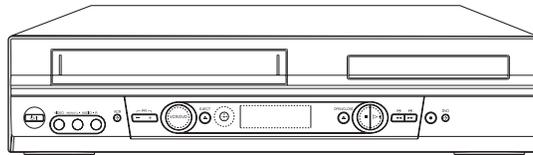


# JVC

## SERVICE MANUAL

### DVD PLAYER / VIDEO CASSETTE RECORDER

# HR-XV2Ex, HR-XV2Ey, HR-XV2EL, HR-XV11Ex



## SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-XV2E.)*

### General

|                       |   |
|-----------------------|---|
| Power requirements    | AC 200-240V, 50/60 Hz                       |
| Power consumption     | Operation mode : 23W<br>Standby mode : 6.7W |
| Dimensions (approx.)  | 430 X 97.5 X 293 mm (w/h/d)                 |
| Mass (approx.)        | 4.8 kg                                      |
| Operating temperature | 5 C to 35 C (41 F to 95 F)                  |
| Operating humidity    | 5 % to 90 %                                 |
| Timer                 | 24 hours display tape                       |
| Program capacity      | 1 month 7 program                           |
| RF Modulator          | UHF 22-68 (Adjustable)                      |

### System

|                       |  |
|-----------------------|--|
| Laser                 | Semiconductor laser, wavelength 650 nm   |
| Video Head system     | Double azimuth 4 heads, helical scanning.  |
| Signal system         | PAL  |
| Frequency response    | DVD (PCM 96 kHz): 8 Hz to 44 kHz<br>DVD (PCM 48 kHz): 8 Hz to 22 kHz<br>CD: 8 Hz to 20 kHz |
| Signal-to-noise ratio | More than 100dB (ANALOG OUT connectors only)   |
| Harmonic distortion   | Less than 0.008%   |
| Dynamic range         | More than 100 dB (DVD)<br>More than 95 dB (CD)   |

### Inputs (VCR)

|       |  |
|-------|--|
| Audio | -6.0dBm, more than 10 kohms (SCART)<br>-6.0dBm, more than 47 kohms (RCA) |
| Video | 1.0 Vp-p, 75 ohms, unbalanced (SCART/RCA)                                |

### Outputs (DVD)

|                              |   |
|------------------------------|---|
| S-VIDEO OUT                  | (Y) 1.0 Vp-p 75 ohms, negative sync., Mini Din 4-pin x 1<br>(C) 0.3 Vp-p 75 ohms                                |
| COMPONENT VIDEO OUT          | (Y) 1.0 V (p-p), 75 $\Omega$ , negative sync, RCA jack x 1<br>(Pb)/(Pr) 0.7 V (p-p), 75 $\Omega$ , RCA jack x 2 |
| Audio output (digital audio) | 0.5 V (p-p), 75 $\Omega$ , RCA jack x 1   |
| Audio output (optical audio) | 5 V (p-p), 75 $\Omega$ , Optical connector x 1  |
| Audio output (analog audio)  | 2.0 Vrms (1 kHz, 0 dB), 330 $\Omega$ , RCA jack (L, R) x 2/SCART(TO TV)   |

### Outputs (VCR)

|       |                                      |
|-------|--------------------------------------|
| Audio | -6.0dBm, less than 1 kohms (SCART)   |
| Video | 1.0Vp-p, 75 ohms, unbalanced (SCART) |

Design and specifications are subject to change without notice.

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HR-XV2EX,HR-XV2EY,HR-XV2EL,HR-XV11EX D2VP11

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2003/06

## **CONTENTS**

**SECTION 1 . . . . SUMMARY**

**SECTION 3 . . . . ELECTRICAL**

**SECTION 4 . . . . MECHANISM OF VCR PART**

**SECTION 5 . . . . MECHANISM OF DVD PART**

**SECTION 6 . . . . REPLACEMENT PARTS LIST**

**SECTION 1**  
**SUMMARY**  
**CONTENTS**

**Important Safety Precautions**  
**SPECIFICATIONS ..... 1-5**

# Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

## ●Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  $\triangle$  symbol and shaded (■) parts are critical for safety.  
Replace only with specified part numbers.  
**Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.**

3. Fuse replacement caution notice.  
Caution for continued protection against fire hazard.  
Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:  
1) Wires covered with PVC tubing  
2) Double insulated wires  
3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:  
1) Insulation Tape      3) Spacers      5) Barrier  
2) PVC tubing      4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

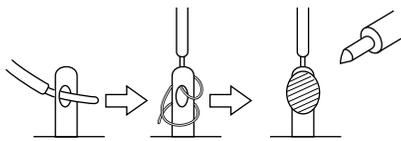


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

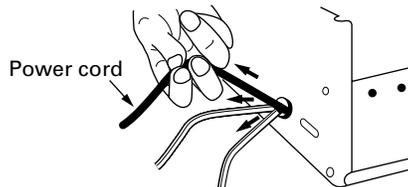


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)  
In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

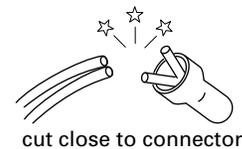
1) **Connector part number** : E03830-001

2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.

3) **Replacement procedure**

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).



cut close to connector

Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

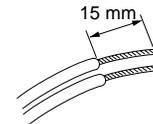


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

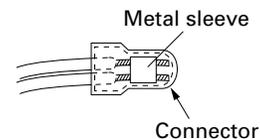


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

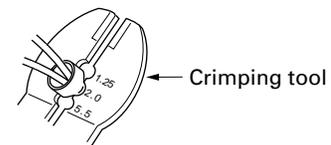


Fig.6

(5) Check the four points noted in Fig.7.

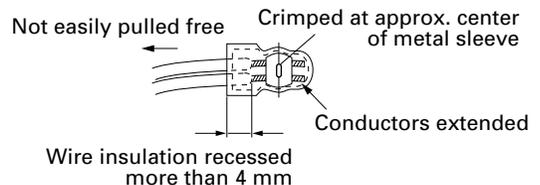


Fig.7

## ● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

### 1. Insulation resistance test

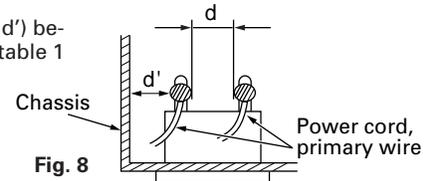
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

### 2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

### 3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

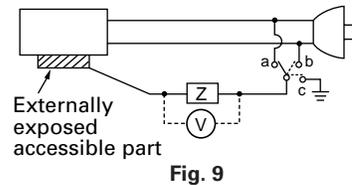


### 4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

**Measuring Method :** (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

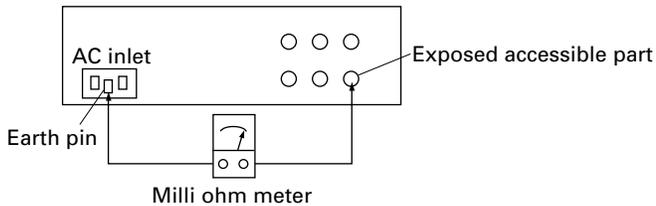


### 5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

**Measuring Method:**

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



#### Grounding Specifications

| Region             | Grounding Impedance (Z)  |
|--------------------|--------------------------|
| USA & Canada       | $Z \leq 0.1 \text{ ohm}$ |
| Europe & Australia | $Z \leq 0.5 \text{ ohm}$ |

| AC Line Voltage              | Region             | Insulation Resistance (R)   | Dielectric Strength   | Clearance Distance (d), (d')  |
|------------------------------|--------------------|---|---|---|
| 100 V                        | Japan              | $R \geq 1 \text{ M}\Omega/500 \text{ V DC}$                         | AC 1 kV 1 minute  | $d, d' \geq 3 \text{ mm}$   |
| 100 to 240 V                 |                    |   | AC 1.5 kV 1 minute  | $d, d' \geq 4 \text{ mm}$   |
| 110 to 130 V                 | USA & Canada       | $1 \text{ M}\Omega \leq R \leq 12 \text{ M}\Omega/500 \text{ V DC}$ | AC 1 kV 1 minute  | $d, d' \geq 3.2 \text{ mm}$   |
| 110 to 130 V<br>200 to 240 V | Europe & Australia | $R \geq 10 \text{ M}\Omega/500 \text{ V DC}$                        | AC 3 kV 1 minute<br>(Class II)<br>AC 1.5 kV 1 minute<br>(Class I) | $d \geq 4 \text{ mm}$<br>$d' \geq 8 \text{ mm}$ (Power cord)<br>$d' \geq 6 \text{ mm}$ (Primary wire) |

Table 1 Specifications for each region

| AC Line Voltage              | Region             | Load Z          | Leakage Current (i)                                      | a, b, c                  |
|------------------------------|--------------------|-----------------|--|--------------------------|
| 100 V                        | Japan              | 1 kΩ            | $i \leq 1 \text{ mA rms}$                                | Exposed accessible parts |
| 110 to 130 V                 | USA & Canada       | 0.15 μF, 1.5 kΩ | $i \leq 0.5 \text{ mA rms}$                              | Exposed accessible parts |
| 110 to 130 V<br>220 to 240 V | Europe & Australia | 2 kΩ            | $i \leq 0.7 \text{ mA peak}$<br>$i \leq 2 \text{ mA dc}$ | Antenna earth terminals  |
|                              |                    | 50 kΩ           | $i \leq 0.7 \text{ mA peak}$<br>$i \leq 2 \text{ mA dc}$ | Other terminals          |

Table 2 Leakage current specifications for each region

**Note:** These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

# SPECIFICATIONS

## DVD PART

|                                       |  |
|---------------------------------------|--|
| Power supply                          | AC 110~240V, 50/60 Hz(HR-XV2ER)<br>AC 200~240V, 50/60 Hz(HR-XV2EX/HR-XV2EY/<br>HR-XV2EL/HR-XV11EX/ HR-XV2EK/HR-XV2EF/HR-XV2EZ) |
| Power consumption                     | 23W  |
| Mass                                  | 5.4kg  |
| External dimensions                   | 430 x 97.5 x 293 (W x H x D)   |
| Signal system                         | PAL 625/50   |
| Laser                                 | Semiconductor laser, wavelength 650nm  |
| Frequency range (digital audio)       | 4 Hz to 20 kHz   |
| Signal-to-noise ratio (digital audio) | More than 100 dB (EIAJ)  |
| Audio dynamic range (digital audio)   | More than 95 dB (EIAJ)   |
| Harmonic distortion(digital audio)    | 0.008%   |
| Wow and flutter                       | Below measurable level (less than +0.001%(W.PEAK)) (EIAJ)  |
| Operations                            | Temperature : 5°C(41°F) to 35°C(95°F),<br>Operation status : Horizontal  |

## OUTPUTS

|                             |  |
|-----------------------------|--|
| Video outputs               | 1.0V(p-p), 75Ω, negative sync., RCA jack x 1/SCART(TO TV)                          |
| S video outputs             | (Y)1.0V(p-p), 75Ω, negative sync.,Mini DIN 4-pin x 1<br>(C)0.3V(p-p), 75Ω          |
| Component video output      | (Y) 1.0 V (p-p), 75 Ω, negative sync., RCA jack x 1<br>(Pb)/(Pr) 0.7 V (p-p), 75 Ω |
| Audio output(digital audio) | 0.5V(p-p), 75Ω, RCA jack X 1/SCART(TO TV)  |
| Audio output(optical audio) | Optical connector x 1  |
| Audio output(analog audio)  | 2.0Vrms (1kHz, 0dB), 330Ω, RCA jack (L, R) x 1/<br>SCART(TO TV)                    |

## VHS PART

|                   |  |
|-------------------|--|
| Video Head System | Double azimuth 4 heads, helical scanning |
| Tape format       | Tape width 12.7 mm (0.5 inch)            |
| Timer             | 24 hours display type                    |

\*Designs and specifications are subject to change without notice.

\*Weight and dimensions shown are approximate.

# SECTION 3 ELECTRICAL CONTENTS

|   |   |
|---|---|
| <p><b>OVERALL BLOCK DIAGRAM</b>.....3-2</p> <p><b>VCR PART</b></p> <p><b>ELECTRICAL ADJUSTMENT PROCEDURES</b>.....3-3</p> <p><b>ELECTRICAL TROUBLESHOOTING GUIDE</b>.....3-4</p> <p style="padding-left: 20px;">1. POWER(SMPS) CIRCUIT .....3-4</p> <p style="padding-left: 20px;">2. SYSTEM/KEY CIRCUIT .....3-7</p> <p style="padding-left: 20px;">3. SERVO CIRCUIT .....3-8</p> <p style="padding-left: 20px;">4. Y/C CIRCUIT.....3-11</p> <p style="padding-left: 20px;">5. Hi-Fi CIRCUIT .....3-15</p> <p style="padding-left: 20px;">6. Tuner/IF CIRCUIT .....3-18</p> <p><b>BLOCK DIAGRAMS</b>.....3-20</p> <p style="padding-left: 20px;">1. Power(SMPS) BLOCK DIAGRAM .....3-20</p> <p style="padding-left: 20px;">2. Tu/IF, NICAM &amp; A2 BLOCK DIAGRAM.....3-22</p> <p style="padding-left: 20px;">3. VPS BLOCK DIAGRAM.....3-23</p> <p style="padding-left: 20px;">4. Y/C BLOCK DIAGRAM.....3-24</p> <p style="padding-left: 20px;">5. Hi-Fi BLOCK DIAGRAM.....3-26</p> <p style="padding-left: 20px;">6. SYSTEM BLOCK DIAGRAM .....3-28</p> <p><b>CIRCUIT DIAGRAMS</b>.....3-30</p> <p style="padding-left: 20px;">1. Power(SMPS) CIRCUIT DIAGRAM.....3-30</p> <p style="padding-left: 20px;">2. TU/IF, NICAM &amp; A2 CIRCUIT DIAGRAM .....3-32</p> <p style="padding-left: 20px;">3. A/V CIRCUIT DIAGRAM .....3-34</p> <p style="padding-left: 20px;">4. Hi-Fi CIRCUIT DIAGRAM .....3-36</p> <p style="padding-left: 20px;">5. SCART(JACK) CIRCUIT DIAGRAM .....3-38</p> <p style="padding-left: 20px;">6. SYSTEM CIRCUIT DIAGRAM .....3-40</p> <p style="padding-left: 40px;">• WAVEFORM &amp; VOLTAGE SHEET .....3-42</p> <p style="padding-left: 40px;">• CIRCUIT VOLTAGE CHART.....3-44</p> <p><b>PRINTED CIRCUIT DIAGRAMS</b>.....3-48</p> <p style="padding-left: 20px;">1. MAIN P.C.BOARD .....3-48</p> <p style="padding-left: 20px;">2. SMPS P.C.BOARD .....3-50</p> | <p><b>DVD PART</b></p> <p><b>ELECTRICAL TROUBLESHOOTING GUIDE &amp; WAVEFORMS</b>.....3-52</p> <p style="padding-left: 20px;">1. System Clock X501 (27Mhz) .....3-52</p> <p style="padding-left: 20px;">2. Initializing between MPEG and SDRAM .....3-52</p> <p style="padding-left: 20px;">3. Initializing between MPEG and Flash .....3-53</p> <p style="padding-left: 20px;">4. Reference Voltage 1 .....3-53</p> <p style="padding-left: 20px;">5. Reference Voltage 2.....3-54</p> <p style="padding-left: 20px;">6. Checking the initial step of M/D Ass'y.....3-54</p> <p style="padding-left: 20px;">7. Checking the Video Signal.....3-55</p> <p style="padding-left: 20px;">8. Checking the first step of servo (1) .....3-55</p> <p style="padding-left: 20px;">9. Checking the second step of servo (2) .....3-56</p> <p style="padding-left: 20px;">10. Checking the output of Audio signal .....3-56</p> <p style="padding-left: 20px;">11. Checking the reset port.....3-57</p> <p style="padding-left: 20px;">12. Checking the focus &amp; tracking servo .....3-57</p> <p style="padding-left: 20px;">13. Checking the track jump.....3-58</p> <p style="padding-left: 20px;">14. The status of CD_LD and DVD_LD in the PLAY MODE.....3-58</p> <p style="padding-left: 20px;">15. The status Focus and spindle motor .....3-59</p> <p style="padding-left: 20px;">16. DATA STREAM .....3-59</p> <p style="padding-left: 20px;">17. Input Clock to IC202 .....3-60</p> <p style="padding-left: 20px;">18. Tray Open and Close.....3-60</p> <p style="padding-left: 20px;">19. Focus Drive signal(FACT) .....3-61</p> <p style="padding-left: 20px;">20. Signals for Front micom .....3-61</p> <p style="padding-left: 20px;">21. FACT and FE for DVD9 (Dual disc) .....3-62</p> <p style="padding-left: 20px;">22. System clock of MPEG IC .....3-62</p> <p><b>BLOCK DIAGRAMS</b>.....3-63</p> <p style="padding-left: 20px;">1. DVD Overall Block Diagram.....3-63</p> <p style="padding-left: 20px;">2. SERVO Block Diagram .....3-64</p> <p style="padding-left: 20px;">3. MPEG Block Diagram .....3-65</p> <p style="padding-left: 20px;">4. AUDIO Block Diagram .....3-66</p> <p><b>CIRCUIT DIAGRAMS</b>.....3-67</p> <p style="padding-left: 20px;">1. RD SERVO CIRCUIT DIAGRAM .....3-67</p> <p style="padding-left: 20px;">2. SYSTEM CIRCUIT DIAGRAM .....3-69</p> <p style="padding-left: 20px;">3. AUDIO CIRCUIT DIAGRAM.....3-71</p> <p style="padding-left: 20px;">4. INTERFACE CIRCUIT DIAGRAM.....3-73</p> <p style="padding-left: 40px;">• CIRCUIT VOLTAGE CHART.....3-75</p> <p><b>PRINTED CIRCUIT DIAGRAMS</b>.....3-79</p> <p style="padding-left: 20px;">1. MAIN P.C.BOARD (TOP VIEW).....3-79</p> <p style="padding-left: 20px;">2. MAIN P.C.BOARD (BOTTOM VIEW).....3-81</p> |
|---|---|

# VCR PART

## ELECTRICAL ADJUSTMENT PROCEDURES

### 1. Servo Adjustment

#### 1) PG Adjustment

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>•Test Equipment</li> <li>a) OSCILLOSCOPE</li> </ul> | <ul style="list-style-type: none"> <li>b) NTSC MODEL : NTSC SP TEST TAPE</li> <li>C) PAL MODEL : PAL SP TEST TAPE</li> </ul> |
|--|--|

#### • Adjustment And Specification

| MODE | MEASUREMENT POINT | ADJUSTMENT POINT | SPECIFICATION  |
|------|-------------------|------------------|----------------|
| PLAY | V.Out<br>H/SW     | R/C TRK JIG KEY  | $6.5 \pm 0.5H$ |

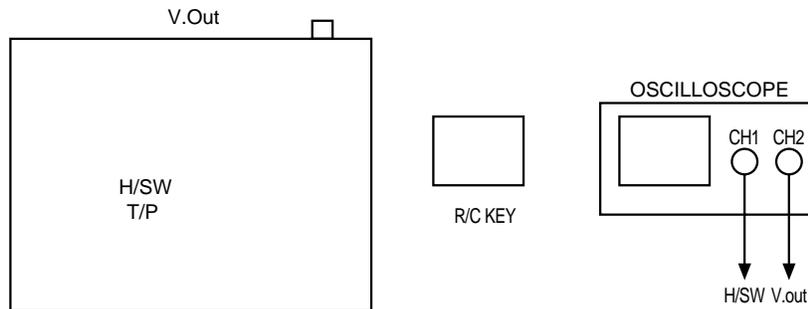
#### • Adjustment Procedure

- a) Insert the SP Test Tape and play.  
 Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the "ATR" is blink after the SP Test Tape is inserted.
- b) Connect the CH1 of the oscilloscope to the H/SW and CH2 to the Video Out for the VCR.
- c) Trigger the mixed Combo Video Signal of CH2 to the CH1 H/SW, and then check the distance (time difference), which is from the selected A(B) Head point of the H/SW signal to the starting point of the vertical synchronized signal, to  $6.5H \pm 0.5H$  ( $412\mu s$ ,  $1H=63\mu s$ ).

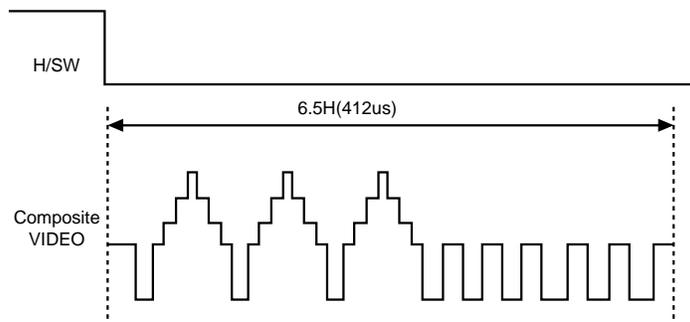
#### • PG Adjustment Method

- a-1) Playback the SP standard tape
- b-2) Press the "1" key on the Remote controller and the "PLAY" key on the Front Panel at the same time, then it goes into Tracking initial mode.
- c-3) Repeat the above step(No.b-2), then it finishes the PG adjusting automatically.
- d-4) Stop the playback, then it goes out to PG adjusting mode after mony the PG data.

#### • CONNECTION



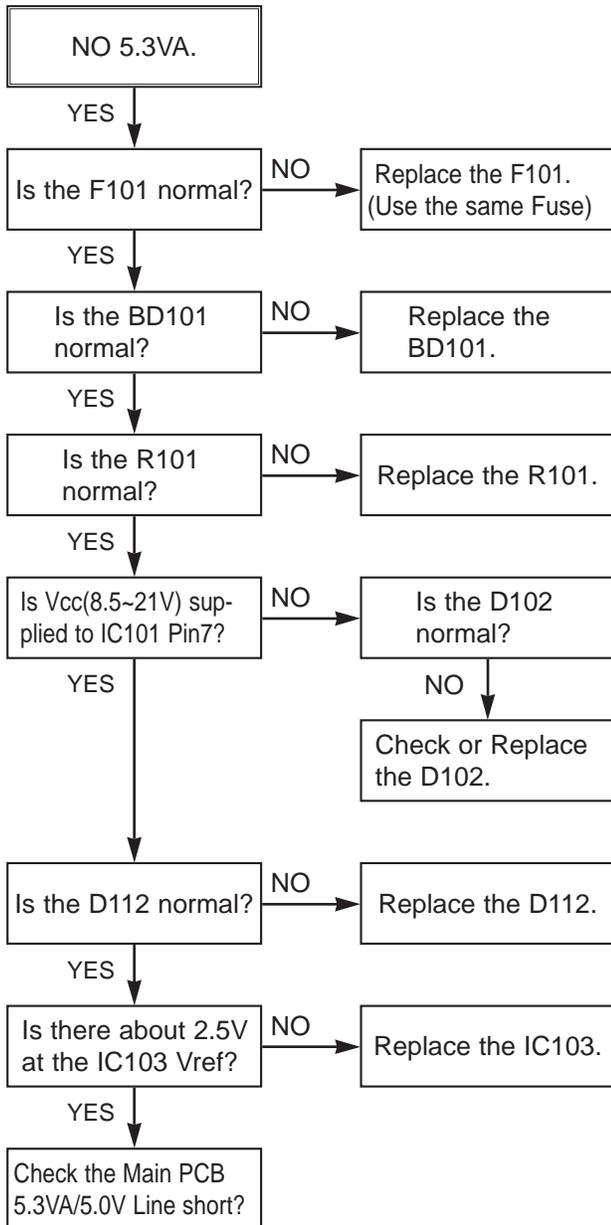
#### • WAVEFORM



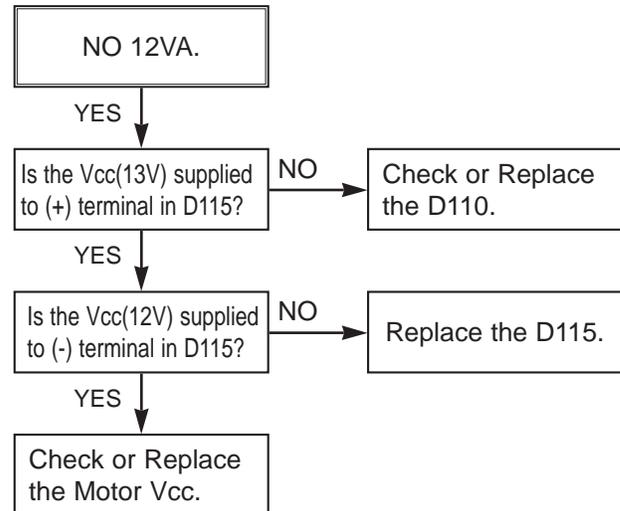
# ELECTRICAL TROUBLESHOOTING GUIDE

## 1. Power(SMPS) CIRCUIT

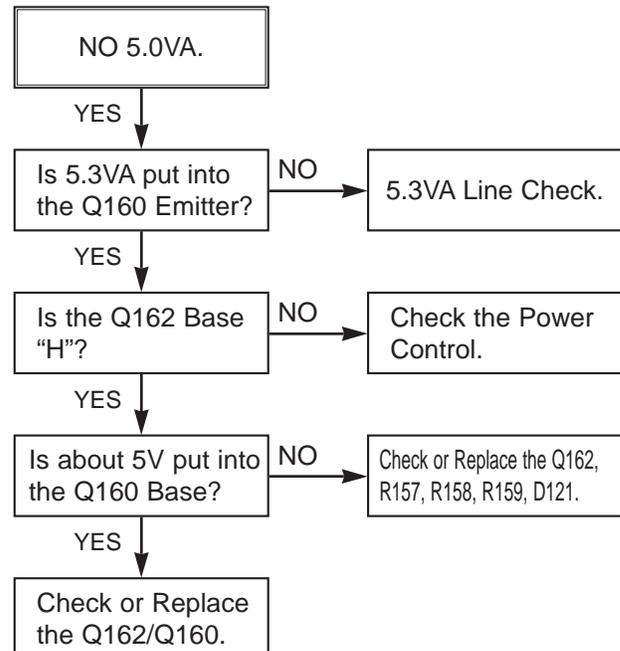
(1) No 5.3VA (SYS/TUNER)



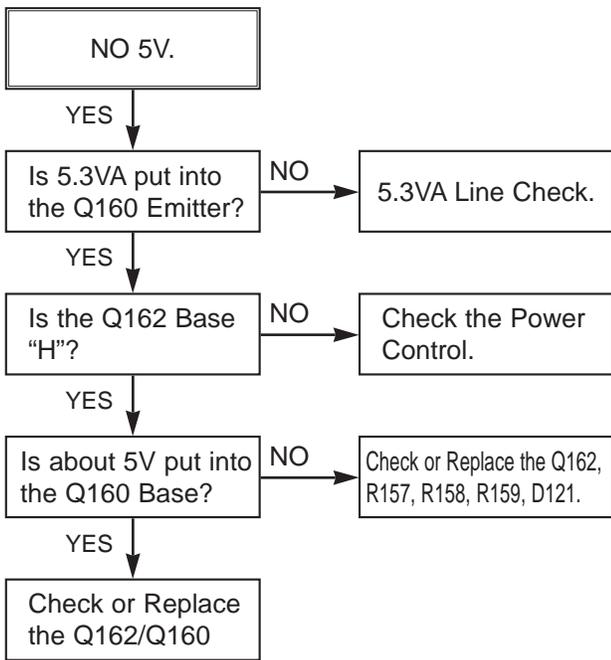
(2) No 12VA (TO CAP, DRUM MOTOR)



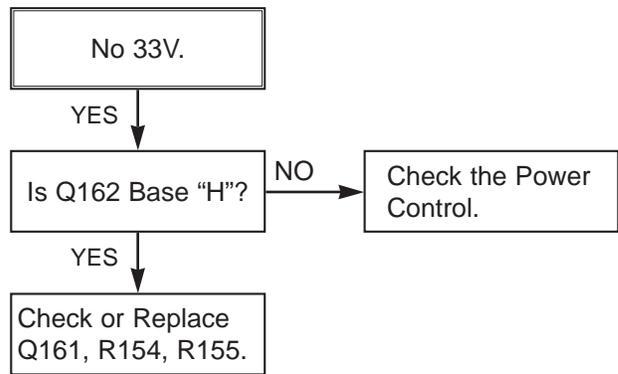
(3) No 5.0V (SYS, Hi-Fi, TUNER, Y/C)



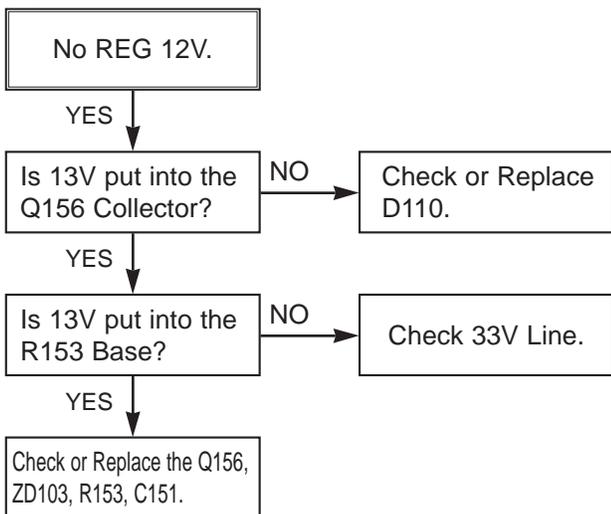
(4) No 5V (TO DVD)



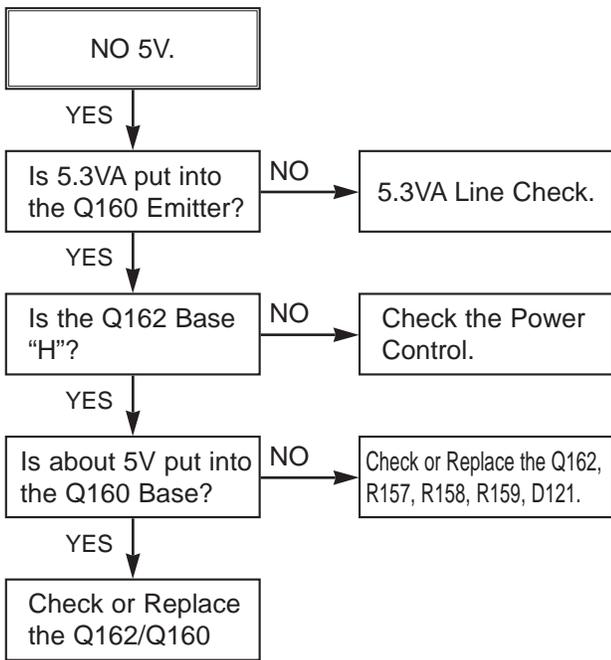
(5) No 33V (TUNER)



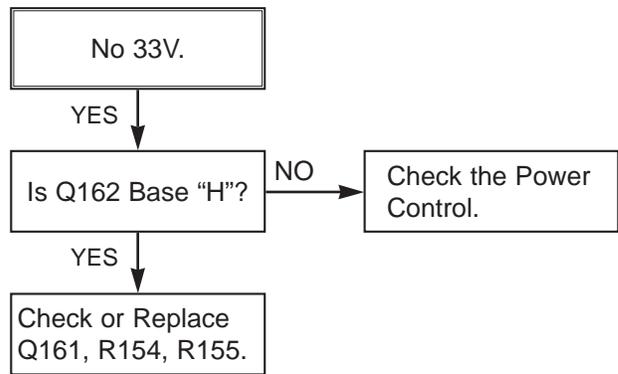
(6) No REG 12V



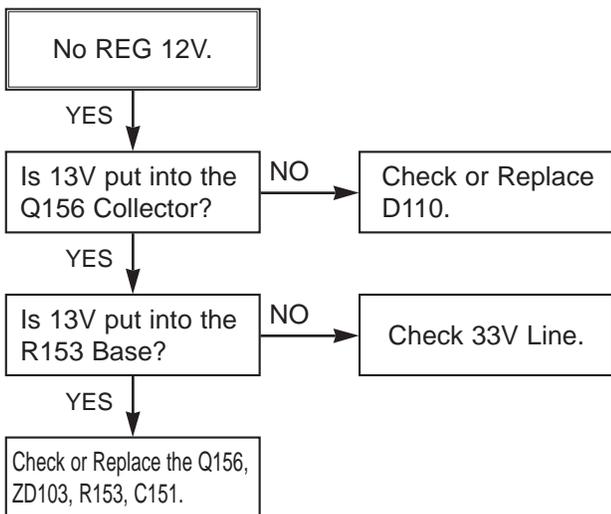
(4) No 5V (TO DVD)



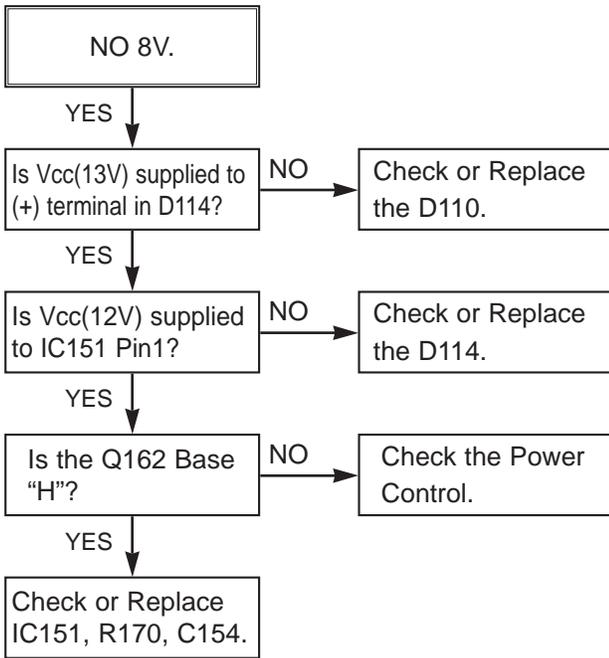
(5) No 33V (TUNER)



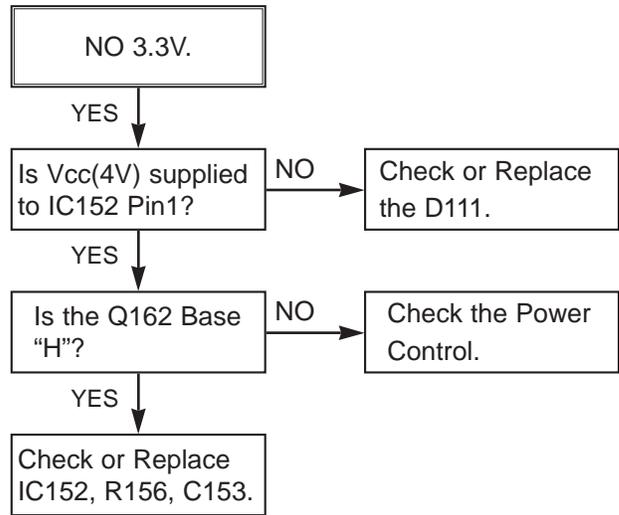
(6) No REG 12V



(7) No 8V(TO DVD)

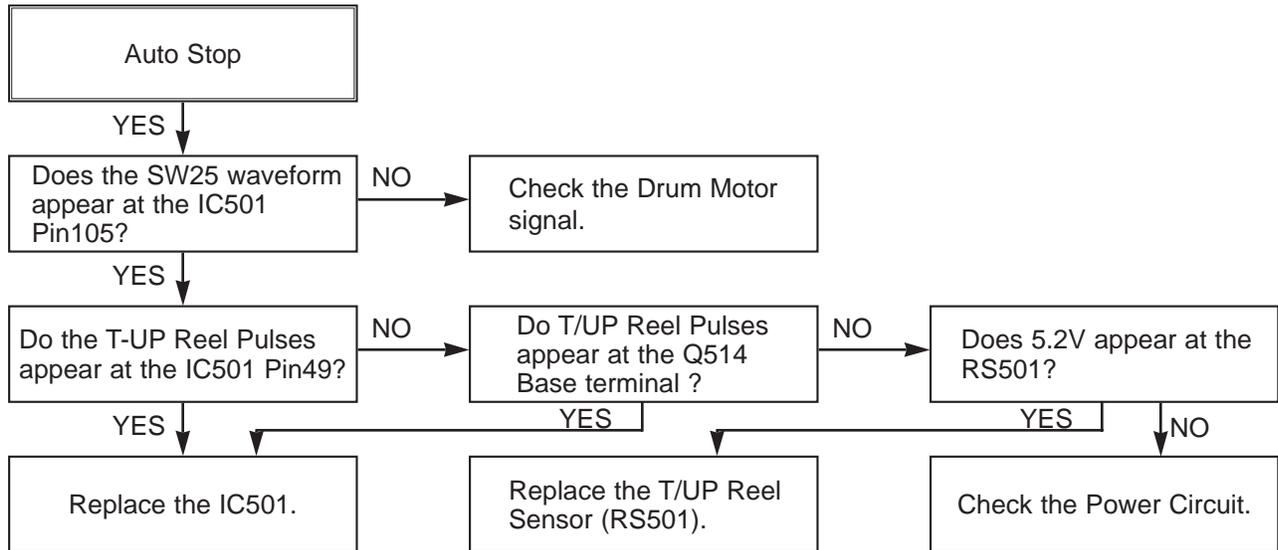


(8) No 3.3V(TO DVD)

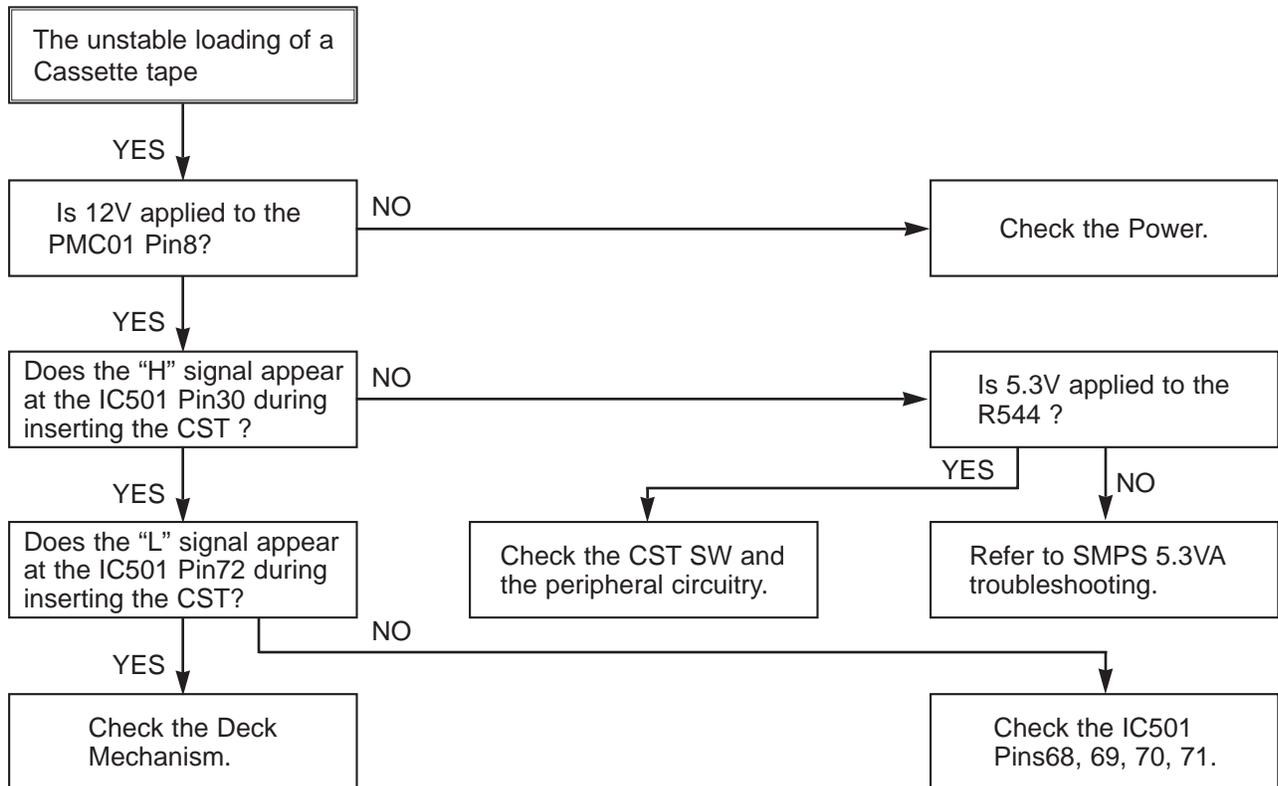


## 2. SYSTEM/KEY CIRCUIT

### (1) AUTO STOP



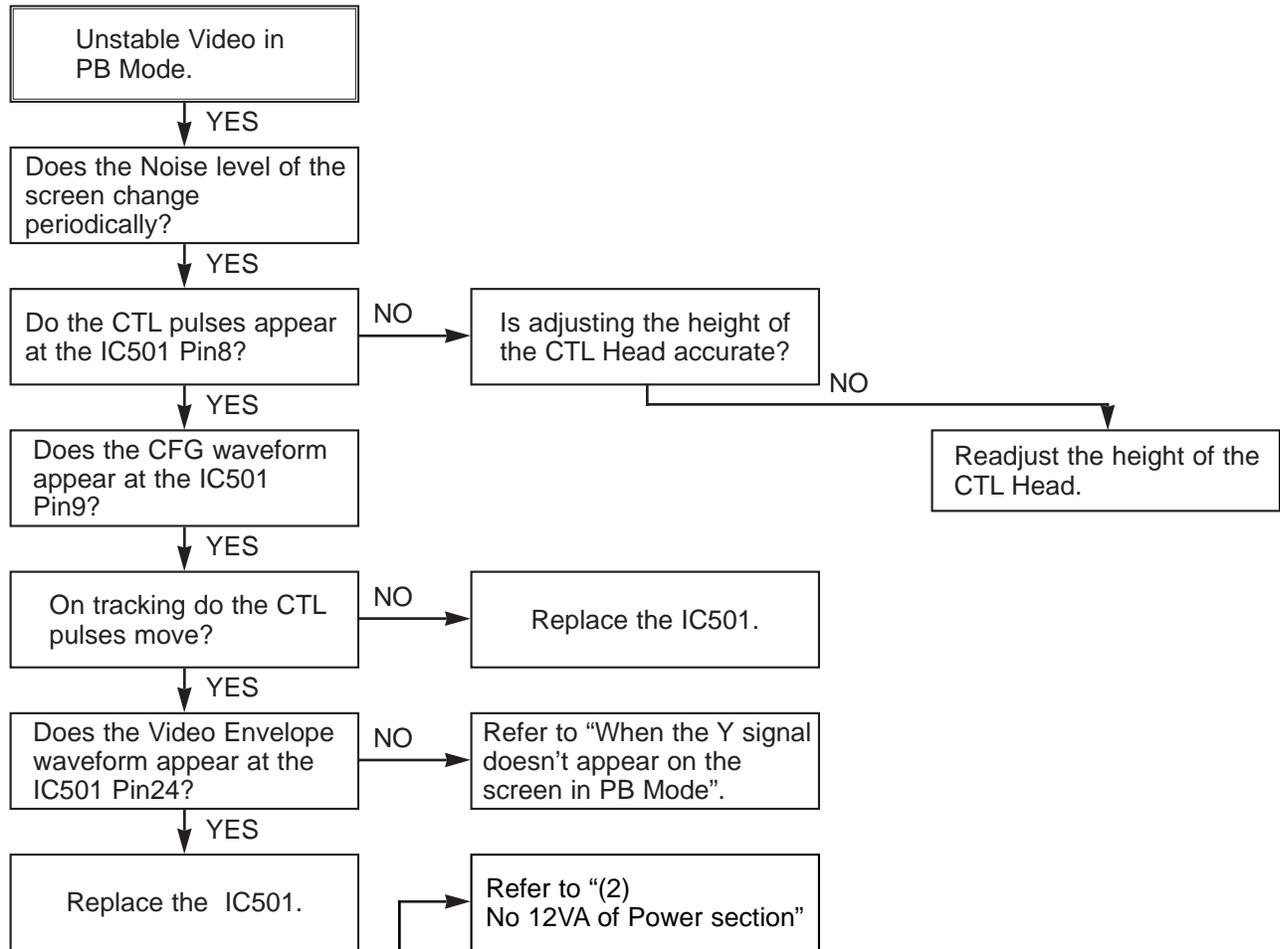
### (2) The unstable loading of a Cassette tape



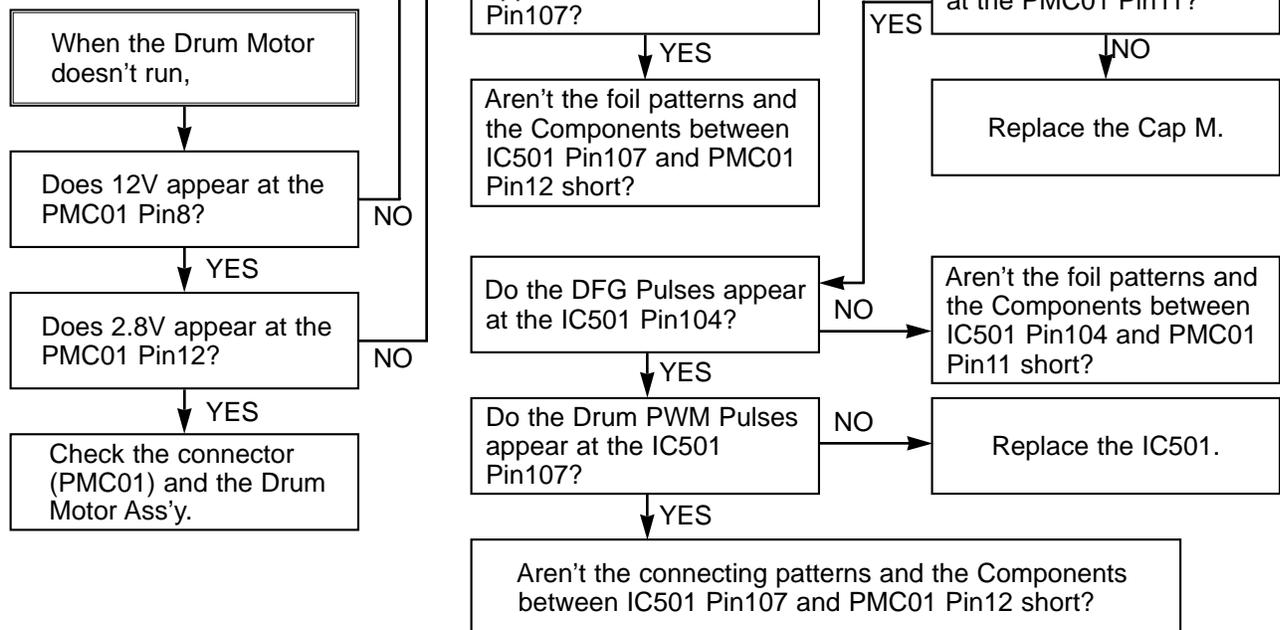
**Caution :** Auto stop can occur because Grease or Oil is dried up

### 3. SERVO CIRCUIT

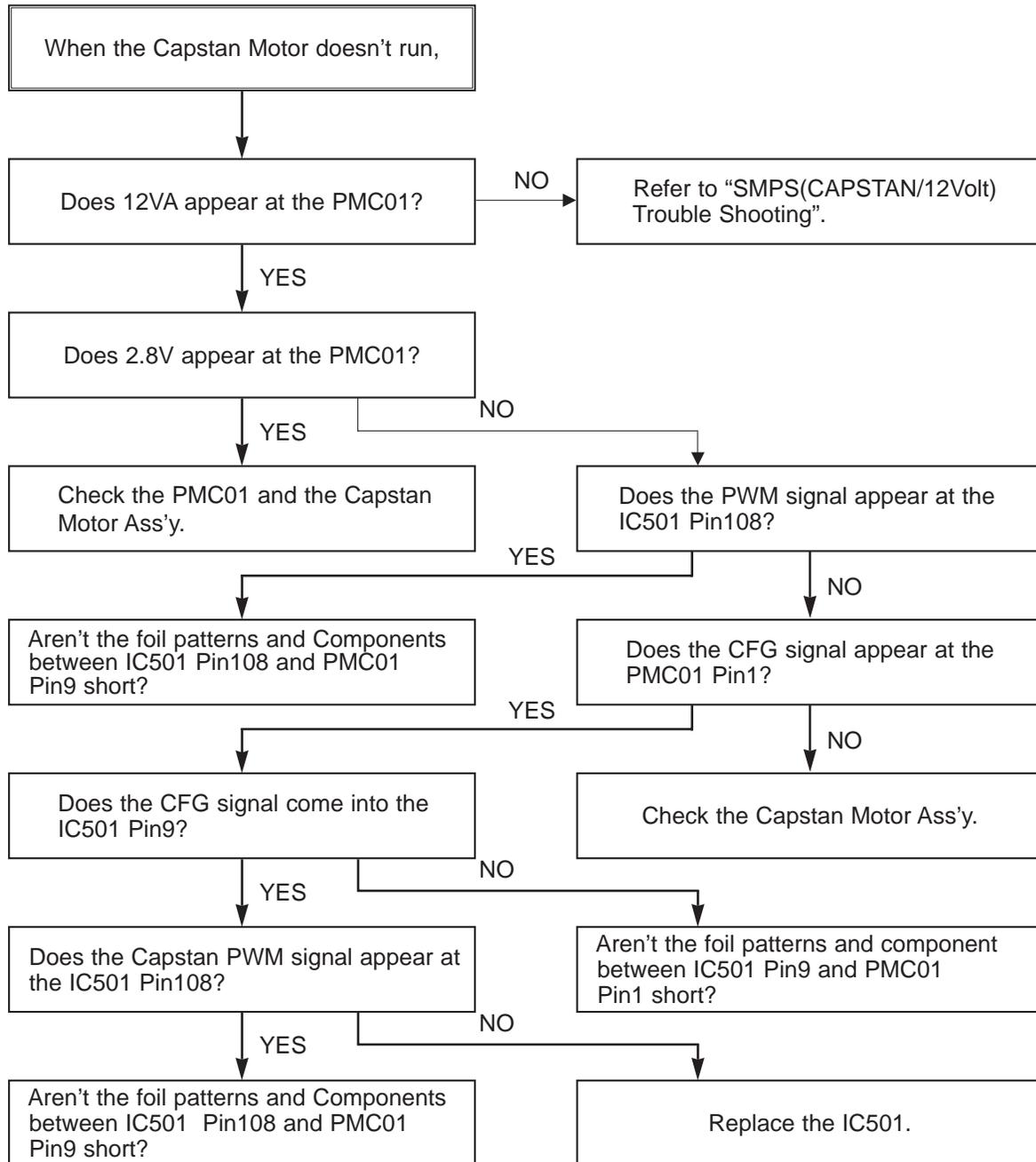
#### (1) Unstable Video in PB MODE



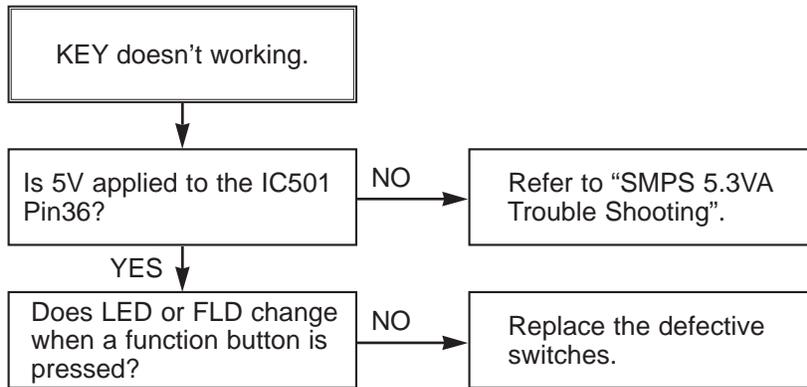
#### (2) When the Drum Motor doesn't run.



(3) When the Capstan Motor doesn't run,

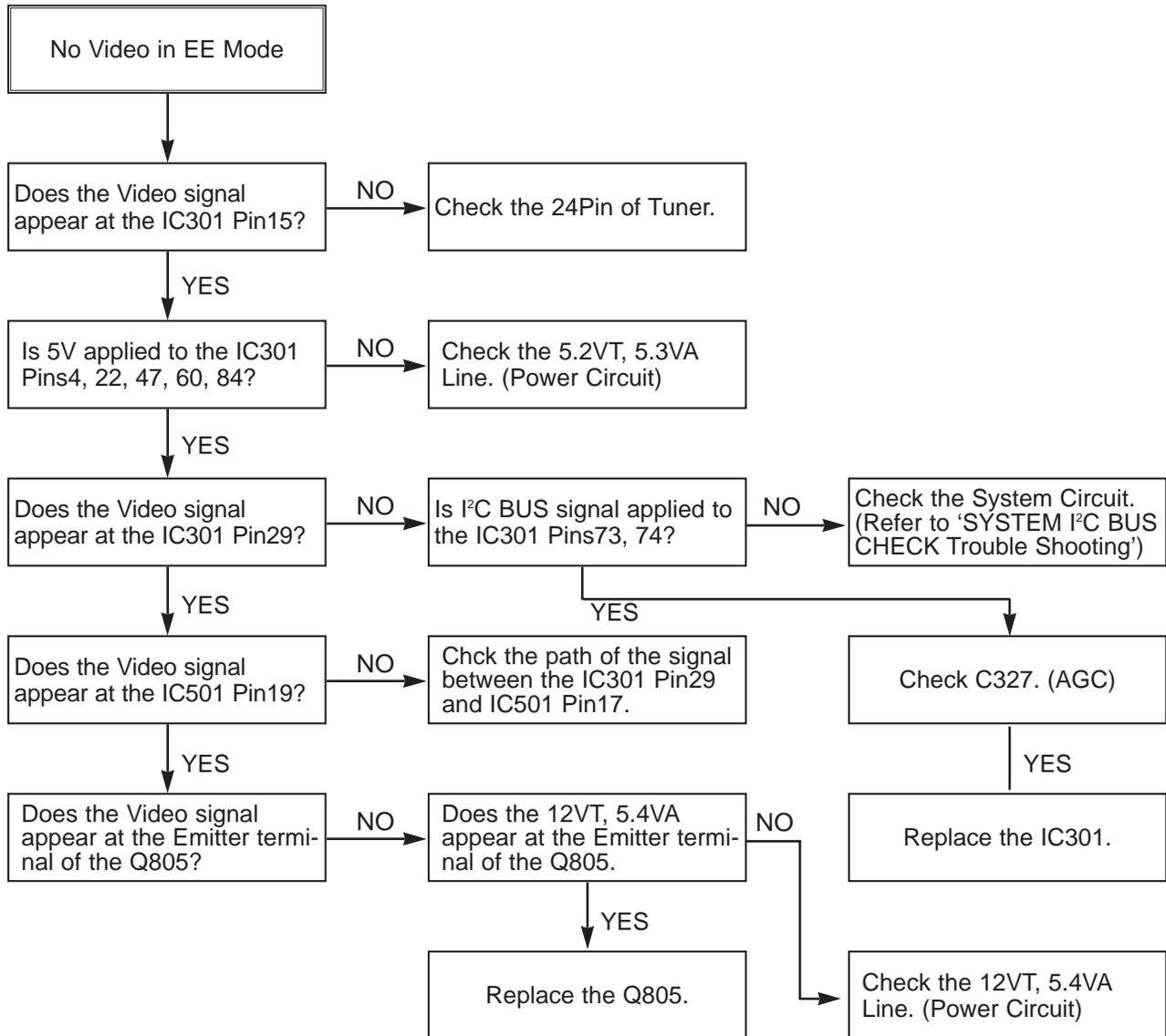


(4) KEY doesn't working

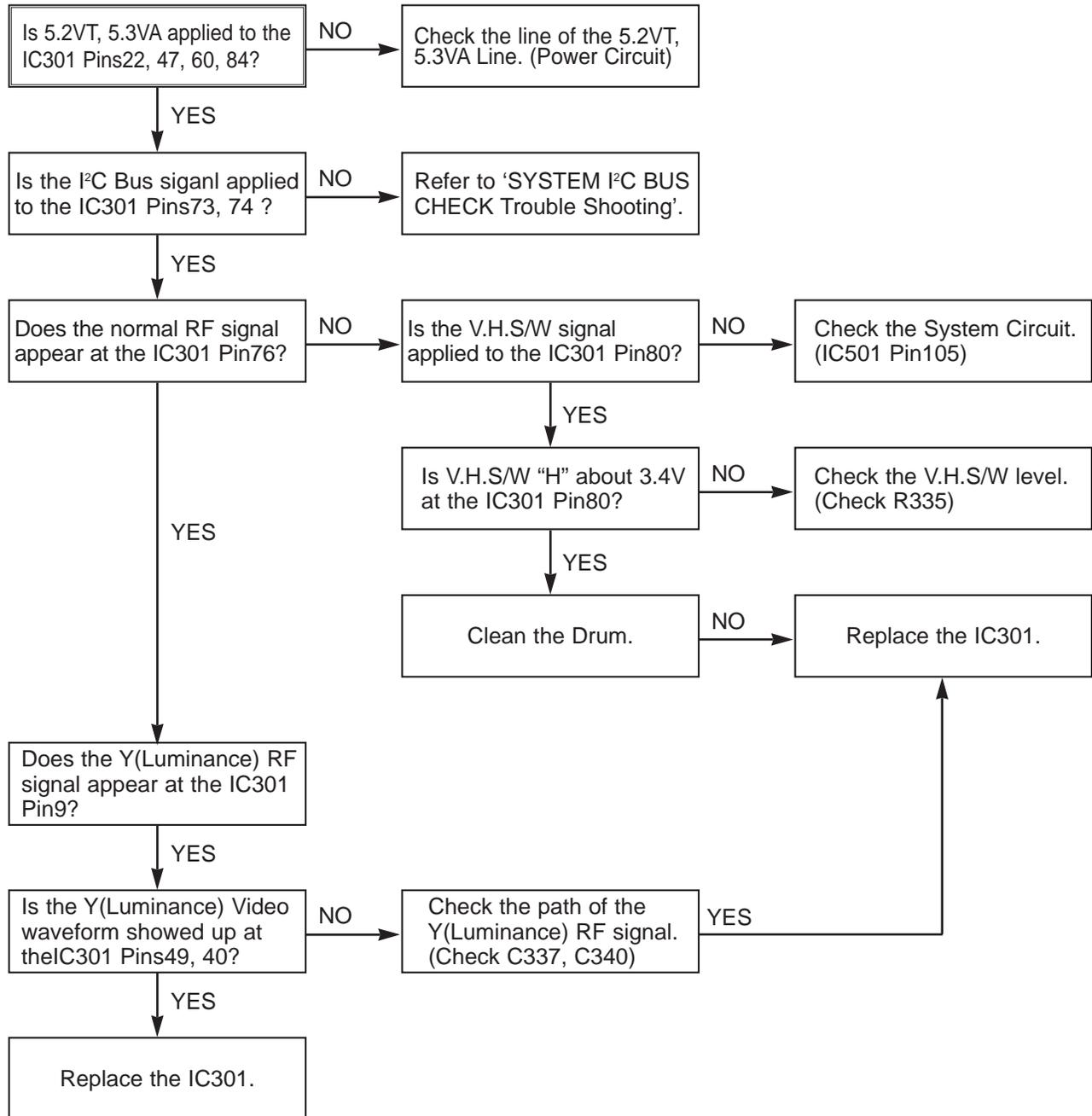


## 4. Y/C CIRCUIT

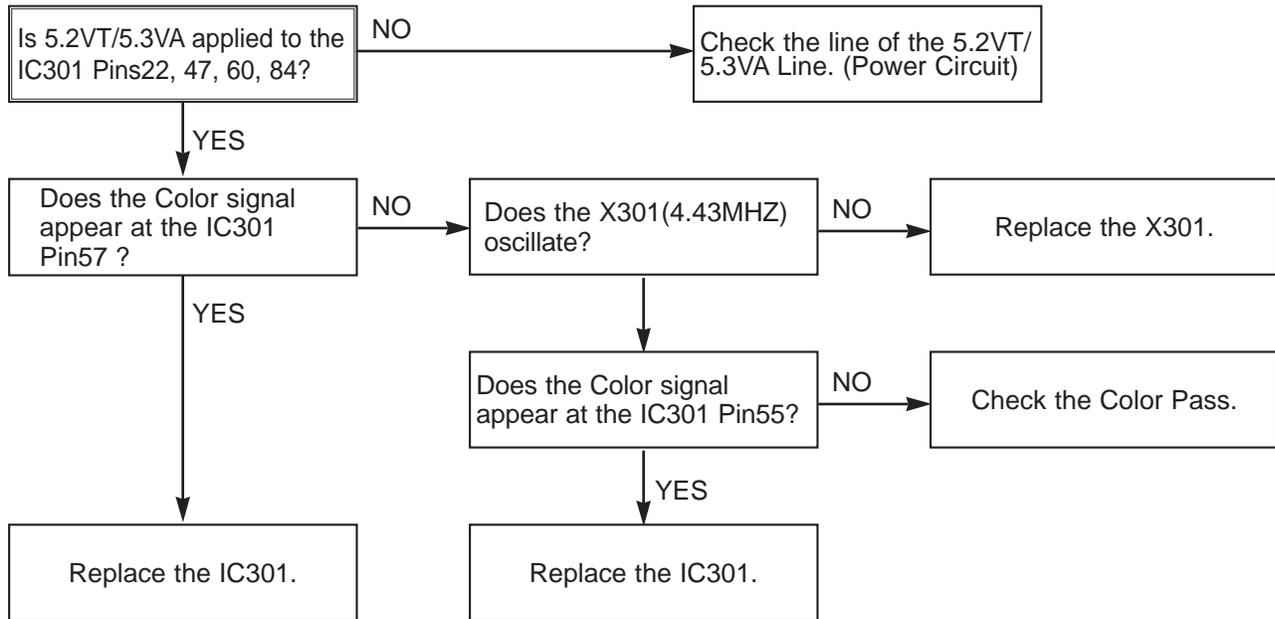
(1) No Video in EE Mode,



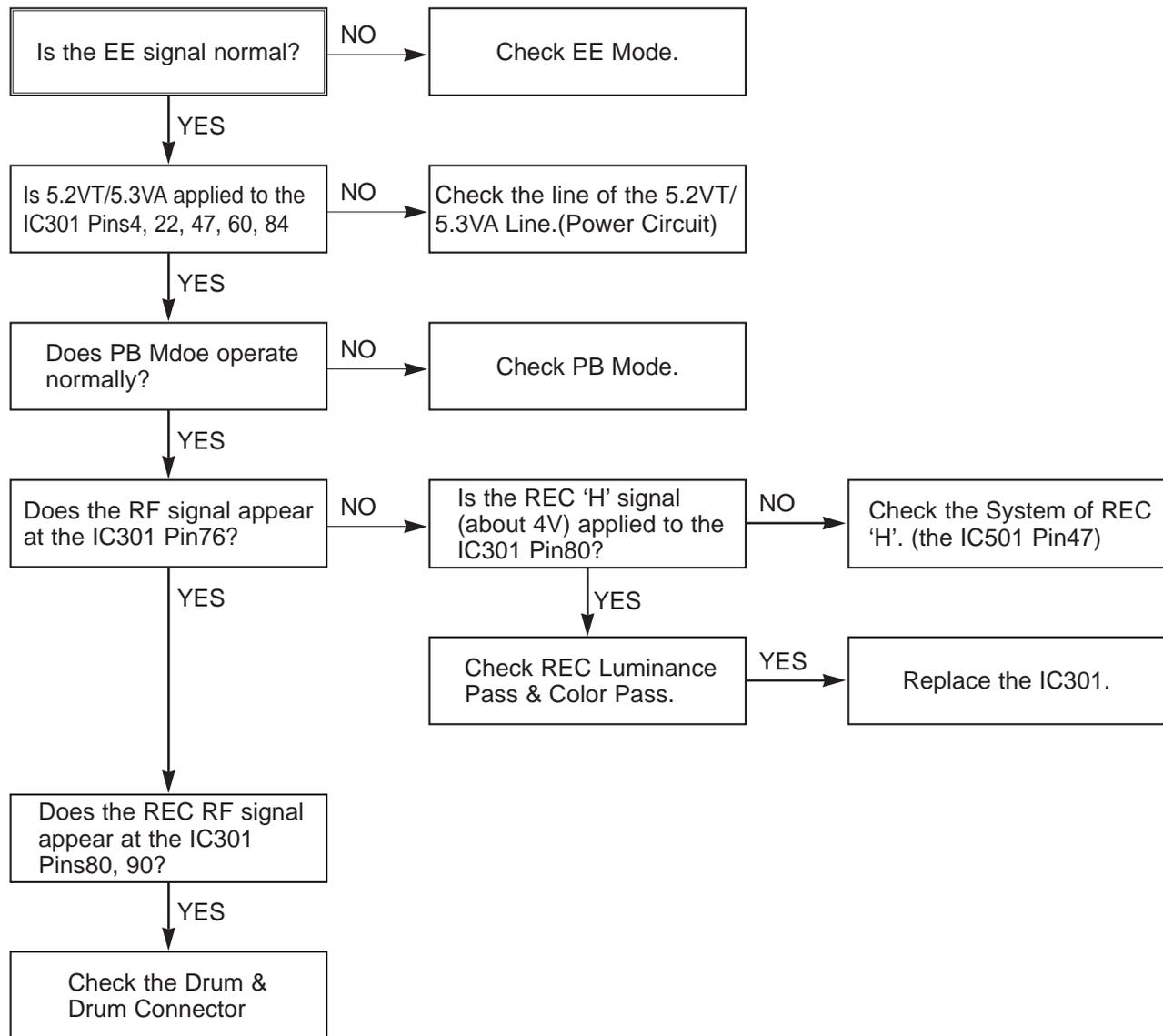
(2) When the Y(Luminance) signal doesn't appear on the screen in PB Mode,



