

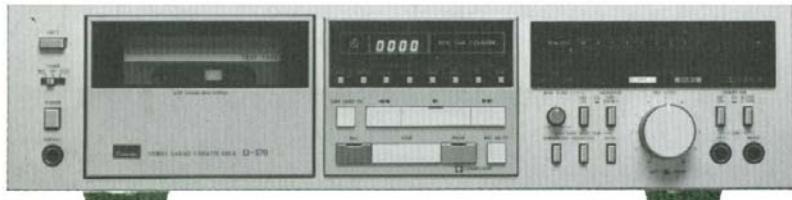
SERVICE MANUAL

STEREO CASSETTE DECK

SANSUI D-370

STEREO 3-HEAD CASSETTE DECK

SANSUI D-570



Sansui

SANSUI ELECTRIC CO., LTD.

• SPECIFICATIONS

<D-370/D-570>

Track	4-Track (2-Channel Stereo)
Tape speed	4.8 cm/sec. (1-7/8 ips)
Heads	Record/Playback: "Dynalloy" Head <D-370> Record/Playback: Ferrite Combination Head <D-570>
Motor	Erase: Double Gap Ferrite Head Capstan: FG Servo Motor Reels: DC Motor
Wow and flutter	within 0.03 % WRMS
Fast wind time	approximately 80 seconds (C-60)

<D-370>

Frequency response (Record/Playback)

Normal Tape (LH) (-20 VU)	20 to 16,000 Hz (30 to 15,000 Hz ± 3 dB)
Metal Tape (-20 VU)	20 to 19,000 Hz (30 to 18,000 Hz ± 3 dB) (0 VU) . 30 to 13,000 Hz ± 3 dB

<D-570>

Frequency response (Record/Playback)

Normal Tape (LH) (-20 VU)	20 to 17,000 Hz (30 to 16,000 Hz ± 3 dB)
Metal Tape (-20 VU)	20 to 22,000 Hz (30 to 21,000 Hz ± 3 dB) (0 VU) . 30 to 13,000 Hz ± 3 dB

<D-370/D-570>

Signal to noise ratio (Record/Playback)

Metal Tape (without Dolby Noise Reduction Effect)	better than 60 dB (weighted)
(With Dolby Noise Reduction)	
B-NR	better than 70 dB (above 5 kHz)
C-NR	better than 80 dB (above 1 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)

350 mV

PHONES 100 mV

Power requirements

Power voltage 100, 120, 220, 240 V (50/60 Hz)

For U.S.A. and Canada

120 V (60 Hz)

Power consumption

30 W

Dimensions 430 mm (16-15/16") W

111 mm (4-3/8") H

324 mm (12-3/4") D

Weight 6.4 kg (14.1 lbs) net

7.5 kg (16.5 lbs) packed <D-370>

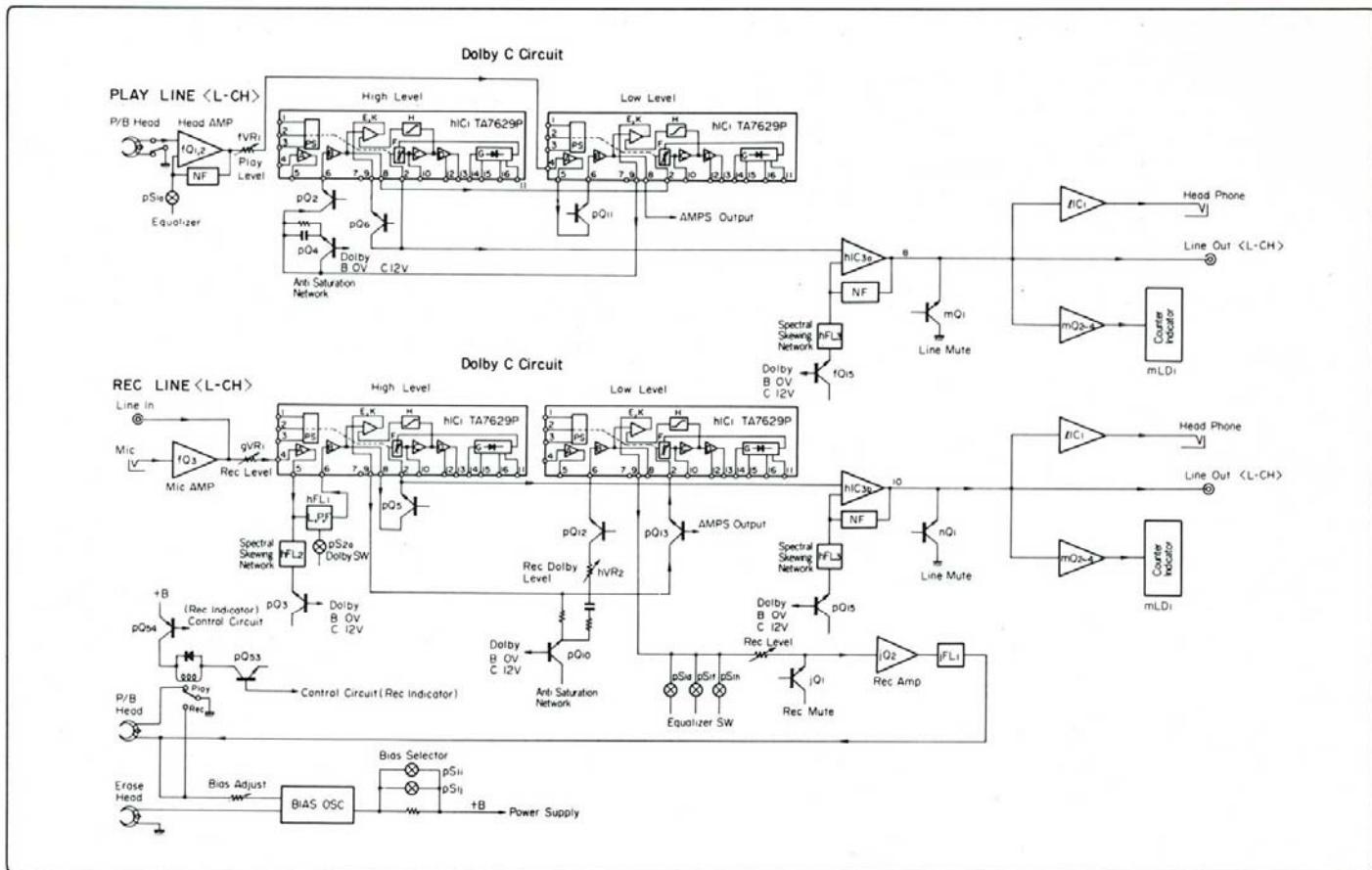
6.5 kg (14.3 lbs) net

7.6 kg (16.8 lbs) packed <D-570>

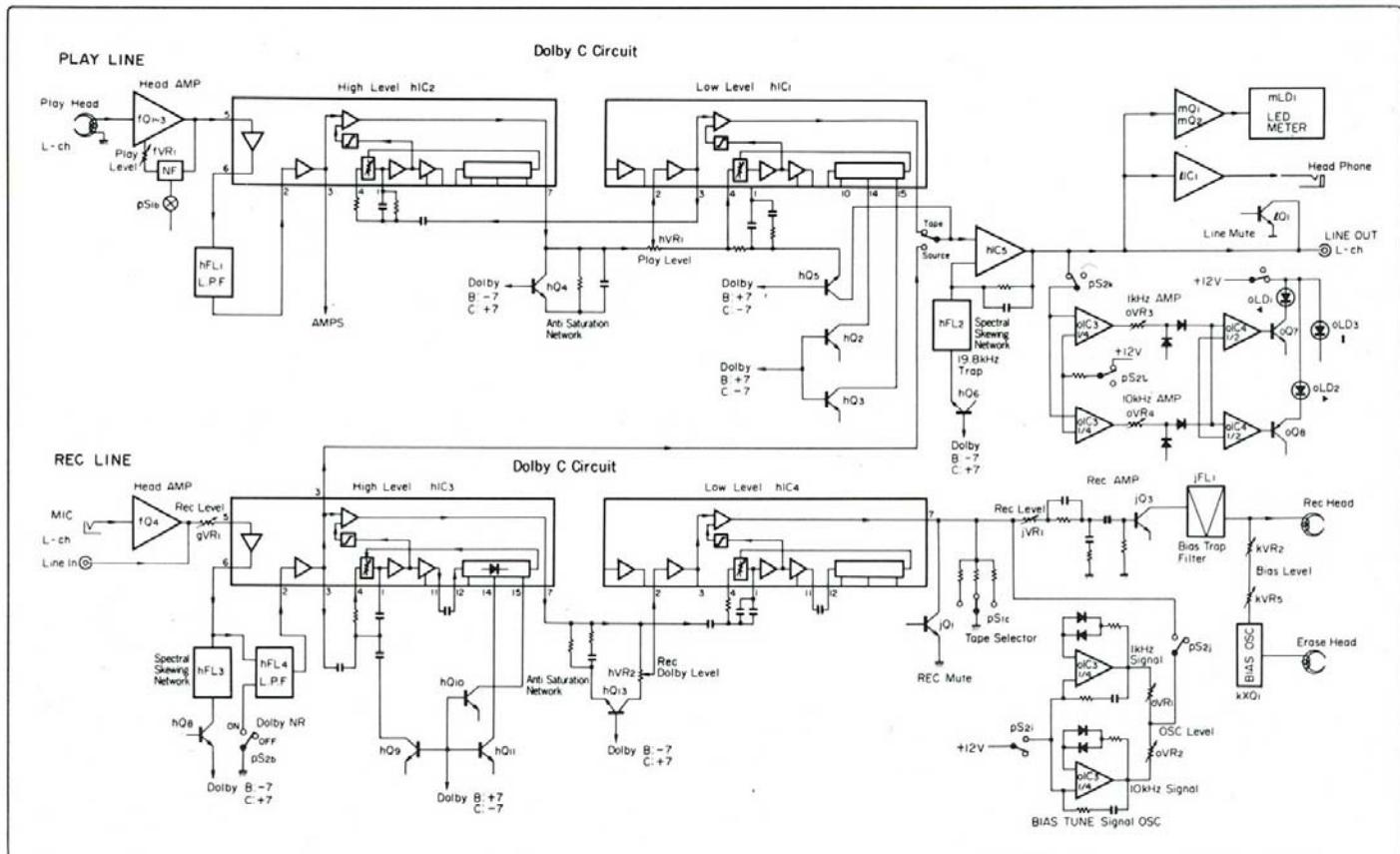
- * Design and specifications subject to changes without notice for improvements.
- * In order to simplify the explanation illustrations may sometimes differ from the originals.
- * The word "Dolby" is a trademark of Dolby Laboratories. This product is manufactured under the license from Dolby Laboratories.

1. BLOCK DIAGRAM

1-1. D-370



1-2. D-570



2. OPERATION OF ELECTRIC CIRCUIT

2-1. Operation of Dolby-C circuit

A. Circuit configuration and its features

1. Circuit configuration

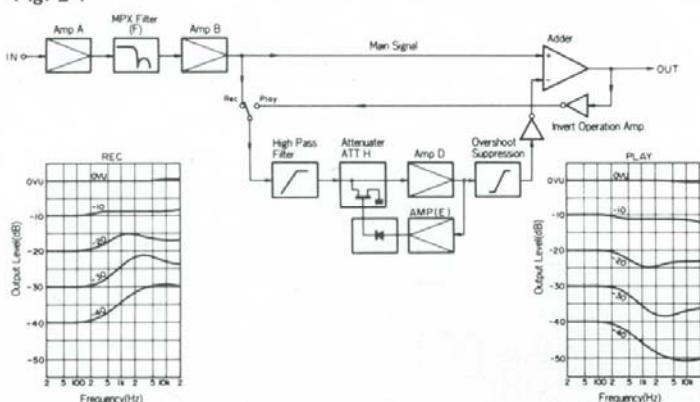
Basically, the Dolby-C circuit is the one in which two Dolby-B circuits are cascaded. The points different from the Dolby-B circuit are as follows: two-stage circuit configuration of high-level and low-level, addition of spectral skewing network and antisaturation network, and lower reference frequency at which the operation starts, as shown in Figs. 2-2 and 2-3. In order to achieve recording monitoring, in the D-570, two Dolby-C circuits are provided for the recording and playing operations, respectively; however, in the D-370, a single Dolby-C circuit is used for both the operations by switching it.

2. Features (Comparison with Dolby-B circuit)

- 1) The SN ratio has been improved from 10 dB to 20 dB.
- 2) The reference frequency at which the operation starts has been changed from 485 Hz to 180 Hz. Therefore, a gentle encoding is achieved over a wide range without a feeling of unnaturalness in acoustic sense.
- 3) A sliding band system has been adopted in order to suppress breathing noise, in which the operation-start frequency can be slided in accordance with input signal levels and frequency.
- 4) The spectral skewing network and antisaturation network have been newly added in order to improve the linearity within high frequency band.
- 5) There exists compatibility with the Dolby-B circuit.

B. Basic operations of Dolby-B circuit

Fig. 2-1



In the method of reducing Dolby noises, only the high-frequency low-level signal components by which hiss noise is audible are once amplified and returned back again to the original level during the play operation. Since the noise level is also lowered simultaneously, the tape hiss noise is eliminated relatively.

The operation is such that the main signals and the subsignals corrected according to frequency and level are added through the adder. The subsignals are added in recording operation and subtracted in playing operation. (See Fig. 2-1)

The high-pass filter in the subsignal circuit is the one used for correcting the frequencies only within medium-and-high frequency band. Further, the variable attenuator configured by an FET is controlled by a DC voltage from the nonlinear rectifier so as to automatically adjust the correction level and turn-over frequency in accordance with the signal level and frequency, in cooperation with the high-pass filter.

There exists a problem in that the control signal applied to the variable attenuator is delayed from the main signal and cannot follow an abrupt change in the signal level, and thereby a noncontrol signal is passed through the adder. Therefore, the overshoot suppressor is used to solve this problem.

C. Operation of Dolby-C circuit (See Figs. 2-2 and 2-3)

1. Operations of high-level stage and low-level stage during recording

The basic operations of both the stages are the same as in the Dolby-B circuit. The amplification degree is 10 dB at 1.5 kHz in the case of one stage and therefore 20 dB in the case of two stages. However, the turn-over frequency is two octave lower than in the Dolby-B circuit.

In the low-level stage, the threshold voltage of the control circuit in the side channel is preset higher than in the high-level stage. Further, since the signal is amplified at the high-level stage and fed to the low-level stage, the low-level stage receives higher voltage signals than those in the high-level stage, and therefore the low-level stage begins compression operation earlier than in the high-level stage.

Fig. 2-2

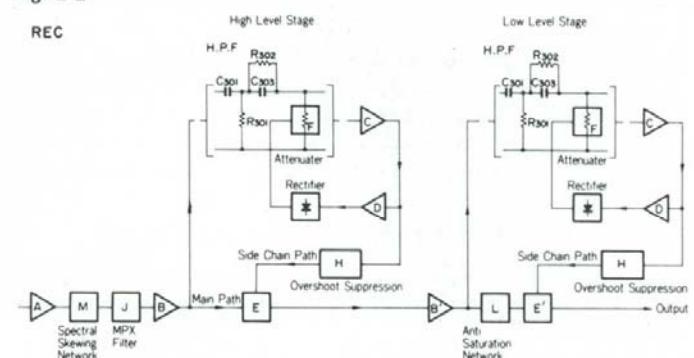
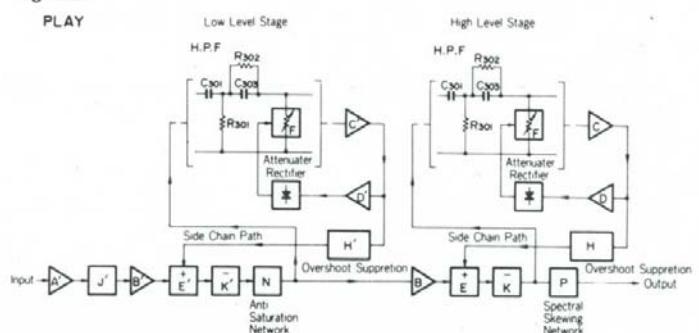


Fig. 2-3



2. Operations of spectral skewing network and Antisaturation network

The spectral skewing network lowers the signal level in recording operation and returns it back again in playing operation, in order to prevent frequency characteristic deterioration due to tape. By this method, it is possible to prevent the modulation of low-to-medium frequency band signals, which is caused by the saturation of ultra-high frequency band signals.

The antisaturation network lowers the high frequency band level in recording operation and returns it back again in playing operation, because the signal level drops at high-frequency as the recording level increases.

By this method the saturation level is improved roughly 4 dB at 10 kHz and 8 dB at 15 kHz.

Fig. 2-4

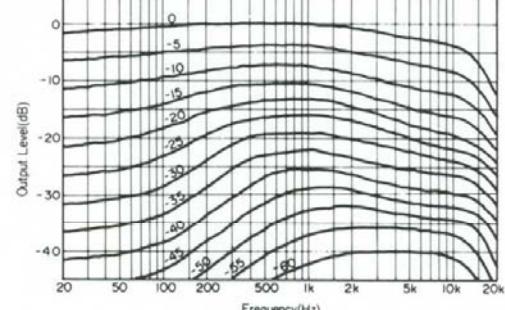
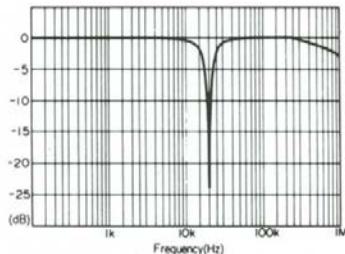


Fig. 2-5



As shown in the Block Diagram, in the actual circuit, the spectral skewing network is provided in the high-level stage and the antisaturation network is provided in the low-level stage. Further, in the spectral skewing network, a filter circuit is used so that the spectral skewing characteristics have a peak at 19.8 kHz, as shown in Fig. 2-6. In the antisaturation network, a CR circuit is used so that the recording characteristics have a tendency to lower the signal level within the high-frequency band over 1 kHz, as shown in Fig. 2-4.

