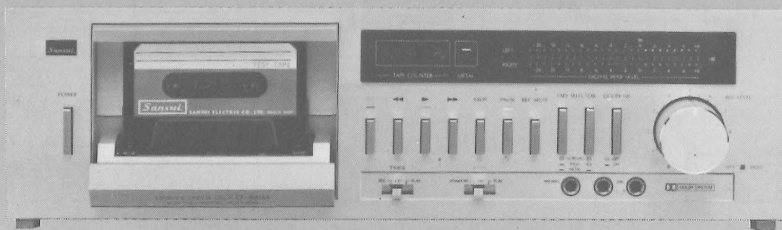


SERVICE MANUAL

STEREO CASSETTE TAPE DECK

METAL-TAPE-COMPATIBLE/HIGH-B HEAD

SANSUI D-300M



• SPECIFICATIONS

| | |
|---|--|
| Track | 4-Track (2-Channel Stereo) |
| Tape speed | 4.8 cm/sec. (1-7/8 ips) |
| Motor | Electronically Controlled DC Motor |
| Wow and flutter | within 0.05 % WRMS |
| Fast wind time | approximately 85 seconds (C-60) |
| Frequency response (Record/Playback) | |
| Normal Tape (LH) (-20 VU) | 20 to 15,000 Hz (30 to 14,000 Hz \pm 3 dB) |
| Metal Tape (-20 VU) | 20 to 18,000 Hz (30 to 17,000 Hz \pm 3 dB) |
| (0 VU) | 30 to 13,000 Hz \pm 3 dB |
| Signal to noise ratio (Record/Playback) | |
| Metal Tape (without Dolby Noise Reduction Effect) | better than 58 dB (weighted) |
| (With Dolby Noise Reduction) | better than 68 dB (above 5 kHz) |
| Erase factor (Metal Tape) | more than 65 dB at 1,000 Hz |
| Input sensitivity and impedance (0 VU, 1,000 Hz) | |
| MIC | 0.4 mV/200 Ω ~ 5 k Ω |
| LINE IN (REC) | 70 mV/47 k Ω |
| Output level (0 VU, 1,000 Hz) | |
| LINE OUT (PLAY) | 400 mV |
| PHONES | 30 mV |
| Power requirements | |
| Power voltage | 110 ~ 120, 220 ~ 240 V (50/60 Hz) |
| For U.S.A. and Canada | 120 V (60 Hz) |
| Power consumption | 38 W |
| Dimensions | 430 mm (16-15/16") W 132 mm (5-1/4") H 238 mm (9-3/8") D |
| Weight | 5.1 kg (11.2 lbs) net 5.8 kg (12.7 lbs) packed |

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

Sansui

SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM

1-1. TYPE I (G-1305)

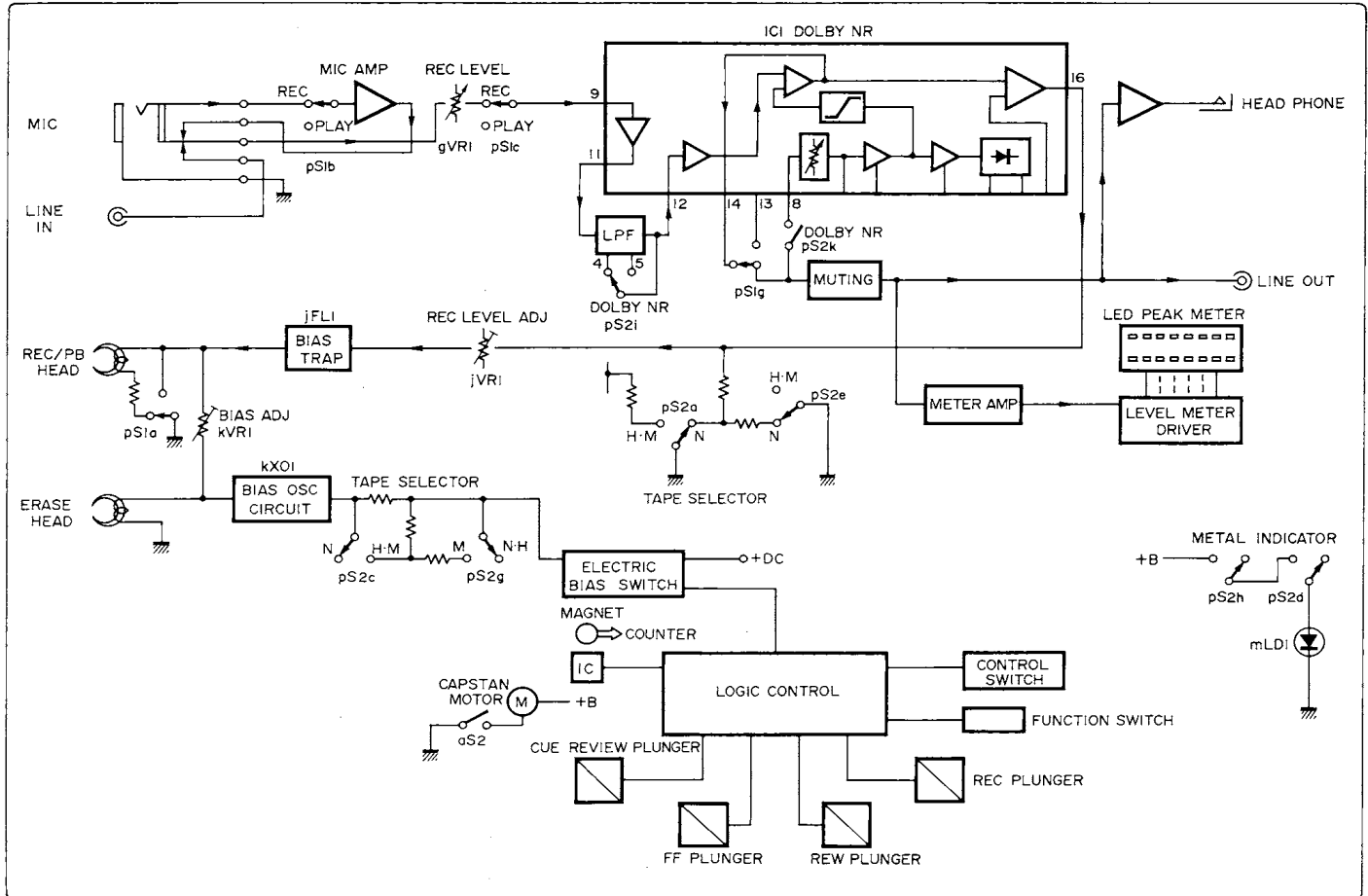
A) Recording Operation Block Diagram

* There exist two kinds of D-300M electrical partion, principal difference of TYPE I from TYPE II.

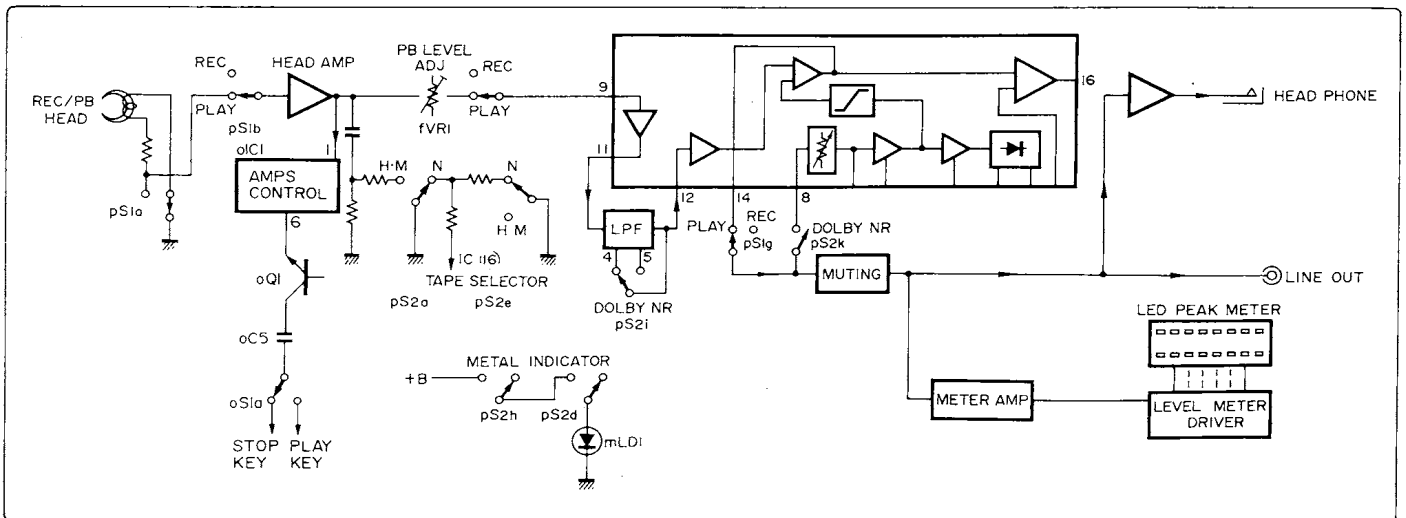
TYPE I; It has DOLBY NR IC (μ A7300) with built in REC amplifier.

TYPE II; It has DOLBY NR IC (NE646B), and other models too.

They can not put NE646B in place of μ A7300, please be carefully.

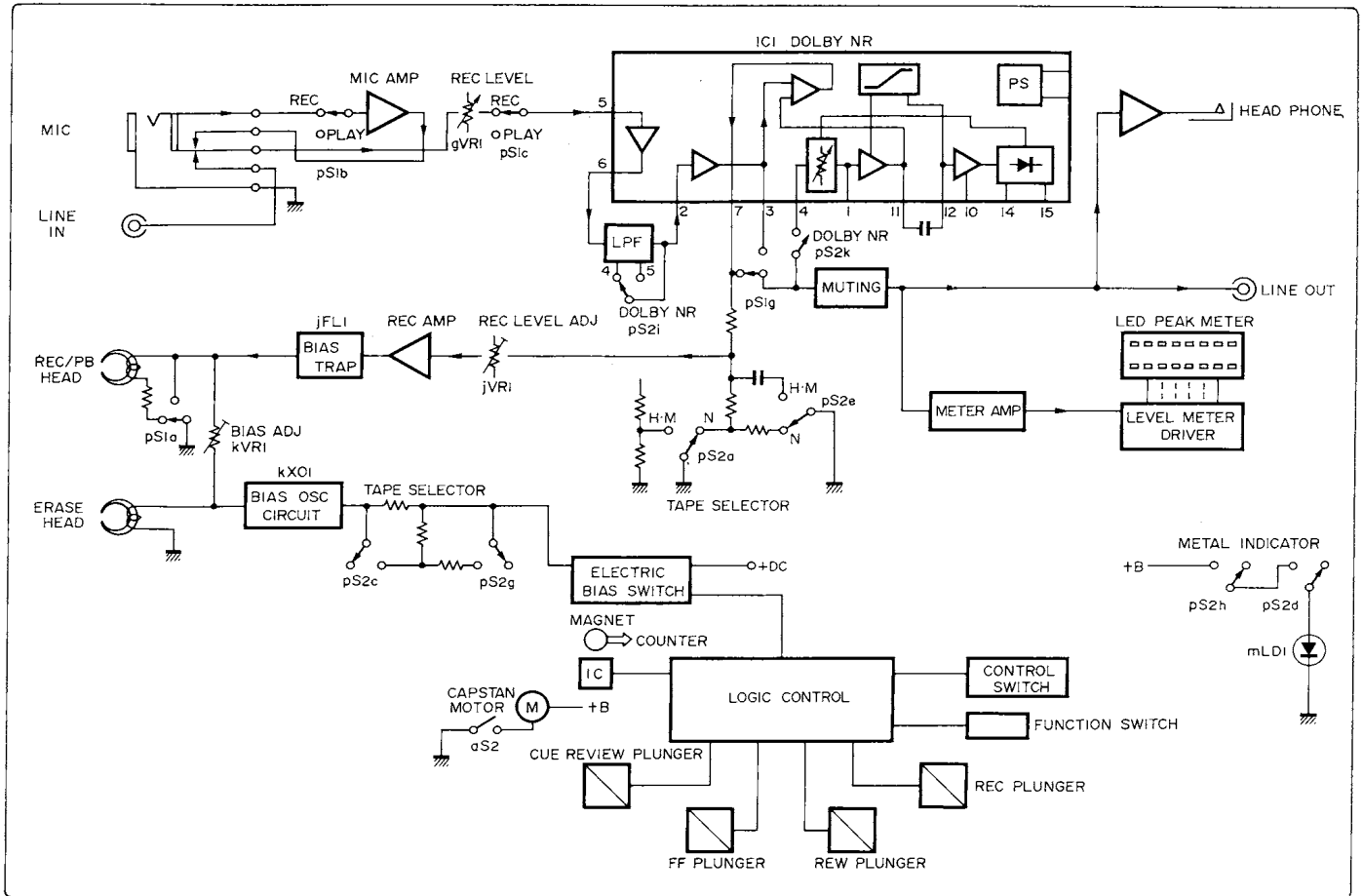


B) Playback Operation Block Diagram



1-2. TYPE II (G-1324)

