SAMSUNG

Television Video Cassette Recorder

Chassis : SCV11F

Model:
TB331VBZ1S/XEG
TB331VDT1S/XEC
TB331VDZ1S/XEC
TB501VAT1S/XEG
TB501VCT1S/XEC
TB501VDZ1S/XET
TB531VAT1S/XEC

SERVICE Manual

Television Video Cassette Recorder

CONTENTS

ELECTRONICS

Printed in Korea
3SCV11F-0104

1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
   Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

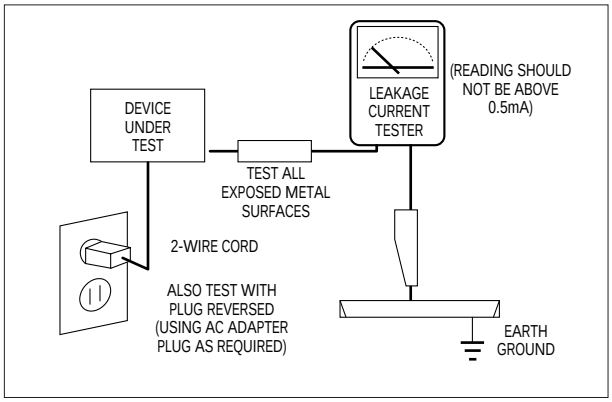


Fig. 1-1 AC Leakage Test

6. Antenna Cold Check:
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.

7. X-ray Limits:
   The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.

8. High Voltage Limits:
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

   Heed the high voltage limits. These include the X–ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

10. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

11. Hot Chassis Warning:
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.

15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

16. Picture Tube Implosion Warning:
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

18. Product Safety Notice:
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, (⚠) or (⚠).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
    A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.
Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.

2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.

3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.

4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).

6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.

7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

2. Immediately before handling any semicon ductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)

3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.

4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.

6. Use only an anti-static solder removal device. Many solder removal devices are not rated as "anti-static"; these can accumulate sufficient electrical charge to damage ESDs.

7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.

8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Specifications

TELEVISION	
Colour system	PAL/SECAM Multistandard
Optional Systems	L/L' (Option), B/G (Option), D/K (Option), I (Option)
Number of channels	100
Tuning Range: Off-Air/Cable	Hyperband/interband tuner
Aerial input	75 Ohms, coaxial cable
VCR	
Format	VHS standard (PAL/SECAM Option)/MESECAM (Option) /NTSC (playback only)
Heads	Video: 2 rotary heads, LP (Option), 4 Heads (Option) Audio/Control: 1 stationary head (linear) Erase: 1 full track erase head
Video system	CCIR standard
Audio system	Mono
Luminance	FM azimuth recording
Colour	Down converted subcarrier phase shifted direct recording
Wow and flutter (WTD)	0.4% maximum (SP)
Frequency response	100Hz - 8 KHz
GENERAL	
Power supply	220~240V; 50Hz; Option: 110~260V, 50~60Hz
Consumption	14 Inch (80W), 20 Inch (100W), 21 Inch (105W)
Audio output power	14 Inch (2.0 watts), 20 Inch, 21 Inch (2Watts x 2)
Number of loudspeakers	14 Inch (1), 20 Inch, 21 Inch (2)
Tube size	14" (37 cm), or 20" (51 cm), 21" (55 cm)
Tube type	BLACK MATRIX
Sockets	1 full RGB SCART: Rear (Option); 1 RCA output (Option): Rear 1 RCA input (audio and video): Front Earphones (3.5 mm mini-jack) 1 aerial/cable TV coaxial input
Dimensions (W x D x H)	14 Inch (362x383x382), 20 Inch (482x465x479), 21 Inch (502x494x498)
Weight	14 Inch (12.5kg), 20 Inch (22KG), 21 Inch (25kg)
Operating temperature	5°C - 40°C (41°F-104°F)
Relative humidity	10%-75%

MEMO

3. Disassembly and Reassembly

3-1 Disassembly

3-1-1 Back Cover Removal

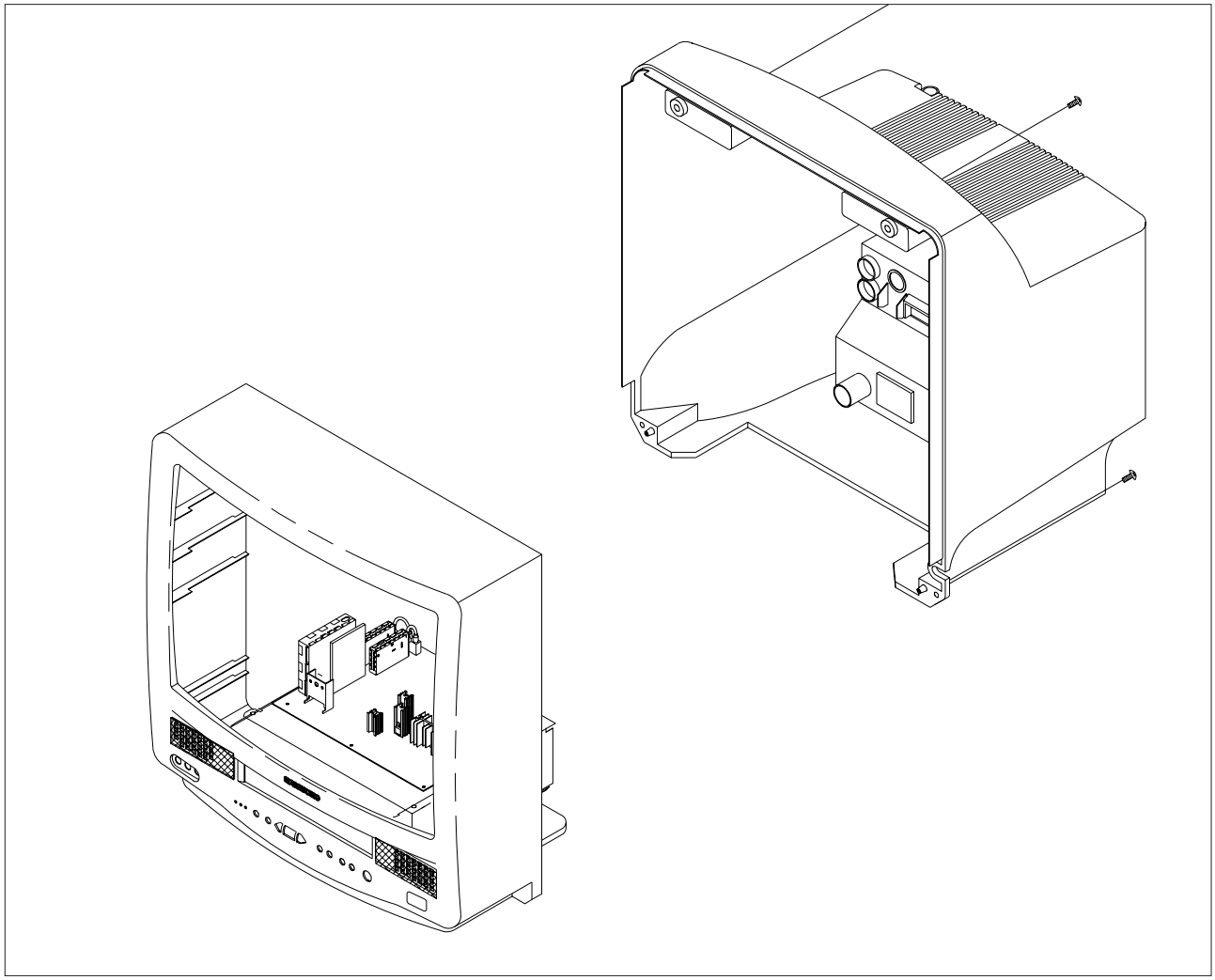


Fig. 3-1

1. Remove the screws located on the side of the back cover.

2. Pull the Main Assembly backward and remove it from the front cabinet.

3-1-2 Main Assembly Removal

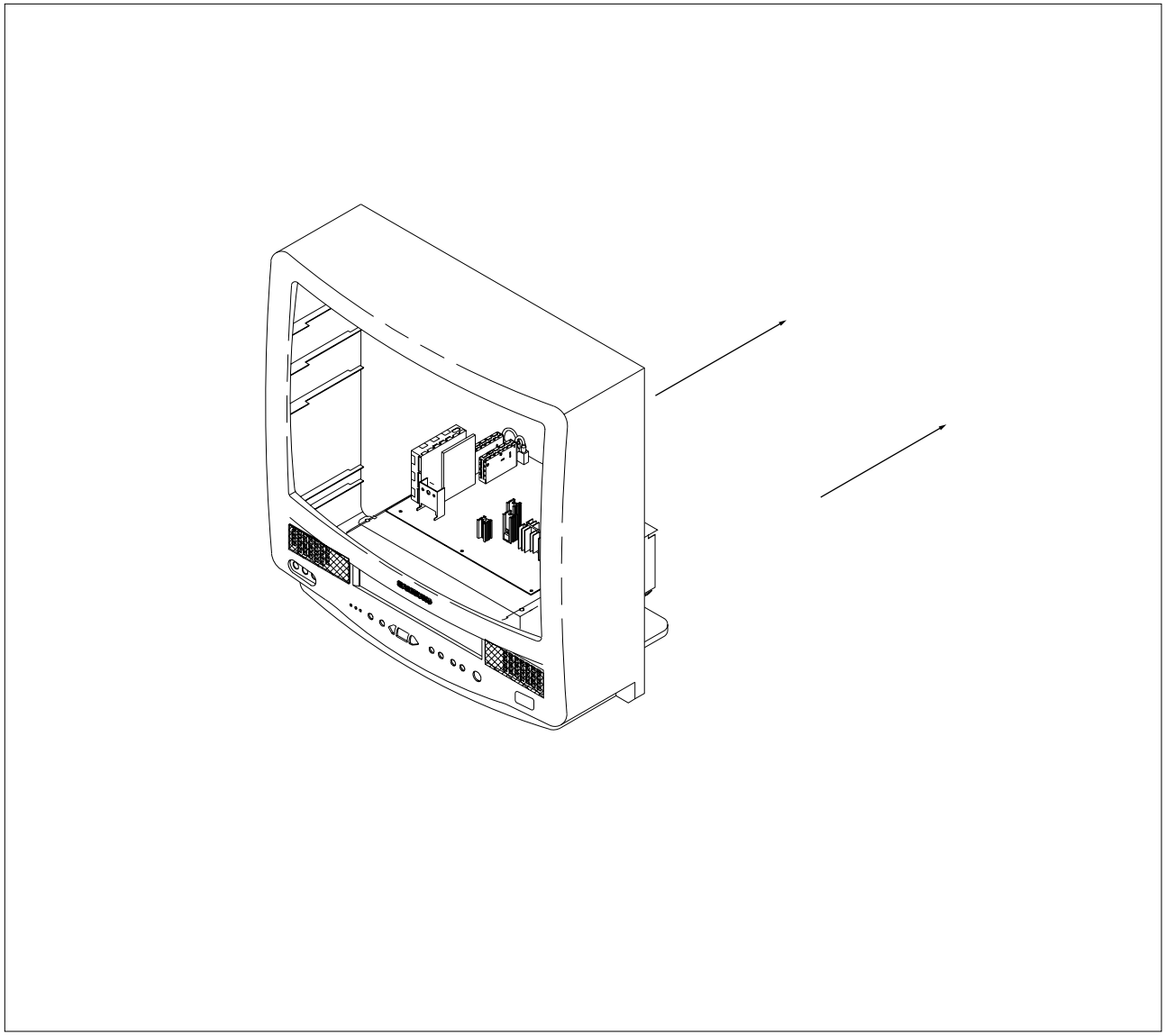


Fig. 3-2

1. Release two connectors between sub PCB and Main Assembly.

2. Pull the Main Assembly backward. Remove it from the front cabinet.

3-1-3 Monitor Frame Removal

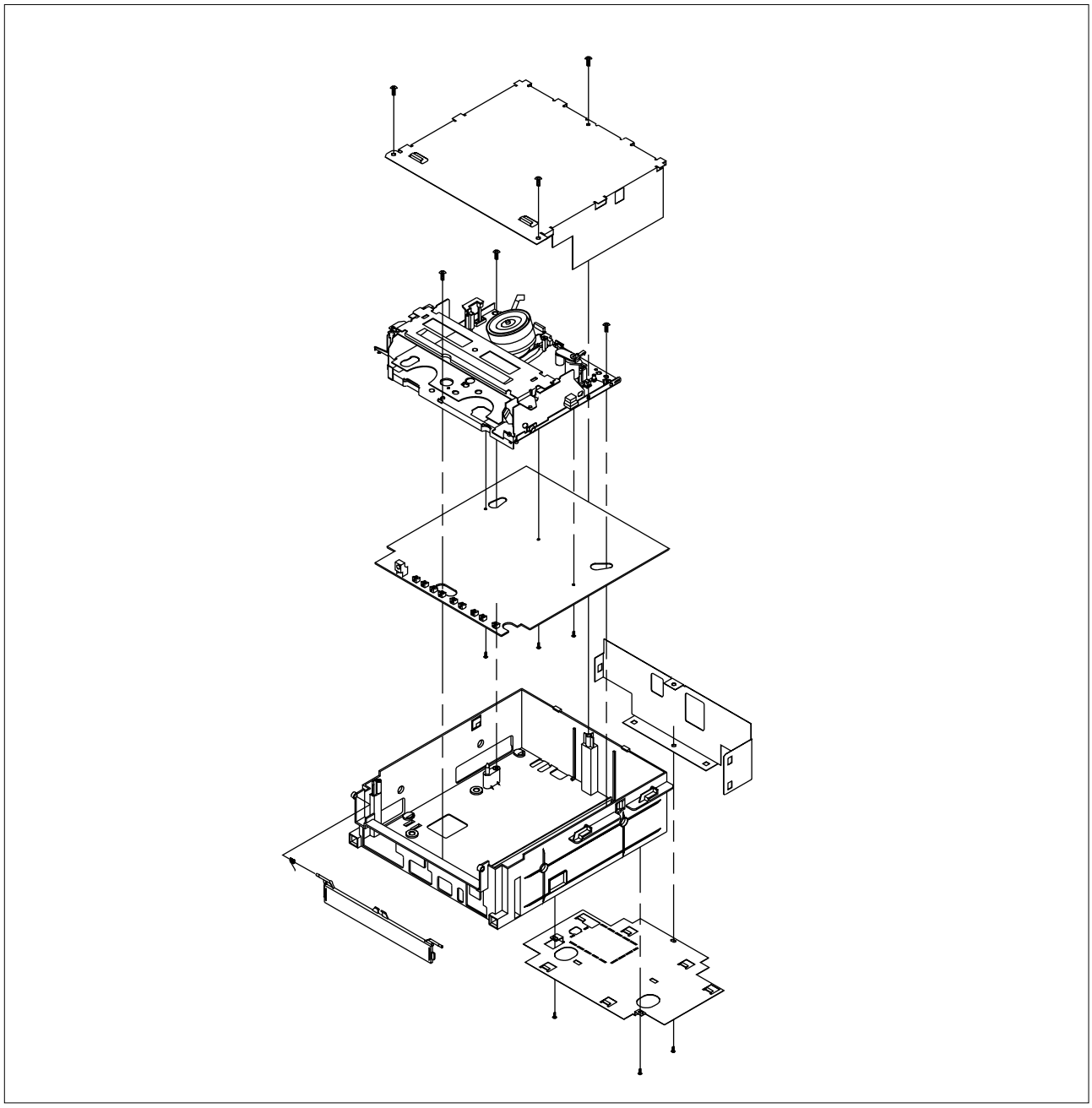
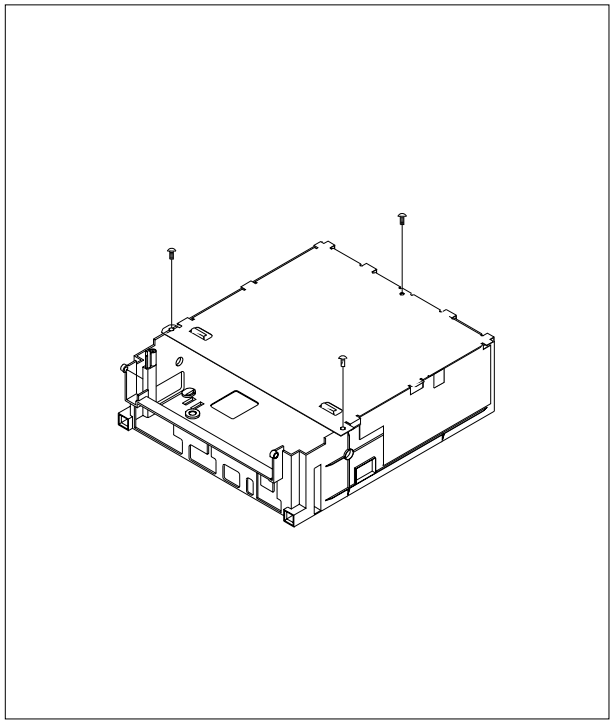


Fig. 3-3

1. Remove 2 screws from the Main Assembly. Remove the dust cover.

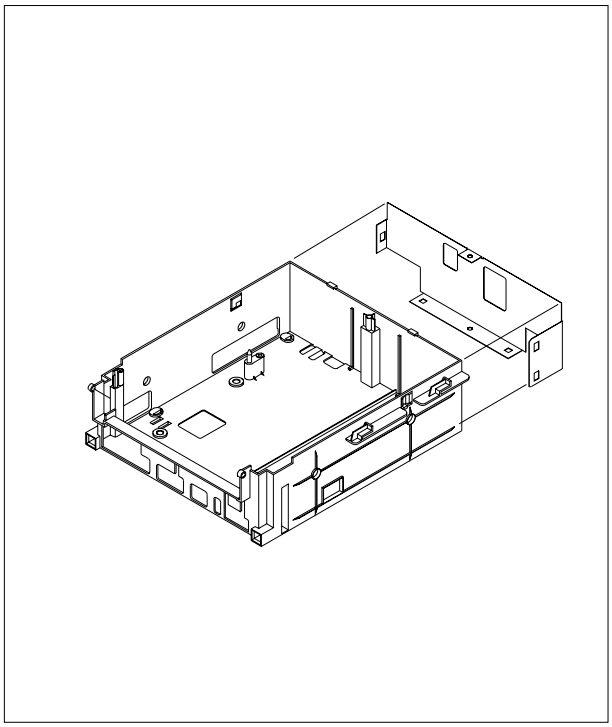
2. Remove 2 screws from the Deck Assembly. Remove the dust-cover bracket.

3-1-4 Deck Assembly Removal



1. Remove 4 screws holding the bottom cover.
2. Remove one screw from Main PCB Assembly. Take out the deck assembly.

3-1-5 Main Assembly Removal



1. Remove 2 screws holding the upper chassis housing.
2. Remove 3 screws holding the deck assembly.
3. Lift the deck assembly upward to remove.

4. Alignments and Adjustments (Mechanical)

4-1 Deck Parts Locations

4-1-1 Deck (Top View)

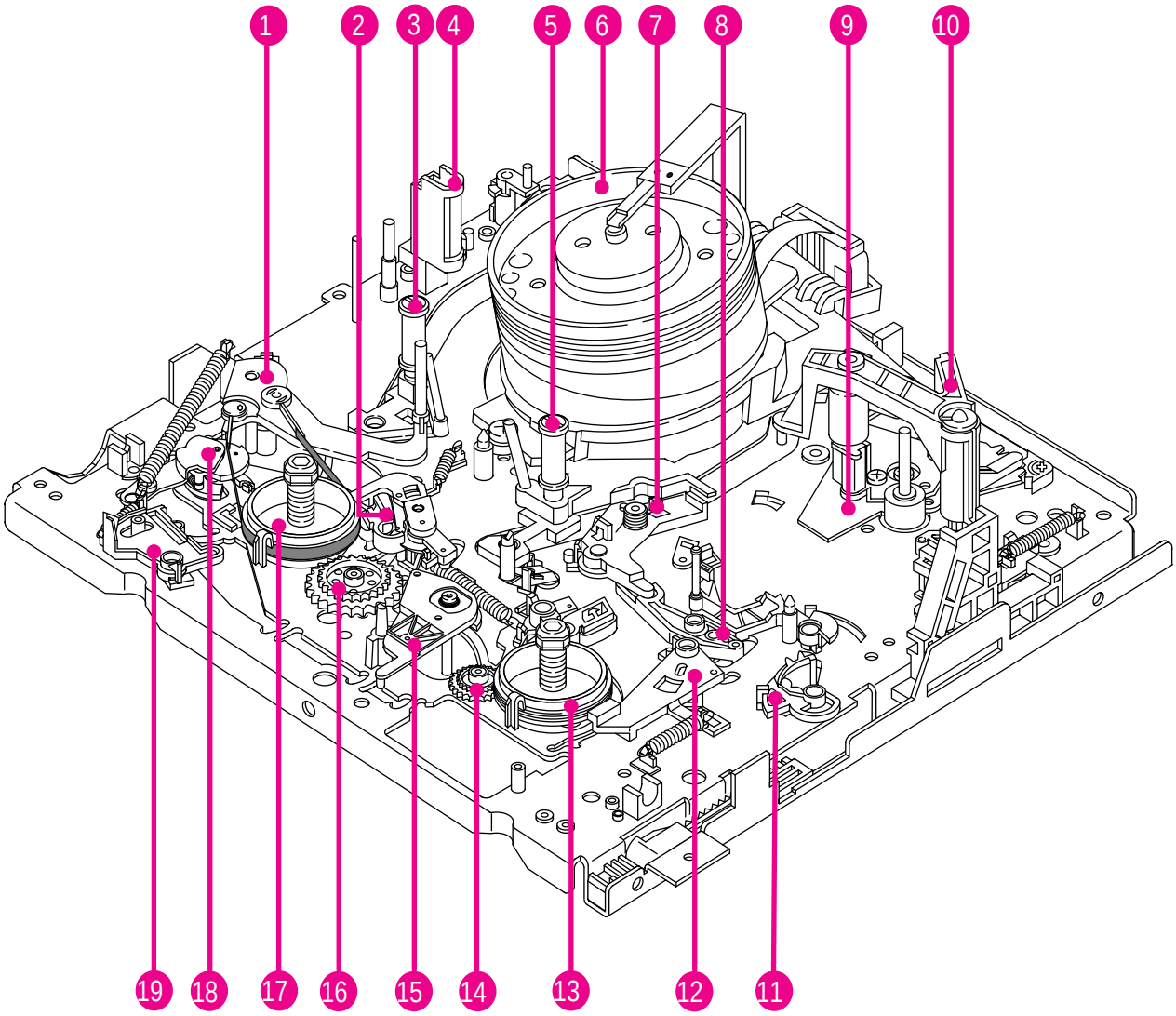


Fig.4-1 Deck Top Parts Location (DX7-A/DX8-A DECK ONLY)

1. ARM TENSION FULL ASS'Y
2. BRAKE MAIN "L" ASS'Y
3. GUIDE ROLLER ASS'Y "T"
4. FULL ERASE HEAD
5. GUIDE ROLLER ASS'Y "S"
6. CYLINDER ASS'Y
7. LEVER PINCH COMP ASS'Y
8. LEVER PINCH CAM
9. FULL ACE HEAD AAS'Y
10. UNIT PINCH ROLLER ASS'Y
11. LEVER REVIEW
12. BRAKE SUB "R" ASS'Y
13. REEL DISK "R" ASS'Y
14. GEAR RELAY "T" ASS'Y
15. IDLER ASS'Y
16. GEAR RELAY "S" ASS'Y
17. REEL DISK "L" ASS'Y
18. LEVER JOG ASS'Y (DX8-A/AC ONLY)
19. LEVER REC SWITCH

4-1-2 Deck (Top View)

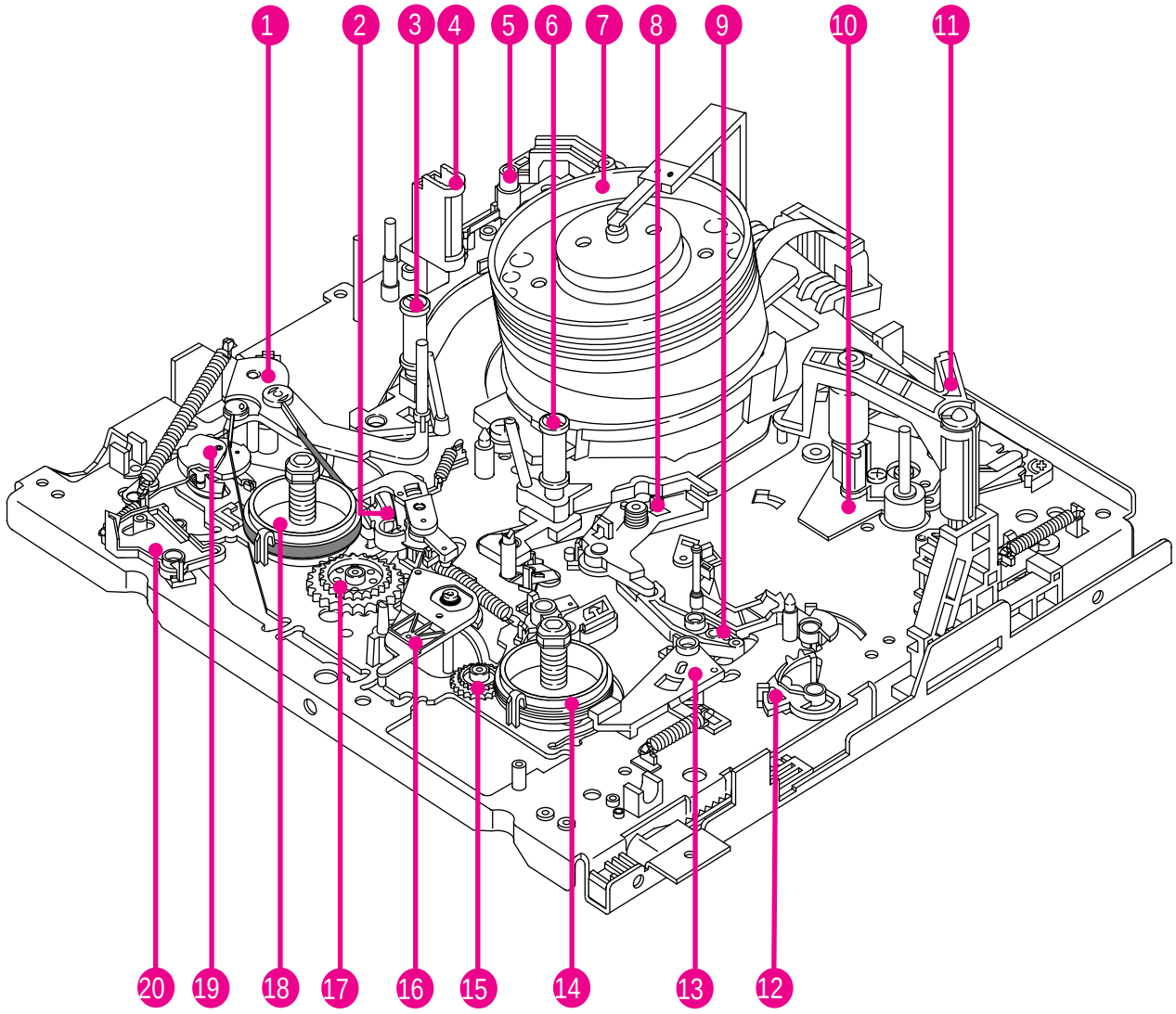


Fig.4-2 Deck Top Parts Location (DX7-AC/DX8-AC DECK ONLY)

1. ARM TENSION FULL ASS'Y
2. BRAKE MAIN "L" ASS'Y
3. GUIDE ROLLER ASS'Y "T"
4. FULL ERASE HEAD
5. HEAD CLEANER ASS'Y (DX7-AC/DX8-AC ONLY)
6. GUIDE ROLLER ASS'Y "S"
7. CYLINDER ASS'Y
8. LEVER PINCH COMP ASS'Y
9. LEVER PINCH CAM
10. FULL ACE HEAD AAS'Y
11. UNIT PINCH ROLLER ASS'Y
12. LEVER REVIEW
13. BRAKE SUB "R" ASS'Y
14. REEL DISK "R" ASS'Y
15. GEAR RELAY "T" ASS'Y
16. IDLER ASS'Y
17. GEAR RELAY "S" ASS'Y
18. REEL DISK "L" ASS'Y
19. LEVER JOG ASS'Y (DX8-A/AC ONLY)
20. LEVER REC SWITCH

4-1-3 Deck (Bottom View)

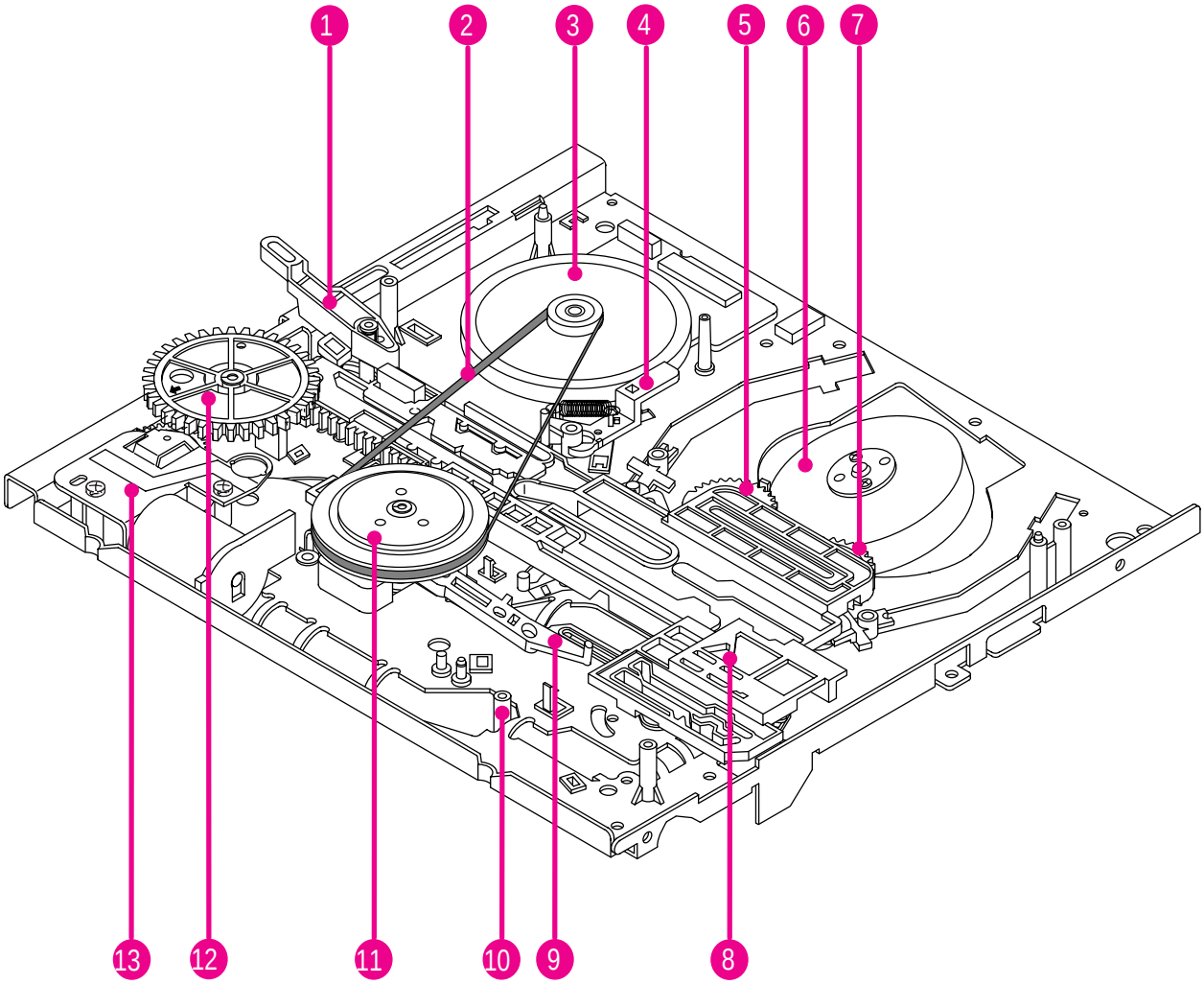


Fig.4-3 Deck Bottom Parts Location

1. LEVER SLIDE PINCH
2. BELT CAPSTAN
3. MOTOR D.D CAPSTAN
4. BRAKE CAPSTAN ASS'Y
5. GEAR LOADING "R" ASS'Y
6. MOTOR CYLINDER
7. GEAR LOADING "L" ASS'Y
8. SLIDE MAIN
9. LEVER REC SWITCH
10. LEVER IDLER CHANGE
11. CLUTCH ASS'Y
12. UNIT LOADING
13. GEAR MASTER

4-1-4 Housing View

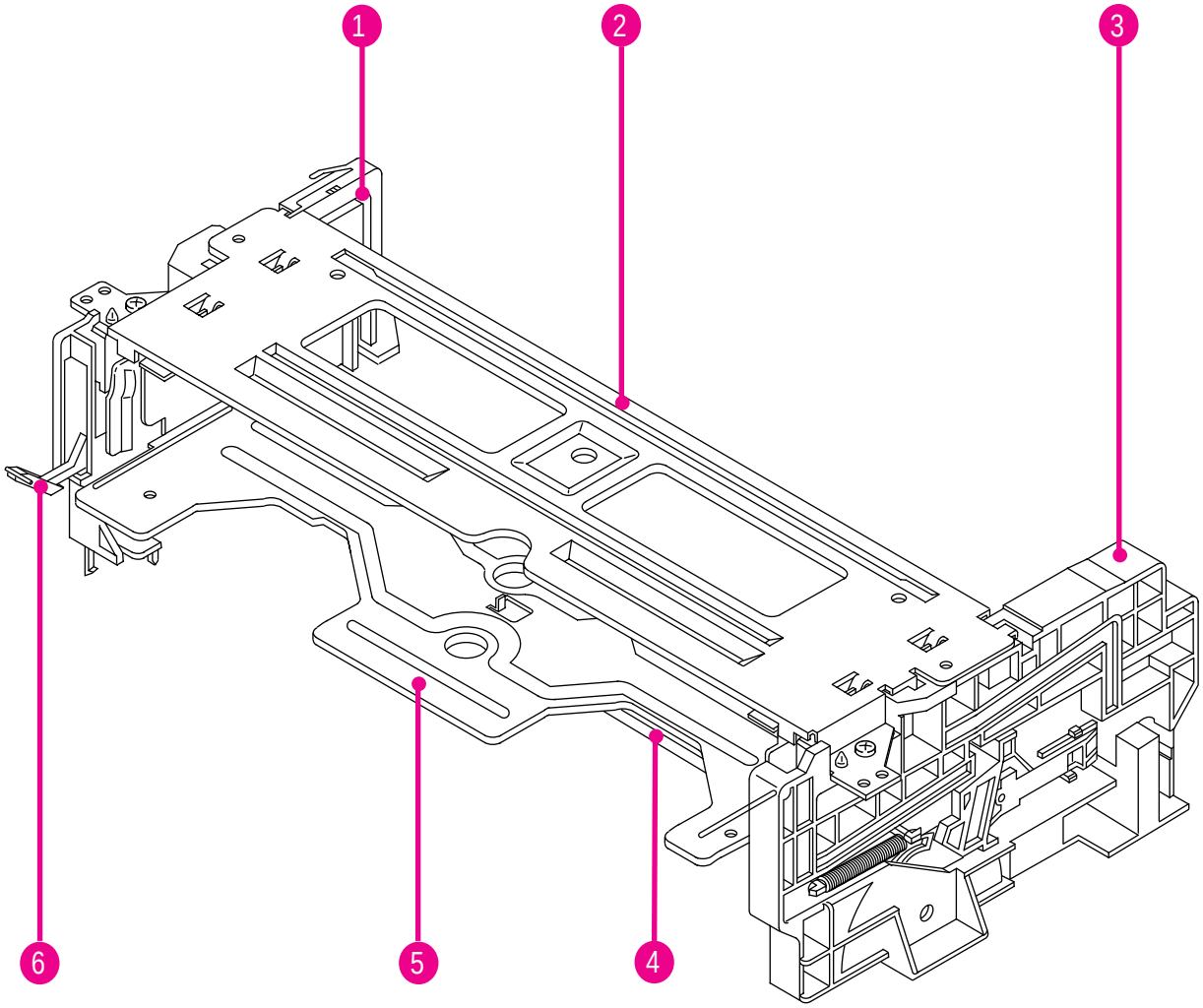


Fig. 4-4 Housing Parts Location

1. CHASSIS SIDE “L” ASS’Y
2. UPPER CHASSIS
3. CHASSIS SIDE “R” ASS’Y
4. SHAFT ARM ASS’Y
5. HOLDER CASSETTE ASS’Y
6. LEVER DOOR

4-2 Housing Assembly

4-2-1 Removal from Main Base

1. Remove 3 Screws ① .
2. Lift the Housing Ass'y in the direction of arrow "B", while pushing the tab ② in the direction of arrow "A". (Refer to detail drawing)

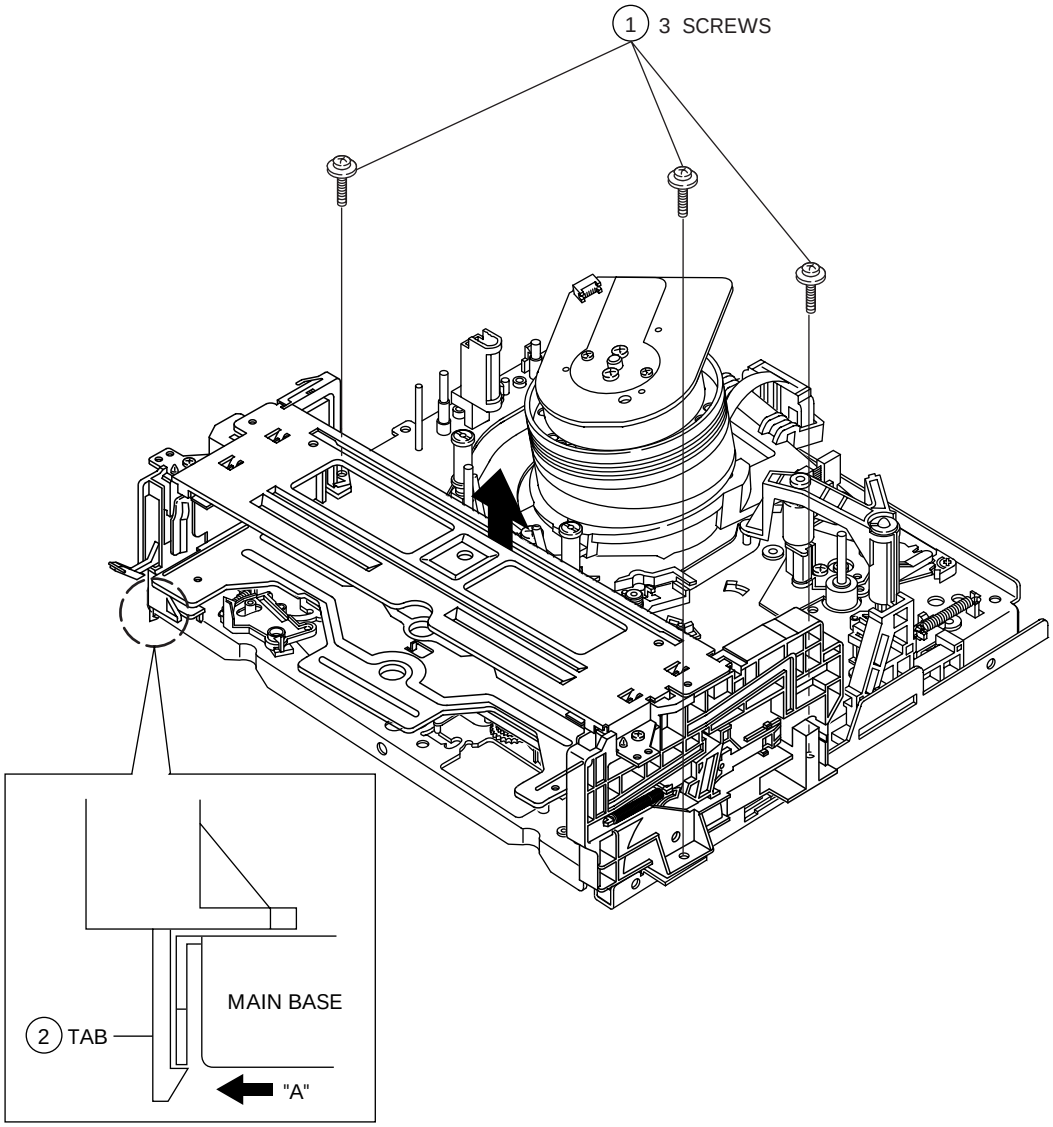


Fig. 4-5 Housing Ass'y Removal from Main Base

4-2-2 Diassembly

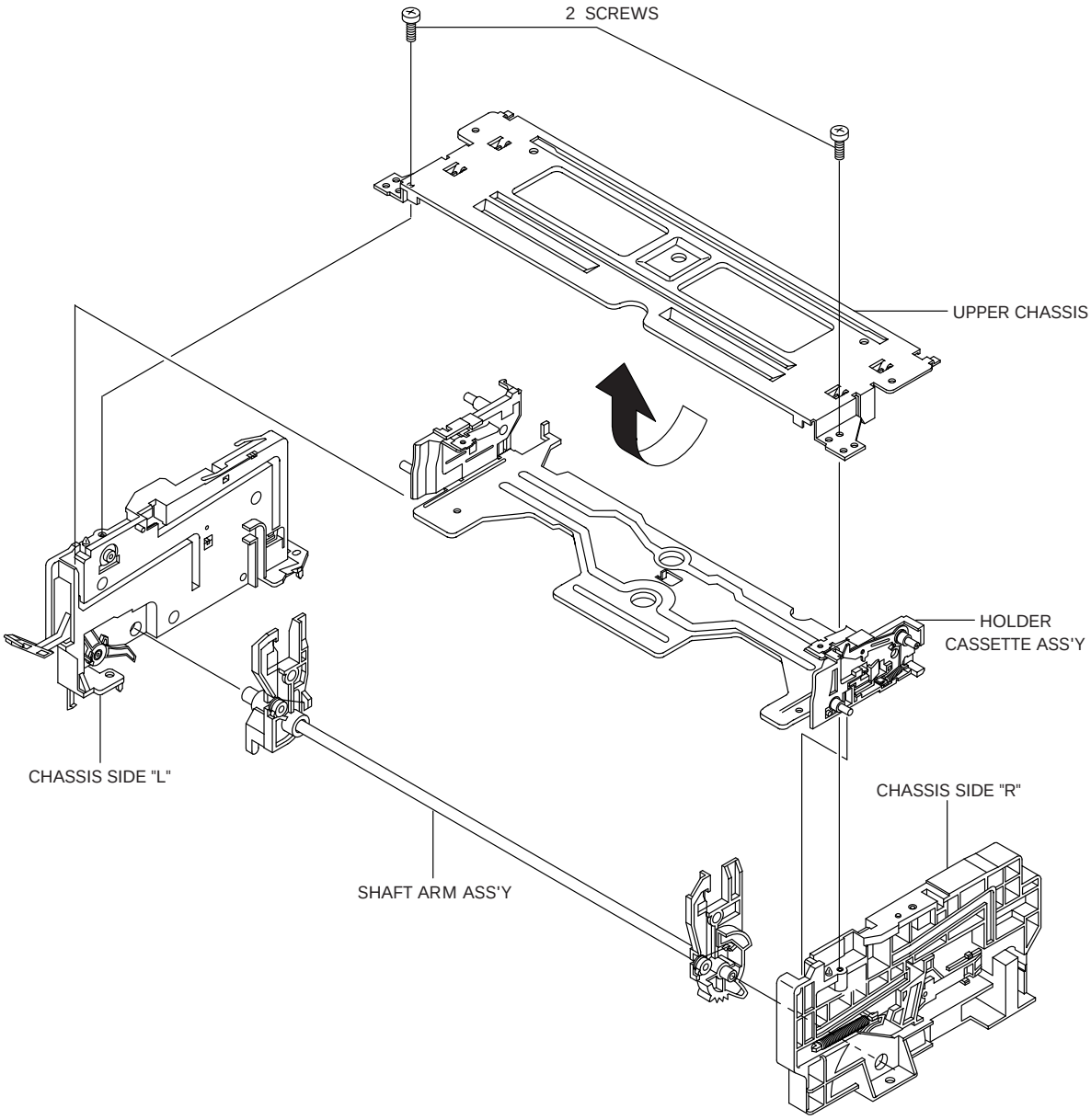


Fig. 4-6 Housing Ass'y Removal

4-2-3 Upper Chassis Removal

1. Remove 2 Screws ①.
2. Lift the Upper Chassis ② in the direction of arrow "A".

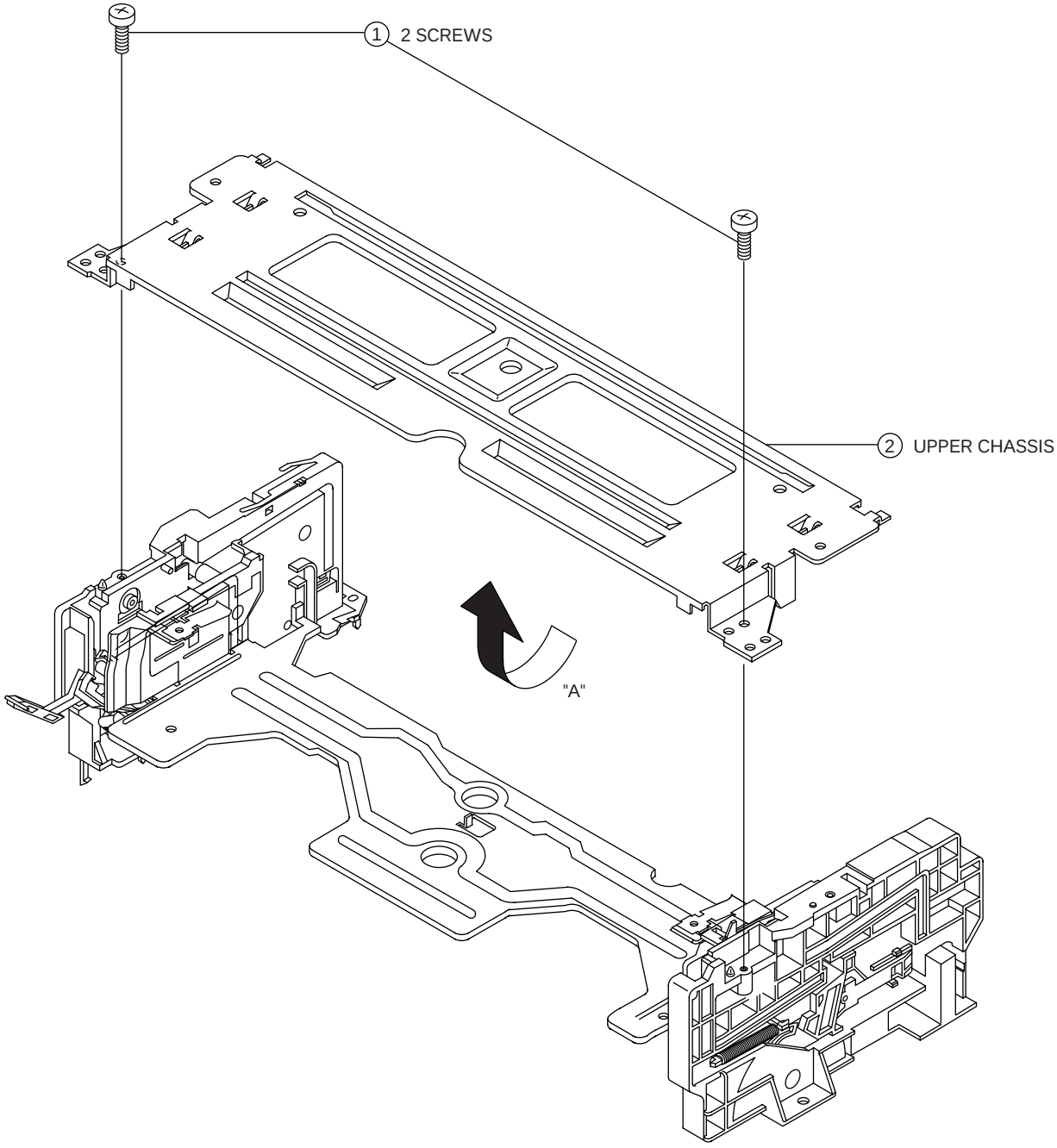


Fig. 4-7 Upper Chassis Removal

4-2-4 Holder Cassette Ass'y and Chassis Side L/R Removal

1. Lift the Cassette Holder ① in the direction of arrow "A" (Refer to Fig. A).
2. Remove the Side Chassis "L" ② and "R" ③ from Arm Shaft Ass'y ④ in the direction of arrow "B", "C" (Refer to Fig. B).