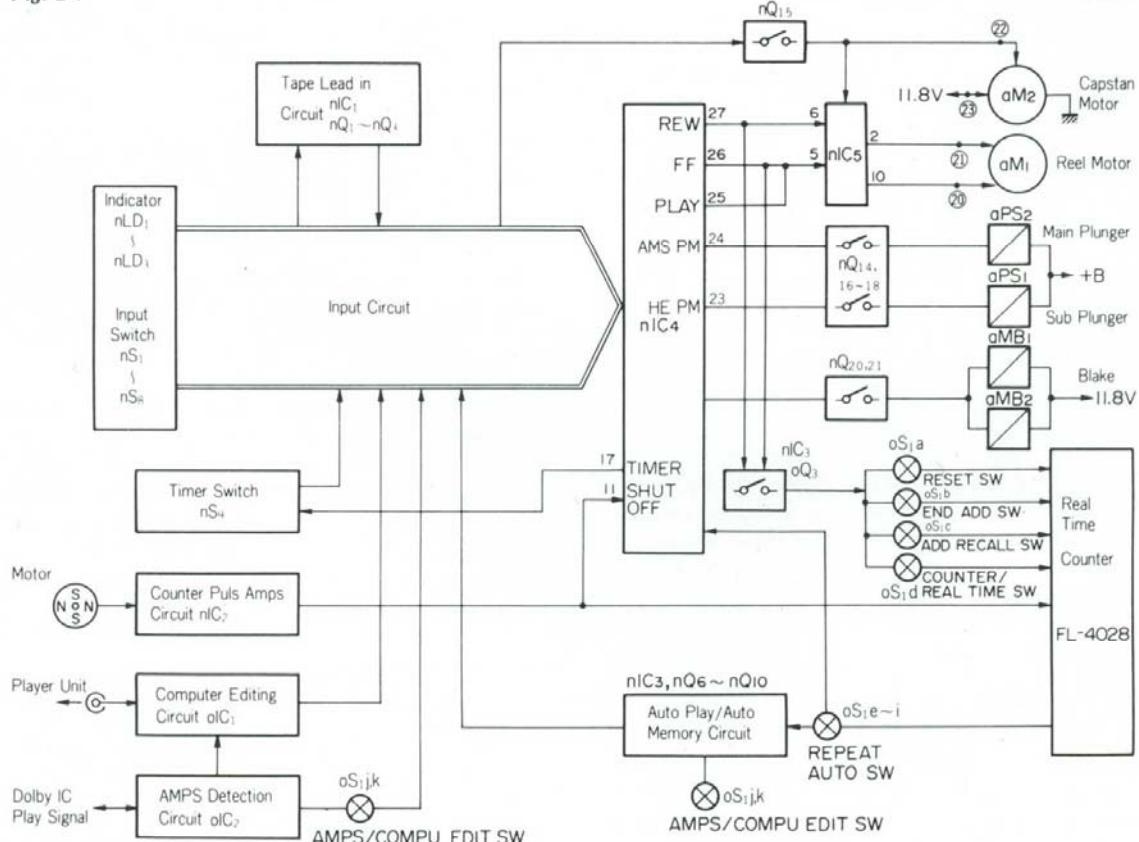
3. Operation of Dolby-C circuit in playing

Basically, the same circuit as in recording operation is used in playing operation; however, double negative feedback loops are formed in the side chain path, and the side-path signal is subtracted from the main-pass signal. Since the playing operation is complementary to the recording operation, the order of the high-level stage and the

2-2. Operation of Mechanism Control Circuit

- Note: The following describe the operations of D-570 only, as mechanism control operation of D-570 is basically the same as that of D-370.

Fig. 2-7

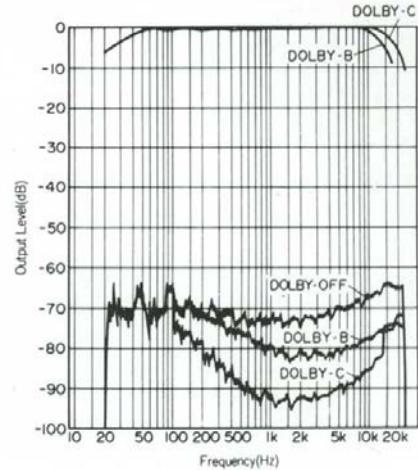


As shown in Fig. 2-7 Block Diagram, the mechanism control circuit comprises a control C-MOS IC nIC4 (MSM5836RS), an input switching circuit, an amplifier, a detection circuit, a semiconductor

low-level stage is reversed. Accordingly, the spectral skewing network characteristics and the antisaturation network characteristics are opposite to those given in recording operation.

Furthermore, Fig. 2-6 shows for comparison, the noise signal waveforms generated from the Dolby-C circuit, Dolby-B circuit, and Dolby-off circuit, and the recording frequency characteristics.

Fig. 2-6



switch, an auxiliary mode selector switch, a motor, two plungers, two magnet brake, an electronic counter, etc.

A. Operations of motor, plunger and brake in each operation mode

The following table lists the operations of the motor, plungers and brake for controlling important functions in the mechanism control unit, being classified into each operation mode such as PLAY, REW, AMPS, etc. Refer to this table together with Block Diagram of Mechanism Control Unit.

In the table "nIC5 Output" implies an output signal voltage from the nIC5 developed when one of the input operation switches is depressed to generate an output signal from the terminal correspond-

ing to the depressed switch, and this outputted signal is applied to the input pin of the nIC5. On the other hand, an output signal is being generated from the HEPM terminal (Pin No. 23) of the nIC4 in the play (record) operation. And a H-voltage output signal is being generated from the AMPS terminal (Pin No. 24) in the play (record) operation and for 0.25 sec. after the play motor signal rises. (See Output Functions of nIC4)

Table.1 Mechanism control operation

	nIC5 output 2 pin, 10 pin	Capstan motor aM2	Reel motor aM1	Main plunger aPS2	Sub-plunger aPS1	Magnet brake aMB1, aMB2
PLAY (REC)	3V	Rotates counterclockwise at a low speed. When nQ15 is on, connector pin No. 22 is grounded and 11.8V is applied to pin No. 23.	Rotates counterclockwise at a low speed. 3V is applied to connector pin No. 20.	nIC4 HEPM terminal output signal is 4.8V; nQ19 is on; aPS2 is energized. When started, an output signal is generated from AMS PM for 0.25 sec to turn nQ16 and nQ17 on, therefore the plunger primary-side voltage rises.	nIC4 HEPM terminal output signal is 4.8V; nQ14 and nQ18 are both on; aPS1 is energized. When started, an output signal is generated from AMS PM for 0.25 sec to turn nQ11 and nQ17 on, therefore the plunger primary-side voltage rises.	Activated when switched from PLAY to STOP. nIC4 terminal pin No. 25 is L; nQ21 is off; nQ20 is on; aMB1 and aMB2 are both activated. STOP time is determined by a time constant of nC15.
FF	6V	OFF	Rotates counterclockwise at a high speed. 6V is applied to connector pin No. 20.	Although nIC4 FF output generates a signal, nQ19 is off through ground, oS1k, nD10, therefore aPS2 is deenergized.	No output signal from nIC4 AMS PM and HEPM terminal pins. nQ18 is off; aPS1 is deenergized.	Activated when switched from FF to STOP. nIC4 terminal pin No. 26 is L; nD20 is off; nQ21 is off; nQ20 is on; aMB1 and aMB2 are both activated. STOP time is determined by a time constant of nC15.
AMPS FF	3V → 6V	OFF	Rotates counterclockwise at a low speed in PLAY, and after that at a high speed in FF. 3V is applied to connector pin No. 20, and after that 6V is applied.	After aPS2 is switched for energization to deenergization in PLAY, nIC4 FF output signal turns nQ19 on through nD20 and nD25, therefore aPS2 is energized.	aPS1 is deenergized after energization in PLAY. No output signal is generated from nIC4 AMS PM and HEPM terminal pins. Since nQ18 is off, aPS1 is deenergized.	Activated when switched from PLAY to STOP, and FF to STOP in the same operation as in PLAY and FF modes.
REW	6V	OFF	Rotates clockwise at a high speed. 6V is applied to connector pin No. 21.	aPS2 is deenergized in the same operation as in FF mode. However, a REW output signal is generated from nIC4.	aPS1 is deenergized in the same operation as in FF mode.	The same operation as in FF mode. However, a REW output signal is generated.
AMPS	3V → 6V	OFF	Rotates counterclockwise at a low speed in PLAY, and after that at a low speed in REW. 3V is applied to connector pin No. 20, and after that 6V is applied to connector pin No. 21.	After aPS2 is switched from energization to deenergization in PLAY, nIC4 REW output signal turns nQ19 on through nQ19 and nD25, therefore aPS2 is energized.	The same operation as in AMPS FF. aPS1 is deenergized.	aMB1 and aMB2 are both activated in PLAY-STOP and FF-STOP.

B. Internal block diagram of MSM5836RS and input/output terminal functions

1. Internal block diagram and input/output terminal functions

Fig. 2-8 Input Circuit

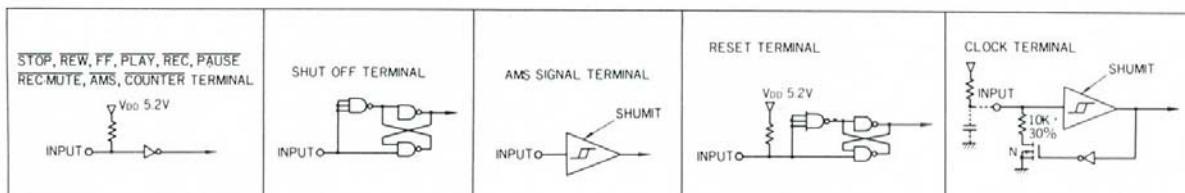


Fig. 2-9 Output Circuit

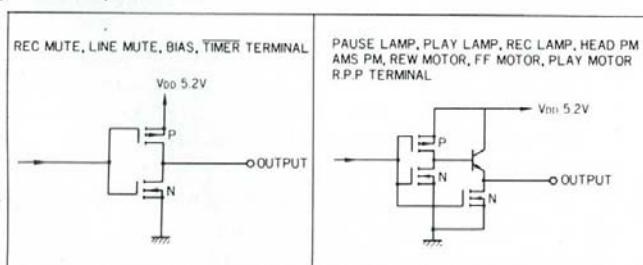
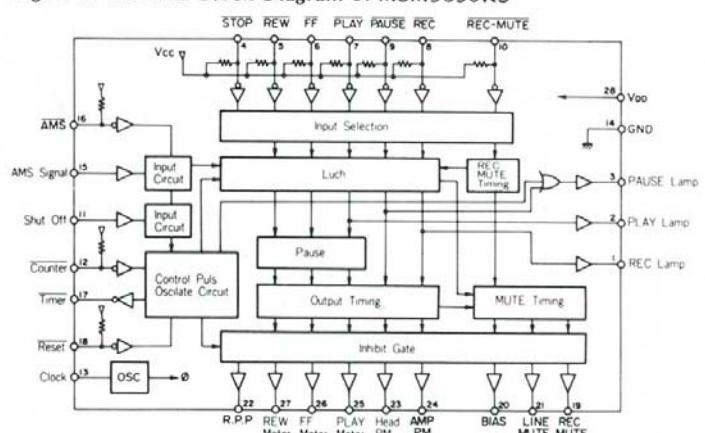


Fig. 2-10 Internal Block Diagram of MSM5836RS



2. Input circuit functions

Table.2 Input functions of operation keys

Pin No.	Label	Functions
4	STOP	Input function for releasing other operations instructed by other input keys
5	REW	Input function instructing tape-rewinding operation
6	FF	Input function for instructing tape fast-forwarding
7	PLAY	Input function for instructing tape playing operation When depressed together with REC key to "L", the instruction becomes recording operation. Also, when depressed together with FF or REW key to "L", the instruction becomes AMS operation or automatic play operation, as explained later.
8	REC	Input function for instructing recording monitoring operation This input is disabled in fast-forwarding or rewinding operation or when STOP key is depressed to "L".
9	PAUSE	Input function for instructing recording or playing operation to stop temporarily or to start again. Self-set or reset type: This input function is reset in fast-forwarding or rewinding operation and when STOP or REC-MUTE key is depressed to "L". In the operations other than the above, it is possible to set or reset this key. In automatic space operation, input function for instructing release of recording-mute operation (When REC-MUTE input is "H")
10	REC-MUTE	Input function for instructing muting of recording signals. This input signal of "L" resets pause operation and the trailing edge of this input signal retains muting operation for 4 sec. (AUTO SPACE operation) If REC-MUTE input is "H", automatic space operation is released when PAUSE input is "L". This input is enabled only in recording or recording pause operation.

Table.3 Control input functions

Pin No.	Label	Functions
12	COUNTER	Input function for instructing stop or playing operation in rewinding operation (Playing operation starts when REW and PLAY keys are depressed simultaneously.) Counter signals are received only in rewinding operation. Further, no counter signal is received even in rewinding operation while REW key is kept depressed.
11	SHUT OFF	Input function for receiving a signal indicative of tape feeding A pulse signal is being inputted while tape is being fed, such as, in playing, recording, fast-forwarding, rewinding operation, etc. o In playing or recording operation, this input function is shut off 2-sec after tape is stopped (the pulse stops), becoming a stop condition. o In fast-forwarding or rewinding operation, this input function is shut off 1-sec after tape is stopped, becoming a stop condition.
18	RESET	Input function for initializing all operations.

3. Output functions

Table.4

Pin No.	Label	Functions
2	PLAY LAMP	"H" output in play, play-pause, recording, recording-pause and automatic play mode
3	PAUSE LAMP	"H" output in pause mode "H" and "L" are outputted alternately in recording-mute operation (2 Hz for first 4-sec, after that 4 Hz) and when reset (1 Hz for 4-sec).
1	REC LAMP	"H" output in recording monitoring, recording, record-pause, record-mute operations.
19	REC-MUTE	"H" output except recording operation "H" output in record-mute operation
21	LINE-MUTE	"H" output in play, recording, recording-monitoring, record-pause, and record-mute operations (Line-mute is released by "H")
20	BIAS	"H" output in recording and record-mute operations
27	REW motor	"H" output in rewinding during rewinding, automatic play, AMS (REW), and AMS (FF) operations
26	FF motor	"H" output in fast-forwarding during first-forwarding and AMS (FF) operations
25	PLAY motor	"H" output in playing, recording and record-mute operations.
24	AMS PM	"H" output in play and AMS operations and for 0.25 sec after the play motor signal rises.
23	HEAD PM	"H" output in play, record, record-mute operations and for 0.25-sec after an AMS PM signal rises in AMS operation
17	TIMER	"L" output for only 0.5-sec, 4-sec after reset
22	R.P.P.	A 31.25 ms rewinding pulse signal is outputted when play (Record/play) operation changes to play-pause (Record/ play-pause) operation

C. Operations of Auxiliary Circuits (See Schematic Diagram)

1. Tape lead-in operation

- When the tape lead switch is turned on, the FF input terminal pin No. ⑥ of the nIC4 changes to a L-voltage level through the diode nD2.
- When the switch nS1 is turned on, the pin No. ⑬ of the nIC1b changes to a L-voltage level; the nIC1b output changes to a H-voltage level; the transistor nQ1 is turned on; the transistor nQ2 is turned on; the transistor nQ3 is also turned on, so that the STOP input terminal pin No. ④ of the nIC4 changes to a L-voltage level to start the STOP operation. (The FF time is determined by a charging time of the condenser nC1.)
- When the transistor nQ3 is turned on, the input terminal pin No. ⑨ of the nIC1a changes to a L-voltage level, so that the input terminal pin No. ⑫ of the nIC1b changes to a H-voltage level.
- Since the output of the nIC1b is at a L-voltage level when the switch nS1 is open, the condenser nC1 is discharged, so that the succeeding tape read-in operation can be enabled.

2. Timer recording and playing operation

- The timer output terminal pin No. ⑯ of the nIC4 is kept at a L-voltage level for about 0.5 sec, 4-sec after the AC switch has been turned on.
- The timer output changes the PLAY and REC terminals of the nIC1 to a L-voltage level through the timer switch nS9 and the diodes nD5 and nD6, so that the REC operation starts.
- Similarly, in the PLAY operation, the PLAY input terminal of the nIC4 changes to a L-voltage level.

3. Automatic shut-off operation

- When the motor stops rotating, since the brake magnet on the reel table also stops rotating, the output of the Hall element sensor becomes a L-voltage level.
- The output of the nIC2a, b changes to a L-voltage level, and the shut-off input terminal pin No. ⑪ of the nIC4 changes to a L-voltage level.

4. Automatic operation

a. Memory stop operation

Operative conditions: When the automatic switch is set to MEM-ORY position and the RESET & START ADD switch of the DUAL MEMORY switch is turned on, with the tape set at a position where the tape is required to rewind, in the recording or playing operation in order to reset the display to "0000"; the memory stop operation is enabled.

- When the REW switch is turned on and the display indicates "0000", a voltage of 10.6 V is developed at the ZD terminal (pin No. ⑯ of G-1379) of the F-4028.
- The switch oS1f is connected to the ② pin side and the switch oS1e is connected to the ① pin side, the transistor nQ13 is turned on through these switches oS1f and oS1e.
- The counter input terminal pin No. ⑫ of the nIC4 changes to a L-voltage level, so that the STOP operation starts.

b. Repeat play operation

Operative conditions: When the AUTO switch is set to the REPEAT position, the PLAY and REW operations are repeated alternately.

- When the PLAY operation ends and therefore the motor stops rotating, since the Hall element output changes to a L-voltage level, the shut-off input terminal pin No. ⑪ of the nIC4 changes to a L-voltage level through the nIC2, so that the repeat operation stops.
- When the motor stops, a H-voltage level output signal is developed at the point ⑥ in the AMPS circuit.
- The output pin No. ③ of the flip-flop nIC3 changes to a L-voltage level through the diode nD33.
- The transistor nQ6 is turned off; the transistor nQ8 is turned on; the transistor nQ9 is turned on. (The emitter of nQ8 is grounded when the REPEAT switch is on.)
- The REW input terminal pin No. ⑤ changes to a L-voltage level through the diode nD11, so that the REW operation starts.

- 6) When the REW operation stops, in the same way as when the PLAY operation changes to the REW operation, the transistor nQ6 is turned off and the transistor nQ8 is turned on.
- 7) When the REW operation stops, the condenser nC10 connected to the base of the transistor nQ10 is discharged, so that the transistor nQ10 is turned on.
- 8) Since the transistor nQ4 is turned on and the PLAY terminal pin No. ⑦ of the nIC4 changes to a L-voltage level, the PLAY operation starts.

c. Memory repeat play operation

The operation includes the memory stop operation as explained under a. above and the repeat play operation as explained under b. above. That is to say, the PLAY and REW operation are repeated alternately between a position at which the display is set to "0000" (not the tape end position) and a position at which the tape is first wound.

d. Repeat play operation between two points

Operative condition: When the play operation starts under the MEMORY and REPEAT conditions and the first position, at which repeat operation is required to start, is set to "0000", continuing the play operation, and when the END ADD switch is reset at the second position, at which repeat operation is required to turn, in order to reset the FL-4028; this repeat play operation between two points is enabled.

- 1) When the REW switch is turned on and the display is set to "0000", an output signal from the ZD terminal of the FL-4028 starts the STOP operation. (Refer to Memory stop operation a.)
- 2) The play operation is the same as in the repeat operation as described under b above.
- 3) When the tape reaches the second required repeat position recorded by the END ADD switch, a voltage of about 10 V is developed at the MD terminal (pin No. ⑥2 of G-1379) of the FL-4028.
- 4) The transistor nQ12 is turned on through the switches oS1g and oS1h.
- 5) The REW terminal pin No. ⑤ of the nIC4 changes to a L-voltage level, so that the REW operation starts.
- 6) The operation returns to that described under item 1) above and is repeated from item 1) to item 6).

5. AMPS operation (Automatic Music Program Search)

a. Operation when AMPS switch is set at STAND-BY position

Operative conditions: When the PLAY switch is turned on with the AMPS switch set to ON and STAND-BY position, and next the REW or FF switch is turned on to start the rewind or fast-forwarding operation; the tape stops automatically when tape reaches the first lead-over groove in the tape forward feeding direction.

- 1) When the play head detects the lead-over groove in the REW or FF operation, the input terminal (point M in the circuit) of the AMPS circuit changes to a L-voltage level.
- 2) The output pin No. ⑧ of the oIC2d changes to a L-voltage level through the oIC2e, oIC2f, oIC2a, oIC2b and oIC2c.
- 3) The STOP input terminal pin No. ④ of the nIC4 changes to a L-voltage level, so that the REW or FF operation stops.

b. Operation when AMPS switch is set at PLAY position.

- 1) The operation is the same as described under items 1) and 2) of STAND-BY operation a. above.
- 2) Since the switch oS1i is set on the PLAY side, the transistor nQ4 is turned on through the switches oS1j and oS1i.
- 3) The PLAY input terminal pin No. ⑦ of the nIC4 changes to a L-voltage level, so that the PLAY operation starts.

c. AMPS single music repeat operation

Operative conditions: When the AMPS switch is set to ON and PLAY position, the AUTO switch is set to REPEAT, and the PLAYswitch is set to ON; the repeat operation starts beginning from PLAY, the second lead-over groove detection, REW, the first lead-over groove detection, PLAY,

- 1) When the head detects a lead-over groove during the PLAY operation, a positive voltage is developed at the point ⑥.
- 2) The transistor nQ9 is turned on through the nIC3a, nQ6 and nQ8.