A) Recording Operation Block Diagram



B) Play Back Operation Block Diagram

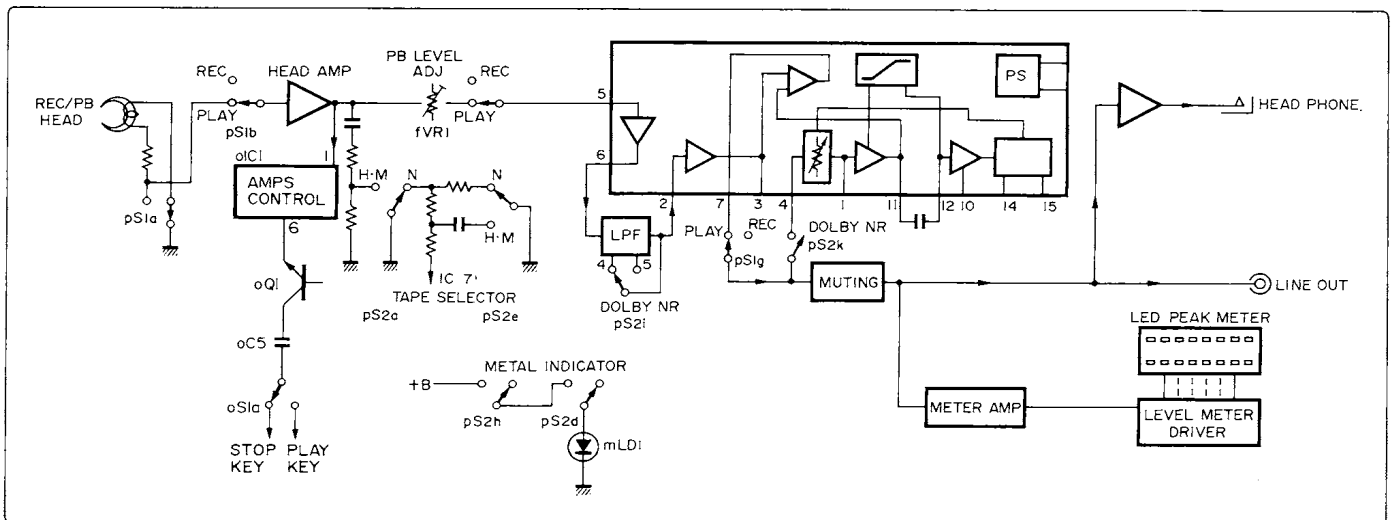
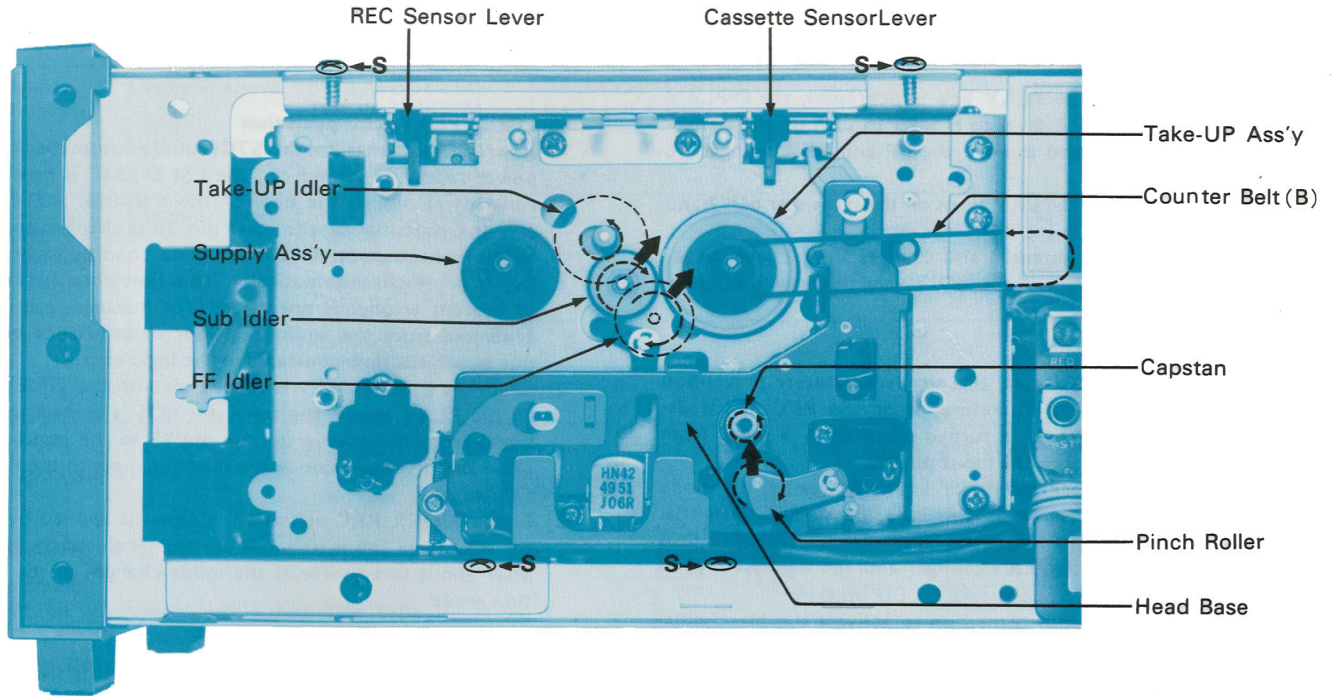


Fig. 2-2



2-2. Operation of Electric Circuit (Refer to block diagram, schematic diagram)

A. Functions and Operations of C-MOS LSI used for the logic control circuit

This stereo cassette deck has realized a full-logic, feather-touch control by using logic circuits mainly configured by a C-MOS LSI D-554C and plunger solenoids.

The main functions and operations of the D-554C are as follows:

- 1) Each mode is operated when a signal corresponding to each mode is applied to the input of the LSI through the corresponding transistor. The selected mode is kept until the mode is switched to another mode.
- 2) The most of operations are directly performed without any delay, however, operations of from STOP to PLAY and from PLAY

to REW are performed after a stop of about 0.2 sec. in order to protect the tape and the mechanism.

On the operations other than those described above, for instance, in the case where the pause operation is released from the REC PAUSE or PLAY PAUSE, each output changes immediately after the PAUSE key is depressed.

- 3) When turning the power supply on from off, the operation mode is set to the STOP mode for about three seconds.
- 4) It is possible to perform automatic recording and automatic playback by using the extra timer.

Fig. 2-3 Top View & Pin function of IC D-554C

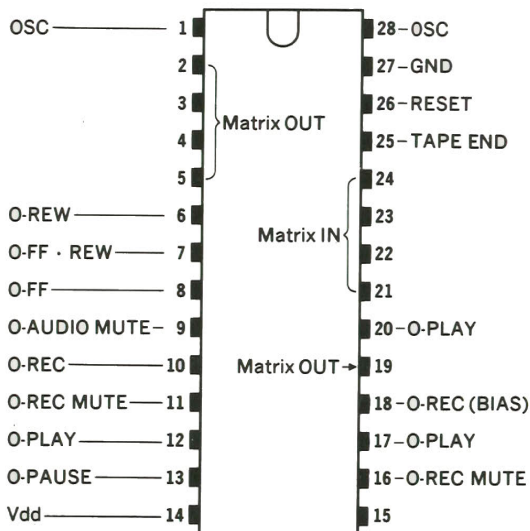


Fig. 2-4 Mode of each output terminal for each key input (The "0" mark indicates the H-level output)

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

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

B. Operations of Logic Control Circuits (See Fig. 2-3, Fig. 2-4 and schematic diagram)

1. PLAY operation

- 1) When depressing the PLAY key, the transistor nQ3 is turned on to apply a signal from the matrix signal output pin 2 to the input pin 22.
- 2) About 0.2 sec. after the PLAY key is depressed, the O-PLAY potential changes from L level to H level to turn on the transistors nQ22 and nQ23, and thereby the FF and REW plunger are both energized.
- 3) At the same time, the O-PLAY turns on the transistor nQ17 and lights up the PLAY LED (nLD2).
- 4) The O-AUDIO MUTE potential also changes from L-level to H-level to turn off the transistor nQ11, and thereby the audio muting is released.

2. REC operation

- 1) When the cassette half is set, the erroneous-erasure prevention switch aS1 is turned on. Therefore, when the REC key is depressed, the transistor nQ2 is turned on to apply a signal from the matrix output pin 2 to the input pin 23.
- 2) At the same time, when the PLAY key is depressed, the mode changes to the REC mode. In this case, the O-REC potential changes from L level to H level to turn on the transistor nQ26 and to energize the REC/PLAY plunger and the transistor nQ16 is also turned on to light up the REC LED (nLD1).
- 3) The transistor nQ2 is also turned on to activate the bias oscillation circuit.
- 4) Other operations are the same as in the PLAY operation.

3. PAUSE operation

- 1) In the PAUSE operation, the O-PLAY potential changes from H-level to L-level except potential of output pin 17 and FF, REW plunger are released.
- 2) At the same time, the O-PAUSE potential changes from L-level to H-level to turn on the transistor nQ18 and lights up the PAUSE LED (Led nLD3).

4. FF and REW operation

- 1) In the FF operation, the O-FF potential changes from L level to H level to turn on the transistor nQ20. Also, the O-FF/REW potential changes from L level to H level to turn on the transistor nQ19, and thereby the FF plunger is energized.
- 2) In the REW operation, the O-REW potential changes from L level to H level to turn on the transistor nQ21, and the O-FF/REW potential also changes from L level to H level to turn on the transistor nQ19. As a result, the REW plunger is energized.
- 3) The signal output generated during the FF or REW operations is eliminated by changing the O-AUDIO MUTE potential to L level to activate the muting circuit.

5. AUTO STOP operation

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

6. TIMER PLAY/REC operation

- 1) In order to change to the STOP mode automatically when the power supply is turned on, the LSI D-554C is provided a time constant circuit to the base of the transistor nQ14. That is to say, the potential of the reset pin 26 is changed to H level for about three seconds. This is the same condition when the STOP key is depressed automatically. This time constant circuit serves to prevent erroneous operations, for instance, caused by noise generated from the audio amplifier or unbalance of rise times due to various time constants in the logic circuits.
- 2) When the power supply is turned on with the TIMER switch set to the PLAY mode, the transistor nQ8 is turned on to apply a signal from the matrix output pin 19 to the input pin 21, and after about seven seconds the mode changes to the PLAY operation mode.
- 3) In the TIMER REC operation, a signal is applied by the transistor nQ9 from the matrix output pin 19 to the input pin 23 and after about seven seconds the mode changes to the REC operation mode.

7. AMPS operation

- 1) When the FF or REW key is depressed during the PLAY operation with the AMPS switch set to the STAND BY position, the PLAY operation is released. In this case, the O-FF or O-REW potential changes from L level to H level and the FF or REW operation is performed.
- 2) At the same time, through the AMPS switch, the transistors nQ24 and nQ25 are turned on to energize the CUE REVIEW plunger.
- 3) In this case, the REC/PLAY head detects the signals recorded on the tape in slight touch therewith. The detected signal is applied to the input pin 1 of the nIC₂ (BA-335). When no tape signal is detected for three seconds or more (on the PLAY mode), since the potential of the output pin 6 of the nIC₂ is changed to L level, the base potential of the transistor nQ4 is changed to L level in a moment through the oQ₁, OCS, AMPS switch. This is the same condition where the STOP key is depressed.
- 4) The basic operation is the same when the AMPS switch is set to the PLAY mode. Since the output of the nIC₂ changes the base potential of the transistor nQ₃ to L level through the oQ₁, OCS and AMPS switch, this is the same condition where the PLAY key is depressed.