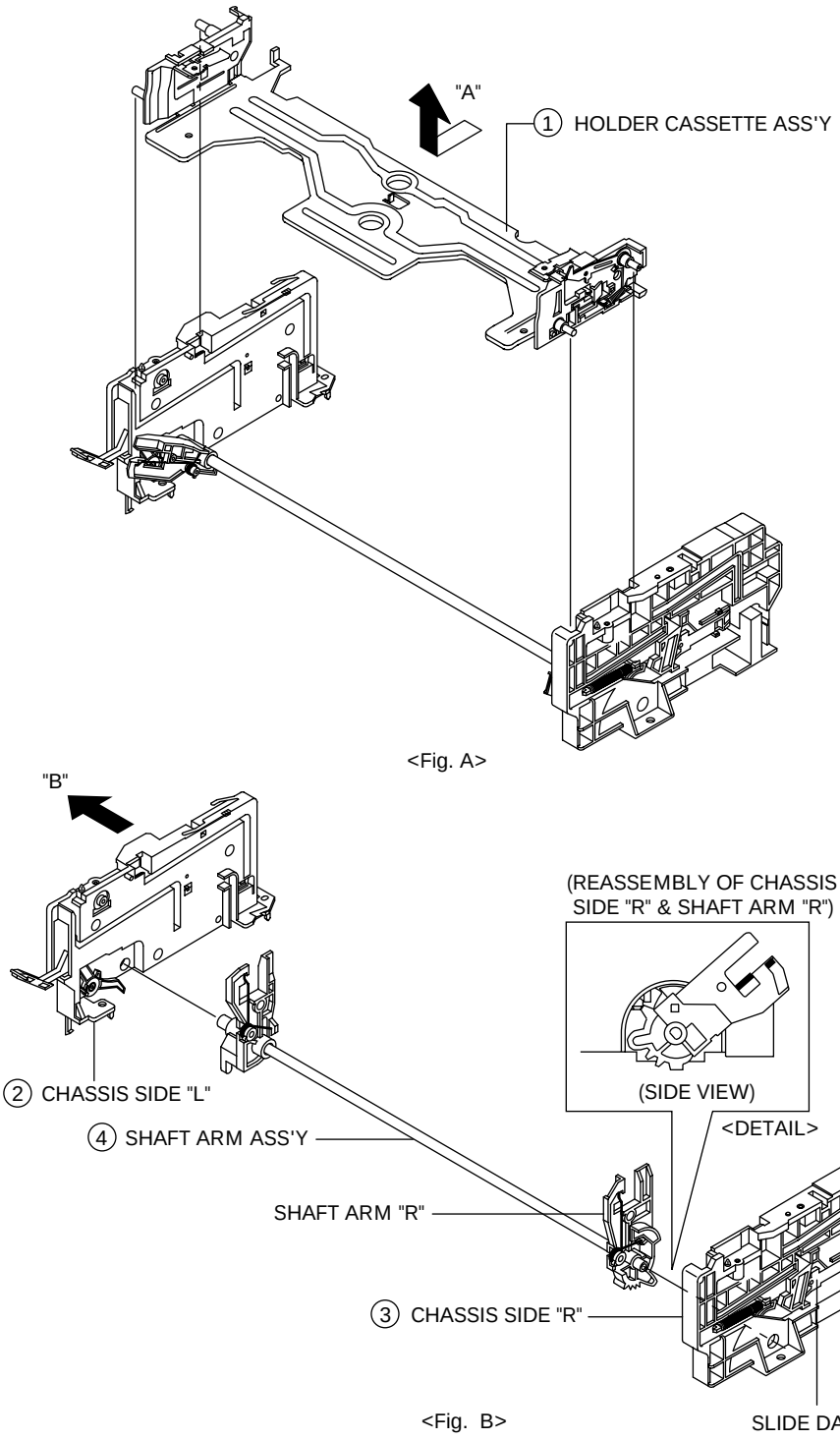


Fig. 4-8 Holder Cassette Ass'y and Chassis Side L/R

4-2-5 Chassis Side “R” Parts Locations

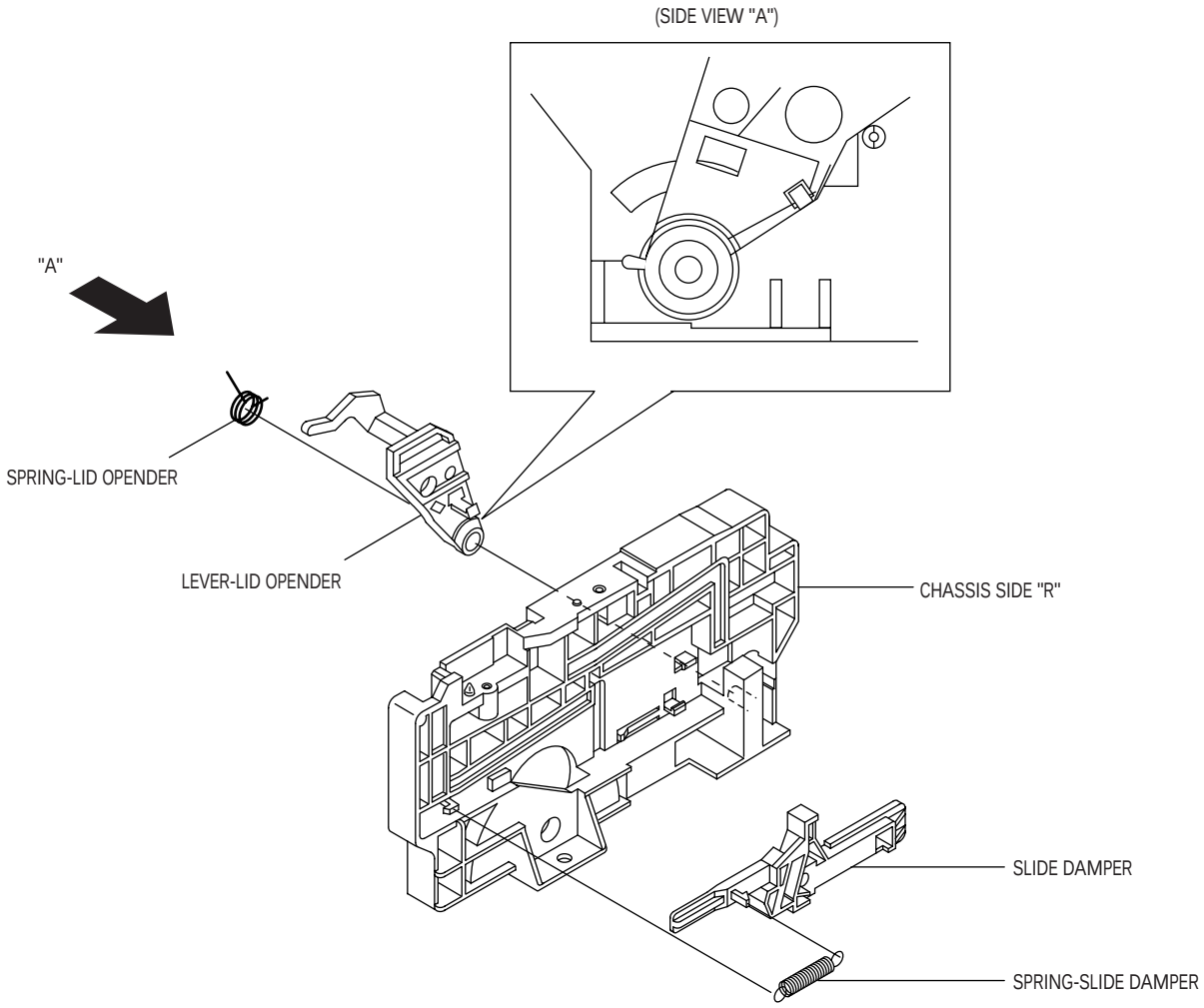


Fig. 4-9 Chassis Side “R” Parts Locations

Note : If you operate the deck when the Cassette Ass’y Holder is removed, the Arm Shaft “R” and the Damper Slide are not returned to their original positions. If this happens by accident, push the Damper Slide of Side Chassis “R” in the direction of arrow “D”, and return the Damper Slide in the reverse direction of arrow “D” when the Arm Shaft Ass’y is in eject mode.

4-2-6 Slide Damper Removal

1. Remove the Slide Damper Spring ①.
2. Push the Stopper ③ of the Side Chassis "R" ④. Move the Damper Slide ② in the direction of arrow.
3. Align the Damper Slide ✠ with the chassis side tab (as shown detail drawing).

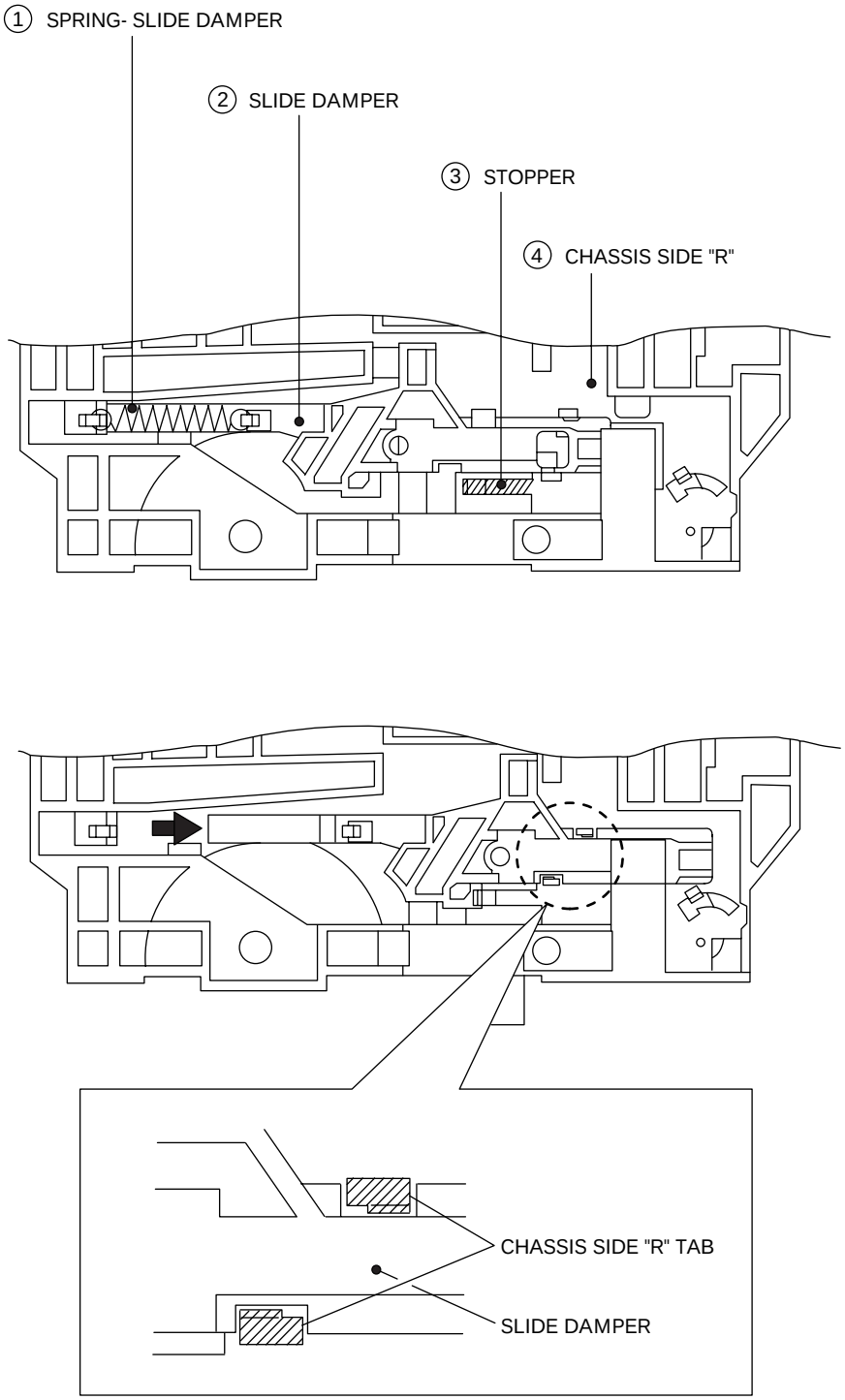


Fig. 4-10 Slide Damper Removal

4-3 Cylinder Ass'y

4-3-1 Exploded View of Cylinder Ass'y

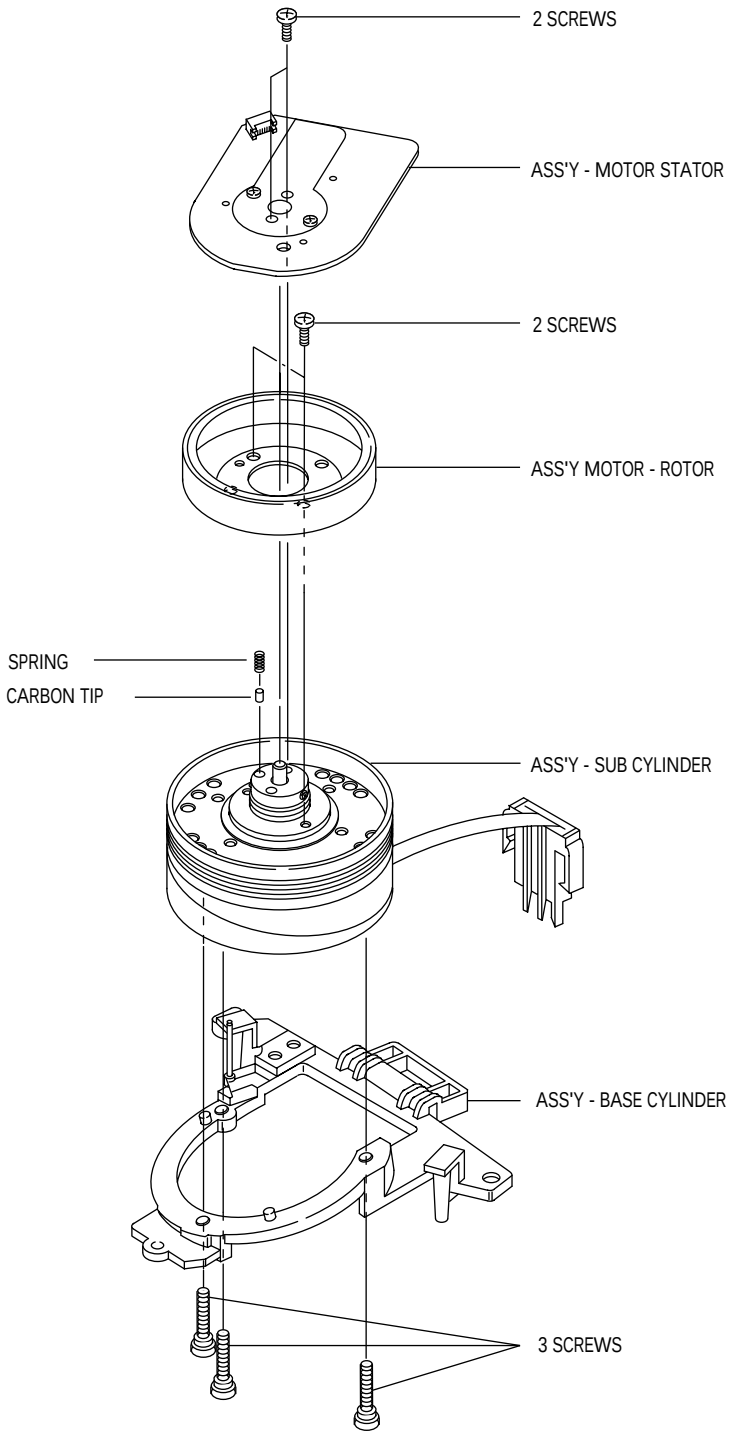


Fig. 4-11 Exploded View of Cylinder Ass'y

4-3-2 Head Cleaner Ass'y Removal (Only for Deck : DX7-AC/DX8-AC)

1. Release 1 tab ① in the direction of arrow "A". (Refer to detail drawing)
2. Lift the Head Cleaner ② in the direction of arrow "B".

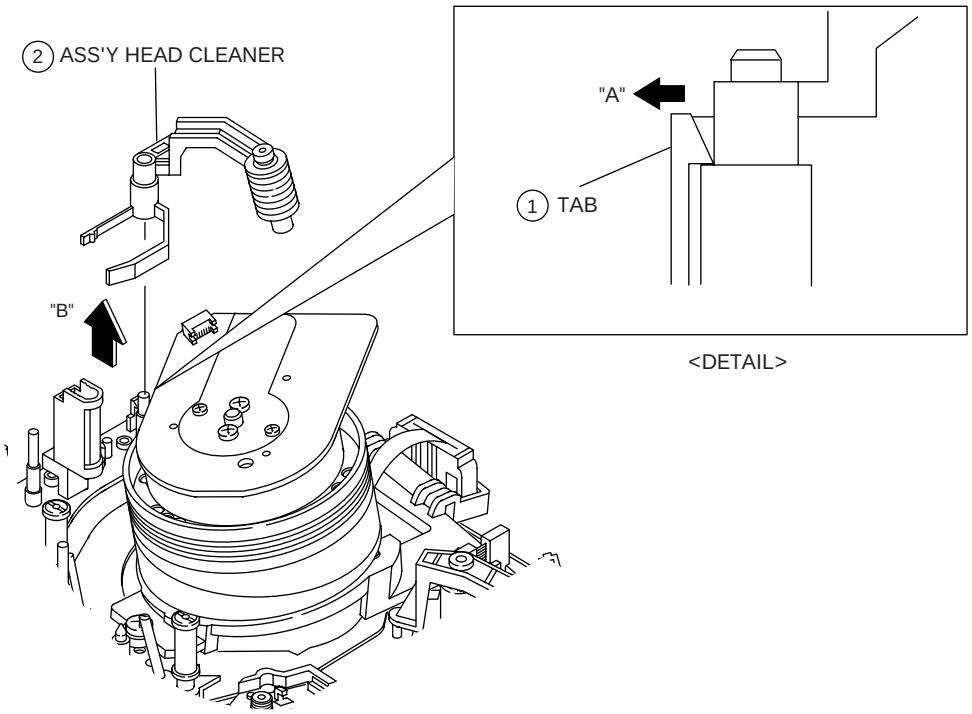


Fig. 4-12 Head Cleaner Ass'y Removal

4-3-3 Cylinder Ass'y Removal from Main Base

1. Remove 3 Screws ① holding the Main Base and the Cylinder Ass'y.
2. Lift the Cylinder Ass'y ② in the direction of arrow.

Note : Do not touch the video heads during removal or installation.

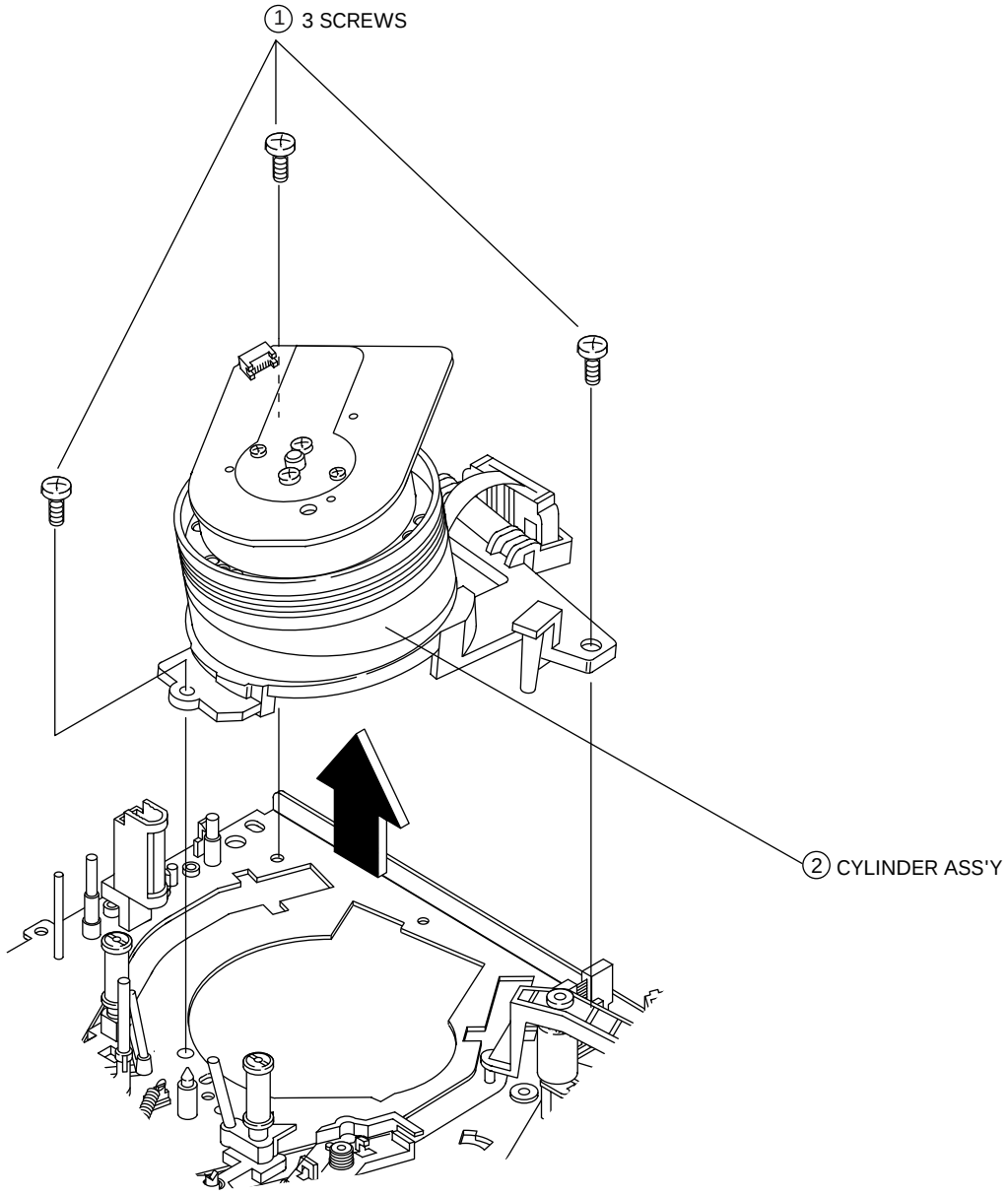
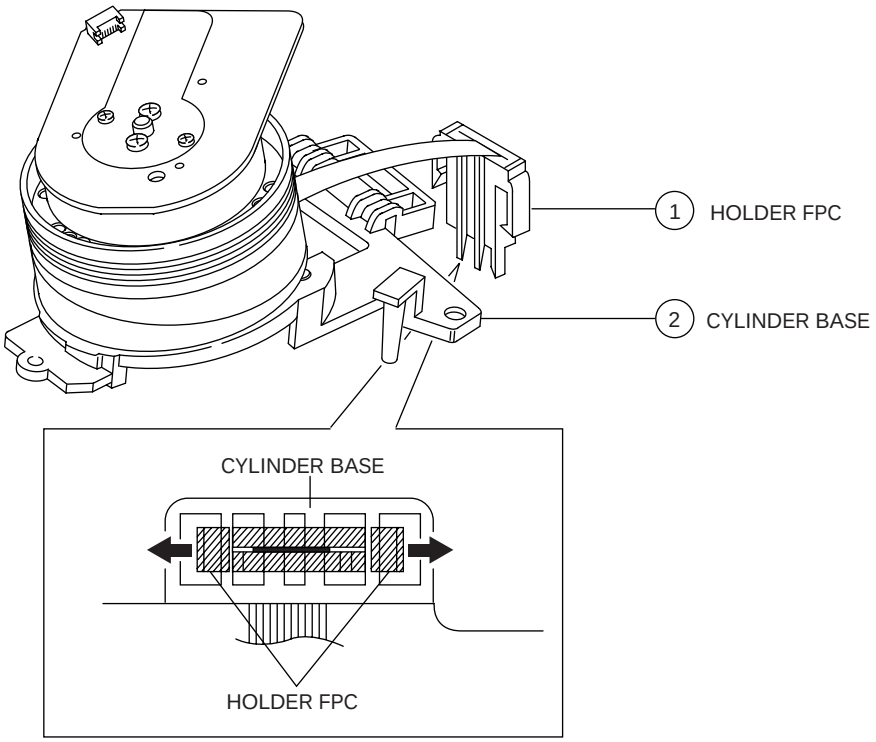


Fig. 4-13 Cylinder Ass'y Removal from Main Base

4-3-4 Holder FPC Removal

1. Release the Holder FPC tab holding the Cylinder Base ② in the direction of arrow.
   (Refer to detail drawing)
2. Disconnect the Holder FPC ① from the Cylinder Base ②.
3. Note **:** When disconnecting the FPC Holder ① from the Cylinder Base ② :
   Take care not to disconnect the FPC cable from the FPC Holder (The FPC cable is very short).



<DETAIL : BOTTOM VIEW>

Fig. 4-14 Head Brush and Holder FPC Removal

4-3-5 Cylinder Ass'y Removal from Cylinder Base

1. Remove 3 Screws ① from the Cylinder Base ②.
2. Lift the Cylinder Ass'y ③ from the Cylinder Base ② in the direction of arrow.

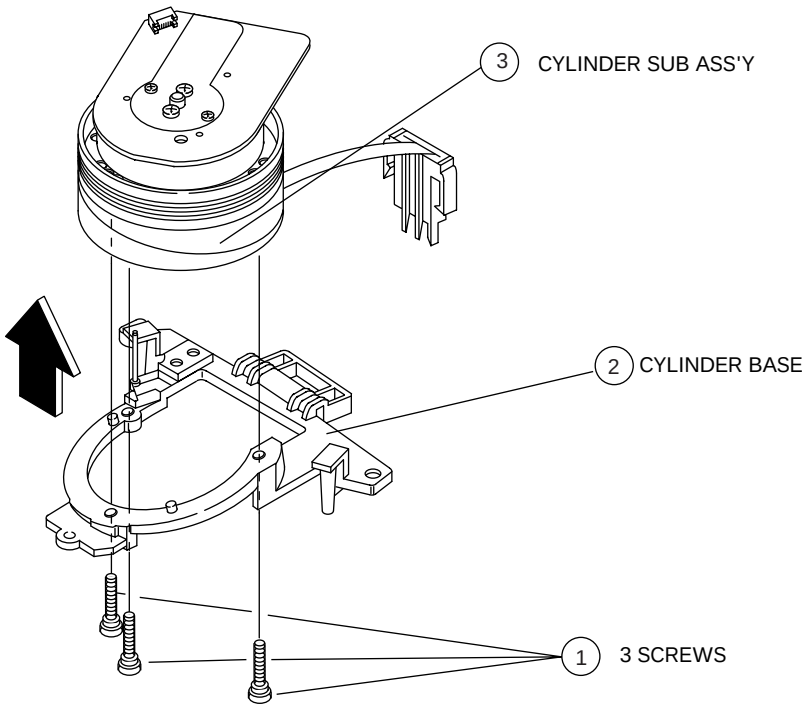


Fig. 4-15 Cylinder Ass'y Removal from Cylinder Base

4-3-6 Motor Stator Removal

1. Remove 2 Screws ①.
2. Remove the Motor Stator ② from the Cylinder Sub Ass'y ⑤.
3. Note : When disassembling the Motor-Stator, be careful not to loose the carbon-tip and spring.

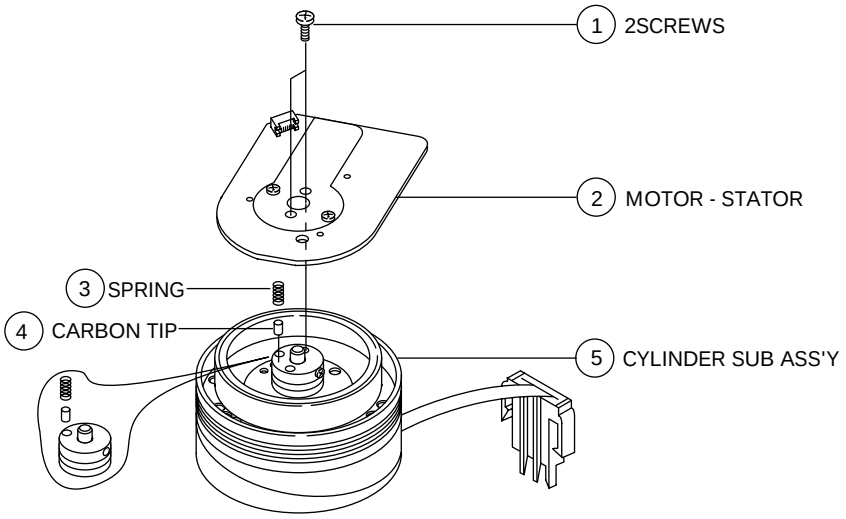


Fig. 4-16 Motor Stator Removal

4-3-7 Motor Rotor Removal

1. Remove 2 Screws ①.
2. Lift The Motor Rotor②.

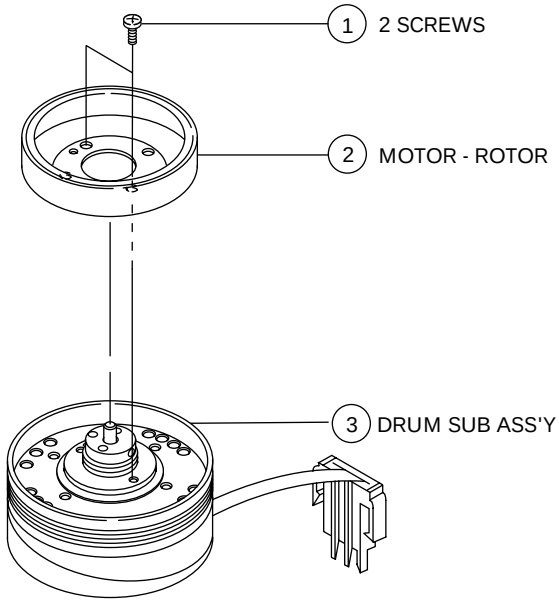


Fig. 4-17 Motor Rotor Removal

4-3-8 Motor Rotor and Cylinder Sub Ass'y

1. Make sure that phase matching holes of the Motor Rotor and the Cylinder Sub Ass'y are aligned correctly as shown in Fig. 4-18 (Refer to phase matching hole).
2. Secure 2 Screws.

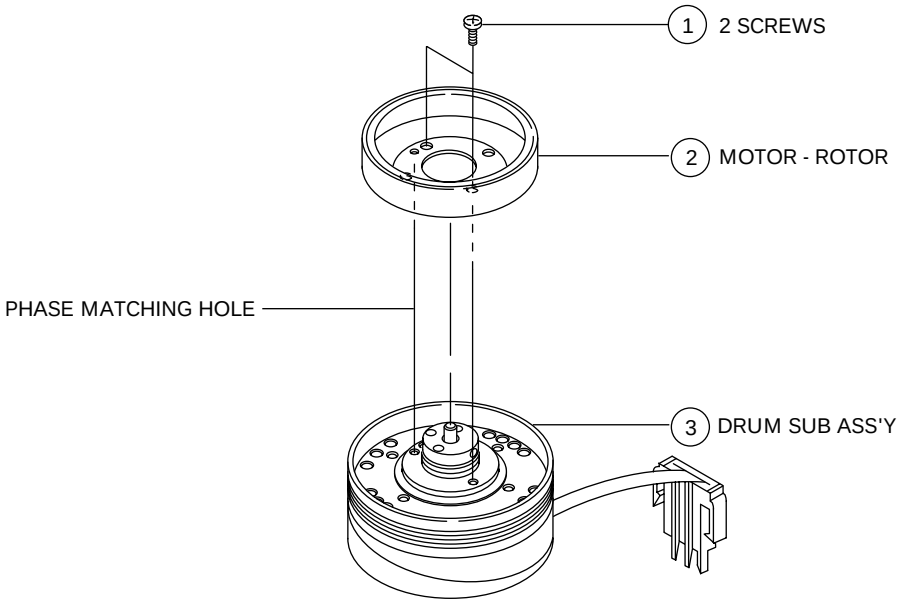


Fig. 4-18 Assembly of Motor Rotor and Cylinder Sub Ass'y

4-3-9 Motor Stator and Cylinder Sub Ass'y

1. Reinstall the Motor Stator ① toward the FPC cable of Cylinder Sub Ass'y ②.
2. Secure 2 Screws. (Refer to Fig. 4-16)

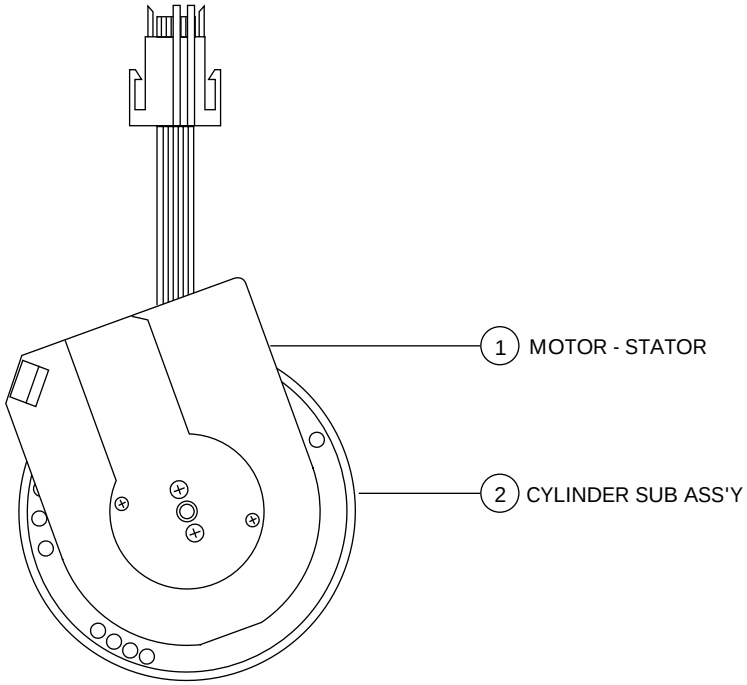


Fig. 4-19 Assembly of Motor Stator and Cylinder Sub Ass'y

4-4 Main Deck Removal and Reassembly

4-4-1 Slide Rack Housing Removal

1. Lift the Slide Rack Housing.

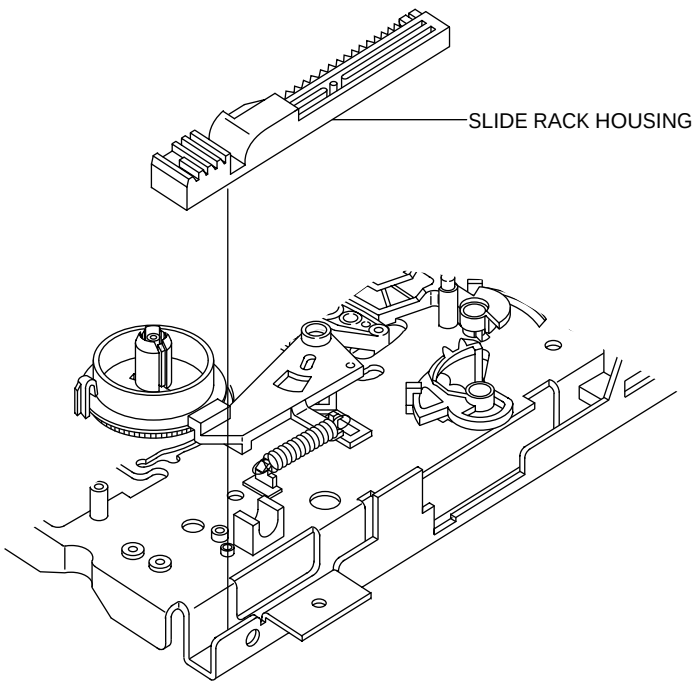


Fig. 4-20 Slide Rack Housing Removal

4-4-2 Assembly of Slide Rack Housing and Master Gear

1. Confirm that the hole of Master Gear ① and the hole "A" of Main Base are aligned correctly. (Eject mode)
2. Align the Slot #1 of Master Gear ① with the Tooth #1 of Rack Housing Slide ②. (Refer to timing point)

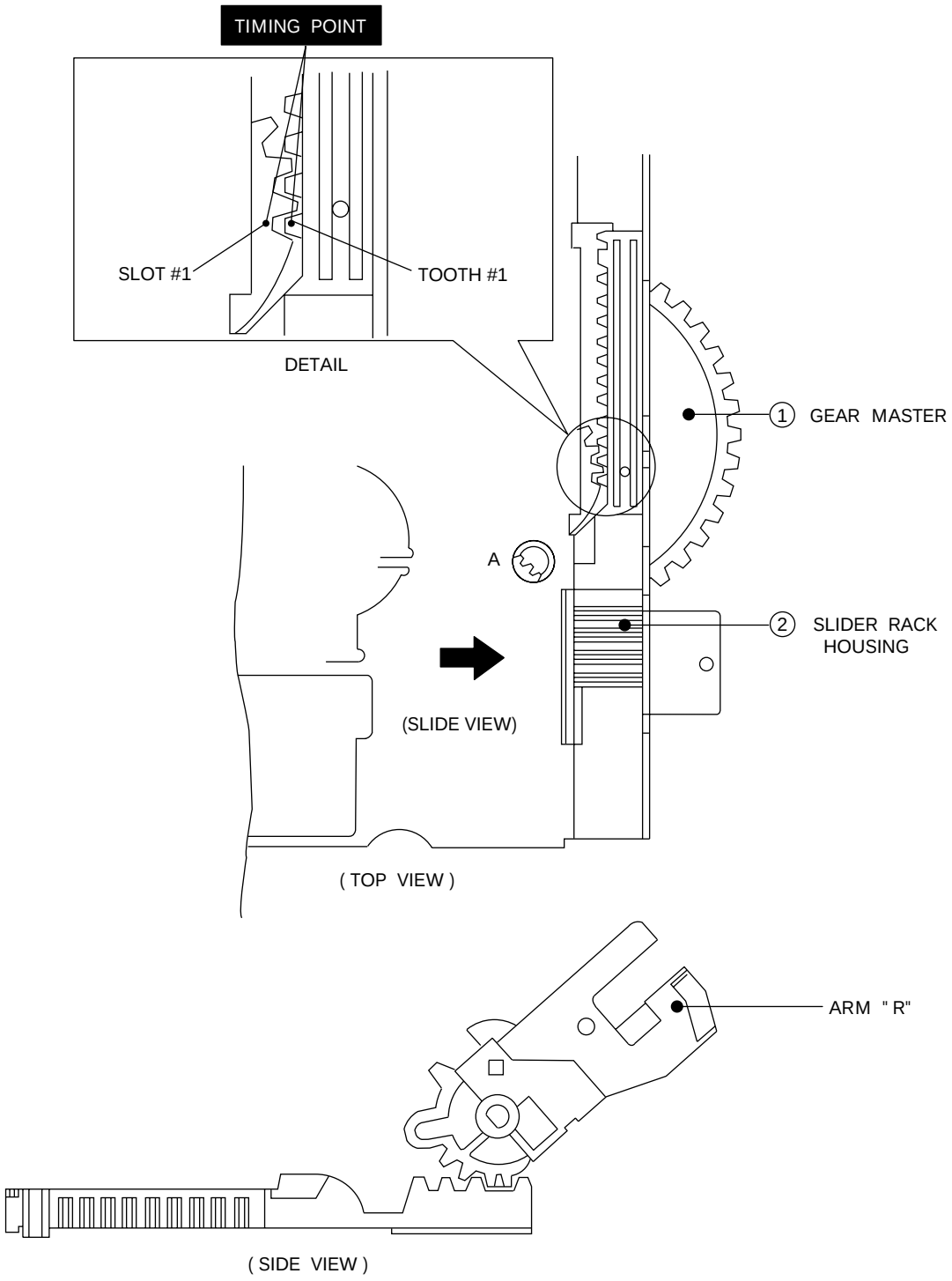
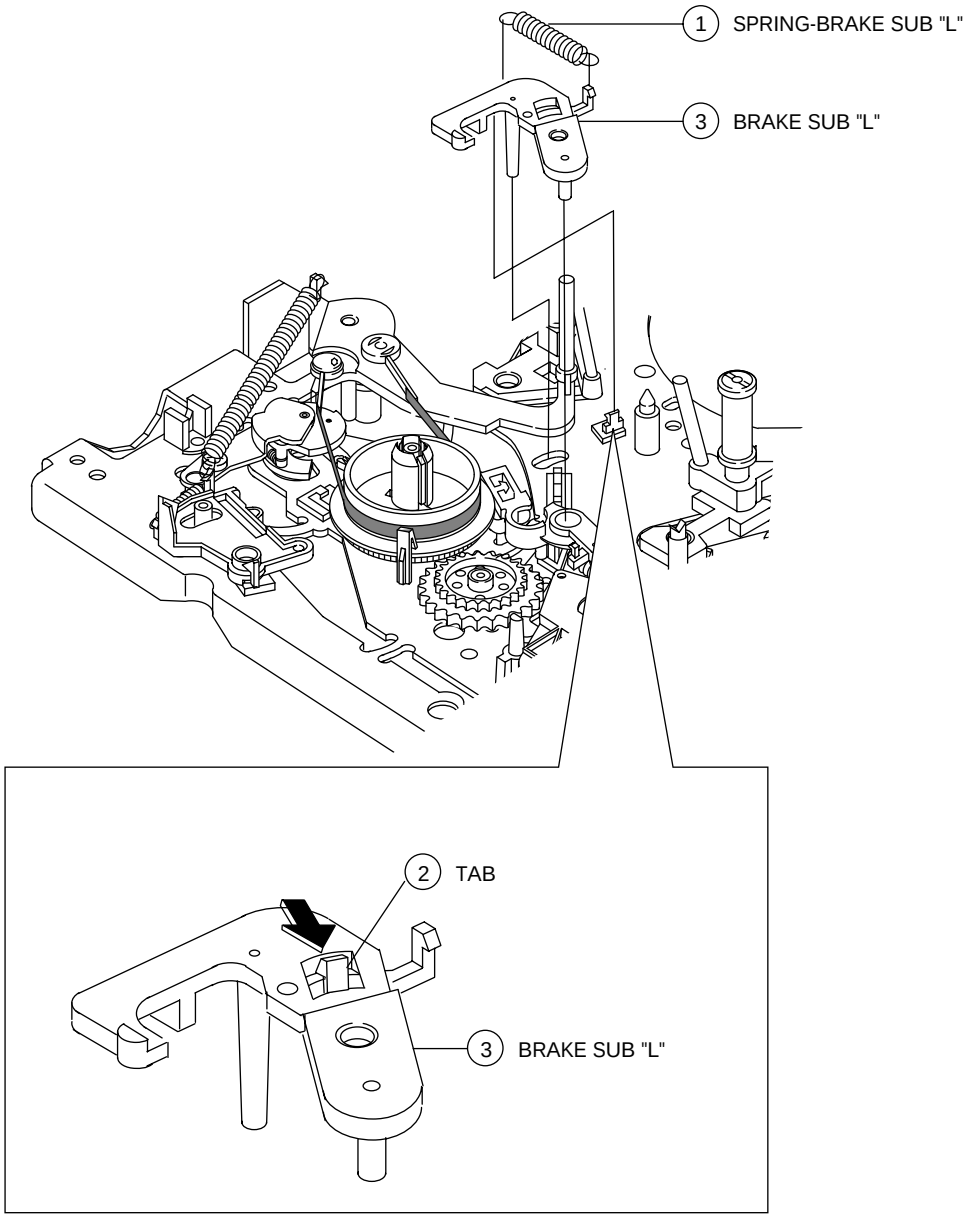


Fig. 4-21 Assembly of Slide Rack Housing and Gear Master

4-4-3 Brake Sub “L” Removal

1. Remove the Sub “L” Brake Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Sub “L” Brake ③.

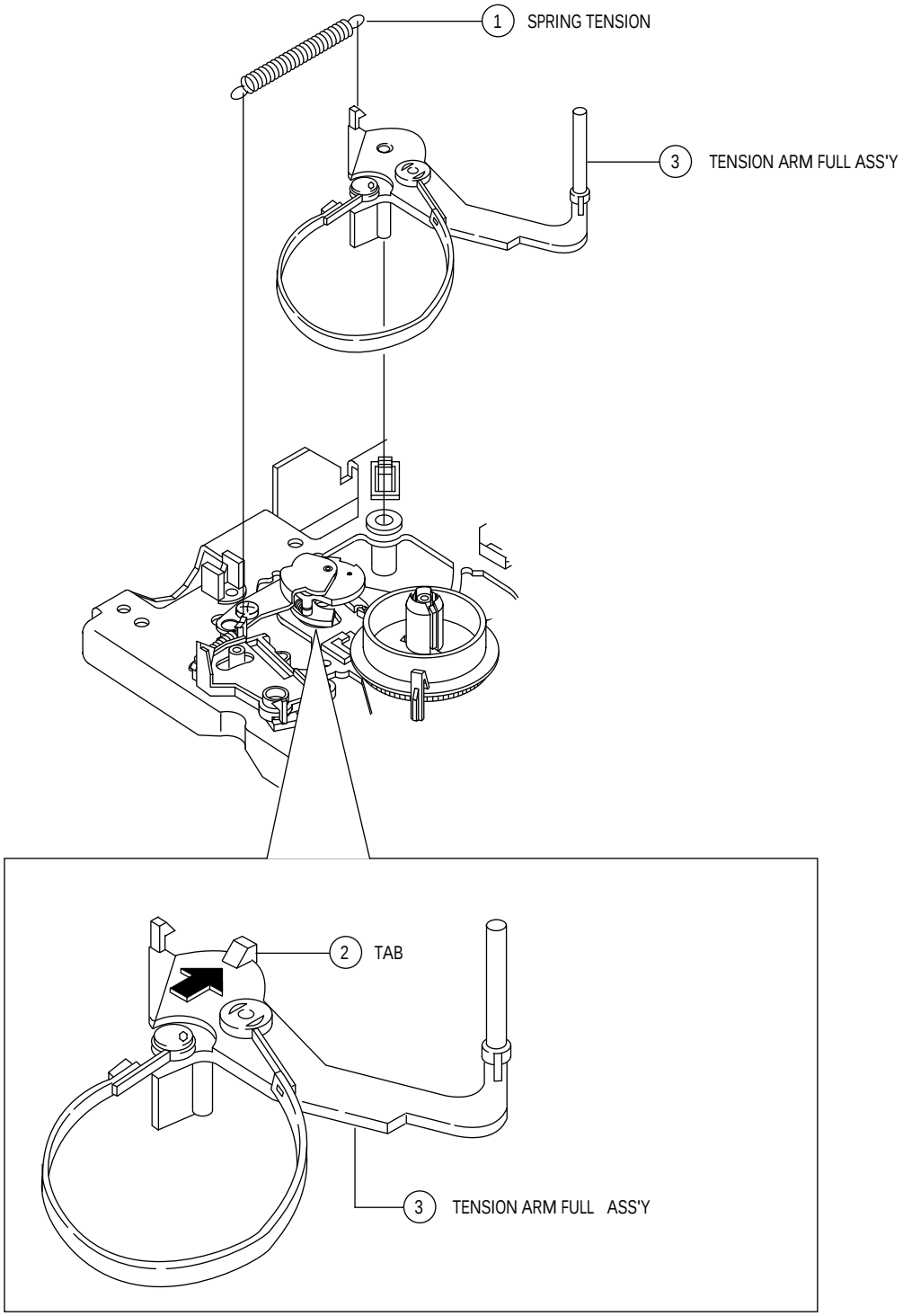


<DETAIL>

Fig. 4-22 Brake Sub “L” Removal

4-4-4 Tension Arm Full Ass'y Removal

1. Remove the Tension Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Tension Arm Full Ass'y ③.

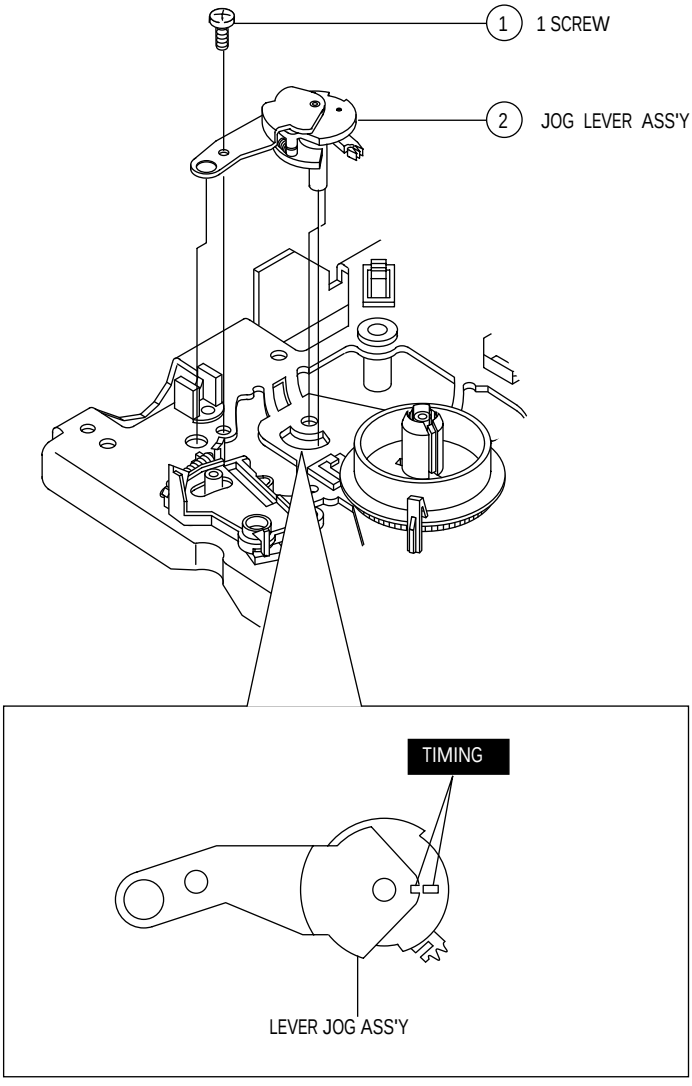


<DETAIL>

Fig. 4-23 Tension Arm Full Ass'y Removal

4-4-5 JOG LEVER Ass'y Removal (Only for deck : DX8-A/DX8-AC)

1. Remove the 1 Screw ①.
2. Lift the JOG Lever Ass'y ②.

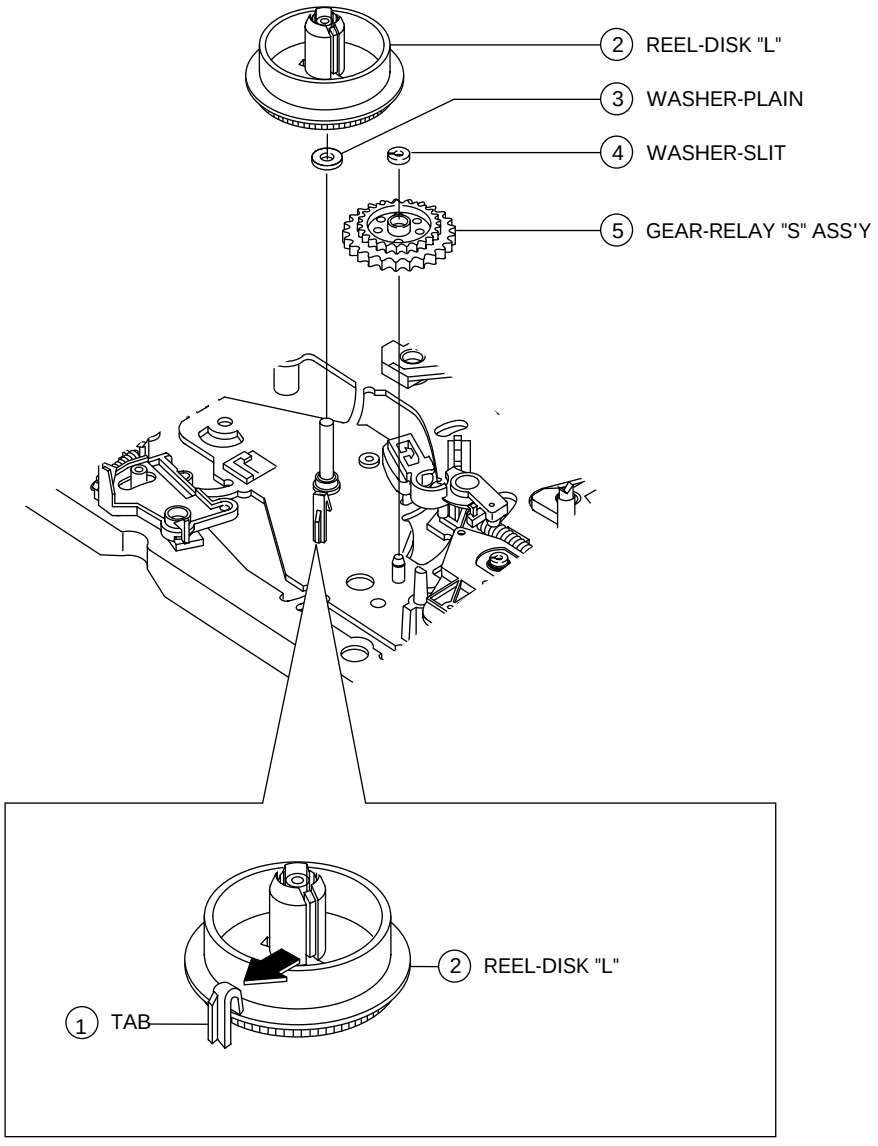


<TOP VIEW>

Fig. 4-24 JOG Lever Ass'y Removal

4-4-6 Relay Gear “S” and Reel Disk “L” Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Reel Disk “L” ②.
3. Remove the Plain Washer ③.
4. Remove the Slit Washer ④.
5. Lift the Relay “S” Gear Ass’y ⑤.
6. Note **:** When reinstalling, be sure to install the Reel Disk “L” ✠ after installing the Plain Washer.