(3) When the C(Color) signal doesn't appear on the screen in PB Mode,

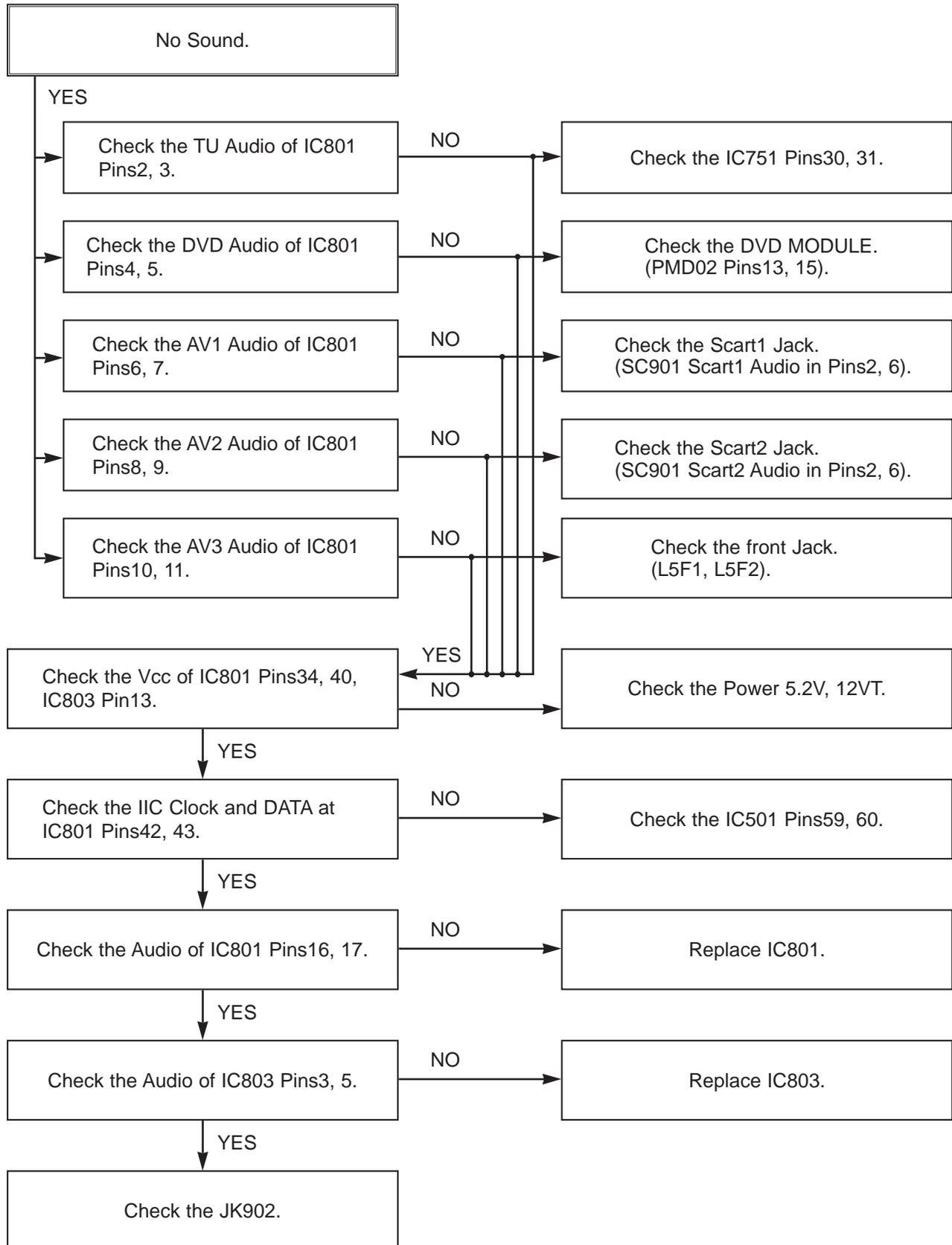


(4) When the Video signal doesn't appear on the screen in REC Mode,

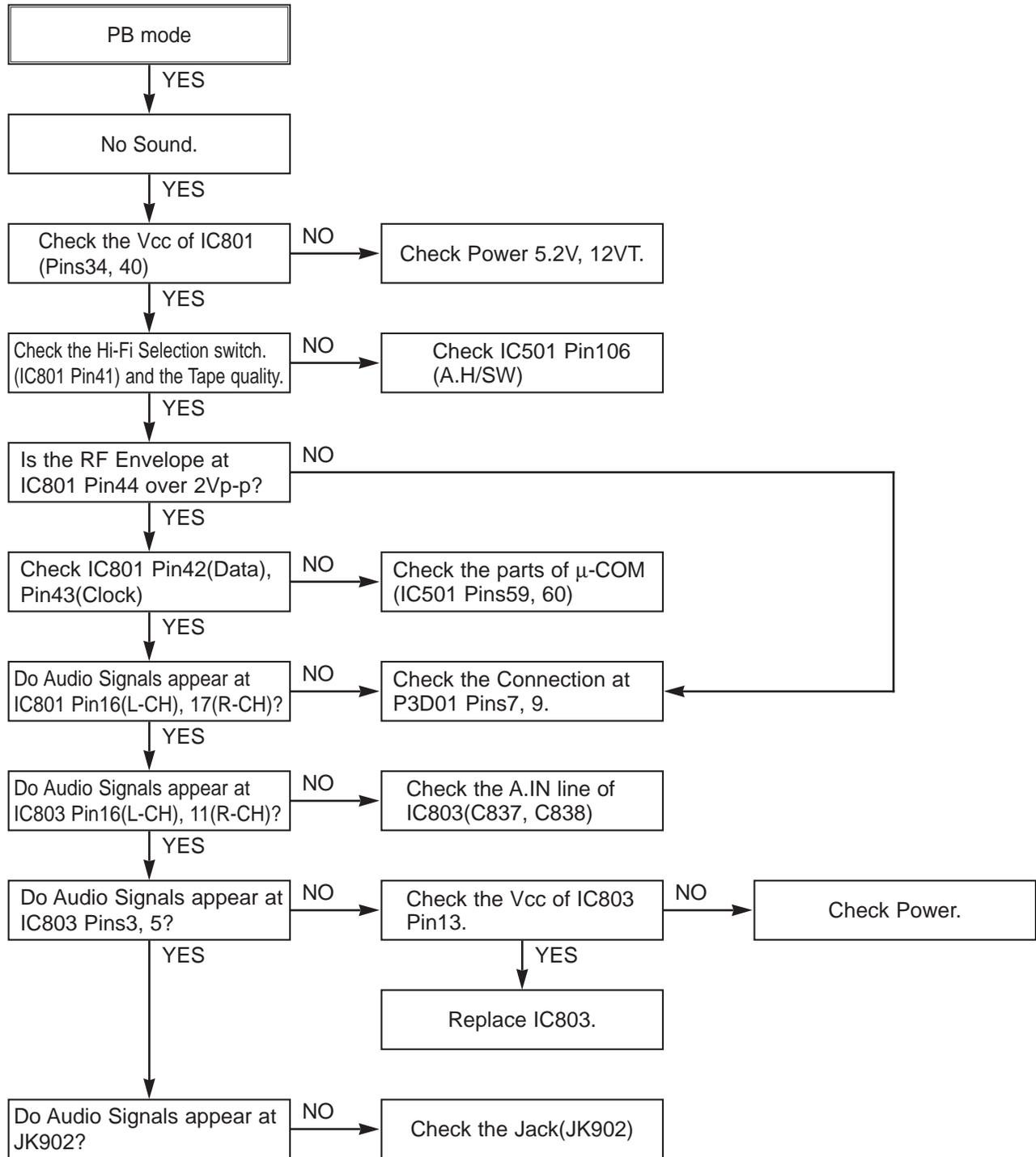


## 5. Hi-Fi CIRCUIT

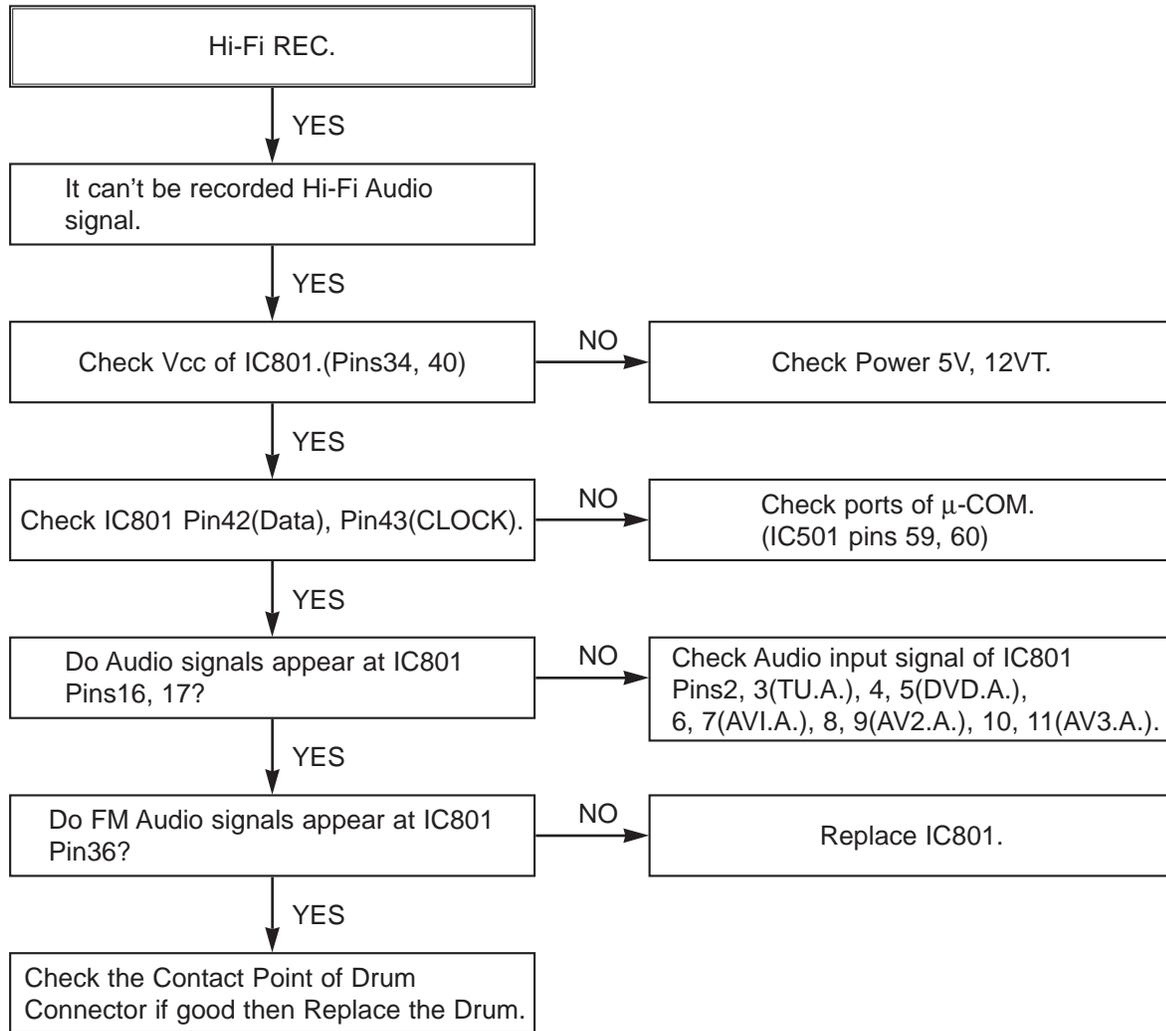
(A) No Sound(EE Mode)



(B) Hi-Fi Playback

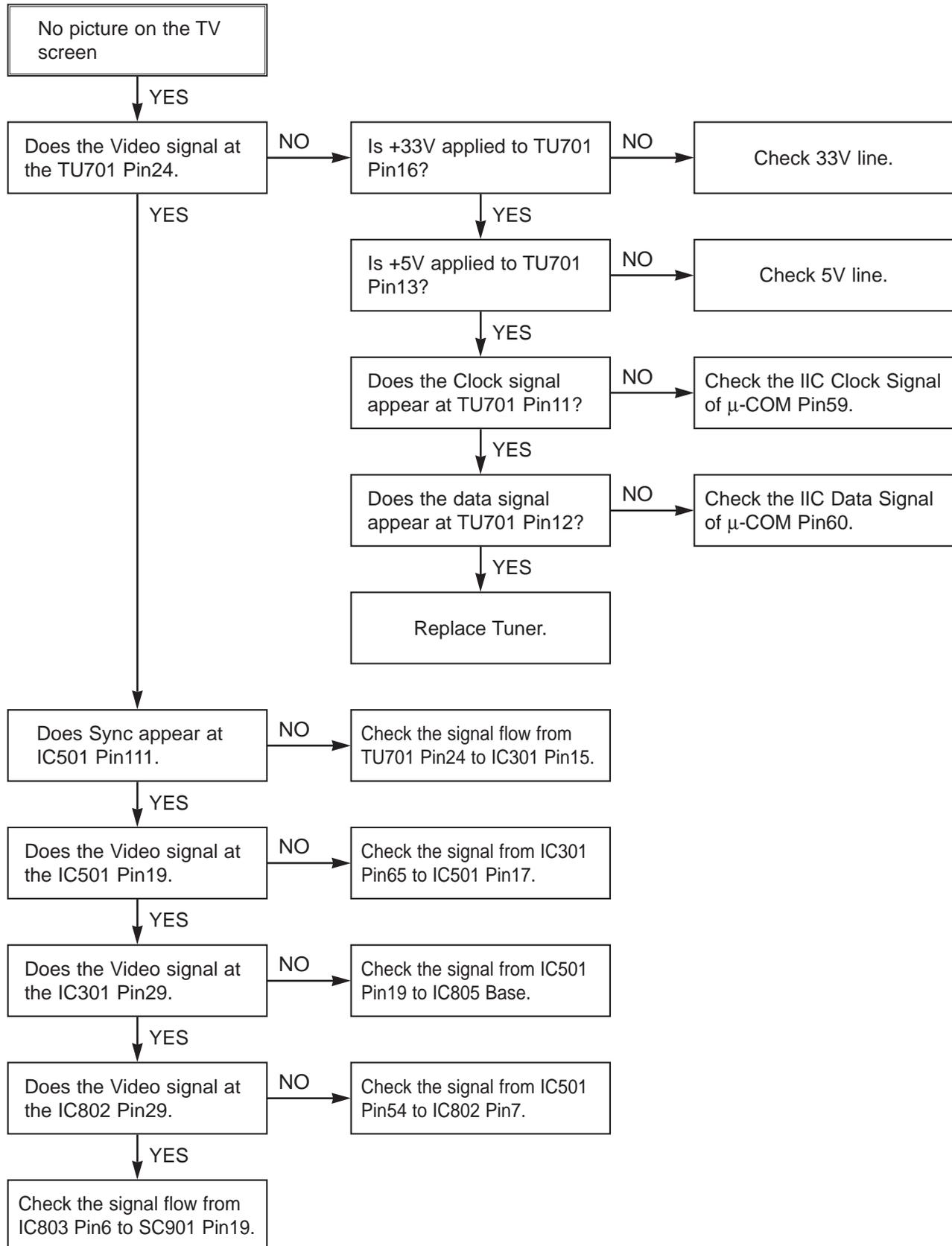


(C)

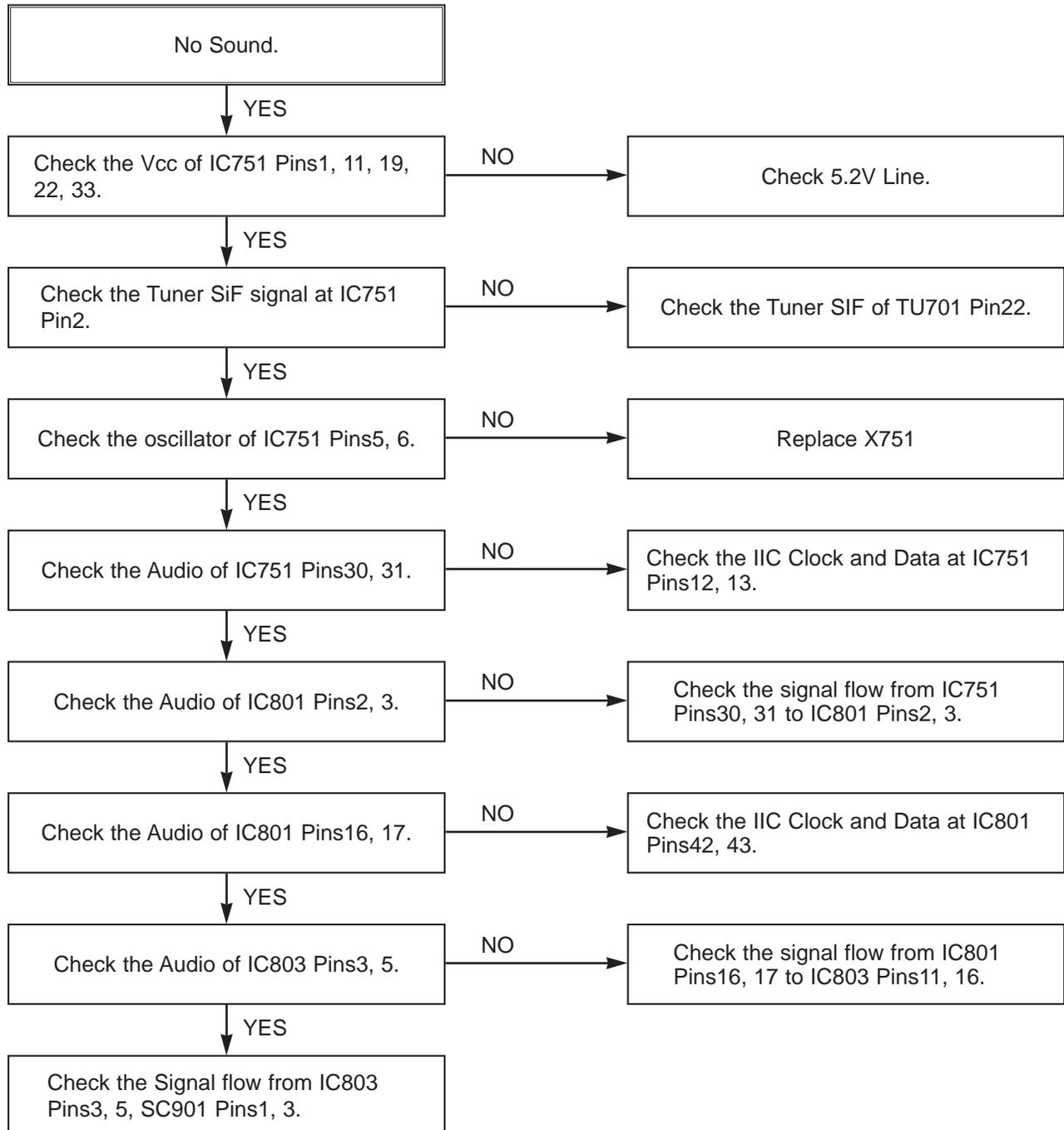


## 6. Tuner/IF CIRCUIT

(A) No Picture on the TV screen

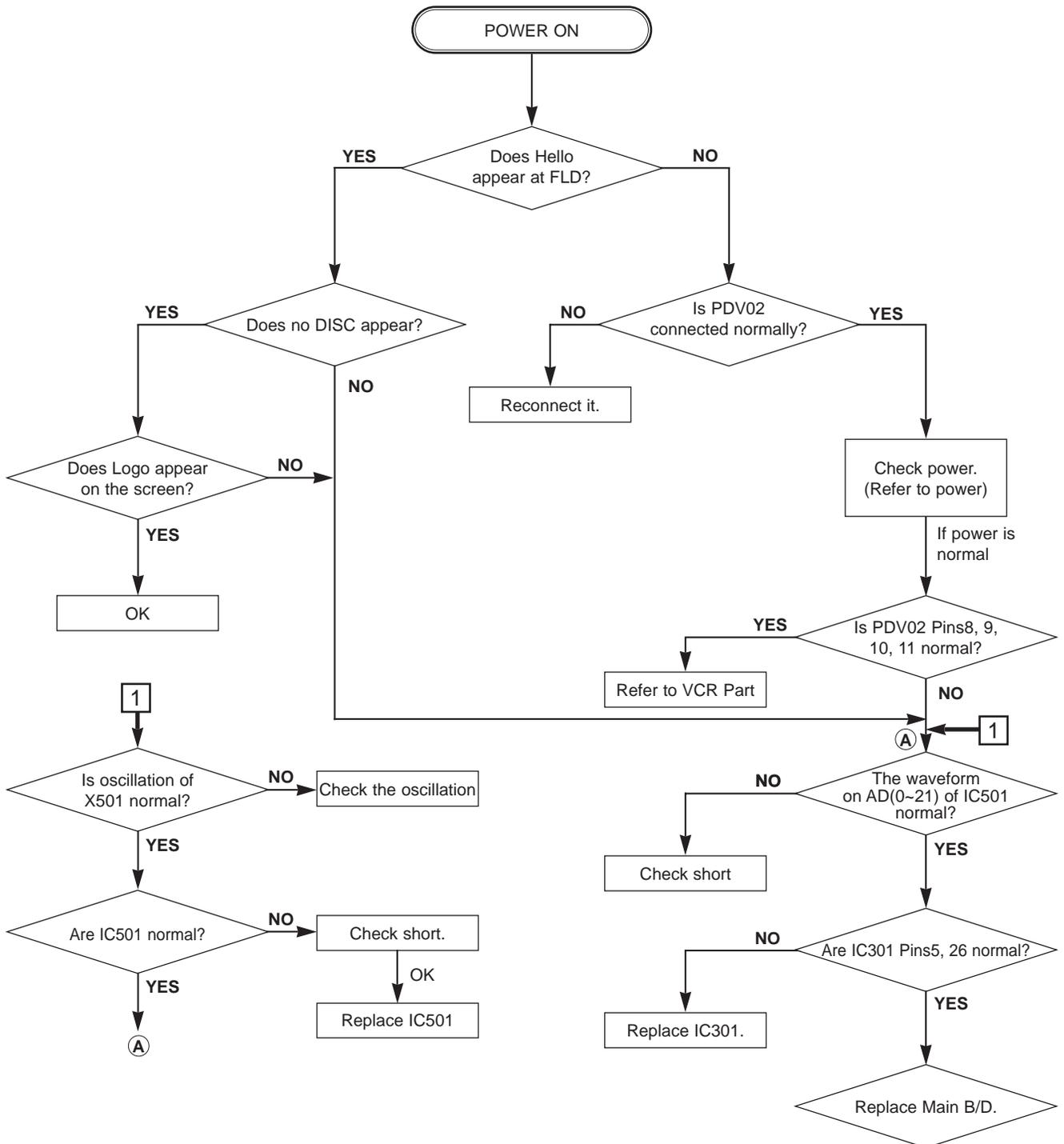


(B) No Sound

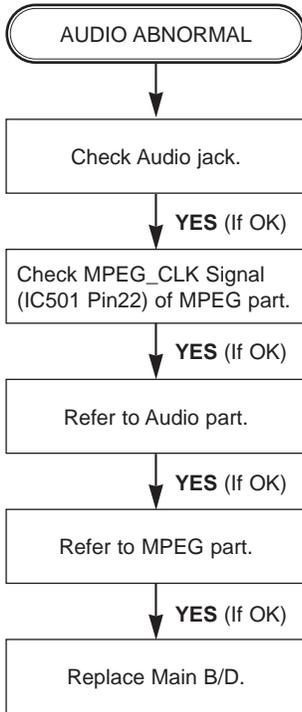


# DVD PART ELECTRICAL TROUBLESHOOTING GUIDE

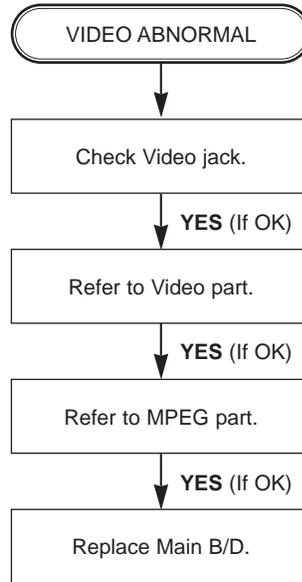
## 1. $\mu$ -COM Circuit A. No Power



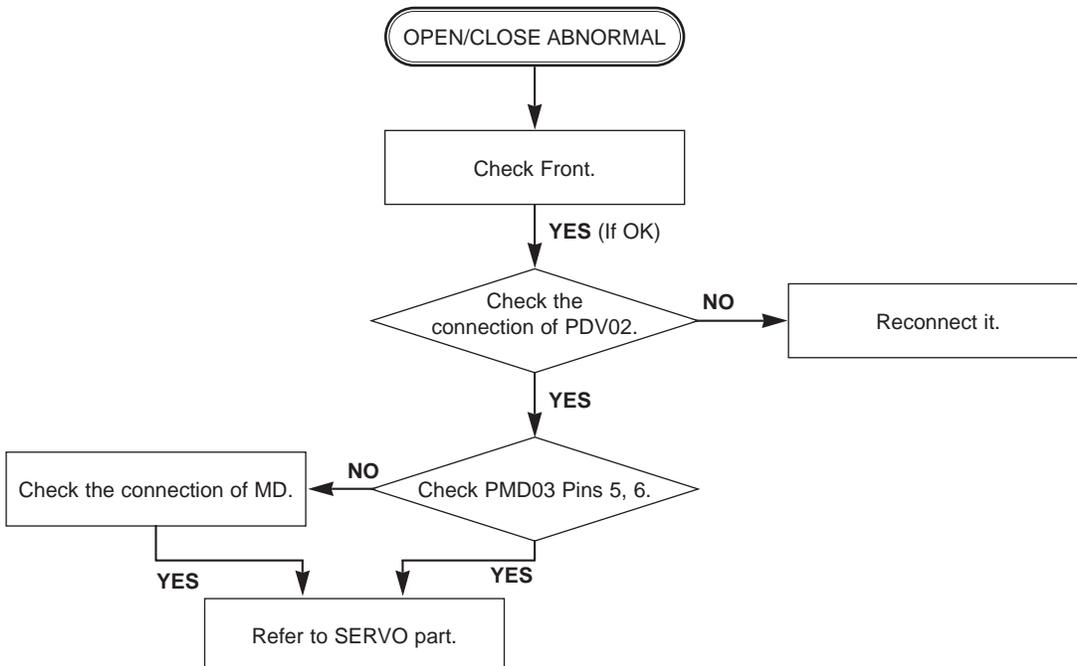
### B. Audio abnormal



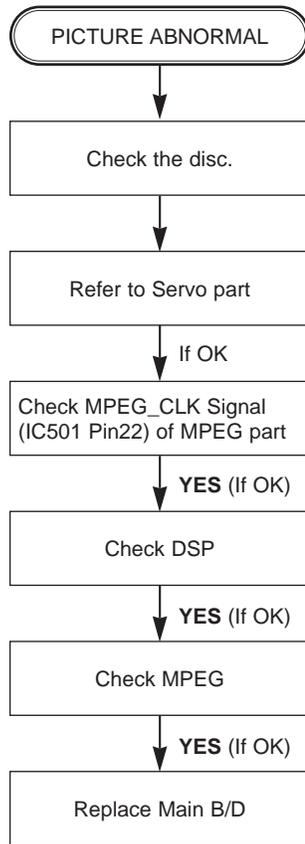
### C. Video abnormal



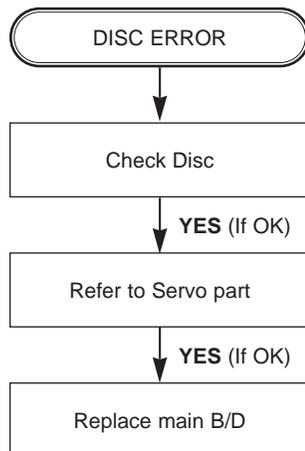
### D. Open/Close abnormal



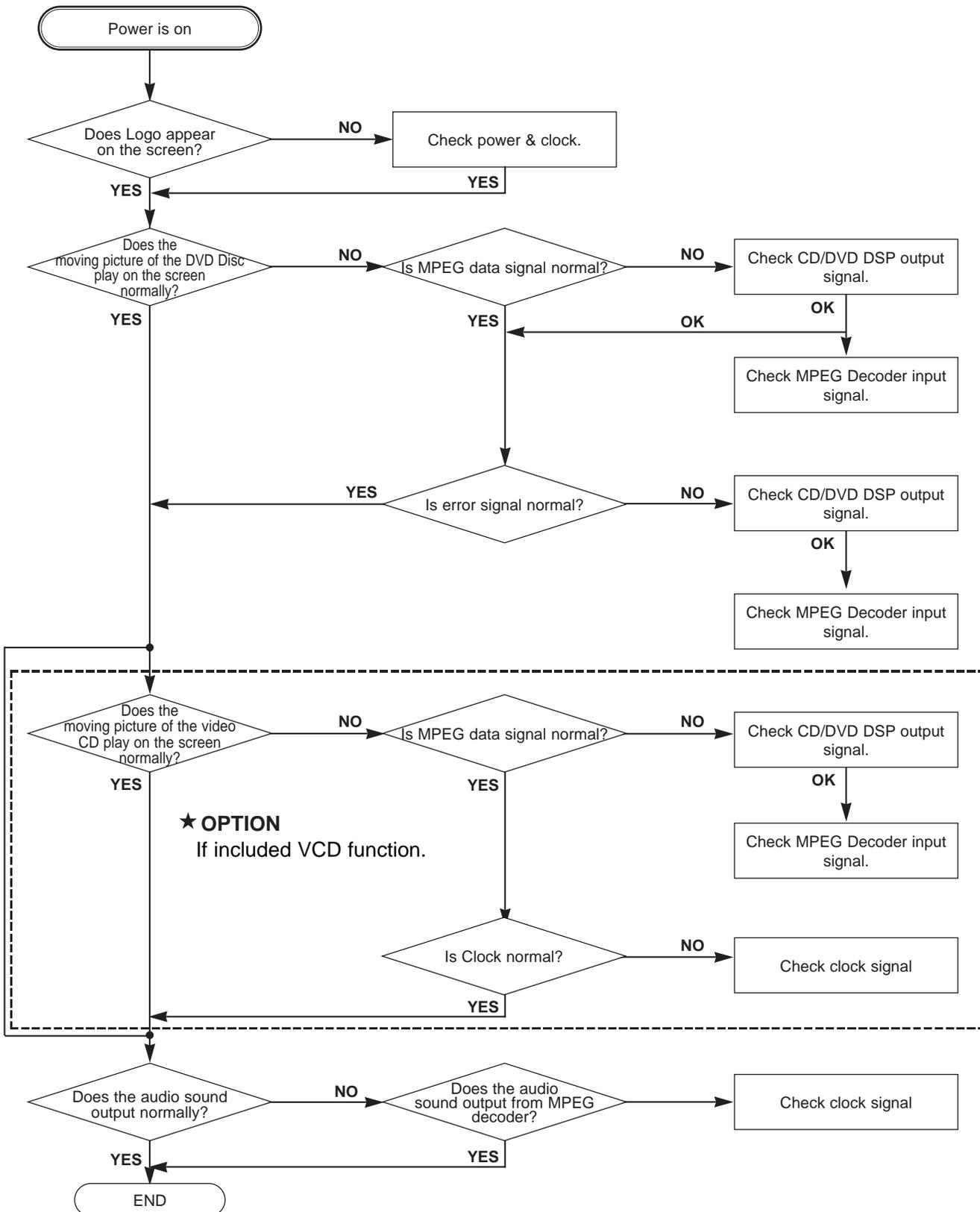
### E. Picture abnormal



### F. Disc Error

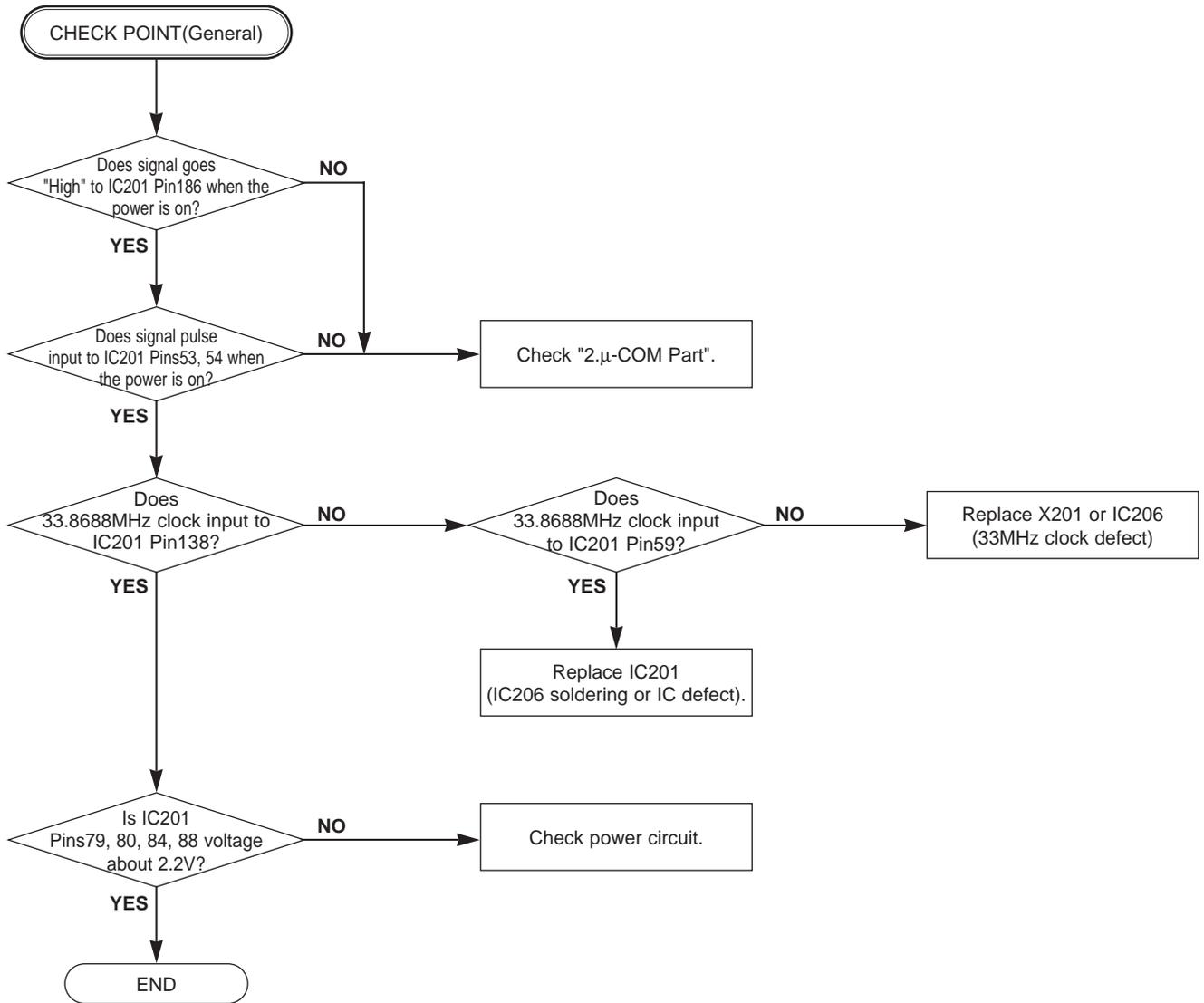


## 2. MPEG Circuit



### 3. RF/Servo Circuit

#### A.



**B.**

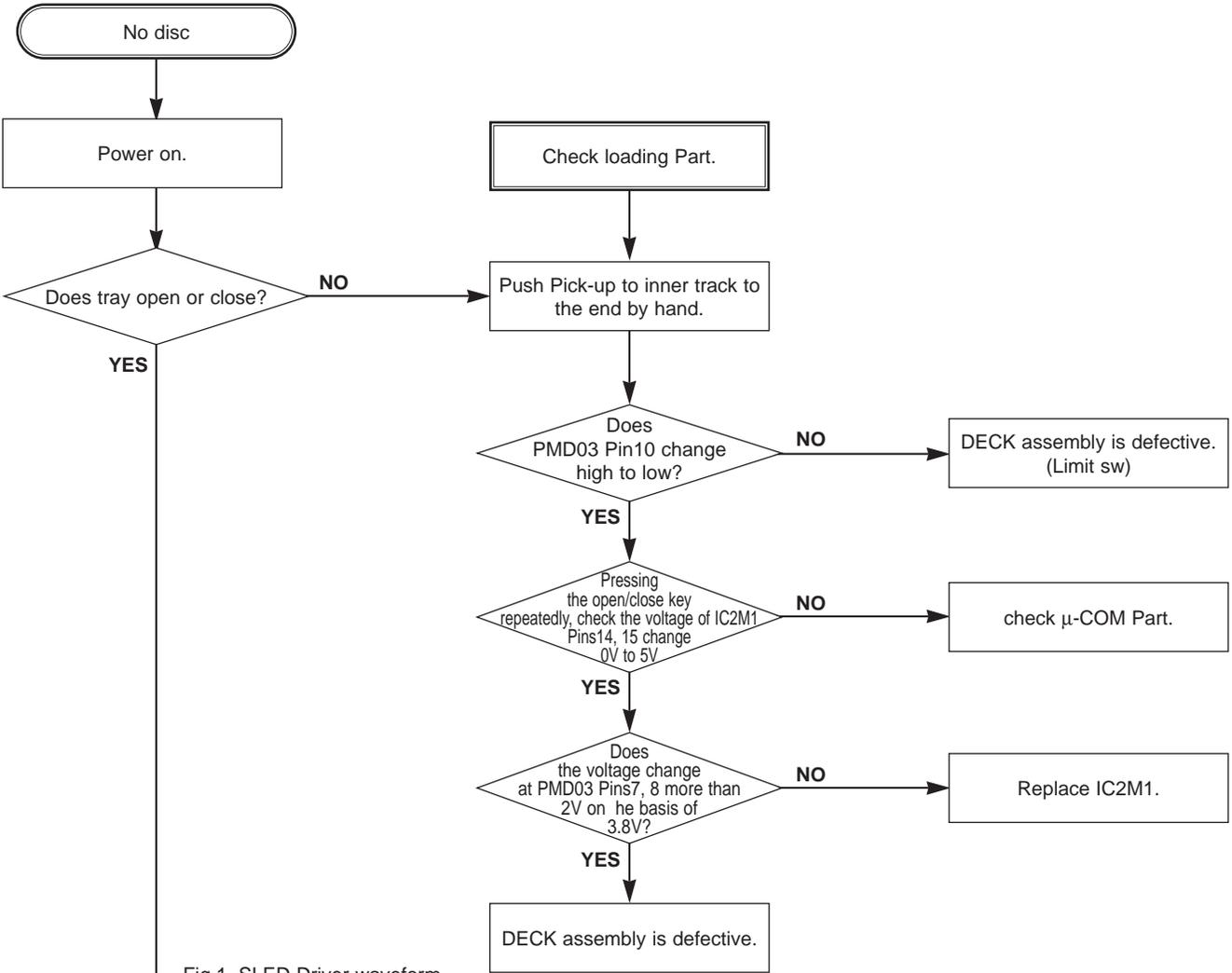


Fig.1. SLED Driver waveform

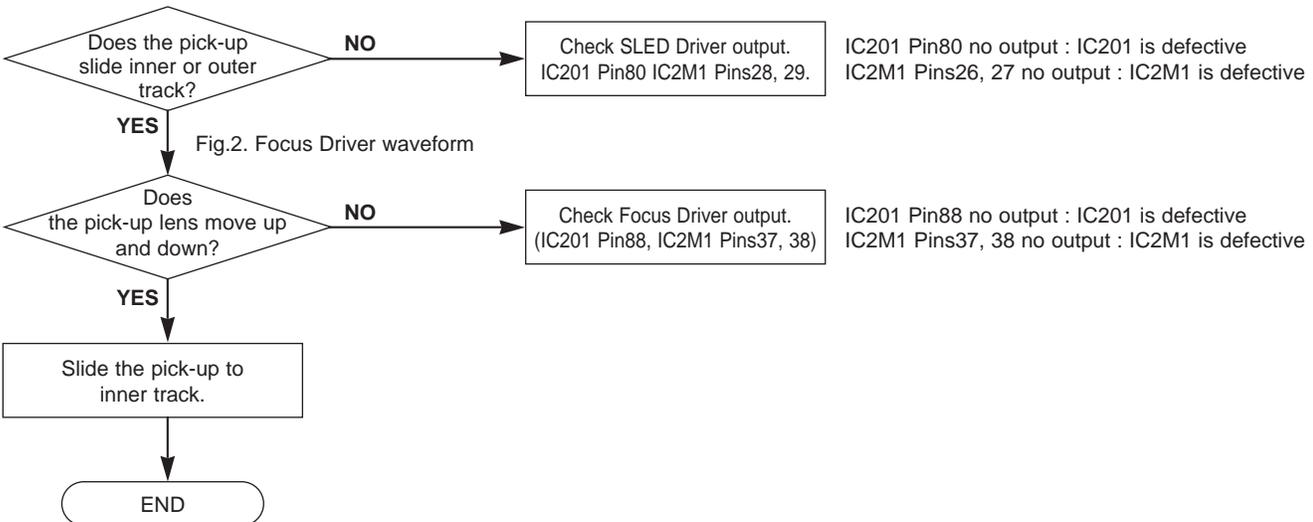
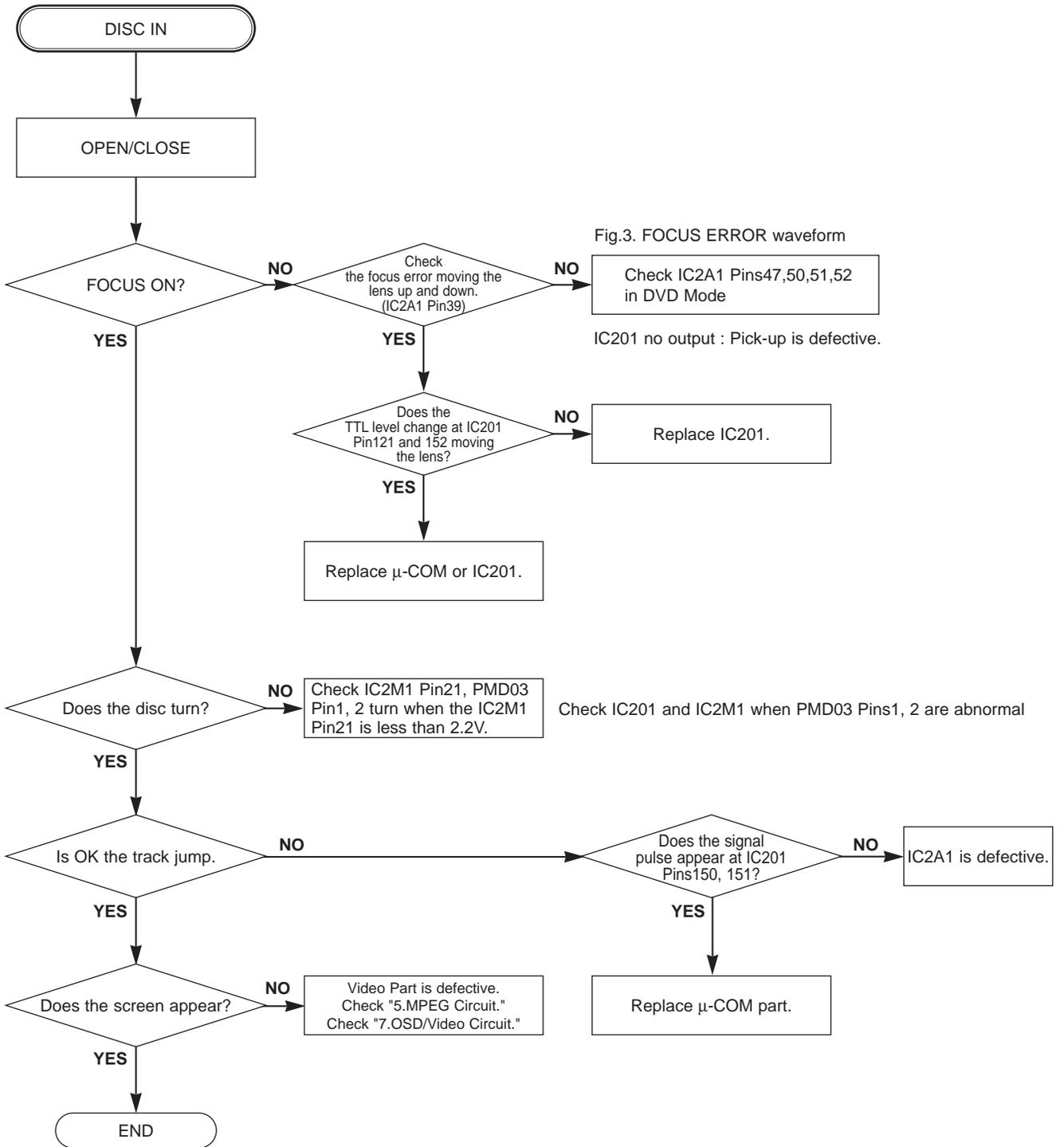
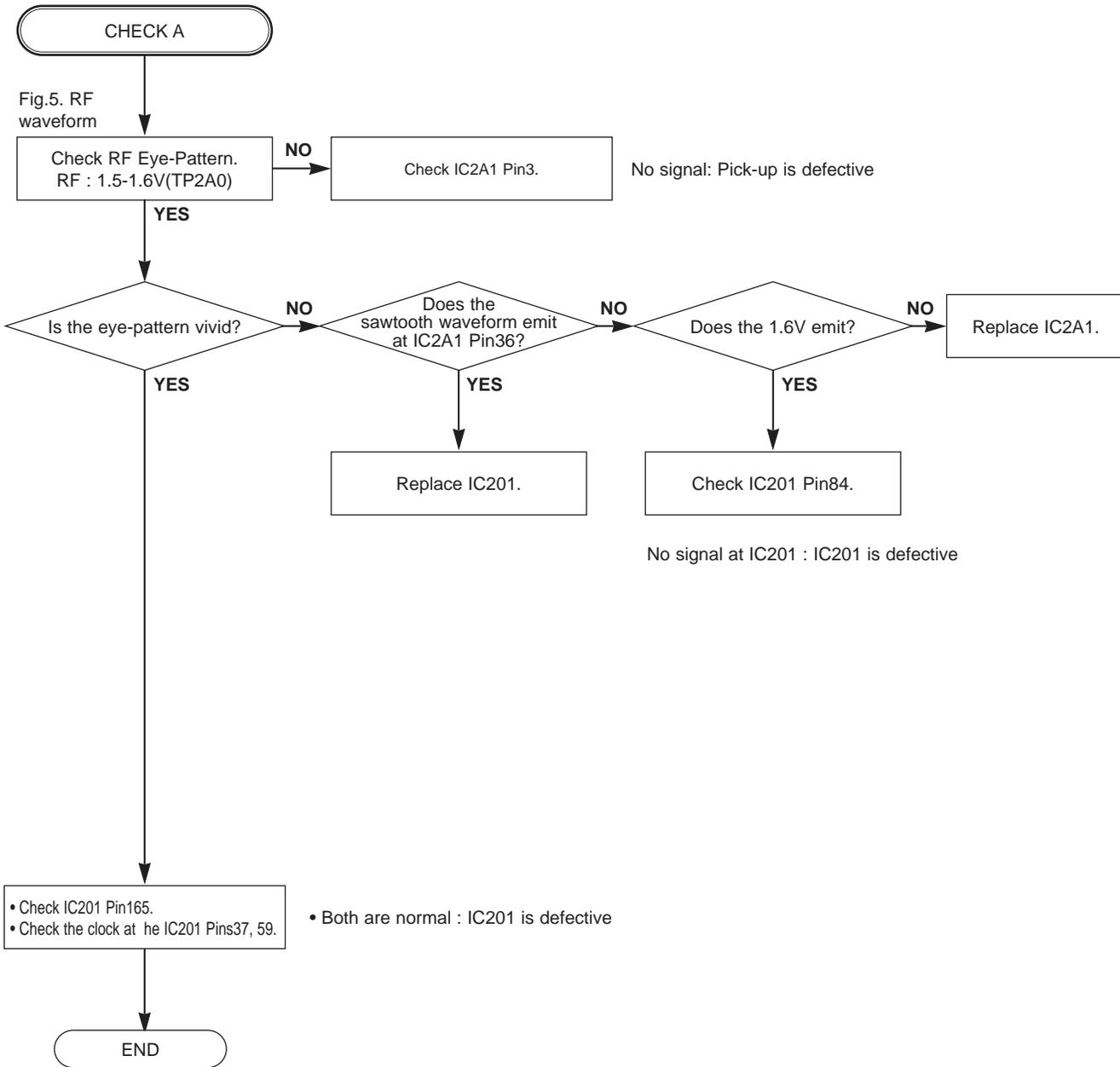


Fig.2. Focus Driver waveform

C.



D.



# SECTION 4 MECHANISM OF VCR PART CONTENTS

## DECK MECHANISM PARTS LOCATIONS

- Top View .....4-1
- Bottom View .....4-1

## DECK MECHANISM DISASSEMBLY

1. Drum Assembly .....4-2
2. Plate Top .....4-4
3. Holder Assembly CST .....4-4
4. Opener Door .....4-4
5. Bracket Assembly L/D Motor.....4-4
6. Gear Assembly Rack F/L .....4-4
7. Arm Assembly F/L.....4-4
8. Lever Assembly S/W .....4-4
9. Arm Assembly Cleaner.....4-5
10. Head F/E .....4-5
11. Base Assembly A/C Head .....4-5
12. Brake Assembly T .....4-6
13. Brake Assembly RS .....4-6
14. Arm Assembly Tension.....4-6
15. Reel S / Reel T.....4-6
16. Base Assembly P4 .....4-7
17. Opener Lid .....4-7
18. Arm Assembly Pinch .....4-7
19. Lever T/up / Arm T/up .....4-7
20. Belt Capstan/Motor Capstan .....4-8
21. Lever F/R .....4-8
22. Clutch Assembly D35.....4-8
23. Brake Assembly Capstan .....4-8
24. Gear Drive/Gear Cam .....4-9
25. Gear Sector .....4-9
26. Plate Slider .....4-9
27. Lever Tension .....4-9
28. Lever Spring .....4-9
29. Gear Assembly P2/  
Gear Assembly P3 .....4-10
30. Base Assembly P2/  
Base Assembly P3 .....4-10
31. Base Loading .....4-11
32. Base Tension .....4-11
33. Arm Assembly Idler .....4-11

## DECK MECHANISM ADJUSTMENT

- Tools and Fixtures for Service .....4-12
- 1. Mechanism Alignment Position Check ....4-13
- 2. Preparation for Adjustment.....4-14
- 3. Checking Torque .....4-14
- 4. Guide Roller Height Adjustment.....4-15
  - 4-1. Preliminary Adjustment .....4-15
  - 4-2. Precise Adjustment .....4-15
- 5. Audio/Control (A/C) Head Adjustment ....4-16
  - 5-1. Preliminary Adjustment .....4-16
  - 5-2. Confirmation of Tape Path between  
Pinch Roller and Take-up Guide .....4-17
  - 5-3. Precise Adjustment(Azimuth Adjustment)  
.....4-17
- 6. X-Value Adjustment .....4-17
- 7. Adjustment after Replacing Drum Assembly  
(Video Heads) .....4-18
- 8. Check the Tape Travel after Reassembling  
Deck Mechanism.....4-18
  - 8-1. Checking Audio and RF Locking Time  
during Playback after CUE or REV  
.....4-18
  - 8-2. Checking for Tape Curling or  
Jamming .....4-18

## MAINTENANCE/INSPECTION PROCEDURE

1. Check before starting Repairs .....4-19
2. Required Maintenance .....4-20
3. Scheduled Maintenance.....4-20
4. Supplies Required for Inspection and  
Maintenance.....4-20
5. Maintenance Procedure .....4-20
  - 5-1. Cleaning.....4-20
  - 5-2. Greasing .....4-21

## MECHANISM TROUBLESHOOTING GUIDE

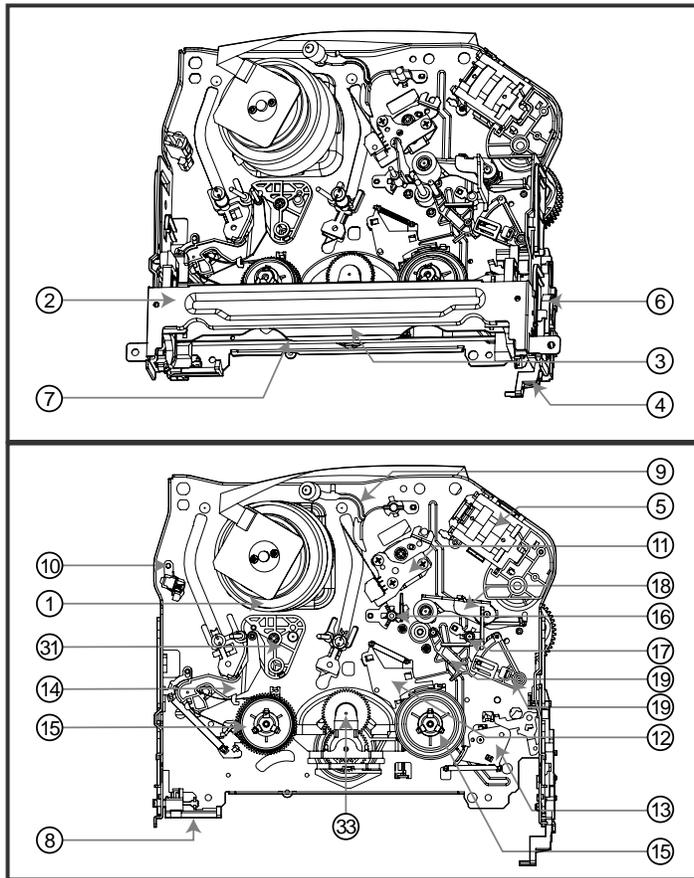
1. Deck Mechanism.....4-23
2. Front Loading Mechanism.....4-26

## EXPLODED VIEWS

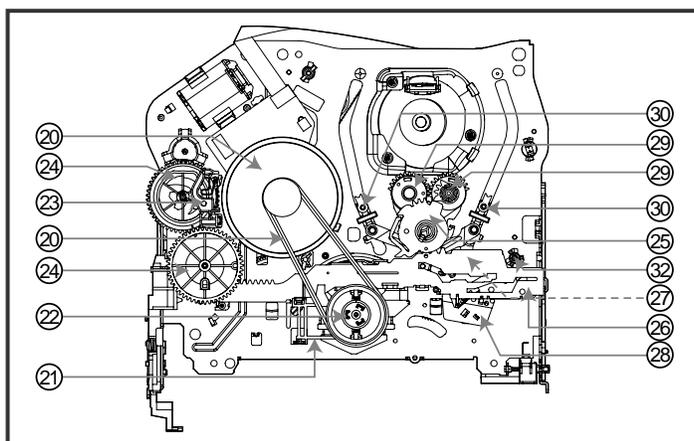
1. Front Loading Mechanism Section .....4-28
  2. Moving Mechanism Section (1).....4-29
  3. Moving Mechanism Section (2).....4-30
-

# DECK MECHANISM PARTS LOCATIONS

## • Top View



## • Bottom View



**NOTE : When reassembly perform the procedure in the reverse order.**

- 1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Refer to Page 4-13)
- 2) When disassembling, the Parts for Starting No. Should be removed first.

| Starting No.             | Part                                 | Fixing Type          | Figure | View |
|--------------------------|--------------------------------------|----------------------|--------|------|
| 1                        | Drum Assembly                        | 3 Screw              | A-1    | T    |
| 2                        | Plate Top                            | 2 Hook               | A-2    | T    |
| 2                        | 3 Holder Assembly CST                | Chassis Hole         | A-2    | T    |
| 2                        | 4 Opener Door                        | Chassis Hole         | A-2    | T    |
| 5                        | Bracket Assembly L/D Motor           | 3 Hook               | A-2    | T    |
| 2,3,4                    | 6 Gear Assembly Rack F/L             | 1 Hook, Chassis Hole | A-2    | T    |
| 2,3,4,6                  | 7 Arm Assembly F/L                   | Chassis Hole         | A-2    | T    |
| 8                        | Lever Assembly S/W                   | 1 Hook               | A-2    | T    |
| 9                        | Arm Assembly Cleaner                 | Chassis Embossing    | A-3    | T    |
| 10                       | Head F/E                             | Chassis Embossing    | A-3    | T    |
| 11                       | Base Assembly A/C Head               | 1 Screw              | A-3    | T    |
| 2,3                      | 12 Brake Assembly T                  | 1 Hook               | A-4    | T    |
| 2,3                      | 13 Brake Assembly RS                 | 1 Hook               | A-4    | T    |
| 2,3                      | 14 Arm Assembly Tension              | 2 Hook               | A-4    | T    |
| 2,3,12,13,14             | 15 Reel S/Reel T                     |                      | A-4    | T    |
| 16                       | Base Assembly P4                     | Chassis Embossing    | A-5    | T    |
| 17                       | Opener Lid                           | Chassis Embossing    | A-5    | T    |
| 17                       | 18 Arm Assembly Pinch                | Shaft                | A-5    | T    |
| 17                       | 19 Lever T/Up / Arm T/Up             | 1 Hook               | A-5    | T    |
| 17,18                    | 20 Belt Capstan/Motor Capstan        | 3 Screw              | A-6    | B    |
| 21                       | Lever F/R                            | Locking Tab          | A-6    | B    |
| 20, 21                   | 22 Clutch Assembly D35               | Washer               | A-6    | B    |
| 23                       | Brake Assembly Capstan               | Locking Tab          | A-6    | B    |
| 24                       | Gear Drive/Gear Cam                  | Washer/Hook          | A-7    | B    |
| 25                       | Gear Sector                          | 1 Hook               | A-7    | B    |
| 20,21,23,24,25           | 26 Plate Slider                      | Shaft Guide          | A-7    | B    |
| 20,21,23,24,25,26        | 27 Lever Tension                     | 1 Hook               | A-7    | B    |
| 2,3,14,20,21,25,23,24,26 | 28 Lever Spring                      | Locking Tab          | A7     | B    |
| 25                       | 29 Gear Assembly P2/Gear Assembly P3 | Boss                 | A-8    | B    |
| 2,3,14,25,29             | 30 Base Assembly P2/Base Assembly P3 | Chassis Slot         | A-8    | B    |
| 2,3,14,25,29             | 31 Base Loading                      | 1 Screw              | A-9    | T    |
| 2,3,14                   | 32 Base Tension                      | Chassis Embossing    | A-9    | B    |
| 2,3,20,21,22             | 33 Arm Assembly Idler                | Locking Tab          | A-9    | T    |

T:Top, B:Bottom

# DECK MECHANISM DISASSEMBLY

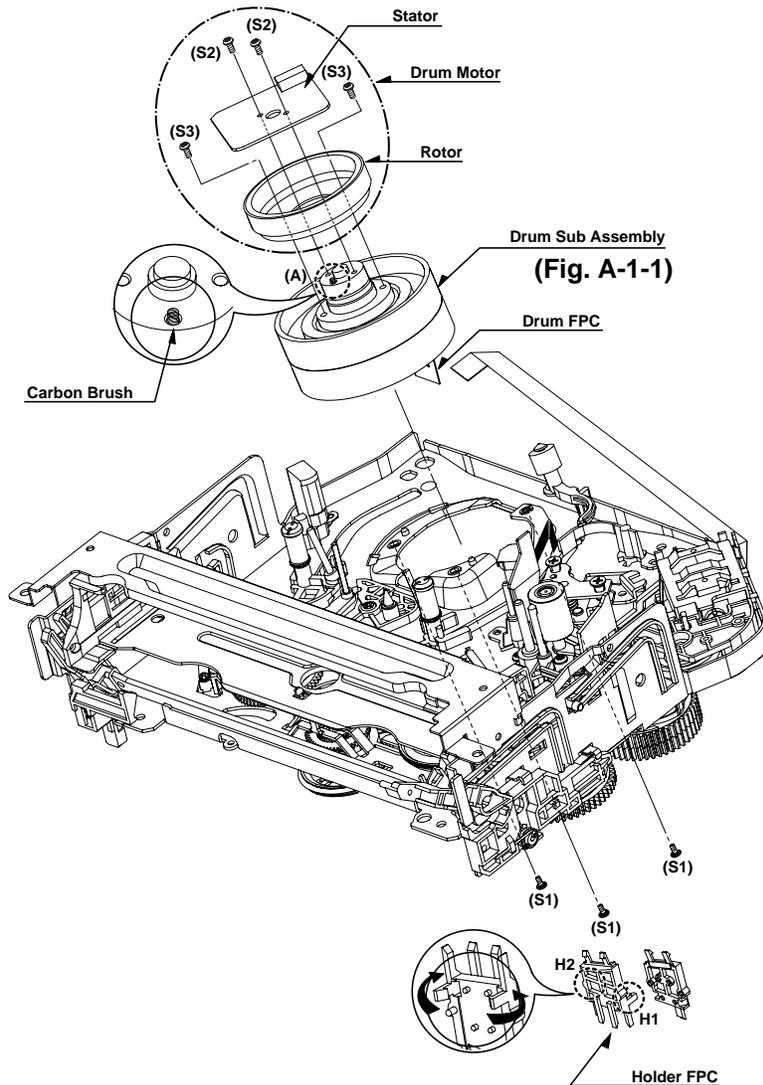


Fig. A-1

## 1. Drum Assembly (Fig. A-1-1)

- 1) Unplug the Drum FPC Connector.
- 2) Remove three Screws(S1) on bottom side and separate the Drum assembly.
- 3) Unhook (H1), (H2) and separate the Holder FPC and Cap FPC.