3. ADJUSTMENTS

* There exist two kinds of electric section, please be careful.

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.

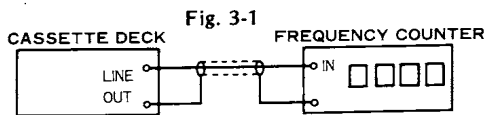
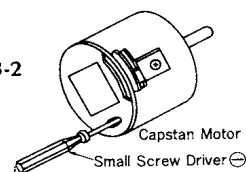


Fig. 3-2



| 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.

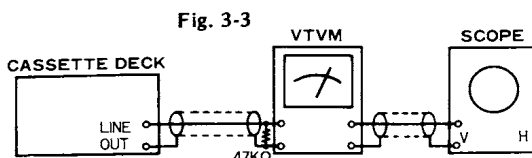
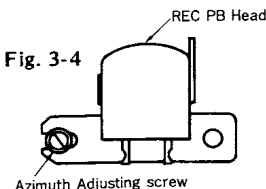


Fig. 3-4



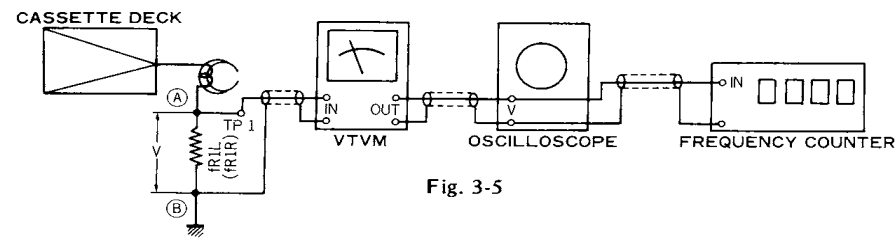
| STEP | SUBJECT | MEASURE OUTPUT | SETTING | ADJUSTMENT | ADJUST FOR | REMARKS |
|------|-----------------------------------|-------------------------|--|---|-------------------------------|--|
| 1. | REC/P.B. Head Adj. | LINE OUT VTVM, Scope | Playback the TEST TAPE SCT-F10KN | Adjust the azimuth adjusting screw in Fig. 3-4. | MAX. Output on both channels. | Refer to loosely method of head cover on page 7. 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 Fig. 3-7 or Fig. 3-8. |
| 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 (CrO₂) 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.



| 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. | 5 mV (G-1305) or 6.8 mV (G-1324) | See Fig. 3-7 or Fig. 3-8. |
| | | | Set TAPE SELECTOR to NORMAL (LH) position. | _____ | _____ | Confirm the indication on VTVM shows 3.7 mV (G-1305) or 4.5 mV (G-1324). |
| | | | Set TAPE SELECTOR to METAL position. | _____ | _____ | Confirm the indication on VTVM shows 8.5 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. |

Fig. 3-7 G-1305 Main Circuit Board

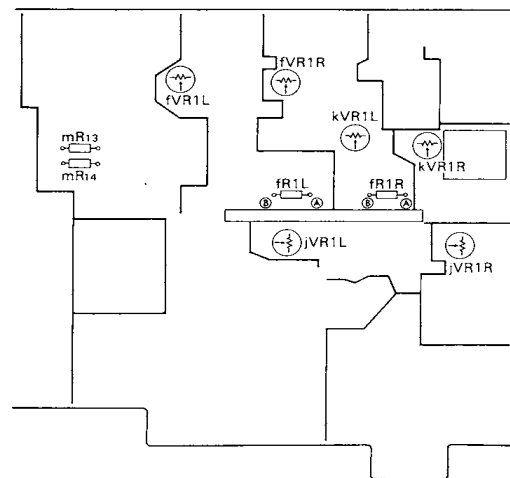
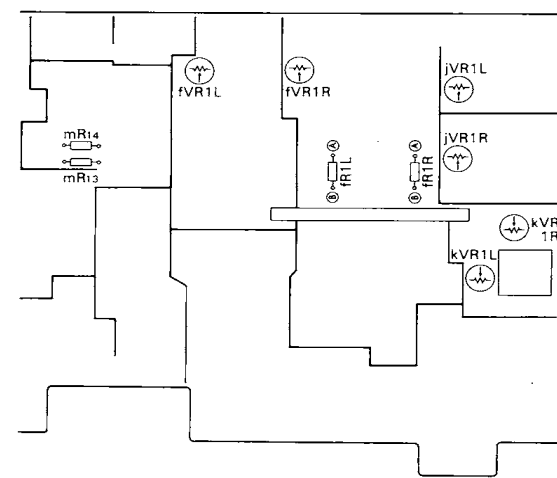
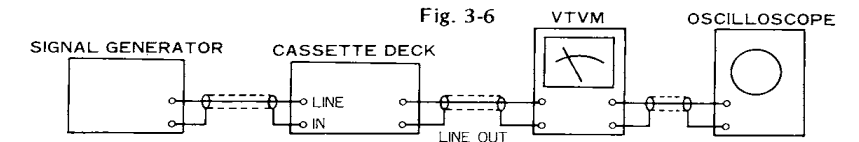


Fig. 3-8 G-1324 Main Circuit Board



2) Rec Level & Frequency Response Adjustment

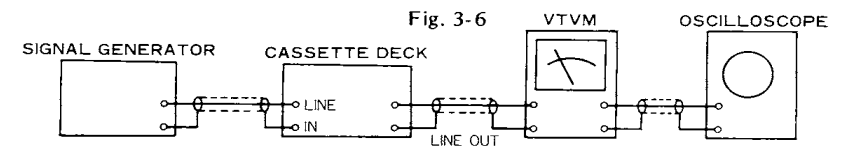
- Note: 1. Rec Level Volume Max.
2. Connections are shown in Fig. 3-6.
3. Set the Dolby NR switch to be OFF.



| 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. | See Fig. 3-7 or Fig. 3-8. |
| 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. |

2-4. 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. 3-6.



| STEP | SUBJECT | INPUT SIGNAL | MEASURE OUTPUT | SETTING | ADJUSTMENT | REMARKS |
|------|---------------------------------|---|---------------------------|--|--|---|
| 1. | Peak Level Indicator Adjustment | Feed 1 kHz, 120 mV 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 0 dB point on Level Indicator. 3. Then confirm the output levels on both channels are 500 mV ± 2 dB on VTVM. | 1. If more than it, take off mR13 (100kΩ). 2. If less than it, take off mR14 (33kΩ). | After this adjustment, perform the SETTING 1 ~ 3 again. |

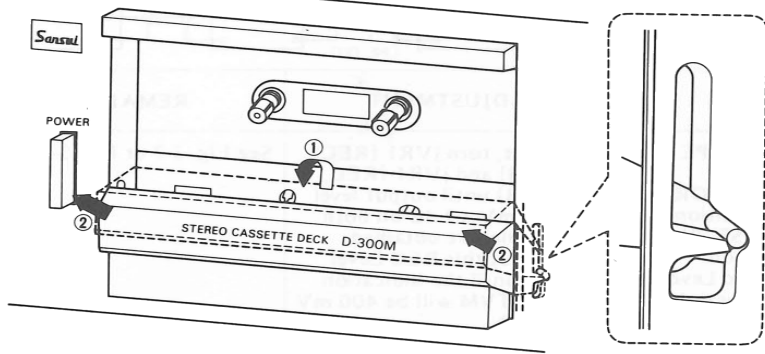
◆ List of Sansui Test Tape

| Name of TEST TAPE | Recorded Frequency | Description |
|---------------------------------|--------------------|---|
| SCT-F40 | 40 Hz | Playback Frequency Response Check |
| SCT-F1K | 1 kHz | 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 | SCOTCH | MASTER 70 |
| | CRYSTAL MASTER 120 | SONY | JHF |
| SONY | AHF, BHF, CHF | AGFA | STEREO CHROM |
| | Low-Noise | BASF | SCR |
| METAL Position | | | |
| AGFA | SUPER | MAXELL | MX |
| | SUPER COLOR | TDK | MA-R, MA |
| BASF | SUPER FERRO DYNAMIC | SCOTCH | Metafine |
| | LN Super LH I | SONY | METALLIC |

Fig. 3-9



◇ Loosely Method of Head Cover

Perform this procedure when make azimuth adjustment or replacing head cover. Since props of head cover are fragile, please pay attention.

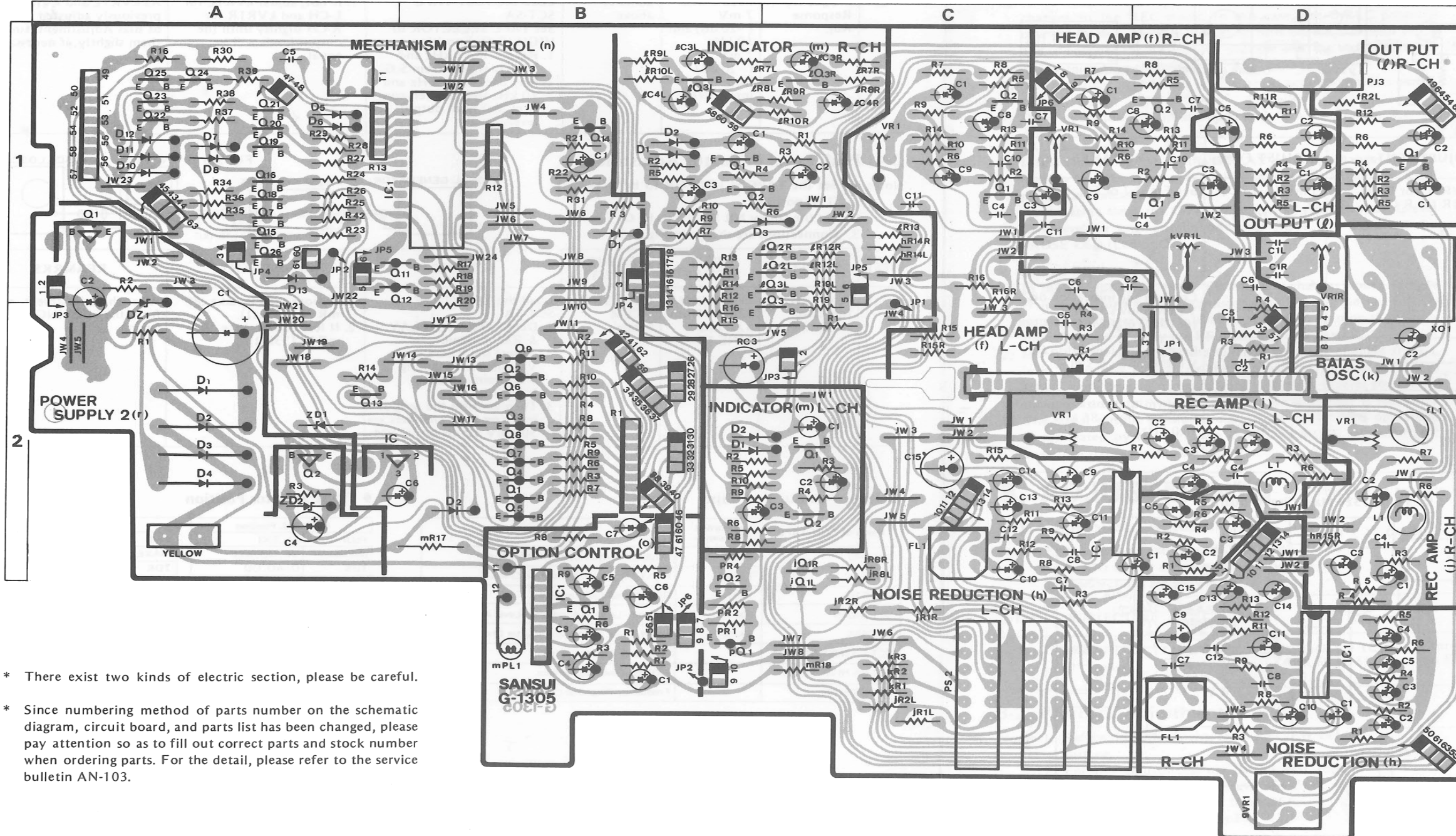
- 1) Open head cover above 1cm (1/3 inch) and this amalgamation is important to remove it. (See Fig. 3-9 ①).
- 2) Putting forefinger in the 1 cm space (between head cover and mechanism cover) and lifting head cover inside to hold it by thumb and forefinger make easier to take off the supporting groove. (See Fig. 3-9 ②)
- 3) To attach head cover, perform Step 2) inversely at first, then push down diagonally after putting to supporting branch.