<DETAIL>

Fig. 4-25 Reel Disk “L” and Gear Relay “S” Ass’y Removal

4-4-7 Sub Brake “R” Ass’y Removal

1. Remove the Sub “R” Brake Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Brake Sub “R” Ass’y ③.

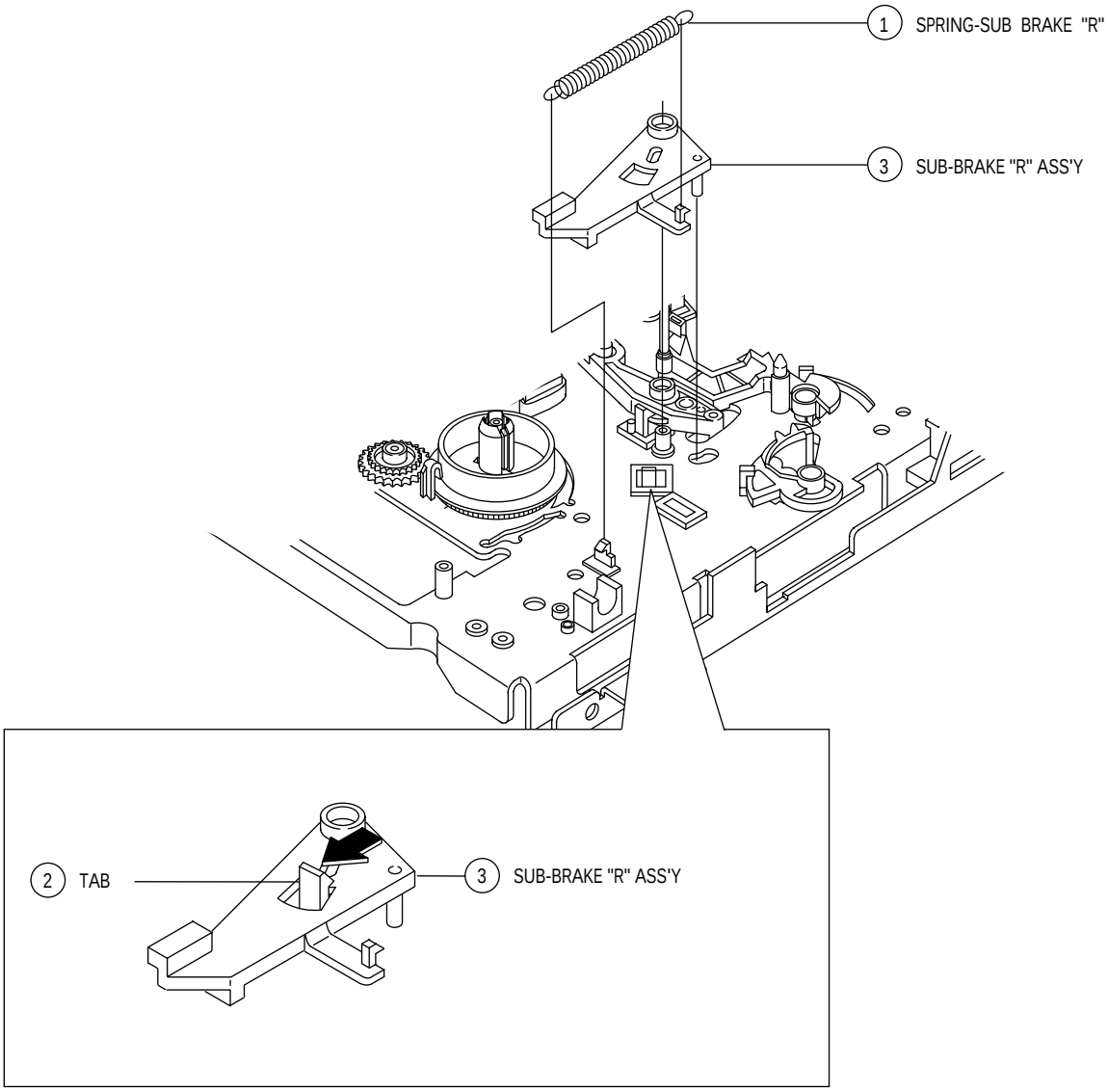
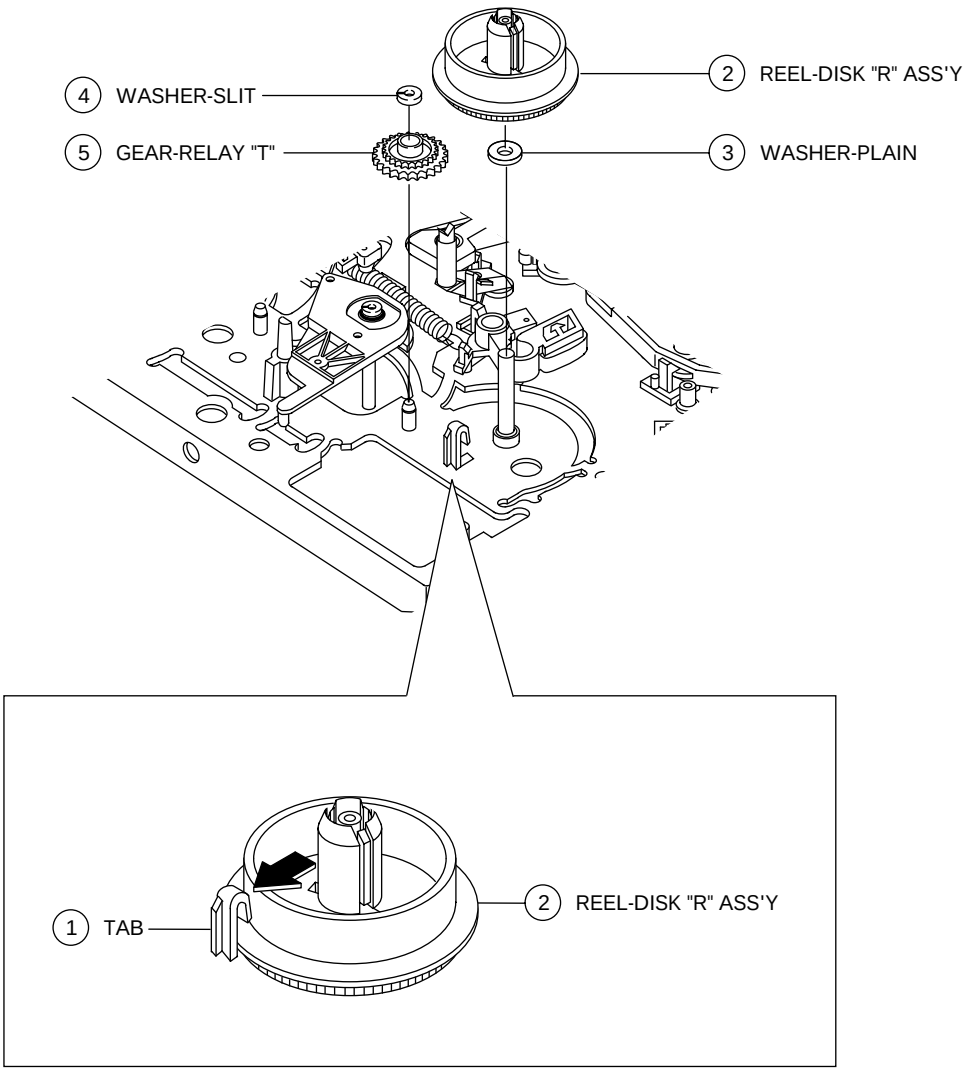


Fig. 4-26 Sub Brake “R” Ass’y Removal

4-4-8 Reel Disk “R” Ass’y and Relay “T”Gear Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Reel Disk “R” Ass’y ②.
3. Remove the Plain Washer ③.
4. Remove the Slit Washer ④.
5. Lift the Relay “T” Gear Ass’y ⑤.

Note : When reinstalling, be sure to install the Reel Disk “R” Ass’y ✠ after installing the Plain Washer ③.



<DETAIL>

Fig. 4-27 Reel Disk “R” Ass’y and Gear Relay “T” Removal

4-4-9 Main Brake “L”, “R” Ass’y Removal

1. Release the Main Brake Spring ①.
2. Release the tab ② in the direction of arrow “A”. (Refer to detail drawing A)
3. Lift the Main Brake “L” ③.
4. Release the tab ④ in the direction of arrow “B”. (Refer to detail drawing B)
5. Lift the Main “R” Brake ⑤.

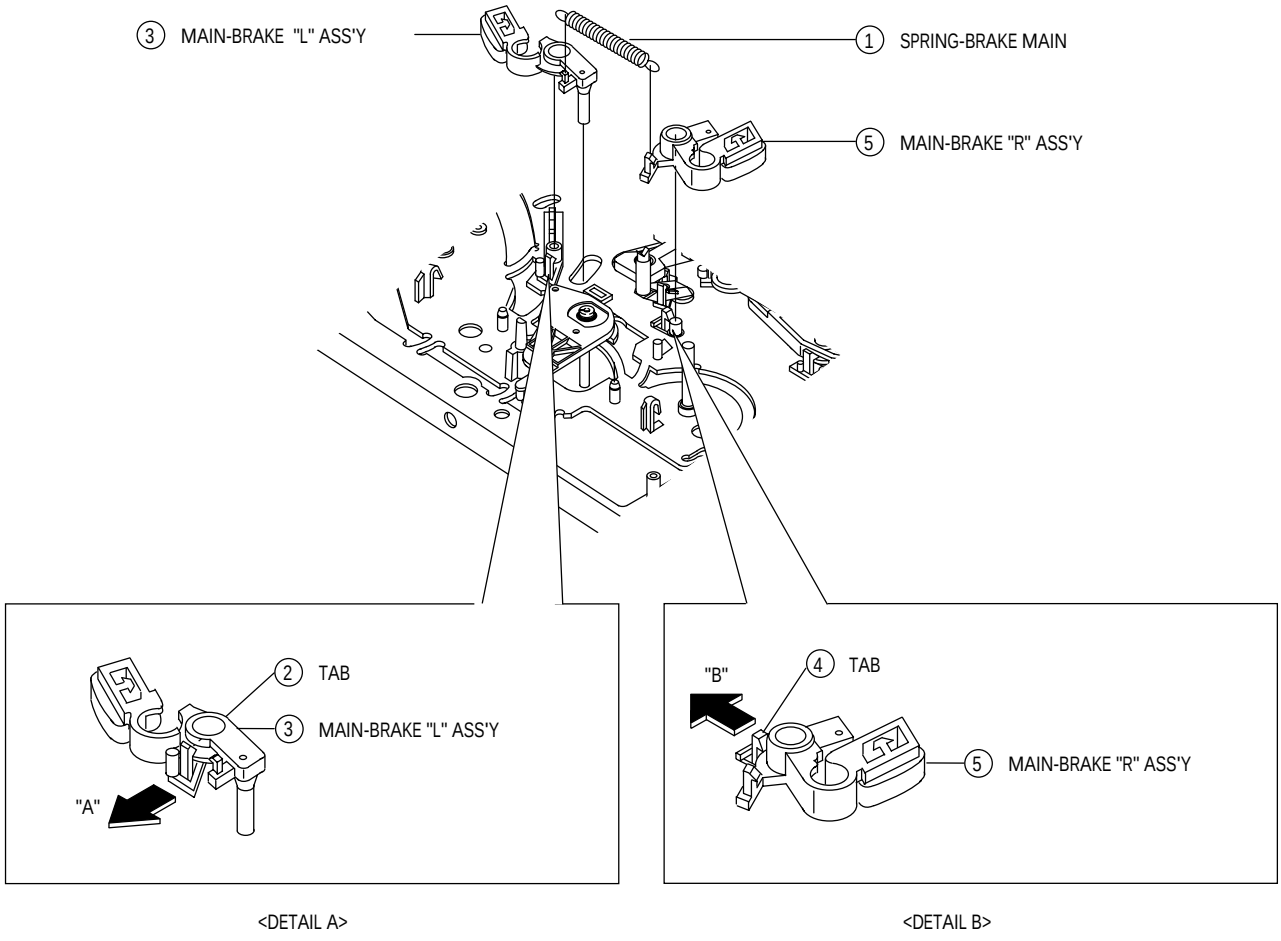


Fig. 4-28 Brake Main “L”, “R” Ass’y Removal

4-4-10 Idler Ass'y Removal

1. Remove the Slit Washer ①.
2. Lift the Idler Ass'y ②.

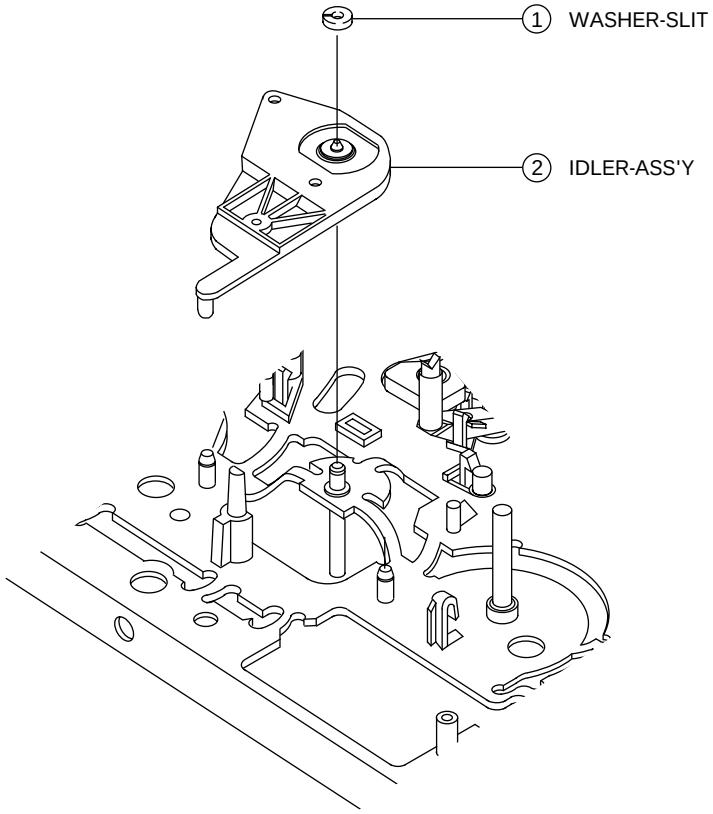


Fig. 4-29 Idler Ass'y Removal

4-4-11 Pinch Roller Unit

1. Remove the Slit Washer ①.
2. Lift the Pinch Roller Unit ②.
3. Lift the Arm Pinch Spring ③.

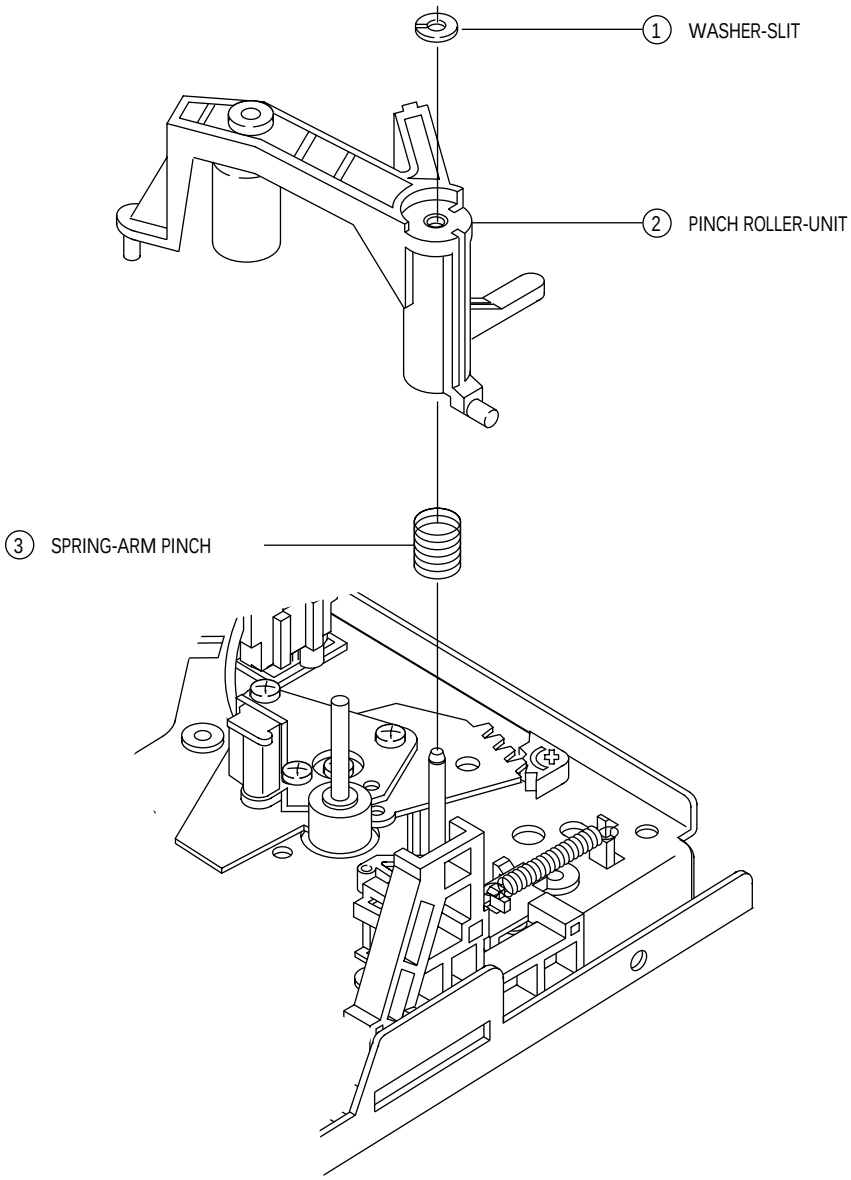


Fig. 4-30 Pinch Roller Unit Ass'y Removal

4-4-12 Assembly of Pinch Roller Unit

1. Install the Pinch Roller Unit as shown in Fig. 4-31. (Refer to A, B)

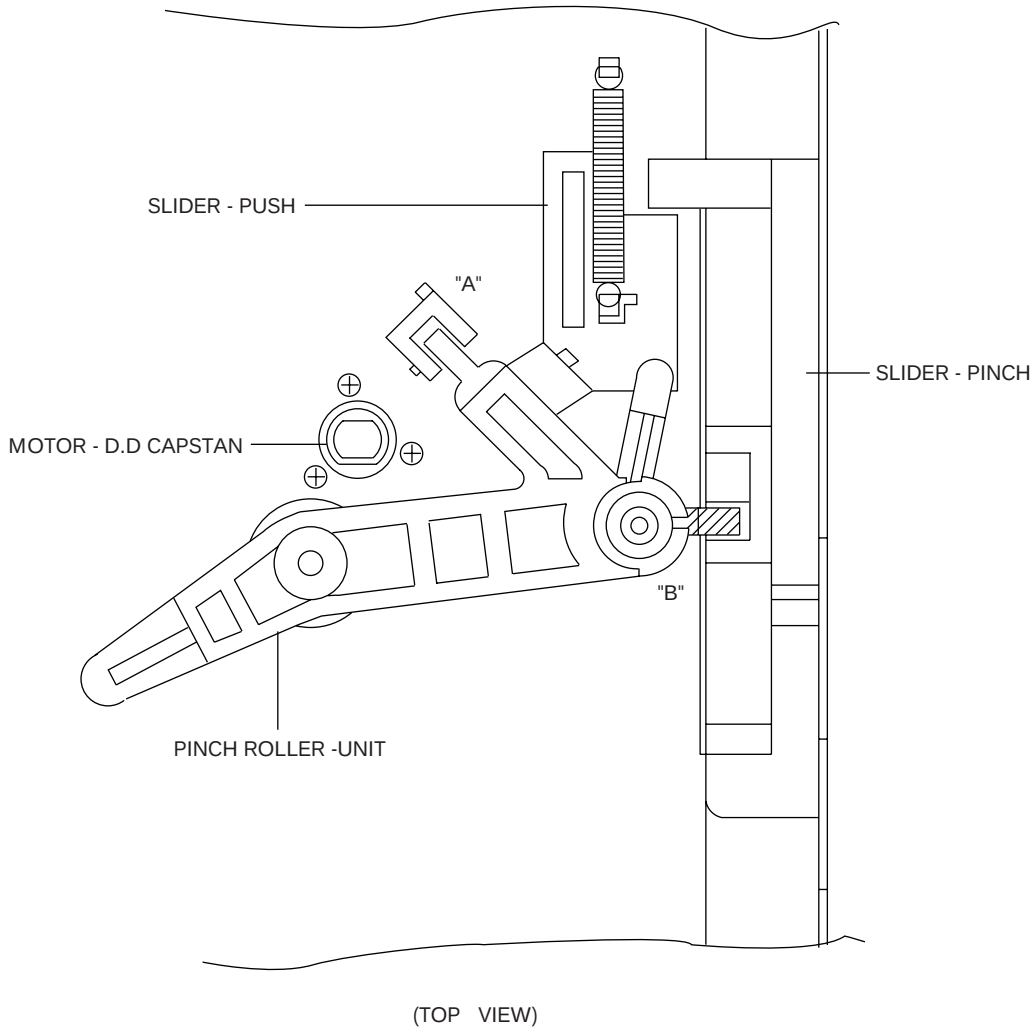


Fig. 4-31 Assembly of Unit Pinch Roller

4-4-13 Exploded View of Pinch Lever Comp Ass'y, Pinch Cam Lever, Review Arm Ass'y and Review Lever Ass'y

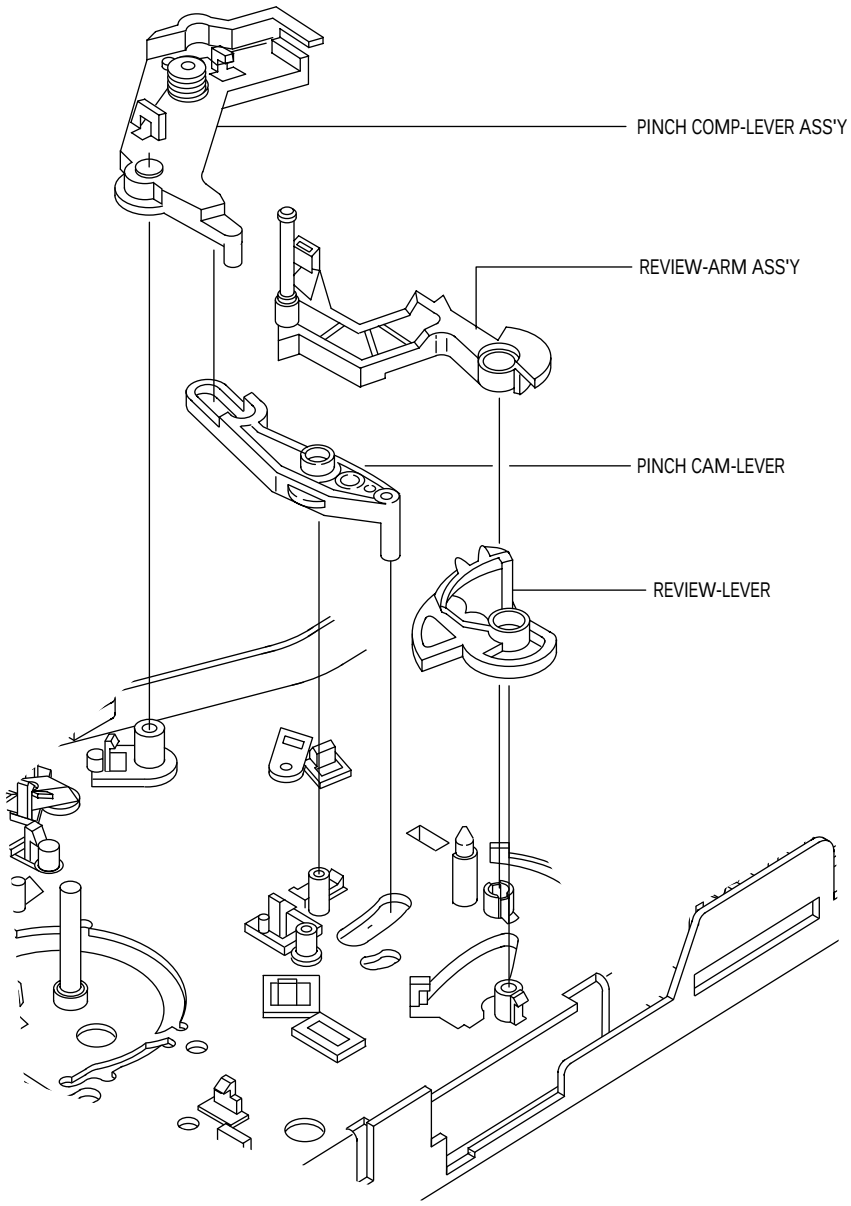
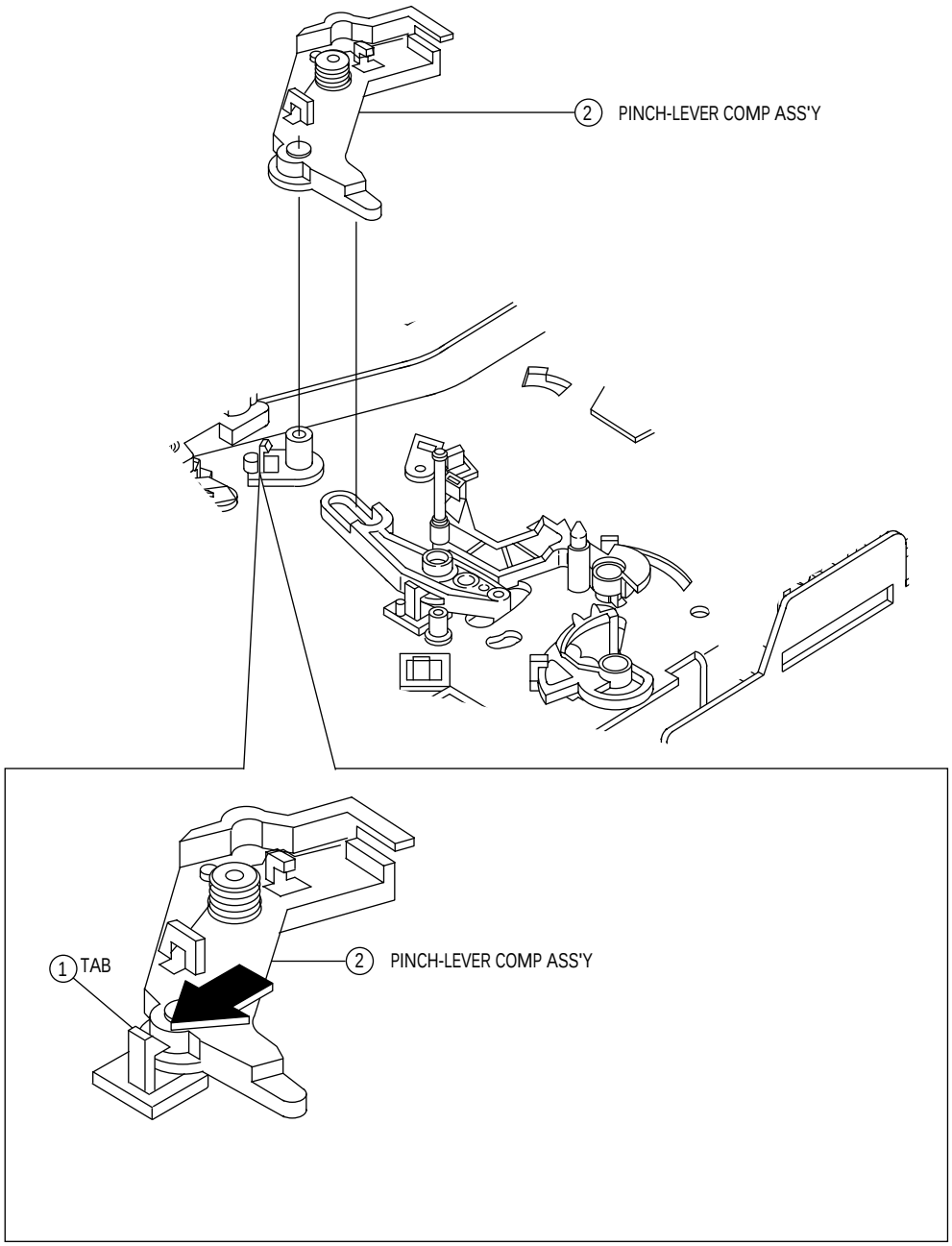


Fig. 4-32 Exploded View of Pinch Lever Comp Ass'y, Pinch Cam Lever, Arm Review Ass'y and Lever Review Ass'y

4-4-14 Pinch Lever Comp Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Pinch Lever Comp Ass'y ②.

Note : Don't touch the Pinch Lever Ass'y ① to Audio Head Base during removal.

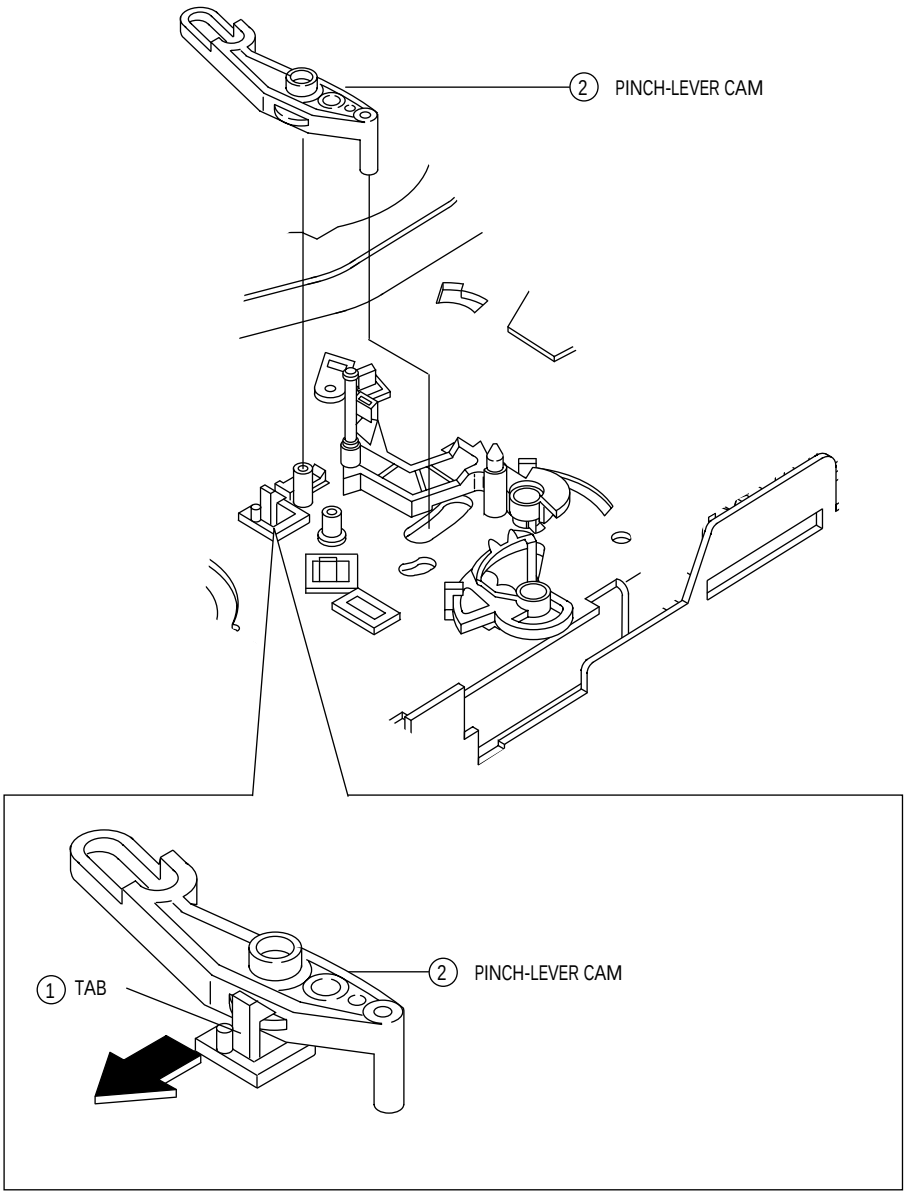


<DETAIL>

Fig. 4-33 Pinch Lever Comp Ass'y Removal

4-4-15 Pinch Cam Lever Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Pinch Cam Lever ✠②.



<DETAIL>

Fig. 4-34 Pinch Cam Lever Removal

4-4-16 Review Arm Ass'y Removal

1. Push the Stopper tab ① in the direction of arrow.
2. Pull the Review Arm Ass'y ② in the direction of arrow "A" and then confirm as in detail B. "B". (Refer to detail drawing "A")
3. Release the tab ③ in the direction of arrow and then lift the Review Arm Ass'y ②.
4. Note : Be careful not to damage when removing the Review Arm Ass'y ②. (See Detail B.)

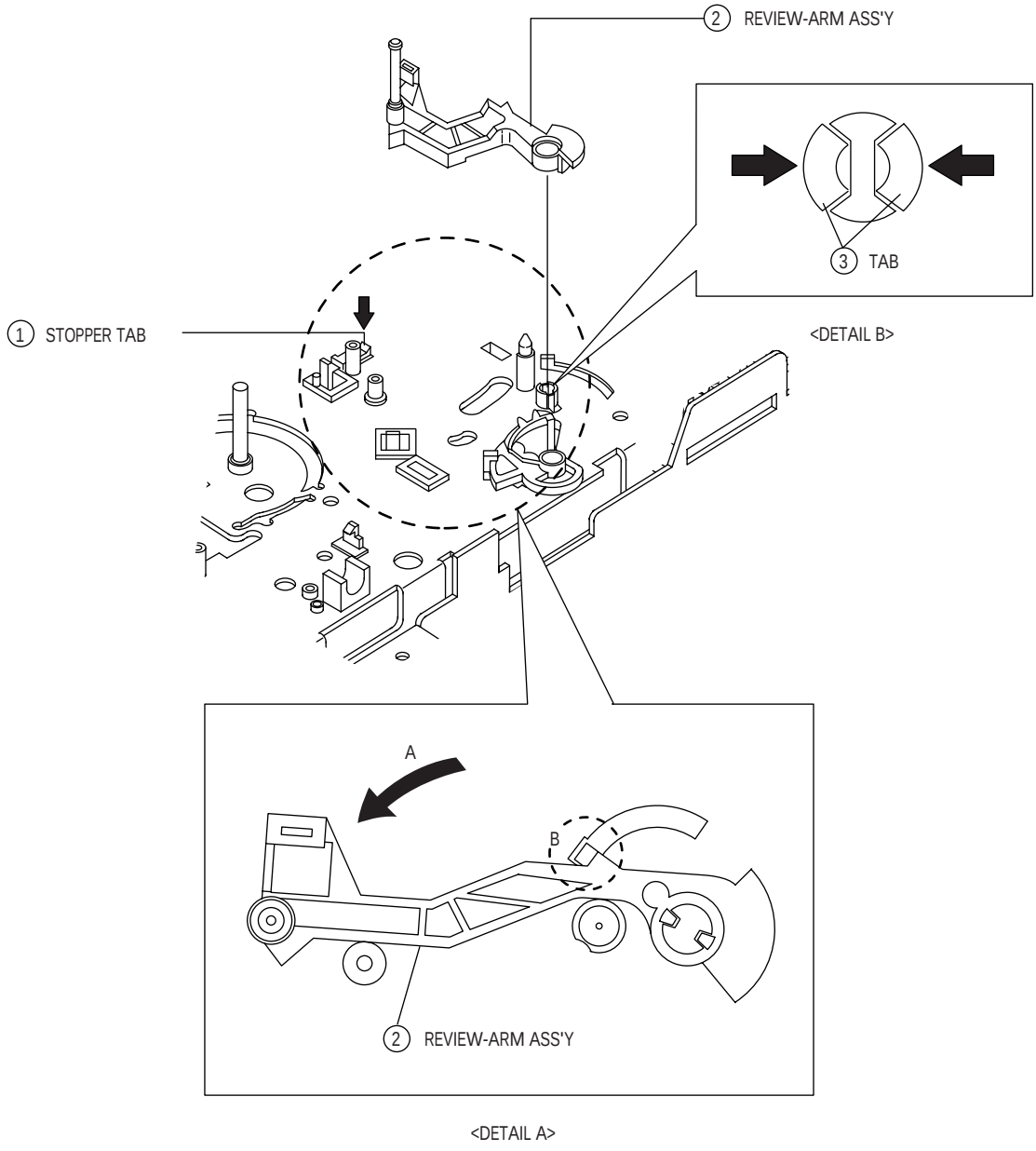
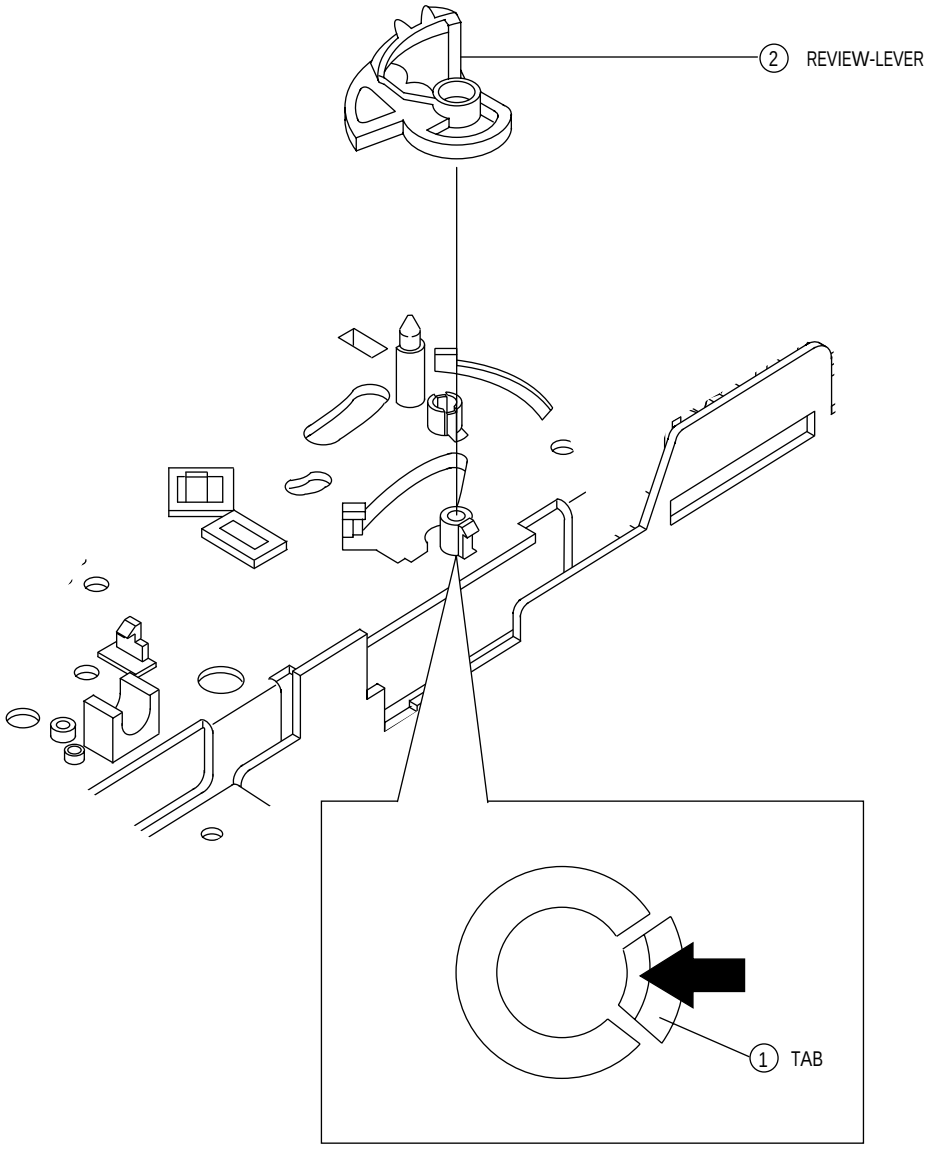


Fig. 4-35 Arm Review Ass'y Removal

4-4-17 Review Lever Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Review Lever ②.



