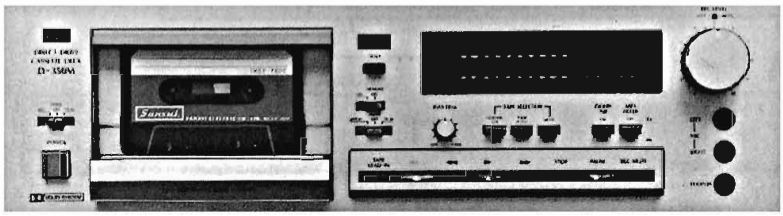
SERVICE MANUAL

DIRECT DRIVE CASSETTE DECK

SANSUI D-350M

(Silver & Black Model)



• SPECIFICATIONS

Track	4-Track (2-Channel Stereo)
Tape speed	4.8 cm/sec. (1-7/8 ips)
Heads	Record/Playback: FH Head
	Erase: Double Gap Ferrite Head
Motor	Capstan: FG Servo DC Motor
	Reels: DC Motor
Wow and flutter	within 0.035 % WRMS
Fast wind time	approximately 75 seconds (C-60)
Frequency response (Record/Playback)	
Normal Tape (LH) (−20 VU)	
	20 to 16,000 Hz
	(25 to 15,000 Hz ±3 dB)
Metal Tape (−20 VU)	
	20 to 19,000 Hz
	(25 to 18,000 Hz ±3 dB)
(0 VU)	25 to 13,000 Hz ±3 dB
Signal to noise ratio (Record/Playback)	
Metal Tape (without Dolby Noise Reduction Effect)	
	better than 59 dB (weighted)
(With Dolby Noise Reduction)	
	better than 69 dB (above 5 kHz)
Erasure factor (Metal Tape)	
	more than 70 dB at 1,000 Hz
Input sensitivity and impedance (0 VU, 1,000 Hz)	
MIC	0.4 mV/200Ω ~ 5 kΩ
LINE IN (REC)	70 mV/47 kΩ
Output level (0 VU, 1,000 Hz)	
LINE OUT (PLAY)	
	400 mV
PHONES	60 mV
Power requirements	
Power voltage	120, 220, 240 V (50/60 Hz)
For U.S.A. and Canada	
	120 V (60 Hz)
Power consumption	
	25 W
Dimensions	430 mm (16-15/16") W
	128 mm (5-1/16") H
	282 mm (11-1/8") D
Using rack mounting adaptors	
	480 mm (18-5/16") W
	128 mm (5-1/16") H
	302 mm (11-15/16") D
Weight	
Silver panel type	5.8 kg (12.8 lbs) net
Black panel type	5.9 kg (13.0 lbs) net

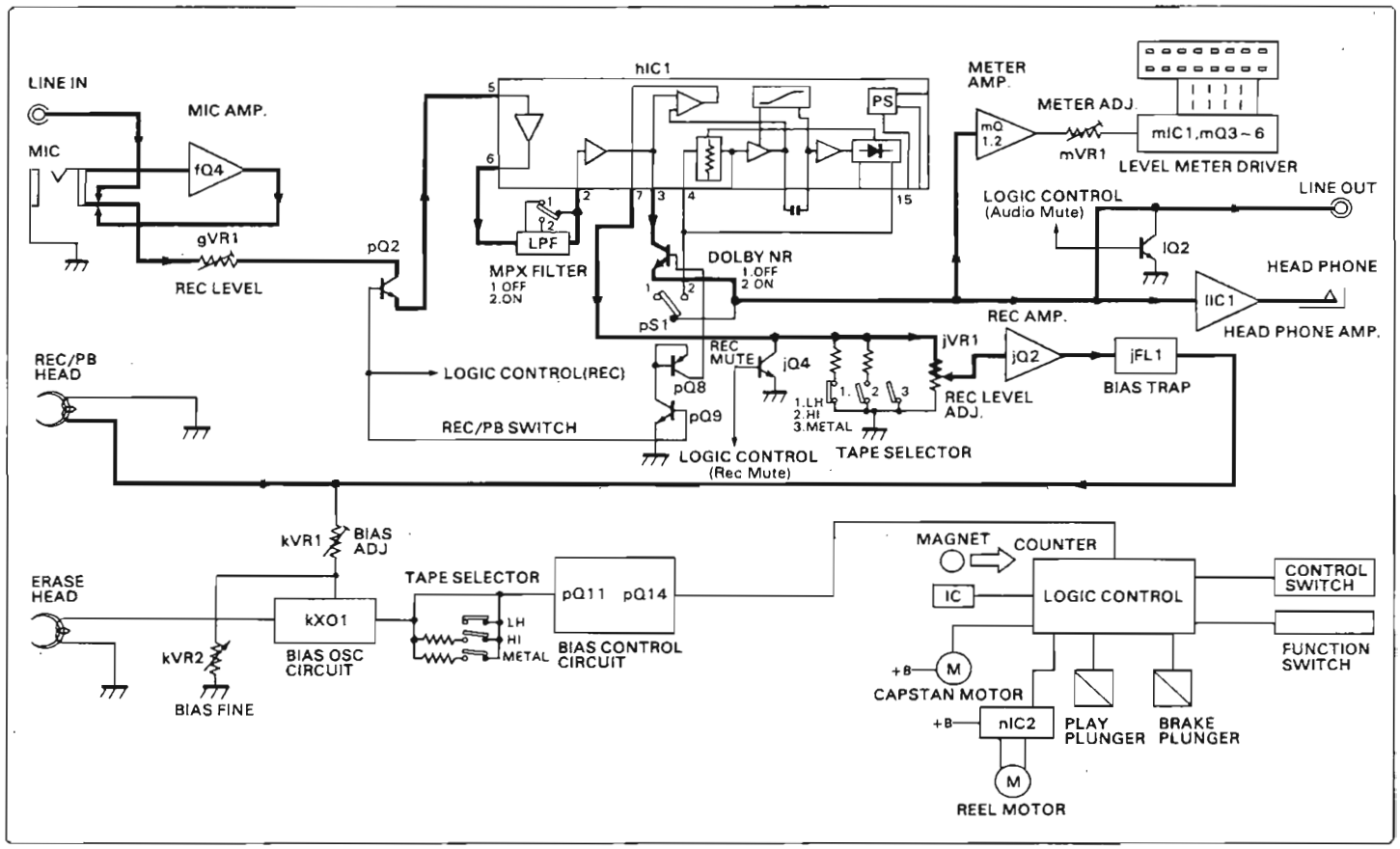
* Design and specifications subject to changes without notice for improvements.

Sansui

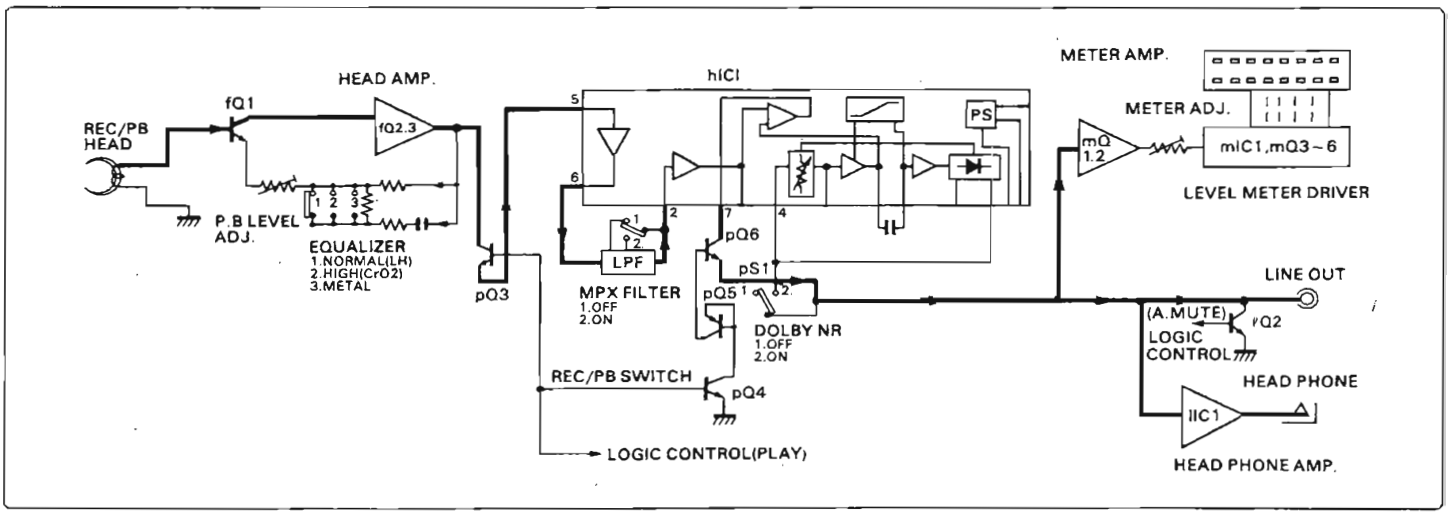
SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM

1-1. Recording Operation Block Diagram



1-2. Playback Operation Block Diagram



2. OPERATIONS

2-1. Mechanical Operations (See Fig. 2-1)

A. Tape Transport Mechanism

The tape transport mechanism on Model D-350M is mainly divided into Direct Capstan Drive System featuring FG servo motor, and Belt-less, Slip-less, and Clatch-less Mechanism to drive the reel hub ass'y through the idler.