- 3) The REW input terminal pin No. ⑤ of the nIC4 changes to a L-voltage level, so that the REW operation starts.
- 4) When a lead-over groove is detected in the REW operation, the transistor nQ10 is turned on to turn the transistor nQ4 on.
- 5) The PLAY input terminal pin No. ⑦ of the nIC4 changes to a L-voltage level, so that the PLAY operation starts.

6. Computer editting operation

a. PAUSE OFF and REC START operations

- 1) The COMPUT EDIT input terminal changes to a H-voltage level.
- 2) Since the input terminals pin Nos. ③, ④ and ⑤ of the oIC1b change to H-voltage levels, the corresponding output side terminals change to L-voltage levels.
- 3) The PAUSE terminal pin No. ⑨ of the nIC4 changes to a L-voltage level through the diode oD2, so that the PAUSE operation is released and the REC operation starts.

b. PAUSE ON and REC STAND-BY operation

- 1) The COMPUT EDIT input terminal changes to a L-voltage level.
- 2) The output terminal of the oIC1a changes to a H-voltage level, the input terminals pin Nos. ②, ①, and ⑧ of the oIC1c change to H-voltage levels, and therefore the corresponding output terminals change to L-voltage levels. (The HEPM output terminal pin No. ⑬ of the nIC4, to which the input terminal pin No. ⑧ of the oIC1 is connected, is kept at a H-voltage level during the PLAY operation.)
- 3) The REC MUTE input terminal pin No. ⑩ of the nIC4 changes to a L-voltage level through the diode oD3, so that the PAUSE operation starts after 4-sec REC-MUTE operation.

7. Counter electronic indicator tubes

Being different from the conventional mechanical counter, the counter FL-4028 is a 4-digit addition/subtraction counter made up mainly of a LSI and fluorescent indicator tubes.

a. Counter functions

- 1) When pulse signals indicative of the number of rotations of the take-up reel are inputted, the counter executes addition or subtraction and indicates the calculated result on a 4-digit display. The leading edge of the pulse signal generated from the C-CLK terminal counts up the number (+1), and the trailing edge of the pulse signal generated from the C-CLK terminal counts down the number (-1).
- 2) When the counter indicates zero, an output signal corresponding to "0000" is developed at the ZD terminal.
- 3) Therefore, if a desired number is preset to the counter, the MD terminal generates an output signal when the counter returns to the preset counter value after counting.
- 4) This counter is also provided with stop-watch functions. A signal of 50 Hz or 60 Hz is inputted to the S-CLK terminal, and the inputted signal is controlled by the START/STOP input terminals.

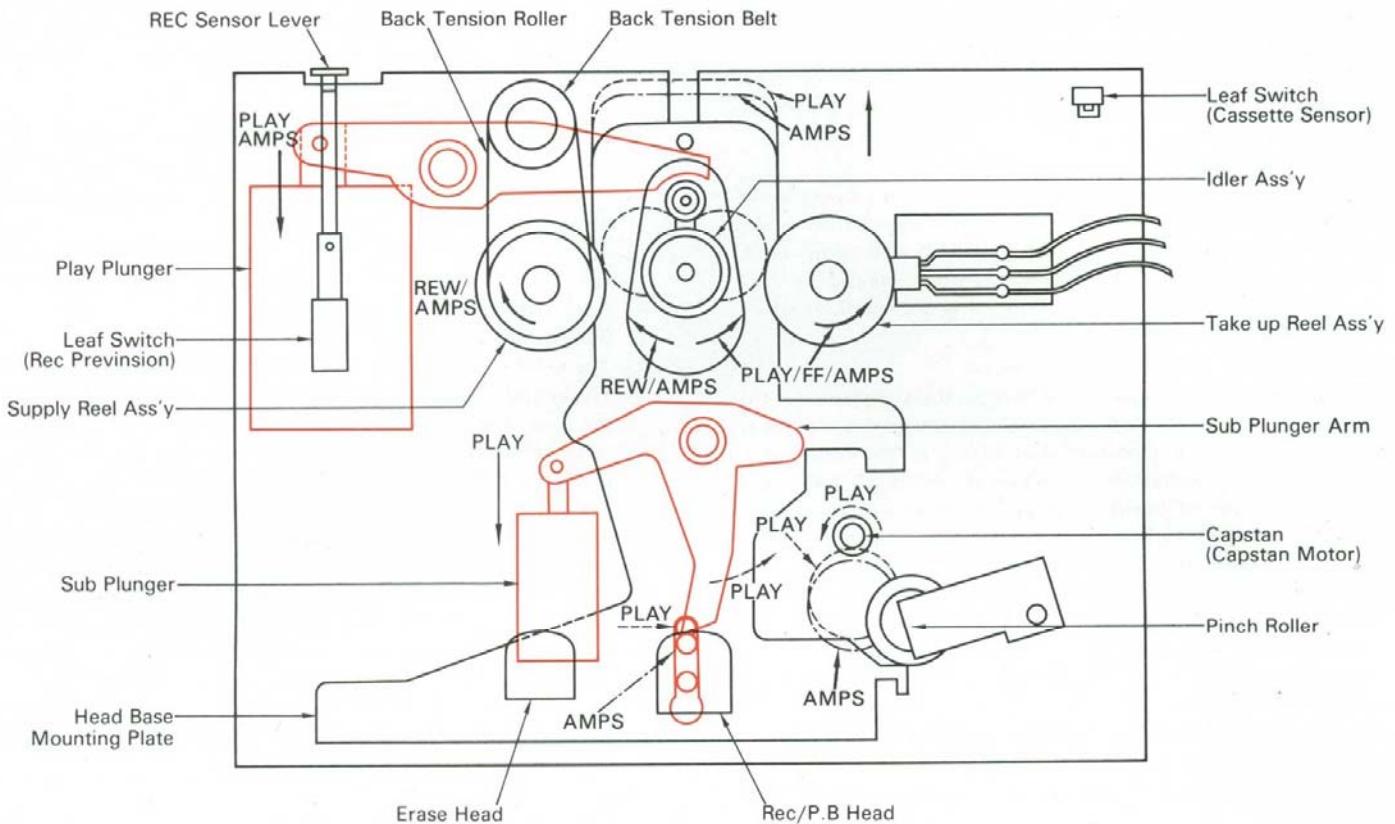
b. Counter terminal Nos. and Functions.

Table.5 Nos and functions

Connector terminal No.	Terminal labels	Functions
55	RW-RST	Terminal for inputting a power-on or power-off signal
57	RST	Terminal for resetting the selected display mode to zero.
59	G-CLK	Terminal for inputting clock pulse signals for the 4-digit tape counter
60	S-CLK	Terminal for inputting clock pulse signals for stop watch
58	UP/DN	Terminal for inputting a signal for designating addition or subtraction mode to the counter
48	WR	Terminal for inputting a signal to write the counter value into the memory (One memory, the last inputted counter value is stored.)
49	MR	Terminal for inputting a signal to designate memory value display
50	W/C	Terminal for inputting signals to switch from stop watch display to counter display or vice versa. (W = stop watch; C = counter)
51	START/STOP	Terminal for inputting signals to start or stop the stop watch
61	ZD	Terminal for outputting a signal indicative of all-zero (0000) detection
62	MD	Terminal for outputting a signal indicating that the counter value is equal to the memory value
52	SO/60	Terminal for outputting a signal indicative of 50 Hz/60 Hz selection

3. OPERATION OF MECHANISM SECTION

Fig. 3-1



3-1. Driving Mechanism

The capstan is directly driven by the coreless, slotbrushless motor. The take-up reel assembly and the supply reel assembly are driven by the reel motor via the idler, that is, by the belt-less, slip-less, clutch-less mechanism. The brake activates for a given period of time when the player is switched to each operation (REC/PLAY, FF, REW, STOP, PAUSE, etc.)

3-2. Operation of Each Mode

A. PLAY operation

- When a cassette half is set, the leaf switch (cassette sensor switch) is closed to release the STOP state, so that the logic circuit enables the operations of PLAY, REC, FF, REW, etc.
- When the PLAY key is depressed, the play plunger is actuated to push up the head base mounting plate. At this time, since the sub-plunger is also actuated, the head base mounting plate is pushed up to a position where the pinch roller is brought into pressure-contact with the capstan.
- Also, the reel motor rotates, and the rotational force of the reel motor brings the idler assembly into pressure-contact with the take-up reel assembly. At the same time, since the capstan motor also begins to rotate, the tape begins to run.

B. REC operation

The basic operation is the same as in the PLAY operation; however, when the REC sensor lever goes up, the leaf switch (error erase prevention switch) is closed, so that the logic circuit enables the REC operation.

C. FF operation

When the FF key is depressed, the reel motor begins to rotate counterclockwise. As a result, the rotational force brings the idler assembly into pressure-contact with the take-up reel and thereby the take-up reel rotates to wind up the tape.

D. REW operation

When the REW key is depressed, the reel motor rotates clockwise. As a result, the rotational force brings the idler assembly into pressure-contact with the supply reel assembly and thereby the supply reel rotates to wind up the tape.

3-3. AMPS (automatic music program search) Operation

- When the FF key or the REW key is depressed during PLAY operation, that is, after the AMPS switch has been set to the ON position and the STAND-BY/PLAY switch has been set to the PLAY position, the PLAY operation is released.
- Next, the play plunger begins to operate to push up the head base mounting plate. At this time, since the sub-plunger does not operate, the sub-plunger arm retains the head base at a position about 1.5 mm lower than during the PLAY operation.
- The FF or REW operation starts under this condition where the tape is in contact with the head.
- When the cassette tape outputs no signal about three seconds in the PLAY operation, the logic control circuit releases the FF or REW operation into the STOP condition.
- Therefore, this is the same condition as the case where the PLAY key is depressed, and the PLAY operation starts. When the STAND-BY/PLAY switch is set at the STAND-BY position, the operation stands-by in the STOP condition.

4. ADJUSTMENTS

4-1. Tape Speed Adjustment <D-370/D-570>

Note: 1. Use Sansui Test Tape, SCT-S3K
(3 kHz signals are recorded on the tape.)
2. Connections are shown in Fig. 4-1.

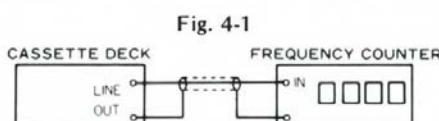
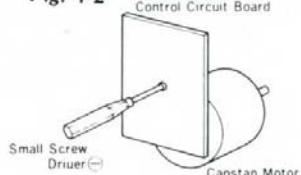


Fig. 4-1

Fig. 4-2 Capstan Motor Control Circuit Board



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. 4-2.	3000Hz ± 45Hz	Use small screw driver.

4-2. Playback Adjustment <D-370/D-570>

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. DOLBY NR Switch OFF
3. Connections are shown in Fig. 4-3.
4. See Parts Location G-1336 <D-370> on page 13 or Parts Location G-1370 <D-570> on page 21 for ADJUSTMENT point.

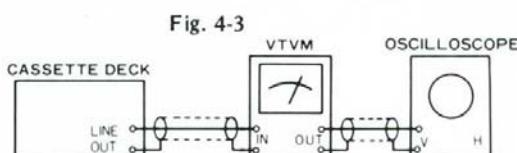
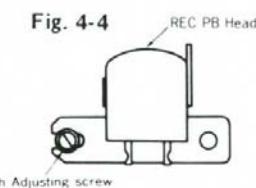


Fig. 4-3



Azimuth Adjusting screw

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. 4-4	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 fVR1 for L-CH and fVR1 R-CH on G-1336 <D-370>, G-1370 <D-570>	560mV	
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-F10K.	—	—	Confirm that the output levels are within ±3dB 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 3dB ~ 4dB.

4-3. Dolby Level Adjustment

1) Dolby Level Adjustment <D-370>

Note: 1. REC Level Volume MAX.
2. DOLBY NR Switch OFF
3. Connections are shown in Fig. 4-5.
4. See Parts Location G-1360 on page 12 for INPUT SIGNAL, MEASURE OUTPUT, ADJUSTMENT point.

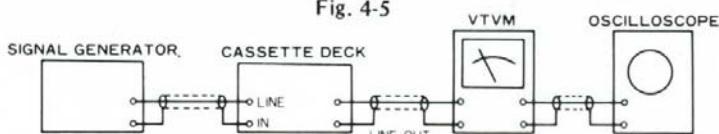


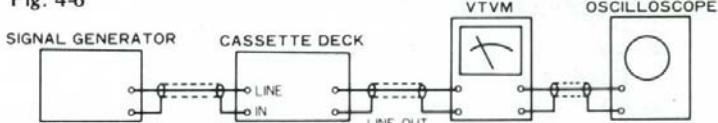
Fig. 4-5

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Dolby Level Adj.	LINE IN S.G. 400Hz L-ch & R-ch Load the TEST TAPE SCT-SA	VTVM Scope L-ch . . . TP1[JW2] R-ch . . . TP1[JW14]	1. Depress REC/PLAY button. 2. Depress PAUSE button.	Adjust the S.G. for obtaining output level 580mV	
			VTVM Scope L-ch . . . TP2[JW19] R-ch . . . TP2[JW21]	Same as above	Adjust the hVR2 (L-ch & R-ch) obtaining output level 580mV.	
2.	PLAYBACK Level Adj.	L-ch . . . hR25 (Point X) R-ch . . . hR25 (Point Y) S.G. 400Hz Load the TEST TAPE SCT-SA	VTVM, Scope L-ch . . . TP2[JW19] R-ch . . . TP2[JW21]	1. Depress PLAY button. 2. Depress PAUSE button.	Adjust the S.G. for obtaining output level 580mV.	
			VTVM, Scope L-ch . . . TP1[JW2] R-ch . . . TP2[JW14]	Same as above	Adjust hVR1 (L-ch & R-ch) obtaining output level 580mV.	

2) Dolby Level Adjustment <D-570>

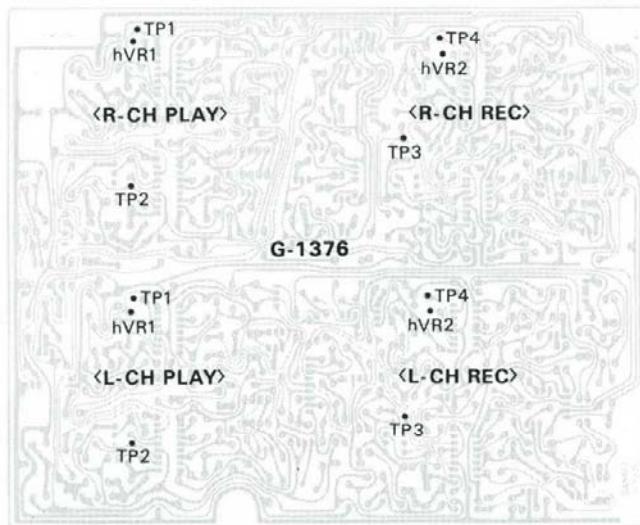
- Note: 1. REC Level Volume MAX.
 2. Dolby Switch OFF
 3. Connections are shown in Fig. 4-6.
 4. See Parts Locations G-1376 of Fig. 4-7 for ADJUSTMENT, MEASURE OUTPUT points.

Fig. 4-6



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT
1.	REC Dolby Level Adj.	LINE IN S.G. 400Hz L-ch & R-ch load the TEST TAPE SCT-SA	VTVM Scope L-ch . . . TP3[hR41] R-ch . . . TP3[hR41]	1. Depress REC/PLAY button. 2. Depress PAUSE button.	Adjust the S.G. for obtaining output level 580mV.
			VTVM Scope L-ch . . . TP4[3 pin of hIC4] R-ch . . . TP4[3 pin of hIC4]	Same as above	Adjust hVR2 (L-ch & R-ch) for obtaining output level 580mV.
2.	PLAY Dolby Level Adj.	L-ch . . . 5 pin of hIC2 R-ch . . . 5 pin of hIC2 (G-1376) S.G. 400Hz Load the TEST TAPE SCT-SA	VTVM Scope L-ch . . . TP2[3 pin of hIC2] R-ch . . . TP2[3 pin of hIC2]	1. Depress PLAY button. 2. Depress PAUSE button.	Adjust the S.G. for obtaining output level 580mV.
			VTVM Scope L-ch . . . TP1[hR22] R-ch . . . TP1[hR22]	Same as above	Adjust hVR2 (L-ch & R-ch) for obtaining output level 580mV.

Fig. 4-7



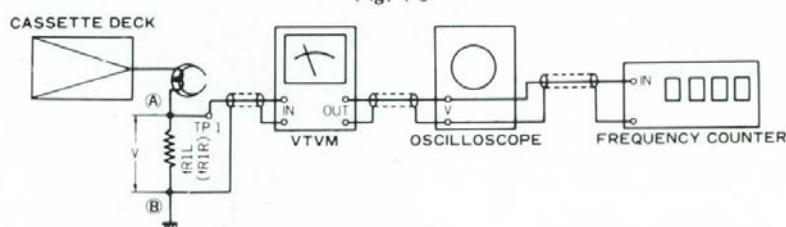
4-4. Recording Adjustment <D-370>

- * Adjust this step when replacing bias osc circuit, variable resistor for bias adjustment or REC/PB head. Adjust in step 2) 2. Frequency Response Adj. on page 10 usually.

1) Bias Adjustment

- Note: 1. DOLBY NR Switch OFF
 2. Connections are shown in Fig. 4-8.
 3. See Parts Location G-1336 on page 13 for MEASURE OUTPUT, ADJUSTMENT point.

Fig. 4-8

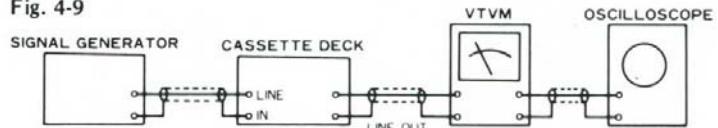


STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between (A) & (B) points of each fR1L & fR1R. VTVM, Scope	Load the TEST TAPE SCT-SA. Depress PAUSE, REC and PLAY buttons. Set TAPE SELECTOR to HIGH (CrO_2) position.	Adjust kVR1L for L-CH and kVR1R for R-CH on G-1336.	5.5mV	
			Set TAPE SELECTOR to NORMAL (LH) position.	—	—	Confirm the indication on VTVM shows 4mV.
			Set TAPE SELECTOR to METAL position.	—	—	Confirm the indication on VTVM shows 8mV.

2) Rec Level & Frequency Response Adjustment <D-370>

- Note:
1. Rec Level Volume MAX.
 2. Connections are shown in Fig. 4-9.
 3. DOLBY NR Switch OFF
 4. See Parts Location G-1336 on page 13 for ADJUSTMENT Point.

Fig. 4-9

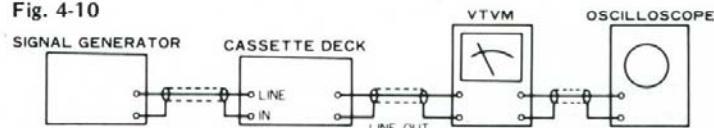


STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 70mV from S.G. into LINE IN.	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Depress PAUSE, PLAY and REC button. 2. Adjust the Rec Level Volume for obtaining 380mV on VTVM. 3. Depress PAUSE button, then record the 1kHz signal. 4. Play back the 1kHz signal. 5. Confirm that the output levels on both channels are 380mV on VTVM.	1. If not, turn jVR1 (REC, L-CH) and jVR1 (REC, R-CH) until output level 380mV on both channels are obtained. 2. Repeat this REC adj. until the indication on VTVM will be 380mV.	
2.	Frequency Response Adj.	Feed 1kHz 7mV and 10kHz 7mV 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 1kHz and 10kHz signals from S.G. 2. Play back the 1kHz and 10kHz 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 turn them slightly, if necessary.