<DETAIL>

Fig. 4-36 Review Lever Removal

4-4-18 Capstan Belt Removal

1. Remove the Capstan Belt ①.
2. Note : Be careful not to touch the grease when removing or reinstalling.

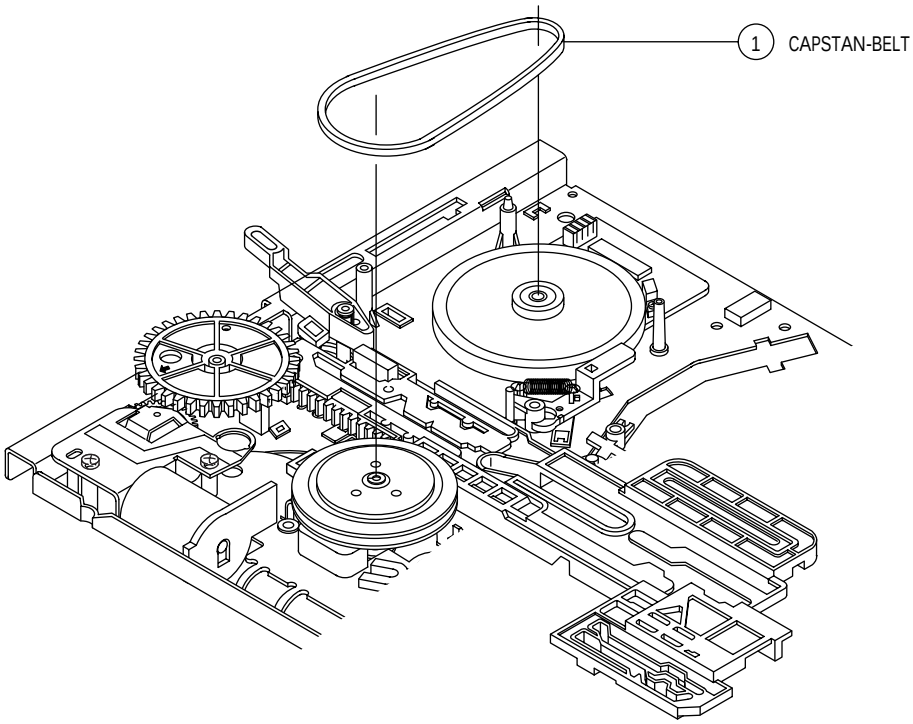


Fig. 4-37 Capstan Belt Removal

4-4-19 Capstan Brake Ass'y Removal

1. Remove the Capstan Brake Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Capstan Brake Ass'y ③.

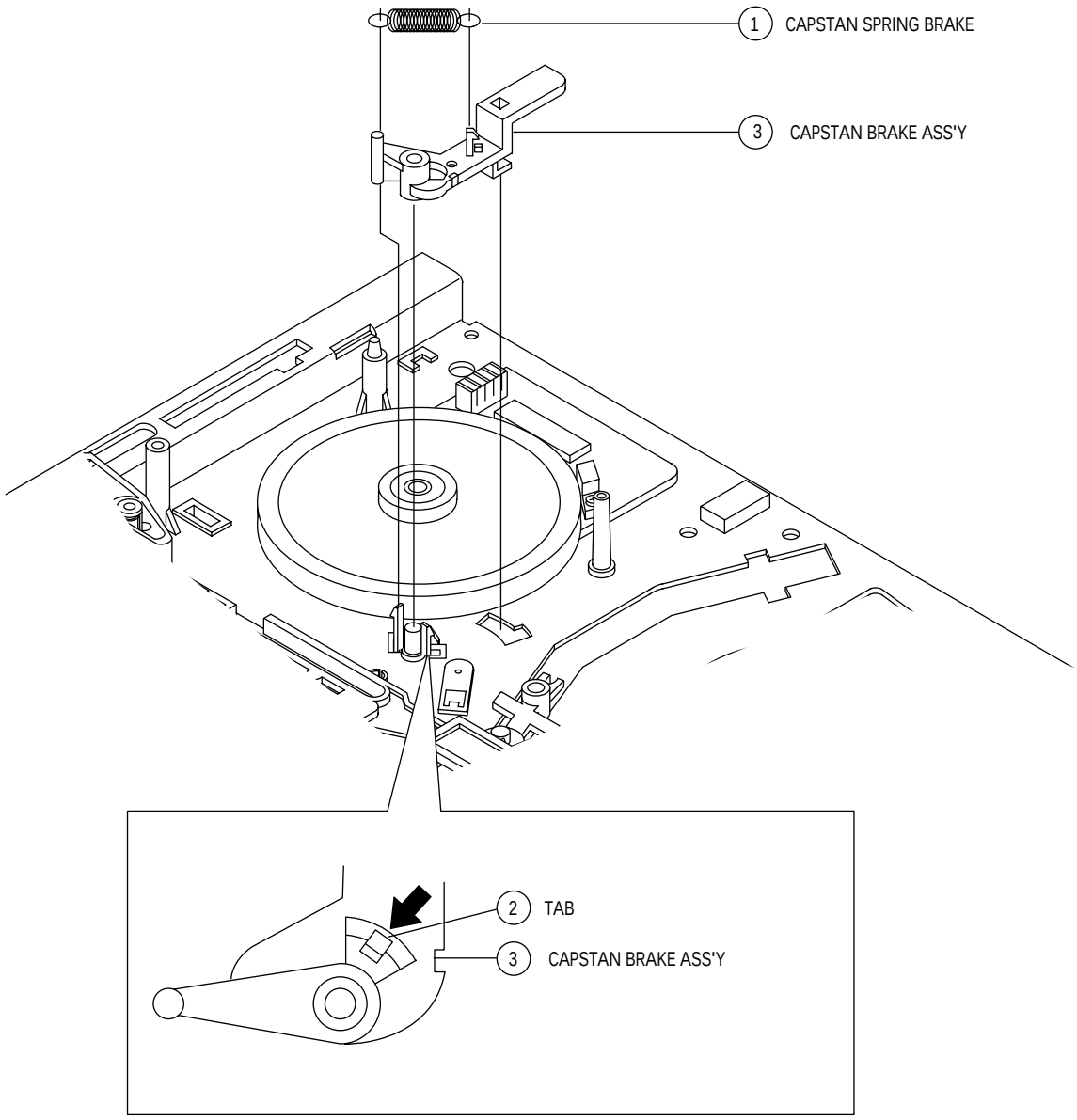


Fig. 4-38 Capstan Brake Ass'y Removal

4-4-20 Capstan Direct Drive (D.D) Motor Removal

1. Remove 3 Screws ①. (Top view)
2. Lift the Capstan D.D Motor ② in the direction of arrow. (Bottom view)

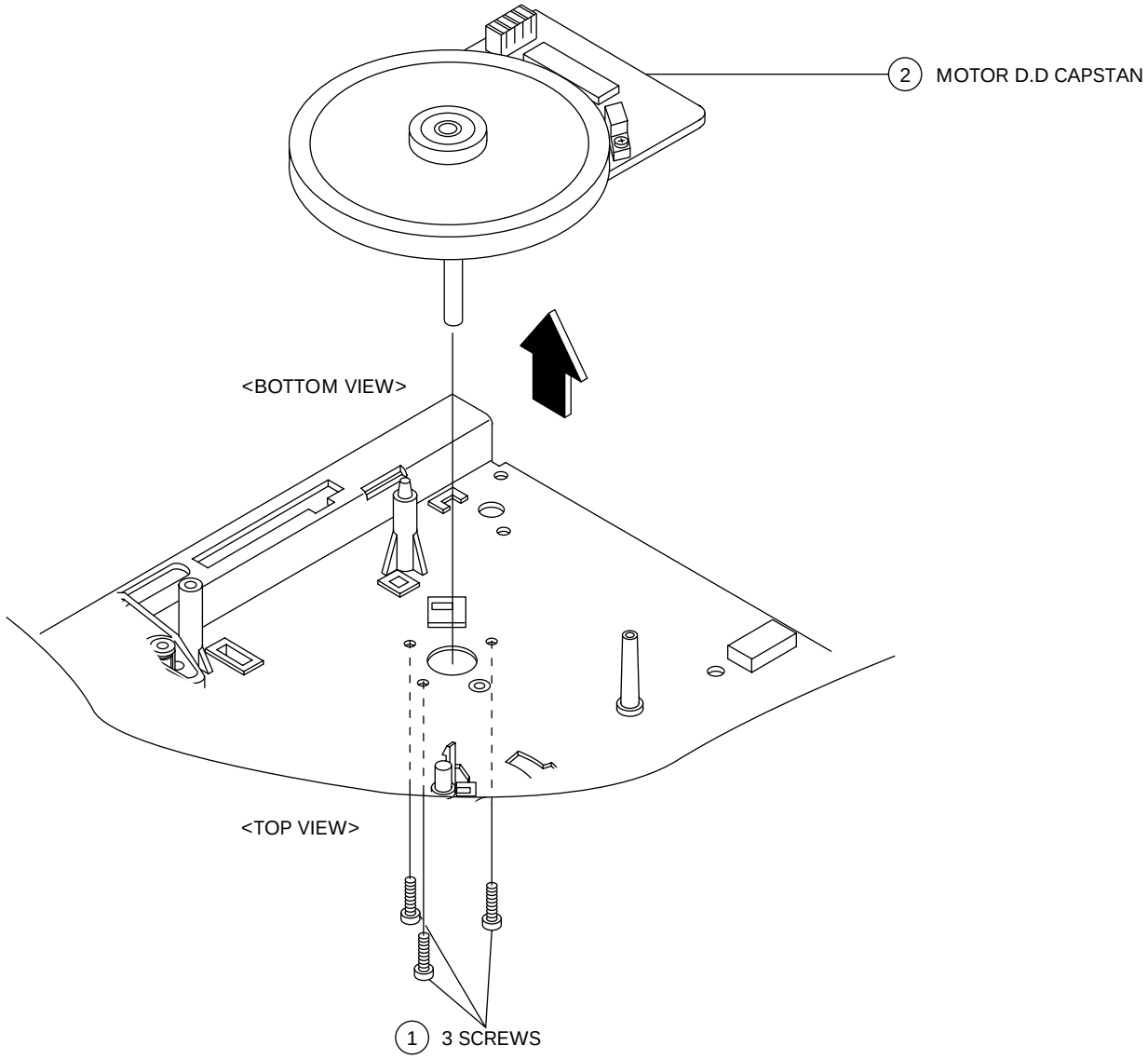


Fig. 4-39 Capstan D.D Motor Removal

4-4-21 Clutch Ass'y Removal

1. Remove the Slit Washer ①.
2. Lift the Clutch Ass'y ②.
3. Remove the Plain Washer ③.

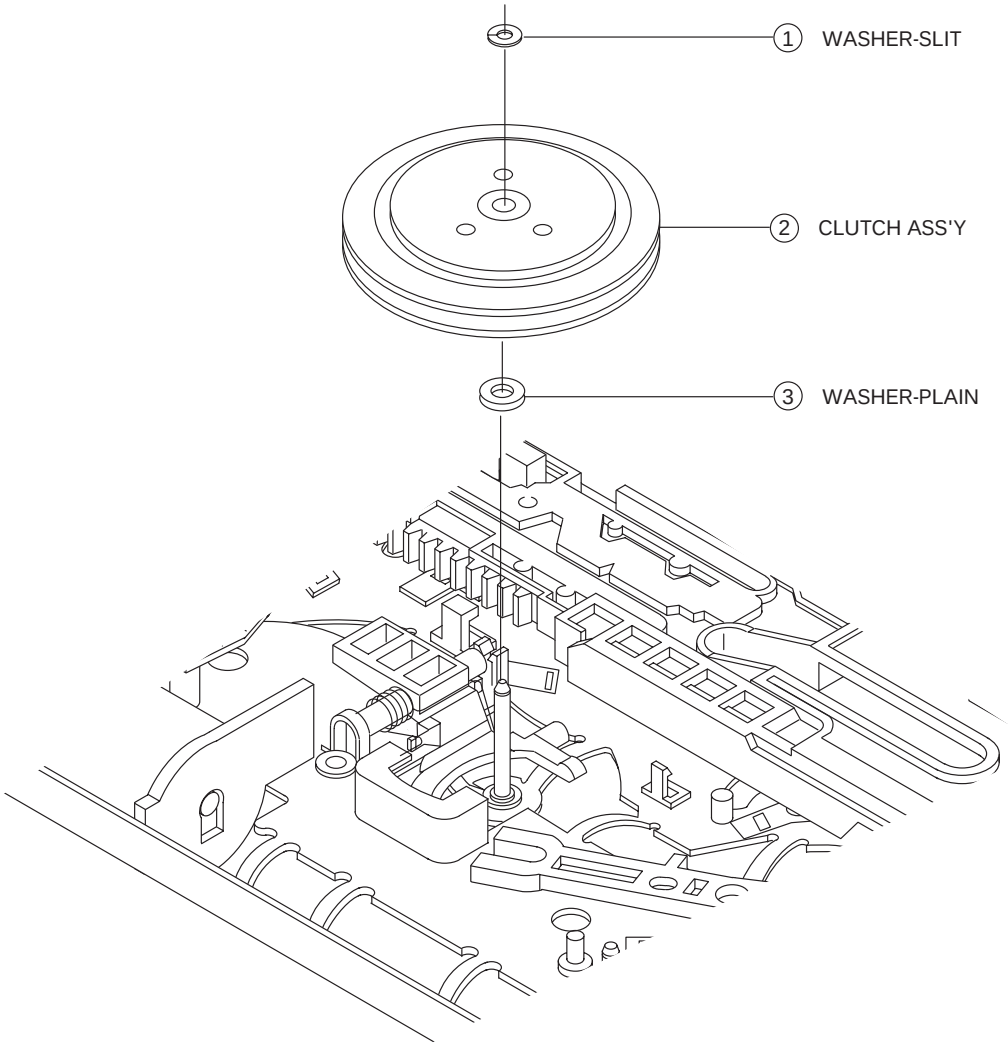


Fig. 4-40 Clutch Ass'y Removal

4-4-22 Master Gear Removal

1. Remove the Slit Washer ①.
2. Lift the Master Gear ②.

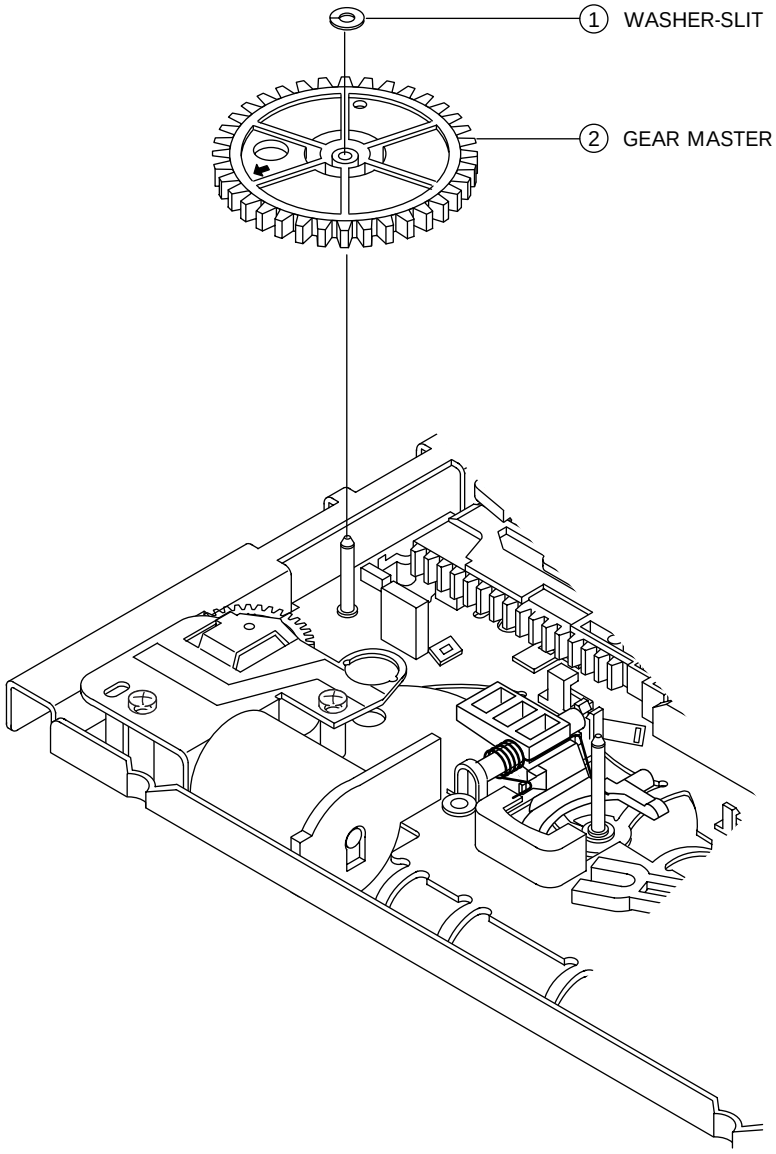


Fig. 4-41 Master Gear Removal

4-4-23 Assembly of Master Gear

1. When reinstalling, be sure to align the arrow of the Master Gear ① with home Gear of the Worm-Wheel Gear ②. (Refer to timing point)

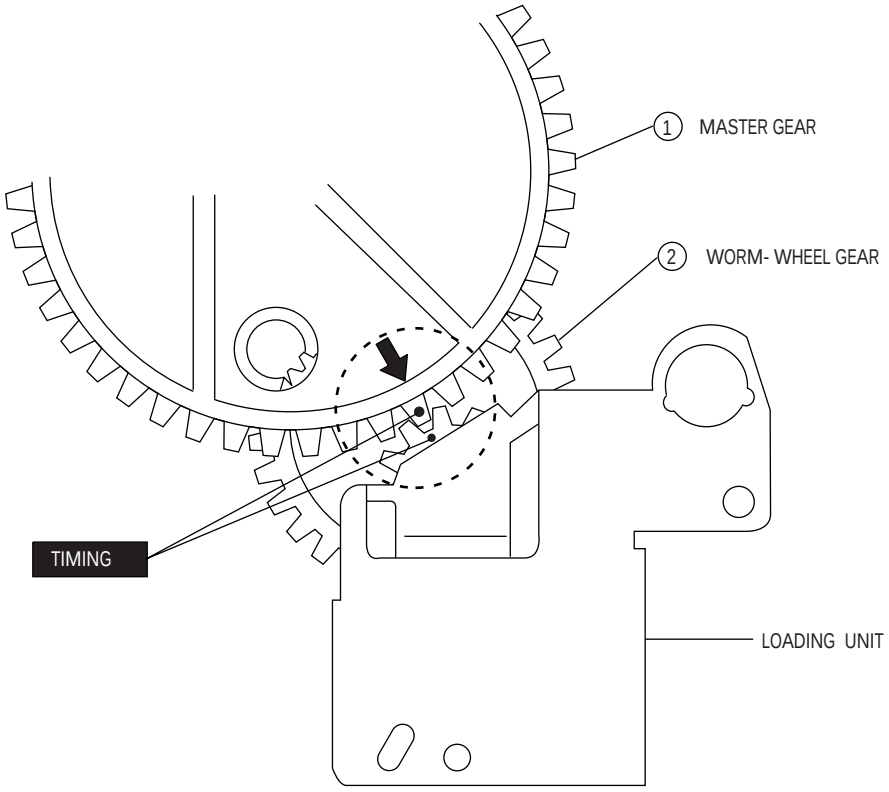


Fig. 4-42 Master Assembly of Gear

4-4-24 Loading Unit Removal

1. Remove 2 Screws ①.
2. Lift the Loading Unit ② in the direction of the arrow.

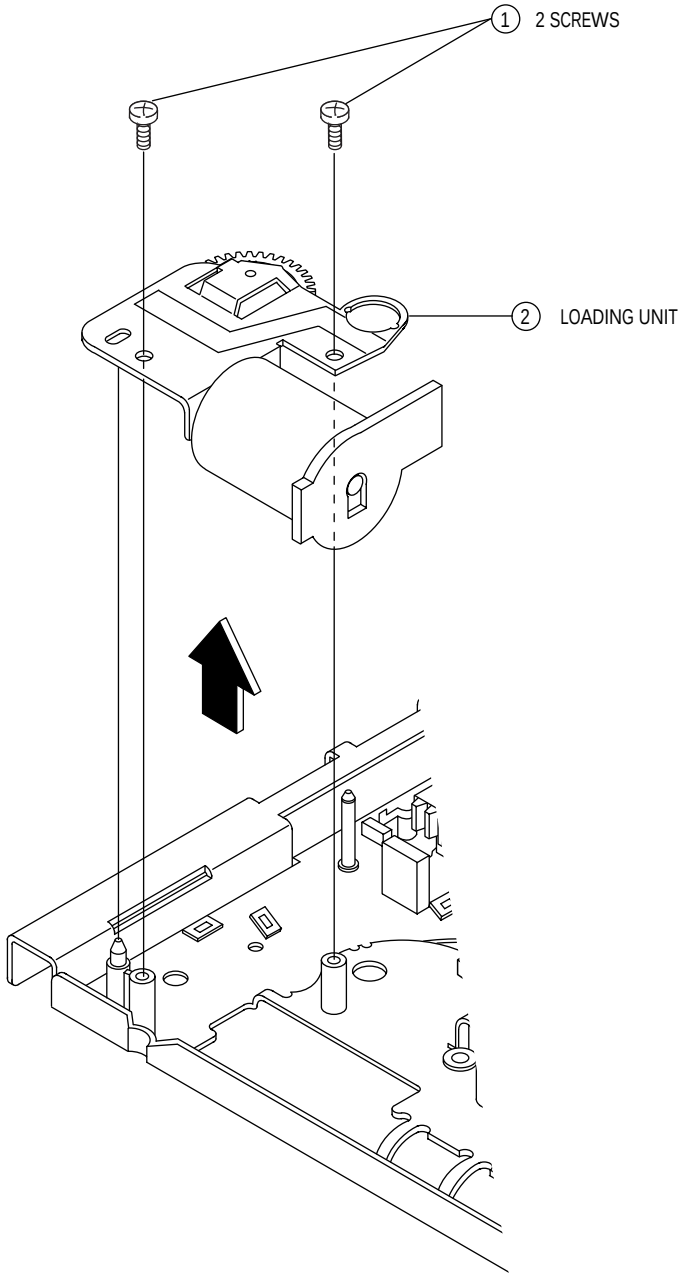


Fig. 4-43 Loading Unit Removal

4-4-25 Slide Pinch Lever Removal

1. Remove the Slit Washer ①.
2. Lift the Slide Pinch Lever ②.

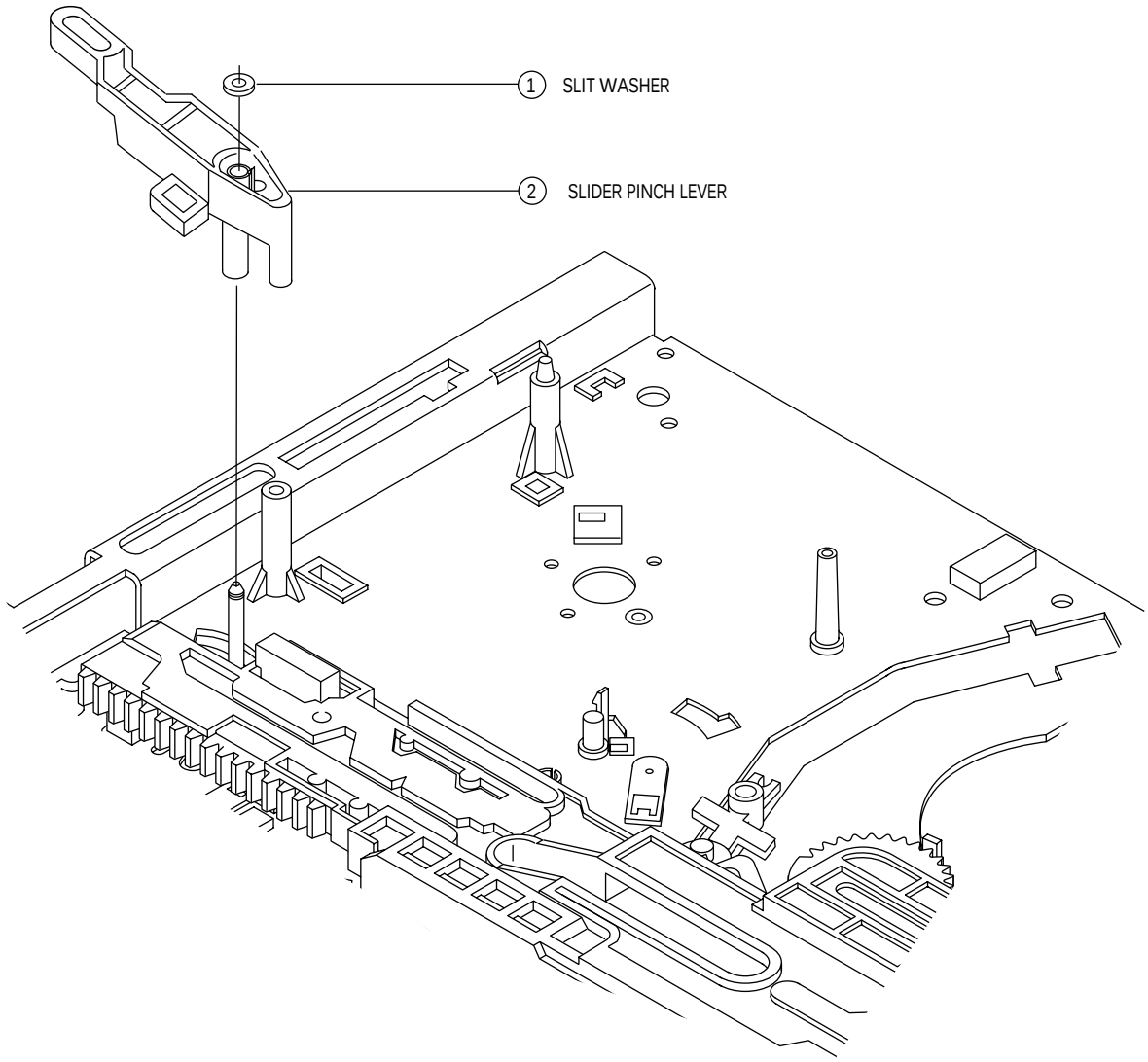


Fig. 4-44 Slide Pinch Lever Removal

4-4-26 Assembly of Slide Pinch Lever

1. Pull the Slide Lever ① to the end in the direction of arrow.
2. Insert the Slide Lever ① into the hole of Slide Pinch Lever ②. (Refer to detail "A")

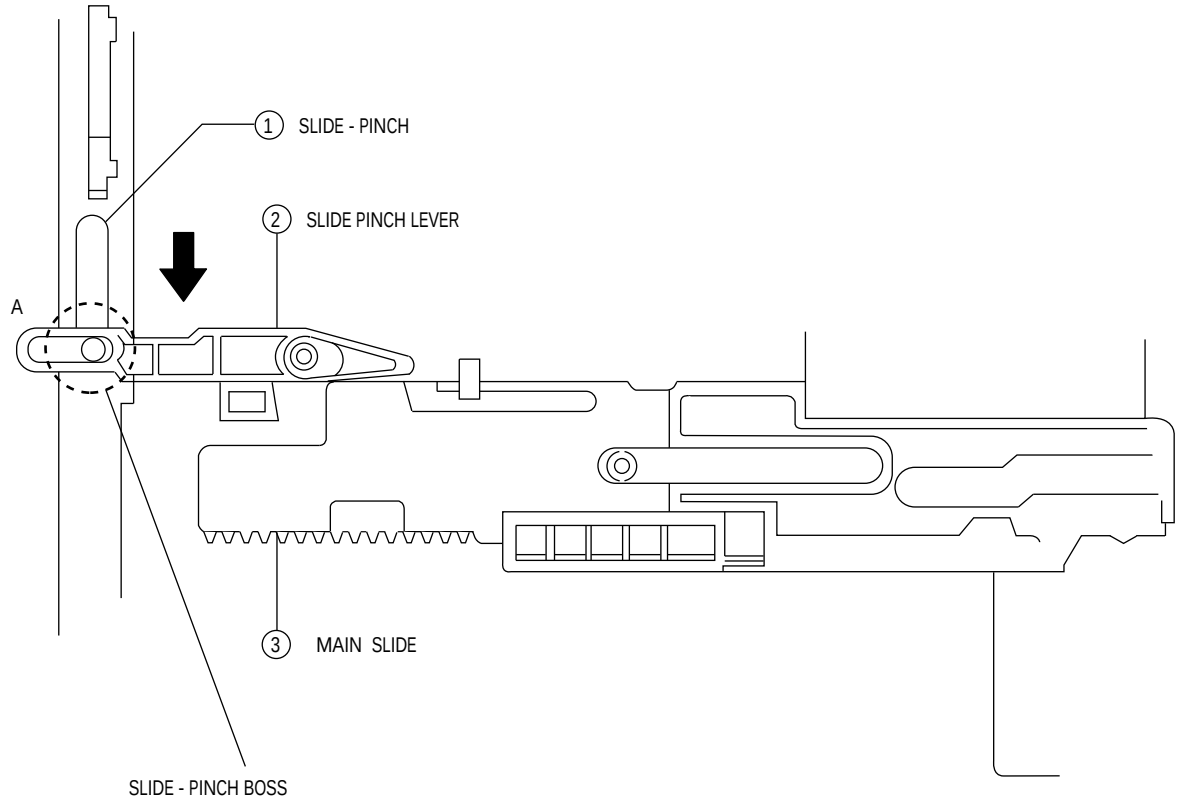


Fig. 4-45 Assembly of Slide Pinch Lever

4-4-27 Main Slide Removal

1. Remove the Slit Washer ①.
2. Release 3 tabs ②, ③, ④ in the direction of arrow.
3. Lift the Main Slide ⑤.

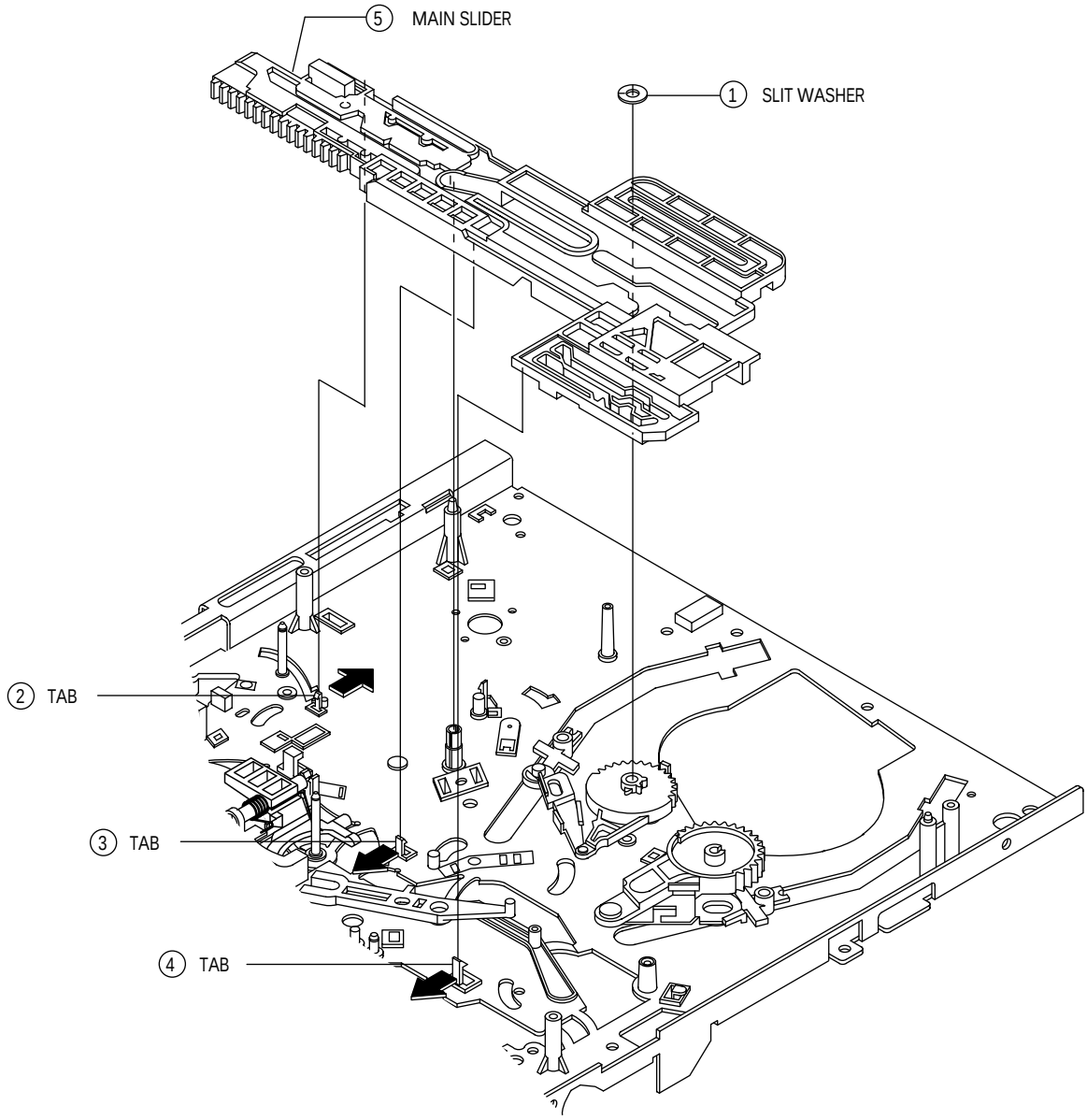


Fig. 4-46 Slide Main Removal

4-4-28 Assembly of Main Slide

1. Install the shaft of Loading “R” Gear Ass’y into the left of the Main Slide Hole and secure with the Slit Washer ②. (Refer to detail “A”)
2. Insert the Tension Control Lever ③ and the Idler Change Lever ④ into the Main Slide Hole. (Refer to detail “B”)
3. After confirming the above items 1, 2 install the Main Slide and secure with tabs (a, b, c).
4. Note : Be sure to assemble the Main Slide while the Loading L/R Gear Ass’y is in unloading position.

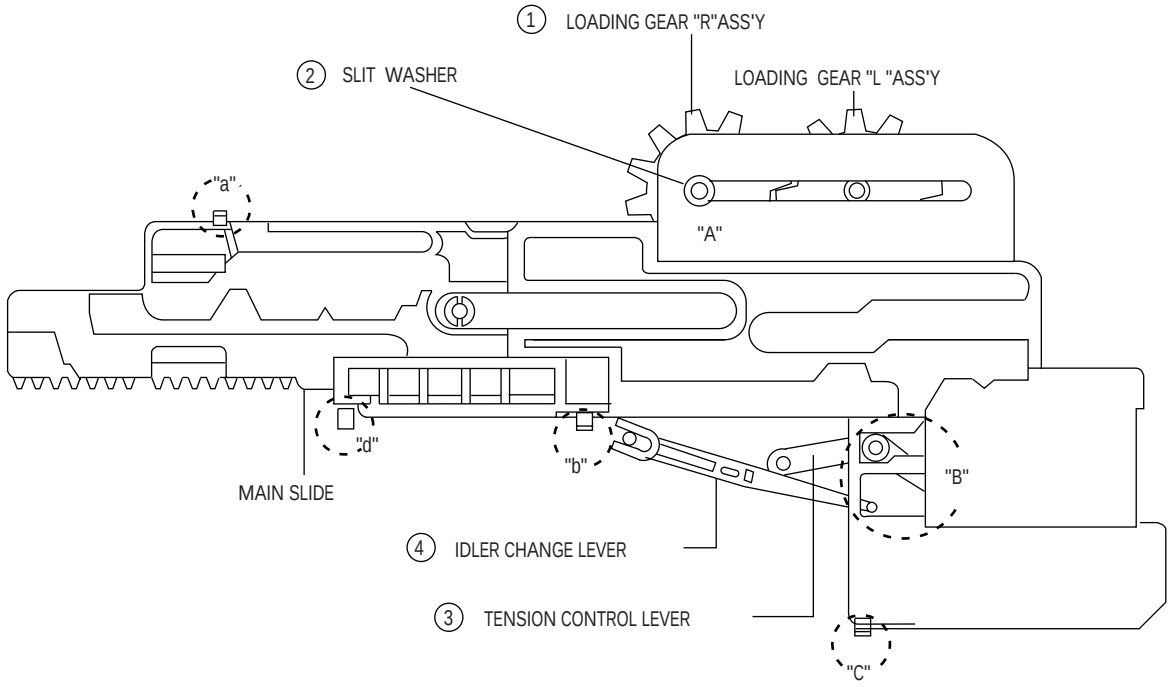


Fig. 4-47 Assembly of Slide Main

4-4-29 Shift Lever Ass'y Removal

1. Hang the Lever Shift Spring ① to the claw of the Shift Lever ③. (Refer to detail drawings A, B)
2. Release the tab ② in the direction of arrow.
3. Lift the Shift Lever ③.

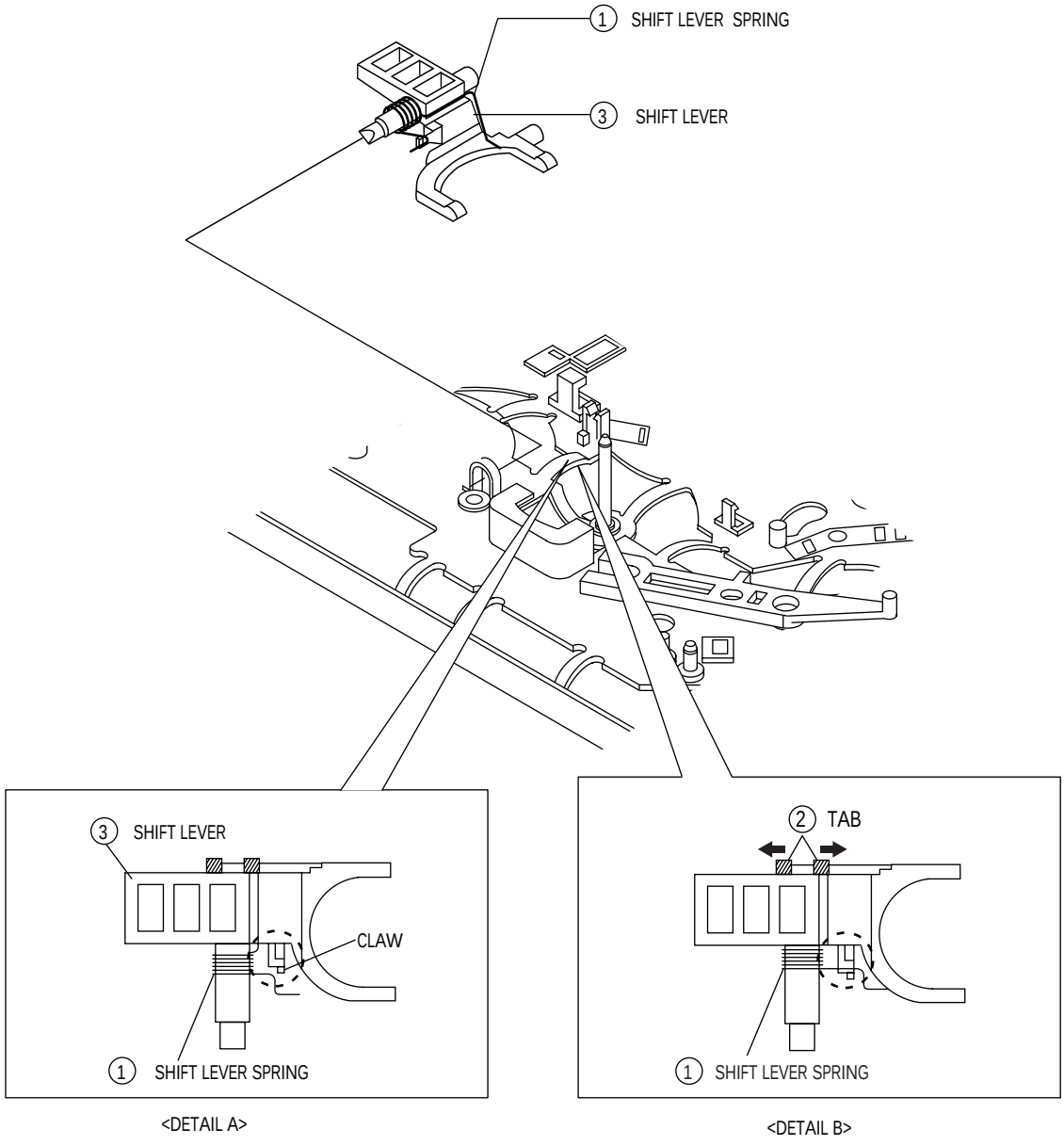


Fig. 4-48 Shift Lever Ass'y Removal

4-4-30 Lever Changes Idler Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Lever Change Idler ②.

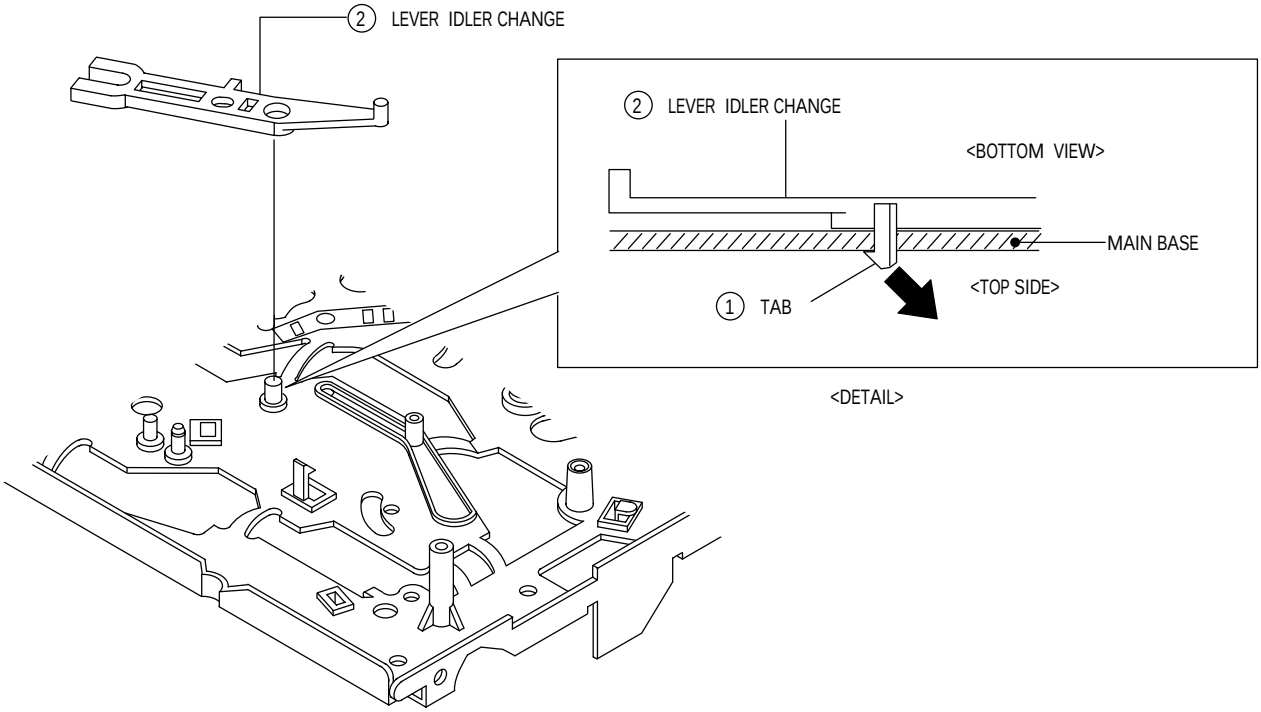


Fig. 4-49 Idler Change Lever Removal

4-4-31 Loading “L” Gear , “R” Gear Ass’y Removal

1. Remove the Loading “R” Gear Ass’y ② from the Roller “T” Guide ③ by pushing the Loading “R” Spring ① in the direction of arrow. (Refer to detail drawing A)
2. Remove the Loading “L” Gear Ass’y ⑤ from the Roller “S” Guide ⑥ by pushing the Loading “L” Spring ④ in the direction of arrow. (Refer to detail drawing B)
3. Lift the Loading “R” Gear Ass’y ②.
4. Lift the Loading “L” Gear Ass’y ⑤ by pushing the tab ⑦ of the Loading “L” Gear Ass’y ⑤. (Refer to detail drawing C)

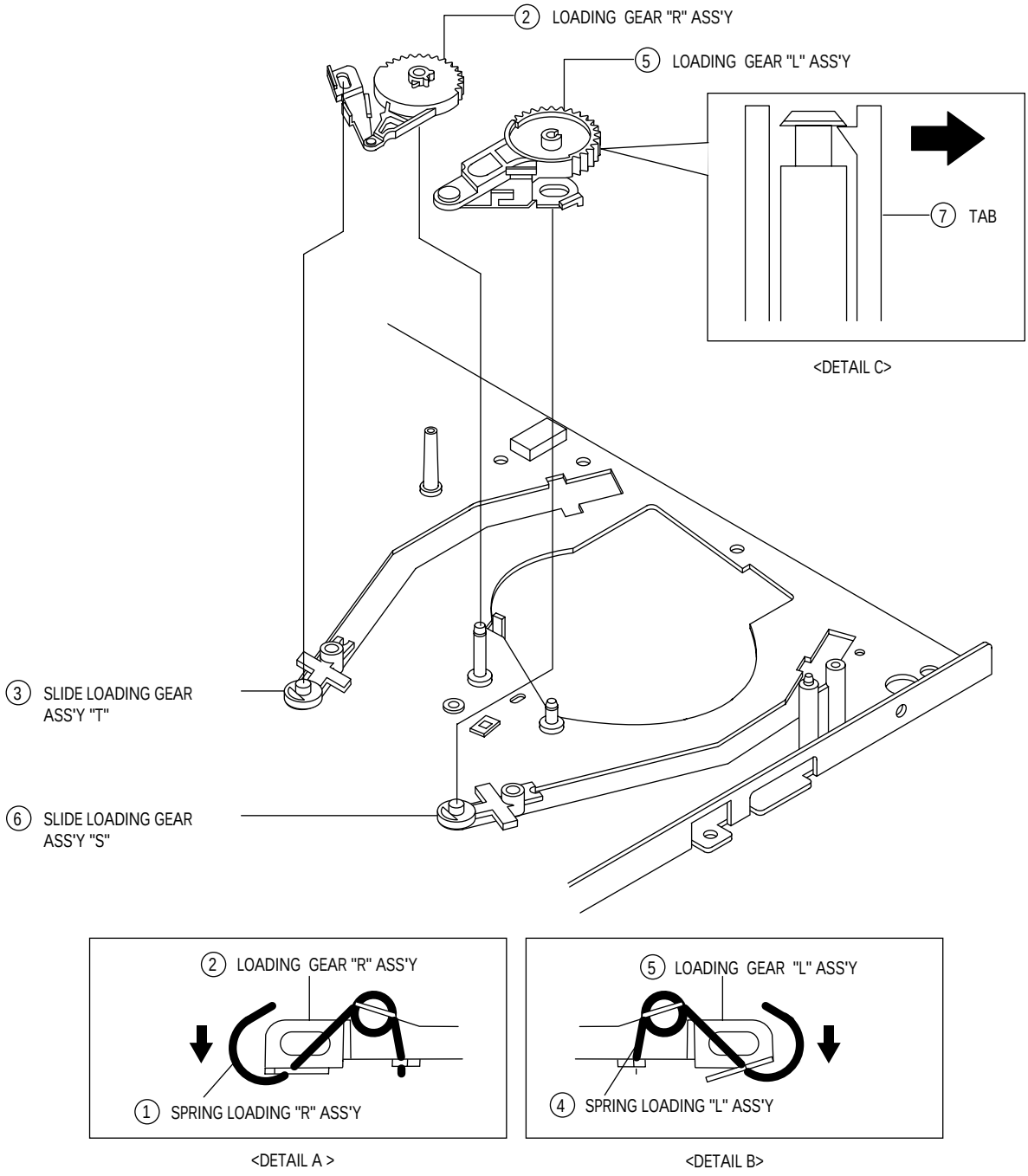


Fig. 4-50 Loading Gear “L”, “R” Ass’y Removal

4-4-32 Assembly Loading Gear “L”, “R”

1. When reinstalling, be sure to align 2 arrow as shown in Fig. 4-51. (Refer to timing point)

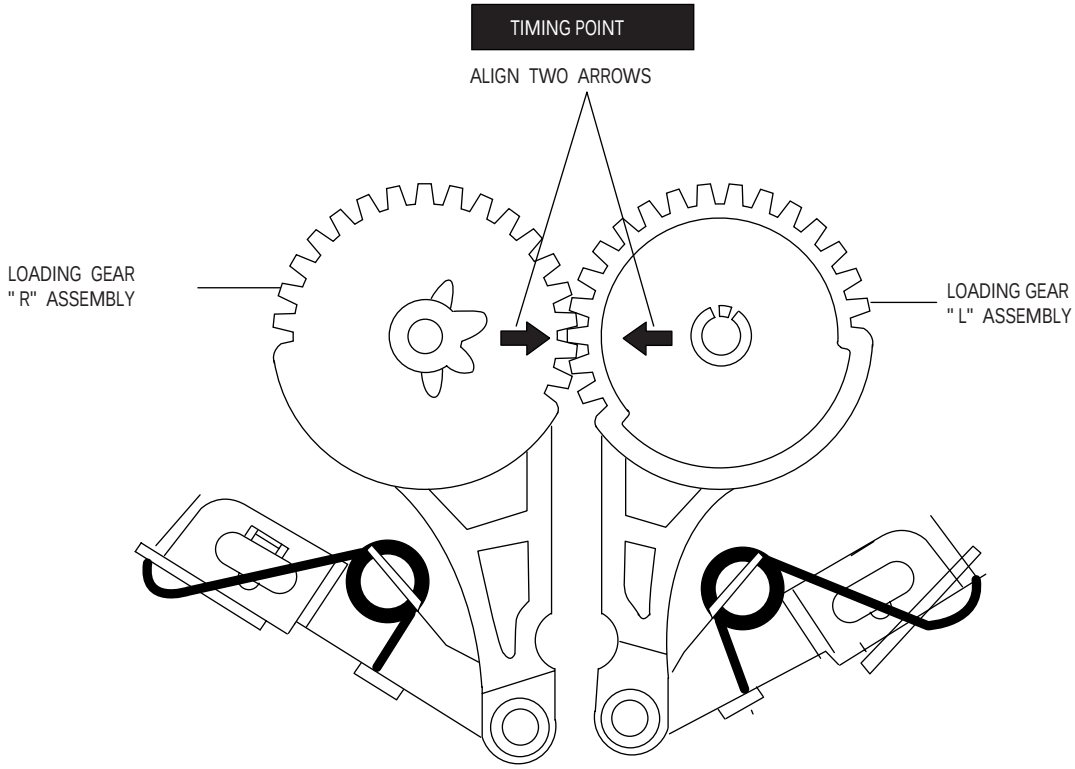


Fig. 4-51 Assembly Loading Gear “L”, “R”

4-4-33 Pinch Slide Removal

1. Push the tab ① in the direction of arrow “A”. (Refer to detail drawing)
2.Lift the Pinch Slide ② in the direction of arrow “B”.