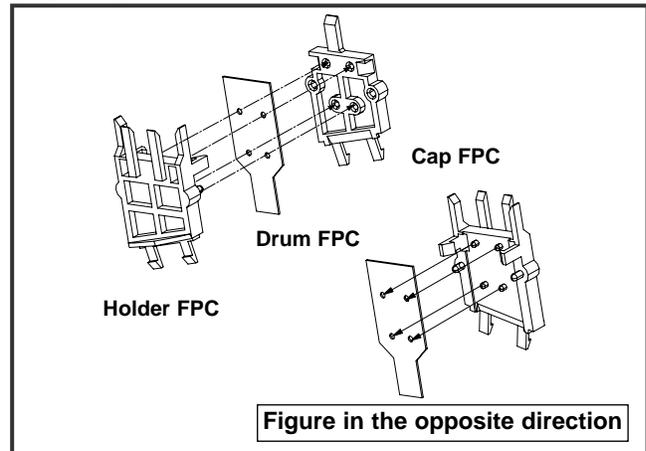
### 1-1. Drum Motor

- 1) Remove two Screws(S2) and disassemble the Stator of the Drum Motor.
- 2) Remove two Screws(S3) and separate the Rotor of the Drum Motor from the Drum Sub assembly.

## NOTE

When reassembling, confirm (A) portion of the Drum Sub assembly whether the Carbon Brush is in there or not.

(Fig. B-1)



# DECK MECHANISM DISASSEMBLY

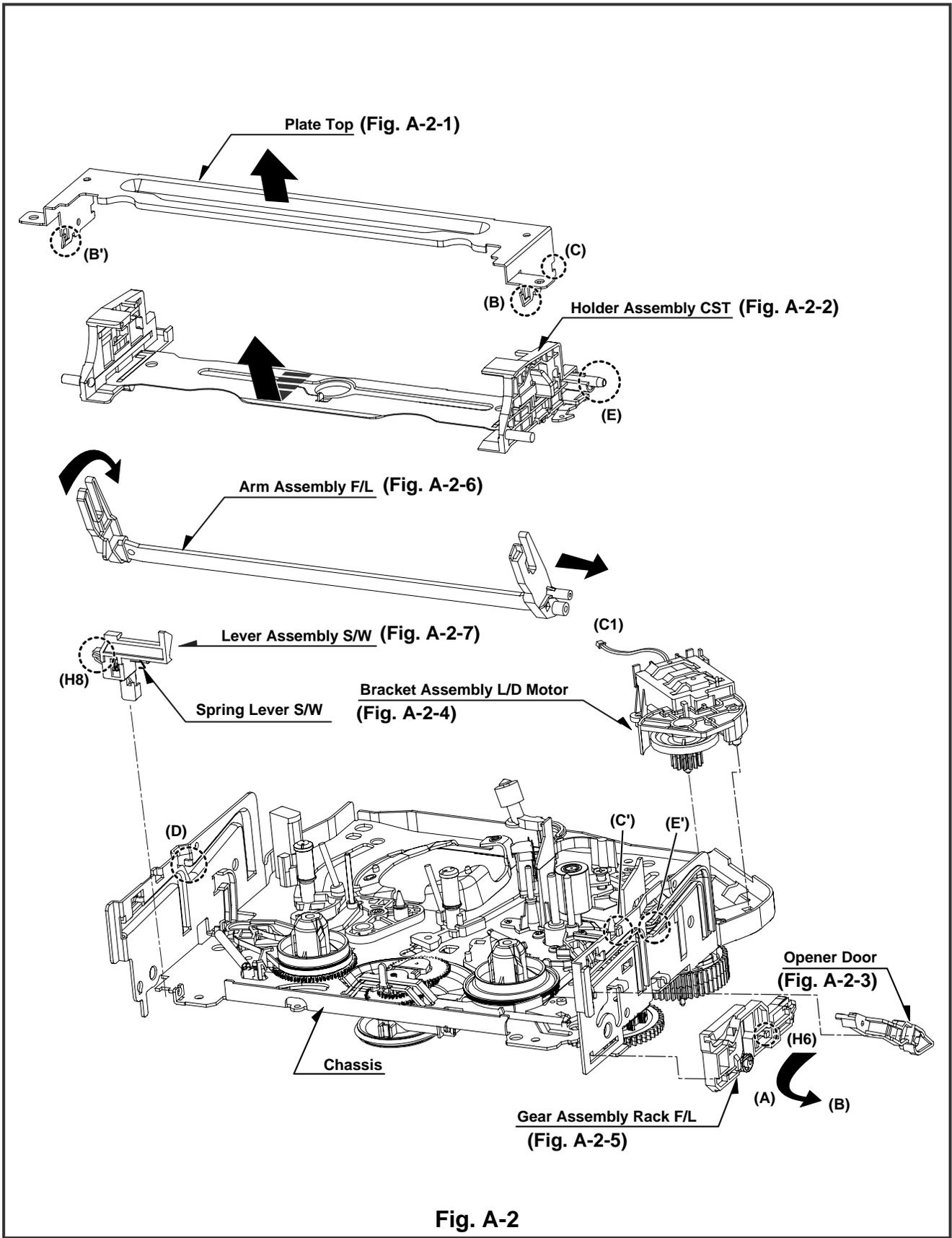


Fig. A-2

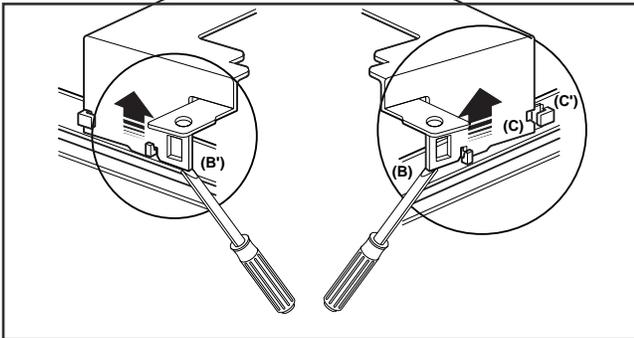
# DECK MECHANISM DISASSEMBLY

## 2. Plate Top (Fig. A-2-1)

- 1) Pull the (B) portion of the Plate Top back in direction of arrow and separate the right side of it.
- 2) pull the (B') portion of the Plate Top back in direction of arrow and separate the left side of it.  
(Used tools : (-) type driver, anything tool with sharp point or flat point.)

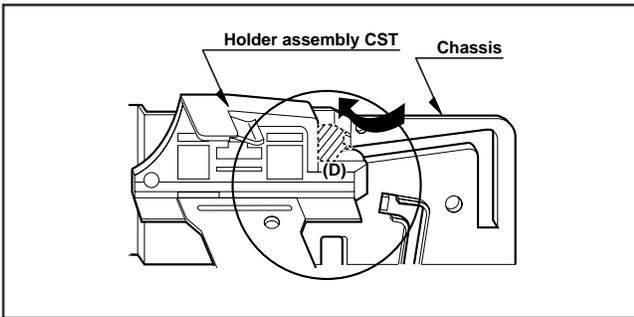
### NOTE

- (1) When reassembling, push the Plate Top after alignment the two position(C), (C') as below Fig.



## 3. Holder Assembly CST (Fig.A-2-2)

- 1) Move the Holder Assembly CST in direction of arrow and separate the left side of it first through the (D) position of the Chassis.



- 2) Disassemble the right side of the Holder Assembly CST from each guided hole of the Chassis.

### NOTE

When reassembling, insert the (E) part of the Holder Assembly CST in the (E') hole of the Chassis first and assemble the left side of it.

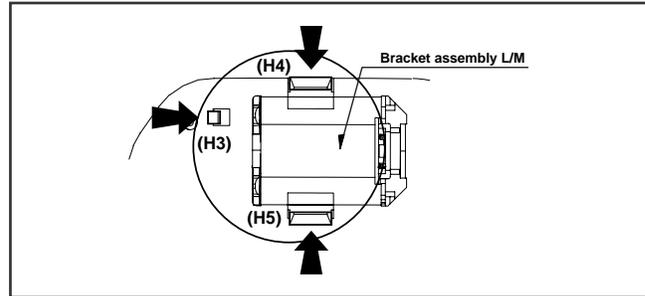
## 4. Opener Door (Figure. A-2-3)

- 1) Turn the Opener Door clockwise and remove it through the guide hole of the Chassis.

## 5. Bracket Assembly L/D Motor (Fig. A-2-4)

- 1) Unplug the Connector(C1).

- 2) Unhook three Hooks(H3, H4, H5) on bottom side of the Chassis, lift up the Bracket Assembly L/M and disassemble the Bracket Assembly L/D Motor.

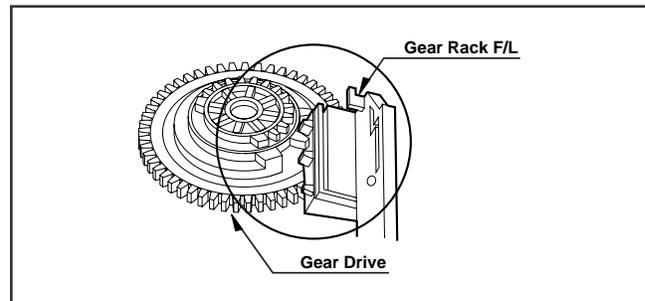


## 6. Gear Assembly Rack F/L (Fig. A-2-5)

- 1) Move the Gear Assembly Rack F/L in direction of arrow(A) and unhook the Hook(H6) pulling back in front.
- 2) Separate the Gear Rack F/L in direction of arrow(B).

### NOTE

When reassembling, align the gear part of the Gear Assembly Rack F/L with the Gear Drive as below Fig.

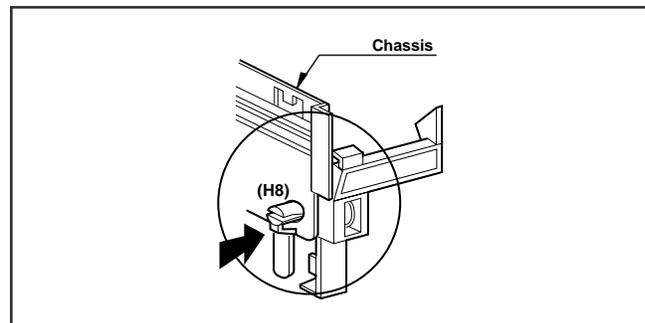


## 7. Arm Assembly F/L (Fig. A-2-6)

- 1) Move the Arm Assembly F/L in direction of arrow and separate the left side of it first.
- 2) Disassemble the Arm Assembly F/L from each guided hole of the Chassis.

## 8. Lever Assembly S/W(Fig. A-2-7)

- 1) Unhook the Hook(H8) in the left side of the Chassis and remove the Lever Assembly S/W.



# DECK MECHANISM DISASSEMBLY

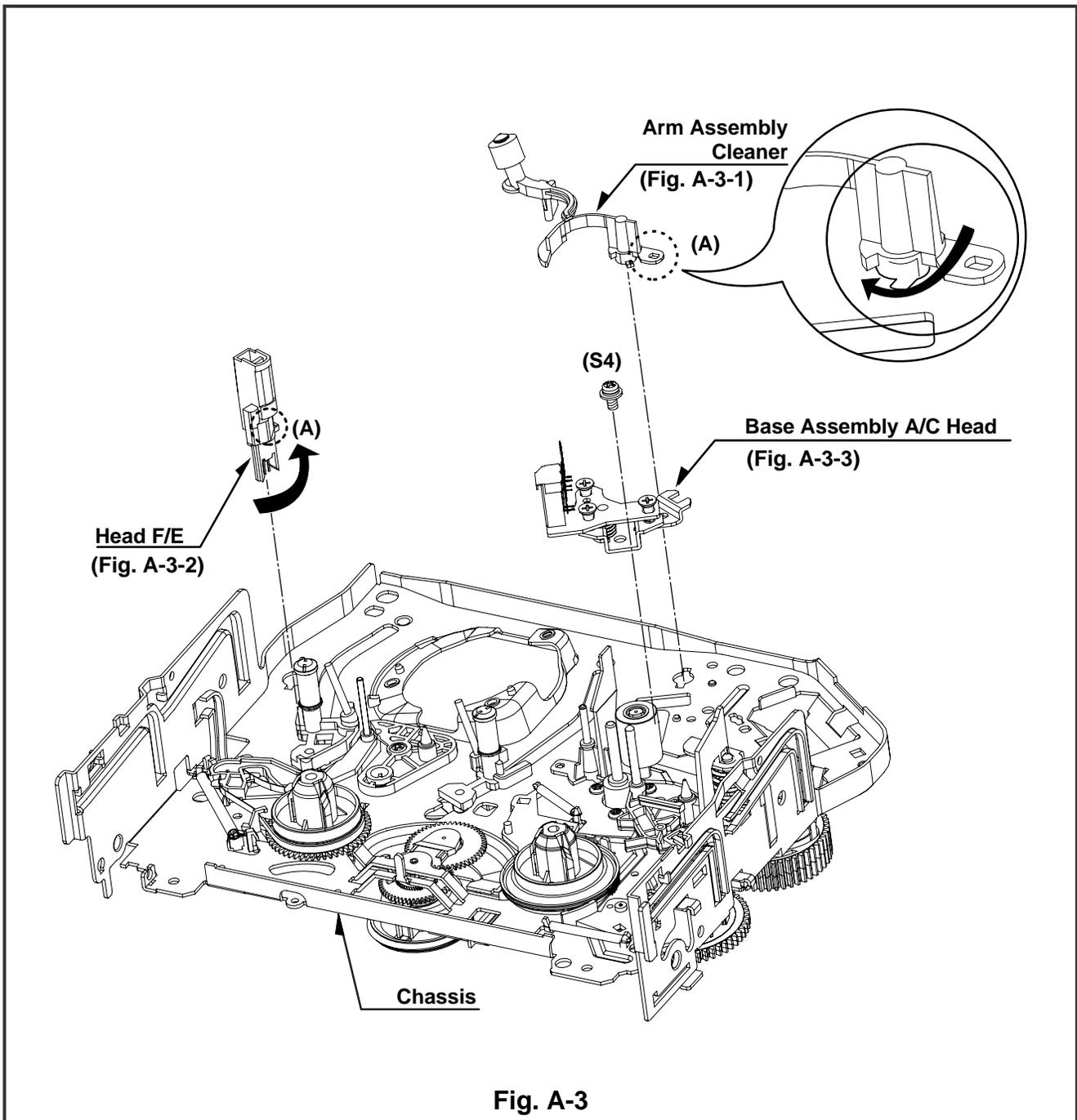


Fig. A-3

## 9. Arm Assembly Cleaner (Fig. A-3-1)

- 1) Breakaway the (A) portion as Fig. A-3-1 from the embossing of the Chassis, turn the Arm assembly Cleaner to clockwise direction and lift it up.

## 10. Head F/E (Fig. A-3-2)

- 1) Breakaway the (A) portion of the Head F/E from the embossing of the Chassis, turn it to counterclockwise direction and lift it up.

## 11. Base Assembly A/C Head (Fig. A-3-3)

- 1) Remove the Screw(S4) and lift the Base Assembly A/C Head up.

# DECK MECHANISM DISASSEMBLY

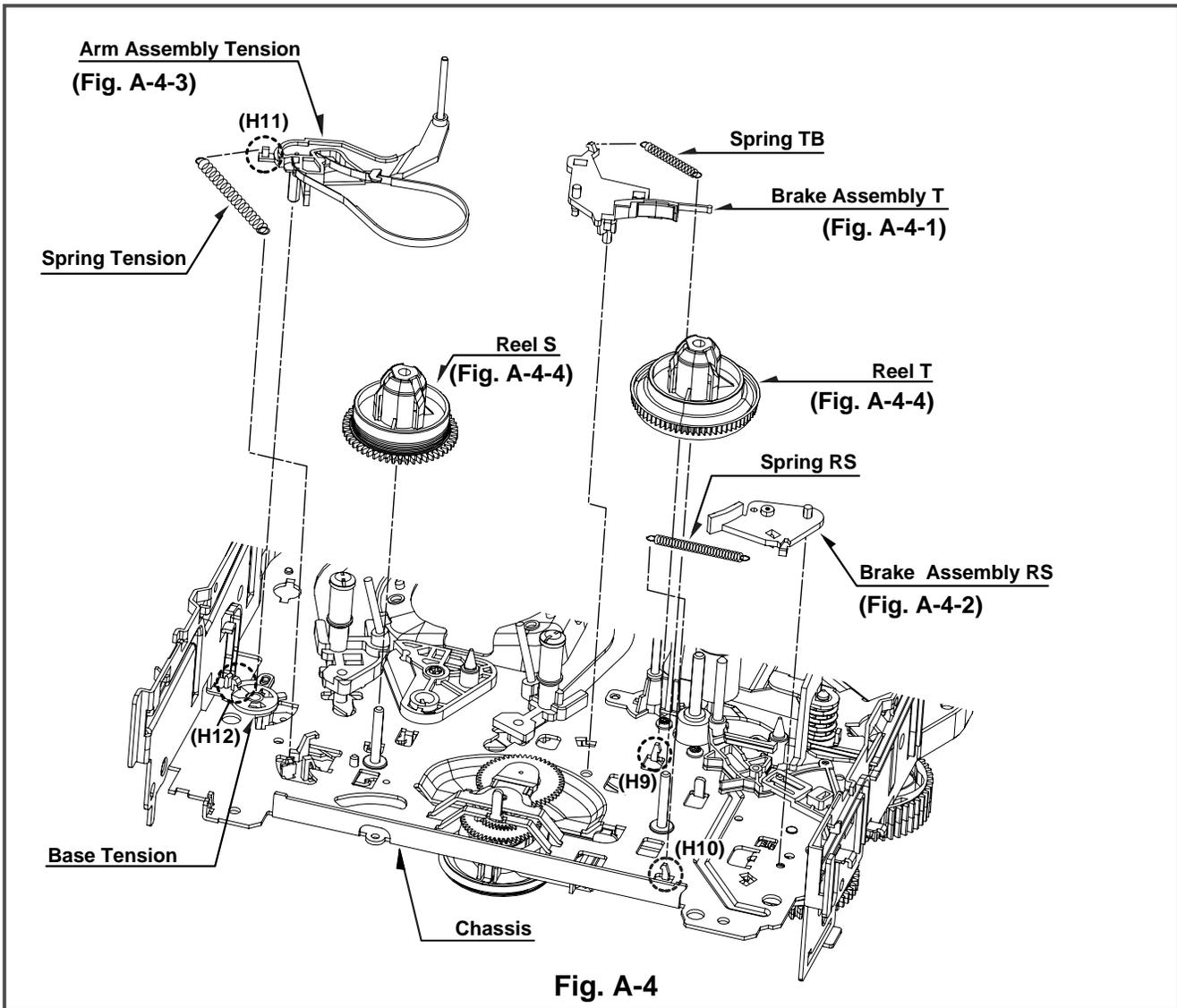


Fig. A-4

## 12. Brake Assembly T (Fig. A-4-1)

- 1) Unhook the Spring TB from the Hook(H9) of the Chassis.
- 2) Lift the Brake Assembly T up.

## 13. Brake Assembly RS (Fig. A-4-2)

- 1) Unhook the Spring RS from the Hook(H10) of the Chassis.
- 2) Lift the Brake Assembly T up.

## 14. Arm Assembly Tension (Fig. A-4-3)

- 1) Unhook the Spring Tension from the Hook(H11) of the Arm Assembly Tension.
- 2) Unhook the Hook(H12) of the Base Tension and lift the Arm Assembly Tension up.

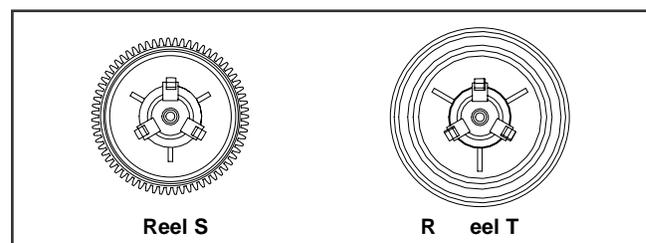
## NOTE

Difference for Springs

|  |                |               |
|--|----------------|---------------|
|  | Spring TB      |               |
|  | Spring RS      | Color (Black) |
|  | Spring Tension |               |

## 15. Reel S / Reel T (Fig. A-4-4)

- 1) Difference for Reel S / Reel T



# DECK MECHANISM DISASSEMBLY

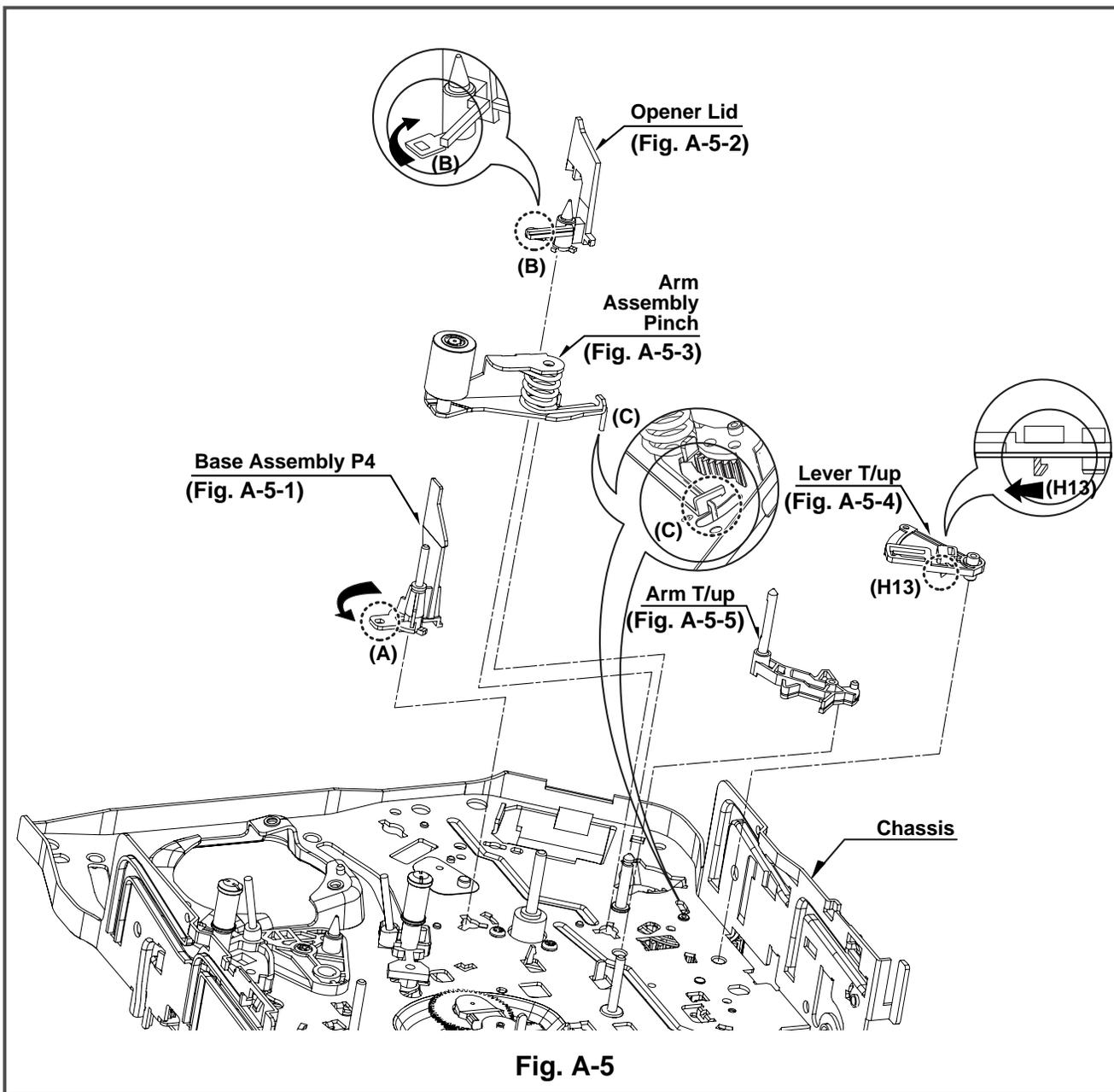


Fig. A-5

## 16. Base Assembly P4 (Fig. A-5-1)

- 1) Breakaway the (A) portion of the Base Assembly P4 from the embossing of the Chassis.
- 2) Turn the Base Assembly P4 to counterclockwise direction and lift it up.

## 17. Opener Lid (Fig. A-5-2)

- 1) Breakaway the (B) portion of the Opener Lid from the embossing of the Chassis.
- 2) Turn the Opener Lid to clockwise direction and lift it up.

## 18. Arm Assembly Pinch (Fig. A-5-3)

- 1) Lift the Arm Assembly Pinch up.

## NOTE

When reassembling, confirm the (C) portion of the Arm Assembly Pinch is inserted to the Chassis hole correctly as Fig.

## 19. Lever T/up (Fig. A-5-4)/ Arm T/up (Fig. A-5-5)

- 1) Unhook the Hook(H13) of the bottom Chassis and lift the Lever T/up up.
- 2) Lift the Arm T/up up.

# DECK MECHANISM DISASSEMBLY

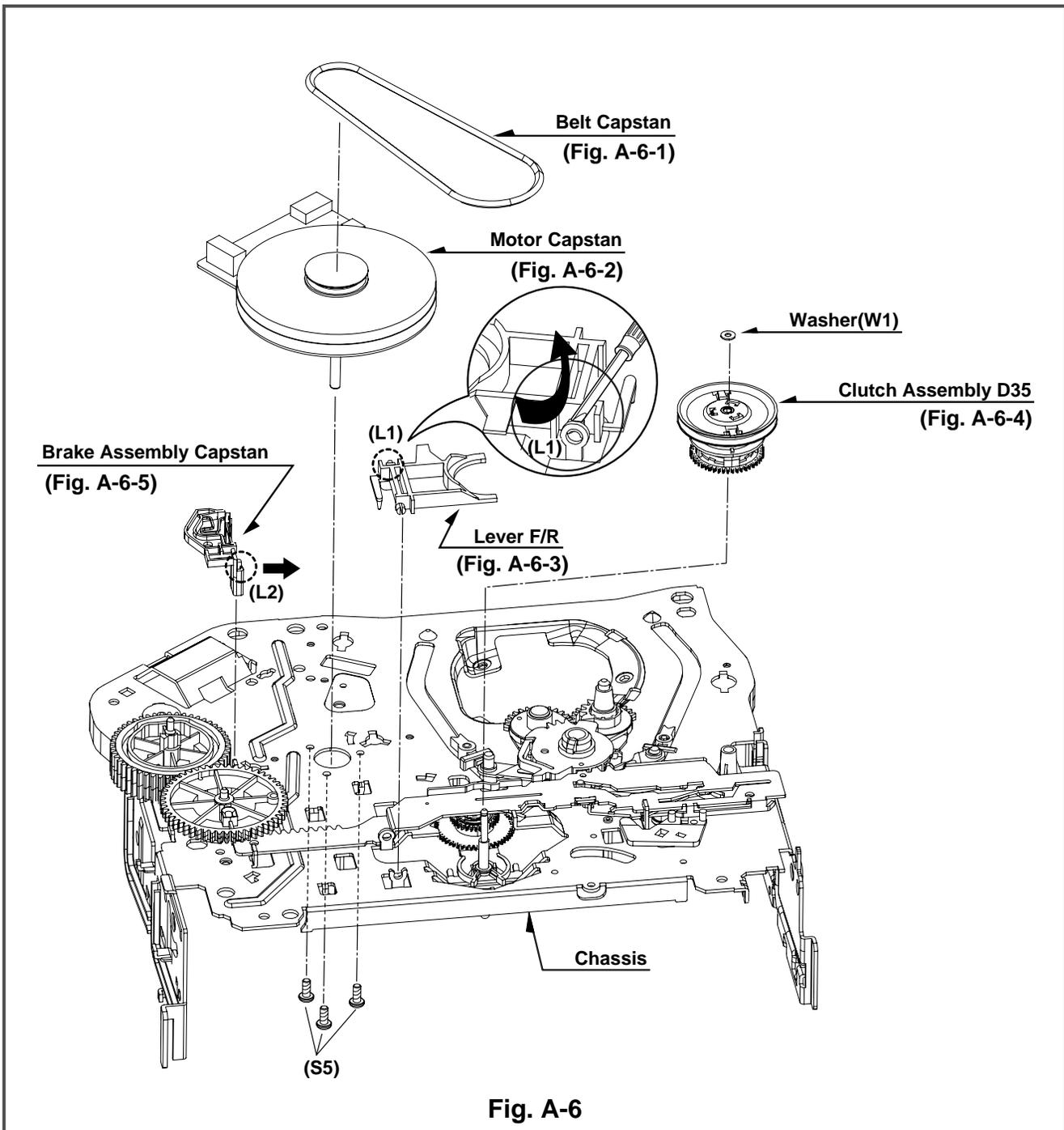


Fig. A-6

## 20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

- 1) Remove the Belt Capstan.
- 2) Remove the three Screws(S5) on bottom Chassis and lift the Motor Capstan up.

## 21. Lever F/R (Fig. A-6-3)

- 1) Unlock the Locking Tab(L1) as Fig. A-6-3 and lift the Lever F/R up.

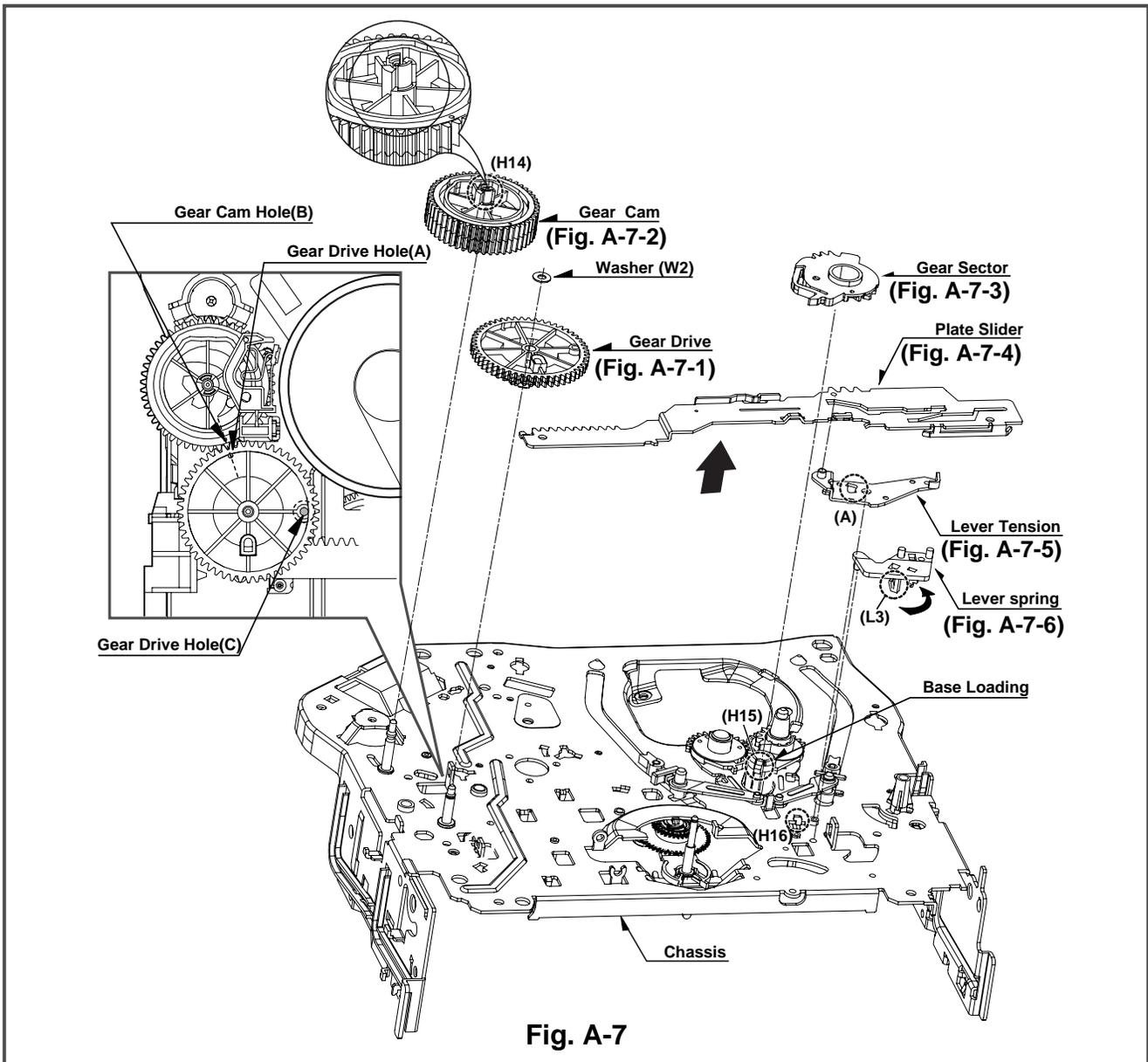
## 22. Clutch Assembly D35 (Fig. A-6-4)

- 1) Remove the Washer(W1) and lift the Clutch Assembly D35 up.

## 23. Brake Assembly Capstan (Fig. A-6-5)

- 1) Pull the Locking Tab(L2) back in direction of arrow and lift it up.

# DECK MECHANISM DISASSEMBLY



**Fig. A-7**

## 24. Gear Drive (Fig. A-7-1)/ Gear Cam (Fig. A-7-2)

- 1) Remove the Washer(W2) and lift the Gear Drive up.
- 2) Unhook the Hook(H14) of the Gear Cam and lift the Gear Cam up.

### NOTE

When reassembling, align the Gear Drive Hole(A) and the Gear Cam Hole(B) in a straight line after the Gear Drive Hole(C) is aligned with the Chassis Hole as Fig.

## 25. Gear Sector (Fig. A-7-3)

- 1) Unhook the Hook(H15) of the Base Loading on bottom Chassis and lift the Gear Sector up.

## 26. Plate Slider (Fig. A-7-4)

- 1) Just lift the Plate Slider up.

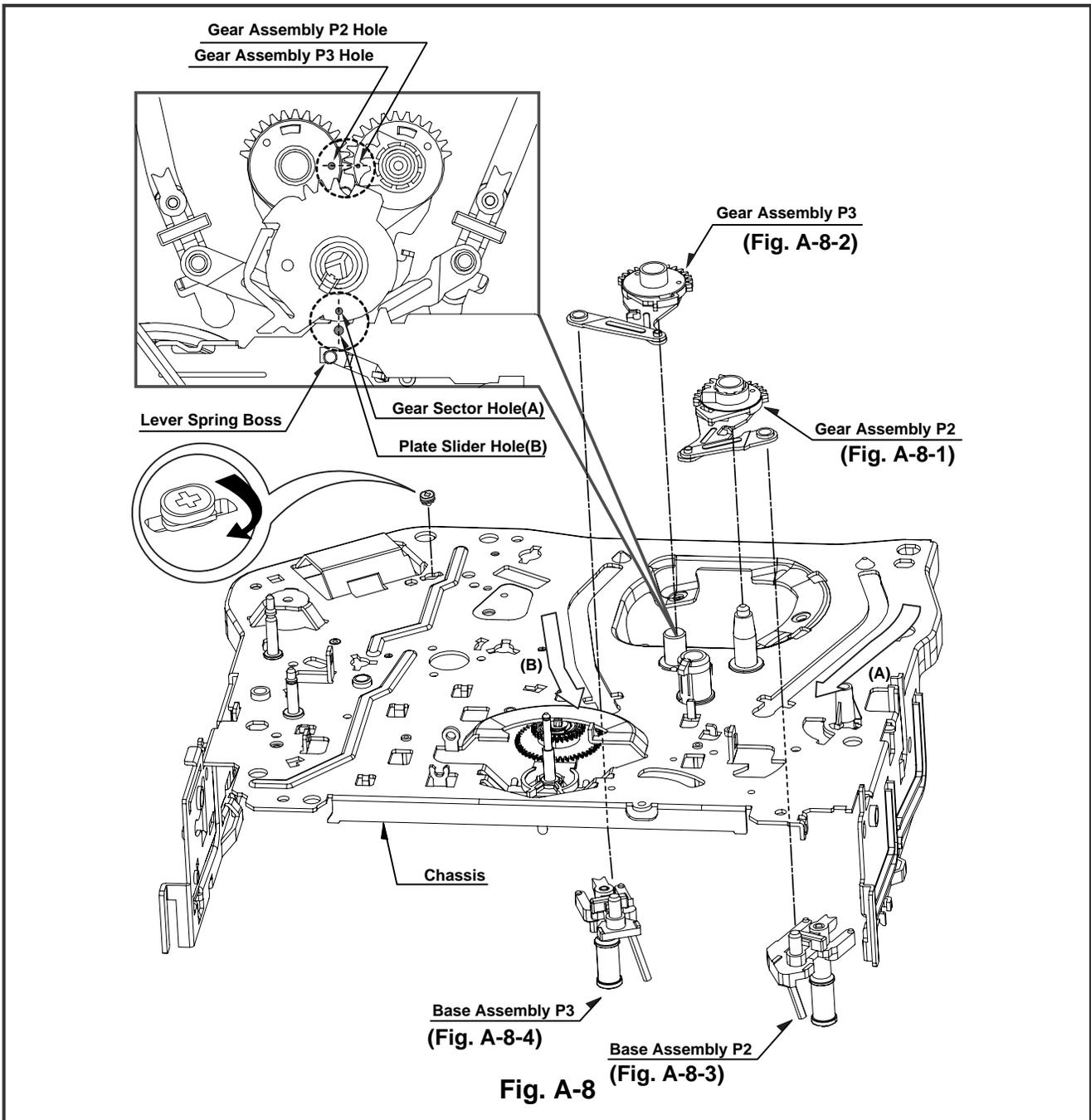
## 27. Lever Tension (Fig. A-7-5)

- 1) Unhook the (A) portion of the Lever Tension from the Hook(H16) of the Chassis.
- 2) Turn the Lever Tension to counterclockwise direction and lift it up.

## 28. Lever Spring (Fig. A-7-6)

- 1) Unlock the Locking Tab(L3) of the bottom Chassis and lift the Lever Spring up.

# DECK MECHANISM DISASSEMBLY



**Fig. A-8**

## 29. Gear Assembly P2 (Fig. A-8-1)/ Gear Assembly P3 (Fig. A-8-2)

- 1) Just lift the Gear Assembly P2 up.
- 2) Just lift the Gear Assembly P3 up.

### NOTE

When reassembling, align the two holes of the Gear Assembly P2 and P3 in a straight line after confirmation whether the Gear Sector Hole(A) and the Plate Slider Hole(B) are aligned or not as Fig.

## 30. Base Assembly P2 (Fig. A-8-3)/ Base Assembly P3 (Fig. A-8-4)

- 1) Move the Base Assembly P2 in direction of arrow(A) along the guide hole of the Chassis and disassemble it on bottom side.
- 2) Move the Base Assembly P3 in direction of arrow(B) along the guide hole of the Chassis and disassemble it on bottom side.

# DECK MECHANISM DISASSEMBLY

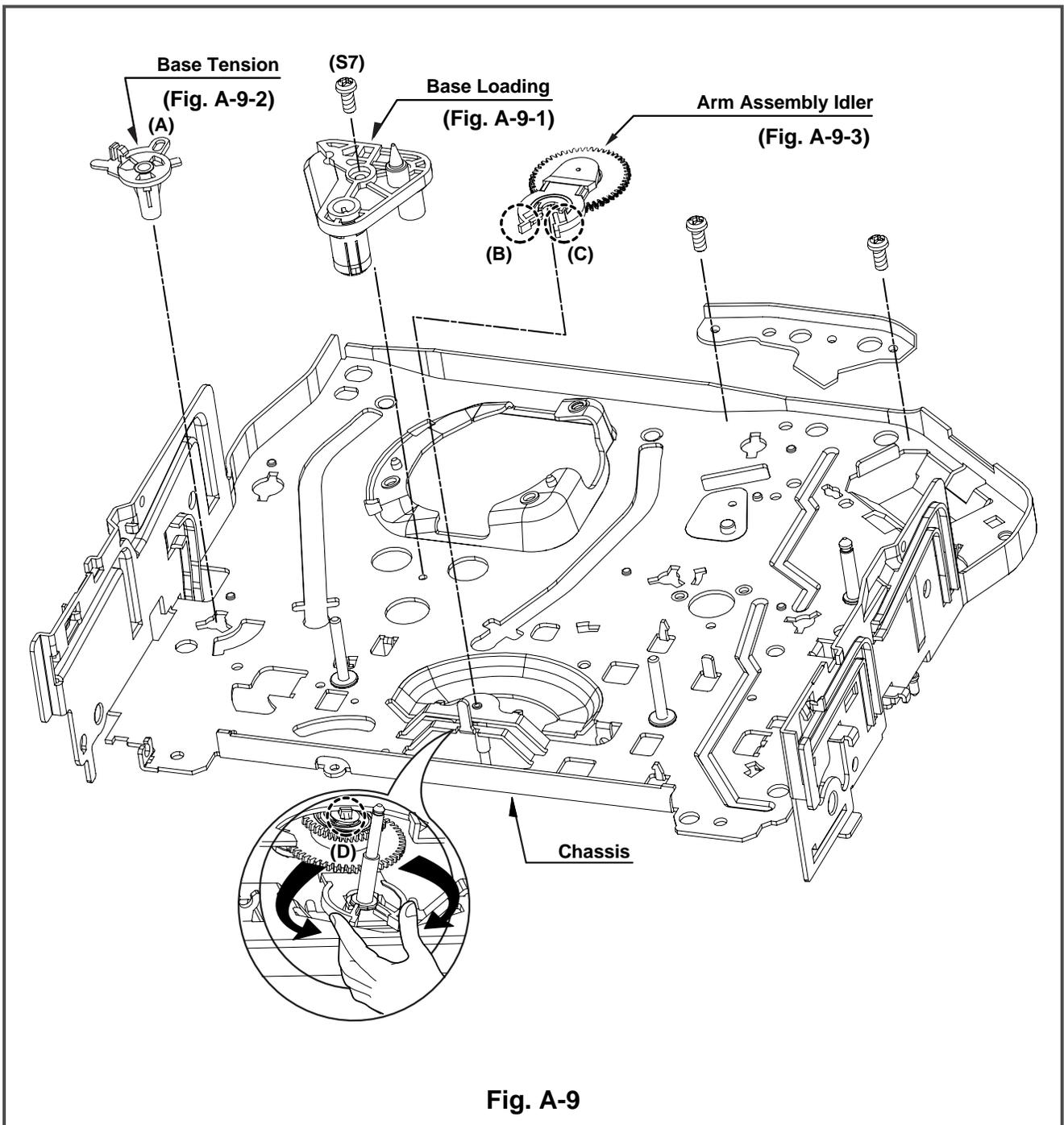


Fig. A-9

## 31. Base Loading (Fig. A-9-1)

- 1) Remove the Screw(S7).
- 2) Lift the Base Loading up.

## 32. Base Tension (Fig. A-9-2)

- 1) Breakaway the (A) portion of the Base Tension from the embossing of the Chassis.
- 2) Turn the Base Tension to counterclockwise direction and lift it up.

## 33. Arm Assembly Idler (Fig. A-9-3)

- 1) Make narrower the two parts, (B) and (C), as Fig. A-9-3.
- 2) Lift the Arm assembly Idler up.

## NOTE

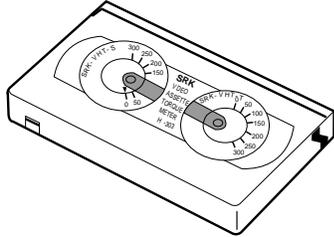
When disassembling, be careful not to be caught the (D) part by the Chassis as Fig.

# DECK MECHANISM ADJUSTMENT

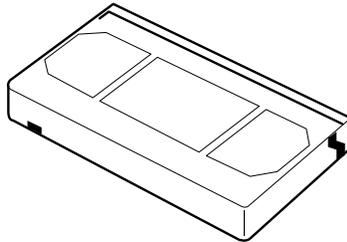
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## • Tools and Fixfures for Service

**1. Cassette Torque Meter  
PUJ42881**



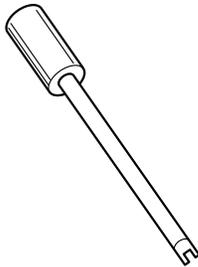
**2. Alignment Tape  
NTSC: MHP  
PAL: MHPE**



**3. Torque Gauge  
PUJ48075-2**



**5. Post Height Adjusting Driver  
(Roller driver)  
PTU94002**



# DECK MECHANISM ADJUSTMENT

## 1. Mechanism Alignment Position Check

**Purpose:** To determine if the Mechanism is in the correct position, when a Tape is ejected.

| Test Equipment/ Fixture | Test Conditions (Mechanism Condition) | Check Point                          |
|-------------------------|---------------------------------------|--------------------------------------|
| • Blank tape            | • Eject Mode (with Cassette ejected)  | • Mechanism and Mode Switch Position |

- 1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
- 2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
- 3) IF not, rotate the Shaft of the Loading Motor to either clockwise or counterclockwise until the alignment is as below Fig. C-2.
- 4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
- 5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
- 6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

### CHECK DIAGRAM

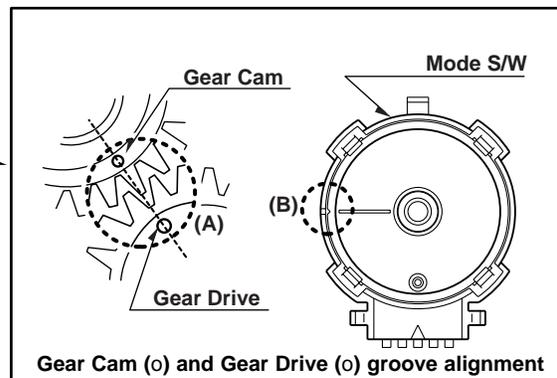
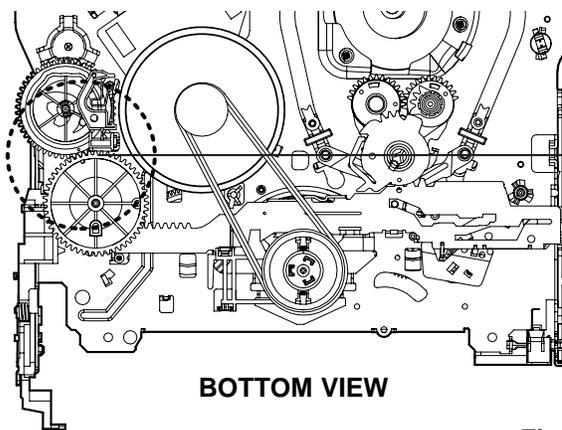


Fig. C-1

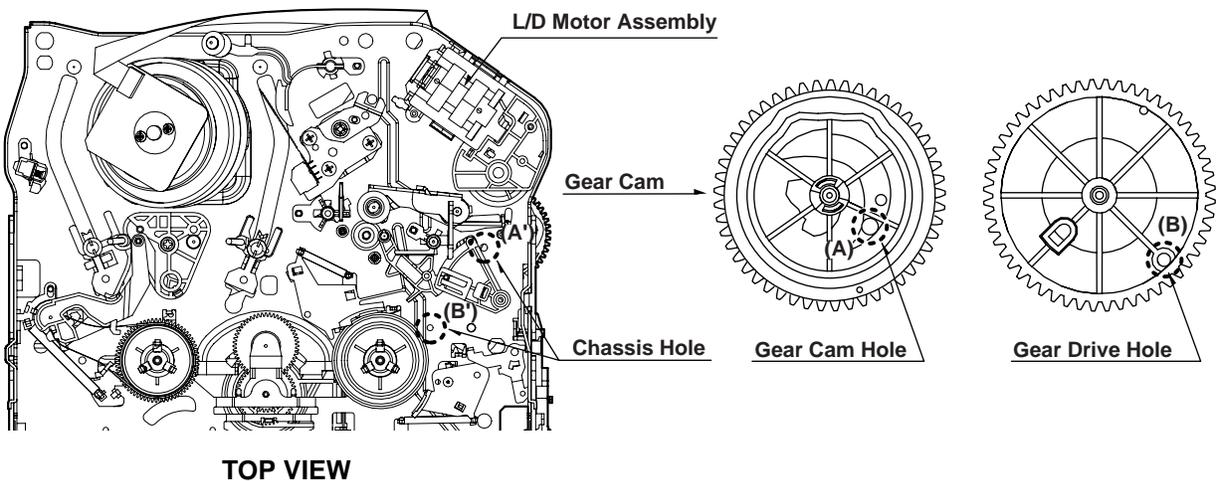


Fig. C-2

# DECK MECHANISM ADJUSTMENT

## 2. Preparation for Adjustment (To set the Deck Mechanism of the loading state without inserting a cassette tape).

- 1) Unplug the power cord from the AC outlet.
- 2) Disassemble the Top Cover and Plate Assembly Top.
- 3) Plug the power cord into the AC outlet.
- 4) Turn the power S/W on and push the Lever Stopper of the Holder Assembly CST to the back for loading the

cassette without tape.

Cover the holes of the End Sensors at the both sides of the Chassis to prevent a light leak.

Then the Deck Mechanism drives to the Stop Mode.

In this case, the Deck Mechanism can accept inputs of each mode, however the Rewind and Review operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

## 3. Checking Torque

**Purpose: To insure smooth transport of the tape during each mode of operation.**

**If the tape transport is abnormal, then check the torque as indicated by the chart below.**

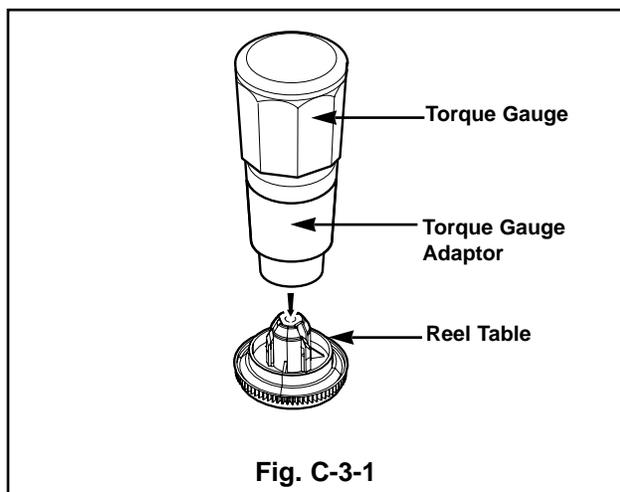
| Test Equipment/ Fixture  | Test Conditions (Mechanism Condition)  | Checking Method  |
|--|--|--|
| <ul style="list-style-type: none"> <li>• Torque Gauge(600g/cm ATG)</li> <li>• Torque Gauge Adaptor</li> <li>• Cassette Torque Meter</li> </ul> | <ul style="list-style-type: none"> <li>• Play (FF) or Review (REW) Mode</li> </ul> | <ul style="list-style-type: none"> <li>• Perform each Deck Mechanism mode without inserting a cassette tape(Refer to above No.2 Preparation for Adjustment).</li> <li>• Read the measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2).</li> <li>• Attach the Torque Gauge Adaptor to the Torque Gauge and then read the value of it(Fig. C-3-1).</li> </ul> |

| Item                | Mode         | Test Equipment        | Measurement Reel | Measurement Values |
|---------------------|--------------|-----------------------|------------------|--------------------|
| Fast Forward Torque | Fast Forward | Cassette Torque Gauge | Take-Up Reel     | More than 400g/cm  |
| Rewind Torque       | Rewind       | Cassette Torque Gauge | Supply Reel      | More than 400g/cm  |
| Play Take-Up Torque | Play         | Cassette Torque Meter | Take-Up Reel     | 40~100g/cm         |
| Review Torque       | Review       | Cassette Torque Meter | Supply Reel      | 120~210g/cm        |

### NOTE:

The values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

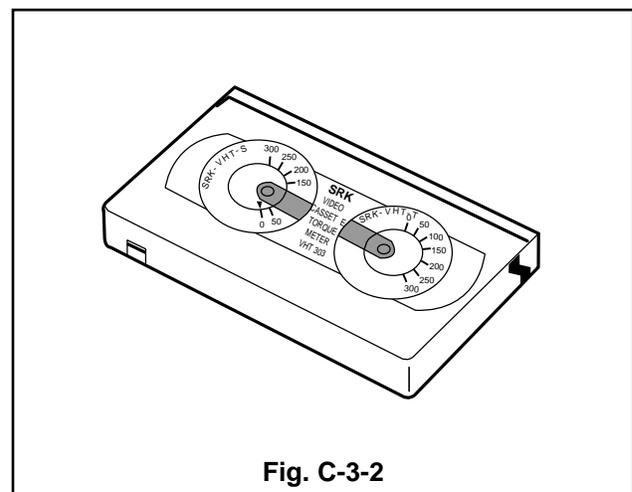
#### • Torque Gauge (600g.cm ATG)



### NOTE:

The torque reading to measure occurs when the tape abruptly changes direction from Fast Forward to Rewind Mode, when quick braking is applied to both Reels.

#### • Cassette Torque Meter



# DECK MECHANISM ADJUSTMENT

## 4. Guide Roller Height Adjustment

**Purpose: To regulate the height of the tape so that the bottom of the tape runs along the tape guide line on the Lower Drum.**

### 4-1. Preliminary Adjustment

| Test Equipment/ Fixture        | Test Conditions (Mechanism Condition) | Adjustment Point   |
|--------------------------------|---------------------------------------|--|
| • Post Height Adjusting Driver | • Play or Review Mode                 | • Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers. |

#### Adjustment Procedure

- 1) Confirm if the tape runs along the tape guide line of the Lower Drum.
- 2) If the tape runs the bottom of the guide line, turn the Guide Roller Height Adjustment Screw to clockwise direction.
- 3) If it runs the top, turn to counterclockwise direction.
- 4) Adjust the height of the Guide Roller to be guided to the guide line of the Lower Drum from the starting and ending point of the Drum.

#### ADJUSTMENT DIAGRAM

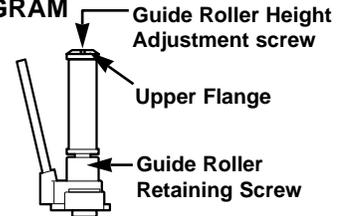


Fig. C-4-1

### 4-2. Precise Adjustment

| Test Equipment/Fixture   | Test Equipment Connection Points   | Test Conditions VCR(VCP) State | Adjustment Point                        |
|--|--|--------------------------------|---|
| • Oscilloscope<br>• Alignment Tape<br>• Post Height Adjusting Driver | • CH-1:PB RF Envelope<br>• CH-2:NTSC: SW 30Hz<br>PAL: SW 25Hz<br>• Head Switching Output Point<br>• RF Envelope Output Point | • Play an Alignment Tape       | • Guide Roller Height Adjustment Screws |

#### Adjustment Procedure

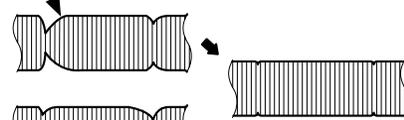
- 1) Play an Alignment Tape after connecting the probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point.
- 2) Tracking Control(in PB Mode) : Center Position(When this adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum).
- 3) Height Adjustment Screw : Flatten the RF waveform. (Fig. C-4-2)
- 4) Turn(Move) the Tracking Control(in PB Mode) clockwise and counterclockwise.(Fig. C-4-3)
- 5) Check that any drop of RF Output is uniform at the start and end of the waveform.

#### NOTE

If the adjustment is excessive or insufficient the tape will jam or fold.

#### Waveform Diagrams

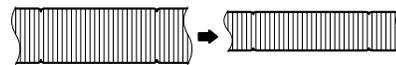
##### P2 POST ADJUSTMENT



##### P3 POST ADJUSTMENT

Turn the Roller Guide Height Adjustment Screw slightly to flatten the waveform.

Fig. C-4-2

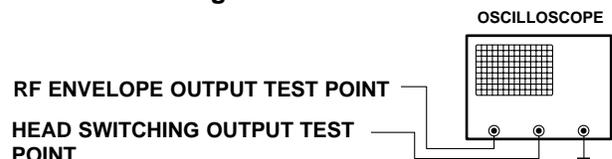


Tracking Control at center

Turn(Move) the Tracking Control to both directions

Fig. C-4-3

#### Connection Diagram



# DECK MECHANISM ADJUSTMENT

## 5. Audio/Control (A/C) Head Adjustment

**Purpose: To insure that the tape passes accurately over the Audio and Control Tracks in exact alignment of the both Record and Playback Modes.**

### 5-1. Preliminary Adjustment (Height and Tilt Adjustment)

Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

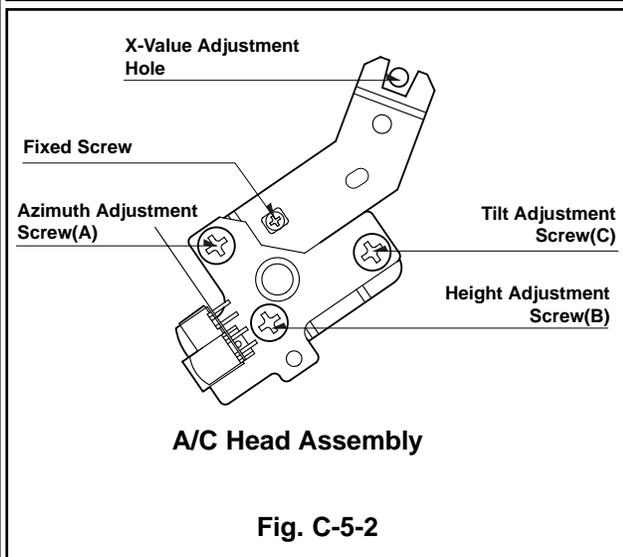
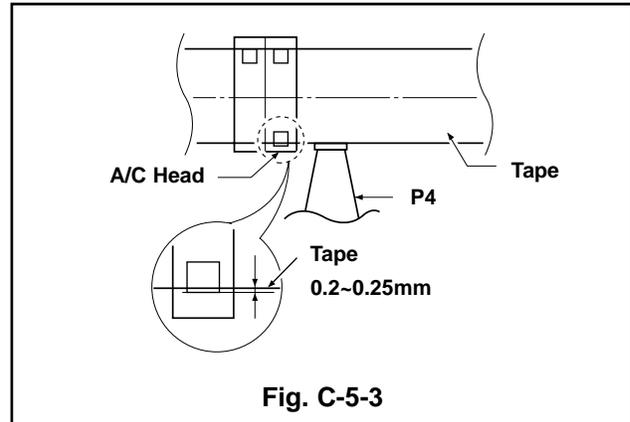
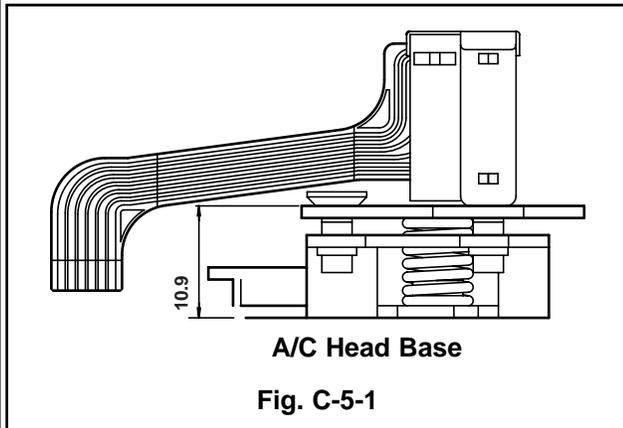
| Test Equipment/ Fixture  | Test Conditions (Mechanism Condition)                                   | Adjustment Point  |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Blank Tape</li> <li>• Screw Driver(+) Type 5mm</li> </ul> | <ul style="list-style-type: none"> <li>• Play the blank tape</li> </ul> | <ul style="list-style-type: none"> <li>• Tilt Adjustment Screw(C)</li> <li>• Height Adjustment Screw(B)</li> <li>• Azimuth Adjustment Screw(A)</li> </ul> |

#### Adjustment Procedure/Diagrams

- Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
- Play a blank tape and observe if the tape passes accurately over the A/C Head without tape curling or folding.
- If folding or curling is occurred then adjust the Tilt Adjustment Screw(C) while the tape is running to resemble Fig. C-5-3.
- Reconfirm the tape path after Playback about 4~5 seconds.

#### NOTE

Ideal A/C head height occurs when the tape runs between 0.2~0.25mm above the bottom edge of the A/C Head core.



# DECK MECHANISM ADJUSTMENT

## 5-2. Confirm that the tape passes smoothly between the Take-up Guide and Pinch Roller(using a mirror or the naked eye).

