clock.
47	BCKI	I	Inputs bit clock to DAC.(48-bit slot)
48	GTOP	O	Not used
49	XUGF	O	Not used
50	XPCK	O	Not used
51	GFS	O	Not used
52	RFCK	O	Not used
53	V_{SS}	-	GND.
54	C2PO	O	Not used
55	XROF	O	Not used
56	MNT3	O	Not used
57	MNT1	O	Not used
58	MNT0	O	Not used
59	FSTT	O	Not used
60	C4M	O	Not used
61	DOUT	O	Not used
62	EMPH	O	Stays "H" for playback disc provided with emphasis or "L" for that without emphasis.
63	EMPHI	I	De-emphasis ON/OFF of DAC. "H" at ON, "L" at OFF.
64	WFCK	O	Not used
65	ZEROL	O	Outputs detection for non-sound data. "H" at detection for non-sound data (L-ch)
66	ZEROR	O	Outputs detection for non-sound data. "H" at detection for non-sound data (R-ch)
67	DTS1	I	Normal used state: "L".
68	V_{DD}	-	Power supply for DAC.
69	LPWM	O	Outputs PWM for L-ch. (Positive Phase)
70	NLPWM	O	Outputs PWM for L-ch. (Negative Phase)
71	AV_{DD2}	-	Power supply for L-ch PWM driver.
72	AV_{DD3}	-	Power supply for X'tal.
73	XTAI	I	Inputs X'tal oscillation circuit (33.8688MHz).
74	XTAO	I	Outputs X'tal oscillation circuit (33.8688MHz).
75	AV_{SS3}	-	GND.
76	AV_{SS2}	-	GND.
77	NRPWM	O	Outputs PWM for R-ch. (Negative Phase)
78	RPWM	O	Outputs PWM for R-ch. (Positive Phase)
79	DTS2	I	Normal used state: "L".
80	DTS3	I	Normal used state: "L".

IC BLOCK DIAGRAM & DESCRIPTION

IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)



IC BLOCK DIAGRAM & DESCRIPTION

IC261 M38184MA-166FP (MICROPROCESSOR)

No.	PIN NAME	I/O	DESCRIPTION	POWER (OFF)
1				L
2	SD/ST	I	TUNER SD, ST/SELECTION	
3	SELOUT0	O	SELECTION 0	H
4	SELOUT1	O	SELECTION 1	H
5	SELOUT2	O	SELECTION 2	H
6	SELOUT3	O	SELECTION 3	H
7	G-REV-SW	I	REVERSE UN-RECORDING SENSOR SWITCH	
8	CD-CLK	O	IC104 CLK/SQCK	L
9	CD-DATA	O	IC104 DATA	L
10	SIN	I	IC104 SQSO	
11	G-FWD-SW	I	FORWARD UN-RECORDING SENSOR SWITCH	
12	B-PACK-SW	I	TAPE - B PACK SWITCH	
13	B-FR-SW	I	TAPE - B FF/REW SWITCH	
14	B-PLAY-SW	I	TAPE - B PLAY SWITCH	
15	MOTOR	O	TAPE MOTOR (L = OFF, H = ON)	L
16	TAPE-HI	O	TAPE HIGH SPEED DUBBING (L = HIGH, H = NORMAL)	L
17	A-PLAY-PL	O	TAPE - A PLAY PLUNGER (L = OFF, H = ON)	L
18	A-FR-PL	O	TAPE - A FF/REW PLUNGER (L = OFF, H = ON)	L
19	B-PLAY-PL	O	TAPE - B PLAY PLUNGER (L = OFF, H = ON)	L
20	B-FR-PL	O	TAPE - B FF/REW PLUNGER (L = OFF, H = ON)	L
21	SCLK	O	SIREAL CLOCK	L
22	SOUT	O	SIREAL DATA	L
23	NC			L
24				L
25	T-MOTOR	O	CD TRAY MOTOR (L = CLOSE, M = STOP, H = OPEN)	M
26				L
27				L
28				L
29	XLAT	O	CD DSP LATCH	L
30				
31	SENS	I	CD SENS	
32	SCOR	I	CD SCOR DETECTOR	
33	IR	I	REMOTE CONTROL	
34	V-CHK		VOLTAGE CHECK, FAILURE	
35	RESET		SYSTEM RESET	
36				
37				
38	XIN	I	CLOCK, 4.19MHz	
39	XOUT	O	CLOCK, 4.19MHz	
40	VSS		GROUND	
41	XRES		CD DSP RESET/POWER CONTROL SIGNAL (H = OFF, DSP-RESET) (M = ON, DSP-RESET) (L = ON, DSP-ON)	H
42				L
43	FUNC-3	O	FUNCTION LINE LED CONTROL (L = OFF, H = ON)	L
44	FUNC-2	O	FUNCTION TUNER LED CONTROL (L = OFF, H = ON)	L
45	FUNC-1	O	FUNCTION TAPE LED CONTROL (L = OFF, H = ON)	L
46	TUN-CE	O	TUNER IC245 CE	L
47	EX-CE1	O	AMP/TAPE DECK CE	L