B. Operation of PLAYBACK

1) When setting the cassette half, the half switch is turned on to enable to operate each mode of PLAYBACK, RECORDING, FASTFORWARD and REWIND.
2) When depressing the PLAY button in this condition, the capstan motor begins to rotate, and the brake plunger and the play plunger are energized. Resultly the brake is released by moving the brake plate ass'y upward, and the head base ass'y is moved upward to hold the brake at released position. Then the reel motor begins to rotate.
3) In addition, the pinch roller is pressed against the capstan to drive the tape, and also the idler is pressed against the take-up reel hub ass'y by reel motor torque to wind the tape.

C. Operation of RECORDING

1) The basic operation is the same as in the PLAYBACK operation. When the erroneous-erasure prevention switch is turned on to enable to perform the RECORDING operation of the logic circuit.
2) When depressing the REC button, the rec/play plunger is energized to switch the rec/play amplifier to the rec mode.

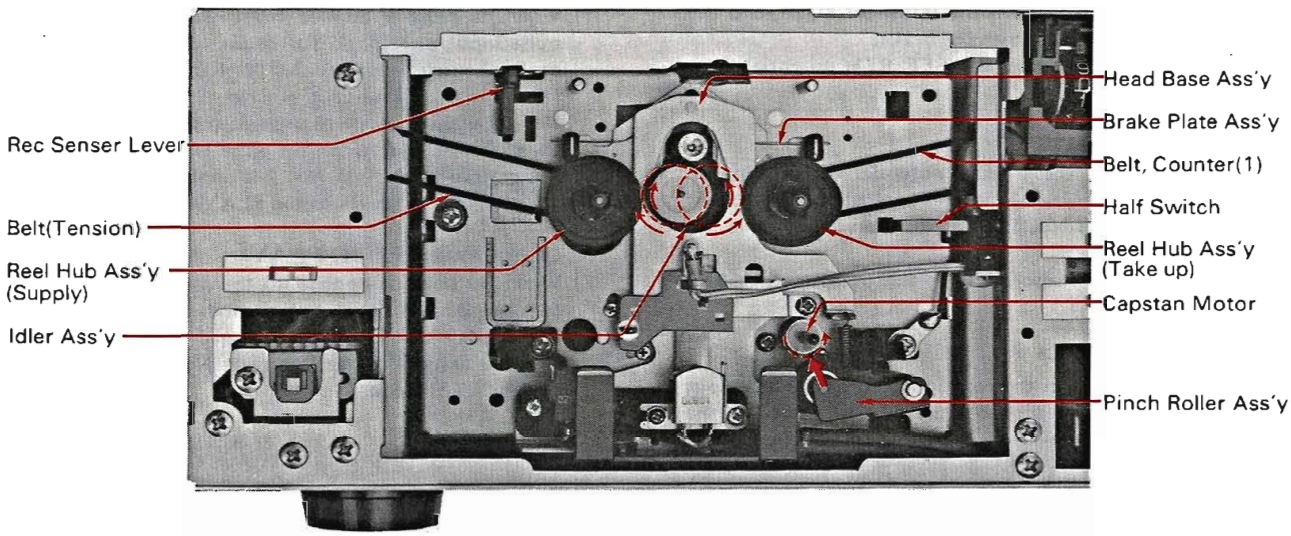
D. Operation of FASTFORWARD

1) When depressing the FF button, the brake plunger releases the brake.
2) The reel motor turns to forward, and the idler is pressed against the take-up reel hub ass'y by reel motor torque. Then wind the tape.

E. Operation of REWIND

1) When depressing the REW button, the brake plunger releases the brake.
2) The reel motor turns to reverse, and the idler is pressed against the supply reel hub ass'y by reel motor torque. Then rewind the tape.

Fig. 2-1



2-2. Electrical Operations of Logic Control Circuit (Refer to Fig. 2-2, 2-3 and schematic diagram.)

A. Operation of PLAYBACK

1) When depressing the PLAY button, the transistor nQ4 is turned on to apply a signal from the matrix signal output pin No. 2 to the input pin No. 22.
2) About 0.2 seconds after the PLAY button is depressed, the 0-PLAY potential of pin No. 17 changes from L-level to H-level to turn on the transistor nQ29, and thereby the capstan motor begins to rotate.
3) At the same time, the transistor nQ19 turns on to light up the play LED (nLD3).
4) The 0-PLAY potential of pin No. 20 also changes from L-level to H-level to turn on the trnasistors nQ25 and 26, and thereby the play and brake plungers are energized, to move the head base upward, and to release the brake.
5) Next, 0-PLAY potential of pin No. 12 changes from L-level to H-level and the transistor nQ24 turns on to declease the play plunger voltage. So that the play plunger is held without any movement, and the brake is also held at released position mechanically, even after the transistors nQ25 and 26 are turned off.
6) The 0-PLAY output is also applied to input pin No. 5 of reel motor control IC (BA6109) and the transistor nQ31. The reel motor rotates by output voltage from pin No. 2 of BA6109. The voltage is determined by that of pin No. 4 which is controlled by the circuit of nQ13.
7) Then the 0-AUTO MUTE potential increases 0.8V from H-level, and the transistor IQ1 turns off to release the audio muting.

B. Operation of RECORDING

1) When the erroneous-erasure prevention switch is turned on, depressing the REC button causes the transistors nQ1 and 2 are turned on to apply a signal from matrix output pin No. 2 to input pin No. 23.
2) The 0-REC potential of pin No. 10 changes from L-level to H-level to turn on the REC LED (nLD1) and the transistor nQ32. Then the transistors pQ2 and 9 are turned on to activate the recording amplifier.

3) The 0-REC potential of pin No. 18 is also changes from L-level to H-level, and the transistor pQ14 turns on to activate the bias oscillator circuit.
4) Then the 0-AUTO MUTE potential increases 0.8V from H-level, and turns off the transistor IQ1 to release the audio muting.
5) Next, by depressing the PLAY button during the REC button is depressed, the same operation as in the PLAYBACK mode is performed.

C. Operation of PAUSE

1) On PAUSE operation, the 0-PLAY potential of pin No. 12 changes from H-level to L-level to turn off the transistor nQ24, and the PLAY plunger is released. Then the brake is activated by moving the head base downward.
2) When the PAUSE button is depressed on the PLAY mode, the 0-AUDIO MUTE potential decreases 0.8V, and equals to H-level. Then the audio muting circuit is activated.
3) When the PAUSE button is depressed on the REC mode, the 0-REC MUTE potential of pin No. 11 decreases 0.8V from H-level. Then the REC muting circuit is activated.

D. Operation of FASTFORWARD

1) On FASTFORWARD operation, the 0-FF potential of pin No. 7 changes from L-level to H-level, and it is applied to pin No. 5 of BA6109. The output pin No. 2 of BA6109 supplies the voltage to rotate the reel motor to forward.
2) At the same time, the 0-FF·REW potential of pin No. 7 changes from L-level to H-level to turn on the transistor nQ26, and the brake plunger is energized to release the brake.
3) The FF LED lights up caused by the 0-FF·REW potential turns on the transistor nQ20.

E. Operation of REWIND

1) On REWIND operation, the 0-REW potential of pin No. 16 changes from L-level to H-level, and it is applied to pin No. 6 of BA6109. The output pin No. 10 supplies the voltage to rotate the reel motor to reverse.
2) The output of the 0-REW also turns on the transistor nQ18 to light up REW LED (nLD4).

F. Operation of AUTO STOP

1) When no pluse is applied to the rotation detection pulse input pin No. 25 for about two seconds, the mode changes to the STOP mode automatically.

G. Operation of AUTO RESET

1) To avoid erroneous operations when the power is turned on, for instance, caused by noise generated in the audio amplifier or unbalance of rise times due to various time constants in the logic circuit, the LSI D-554C is provided a time constant circuit including the transistor nQ14. This circuit holds the potential of the reset pin No. 26 at H-level for about three seconds, and this is the same condition when the STOP button is depressed automatically.

H. Operation of TIMER PLAYBACK

1) When the power supply is turned on with TIMER switch is set to the PLAY mode, the transistor nQ13 is turned on to apply a signal from the matrix output pin No. 19 to the input pin No. 21 after RESET operation is performed. Resultly the mode changes to the PLAY mode after about five seconds from the power supply is turned on.

I. Operation of TIMER RECORDING

1) When the power supply is turned on with the TIMER switch is set to the REC mode, the transistor nQ14 is turned on to apply a signal from the matrix output pin No. 19 to the input pin No. 23 after RESET operation is performed. Resultly the mode changes to the REC mode after about five seconds from the power supply is turned on.

J. Operation of AUTO REPEAT

1) When no pulse is applied from nIC1 to the rotation detection pulse input pin No. 25 for about two seconds during FF, PLAY or REC mode with the AUTO REPEAT switch is on, a signal from the matrix output pin No. 5 is applied to the input pin No. 24, and the mode changes to the REW mode.
2) In this condition, when no pulse is applied again, a signal from the matrix output pin No. 5 is applied to the input pin No. 23, and the mode changes to the PLAY mode.