4-5. Recording Adjustment <D-570>

- Note:
1. TAPE SELECTOR HIGH (CrO_2)
 2. DOLBY NR Switch OFF
 3. BIAS TUNE Volume Center Position
 4. See parts locations G-1370 on page 21 for ADJUSTMENT point.

Fig. 4-10



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 100mV from S.G. into LINE IN load the TEST TAPE SCT-SA	LINE OUT VTVM Scope	1. Set TAPE SELECTOR to HIGH position. 2. Depress REC & PLAY button. 3. Set TAPE MONITOR switch to SOURCE position. 4. Adjust REC level volume for obtaining output level, 380mV. 5. Set TAPE MONITOR switch to TAPE position then record the 1kHz. 6. Playback 1kHz. 7. Confirm that the output level on both channels are 380mV.	1. If not 380mV, adjust jVR1 (L-CH & R-CH) until 380mV. 2. Repeat this REC level adjust until the indication VTVM will be 380mV.	
2.	Frequency Response Adj.	Feed 1kHz, 7mV and 10kHz 7mV from audio osc into LINE IN	LINE OUT VTVM Scope	Set TAPE SELECTOR to HIGH position.	1. Record 1kHz & 10kHz signals separately, then playback recorded signals. 2. Confirm that both output levels equal. 3. If not, adjust kVR2 (L-CH & R-CH) then repeat adjustment 1 ~ 2.	

4-6. Bias Tune Adjustment <D-570>

- Note: 1. REC Level Volume Min.
 2. TAPE SELECTOR HIGH (CrO_2)
 3. BIAS TUNE Switch ON
 4. See parts location G-1370 on page 21 for MEASURE OUTPUT, SETTING & ADJUSTMENT point.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	Test Signal Level Adj.		Terminal No. 36 on G-1370 (Mixing point of 1kHz and 10kHz signals) VTVM Scope	1. Turn oVR2 on G-1370 fully counterclockwise. 2. Remove the connector (IE, IF, IG)	1. Adjust oVR1 for obtaining 19mV. 2. Adjust oVR2 for obtaining 25mV.	
2.	Bias Tune Level Adj.	Load the TEST TAPE SCT-SA	Cathode of oD20 DC Volt Meter	1. Connect the connector (IE, IF, IG). 2. Set the mode for recording.	1. Adjust oVR3 for obtaining 2V.	
			Cathode of oD22 DC Volt Meter	Same as above	1. Adjust oVR4 for obtaining 2V.	

4-7. Peak Level Indicator Adjustment

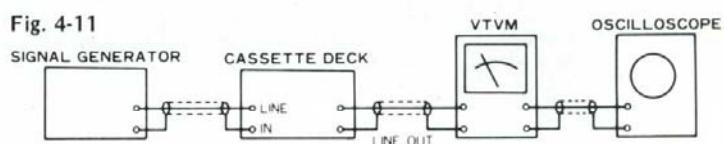
1) Peak Level Indicator Adjustment <D-370>

Note: 1. Set TAPE SELECTOR NORMAL (LH)

2. DOLBY NR Switch OFF

3. Connections are shows in Fig. 4-11.

4. See Parts Location G-1336 on page 13 for ADJUSTMENT point.



2) Peak Level Indicator Adjustment <D-570>

Note: 1. TAPE SELECTOR NORMAL (LH)

2. Dolby Switch OFF

3. See parts location G-1370 on page 21 for ADJUSTMENT point.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	Meter Level Adj.	Set the TEST TAPE SCT-L400N	Peak Level Indicator	1. Set Tape Monitor switch to TAPE. 2. Play back TEST TAPE SCT-L400N	1. Adjust mVR1 (L-ch & R-ch) so that the Peak Level Indicator indicates 0dB. After this adjustment, perform the SETTING 1 ~ 3 again.	

◆ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description
SCT-F40	40 Hz	Playback Frequency Response Check
SCT-F1K	1kHz	High Frequency Equalization 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

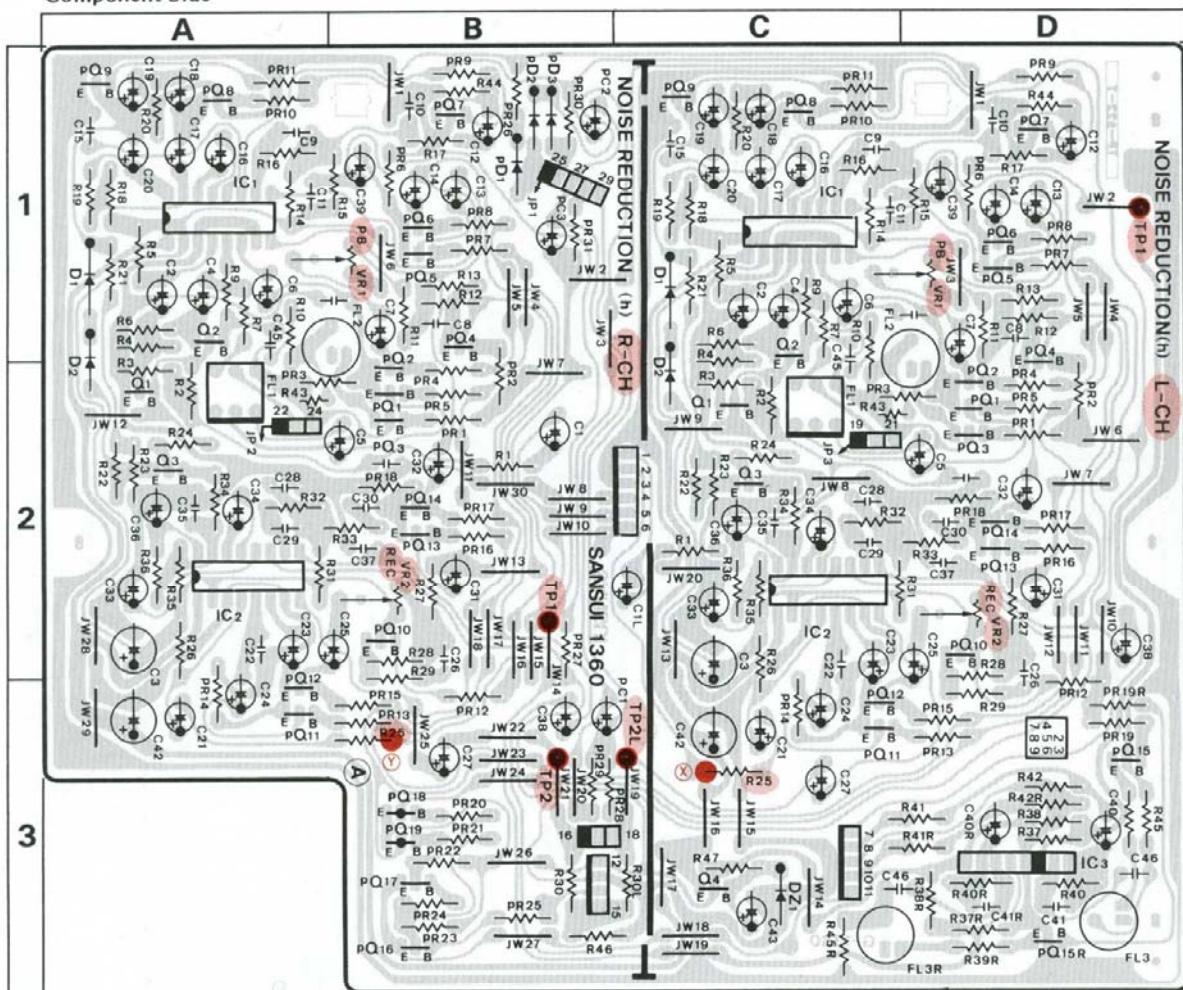
NORMAL Position		HIGH Position	
FUJI	FL, FXI	FUJI	FX II
MAXELL	UL, UD, XLI	MAXELL	XL II
TDK	D, AD, OD	TDK	SA
SCOTCH	TARTAN CRYSTAL MASTER 120	SCOTCH	MASTER 70
SONY	AHF, BHF, CHF Low-Noise	SONY	JHF
AGFA	SUPER SUPER COLOR SUPER FERRO DYNAMIC	AGFA	STEREO CHROM
BASF		SCR	
METAL Position			
MAXELL	MX	MAXELL	MX
TDK	MA-R, MA	TDK	MA-R, MA
SCOTCH	Metafine	SCOTCH	Metafine
SONY	METALLIC	SONY	METALLIC

5. PARTS LOCATION & PARTS LIST

5-1. G-1360 Noise Reduction Circuit Board (Stock No. 00673301) <D-370>

- 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.

Component Side

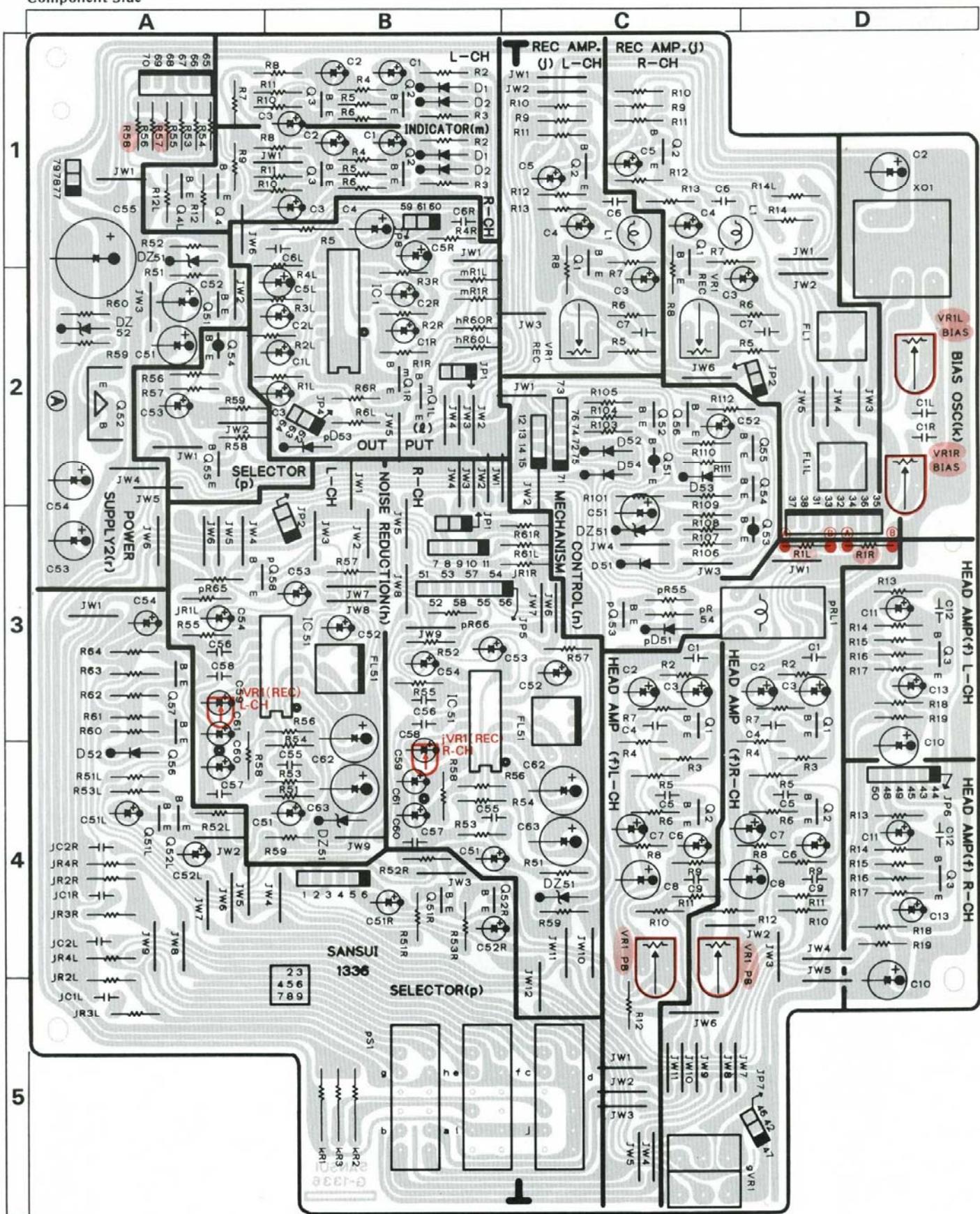


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
● Transistor			hFL1	46177500	Low Pass Filter (MPX)	pQ12	07299701	2SC2603
hQ1	03068301	2SC2320	hFL2	46177600	Trap Filter	or 03068301	2SC2320	
	or 07299701	2SC2603	hFL3	46177600	Trap Filter	07299701	2SC2603	
hQ2	03068301	2SC2320	hVR1	10370500	2kΩ (B) SVR, dolby	or 03068301	2SC2320	
	or 07299701	2SC2603	hVR2	10370500	PB level adj.	07299701	2SC2603	
hQ3	03068301	2SC2320			2kΩ (B) SVR, dolby	or 03068301	2SC2320	
	or 07299701	2SC2603			rec level adj.	07299701	2SC2603	
hQ4	03085201	2SD438	● Transistor			or 03068301	2SC2320	
● IC			pQ1	07299701	2SC2603	07299701	2SC2603	
hIC1	46128200	TA7629P			or 03068301	2SC2320	or 03068301	2SC2320
hIC2	46128200	TA7629P	pQ2	07299701	2SC2603	07299701	2SC2603	
hIC3	46147700	M5218L			or 03068301	2SC2320	or 03068301	2SC2320
● Diode			pQ3	07299701	2SC2603	03012701	2SA999	
hD1	07225500	1N60			or 03068301	2SC2320	or 07299601	2SA1115
hD2	03117600	1S2473D	pQ4	07299701	2SC2603	03012701	2SA999	
	or 46092700	US1035			or 03068301	2SC2320	or 07299601	2SA1115
	or 46086000	1S1588	pQ5	07299701	2SC2603			
● Zener Diode					or 03068301	2SC2320		
hDZ1	46114200	05Z13-Y	pQ6	07299701	2SC2603	● Diode		
					or 03068301	2SC2320	pD1	03117600
hC1	46034600	1μF 50V E.L.	pQ7	07299701	2SC2603			1S2473D
hC9	07215800	0.1μF 25V C.C.			or 03068301	2SC2320	or 46092700	US1035
hC10	07216300	0.27μF 25V C.C.	pQ8	07299701	2SC2603		or 46086000	1S1588
hC11	07215500	0.056μF 25V C.C.			or 03068301	2SC2320	pD2	03117600
hC15	07216600	0.47μF 25V C.C.	pQ9	07299701	2SC2603			1S2473D
hC28	07216300	0.27μF 25V C.C.			or 03068301	2SC2320	or 46092700	US1035
hC29	07215800	0.1μF 25V C.C.	pQ10	07299701	2SC2603		or 46086000	1S1588
hC30	07215500	0.056μF 25V C.C.			or 03068301	2SC2320	pD3	03117600
hC35	07216600	0.47μF 25V C.C.	pQ11	07299701	2SC2603			1S2473D
					or 03068301	2SC2320	or 46092700	US1035
							or 46086000	1S1588

5-2. G-1336 REC & PLAY Amp. Circuit Board (Stock No. 00672201) <D-370>

Component Side

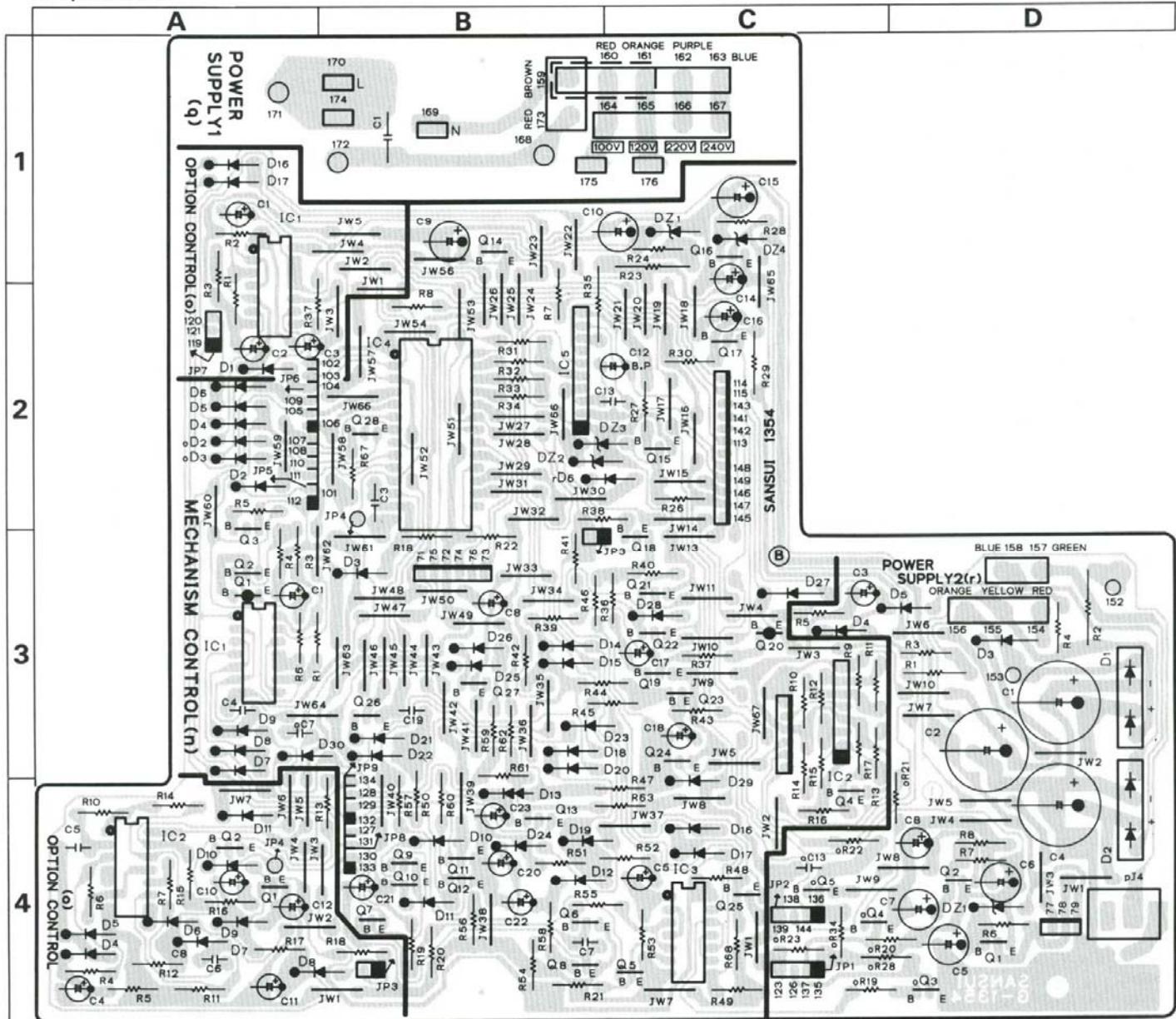


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
● Transistor			● Diode		
fQ1	07225401	2SC2320L	nD51	03117600	1S2473D
fQ2	07225401	2SC2320L		or 46092700	US1035
fQ3	07225401	2SC2320L		or 46086000	1S1588
fC2	08301100	10μF 35V E.L.	nD52	03117600	1S2473D
fVR1	10370900	50kΩ (B) SVR, PB level adj.		or 46092700	US1035
gVR1	46177000	50kΩ (B) VR, rec level		or 46086000	1S1588
● Transistor			nD53	03117600	1S2473D
jQ1	03068301	2SC2320		or 46092700	US1035
	or 07299701	2SC2603		or 46086000	1S1588
jQ2	03068301	2SC2320	nD54	03117600	1S2473D
	or 07299701	2SC2603		or 46092700	US1035
jC1	07215800	10000pF 25V C.C.		or 46086000	1S1588
jC2	07215600	6800pF 25V C.C.	● Zener Diode		
jC6	07216500	39000pF 25V C.C.	nDZ51	46111500	05Z5.6-Y
jC7	07211700	1000pF 25V C.C.	● Transistor		
jC8	07212600	3300pF 25V C.C.	pQ53	03068301	2SC2320
jFL1	07237900	Filter, Bias Trap		or 07299701	2SC2603
jL1	46090400	Coil 2.2mH	pQ54	03012701	2SA999
jVR1	10370800	50kΩ (B) SVR, rec level		or 07299601	2SA1115
kXO1	46177400	OSC Block	pQ55	03068301	2SC2320
kVR1	10371000	100kΩ (B) SVR, bias adj.		or 07299701	2SC2603
● IC			● Diode		
IIC1	07224500	LA4170	pD51	03117600	1S2473D
IR5	00182200	330Ω 1W N.I.R.		or 46092700	US1035
IC6	07215800	10000pF 25V C.C.		or 46086000	1S1588
● Transistor			pD53	03117600	1S2473D
mQ1	03068301	2SC2320		or 46092700	US1035
	or 07299701	2SC2603		or 46086000	1S1588
mQ2	03068301	2SC2320	pS1	46178000	Push Switch, tape selector
	or 07299701	2SC2603	pRL1	11506200	Relay
mQ3	03068301	2SC2320	● Transistor		
	or 07299701	2SC2603	rQ51	03085201	2SD438
mQ4	03068301	2SC2320	rQ52	03086101	2SD357
	or 07299701	2SC2603	● Zener Diode		
● Diode			rDZ51	46115400	05Z20
mD1	03117600	1S2473D	rDZ52	46116000	05Z24-Y
	or 46092700	US1035			
	or 46086000	1S1588			
mD2	03117600	1S2473D			
	or 46092700	US1035			
	or 46086000	1S1588			
● Transistor					
nQ51	03012701	2SA999			
	or 07299601	2SA1115			
nQ52	03068301	2SC2320			
	or 07299701	2SC2603			
nQ53	03012701	2SA999			
	or 07299601	2SA1115			
nQ54	03068301	2SC2320			
	or 07299701	2SC2603			
nQ55	03068301	2SC2320			
	or 07299701	2SC2603			
nQ56	03068301	2SC2320			
	or 07299701	2SC2603			