• 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 each Sansui Manual.

4. PARTS LOCATION & PARTS LIST

4-1. G-1305 Main Circuit Board (Stock No. 00612101) — (TYPE-I)

Component Side



Parts List

| Parts No. | Stock No. | Description |
|-------------|-------------|---------------|
| ●Transistor | | |
| fQ1 | 07225400, 1 | 2SC2320L F, G |
| fQ2 | 07225400, 1 | 2SC2320L F, G |
| jQ1 | 03068301, 2 | 2SC2320 E, F |
| nQ21 | 03068301, 2 | 2SC2320 E, F |
| nQ22 | 07206900, 1 | 2SC2001 M, L |
| nQ23 | 07206900, 1 | 2SC2001 M, L |
| nQ24 | 03068301, 2 | 2SC2320 E, F |
| nQ25 | 07206900, 1 | 2SC2001 M, L |
| nQ26 | 07206900, 1 | 2SC2001 M, L |
| oQ1 | 03068301, 2 | 2SC2320 E, F |
| pQ1 | 03012700, 1 | 2SA999 E, F |
| pQ2 | 03068301, 2 | 2SC2320 E, F |

| Parts No. | Stock No. | Description |
|-----------|-------------|---------------|
| rQ1 | 03083901, 2 | 2SD313AL D, E |
| rQ2 | 03083901, 2 | 2SD313AL D, E |
| lQ1 | 07225400, 1 | 2SC2320L F, G |
| lQ2 | 03068301, 2 | 2SC2320 E, F |
| lQ3 | 03068301, 2 | 2SC2320 E, F |
| mQ1 | 03059501, 2 | 2SC945 Q, P |
| mQ2 | 03068301, 2 | 2SC2320 E, F |
| mQ3 | 03068301, 2 | 2SC2320 E, F |
| nQ1 | 03012700, 1 | 2SA999 E, F |
| nQ2 | 03012700, 1 | 2SA999 E, F |
| nQ3 | 03012700, 1 | 2SA999 E, F |
| nQ4 | 03012700, 1 | 2SA999 E, F |
| nQ5 | 03012700, 1 | 2SA999 E, F |
| nQ6 | 03012700, 1 | 2SA999 E, F |
| nQ7 | 03012700, 1 | 2SA999 E, F |
| nQ8 | 03012700, 1 | 2SA999 E, F |
| nQ9 | 03012700, 1 | 2SA999 E, F |
| nQ11 | 03012700, 1 | 2SA999 E, F |
| nQ12 | 03012700, 1 | 2SA999 E, F |
| nQ13 | 03068301, 2 | 2SC2320 E, F |
| nQ14 | 03068301, 2 | 2SC2320 E, F |
| nQ15 | 03068301, 2 | 2SC2320 E, F |
| nQ16 | 03068301, 2 | 2SC2320 E, F |
| nQ17 | 03068301, 2 | 2SC2320 E, F |
| nQ18 | 03068301, 2 | 2SC2320 E, F |
| nQ19 | 03068301, 2 | 2SC2320 E, F |
| nQ20 | 03068301, 2 | 2SC2320 E, F |

| | | |
|--------|----------|---------|
| ●Diode | | |
| mD1 | 03117600 | 1S2473D |
| mD2 | 03117600 | 1S2473D |
| mD3 | 07225500 | 1N60 |
| nD1 | 03117600 | 1S2473D |
| nD2 | 03117600 | 1S2473D |
| nD3 | 03117500 | 1S2473D |
| nD4 | 03117600 | 1S2473D |
| nD5 | 03117600 | 1S2473D |
| nD6 | 03117600 | 1S2473D |
| nD10 | 03117700 | 10E-2 |
| nD11 | 03117700 | 10E-2 |
| nD12 | 03117700 | 10E-2 |
| nD13 | 03117700 | 10E-2 |
| rD1 | 03115300 | 30D-2 |
| rD2 | 03115300 | 30D-2 |
| rD3 | 03115300 | 30D-2 |
| rD4 | 03115300 | 30D-2 |

| | | |
|--------------|----------|---------|
| ●Zener Diode | | |
| nDZ1 | 03178500 | RD10E C |
| rDZ1 | 03179000 | RD13E B |
| rDZ2 | 03163100 | RD13E B |

| | | |
|-----------------|----------|--|
| ●Block Resistor | | |
| nR1 | 07244500 | RM8-223J |
| nR12 | 07244400 | RM4-223J |
| nR13 | 07244400 | RM4-223J |
| nT1 | 42306100 | Clock Pulse Osc Coil |
| jFL1 | 42904400 | Trap Coil |
| jL1 | 49005400 | Inductor 3.3 mH |
| jVR1 | 07241300 | 10kΩ (B) Semi Variable Resistor REC LEVEL Adj. |
| fVR1 | 07241500 | 50kΩ (B) Semi Variable Resistor PB LEVEL Adj. |

* There exist two kinds of electric section, please be careful.

* Since numbering method of parts number on the schematic diagram, circuit board, and parts list has been changed, please pay attention so as to fill out correct parts and stock number when ordering parts. For the detail, please refer to the service bulletin AN-103.

| Parts No. | Stock No. | Description |
|-----------|-----------|---|
| gVR1 | 10250400 | 50kΩ (A) x 2 Variable Resistor |
| kVR1 | 07241600 | 100kΩ (B) Semi Variable Resistor BIAS Adj. |
| ●IC | | |
| hIC1 | 07224900 | μA7300 |
| oIC1 | 07252300 | BA335 |
| nIC1 | 07232500 | μPD554C-031 |
| nIC2 | 07232400 | μPC78M10H |
| kXO1 | 07189700 | Osc Block BO-3HA |
| hFL1 | 07196900 | Low Pass Filter |
| pS1 | 07245000 | Slide Switch (Play/REC) |
| pS2 | 07245200 | Push Switch (Tape Selector) |
| pJ3 | 07249100 | 4P Terminal Board (Input/Output) |
| mR17 | 00182100 | 33Ω 1W N.I.R. |
| fC3 | 08301100 | 10μF 35V E.C. |

- The circuit boards, G-1309, G-1306, G-1326, G-1307 (G-1327) and G-1308 (G-1325) are not supplied as the assembled, the individual parts on the circuit boards, however are provided for orders.

4-2. G-1309 Power Switch Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|---------------------|
| qC1 | 08302200 | 10000pF 125V C.C. |
| qS1 | 07194500 | Push Switch (Power) |

4-3. G-1306 Control Switch Circuit Board (TYPE-I)

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|------------------------|
| nLD1 | 03193700 | SEL1110S LED |
| nLD2 | 07246200 | SEL1710K LED |
| nLD3 | 07251600 | SEL1910A LED |
| nS1 | 07245100 | Push Switch (REC) |
| nS2 | 07245100 | Push Switch (Rewind) |
| nS3 | 07245100 | Push Switch (Play) |
| nS4 | 07245100 | Push Switch (F.F.) |
| nS5 | 07245100 | Push Switch (Stop) |
| nS6 | 07245100 | Push Switch (Pause) |
| nS7 | 07245100 | Push Switch (REC Mute) |
| nS8 | 07249900 | Slide Switch (Timer) |
| oS1 | 07249900 | Slide Switch (AMPS) |

4-4. G-1326 Control Switch Circuit Board (TYPE-II)

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|------------------------|
| nLD1 | 03193700 | SEL1110S LED |
| nLD2 | 07246200 | SEL1710K LED |
| nLD3 | 07251600 | SEL1910A LED |
| nS1 | 07234700 | Push Switch (REC) |
| nS2 | 07234700 | Push Switch (Rewind) |
| nS3 | 07234700 | Push Switch (PLAY) |
| nS4 | 07234700 | Push Switch (F.F.) |
| nS5 | 07234700 | Push Switch (Stop) |
| nS6 | 07234700 | Push Switch (Pause) |
| nS7 | 07234700 | Push Switch (REC Mute) |
| nS8 | 07249900 | Slide Switch (Timer) |
| oS1 | 07249900 | Slide Switch (AMPS) |

4-5. G-1307 (G-1327) Metal Indicator Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|--------------|
| mLD1 | 07246200 | SEL1710K LED |

4-6. G-1308 (G-1325) Jack Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|----------------|
| pJ1 | 07194300 | Headphone Jack |
| pJ2 | 07200300 | Mic Jack |

● Abbreviations

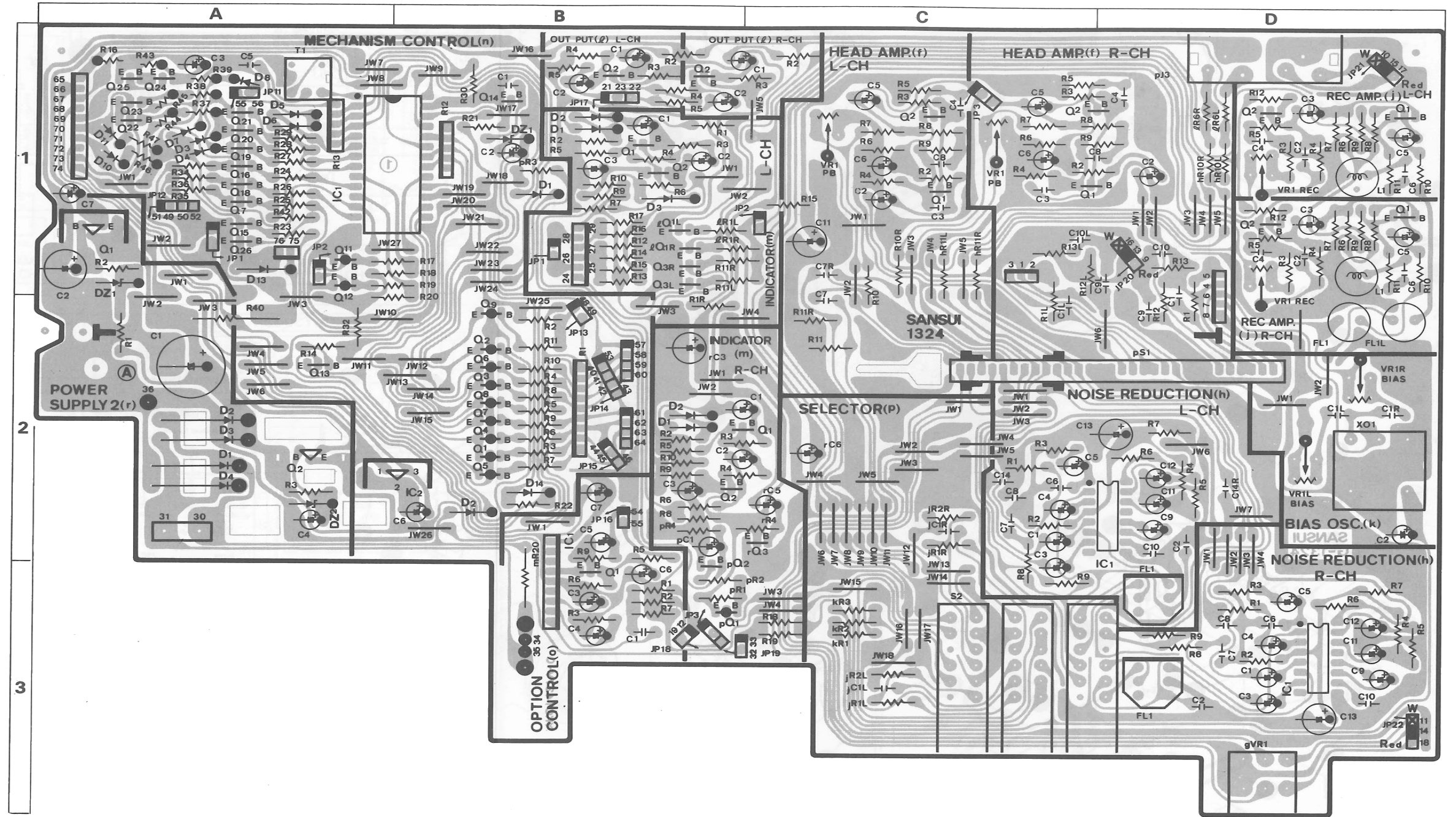
| | | | |
|----------------|--|---------------|---|
| C.R. | Carbon Resistor | E.L. | Low Leak Electrolytic Capacitor |
| S.R. | Solid Resistor | E.B. | Bi-Polar Electrolytic Capacitor |
| Ce.R. | Cement Resistor | E.BL. | Low Leak Bi-Polar Electrolytic Capacitor |
| M.R. | Metal Film Resistor | Ta.C. | 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 | | |