K. Operation of AUTO PLAY

1) When no pulse is applied to the rotation detection pulse input pin No. 25 for about two seconds during REW mode with the AUTO PLAY switch is on, a signal from the matrix output pin No. 5 is applied to the input pin No. 23, and the mode changes to the PLAY mode.

Fig. 2-2 Top View & Pin function of IC μPD-554C

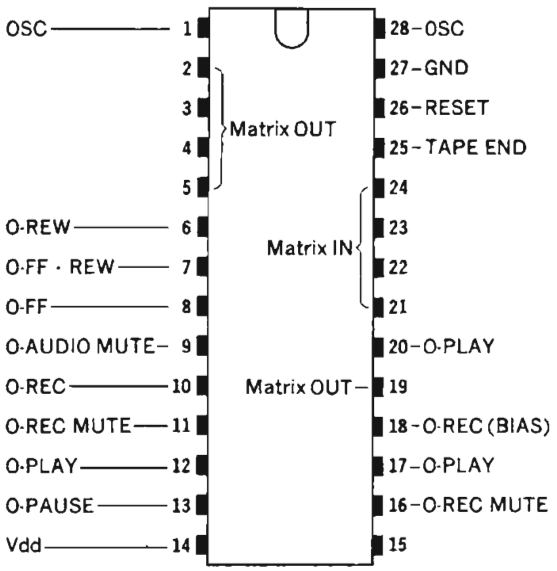


Fig. 2-3 Mode of each output terminal for each key input.
(The "O" mark indicates the H-Level output)

PINE No.	INPUT / OUTPUT	STOP	FF	REW	PLAY	REC/PLAY	PAUSE			REC/MUTE
							STOP	PLAY	REC/PLAY	REC/PLAY
6	0-REW			○						
7	0-FF · REW		○	○						
8	0-FF		○							
9	0-AUDIO MUTE	○	○	○	*○	*○	○	○	○	○
10	0-REC					○			○	○
11	0-REC MUTE	○	○	○	○	○	○	○	*	*
12	0-PLAY				○	○				○
13	0-PAUSE						○	○	○	
16	0-REC MUTE									○
17	0-PLAY				○	○		○	○	
18	0-REC					○				
20	0-PLAY				○	○				○

Note: The "O" mark indicates level more than H-level by 0.8 V.
The "*" mark indicates level less than H-level by 0.8 V.

3. ADJUSTMENTS

3-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-S3K (3 kHz signals are recorded on the tape).
2. Connections are shown in Fig. 3-1.

Fig. 3-1

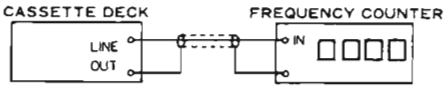
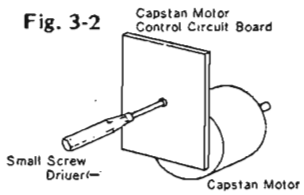


Fig. 3-2



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	TAPE SPEED Adj.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K.	Turn semi-variable resistor as Fig. 3-2.	3000 Hz ±45 Hz	Use small screw driver.

3-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. For this adjustment, use Sansui Test Tape, SCT-F10KN, SCT-L400N and SCT-F1K.
3. Set the Dolby NR switch to be OFF.
4. Connections are shown in Fig. 3-3.

Fig. 3-3

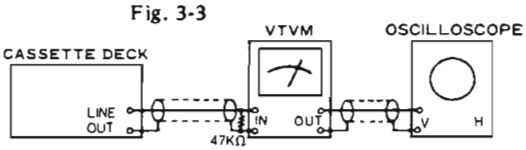
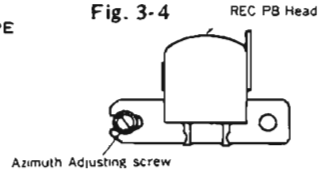


Fig. 3-4



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM, Scope	Playback the TEST TAPE SCT-F10KN	Adjust the azimuth adjusting screw in Fig. 3-4.	MAX. Output on both channels.	After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-L400N.	Adjust each fVR1 on L-CH and R-CH.	500 mV ±2 dB	See Top View on page 11.
3.	High Frequency Equalization Check	Same as above	Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-F1K.	———	———	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10KN.	———	———	Confirm that the output levels are within ±3 dB comparing with the above readings.

Note: On STEP 3, set the TAPE SELECTOR to HIGH (CrO_2) position during playback of SCT-10KN, and confirm the indication on VTVM drops approximately 3 dB ~ 4 dB.

3-3. Recording Adjustment

1) Bias Adjustment

Note: 1. For this adjustment, use Sansui Test Tape, SCT-SA.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 3-5.

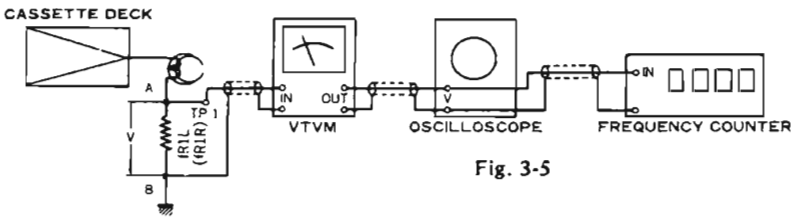


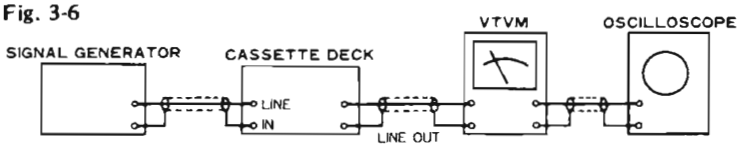
Fig. 3-5

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between A & B points of each fR1L & fR1R. VTVM, Scope, Frequency Counter	Load the TEST TAPE SCT-SA. Depress PAUSE, REC and PLAY buttons. Set TAPE SELECTOR to HIGH (CrO_2) position.	Adjust kVR1L for L-CH and kVR1R for R-CH on G-1282.	6.0 mV	See Top View on page 11.
			Set TAPE SELECTOR to NORMAL (LH) position.	———	———	Confirm the indication on VTVM shows 4.0 mV.
			Set TAPE SELECTOR to METAL position.	———	———	Confirm the indication on VTVM shows 11 mV.
2.	Bias Frequency Check	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to NORMAL (LH) position.	———	———	Confirm that the Frequency Counter shows 85 kHz ±10 kHz.

2) Rec Level & Frequency Response Adjustment

Note: 1. Rec Level Volume . . . . Max.
2. Connections are shown in Fig. 3-6.
3. Set the Dolby NR switch to be OFF.

Fig. 3-6

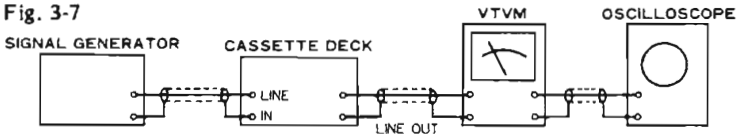


STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1 kHz, 70 mV from S.G into LINE IN.	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Depress PAUSE, PLAY and REC button. 2. Adjust the Rec Level Volume for obtaining 400 mV on VTVM. 3. Push off the PAUSE button, then record the 1 kHz signal. 4. Play back the 1 kHz signal. 5. Confirm that the output levels on both channels are 400 mV ±2 dB on VTVM.	1. If not, turn jVR1 (REC, L-CH) and jVR1 (REC, R-CH) until output level 400 mV ±2 dB on both channel are obtained. 2. Repeat this REC Level adj. until the indication on VTVM will be 400 mV ±2 dB.	jVR1 (REC, L-CH), and jVR1 (REC, R-CH) are shown in Top View on page 11.
2.	Frequency Response Adj.	Feed 1 kHz 7 mV (−20 dB) and 10 kHz 7 mV (−20 dB) from S.G. into LINE IN.	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Record the 1 kHz and 10 kHz signals from S.G. 2. Play back the 1 kHz and 10 kHz signals, then confirm that both output levels equal.	1. If not, adjust kVR1L for L-CH and kVR1R for R-CH slightly until the output levels will be equal.	As kVR1L and kVR1R are previously adjusted in step of Bias Adjustment, turn them slightly, if necessary.

3-4. Peak Level Indicator Adjustment

Note: 1. Set the TAPE SELECTOR to be NORMAL (LH) position.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 3-7.

Fig. 3-7

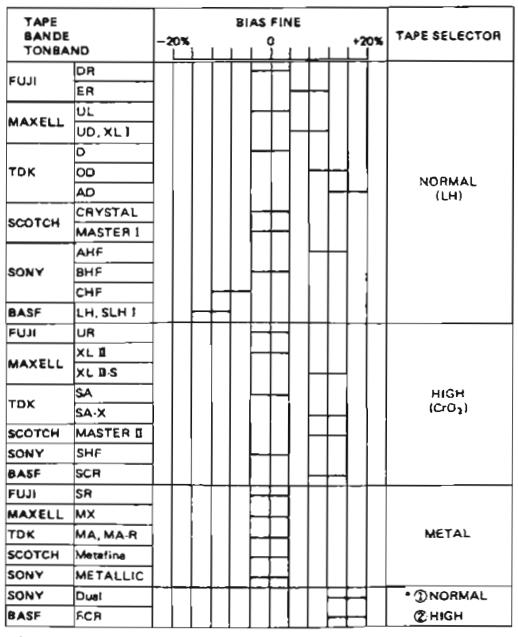


STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	Peak Level Indicator Adjustment	Feed 1 kHz, 70mV from S.G. into LINE IN	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA 1. Depress PAUSE, PLAY & REC button. 2. Adjust the REC Level Volume for obtaining 400mV on VTVM.	1. Light 0VU indication of Peak Meter to adjust mVR1 (L-CH), mVR1 (R-CH) on G-1282.	See Top View on page 11.