5-3. G-1354 Mechanism Control Circuit Board (Stock No. 00672701) <D-370>

Component Side



Parts List

Parts No.	Stock No.	Description
mPL1	46177100	Pilot Lamp 12V 100mA
● Transistor		
nQ1	03012701	2SA999
	or 07299601	2SA1115
nQ2	03068301	2SC2320
	or 07299701	2SC2603
nQ3	03068301	2SC2320
	or 07299701	2SC2603
nQ4	03068301	2SC2320
	or 07299701	2SC2603
nQ5	03068301	2SC2320
	or 07299701	2SC2603
nQ6	03068301	2SC2320
	or 07299701	2SC2603
nQ7	03068301	2SC2320
	or 07299701	2SC2603
nQ8	03068301	2SC2320
	or 07299701	2SC2603
nQ9	03068301	2SC2320
	or 07299701	2SC2603
nQ10	03068301	2SC2320
	or 07299701	2SC2603
nQ11	03068301	2SC2320
	or 07299701	2SC2603

Parts No.	Stock No.	Description
nQ12	03068301	2SC2320
	or 07299701	2SC2603
nQ13	03068301	2SC2320
	or 07299701	2SC2603
nQ14	03085201	2SD438
nQ15	03068301	2SC2320
	or 07299701	2SC2603
nQ16	03085901	2SD471
nQ17	03085901	2SD471
nQ18	03068301	2SC2320
	or 07299701	2SC2603
nQ19	03068301	2SC2320
	or 07299701	2SC2603
nQ20	07206801	2SA952
nQ21	07206901	2SC2001
nQ22	07206901	2SC2001
nQ23	03068301	2SC2320
	or 07299701	2SC2603
nQ24	07206901	2SC2001
nQ25	03068301	2SC2320
	or 07299701	2SC2603
nQ26	03068301	2SC2320
	or 07299701	2SC2603
nQ27	03068301	2SC2320
	or 07299701	2SC2603

Parts List

Parts No.	Stock No.	Description
nQ28	03068301 or 07299701	2SC2320 2SC2603
•IC		
nIC1	03611400	M53200P
nIC2	46147700	M5218L
nIC3	03609500	MSM4001RS
nIC4	46178200	MSM5836RS
nIC5	07233100	BA6109
•Diode		
nD2	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD3	03117600 or 36092700 or 46086000	1S2473 US1035 1S1588
nD4	03117600 or 46092700 or 46086000	1S2473 US1035 1S1588
nD5	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD6	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD7	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD8	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD9	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD10	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD11	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD12	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD13	03401500	Varistor MV12
nD14	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD15	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD16	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD17	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD18	03117600 or 46092700 or 46086000	1S2473 US1035 1S1588
nD19	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD20	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD21	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD22	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD23	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD24	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD25	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588

Parts No.	Stock No.	Description
nD26	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD27	03117600	10E-2
nD28	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD29	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
nD30	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
•Zener Diode		
nDZ1	46111500	05Z5.6-Y
nDZ2	46112100	05Z6.8-Y
nDZ3	46110900	05Z4.7-Y
nDZ4	46114000	05Z12-Z
nR23	00184900	820Ω 1W N.I.R.
nR35	00182100	350Ω 1W N.I.R.
•Transistor		
oQ1	03068301 or 07299701	2SC2320 2SC2603
oQ2	03068301 or 07299701	2SC2320 2SC2603
oQ3	03068301 or 07299701	2SC2320 2SC2603
oQ4	03068301 or 07299701	2SC2320 2SC2603
oQ5	03068301 or 07299701	2SC2320 2SC2603
•IC		
oIC1	46165600	MSM4023RS
oIC2	03605700	MSM4069RS
•Diode		
oD1	03117600 or 46092700 or 46086000	1S2473 US1035 1S1588
oD2	03117600 or 46092700 or 46086000	1S2473 US1035 1S1588
oD3	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD4	03117600 or 46092700 or 46086000	1S2473 US1035 1S1588
oD5	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD6	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD7	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD8	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD9	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD10	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588
oD11	03117600 or 46092700 or 46086000	1S2473D US1035 1S1588

to be continued ►

Parts List <G-1354>

Parts No.	Stock No.	Description
oD16	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
oD17	03117600	1S2473
	or 46092700	US1035
	or 46086000	1S1588
oC5	07215800	10000pF 25V C.C.
oC6	07216800	68000pF 25V C.C.
oC7	07216800	68000pF 25V C.C.
oC13	07215800	68000pF 25V C.C.
pJ4	46148200	Jack, computer editing
qC1	08302600	10000pF 400V C.C.
•Transistor		
rQ1	03085201	2SD438
rQ2	03085201	2SD438

Parts No.	Stock No.	Description
•Diode		
rD1	03117000	RB-152
rD2	03117000	RB-152
rD3	03117700	10E-2
rD4	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
rD5	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
rD6	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
•Zener Diode		
rDZ1	46116000	05Z24-Y

• Note: The circuit board, G-1337, G-1339, G-1340, G-1355, G-1356, G-1357, G-1358, G-1361, G-1371, G-1372, G-1373, G-1374, G-1375, G-1378, G-1379, G-1380 & G-1381 are not supplied as the assembled. However, the individual parts on the circuit board are provided by orders.

5-4. G-1337 Mic Jack Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
pJ2	46212000	Jack, mic

5-5. G-1339 Headphone Jack Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
pJ1	46212100	Jack, head phone

5-6. G-1340 Line Jack Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
fC14	07216600	47000pF 25V C.C.
IC7	07216600	47000pF 25V C.C.
pJ3	07249100	4P Terminal, line out/in

5-7. G-1335 Control Switch Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
nLD1	46176900	Light Emitting Diode (Red)
nLD2	07250900	Light Emitting Diode (Green)
nLD3	07251000	Light Emitting Diode (Yellow)
nS1	46170500	Push Switch, tape lead in
nS2	46170500	Push Switch, stop
nS3	46170500	Push Switch, rew
nS4	46170500	Push Switch, ff
nS5	46170500	Push Switch, play
nS6	46170500	Push Switch, rec
nS7	46170500	Push Switch, pause
nS8	46170500	Push Switch, rec mute

5-8. G-1356 Auto Control Switch Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
•Transistor		
oQ6	03068301	2SC2320
	or 07299701	2SC2603
•Diode		
oD12	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
oD13	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
oD15	03117600	1S2473D
	or 46092700	US1035
	or 46086000	1S1588
oR36	00182200	330Ω 1W N.I.R.
oS1	46178100	Push Switch, digital auto computerized scanner 8

5-9. G-1357 Timer Switch Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
nS9	46177800	Slide Switch, timer

5-10. G-1358 Real Time Switch Circuit Board <D-370>

Parts List

Parts No.	Stock No.	Description
oS2	11102800	Slide Switch, real time set

5-11. G-1361 Dolby Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
pS2	46177900	Push Switch, dolby NR

5-12. G-1371 Mic. Amp. Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
●Transistor fQ4	07225400	2SC2320L-F
pJ2	46212000	Mic Jack

5-13. G-1372 Monitor & Bias Fine Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
kVR1	46178700	100kΩ B Bias Adjust Volume
pR5	00180200	150Ω 1W N.I.R.
pS2	46177900	Dolby NR Switch, push switch
pS3	46179500	Monitor Switch, push switch
pS4	46179500	Bias Fine Switch, push switch

5-14. G-1373 Line Jack Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
pJ3	07249100	LINE IN Terminal Board

5-15. G-1374 Headphone Jack Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
pJ1	46212100	Head Phone Jack

5-16. G-1375 Bias Tune Indicator Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
mPL1	07193600	Pilot Lamp
mPL2	07193600	Pilot Lamp
●LED oLD1	07250900	TLG123, green
oLD2	07250900	TLG123, green
oLD3	46176900	TLS123, red

5-17. G-1378 Control Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
●LED		
nLD1	46176900	TLS123, red
nLD2	07250900	TLG123, green
nLD3	07251000	TLY123, yellow
nS1	46170500	T. LEAD Switch, push switch
nS2	46170500	STOP Switch, push switch
nS3	46170500	REW Switch, push switch
nS4	46170500	FF Switch, push switch
nS5	46170500	PLAY Switch, push switch
nS6	46170500	REC Switch, push switch
nS7	46170500	PAUSE Switch, push switch
nS8	46170500	REC MUTE Switch, push switch

5-18. G-1379 Auto Control Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
●Transistor		
oQ5	03068301	2SC2320-E
	or 07299701	2SC2603-E
●Diode		
oD12	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD13	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD14	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oR36	00182200	330Ω 1W N.I.R.
oS1	46178100	Auto Control Switch

5-19. G1380 Timer Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
nS9	46177800	Timer Switch, slide switch

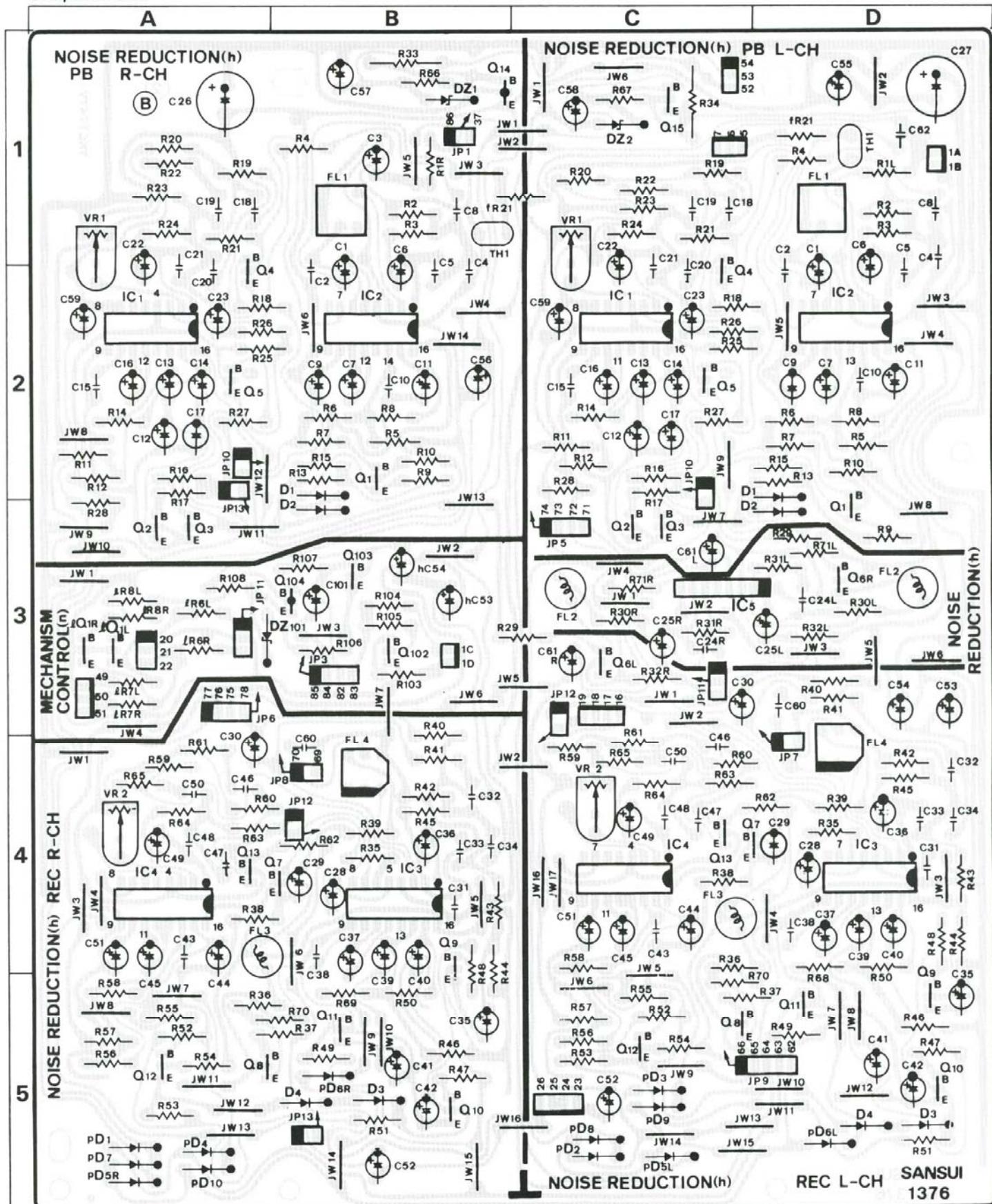
5-20. G-1381 Real Time Switch Circuit Board <D-570>

Parts List

Parts No.	Stock No.	Description
oS2	11102800	Real Time Set Switch, slide switch

5-21. G-1376 Noise Reduction Circuit Board (Stock No. 00674601) <D-570>

Component Side



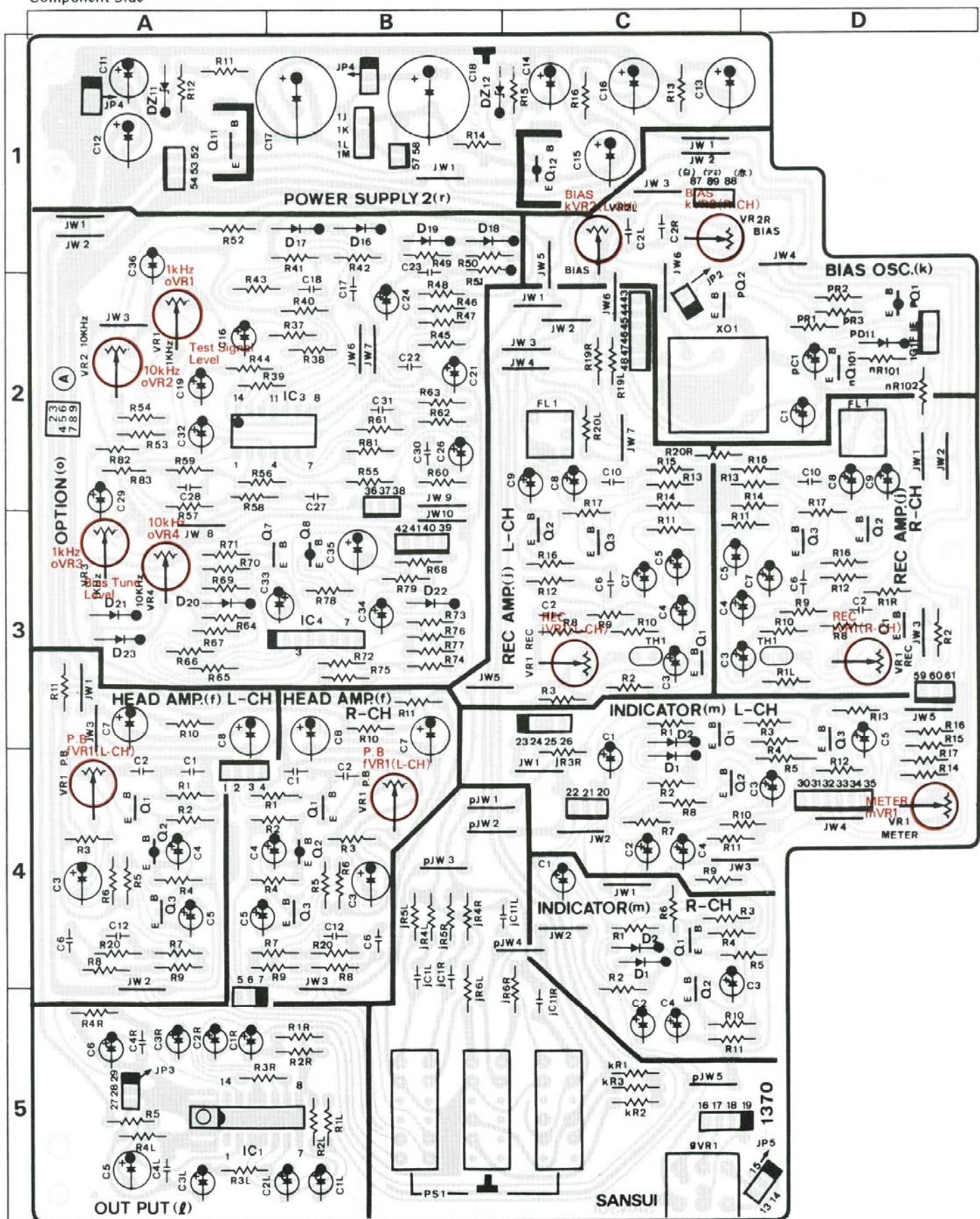
Parts List

Parts No.	Stock No.	Description
● Transistor		
hQ1	03068301	2SC2320-E
	or 07299701	2SC2603-E
	or 07299702	2SC2603-F
hQ2	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ3	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ4	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ5	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ6	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ7	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ8	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ9	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ10	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ11	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ12	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ13	03068301	2SC2320-E
	or 07299701	2SC2603-E
hQ14	07263400	2SB631-E
	or 07263500	2SD600-E
● IC		
hIC1	03613100	NE645N
hIC2	03613100	NE645N
hIC3	03613100	NE645N
hIC4	03613100	NE645N
hIC5	46147700	M5218L
● Diode		
hD1	07225500	1N60
hD2	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
hD3	07225500	1N60
hD4	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
● Zener Diode		
hDZ1	03178000	RD8.2E-B
hDZ2	03178000	RD8.2E-B
hR33	00181100	22Ω 1W N.I.R.
hR34	00181100	22Ω 1W N.I.R.
hFL1	46179101	MPX Filter
hFL2	46177600	19.8 kHz Filter
hFL3	46177600	19.8 kHz Filter
hFL4	46179201	MPX Filter
hVR1	07241100	2kΩ SVR, Dolby Level
hVR2	07241100	2kΩ SVR, Dolby Level
● Transistor		
IQ1	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ102	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ103	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ104	03012700	2SA999-E
	or 07299601	2SA1115-E