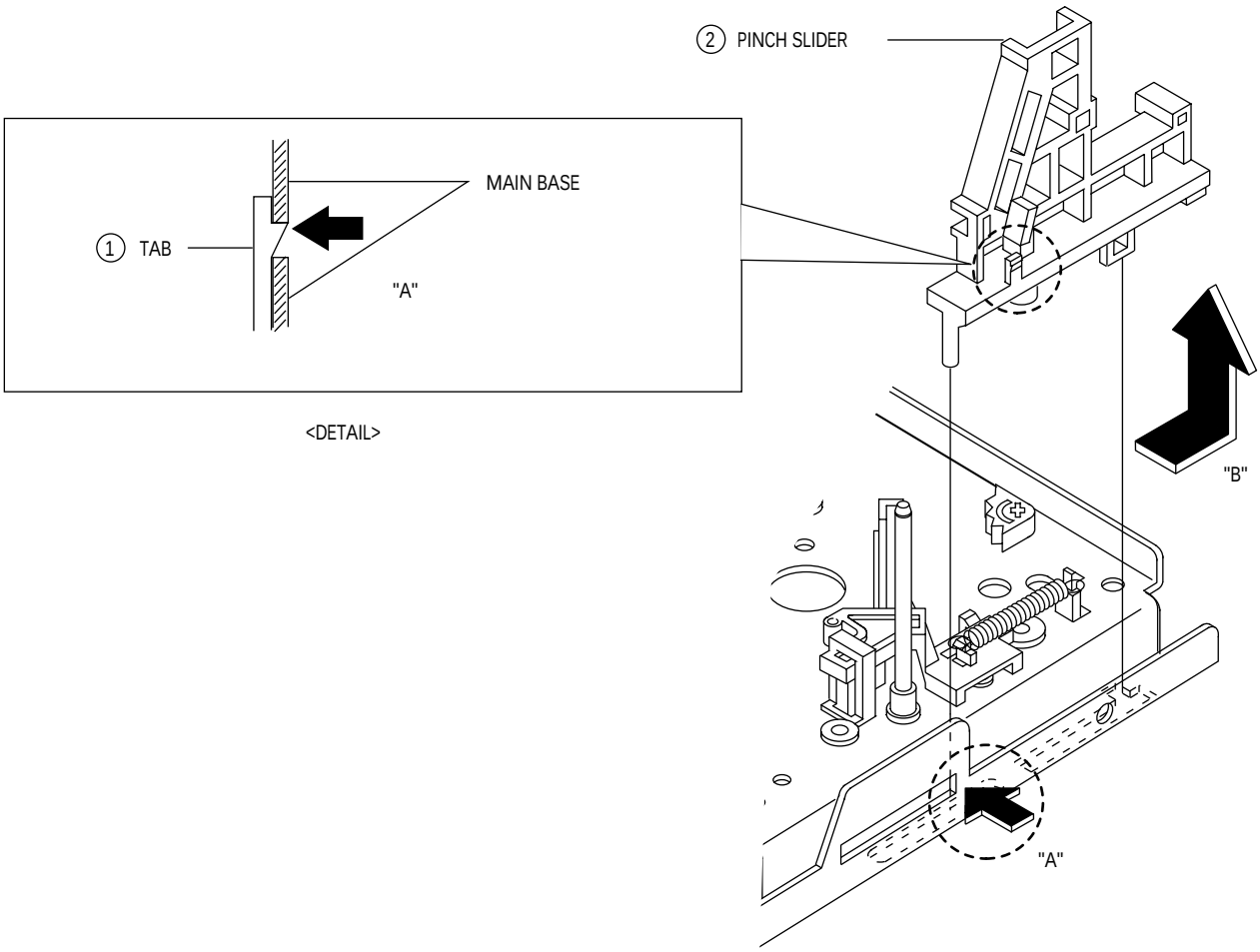
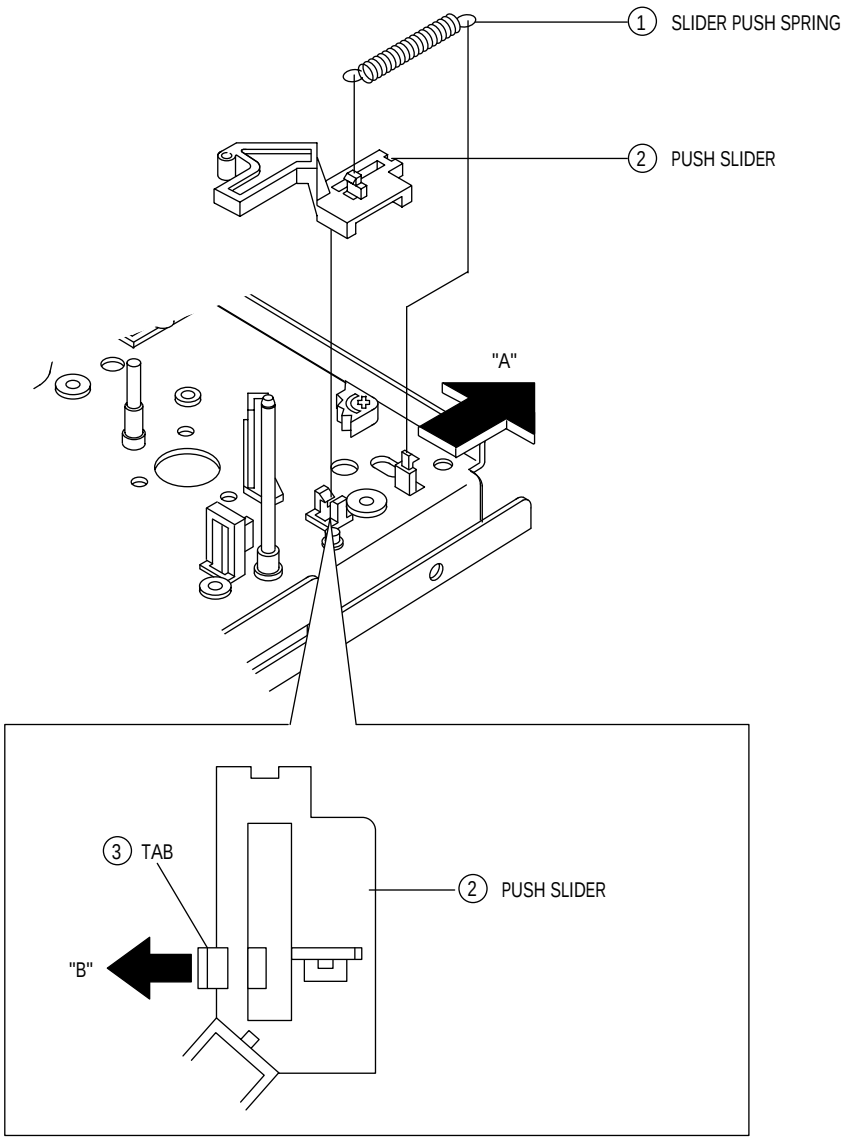


Fig. 4-52 Pinch Slide Removal

4-4-34 Push Slide Removal

1. Remove the Slide Push Spring ①.
2. Push the Slide ② in the direction of arrow "A".
3. Lift the Push Slide ② by pushing the tab ③ in the direction of arrow "B". (Refer to detail drawing)

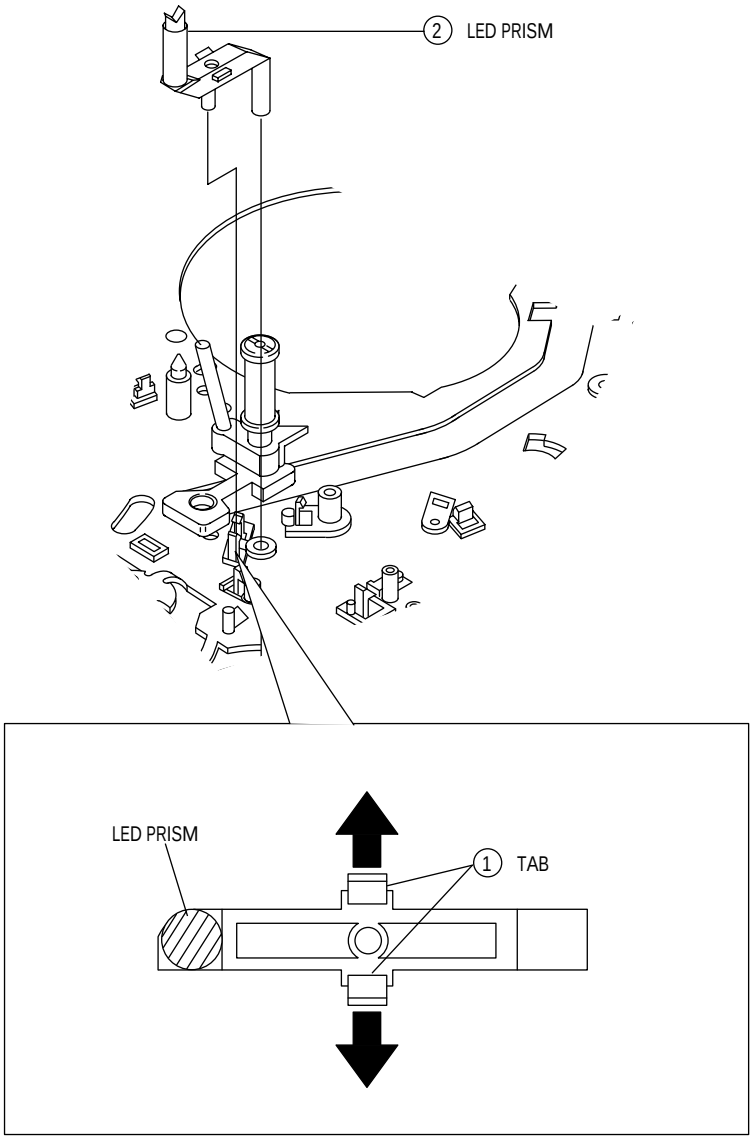


<DETAIL-TOP VIEW>

Fig. 4-53 Push Slide Removal

4-4-35 LED Prism Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2.Lift the LED Prism ②.



<DETAIL-TOP VIEW>

Fig. 4-54 LED Prism Removal

4-4-36 Record Switch Lever Removal

1. Remove the Record Switch Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Record Switch Lever ③.

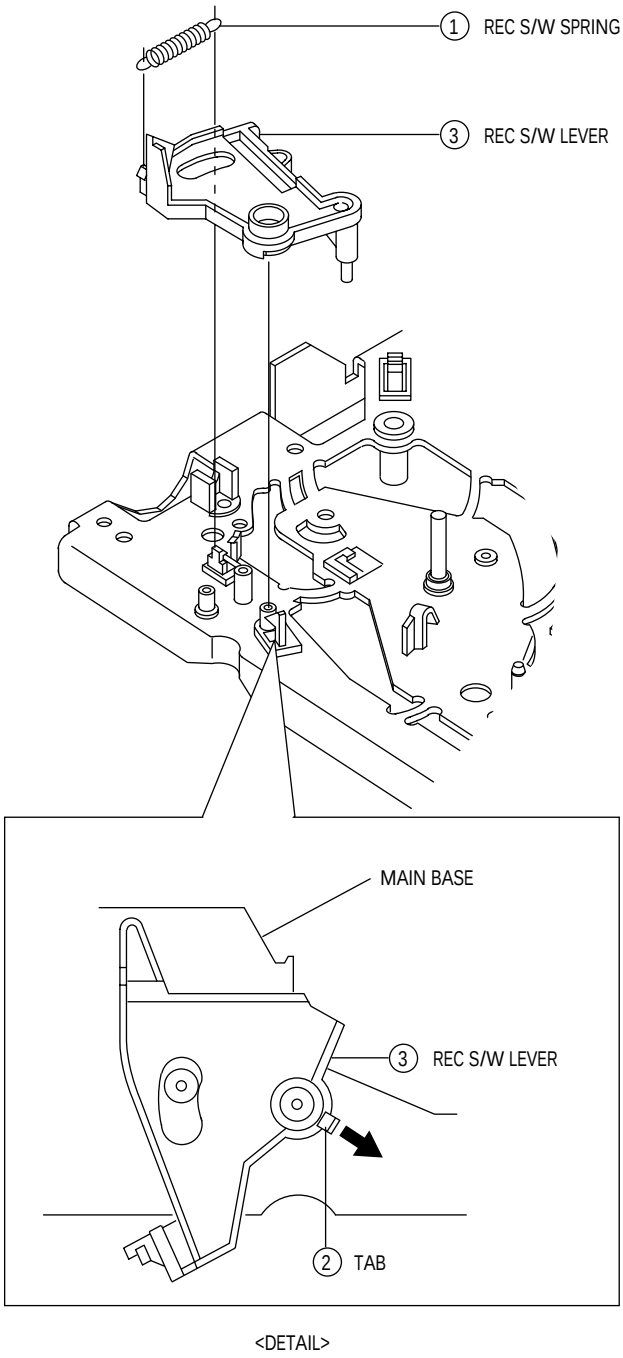


Fig. 4-55 Record Switch Lever Removal

4-4-37 Full Erase Head Removal

1. Remove 1 Screw①.
2. Lift the F/E Magnet Head ②.

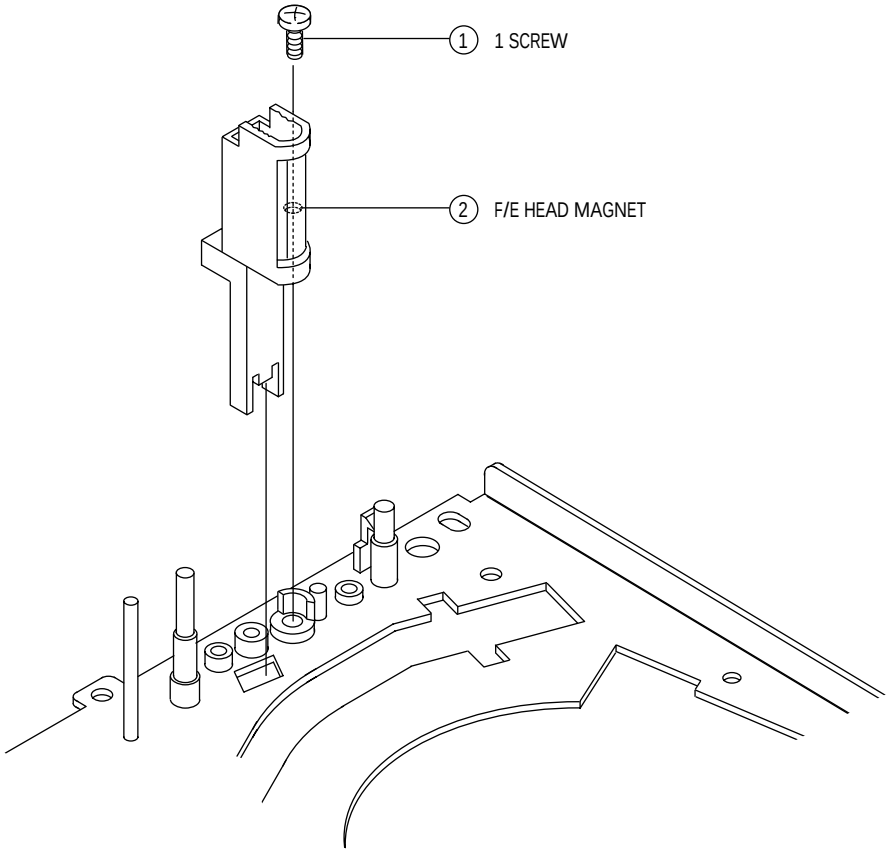


Fig. 4-56 Full Erase Head Removal

4-4-38 ACE Head Removal and Reassembly

1. Release the tab ① holding ACE Holder toward arrow. (Refer to detail drawing A)
2. Remove 1 Screw ②.
3. Lift the Magnet ACE Head Ass'y ③.
4. Assembly : When reinstalling, be sure to align the 3 teeth of X-Position adjustment gear with the 2 slots of the ACE Head Base.
5. Note : When adjusting the X-Position adjustment gear using (+) driver, do not apply too much force.

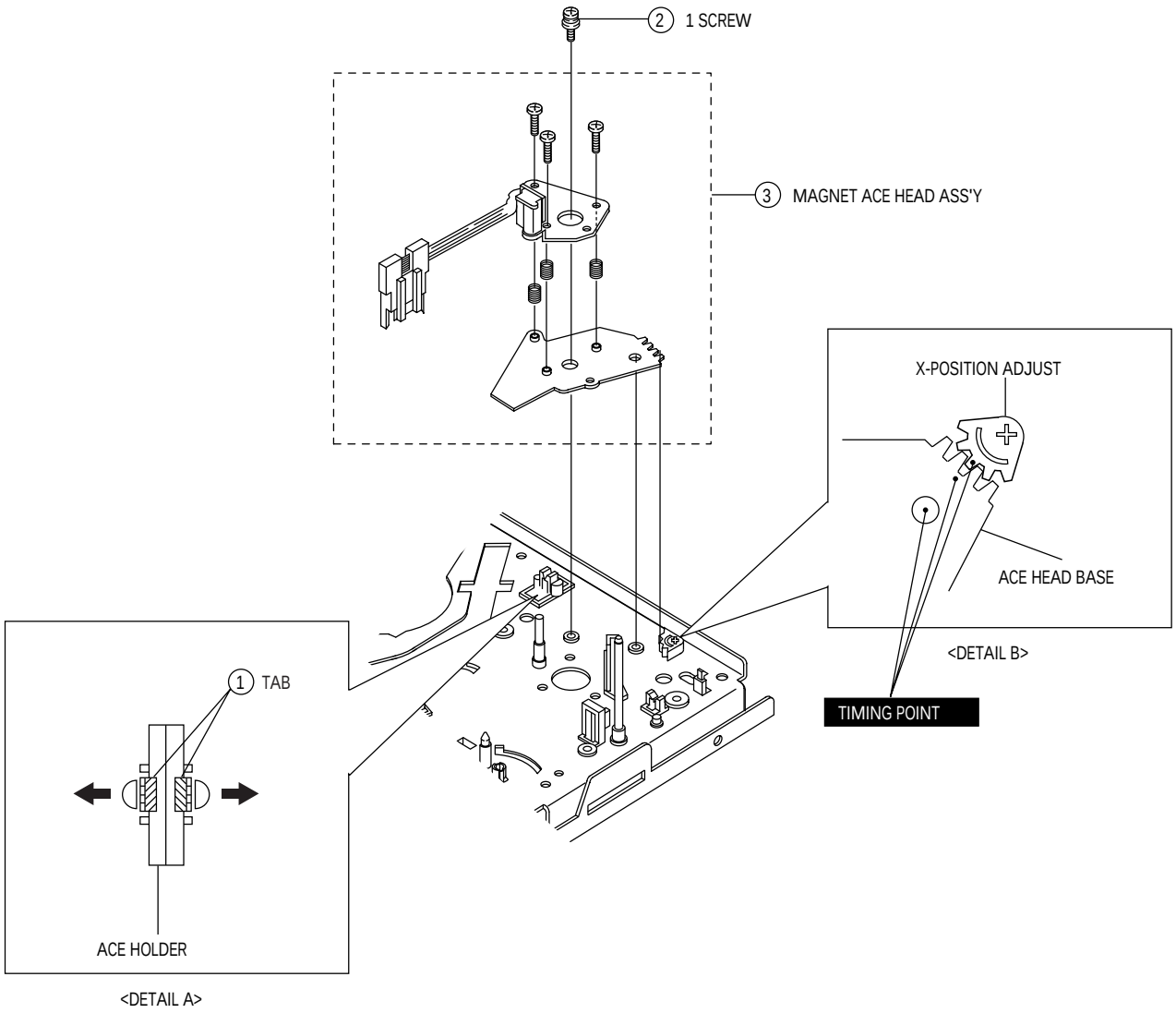


Fig. 4-57 ACE Head Ass'y Removal and Reassembly

4-4-39 Removal of Gear Loading Silde "S" and "T"

1. Remove the Cylinder Ass'y from the Main Base. (Refer to Fig. 4-12, 4-13)
2. Remove the Slide "S", "T" from the Loading "L", "R" Gear Ass'y. (Refer to Fig. 4-51)
3. Move the Roller "S", "T" Guide Ass'y to slot and then lift it to remove. (Refer to arrow)

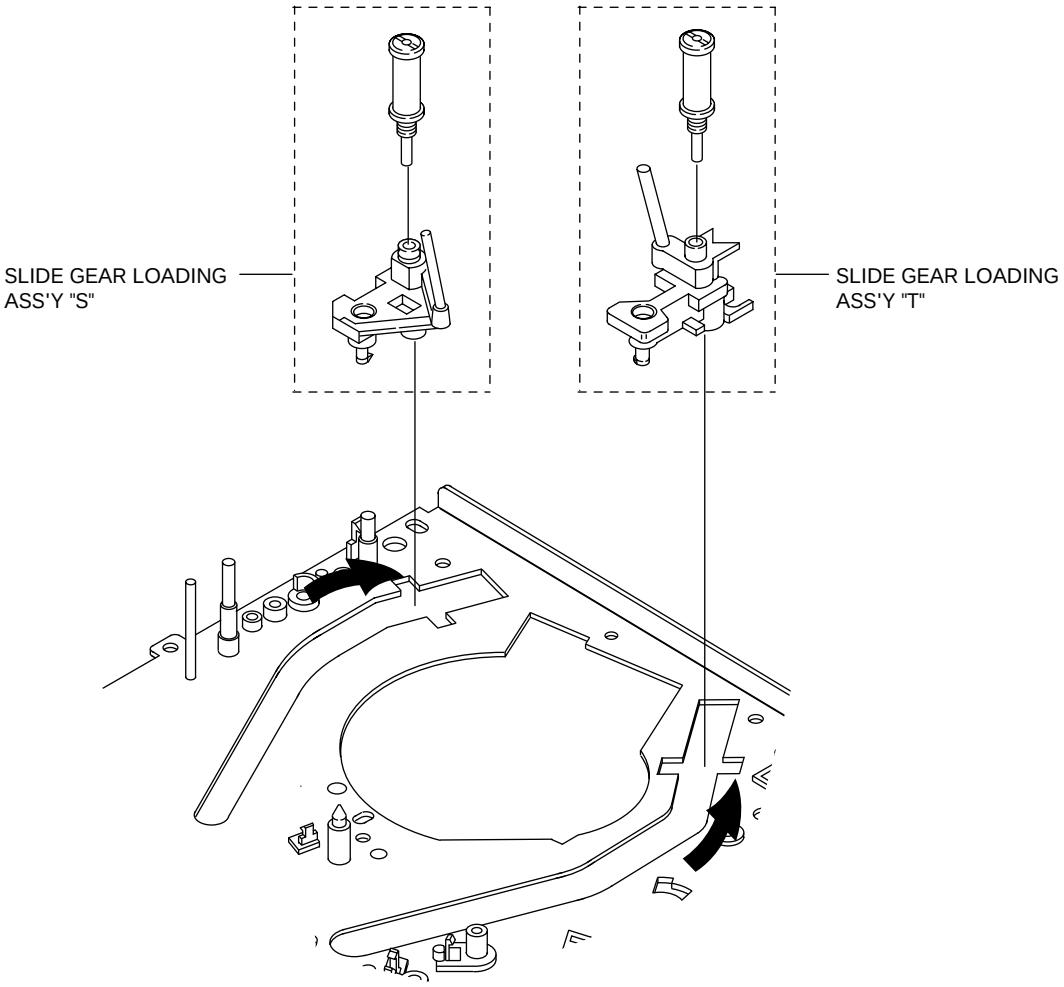


Fig. 4-58 Slide Guide Roller "S", "T" Ass'y Removal

4-4-40 Assembly of Guide Roller Slides “S”, “T” Ass’y (When all parts except the Cylinder Ass’y are removed.)

1. Push 4 Lever Locks ① of the Housing Ass’y Simultaneously. (Refer to Fig. 4-59)
2. Push the Cassette Ass’y Holder ③ toward arrow “B” while turning the Master Gear ② toward arrow A”. (Refer to Fig. 4-59)
3. Load the Loading L, R Gear Ass’y ④, ⑤ to the middle position of Guide Rail by turning the Master Gear ② toward arrow “A”. (Refer to Fig. 4-59, 4-60)
4. Install the Guide Roller S, T Slide ⑥, ⑦ into the Rail slot and then move it to the position of Loading Gear L, R Ass’y ④, ⑤. (Refer to Fig. 60)
5. Turn the Master Gear ② toward arrow “A”. (Eject mode)

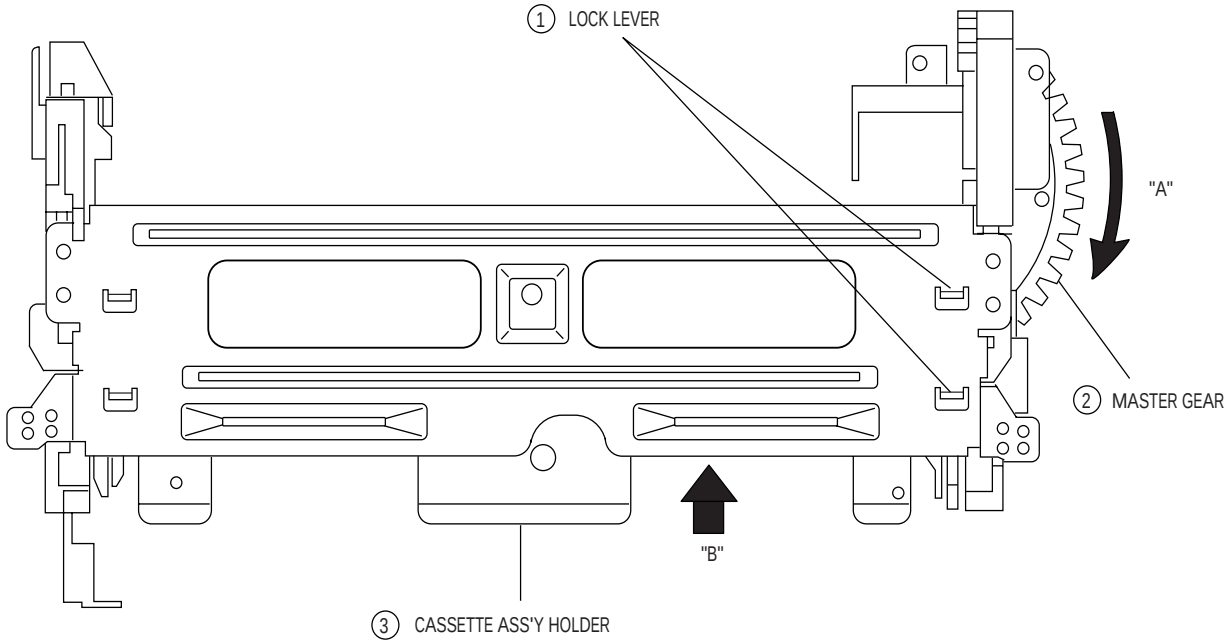


Fig.4-59 How to operate the Housing Ass’y

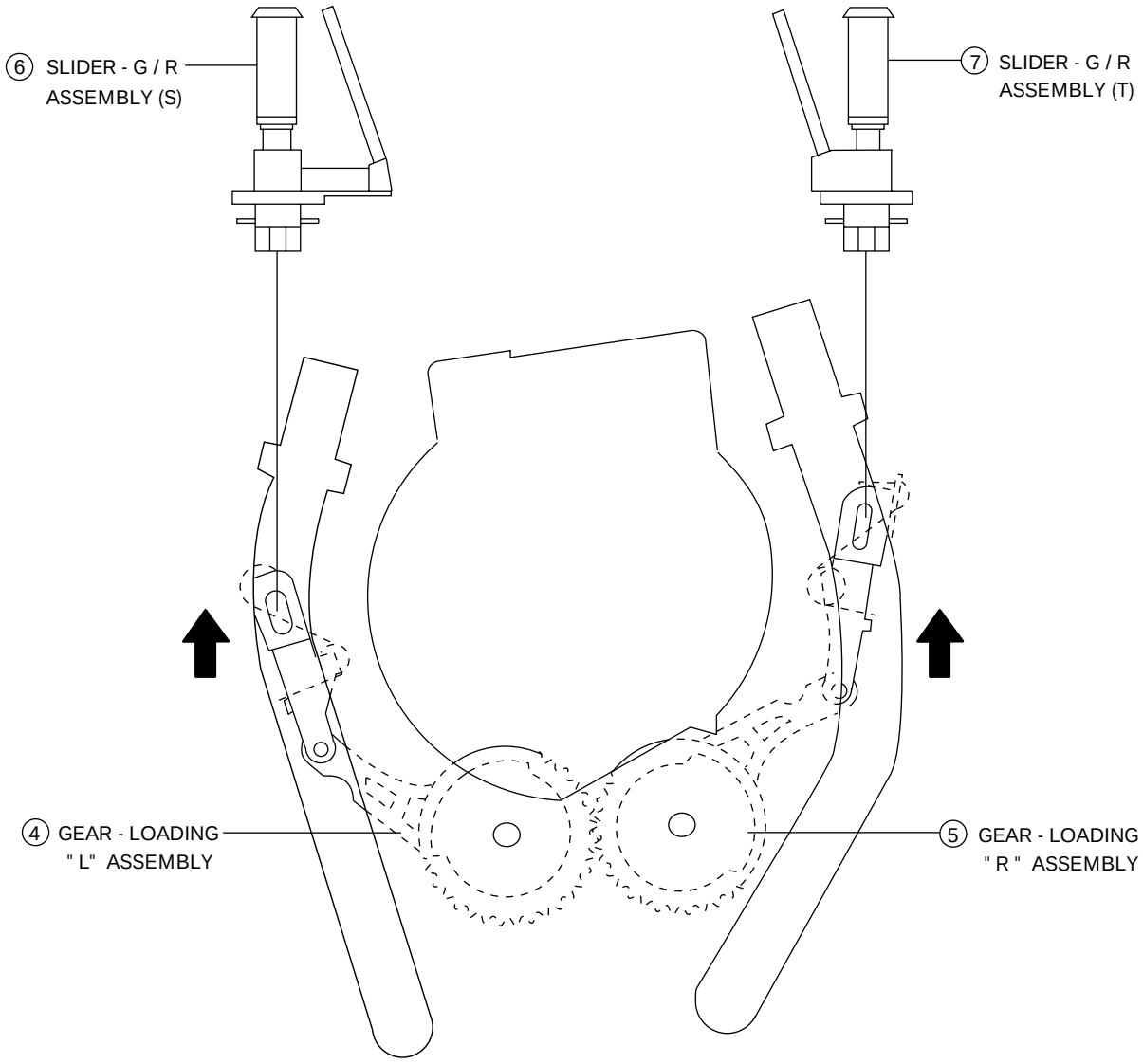


Fig. 4-60 Assembly of Guide Roller Slides “S”and “T”

4-5 Cleaning and Lubrication

4-5-1 Cleaning Tape Mechanism

Periodic cleaning of the tape mechanism is necessary. To clean the following parts, use patch and solvent :

1. Capstan Shaft
2. All tape guide posts
3, Clutch Pulley
4. Pinch roller
5. Belt Capstan
6. Capstan Motor Pulley

4-5-2 Cleaning of Rotating and Stationary Heads

To clean video heads, full erase head, and the audio/control (A/C) head use a head cleaning kit and solvent.

Note : When cleaning video heads, move the cleaning stick in the direction of head rotation (wiping in a vertical direction may damage the heads.)

Press a chamois cloth which has been dipped in cleaning fluid lightly against the rotating Cylinder Ass'y. Clean slowly by rotating the Upper Cylinder Ass'y by hand.

Note : Never turn the Motor on when cleaning.

4-5-3 Lubrication of Tape Mechanism

The tape transport mechanism is properly lubricated at the factory. In normal use cycles, and with average environmental conditions, additional lubrication should not be required during the first year of operation.

Depending on the frequency of use and environmental conditions, periodic lubrication may be required. When lubricating, first remove the old lubricant, then sparingly apply new lubricant. Excessive lubricant is transferred to other assemblies, malfunction will result.

Use grease on the following parts every 1,000 hours. (See exploded view for location) :

1. Between base pole assembly (L, R) and main base
2. Gear Loading L, R
3. Slide Main
4. Lever Shift
5. Gear Master
6. Lever Slide Pinch
7. Pinch Roller
8. Slide Pinch
9. Base Cylinder

Oil may be required for the following parts after 1,000 hours. (See exploded view for location) :

Main Base
1. Arm Tension molding
2. Shaft Reel Disk L, R
3. Shaft Gear Relay S, T
4. Shaft Idler
5. Shaft Clutch

Other parts which are not listed above do not require lubrication, except when parts are replaced. Use appropriate oil or grease as indicated on the exploded view.

THE ASSEMBLY PROCEDURE FOR DECK PARTS

NO	DESCRIPTION	SUBPARTS	LOCATE	REMARK
1	BASE MAIN ASS'Y	GREASE	TOP VIEW	
2	MOTOR D.D CAPSTAN	3 SCREWS	TOP VIEW	
3	LEVER JOG ASS'Y	1 SCREW	TOP VIEW	DX8-A/DX8-AC
4	GEAR RELAY "S" ASS'Y	1 WASHER SLIT	TOP VIEW	
5	GEAR RELAY "T" ASS'Y	1 WASHER SLIT	TOP VIEW	
6	IDLER ASS'Y	1 WASHER SLIT	TOP VIEW	
7	REEL DISK "L" ASS'Y	1 WASHER PLAIN	TOP VIEW	
8	REEL DISK "R" ASS'Y	1 WASHER PLAIN	TOP VIEW	
9	ARM TENSION FULL ASS'Y		TOP VIEW	
10	SLIDE G/R ASS'Y (S)		TOP VIEW	
11	SLIDE G/R ASS'Y (T)		TOP VIEW	
12	SLIDE PUSH		TOP VIEW	
13	SLIDER PINCH	GREASE	TOP VIEW	
14	GEAR LOADING "L" ASS'Y		BOTTOM VIEW	
15	GEAR LOADING "R" ASS'Y		BOTTOM VIEW	
16	LEVER IDLER CHANGE		BOTTOM VIEW	
17	LEVER SHIFT ASS'Y	SPRING GUIDE	BOTTOM VIEW	
18	SLIDER MAIN	1 WASHER SLIT	BOTTOM VIEW	
19	LEVER SLIDER PINCH	1 WASHER SLIT	BOTTOM VIEW	
20	CLUTCH ASS'Y	1 WASHER SLIT, PLAIN	BOTTOM VIEW	
21	BRAKE CAPSTAN ASS'Y		BOTTOM VIEW	
22	SPRING BRAKE CAPSTAN		BOTTOM VIEW	
23	UNIT LOADING	2 SCREWS	BOTTOM VIEW	
24	GEAR MASTER	1 WASHER SLIT	BOTTOM VIEW	
25	BELT CAPSTAN		BOTTOM VIEW	
26	LEVER REVIEW		TOP VIEW	
27	ARM REVIEW ASS'Y		TOP VIEW	
28	LEVER PINCH CAM		TOP VIEW	
29	LEVER PINCH COMP ASS'Y		TOP VIEW	
30	SPRING ARM PINCH		TOP VIEW	
31	UNIT PINCH ROLLER	1 WASHER SLIT	TOP VIEW	
32	BRAKE MAIN "L" ASS'Y		TOP VIEW	
33	BRAKE MAIN "R" ASS'Y		TOP VIEW	
34	SPRING BRAKE MAIN		TOP VIEW	
35	BRAKE SUB "L" ASS'Y		TOP VIEW	
36	BRAKE SUB "R" ASS'Y		TOP VIEW	
37	SPRING BRAKE SUB "L"		TOP VIEW	
38	SPRING BRAKE SUB "R"		TOP VIEW	

NO	DESCRIPTION	SUBPARTS	LOCATE	REMARK
39	PRISM LED		TOP VIEW	
40	SLIDER RACK HOUSING		TOP VIEW	
41	LEVER REC S/W		TOP VIEW	
42	SPRING REC S/W		TOP VIEW	
43	SPRING TENSION		TOP VIEW	
44	SPRING SLIDE PUSH		TOP VIEW	
45	MAGNET ACE HEAD ASS'Y	1 SCREW	TOP VIEW	
46	HOUSING ASS'Y	3 SCREWS	TOP VIEW	
47	CYLINDER ASS'Y	3 SCREWS	TOP VIEW	
48	MAGNET F/E HEAD	1 SCREW	TOP VIEW	

4-6 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :
1. Noise observed on the screen.
2. Tape damage.
3. Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.
To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

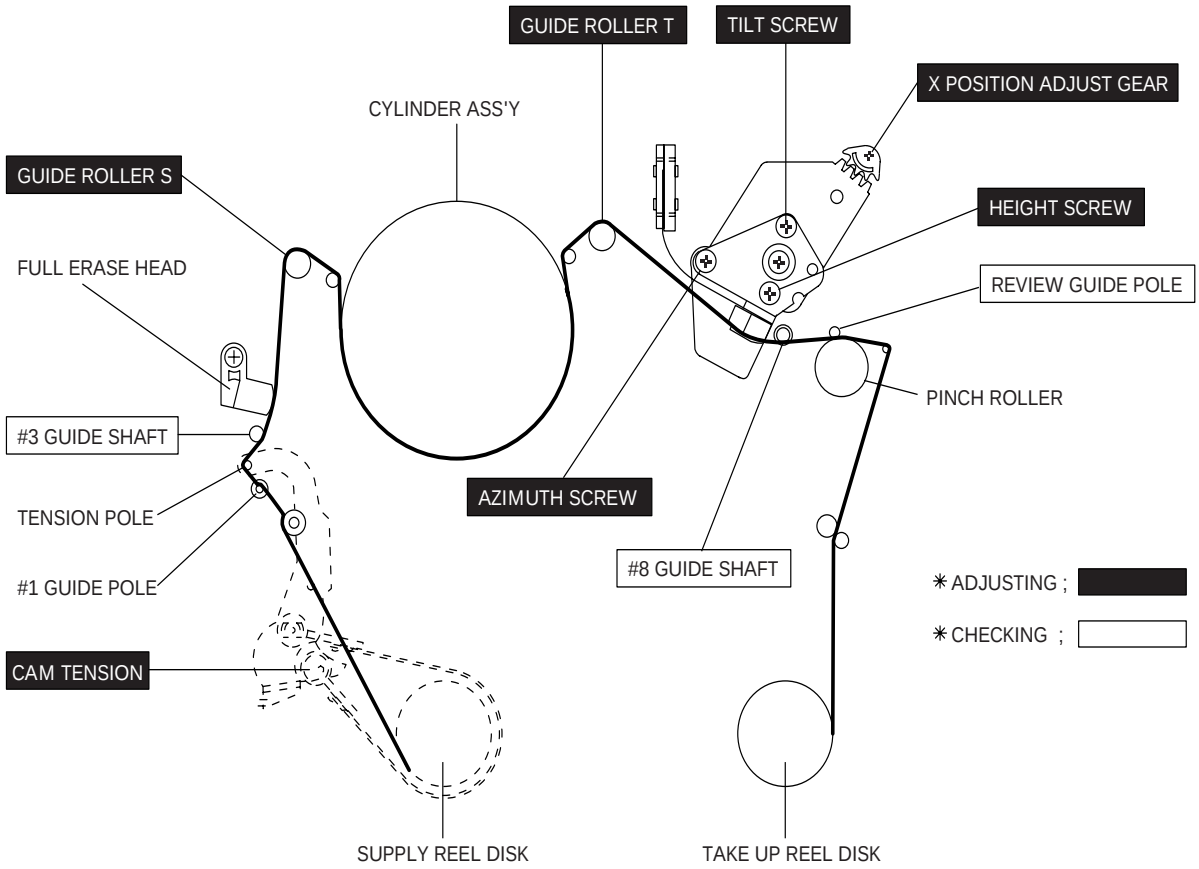


Fig. 4-61 Location of Tape Transport Adjustment

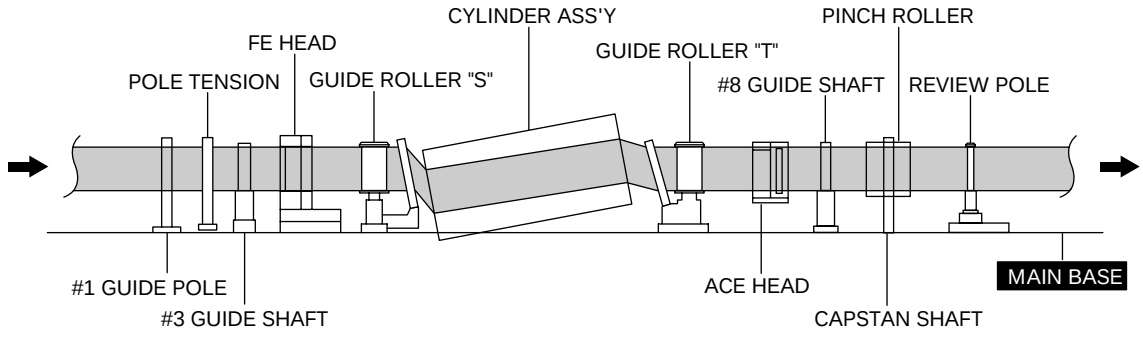


Fig. 4-62 Tape Travel Diagram

4-7 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to precedures for the tape transport system. If there are any changes to the tape path, first run a T-120 (E-180) tape and make sure excessive tape wrinkle does not occur at the tape guides.

1. If tape wrinkle is observed at the S, T-guide rollers, turn the S, T-guide rollers until wrinkle disappears.
2. If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the A/C head. (See page 5-1 of the Service Manual for Test Point Locations.)

4-7-1 A/C Head Assembly Adjustment

4-7-1 (a) A/C HEAD HEIGHT ADJUSTMENT

1. Run the alignment tape (Color bar) in the playback mode.
2. Observe surface of the audio head using a dental mirror.
3. Turn screw (A), (B), (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25 mm. (Refer to Fig. 4-3 and 4-4)

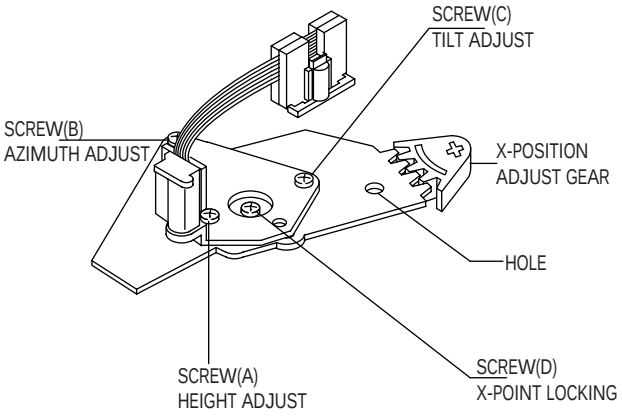


Fig. 4-63 Location of A/C Head Adjustment Screw

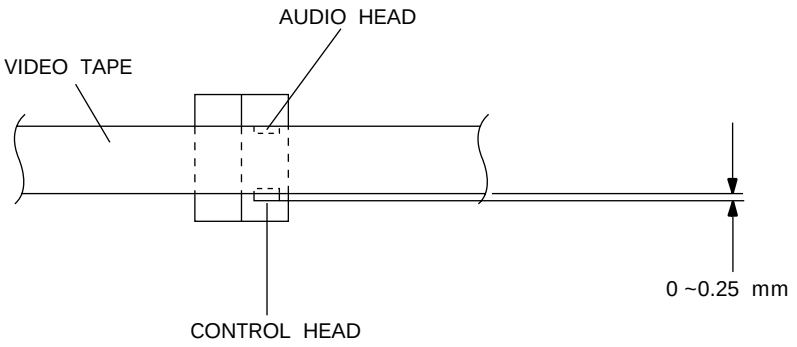


Fig. 4-64 A/C Head Height Adjustment

4-7-1 (b) A/C HEAD TILT ADJUSTMENT

1. Play back a T160 (E-240) tape and observe the position of the tape at the lower flange of tape guide.
2. Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig.2- 5 (B)
3. If a curl or wrinkle of the tape occurrs, slightly turn the screw (C) tilt adjust on the A/C Head ass'y.
4. Reconfirm the A/C head height.

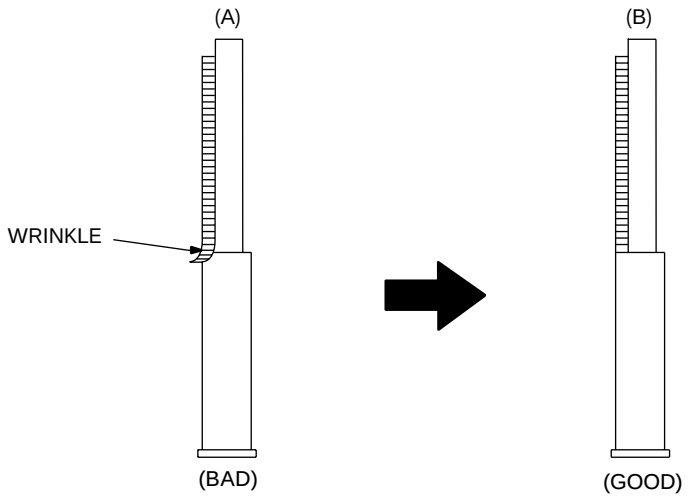


Fig. 4-64 Tape Guide Check

4-7-1 (c) AUDIO AZIMUTH ADJUSTMENT

1. Load alignment tape (Mono scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
2. Connect channel-1 scope probe to audio output test point.
3. Adjust screw (B) to achieve maximum audio level (See Fig. 4-3).

4-7-1 (d) A/C HEAD POSITION (X-POINT) ADJUSTMENT

1. See page 5-2 of the Service Manual for A/C Head position (X-Point) adjustment.

4-7-2 Linearity adjustment (S, T-guide rollers adjustment)

1. Play back the Mono Scope alignment tape (SP mode).
2. Observe the video envelope signal on an oscilloscope (triggered by the video switching pulse).
3. Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 4-65.
   If it does not, adjust as follows :

   Note **:** a=Maximum output of the video RF envelope.
   b=Minimum output of the video RF envelope at the entrance side.
   c=Minimum output of the video RF envelope at the center point.
   d=Maximum output of the video RF envelope at the exit side.

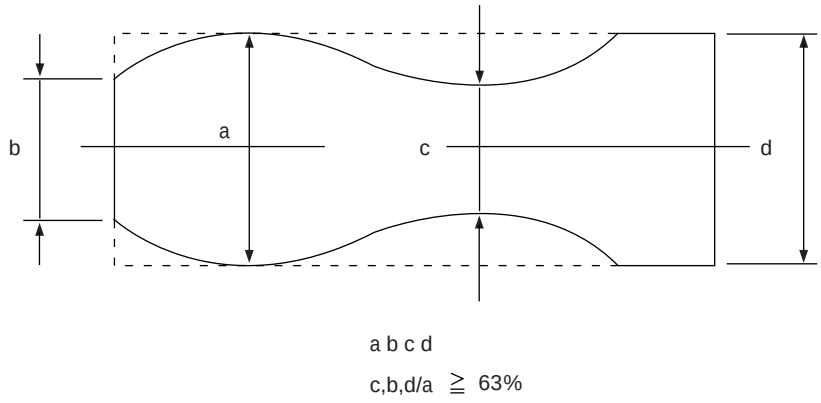


Fig. 4-65 Envelope Waveform Adjustment

4. If the section A in Fig. 4-66 does not meet the specification, adjust the S-guide roller up or down.
5. If the section B in Fig. 4-66 does not meet the specification, adjust T-guide roller up or down.

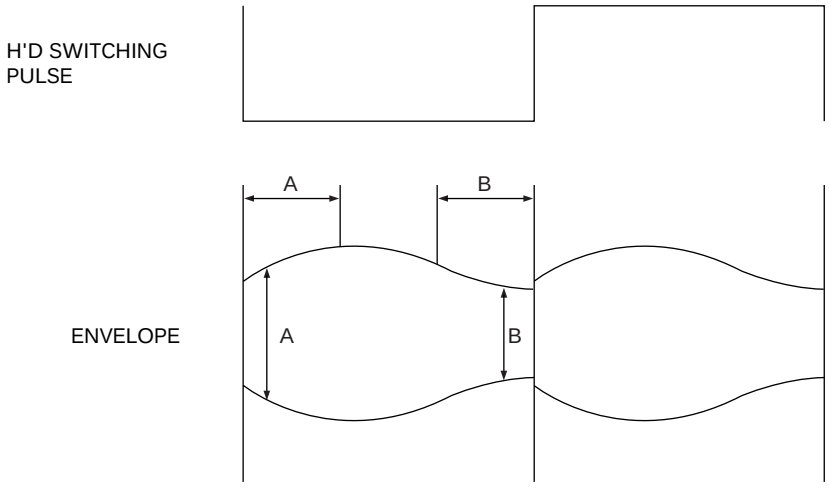


Fig. 4-66 Adjustment Points

6. Play back the Mono Scope alignment tape (SP mode).
7. Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering.
8. Turn the guide roller heads with a flat head (▬) driver to obtain a flat video RF envelope as shown in Fig. 4-67.
9. After the adjustment is completed, tighten the set screws.