♦ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description
SCT-F40	40 Hz	Playback Frequency Response Check
SCT-F1K	1 kHz	High Frequency Equallzation Check
SCT-F10k	10 kHz	REC/PB Head Adjustment
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check
SCT-LH NORMAL (LH)		Recording Bias Adjustment
SCT-SA HIGH (CrO_2)		REC/PB Level Adjustment
SCT-CS Fe-Cr		Frequency Response Check

♦ Tape Selector Position



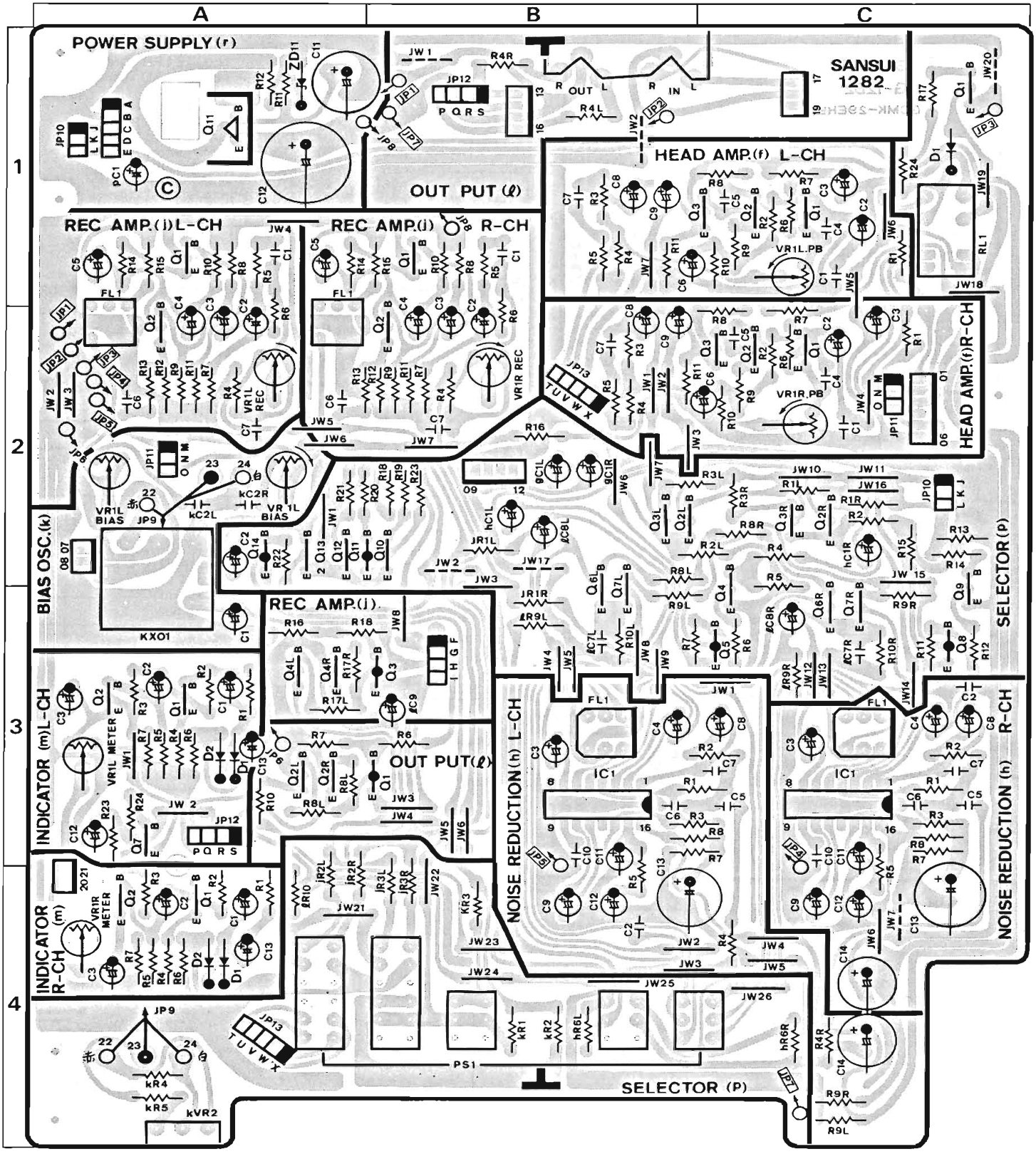
* ① REC/ENR/AUFNAHME ② PLAY/REPRO/WIEDERGABE

4. PARTS LOCATION & PARTS LIST

- Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

4-1. G-1282 Play & Rec Amp. Circuit Board (Stock No. 07099201)

Component Side



Parts List

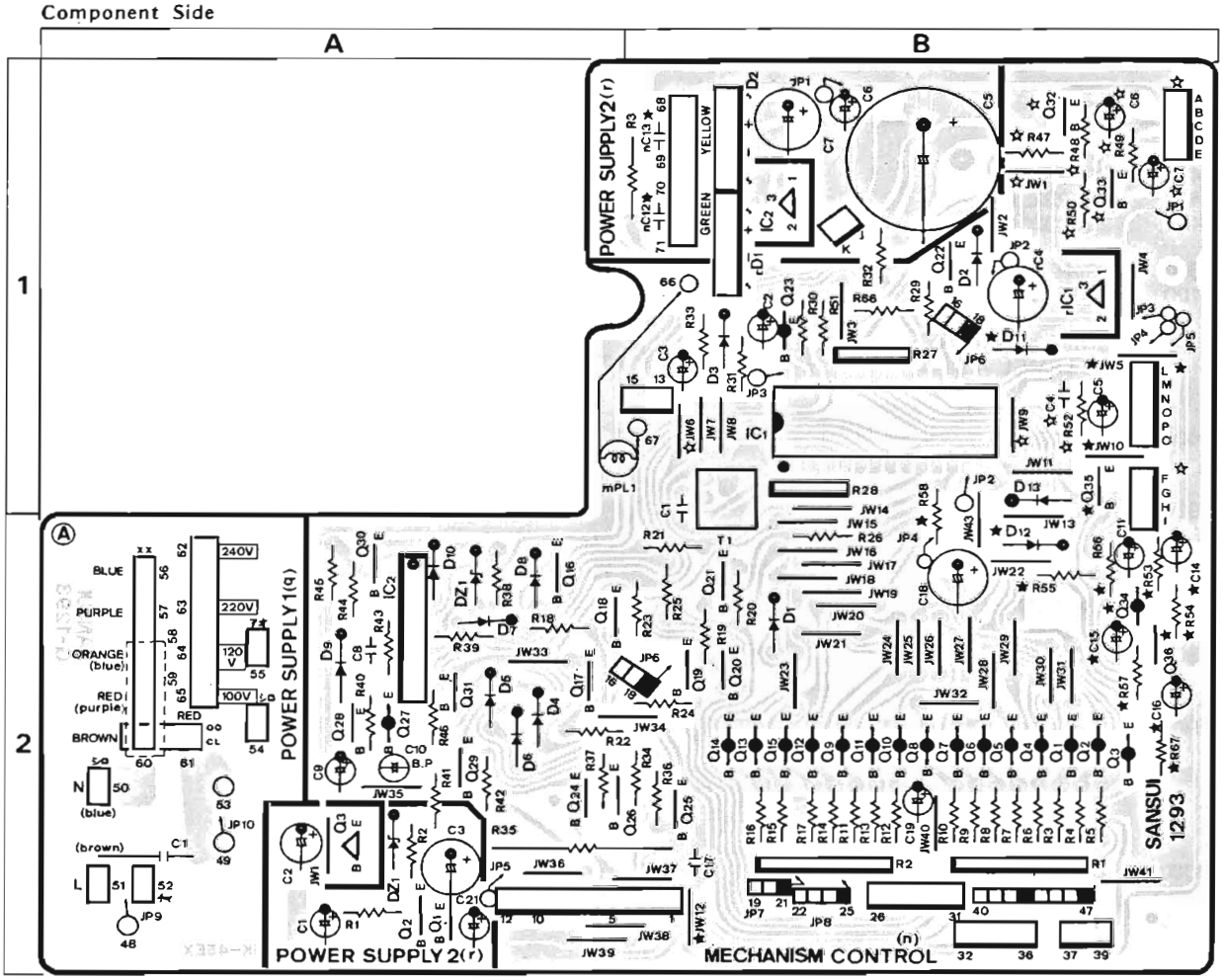
Parts No.	Stock No.	Description
•Transistor		
fQ1	07225401	2SC2320L
fQ2	07225401	2SC2320L
fQ3	07225401	2SC2320L
fC2	00324600	33μF 25 V E.C.
fC5	00373100	8 pF 125 V P.C.
fVR1	07240900	Semi Variable Resistor 500Ω (B) PB LEVEL Adj.
•IC		
hIC1	03613600	NE646B
•Filter		
hFL1	07196900	Filter, MPX
•Transistor		
jQ1	03068301	2SC2320
jQ2	03068301	2SC2320
jQ3	03012701	2SA999
jQ4	03068301	2SC2320
•Filter		
jFL1	07237900	Filter, BIAS TRAP
jVR1	07241300	Semi Variable Resistor 10 kΩ (B), REC LEVEL ADJ.
•OSC Block		
kXO1	07242000	Osc Block B03HK
kVR1	07241500	Semi Variable Resistor 50kΩ (B), BIAS Adj.
kVR2	07246500	Variable Resistor (Bias Fine) 100kΩ (B), BIAS Fine
•Transistor		
lQ1	03012701	2SA999
lQ2	03068301	2SC2320
mQ1	03068301	2SC2320
mQ2	03068301	2SC2320
mQ7	03068301	2SC2320
•Diode		
mD1	03117600	1S2473D
mD2	03117600	1S2473D
mVR1	07241700	Semi Variable Resistor 200 kΩ (B), METER Adj.
•Transistor		
pQ1	03067401	2SC1845
pQ2	03068301	2SC2320
pQ3	03068301	2SC2320
pQ4	03068301	2SC2320
pQ5	03012701	2SA999
pQ6	03068301	2SC2320
pQ7	03068301	2SC2320
pQ8	03012701	2SA999
pQ9	03068301	2SC2320
pQ10	03068301	2SC2320
pQ11	03012701	2SA999
pQ12	03068301	2SC2320
pQ13	03068301	2SC2320
pQ14	03012701	2SA999
pS1	07237000	Push Switch, tape selector
pRL1	11505100	Relay
pJ3	07249100	4P Terminal, Input/Output
•Transistor		
rQ11	03083901	2SD313AL
•Zener Diode		
rDZ11	03179200	RD15E B