Parts No.	Stock No.	Description
● Zener Diode		
nDZ101	03183400	RD5.1E-B
pD1	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD2	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD3	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD4	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD5	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD6	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD7	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD8	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD9	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
pD10	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3

5-22. G-1370 REC & PLAY Amp. Circuit Board (Stock No. 00674001) <D-570>

Component Side

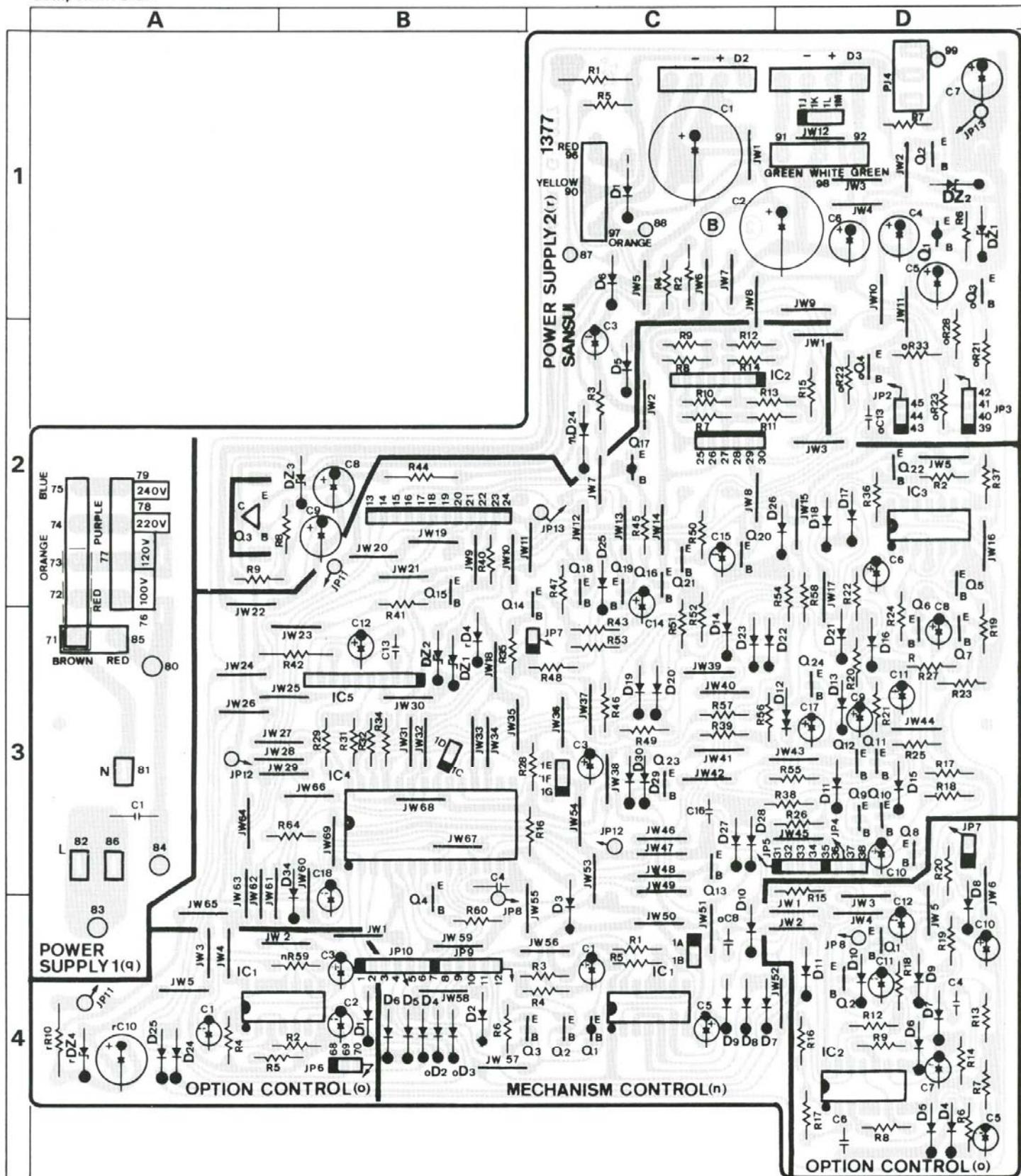


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
●Transistor					
fQ1	07225400	2SC2320L-F	oD21	03117600	1S2473T77
fQ2	03012700	2SA999-E		or 46092700	US1035TB
	or 07299601	2SA1115-E		or 46086000	1S1588TP-3
fQ3	07225400	2SC2320L-F	oD22	03117600	1S2473T77
fVR1	07240900	500Ω (B) SVR, Level Adjust		or 46092700	US1035TB
gVR1	45177000	50kΩ VR, Input Level Adjust		or 46086000	1S1588TP-3
●Transistor			oD23	03117600	1S2473T77
jQ1	03068301	2SC2320-E		or 46092700	US1035TB
	or 03068302	2SC2320-F		or 46086000	1S1588TP-3
	or 07299701	2SC2603-E	oVR1	07241300	10kΩ SVR, Bias Tune
jQ2	03068301	2SC2320-E	oVR2	07241300	10kΩ SVR, Bias Tune
	or 07299701	2SC2603-E	oVR3	07241200	5kΩ SVR, Bias Tune
jQ3	03068301	2SC2320-E	oVR4	07241200	5kΩ SVR, Bias Tune
	or 07299701	2SC2603-E	●Transistor		
jFL1	46179000	MPX Filter	pQ1	03012700	2SA999-E
jVR1	07241500	50kΩ SVR, Rec Level		or 07299601	2SA1115-E
kXO1	46178900	OSC Block	pQ2	03068301	2SC2320-E
kVR1, 2	07241600	100kΩ VR, Bias Level		or 07299701	2SC2603-E
●IC			●Diode		
IIC1	07224500	LA4170	pD11	03117600	1S2473T77
●Transistor				or 46092700	US1035TB
mQ1	03068301	2SC2320-E		or 46086000	1S1588TP-3
	or 07299701	2SC2603-E	pS1	46178000	Tape Selector Switch
mQ2	03068301	2SC2320-E	●Transistor		
	or 07299701	2SC2603-E	rQ11	03083901	2SD313AL-D
mQ3	03068301	2SC2320-E		or 07263400	2SB631-E
	or 07299701	2SC2603-E	●Diode		
●Diode			rDZ11	46114300	05Z13-Z
mD1	03117600	1S2473T77	rDZ12	46114300	05Z13-Z
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
mD2	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
mVR1	07241200	5kΩ SVR, LED Meter Level Volume			
●Transistor					
nQ101	03068301	2SC2320-E			
	or 07299701	2SC2603-E			
oQ7	03068301	2SC2320-E			
	or 07299701	2SC2603-E			
oQ8	03012700	2SA999-E			
	or 07299601	2SA1115-E			
●IC					
oIC3	07258300	MB3614M			
oIC4	46147700	M5218L			
●Diode					
oD16	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
oD17	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
oD18	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
oD19	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			
oD20	03117600	1S2473T77			
	or 46092700	US1035TB			
	or 46086000	1S1588TP-3			

5-23. G-1377 Mechanism Control Circuit Board (Stock No. 00674701) <D-570>

Component Side



Parts List

Parts No.	Stock No.	Description
mPL3	46177100	Pilot-Lamp 12V 0.1A
●Transistor		
nQ1	03012700	2SA999-E
	or 07299601	2SA1115-E
nQ2	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ3	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ4	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ5	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ6	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ7	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ8	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ9	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ10	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ11	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ12	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ13	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ14	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ15	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ16	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ17	07206800	2SA952-M
nQ18	07206900	2SC2001-M
nQ19	07206900	2SC2001-M
nQ20	07206900	2SC2001-M
nQ21	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ22	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ23	03068301	2SC2320-E
	or 07299701	2SC2603-E
nQ24	03068301	2SC2320-E
	or 07299701	2SC2603-E
●IC		
nIC1	036111400	M53200P
nIC2	46147700	M5218L
nIC3	03609500	MSM4001RS
nIC4	46178200	MSM5836RS
nIC5	07233100	BA6109
●Diode		
nD2	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD3	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD4	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD5	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD6	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3

Parts No.	Stock No.	Description
nD7	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD8	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD9	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD10	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD11	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD12	03401500	MV-12
nD13	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD14	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD15	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD16	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD17	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD18	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD19	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD20	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD21	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD22	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD23	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD24	03117700	10E-2
nD25	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD26	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD27	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD28	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD29	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD30	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
nD34	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3

to be continued ►

Parts List <G-1377>

Parts No.	Stock No.	Description
•Zener Diode		
nDZ1	46112100	05Z6.8-Y
nDZ2	46110900	05Z4.7-Y
nR42	00182100	330Ω 1W N.I.R.
nR44	00186700	15Ω 2W N.I.R.
nC5	07216800	6800pF 25V C.C.
nC12	08451000	10μF 16V E.B.
•Transistor		
oQ1	03068301	2SC2320-E
	or 07299701	2SC2603-E
oQ2	03068301	2SC2320-E
	or 07299701	2SC2603-E
oQ3	03068301	2SC2320-E
	or 07299701	2SC2603-E
oQ4	03068301	2SC2320-E
	or 07299701	2SC2603-E
•IC		
oIC1	46165600	MSM4023RS
oIC2	03605700	MSM4069RS
•Diode		
oD1	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD2	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD3	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD4	03117600	1S2473T77
	or 46092700	US1035TB
	or 47086000	1S1588TP-3
oD5	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD6	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD7	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD8	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD9	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3

Parts No.	Stock No.	Description
oD10	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD11	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD24	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oD25	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
oC4	07216800	68000pF 25V C.C.
oC6	07215800	10000pF 25V C.C.
oC8	07216800	68000pF 25V C.C.
pJ4	46148200	COMPUEDIT Jack
qC1	08302600	10000pF 400V C.C.
•Transistor		
rQ1	07206800	2SA952-M
rQ2	07206900	2SC2001-M
	or 07206901	2SC2001-L
rQ3	03083901	2SD313AL-D
•Diode		
rD1	03117700	10E-2
rD2	03117000	RB-152
rD3	03117000	RB-152
rD4	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
rD5	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
rD6	03117600	1S2473T77
	or 46092700	US1035TB
	or 46086000	1S1588TP-3
•Zener Diode		
rDZ1	46114500	05Z15-Y
rDZ2	46113600	05Z11-Y
rDZ3	46114000	05Z12-Z
rDZ4	03168500	RD5.1F B
•Resistor		
rR1	00179000	10Ω 1W N.I.R.
rR2	00179100	100Ω 1W N.I.R.
rR10	00184300	68Ω 1W N.I.R.

• Abbreviations

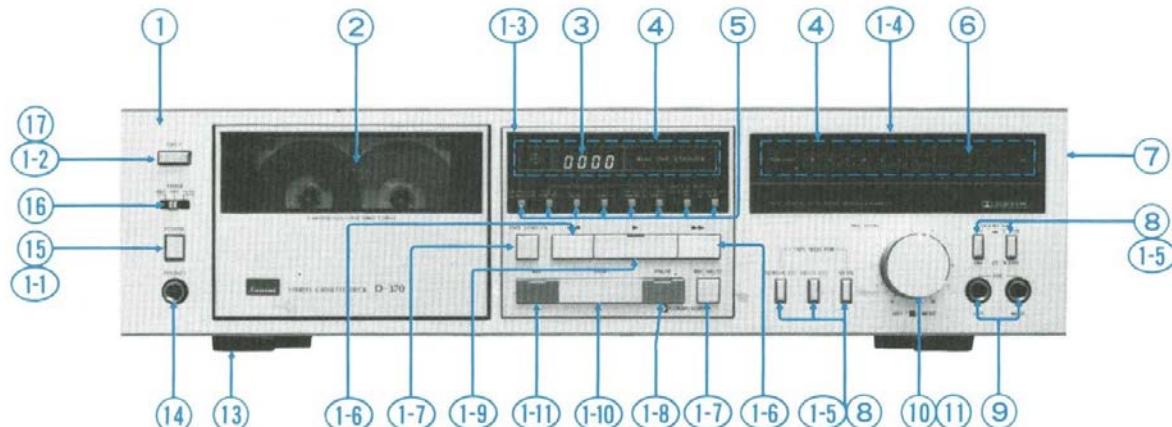
C.R. : Carbon Resistor
 S.R. : Solid Resistor
 Ce.R. : Cement Resistor
 M.R. : Metal Film Resistor
 F.R. : Fusing Resistor
 N.I.R. : Non-Inflammable Resistor
 C.C. : Ceramic Capacitor
 C.T. : Ceramic Capacitor, Temperature Compensation
 E.C. : Electrolytic Capacitor
 E.L. : Low Leak Electrolytic Capacitor

E.B. : Bi-Polar Electrolytic Capacitor
 E.BL. : Low Leak Bi-Polar Electrolytic Capacitor
 Ta.C. : Tantalum Capacitor
 F.C. : Film Capacitor
 M.P. : Metalized Paper Capacitor
 P.C. : Polystyrene Capacitor
 G.C. : Gimmic Capacitor
 V.R. : Variable Resistor
 S.V.R. : Semi Variable Resistor
 S.W. : Switch