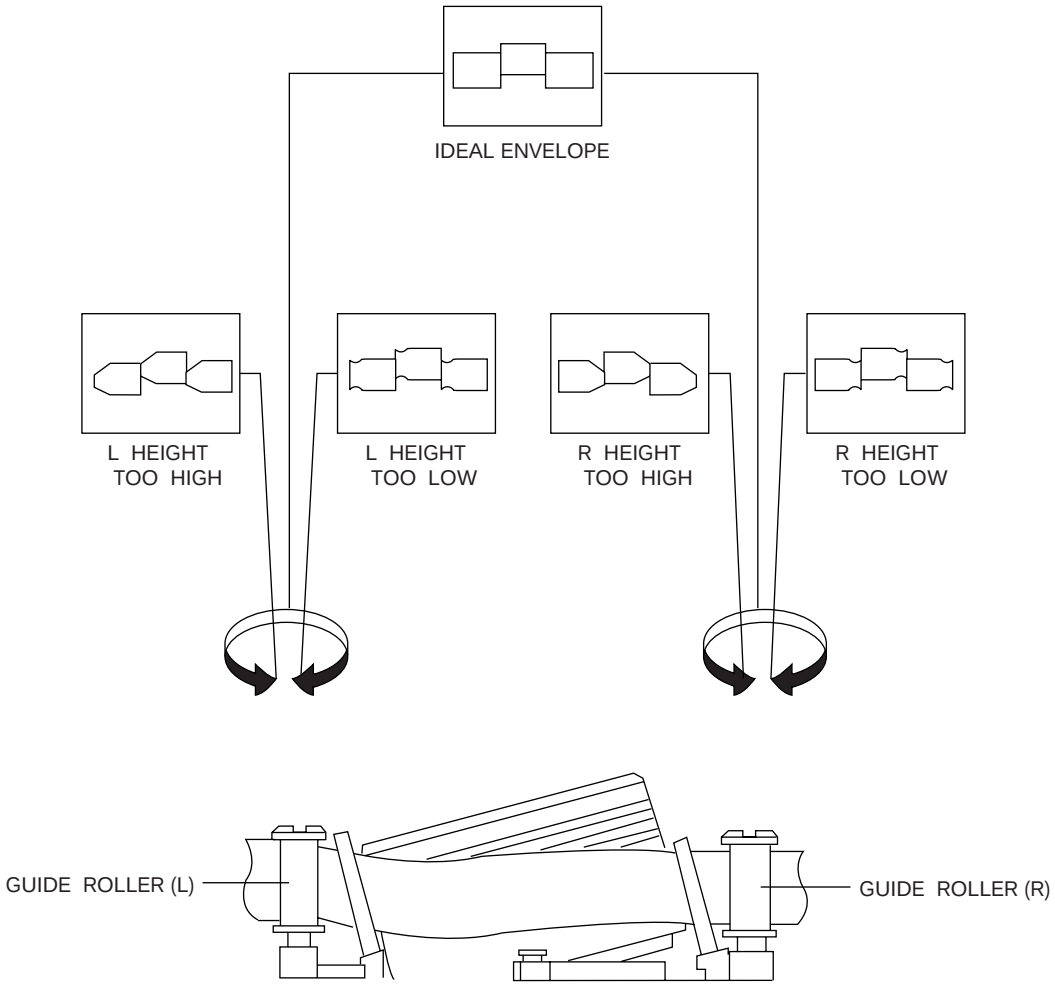


Fig. 4-67 S, T-Guide Roller Height Adjustment

4-7-3 Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode : Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 4-68). If the envelope waveform does not reach specified peak-to peak amplitude within 3 seconds, adjust as follows :

1. Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2. Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

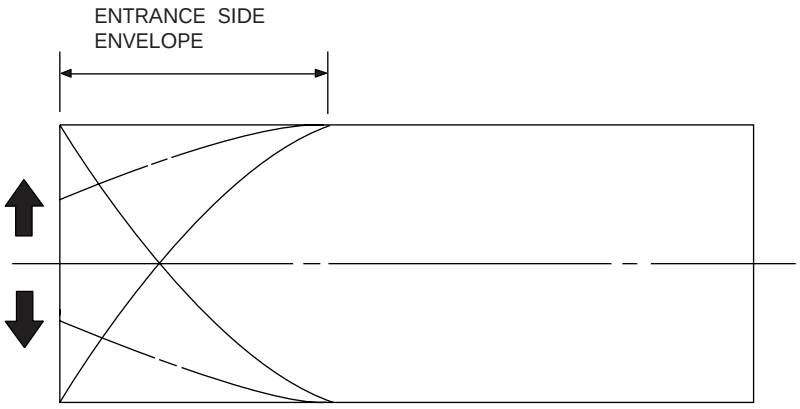


Fig. 4-68 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

4-7-4 Envelope Check

1. Make recordings on T-120 (E-120) and T-160 (E-180) tape. Make sure the playback output envelope meets the specification as shown in Fig. 4-69.
2. Play back a self recorded tape (recording made on the unit using with T-120, E-120). The video envelope should meet the specification as shown in Fig. 4-69. In SP mode, (A) should equal (B). If the head gap is wide, upper cylinder should be checked.

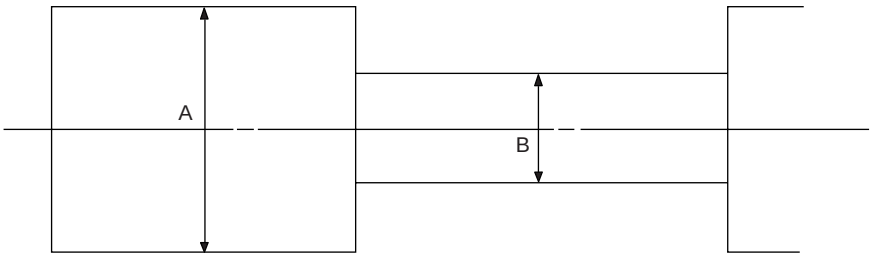


Fig. 4-69 Envelope Output and Output Level

4-7-5 Tape Wrinkle Check

1. Run the T-160 (E-240) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.

2. If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :

- Tape wrinkle at the S, T-guide roller section : Linearity adjustment.
- Tape wrinkle at tape guide flange : A/C head assembly coarse adjustment.

4-8 Reel Torque

4-8-1 Reel Torque

1. The rotation of the capstan motor drives the clutch ass'y through the capstan motor belt.
2. Brake operation and shift operation in FF/REW are done by a leverslide.
3. Transportation of accurate driving force is done by gears (clutch ass'y).

Note : If the spec does not meet the followings specifications, replace the clutch ass'y and then recheck.

MODE	TORQUE g/cm	GAUGE
PB/REC	100 ± 30	Cassette Torquemeter
RPS	170 ± 30	Cassette Torquemeter
FF/REW	Minimum 600	Torque Gauge

4-8-2 Location of Tension Pole and Back Tension Adjustments

1. Remove the housing ass'y and set the deck to "PLAY" mode.
2. Adjust the tension cam to 0 ~ -0.5mm from the center of supply roller.
3. The back tension meter should read 41 ~ 51g.cm. (PAL : 40 ~ 47g.cm)

Counterclockwise : Torque UP
Clockwise : Torque DOWN

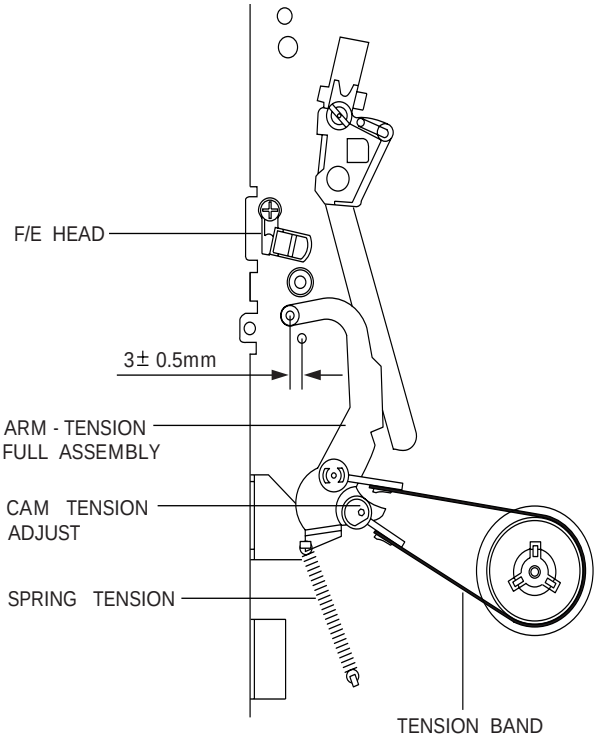


Fig. 4-70 Tension Pole and Back Tension Adjustment

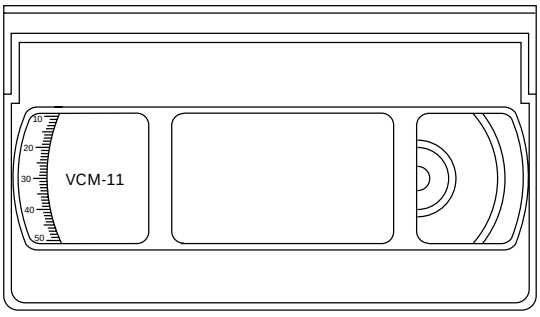


Fig. 4-71 Back Tension Tape Torque Cassette

5. Alignment and Adjustments (Electrical)

5-1 Preadjustment

5-1-1 Factory Mode

1. Do not attempt these adjustments in the Video Mode.

2. The Factory Mode adjustments are necessary when either the EEPROM (IC902) or the CRT is replaced.

3. Do not tamper with the "Adjustment" screen of the Factory Mode menu. This screen is intended only for factory use.

5-1-2 When EEPROM (IC902) Is Replaced

1. When IC902 is replaced all adjustment data revert to initial values. It is necessary to re-program this data.

2. After IC902 is replaced, warm up the TV for 10 seconds.

5-1-3 When CRT Is Replaced

1. Make the following adjustments AFTER setting up after setting up purity and convergence:

   White Balance
   Sub-Brightness
   Vertical Center
   Vertical Size
   Horizontal Size

2. If the eeprom or CRT is replaced, set PSL and PVA to 15 and 63 (Factory Mode).

5-2 Factory ("Service") Mode

5-2-1 Procedure for the "Adjustment" Mode

1. This mode uses the standard remote control. The Service Mode is activated by: (1) pressing the "HIDDEN" service key on the local-keyboard, or (2) by entering the following remote-control sequence (within 2 seconds):

   STAND-BY→P.STD →MENU→ SLEEP→ POWER ON

2. The "SERVICE (FACTORY)" message will be displayed. The Service Mode has these components: Adjustment, Option Bytes and Reset.

3. Access the Adjustment Mode by pressing the "VOLUME" keys (Up or Down). The adjustment parameters are listed in the accompanying table, and selected by pressing the CHANNEL keys (▲,▼).

4. Selection sequences for the PAL/SECAM B/G, L systems:

   down or up key:
   AGC>VCO>LCO>SBT>SCT>SCR>RG>GG>BG>TCT>SC>PSL>PVS>PVA>PHS

5. For an NTSC tape or NTSC A/V input:

   (use down or up keys):

   AGC>VCO>SBT>SCT>SCR>STT>RG>GG>BG> SC>NSL>NVS>NVA>NHS

6. The VOLUME keys increase or decrease the adjustment values, (stored in the non-volatile memory when Adjustment Mode is cancelled).

5-2-2 Main Adjustment Parameters

Table 5-1 Main Adjustment Parameters (Sonyμ-com) with TTX			
FUNCTION	OSD ABBREVIATION	RANGE	INITIAL DATA
AUTO GAIN CONTROL	AGC	0 ~ 63 STEP	43
SUB BRIGHT	SBT	0 ~ 13 STEP	6
SUB CONTRAST	SCT	0 ~ 13 STEP	6
SUB COLOR	SCR	0 ~ 13 STEP	6
SUB TINT	STT	0 ~ 13 STEP	9
RED CUTOFF	RC	0 ~ 63 STEP	38
GREEN CUTOFF	GC	0 ~ 63 STEP	32
BLUE CUTOFF	BC	0 ~ 63 STEP	33
TELETEXT CONTRAST	TCT	0 ~ 38 STEP	11
PAL VERTICAL SLOPE	PSL	0 ~ 63 STEP	28
PAL VERTICAL SHIFT	PVS	0 ~ 63 STEP	30
PAL VERTICAL AMPLITUDE	PVA	0 ~ 63 STEP	43
PAL HORIZONTAL SHIFT	PHS	0 ~ 63 STEP	33
NTSC VERTICAL SLOPE	NSL	0 ~ 63 STEP	29
NTSC VERTICAL SHIFT	NVS	0 ~ 63STEP	30
NTSC VERTICAL AMPLITUDE	NVA	0 ~ 63 STEP	39
NTSC HORIZONTAL SHIFT	NHS	0 ~ 63 STEP	46

NOTE : PVS, PVA, PHS, NVS, NVA,NHS parameters must be aligned using both the 50 Hz and 60 Hz vertical-field rates.

5-2-3 AGING Mode (Reference Only)

This pattern is used for pre-heating the CRT during manufacturing--it is accessed in the factory by twice pressing the "HIDDEN" key .

Even if the TV power is cut off, the Aging Mode is not cancelled, The patterns are displayed at 5 sec intervals. The AGING mode is cancelled by repressing the "HIDDEN" key.

5-2-4 Option

BIT	ITEM	0	1	REMARK
7	TTX	NO TTX	TTX	
6	TTX SYSTEM	LIST FIRST	FLOF FIRST	
5	CONTRAST	90	100	
4	TUNER QUANTITY	1	2	
3	TUNER KINDS	2889	0889	
2	SYSTEM (L)			
1	SYSTEM (D/K)			
0	SYSTEM (I)			

1. After an option is modified, the system must be reset in order for the change to take effect.

2. Bit 6 : TTX System. This bit reverts to its initial value during Power ON.

3. Bit 5 : After a "Factory Reset", the Contrast Option determines the contrast level during Memory Mode.

4. Bit 3 : Tuner Options:

TUNER / BAND	TECC2889PA19C	TECC0889PA19C
VHF-L	40.00~171.75 MHz (E2~S10)	40.00~150.75 MHz (E2~S7)
VHF-H	171.75~467.25 MHz (E5~S41)	150.75~467.25 MHz (S8~S41)
UHF	467.25~ (E21~)	467.25~900.00 MHz (E21~)

5. Bits 2,1,0 :

#2 (L)	#1 (D/K)	#0 (I)	AREA	COLOR SYSTEM	SOUND SYSTEM
0	0	0	WEST, SCAN	AUTO, PAL, SECAM	X
0	0	1	UNITED KINGDOM ®	AUTO, PAL	X
0	1	0	EAST,CIS	AUTO, PAL, SECAM	AUTO, B/G, D/K
0	1	1	CHINA, HONG KONG	AUTO, PAL, SECAM	AUTO, B/G, D/K, I
1	0	0	FRANCE	PAL/SECAM, FRANCE ®Ë	X
1	0	1	ITALY	AUTO, PAL	X
1	1	0	OCEANIA	AUTO PAL	X
1	1	1	NOT USED (DEFAULT OPERATION = WEST, SCAN)		

Note1: United Kingdom: 468 - 900MHz (UHF only)
Others: 40 - 900 MHz

Note2: Color decoder mode is always "auto"

SYSTEM	MODULATION STANDARD	COLOUR DECODER MODE
PAL/SECAM	NEGATIVE	AUTO
FRANCE	POSITIVE	AUTO

5-2-5 Option 2

BIT	ITEM	0	1	REMARK
7	NOT USED			
6	NOT USED			
5	POWER ON AFT	ONCE	TWICE	
4	PDC	NO	YES	
3	VPS	NO	YES	
2	3.58 X-TAL	NO	YES	
1	VIDEO PLUS	NO	YES	
0	SHOWVIEW	NO	YES	

Notes:
Bit 5 : Power On AFT: When this bit=1, the AFT will re-start automatically (unless a key is pressed within 5 seconds of power ON).
Bits 4, 3 : VPS and VDC cannot exist simultaneously. (The same appliese for VIDEO PLUS and SHOWVIEW)

5-2-6 VCR Option

BIT	ITEM	0	1	REMARK
7	NOT USED			
6	NOT USED			
5	NOT USED			
4	HEAD	2-HEAD	4-HEAD	
3	SP/LP	SP ONLY	SP/LP	
2	SECAM	N/A	POSSIBLE	
1	MESECAM	N/A	POSSIBLE	
0	NTSC3.58	N/A	POSSIBLE	

5-3 Reset

The Reset Mode is used during factory inspection.
Function Reset : After Factory Reset, the following items revert to their initial values.

1. Volume □ 0
2. Channel□ 0
3. P-STD□ MEMORY
4. Contrast-tint□ MEMORY
5. Auto Power□ OFF
6. NR□ OFF
7. Reserved Timer Recording□ ALL CLEAR
8. Skip (Store/Clear)□ ALL CLEAR

Caution : When the EEPROM is replaced, all items revert to their initial values.

5-4 Other Adjustments

5-4-1 General

1. Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.

2. The picture should have good black and white details. There should be no objectionable color shading; if color shading is present, perform the purity and convergence adjustments described below.

3. Use the specified test equipment or its equivalent.

4. Correct impedance matching is essential.

5. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test results.

6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.

7. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.

8. To protect against shock hazard, use an isolation transformer.

5-4-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set has been moved or turned in a different direction, disconnect its AC power for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before removing power.

5-4-3 High Voltage Check

CAUTION: There is no high voltage adjustment on this chassis. The B+ power supply must be set to +125 volts (Full color bar input and normal picture level).

1. Connect a digital voltmeter to the second anode of the picture tube.

2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).

3. The high voltage should not exceed 27.5KV.

4. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 27.5KV under any conditions.

5-4-4 FOCUS Adjustment

1. Input a black and white signal.
2. Adjust the tuning control for the clearest picture.
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

5-4-5 Screen Adjustment

1. Turn to the ACTIVE channel.
2. Adjust the VR screen for a normal picture is (no blooming or flyback line).
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

5-4-6 Purity Adjustment

1. Warm up the receiver for at least 20 minutes.
2. Plug in the CRT deflection yoke and tighten the clamp screw.
3. Plug the convergence yoke into the CRT and set in as shown in Fig. 5-1.
4. Input a black and white signal.
5. Fully demagnetize the receive by applying an external degaussing coil.
6. Turn the CONTRAST and BRIGHTNESS controls to maximum.
7. Loosen the clamp screw holding the yoke. Slide the yoke backward or forward to provide vertical green belt. (Fig. 5-2).
8. Tighten the convergence yoke.
9. Slowly move the deflection yoke forward, and adjust for the best overall green screen.
10. Temporarily tighten the deflection yoke.
11. Produce blue and red rasters by adjusting the low-light controls. Check for good purity in each field.
12. Tighten the deflection yoke.

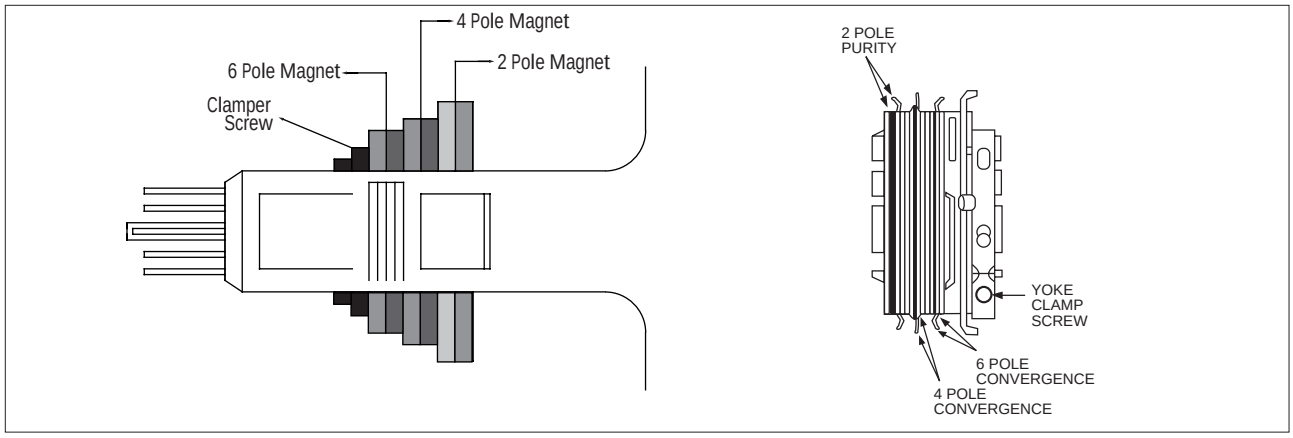


Fig. 5 -1 Convergence Magnet Assembly

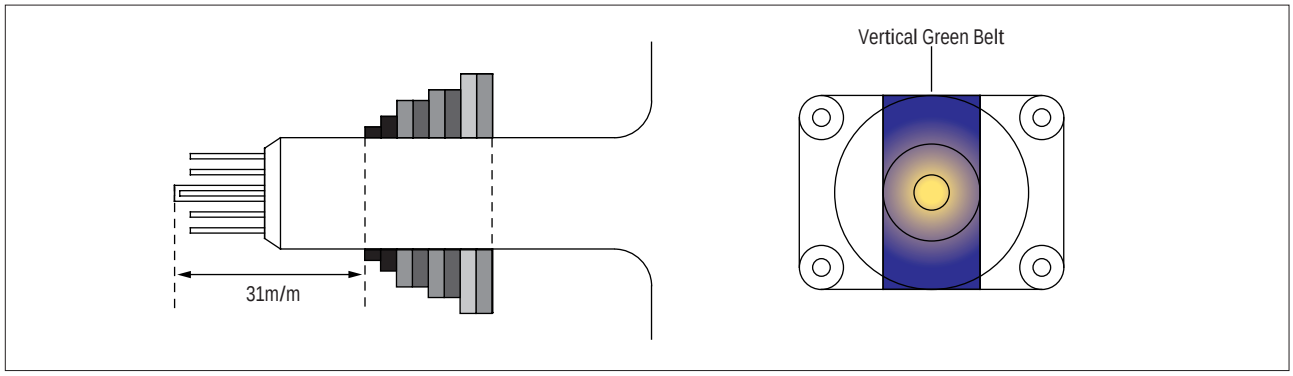


Fig. 5-2 Center Convergence Adjustment

5-4-7 White Balance Adjustment

5-4-7 (A) HIGH-LIGHT ADJUSTMENT

1. Input either a Lion Head or a “pure white” pattern.
2. Warm up the TV for 30 minutes.
3. Check the data in the Service Mode
4. Adjust RG, BG in the Factory Mode.

5-4-7 (B) LOW-LIGHT ADJUSTMENT

1. Automatically accomplished during the high-light adjustment.

5-4-8 Center Convergence Adjustment

1. Warm up the receiver for at least 20 minutes.

2. Adjust the two tabs of the 4 pole magnets to change the angle between them. Superimpose the red and blue vertical lines in the center area of the screen.

3. Adjust the Brightness and Contrast controls for a well defined picture.

4. Adjust the two-tab pairs of the 4 pole magnets, and change the angle between them. Superimpose the red and the blue vertical lines in the center area of the screen.

5. Turn the both tabs at the same time, keeping the angle constant, and superimpose the red and blue horizontal line in the center of the screen.

6. Adjust the two-tab pairs of the 6-pole magnets to superimpose the red and blue line onto the green. (Changing the angle affects the vertical lines, and rotating both magnets affects the horizontal lines.)

7. Repeat adjustments 2~6, if necessary.

8. Since the 4-pole magnets and 6-pole magnets interact, the dot movement is complex (Fig. 5-3).

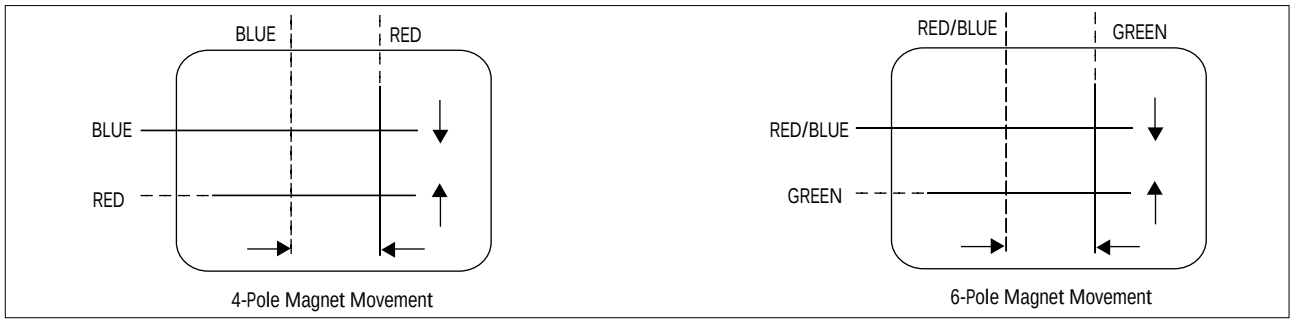


Fig 5-3 Center Convergence Adjustment

5-4-9 VCO Adjustment

1. Apply an IF input (38.9MHz) signal.

2. In Factory Mode, adjust the AFC with the VCO tuning bits (AFA, AFB).

   The VCO is correct when the AFA Bit is "INSIDE WINDOW".

   (The AFB Bit is above~below). The AFC output is available on the I²C-BUS (used for VCO Adjustment and feedback).

5-4-10 LCO Adjustment

1. Apply an IF input (33.9) MHz signal.

2. Set the system to FRANCE.

3. In Factory Mode, adjust the AFC with the LCO tuning bits (AFA, AFB).

   The LCO is correct when the AFA Bit is "INSIDE WINDOW"(The AFB Bit is above~below). The AFC output is available on the I2C-BUS (used for LCO Adjustment and feedback).

5-4-11 RF AGC Adjustment

1. Input a UHF High channel (80dB, 479.25 MHz).

2. Set the AGC in the Factory mode.

3. Set Pin 53 of IC201 (TDA8374) to 3.6V ± 0.05V (DC).

5-4-12 Dual Tuner AFT Adjustment (France)

Test Equipment

1. TV Generator (PM5518,PM5418,ETC.)
2. DC VOLTMETER

1. Store 63.75 MHz in P00 (France System).
2. Store 48.25 MHz in P01 (PAL/SEC System).
3. Connect DC Voltmeter to AFT terminal of 2-tuner IF-module.
4. After selecting P00, input to TU002 IF1 (34.3 MHz).
5. After selecting P00, set to 3V (using MT01).
6. After selecting P01, input to TU002 IF1 (38.9 MHz).
7. After selecting P01, set to 3V (using MT02).
8. After reselecting P00, connect 34.3 MHz signal to TU002 IF1, and then check the voltage of AFT (3V ± 0.05V). If the adjustment voltage is out of specification, redo 4~7.

5-4-13 Dual Tuner AFT Adjustment (PAL/SECAM B/G,I,D/K,)

1. Store 471.25MHz in P00.
2. Connect DC Voltmeter to AFT terminal of TUNER IF-MODULE.
3. After selecting P00, input to IF1 terminal of TU002 (38.9 MHz)
4. After selecting P00, set to 3V (using MT01).

5-5 Electrical Adjustment (VCR Section)

5-5-1 Preparation

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustment only after all repairs and replacements have been com pleted. Also, do not attempt these adjustments unless the proper equipment is available.

5-5-2 Required Test Equipment

1. Color Television or Monitor
2. Oscilloscope : Wide-band, dual-trace, trig-gered delayed sweep.
3. DC Voltmeter
4. TV CH Generator
5. Attenuator
6. Recording tape. (Blank tape)
7. Pattern Generator : PAL color bar. 100% White.

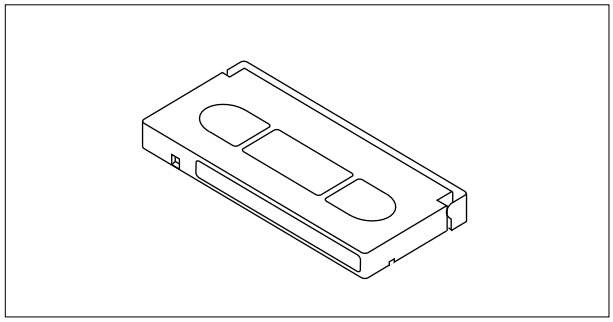


Fig. 5-4 Alignment Tape

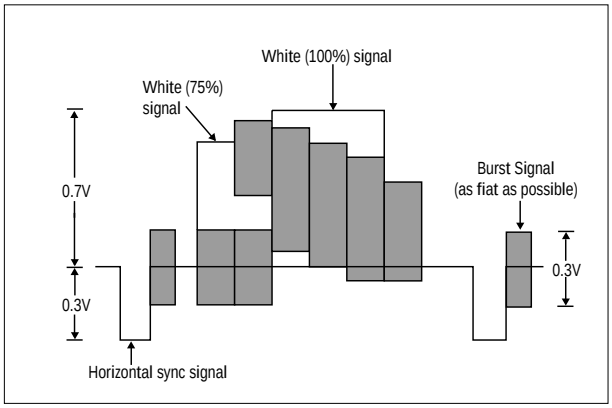


Fig. 5-5 Color bar signal of pattern generator

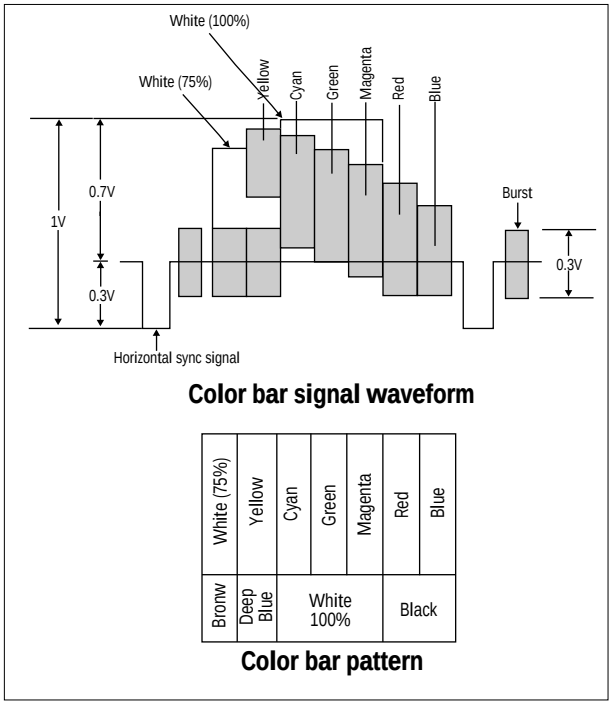
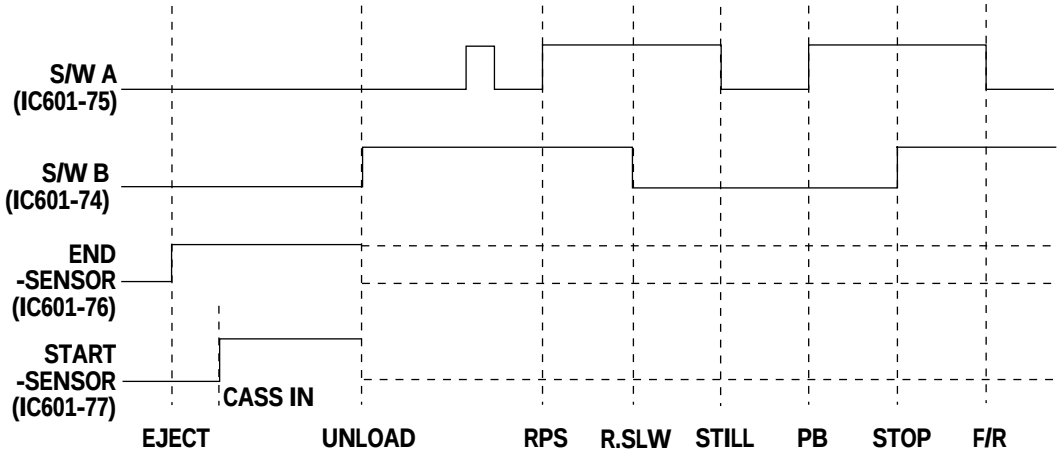


Fig. 5-6 Color bar signal of alignment tape (75% Color Bars)

5-5-3 Timing Chart of Program S/W

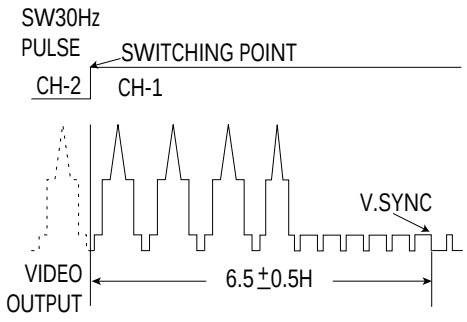


POSITION	PROGRAM S/W (SW601)				ACTION MODE
	E/S	S/S	S/W A	S/W B	
EJECT	L	L	L	L	EJECT
CASS IN	H	L H	L	L	CASS IN
UNLOAD	-	-	L	L H	UNLOAD
R.PS	-	-	L H	H	R.PS, Z-R.PS
R.SLOW	-	-	H	H L	PINCH ROLLER OFF POSITION
STILL	-	-	H L	L	STILL, SLOW, F-ADV
PLAY	-	-	L H	L	PB,T-STOP,REC, PAUSE, F.PS, Z-FPS
STOP	-	-	H	L H	STOP, POWER OFF
FF/REW	-	-	H L	H	FF, REW

5-6 Module Deck Adjustment Process

5-6-1 H'D S/W Point Adjustment:

1. Load alignment tape (PAL signal, SPC-SD).
2. Connect oscilloscope, CH-1 to TP201 (H'D S/W pulse), & CH-2 to TP302 (Video out)
3. Adjust VR201 (H'D S/W pulse) so that the waveform looks like the one shown below:



5-6-2 OPTION TABLE M/DECK (FOR PAL)

OPTION TABLE (for PAL)

NO	LOCA-NO	CODE NO	Description	Spec.	MODEL										Remark
					340FK/SEF-S	340WK/BWX-S	340WKD/SEF-S	340WKD/EGC-S	320FK/SEF-S	320XK/SEG-S	320IK/UK-S	320WK/BWX-S	320WKD/BWX-S	320WKD/EGC-S	
1	M/DECK ASSY	AA94-80003J			AA94-80003J	AA94-80003Q	AA94-80003S	AA94-80003U	AA94-80003K	AA94-80003M	AA94-80003N	AA94-80003P	AA94-80003R	AA94-80003T	
		AA91-40100A			AA91-40100A	AA91-40100A	AA91-40103A	AA91-40103A	AA91-40099A	AA91-40099A	AA91-40101A	AA91-40199A	AA91-40102A	AA91-40102A	
		AC96-10475F			AC96-10475F	AC96-10475F	AC96-10475G	AC96-10475G	AC96-10475D	AC96-10475D	AC96-10480F	AC96-10475D	AC96-10475E	AC96-10475E	
		AA96-80002P			AA96-80002P	AA96-80002V	AA96-80002V	AA96-80002X	AA96-80002Q	AA96-80002S	AA96-80002T	AA96-80002U	AA96-80002U	AA96-80002W	
5	-	A A 41-10886A	PCB	330*245	0	0	0	0	0	0	0	0	0	0	Basic
6	ICM401	1201-001114	IC	LA7416	0	0	0	0	X	X	X	X	X	X	4H'D
		1201-001115	IC	LA7411	X	X	X	X	0	0	0	0	0	0	2H'D
7	RM401	2001-000302	R	10	0	0	0	0	X	X	X	X	X	X	4H'D
8	RM404	2001-000522	R	22K	0	0	0	0	X	X	X	X	X	X	4H'D
9	RM405	2001-000258	R	1.8K	0	0	0	0	X	X	0	X	X	X	4H'D 2H'D LP
		2001-000241	R	1.5K	X	X	X	X	0	0	X	0	0	0	2H'D
10	RM408	2001-000005	R	390	X	X	X	0	X	0	X	0	0	0	2H'D
		3812-000219		JUMPER	0	0	0	0	X	0	X	X	X	X	4H'D
11	RM409	2001-000005	R	390	X	X	X	X	0	0	0	0	0	0	2H'D
		3812-000219		JUMPER	0	0	0	0	X	X	X	X	X	X	4H'D
12	CM406	2202-000127	C	103	0	0	0	0	X	X	X	X	X	X	4H'D
13	CM407	2202-000127	C	103	0	0	0	0	X	X	X	X	X	X	4H'D
14	CM408	2202-000127	C	103	0	0	0	0	X	X	X	X	X	X	4H'D
15	CM413	2202-000127	C	103	0	0	0	0	X	X	X	X	X	X	4H'D
16	CM420	2202-000127	C	103	0	0	0	0	X	X	X	X	X	X	4H'D
17	CM429	2202-000205	C	220	0	0	0	0	X	X	X	X	X	X	4H'D

5-6-2 OPTION TABLE (Continued)

NO	LOCA-NO	CODE NO	Description	Spec.	MODEL									Remark
					340FK/ SEF-S	340WK/ BWX-C	340WKD/ SEF-C	340WKD/ EGC-C	320FK/ SEF-S	320XK/ SEG-C	320IK/UK -C	320WK/ BWX-C	320WKD/ BWX-C	320WKD/ EGC-C	
18	CM430	2202-000205	C	220	O	O	O	O	X	X	X	X	X	X	4H'D
19	JPM301	3812-000219		JUMPER	X	X	X	X	O	O	O	O	O	O	2H'D
20	JPM402	3812-000219		JUMPER	X	X	X	X	O	O	O	O	O	O	2H'D
21	DM401	0401-000005	D	1N4148	O	O	O	O	X	X	X	X	X	X	4H'D
22	RM345	2001-000554	R	270	X	X	X	X	X	X	O	X	X	X	2H'D LP
23	QM311	0504-000119	TR	R1004	X	X	X	X	X	X	O	X	X	X	2H'D LP
24	JM178	3812-000219		JUMPER	O	O	O	O	X	X	X	X	X	X	4H'D
25	JM119	3812-000219		JUMPER	O	O	O	O	X	X	X	X	X	X	4H'D
26	JM120	3812-000219		JUMPER	O	O	O	O	X	X	X	X	X	X	4H'D
27	RM339	2001-000429	R	1K	O	O	O	O	O	O	X	O	O	O	MESECAM
28	RM340	2001-000449	R	2.2K	O	O	O	O	O	O	X	O	O	O	MESECAM
29	CM371	2202-000127	C	103	O	O	O	O	O	O	X	O	O	O	MESECAM
30	JM060	3802-000219		JUMPER	O	O	O	O	O	O	X	O	O	O	MESECAM
31	JM138	3802-000219		JUMPER	O	O	O	O	O	O	X	O	O	O	MESECAM
32	JM140	3802-000219		JUMPER	O	O	O	O	O	O	X	O	O	O	MESECAM
33	JM198	3802-000219		JUMPER	X	O	O	O	X	O	O	O	O	O	NON-SECAM
34	SECAM BLOCK				O	X	X	X	O	X	X	X	X	X	
35	DM617	0401-000005	D	1N4148	O	O	O	O	X	X	O	X	X	X	LP
36	DM630	0401-000005	D	1N4148	X	O	O	O	X	X	X	O	O	O	NT3.58
37	DM632	0401-000005	D	1N4148	O	X	X	X	O	X	X	X	X	X	SECAM
38	DM704	0401-000005	D	1N4148	O	O	O	O	X	X	X	X	X	X	4H'D
39	DM703	0401-000005	D	1N4148	X	X	X	X	X	X	O	X	X	X	for IK
40	DM705	0401-000005	D	1N4148	O	O	O	O	O	O	O	O	O	O	PAL
41	JM400	3812-000219		JUMPER	X	X	X	X	O	O	O	O	O	O	2H'D

5-6-2 OPTION TABLE (Continued)

NO	LOCA-NO	CODE NO	Description	Spec.	MODEL								Remark
					340FK/SEF-S	340WK/BWX-C	340WKD/SEF-C	340WKD/EGC-C	320FK/SEF-S	320XK/SEG-C	320IK/UK-C	320WK/BWX-C	320WKD/BWX-C	320WKD/EGC-C	
42	JM401	3812-000219		JUMPER	O	O	O	O	X	X	X	X	X	X	4H'D
43	JM404	3812-000219		JUMPER	O	X	X	X	O	X	X	X	X	X	SECAM
44	JM405	3812-000219		JUMPER	O	O	O	O	O	O	X	O	O	O	MESECA
45	JM406	3812-000219		JUMPER	O	X	X	X	O	O	O	X	X	X	NT PB
46	JM407	3812-000219		JUMPER	X	O	O	O	X	X	X	O	O	O	NT3.58
47	JM409	3812-000219		JUMPER	X	X	X	X	X	X	O	X	X	X	LP HEAD
48	CM668	2401-002259	C	0.1F	X	X	X	O	X	X	X	X	X	O	BACK-UP
49	RM662	2001-000458	R	2.2 1/8	X	X	X	O	X	X	X	X	X	O	BACK-UP
50	RM699	2001-000004	R	200K	X	X	X	O	X	X	X	X	X	O	BACK-UP
51	JPM302	3812-000219		JUMPER	O	O	O	O	O	O	O	O	O	O	PAL
52	JPM304	3812-000219		JUMPER	O	O	O	O	O	O	O	O	O	O	PAL
53	DM618	0401-000005	D	1N4148	A/V 1 CHIP IC is used for PAL(only). Multi IC is commonly used.										
54	DM702	0401-000005	D	1N4148	BI NOR specification applies to models (for South America).										

Specifications of M-320FK/SEF-C are as follows.
ASSY M/DECK :AA94-80003L,DECK ASSY:AA91-40099A,PCB ASSY:AA96-80002Q
Specifications of OPTION are identical with ones of 320FK/SEF-S.

ASSY M/DECK	M/DECK Name	PCB ASSY	FULL DECK ASSY	Specification	Destination	Remark
AA94-80003J	M-340FK/SEF-S	AA96-80002P	AA91-40100A	PAL/MESECAM/SECAM/NT PB ON PAL TV	BASIC France	PAL Areas
AA94-80003K	M-320FK/SEF-S	AA96-80002Q	AA91-40099A	PAL/MESECAM/SECAM/NT PB ON PAL TV	BASIC France	
AA94-80003L	M-320FK/SEF-C	AA96-80002Q	AA91-40099A	PAL/MESECAM/SECAM/NT PB ON PAL TV	-	
AA94-8000M	M-320XK/SEG-S	AA96-80002S	AA91-40099A	PAL/MESECAM/NT PB ON PAL TV	Australia/Europe	
AA94-80003N	M-320IK/UK-S	AA96-80002T	AA91-40101A	PAL/NT PB ON PAL TV(Only for LP HEAD)	United Kingdom	
AA94-80003P	M-320WK/BWX-S	AA96-80002U	AA91-40099A	PAL/MESECAM/NT3.58	Russia,Middle East	
AA94-80003Q	M-340WK/BWX-S	AA96-80002V	AA91-40100A	PAL/MESECAM/NT3.58	Russia,Middle East	
AA94-80003R	M-320WKD/BWX-S	AA96-80002U	AA91-40102A	PAL/MESECAM/NT3.58,DIAMOND DRUM	Russia,Middle East	D DRUM
AA94-80003S	M-340WKD/BWX-S	AA96-80002V	AA91-40103A	PAL/MESECAM/NT3.58,DIAMOND DRUM	Russia,Middle East	D DRUM
AA94-80003T	M-320WKD/EGC-S	AA96-80002W	AA91-40102A	PAL/MESECAM/NT3.58 (BACK-UP)	Libya	D DRUM
AA94-80003U	M-340WKD/EGC-S	AA96-80002X	AA91-40103A	PAL/MESECAM/NT3.58 (BACK-UP)	Libya	D DRUM

5-6-2 OPTION TABLE (Continued)

SECAM BLOCK LIST

NO	LOCA-NO	CODE NO	Description	Spec.	Remark
1		3812-000219	JUMP	WIRE	add
2	JM109	3812-000219	JUMP	"	"
3	JM113	3812-000219	JUMP	"	"
4		3812-000219	JUMP	"	"
5	JM115	3812-000219	JUMP	"	"
6	JM116	3812-000219	JUMP	"	"
7	JM111	3812-000219	JUMP	"	"
8	JM089	3812-000219	JUMP	"	"
9	QM901	0501-000303	TR	A733	"
10	QM902	0501-000303	TR	A733	"
11	QM903	0501-000142	TR	R2001	"
12	QM904	0501-000303	TR	A733	"
13	QM905	0501-000398	TR	C945	"
14	CM901	2202-000195	C	221	"
15	CM902	2401-000620	C	2.2uF/50V	"
16	CM903	2202-000127	C	103	"
17	CM904	2202-000127	C	103	"
18	CM905	2202-000109	C	104	"
19	CM906	2202-000154	C	151	"
20	CM907	2401-001496	C	47/16	"
21	CM908	2202-000109	C	104	"
22	CM909	2202-000127	C	103	"
23	CM910	2202-000127	C	103	"
24	CM911	2202-000127	C	103	"
25	CM912	2202-000127	C	103	"
26	CM913	2401-001333	C	0.47/50	"
27	CM914	2202-000796	C	102	"
28	CM915	2401-000455	C	10/35	"
29	CM916	2202-000109	C	104	"
30	CM917	2202-000127	C	103	"

5-6-2 OPTION TABLE (Continued)

NO	LOCA-NO	CODE NO	Description	Spec.	Remark
31	CM920	2202-000199	C	223	add
32	CM921	2401-000594	C	1/50	"
33	CM922	2202-000127	C	103	"
34	CM923	2202-002036	C	510	"
35	CM925	2202-000143	C	100	"
36	CM926	2202-000830	C	820	"
37	CM927	2202-000825	C	681	"
38	CM928	2202-000210	C	271	"
39	CM930	2202-000127	C	103	"
40	DM901	0401-000005	C	1N4148	"
41	ICM901	1204-001058	IC	LA7337	"
42	LM902	2701-000208	COIL	6.8uH	"
43	LM903	2701-000162	COIL	27uH	"
44	LM904	2701-000191	COIL	47uH	"
45	LM905	2701-000158	COIL	22uH	"
46	RM902	2001-000977	R	8.2K	"
47	RM903	2004-001995	R	9.1K	"
48	RM904	2001-000563	R	27K	"
49	RM905	2001-000786	R	47K	"
50	RM906	2001-000429	R	1K	"
51	RM907	2001-000890	R	6.8K	"
52	RM908	2001-000613	R	3.9K	"
53	RM909	2001-000660	R	33K	"
54	RM910	2001-000660	R	33K	"
55	RM911	2001-000837	R	51K	"
56	RM912	2001-000734	R	4.7K	"
57	RM913	2001-000633	R	30K	"
58	RM915	2001-000890	R	6.8K	"
59	RM916	2001-000472	R	2.7K	"
60	RM917	2001-000522	R	22K	"
61	RM918	2001-000429	R	1K	"
62	RM919	2001-000605	R	3.6K	"

5-6-2 OPTION TABLE (Continued)

NO	LOCA-NO	CODE NO	Description	Spec.	Remark
63	RM920	2001-000761	R	430	add
64	RM921	2004-001996	R	910	"
65	RM922	2001-000429	R	1K	"
66	RM923	2001-000539	R	24K	"
67	RM924	2001-000319	R	120K	"
68	RM925	2001-000258	R	1.8K	"
69	RM926	2001-000539	R	24K	"
70	RM927	2001-000947	R	7.5K	"
71	JPM303	3812-000219		JUMPER	"
72	JM024	3812-000219		JUMPER	"
73	JM028	3812-000219		JUMPER	"
74	JM035	3812-000219		JUMPER	"
75	QM630	0504-000144	TR	R2002	"
76	QM631	0504-000119	TR	R2001	"

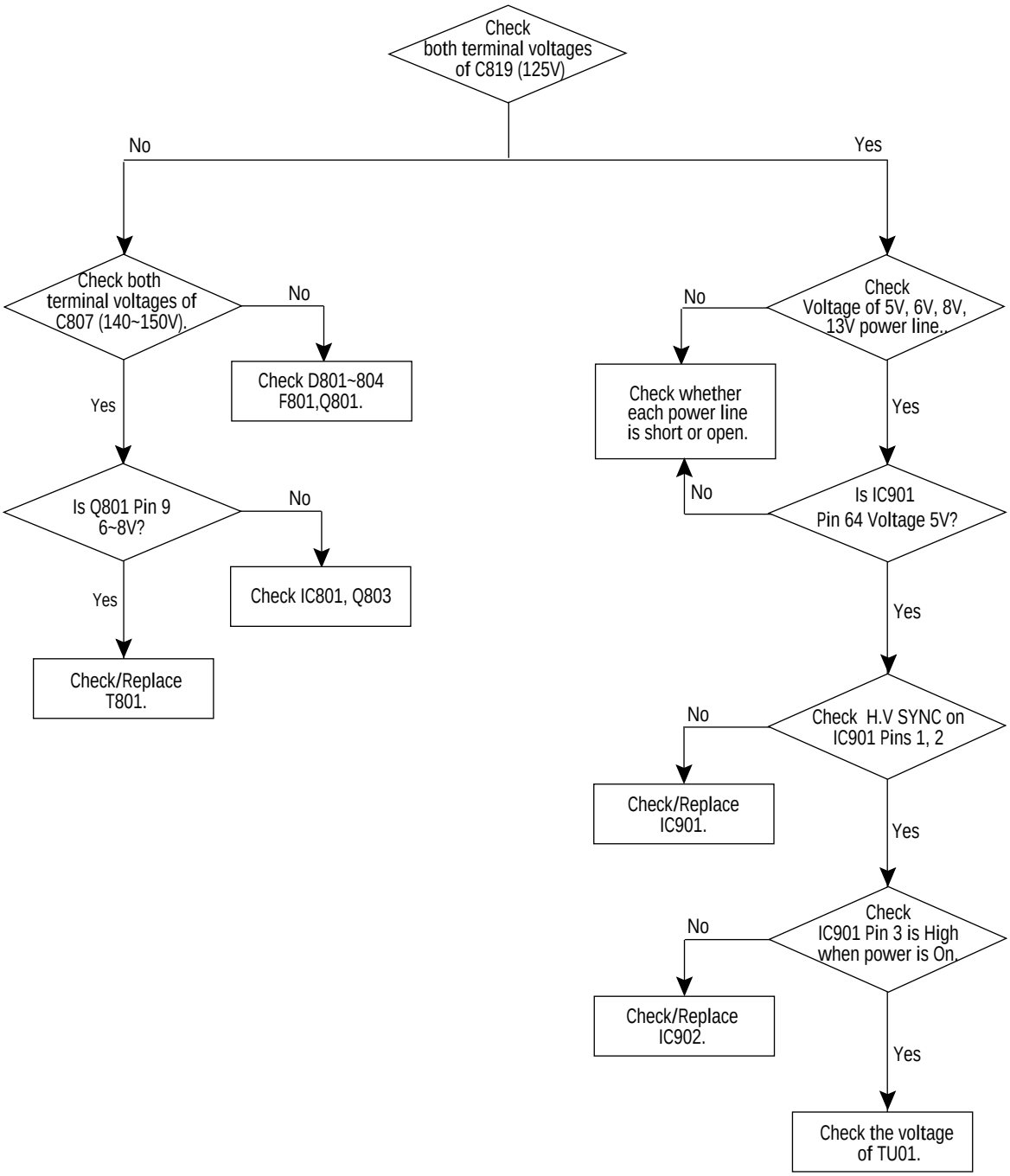
5-6-2 OPTION TABLE (Continued)