Abbreviations

C.R. . . Carbon Resistor	E.L. . . Low Leak Electrolytic Capacitor
S.R. . . Solid Resistor	E.B. . . Bi-Polar Electrolytic Capacitor
Ce.R. . . Cement Resistor	E.BL. . Low Leak Bi-Polar Electrolytic Capacitor
M.R. . . Metal Film Resistor	Ta.C. . . Tantalum Capacitor
F.R. . . Fusing Resistor	F.C. . . Film Capacitor
N.I.R. . Non-Inflammable Resistor	M.P. . . Metalized Paper Capacitor
C.C. . . Ceramic Capacitor	P.C. . . Polystyrene Capacitor
C.T. . . Ceramic Capacitor, Temperature Compensation	G.C. . . Gimmic Capacitor
E.C. . . Electrolytic Capacitor	

4-2. G-1293 Mechanism Control Circuit Board (Stock No. 07098701)

Component Side



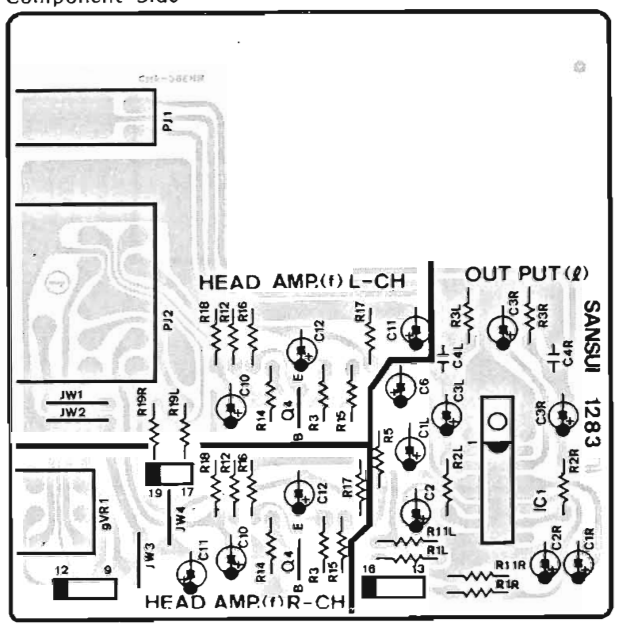
Parts List

Parts No.	Stock No.	Description
qC1	08302200	10000pF 125V S.C.
mPL1	07234400	Lamp 8V 150mA
•Transistor		
nQ1	03012701	2SA999
nQ2	03012701	2SA999
nQ3	03012701	2SA999
nQ4	03012701	2SA999
nQ5	03012701	2SA999
nQ6	03012701	2SA999
nQ7	03012701	2SA999
nQ8	03012701	2SA999
nQ9	03012701	2SA999
nQ10	03012701	2SA999
nQ11	03012701	2SA999
nQ12	03012701	2SA999
nQ13	03012701	2SA999
nQ14	03012701	2SA999
nQ15	03012701	2SA999
nQ16	03068301	2SC2320
nQ17	03068301	2SC2320
nQ18	03068301	2SC2320
nQ19	03068301	2SC2320
nQ20	03068301	2SC2320
nQ21	03068301	2SC2320
nQ22	03068301	2SC2320
nQ23	03012701	2SA999
nQ24	07206901	2SC2001
	03069101	2SC2060
nQ25	07206901	2SC2001
	03069101	2SC2060
nQ26	07206901	2SC2001
	03069101	2SC2060
nQ27	07206801	2SA952
	07254801	2SA854
nQ28	03068301	2SC2320
nQ29	03068301	2SC2320
nQ30	03068301	2SC2320
nQ31	03068301	2SC2320
nQ32	03068301	2SC2320
nQ33	03068301	2SC2320
•IC		
nIC1	07232500	μPD554C-031
nIC2	07233100	BA-6109
•Diode		
nD1	03111600	1S2473D
nD2	03111600	1S2473D
nD3	03111600	1S2473D
nD4	03111600	1S2473D
nD5	03111600	1S2473D
nD6	03111600	1S2473D
nD7	03111600	1S2473D
nD8	03111600	1S2473D
nD9	03117700	10E-2
nD10	03111600	1S2473D
•Zener Diode		
nDZ1	03186000	RD5.6E B
•Block Resistor		
nR1	07244500	RM8-223J 22kΩ
nR2	07244500	RM8-223J 22kΩ
nR27	07244400	RM4-223J 22kΩ
nR28	07244400	RM4-223J 22kΩ
•Resistor		
nR35	00155100	33Ω 3W N.I.R.
nC10	00304300	10μF 16V E.B.
nT1	42306100	Clock Pulse Osc Coil
•Transistor		
rQ1	07206901	2SC2001
	03069101	2SC2060
rQ2	03068301	2SC2320
rQ3	03084501	2SD356
	03086101	2SD357
•IC		
rIC1	07232400	μPC78M10H
rIC2	03609200	FS7805M
•Diode		
rD1	03117000	RB-152
rD2	03117000	RB-152
•Zener Diode		
rDZ1	03163100	RD13E B
rR3	00137700	10Ω 1W N.I.R.
•Capacitor		
rC5	08300100	4700μF 25 V E.C.

4-3. G-1283 Headphone Amp. Circuit Board

(Stock No. 07099301)

Component Side

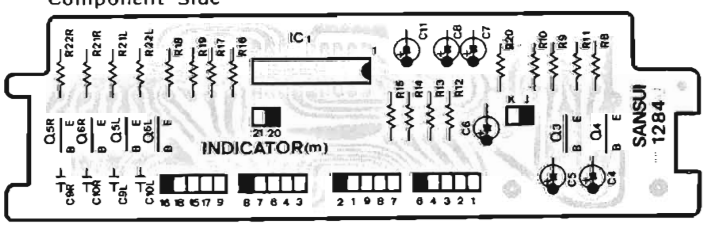


Parts No.	Stock No.	Description
•Transistor		
fQ4	07225401	2SC2320L
gVR1	07235400	50kΩ (A) x 2 Variable Resistor REC LEVEL
•IC		
IIC1	07224500	LA4170
pJ1	07194300	Headphone Jack
pJ2	07200300	Mic Jack

4-4. G-1284 Peak Meter Circuit Board

(Stock No. 07099401)

Component Side



Parts List

Parts No.	Stock No.	Description
•Transistor		
mQ3	03068301	2SC2320
mQ4	03068301	2SC2320
mQ5	03012701	2SA999
mQ6	03012701	2SA999
•IC		
mIC1	07224000	MSL9350RS
mLD1	03194100	SEL8809, LED Ass'y

4-5. G-1291 Function Switch Circuit Board

(Stock No. 07099501)

Parts List

Parts No.	Stock No.	Description
•LED		
nLD1	07250800	TLO123 LED (Orange)
nLD2	07250900	TLG123 LED (Green)
nLD3	07250900	TLG123 LED (Green)
nLD4	07250900	TLG123 LED (Green)
nLD5	07251000	TLY123 LED (Yellow)
nS1	07234700	Push Switch, REC
nS2	07234700	Push Switch, REW
nS3	07234700	Push Switch, PLAY
nS4	07234700	Push Switch, FF
nS5	07234700	Push Switch, STOP
nS6	07234700	Push Switch, PAUSE
nS7	07234700	Push Switch, REC MUTE
nS8	07234700	Push Switch, TAPE LEAD IN

• Note: The circuit board, G-1294, G-1295 & G-1303 are not supplied as the assembled. However, the individual parts on the circuit board are provided by orders.