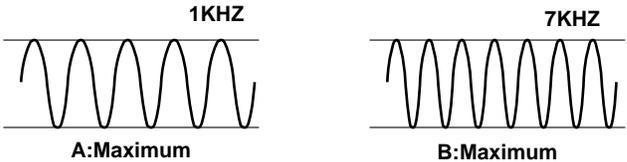
- 1) After completing Step 5-1.(Preliminary Adjustment), check that the tape passes around the Take-up Guide and Pinch Roller without folding or curling at the top or bottom.
  - (1) If folding or curling is observed at the bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the clockwise direction.

- (2) If folding or curling is observed at the top of it then slowly turn the Tilt Adjustment Screw(C) in the counterclockwise direction.

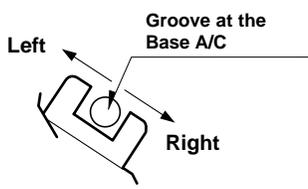
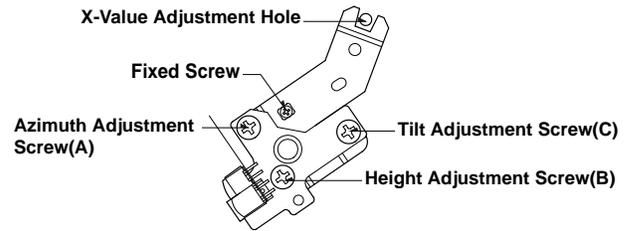
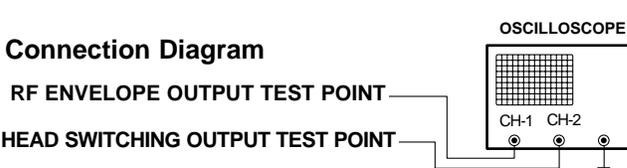
### NOTE:

Check the RF envelope after adjusting the A/C Head, if the RF waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF waveform.

## 5-3. Precise Adjustment (Azimuth adjustment)

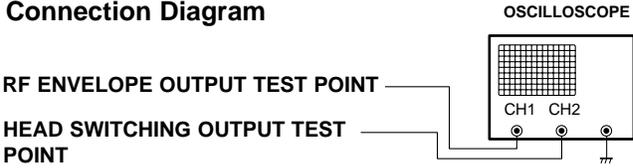
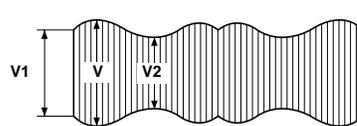
| Test Equipment/ Fixture  | Connection Point  | Test Conditions (Mechanism Condition)   | Adjustment Point  |
|--|---|---|---|
| <ul style="list-style-type: none"> <li>• Oscilloscope</li> <li>• Alignment Tape(SP)</li> <li>• Screw Driver(+) Type 5mm</li> </ul>   | <ul style="list-style-type: none"> <li>• Audio output jack</li> </ul> | <ul style="list-style-type: none"> <li>• Play an Alignment Tape</li> <li>1KHz, 7KHz Sections</li> </ul> | <ul style="list-style-type: none"> <li>• Azimuth Adjustment Screw(A)</li> <li>• Height Adjustment Screw(B)</li> </ul> |
| <b>Adjustment Procedure</b> <ol style="list-style-type: none"> <li>1) Connect the probe of the oscilloscope to Audio Output Jack.</li> <li>2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for maximum output of the 1KHz and 7KHz segments, while maintaining the flattest envelope differential between the two frequencies.</li> </ol> |   |                       | <p style="text-align: center;"><b>Fig. C-5-4</b></p>  |

## 6. X-Value Adjustment

| Purpose: To obtain compatibility with the other VCR(VCP) Models.   |   |  |   |
|--|---|--|---|
| Test Equipment/ Fixture  | Connection Point  | Test Conditions (Mechanism Condition)  | Adjustment Point  |
| <ul style="list-style-type: none"> <li>• Oscilloscope</li> <li>• Alignment Tape(SP only)</li> <li>• Screw Driver(+) Type 5mm</li> </ul>  | <ul style="list-style-type: none"> <li>• CH-1: PB RF Envelope</li> <li>• CH-2: NTSC: SW 30Hz<br/>PAL: SW 25Hz</li> <li>• Head Switching Output Test Point</li> <li>• RF Envelope Output Test Point</li> </ul> | <ul style="list-style-type: none"> <li>• Play an Alignment Tape</li> </ul>                                     |  |
| <b>Adjustment Procedure</b> <ol style="list-style-type: none"> <li>1) Release the Automatic Tracking to run long enough for tracking to complete it's cycle.</li> <li>2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the diagram to find the center of the peak that allows for the maximum waveform envelope.<br/>This method should allow the 31μm Head to be centrally located over the 58μm tape track.</li> <li>3) Tighten the Base Assembly A/C Head mounting Screw.</li> </ol> |   | <b>Adjustment Diagram</b>  |   |
|  |   | <b>Connection Diagram</b>  |   |

# DECK MECHANISM ADJUSTMENT

## 7. Adjustment after Replacing Drum Assembly (Video Heads)

| <b>Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.</b>  |   |   |  |
|---|---|---|--|
| Test Equipment/ Fixture   | Connection Point  | Test Conditions (Mechanism Condition)   | Adjustment Points  |
| <ul style="list-style-type: none"> <li>Oscilloscope</li> <li>Alignment Tapes</li> <li>Blank Tape</li> <li>Post Height Adjusting Driver</li> <li>Screw Driver(+) Type 5mm</li> </ul>   | <ul style="list-style-type: none"> <li>CH-1: PB RF Envelope</li> <li>CH-2: NTSC: SW 30Hz<br/>PAL: SW 25Hz</li> <li>Head Switching Output Test Point</li> <li>RF Envelope Output Test Point</li> </ul> | <ul style="list-style-type: none"> <li>Play the Blank Tape</li> <li>Play an Alignment Tape</li> </ul>   | <ul style="list-style-type: none"> <li>Guide Roller Precise Adjustment</li> <li>Switching Point</li> <li>Tracking Preset</li> <li>X-Value</li> </ul> |
| <b>Checking/Adjustment Procedure</b><br>Play a blank tape and check for tape curling or creasing around the Roller Guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment". |   | <b>Connection Diagram</b><br><br><b>Waveform</b><br>$V1/V \text{ MAX} \leq 0.7$<br>$V2/V \text{ MAX} \leq 0.8$<br>RF ENVELOPE OUTPUT<br> |  |
| <b>Fig. C-7</b>   |   |   |  |

## 8. Check the Tape Travel after Reassembling Deck Assembly.

### 8-1. Checking Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

| Test Equipment/ Fixture   | Specification  | Connection Points   | Test Conditions (Mechanism Condition)  |
|---|--|---|--|
| <ul style="list-style-type: none"> <li>Oscilloscope</li> <li>Alignment Tapes(with 6H 3KHz Color Bar Signal)</li> <li>Stop Watch</li> </ul>                      | <ul style="list-style-type: none"> <li>RF Locking Time: Less than 5 sec.</li> <li>Audio Locking Time: Less than 10sec</li> </ul> | <ul style="list-style-type: none"> <li>CH-1: PB RF Envelope</li> <li>CH-2: Audio Output</li> <li>RF Envelope Output Point</li> <li>Audio Output Jack</li> </ul> | <ul style="list-style-type: none"> <li>Play an Alignment Tape (with 6H 3kHz Color Bar Signal)</li> </ul> |
| <b>Checking Procedure</b><br>Play an Alignment Tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications. |  | <b>NOTES:</b><br>1) CUE is the forward search mode<br>2) REV is the backward search mode<br>3) Refer to the Play mode   |  |

### 8-2. Checking for tape curling or jamming

| Test Equipment/ Fixture   | Specification  | Test Conditions (Mechanism Condition)   |
|---|--|---|
| <ul style="list-style-type: none"> <li>T-160 Tape</li> <li>T-120 Tape</li> </ul>  | <ul style="list-style-type: none"> <li>Be sure there is no tape jamming or curling at the beginning, middle or end of the tape.</li> </ul> | <ul style="list-style-type: none"> <li>Run the CUE, REV, Play mode at the beginning and the end of the tape.</li> </ul> |
| <b>Checking Procedure</b><br>1) Confirm that the tape runs smoothly around the roller guides, Drum and A/C Head Assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the beginning, middle and end sections of the tape.<br>2) Confirm that the tape passes over the A/C Head Assembly as indicated by proper audio reproduction and proper tape counter performance. |  |   |

# MAINTENANCE/INSPECTION PROCEDURE

## 1. Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.

Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

| Phenomenon   | Inspection  | Replacement |
|--|---|-------------|
| Color beats  | Dirt on Full-Erase Head                             | o           |
| Poor S/N, no color   | Dirt on Video Head                                  | o           |
| Vertical or Horizontal jitter                                      | Dirt on Video Head<br>Dirt on tape transport system | o           |
| Low volume,<br>Sound distorted                                     | Dirt on Audio/Control Head                          | o           |
| Tape does not run.<br>Tape is slack                                | Dirt on Pinch Roller                                | o           |
| In Review and Unloading (off mode), the tape is rolled up loosely. | Clutch Assembly D35 torque reduced                  | o           |
|  | Cleaning Drum and transport system                  | Fig. C-9-3  |

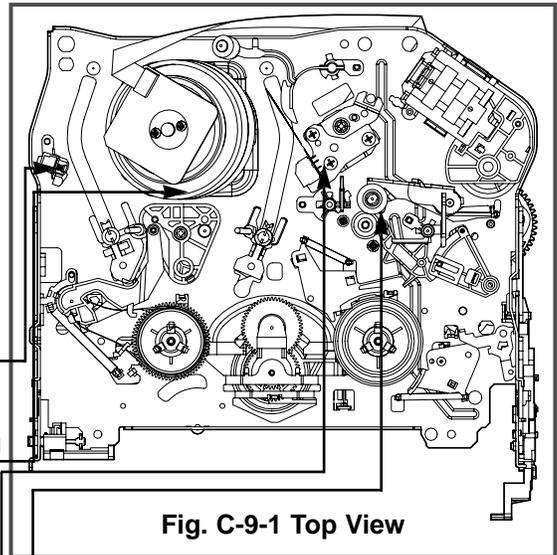


Fig. C-9-1 Top View

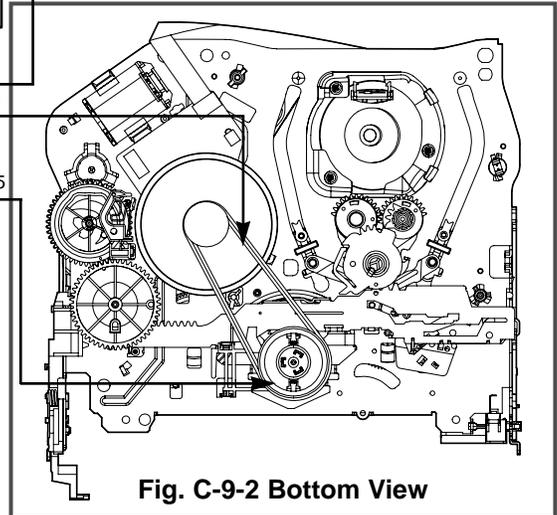


Fig. C-9-2 Bottom View

### NOTE

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.

See the EXPLODED VIEWS at the end of this manual as well as the above illustrations and see the Greasing (Page 4-21, 22) for the sections to be lubricated and greased.

\* No. (1)~(12) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.

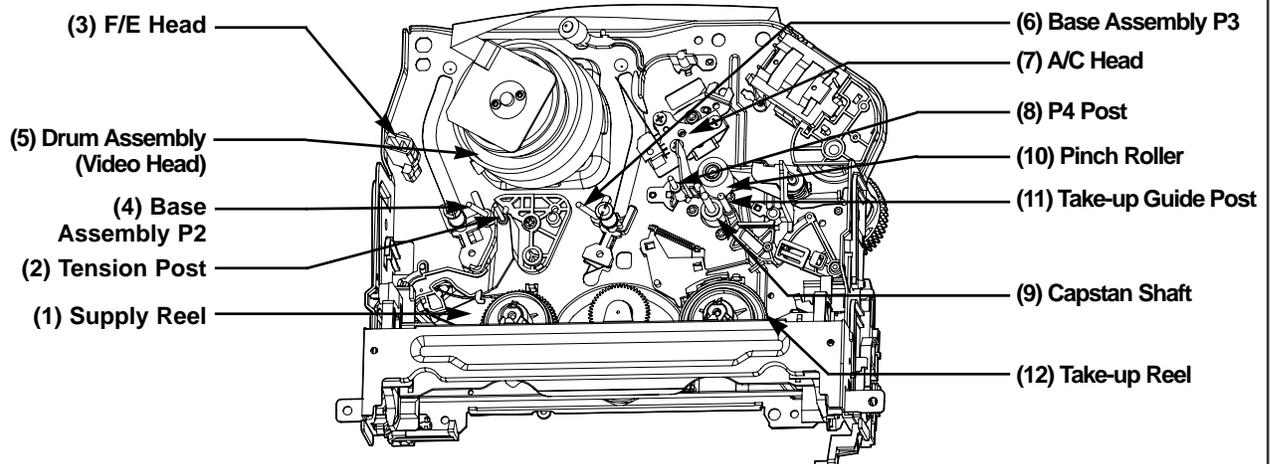


Fig. C-9-3 Tape Transport System

# MAINTENANCE/INSPECTION PROCEDURE

## 2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with the other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

## 3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.

But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1

| When inspection is necessary | About 1 year                            | About 18 months | About 3 years |
|------------------------------|---|-----------------|---------------|
| Average hours used per day   | ▲                                       | ▲               | ▲             |
| One hour                     | [Bar chart showing inspection interval] |                 |               |
| Two hours                    | [Bar chart showing inspection interval] |                 |               |
| Three hours                  | [Bar chart showing inspection interval] |                 |               |

## 4. Supplies Required for Inspection and Maintenance

- (1) Grease : Kanto G-311G (Blue) or equivalent
- (2) Isopropyl Alcohol or equivalent
- (3) Cleaning Patches
- (4) Grease : Kanto G-381(Yellow)

## 5. Maintenance Procedure

### 5-1) Cleaning

- (1) Cleaning video head

First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.

(Do not move the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)

Thoroughly dry the head. Then run the test tape. If Isopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.

- (2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

### NOTES:

- ① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
- ② Make sure that during cleaning you do not touch the tape transport system with excessive force that would cause deformation or damage to the system.

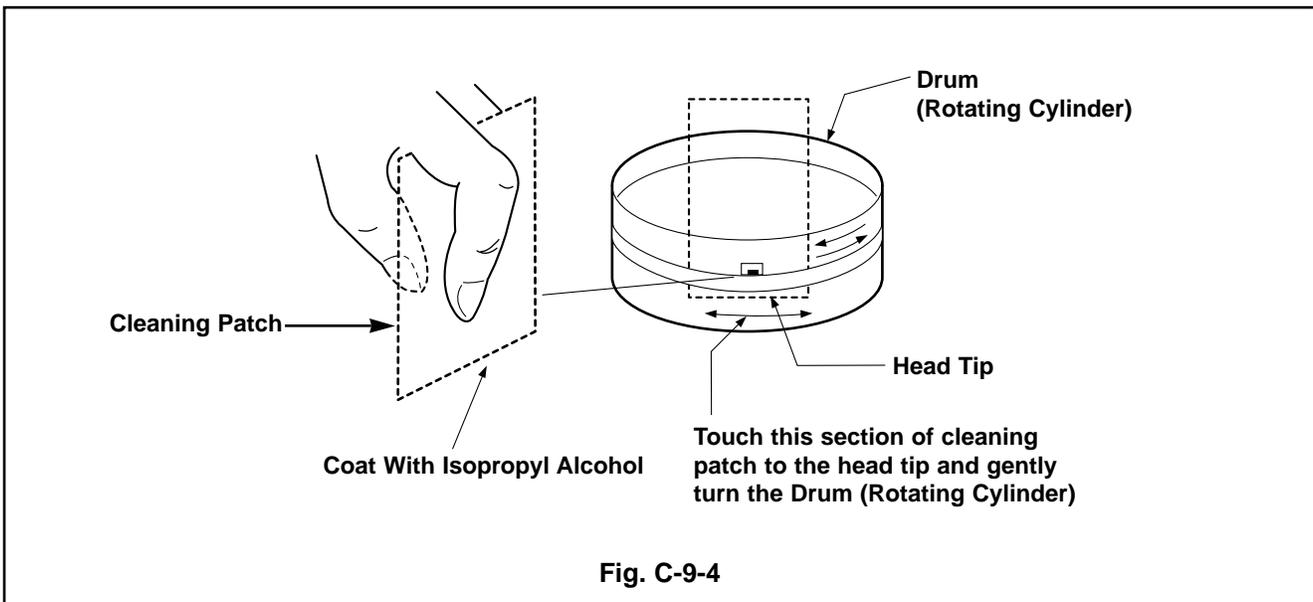


Fig. C-9-4

# MAINTENANCE/INSPECTION PROCEDURE

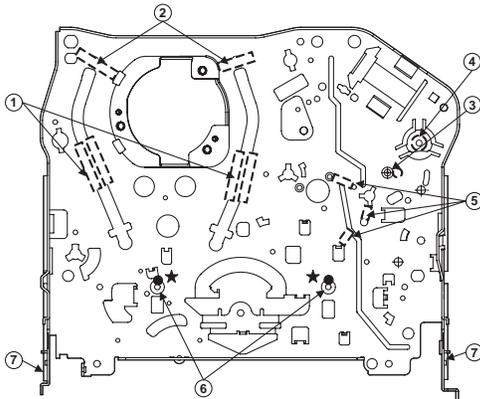
## 5-2) Greasing

### (1) Greasing guidelines

Apply grease, with a cleaning patch. Do not use excessive grease. It may come into contact with the tape transport or drive system. Wipe excessive grease and clean with cleaning patch wetted in Isopropyl Alcohol.

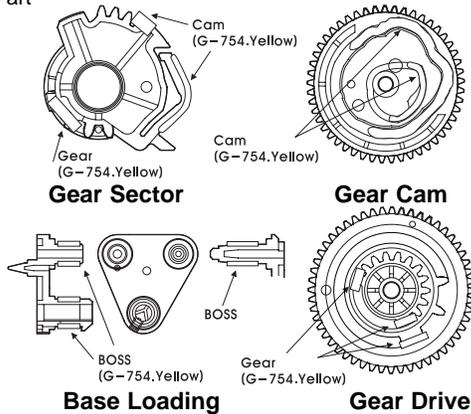
### NOTE: Greasing Points

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| 1) Loading Path Inside & Top side | 5) Arm Take-up Rubbing Sections       |
| 2) Base Assembly P2, P3 stopper   | 6) Reel S,T shaft (G381:Yellow)       |
| 3) Shaft                          | 7) Arm Assembly F/L Rotating Sections |
| 4) L/D Motor Gear Wheel Part      |                                       |



**Chassis (Top)**

### Gear Part



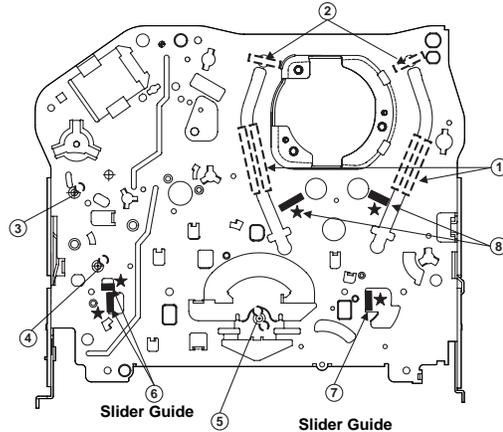
**Chassis (Left Side)**

**Chassis (Right Side)**

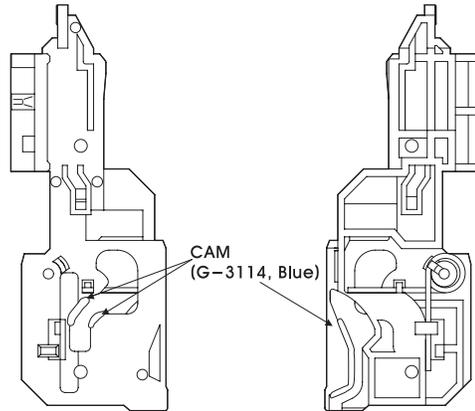
### (2) Periodic greasing

Grease specified locations every 5,000 hours.

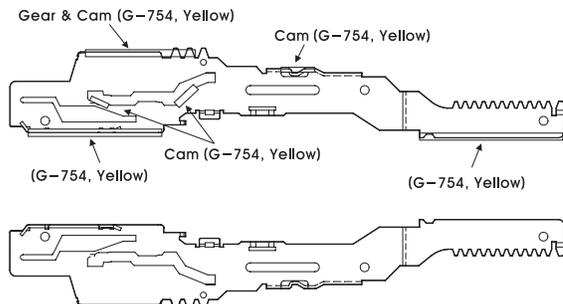
- |                                   |  |
|-----------------------------------|--|
| 1) Loading Path Inside & Top side | 6) Plate Slider Guide Sections           |
| 2) Base Assembly P2,P3 stopper    | 7) Plate Slider Guide Sections           |
| 3) Shaft                          | 8) Gear Assembly P2, P2 Rubbing Sections |
| 4) Shaft                          |  |
| 5) Clutch Assembly D35 Shaft      |  |



**Chassis (Bottom)**



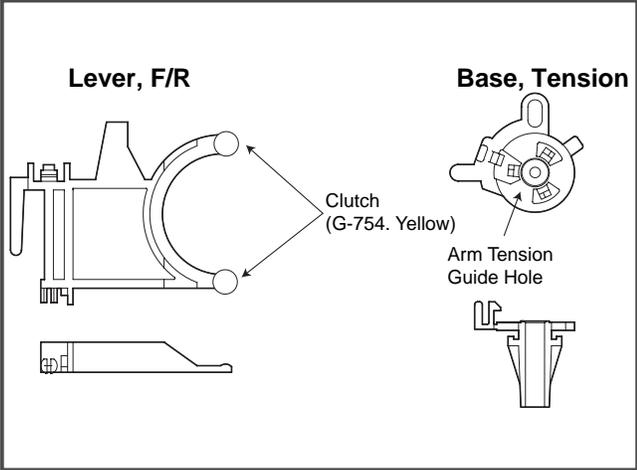
**Gear Rack F/L**



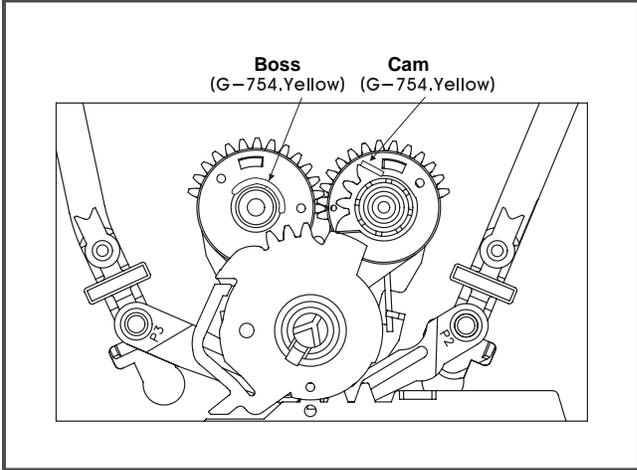
**Plate Slider**

# MAINTENANCE/INSPECTION PROCEDURE

## Lever, F/R, Base, Tension



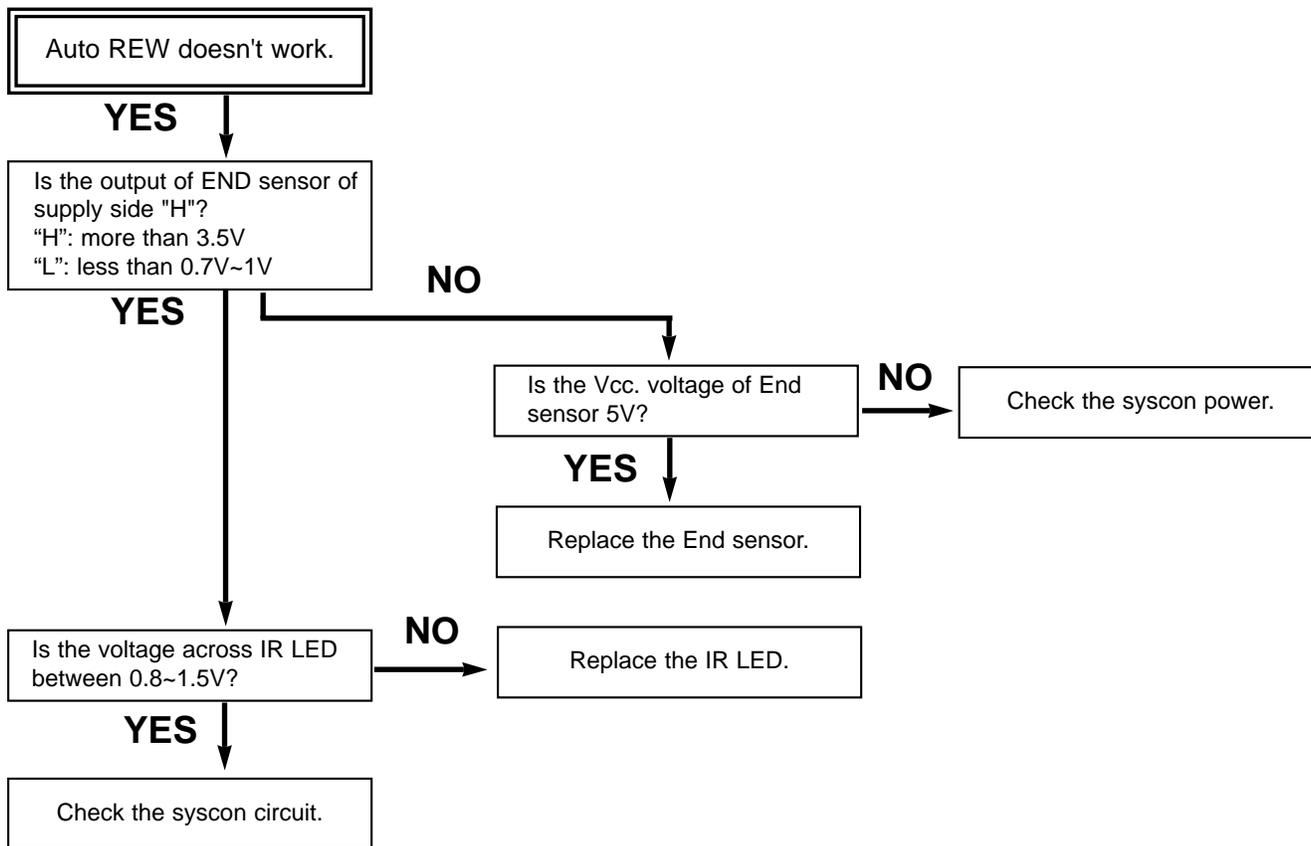
## GEAR AY, P2 & P3



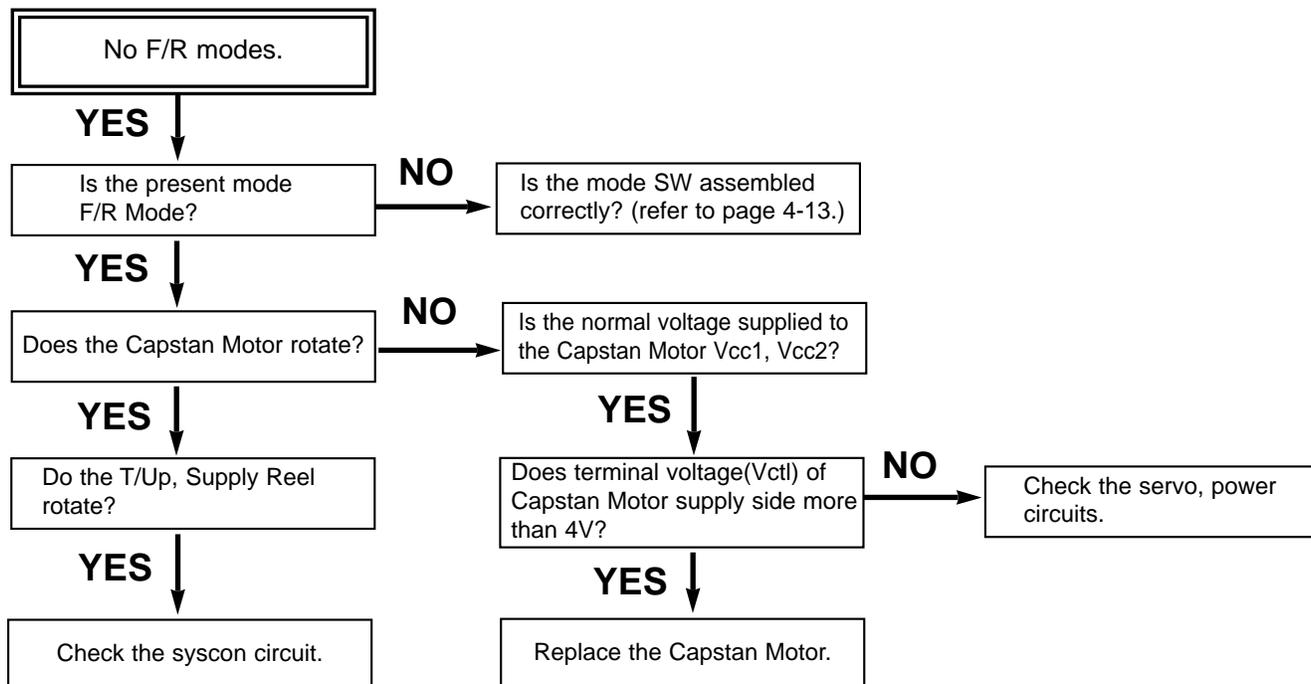
# MECHANISM TROUBLESHOOTING GUIDE

## 1. Deck Mechanism

A.

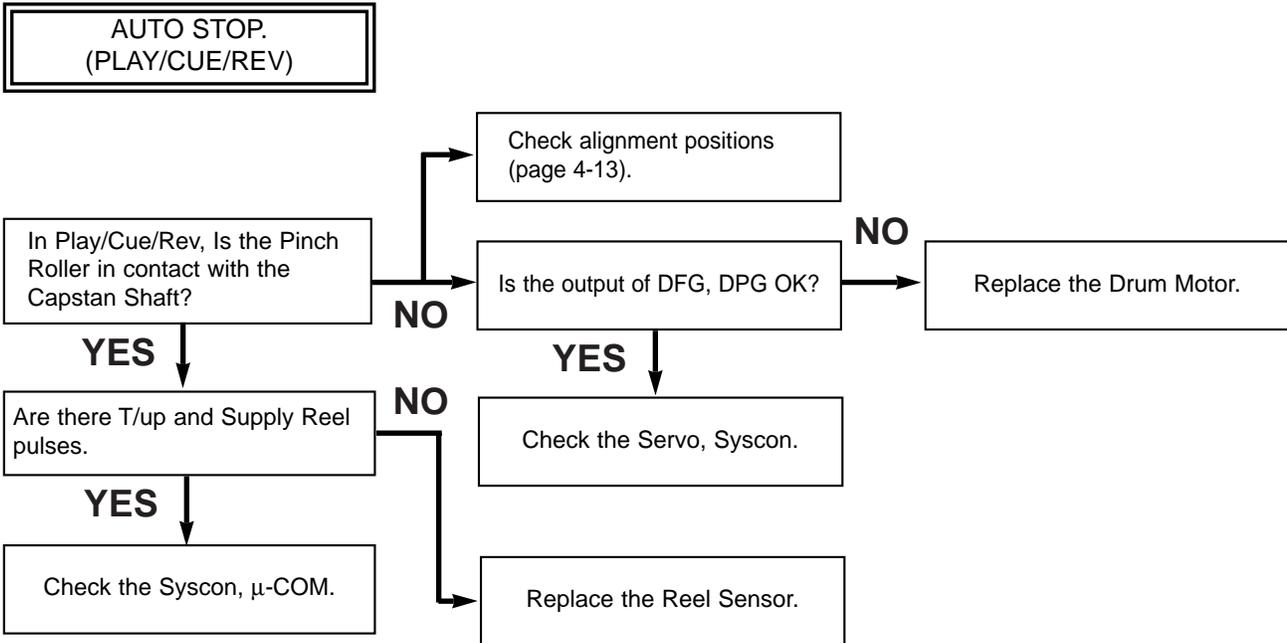


B.

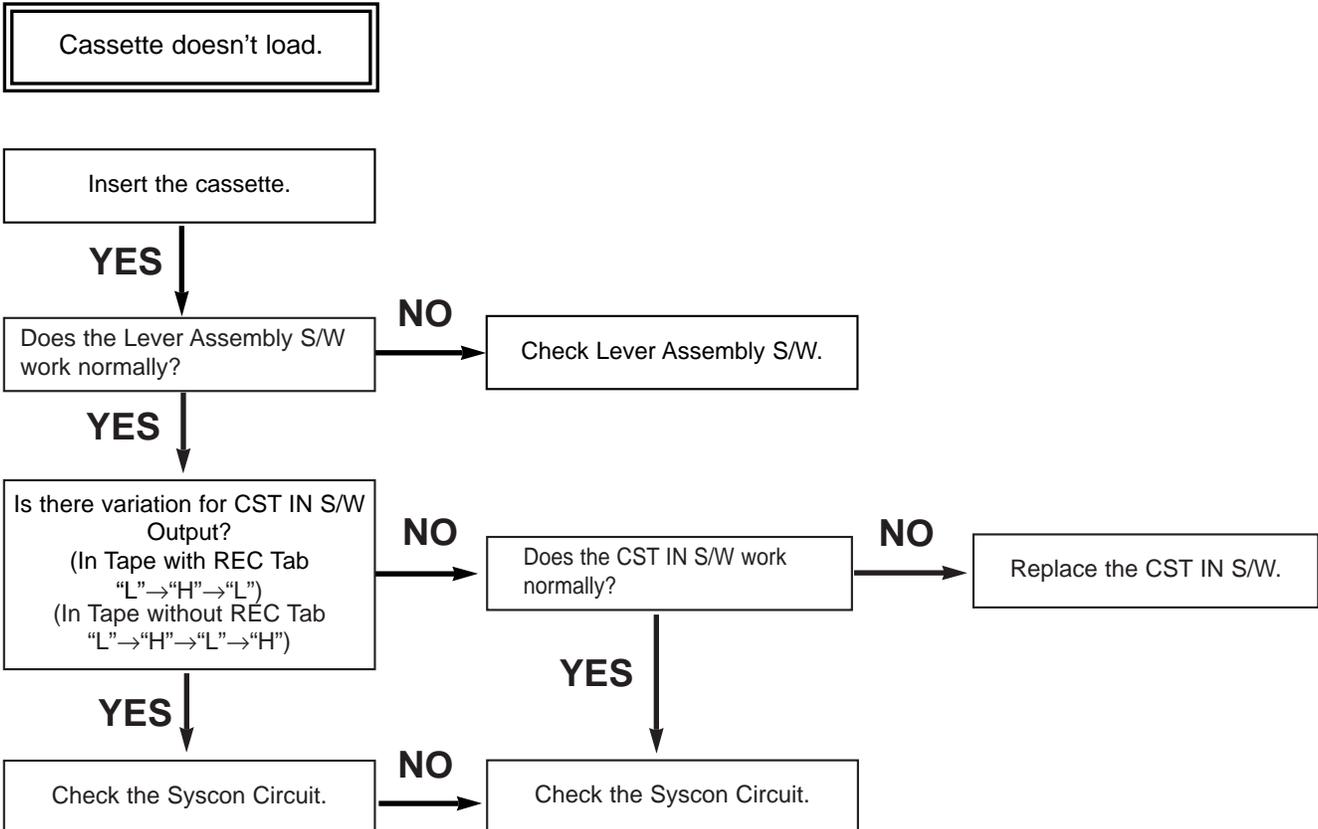


# MECHANISM TROUBLESHOOTING GUIDE

## C.

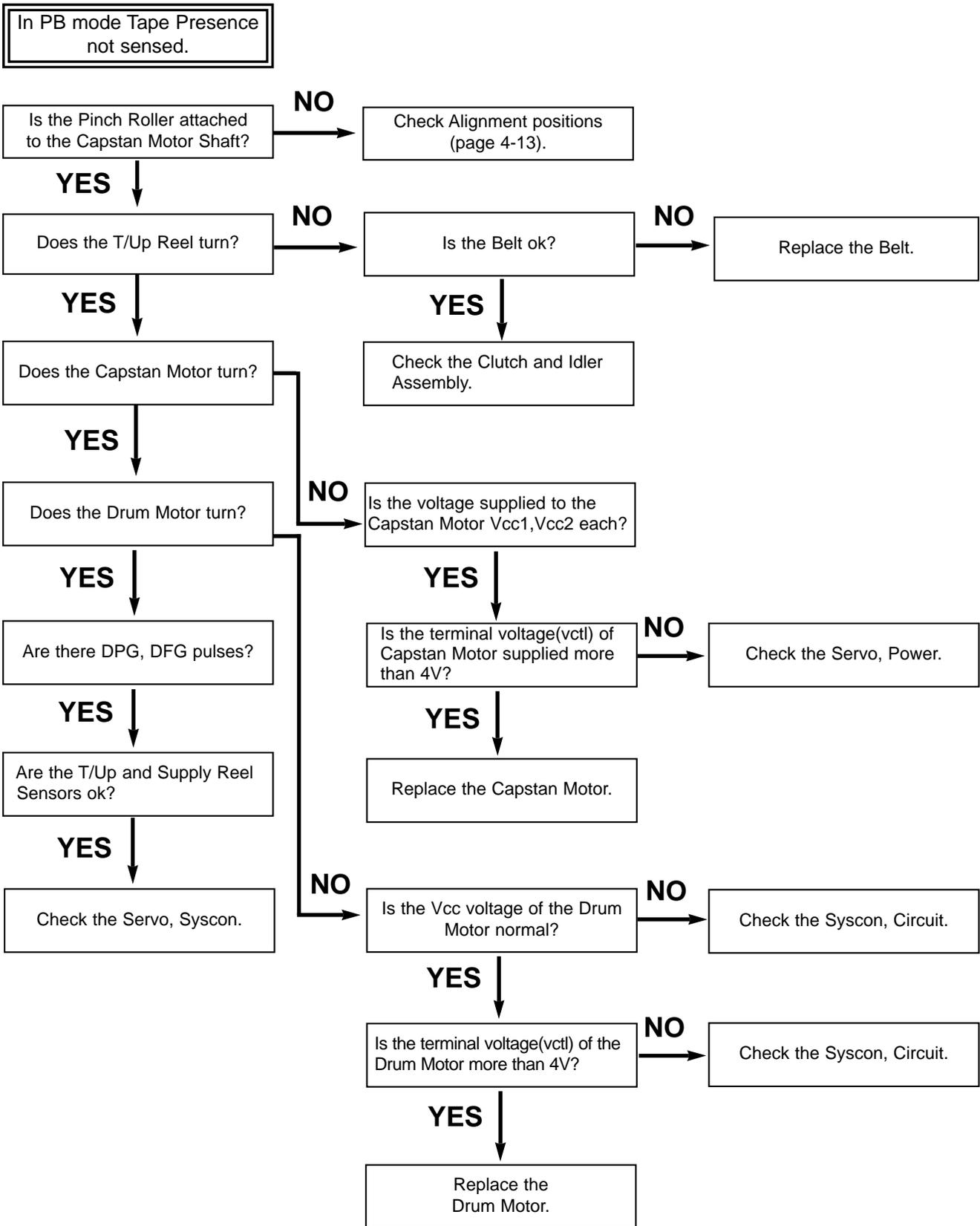


## D.



# MECHANISM TROUBLESHOOTING GUIDE

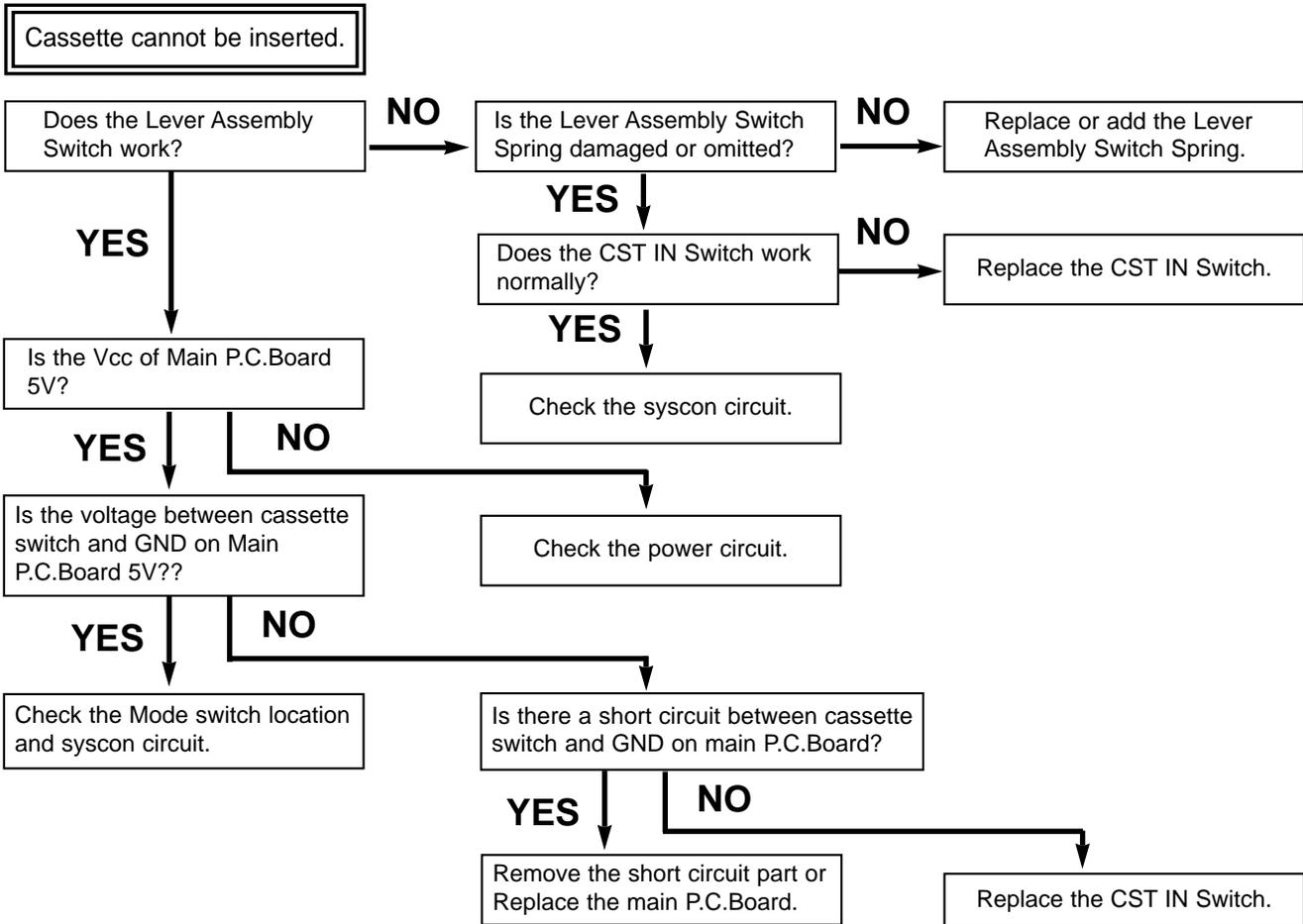
E.



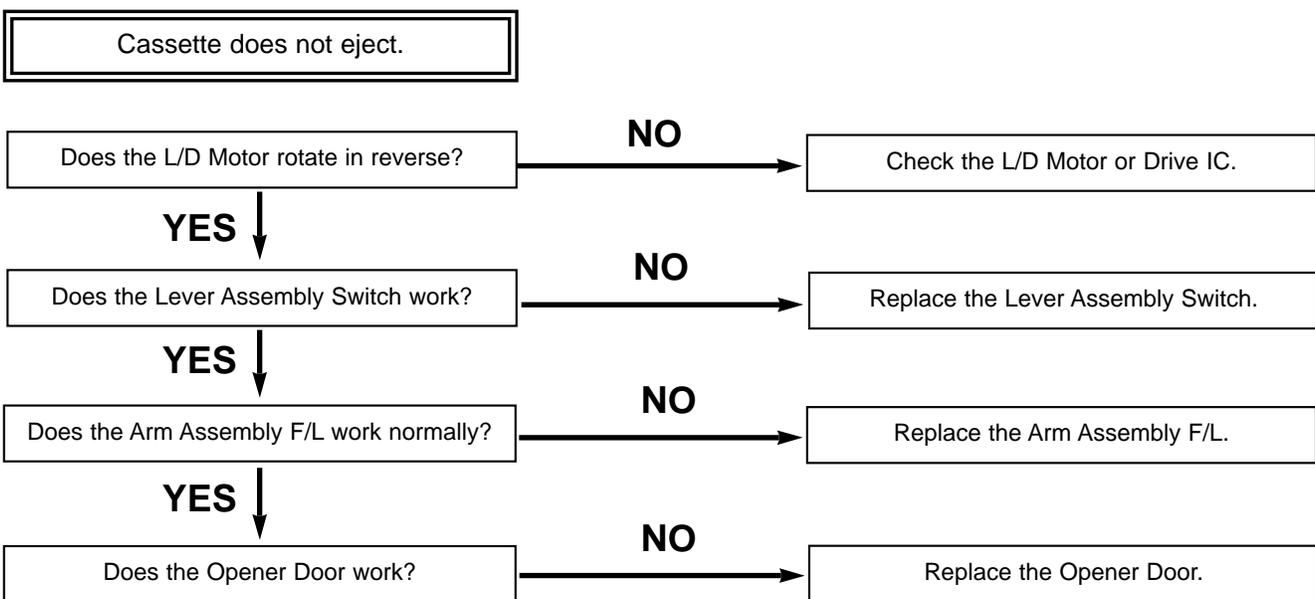
# MECHANISM TROUBLESHOOTING GUIDE

## 2. Front Loading Mechanism

A.



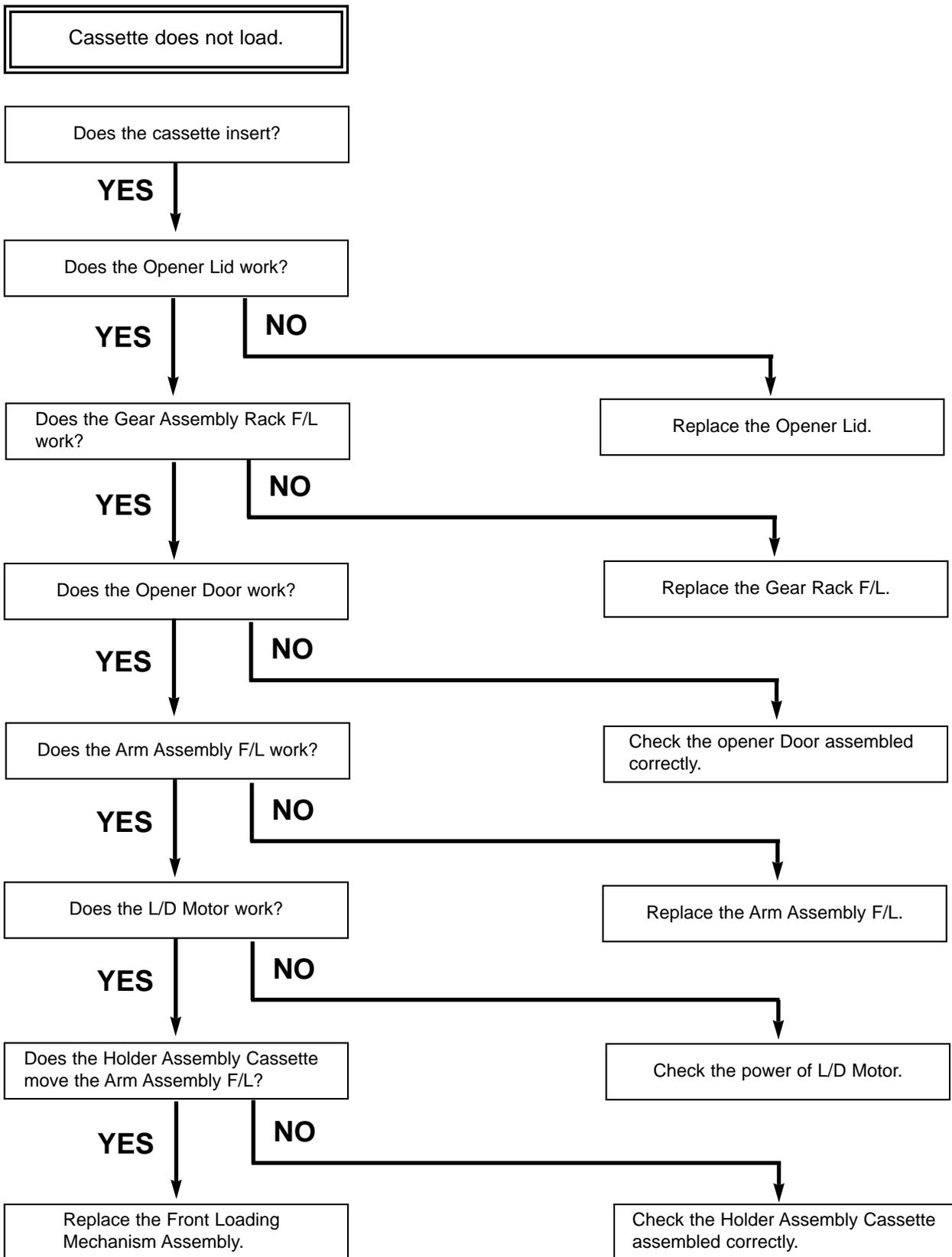
B.



# MECHANISM TROUBLESHOOTING GUIDE

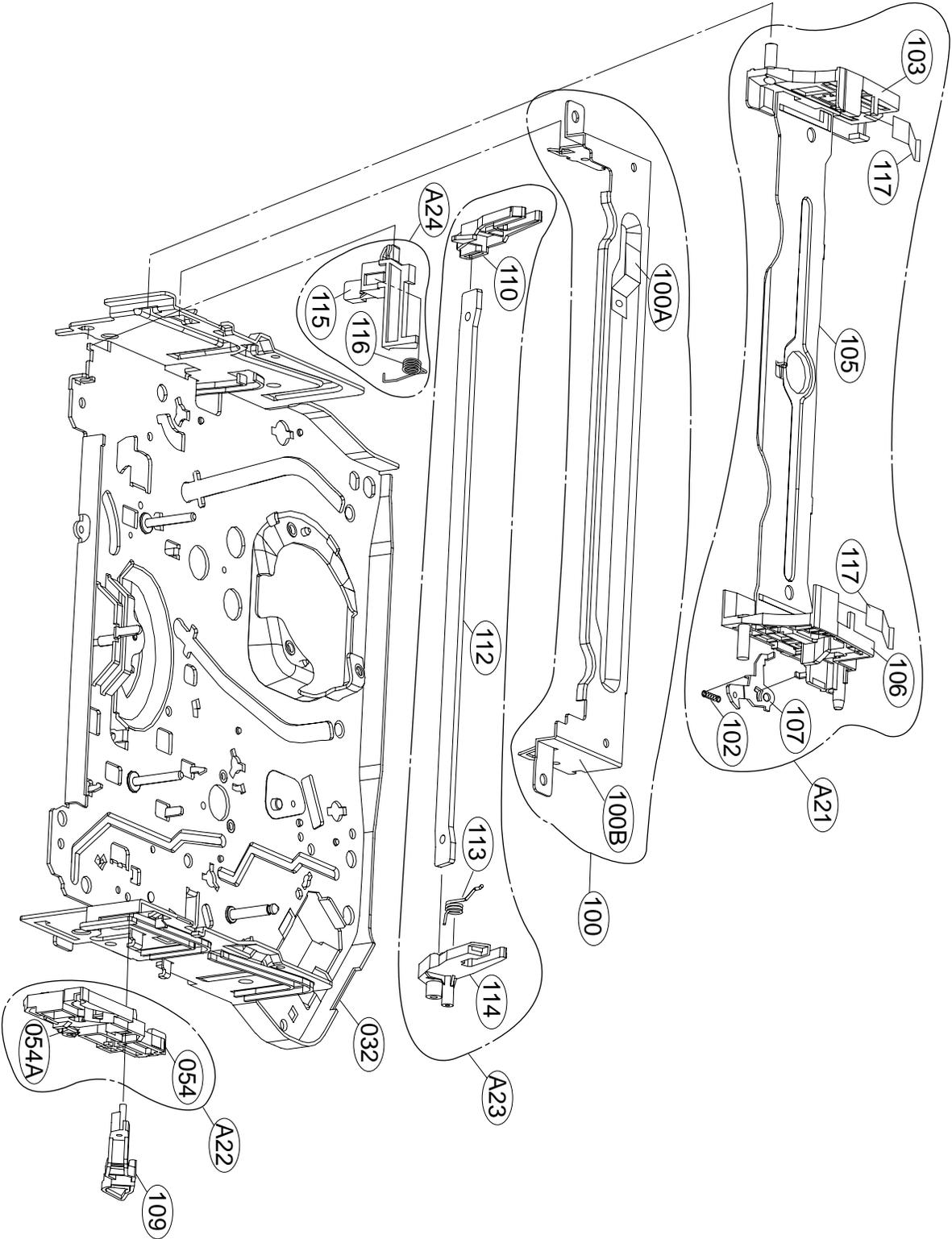
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C.



# EXPLODED VIEWS

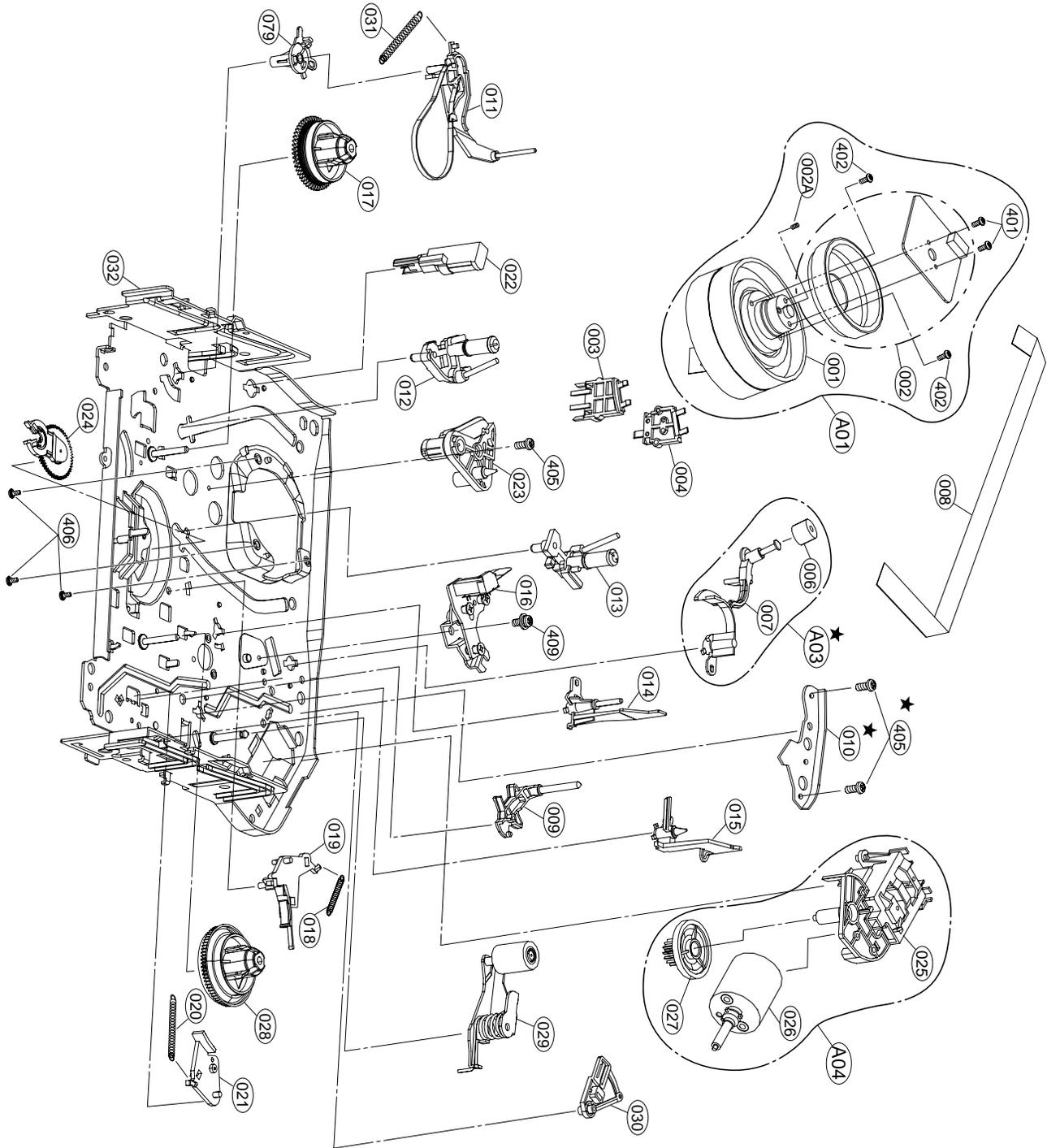
## 1. Front Loading Mechanism Section



# EXPLODED VIEWS

## 2. Moving Mechanism Section(1)

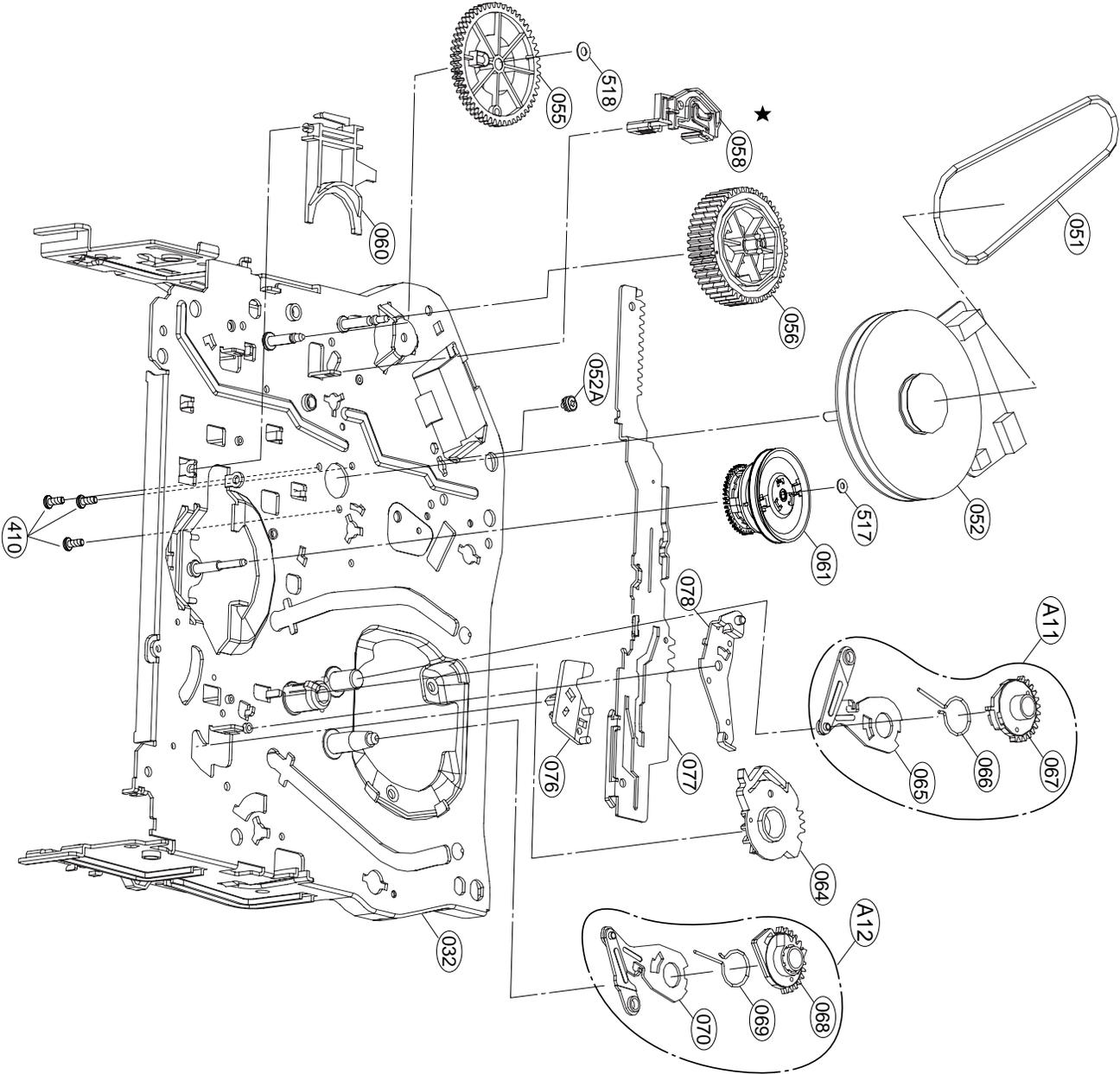
★ OPTIONAL PART



# EXPLODED VIEWS

## 3. Moving Mechanism Section(2)

★ OPTIONAL PART



# SECTION 5 MECHANISM OF DVD PART

## CONTENTS

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### DECK MECHANISM PARTS LOCATIONS

- Top View.....5-1
- Top View(without Tray Disc) .....5-1
- Bottom View .....5-1

### DECK MECHANISM DISASSEMBLY

1. Holder Clamp.....5-2
  - 1-1. Clamp Assembly Disc.....5-2
    - 1-1-1. Plate Clamp .....5-2
    - 1-1-2. Magnet Clamp .....5-2
    - 1-1-3. Clamp Upper.....5-2
2. Tray Disc .....5-2
3. Base Assembly Sled.....5-3
  - 3-1. Gear Assembly Feed .....5-3
  - 3-2. Gear Assembly Middle.....5-3
  - 3-3. Gear Assembly Rack .....5-3
4. Rubber Rear.....5-3

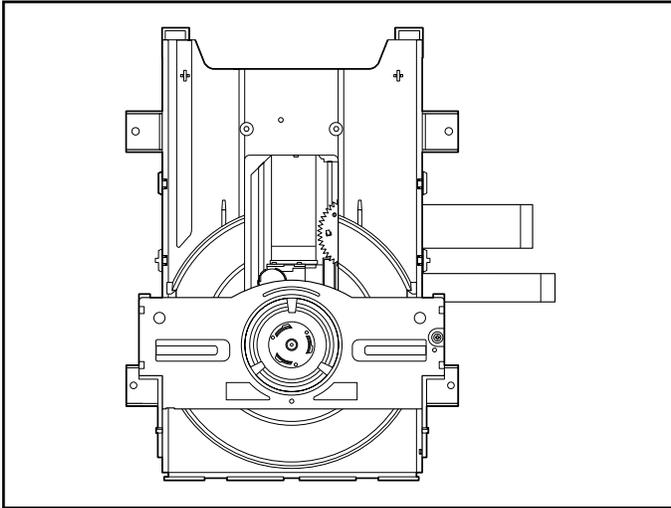
5. Frame Assembly Up/Down.....5-4
6. Belt Loading.....5-4
7. Gear Pulley .....5-4
8. Gear Loading .....5-4
9. Guide Up/Down.....5-4
10. PWB Assembly Loading.....5-4
11. Base Main.....5-4

### EXPLODED VIEW

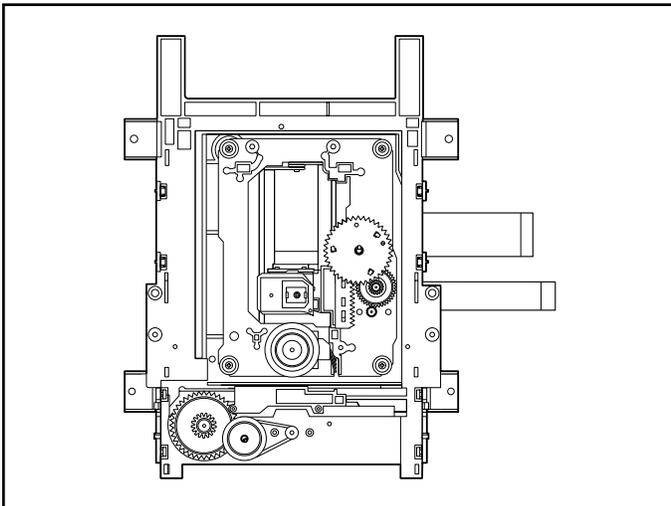
1. Deck Mechanism Exploded View....5-5
-

# DECK MECHANISM PARTS LOCATION

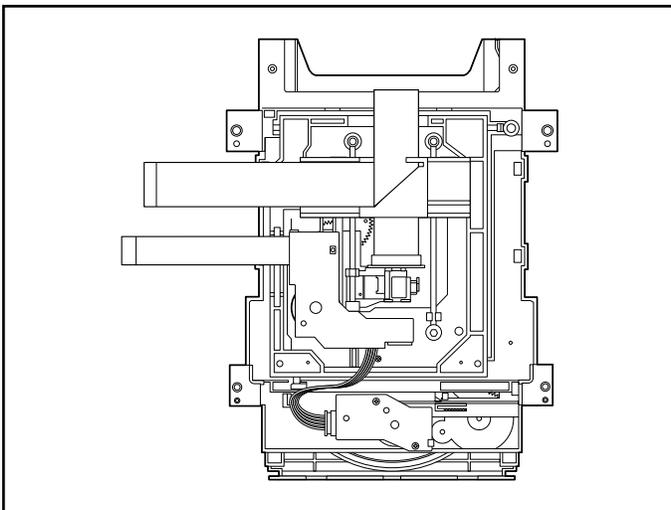
## • Top View (With Tray)



## • Top View (Without Tray)



## • Bottom View



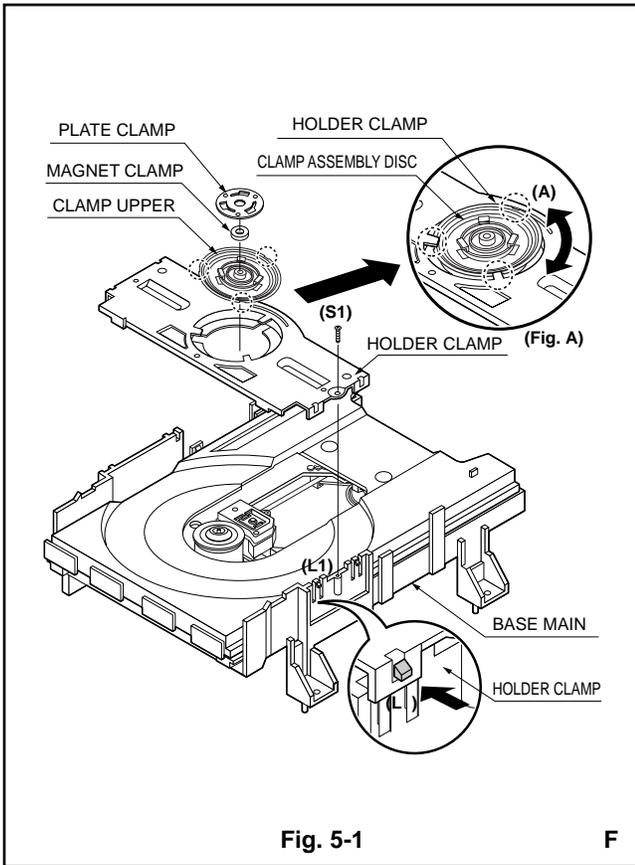
| Procedure Starting No.             | Parts                        | Fixing Type                                | Disassembly | Figure |
|------------------------------------|------------------------------|--|-------------|--------|
| 1                                  | Holder<br>Clamp              | 2 Screws,<br>2 Locking Tabs                |             | 5-1    |
| 1                                  | 2 Clamp Assembly<br>Disc     |  |             | 5-1    |
| 1, 2                               | 3 Plate Clamp                |  |             | 5-1    |
| 1, 2, 3                            | 4 Magnet Clamp               |  |             | 5-1    |
| 1, 2, 3, 4                         | 5 Clamp Upper                |  |             | 5-1    |
| 1                                  | 6 Tray Disc                  |  |             | 5-2    |
| 1, 6                               | 7 Base Assembly Sled         |  |             | 5-3    |
| 1, 2, 6                            | 8 Gear Assembly<br>Feed      | 4 Screws,<br>1 Connector<br>1 Locking Tabs |             | 5-3    |
| 1, 2, 6, 8                         | 9 Gear<br>Middle             |  |             | 5-3    |
| 1, 2, 6, 8,<br>9                   | 10 Gear Assembly<br>Rack     | 1 Screw                                    |             | 5-3    |
| 1, 2, 7                            | 11 Rubber Rear               |  |             | 5-3    |
| 1, 2, 7                            | 12 Frame Assembly<br>Up/Down | 1 Screw                                    | Bottom      | 5-4    |
| 1, 2                               | 13 Belt Loading              | 1 Locking Tab                              |             | 5-4    |
| 1, 2, 13                           | 14 Gear Pulley               |  |             | 5-4    |
| 1, 2, 13, 14                       | 15 Gear Loading              | 1 Locking Tab                              |             | 5-4    |
| 1, 2, 7, 12, 13, 14                | 16 Guide Up/Down             |  |             | 5-4    |
| 1, 2, 13                           | 17 PWB Assembly<br>Loading   | 1 Locking Tab<br>1 Hook<br>2Screw          | Bottom      | 5-4    |
| 1, 2, 7, 12, 13,<br>14, 15, 16, 17 | 18 Base Main                 | 2 Locking Tabs                             |             | 5-4    |

### Note

When reassembling, perform the procedure in reverse order.