OPTION TABLE (Attached On PCB and Not Used)

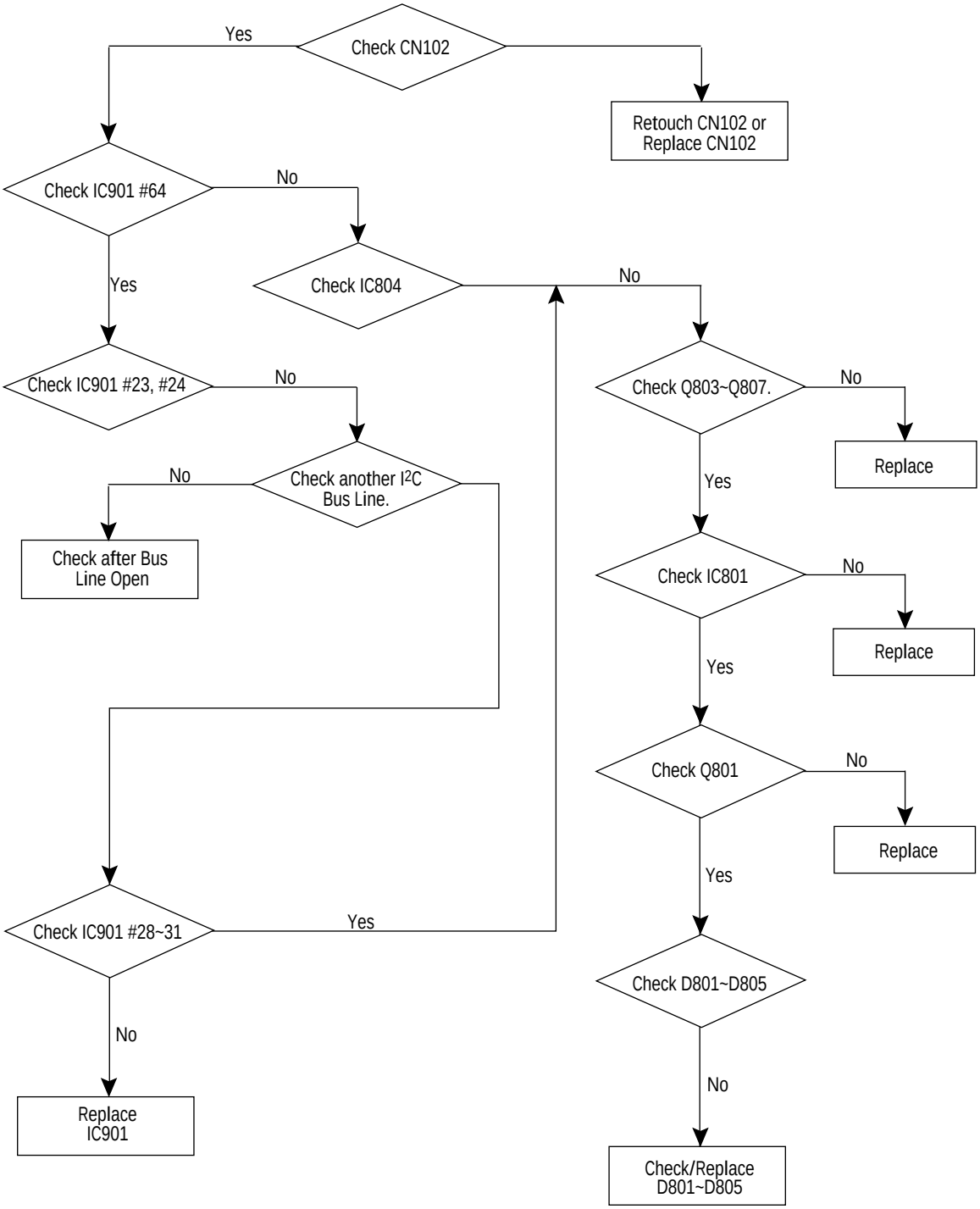
NO	LOCA-NO	CODE NO	Spec.	Remark
1	CM342	2202-000295	C-CERAMIC;680,5%	Change of fixed number
2	CM352	2202-000121	C-CERAMIC;101,5%	Change of fixed number
3	CM419	2202-000127	C-CERAMIC;103,30%	Not Used
4	DM605	0401-000005	1N4148	Not Used
5	JM032	3812-000219	JUMPER	South America
6	JM034	3812-000219	JUMPER	"
7	JM051	3812-000219	JUMPER	"
8	JM053	3812-000219	JUMPER	"
9	JM061	3812-000219	JUMPER	"
10	JM139	3812-000219	JUMPER	"
11	JM142	3812-000219	JUMPER	"
12	JM150	3812-000219	JUMPER	"
13	JM157	3812-000219	JUMPER	Not Used
14	JPM305	3812-000219	JUMPER	PAL ONLY
15	JPM307	3812-000219	JUMPER	PAL ONLY
16	JPM308	3812-000219	JUMPER	PAL ONLY
17	JPM309	3812-000219	JUMPER	PAL ONLY
18	LM303	2702-000143	RADIAL;270UH,5%	Change of fixed number
19	LM306	2702-000143	RADIAL;270UH,5%	Change of fixed number
20	QM307	0504-000119	R1004	South America
21	RM304	2001-000273	100K,1/8	South America
22	RM320	2001-000800	5.1K,1/8	Change of fixed number
23	RM330	2001-000522	22K,1/8	South America
24	RM331	2001-000429	1K,1/8	South America
25	XTM303	2801-000241	3.582056MHZ	South America
26	XTM304	2801-000241	3.575611MHZ	South America

6. Troubleshooting

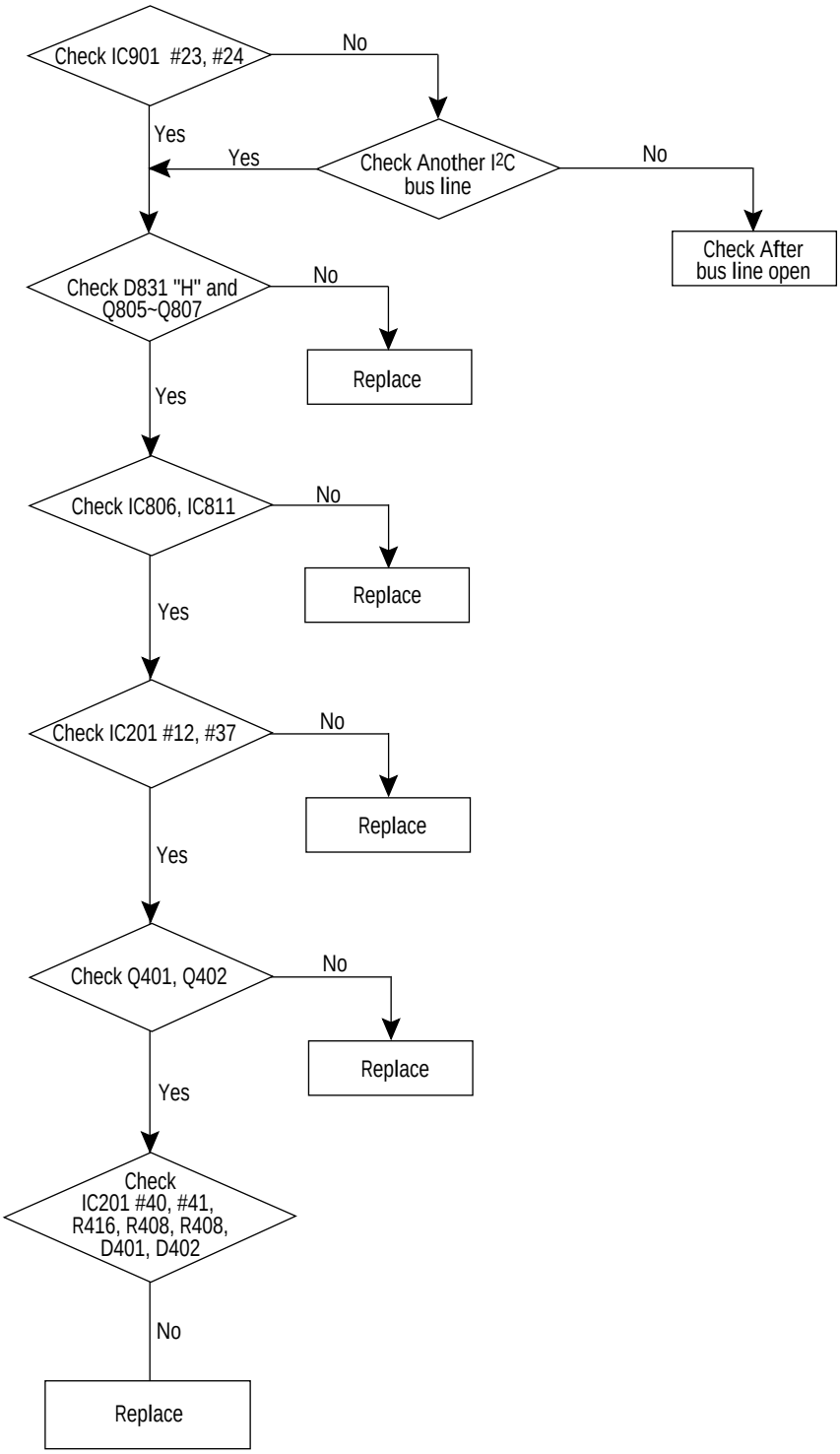
6-1 No Power (No LED on)



6-2 No Power (No Picture On)



6-3 No RF Sound (Picture Ok)



6-4 No Picture (Sound OK)

1 Check the Brightness, Contrast and Color adjustments

2. Check: AV Picture, Video Playback

3. See Video Block Diagram

6-5 No Sound (Picture OK)

1. Check the Volume adjustment level.

2. Check AV Video, Sound Playback

3. See Audio Block Diagram

6-6 RF Weak Signal (Playback, AV Mode OK)

1. Check Tuner (TU001) B+. Check: 12V (IC807)
   33V (DZ803). Check 5V (IC802)

2. Pre AMP (HC001), B+. Check: 9V (IC803)
   SPLITTER (SP001) B+. Check: 5V (IC803, ICU101)

6-7 Recording Defect

1. CN101 Check : Retouch

2. 2nd Tuner (TU002) B+. Check : 12V (IC807), 33V(DZ803)
   5V (IC803, ICU101)

3. 2nd If : Check 12V (IC807), Video out, Audio out

4. Video Defect : IC701 Check

5. Audio Defect : IC704 Check

6. Standby Recording Defect, IC901 #5 Line: Check (D833, D838, IC808, IC807, IC806)

7. VPS (PDC) Recording Defect: Check IC901, #4

6-8 No Color

1. Check the Color Adjustment level
2. Check the Sandcastle Pulse Line : IC201 #41, IC202 #5, IC203 * #15
3. Check the R-Y, B-Y Line : IC201 #29~#32, IC202 #14, #16, #11, #12, IC203 #9, #10
4. Check IC203 : #15 (SECAM System)
5. Check crystal : X202 (4.43361MHz)

6-9 No Vertical SCAN

1. Check R410, D404
2. Check IC301, #7
3. Check IC201 #46, #47 Line
4. Check DY Connector

6-10 Horizontal Size

1. Check DZ805 & IC801
2. Check Q803
3. Check C402 & C403

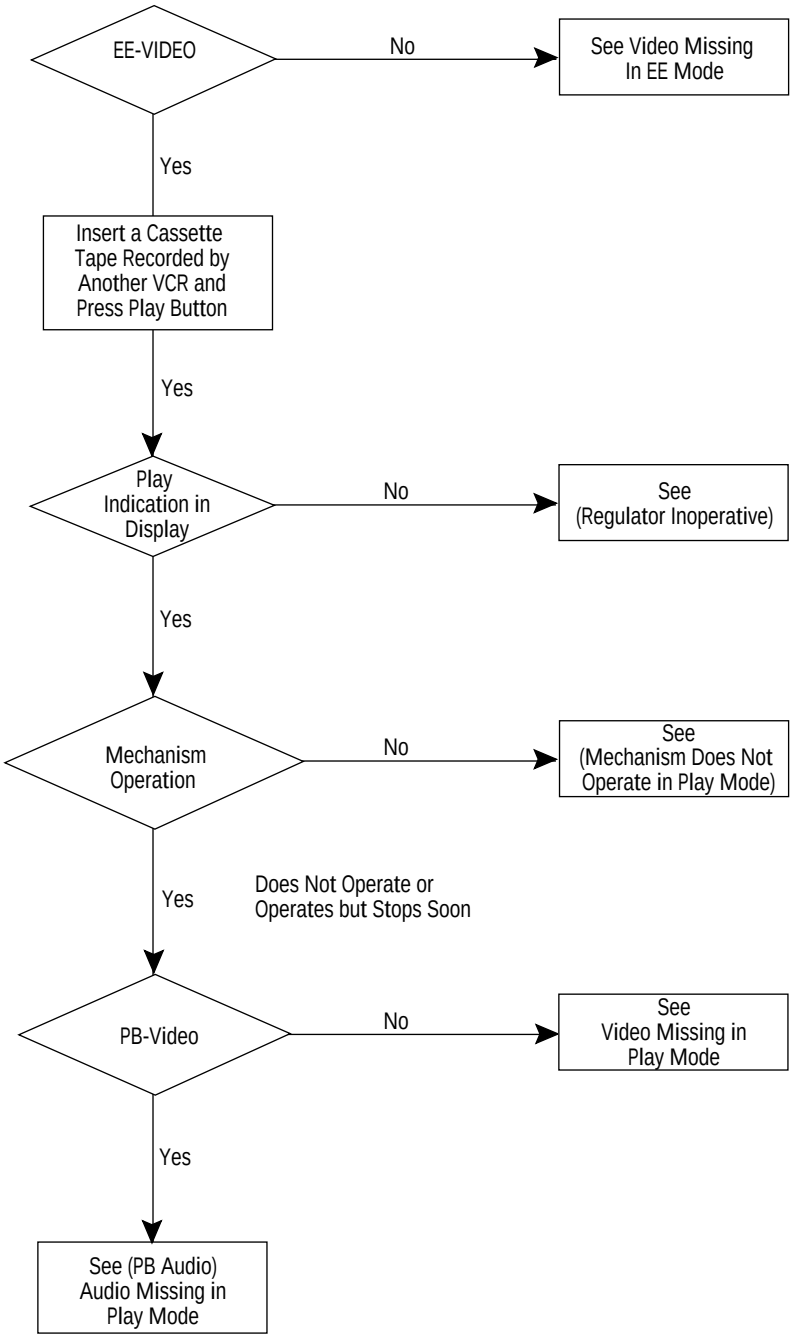
6-11 On-Screen Display Missing

1. Check IC901 #2
   (D921, Q901, DZ901)
2. Check IC901 #1 (R949, D919)

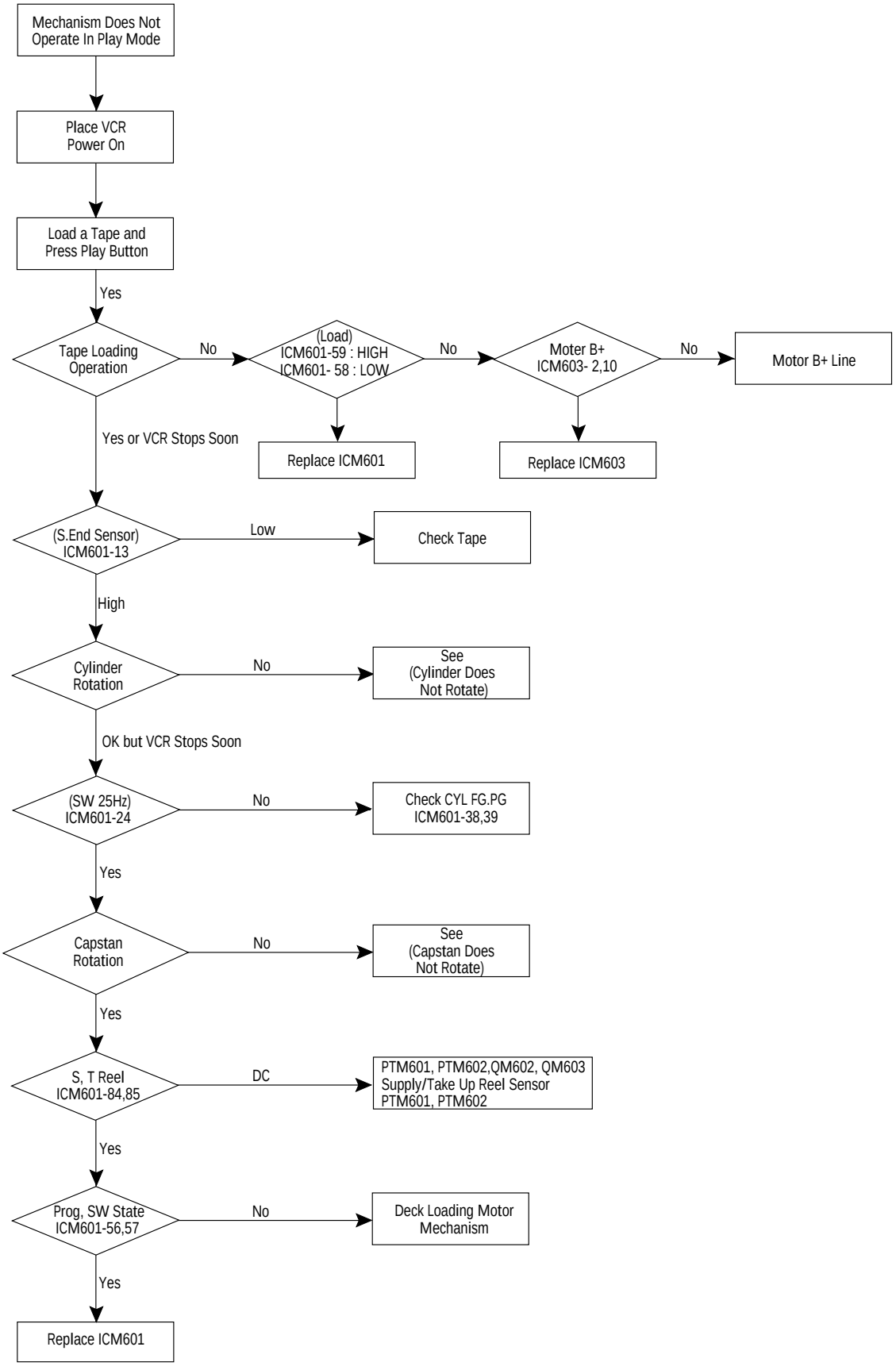
6-12 No Teletext

1. Check Q203 (IC203* #16)
2. Check the 1st 5V-Line (R842, D817, IC802)
3. Check ICT01 #1 (Vcc(5V) : Teletext Board)
4. Check ICT01 #8 (CVBS : Teletext Board)
5. Check IC201 #26 (TTX F/B)

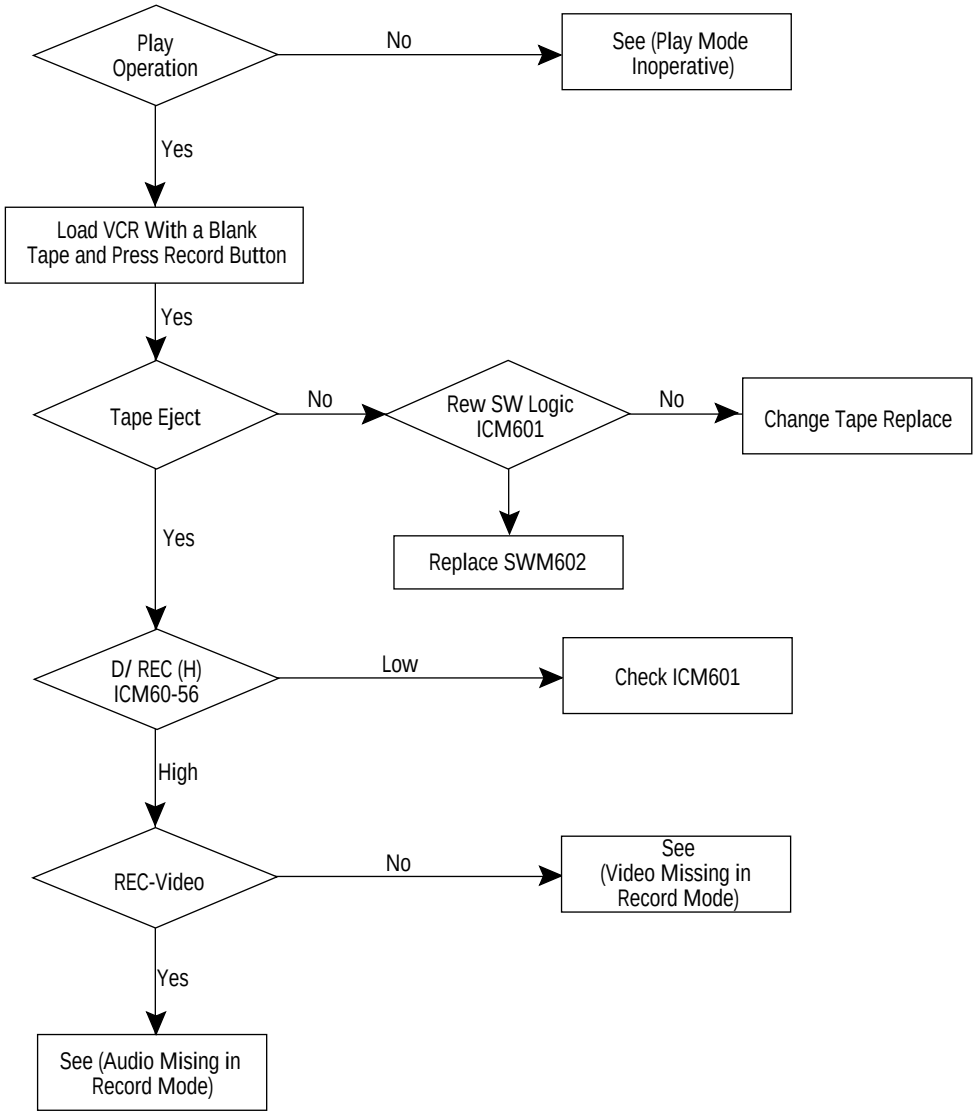
6-13 Play Mode Inoperative



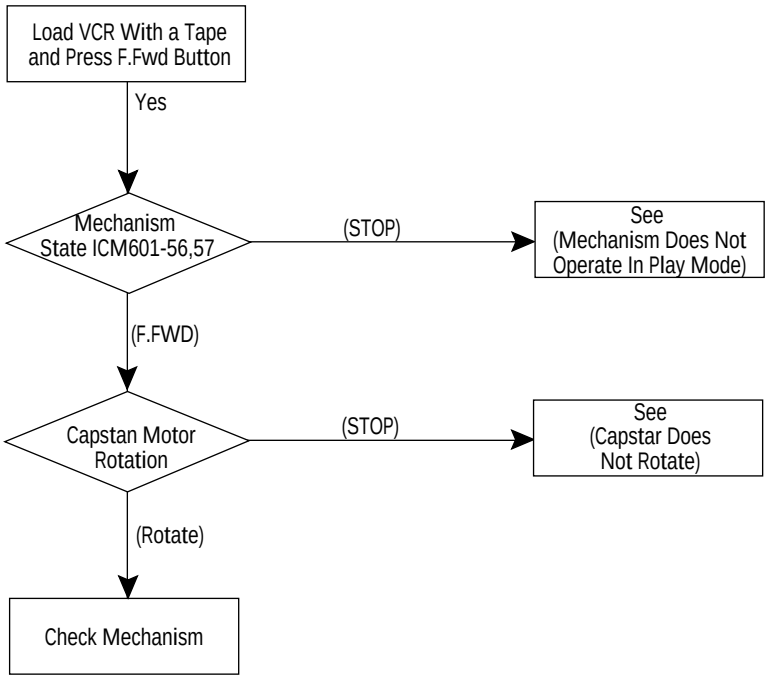
6-14 Mechanism Does Not Operate In Play Mode



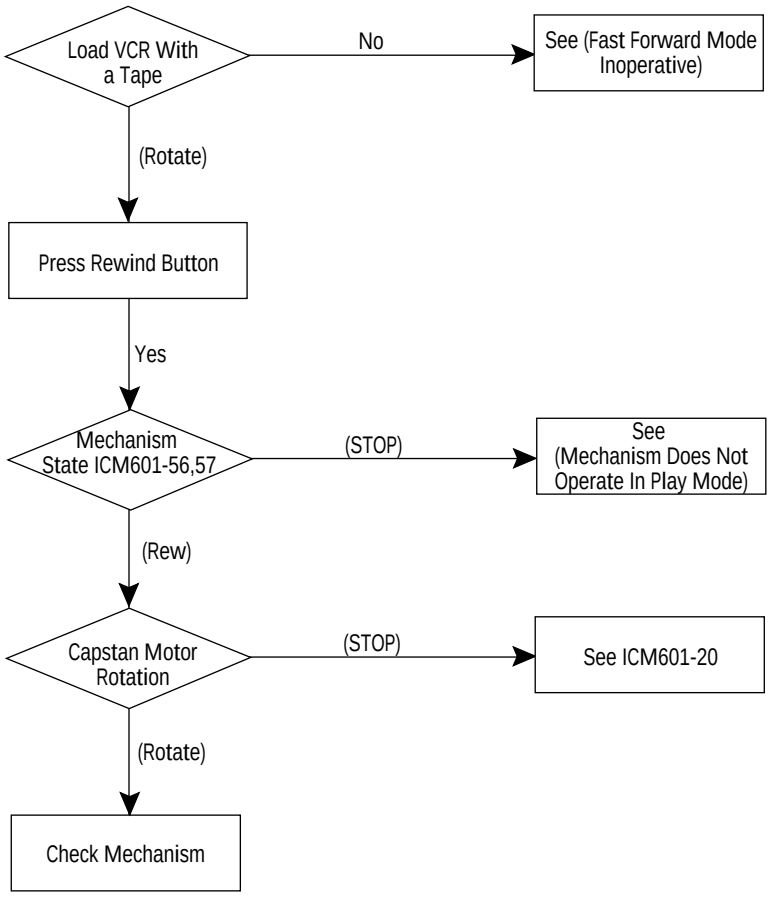
6-15 Record Mode Inoperative



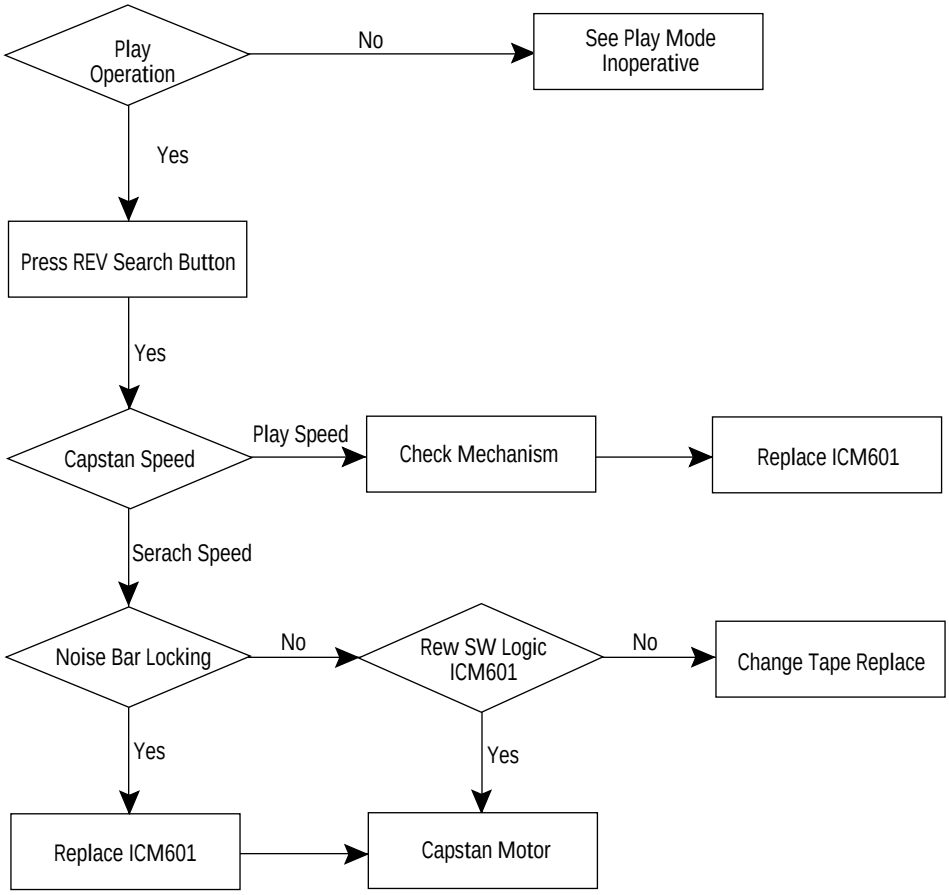
6-16 Fast Forward Mode Inoperative



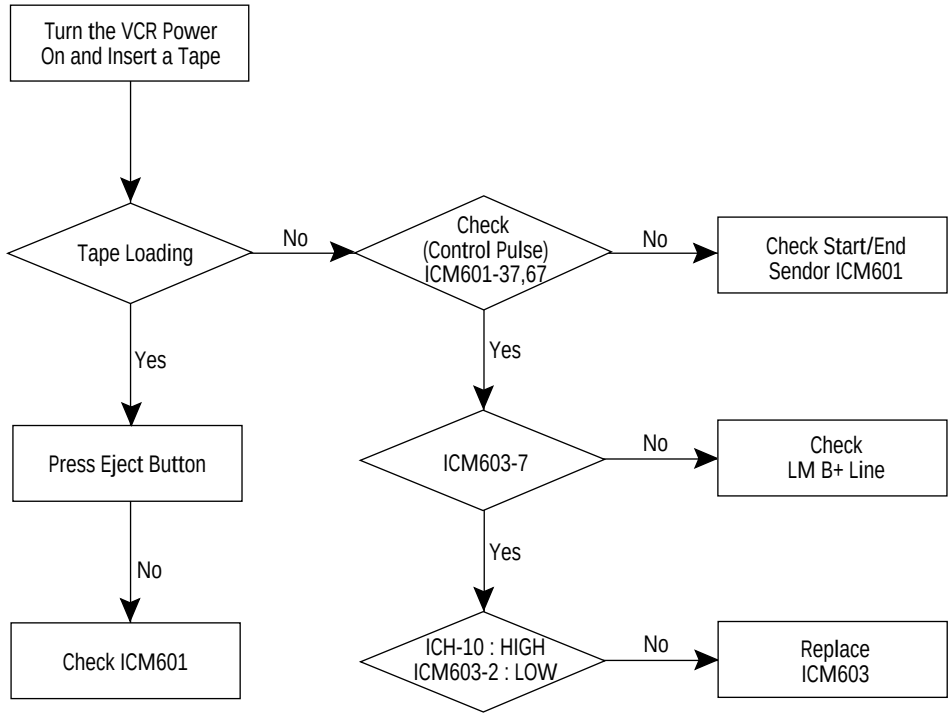
6-17 Rewind Mode Inoperative



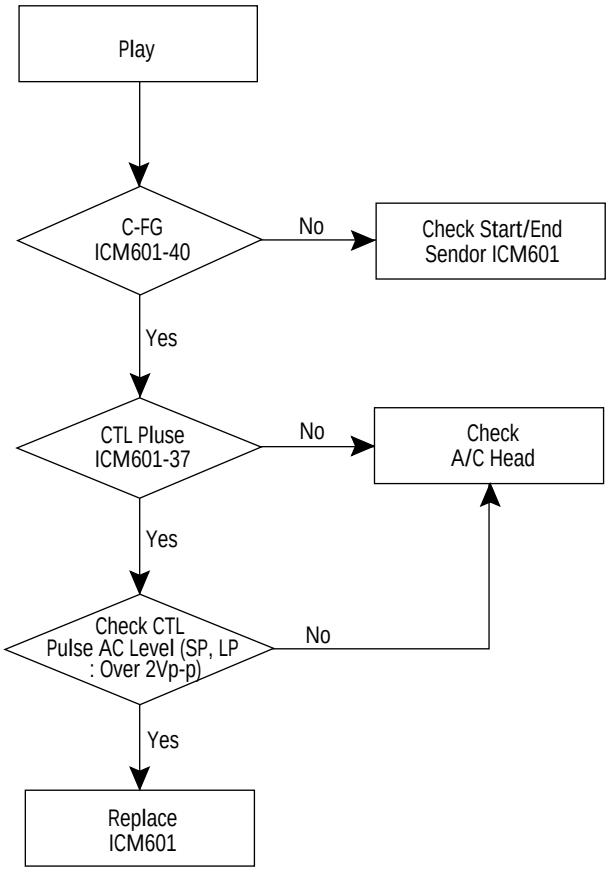
6-18 Rev Search Mode Inoperative



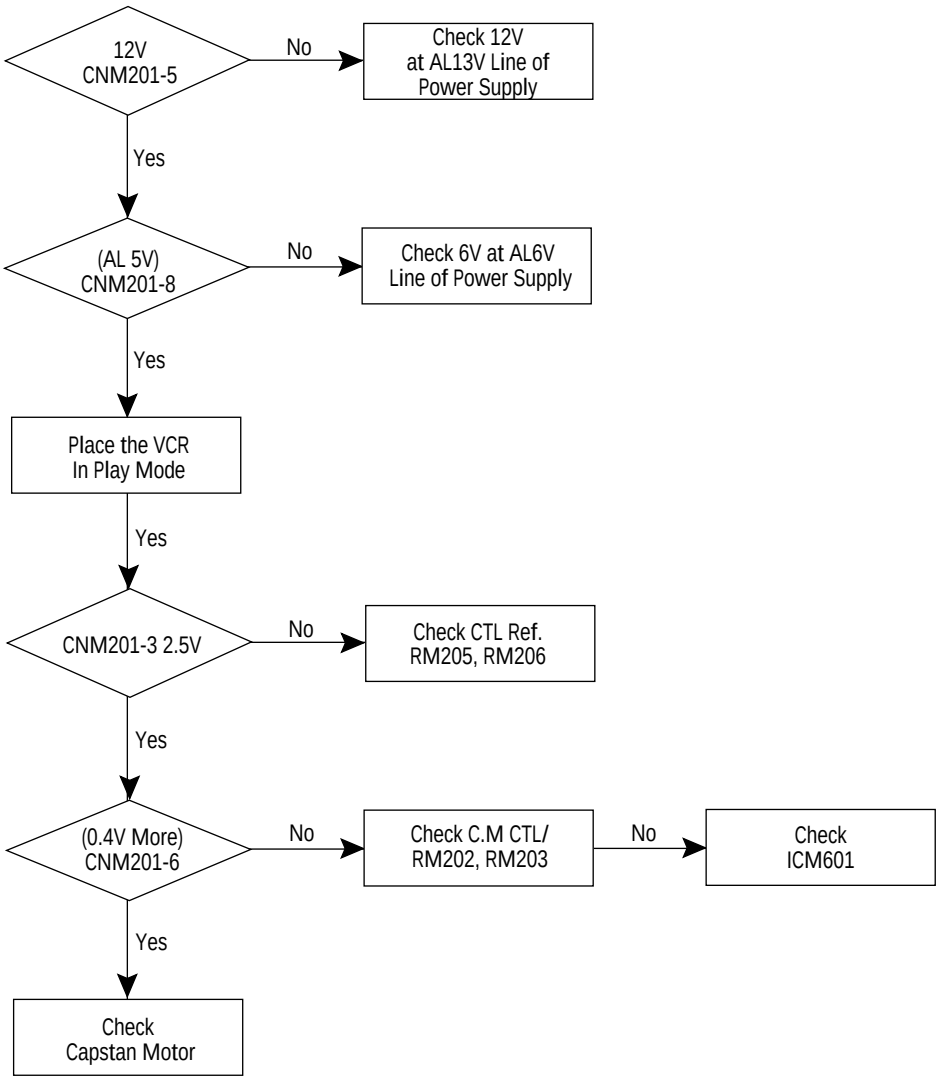
6-19 Cassette Loading Mechanism Does Not Operate