4-6. G-1294 Memory/Auto Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
nS9	07249900	Slide Switch Auto
nS10	07249800	Slide Switch, Memory

4-7. G-1295 Timer Switch Circuit Board

Parts List

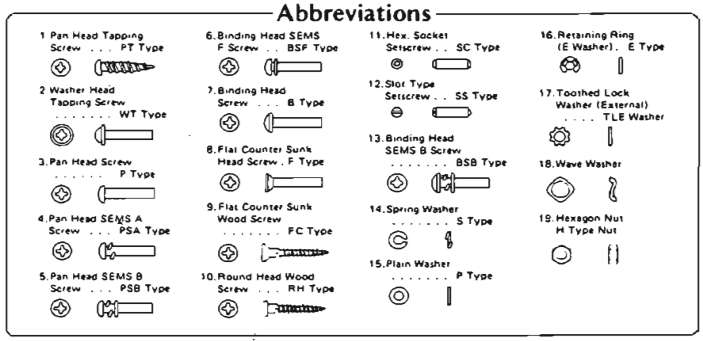
Parts No.	Stock No.	Description
nS11	07249900	Slide Switch, Timer

4-8. G-1303 Power Switch Circuit Board

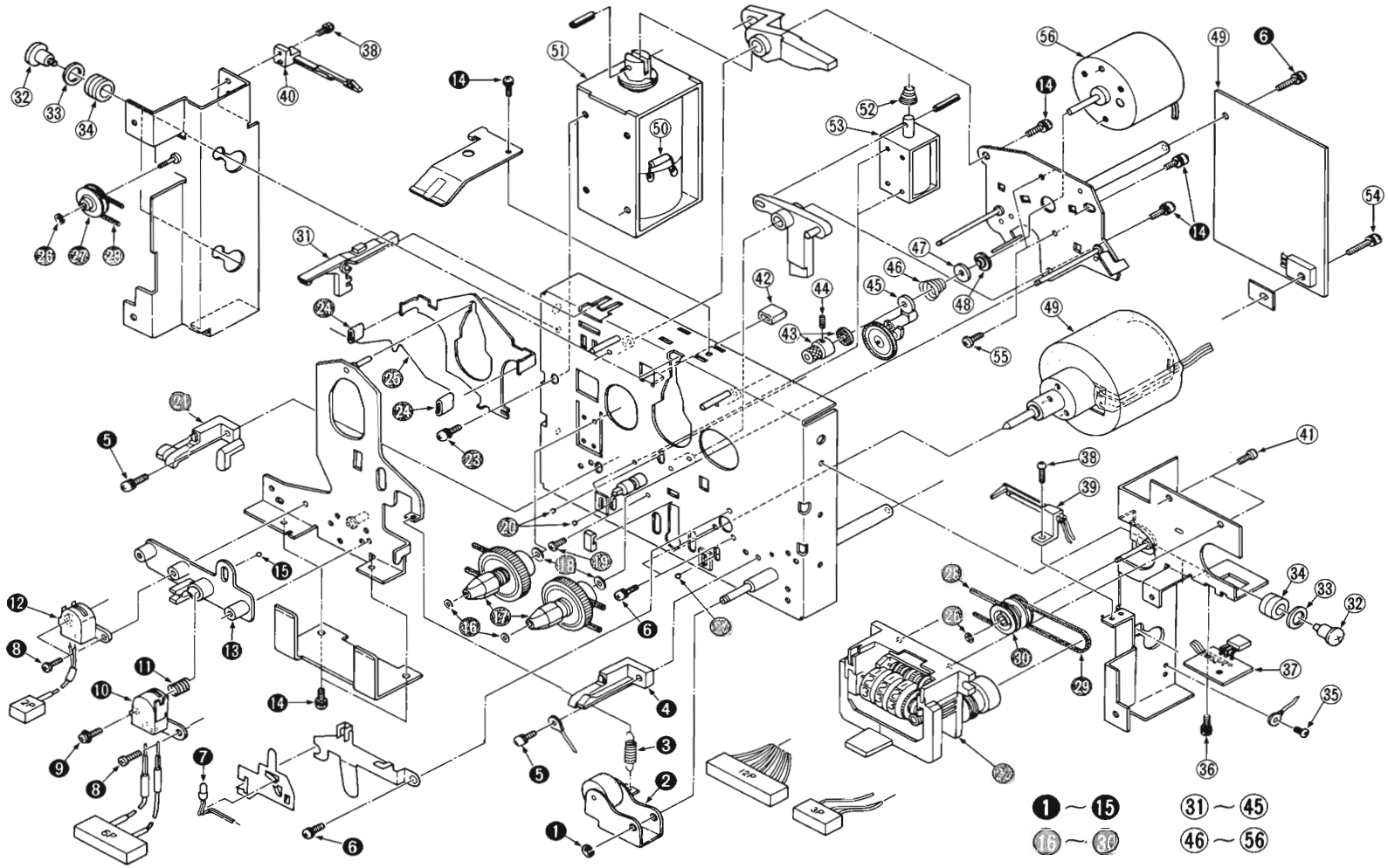
Parts List

Parts No.	Stock No.	Description
	07267100	Push Switch

Abbreviations



5. EXPLODED VIEW AND PARTS LIST



Parts List

Parts No.	Stock No.	Description
2	07735300	Pinch Roller Ass'y
4	09446500	Cassette Holder (Right)
7	07720000	Lamp, 8V 50mA
10	07719500	Rec/P.B. Head
12	07735500	Earth Head
13	07735400	Head Base
15	07734800	Steel Ball
17	07733100	Reel Hub Ass'y
20	65400300	Steel Ball
21	09446400	Cassette Holder (Left)
22	09402600	Counter
24	07734000	Brake Shoe
27	09446700	Tension Pulley
28	07733900	Belt, counter (1), tension
29	07734200	Belt, counter (2)
30	07733800	Pulley, counter
31	09446800	Rec Senser Lever
34	07734100	Cushion, mechanism support
37	07733300	Tape-Run Sensing Circuit Board
*	03614000	Hole IC D6838
*	09447100	Hole IC DN838
39	07719700	Leaf Switch
40	07719600	Leaf Switch
42	07734000	Cushion
43	07733500	Pulley Ass'y
45	07735200	Idler Ass'y
48	09446600	Spring Support
49	07719300	Capstan Motor (with control circuit board)
50	07733000	Diode, S5277B
51	07719800	Plunger Solenoid, play/rec
53	07719900	Plunger Solenoid, Brake
56	07719400	Reel Motor

* When Replacing Hole IC, refer to Service Bulletin, Ref. AN-123.

Parts No.	Stock No.	Description
•Screw		
5	00448000	Pan Head (PSA) M3 x 8
6	08321400	Pan Head (PSA) M2.6 x 6
8	07736700	Pan Head M2 x 13
9	07736500	Washer toothed Head M2 x 14
14	08321300	Pan Head (PSA) M2.6 x 4
19	07736300	Pan Head M2 x 3
23	00449100	Pan Head (PSB) M3 x 6
32	07732900	Pan Head M4 x 11.2
35	00436700	Flat Countersunk Head M2.5 x 5
36	08321500	Pan Head (PSA) M2 x 4
38	09446300	Pan Head M2 x 5
41	00440400	Pan Head Tapping M2.6 x 5
44	07736600	Slat Type M2 x 3.5
54	00436800	Pan Head (PSA) M2.6 x 8
55	07736400	Pan Head M2.6 x 3
•Washer		
1	00489000	E ring D-2.0
16	07732600	Poly-trust plain M3 x 2 x 0.5
18	07732800	Poly-trust plain M5.4 x 3.1 x 0.25
26	00488900	E ring D-1.5
33	07733700	Plain (Mechanism Support) M10 x 4.5 x 0.5
47	07732700	Plain (Idler) M7 x 2.1 x 0.5
•Spring		
3	07734700	Pinch Roller Spring
11	07734400	Head Adjust Spring
25	07734500	Brake Spring
46	07734600	Idler Spring
52	07734300	Brake Plunger Spring

6. MAIN PARTS REPLACEMENT
(See Exploded View left)

A. Mechanism Chassis

1) Remove bonnet and front panel.
2) Loosen two screws on mechanism cover ass'y to remove it.
3) Take out G-1303 (Power switch circuit board) and G-1295 (timer switch circuit board).
4) Plug out 4 connectors on G-1293 (Mechanism Control Circuit Board) and G-1282 (Play/Rec Amp Circuit Board) and cut off the vinyl bands.
5) Loosen 4 screws fixing mechanism chassis.
And, the mechanism chassis is easily off.