The "Bottom" on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

# DECK MECHANISM DISASSEMBLY



## 1. Holder Clamp (Fig. 5-1)

- 1) Release 1 Screws(S1).
- 2) Unhook 2 Locking Tabs(L1).
- 3) Lift up the Holder Clamp and then separate it from the Base Main.

### 1-1. Clamp Assembly Disc

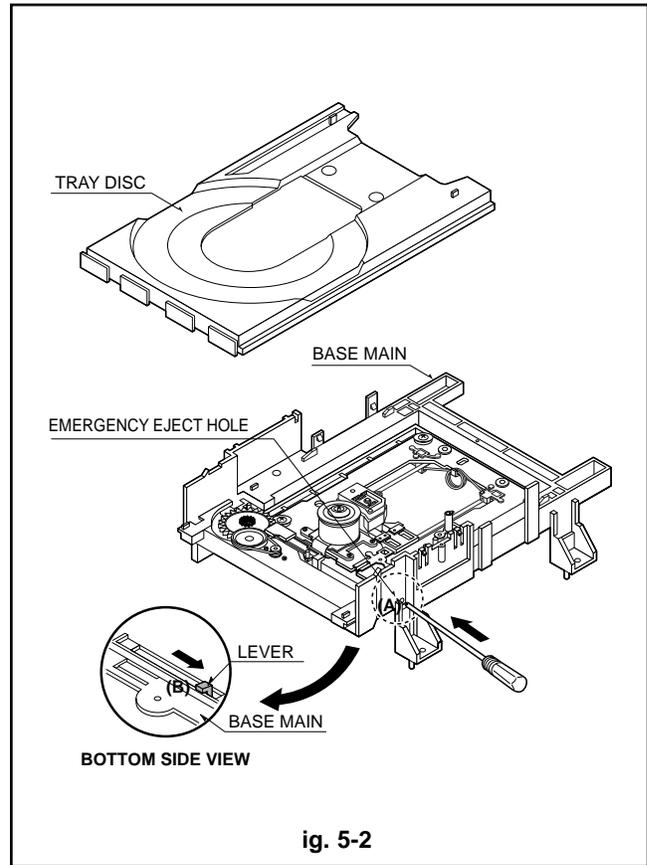
- 1) Place the Clamp Assembly Disc as Fig. (A)
- 2) Lift up the Clamp Assembly Disc in direction of arrow(A).
- 3) Separate the Clamp Assembly Disc from the Holder Clamp.

#### 1-1-1. Plate Clamp

- 1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

#### 1-1-2. Magnet Clamp

#### 1-1-3. Clamp Upper



## 2. Tray Disc (Fig. 5-2)

- 1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
- 2) Pull the Tray Disc until it is separated from the Base Main completely.

# DECK MECHANISM DISASSEMBLY

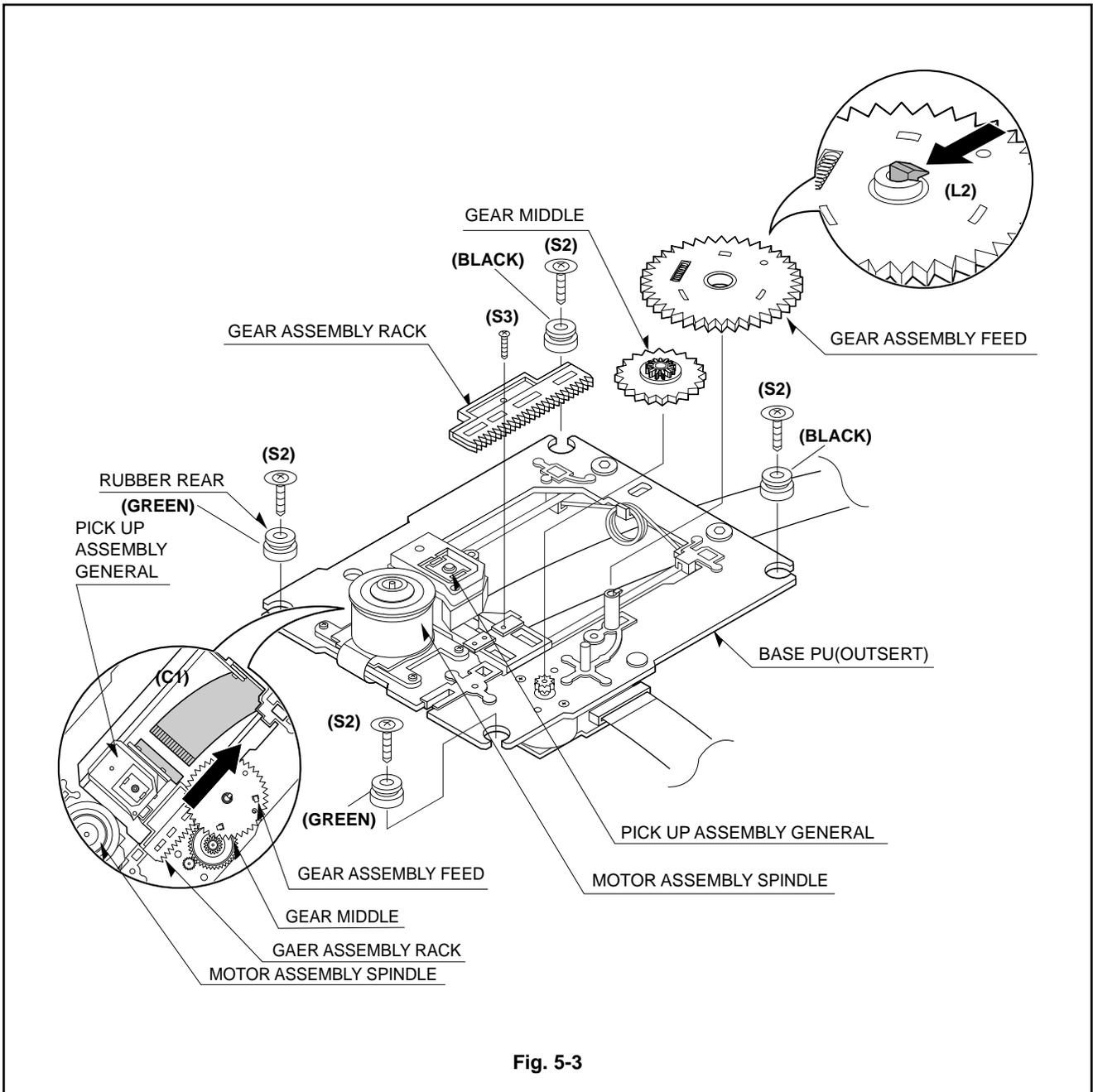


Fig. 5-3

### 3. Base Assembly Sled (Fig. 5-3)

- 1) Release 4 Screw(S2).
- 2) Disconnect the FFC Connector(C1)

### 3-1. Gear Assembly Feed

- 1) Unhook the Locking Tab(L2) in direction of arrow.

### 3-2. Gear Middle

### 3-3. Gear Assembly Rack

- 1) Release the Scerw(S3)

### 4. Rubber Rear (Fig. 5-3)

# DECK MECHANISM DISASSEMBLY

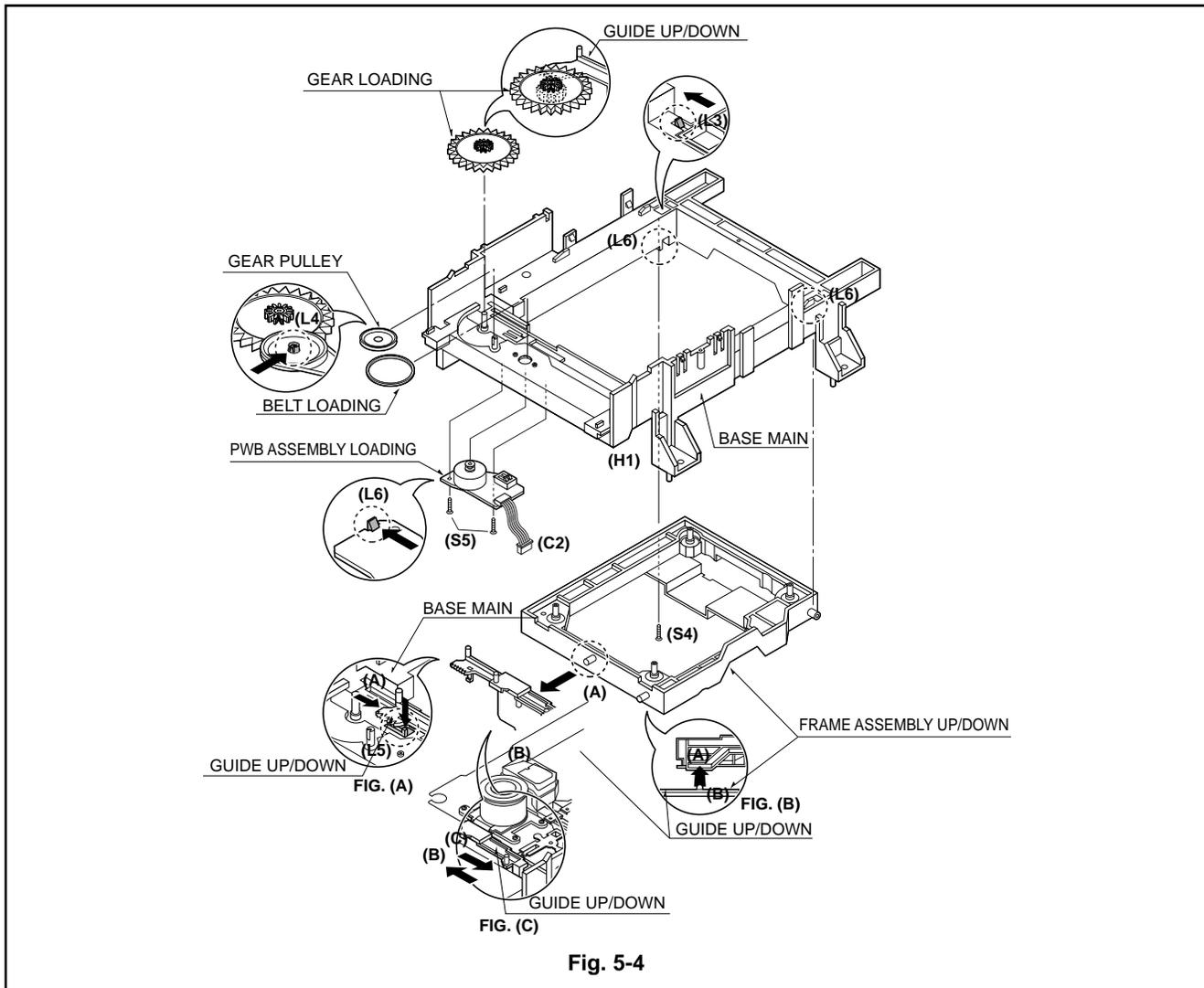


Fig. 5-4

## 5. Frame Assembly Up/Down (Fig. 5-4)

### Note

Put the Base Main face down(Bottom Side)

- 1) Release the Screw(S4)
- 2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

### Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

## 6. Belt Loading(Fig. 5-4)

### Note

Put the Base Main on original position(Top Side)

## 7. Gear pulley (Fig. 5-4)

- 1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

## 8. Gear Loading (Fig. 5-4)

## 9. Guide Up/Down (Fig. 5-4)

- 1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
- 2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

### Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

## 10. PWB Assembly Loading (Fig. 5-4)

### Note

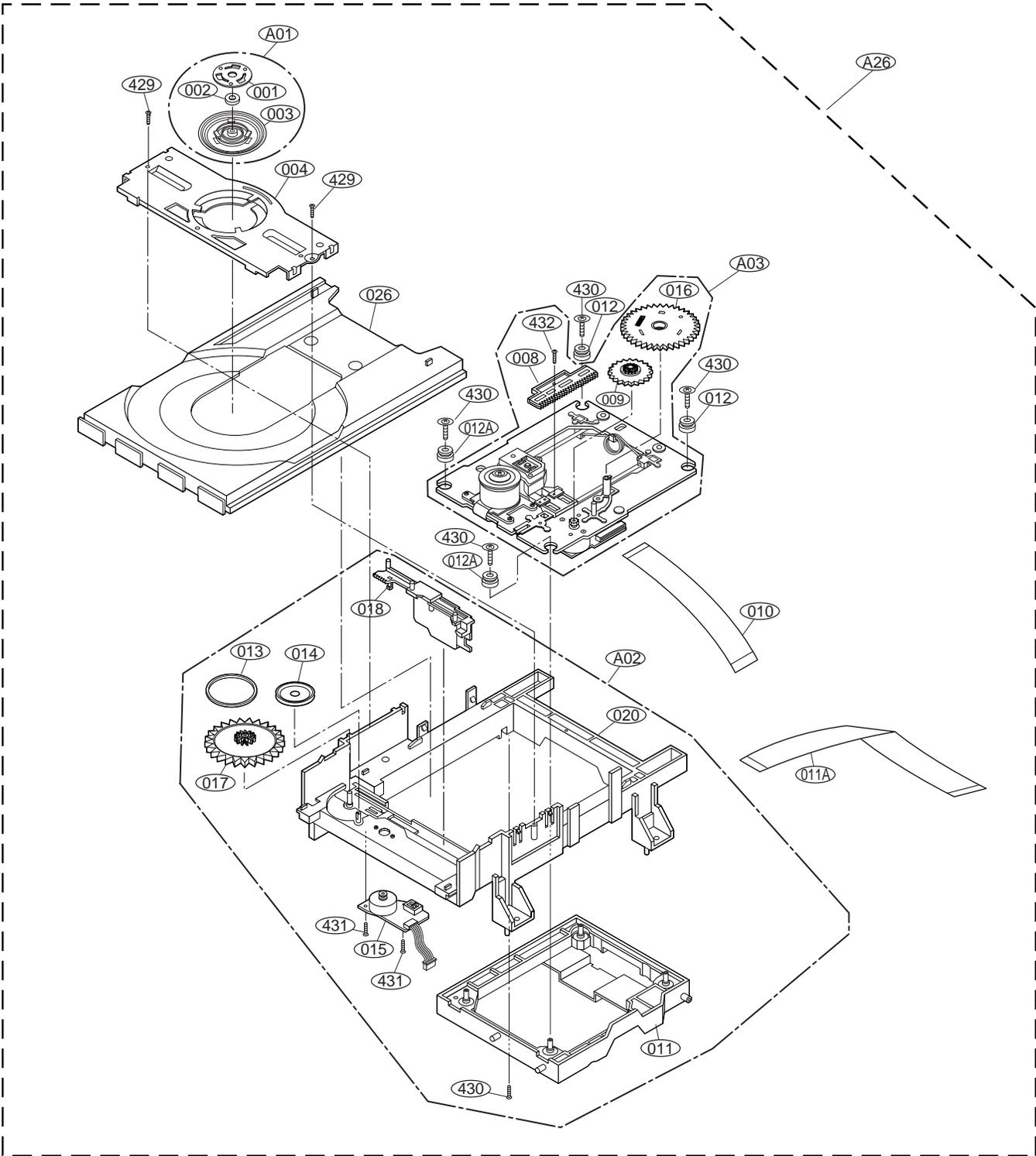
Put the Base Main face down(Bottom Side)

- 1) Release 2 Screws(S5)
- 2) Unhook the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
- 3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

## 11. Base Main(Fig. 5-4)

# EXPLODED VIEWS

## 1. Deck Mechanism Exploded View



**JVC**

**VICTOR COMPANY OF JAPAN, LIMITED**

AV & MULTIMEDIA COMPANY. 12,3-chome,Moriya-cho,Kanagawa-ku,Yokohama,Kanagawa-prefecture,221-8528,Japan



Printed in Japan  
0306 VP

# SECTION 6 REPLACEMENT PARTS LIST

## SAFETY PRECAUTION

Parts identified by the  $\triangle$  symbol are critical for safety. Replace only with specified part numbers.

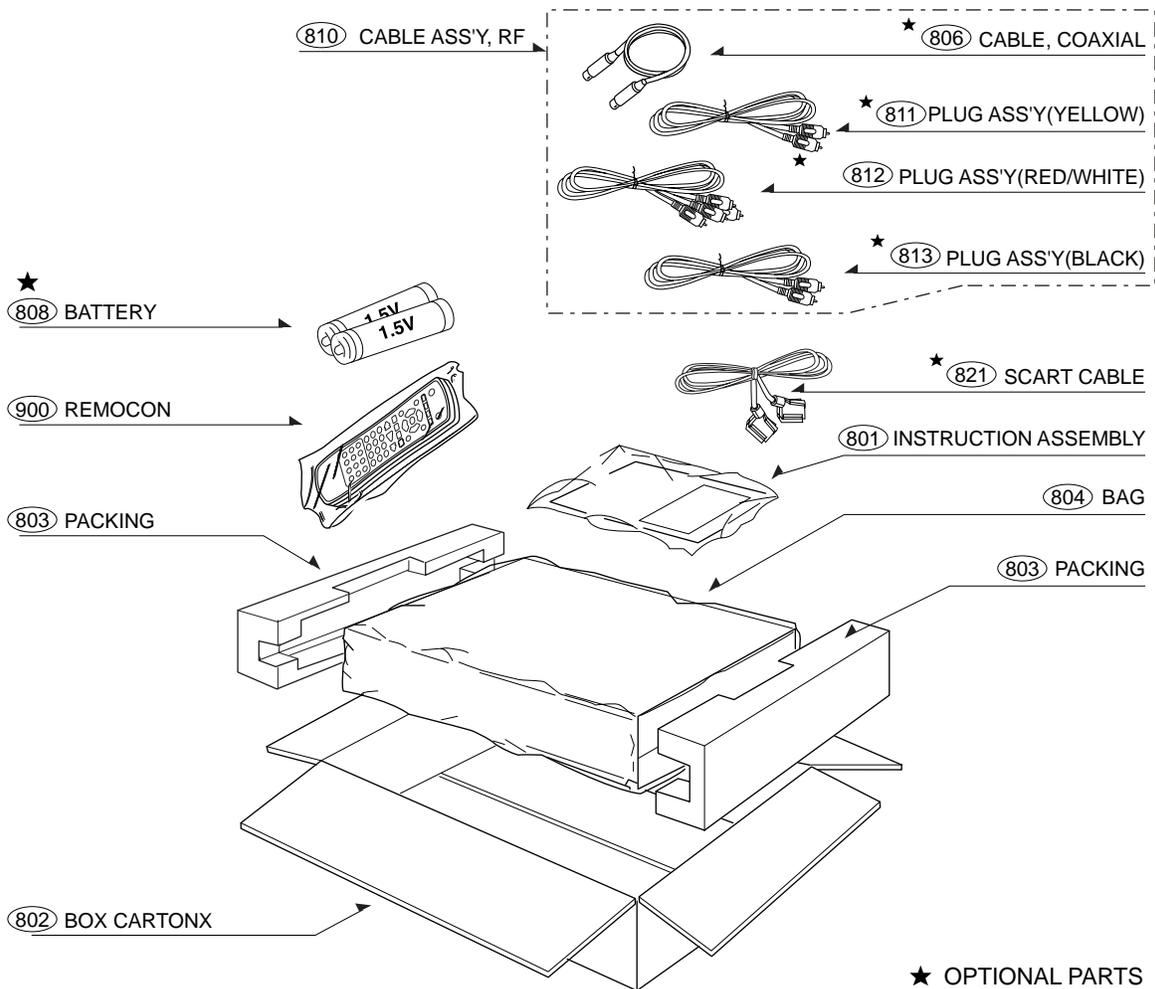
## BEWARE OF BOGUS PARTS

*Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.*

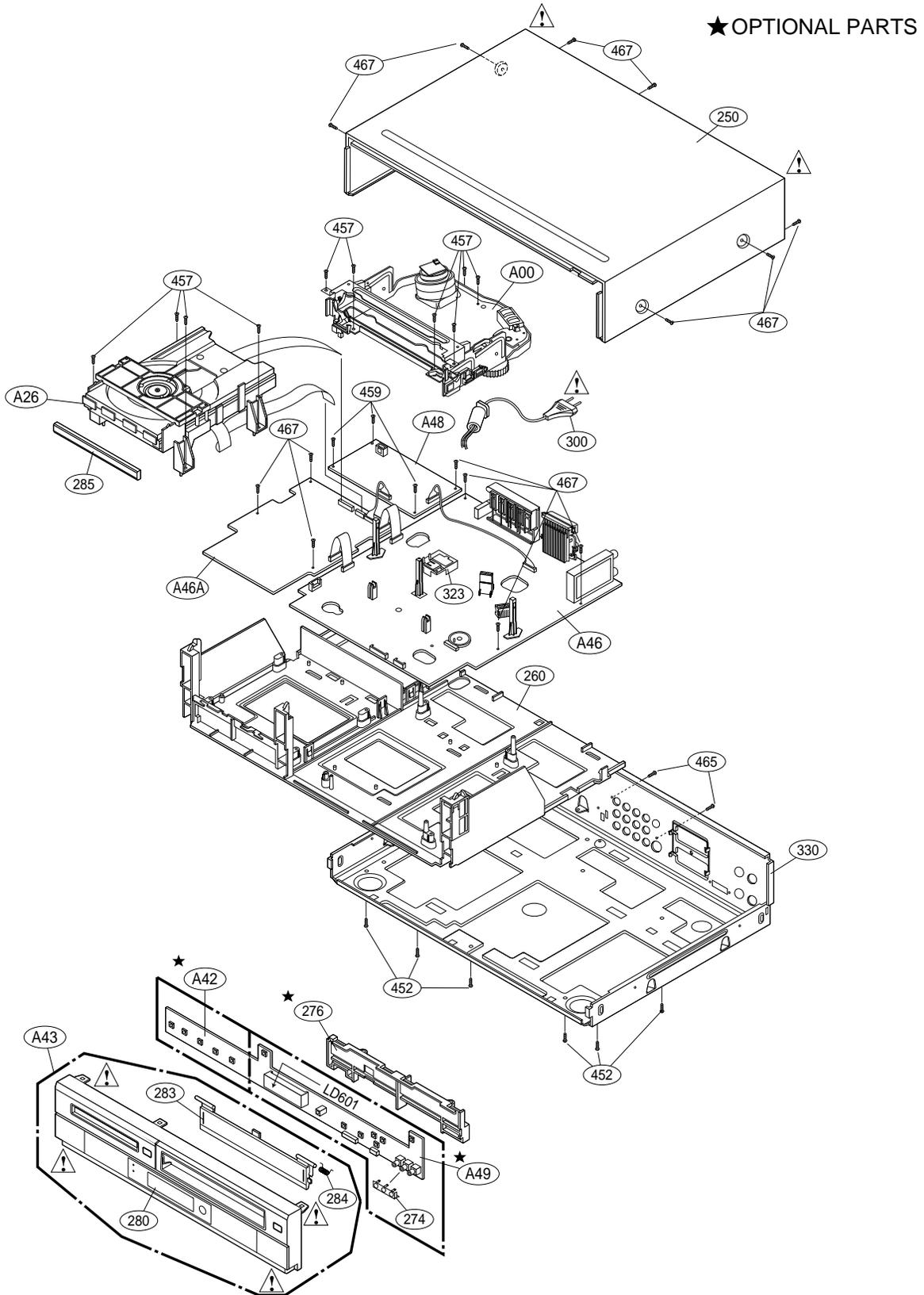
### 6.1 EXPLODED VIEW

#### 6.1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

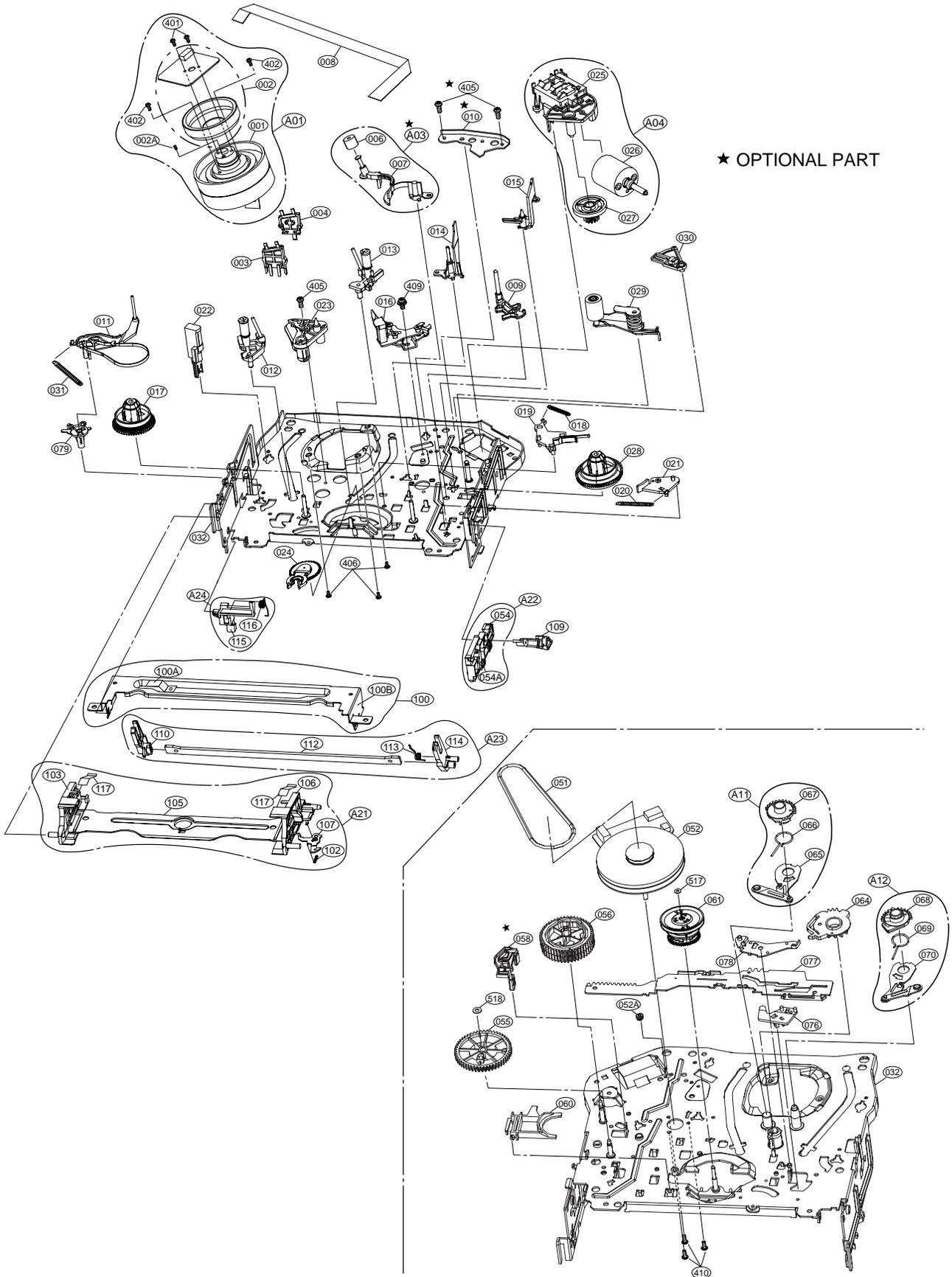
The instruction manual to be provided with this product will differ according to the destination.



6.1.2 FINAL ASSEMBLY <M2>

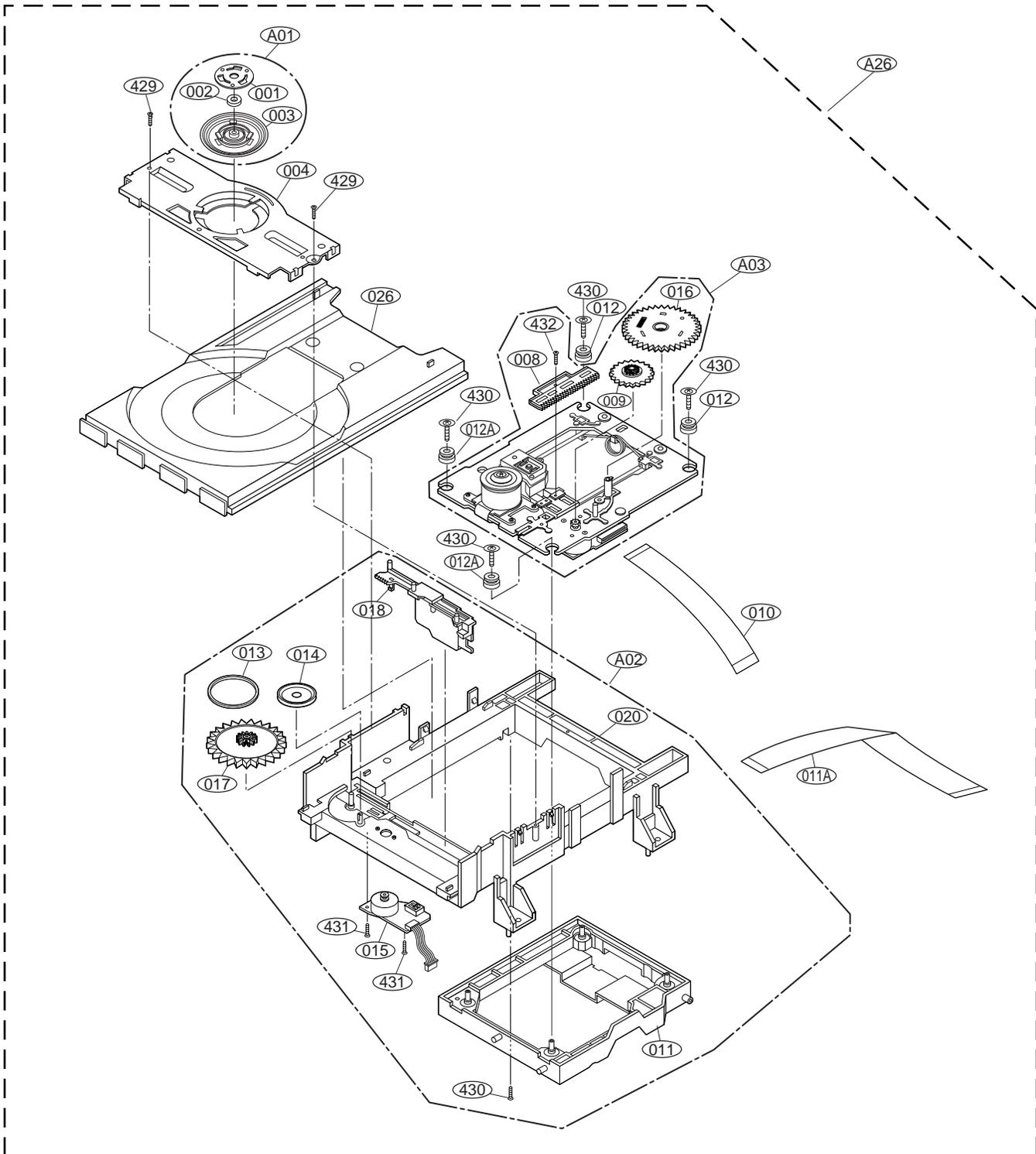


6.1.3 MECHANISM ASSEMBLY(VCR) <M4>



★ OPTIONAL PART

6.1.4 MECHANISM ASSEMBLY(DVD) <MN>



6.2 REPLACEMENT PARTS LIST

NSP:Not Service Parts

| #  | REF No. | PART No.       | PART NAME, DESCRIPTION     | SPECIFICATION                  | NSP |
|--|---------|----------------|----------------------------|--------------------------------|-----|
| *****  |         |                |                            |                                |     |
| <b>PACKING AND ACCESSORY ASSEMBLY &lt;M1&gt;</b> |         |                |                            |                                |     |
|  | 801     | LG 3835RP0093G | INSTRUCTION ASSEMBLY       | HR XV2EX                       |     |
|  | 801     | LG 3835RP0093J | INSTRUCTION ASSEMBLY       | HR XV2EY                       |     |
|  | 801     | LG 3835RP0093Y | INSTRUCTION ASSEMBLY       | HR XV2EL                       |     |
|  | 801     | LG 3835RP0093K | INSTRUCTION ASSEMBLY       | HR XV11EX                      |     |
|  | 802     | LG 3890R H784W | BOX                        | VJW602CS NA3FJJ SW3 A 1.118 1  |     |
|  | 803     | LG 3920R E080A | PACKING,CASING             | VC6000 S 0.02 150 EPS 4 1 1    |     |
|  | 804     | LG 292 053B    | BAG                        | SOFT(MIDI)                     | NSP |
|  | 808     |                | BATTERY,MANGANESE          | AAF UM 3 SEOTONG 1.5 V LOL 1   |     |
|  | 810     | LG 6851R 0012B | CABLE ASSEMBLY             | RF CABLE DOUBLE SHIELD PAL LGE |     |
|  | 900     | LG 6711R2P040A | REMOTE CONTROLLER ASSEMBLY | JVC COMBI VJW602CP JVC         |     |

\*\*\*\*\*

**FINAL ASSEMBLY <M2>**

|   |     |                |                      |                                |     |
|---|-----|----------------|----------------------|--------------------------------|-----|
| ▲ | A43 | LG 3721R F339B | PANEL ASSEMBLY,FRONT | HR XV2EX/XV2EY/XVE2L           |     |
| ▲ | A43 | LG 3721R F339E | PANEL ASSEMBLY,FRONT | HR XV11EX                      |     |
| ▲ | 250 | LG 3110R V004B | CASE                 | (COMBI 2) PRESS A288G HOLE 7EA |     |
|   | 260 | LG 3210R V004A | FRAME                | MAIN MOLD                      | NSP |
|   | 274 | LG 3300R X006A | PLATE                | JVC(SILVER STAMPING)           |     |
|   | 276 | LG 4940R Z084A | KNOB                 | PLAY HI 855M CLEAR VJW602CS    |     |
|   | 280 | LG 3720R F717B | PANEL,VIDEO          | HR XV2EX/XV2EY/XVE2L           | NSP |
|   | 280 | LG 3720R F717E | PANEL,VIDEO          | HR XV11EX                      | NSP |
|   | 283 | LG 3580R V059A | DOOR,CASE            | CST (VCR) VJW602CS ABS 11255 B |     |
|   | 284 | LG 442 681A    | SPRING               | DOOR                           |     |
|   | 285 | LG 3581R T085B | DOOR ASSEMBLY        | VCR VJW602CS TRAY              |     |
| ▲ | 300 | LG 6410RCHP02Z | POWER CORD           | HIT 102/H03VH2 F (ST HS:80MM)  |     |
|   | 330 | LG 3140R V004A | CHASSIS              | MAIN PRESS                     |     |
|   | 452 | LG 353 051A    | SCREW                | SPECIAL                        |     |
|   | 457 | LG 353 051E    | SCREW                | SPECIAL (3X12)                 |     |
|   | 459 | LG 353 051G    | SCREW,DRAWING        | + 2 D3.0 L8.0 MSWR3/FN TB ROUN |     |
|   | 465 | LG 353 046K    | SCREW                | SPECIAL (3X10 B.K)             |     |
|   | 467 | LG 353 051G    | SCREW,DRAWING        | + 2 D3.0 L8.0 MSWR3/FN TB ROUN |     |

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**MECHANISM ASSEMBLY (VCR) <M4>**

|      |                |                |                     |                                |     |
|------|----------------|----------------|---------------------|--------------------------------|-----|
|      | A00            | LG 6721RF0751D | DECK ASSEMBLY,VIDEO | D35(M) DI (4HF, PAL, AHC(X), B | NSP |
|      | A01            | LG 6723R 0403C | DRUM(CIRC) ASSEMBLY | D35 6CH PAL (8P6C)             |     |
|      | A04            | LG 4811RF0038A | BRACKET ASSEMBLY    | L/D(S)                         |     |
|      | A11            | LG 4471R 0005A | GEAR ASSY           | P3                             |     |
|      | A12            | LG 4471R 0004A | GEAR ASSY           | P2                             |     |
|      | A21            | LG 4931R 0047A | HOLDER ASSY         | CST                            |     |
|      | A22            | LG 4471R 0006A | GEAR ASSY           | RACK FIL                       |     |
|      | A23            | LG 4261R 0023A | ARM ASSY            | FL                             |     |
|      | A24            | LG 4510R 0046A | LEVER               | ASSY SWITCH                    |     |
|      | 001            | LG 6723R 0306C | DRUM(CIRC) ASSEMBLY | SUB D35 6CH (8P6C)             | NSP |
|      | 002            | LG 4680R B005A | MOTOR(MECH)         | DRUM I20AL05 SEJIN SANKYO ICLE |     |
| 002A | LG 5202R00002C | BRUSH,CARBON   |                     | ASSY D33 (TIP+2 SPRING) 1,4,   |     |
|      | 003            | LG 4930R 0284A | HOLDER              | FPC(6CH)                       |     |
|      | 004            | LG 5006R 0034A | CAP                 | FPC                            |     |
|      | 008            | LG 6850R HG18Z | CABLE,FLAT          | P=1.25 FFC UL2896(0.05X0.8) 7  |     |
|      | 009            | LG 4260R 0038A | ARM                 | T/UP(D35)                      |     |
|      | 010            | LG 4810R 0125A | BRACKET             | CHASSIS                        |     |
|      | 011            | LG 4261R 0022A | ARM ASSY            | TENSION(D35)                   |     |
|      | 012            | LG 3041R 0037A | BASE ASSY           | P2                             |     |
|      | 013            | LG 3041R 0038A | BASE ASSY           | P3                             |     |
|      | 014            | LG 3041R 0039A | BASE ASSY           | P4                             |     |
|      | 015            | LG 5870R 0005A | OPENER              | L/D(D35)                       |     |
|      | 016            | LG 3041R 0036A | BASE ASSEMBLY       | A/C HEAD (ALPS)                |     |
|      | 017            | LG 4408R 0003A | REEL                | S                              |     |
|      | 018            | LG 4970R 0140A | SPRING              | COIL RS D35                    |     |
|      | 019            | LG 4421R 0008A | BRAKE ASSEMBLY      | RS                             |     |
|      | 020            | LG 4970R 0128A | SPRING              | COIL D35 (TB)                  |     |
|      | 021            | LG 4421R 0006A | BRAKE ASSY          | T                              |     |
|      | 022            | LG 6520D00002A | HEAD(CIRC)          | D35 FE ST FE HEAD              |     |
|      | 023            | LG 3040R 0057A | BASE                | LOADING                        |     |
|      | 024            | LG 4261R 0024A | ARM ASSEMBLY        | IDLER (H)                      |     |
|      | 025            | LG 4810R 0118A | BRACKET             | L/D(S)                         | NSP |
|      | 026            | LG 4680R D002A | MOTOR(MECH)         | LOADING MDB2B66 SANKYO D35 ASP | NSP |
|      | 027            | LG 4470R 0093A | GEAR                | WHEEL                          | NSP |
|      | 028            | LG 4408R 0004A | REEL                | T                              |     |
|      | 029            | LG 4261R 0019C | ARM ASSEMBLY        | DECK/MECHA PINCH               |     |
|      | 030            | LG 4510R 0043A | LEVER               | T/UP                           |     |
|      | 031            | LG 4970R 0123A | SPRING              | COIL TENSION(D35)              |     |
|      | 032            | LG 3141R 0040A | CHASSIS ASSY        | D35                            | NSP |

| # | REF No. | PART No.       | PART NAME, DESCRIPTION       | SPECIFICATION                  | NSP |
|---|---------|----------------|------------------------------|--------------------------------|-----|
|   | 051     | LG 4400R 0005A | BELT                         | CAPSTAN                        |     |
|   | 052     | LG 4680R A007A | MOTOR(MECH)                  | CAPSTAN F2QV06 SANKYO D35 ASR  |     |
|   | 052A    | LG 4980R 0023A | SUPPORTER                    | CAPSTAN(D35)                   |     |
|   | 054     | LG 4470R 0100A | GEAR                         | RACK FL                        |     |
|   | 054A    | LG 4970R 0124B | SPRING                       | COIL D35 (RACK FL)             |     |
|   | 055     | LG 4470R 0097A | GEAR                         | DRIVE(D35)                     |     |
|   | 056     | LG 4470R 0096A | GEAR                         | CAM(D35)                       |     |
|   | 058     | LG 4421R 0007A | BRAKE ASSY                   | CAPSTAN                        |     |
|   | 060     | LG 4510R 0040A | LEVER                        | F/R(D35)                       |     |
|   | 061     | LG 4265R 0005A | CLUTCH ASSEMBLY              | D35 (M)                        |     |
|   | 064     | LG 4470R 0098A | GEAR                         | SECTOR(D35)                    |     |
|   | 065     | LG 4261R 0021A | ARM ASSY                     | P3                             | NSP |
|   | 066     | LG 4970R 0122A | SPRING                       | COIL D35                       | NSP |
|   | 067     | LG 4470R 0095A | GEAR                         | P3                             | NSP |
|   | 068     | LG 4470R 0094A | GEAR                         | P2                             | NSP |
|   | 069     | LG 4970R 0122A | SPRING                       | COIL D35                       | NSP |
|   | 070     | LG 4261R 0020A | ARM ASSY                     | P2                             | NSP |
|   | 076     | LG 4510R 0047A | LEVER                        | SPRING                         |     |
|   | 077     | LG 3300R M116A | PLATE                        | SLIDER                         |     |
|   | 078     | LG 4510R 0041A | LEVER                        | TENSION                        |     |
|   | 079     | LG 3040R 0056A | BASE                         | TENSION(D35)                   |     |
|   | 100     | LG 3301R M022A | PLATE ASSEMBLY               | TOP                            |     |
|   | 100A    | LG 3300R 0184A | PLATE                        | GND                            |     |
|   | 100B    | LG 3300R M118A | PLATE                        | TOP(D35)                       |     |
|   | 102     | LG 4970R 0130A | SPRING                       | COIL D35 (STOPPER)             |     |
|   | 103     | LG 4930R 0276A | HOLDER                       | SIDE(L)                        | NSP |
|   | 105     | LG 4930R 0274A | HOLDER                       | CST                            | NSP |
|   | 106     | LG 4930R 0275A | HOLDER                       | SIDE(R)                        | NSP |
|   | 107     | LG 4510R 0044A | LEVER                        | STOPPER                        | NSP |
|   | 109     | LG 5870R 0004A | OPENER                       | DOOR                           |     |
|   | 110     | LG 4260R 0035A | ARM                          | FIL(L)                         | NSP |
|   | 112     | LG 3070R 0002A | BODY                         | FL                             | NSP |
|   | 113     | LG 4970R 0127A | SPRING                       | COIL D35 (F/L/R)               | NSP |
|   | 114     | LG 4260R 0036A | ARM                          | FIL(R)                         | NSP |
|   | 115     | LG 4510R 0042A | LEVER                        | SWITCH                         |     |
|   | 116     | LG 4970R 0138A | SPRING                       | COIL D35 SWITCH                |     |
|   | 117     | LG 3300R M137A | PLATE                        | SPRING CST                     |     |
|   | 401     | LG 1M6C0261518 | SCREW MACHINE,PAN HEAD SPR W | + D2.6 L4.5 MSWR3/FZY          |     |
|   | 402     | LG 1MPC0261418 | SCREW MACHINE,PAN HEAD       | D 2.6 L 4.0 MSWR3/FZY          |     |
|   | 405     | LG 1SZZR 0031B | SCREW,DRAWING                | + 1 D2.6 L5.8 SWRCH16A/FZY TAP |     |
|   | 406     | LG 1M6C0302018 | PAN HEAD MACHINE SCREW S/W + | D 3.0 L 6.0 MSWR3/FZY          |     |
|   | 409     | LG 1SZZR 0032B | SCREW,DRAWING                | + 1 D2.6 L5.0 SWRCH18A/FZY TAP |     |
|   | 410     | LG 1APF0262218 | SCREW TAP TITE(B),PAN HEAD   | + D2.6 L6.8 MSWR3/FZY          |     |
|   | 517     | LG 1WZZR 0004D | WASHER                       | STOPPER                        |     |
|   | 518     | LG 1WZZR 0004A | WASHER                       | STOPPER                        |     |

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**MECHANISM ASSEMBLY (DVD) <MN>**

|  |      |                |                          |                                |     |
|--|------|----------------|--------------------------|--------------------------------|-----|
|  | A26  | LG 6721RF0366A | DECK ASSEMBLY,VIDEO      | DP5 4V(SHORT BODY COMBI) DI    | NSP |
|  | A01  | LG 4861R 0015A | CLAMP ASSEMBLY           | DISC(DP 5) DI                  |     |
|  | A02  | LG 3041R M008B | BASE ASSEMBLY            | MAIN, DP5 4V (SHORT BODY) DI   |     |
|  | A03  | LG 3041R M005A | BASE ASSEMBLY            | SLED (DP5) DI                  |     |
|  | 001  | LG 3300R 0547A | PLATE                    | CLAMP                          | NSP |
|  | 002  | LG 5016H 1016B | MAGNET                   | CLAMP(LDM R608,10*5,1*1.5T)    | NSP |
|  | 003  | LG 4860R 0006A | CLAMP                    | UPPER                          | NSP |
|  | 004  | LG 4930R 0171A | HOLDER                   | CLAMP                          |     |
|  | 008  | LG 4470R 0047B | GEAR                     | ASSY RACK (DI)                 |     |
|  | 009  | LG 4470R 0053A | GEAR                     | MIDDLE                         |     |
|  | 010  | LG 6850R GK22Z | CABLE,FLAT               | P=1.0 FFC UL2896(0.05X0.65) 11 |     |
|  | 011  | LG 3210R 0036A | FRAME                    | UP/D                           |     |
|  | 011A | LG 6850R JW24Z | CABLE,FLAT               | P=1.0 FFC UL2896(0.035X0.7) 23 |     |
|  | 012  | LG 5040R 0047A | RUBBER                   | REAR(E2,5040H 1054A),YAMAUCHI  |     |
|  | 012A | LG 5040R 0047C | RUBBER                   | GREEN                          |     |
|  | 013  | LG 4400R 0006A | BELT                     | LOADING                        |     |
|  | 014  | LG 4470R 0055A | GEAR                     | PULLEY                         |     |
|  | 015  | LG 6871RZ5130A | PWB(PCB) ASSEMBLY,OTHERS | SUB,L/D (DP 4V,DVD+VCR) DI     |     |
|  | 016  | LG 4470R 0050B | GEAR                     | ASSY FEED (DI)                 |     |
|  | 017  | LG 4470R 0056A | GEAR                     | LOADING                        |     |
|  | 018  | LG 4974R 0023A | GUIDE                    | UP/DOWN                        |     |
|  | 020  | LG 3040R M001A | BASE                     | MAIN MOLD                      | NSP |
|  | 026  | LG 3390R 0014A | TRAY                     | DISK                           |     |
|  | 429  | LG 1SZZR 0012A | SCREW,                   | B TITE                         |     |
|  | 430  | LG 1SZZH 1003A | SCREW,                   | + D2.0 6MM SWRCH16ANIY 4.5MM   |     |
|  | 431  | LG 1SZZH 1007B | SCREW,DRAWING            | + D2.0 6MM SWRCH16AZNBK 4MM 1  |     |
|  | 432  | LG 1SZZR 0011A | SCREW,                   | MACHINE                        |     |

| #                                      | REF No.      | PART No.    | PART NAME, DESCRIPTION         | SPECIFICATION                   | NSP |
|--|--------------|-------------|--------------------------------|---------------------------------|-----|
| *****                                  |              |             |                                |                                 |     |
| <b>POWER BOARD ASSEMBLY &lt;01&gt;</b> |              |             |                                |                                 |     |
| A48                                    | LG           | 3501R 7431A | BOARD ASSEMBLY                 | VCR VJW602CS SERIES SMPS        |     |
| BD01                                   | LG           | 636 004C    | FILTER(CIRC),EMC               | BEAD CORE BFS3550R2FD8.R T/P    |     |
| BD02                                   | LG           | 636 004C    | FILTER(CIRC),EMC               | BEAD CORE BFS3550R2FD8.R T/P    |     |
| BD10                                   | S1WB/A/60    | 4101        | DIODE                          | S1WB/A60(1A 600V) SHIDENKEN     |     |
| C101                                   | LG           | 624 088L    | CAPACITOR,DRAWING              | 435D SUNIL ELECTRONICS 0.1UF/2  |     |
| C102                                   | LG           | 624 088L    | CAPACITOR,DRAWING              | 435D SUNIL ELECTRONICS 0.1UF/2  |     |
| C103                                   | LG           | 624 082C    | CAPACITOR,AL,ELECTROLYTIC      | 100MF400V SHL SMPS S/Y          |     |
| C105                                   | LG           | 0CQ1031Y519 | CAPACITOR,POLYESTER            | 0.01UF D 630V K PE NI TP        |     |
| C106                                   | LG           | 624 087S    | CAPACITOR,FIXED CERAMIC(High d | 47PF D 1KV 10% TR B(Y5P)        |     |
| C107                                   | QETC1HM      | 105Z        | CAPACITOR,ELECTROLYTIC         | 1.0M SRA/SS50V M FM5 TP(5)      |     |
| C108                                   | LG           | 0CE3366K638 | CAPACITOR,FIXED ELECTROLYTIC   | 33UF SMS,SG 50V 20% FM5 TP 5    |     |
| C109                                   | LG           | 0CN223AK948 | CAPACITOR,TUBULAR(HIGH DIELEC) | 0.022UF 50V Z F TA26 S          |     |
| C110                                   | LG           | 0CG1020U630 | CAPACITOR,SEMI CERAMIC         | 1000PF 400V M E(Z)UJ R          |     |
| C111                                   | LG           | 0CG2220U630 | CAPACITOR,SEMI CERAMIC         | 2200 PF 400V M E R (NK,AK,SD)   |     |
| C117                                   | LG           | 0CE337E630  | CAPACITOR,AL,ELECTROLYTIC      | 330UF KMG 50V M FMS BULK        |     |
| C123                                   | LG           | 0CE477B630  | CAPACITOR,AL,ELECTROLYTIC      | 470UF KME TYPE 25V M FMS BULK   |     |
| C126                                   | LG           | 0CE2276H638 | CAPACITOR,FIXED ELECTROLYTIC   | 220UF SMS,SG 25V 20% FM5 TP 5   |     |
| C127                                   | LG           | 0CE108BF630 | CAPACITOR,FIXED ELECTROLYTIC   | 1000UF KME 16V M FM5 BULK       |     |
| C128                                   | LG           | 0CE3376D638 | CAPACITOR,ELECTROLYTIC         | 330UF SMS 10V M FM5 TP5         |     |
| C129                                   | LG           | 0CE228BF630 | CAPACITOR,FIXED ELECTROLYTIC   | 2200UF KME TYPE 16V 20% FM5 BU  |     |
| C131                                   | LG           | 624 082H    | CAPACITOR                      | CE 1000UF/10V SHL(10*12.5)T/P   |     |
| C132                                   | LG           | 624 085D    | CAPACITOR                      | CE 47UF/50V KME (SMPS)          |     |
| C133                                   | LG           | 0CQ1042K409 | CAPACITOR,FIXED FILM           | 0.1UF S 50V J PE TP             |     |
| C151                                   | LG           | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC   | 4.7UF SRA,SS 50V 20% FM5 TP 5   |     |
| C152                                   | LG           | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC   | 4.7UF SRA,SS 50V 20% FM5 TP 5   |     |
| C153                                   | QET61CM      | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |     |
| C154                                   | QET61CM      | 107Z        | CAPACITOR,ELECTROLYTIC         | 100U SRA 16V M FM5 TP(5)        |     |
| C155                                   | QET61CM      | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |     |
| C156                                   | LG           | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC   | 4.7UF SRA,SS 50V 20% FM5 TP 5   |     |
| C161                                   | LG           | 0CE4763F638 | CAPACITOR,ELECTROLYTIC         | 47M SRE 16V M FM5 TP(5)         |     |
| C163                                   | LG           | 624 087H    | CAPACITOR                      | HIGH VOL 220PF/1KV CERAMIC      |     |
| D101                                   | LG           | 0DD010009CA | DIODE,RECTIFIER                | EG01C(WR, FORM 5MM) TP SANKEN   |     |
| D101                                   | ERA          | 22 10       | DIODE,RECTIFIERS               | ERA22 10 KFLB,TP R TP,FUJI      |     |
| D102                                   | LG           | 0DD010009AC | DIODE                          | EUJ01(WR, FORM) TP SANKEN       |     |
| D102                                   | LG           | 0DR104009BA | DIODE,RECTIFIER                | RL104F TP RECTRON NON 400V 1A   |     |
| D106                                   | LG           | 0DD010009AC | DIODE                          | EUJ01(WR, FORM) TP SANKEN       |     |
| D106                                   | LG           | 0DR104009BA | DIODE,RECTIFIER                | RL104F TP RECTRON NON 400V 1A   |     |
| D110                                   | LG           | 0DR302000AB | DIODE,RECTIFIER                | HER302 BK RECTRON DO201AD 100V  |     |
| D111                                   | LG           | 0DR158220AA | DIODE,RECTIFIER                | 1N5822 BK RECTRON DO201AD 40V   |     |
| D112                                   | LG           | 0DR158220AA | DIODE,RECTIFIER                | 1N5822 BK RECTRON DO201AD 40V   |     |
| D113                                   | LG           | 0DD010009AC | DIODE                          | EUJ01(WR, FORM) TP SANKEN       |     |
| D113                                   | LG           | 0DR104009BA | DIODE,RECTIFIER                | RL104F TP RECTRON NON 400V 1A   |     |
| D114                                   | LG           | 0DR104009AB | DIODE,RECTIFIER                | RL104 R. TP GULF SEMICONDUCTOR  |     |
| D115                                   | LG           | 0DR104009AB | DIODE,RECTIFIER                | RL104 R. TP GULF SEMICONDUCTOR  |     |
| D117                                   | LG           | 0DR104009AB | DIODE,RECTIFIER                | RL104 R. TP GULF SEMICONDUCTOR  |     |
| D121                                   | 1SS          | 133 T2      | DIODE,SWITCHING                | 1SS133 DETECT,SW TP             |     |
| F101                                   | LG           | 0FS1601B51D | FUSE,SLOW BLOW                 | 1600MA 250 V 5.2X20 CG/GL KSJ   |     |
| FH01                                   | LG           | 586 008B    | HOLDER                         | FUSE CLIP TP SINSUNG            |     |
| FH02                                   | LG           | 586 008B    | HOLDER                         | FUSE CLIP TP SINSUNG            |     |
| IC101                                  | LG           | 0IPMGFF001A | IC,POWER MANAGEMENT            | ICE2B265 INFINEON 8 DIP ST SMP  |     |
| IC102                                  | PZ01L817000B |             | SENSOR                         | LTV 817B, PHOTO COUPLER(LITEON) |     |
| IC103                                  | LG           | 0IKE431000A | IC,KEC                         | KIA431 3 PIN TP                 |     |
| IC151                                  | KIA78R08P1   |             | IC,POWER MANAGEMENT            | KIA78R08P1 CU KEC 4P TO 220IS   |     |
| IC152                                  | LG           | 0IPMGK0E22A | IC,POWER MANAGEMENT            | KIA278R33P1 KEC 4P TO 220 ST 3  |     |
| L102                                   | LG           | 616 145N    | FILTER(CIRC),DRAWING           | LFS2020V4 04350B SAMWAH TECOM   |     |
| L122                                   | LG           | 633 088G    | COIL,CHOKE                     | CHOCK(22MH) 5MM TOKO TP         |     |
| L123                                   | LG           | 633 088G    | COIL,CHOKE                     | CHOCK(22MH) 5MM TOKO TP         |     |
| L124                                   | LG           | 633 088G    | COIL,CHOKE                     | CHOCK(22MH) 5MM TOKO TP         |     |
| Q153                                   | LG           | 0TR220309AF | TRANSISTOR                     | SRA2203 TP AUK TO92 22K,22K     |     |
| Q154                                   | LG           | 0TR534309BA | TRANSISTOR                     | 2SC5343 L TP AUK TO92           |     |
| Q155                                   | LG           | 0TR141409AA | TRANSISTOR                     | KTD1414(TO220S) CUTING TP KEC   |     |
| Q156                                   | LG           | 0TR320509AB | TRANSISTOR                     | KTC3205 TP Y (KTC2236A)KEC      |     |
| Q161                                   | LG           | 0TR128809BA | TRANSISTOR,BIPOLARS            | KTA1288 BL TP KEC               |     |
| Q162                                   | LG           | 0TR534309BA | TRANSISTOR                     | 2SC5343 L TP AUK TO92           |     |
| Q173                                   | LG           | 0TR534309BA | TRANSISTOR                     | 2SC5343 L TP AUK TO92           |     |
| R100                                   | QRE121J      | 155Y        | RESISTOR,FIXED CARBON FILM     | 1.5M OHM 1/2 W 5.00% MF10       |     |
| R101                                   | LG           | 614 007A    | RESISTOR                       | 2.7/2W CEMENT SMPS V            |     |
| R104                                   | LG           | 0RS5602K619 | RESISTOR,FIXED METAL OXIDE FIL | 56K OHM 2 W 5.00% TR            |     |
| R105                                   | QRE141J      | 220Y        | RESISTOR,FIXED CARBON FILM     | 22 OHM 1/6 W 5% TA26            |     |
| R106                                   | QRE141J      | 220Y        | RESISTOR,FIXED CARBON FILM     | 22 OHM 1/6 W 5% TA26            |     |
| R107                                   | LG           | 0RS0350K619 | RESISTOR,FIXED METAL OXIDE FIL | 0.35 OHM 2 W 5.00% TR           |     |
| R110                                   | QRD161J      | 472Y        | RESISTOR,FIXED CARBON FILM     | 4.7K OHM 1/6 W 5% TA26          |     |
| R112                                   | QRD161J      | 221         | RESISTOR,FIXED CARBON FILM     | 220 OHM 1/6 W 5% TA26           |     |
| R113                                   | QRD161J      | 222Y        | RESISTOR,FIXED CARBON FILM     | 2.2K OHM 1/6 W 5% TA26          |     |
| R114                                   | QRE141J      | 102Y        | RESISTOR,FIXED CARBON FILM     | 1K OHM 1/6 W 5% TA26            |     |
| R115                                   | LG           | 0RN3301F408 | RESISTOR,FIXED METAL FILM      | 3.3K OHM 1/6 W 1% TA26          |     |
| R116                                   | LG           | 0RN2701F408 | RESISTOR,FIXED METAL FILM      | 2.7K OHM 1/6 W 1% TA26          |     |
| R117                                   | QRD161J      | 271Y        | RESISTOR,FIXED CARBON FILM     | 270 OHM 1/6 W 5% TA26           |     |
| R119                                   | QRD161J      | 104Y        | RESISTOR,FIXED CARBON FILM     | 100K OHM 1/6 W 5% TA26          |     |

| #    | REF No. | PART No.    | PART NAME, DESCRIPTION     | SPECIFICATION                  | NSP |
|------|---------|-------------|----------------------------|--------------------------------|-----|
| R130 | QRD161J | 104Y        | RESISTOR,FIXED CARBON FILM | 100K OHM 1/6 W 5% TA26         |     |
| R131 | QRE121J | 224Y        | RESISTOR,FIXED CARBON FILM | 220K OHM 1/6 W 5% TA26         |     |
| R132 | QRE121J | 224Y        | RESISTOR,FIXED CARBON FILM | 220K OHM 1/6 W 5% TA26         |     |
| R151 | QRD161J | 562Y        | RESISTOR,FIXED CARBON FILM | 5.6K OHM 1/6 W 5% TA26         |     |
| R152 | QRD161J | 562Y        | RESISTOR,FIXED CARBON FILM | 5.6K OHM 1/6 W 5% TA26         |     |
| R153 | QRD161J | 472Y        | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26         |     |
| R154 | QRE141J | 102Y        | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26           |     |
| R155 | QRD161J | 183Y        | RESISTOR,FIXED CARBON FILM | 18K OHM 1/6 W 5% TA26          |     |
| R156 | QRE141J | 103Y        | RESISTOR,FIXED CARBON FILM | 10K OHM 1/6 W 5% TA26          |     |
| R157 | QRE141J | 102Y        | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26           |     |
| R158 | QRE141J | 331Y        | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26          |     |
| R159 | QRE141J | 331Y        | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26          |     |
| R161 | QRD161J | 223Y        | RESISTOR,FIXED CARBON FILM | 22K OHM 1/6 W 5% TA26          |     |
| R164 | QRD161J | 472Y        | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26         |     |
| R170 | QRE141J | 103Y        | RESISTOR,FIXED CARBON FILM | 10K OHM 1/6 W 5% TA26          |     |
| R171 | QRD161J | 472Y        | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26         |     |
| R172 | QRD161J | 472Y        | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26         |     |
| R173 | QRD161J | 472Y        | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26         |     |
| V101 | LG      | 656 004C    | VARISTOR,DRAWING           | SVC681D 10A SAMHWA 4.0 CUT     |     |
| T101 | LG      | 6170RNGW12D | TRANSFORMER                |                                |     |
| ZD10 | MTZ     | 13B         | DIODE,ZENER                | MTZ13B TP ROHM K               |     |
| ZD10 | UZ      | 30BSB       | DIODE,ZENERS               | UZ 30BSX 26MM PYUNG CHANG TP D |     |