4-7. G-1324 Main Circuit Board (Stock No. 00639101) — (TYPE-II)

Parts List

| Parts No. | Stock No. | Description | Parts No. | Stock No. | Description |
|-------------|--------------|---|-------------|--------------|-----------------------|
| gVR1 | 10250400 | 50k Ω (A) x 2 Variable Resistor | mQ1 | 03059502, 3 | 2SC945-P, K |
| ●Transistor | | | | 07194801 | 2SC1815-G |
| pQ1 | 03012700, 1 | 2SA999-E, F | | 03068302, 3 | 2SC2320-F, G |
| | 07194700, 1 | 2SA1015-Y, G | | 46057201 | LC945-K |
| | 07299600 ~ 2 | 2SA1115-D, E, F | mQ2 | 07299702 | 2SC2603-F |
| pQ2 | 03068301, 2 | 2SC2320-E, F | | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G | | 07194800, 1 | 2SC1815-Y, G |
| | 07299700 ~ 2 | 2SC2603-D, E, F | | 46057200, 1 | LC945-P, K |
| | 46057200, 1 | LC945-P, K | mQ3 | 07299700 ~ 2 | 2SC2603-D, E, F |
| pS1 | 07245000 | Slide Switch (PLAY/REC) | | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| pS2 | 07245200, 1 | Push Switch (Tape Selector) | | 07194800, 1 | 2SC1815-Y, G |
| | | | | 46057200, 1 | LC945-P, K |
| pJ3 | 07249100 | 4P Terminal Board (INPUT/OUTPUT) | | 07299700 ~ 2 | 2SC2603-D, E, F |
| ●Transistor | | | ●Diode | | |
| fQ1 | 07225400, 1 | 2SC2320-L-F, G | mD1 | 03117600 | 1S2473D |
| | 03060700 ~ 2 | 2SC1313-F, G, H | | 46092700 | US1035 |
| fQ2 | 07225400, 1 | 2SC2320-L-F, G | mD2 | 03117600 | 1S2473D |
| | 03060700 ~ 2 | 2SC1313-F, G, H | | 46092700 | US1035 |
| fC7 | 07215100 | 2700P C.C. | mD3 | 07225500 | 1N60 |
| fC8 | 07215400 | 4700P C.C. | mR20 | 00182100 | 33 Ω 1W N.I.R. |
| fC9 | 07216000 | 15000P C.C. | ●Transistor | | |
| fC10 | 07215000 | 2200P C.C. | nQ1 | 03012700, 1 | 2SA999-E, F |
| fVR1 | 07241500 | 50k Ω (B) Semi Variable Resistor PB LEVEL Adj. | | 07194700, 1 | 2SA1015-Y, G |
| ●IC | | | | 07299600 ~ 2 | 2SA1115-D, E, F |
| hIC1 | 03613600 | NE646B | nQ2 | 03012700, 1 | 2SA999-E, F |
| hC2 | 07211700 | 1000P C.C. | | 07194700, 1 | 2SA1015-Y, G |
| hC6 | 07215400 | 4700P C.C. | | 07299600 ~ 2 | 2SA1115-D, E, F |
| hC7 | 07215500 | 5600P C.C. | nQ3 | 03012700, 1 | 2SA999-E, F |
| hC8 | 07216300 | 27000P C.C. | | 07194700, 1 | 2SA1015-Y, G |
| hC10 | 07216600 | 47000P C.C. | | 07299600 ~ 2 | 2SA1115-D, E, F |
| hFL1 | 07196900 | Low Pass Filter | nQ4 | 03012700, 1 | 2SA999-E, F |
| jQ1 | 03068301 ~ 3 | 2SC2320-E, F, G | | 07194700, 1 | 2SA1015-Y, G |
| | 07194800, 1 | 2SC1815-Y, G | | 07299600 ~ 2 | 2SA1115-D, E, F |
| | 07299700 ~ 2 | 2SC2603-D, E, F | nQ5 | 03012700, 1 | 2SA999-E, F |
| jQ2 | 03068300 ~ 3 | 2SC2320-D, E, F, G | | 07194700, 1 | 2SA1015-Y, G |
| | 07194800, 1 | 2SC1815-Y, G | | 07299600 ~ 2 | 2SA1115-D, E, F |
| | 07299700 ~ 2 | 2SC2603-D, E, F | nQ6 | 03012700, 1 | 2SA999-E, F |
| jC1 | 07215800 | 10000P C.C. | | 07194700, 1 | 2SA1015-Y, G |
| jC2 | 07211700 | 1000P C.C. | | 07299600 ~ 2 | 2SA1115-D, E, F |
| jC6 | 07216200 | 22000P C.C. | nQ7 | 03012700, 1 | 2SA999-E, F |
| jFL1 | 42904400 | Trap Coil | | 07194700, 1 | 2SA1015-Y, G |
| jL1 | 46090700 | Inductor 3.3mH | | 07299600 ~ 2 | 2SA1115-D, E, F |
| jVR1 | 07241300 | 10k Ω (B) Semi Variable Resistor REC LEVEL Adj. | nQ8 | 03012700, 1 | 2SA999-E, F |
| kXO1 | 46087000 | Osc Block BO-3HA | | 07194700, 1 | 2SA1015-Y, G |
| kVR1 | 07241600 | 100k Ω (B) Semi Variable Resistor BIAS Adj. | | 07299600 ~ 2 | 2SA1115-D, E, F |
| ●Transistor | | | nQ9 | 03012700, 1 | 2SA999-E, F |
| IQ1 | 03068300 ~ 3 | 2SC2320-D, E, F, G | | 07194700, 1 | 2SA1015-Y, G |
| | 07194800, 1 | 2SC1815-Y, G | | 07299600 ~ 2 | 2SA1115-D, E, F |
| | 07299700 ~ 2 | 2SC2603-D, E, F | nQ11 | 03012700, 1 | 2SA999-E, F |
| IQ2 | 03068301, 2 | 2SC2320-E, F | | 07194700, 1 | 2SA1015-Y, G |
| | 07194801 | 2SC1815-G | | 07299600 ~ 2 | 2SA1115-D, E, F |
| | 46057200, 1 | LC945-P, K | nQ12 | 03012700, 1 | 2SA999-E, F |
| | 07299701, 2 | 2SC2603-E, F | | 07194700, 1 | 2SA1015-Y, G |
| | | | | 07299600 ~ 2 | 2SA1115-D, E, F |
| | | | nQ13 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | | | | 07194800, 1 | 2SC1815-Y, G |
| | | | | 46057200, 1 | LC945-P, K |
| | | | | 07299700 ~ 2 | 2SC2603-D, E, F |
| | | | nQ14 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | | | | 07194800, 1 | 2SC1815-Y, G |
| | | | | 46057200, 1 | LC945-P, K |
| | | | | 07299700 ~ 2 | 2SC2603-D, E, F |
| | | | nQ15 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | | | | 07194800, 1 | 2SC1815-Y, G |
| | | | | 46057200, 1 | LC945-P, K |
| | | | | 07299700 ~ 2 | 2SC2603-D, E, F |
| | | | nQ16 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | | | | 07194800, 1 | 2SC1815-Y, G |
| | | | | 46057200, 1 | LC945-P, K |
| | | | | 07299700 ~ 2 | 2SC2603-D, E, F |

| Parts No. | Stock No. | Description |
|-----------|--------------|--------------------|
| nQ17 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ18 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ19 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ20 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ21 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ22 | 07206900, 1 | 2SC2001-M, L |
| | 07254900, 1 | 2SC1741-Q, R |
| | 03069101, 2 | 2SC2060-Q, R |
| | 03085201, 2 | 2SD438-E, F |
| nQ23 | 07206900, 1 | 2SC2001-M, L |
| | 07254900, 1 | 2SC1741-Q, R |
| | 03069101, 2 | 2SC2060-Q, R |
| | 03085201, 2 | 2SD438-E, F |
| nQ24 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| nQ25 | 07206900, 1 | 2SC2001-M, L |
| | 07254900, 1 | 2SC1741-Q, R |
| | 03069101, 2 | 2SC2060-Q, R |
| | 03085201, 2 | 2SD438-E, F |
| nQ26 | 07206900, 1 | 2SC2001-M, L |
| | 07254900, 1 | 2SC1741-Q, R |
| | 03069101, 2 | 2SC2060-Q, R |
| | 03085201, 2 | 2SD438-E, F |
| •IC | | |
| nIC1 | 07232500 | μPD554C-031 |
| nIC2 | 07232400 | μPC78M10H |
| •Diode | | |
| nD1 | 03117600 | 1S2473D |
| | 46092700 | US1035 |
| nD2 | 03117600 | 1S2473D |
| | 46092700 | US1035 |
| nD3 | 03111600 | 1S2473D |
| | 03111800 | 1S1588 |
| | 46052500 | US1035 |
| nD4 | 03111600 | 1S2473D |
| | 03111800 | 1S1588 |
| | 46052500 | US1035 |
| nD5 | 03117600 | 1S2473D |
| | 46092700 | US1035 |
| nD6 | 03117600 | 1S2473D |
| | 46092700 | US1035 |
| nD7 | 03111600 | 1S2473D |
| | 03111800 | 1S1588 |
| | 46052500 | US1035 |
| nD8 | 03111600 | 1S2473D |
| | 03111800 | 1S1588 |
| | 46052500 | US1035 |
| nD10 | 03103400 | 10D1 |
| nD11 | 03103400 | 10D1 |
| nD13 | 03117700 | 10E-2 |
| nD14 | 03117600 | 1S2473D |
| | 46092700 | US1035 |