B. Idler Ass'y (45) and Reel Motor (56)

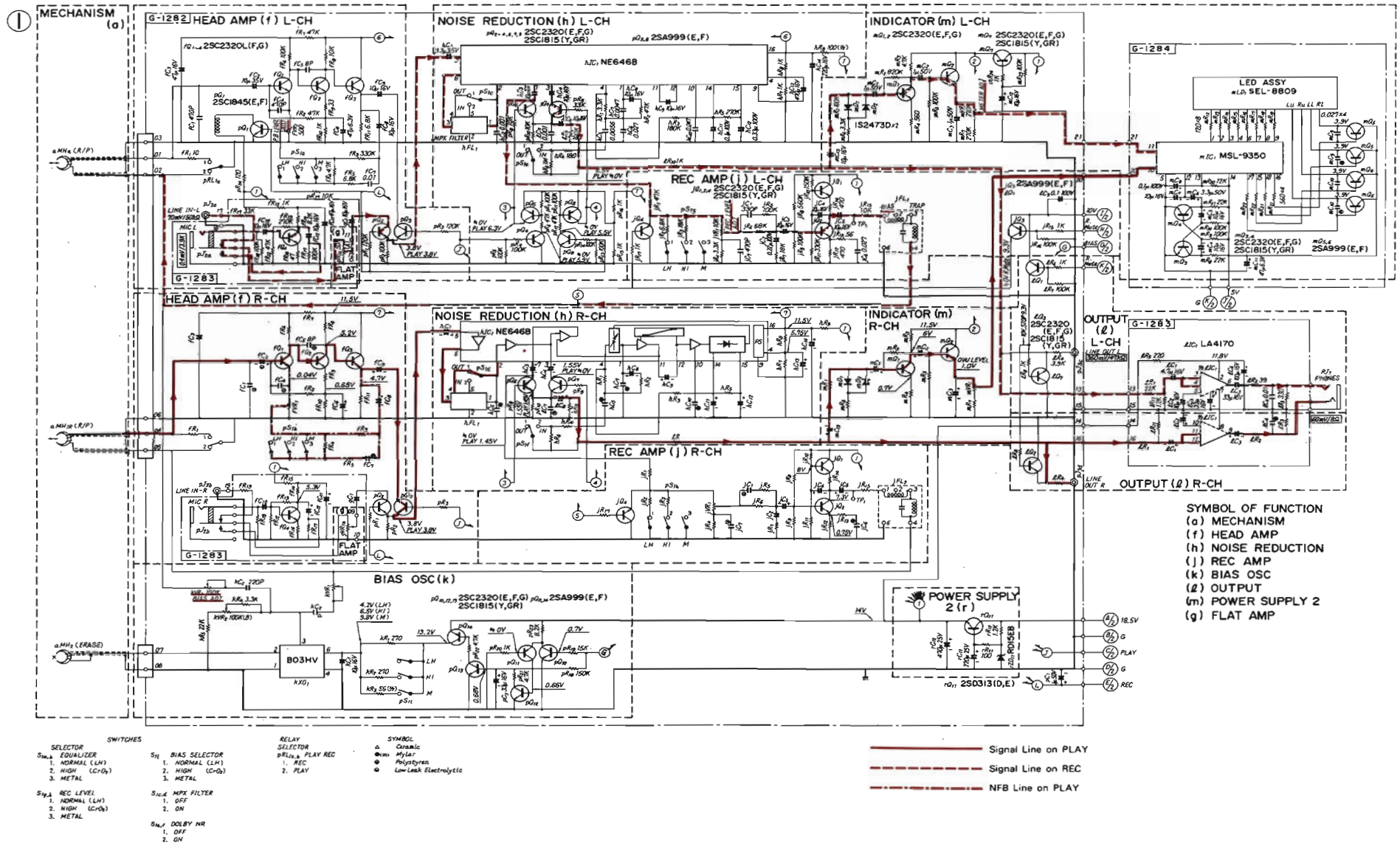
1) Take out mechanism chassis, tension and counter (1) belt.
2) Remove thrust washer (16) at reel hub ass'y (supply · take up) (17), and reel hub ass'y from mechanism chassis.
5) Loosen two screws (6), (54) fixing capstan motor control circuit board.
6) Loosen three screws (14) fixing reel motor mounting plate and take out reel motor.
7) Loosen one screw (44) around pulley to pull out the pulley, then remove idler ass'y from reel motor.
8) Next, to remove reel motor, take out idler spring (46), washer (47) and spring support (48).
9) Loosen two screws (55) fixing reel motor and reel motor can be off from reel motor mounting plate.

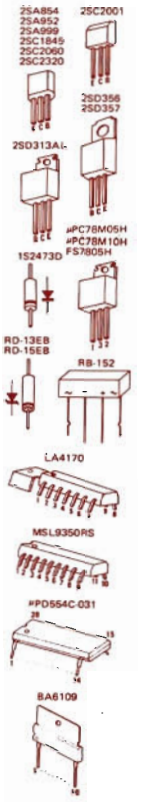
C. Capstan Motor

1) Take out mechanism chassis first.
2) To remove this motor, loosen two screws (6), (54) fixing capstan motor control circuit board, and three screws (6) fixing capstan motor.

* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

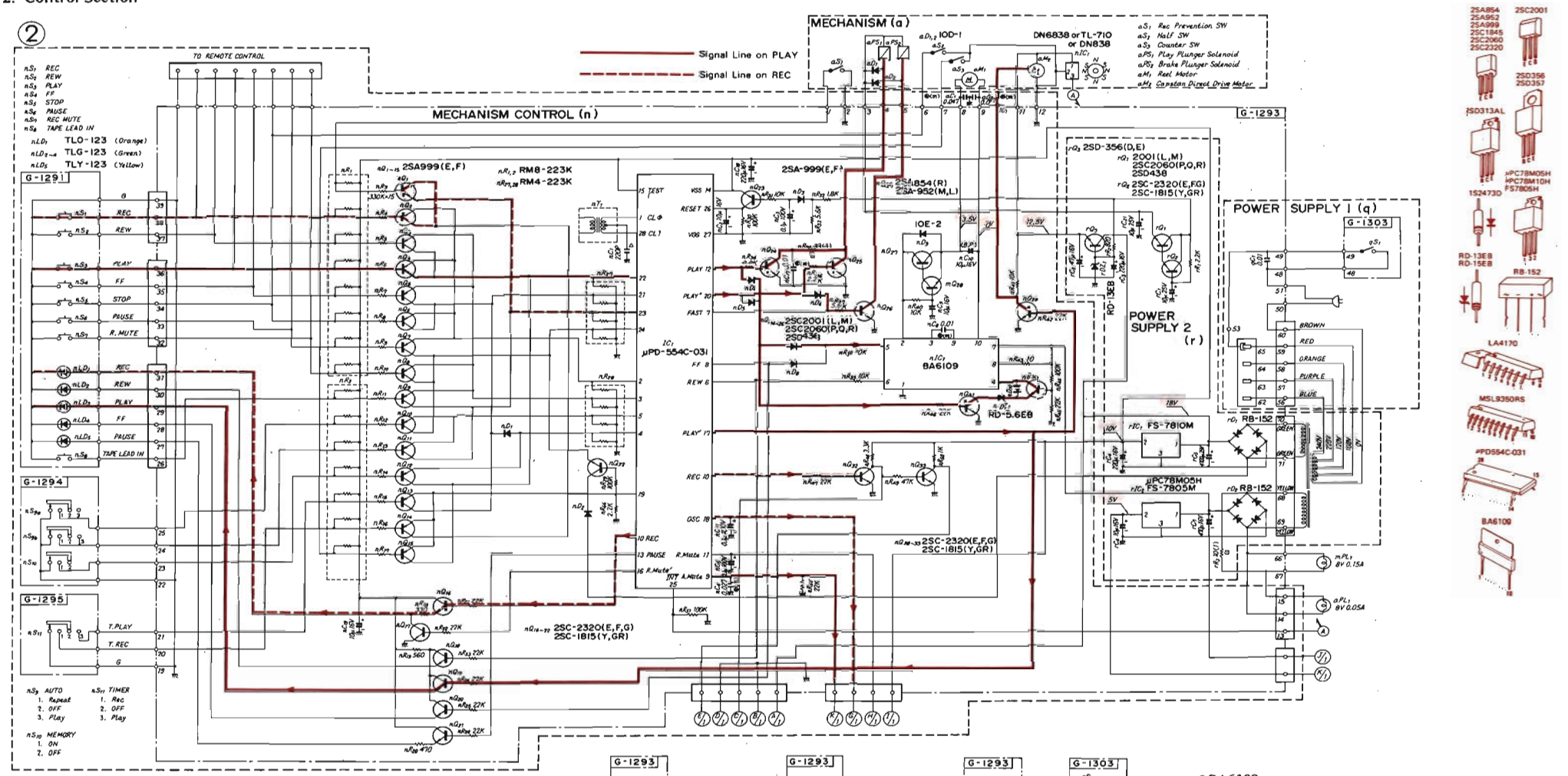
7. SCHEMATIC DIAGRAM 7-1. Amplifier Section





* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

7-2. Control Section



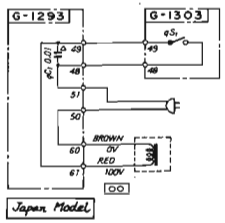
SYMBOL
- Ceramic
- Mylar
- Bi-Polar Electrolytic
- Non-Inflammable Resistor

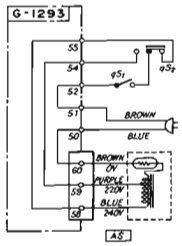
Each D.C Voltage measured by the instruments described below shows the nominal Value in volts During recording

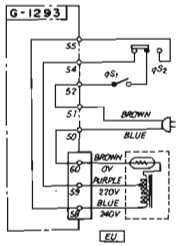
Measuring instruments Volt Meter D.C 20KΩ/V