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**VCR BOARD ASSEMBLY <03>**

| #    | REF No. | PART No.    | PART NAME, DESCRIPTION         | SPECIFICATION                  | NSP |
|------|---------|-------------|--------------------------------|--------------------------------|-----|
| A46  | LG      | 3501R 5511B | BOARD ASSEMBLY                 | VCR VJW602CP,NA3GU (DI)        |     |
| 323  | LG      | 3111R 0089B | CASE ASSY                      | PRE AM (PBSB SH)               |     |
| BC91 | LG      | 636 004C    | FILTER(CIRC),EMC               | BEAD CORE BFS3550R2FD8.R T/P   |     |
| BC92 | LG      | 636 004C    | FILTER(CIRC),EMC               | BEAD CORE BFS3550R2FD8.R T/P   |     |
| C301 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C302 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C303 | LG      | 0CE3344K638 | CAPACITOR,ELECTROLYTIC         | 0.33M SRA 50V M FM5 TP(5)      |     |
| C304 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C305 | LG      | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC   | 4.7UF SRA,SS 50V 20% FM5 TP 5  |     |
| C306 | LG      | 0CH1182K562 | CAPACITOR,CHIP CERAMIC M.L.HD  | 1800P 50V K X7R 1.6X0.8 R/TP   |     |
| C307 | LG      | 0CH1152K562 | CAPACITOR,CHIP CERAMIC M.L.HD  | 1500PF 50V 10% X7R(X) 1608 R/T |     |
| C308 | LG      | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC   | 4.7UF SRA,SS 50V 20% FM5 TP 5  |     |
| C309 | QET61CM | 226         | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)        |     |
| C310 | QET61CM | 226         | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)        |     |
| C311 | LG      | 0CQ2232L559 | CAPACITOR,POLYESTER            | 0.022UF S 63V K PP NI TP5      |     |
| C312 | LG      | 0CQ1032K409 | CAPACITOR,POLYESTER(MYLAR)     | 0.01UF S 50V J PE TP           |     |
| C313 | LG      | 0CQ3332K409 | CAPACITOR,FIXED FILM           | 0.033UF S 50V J PE TP          |     |
| C314 | QET61CM | 476         | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)     |     |
| C315 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C316 | LG      | 0CH1182K562 | CAPACITOR,CHIP CERAMIC M.L.HD  | 1800P 50V K X7R 1.6X0.8 R/TP   |     |
| C317 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C318 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C319 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C320 | LG      | 0CH4151K412 | CAPA,CHIP CERAMIC M.L.T.C F/S  | 150P 50V J COG 1.6X0.8 R/TP    |     |
| C321 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C322 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C323 | LG      | 0CH4470K412 | CAPA,CHIP CERAMIC M.L.T.C F/S  | 47P 50V J COG 1.6X0.8 R/TP     |     |
| C324 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C325 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C326 | QETC1HM | 105Z        | CAPACITOR,ELECTROLYTIC         | 1.0M SRA/SS50V M FM5 TP(5)     |     |
| C327 | LG      | 0CE2253K636 | CAPACITOR,FIXED ELECTROLYTIC   | 2.2UF SRE,SE 50V 20% FM5 BP(D) |     |
| C328 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C329 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C330 | LG      | 0CH4470K412 | CAPA,CHIP CERAMIC M.L.T.C F/S  | 47P 50V J COG 1.6X0.8 R/TP     |     |
| C331 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C332 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C335 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C336 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C337 | LG      | 0CE1044K638 | CAPACITOR,ELECTROLYTIC         | 0.1M SRA 50V M FM5 TP(5)       |     |
| C338 | LG      | 0CH1104K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 50V 10% B(5Y)P 1608 R/TP |     |
| C339 | QET61CM | 335Z        | CAPACITOR,FIXED ELECTROLYTIC   | 3.3UF SRA,SS 50V 20% FM5 TP 5  |     |
| C340 | QET61CM | 106Z        | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)        |     |
| C341 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C342 | LG      | 0CH4331K412 | CAPACITOR,CHIP CERAMIC M.L.T.C | 330P 50V J COG 1.6X0.8 R/TP    |     |
| C343 | LG      | 0CE4764C638 | CAPACITOR,ELECTROLYTIC         | 47M SRA 16V M FM5 TP(5)        |     |
| C344 | LG      | 0CH1473H942 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0470UF 25V Z Y5V(F) 1608 R/T |     |
| C346 | LG      | 0CH1103K512 | CAPA,CHIP CERAMIC M.L.H.D F/S  | 0.0100UF 50V K B 1608 R/TP     |     |
| C    |         |             |                                |                                |     |

NSP:Not Service Parts

| #      | REF No.        | PART No. | PART NAME, DESCRIPTION           | SPECIFICATION                  | NSP | #    | REF No.        | PART No. | PART NAME, DESCRIPTION           | SPECIFICATION                  | NSP |
|--------|----------------|----------|----------------------------------|--------------------------------|-----|------|----------------|----------|----------------------------------|--------------------------------|-----|
| C356   | LG 0CH1333K562 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.033UF 50V K X7R(X) 1508 R/TP |     | C710 | LG 0CE4754K638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 4.7UF SRA,SS 50V 20% FMS TP 5  |     |
| C357   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C712 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C358   | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     | C713 | LG 0CH4560K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 56P 50V J COG 1.6X0.8 R/TP     |     |
| C359   | LG 0CE4754K638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 4.7UF SRA,SS 50V 20% FMS TP 5  |     | C714 | LG 0CH4560K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 56P 50V J COG 1.6X0.8 R/TP     |     |
| C360   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C716 | LG 0CH4100K412 |          | CAPACITOR,CHIP/CERAMIC ML.TC     | 10PF 50V J NPO 1608 R/TP       |     |
| C361   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C717 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C363   | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     | C718 | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     |
| C364   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C719 | QET61CM 107Z   |          | CAPACITOR,ELECTROLYTIC           | 100U SRA 16V M FMS TP(5)       |     |
| C365   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C720 | LG 0CH1152K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 1500PF 50V K B 1608 R/TP       |     |
| C366   | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     | C721 | LG 0CH1392K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 3900PF 50V 10% B(5YP) 1608 RT  |     |
| C367   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C722 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C368   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C723 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C369   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C726 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C370   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C727 | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     |
| C371   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C728 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C373   | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     | C729 | QET1FH 335Z    |          | CAPACITOR, FIXED ELECTROLYTIC    | 3.3UF SRA,SS 50V 20% FMS TP 5  |     |
| C374   | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     | C730 | LG 0CH4150K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 15P 50V J COG 1.6X0.8 R/TP     |     |
| C351   | LG 0CH4470K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 47P 50V J COG 1.6X0.8 R/TP     |     | C731 | LG 0CH4090K112 |          | CAPACITOR, FIXED CERAMIC(High d) | 9PF 50V 0.5 pF NPO 1608 R/TP   |     |
| C500   | LG 0CE4775C638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 470UF SR,SV 6.3V 20% FMS TP 5  |     | C732 | QET61CM 106Z   |          | CAPACITOR,ELECTROLYTIC           | 10M SRA 16V M FMS TP(5)        |     |
| C501   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C751 | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     |
| C502   | QET61CM 476    |          | CAPACITOR,ELECTROLYTIC           | 47M SRA/SS 16V M FMS TP(5)     |     | C752 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C503   | LG 0CE2274C638 |          | CAPACITOR,ELECTROLYTIC           | 220M SRA 6.3V M FMS TP(5)      |     | C755 | LG 0CE4754K638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 4.7UF SRA,SS 50V 20% FMS TP 5  |     |
| C504   | LG 0CE2274C638 |          | CAPACITOR,ELECTROLYTIC           | 220M SRA 6.3V M FMS TP(5)      |     | C756 | QET61CM 106Z   |          | CAPACITOR,ELECTROLYTIC           | 10M SRA 16V M FMS TP(5)        |     |
| C505   | QET61CM 476    |          | CAPACITOR,ELECTROLYTIC           | 47M SRA/SS 16V M FMS TP(5)     |     | C7M1 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C506   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C7M2 | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     |
| C507   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C7M3 | NDC31HJ 270X   |          | CAPACITOR,CHIP/CERAMIC ML.TC     | 27PF 50V J NPO 1608 R/TP       |     |
| C508   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C7M6 | NDC31HJ 270X   |          | CAPACITOR,CHIP/CERAMIC ML.TC     | 27PF 50V J NPO 1608 R/TP       |     |
| C509   | NDC31HJ 220X   |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 22P 50V J COG 1.6X0.8 R/TP     |     | C7V1 | LG 0CE4764C638 |          | CAPACITOR,ELECTROLYTIC           | 47M SRA 6.3V M FMS TP(5)       |     |
| C511   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C7V2 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C512   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C7V3 | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     |
| C513   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C7V4 | LG 0CH1473H942 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0470UF 25V Z Y5V(F) 1608 RT  |     |
| C514   | LG 0CC1500K415 |          | CAPACITOR,CERAMIC(TEMP COMP)     | 15P 50V JNPO TS                |     | C7V5 | LG 0CH1473H942 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0470UF 25V Z Y5V(F) 1608 RT  |     |
| C515   | LG 0CC2000K415 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 20PF D 50V 5% NPO TR           |     | C802 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C516   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C803 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C517   | QET61CM 106Z   |          | CAPACITOR,ELECTROLYTIC           | 10M SRA 16V M FMS TP(5)        |     | C804 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C518   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C805 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C519   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C811 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C520   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C813 | LG 0CH1682K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 6800PF 50V 10% B(5YP) 1608 RT  |     |
| C521   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C819 | LG 0CH1682K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 6800PF 50V 10% B(5YP) 1608 RT  |     |
| C523   | QETC1HM 225Z   |          | CAPACITOR, FIXED ELECTROLYTIC    | 2.2UF SRA,SS 50V 20% FMS TP 5  |     | C821 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C524   | QET61CM 476    |          | CAPACITOR,ELECTROLYTIC           | 47M SRA/SS 16V M FMS TP(5)     |     | C823 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C525   | QET61CM 106Z   |          | CAPACITOR,ELECTROLYTIC           | 10M SRA 16V M FMS TP(5)        |     | C824 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C526   | LG 0CE4764C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 47UF SRA,SS 35V M FMS TP 5     |     | C826 | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     |
| C527   | NDC31HJ 221X   |          | CAPACITOR,CHIP/CERAMIC ML.TC     | 220P 50V J COG 1.6X0.8 R/TP    |     | C827 | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     |
| C533   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C831 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C534   | LG 0CE4754K638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 4.7UF SRA,SS 50V 20% FMS TP 5  |     | C832 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C535   | LG 0CE4754K638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 4.7UF SRA,SS 50V 20% FMS TP 5  |     | C868 | QET61CM 106Z   |          | CAPACITOR,ELECTROLYTIC           | 10M SRA 16V M FMS TP(5)        |     |
| C543   | LG 0CH1222K512 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 2200PF 50V K B 1608 R/TP       |     | C870 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C544   | LG 0CQ4732K409 |          | CAPACITOR, FIXED FILM            | 0.047UF S 50V J PE TP          |     | C871 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C545   | LG 0CH1333K562 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.033UF 50V K X7R(X) 1508 R/TP |     | C872 | LG 0CH4470K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 47P 50V J COG 1.6X0.8 R/TP     |     |
| C546   | LG 0CE4764.638 |          | CAPACITOR,AL.ELECTROLYTIC        | 47UF SRA,SS 35V M FMS TP 5     |     | C873 | LG 0CH4470K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 47P 50V J COG 1.6X0.8 R/TP     |     |
| C547   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C884 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C551   | LG 0CQ3332K409 |          | CAPACITOR, FIXED FILM            | 0.033UF S 50V J PE TP          |     | C885 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C552   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C889 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C561   | LG 0CE2274C638 |          | CAPACITOR,ELECTROLYTIC           | 220M SRA 6.3V M FMS TP(5)      |     | C890 | LG 0CH1105D942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 1UF 10V Z Y5V(F) 1508 R/TP     |     |
| C564   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C907 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C567   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C908 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C570   | LG 0CH4150K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 15P 50V J COG 1.6X0.8 R/TP     |     | C909 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C571   | LG 0CH4150K412 |          | CAPA,CHIP CERAMIC ML.T.C.F/S     | 15P 50V J COG 1.6X0.8 R/TP     |     | C910 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C575   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C915 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C576   | NDC31HJ 270X   |          | CAPACITOR,CHIP/CERAMIC ML.TC     | 27PF 50V JNPO 1608 R/TP        |     | C916 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C577   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C921 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C578   | LG 0CH1222K512 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 2200PF 50V K B 1608 R/TP       |     | C923 | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     |
| C581   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C931 | LG 0CE4776C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 470U SMS 6.3V M FMS TP(5)      |     |
| C582   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C932 | LG 0CE4776C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 470U SMS 6.3V M FMS TP(5)      |     |
| C583   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C933 | LG 0CE4776C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 470U SMS 6.3V M FMS TP(5)      |     |
| C589   | LG 0CH1223K942 |          | CAPACITOR,CHIP/CERAMIC ML HD     | 0.022UF 50V Z Y5V(F) 1508 R/TP |     | C934 | LG 0CE1074C638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 100UF SRA,SS 6.3V 20% FMS TP 5 |     |
| C590   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C938 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C596   | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     | C939 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C5A4   | LG 0CH1103K512 |          | CAPA,CHIP CERAMIC ML.H.D.F/S     | 0.0100UF 50V K B 1608 R/TP     |     | C941 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C5A5   | QETC1HM 105Z   |          | CAPACITOR,ELECTROLYTIC           | 1.0M SRA/SS50V M FMS TP(5)     |     | C942 | LG 0CH1104K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 0.1UF 50V 10% B(5YP) 1608 R/TP |     |
| C5F1   | LG 0CH1102K512 |          | CAPACITOR, FIXED CERAMIC(Temp.c) | 1000PF 50V 10% B(5YP) 1608 RT  |     | C943 | LG 0CE4776C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 470U SMS 6.3V M FMS TP(5)      |     |
| C5G1   | LG 0CE1086C638 |          | CAPACITOR, FIXED ELECTROLYTIC    | 1000000000 PF SMS,SG 6.3V M FM |     | C944 | LG 0CE4776C638 |          | CAPACITOR,AL.ELECTROLYTIC        | 470U SMS 6.3V M FMS TP(5)      |     |
| C5K1</ |                |          |                                  |                                |     |      |                |          |                                  |                                |     |

NSP:Not Service Parts

| #      | REF No.        | PART No.             | PART NAME, DESCRIPTION | SPECIFICATION                   | NSP | #    | REF No.        | PART No.                    | PART NAME, DESCRIPTION         | SPECIFICATION | NSP |
|--------|----------------|----------------------|------------------------|---------------------------------|-----|------|----------------|-----------------------------|--------------------------------|---------------|-----|
| D902   | 1SS133         | T2                   | DIODE,SWITCHING        | 1SS133 DETECT,SW TP             |     | Q503 | LG 0TR127309AA | TRANSISTOR                  | KTA1273 TP Y (KTA966A)KEC      |               |     |
| E550   | LG 4931R       | 0050C                | HOLDER ASSEMBLY        | END (DI)                        |     | Q504 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| E550   | LG 4931R       | 0050C                | HOLDER ASSEMBLY        | END (DI)                        |     | Q505 | KTA1504/G/ X   | TRANSISTOR                  | KTA1504 GR T1(ASC) CHIP KEC    |               |     |
| F901   | LG 6200HJC901A |                      | FILTER(CIRC),EMC       | CF106B1H101MF SAMHWA TP 2.5K    |     | Q514 | KRC103S X      | TRANSISTOR                  | CHIP KRC103S T1(NC)22 22 KEC   |               |     |
| F902   | LG 6200HJC901A |                      | FILTER(CIRC),EMC       | CF106B1H101MF SAMHWA TP 2.5K    |     | Q515 | KRC103S X      | TRANSISTOR                  | CHIP KRC103S T1(NC)22 22 KEC   |               |     |
| F903   | LG 6200HJC901A |                      | FILTER(CIRC),EMC       | CF106B1H101MF SAMHWA TP 2.5K    |     | Q516 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| F904   | LG 6200HJC901A |                      | FILTER(CIRC),EMC       | CF106B1H101MF SAMHWA TP 2.5K    |     | Q517 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| F905   | LG 6200HJC901B |                      | FILTER(CIRC),EMC       | CF106B1H471MF SAMHWA TP 2.5K    |     | Q518 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| FL301  | LG 633         | 032K                 | COIL,IFT               | BIAC OSC, 1CHIP 5V(KS 75M) KWAN |     | Q705 | LG 0TR320509AB | TRANSISTOR                  | KTC3205 TP Y (KTC2236A)KEC     |               |     |
| IC501  | LG 0MCRH028A   |                      | IC,MICRO CONTROLLER    | HD6432197SA21F HITACHI 112PIN   |     | Q801 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| IC503  | S524A60X51     | DCB0                 | IC,SAMSUNG ELECTRONICS | S524A60X51 SCT0 8P SOP TP EEP   |     | Q802 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| IC504  | LG 01KE703100A |                      | IC,KEC                 | KIA7031P 3P 3.1V RESET(TAPING)  |     | Q803 | KTA1504/G/ X   | TRANSISTOR                  | KTA1504 GR T1(ASC) CHIP KEC    |               |     |
| IC504  | LG 01SS753100A |                      | IC,SAMSUNG ELECTRONICS | KAT7531Z TO 92 TP 3.1V RESET    |     | Q805 | KTA1504/G/ X   | TRANSISTOR                  | KTA1504 GR T1(ASC) CHIP KEC    |               |     |
| IC505  | LG 01KE704200B |                      | IC,KEC                 | KIA7042P 3P 4.2V RESET(TAPING)  |     | Q806 | KTA1504/G/ X   | TRANSISTOR                  | KTA1504 GR T1(ASC) CHIP KEC    |               |     |
| IC5F1  | LG 01LNRPY001B |                      | IC,LINEAR              | PT8955 PTC 24PIN SOP R/TP LED   |     | Q901 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| IC751  | LG 01IT341700B |                      | IC,ITT                 | MSP3417D QG QFP44 BK NICAM+A2   |     | Q902 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| IC751  | MSP3417G       | QG B8 V3 44 QFP TRAY | IC,ITT                 | MSP3417G QG B8 V3 44 QFP TRAY   |     | Q903 | LG 0TR387509AC | TRANSISTOR                  | CHIP KTC3875S GR T1(ALG) KEC   |               |     |
| ICT7V1 | LG 01LNRMN001B |                      | IC,LINEAR              | SDA5650X GEG MICRONAS 20PIN SO  |     | R301 | NRSA63J 123X   | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D  |               |     |
| IC801  | LG 01PH960500A |                      | IC,PHILIPS             | TD49605H QFP44 BK HIFI AMP+HIF  |     | R302 | NRSA6AD 334W   | RESISTOR,METAL GLAZED(CHIP) | 330K OHM 1 / 16 W 1608 5.00% D |               |     |
| IC802  | MM1443XJ X     |                      | IC,PERIPHERALS         | MM1443XJBE MITSUMI 34PIN SSOP   |     | R303 | NRSA63J 221X   | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D  |               |     |
| IC802  | MM1232XF X     |                      | IC,PERIPHERALS         | MM1232XFB MITSUMI 16PIN SOP R   |     | R304 | NRSA6AD 473W   | RESISTOR,METAL GLAZED(CHIP) | 47K OHM 1 / 16 W 1608 5.00% D  |               |     |
| IC901  | LG 01PRPMT006A |                      | IC,PERIPHERALS         | MM1225XFB MITSUMI 8PIN SOP R/   |     | R305 | NRSA63J 223X   | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 16 W 1608 5.00% D  |               |     |
| IC901  | LG 01PRPMT006A |                      | IC,PERIPHERALS         | MM1225XFB MITSUMI 8PIN SOP R/   |     | R307 | NRSA63J 752X   | RESISTOR,METAL GLAZED(CHIP) | 75K OHM 1 / 16 W 1608 5.00% D  |               |     |
| IC901  | LG 01PRPMT006A |                      | IC,PERIPHERALS         | MM1225XFB MITSUMI 8PIN SOP R/   |     | R308 | NRSA63J 752X   | RESISTOR,METAL GLAZED(CHIP) | 75K OHM 1 / 16 W 1608 5.00% D  |               |     |
| JK5L1  | LG 6612R1V005D |                      | JACK,RCA               | DPAM 0152 DOOVON 3PIN YL/W/R/D  |     | R309 | NRSA6AD 470W   | RESISTOR,METAL GLAZED(CHIP) | 47 OHM 1 / 16 W 1608 5.00% D   |               |     |
| JK901  | LG 6612J00025G |                      | JACK,RCA               | RCA/DIN 38(9PIN)SILVER YUQIU    |     | R310 | NRSA63J 152X   | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D |               |     |
| L301   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R311 | NRSA6AD 272W   | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L301   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R312 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L301   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R313 | NRSA6AD 2R2W   | RESISTOR,METAL GLAZED(CHIP) | 2.2 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L302   | LG 0LR1000K035 |                      | INDUCTOR,RADIAL LEAD   | 100M K 6X6 L5 TP                |     | R314 | NRSA6AD 2R2W   | RESISTOR,METAL GLAZED(CHIP) | 2.2 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L303   | LG 0LA1800K018 |                      | INDUCTOR AXIAL LEAD    | 180M K 2.3X3.4 L5 TP            |     | R315 | NRSA63J 222X   | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D |               |     |
| L304   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R316 | NRSA6AD 272W   | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L304   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R317 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L304   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R318 | NRSA6AD 473W   | RESISTOR,METAL GLAZED(CHIP) | 47K OHM 1 / 16 W 1608 5.00% D  |               |     |
| L305   | LG 0LA0392K018 |                      | INDUCTOR AXIAL LEAD    | 39M K 2.3X3.4 L5 TP             |     | R319 | NRSA63J 123X   | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D  |               |     |
| L306   | LG 0LR1000K035 |                      | INDUCTOR,RADIAL LEAD   | 100M K 6X6 L5 TP                |     | R320 | NRSA63J 682X   | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |               |     |
| L307   | LG 0LA0122K018 |                      | INDUCTOR AXIAL LEAD    | 12M K 2.3X3.4 L5 TP             |     | R322 | NRSA6AD 823W   | RESISTOR,METAL GLAZED(CHIP) | 82K OHM 1 / 16 W 1608 5.00% D  |               |     |
| L308   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R323 | NRSA63J 682X   | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |               |     |
| L308   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R324 | NRSA63J 152X   | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D |               |     |
| L308   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R325 | NRSA6AD 272W   | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L311   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R327 | NRSA63J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |               |     |
| L311   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R332 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L311   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R333 | NRSA63J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |               |     |
| L501   | LG 0LA0122K018 |                      | INDUCTOR AXIAL LEAD    | 12M K 2.3X3.4 L5 TP             |     | R337 | NRSA6AD 473W   | RESISTOR,METAL GLAZED(CHIP) | 47K OHM 1 / 16 W 1608 5.00% D  |               |     |
| L503   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R338 | NRSA63J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |               |     |
| L503   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R352 | NRSA63J 682X   | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |               |     |
| L504   | LG 0LR0102J0N5 |                      | INDUCTOR,RADIAL LEAD   | 10UH 5% TP 3X5 TR5              |     | R501 | NRSA63J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L504   | LG 0LR0102K0P5 |                      | INDUCTOR,RADIAL LEAD   | L7F.5N OEL 10UH 10% TP 4.8X4.0  |     | R502 | NRSA63J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L505   | LG 0LR1000K035 |                      | INDUCTOR,RADIAL LEAD   | 100M K 6X6 L5 TP                |     | R503 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L506   | LG 635         | 027C                 | INDUCTOR,RADIAL LEAD   | EL0405RA SK1150G 3 K TDK 15UH   |     | R504 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L5F1   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R505 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L5F2   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R506 | NRSA63J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |               |     |
| L5G1   | LG 0LR4700K035 |                      | INDUCTOR,RADIAL LEAD   | 470M K 6X6 L5 TP                |     | R508 | NRSA63J 332X   | RESISTOR,METAL GLAZED(CHIP) | 3.3K OHM 1 / 16 W 1608 5.00% D |               |     |
| L5S1   | LG 0LA0332K018 |                      | INDUCTOR AXIAL LEAD    | 33M K 2.3X3.4 L5 TP             |     | R509 | NRSA63J 222X   | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D |               |     |
| L701   | LG 0LR1000K035 |                      | INDUCTOR,RADIAL LEAD   | 100M K 6X6 L5 TP                |     | R510 | NRSA63J 222X   | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D |               |     |
| L702   | LG 0LR0102K035 |                      | INDUCTOR,RADIAL LEAD   | 10M K 6X6 L5 TP                 |     | R512 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L704   | LG 0LR0102K035 |                      | INDUCTOR,RADIAL LEAD   | 10M K 6X6 L5 TP                 |     | R513 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L705   | LG 0LR0102K035 |                      | INDUCTOR,RADIAL LEAD   | 10M K 6X6 L5 TP                 |     | R514 | NRSA6AD 124W   | RESISTOR,METAL GLAZED(CHIP) | 120K OHM 1 / 16 W 1608 5.00% D |               |     |
| L706   | LG 0LA0821K018 |                      | INDUCTOR AXIAL LEAD    | 8.2M K 2.3X3.4 L5 TP            |     | R515 | NRSA6AD 270W   | RESISTOR,METAL GLAZED(CHIP) | 270 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L7M1   | LG 0LR1000K035 |                      | INDUCTOR,RADIAL LEAD   | 100M K 6X6 L5 TP                |     | R516 | NRSA6AD 474W   | RESISTOR,METAL GLAZED(CHIP) | 470K OHM 1 / 16 W 1608 5.00% D |               |     |
| L901   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R517 | NRSA63J 471X   | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 16 W 1608 5.00% D  |               |     |
| L902   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R518 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L903   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R520 | NRSA6AD 392W   | RESISTOR,METAL GLAZED(CHIP) | 3.9K OHM 1 / 16 W 1608 5.00% D |               |     |
| L904   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R521 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| L905   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R522 | NRSA63J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |               |     |
| L906   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R523 | NRSA63J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |               |     |
| L907   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R524 | NRSA63J 220X   | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D   |               |     |
| L908   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R525 | NRSA63J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |               |     |
| L909   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R526 | NRSA63J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |               |     |
| L910   | LG 0LA1000K018 |                      | INDUCTOR AXIAL LEAD    | 100M K 2.3X3.4 L5 TP            |     | R528 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| LD50   | LG 4931R       | 0017C                | HOLDER ASSEMBLY        | LED(DI CKD)LOCAL                |     | R529 | NRSA63J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |               |     |
| MS50   | LG 6600JB8005C |                      | SWITCH,MODE            | MM500721ZMB0 MIC 5VDC 1MA D 35  |     | R530 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |               |     |
| MS50   | LG 6600JB8005B |                      | SWITCH,MODE            | NON 5V 1MA VERTICAL G           |     | R531 | NRSA63J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |               |     |
| Q301   | LG 0TR534409AA |                      | TRANSISTOR             | 2SC5344Y TP                     |     | R532 | NRSA63J 561X   | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 16 W 1608 5.00% D  |               |     |
| Q301   | LG 0TR320309AA |                      | TRANSISTOR,BIPOLARS    | KTC3203 KEC TP T092 50V 150MA   |     | R535 | NRSA6AD 474W   | RESISTOR,METAL GLAZED(CHIP) | 470K OHM 1 / 16 W 1608 5.00% D |               |     |
| Q302   | LG 0TR127309AA |                      | TRANSISTOR             | KTA1273 TP Y (KTA966A)KEC       |     | R542 | NRSA63J 222X   | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D |               |     |
| Q303   | KRC103S X      |                      | TRANSISTOR             | CHIP KRC103S T1(NC)22 22 KEC    |     | R543 | NRSA63J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |               |     |
| Q305   | LG 0TR387509AC |                      | TRANSISTOR             | CHIP KTC3875S GR T1(ALG) KEC    |     | R544 | NRSA63J 472X   | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608         |               |     |



NSP:Not Service Parts

| # | REF No. | PART No. | PART NAME, DESCRIPTION | SPECIFICATION                 | NSP |
|---|---------|----------|------------------------|-------------------------------|-----|
|   | ZD501   | UZ7.5BSB | DIODE,ZENER            | UZ 7.5BSB 26MM TP PYUNG CHANG |     |
|   | ZD501   | UZ7.5BSB | DIODE,ZENER            | UZ 7.5BSB 26MM TP PYUNG CHANG |     |
|   | ZD701   | MTZJ5.6C | DIODE,ZENER            | MTZ5.6C TP(26MM) ROHM 5.6V    |     |

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DVD BOARD ASSEMBLY <50>

|      |                |                                |                                 |
|------|----------------|--------------------------------|---------------------------------|
| A46A | LG 6885R 7422B | SUB PWB(PCB) ASSEMBLY          | VJW602CP SERIES DI (444500D212  |
| C201 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C202 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C203 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C204 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C205 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C206 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C207 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C208 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C209 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C210 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C211 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C212 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C213 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C214 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C215 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C216 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C224 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C225 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C226 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C229 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C230 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C231 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C232 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C238 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C239 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C240 | LG 0CH1222K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 2200PF 50V K X7R(X) 1608 R/TP   |
| C242 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C245 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C251 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C252 | LG 0CH4100K112 | CHIP CAPA CERAMIC MIL TC F/S   | 10P 50V D COG 1.6X0.8 R/TP      |
| C253 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C254 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C255 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C258 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |
| C261 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C262 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C263 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C264 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C265 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C272 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |
| C273 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216  |
| C274 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |
| C277 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C278 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C279 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C280 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C281 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C282 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C284 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |
| C285 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C286 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C287 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C288 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C289 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C290 | NDC31HJ 180X   | CAPACITOR,CHIP(CERAMIC M/L TC  | 18P 50V J COG 1.6X0.8 R/TP      |
| C291 | NDC31HJ 180X   | CAPACITOR,CHIP(CERAMIC M/L TC  | 18P 50V J COG 1.6X0.8 R/TP      |
| C292 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C293 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C294 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C295 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C296 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C297 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |
| C298 | LG 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC   | 470UF SR,SV 6.3V 20% FM5 TP 5   |
| C2A0 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |
| C2A3 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C2A4 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |
| C2A5 | LG 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%, 20% Y5V(F) 16  |
| C2A6 | LG 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/TP |
| C2A7 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C2A8 | LG 0CH1152K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1500PF 50V 10% X7R(X) 1608 R/TP |
| C2A9 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |
| C2B3 | LG 0CH1392K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 3900PF 50V K Z5U(E) 1608 R/TP   |
| C2B4 | LG 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%, 20% Y5V(F) 16  |
| C2B5 | LG 0CH1333K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.033UF 50V K X7R(X) 1508 R/TP  |

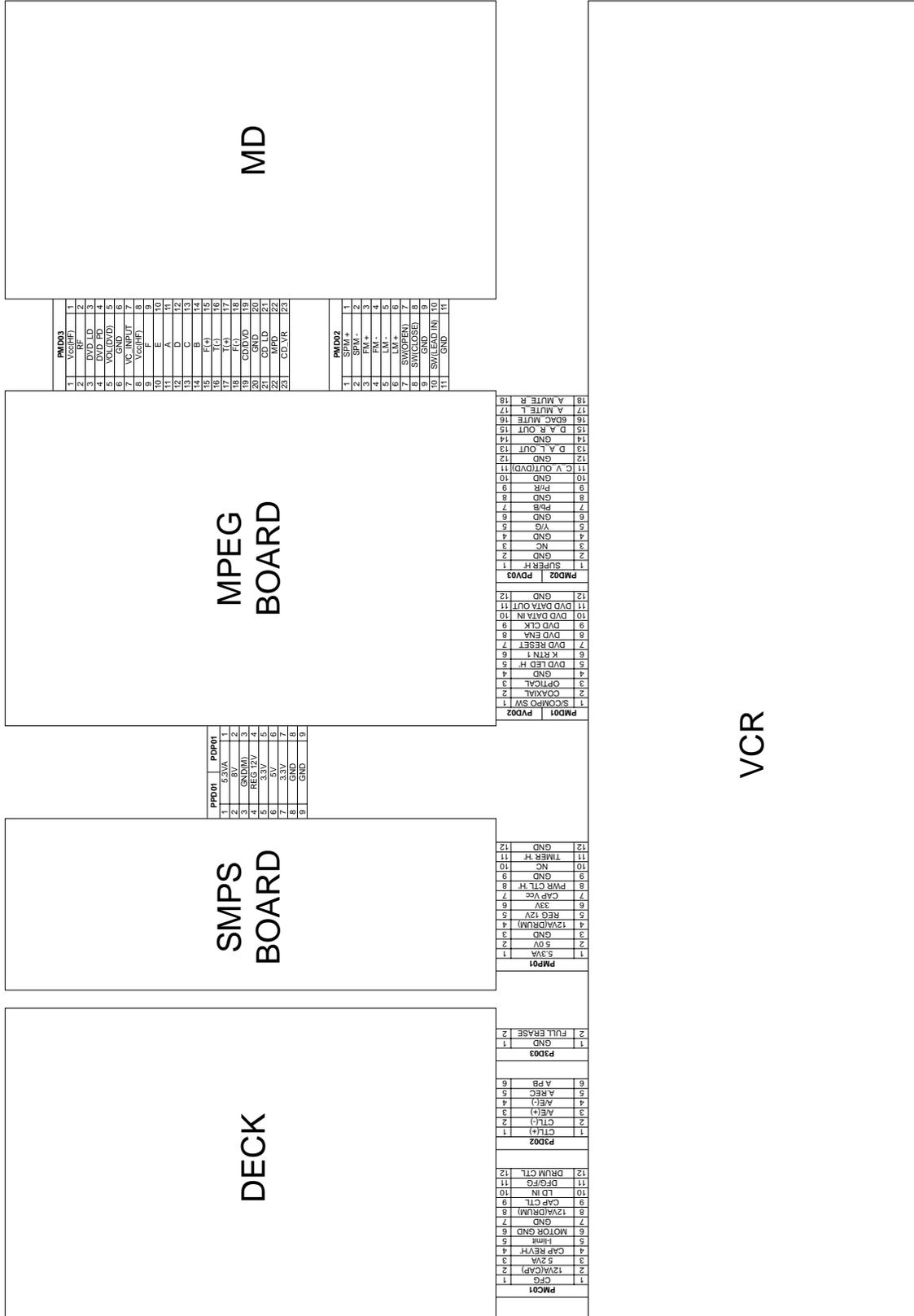
| #    | REF No.        | PART No.                       | PART NAME, DESCRIPTION          | SPECIFICATION | NSP |
|------|----------------|--------------------------------|---------------------------------|---------------|-----|
| C2B9 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2C1 | LG 0CH1103K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 10% X7R(X) 1608 R/TP |               |     |
| C2C2 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C2C4 | LG 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/TP |               |     |
| C2C5 | LG 0CH1332K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 3300PF 50V K X7R 1.6X0.8 R/TP   |               |     |
| C2C6 | LG 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/TP |               |     |
| C2C8 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2C9 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C2D0 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C2D1 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C2D2 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2D3 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2D4 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C2D5 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C2D6 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2D7 | LG 0CH1152K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1500PF 50V 10% X7R(X) 1608 R/TP |               |     |
| C2D9 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M1 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 100U SRA 16V M FM5 TP(5)        |               |     |
| C2M2 | LG 0CH1682K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 6800PF 50V K X7R 1.6X0.8 R/TP   |               |     |
| C2M3 | LG 0CH1472K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 4700PF 50V K X7R(X) 1608 R/TP   |               |     |
| C2M4 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M5 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M6 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M7 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M8 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2M9 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2N1 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C2N3 | LG 0CH1223K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.022UF 50V Z Y5V(F) 1508 R/TP  |               |     |
| C2N4 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216  |               |     |
| C301 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C302 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216  |               |     |
| C303 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C304 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C305 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C306 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C307 | LG 0CH1105D942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 1UF 10V Z Y5V(F) 1508 R/TP      |               |     |
| C308 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C309 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216  |               |     |
| C314 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C316 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C317 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C318 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C319 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C320 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C321 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C323 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C324 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C3F1 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216  |               |     |
| C3F2 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C3F3 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C401 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C402 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C403 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C404 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C405 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C406 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C408 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C409 | LG 0CE2274C638 | CAPACITOR,ELECTROLYTIC         | 220M SRA 6.3V M FM5 TP(5)       |               |     |
| C410 | LG 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP      |               |     |
| C411 | LG 0CH1102K512 | CAPACITOR,FIXED CERAMIC(HIGH D | 1000PF 50V 10% B(SYP) 1608 R/TP |               |     |
| C412 | LG 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP      |               |     |
| C413 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C414 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C415 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C416 | LG 0CH1102K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% B(SYP) 1608 R/TP |               |     |
| C417 | LG 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP      |               |     |
| C418 | LG 0CH1392K562 | CAPACITOR,CHIP(CERAMIC M/L HD  | 3900PF 50V K Z5U(E) 1608 R/TP   |               |     |
| C419 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C420 | LG 0CH1392K562 | CAPACITOR,CHIP(CERAMIC(Temp.c  | 3900PF 50V K Z5U(E) 1608 R/TP   |               |     |
| C421 | QET61CM 226    | CAPACITOR,ELECTROLYTIC         | 22M SRA 16V M FM5 TP(5)         |               |     |
| C422 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C423 | LG 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP      |               |     |
| C424 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C425 | LG 0CH1104K942 | CAPACITOR,CHIP(CERAMIC M/L HD  | 0.1UF 50V Z Y5V(F) 1508 R/TP    |               |     |
| C501 | QET61CM 476    | CAPACITOR,ELECTROLYTIC         | 47M SRA/SS 16V M FM5 TP(5)      |               |     |
| C502 | NCF31CZ 104X   | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608  |               |     |
| C503 | NCF31CZ 104X   | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608  |               |     |
| C504 | QET61CM 106Z   | CAPACITOR,ELECTROLYTIC         | 10M SRA 16V M FM5 TP(5)         |               |     |
| C506 | LG 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF                           |               |     |

NSP:Not Service Parts

| #      | REF No. | PART No.        | PART NAME, DESCRIPTION          | SPECIFICATION                  | NSP | #    | REF No. | PART No.       | PART NAME, DESCRIPTION      | SPECIFICATION                  | NSP |
|--------|---------|-----------------|---------------------------------|--------------------------------|-----|------|---------|----------------|-----------------------------|--------------------------------|-----|
| C512   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q2A1 |         | 2SA1037K/QR/ X | TRANSISTOR,BIPOLARS         | 2SA1037K Q CHIP TP ROHM        |     |
| C513   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q2A2 |         | 2SA1037K/QR/ X | TRANSISTOR,BIPOLARS         | 2SA1037K Q CHIP TP ROHM        |     |
| C514   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q2A5 |         | LG 0TR388209AA | TRANSISTOR,BIPOLARS         | CHIP KTC3882 SOT 23 TP KEC     |     |
| C515   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q2A6 |         | LG 0TR388209AA | TRANSISTOR,BIPOLARS         | CHIP KTC3882 SOT 23 TP KEC     |     |
| C516   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q2M1 |         | DTC124EKA X    | TRANSISTOR,BIPOLARS         | DTC124EK TP ROHM KOREA SOT23 3 |     |
| C517   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q401 |         | 2SA1037K/QR/ X | TRANSISTOR,BIPOLARS         | 2SA1037K Q CHIP TP ROHM        |     |
| C518   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q404 |         | LG 0TR103009AC | TRANSISTOR                  | KRA103S T1(PC)22 22 CHIP KEC   |     |
| C519   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | Q405 |         | LG 0TR103009AC | TRANSISTOR                  | KRA103S T1(PC)22 22 CHIP KEC   |     |
| C520   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R201 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C521   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R202 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C522   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R203 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| C523   |         | LG 0CH1225F944  | CAPACITOR, FIXED CERAMIC/Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216 |     | R204 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| C525   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R207 |         | NRS463J 105X   | RESISTOR,METAL GLAZED(CHIP) | 1M OHM 1 / 16 W 1608 5.00% D   |     |
| C526   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R217 |         | NRS463J 100X   | RESISTOR,METAL GLAZED(CHIP) | 10 OHM 1 / 16 W 1608 5.00% D   |     |
| C527   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R218 |         | NRS463J 471X   | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 16 W 1608 5.00% D  |     |
| C528   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R219 |         | NRS463J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |     |
| C529   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R220 |         | NRS463J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |     |
| C530   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R230 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C531   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R231 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C532   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R232 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C533   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R233 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C534   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R234 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C535   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R235 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C536   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R236 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C538   |         | LG 0CH1225F944  | CAPACITOR, FIXED CERAMIC/Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216 |     | R237 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| C540   |         | NDC31HJ 220X    | CAPA,CHIP CERAMIC ML T.C F/S    | 22P 50V J COG 1.6X0.8 R/TP     |     | R239 |         | NRS463J 221X   | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D  |     |
| C541   |         | NDC31HJ 270X    | CAPACITOR,CHIP CERAMIC ML TC    | 27PF 50V J NPO 1608 R/TP       |     | R240 |         | NRS463J 221X   | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D  |     |
| C542   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R241 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C543   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R242 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C544   |         | LG 0CH1225F944  | CAPACITOR, FIXED CERAMIC/Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216 |     | R243 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C546   |         | NDC31HJ 221X    | CAPACITOR,CHIP CERAMIC ML TC    | 220P 50V J COG 1.6X0.8 R/TP    |     | R252 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C549   |         | NDC31HJ 221X    | CAPACITOR,CHIP CERAMIC ML TC    | 220P 50V J COG 1.6X0.8 R/TP    |     | R269 |         | LG 0LC0233002B | INDUCTOR,CHIP               | HB 1S1608 800UT CERATECH R/TP  |     |
| C550   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R271 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C553   |         | NDC31HJ 221X    | CAPACITOR,CHIP CERAMIC ML TC    | 220P 50V J COG 1.6X0.8 R/TP    |     | R272 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C554   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R273 |         | NRS463J 152X   | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D |     |
| C555   |         | NDC31HJ 101X    | CHIP CAPA CERAMIC ML T.C F/S    | 100P 50V J COG 1.6X0.8 R/TP    |     | R274 |         | NRS463J 621X   | RESISTOR,METAL GLAZED(CHIP) | 620 OHM 1 / 16 W 1608 5.00% D  |     |
| C556   |         | NDC31HJ 101X    | CHIP CAPA CERAMIC ML T.C F/S    | 100P 50V J COG 1.6X0.8 R/TP    |     | R275 |         | NRS463J 152X   | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D |     |
| C557   |         | NDC31HJ 270X    | CAPACITOR,CHIP CERAMIC ML TC    | 27PF 50V J NPO 1608 R/TP       |     | R276 |         | NRS463J 911X   | RESISTOR,METAL GLAZED(CHIP) | 910 OHM 1 / 16 W 1608 5.00% D  |     |
| C558   |         | NCF31CZ 104X    | CAPACITOR, FIXED CERAMIC/Temp.c | 0.1UF 16V 80%, 20% Y5V(F) 1608 |     | R277 |         | NRS463J 151X   | RESISTOR,METAL GLAZED(CHIP) | 150 OHM 1 / 16 W 1608 5.00% D  |     |
| C559   |         | QET61CM 476     | CAPACITOR,ELECTROLYTIC          | 47M SRA/SS 16V M FMS TP(P)     |     | R278 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C560   |         | LG 0CH1225F944  | CAPACITOR, FIXED CERAMIC/Temp.c | 2.2UF 16V 80%, 20% Y5V(F) 3216 |     | R279 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| C561   |         | QET61CM 476     | CAPACITOR,ELECTROLYTIC          | 47M SRA/SS 16V M FMS TP(P)     |     | R281 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| D2A1   |         | DAN202K X       | DIODE, SWITCHING                | DAN202K TP ROHM KOREA SOT23 80 |     | R290 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| D2A2   |         | DAN202K X       | DIODE, SWITCHING                | DAN202K TP ROHM KOREA SOT23 80 |     | R291 |         | NRS463J 101X   | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D  |     |
| D2A3   |         | DAN202K X       | DIODE, SWITCHING                | DAN202K TP ROHM KOREA SOT23 80 |     | R292 |         | NRS463J 103X   | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D  |     |
| D401   |         | DAP202K X       | DIODE, SWITCHING                | DAP202K T146 ROHM R/TP SMD 80V |     | R293 |         | NRS463J 221X   | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D  |     |
| IC201  |         | LG 0ILNRHY002B  | IC,LINEAR                       | HDC25D8116 HYUNDAI 208 QFP TRA |     | R294 |         | NRS463J 221X   | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D  |     |
| IC206  |         | TCW04FU X       | IC,TOSHIBA                      | TC7W04FU                       |     | R295 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| IC2A1  |         | LG 0ILNRHI003A  | IC,LINEAR                       | HD153702TF HITACHI 64 TQFP TRA |     | R2A1 |         | NRS463J 910X   | RESISTOR,METAL GLAZED(CHIP) | 91 OHM 1 / 16 W 1608 5.00% D   |     |
| IC2A2  |         | NJM3414AM X     | IC,JRC                          | NJM3414AM TE1.3K/REEL JCP      |     | R2A2 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| IC2A4  |         | LG 0IKE939000G  | IC,KEC                          | KIA393F EL FLP 8 TP DUAL JOMC  |     | R2A6 |         | NRS463J 123X   | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D  |     |
| IC2M1  |         | LG 0IFA303200A  | IC,FAIRCHILD                    | KA3032 48QFP BK 5CH MOTOR DRIV |     | R2A9 |         | NRS463J 563X   | RESISTOR,METAL GLAZED(CHIP) | 56K OHM 1 / 16 W 1608 5.00% D  |     |
| IC2M1  |         | LG 0ILNRFAD13A  | IC,LINEAR                       | FAN8004 FAIRCHILD 48 QFP TRAY  |     | R2B0 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| IC301  |         | LG 0IXL957210C  | IC,XILINX                       | XC9572XL 10TQ100C 100 QFP TRAY |     | R2B1 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| IC301  |         | LG 0ICTMHY011A  | IC,CUSTOMIZED                   | HS353106 HYNIX 100 TQFP TRAY C |     | R2B2 |         | NRS463J 180X   | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D   |     |
| IC305  |         | LG 0IHY576532A  | IC,HYUNDAI                      | HY57653220CTC 7 86P TSOP BK S  |     | R2B3 |         | NRS463J 180X   | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D   |     |
| IC305  |         | LG 0IIMRHY025A  | IC,MEMORIES                     | HY57V643220CT 7 HYUNDAI 86P TS |     | R2B4 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| IC3F1  |         | LG 0IIMRFOU01B  | IC,MEMORIES                     | MBM29LV8008A 90PFTN FUJITSU 48 |     | R2B5 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| IC3F1A |         | LG 6957R 412AA  | PROGRAM                         | VJW602CS (JVC) DVD PROGRAM     |     | R2B6 |         | NRS463J 180X   | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D   |     |
| IC401  |         | LG 0IIPRC003B   | IC,PERIPHERALS                  | CS4391 KZR CIRRSU LOGIC 20 TSS |     | R2B7 |         | NRS463J 180X   | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D   |     |
| IC402  |         | NJM4580M X      | IC,JRC                          | NJM4580M 8,DMP8 TP OP AMP 2K/R |     | R2B8 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| IC501  |         | LG 0INS860200A  | IC,NATIONAL SEMICONDUCTOR       | NDV8602 240 VQFP BK MCOM+MPEG  |     | R2C0 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| IC502  |         | LG 0IIMR0CB001A | IC,MEMORIES                     | CAT93C56S TE13 CRYSTAL SEMICON |     | R2C4 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| IC502  |         | LG 0IIMRAL012A  | IC,MEMORIES                     | AT93C56 10S(S) 2.7 8S1 ATML    |     | R2C5 |         | NRS463J 102X   | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D   |     |
| IC503  |         | LG 0IFA742440F  | IC,FAIRCHILD                    | MM74HCT244SJ 20P SOIC TP 3 STA |     | R2C6 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| IC506  |         | LG 0IIPMGA7001A | IC,POWER MANAGEMENT             | AMC1117 1.8SJ ADD MICROTACH 3P |     | R2C7 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L201   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2C8 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L206   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2C9 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L207   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D0 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L208   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D1 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| L2A1   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D2 |         | NRS463J 0R0X   | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D    |     |
| L2A2   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D3 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L301   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D4 |         | NRS463J 562X   | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |     |
| L302   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                | HB 1M2012 102JT CERATECH TP    |     | R2D5 |         | NRS463J 682X   | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |     |
| L3F1   |         | LG 6200HJC102A  | FILTER(CIRC),EMC                |                                |     |      |         |                |                             |                                |     |



# OVERALL WIRING DIAGRAM

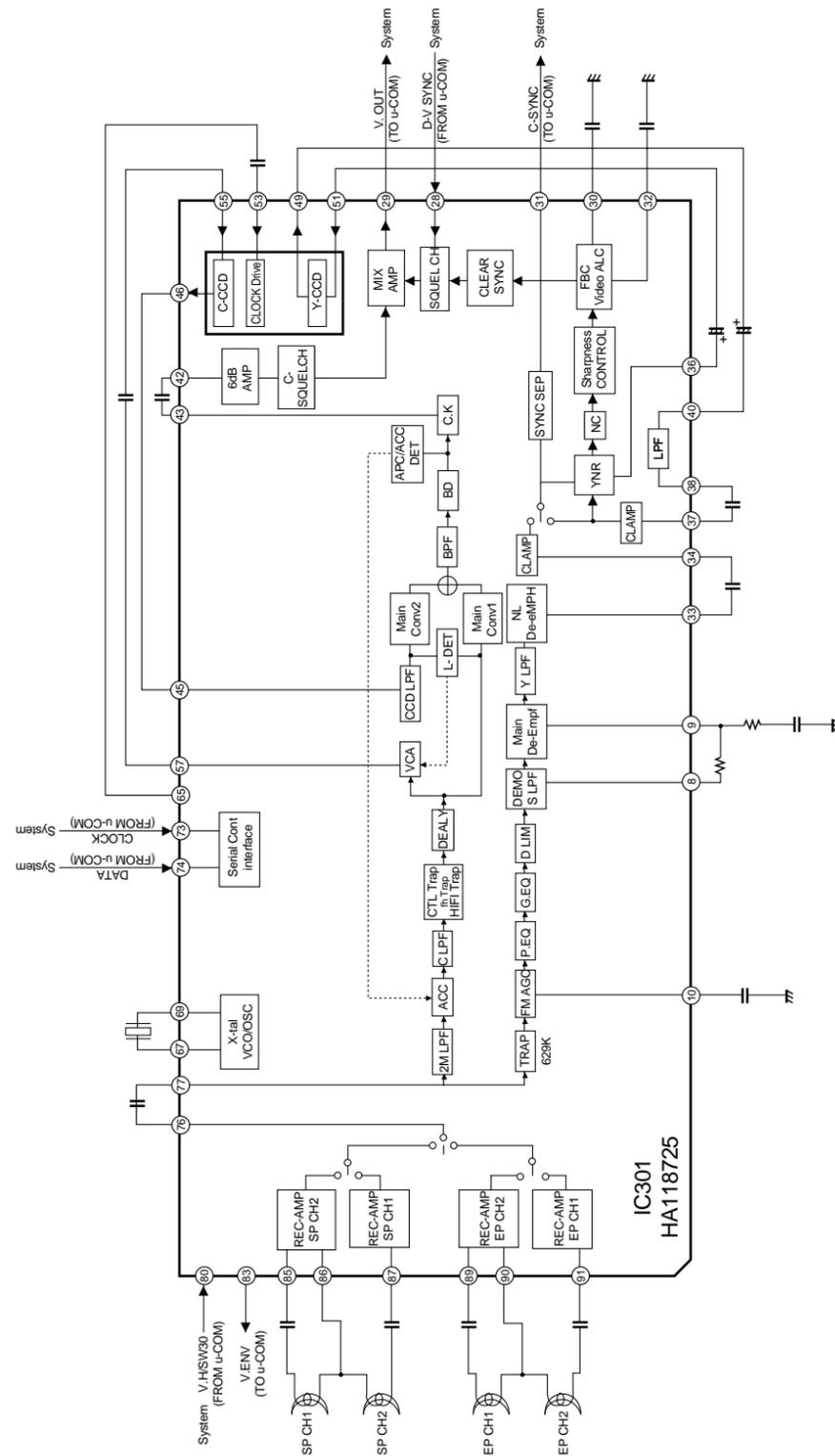




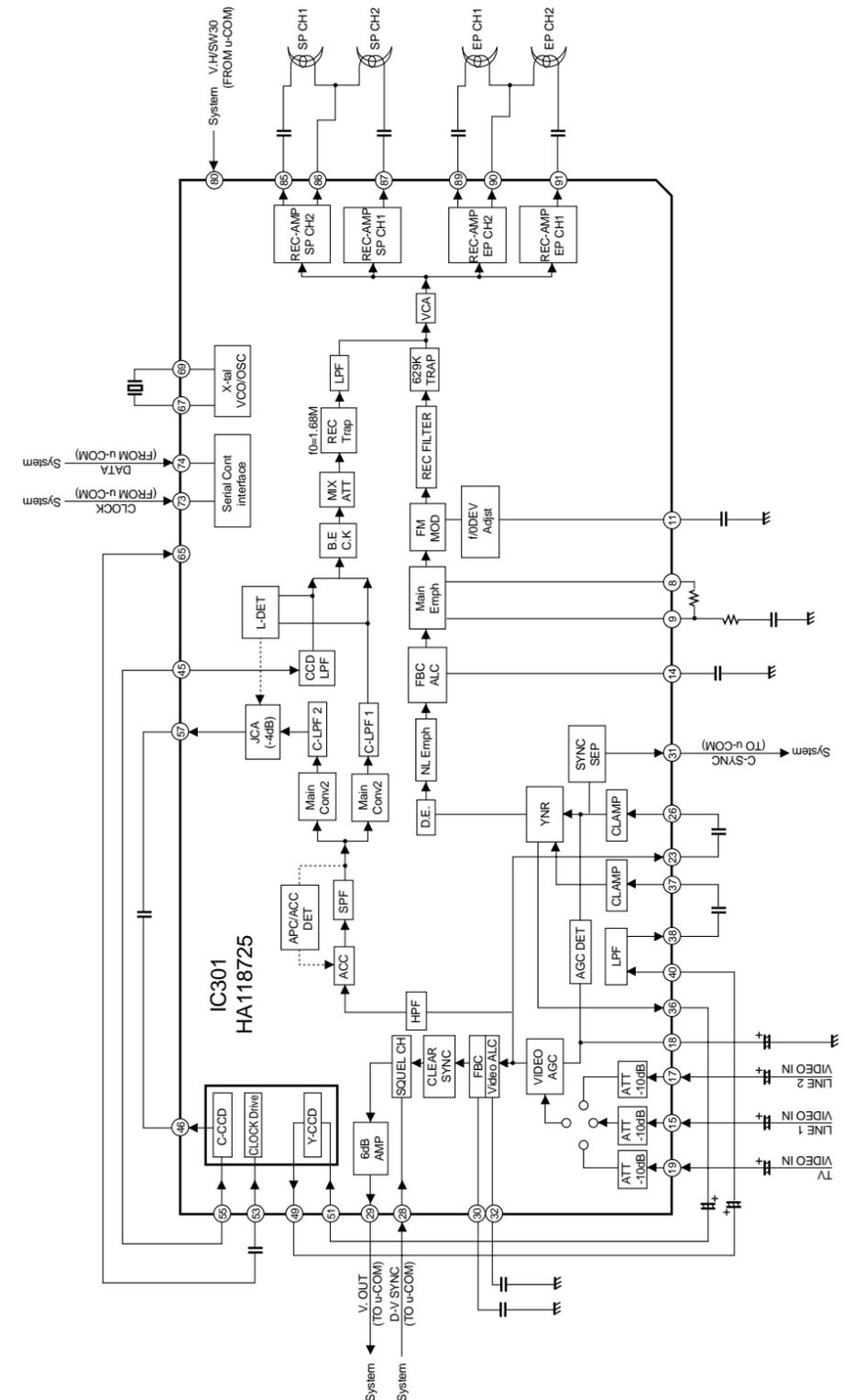


# 4. Y/C BLOCK DIAGRAM

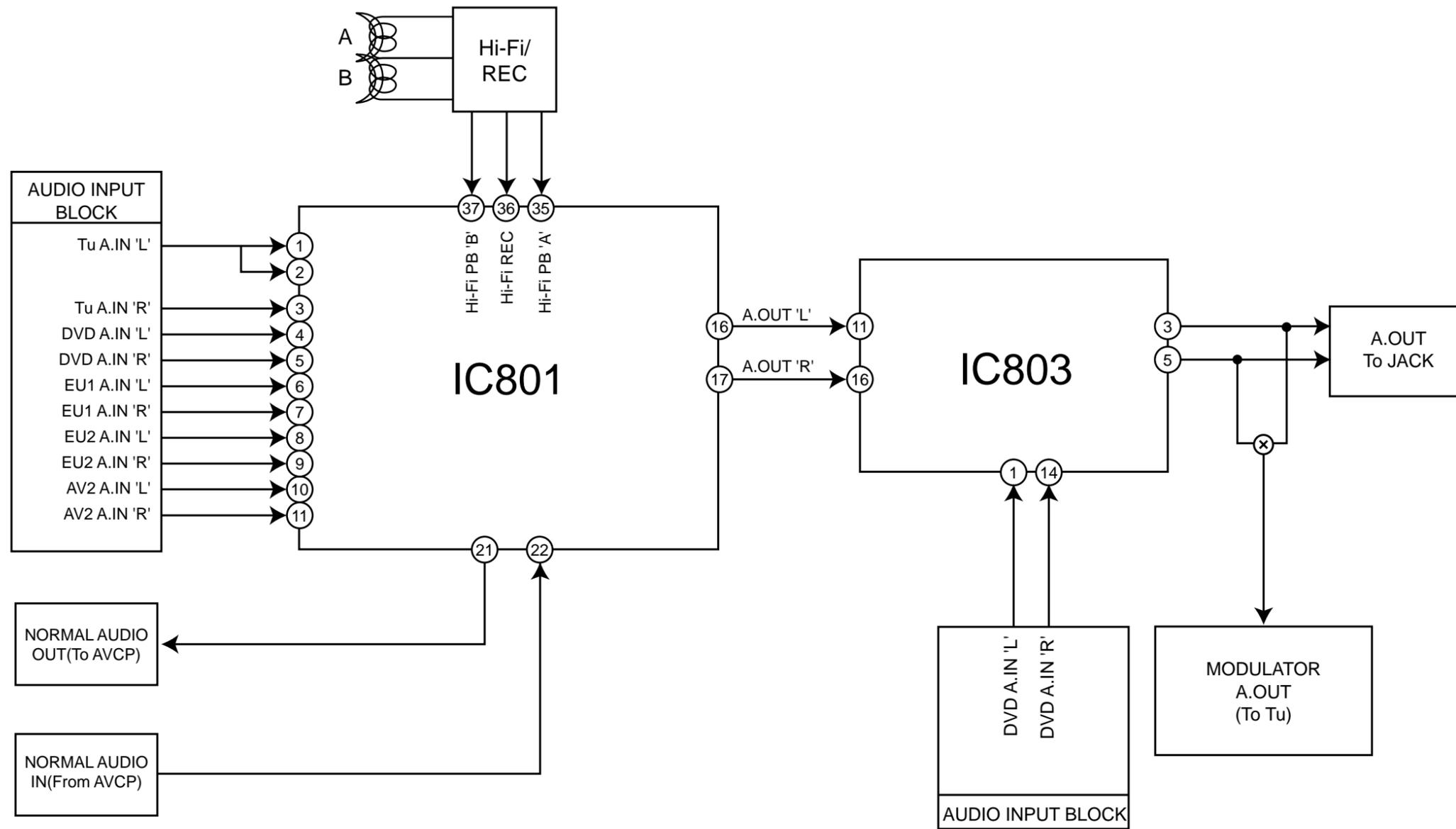
(PB MODE)



(REC MODE)



## 5. Hi-Fi BLOCK DIAGRAM





# CIRCUIT DIAGRAMS

## 1. POWER(SMPS) CIRCUIT DIAGRAM

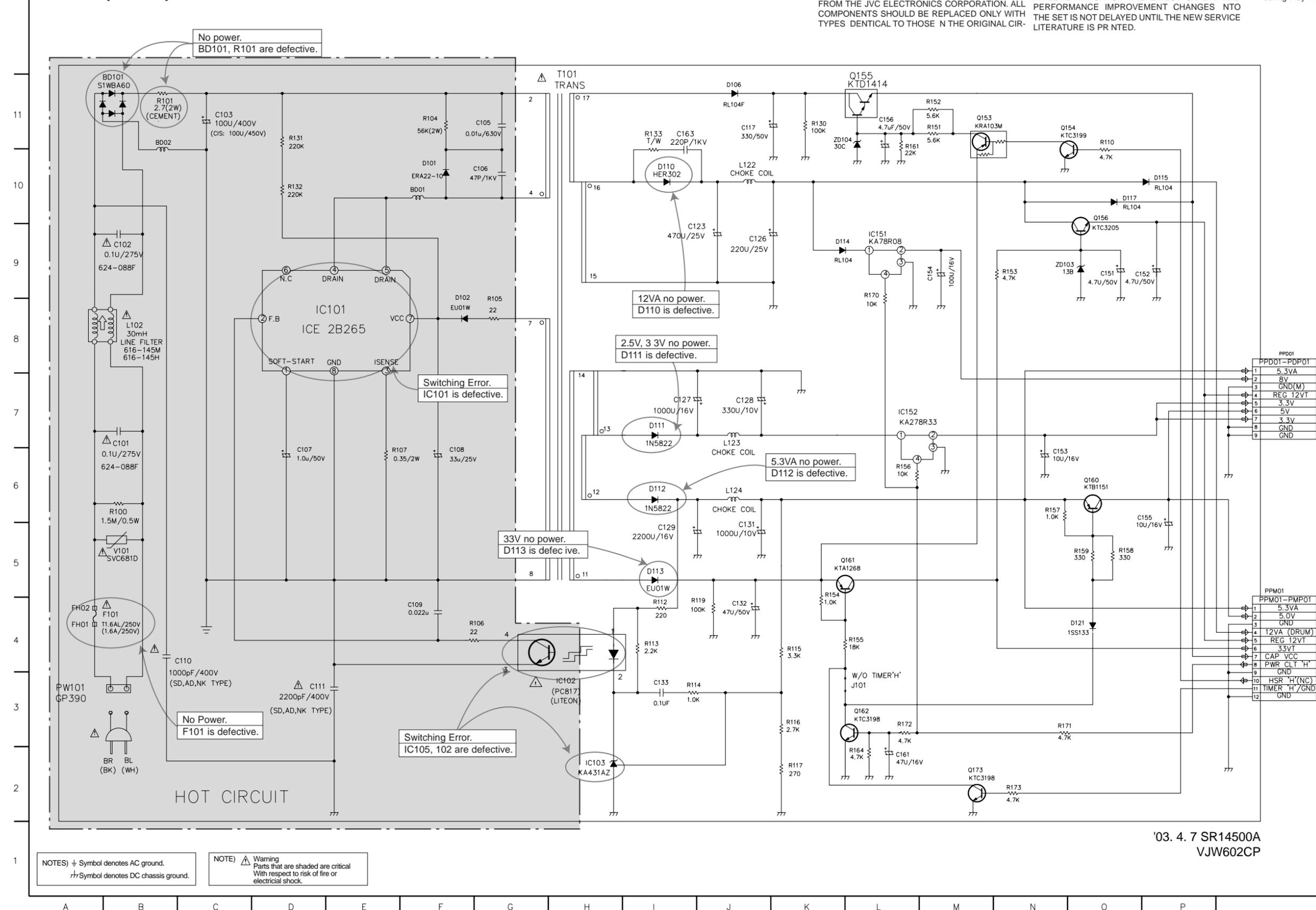
### IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE JVC ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT.

THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

### NOTE

1. Shaded (■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.

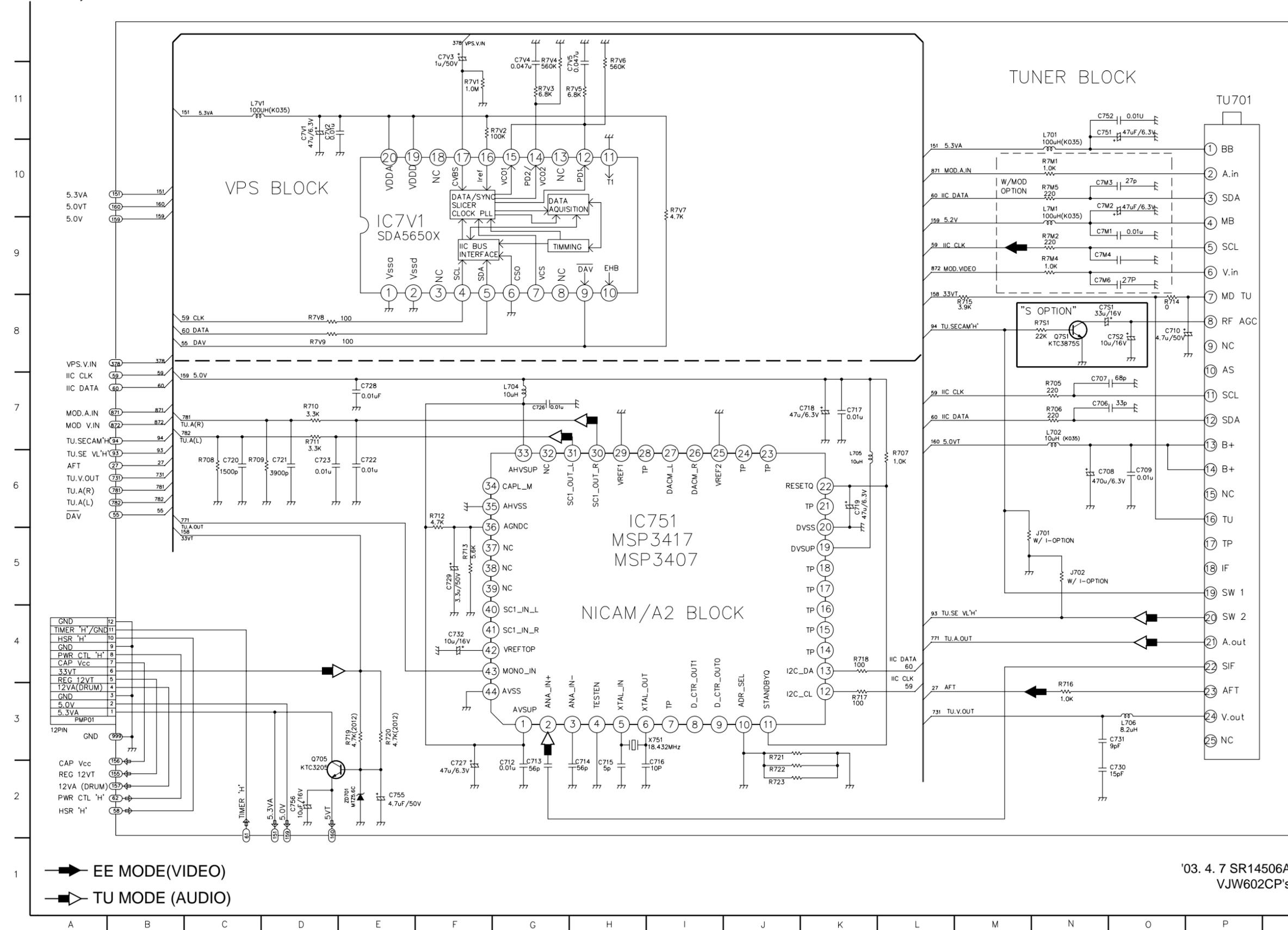


'03. 4. 7 SR14500A  
VJW602CP

NOTES: ⚡ Symbol denotes AC ground.  
⏏ Symbol denotes DC chassis ground.

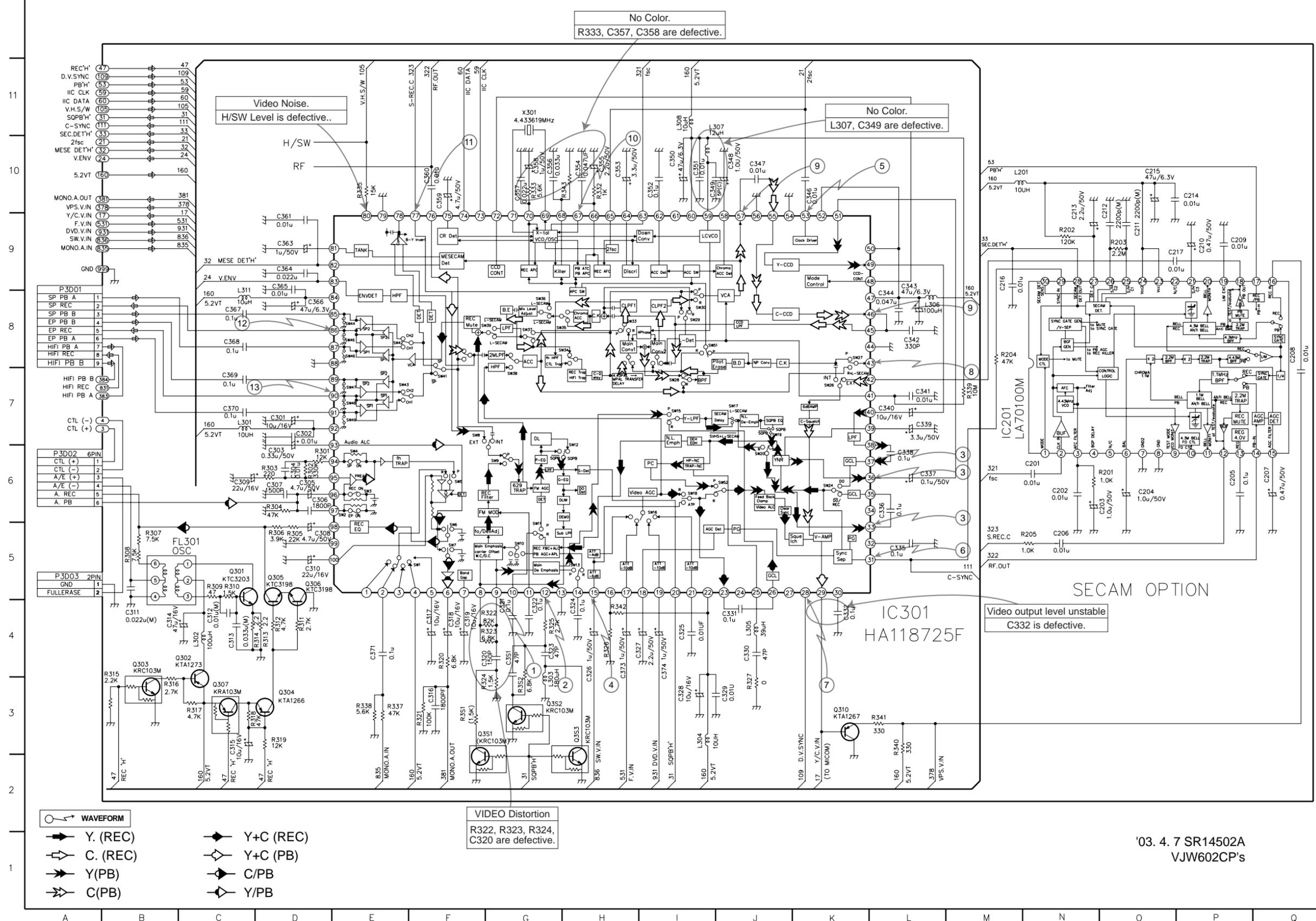
NOTE: ⚠ Warning  
Parts that are shaded are critical  
With respect to risk of fire or  
electrical shock.

## 2. TU/IF, NICAM & A2 CIRCUIT DIAGRAM



'03. 4. 7 SR14506A  
VJW602CP's

### 3. AV CIRCUIT DIAGRAM

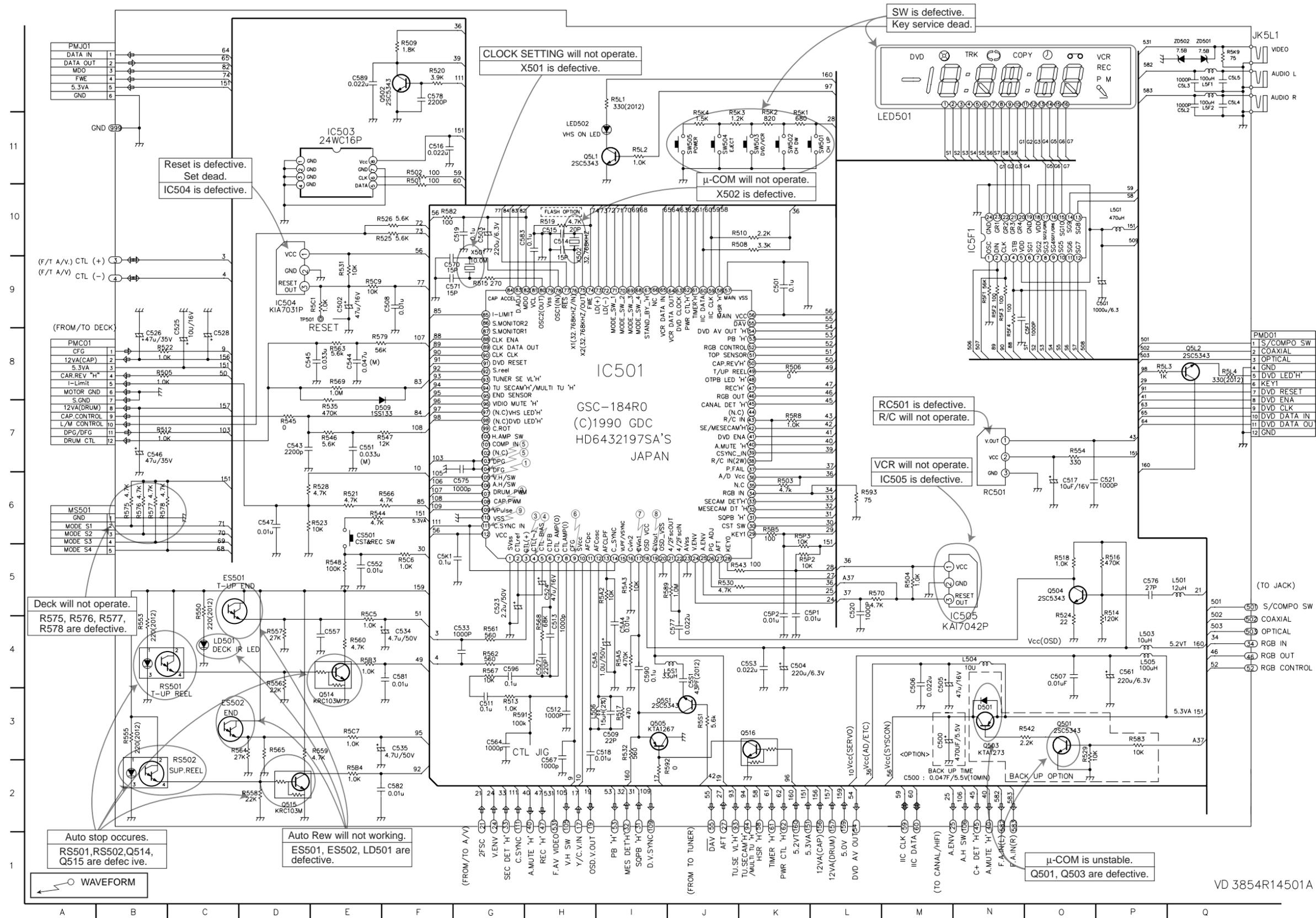


'03. 4. 7 SR14502A  
VJW602CP's





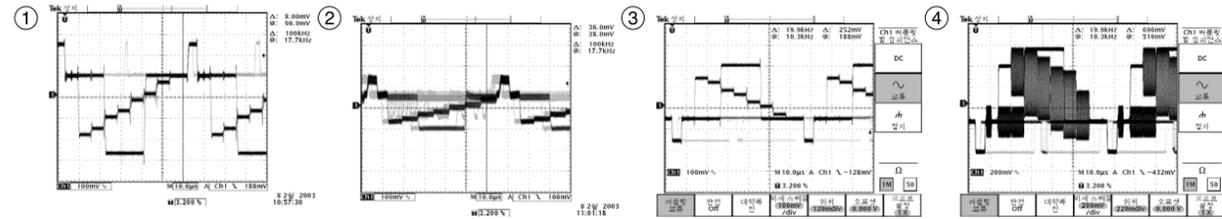
# 6. SYSTEM CIRCUIT DIAGRAM



VD 3854R14501A

# • WAVEFORMS

## \* IC301 Waveform

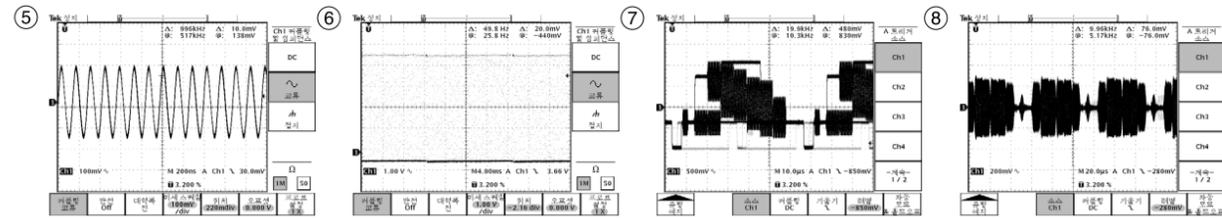


IC301 Pin 9  
100mV/10msec DIV  
VV/EE  
(Main De-Emphasis out)

IC301 Pin 12  
100mV/10msec DIV  
PB  
(Main De-Emphasis Peaking)

IC301 Pins 33, 36, 37  
100mV/10msec DIV  
VV/EE  
Clamp Drive IN Pin 33  
Y-out(to 1H CCD) Pin 36  
Y-out(from 1H CCD) Pin 37

IC301 Pin 15  
200mV/10msec DIV  
EE  
(VIDEO IN)

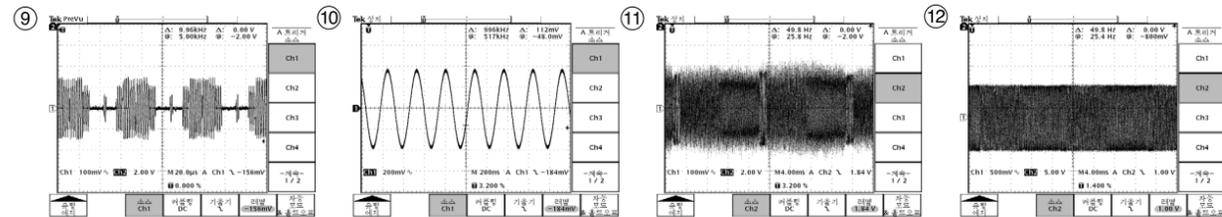


IC301 53 Pin  
100mV/0.2msec DIV  
REC/PB  
(2fsc)

IC301 31 Pin  
1.0V/20msec DIV  
VV/EE  
(C-SYNC OUT)

IC301 29 Pin  
500mV/10msec DIV  
VV/EE  
(VIDEO OUT)

IC301 Pin 43  
200mV/20msec DIV  
PB  
(C.OUT)

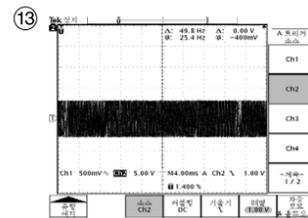


IC301 Pins 46, 57  
200mV/20msec DIV  
VV/EE  
from 1H CCD Pin 46  
to 1H CCD Pin 57

IC301 Pin 67  
100mV/0.2msec DIV  
PB/REC  
(3.58MHz X-TAL IN)

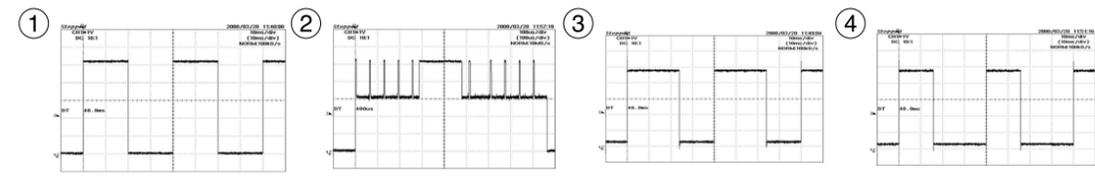
IC301 Pin 77  
100mV/5msec DIV  
PB  
(PB RF out)

IC301 Pin 86  
500mV/2msec DIV  
SP REC  
(REC RF)



IC301 Pin 90  
500mV/2msec DIV  
EP REC  
(REC RF)

## \* IC501 Waveform

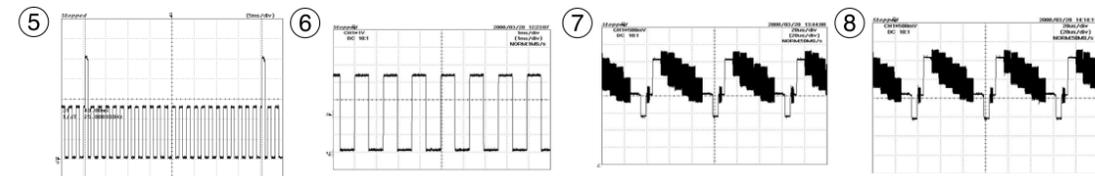


V.HSW  
(IC501 Pin 105)  
1V/10mS  
REC/PB MODE

DV.SYNC  
(IC501 PIN 109)  
1V/100uS  
QUE/REV MODE

CTL(+)  
(IC501 Pin 3)  
1V/10mS

CTL(-)  
(IC501 Pin4)  
1V/10mS

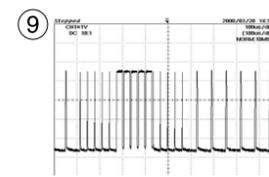


DFG/FG  
(IC501 PIN 103,104)  
1V/10mS  
REC/PB MODE

CFG  
(IC501 Pin9)  
1V/10mS

V.IN  
(IC501 Pin 17)  
500mV/20uS

V.OUT  
(IC501 Pin 19)  
500mV/20uS  
EE/PB MODE



C.SYNC  
(IC501 Pin 111)  
1.0V/100uS  
EE/PB MODE

• CIRCUIT VOLTAGE CHART

| MODE<br>PIN NO. | EE      | PB      | REC     |
|-----------------|---------|---------|---------|
| <b>IC 201</b>   |         |         |         |
| 1               | 2.36 V  | 2.35 V  | 2.32 V  |
| 2               | 2.4 V   | 2.35 V  | 2.4 V   |
| 3               | 3.5 V   | 3.49 V  | 3.5 V   |
| 4               | 2.43 V  | 2.41 V  | 2.38 V  |
| 5               | 0.002 V | 0.005 V | 0.006 V |
| 6               | 0.4 V   | 3.7 V   | 0.39 V  |
| 7               | 0.003 V | 0.003 V | 0.003 V |
| 8               | 0.003 V | 0.003 V | 0.003 V |
| 9               | 2.87 V  | 2.85 V  | 2.81 V  |
| 10              | 2.36 V  | 2.35V   | 2.32 V  |
| 11              | 3.16 V  | 3.13 V  | 3 V     |
| 12              | 3 V     | 1.7 V   | 3.03 V  |
| 13              | 4 V     | 4 V     | 4 V     |
| 14              | 2.3 V   | 2.3 V   | 2.25 V  |
| 15              | 2.98 V  | 1.78 V  | 2.93 V  |
| 16              | 3.2 V   | 3.2 V   | 3.2 V   |
| 17              | 0.15 V  | 3.86 V  | 0.017 V |
| 18              | 0.124 V | 3.38 V  | 0.127 V |
| 19              | 2.23 V  | 2.23 V  | 2.23 V  |
| 20              | 3 V     | 3.3 V   | 3.3 V   |
| 21              | 1.84 V  | 2.34 V  | 2.35 V  |
| 22              | 4.71 V  | 0.002 V | 0.007 V |
| 23              | 4.72 V  | 4.69 V  | 4.64 V  |
| 24              | 4.72 V  | 4.69 V  | 4.63 V  |
| 25              | 2.37 V  | 2.26 V  | 2.37 V  |
| 26              | 2.37 V  | 2.25 V  | 2.36 V  |
| 27              | 3 V     | 2.86 V  | 3 V     |
| 28              | 0.182 V | 0.187 V | 0.182 V |
| 29              | 0.46 V  | 0.62 V  | 0.85 V  |
| 30              | 1.95 V  | 1.94 V  | 1.91 V  |
| <b>IC 301</b>   |         |         |         |
| 1               |         | 0.00    | 0.06    |
| 2               |         | 0.06    | 0.06    |
| 3               |         | 0.01    | 0.02    |
| 4               |         | 5.15    | 5.10    |
| 5               |         | 2.61    | 2.10    |
| 6               |         | 2.54    | 0.00    |
| 7               |         | 2.84    | 2.84    |
| 8               |         | 1.35    | 1.85    |
| 9               |         | 1.34    | 1.85    |
| 10              |         | 1.90    | 2.39    |
| 11              |         | 3.04    | 2.64    |
| 12              |         | 0.01    | 1.69    |
| 13              |         | 0.01    | 0.01    |
| 14              |         | 2.40    | 2.78    |
| 15              |         | 0.01    | 0.01    |
| 16              |         | 1.92    | 0.31    |
| 17              |         | 2.80    | 2.80    |
| 18              |         | 1.89    | 1.95    |
| 19              |         | 2.80    | 2.80    |
| 20              |         | 0.01    | 0.02    |
| 21              |         | 2.80    | 2.80    |
| 22              |         | 5.14    | 5.10    |
| 23              |         | 2.34    | 2.32    |

| MODE<br>PIN NO. | EE | PB   | REC  |
|-----------------|----|------|------|
| 24              |    | 0.88 | 0.52 |
| 25              |    | 2.13 | 2.13 |
| 26              |    | 2.81 | 3.01 |
| 27              |    | 0.92 | 0.51 |
| 28              |    | 0.03 | 0.03 |
| 29              |    | 2.38 | 2.47 |
| 30              |    | 2.89 | 2.79 |
| 31              |    | 0.23 | 0.37 |
| 32              |    | 2.82 | 2.39 |
| 33              |    | 2.15 | 2.10 |
| 34              |    | 3.14 | 1.83 |
| 35              |    | 2.54 | 3.05 |
| 36              |    | 2.39 | 2.31 |
| 37              |    | 3.13 | 3.04 |
| 38              |    | 2.18 | 0.00 |
| 39              |    | 1.45 | 2.49 |
| 40              |    | 2.12 | 2.09 |
| 41              |    | 2.66 | 2.49 |
| 42              |    | 2.14 | 2.13 |
| 43              |    | 2.14 | 2.13 |
| 44              |    | 0.01 | 0.01 |
| 45              |    | 3.15 | 3.12 |
| 46              |    | 0.00 | 3.12 |
| 47              |    | 0.00 | 5.05 |
| 48              |    | 4.97 | 4.92 |
| 49              |    | 3.33 | 3.28 |
| 50              |    | 5.10 | 5.05 |
| 51              |    | 2.11 | 2.03 |
| 52              |    | 5.10 | 5.05 |
| 53              |    | 2.63 | 2.61 |
| 54              |    | 0.01 | 0.01 |
| 55              |    | 2.02 | 1.99 |
| 56              |    | 0.01 | 0.01 |
| 57              |    | 2.18 | 2.18 |
| 58              |    | 1.91 | 2.30 |
| 59              |    | 4.99 | 4.95 |
| 60              |    | 5.00 | 4.95 |
| 61              |    | 0.03 | 0.03 |
| 62              |    | 1.19 | 1.19 |
| 63              |    | 2.35 | 2.35 |
| 64              |    | 2.61 | 2.61 |
| 65              |    | 2.26 | 2.26 |
| 66              |    | 2.61 | 2.61 |
| 67              |    | 1.39 | 1.39 |
| 68              |    | 1.28 | 1.28 |
| 69              |    | 1.98 | 1.98 |
| 70              |    | 2.30 | 2.30 |
| 71              |    | 1.60 | 1.60 |
| 72              |    | 2.50 | 2.50 |
| 73              |    | 5.25 | 5.25 |
| 74              |    | 5.25 | 5.25 |
| 75              |    | 5.25 | 5.25 |
| 76              |    | 5.25 | 2.17 |
| 77              |    | 2.17 | 2.17 |
| 78              |    | 2.17 | 2.84 |

| MODE<br>PIN NO. | EE      | PB      | REC     |
|-----------------|---------|---------|---------|
| 79              |         | 0.03    | 0.03    |
| 80              |         | 0.01    | 0.01    |
| 81              |         | 0.01    | 0.01    |
| 82              |         | 0.01    | 0.01    |
| 83              |         | 2.50    | 2.50    |
| 84              |         | 5.05    | 5.05    |
| 85              |         | 2.29    | 2.29    |
| 86              |         | 2.29    | 2.29    |
| 87              |         | 2.29    | 2.47    |
| 88              |         | 0.01    | 0.01    |
| 89              |         | 2.28    | 5.02    |
| 90              |         | 2.28    | 0.03    |
| 91              |         | 2.28    | 0.03    |
| 92              |         | 5.11    | 5.06    |
| 93              |         | 2.54    | 2.05    |
| 94              |         | 2.54    | 2.55    |
| 95              |         | 2.52    | 2.53    |
| 96              |         | 2.50    | 2.53    |
| 97              |         | 0.01    | 0.02    |
| 98              |         | 2.55    | 2.27    |
| 99              |         | 0.01    | 0.01    |
| 100             |         | 2.54    | 2.57    |
| <b>IC 5 F 1</b> |         |         |         |
| 1               | 2.33 V  | 2.31 V  | 2.3 V   |
| 2               | 4.98 V  | 4.9 V   | 4.9 V   |
| 3               | 5 V     | 5 V     | 5 V     |
| 4               | 4.96 V  | 4.9 V   | 4.9 V   |
| 5               | 4.89 V  | 4.85 V  | 4.8 V   |
| 6               | 0.64 V  | 0.59 V  | 0.6 V   |
| 7               | 0.64 V  | 0.59 V  | 0.6 V   |
| 8               | 0.64 V  | 0.61 V  | 0.6 V   |
| 9               | 0.73 V  | 0.93 V  | 0.96 V  |
| 10              | 1 V     | 0.92 V  | 0.91 V  |
| 11              | 0.72 V  | 0.63 V  | 0.92 V  |
| 12              | 1.83 V  | 1.84 V  | 1.8 V   |
| 13              | 0.73 V  | 0.75 V  | 0.72 V  |
| 14              | 1.26 V  | 1.22 V  | 1.2 V   |
| 15              | 1.26 V  | 1.23 V  | 1.1 V   |
| 16              | 1.65 V  | 1.63 V  | 1.54 V  |
| 17              | 1.58 V  | 1.58 V  | 1.42 V  |
| 18              | 4.89 V  | 4.8 V   | 4.8 V   |
| 19              | 0.002 V | 0.003 V | 0.003 V |
| 20              | 1.75 V  | 1.63 V  | 1.5 V   |
| 21              | 1.7 V   | 1.7 V   | 1.5 V   |
| 22              | 1.78 V  | 1.71 V  | 1.5 V   |
| 23              | 1.73 V  | 1.6 V   | 1.41 V  |
| 24              | 0.002 V | 0.003 V | 0.003 V |
| <b>IC 751</b>   |         |         |         |
| 1               | 5.1 V   | 5.1 V   | 5.08 V  |
| 2               | 1.5 V   | 1.5 V   | 1.51 V  |
| 3               | 1.5 V   | 1.5 V   | 1.5 V   |
| 4               | 0.002 V | 0.003 V | 0.003 V |
| 5               | 2.5 V   | 2.46 V  | 2.46 V  |
| 6               | 2.44 V  | 2.44 V  | 2.43 V  |
| 7               | 1.84 V  | 1.89 V  | 2.06 V  |

| MODE<br>PIN NO. | EE      | PB      | REC     |
|-----------------|---------|---------|---------|
| 8               | 1.86 V  | 0.004 V | 0.004 V |
| 9               | 1.86 V  | 0.004 V | 0.004 V |
| 10              | 0.002 V | 0.003 V | 0.003 V |
| 11              | 5.12 V  | 5.12 V  | 5.11 V  |
| 12              | 4.8 V   | 4.8 V   | 4.8 V   |
| 13              | 4.7 V   | 4.75 V  | 4.7 V   |
| 14              | 1.75V   | 2.6 V   | 2.59 V  |
| 15              | 1.77 V  | 2.6 V   | 2.6 V   |
| 16              | 1.77 V  | 5 V     | 5 V     |
| 17              | 1.75 V  | 1.5 V   | 2.06 V  |
| 18              | 1.75 V  | 1.5 V   | 2 V     |
| 19              | 5 V     | 5 V     | 5 V     |
| 20              | 0.003 V | 0.003 V | 0.003 V |
| 21              | 1.88 V  | 1.58 V  | 2 V     |
| 22              | 5.1 V   | 5.1 V   | 5.11 V  |
| 23              | 0.002 V | 0.005 V | 0.004 V |
| 24              | 0.002 V | 0.005 V | 0.005 V |
| 25              | 0.002 V | 0.003 V | 0.003 V |
| 26              | 0.05 V  | 0.051 V | 0.051 V |
| 27              | 0.05 V  | 0.05 V  | 0.05 V  |
| 28              | 0.002 V | 0.003 V | 0.005 V |
| 29              | 0.002 V | 0.003 V | 0.003 V |
| 30              | 2.78 V  | 2.77 V  | 2.76 V  |
| 31              | 2.78 V  | 1.9 V   | 2.76 V  |
| 32              | 0.002 V | 0.003 V | 0.005 V |
| 33              | 5.1 V   | 5.09 V  | 5.08 V  |
| 34              | 4.06 V  | 4.08 V  | 4.06 V  |
| 35              | 0.003 V | 0.003 V | 0.003 V |
| 36              | 2.77 V  | 2.76 V  | 2.76 V  |
| 37              | 0.002 V | 0.002 V | 0.002 V |
| 38              | 0.002 V | 0.003 V | 0.002 V |
| 39              | 0.002 V | 0.003 V | 0.002 V |
| 40              | 2.76 V  | 2.75 V  | 2.75 V  |
| 41              | 2.76 V  | 2.75 V  | 2.75 V  |
| 42              | 2.59 V  | 2.59 V  | 2.6 V   |
| 43              | 2.35 V  | 2.35 V  | 2.35 V  |
| 44              | 0.003 V | 0.003 V | 0.003 V |
| <b>IC 501</b>   |         |         |         |
| 1               | 0.002 V | 0.002 V | 0.002 V |
| 2               | 2.56 V  | 2.55 V  | 2.55 V  |
| 3               | 2.56 V  | 2.55 V  | 2.9 V   |
| 4               | 2.56 V  | 2.55 V  | 2 V     |
| 5               | 2.56 V  | 2.55 V  | 2.55 V  |
| 6               | 2.56 V  | 2.56 V  | 2.55 V  |
| 7               | 2.64 V  | 2.63 V  | 2.6 V   |
| 8               | 2.54 V  | 2.53 V  | 2.52 V  |
| 9               | 0.064 V | 2.27 V  | 2.26 V  |
| 10              | 5.13 V  | 5.12 V  | 5.11 V  |
| 11              | 1.69 V  | 1.68 V  | 1.66 V  |
| 12              | 1.7 V   | 1.7 V   | 1.67 V  |
| 13              | 2.32 V  | 2 V     | 2.3 V   |
| 14              | 0.48 V  | 0.08 V  | 0.53 V  |
| 15              | 1.28 V  | 1.29 V  | 1.36 V  |
| 16              | 1.84 V  | 1.83 V  | 1.8 V   |
| 17              | 2.32 V  | 3 V     | 2.26 V  |

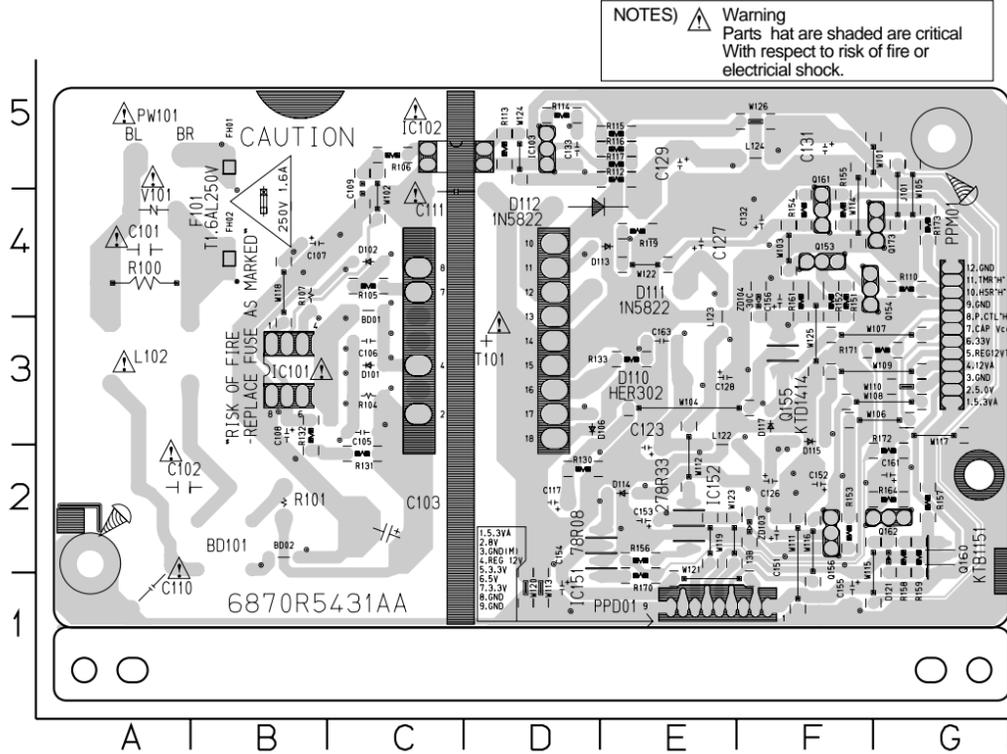
| MODE<br>PIN NO. | EE         | PB         | REC        |
|-----------------|------------|------------|------------|
| 18              | 4.7 V      | 4.7 V      | 4.6 V      |
| 19              | 2.19 V     | 3 V        | 2.13 V     |
| 20              | 0.01 V     | 0.009 V    | 0.01 V     |
| 21              | 2.2 V      | 2.2 V      | 2.16 V     |
| 22              | 2.32 V     | 2.3 V      | 2.26 V     |
| 23              | 0.01 V     | 0.009 V    | 0.01 V     |
| 24              | 0.3 V      | 2.84 V     | 0.012 V    |
| 25              | 0.08 V     | 3.4 V      | 0.068 V    |
| 26              | 5.14 V     | 5.13 V     | 5.12 V     |
| 27              | 4.2 V      | 4.16 v     | 3.93 V     |
| 28              | 5.13 V     | 5.13 V     | 5.11 V     |
| 29              | 5.13 V     | 5.13 V     | 5.11 V     |
| 30              | 0.004 V    | 0.002 V    | 0.003 V    |
| 31              | 0.002 V    | 0.002 V    | 0.002 V    |
| 32              | 0.002 V    | 0.002 V    | 0.002 V    |
| 33              | 0.18 V     | 0.18 V     | 0.18 V     |
| 34              | 1.37 V     | 1.3 V      | 1.42 V     |
| 35              | 5.14 V     | 5.13 V     | 5.1 V      |
| 36              | 5.14 V     | 5.13 V     | 5.1 V      |
| 37              | 4.74 V     | 4.73 V     | 4.7 V      |
| 38              | 4.74 V     | 4.75 V     | 4.7 V      |
| 39              | 2.45 V     | 4.9 V      | 2.33V      |
| 40              | 5 V        | 0.003 V    | 4.96 V     |
| 41              | 2.28 V     | 1.55 V     | 1.42 V     |
| 42              | 0.003 V    | 0.003 V    | 0.004 V    |
| 43              | 4.76 V     | 4.75 V     | 4.73 V     |
| 44              | 0.003 V    | 0.003 V    | 0.004 V    |
| 45              | (-)0.001 V | (-)0.001 V | (-)0.001 V |
| 46              | 0.003 V    | 0.003 V    | 0.004 V    |
| 47              | 0.003 V    | 0.003 V    | 5 V        |
| 48              | 0.003 V    | 0.003 V    | 0.004 V    |
| 49              | 5.14 V     | 0-5 V      | 0.005-5 V  |
| 50              | 5.1 V      | 0.003 V    | 0.004 V    |
| 51              | 4.38 V     | 0.03 V     | 0.035 V    |
| 52              | 0.031 V    | 5.06 V     | 0.038 V    |
| 53              | 0.003 V    | 0.003 V    | 0.004 V    |
| 54              | 5.1 V      | 5 V        | 5 V        |
| 55              | 5.1 V      | 5.13 V     | 5.11 V     |
| 56              | 5.1 V      | 5.1 V      | 5.1 V      |
| 57              | 0.002 V    | 0.002 V    | 0.002 V    |
| 58              | 0.003 V    | 0.004 V    | 0.004 V    |
| 59              | 4.8 V      | 4.8 V      | 4.8 V      |
| 60              | 4.7 V      | 4.7 V      | 4.9 V      |
| 61              | 4.7 V      | 5 V        | 5 V        |
| 62              | 5 V        | 5 V        | 5 V        |
| 63              | 1.8 V      | 1.3 V      | 1.68 V     |
| 64              | 5.1 V      | 5 V        | 5 V        |
| 65              | 1.78 V     | 5.1 V      | 1.66 V     |
| 66              | 5.1 V      | 5.1 V      | 5.08 V     |
| 67              | 0.004 V    | 4.4 V      | 5.08 V     |
| 68              | 0.001 V    | 5.1 V      | 0.005 V    |
| 69              | 0.001 V    | 5.1 V      | 5.12 V     |
| 70              | 5.14 V     | 5.1 V      | 5.12 V     |
| 71              | 5.14 V     | 0.001 V    | 0.001 V    |
| 72              | 0.028 V    | 0.028 V    | 0.029 V    |

| MODE<br>PIN NO. | EE      | PB           | REC     |
|-----------------|---------|--------------|---------|
| 73              | 5 V     | 5.1 V        | 5.04 V  |
| 74              | 0.001 V | 0.001 V      | 0.002 V |
| 75              | 1.5 V   | 1.93 V       | 1.48 V  |
| 76              | 1.7 V   | 2.02 V       | 1.44 V  |
| 77              | 5.1 V   | 5.1 V        | 5.08 V  |
| 78              | 2.5 V   | 2.51 V       | 2.52 V  |
| 79              | 0.001 V | 0.002 V      | 0.002 V |
| 80              | 2.53 V  | 2.5 V        | 2.5 V   |
| 81              | 3.2 V   | 3.2 V        | 3.19 V  |
| 82              | 5.12 V  | 5.1 V        | 5.1 V   |
| 83              | 0.172 V | 2.68 V       | 2.55 V  |
| 84              | 0.004 V | 2.4 V        | 2.69 V  |
| 85              | 0.019 V | 3.4 V        | 3.44 V  |
| 86              | 2.55 V  | 2.55 V       | 2.56 V  |
| 87              | 5.11 V  | 3.1 V        | 2.29 V  |
| 88              | 5.11 V  | 4.95 V       | 4.9 V   |
| 89              | 5.11 V  | 4.97 V       | 4.9 V   |
| 90              | 5.11 V  | 5 V          | 4.98 V  |
| 91              | 5.11 V  | 5.1 V        | 5.09 V  |
| 92              | 5.12 V  | 0.008-0.05 V | 0.006 V |
| 93              | 0.005 V | 0.005 V      | 0.006 V |
| 94              | 0.005 V | 0.005 V      | 0.013 V |
| 95              | 4.38 V  | 0.05 V       | 0.012 V |
| 96              | 0.005 V | 0.005 V      | 0.006 V |
| 97              | 5.11 V  | 5.1 V        | 5.09 V  |
| 98              | 0.005 V | 5.3 V        | 0.006 V |
| 99              | 5.11 V  | 2.55 V       | 2.52 V  |
| 100             | 0.005 V | 0.005 V      | 0.006 V |
| 101             | 1.51 V  | 2.6 V        | 1.31 V  |
| 10              |         |              |         |





# 2. SMPS P.C.BOARD

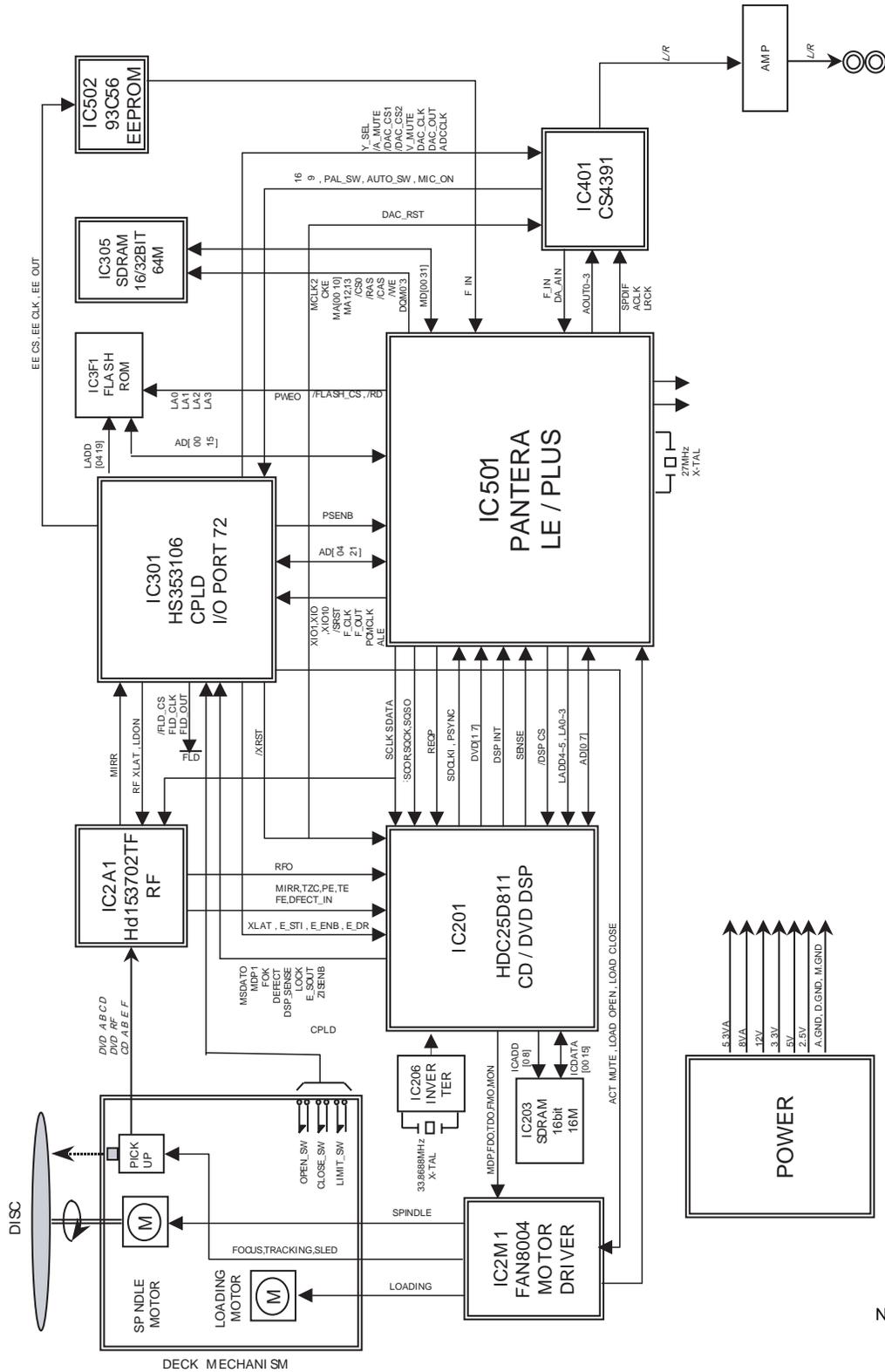


## LOCATION GUIDE

|       |    |       |    |
|-------|----|-------|----|
| BD01  | C4 | L123  | E3 |
| BD02  | B2 | L124  | F5 |
| BD101 | B2 | PPD01 | F1 |
| C101  | A4 | PPM01 | G3 |
| C102  | A2 | PW101 | A5 |
| C103  | C2 | Q153  | F4 |
| C105  | C3 | Q154  | F4 |
| C106  | C3 | Q155  | F3 |
| C107  | B4 | Q156  | F3 |
| C108  | B3 | Q160  | G2 |
| C109  | C4 | Q161  | F4 |
| C110  | A1 | Q162  | G2 |
| C111  | C4 | Q173  | G4 |
| C117  | D2 | R100  | A4 |
| C123  | E2 | R101  | B2 |
| C126  | F2 | R104  | C3 |
| C127  | E4 | R105  | C4 |
| C128  | F4 | R106  | C5 |
| C129  | F5 | R107  | B4 |
| C131  | F5 | R110  | G4 |
| C132  | F4 | R112  | E5 |
| C133  | D5 | R113  | D5 |
| C151  | F2 | R114  | D5 |
| C152  | F2 | R115  | E5 |
| C153  | E2 | R116  | E5 |
| C154  | D1 | R117  | E5 |
| C155  | F1 | R119  | E4 |
| C156  | F4 | R130  | D2 |
| C161  | G2 | R131  | C2 |
| C163  | E3 | R132  | B3 |
| D101  | C3 | R133  | E3 |
| D102  | C4 | R151  | F4 |
| D106  | D3 | R152  | F4 |
| D110  | E3 | R153  | F2 |
| D111  | E4 | R154  | F4 |
| D112  | D4 | R155  | F4 |
| D113  | E4 | R156  | E2 |
| D114  | E2 | R157  | G2 |
| D115  | F3 | R158  | G2 |
| D117  | F3 | R159  | G2 |
| D121  | G2 | R161  | F4 |
| FH01  | B5 | R164  | G2 |
| FH02  | B4 | R170  | E1 |
| IC101 | B3 | R171  | G3 |
| IC102 | D5 | R172  | G2 |
| IC103 | D5 | R173  | G4 |
| IC151 | E2 | T101  | D3 |
| IC152 | E2 | V101  | A4 |
| J101  | G4 | ZD103 | F2 |
| L102  | A3 | ZD104 | F4 |
| L122  | E2 |       |    |