No.	PIN NAME	I/O	DESCRIPTION	POWER (OFF)
48	P-CON		POWER CONTROL (L = OFF, H = ON)	L
49	MUTE1	O	AUDIO MUTE (L = OFF, H = ON)	M
50	MUTE2	O	AUDIO MUTE (L = OFF, H = ON)	M
51	V-MOTOR	O	AMP VOLUME MOTOR (L = DOWN, M = STOP, H = UP)	M
52				L
53	MIC-IN	I		
54				L
55				L
56	EX-CLK	O	CLOCK	L
57	G11	O	FL DIGIT 11	
58	G10	O	FL DIGIT 10	
59	G9	O	FL DIGIT 9	
60	G8	O	FL DIGIT 8	
61	G7	O	FL DIGIT 7	
62	G6	O	FL DIGIT 6	
63	G5	O	FL DIGIT 5	
64	G4	O	FL DIGIT 4	
65	G3	O	FL DIGIT 3	
66	G2	O	FL DIGIT 2	
67	G1	O	FL DIGIT 1	
68				
69				
70				
71	S1	O	FL SEGMENT 1	
72	S6	O	FL SEGMENT 6	
73	S3	O	FL SEGMENT 3	
74	S2	O	FL SEGMENT 2	
75	S7	O	FL SEGMENT 7	
76	S5	O	FL SEGMENT 5	
77	S10	O	FL SEGMENT 10	
78	S8	O	FL SEGMENT 8	
79	S4	O	FL SEGMENT 4	
80	S9	O	FL SEGMENT 9	
81	FUNC0	O	FUNCTION CD LED CONTROL (L = OFF, H = ON)	L
82	REC	O	TAPE REC LED CONTROL (L = OFF, H = ON)	L
83	DECK-B	O	TAPE B LED CONTROL (L = OFF, H = ON)	L
84	DECK-A	O	TAPE A LED CONTROL (L = OFF, H = ON)	L
85	STANDBY	O	STANDBY LED CONTROL (L = OFF, H = ON)	L
86	A-PACK-SW	I	TAPE-A PACK SWITCH	
87	A-FR-SW	I	TAPE-A FF/REC SWITCH	
88	A-PLAY-SW	I	TAPE-A PLAY SWITCH	
89	VEE		FL POWER (-)	
90	A-REEL	I	TAPE-A REEL PULSE	
91	VCC		POWER (+)	
92	B-REEL	I	TAPE-B REEL PULSE	
93	AVSS		GROUND	
94	VREF		REFERENCE VOLTAGE	
95	KEY2	I	KEY INPUT 14	
96	KEY1	I	KEY INPUT 14	
97	KEY0	I	KEY INPUT 14	
98	CD-SW2	I	CD LOAD SWITCH, UNLOAD SWITCH	
99	CD-SW1	I	CD OPEN SWITCH, CLOSE SWITCH	
100	CD-SW0	I	CD LIMIT SWITCH, FOK	

IC & TRANSISTOR VOLTAGES

- CD SECTION

IC101 CXA1782BQ (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	2.6	2.5	2.5	2.5	2.5	2.7	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
STOP	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
PLAY	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	5.0	0.6	0.7	1.5	2.4	2.5
STOP	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	0	2.2	4.3	3.1	1.2	2.5
Pin No.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
PLAY	3.5	2.5	3.8	0.2	2.5	2.5	2.4	2.3	2.5	2.2	0	2.5	2.5	2.5	2.5
STOP	1.0	3.5	0.8	0	2.2	2.2	2.5	2.5	2.1	3.4	0	2.5	2.5	2.5	2.5
Pin No.	**46**	**47**	**48**												
PLAY	2.5	2.5	2.5												
STOP	2.5	2.5	2.5												

IC102 BA6398FP (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	4.2	4.2	2.5	2.5	8.2	5.0	4.8	0	2.5	2.4	4.6	4.1	0	2.4	2.5
STOP	4.2	0	2.5	2.5	9.3	5.0	4.8	0	2.5	2.5	4.6	4.6	0	9.0	2.5
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**		
PLAY	2.5	4.2	4.4	2.5	2.5	9.2	9.2	2.5	2.5	2.5	4.2	4.2	0		
STOP	2.5	4.6	4.6	2.5	2.5	9.2	9.2	2.5	2.5	0	4.6	4.6	0		

IC104 CXD2518 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	0	0	5.0	0	4.7	0	5.0	4.8	4.7	4.8	4.8	0	5.0	0	3.3
STOP	0	3.4	5.0	0	4.9	0	0	4.8	4.8	4.8	4.8	0	5.0	0	5.0
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
PLAY	5.0	5.0	5.0	5.0	0	0	0.5	5.0	5.0	2.6	0	5.0	0	2.5	2.5
STOP	5.0	5.0	5.0	0	0	0	5.0	0	0	2.5	0	0	0	2.5	2.5
Pin No.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
PLAY	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.5	2.5
STOP	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.7	2.7
Pin No.	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
PLAY	2.0	2.4	0	5.0	1.7	5.0	2.5	1.7	0	5.0	4.5	0	0	2.6	1.7
STOP	2.0	2.4	5.0	5.0	1.7	0	2.5	0	5.0	0	4.3	3.6	0	2.6	2.1
Pin No.	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
PLAY	1.7	0	0	2.5	0	0	0	0	2.5	2.5	5.0	2.5	2.5	2.5	0
STOP	2.1	2.1	2.1	2.5	4.8	4.8	0	5.0	2.5	2.5	5.0	5.0	2.5	2.5	0
Pin No.	**76**	**77**	**78**	**79**	**80**										
PLAY	0	2.5	2.5	0	0										
STOP	0	2.5	2.5	0	0										