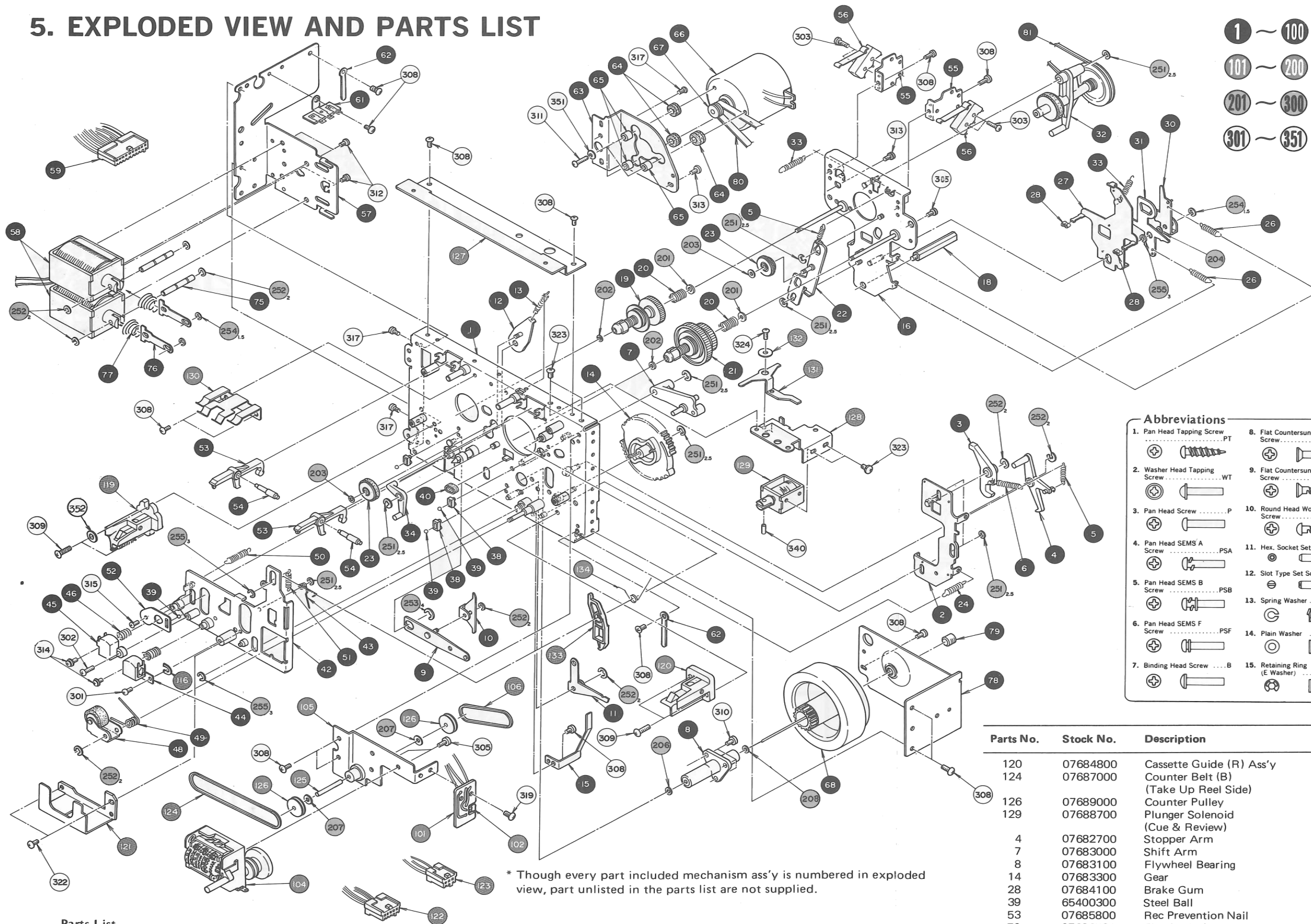


| Parts No. | Stock No. | Description |
|-----------------|--------------|----------------------|
| •Zener Diode | | |
| nDZ1 | 03178400 | RD10E-B |
| •Block Resistor | | |
| nR1 | 46046300 | R059223-C |
| nR12 | 46038900 | R057223-C |
| nR13 | 46038900 | R057223-C |
| nR40 | 00185500 | 10Ω 2W N.I.R. |
| nT1 | 42306100 | Clock Pulse Osc Coil |
| •Transistor | | |
| oQ1 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |

| Parts No. | Stock No. | Description |
|-------------|--------------|--------------------|
| •IC | | |
| oIC1 | 07252300 | BA335 |
| •Transistor | | |
| rQ1 | 03086101, 2 | 2SD357-D, E |
| rQ2 | 03083901, 2 | 2SD313AL-D, E |
| rQ3 | 03068300 ~ 3 | 2SC2320-D, E, F, G |
| | 07194800, 1 | 2SC1815-Y, G |
| | 46057200, 1 | LC945-P, K |
| | 07299700 ~ 2 | 2SC2603-D, E, F |
| •Diode | | |
| rD1 | 03115300 | 30D2 |
| rD2 | 03115300 | 30D2 |
| rD3 | 03115300 | 30D2 |
| rD4 | 03115300 | 30D2 |

| Parts No. | Stock No. | Description |
|--------------|-----------|-------------|
| •Zener Diode | | |
| rDZ1 | 03179000 | RD13E-B |
| rDZ2 | 03174500 | HZ15-2L |
| rDZ3 | 03178500 | RD10E |

5. EXPLODED VIEW AND PARTS LIST



- 1 ~ 100
- 101 ~ 200
- 201 ~ 300
- 301 ~ 351

Abbreviations

| | |
|------------------------------|--------------------------------|
| 1. Pan Head Tapping Screw | 8. Flat Countersunk Head Screw |
| 2. Washer Head Tapping Screw | 9. Flat Countersunk Wood Screw |
| 3. Pan Head Screw | 10. Round Head Wood Screw |
| 4. Pan Head SEMS A Screw | 11. Hex. Socket Set Screw |
| 5. Pan Head SEMS B Screw | 12. Slot Type Set Screw |
| 6. Pan Head SEMS F Screw | 13. Spring Washer |
| 7. Binding Head Screw | 14. Plain Washer |
| | 15. Retaining Ring (E Washer) |

Parts List

| Parts No. | Stock No. | Description |
|-----------|-----------|------------------------------|
| 19 | 07683500 | Supply Reel Hub Ass'y |
| 21 | 07683700 | Take-Up Reel Hub Ass'y |
| 23 | 07683800 | Idler (FF/REW) |
| 32 | 07684300 | Take-up Idler Ass'y |
| 34 | 07684500 | Idler Arm |
| 44 | 07556600 | REC/P.B. Head |
| 45 | 45260400 | Erase Head |
| 48 | 07685400 | Pinch Roller Ass'y |
| 56 | 07688600 | Micro Switch |
| 58 | 07688800 | Plunger Solenoid (REW, F.F.) |

* Though every part included mechanism ass'y is numbered in exploded view, part unlisted in the parts list are not supplied.

| Parts No. | Stock No. | Description |
|-----------|-----------|---------------------------------|
| 64 | 07686100 | Motor Cushion |
| 66 | 43207500 | Motor |
| 67 | 07686300 | Motor Pulley |
| 68 | 07686400 | Flywheel |
| 80 | 07686600 | Capstan Belt |
| 81 | 07686700 | Take Up Belt |
| 102 | 03614000 | Hall IC DN6838 |
| 104 | 07686800 | Tape Counter |
| 106 | 07686900 | Counter Belt (A) (Counter Side) |
| 119 | 07685000 | Cassette Guide (L) Ass'y |

| Parts No. | Stock No. | Description |
|-----------------|-----------|--------------------------------------|
| 120 | 07684800 | Cassette Guide (R) Ass'y |
| 124 | 07687000 | Counter Belt (B) (Take Up Reel Side) |
| 126 | 07689000 | Counter Pulley |
| 129 | 07688700 | Plunger Solenoid (Cue & Review) |
| 4 | 07682700 | Stopper Arm |
| 7 | 07683000 | Shift Arm |
| 8 | 07683100 | Flywheel Bearing |
| 14 | 07683300 | Gear |
| 28 | 07684100 | Brake Gum |
| 39 | 65400300 | Steel Ball |
| 53 | 07685800 | Rec Prevention Nail |
| 79 | 07686500 | Flywheel Thrust Screw |
| 116 | 07685300 | Head Spacer |
| ●Spring | | |
| 6 | 07682900 | Spring, lock arm |
| 13 | 07683200 | Spring, sub idler lever |
| 15 | 07683400 | Reset Plate |
| 33 | 07684200 | Spring, take-up idler, brake lever |
| 46 | 07685200 | Spring, head |
| 50 | 07685600 | Spring, head base |
| ●Washer, Screws | | |
| 202 | 07688400 | Poly-thrust Washer with Cut |
| 308 | 07687400 | Bind Head Tapping Screw M3 x 4 |
| 314 | 07687900 | Toothed Screw M2 x 6 |

6. MAIN PARTS REPLACEMENT

(See 5. Exploded View)

- A. Replacement of mechanism chassis**
- 1) Remove bonnet, bottom plate and front panel.
 - 2) Loosen 2 screws at mechanism cover to remove it.
 - 3) Pluck out 3 connectors on circuit board G-1305 or G-1324 and cut the vinyl bands.
 - 4) While push down the top hook (T) of peak level indicator frame slightly (See top view on page 15), push it this side to remove peak level indicator frame ass'y.
 - 5) Loosen 4 screws (S) (See Fig. 2-2 on page 4) fixing mechanism chassis.

- B. Replacement of motor (66)**
- 1) Take out mechanism chassis from set.
 - 2) Loosen 2 screws (313, 317) at motor mounting plate (63) and 1 screw (300) at flywheel bearing plate (76).
 - 3) Take out motor mounting plate (63) with motor from mechanism chassis.
 - 4) Loosen 3 screws fixing motor.
 - 5) Pull out motor pulley (67) after heating motor pulley by soldering iron. (To settle motor pulley, fix it by adhesive for metal.)

- C. Replacement of capstan belt (80)**
- 1) Take out mechanism chassis from set.
 - 2) Loosen 3 screws (300) to remove flywheel bearing plate (76).
 - 3) Take out take-up belt (81) and take out capstan belt (80) from the gap (between mechanism chassis and motor pulley).

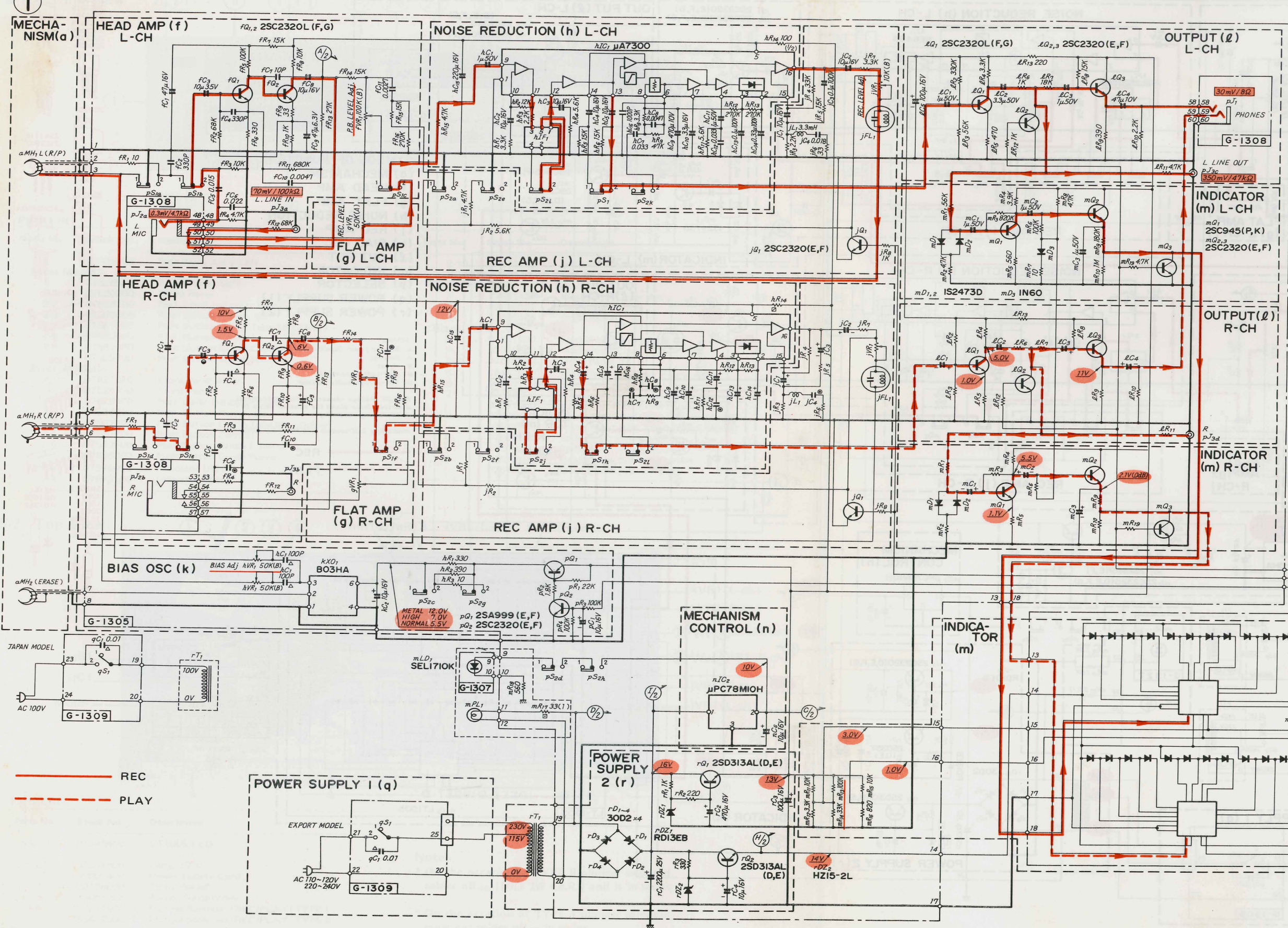
- D. Replacement of take-up reel hub ass'y & supply reel hub ass'y**
- 1) Remove bonnet, bottom plate and front panel.
 - 2) Loosen 2 screws at mechanism cover to remove it.
 - 3) Take out polye-thrust washer (202) and pull out reel hub ass'y.