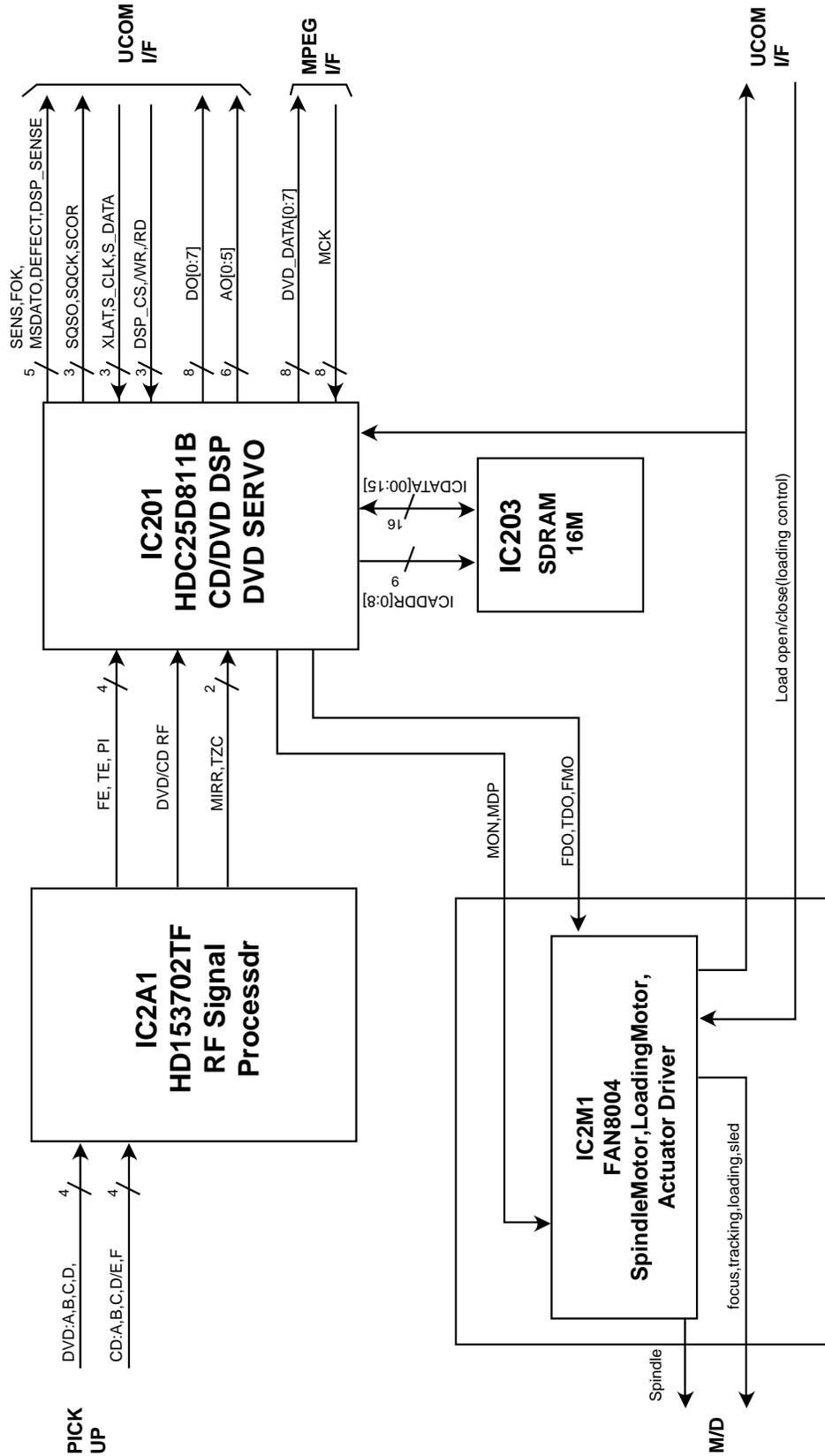
# BLOCK DIAGRAMS

## 1. DVD OVERALL BLOCK DIAGRAM

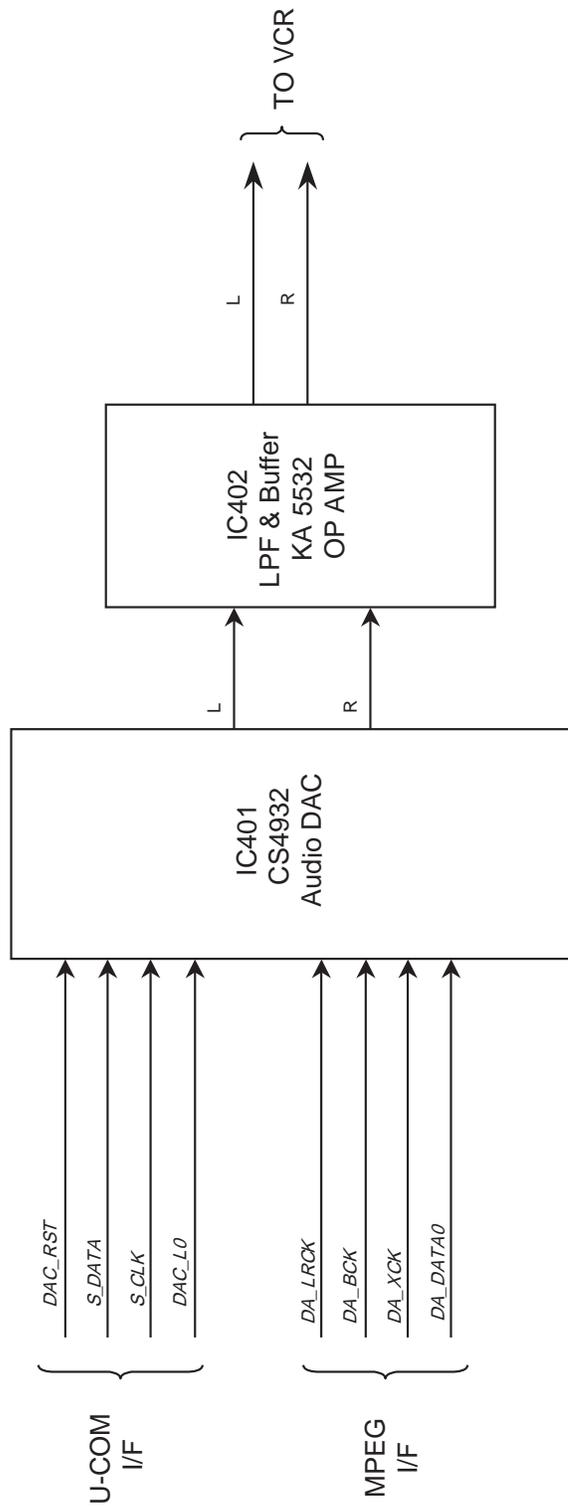


NS

## 2. RF/CD DSP/DVD DSP/DVD SERVO BLOCK DIAGRAM

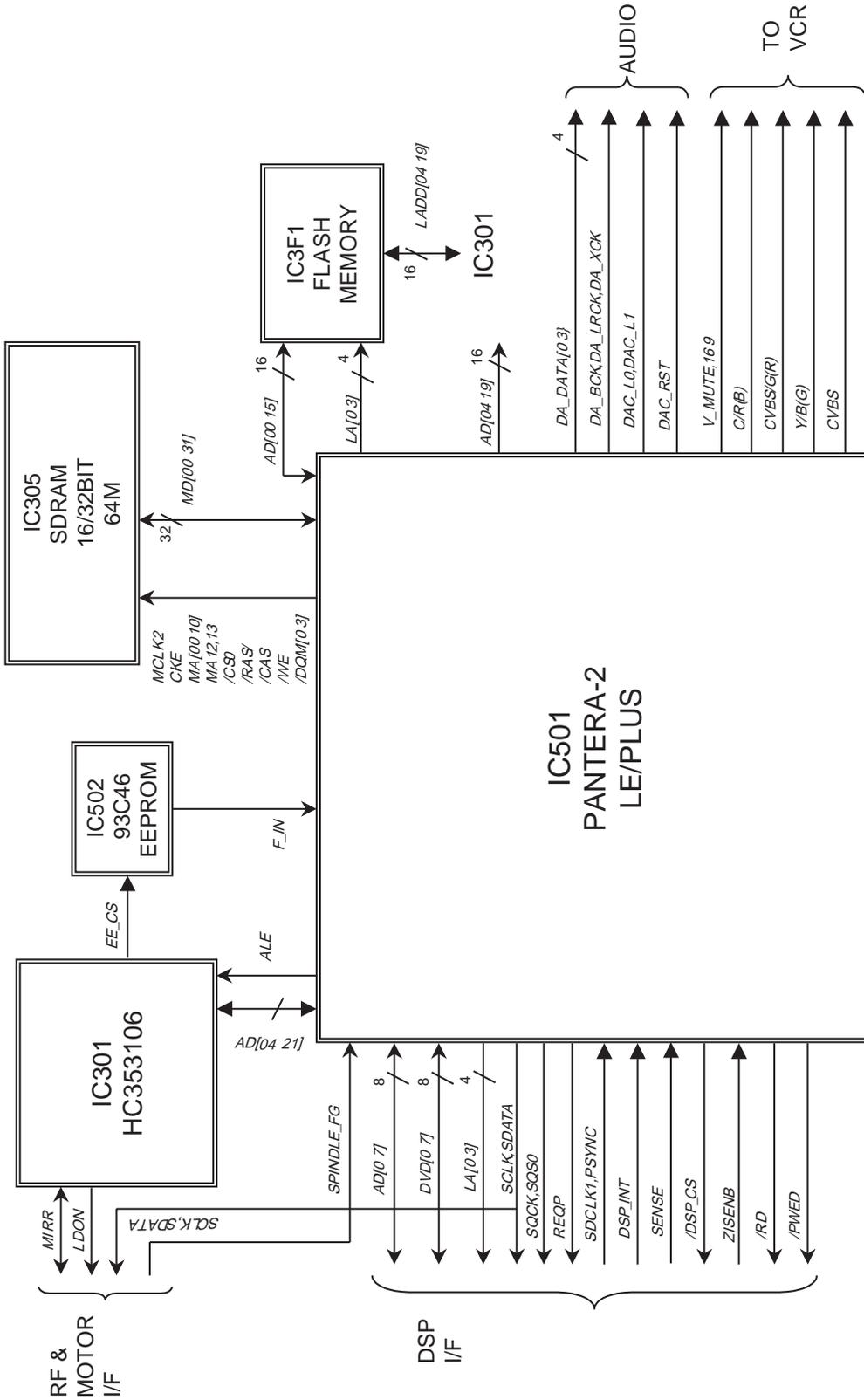


### 3. AUDIO BLOCK DIAGRAM



NS

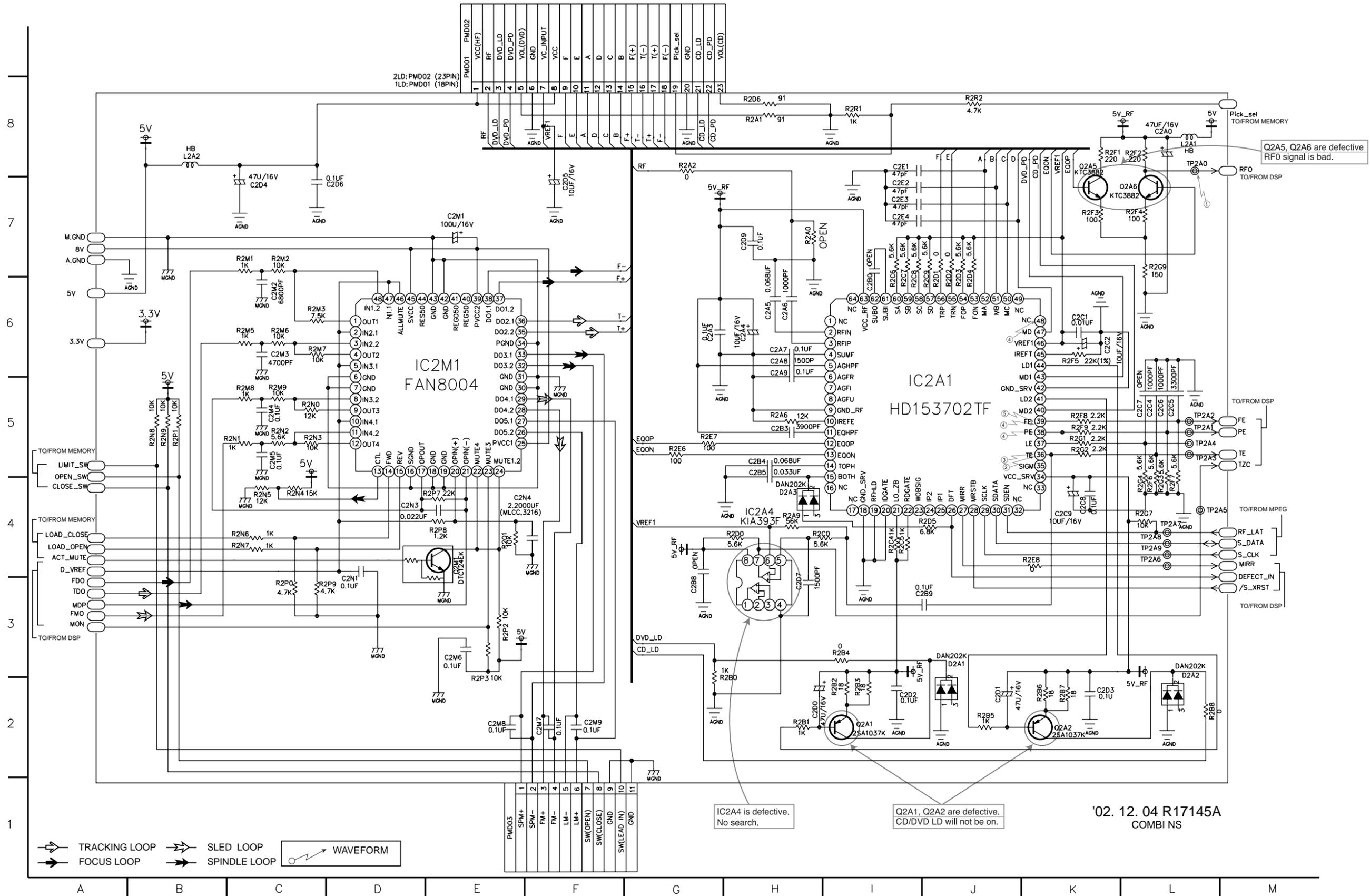
# 4. MPEG BLOCK DIAGRAM



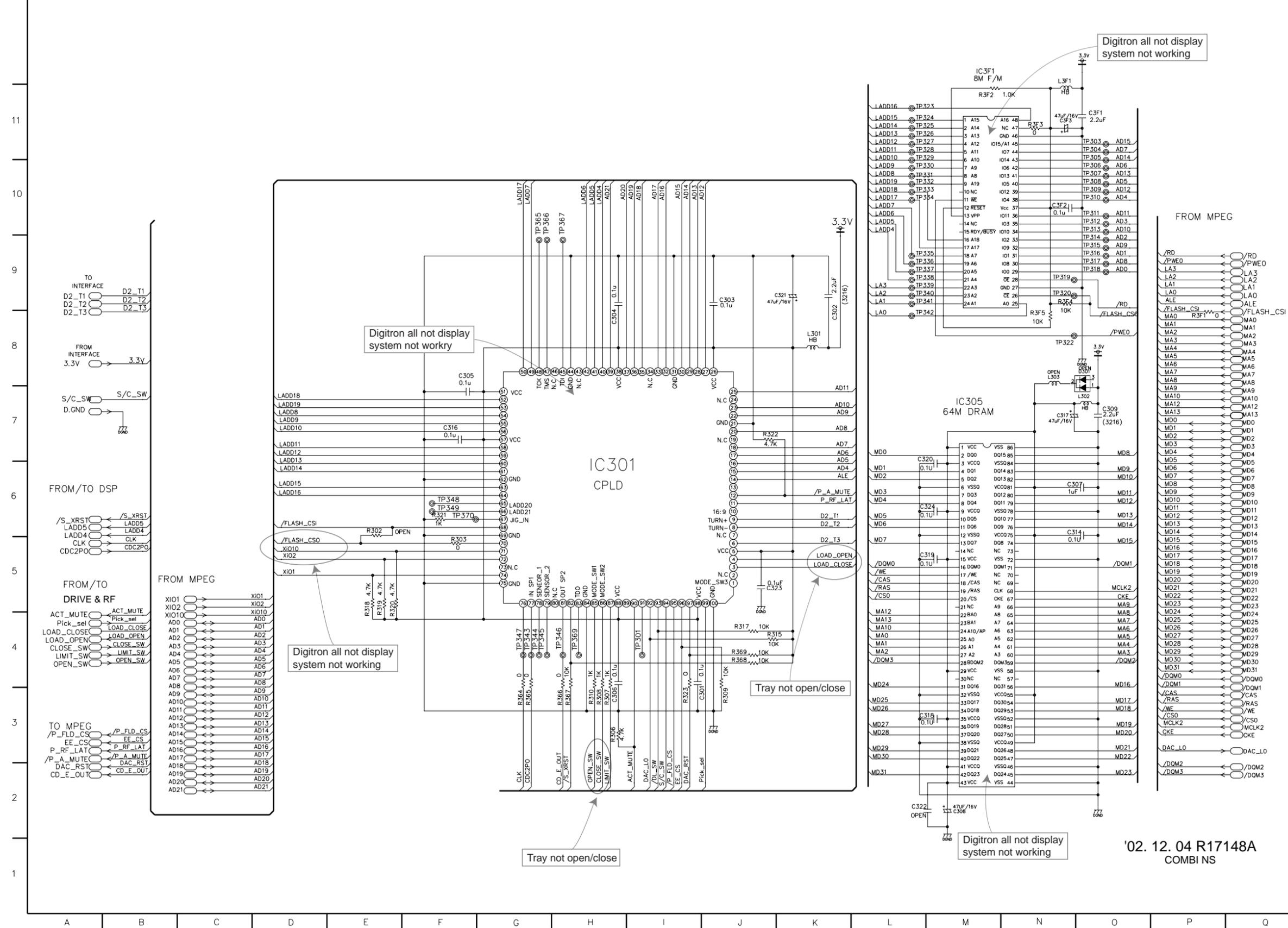
NS



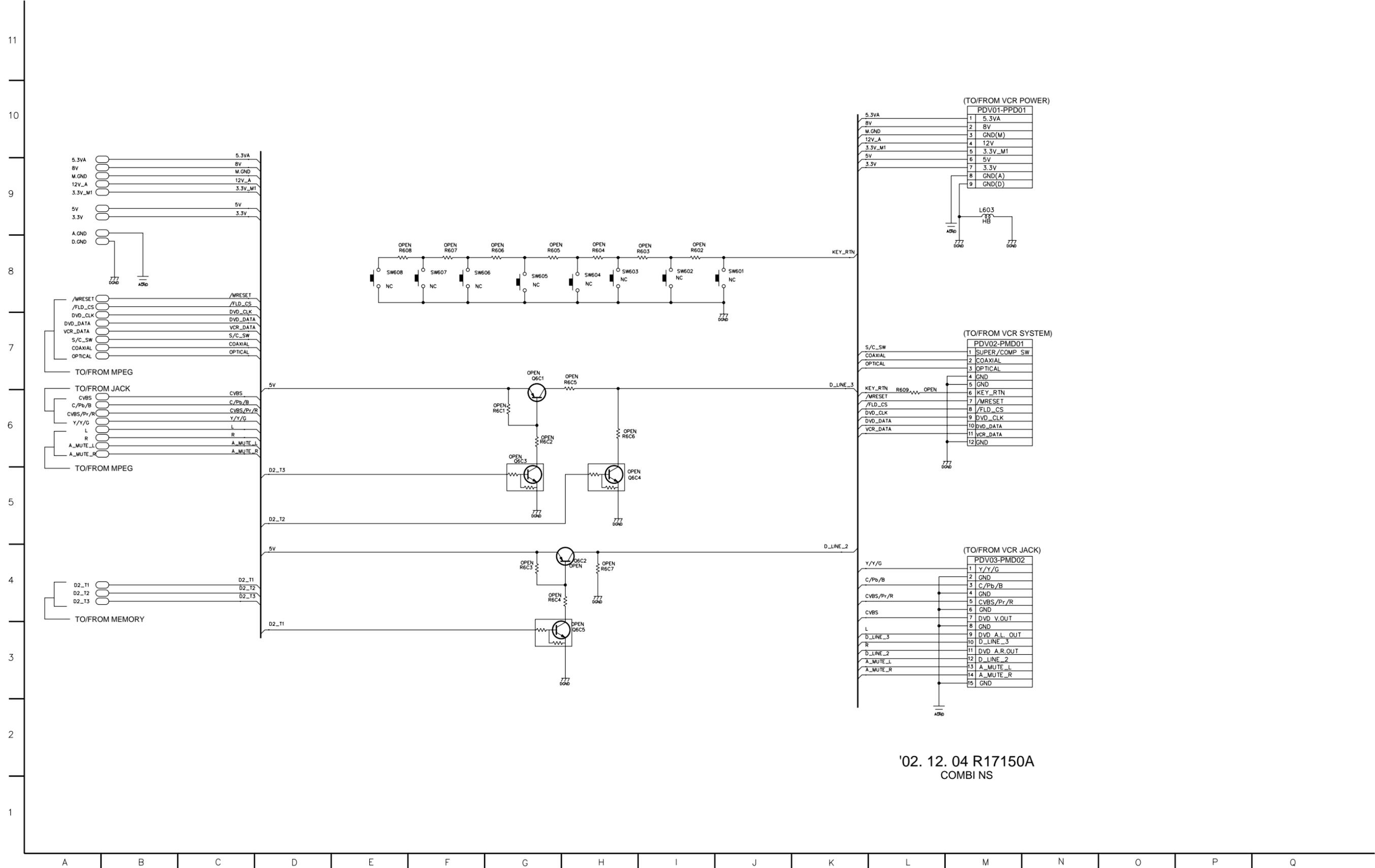
## 2. DRIVE & RF CIRCUIT DIAGRAM



### 3. MEMORY CIRCUIT DIAGRAM



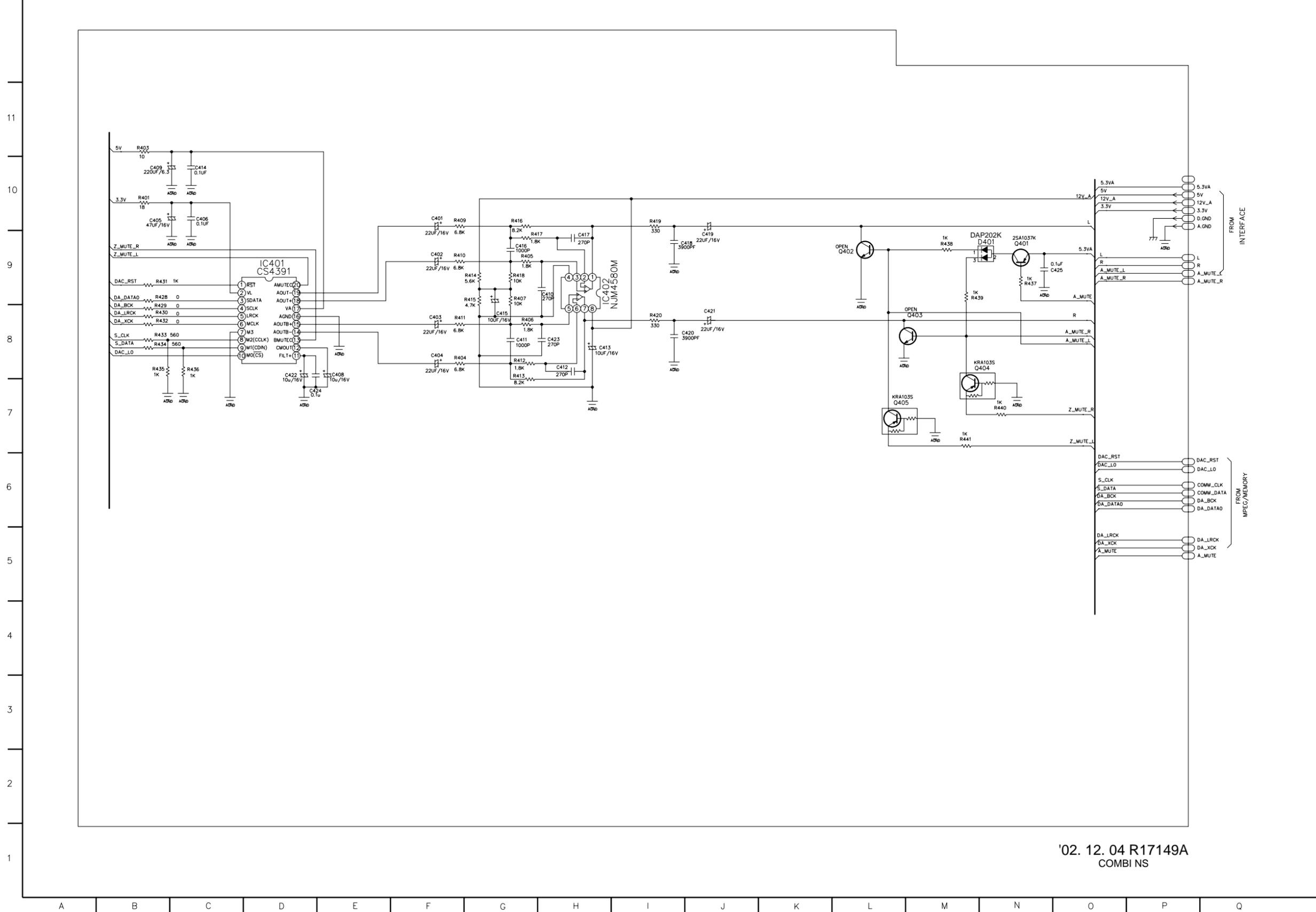
# 4. INTERFACE CIRCUIT DIAGRAM



'02. 12. 04 R17150A  
COMBINS

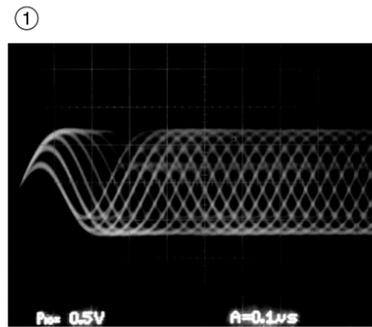


# 6. JACK CIRCUIT DIAGRAM

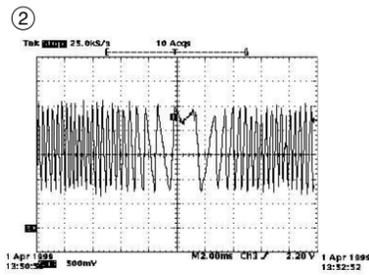


'02. 12. 04 R17149A  
COMBI NS

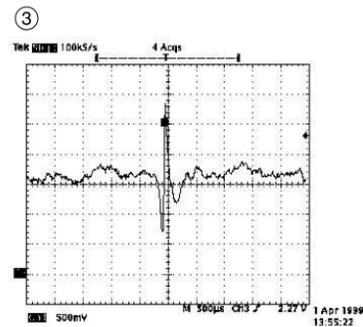
• WAVEFORMS



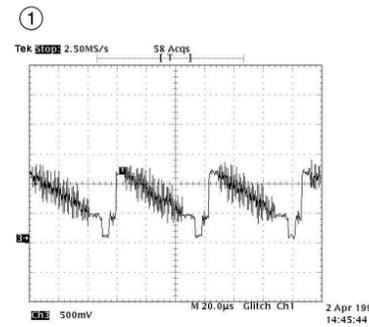
①  
IC2A1  
TP2A0



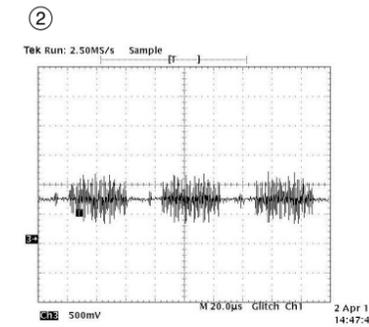
②  
IC2A1 Pin 36  
Tracking Error



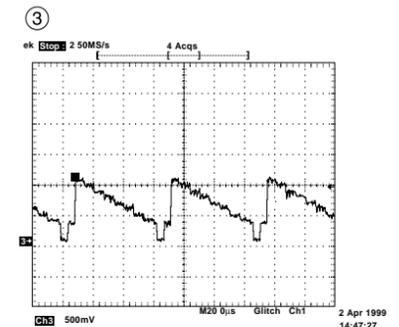
③  
IC2A1 Pin 36  
VBR TRACKING Error



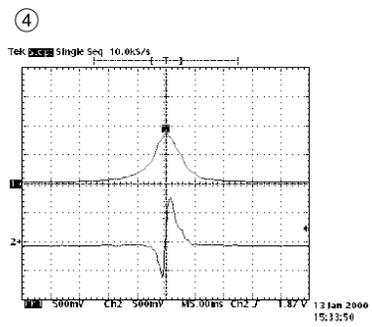
①  
IC501 Pin 118, Composite



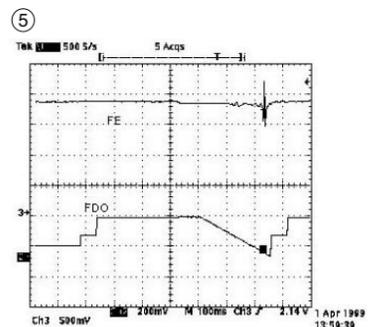
②  
IC501 Pin 112, Chrominance  
(Super video out Mode)



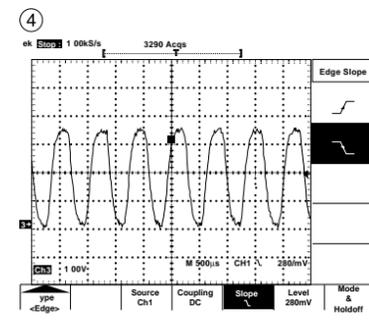
③  
IC501 Pin 114, Luminance  
(Super video out Mode)



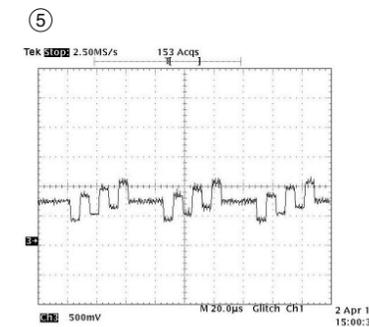
④  
IC2A1 Pin 39, Focus Error  
IC2A1 Pin 38, PE



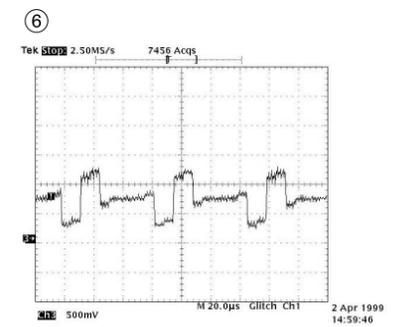
⑤  
IC2A1 Pin 39, Focus Error(in Focus Search)  
IC201 Pin 48, Focus Drive(FDO)



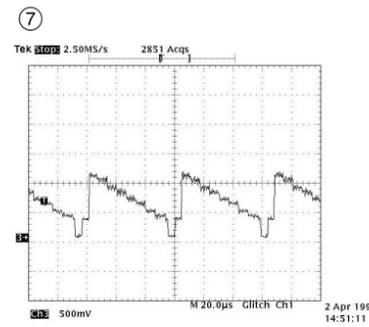
④  
IC501 Pin 98,  
MPEG Clock(27MHz)



⑤  
IC501 Pin 112  
Component Pb



⑥  
IC501 Pin 110  
Component Pr



⑦  
IC501 Pin 114  
Component Y

# • CIRCUIT VOLTAGE CHART

| MODE<br>PIN NO. | STOP | PLAY |
|-----------------|------|------|
| <b>DSP</b>      |      |      |
| <b>IC 201</b>   |      |      |
| 1               | 3.21 | 3.07 |
| 2               | 3.21 | 3.05 |
| 3               | 3.21 | 3.07 |
| 4               | 3.21 | 3.02 |
| 5               | 3.21 | 3.05 |
| 6               | 3.21 | 3.04 |
| 7               | 3.21 | 3.05 |
| 8               | 3.21 | 3.05 |
| 9               | 0.00 | 3.05 |
| 10              | 3.21 | 0.00 |
| 11              | 3.21 | 3.04 |
| 12              | 3.21 | 0.00 |
| 13              | 3.21 | 0.00 |
| 14              | 3.21 | 0.00 |
| 15              | 3.21 | 3.03 |
| 16              | 3.21 | 3.05 |
| 17              | 3.21 | 3.04 |
| 18              | 3.21 | 0.00 |
| 19              | 3.21 | 0.00 |
| 20              | 3.21 | 0.00 |
| 21              | 3.21 | 0.00 |
| 22              | 0.01 | 0.00 |
| 23              | 0.01 | 0.03 |
| 24              | 3.21 | 0.00 |
| 25              | 3.21 | 0.00 |
| 26              | 0.02 | 0.00 |
| 27              | 0.02 | 0.00 |
| 28              | 0.02 | 0.00 |
| 29              | 0.02 | 0.00 |
| 30              | 0.02 | 0.00 |
| 31              | 0.02 | 0.00 |
| 32              | 0.02 | 0.00 |
| 33              | 3.21 | 0.00 |
| 34              | 3.21 | 0.00 |
| 35              | 3.21 | 3.19 |
| 36              | 0.02 | 0.00 |
| 37              | 1.80 | 0.00 |
| 38              | 0.02 | 0.00 |
| 39              | 0.02 | 0.00 |
| 40              | 0.02 | 0.00 |
| 41              | 1.78 | 0.00 |
| 42              | 0.02 | 1.61 |
| 43              | 0.13 | 0.20 |
| 44              | 1.78 | 1.61 |
| 45              | 0.02 | 2.70 |
| 46              | 0.02 | 2.70 |
| 47              | 0.02 | 2.70 |
| 48              | 1.78 | 1.81 |
| 49              | 3.21 | 3.20 |
| 50              | 0.01 | 0.00 |
| 51              | 0.01 | 1.57 |
| 52              | 0.01 | 1.53 |
| 53              | 0.02 | 0.00 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 54              | 5.72 | 5.18 |
| 55              | 0.02 | 0.00 |
| 56              | 3.21 | 3.21 |
| 57              | 0.02 | 0.00 |
| 58              | 1.80 | 1.59 |
| 59              | 2.38 | 0.00 |
| 60              | 0.02 | 0.00 |
| 61              | 3.21 | 3.01 |
| 62              | 3.21 | 0.00 |
| 63              | 3.21 | 3.21 |
| 64              | 0.02 | 0.00 |
| 65              | 0.02 | 0.00 |
| 66              | 0.87 | 1.19 |
| 67              | 0.01 | 1.90 |
| 68              | 3.21 | 3.21 |
| 69              | 1.07 | 1.55 |
| 70              | 3.21 | 0.00 |
| 71              | 0.02 | 0.00 |
| 72              | 3.21 | 0.00 |
| 73              | 0.02 | 0.00 |
| 74              | 0.02 | 0.00 |
| 75              | 0.87 | 0.00 |
| 76              | 1.59 | 0.00 |
| 77              | 0.87 | 0.00 |
| 78              | 0.87 | 0.78 |
| 79              | 2.36 | 2.15 |
| 80              | 2.86 | 0.00 |
| 81              | 3.24 | 0.00 |
| 82              | 3.24 | 0.00 |
| 83              | 2.19 | 1.97 |
| 84              | 2.39 | 0.00 |
| 85              | 0.00 | 0.00 |
| 86              | 0.00 | 0.00 |
| 87              | 2.19 | 0.00 |
| 88              | 2.38 | 0.00 |
| 89              | 2.18 | 0.00 |
| 90              | 1.80 | 1.62 |
| 91              | 0.92 | 0.00 |
| 92              | 2.69 | 0.00 |
| 93              | 1.77 | 0.00 |
| 94              | 1.81 | 0.00 |
| 95              | 1.53 | 0.00 |
| 96              | 1.83 | 0.00 |
| 97              | 1.81 | 0.00 |
| 98              | 0.00 | 0.00 |
| 99              | 0.00 | 0.00 |
| 100             | 1.81 | 1.63 |
| 101             | 3.21 | 3.24 |
| 102             | 3.21 | 3.25 |
| 103             | 2.28 | 0.00 |
| 104             | 2.28 | 0.00 |
| 105             | 0.90 | 1.48 |
| 106             | 1.30 | 1.67 |
| 107             | 1.59 | 1.59 |
| 108             | 2.00 | 1.65 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 109             | 2.00 | 1.64 |
| 110             | 2.40 | 1.60 |
| 111             | 0.02 | 0.00 |
| 112             | 0.02 | 0.00 |
| 113             | 0.02 | 0.00 |
| 114             | 0.02 | 0.00 |
| 115             | 0.02 | 0.00 |
| 116             | 0.02 | 0.00 |
| 117             | 0.02 | 0.00 |
| 118             | 0.02 | 0.00 |
| 119             | 0.02 | 0.00 |
| 120             | 3.21 | 3.22 |
| 121             | 0.70 | 3.22 |
| 122             | 3.21 | 3.22 |
| 123             | 3.21 | 1.61 |
| 124             | 0.02 | 0.00 |
| 125             | 3.21 | 1.64 |
| 126             | 3.21 | 1.61 |
| 127             | 3.00 | 0.00 |
| 128             | 0.02 | 0.00 |
| 129             | 3.21 | 2.35 |
| 130             | 3.21 | 3.25 |
| 131             | 3.21 | 1.59 |
| 132             | 0.84 | 0.02 |
| 133             | 0.02 | 0.00 |
| 134             | 3.21 | 3.22 |
| 135             | 3.21 | 2.35 |
| 136             | 2.67 | 2.39 |
| 137             | 1.85 | 1.62 |
| 138             | 2.40 | 2.12 |
| 139             | 2.68 | 2.41 |
| 140             | 2.64 | 0.30 |
| 141             | 2.64 | 3.20 |
| 142             | 3.21 | 3.22 |
| 143             | 1.12 | 2.32 |
| 144             | 0.02 | 0.00 |
| 145             | 0.02 | 0.00 |
| 146             | 2.66 | 0.30 |
| 147             | 2.67 | 0.30 |
| 148             | 2.68 | 0.30 |
| 149             | 2.68 | 0.30 |
| 150             | 1.09 | 2.33 |
| 151             | 1.09 | 0.00 |
| 152             | 0.02 | 3.22 |
| 153             | 0.02 | 0.00 |
| 154             | 0.67 | 1.53 |
| 155             | 0.90 | 0.00 |
| 156             | 3.21 | 3.22 |
| 157             | 3.21 | 3.22 |
| 158             | 0.02 | 0.00 |
| 159             | 0.00 | 0.00 |
| 160             | 0.00 | 0.00 |
| 161             | 3.02 | 2.70 |
| 162             | 3.21 | 3.24 |
| 163             | 3.21 | 3.24 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 164             | 2.31 | 2.07 |
| 165             | 2.38 | 0.00 |
| 166             | 2.39 | 2.14 |
| 167             | 1.80 | 1.61 |
| 168             | 3.08 | 0.00 |
| 169             | 0.02 | 2.06 |
| 170             | 0.04 | 0.00 |
| 171             | 3.03 | 2.54 |
| 172             | 3.21 | 0.00 |
| 173             | 3.21 | 0.00 |
| 174             | 3.21 | 0.00 |
| 175             | 3.21 | 3.21 |
| 176             | 0.02 | 0.00 |
| 177             | 3.21 | 0.00 |
| 178             | 3.21 | 3.21 |
| 179             | 3.21 | 3.13 |
| 180             | 0.02 | 0.00 |
| 181             | 0.02 | 0.00 |
| 182             | 0.02 | 0.00 |
| 183             | 0.02 | 0.00 |
| 184             | 0.02 | 0.00 |
| 185             | 0.02 | 0.00 |
| 186             | 3.21 | 3.25 |
| 187             | 1.50 | 1.05 |
| 188             | 3.21 | 0.00 |
| 189             | 1.55 | 1.58 |
| 190             | 1.57 | 0.00 |
| 191             | 1.63 | 1.64 |
| 192             | 0.23 | 0.19 |
| 193             | 2.32 | 2.04 |
| 194             | 2.20 | 2.70 |
| 195             | 1.63 | 0.00 |
| 196             | 0.02 | 0.00 |
| 197             | 0.02 | 0.00 |
| 198             | 0.02 | 0.00 |
| 199             | 0.02 | 0.00 |
| 200             | 0.02 | 0.00 |
| 201             | 0.02 | 1.00 |
| 202             | 0.02 | 0.00 |
| 203             | 0.02 | 0.00 |
| 204             | 0.02 | 0.00 |
| 205             | 3.21 | 3.21 |
| 206             | 0.02 | 1.58 |
| 207             | 0.02 | 2.96 |
| 208             | 0.02 | 1.63 |
| <b>IC 206</b>   |      |      |
| 1               | 2.26 | 2.28 |
| 2               | 0.01 | 0.01 |
| 3               | 0.01 | 0.01 |
| 4               | 0.00 | 0.00 |
| 5               | 5.07 | 5.04 |
| 6               | 1.14 | 1.03 |
| 7               | 2.15 | 2.15 |
| 8               | 5.07 | 5.04 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| <b>SERVO</b>    |      |      |
| <b>IC 2A1</b>   |      |      |
| 1               | 0.00 | 0.00 |
| 2               | 3.24 | 3.02 |
| 3               | 3.24 | 3.01 |
| 4               | 1.85 | 1.99 |
| 5               | 3.35 | 3.17 |
| 6               | 2.63 | 2.43 |
| 7               | 1.10 | 0.30 |
| 8               | 1.10 | 0.30 |
| 9               | 0.00 | 0.80 |
| 10              | 1.24 | 1.18 |
| 11              | 2.54 | 2.27 |
| 12              | 3.38 | 3.13 |
| 13              | 3.34 | 3.09 |
| 14              | 2.52 | 2.70 |
| 15              | 2.64 | 1.95 |
| 16              | 0.01 | 0.14 |
| 17              | 0.02 | 0.00 |
| 18              | 0.01 | 0.00 |
| 19              | 0.01 | 0.00 |
| 20              | 0.01 | 0.00 |
| 21              | 5.41 | 5.01 |
| 22              | 5.41 | 5.01 |
| 23              | 0.02 | 0.00 |
| 24              | 0.01 | 0.00 |
| 25              | 0.01 | 0.00 |
| 26              | 0.03 | 0.00 |
| 27              | 0.01 | 0.00 |
| 28              | 3.51 | 3.24 |
| 29              | 5.58 | 5.16 |
| 30              | 0.02 | 0.00 |
| 31              | 0.03 | 0.00 |
| 32              | 0.04 | 0.00 |
| 33              | 0.03 | 0.00 |
| 34              | 5.44 | 5.01 |
| 35              | 2.45 | 2.27 |
| 36              | 3.40 | 2.51 |
| 37              | 0.78 | 2.37 |
| 38              | 0.53 | 0.00 |
| 39              | 2.40 | 2.17 |
| 40              | 0.00 | 0.22 |
| 41              | 5.44 | 3.66 |
| 42              | 0.00 | 0.00 |
| 43              | 0.00 | 0.00 |
| 44              | 5.45 | 5.01 |
| 45              | 2.47 | 2.29 |
| 46              | 2.47 | 2.29 |
| 47              | 2.47 | 2.42 |
| 48              | 0.02 | 2.42 |
| 49              | 0.01 | 2.27 |
| 50              | 2.47 | 2.43 |
| 51              | 2.47 | 2.44 |
| 52              | 2.48 | 2.38 |
| 53              | 2.47 | 2.29 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 54              | 2.47 | 0.00 |
| 55              | 2.47 | 2.51 |
| 56              | 2.47 | 2.50 |
| 57              | 2.47 | 2.29 |
| 58              | 2.47 | 2.28 |
| 59              | 2.47 | 2.28 |
| 60              | 2.47 | 2.28 |
| 61              | 0.80 | 0.96 |
| 62              | 0.80 | 0.86 |
| 63              | 5.60 | 5.01 |
| 64              | 0.00 | 0.00 |
| <b>IC 2A2</b>   |      |      |
| 1               | 1.64 | 0    |
| 2               | 1.64 | 1.64 |
| 3               | 1.64 | 1.64 |
| 4               | 0.01 | 0.01 |
| 5               | 1.63 | 2.19 |
| 6               | 1.63 | 2.19 |
| 7               | 1.63 | 2.19 |
| 8               | 5.1  | 5.07 |
| <b>IC 2A4</b>   |      |      |
| 1               | 0    | 0    |
| 2               | 0.46 | 0.93 |
| 3               | 0.53 | 0.97 |
| 4               | 0    | 0    |
| 5               | 2.27 | 2.26 |
| 6               | 2.28 | 2.27 |
| 7               | 0.29 | 2.37 |
| 8               | 5.09 | 5.05 |
| <b>IC 2M1</b>   |      |      |
| 1               | 2.30 | 0.00 |
| 2               | 2.32 | 0.00 |
| 3               | 2.31 | 0.00 |
| 4               | 2.28 | 2.15 |
| 5               | 2.32 | 2.15 |
| 6               | 0.00 | 0.00 |
| 7               | 0.00 | 0.00 |
| 8               | 2.32 | 2.15 |
| 9               | 2.25 | 2.83 |
| 10              | 2.32 | 2.15 |
| 11              | 2.32 | 2.15 |
| 12              | 2.30 | 2.20 |
| 13              | 2.45 | 2.24 |
| 14              | 2.82 | 0.00 |
| 15              | 2.82 | 0.00 |
| 16              | 0.01 | 0.00 |
| 17              | 2.38 | 1.54 |
| 18              | 0.00 | 0.00 |
| 19              | 0.00 | 0.00 |
| 20              | 2.07 | 1.92 |
| 21              | 2.07 | 1.91 |
| 22              | 0.01 | 0.00 |
| 23              | 0.04 | 0.00 |
| 24              | 0.01 | 0.00 |
| 25              | 8.70 | 7.96 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 26              | 4.33 | 0.00 |
| 27              | 4.32 | 4.01 |
| 28              | 4.33 | 4.05 |
| 29              | 4.36 | 3.97 |
| 30              | 0.10 | 0.00 |
| 31              | 0.01 | 0.13 |
| 32              | 4.23 | 4.92 |
| 33              | 4.50 | 0.00 |
| 34              | 0.00 | 0.00 |
| 35              | 1.71 | 0.00 |
| 36              | 1.78 | 4.00 |
| 37              | 1.73 | 4.21 |
| 38              | 1.74 | 3.75 |
| 39              | 1.92 | 0.00 |
| 40              | 1.91 | 7.89 |
| 41              | 0.00 | 0.00 |
| 42              | 0.00 | 0.00 |
| 43              | 0.00 | 0.00 |
| 44              | 0.00 | 0.00 |
| 45              | 1.94 | 0.00 |
| 46              | 2.33 | 2.15 |
| 47              | 2.33 | 0.00 |
| 48              | 2.06 | 2.15 |
| <b>IC 301</b>   |      |      |
| 1               | 3.17 | 0.38 |
| 2               | 0.00 | 0.00 |
| 3               | 0.00 | 0.00 |
| 4               | 0.00 | 0.00 |
| 5               | 3.26 | 3.26 |
| 6               | 3.25 | 3.26 |
| 7               | 0.00 | 0.00 |
| 8               | 3.25 | 3.26 |
| 9               | 0.00 | 0.00 |
| 10              | 0.00 | 3.26 |
| 11              | 0.00 | 0.00 |
| 12              | 3.24 | 3.25 |
| 13              | 3.26 | 3.26 |
| 14              | 0.00 | 0.00 |
| 15              | 0.20 | 0.00 |
| 16              | 2.16 | 2.10 |
| 17              | 1.80 | 2.19 |
| 18              | 1.57 | 2.08 |
| 19              | 0.00 | 0.00 |
| 20              | 0.00 | 0.00 |
| 21              | 0.00 | 0.00 |
| 22              | 0.00 | 0.00 |
| 23              | 0.00 | 0.00 |
| 24              | 0.00 | 0.00 |
| 25              | 0.00 | 0.00 |
| 26              | 3.25 | 3.26 |
| 27              | 0.00 | 0.00 |
| 28              | 0.00 | 0.00 |
| 29              | 0.00 | 0.00 |
| 30              | 0.00 | 0.00 |
| 31              | 0.00 | 0.00 |

| MODE<br>PIN NO. | EE   | PLAY   |
|-----------------|------|--------|
| 32              | 0.00 | 0.00   |
| 33              | 0.00 | 0.00   |
| 34              | 0.00 | 0.00   |
| 35              | 0.00 | 0.00   |
| 36              | 0.00 | 0.00   |
| 37              | 0.00 | 0.00</ |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 95              | 0.16 | 0.37 |
| 96              | 3.23 | 3.21 |
| 97              | 0.00 | 0.00 |
| 98              | 0.92 | 0.92 |
| 99              | 0.98 | 0.96 |
| 100             | 0.00 | 0.00 |
| 101             | 1.76 | 1.75 |
| 102             | 3.23 | 3.21 |
| 103             | 0.00 | 0.00 |
| 104             | 0.00 | 0.00 |
| 105             | 0.00 | 0.00 |
| 106             | 0.00 | 0.00 |
| 107             | 3.23 | 3.21 |
| 108             | 1.76 | 1.76 |
| 109             | 0.00 | 0.00 |
| 110             | 0.19 | 1.32 |
| 111             | 0.83 | 0.90 |
| 112             | 3.21 | 3.21 |
| 113             | 0.91 | 3.20 |
| 114             | 0.00 | 0.59 |
| 115             | 0.00 | 0.00 |
| 116             | 1.28 | 1.28 |
| 117             | 1.10 | 0.31 |
| 118             | 0.45 | 0.24 |
| 119             | 1.28 | 1.28 |
| 120             | 1.97 | 0.00 |
| 121             | 0.00 | 0.00 |
| 122             | 0.00 | 0.00 |
| 123             | 0.53 | 0.72 |
| 124             | 0.57 | 0.72 |
| 125             | 3.23 | 3.23 |
| 126             | 1.83 | 0.72 |
| 127             | 0.00 | 3.23 |
| 128             | 3.22 | 0.00 |
| 129             | 0.00 | 0.00 |
| 130             | 1.75 | 1.41 |
| 131             | 0.00 | 0.00 |
| 132             | 0.00 | 0.00 |
| 133             | 0.00 | 3.21 |
| 134             | 3.23 | 0.00 |
| 135             | 1.76 | 1.75 |
| 136             | 0.00 | 0.00 |
| 137             | 0.00 | 0.00 |
| 138             | 0.00 | 0.00 |
| 139             | 0.00 | 0.00 |
| 140             | 3.27 | 3.21 |
| 141             | 0.00 | 0.00 |
| 142             | 0.00 | 0.00 |
| 143             | 0.00 | 0.00 |
| 144             | 0.00 | 0.00 |
| 145             | 3.23 | 3.21 |
| 146             | 0.00 | 0.00 |
| 147             | 0.00 | 0.00 |
| 148             | 0.00 | 0.00 |
| 149             | 0.00 | 0.00 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 150             | 0.00 | 0.00 |
| 151             | 0.00 | 0.00 |
| 152             | 0.00 | 0.00 |
| 153             | 0.00 | 0.00 |
| 154             | 3.23 | 3.22 |
| 155             | 0.00 | 0.00 |
| 156             | 3.23 | 3.21 |
| 157             | 0.00 | 0.00 |
| 158             | 1.75 | 0.00 |
| 159             | 1.76 | 1.76 |
| 160             | 1.84 | 1.84 |
| 161             | 3.23 | 3.21 |
| 162             | 0.00 | 0.00 |
| 163             | 0.00 | 0.00 |
| 164             | 0.00 | 0.00 |
| 165             | 0.00 | 0.00 |
| 166             | 0.00 | 0.00 |
| 167             | 0.00 | 0.00 |
| 168             | 0.00 | 0.00 |
| 169             | 3.23 | 3.21 |
| 170             | 3.23 | 3.21 |
| 171             | 0.00 | 0.00 |
| 172             | 0.00 | 1.00 |
| 173             | 1.00 | 1.12 |
| 174             | 0.99 | 1.14 |
| 175             | 0.19 | 0.19 |
| 176             | 0.94 | 1.71 |
| 177             | 0.00 | 0.00 |
| 178             | 0.98 | 1.77 |
| 179             | 0.98 | 1.79 |
| 180             | 0.97 | 1.04 |
| 181             | 3.23 | 3.22 |
| 182             | 3.23 | 3.22 |
| 183             | 0.00 | 0.00 |
| 184             | 0.00 | 0.72 |
| 185             | 3.23 | 0.22 |
| 186             | 3.23 | 2.44 |
| 187             | 0.00 | 0.00 |
| 188             | 0.00 | 0.00 |
| 189             | 1.83 | 3.22 |
| 190             | 0.00 | 0.00 |
| 191             | 1.74 | 0.00 |
| 192             | 1.76 | 0.36 |
| 193             | 3.23 | 3.23 |
| 194             | 3.29 | 0.00 |
| 195             | 3.30 | 0.00 |
| 196             | 3.23 | 0.11 |
| 197             | 3.12 | 0.00 |
| 198             | 0.00 | 3.23 |
| 199             | 0.00 | 3.22 |
| 200             | 0.18 | 3.22 |
| 201             | 0.00 | 0.00 |
| 202             | 0.17 | 3.22 |
| 203             | 0.13 | 3.22 |
| 204             | 0.00 | 0.00 |

| MODE<br>PIN NO.         | EE   | PLAY |
|-------------------------|------|------|
| 205                     | 0.10 | 3.23 |
| 206                     | 0.00 | 0.00 |
| 207                     | 0.18 | 3.22 |
| 208                     | 0.14 | 0.00 |
| 209                     | 0.18 | 3.22 |
| 210                     | 3.23 | 3.21 |
| 211                     | 0.18 | 3.22 |
| 212                     | 1.76 | 1.24 |
| 213                     | 0.11 | 3.22 |
| 214                     | 0.18 | 2.85 |
| 215                     | 0.10 | 1.61 |
| 216                     | 0.10 | 3.22 |
| 217                     | 0.10 | 3.22 |
| 218                     | 0.00 | 0.00 |
| 219                     | 0.05 | 0.00 |
| 220                     | 0.39 | 3.10 |
| 221                     | 0.00 | 3.09 |
| 222                     | 0.18 | 3.10 |
| 223                     | 0.10 | 0.00 |
| 224                     | 3.23 | 3.21 |
| 225                     | 0.00 | 0.13 |
| 226                     | 0.00 | 0.14 |
| 227                     | 0.00 | 0.73 |
| 228                     | 0.00 | 0.00 |
| 229                     | 0.00 | 0.49 |
| 230                     | 0.00 | 0.00 |
| 231                     | 0.00 | 0.67 |
| 232                     | 0.06 | 0.62 |
| 233                     | 3.23 | 3.22 |
| 234                     | 0.06 | 0.80 |
| 235                     | 0.06 | 0.58 |
| 236                     | 0.07 | 0.45 |
| 237                     | 0.00 | 0.00 |
| 238                     | 0.06 | 0.83 |
| 239                     | 0.06 | 1.47 |
| 240                     | 0.06 | 1.44 |
| <b>AUDIO<br/>IC 401</b> |      |      |
| 1                       | 3.25 | 3.26 |
| 2                       | 3.25 | 3.26 |
| 3                       | 0.00 | 0.00 |
| 4                       | 1.57 | 1.57 |
| 5                       | 1.58 | 1.58 |
| 6                       | 1.54 | 1.55 |
| 7                       | 0.00 | 0.00 |
| 8                       | 3.23 | 3.26 |
| 9                       | 0.75 | 0.00 |
| 10                      | 3.26 | 3.26 |
| 11                      | 4.79 | 0.03 |
| 12                      | 2.27 | 0.03 |
| 13                      | 0.27 | 4.66 |
| 14                      | 2.32 | 2.29 |
| 15                      | 2.30 | 2.27 |
| 16                      | 0.00 | 0.00 |
| 17                      | 4.88 | 4.82 |

| MODE<br>PIN NO.          | EE    | PLAY  |
|--------------------------|-------|-------|
| 18                       | 2.30  | 2.28  |
| 19                       | 2.33  | 2.29  |
| 20                       | 0.27  | 4.66  |
| <b>IC 402</b>            |       |       |
| 1                        | 5.40  | 5.40  |
| 2                        | 5.41  | 5.40  |
| 3                        | 5.40  | 5.40  |
| 4                        | 0.00  | 0.00  |
| 5                        | 5.40  | 5.40  |
| 6                        | 5.41  | 0.00  |
| 7                        | 5.42  | 0.00  |
| 8                        | 11.39 | 11.96 |
| <b>MEMORY<br/>IC 203</b> |       |       |
| 1                        | 3.27  | 3.05  |
| 2                        | 3.25  | 3.01  |
| 3                        | 3.25  | 3.02  |
| 4                        | 0.00  | 0.00  |
| 5                        | 0.05  | 3.02  |
| 6                        | 0.05  | 3.02  |
| 7                        | 0.00  | 3.25  |
| 8                        | 0.05  | 3.02  |
| 9                        | 0.05  | 3.06  |
| 10                       | 0.00  | 0.00  |
| 11                       | 0.05  | 3.08  |
| 12                       | 0.05  | 3.01  |
| 13                       | 0.00  | 3.23  |
| 14                       | 0.00  | 0.00  |
| 15                       | 0.05  | 3.19  |
| 16                       | 0.05  | 3.19  |
| 17                       | 0.05  | 3.18  |
| 18                       | 0.00  | 0.00  |
| 19                       | 0.05  | 0.00  |
| 20                       | 0.05  | 3.17  |
| 21                       | 0.05  | 0.00  |
| 22                       | 0.05  | 0.00  |
| 23                       | 0.05  | 0.00  |
| 24                       | 0.05  | 0.03  |
| 25                       | 0.00  | 3.25  |
| 26                       | 0.00  | 0.00  |
| 27                       | 0.05  | 0.03  |
| 28                       | 0.05  | 0.03  |
| 29                       | 0.05  | 0.03  |
| 30                       | 0.05  | 0.03  |
| 31                       | 0.05  | 0.03  |
| 32                       | 0.00  | 0.03  |
| 33                       | 0.00  | 0.00  |
| 34                       | 0.00  | 3.25  |
| 35                       | 0.05  | 1.62  |
| 36                       | 0.05  | 0.01  |
| 37                       | 0.00  | 0.00  |
| 38                       | 0.00  | 3.25  |
| 39                       | 0.05  | 3.05  |
| 40                       | 0.05  | 3.05  |
| 41                       | 0.00  | 0.00  |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 42              | 0.05 | 3.05 |
| 43              | 0.00 | 3.04 |
| 44              | 0.00 | 3.25 |
| 45              | 0.00 | 3.05 |
| 46              | 0.00 | 3.04 |
| 47              | 0.00 | 0.00 |
| 48              | 0.00 | 3.04 |
| 49              | 0.05 | 3.04 |
| 50              | 0.00 | 0.00 |
| <b>IC 3F1</b>   |      |      |
| 1               | 0.00 | 0.00 |
| 2               | 0.00 | 0.00 |
| 3               | 0.00 | 0.00 |
| 4               | 0.00 | 0.00 |
| 5               | 0.00 | 0.00 |
| 6               | 0.00 | 0.00 |
| 7               | 0.00 | 0.00 |
| 8               | 0.00 | 0.00 |
| 9               | 2.38 | 2.78 |
| 10              | 0.00 | 0.00 |
| 11              | 0.00 | 3.23 |
| 12              | 3.26 | 3.26 |
| 13              | 3.26 | 3.26 |
| 14              | 0.00 | 0.00 |
| 15              | 0.00 | 0.00 |
| 16              | 3.26 | 1.40 |
| 17              | 0.00 | 0.00 |
| 18              | 0.00 | 0.00 |
| 19              | 0.00 | 0.00 |
| 20              | 0.00 | 0.00 |
| 21              | 0.00 | 0.00 |
| 22              | 0.00 | 0.00 |
| 23              | 0.00 | 1.76 |
| 24              | 0.00 | 1.76 |
| 25              | 3.23 | 3.15 |
| 26              | 3.26 | 3.26 |
| 27              | 0.00 | 0.00 |
| 28              | 3.23 | 3.22 |
| 29              | 1.98 | 1.76 |
| 30              | 0.00 | 0.00 |
| 31              | 1.91 | 1.90 |
| 32              | 0.00 | 0.00 |
| 33              | 1.45 | 1.65 |
| 34              | 0.00 | 0.00 |
| 35              | 1.45 | 1.90 |
| 36              | 0.00 | 0.00 |
| 37              | 3.26 | 3.26 |
| 38              | 0.19 | 0.19 |
| 39              | 0.00 | 0.00 |
| 40              | 2.09 | 2.16 |
| 41              | 0.00 | 0.00 |
| 42              | 1.19 | 2.19 |
| 43              | 0.00 | 0.00 |
| 44              | 1.95 | 2.11 |
| 45              | 0.00 | 0.00 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 46              | 0.00 | 0.00 |
| 47              | 3.26 | 3.26 |
| 48              | 0.00 | 0.00 |
| <b>IC 305</b>   |      |      |
| 1               | 3.23 | 3.23 |
| 2               | 0.52 | 0.62 |
| 3               | 0.11 | 3.22 |
| 4               | 0.30 | 0.57 |
| 5               | 0.60 | 0.76 |
| 6               | 0.00 | 0.00 |
| 7               | 0.47 | 0.00 |
| 8               | 0.00 | 0.00 |
| 9               | 0.00 | 0.00 |
| 10              | 0.40 | 0.00 |
| 11              | 0.39 | 0.00 |
| 12              | 0.00 | 0.00 |
| 13              | 0.42 | 0.00 |
| 14              | 0.48 | 0.00 |
| 15              | 3.24 | 3.25 |
| 16              | 0.11 | 0.00 |
| 17              | 0.10 | 3.16 |
| 18              | 0.09 | 0.00 |
| 19              | 0.05 | 0.00 |
| 20              | 0.00 | 0.00 |
| 21              | 0.00 | 0.00 |
| 22              | 0.00 | 3.16 |
| 23              | 1.58 | 0.00 |
| 24              | 0.05 | 0.00 |
| 25              | 1.81 | 3.16 |
| 26              | 1.50 | 3.16 |
| 27              | 1.54 | 3.20 |
| 28              | 0.00 | 3.16 |
| 29              | 3.24 | 0.00 |
| 30              | 0.00 | 0.00 |
| 31              | 0.63 | 0.00 |
| 32              | 0.00 | 3.16 |
| 33              | 0.45 | 0.00 |
| 34              | 0.95 | 1.79 |
| 35              | 3.23 | 0.00 |
| 36              | 0.69 | 3.20 |
| 37              | 1.10 | 0.00 |
| 38              | 0.00 | 0.00 |
| 39              | 0.64 | 0.00 |
| 40              | 0.54 | 0.00 |
| 41              | 3.24 | 3.25 |
| 42              | 0.55 | 0.00 |
| 43              | 3.23 | 3.25 |
| 44              | 0.00 | 0.00 |
| 45              | 0.29 | 0.00 |
| 46              | 0.30 | 0.00 |
| 47              | 0.40 | 0.00 |
| 48              | 0.62 | 0.00 |
| 49              | 0.65 | 3.26 |
| 50              | 0.62 | 0.00 |
| 51              | 0.45 | 0.00 |

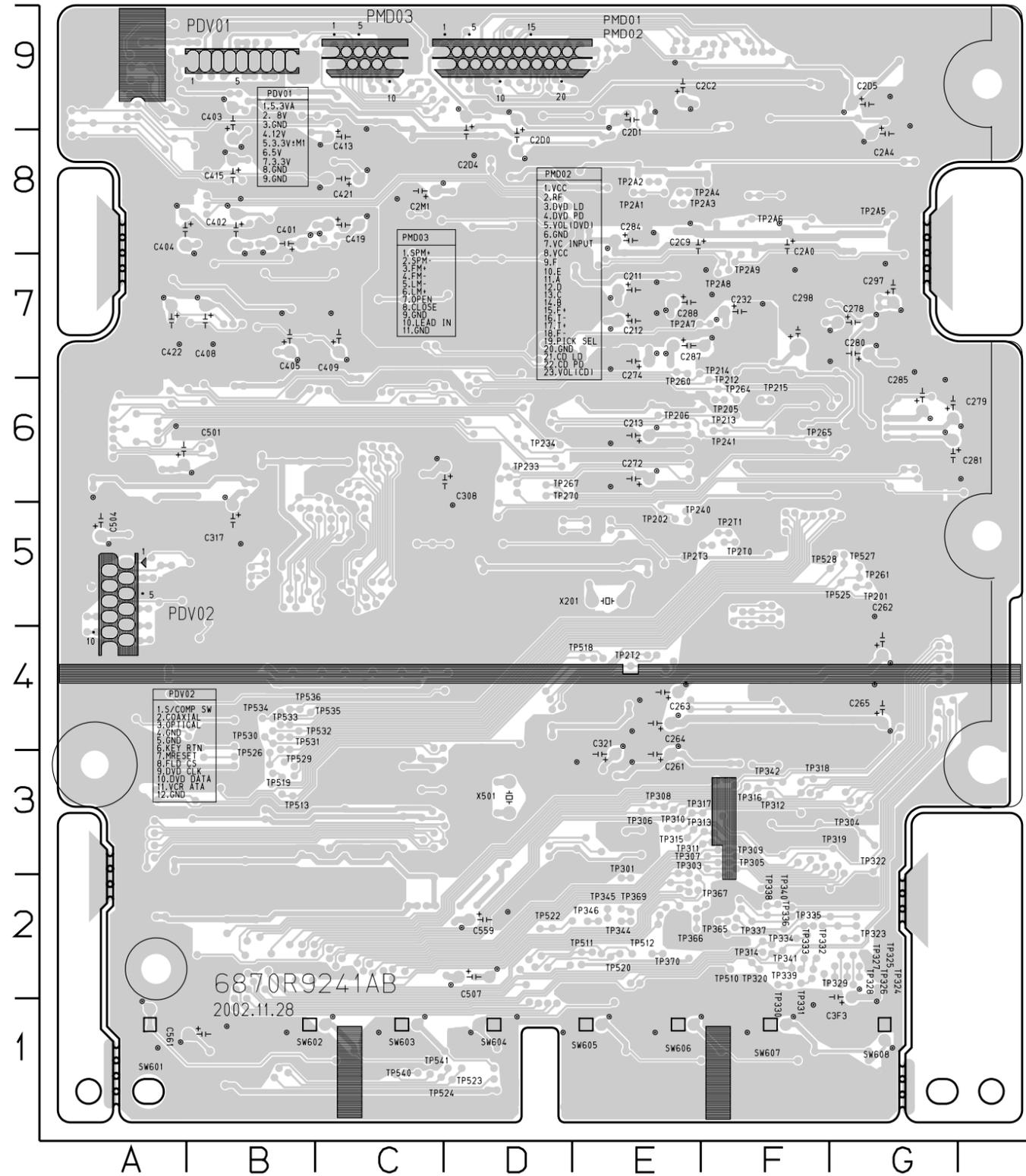
| MODE<br>PIN NO.       | EE   | PLAY |
|-----------------------|------|------|
| 52                    | 0.00 | 0.00 |
| 53                    | 0.57 | 0.00 |
| 54                    | 0.34 | 0.00 |
| 55                    | 0.28 | 3.25 |
| 56                    | 0.52 | 0.00 |
| 57                    | 0.00 | 0.02 |
| 58                    | 0.00 | 0.00 |
| 59                    | 0.00 | 0.00 |
| 60                    | 1.64 | 0.00 |
| 61                    | 0.95 | 0.00 |
| 62                    | 0.95 | 3.16 |
| 63                    | 1.49 | 0.00 |
| 64                    | 1.61 | 3.16 |
| 65                    | 0.00 | 0.00 |
| 66                    | 0.00 | 0.00 |
| 67                    | 3.14 | 3.16 |
| 68                    | 2.26 | 0.00 |
| 69                    | 0.00 | 0.00 |
| 70                    | 0.00 | 0.00 |
| 71                    | 0.00 | 0.00 |
| 72                    | 0.00 | 0.00 |
| 73                    | 0.00 | 0.00 |
| 74                    | 0.30 | 0.00 |
| 75                    | 3.24 | 3.26 |
| 76                    | 0.39 | 0.00 |
| 77                    | 0.40 | 0.00 |
| 78                    | 0.00 | 0.00 |
| 79                    | 0.66 | 0.00 |
| 80                    | 0.46 | 0.00 |
| 81                    | 3.24 | 3.26 |
| 82                    | 0.59 | 0.00 |
| 83                    | 0.31 | 0.00 |
| 84                    | 0.00 | 0.00 |
| 85                    | 0.53 | 0.00 |
| 86                    | 0.00 | 0.00 |
| <b>ETC<br/>IC 502</b> |      |      |
| 1                     | 0.00 | 0.00 |
| 2                     | 5.05 | 5.05 |
| 3                     | 1.18 | 0.62 |
| 4                     | 0.72 | 1.69 |
| 5                     | 0.00 | 0.00 |
| 6                     | 5.06 | 5.04 |
| 7                     | 0.00 | 0.00 |
| 8                     | 5.06 | 5.04 |
| <b>IC 503</b>         |      |      |
| 1                     | 0.00 | 0.00 |
| 2                     | 3.13 | 3.12 |
| 3                     | 5.05 | 5.05 |
| 4                     | 0.00 | 3.12 |
| 5                     | 0.00 | 0.64 |
| 6                     | 0.00 | 0.00 |
| 7                     | 2.67 | 2.65 |
| 8                     | 0.00 | 3.24 |
| 9                     | 0.00 | 0.00 |

| MODE<br>PIN NO. | EE   | PLAY |
|-----------------|------|------|
| 10              | 0.00 | 0.00 |
| 11              | 0.52 | 1.67 |
| 12              | 0.50 | 5.18 |
| 13              | 1.70 | 1.70 |
| 14              | 0.00 |      |





## 2. MAIN P.C.BOARD (BOTTOM VIEW)



### LOCATION GUIDE

|       |    |       |    |
|-------|----|-------|----|
| TP201 | G5 | TP324 | G2 |
| TP202 | E5 | TP325 | G2 |
| TP205 | F6 | TP326 | G2 |
| TP206 | E6 | TP327 | G2 |
| TP212 | F6 | TP328 | G2 |
| TP213 | F6 | TP329 | F2 |
| TP214 | E7 | TP330 | F2 |
| TP215 | F6 | TP331 | F2 |
| TP233 | D6 | TP332 | F2 |
| TP234 | D6 | TP333 | F2 |
| TP240 | E5 | TP334 | F2 |
| TP241 | F6 | TP335 | F2 |
| TP260 | E7 | TP336 | F2 |
| TP261 | G5 | TP337 | F2 |
| TP264 | F6 | TP338 | F2 |
| TP265 | F6 | TP339 | F2 |
| TP267 | D6 | TP340 | F2 |
| TP270 | D6 | TP341 | F2 |
| TP2A1 | E8 | TP342 | F3 |
| TP2A2 | E8 | TP344 | E2 |
| TP2A3 | E8 | TP345 | E2 |
| TP2A4 | E8 | TP346 | E2 |
| TP2A5 | G8 | TP365 | F2 |
| TP2A6 | F8 | TP366 | E2 |
| TP2A7 | E7 | TP367 | F2 |
| TP2A8 | F7 | TP369 | E2 |
| TP2A9 | F7 | TP370 | E2 |
| TP2T0 | F5 | TP510 | F2 |
| TP2T1 | F5 | TP511 | E2 |
| TP2T2 | E4 | TP512 | E2 |
| TP2T3 | F5 | TP513 | B3 |
| TP301 | E2 | TP518 | E4 |
| TP303 | F3 | TP519 | B3 |
| TP304 | G3 | TP520 | E2 |
| TP305 | F3 | TP522 | D2 |
| TP306 | E3 | TP523 | D1 |
| TP307 | F3 | TP524 | C1 |
| TP308 | E3 | TP525 | G5 |
| TP309 | F3 | TP526 | B3 |
| TP310 | E3 | TP527 | G5 |
| TP311 | F3 | TP528 | G5 |
| TP312 | F3 | TP529 | B3 |
| TP313 | F3 | TP530 | B4 |
| TP314 | F2 | TP531 | B4 |
| TP315 | E3 | TP532 | B4 |
| TP316 | F3 | TP533 | B4 |
| TP317 | F3 | TP534 | B4 |
| TP318 | F3 | TP535 | B4 |
| TP319 | G3 | TP536 | B4 |
| TP320 | F2 | TP540 | C1 |
| TP322 | G3 | TP541 | C1 |
| TP323 | G2 |       |    |