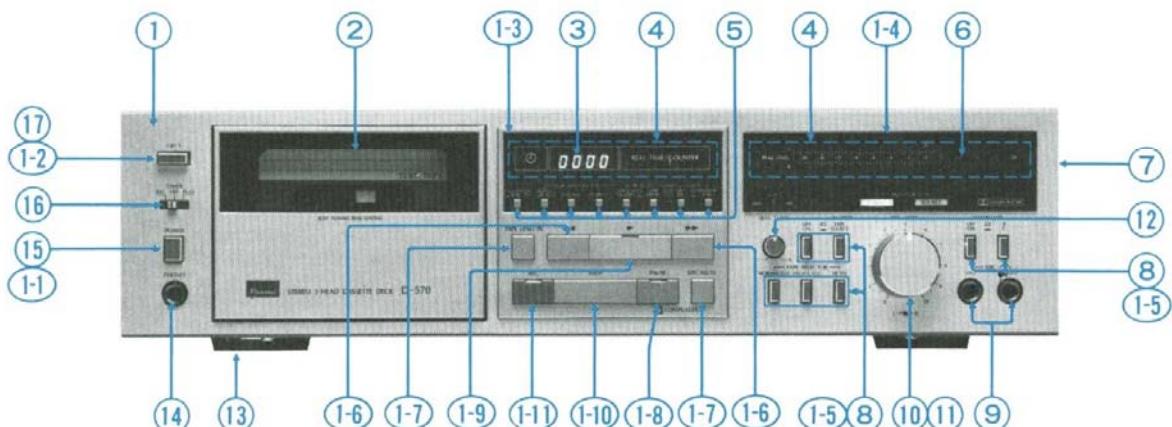
6. OTHER PARTS

6-1. Front View

A) D-370



B) D-570

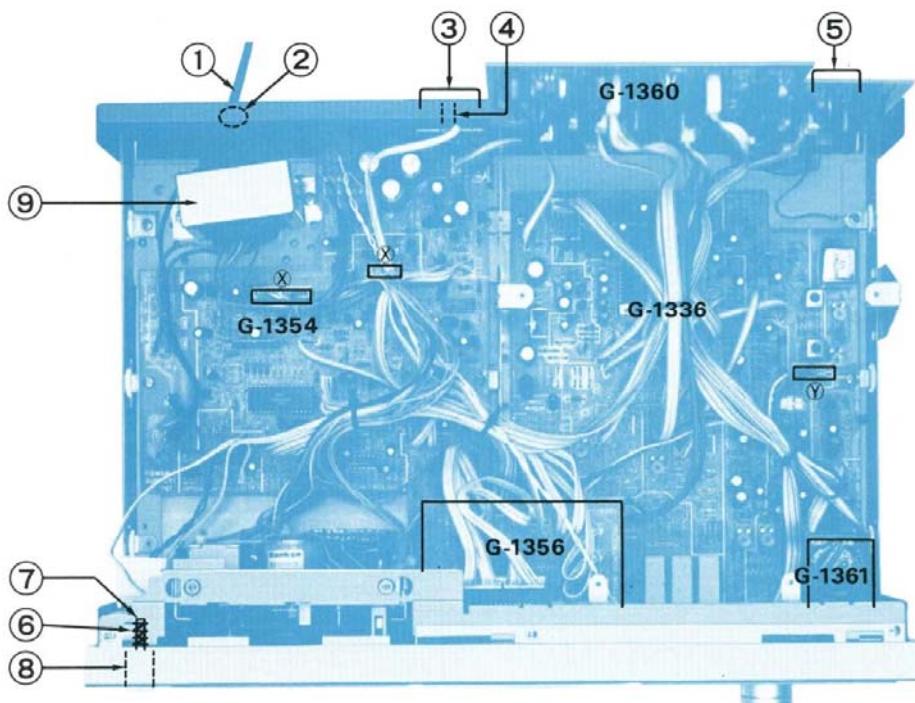


Parts List <Front View>

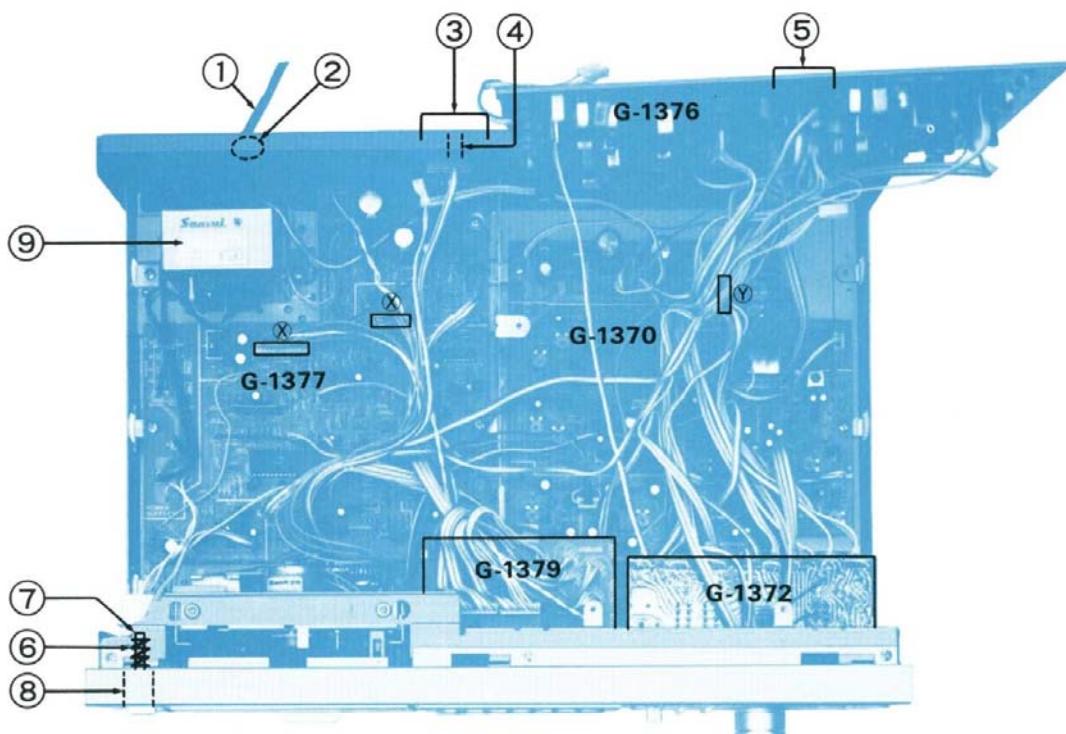
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	09445410	Front Panel Ass'y <D-370> (Silver Model)	2	09449200	Cassette Lid Ass'y <D-370> (Silver Model)
	09445510	Front Panel Ass'y <D-370> (Black Model)		09449300	Cassette Lid Ass'y <D-370> (Black Model)
	09445610	Front Panel Ass'y <D-570> (Silver Model)		09449400	Cassette Lid Ass'y <D-570> (Silver Model)
	09445710	Front Panel Ass'y <D-570> (Black Model)		09449500	Cassette Lid Ass'y <D-570> (Black Model)
1-1	07809900	Push Knob Guide, power (Silver Model)	3	46164500	Fluorescent Dis play Tube, counter
	07810000	Push Knob Guide, power (Black Model)	4	09447500	Meter Frame Ass'y <D-370>
1-2	07778400	Push Knob Guide, eject (Silver Model)		09447700	Meter Frame Ass'y <D-570>
	07829300	Push Knob Guide, eject (Black Model)	5	09425800	Push Knob, digital auto computerized scanner 8
1-3	09426800	Counter Glass, (Silver Model)	6	46176800	Peak Level Meter (L.E.D. LT1051)
	09426900	Counter Glass, (Black Model)	7	09425200	Bonnet (Silver Model)
1-4	09426200	Meter Glass, <D-370> (Silver Model)		09425300	Bonnet (Black Model)
	09426300	Meter Glass, <D-370> (Black Model)	8	09443600	Push Knob, tape selector, dolby NR monitor bias tune (Silver Model)
	09426600	Meter Glass, <D-570> (Silver Model)		09443700	Push Knob, tape selector, dolby NR monitor bias tune (Black Model)
	09426700	Meter Glass, <D-570> (Black Model)	9	46212000	Mic Jack
1-5	07810100	Push Knob Guide (Silver Model)	10	09465400	Knob, REC LEVEL LEFT (Silver Model)
	07810200	Push Knob Guide (Black Model)	11	09419400	Knob, REC LEVEL LEFT (Black Model)
1-6	09437700	Push Button, FF·REW (Silver Model)	12	09465500	Knob, REC LEVEL RIGHT (Silver Model)
	09437800	Push Button, FF·REW (Black Model)		09419500	Knob, REC LEVEL RIGHT (Black Model)
1-7	09428200	Push Button, REC MUTE·TAPE LEAD IN (Silver Model)	13	07834700	Knob, BIAS TUNE <D-570> (Silver Model)
	09428300	Push Button, REC MUTE·TAPE LEAD IN (Black Model)		07680600	Knob, BIAS TUNE <D-570> (Black Model)
1-8	09455000	Push Button, PAUSE	14	07822700	Leg
1-9	09448600	Push Button, PLAY (Silver Model)	15	46212100	Head Phone Jack
	09448700	Push Button, PLAY (Black Model)		07809700	Push Knob, POWER (Silver Model)
1-10	09437500	Push Button, STOP (Silver Model)	16	07809800	Push Knob, POWER (Black Model)
	09437600	Push Button, STOP (Black Model)		09444300	Slide Knob, TIMER (Silver Model)
1-11	09448900	Push Button, REC	17	09444600	Slide Knob, TIMER (Black Model)
				07853800	Push Knob, EJECT (Silver Model)
				07829400	Push Knob, EJECT (Black Model)

6-2. Top View

A) D-370



B) D-570



Parts List <Top View>

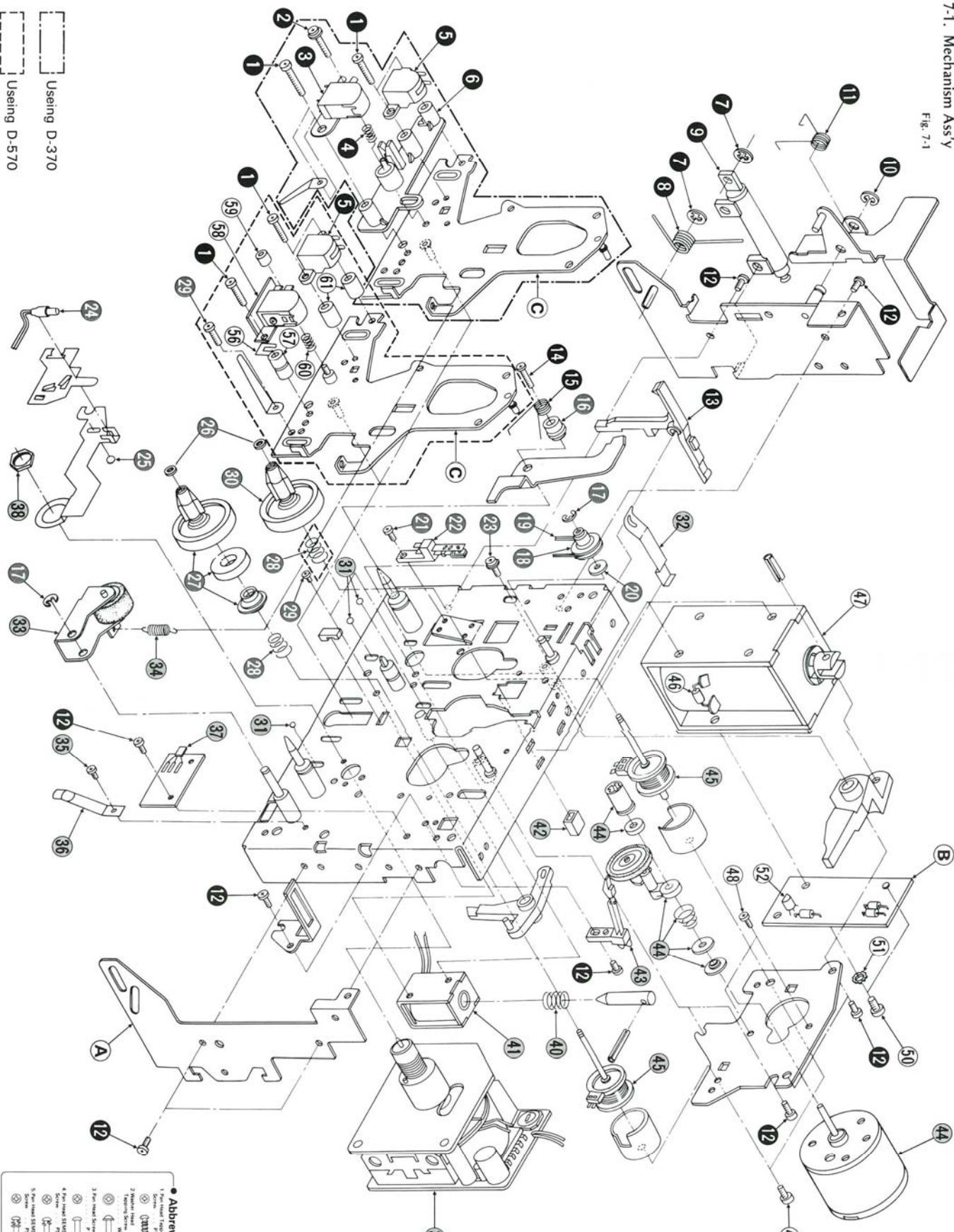
Parts No.	Stock No.	Description
1	38004700	Power Supply Cord
2	39106000	Strain Relief
3	11102800	Real Time Set Switch
4	46148200	Jack, computer editing
5	07249100	4P Terminal, line out/in

Parts No.	Stock No.	Description
6	09419800	Compression Spring, eject return
7	09419100	Eject Bar
8	46087300	Push Switch, power
9	15006201	Power Transformer <D-370>
	15006301	Power Transformer <D-570>

7. EXPLODED VIEW & PARTS LIST

7-1. Mechanism Ass'y

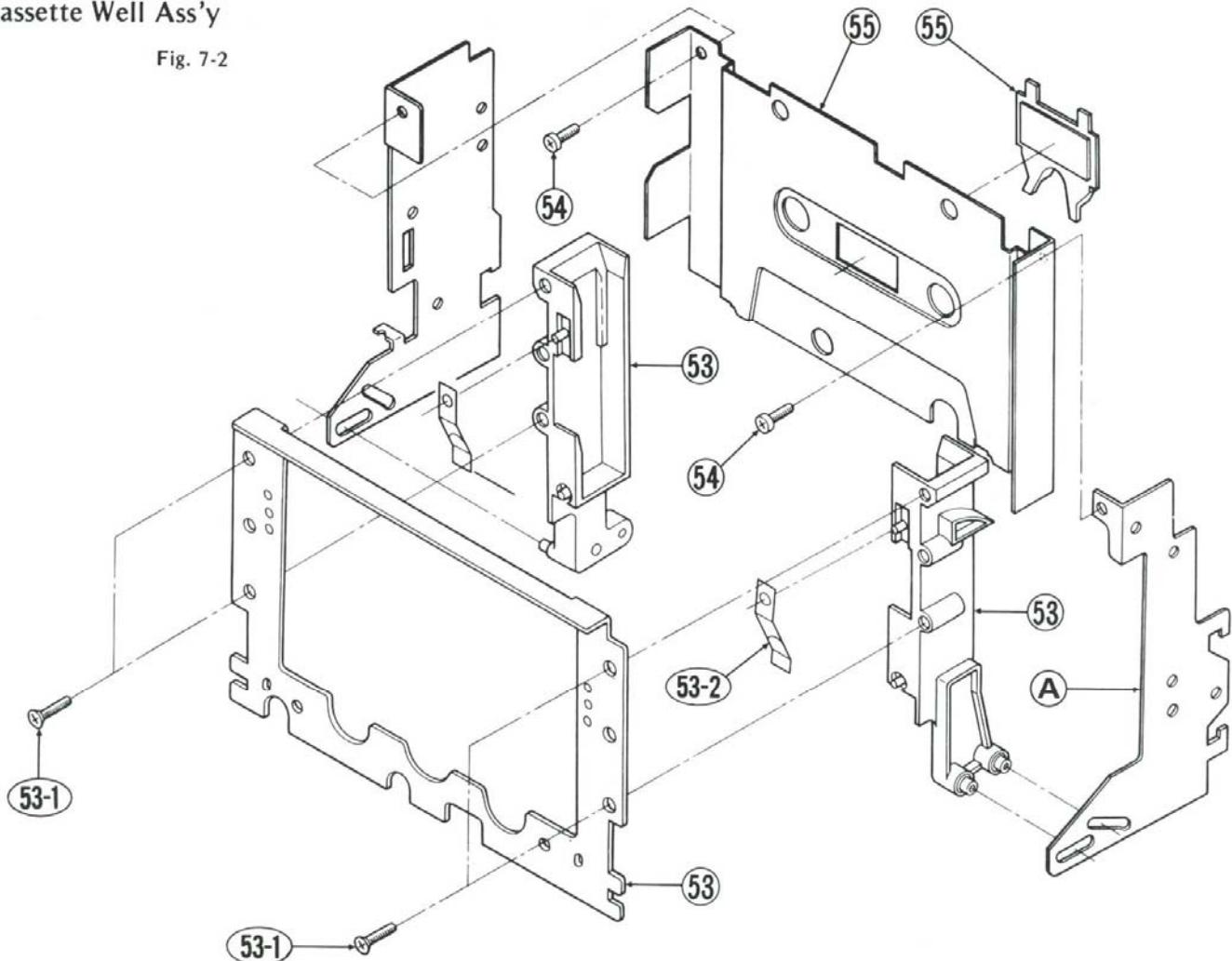
Fig. 7-1



(46)	(31)	(16)	(1)
~	~	~	~
(61)	(45)	(30)	(15)

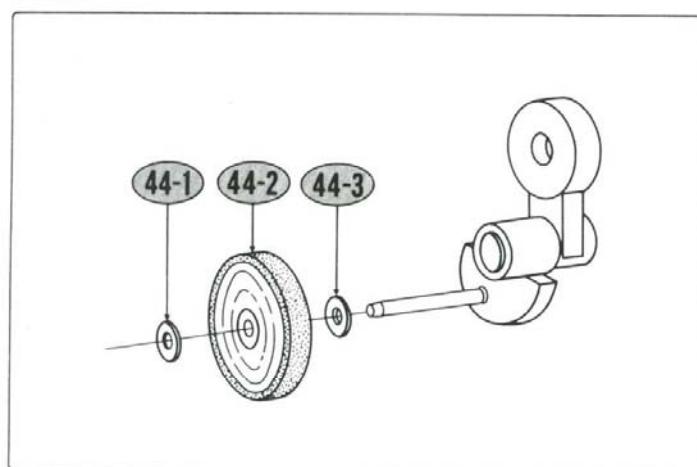
7-2. Cassette Well Ass'y

Fig. 7-2



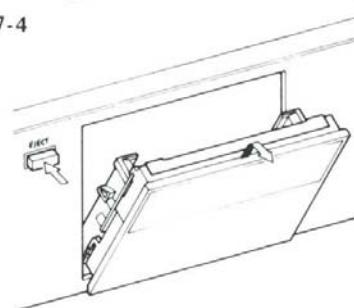
7-3. Idler Ass'y

Fig. 7-3



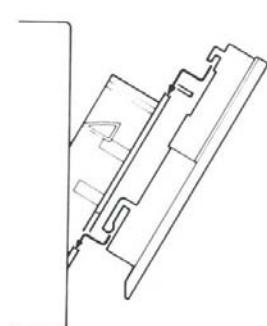
7-4. Removing and Re-attach the Cassette Lid Ass'y

Fig. 7-4



Depress the EJECT button to open the cassette Lid Ass'y, and pull the Lid Ass'y up and then toward you to remove it as shown in the figure.

Fig. 7-5



Re-attach the cover to the cassette Lid Ass'y by following the procedure for its removal in reverse.

8. MAIN PARTS REPLACEMENT

Parts List <Mechanism Ass'y>

Parts No.	Stock No.	Description
1	00420900	Pan Head Screw M2 x 12
2	07736500	Binding Head (BSF) Screw M2 x 14 <D-370 Only>
3	09461400	Rec/PB Head <D-370 Only>
4	07734400	Head Adjust Spring <D-370 Only>
5	07735500	Erase Head
6	07735400	Head Base <D-370 Only>
7	51830000	CS Type Ring
8	09464700	Dumper Spring
9	09464600	Eject Dumper
10	00489200	E Type Washer E-3
11	09464500	Eject Arm Spring
12	00436700	Flat Countersunk Head Screw M2.6 x 6
13	09461100	Rec Sensor Lever
14	09463300	Flat Countersunk Head Screw M2.5 x 10
15	09463200	Rock Plate Spring
16	09463100	Collar, lock plate
17	00489000	E Type Washer E-2
18	09463800	Back Tension Pulley
19	09463900	Belt Back Tension
20	09464000	Washer, back tension
21	00436500	Pan Head Screw M2 x 4
22	09463400	Leaf Switch, rec sensor
23	00449100	Pan Head (PBS) Screw M3 x 6
24	07720000	Lamp 8V 50mA
25	09462700	Steel Ball
26	07732600	Poly-trust Plain Washer M3 x 2 x 0.5
27	09462100	Take-up Reel Ass'y (with Magnet Pulley)
28	09462000	Reel Hub Spring
29	07736300	Flat Countersunk Head Screw M2 x 3
30	09462200	Supply Reel Ass'y
31	65400300	Steel Ball
32	09478800	Cassette Hold Spring
33	09462900	Pinch Roller Ass'y <D-370 Only>
	09463000	Pinch Roller Ass'y <D-570 Only>
34	07734700	Pinch Roller Spring
35	09463700	Pan Head Screw M2 x 3.2
36	09465600	Cassette Guide Spring
37	09463600	Magnetical Element
38	09462800	Nut, Capstan Motor Mounting
39	09462500	Capstan Motor <D-370 Only> (with Control Circuit Board)
	09462600	Capstan Motor <D-570 Only> (with Control Circuit Board)
40	07734300	Sub Plunger Spring
41	07719900	Sub Plunger (AMPS)
42	07734000	Cushion
43	09462400	Leaf Switch, cassette sensor
44	09465100	Reel Motor Ass'y
44-1	07879300	Stopper Washer *See Fig. 7-3
44-2	07879200	Idler
44-3	07879400	Poly-trust Plain Wahser M3 x 2 x 0.5
45	09461800	Magnet Brake
46	07733000	Diode
47	09461700	Play Plunger
48	07736400	Pan Head Screw M2.6 x 3
49	09461900	Pan Head Screw M2.3 x 4
50	00421900	Pan Head Screw M3 x 6
51	00470200	Toothed Lock Washer
52	07299701	Transistor 2SC2603
53	09465200	Cassette Well Ass'y
53-1	09464400	Flat Countersunk Head Screw M2.6 x 8
53-2	09465600	Cassette Spring
54	09465000	Pan Head Screw M2.5 x 5
55	09464800	Mechanism Cover Ass'y (Red), <Black Model Only>
	09464900	Mechanism Cover Ass'y (Blue), <Silver Model Only>
56	09461600	Head Adjust Plate (used 0 ~ 2ea.) <D-570 Only>
57	09461200	Spacer REC/PB Head Adjust <D-570 Only>
58	46198700	REC/PB Combination Head <D-570 Only>
59	09447300	Nut, head lock <D-570 Only>
60	09447000	Head Adjust Spring <D-570 Only>
61	09461300	Spacer, erase head <D-570 Only>

A. Mechanical assembly (See EXPLDED VIEWS and Page 26 Top View)

- 1) Remove the cassette lid.
- 2) Remove the bonnet and the front panel assembly.
- 3) Remove the bottom plate.
- 4) Extract two connectors  on the mechanism control board G-1377 (in D-570) or G-1354 (in D-370).
- 5) Remove the noise reduction board G-1376 (in D-570) or G-1360 (in D-370) and then extract one connector  on the REC/PB amplifier board G-1370 (in D-570) or G-1336 (in D-370). Lastly remove the harness.
- 6) Remove two upper and lower screws fixing the mechanical assembly.
- 7) Pull out the mechanical assembly from the rear panel side.

B. Cassette well assembly

- 1) Remove the CS-type ring  retaining the damper spring .
- 2) Remove the CS-type ring  retaining the inject damper .
- 3) Remove two screws  fastening the cassette well mounting plate .
- 4) Remove the cassette well assembly.

C. Reel motor assembly and electromagnetic brake

- 1) Pull out the mechanical assembly from the rear panel side.
- 2) Remove two screws  fastening the mechanism cover assembly .
- 3) Remove the polycarbonate washer  and extract the take-up reel assembly or the supply reel assembly, and the reel hub spring .
- 4) Remove two screws  fastening the terminal board .
- 5) Remove three screws fastening the capstan motor control board.
- 6) Remove control board.
- 7) Remove the screw  fastening the electromagnetic brake and extract the electromagnetic brake from the front side.
- 8) Remove three screws  fastening the reel motor mounting plate.
- 9) Remove the reel motor assembly together with the mounting plate.
- 10) Remove two screws  fastening the reel motor before removing the reel motor.

D. Capstan motor

- 1) Remove the CS-type ring  fastening the damper spring .
- 2) Remove the CS-type ring  fastening the inject damper .
- 3) Remove two screws  fastening the cassette well mounting plate .
- 4) Remove the cassette well assembly.
- 5) Remove the mechanism cover assembly .
- 6) Remove the pinch roller spring  from the head base mounting plate .
- 7) Remove the capstan motor mounting nuts.
- 8) Remove the capstan motor together with the control board.