- E. Replacement of counter belt A (106) & counter belt B (124)**
- 1) Remove bonnet.
 - 2) Take out counter belt A (106).
 - 3) Remove front panel and mechanism cover.
 - 4) Take out counter belt B (124).

- F. Replacement of take-up idler ass'y (32)**
- 1) Remove bonnet.
 - 2) Take out take-up belt (81).
 - 3) Take off take-up idler spring (33).
 - 4) Take out E-type washer (35) at take-up idler shaft.
 - 5) Pull out take-up idler ass'y.

7. SCHEMATIC DIAGRAM 7-1. TYPE-I (G-1305) Amplifier 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.
 • Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



- SYMBOL OF FUNCTION**
- (a) MECHANISM
 - (f) HEAD AMP
 - (g) FLAT AMP
 - (h) NOISE REDUCTION
 - (j) REC AMP
 - (k) BIAS OSC
 - (l) OUTPUT
 - (m) INDICATOR
 - (n) MECHANISM CONTROL
 - (p) SELECTOR
 - (q) POWER SUPPLY (1)
 - (r) POWER SUPPLY (2)

SWITCHES

pS1a-h PLAY REC
 1. PLAY
 2. REC

qS1 POWER
 1. OFF
 2. ON

pS2a,b,d,e,f,h EQUALIZER

| | NORMAL (LH) | HIGH (CrO ₂) | METAL |
|----------|-------------|--------------------------|-------|
| pS2a,b,d | 1 | 2 | 2 |
| pS2e,f,h | 1 | 1 | 2 |

pS2c,g BIAS SELECTOR

| | NORMAL (LH) | HIGH (CrO ₂) | METAL |
|------|-------------|--------------------------|-------|
| pS2c | 1 | 2 | 2 |
| pS2g | 1 | 1 | 2 |

pS2i-l DOLBY NR
 1. OFF
 2. ON

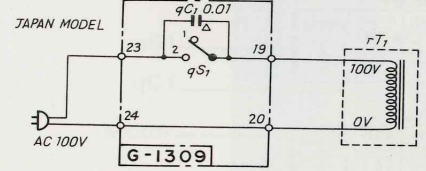
SYMBOL

- △ Ceramic
- Mylar
- ⊖ Low-leak Electrolytic
- ⊕ Non-Inflammable Resistor
- ⊞ Fusing 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

- 2SA999
- 2SC945
- 2SC1015
- 2SC1741
- 2SC1815
- 2SC2060
- 2SC2320
- 2SD438
- 2SC2001
- 2SC1313
- 2SD357
- 2SA1115
- 2SC2603
- 2SD313
- μPC78M10H
- μPC554C
- BA335
- μA7300 NE646B
- 1N60
- 10E2
- 1001
- 30D2
- 1S1588
- 1S2473D
- US1035
- HZ15L
- RD10EC
- RD13EB



— REC
 - - - PLAY

1

2

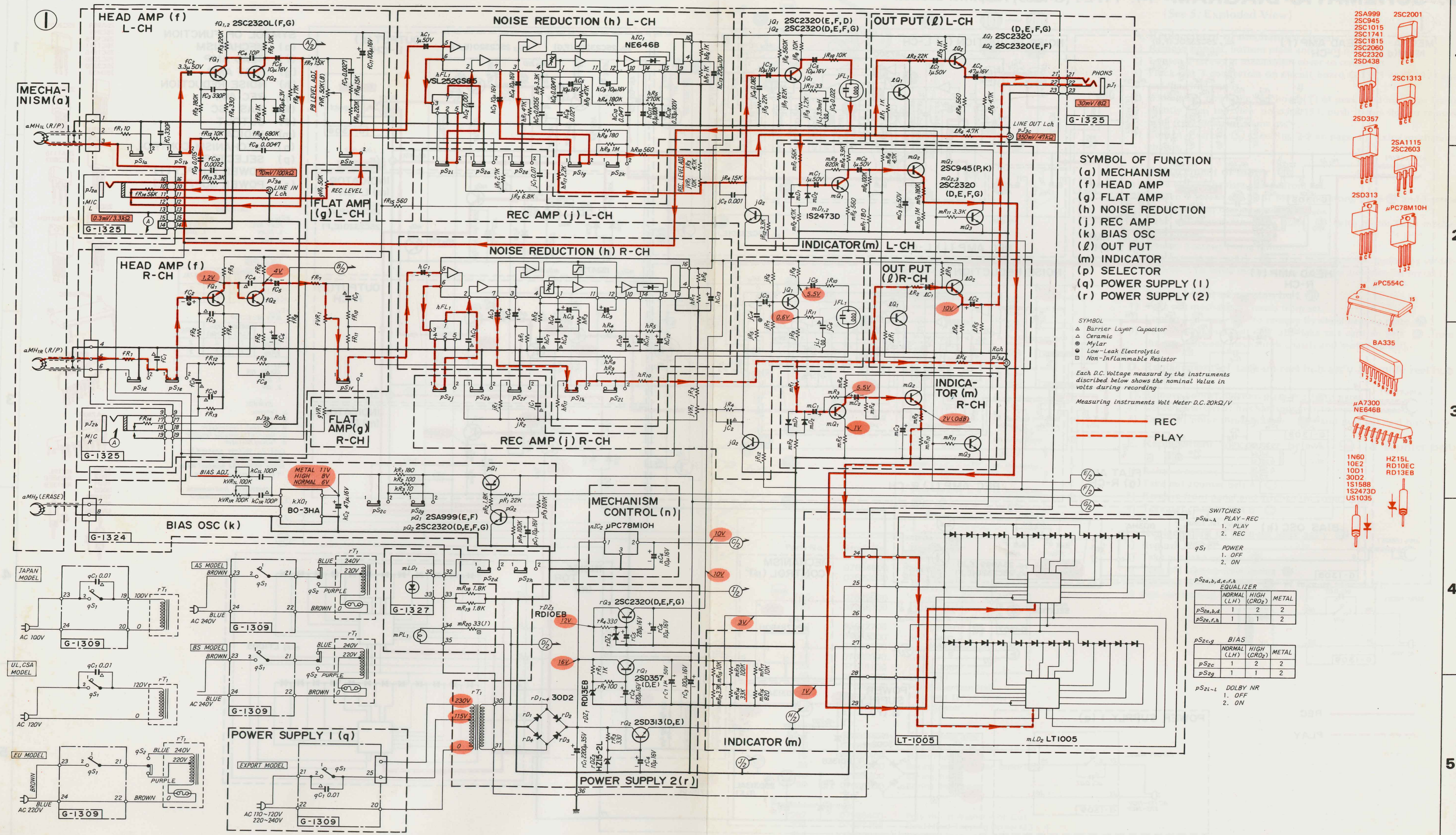
3

4

5

7-2. TYPE-II (G-1324) Amplifier Section

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



SYMBOL OF FUNCTION
 (a) MECHANISM
 (f) HEAD AMP
 (g) FLAT AMP
 (h) NOISE REDUCTION
 (j) REC AMP
 (k) BIAS OSC
 (l) OUT PUT
 (m) INDICATOR
 (p) SELECTOR
 (q) POWER SUPPLY (1)
 (r) POWER SUPPLY (2)

SYMBOL
 Δ Barrier Layer Capacitor
 □ Ceramic
 ○ Mylar
 ● Low-Leak 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

— REC
 - - - PLAY

SWITCHES
 pS1a-a PLAY-REC
 1. PLAY
 2. REC

qS1 POWER
 1. OFF
 2. ON

pS2a,b,d,e,f A EQUALIZER

| | NORMAL (LH) | HIGH (CRO ₂) | METAL |
|----------|-------------|--------------------------|-------|
| pS2a,b,d | 1 | 2 | 2 |
| pS2e,f,h | 1 | 1 | 2 |

pS2c,g BIAS

| | NORMAL (LH) | HIGH (CRO ₂) | METAL |
|------|-------------|--------------------------|-------|
| pS2c | 1 | 2 | 2 |
| pS2g | 1 | 1 | 2 |

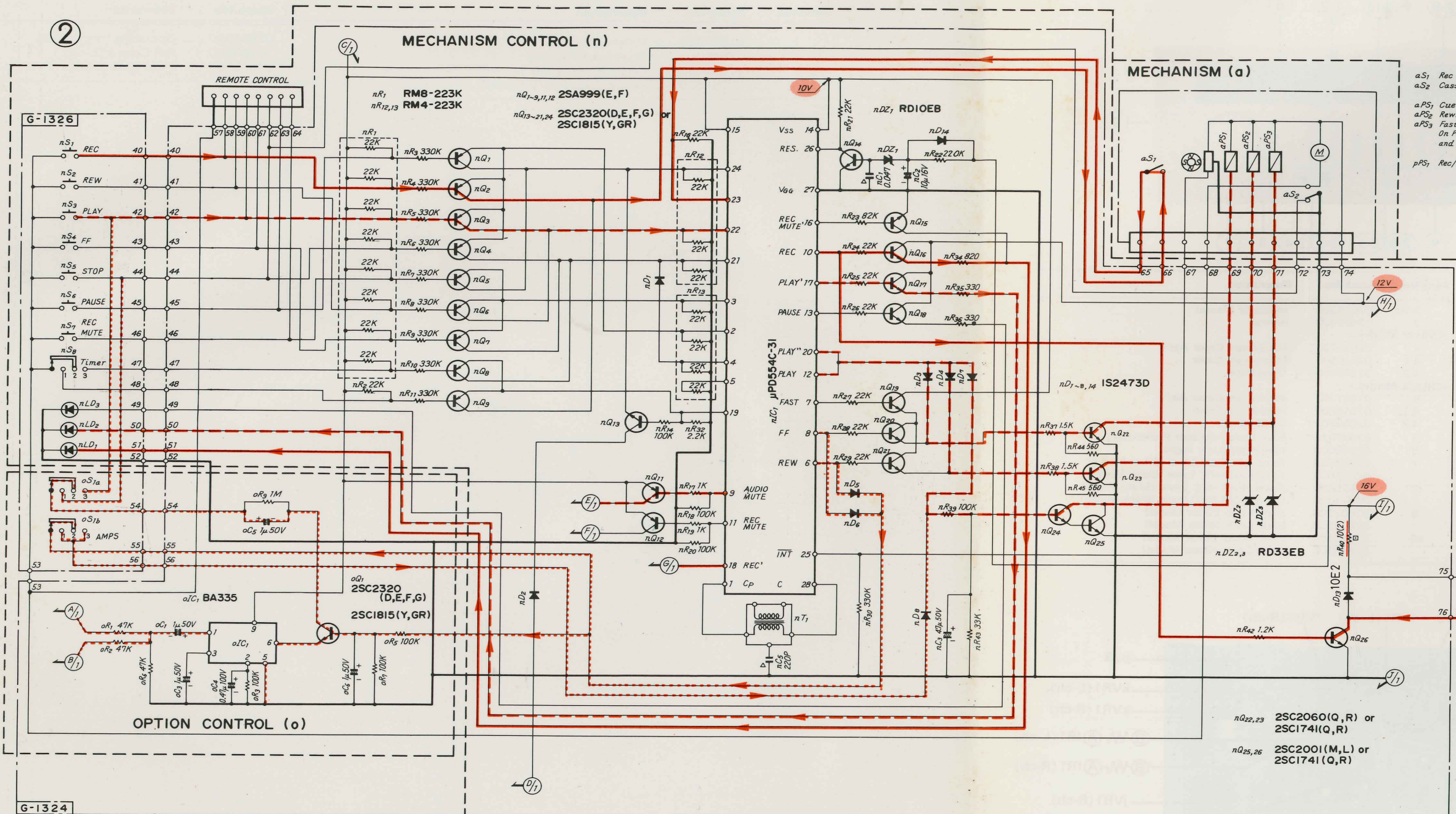
pS2i-l DOLBY NR
 1. OFF
 2. ON

- 2SA999
- 2SC945
- 2SC1015
- 2SC1741
- 2SC1815
- 2SC2060
- 2SC2320
- 2SD438
- 2SC2001
- 2SC1313
- 2SD357
- 2SA1115
- 2SC2603
- 2SD313
- μPC78M10H
- μPC554C
- BA335
- μA7300
- NE646B
- 1N60
- 10E2
- 10D1
- 30D2
- 1S1588
- 1S2473D
- US1035
- HZ15L
- RD10EC
- RD13EB

7-3. Control Section

* Since the schematic diagram of G-1305 (Control Section) is similar to that of G-1324, it is omitted from this manual.