IC106 NJM4558D (V)

Pin No.	1	2	3	4	5	6	7	8							
PLAY	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							
STOP	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							

IC132 LB1641 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10					
STOP	0	0.5	0.8	0.8	5.0	1.8	11.7	11.7	0.7	0.5					
OPEN	0	4.1	5.5	4.1	5.0	0	11.7	11.7	0.7	0					
CLOSE	0	0	0.8	4.1	0	4.4	11.7	11.7	4.1	4.1					

Fluc : Fluctuation

IC & TRANSISTOR VOLTAGES

PIN	Q1101			Q1102			Q1201			Q1202			Q1211			Q1371		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	4.5	1.8	3.7	5.0	5.0	4.2	9.7	5.0	9.1	5.0	1.2	4.7	0	0	4.6	5.0	4.9	1.8
STOP	1.4	1.3	0	5.0	1.3	5.0	9.1	5.0	7.8	5.0	4.9	0.7	0	4.4	0	5.0	4.9	1.8

PIN	Q1321		
	B	C	E
PLAY	0	0	0.6
STOP	0	0	0.6

- FRONT SECTION

(V)

IC261 M38184

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	0	2.8	2.8	2.8	2.8	2.8	4.9	4.8	0	0	4.8	4.8	4.8	4.8	0
STOP	0	2.8	2.8	2.8	2.8	2.8	4.9	3.4	0	0	4.8	4.8	4.8	4.8	0
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
PLAY	4.7	0	0	0	0	4.7	4.7	0	0	0	0	0	0	4.7	0
STOP	4.7	0	0	0	0	4.7	4.7	0	0	0	0	0	0	0	0
Pin No.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
PLAY	0	0	4.8	4.5	4.9	0	4.7	2.0	2.2	0	0	0	0	0	0
STOP	0	0	4.8	4.5	4.9	0	4.7	2.0	2.2	0	4.6	0	0	0	0
Pin No.	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
PLAY	4.9	4.7	4.7	0	0	2.0	0	0	0	0	0	Fluc	Fluc	Fluc	Fluc
STOP	4.9	4.7	4.7	0	4.6	2.0	0	0	0	0	0	Fluc	Fluc	Fluc	Fluc
Pin No.	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
PLAY	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	-25	-25	-25	Fluc	Fluc	Fluc	Fluc	Fluc
STOP	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	-25	-25	-25	Fluc	Fluc	Fluc	Fluc	Fluc
Pin No.	**76**	**77**	**78**	**79**	**80**	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
PLAY	Fluc	Fluc	Fluc	Fluc	Fluc	4.7	0	0	0	0	4.9	4.9	4.9	-25	4.9
STOP	Fluc	Fluc	Fluc	Fluc	Fluc	4.7	0	0	0	0	4.9	4.9	4.9	-25	4.9
Pin No.	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100**					
PLAY	4.9	0	0	4.9	4.9	4.9	4.9	0	0	3.6					
STOP	4.9	0	0	4.9	4.9	4.9	4.9	0	0	3.6					

(V)

PIN	Q2661			Q2662			Q2663			Q2664			Q2665			Q2666		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	0	3.6	0	0	10.2	0	0	10.2	0	0	10.2	0	0	4.4	0	0	4.4	0
STOP	0	3.6	0	0	10.2	0	0	10.2	0	0	10.2	0	0	4.4	0	0	4.4	0

PIN	Q2667			Q2668			Q2671			Q2672			Q2673			Q3111		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	0	4.4	0	0	4.4	0	0	4.8	0	4.0	4.5	4.6	9.6	4.0	4.6	11.5	0	11.5
STOP	0	4.4	0	0	4.4	0	0	4.8	0	4.0	0	4.6	9.6	4.0	4.6	11.5	0	11.5

PIN	Q3112			Q3113			Q3114			Q3121			Q3122			Q3123		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	11.5	0	11.5	0	11.5	0	0	11.5	0	0	0	0	11.5	0	11.5	0	11.5	0
STOP	11.5	0	11.5	0	11.5	0	0	11.5	0	0	0	0	11.5	0	11.5	0	11.5	0

PIN	Q3124			Q3131			Q3132			Q3133			Q3134		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	0	11.5	0	11.5	0	11.5	11.5	0	11.5	0	11.5	0	0	11.5	0
STOP	0	11.5	0	11.5	0	11.5	11.5	0	11.5	0	11.5	0	0	11.5	0

Fluc : Fluctuation

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