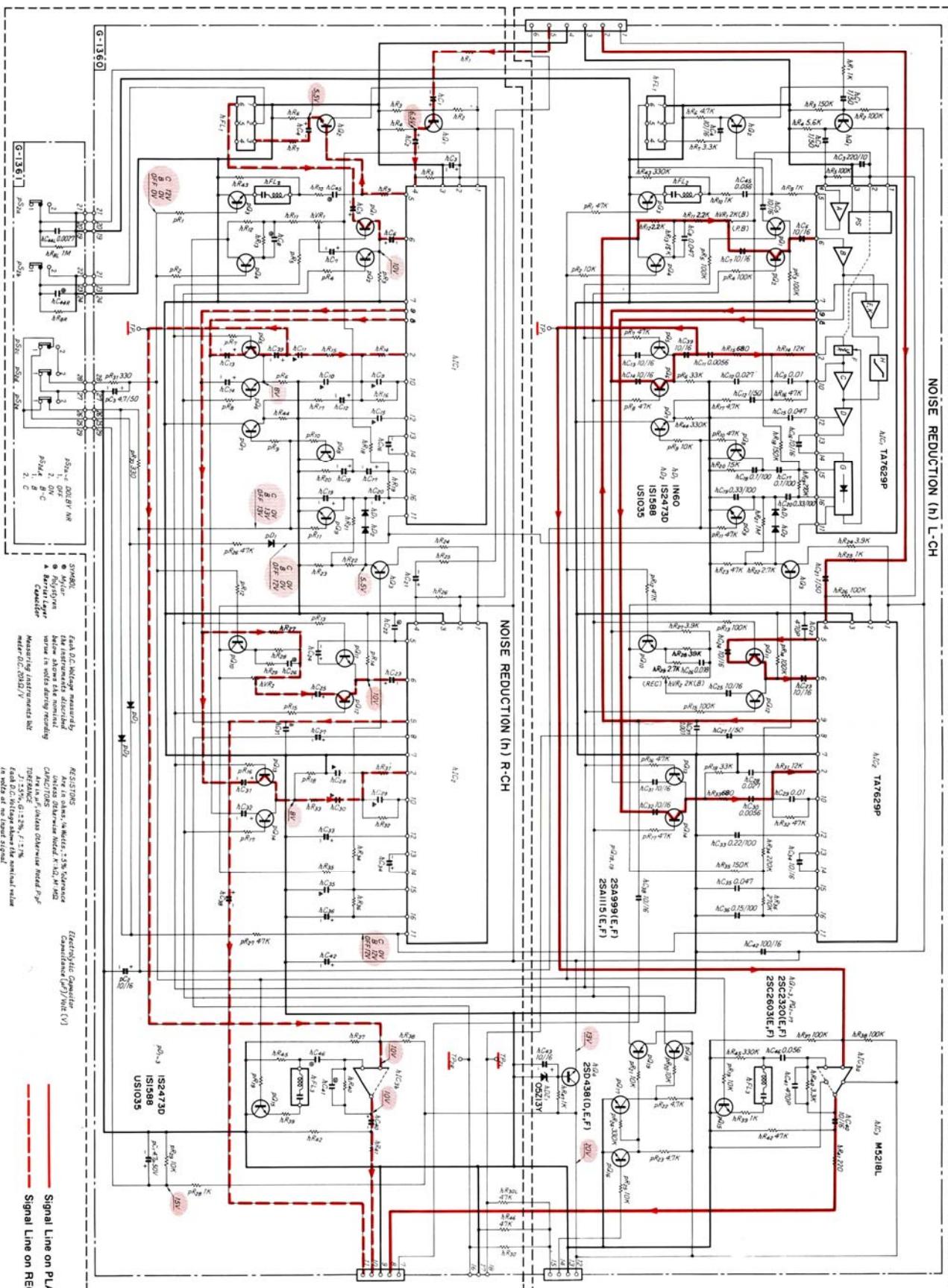
E. Idler (Fig. 7-3)

- 1) Remove the cassette lid.
- 2) Remove the mechanism cover assembly.
- 3) Remove the washer  retaining the idler.
- 4) Remove the idler.

9. SCHEMATIC DIAGRAM

9-1. D-370 <Noise Reduction Section>

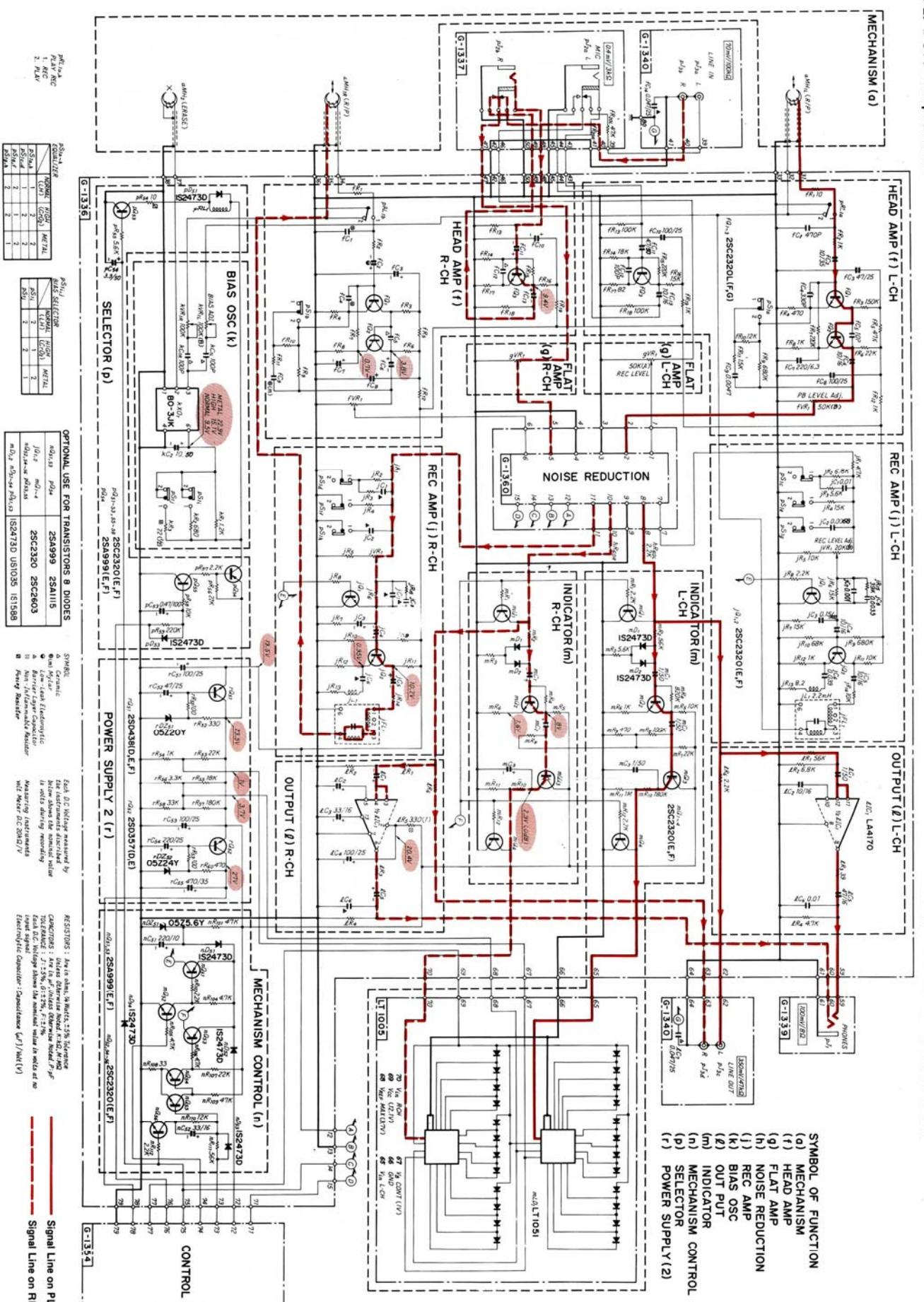
NOISE REDUCTION (h) L-CH



*La présentation et les spécifications subject to change without notice or improvement.
*Les présentations et les spécifications sujettes à modification sans préavis par suites d'améliorations éventuelles.

* La présentation et les spécifications subject to change without notice nor improvement
* Les Andenken sind technischen Fortschritten solchen kleinen Veränderungen unterworfen.





* Design and specifications subject to change without notice for improvement.
* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.

9-2. D-370 <Amp. Section>

* Design and specifications subject to change without notice for improvement.
* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.

A**B****C****D****E****F****G****H**

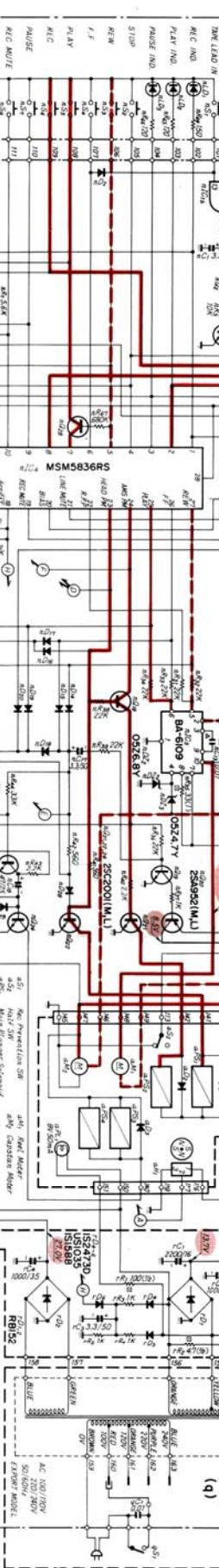
9.3. D-370 <Mechanism Control Section>

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 * Änderungen, die den technischen Fortschritt dienen, bleiben vorbehalten.

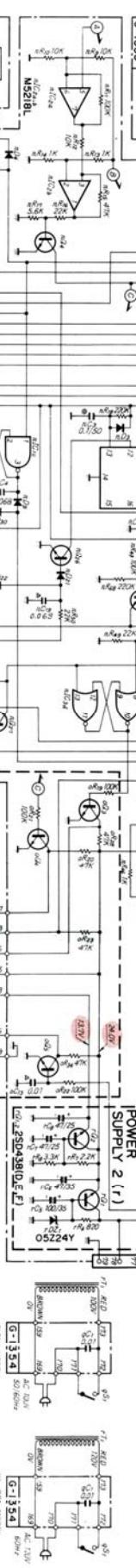
MECHANISM CONTROL (n)

 25A982
 25A999
 25A471
 25C2270
 25D448


POWER SUPPLY I (q)

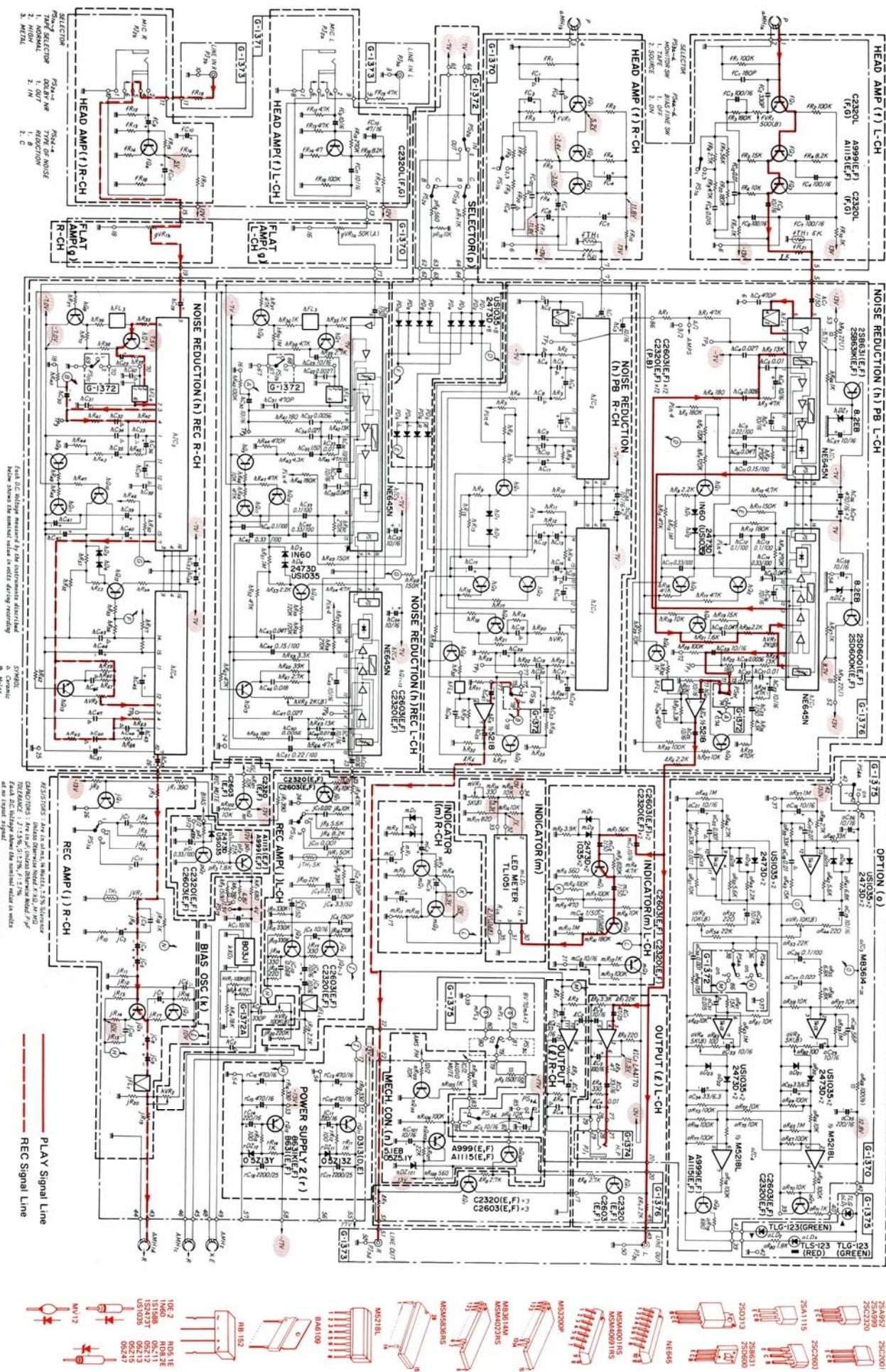
 25C2201
 25A115


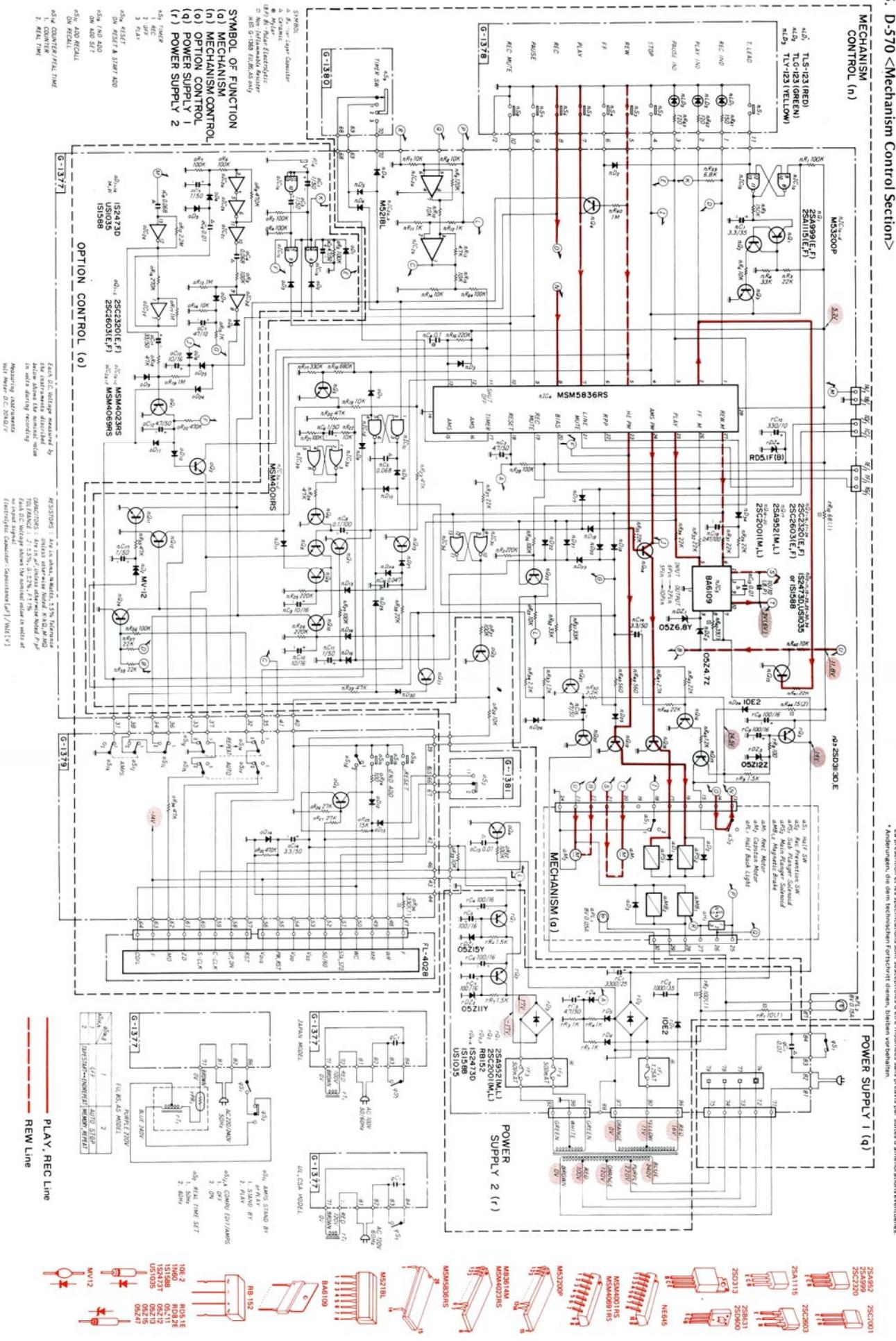
POWER SUPPLY II (r)

 25C2201
 25A115
**3****4****5****6****7****8****9****10****11****12****13****14****15****16****17****18****19****20****21****22****23****24****25****26****27****28****29****30****31****32****33****34****35****36****37****38****39****40****41****42****43****44****45****46****47****48****49****50****51****52****53****54****55****56****57****58****59****60****61****62****63****64****65****66****67****68****69****70****71****72****73****74****75****76****77****78****79****80****81****82****83****84****85****86****87****88****89****90****91****92****93****94****95****96****97****98****99****100****101****102****103****104****105****106****107****108****109****110****111****112****113****114****115****116****117****118****119****120****121****122****123****124****125****126****127****128****129****130****131****132****133****134****135****136****137****138****139****140****141****142****143****144****145****146****147****148****149****150****151****152****153****154****155****156****157****158****159****160****161****162****163****164****165****166****167****168****169****170****171****172****173****174****175****176****177****178****179****180****181****182****183****184****185****186****187****188****189****190****191****192****193****194****195****196****197****198****199****200****201****202****203****204****205****206****207****208****209****210****211****212****213****214****215****216****217****218****219****220****221****222****223****224****225****226****227****228****229****230****231****232****233****234****235****236****237****238****239****240****241****242****243****244****245****246****247****248****249****250****251****252****253****254****255****256****257****258****259****260****261****262****263****264****265****266****267****268****269****270****271****272****273****274****275****276****277****278****279****280****281**

9-4. D-570 <Amp. Section>

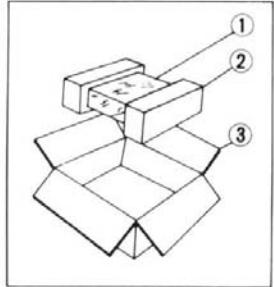
***La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.**





10. PACKING LIST

Parts No.	Stock No.	Description
1	91167610	Vinyl Cover
2	07811900	Styrofoam Packing
3	09456700	Carton Case <D-370> (Silver Model)
	09456800	Carton Case <D-370> (Black Model)
	09458100	Carton Case <D-570> (Silver Model)
	09458300	Carton Case <D-570> (Black Model)



11. ACCESSORY LIST

Stock No.	Description
46143000	Operating Instruction <D-370>
46143200	Operating Instruction <D-570>
38103300	PJP Cord x 2
46165000	Mini Plug Cord
94300500	Head Cleaner (Cotton Buds)

Sansui

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