• 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.
• Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



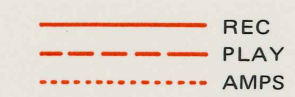
aS₁ Rec Prevention SW
aS₂ Cassette SW
aPS₁ Cue and Review Plunger Solenoid
aPS₂ Rewind Plunger Solenoid
aPS₃ Fast Forward Plunger Solenoid
On PLAY and REC mode, both pS₂ and pS₃ are driven
pPS₁ Rec/Play Plunger Solenoid

- 2SA999 2SC945 2SC1015 2SC1741 2SC1815 2SC2060 2SC2320 2SD438
- 2SC2001
- 2SC1313
- 2SD357
- 2SA1115 2SC2603
- 2SD313
- μPC78M10H
- μPC554C
- BA335
- μA7300 NE646B
- 1N60 10E2 10D1 30D2 1S1588 1S2473D US1035
- HZ15L RD10EC RD13EB

SYMBOL OF FUNCTION
(a) MECHANISM
(n) MECHANISM CONTROL
(o) OPTION CONTROL

- nS₁ REC
- nS₂ REW
- nS₃ PLAY
- nS₄ FF
- nS₅ STOP
- nS₆ PAUSE
- nS₇ REC MUTE
- nS₈ Timer
- 1. Rec
- 2. OFF
- 3. Play
- oS₁ AMPS
- 1. Stand by
- 2. OFF
- 3. Play

- nLD₁ SEL1110S REC
- nLD₂ SEL1710K PLAY
- nLD₃ SEL1910A PAUSE



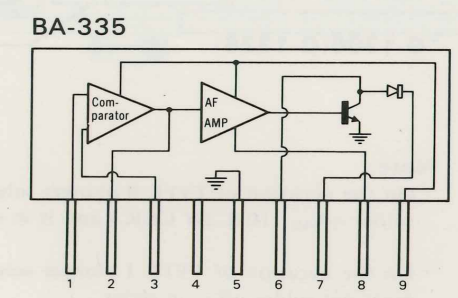
SYMBOL
△ Ceramic
□ Non-Inflammable Resistor

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

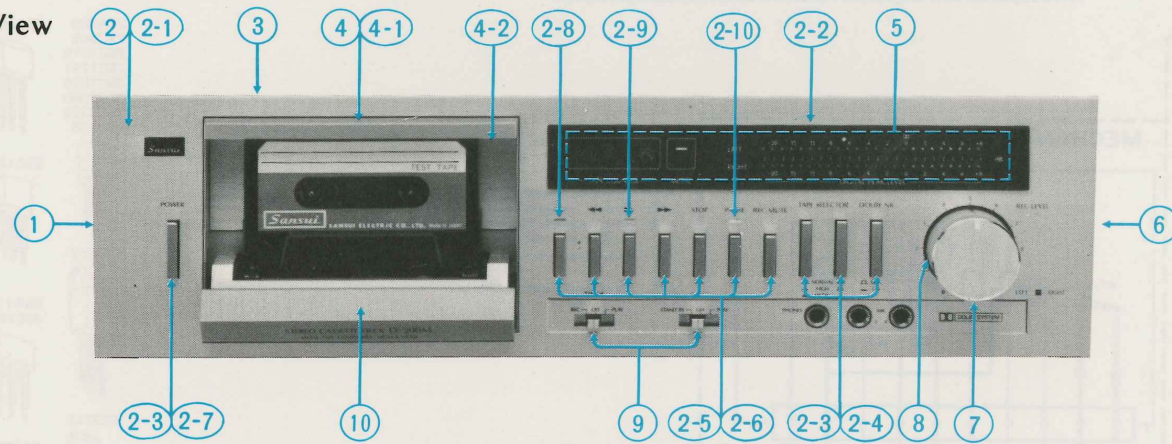
OPTIONAL USE FOR TRANSISTORS.

| PWB NO | PARTS NO | TYPE NO OF TRANSISTOR |
|-------------------|--|--------------------------------------|
| G-1324 | jQ _{1,2} Q ₁ | 2SC2320 2SC1815 2SC2603 |
| | Q ₂ mQ _{2,3} nQ ₂₋₂₁ nQ ₂₄ oQ ₁ pQ ₂ | 2SC2320 2SC1815 2SC2603 LC945 |
| | mQ ₁ | 2SC2320 2SC1815 2SC2603 2SC945 LC945 |
| | nQ _{1-3,11,12} pQ ₁ | 2SA999 2SA1115 2SA1015 |
| | nQ _{22,23,25,26} | 2SC2001 2SC1741 2SC2060 2SD438 |
| fQ _{1,2} | 2SC2320L 2SC1313 | |



8. OTHER PARTS

8-1. Front View

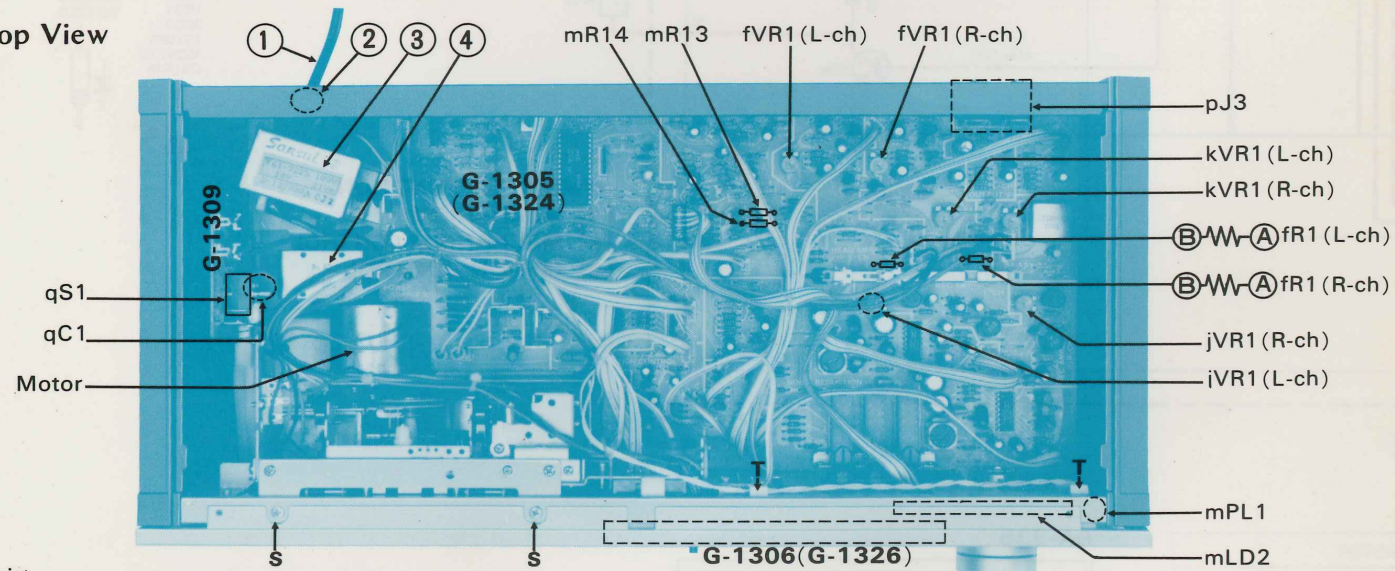


Parts List

| Parts No. | Stock No. | Description |
|-----------------------------|-----------|------------------------------------|
| 1 | 07601900 | Side Panel Ass'y Left |
| <Silver Model> | | |
| 2 | 07626510 | Front Panel Ass'y |
| 2-1 | 07620600 | Front Panel |
| 2-2 | 07626700 | Peak Level Indicator Cover |
| 2-3 | 07580300 | Push Button Power, etc. |
| 2-4 | 07581300 | Push Button Guide Tape Sel., Dolby |
| 2-5 | 07583600 | Push Button Control |
| 2-6 | 07583400 | Push Button Guide Control |
| 2-7 | 07595700 | Push Button Guide Power |
| <Black Model> | | |
| 2 | 07627610 | Front Panel Ass'y |
| 2-1 | 07620700 | Front Panel |
| 2-2 | 07626700 | Peak Level Indicator Cover |
| 2-3 | 07580500 | Push Button Power, etc. |
| 2-4 | 07581200 | Push Button Guide Tape Sel., Dolby |
| 2-5 | 07583700 | Push Button Control |
| 2-6 | 07583500 | Push Button Guide Control |
| 2-7 | 07628000 | Push Button Guide Power |
| 2-8 | 07578000 | Indicator (REC) |
| 2-9 | 07578100 | Indicator (Play) |

| Parts No. | Stock No. | Description |
|-----------------------------|-----------|-------------------------------------|
| 2-10 | 07578200 | Indicator (Pause) |
| 3 | 07601400 | Bonnet |
| <Silver Model> | | |
| 4 | 07651100 | Mechanism Cover Ass'y |
| 4-1 | 07610500 | Mechanism Cover |
| 4-2 | 07609700 | Dress Panel |
| <Black Model> | | |
| 4 | 07651200 | Mechanism Cover Ass'y |
| 4-1 | 07610600 | Mechanism Cover |
| 4-2 | 07609800 | Dress Panel |
| 5 | 07647910 | Peak Level Indicator Frame Ass'y |
| 6 | 07602000 | Side Panel Ass'y Right |
| 7 | 07626300 | Knob Left REC Level (Silver Model) |
| | 07511600 | Knob Left REC Level (Black Model) |
| 8 | 07626400 | Knob Right REC Level (Silver Model) |
| | 07611500 | Knob Right REC Level (Black Model) |
| 9 | 07603100 | Slide Knob (Silver Model) |
| | 07603200 | Slide Knob (Black Model) |
| 10 | 07610100 | Head Cover (Silver Model) |
| | 07610200 | Head Cover (Black Model) |

8-2. Top View



Parts List

| Parts No. | Stock No. | Description |
|-----------|--------------|-------------------------------------|
| mLD2 | 07245900 | LT1005 LED |
| mPL1 | 07244800 | Lamp 12 V |
| 1 | 38005400 | Power Supply Cord |
| 2 | 39106000 | Strain Relief |
| 3 | 15001201 | Power Transformer |
| 4 | *07271900, 1 | Plunger Solenoid (REC/PLAY) TYPE I |
| | *43402500, 1 | Plunger Solenoid (REC/PLAY) TYPE II |

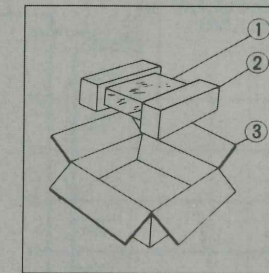
Note:

* On the occasion of TYPE II plunger solenoid, solder nR₄₀ (10Ω 2W Ce.R.) and it in series.

* On the occasion of TYPE I plunger solenoid, must not solder nR₄₀ in series.

9. PACKING LIST

| Parts No. | Stock No. | Description |
|-----------|-----------|----------------------------|
| 1 | 91263800 | Vinyl Cover |
| 2 | 07641000 | Styrofoam Packing |
| 3 | 07651400 | Carton Case (Silver Model) |
| | 07651600 | Carton Case (Black Model) |



10. ACCESSORY LIST

| Stock No. | Description |
|-------------|----------------------------|
| 07641500 | Operating Instructions |
| 38103300, 1 | PJP Cord x 2 |
| 94300500 | Head Cleaner (Cotton Buds) |



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