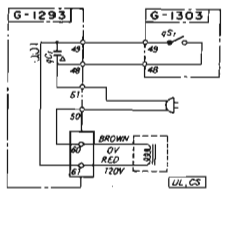
SYMBOL OF FUNCTION

(a) MECHANISM
(n) MECHANISM CONTROL
(q) POWER SUPPLY 1
(r) POWER SUPPLY 2

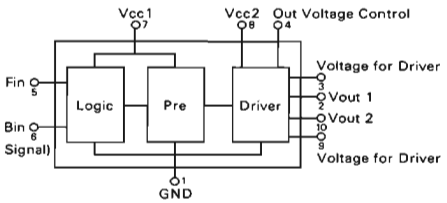






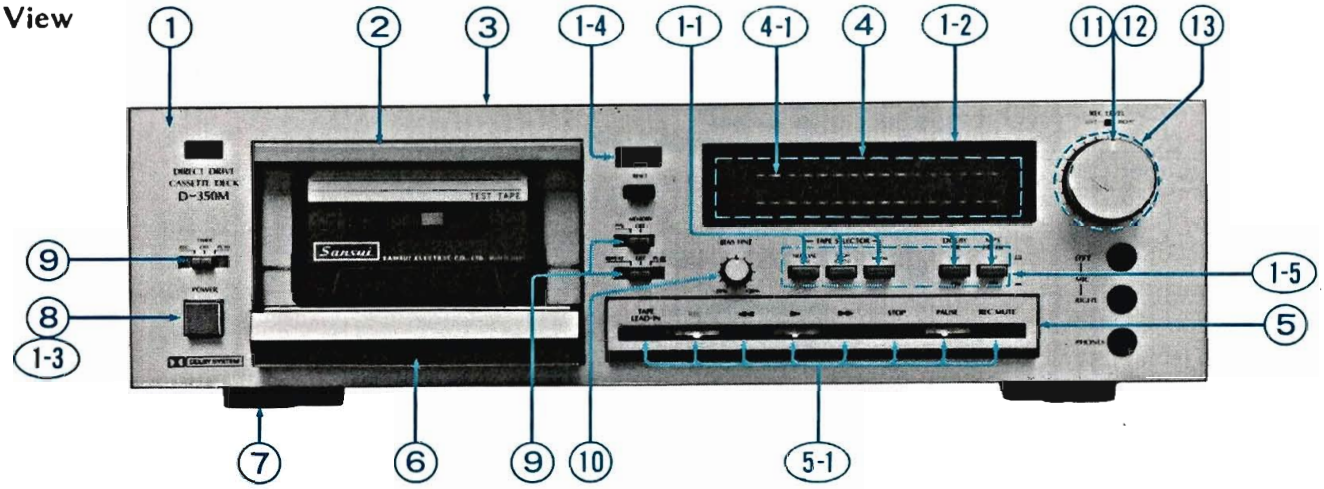


●BA6109

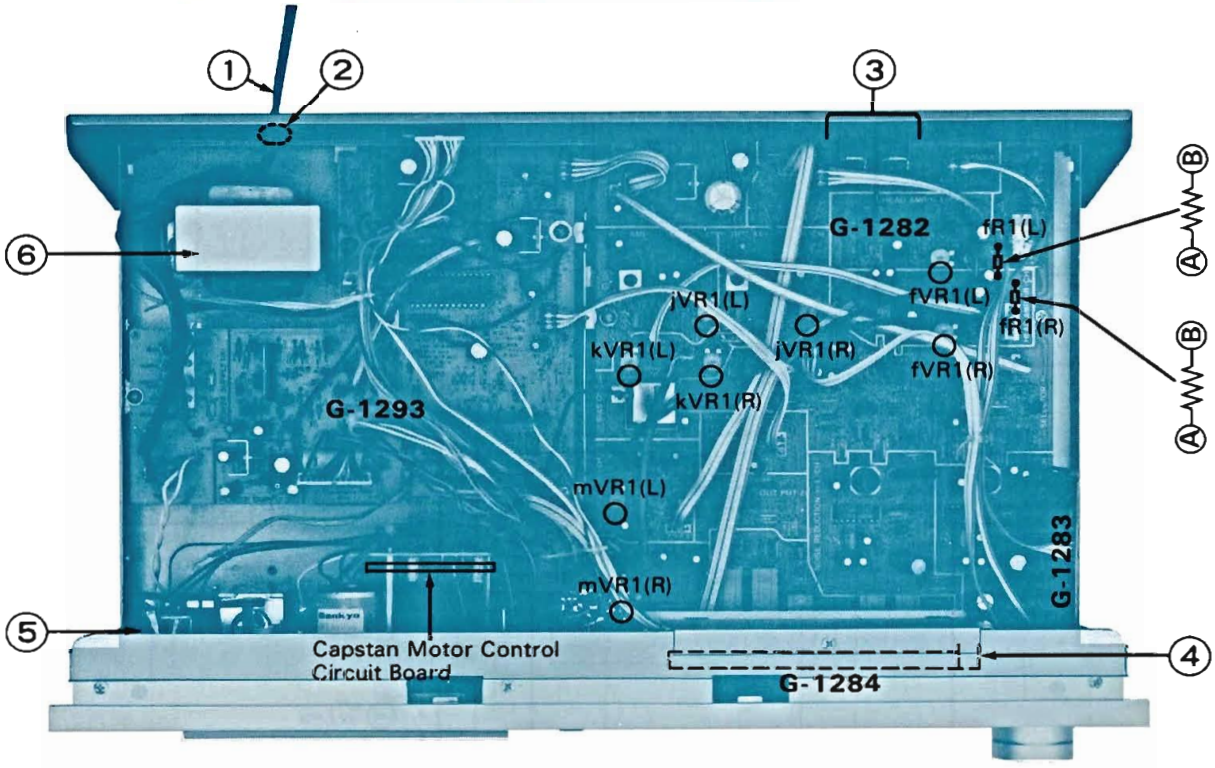


8. OTHER PARTS

8-1. Front View



8-2. Top View



Parts List <Front View>

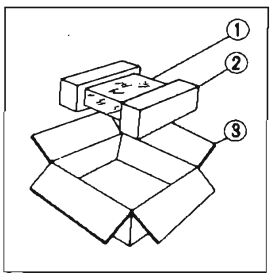
Parts No.	Stock No.	Description
1	07630100	Front Panel Ass'y (Silver Model)
	07630300	Front Panel Ass'y (Black Model)
1-1	07630800	Push Knob Ass'y (Silver Model) Tape Selector, Dolby, MPX Filter
	07630900	Push Knob Ass'y (Black Model) Tape Selector, Dolby, MPX Filter
1-2	07604300	Meter Cover Glass
1-3	59560800	Knob Guide (Silver Model)
	59560900	Knob Guide (Black Model)
1-4	07603800	Counter Lens
1-5	07610700	Guide Cushion
2	07631220	Mechanism Cover Ass'y (Silver Model)
	07631310	Mechanism Cover Ass'y (Black Model)
3	07610900	Bonnet (Silver Model)
	07611000	Bonnet (Black Model)
4	07632000	Frame Ass'y, peak meter
4-1	07604400	Scale, Peak Meter
5	07636000	Control Plate Ass'y (Silver Model)
	07636100	Control Plate Ass'y (Black Model)
5-1	07623800	Control Button
6	07604500	Head Cover (Silver Model)
	07604600	Head Cover (Black Model)
7	55073500	Leg
8	53195000	Knob (Silver Model), power
	53196500	Knob (Black Model), power
9	07604100	Slide Knob (Silver Model), auto, timer, memory
	07604200	Slide Knob (Black Model), auto, timer, memory
10	07603300	Knob (Silver Model), bias fine
	07604000	Knob (Black Model), bias fine
11	07603400	Knob (Silver Model), left rec level
	07603500	Knob (Black Model), left rec level
12	07603600	Knob (Silver Model), right rec level
	07603700	Knob (Black Model), right rec level
13	07506900	Masking Sheet

Parts List <Top View>

Parts No.	Stock No.	Description
1	38005700	Power Supply Cord
2	39106000	Strain Relief
3	07249100	4P Terminal, input output
4	07234400	Lamp 8V 150mA
5	07267100	Power Switch
6	15001001	Power Transformer

9. PACKING LIST

Parts No.	Stock No.	Description
1	91167610	Vinyl Cover
2	07632300	Styrofoam Packing
3	07632400	Carton Case (Silver Model)
	07632600	Carton Case (Black Model)



10. ACCESSORY LIST

Stock No.	Description
07641800	Operating Instruction
38103300	PJP Cord x 2
94300500	Head Cleaner (Cotton Buds)
07712200	Rack Mounting Adaptor (Black Model)

SANSUI ELECTRIC COMPANY LTD.: 14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan
PHONE:(03) 324-8891/TELEX:232-2076 (International Division)
SANSUI ELECTRONICS CORPORATION: 1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.
333 West Alondra Blvd. Gardena, California 90247 U.S.A.
3036 Koapaka St. Honolulu, Hawaii 96819 U.S.A.
SANSUI ELECTRONICS (U.K.) LTD.: Unit 10A, Lyon Industrial Estate, Rockware Avenue, Greenford, Middx UB6, OAA, England
SANSUI ELECTRONICS G.M.B.H.: Arabella center, 6 Frankfurt AM Main, Lyoner Strasse 44-48, West Germany

Printed in Japan (810830M) (Stock No. 36458700)