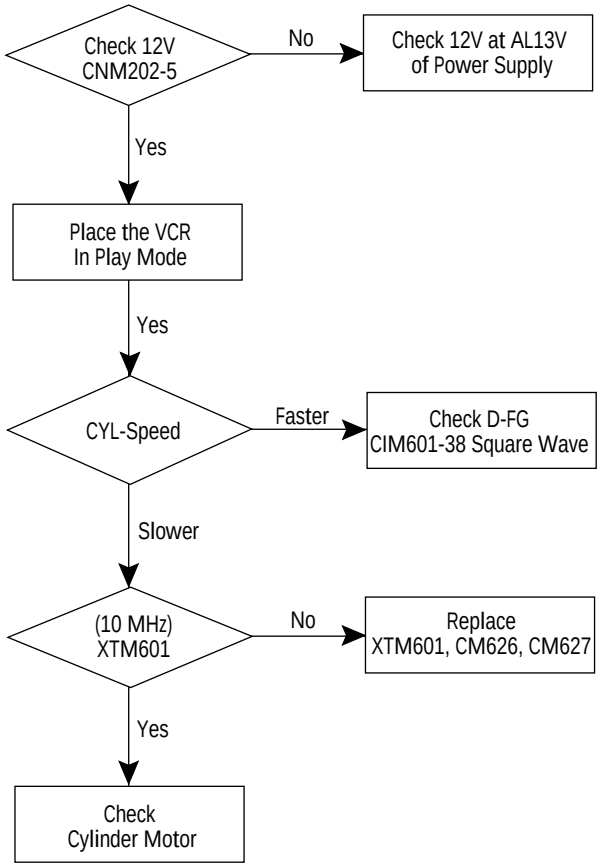
6-20 No Servo Lock



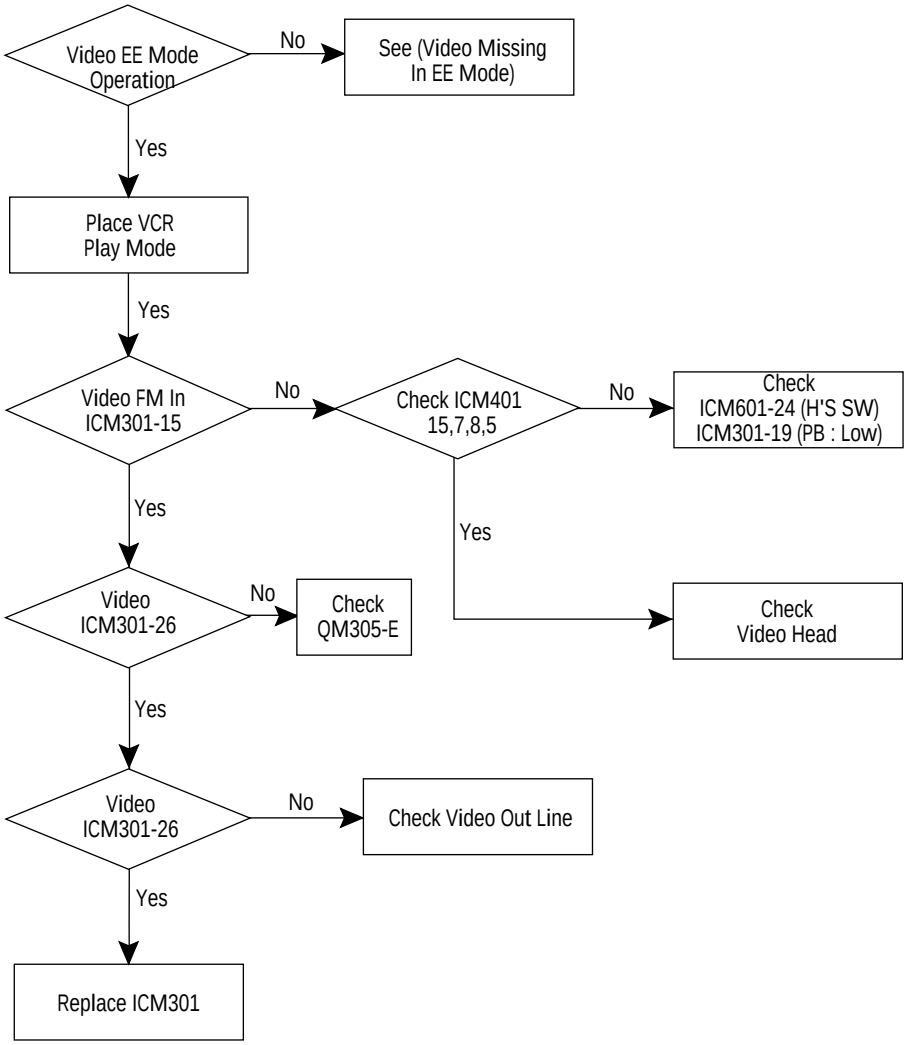
6-21 Capstan Does Not Rotate



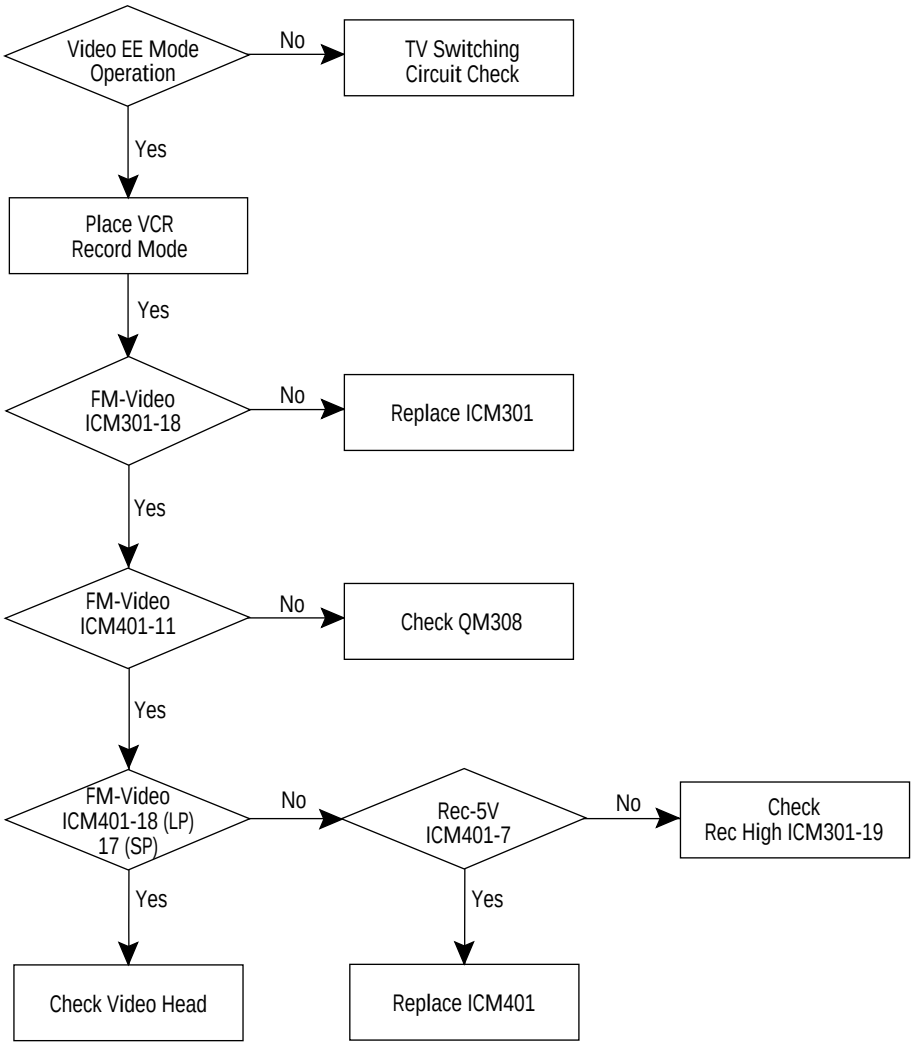
6-22 Drum Does Not Rotate



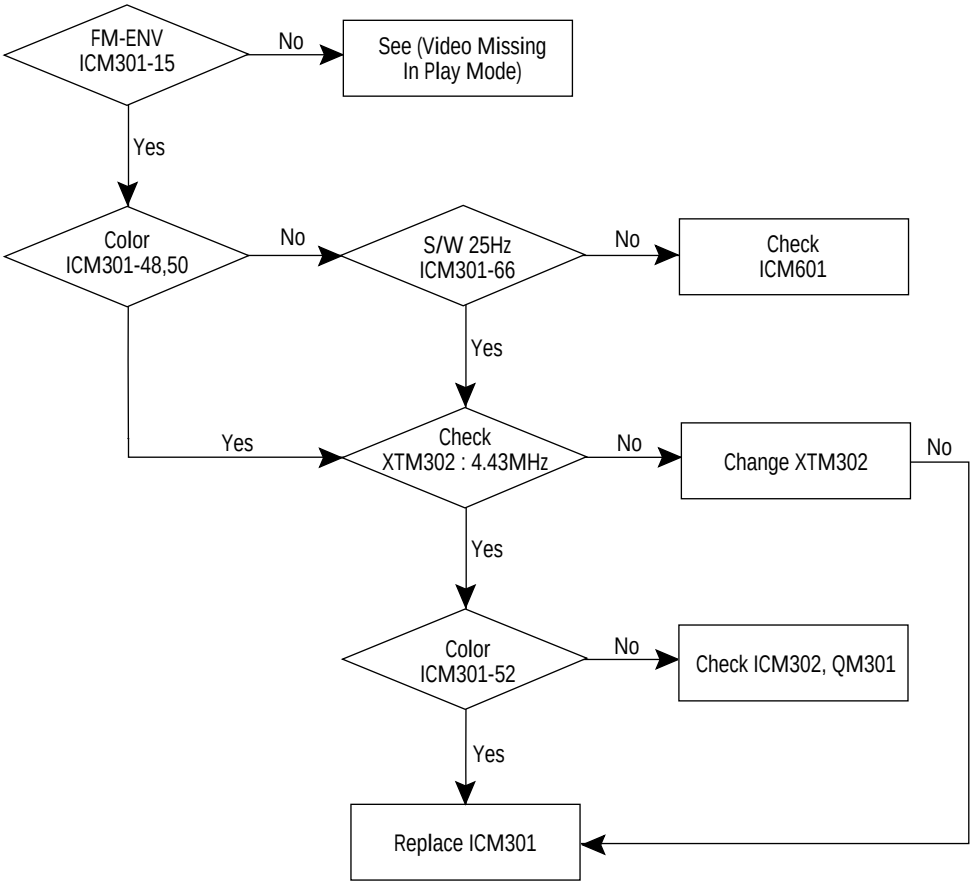
6-23 Video Missing In Play Mode



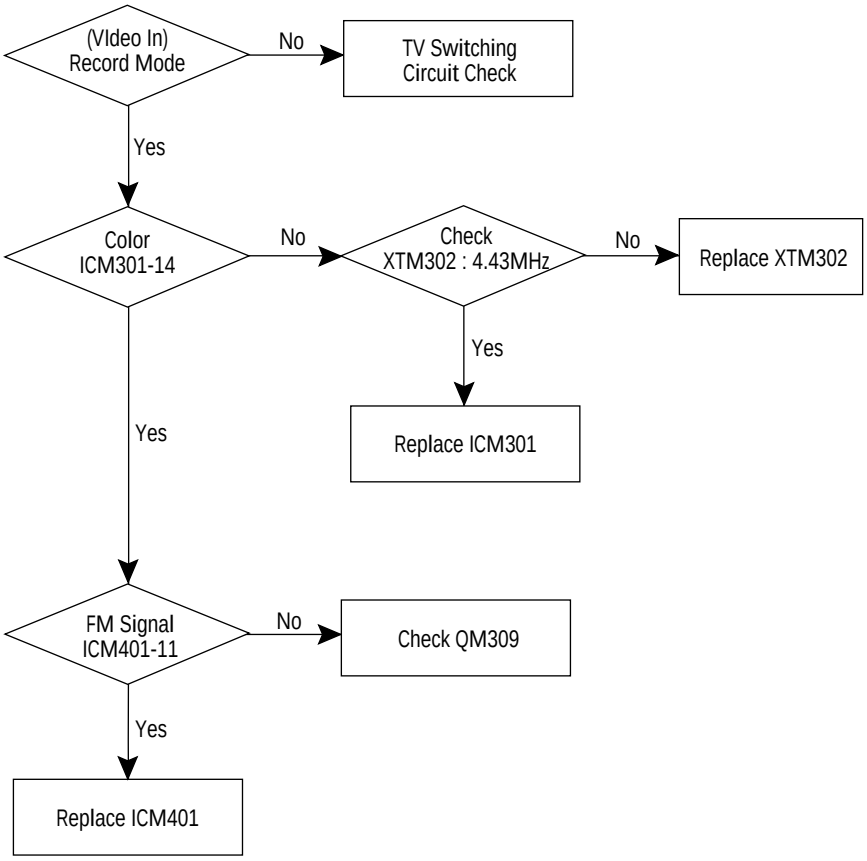
6-24 Video Missing In Record Mode



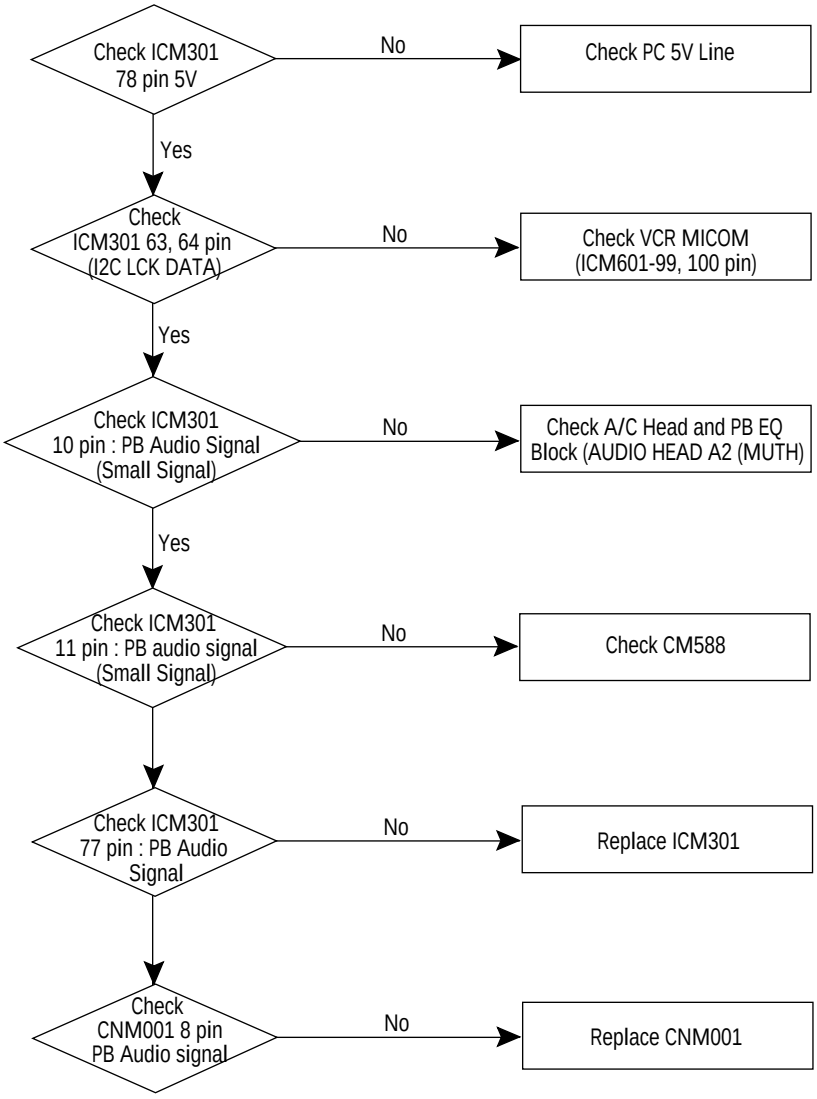
6-25 Color Missing In Play Mode



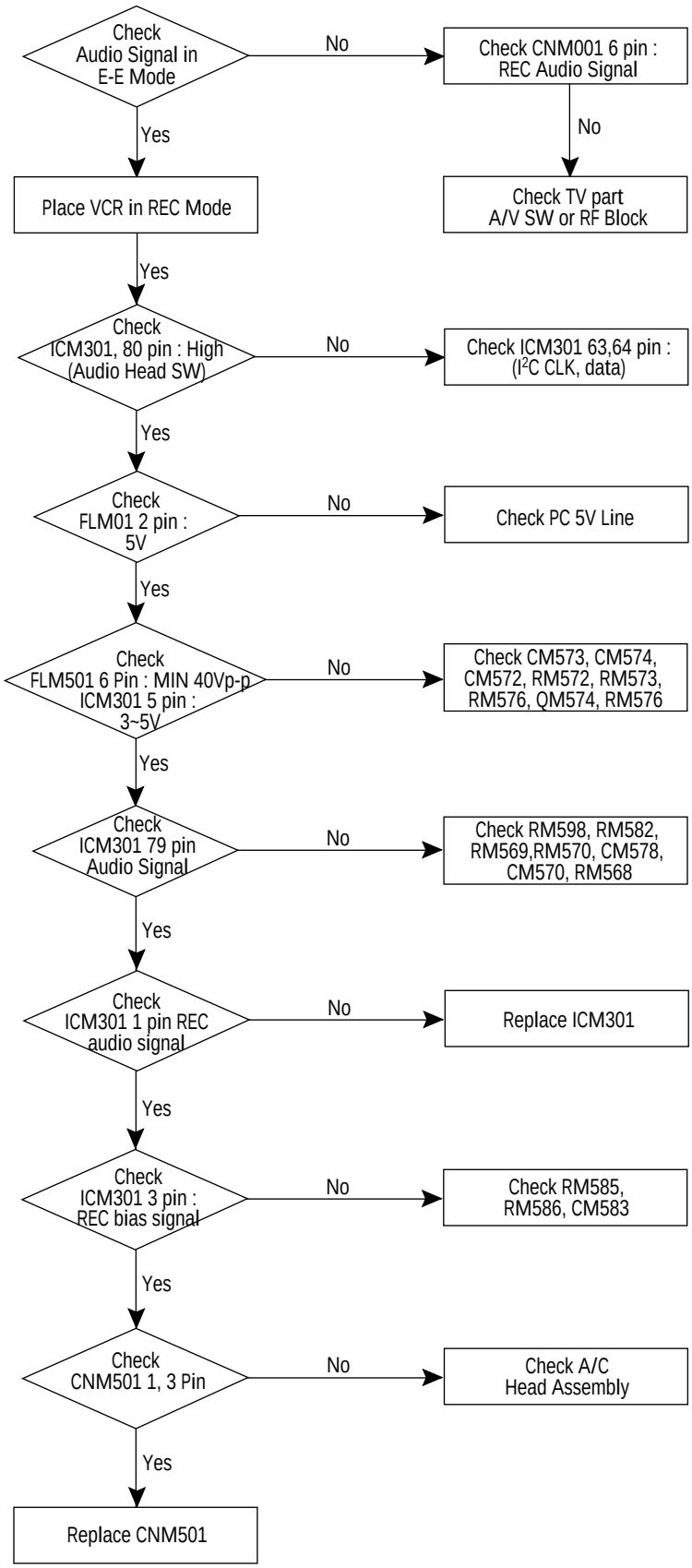
6-26 Color Missing In Record Mode



6-27 Audio Signal Missing in Play Mode

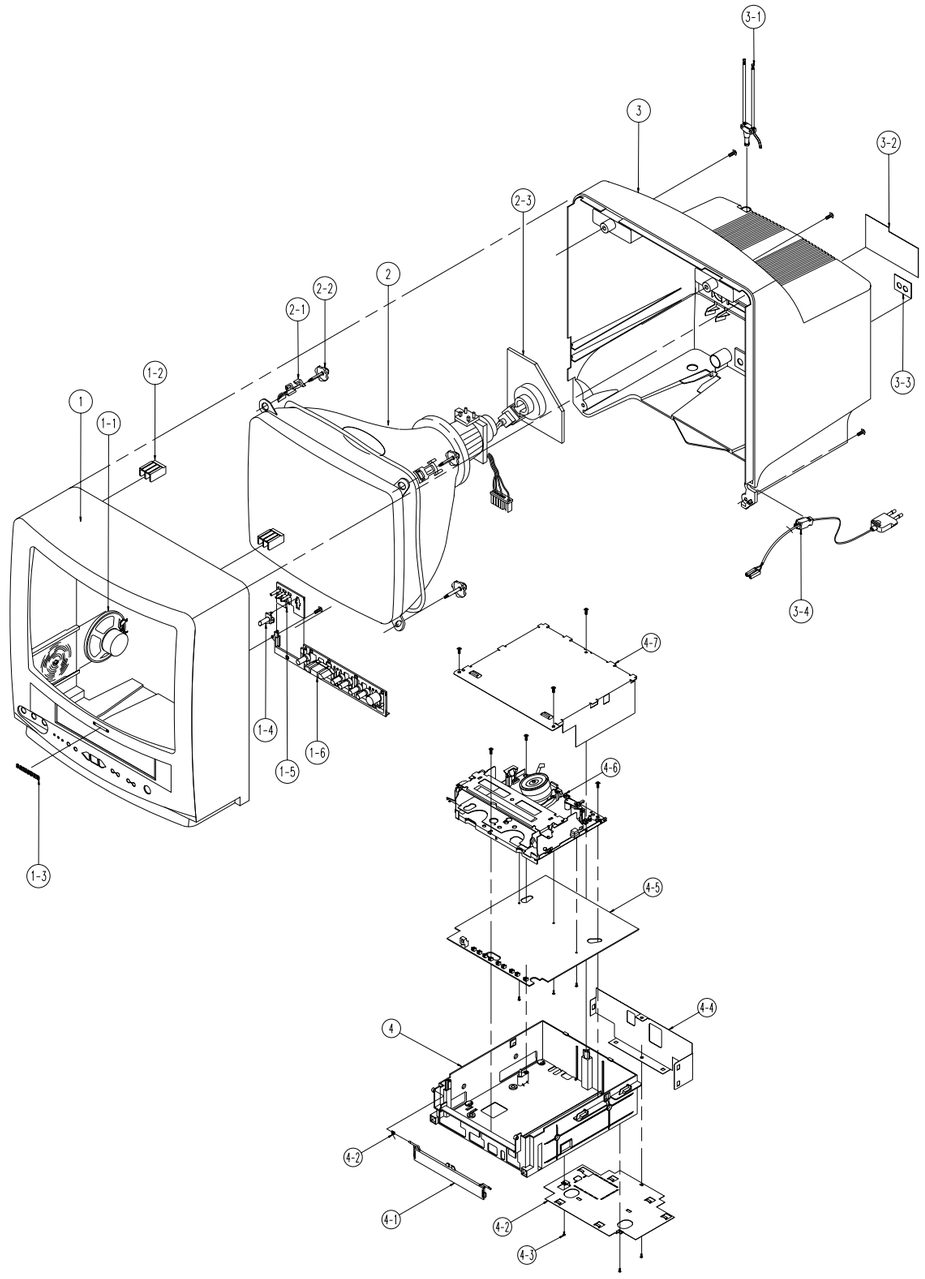


6-28 Audio Signal Missing After Recording



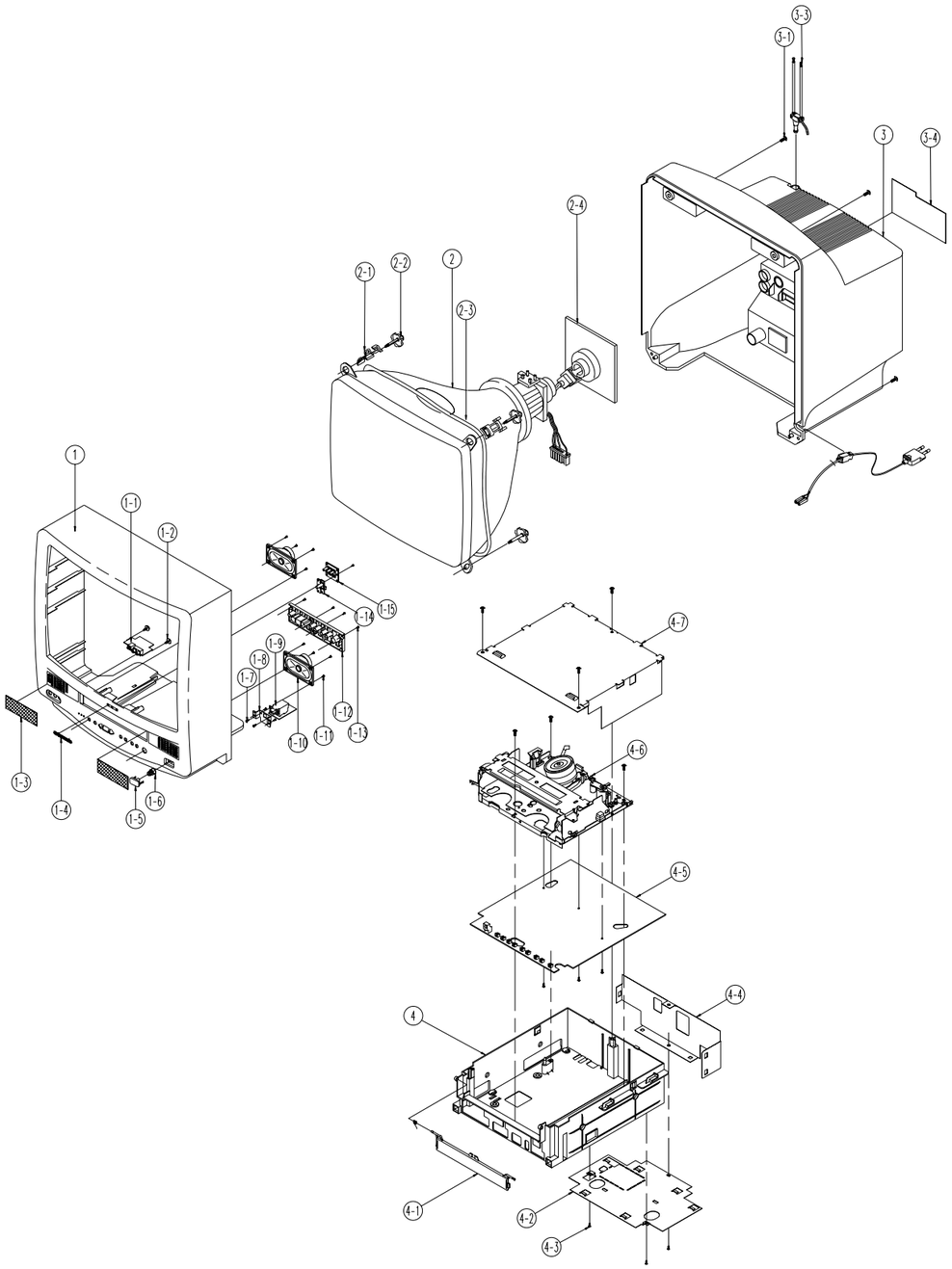
7. Exploded View & Parts List

7-1 TB331VBZ / TB331VDT



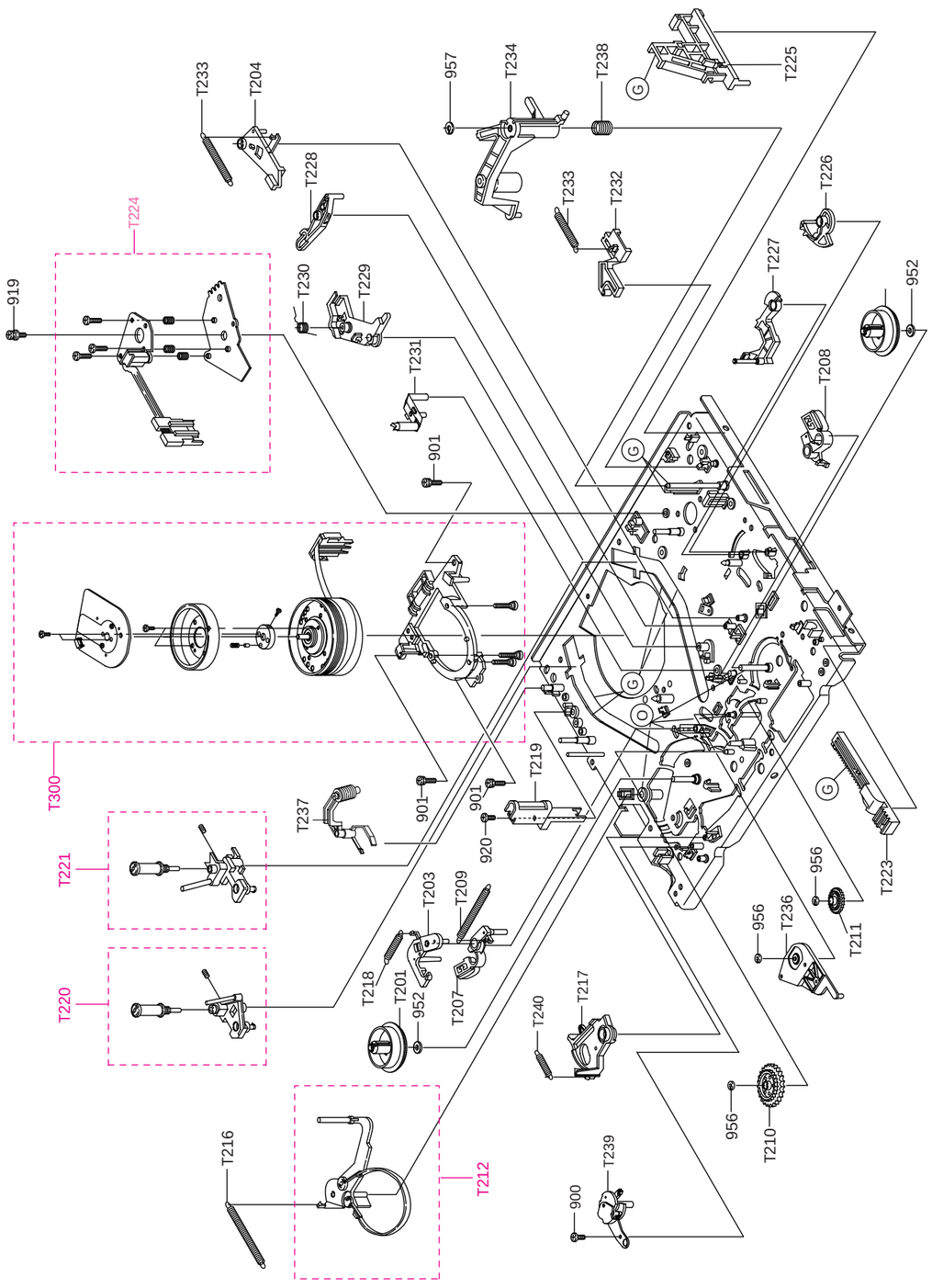
No	Code No	Description	Specification	Q'ty	Remark
1	AA90-50002B	ASSY-CABINET,FRONT	SESA,EUROPE,TVP3350	1	
	AA64-30093F	CABINET-FRONT	-,T3350,PA100 PAL,HIPS,HB,	1	
1-1	3001-001015	SPEAKER	2.5W,16OHM,88DB,150HZ	1	
1-2	AA61-40015A	BOSS-CABINET	-,HIPS,HB,NTR,-,-	2	
1-3	AA64-70009B	BADGE-BRAND	AL,SS R2000 22,SILVER,L40,-,	1	
1-4	AA64-40160A	INDICATOR-LED	-,PC,-,-,-,-,T3350	1	
1-5	AA64-40027A	WINDOW-REMOCON	-,T3350,1:20,PC,-,VIOLET,	1	
1-6	AA64-10366A	KNOB-CONTROL	-,T3350,PA100,ABS,HB,BLK	1	
2		CRT-COLOR		1	LOCAL
2-1	AA65-30016A	CLAMP-D,COIL	NYLON-66,V0,NTR,DADH-360 14	2	
2-2	AA60-10050D	SCREW-ASSY	WC,HH,+,M5,L33,SWRCH18,ZPC(YE	4	
2-3	AA95-20008T	ASSY-PCB,CRT	-,SCV11D,14,EC,-	1	
3	AA64-30650D	CABINET-BACK	-,T3350,-,HIPS,V2,BLK,-,-	1	
3-1	AA42-10001V	ANT-ROD	-,3S,620mm,BRN,UL/CSA	1	
3-2	AA64-60062H	INLAY-BACK	T5050,1-TUNER PAL-V,PS,T0.5,B	1	
3-3	DELETE ITEM				
3-4	AA61-20045A	HOLDER-CORD		1	
4	AA61-10313A	FRAME-DECK	-,VDECK,HIPS,V2,-,BLK,-,-	1	LOCAL
4-1	AA64-50049M	DOOR-HOUSING	-,T3350,PA100 S/VIEW,ABS,HB	1	
4-2	AA63-30110A	COVER-FRAME,BOT	-,SV-M30.M80,-,SECC,-,NTR	1	LOCAL
4-3	6002-000507	SCREW-TAPPING	RH,+,2,M3,L12,ZPC(YEL),SW	4	
4-4	AA63-30111A	COVER-FRAME,BACK	-,SV-M30.M80,-,SPTE,-,NTR	1	LOCAL
4-5	AA94-80003K	ASSY-M/DECK	M-320FK/SEF-S,2HD,PAL/MESECA	1	
4-6	AA91-40099A	ASSY-DECK	-,2HD PAL/MESEC/SEC,DX-7A	1	
4-7	AA63-30109A	COVER-FRAME,TOP	-,SV-M30.M80,-,SECC,-,NTR	1	LOCAL

7-2 TB501VAT / TB531VAT(OPTION)



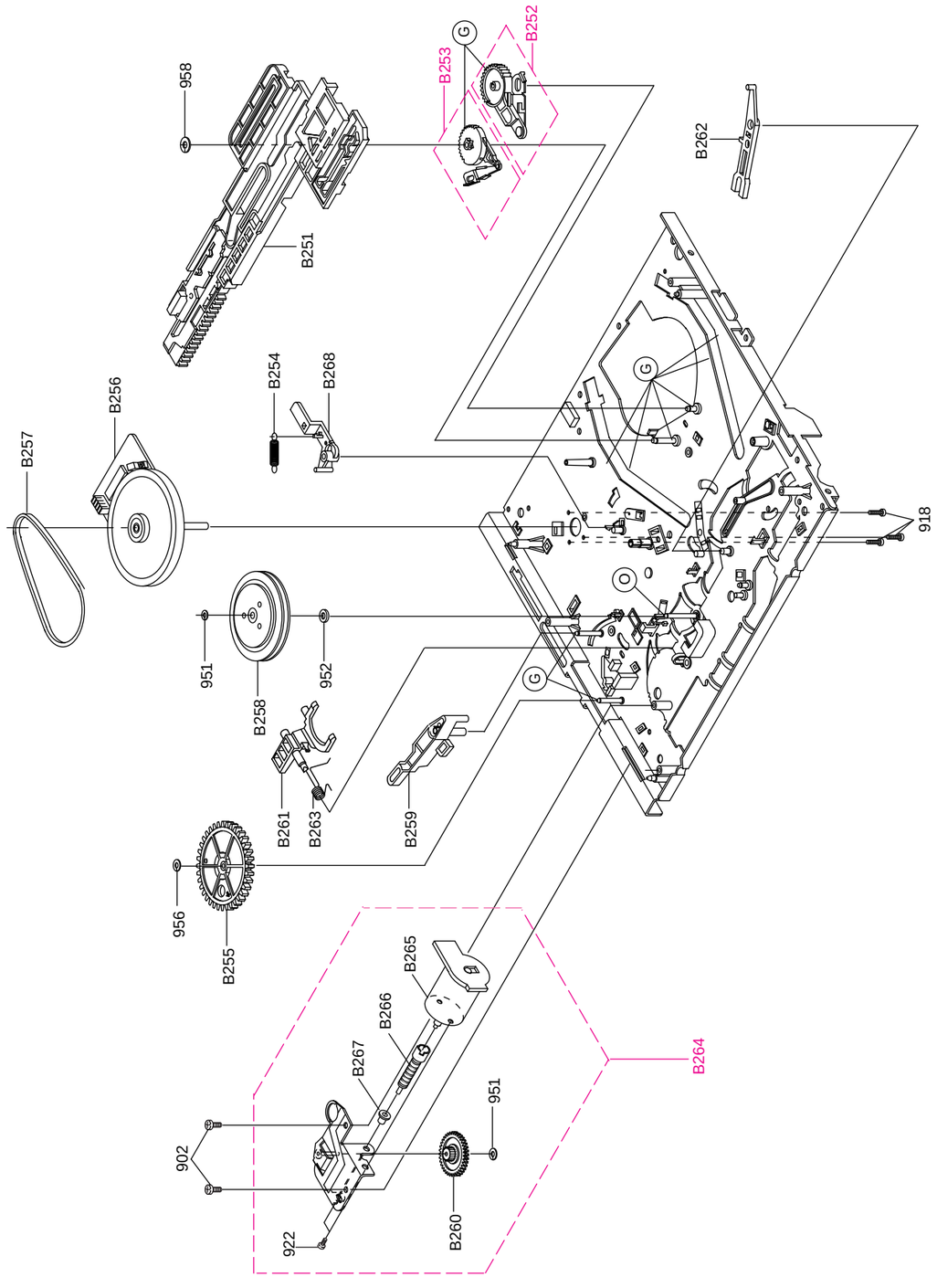
No	Code No	Description	Specification	Q'ty	Remark
1	AA90-50001B	ASSY-CABINET,FRONT	SESA,EUROPE,TVP5050	1	
	AA64-30173E	CABINET-FRONT	-,HIPS,HB,-,-,BLK,PA100 EU	1	
1-1	AA95-40010T	ASSY-PCB,A/V	DP,TVP5350FST,SCV11D,-,MONO	1	
1-2	AA60-10002A	SCREW-TAPPING	RH,+,M4,L12,ZPC(YEL),-,OD1	2	
1-3	DELETE ITEM				
1-4	AA64-70010B	BADGE-BRAND	AL,SS R2000 25,SILVER,L50,-,	1	
1-5	AA64-10580A	KNOB-POWER,M	-,T3350,SYMBOL,ABS,HB,BLK	1	
1-6	AA61-60005E	SPRING-CS	-,SUS304,0.6,OD12,H12.5,N5,-,-	1	
1-7	6001-000057	SCREW-MACHINE	RH,+,M3,L6,ZPC(BLK),SWRCH1	2	
1-8	AA61-10320A	BRACKET-MASTER	-,T3350,SECC,T1.0,-,-,-	1	
1-9	3403-001020	SWITCH-PUSH	250V,5A,DPST,OFF-ON-OFF	1	
1-10	3001-001008	SPEAKER	5W,16ohm,90dB,180Hz	2	
1-11	6002-000506	SCREW-TAPPING	RH,+,2,M3,L12,ZPC(BLK),SW	2	
1-12	AA64-10013A	KNOB-CONTROL	-,T5050,PA100 L/G,ABS,HB,BL	1	
1-13	6002-000406	SCREW-TAPPING	RH,+,2,M3,L10,ZPC(YEL),SWC	4	
1-14	AA64-40043A	WINDOW-REMOCON	-,PC,V0,-,VIOLET,-,T5050	1	
1-15	AA64-40165A	INDICATOR-LED	-,PC,-,-,-,-,T5050	1	
2		CRT-COLOR		1	LOCAL
2-1	AA65-30019A	CLAMP-D,COIL	NYLON-66,V0,NTR,DADH-460 20	4	
2-2	AA60-10050D	SCREW-ASSY	WC,HH,+,M5,L33,SWRCH18,ZPC(YE	4	
2-3	AA27-20001Z	COIL-DEGAUSSING	-,21,14.5OHM,35T,L2500,	1	
2-4	AA95-20008H	ASSY-PCB,CRT	-,SCV11D,21,EC,-	1	
3	AA64-30404D	CABINET-BACK	-,T5050,-,HIPS,V2,BLK,-,-	1	
3-1	6002-000514	SCREW-TAPPING	RH,+,2,M4,L15,ZPC(BLK),SWR	4	
3-3	DELETE ITEM				
3-4	AA64-60062B	INLAY-BACK	T5050,2-TUNER PAL-V,PS,T0.5,B	1	
4	AA61-10313A	FRAME-DECK	-,VDECK,HIPS,V2,-,BLK,-,-	1	LOCAL
4-1	AA64-50049Q	DOOR-HOUSING	-,T3350,PA100 S/VIEW,ABS,HB	1	
4-2	AA63-30110A	COVER-FRAME,BOT	-,SV-M30.M80,-,SECC,-,NTR	1	LOCAL
4-3	6002-000507	SCREW-TAPPING	RH,+,2,M3,L12,ZPC(YEL),SW	4	
4-4	AA63-30111A	COVER-FRAME,BACK	-,SV-M30.M80,-,SPTE,-,NTR	1	LOCAL
4-5	AA94-80003M	ASSY-M/DECK	M-320XK/SEG-S,2HD,PAL/MESECA	1	
4-6	AA91-40099A	ASSY-DECK	-,2HD PAL/MESEC/SEC,DX-7A	1	
4-7	AA63-30109A	COVER-FRAME,TOP	-,SV-M30.M80,-,SECC,-,NTR	1	LOCAL

7-3 Mechanical Parts (Top Side)



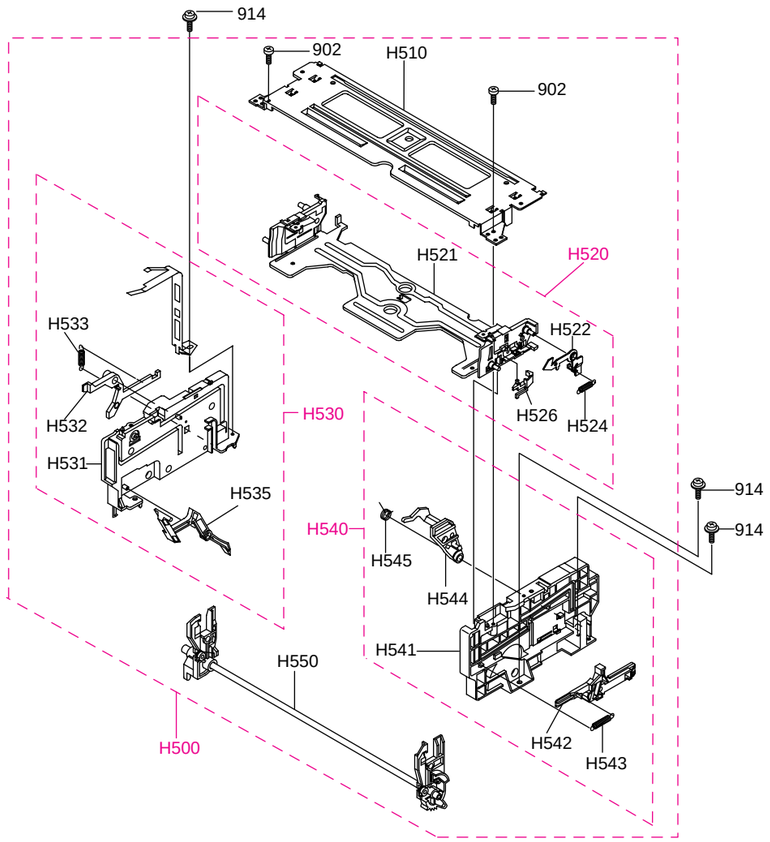
Loc. No	Part No	Description and Specification	Remark
901	AC60-10012A	SCREW-MACHINE;BH,+,M3,L8,-,FE,-,-,-	
919	AC60-10004A	SCREW-MACHINE;BH,+,M3,L8,ZPC,SWRCH18A,-,	
920	AC60-10007A	SCREW-TAPPING;BH,+,M2.6,L12,-,SWRCH18A,-	
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLID	
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,	
957	AC60-30008A	WASHER-SLIT;-,ID3.5,OD9,T0.5,SPC1,-,-	
T201	AC66-10023A	REEL-DISK L ASSY;POM,-,PACKAGE,X-5,-	
T202	AC66-10022A	REEL-DISK R (ASSY);POM,-,PACKAGE,X-5,-	
T203	AC66-30474A	BRAKE-SUB L;-,PBT,-,-,-,X-5/IS	
T204	AC66-30148A	BRAKE SUB R;-,-,-,-,X5,-	
T207	AC66-30475A	BRAKE-MAIN L ASS'Y;-,POM+PELT,-,-,-,X-5/	
T208	AC66-30476A	BRAKE-MAIN R ASS'Y;-,POM+PELT,-,-,-,X-5/	
T209	AC61-60112A	SPRING- BRAKE MAIN;ES,SUS304WPB,PI0.35,I	
T210	AC66-20073A	GEAR RELAY S-ASSY;-,-,-,-,-,X5,-	
T211	AC66-20037A	GEAR- RELAY T;PEBAX7033,X-5,Z39,GEAR-SPU	
T212	AC66-30073A	ARM-TENSION ASSY;-,DX5-R,-,-,-,-	
T216	AC61-60119A	SPRING TENSION;ES,SWPB,PI0.4,D3,L33(OD3.	
T217	AC66-30470A	LEVER-REC S/W;-,PBT #3300,T4.0,L32,-,(X-	
T218	AC61-62017A	SPRING-SUB BRAKE L;ES,SUS304,PI0.23,D3.5	
T219	AC33-10003P	HEAD- MAGNET F/E;MH131S,-,-,-,L51.05XW7.	
T220	AC66-82050A	SLIDER-G/R ASSY(S);-,-,-,-,X-5	
T221	AC66-82054A	SLIDER-G/R ASSY(T);-,-,-,-,X-5	
T223	AC66-20065A	RACK-HOUSING;L74.29,POM M90-44,BLK,M1,3.	
T224	AC33-10216K	HEAD-ACE ALL ASSY;-,-,-,-,X-7A	
T225	AC66-80005A	SLIDER-PINCH;POM(M90-44),T10.5,L54.35,NA	
T226	AC66-30014A	LEVER-REVIEW;ZYTEL(70G-43L),T5,-,PCD25.6	
T227	AC66-30099A	ARM-REVIEW ASSY;-,-,-,-,DX5-R,-	
T228	AC66-30013A	LEVER- CAM;PBT 6300T,-,L45,W9,X-5,-	
T229	AC66-30003A	LEVER-PINCH COMP;PBT 3300,T7.5,L45.25,-,	
T230	AC61-60116A	SPRING- PINCH COMP;TS,SWPB,PI1.0,D6,L38(	
T231	AC67-32001A	PRISM-LED;PMMA,D5,IF-850,-,-,-	
T232	AC66-82049A	SLIDER-PUSH;LUPOX 2150,T2,-,NTR,-	
T233	AC61-62016A	SPRING-SLIDE PUSH;ES,SUS304WPB,PI0.55,D3	
T234	AC59-90402A	UNIT-PINCH ROLLER;X-7A,RESIN BEARING	
T236	AC66-10010A	IDLER-ASSY;PACKAGE,-,X-5,-	
T238	AC61-60132A	SPRING ARM PINCH;CS,SUS304WPB,PI0.4,D7.1	
T240	AC61-60505A	SPRING-REC S/W;-,ES,SUS304 WPB,PI0.29,PI	
T300	AC96-10475D	ASSY-CYLINDER;-,CX8A-S2P (2HEAD)	
T300	AC96-10475E	ASSY-CYLINDER;-,CX8A-S2P/DLC (2HEAD)	
T300	AC96-10480F	ASSY-CYLINDER;-,CX8A-S2P(LP)	
T300	AC96-10475F	ASSY-CYLINDER;-,CX8A-D4P	
T300	AC96-10475G	ASSY-CYLINDER;-,CX8A-D4P/DLC	

7-4 Mechanical Parts (Bottom Side)



Loc. No	Part No	Description and Specification	Remark
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
918	AC60-10041A	SCREW-TAPPING;BH,+,-,M2.6XL7.5,ZPC3	
922	AC60-10504A	SCREW-MACHINE;-,PH,+,-,M3,L3,FE,FZY,YEL	
951	AC60-30025A	WASHER-SLIT;-,ID2.5,OD5.0,T0.5,POLY SLID	
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLID	
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,	
958	AC60-30028A	WASHER-SLIT;-,D2.5,D9.0,T0.5,NUMIRROR,-,	
B251	AC66-82043A	SLIDER-MAIN;TOPEX 4010S,-,-,-,-	
B252	AC66-20019A	GEAR-LOADING L ASSY;-,-,-,PACKAGE,-,X-5,	
B253	AC66-20069A	GEAR-LOADING R ASSY;-,-,-,-,-,X5,-	
B254	AC61-60115A	SPRING-BRAKE CAPSTAN;ES,SUS304WPB,PI0.4,	
B255	AC66-20004A	GEAR-MASTER;POM (M90-44),M 1,Z 60,SP,-,X	
B256	AC31-12006A	MOTOR-D/D CAPSTAN;DMVCMC07A,-,-	
B257	AC66-62008A	BELT-CAPSTAN;-,DLB-601,T2,8,L134.9,BLK,X	
B258	AC66-20066A	GEAR-CLUTCH ASSY;X-5,-,-,-,-,-,-	
B259	AC66-32185A	LEVER-SLIDER PINCH;PBT,T4,NAT,-,-,-	
B260	AC66-20016A	GEAR- WORM WHEEL;POM SW-01,M0.55/M1,Z57/	
B261	AC66-30011A	LEVER- SHIFT;PBT2002K,T10.9,L35,-,-,-	
B262	AC66-30012A	LEVER- IDELR CHANGE;PBT330,T33,L50,-,W6.	
B263	AC61-60111A	SPRING-LEVER SHIFT;TS,SWPB,PI0.7,D5.5,L1	
B264	AC59-90001A	UNIT-LOADING ASSY;X-5,-,-	
B265	AC31-12015A	MOTOR-LOADING ASSY;POM+RF370C X-5	
B266	AC66-20039A	GEAR- WORM LO;PBT 2002K,-,-,-,D4.5,3,-	
B267	AC61-20224A	HOLDER SHAFT;POM M90-44,T1.25,NTR,PI5XH5	
B268	AC66-30149A	BRAKE CAPSTAN;-,-,-,-,X5,-	

7-5 Housing Assembly



Loc. No	Part No	Description and Specification	Remark
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
914	AC60-10067A	SCREW-TAPTITE;PWH,+,-,M3,L8,MFZN2-C,SWCH	
H500	AC61-82014D	HOUSING-ASSY;-,X7FL26280B,230X130X60,-,X	
H510	AC61-10006A	CHASSIS- UPPER;SECC 20/20,-,T1.0,BLK,-,X	
H520	AC61-20932B	HOLDER-CASSETTE ASSY;-,X5FL06080A,-,-,-	
H521	AC61-20922B	HOLDER-CASSETTE;-,SECC T1.2,-,NAT,-,X-7(	
H522	AC66-30018A	LEVER-LOCK R;SECC 20/20,T1.2,L44,W32,-,-	
H524	AC61-60121A	SPRING-LEVER LOCK;ES,SUS304 WPB,PI0.2,D2	
H526	AC66-30019A	LEVER-KEY CASSETTE;LUCEL N109-LD,T2.5,L2	
H530	AC61-11033A	CHASSIS-SIDE L ASSY;-,-,-,-,-,X5FL0505A,	
H531	AC61-10004A	CHASSIS- SIDE L;ABS HF-380,-,T10,BLK,-,X	
H532	AC66-30004A	LEVER- LIGHT SHUTTER;LUCEL N109-LD,T2.5,	
H533	AC61-60142A	SPRING- LIGHT;ES,SUS304WPB,PI0.2,L11.4(O	
H535	AC66-30017A	LEVER- DOOR;LUCELN109-LD,T3.5,L74.3,W21.	
H540	AC61-11032A	CHASSIS-SIDE R ASSY;-,-,-,-,-,X5FL0505A,	
H541	AC61-10003A	CHASSIS- SIDE R;ABS HF-380,-,T10,BLK,-,X	
H542	AC66-80008A	SLIDER DAMPER;LUCEL N109-LD,T4,L87,-,-,-	
H543	AC61-60120A	SPRING-SLIDER;ES,SUS 304WPB,PI0.4,D3.8,L	
H544	AC66-30016A	LEVER- LID OPENER;LUCEL N109-LD,T4.0,L34	
H545	AC61-60123A	SPRING-LID OPENER;TS,SWPB,PI0.55,D8.9,L1	
H550	AC61-50654A	SHAFT-ARM ASSY;-,SUM24L,-,-,-,-,X-5	

8. Electric Parts List

8-1 TB331VBZ1S/XEG (TB501VAT AND TB331VBZ Dissimilar Parts)

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,MAIN(OPT)	
		BUYER : SECOSA (SPAIN)	
*	AA94-10131W	ASSY-PCB,MAIN(OPT);TB331VBZ1S/XEG,SCV11F	
C403	2306-000237	C-FILM,MPPF;6.3nF,5%,1.6KV,TP,28.5x18x11	
C404	2306-000195	C-FILM,MPPF;360nF,5%,400V,TP,26x19x11.5,	
CN601	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5MM,STRAIGH	
⚠ IC601	1201-000535	IC-AUDIO AMP;7056,SIP,9P,-,SINGLE,40.5DB	
L401	AA27-30001K	COIL-LINEARITY;-,230UH,DR1215,PI0.5,14.1	
L404	AA27-40001M	COIL-HORIZ.WIDTH;-,180/480uH,SB-5S6202.6	
L803	AA27-20001L	COIL-DEGAUSSING;-,14,23.0OHM,100T,L940,	
Q401	0502-000443	TR-POWER;2SD1711YD,NPN,50W,TO-3PML,BK,3	
R211	2001-000548	R-CARBON;270Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R217	2001-000531	R-CARBON;240Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R250	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	
R417	2008-001015	R-FUSIBLE(S);1.5ohm,5%,2W,AF,TP,3.9x10mm	
R603	2001-001108	R-CARBON(S);22Kohm,5%,1/2W,AA,TP,2.4x6.4	
R611	2006-001020	R-CEMENT;3.9OHM,5%,5W,CB,TP,10.5X14X23.	
R705	2001-000674	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R711	2001-000674	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
⚠ T444	AA26-30002U	TRANS-FLYBACK;-,FTK-14R005C,14,125V	
⚠ TU001	AA40-10005W	TUNER-F/S;TECC2979PK28B(S),PAL-B/G,TR,18	
		ASSY-PCB,CRT	
*	AA95-20008T	ASSY-PCB,CRT;-,SCV11D,14,EC,	
R505	2008-001015	R-FUSIBLE(S);1.5ohm,5%,2W,AF,TP,3.9x10mm	
⚠ V999	3704-000103	SOCKET-CRT;10P,22.5,14.3,SN,ISMS01S/BK	

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,A/V	
*	AA95-40010U	ASSY-PCB,A/V;DP,TVP3350F,SCV11D,-,MONO,F	
CN701B	AA39-20070F	LEAD CONNECTOR-ASSY;-,YBNH025-07,67096-0	
JA01	3722-000179	JACK-RCA;1P,3.4mm,SN,WHITE,-	
JA02	3722-000182	JACK-RCA;1P,3.4mm,SN,YELLOW,-	
JA03	3722-000145	JACK-PHONE;1P,3.6mm,MBAG,BLK,	
RY701	2001-001187	R-CARBON(S);75ohm,5%,1/2W,AA,TP,2.4x6.4m	
		ASSY-SPEAKER	
	3001-001015	SPEAKER;2.5W,16ohm,88dB,150Hz	
	AA39-20015D	LEAD-CONNECTOR,ASSY;-,67096-003,-,3(2)P,	
		REMOCON	
*	AA59-10105J	REMOCON;-,TM48,WHT,RM706,39,-,-,SS,-	
		ASSY-CRT	
⚠		CRT-COLOR	LOCAL
	AA39-20518A	LEAD CONNECTOR-ASSY;-,YFH806-06,-,6(4)P,	
		ASSY-ACCESSORY	
	AA26-90001C	TRANS-MATCHING;-,300ohm/75ohm,PAL,40-890	
	AA42-10001V	ANT-ROD;-,3S,620mm,BRN,UL/CSA	

8-2 TB531VAT1S/XEC (TB501VAT AND TB531VAT Dissimilar Parts)

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,MAIN(OPT)	
		BUYER : SECOSA (SPAIN)	
*	AA94-10131Z	ASSY-PCB,MAIN(OPT);TB531VAT1S/XEC,SCV11F	
C402	2201-000406	C-CERAMIC,DISC;270pF,10%,2KV,Y5P,TP,8x6,	
C403	2306-000329	C-FILM,MPPF;7nF,3%,1.6KV,TP,28.5x18.5x11	
C404	2306-000204	C-FILM,MPPF;430nF,5%,400V,TP,26x20.5x12.	
L401	AA27-30001B	COIL-LINEARITY;-,195UH,QIC1010,PI0.4,4.5	
L803	AA27-20001Z	COIL-DEGAUSSING;-,21,14.5ohm,35T,L2500,	
R304	2003-001032	R-METAL OXIDE(S);220ohm,5%,1W,AF,TP,2.5x	
R417	2008-000266	R-FUSIBLE(S);1ohm,5%,2W,AF,TP,3.9x10mm	
R833	2006-000309	R-CEMENT;22ohm,5%,5W,CB,TP,9x13x25mm	

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-ACCESSORY	
	AA68-11211A	MANUAL-USERS;SCV11F,SPA,TM48,B5,W/P	
	AA68-20014A	MANUAL-SERVICE;ALL,W/P	
		ASSY-CABINET OPTION (TB531VAT)	
*	AA91-10274C	ASSY-CABINET,FRONT;DP,P5350,PA100	
	AA64-30863B	CABINET-FRONT;-,HIPS,HB,-,-,BLK,PA100	
	AA64-30865D	CABINET-BACK;-,T5350,-,HIPS,V2,BLK,-,-	

8-3 TB331VDT1S/XEC (TB501VAT AND TB331VDT, Dissimilar Parts)

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,MAIN(OPT)	
		BUYER : SECOSA (SPAIN)	
*	AA94-10131R	ASSY-PCB,MAIN(OPT);TB331VDT1S/XEC,SCV11F	
*	AA94-10131U	ASSY-PCB,MAIN(OPT);TB331VDZ1S/XEC,SCV11F	
C403	2306-000237	C-FILM,MPPF;6.3nF,5%,1.6KV,TP,28.5x18x11	
C404	2306-000195	C-FILM,MPPF;360nF,5%,400V,TP,26x19x11.5,	
CN601	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5MM,STRAIGH	
⚠ IC601	1201-000535	IC-AUDIO AMP;7056,SIP,9P,-,SINGLE,40.5DB	
⚠ IC902	1103-000156	IC-EEPROM;24C04,512X8BIT,DIP,8P,300MIL,1	
L401	AA27-30001K	COIL-LINEARITY;-,230UH,DR1215,PI0.5,14.1	
L404	AA27-40001M	COIL-HORIZ.WIDTH;-,180/480uH,SB-5S6202.6	
L803	AA27-20001L	COIL-DEGAUSSING;-,14,23.0OHM,100T,L940,	
Q401	0502-000443	TR-POWER;2SD1711YD,NPN,50W,TO-3PML,BK,3	
R211	2001-000548	R-CARBON;270Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R217	2001-000531	R-CARBON;240Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R250	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP	
R417	2008-001015	R-FUSIBLE(S);1.5ohm,5%,2W,AF,TP,3.9x10mm	
R603	2001-001108	R-CARBON(S);22Kohm,5%,1/2W,AA,TP,2.4x6.4	
R611	2006-001020	R-CEMENT;3.9OHM,5%,5W,CB,TP,10.5X14X23.	
R705	2001-000674	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R711	2001-000674	R-CARBON;360ohm,5%,1/8W,AA,TP,1.8x3.2mm	
⚠ T444	AA26-30002U	TRANS-FLYBACK;-,FTK-14R005C,14,125V	
⚠ TU001	AA40-10005W	TUNER-F/S;TECC2979PK28B(S),PAL-B/G,TR,18	
		REMOCON	
*	AA59-10093Z	REMOCON;-,TM48,WHT,RM706,42,-,-,SS,-	
		ASSY-CRT	
⚠		CRT-COLOR	LOCAL
	AA39-20518A	LEAD CONNECTOR-ASSY;-,YFH806-06,-,6(4)P,	

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,CRT	
*	AA95-20008T	ASSY-PCB,CRT;-,SCV11D,14,EC,	
⚠ V999	3704-000103	SOCKET-CRT;10P,22.5,14.3,SN,ISMS01S/BK	
R505	2008-001015	R-FUSIBLE(S);1.5ohm,5%,2W,AF,TP,3.9x10mm	
		ASSY-PCB,A/V	
*	AA95-40010U	ASSY-PCB,A/V;DP,TVP3350F,SCV11D,-,MONO,F	
RY701	2001-001187	R-CARBON(S);75ohm,5%,1/2W,AA,TP,2.4x6.4m	
JA03	3722-000145	JACK-PHONE;1P,3.6mm,MBAG,BLK,	
JA01	3722-000179	JACK-RCA;1P,3.4mm,SN,WHITE,-	
JA02	3722-000182	JACK-RCA;1P,3.4mm,SN,YELLOW,-	
CN701B	AA39-20070F	LEAD CONNECTOR-ASSY;-,YBNH025-07,67096-0	
		ASSY-SPEAKER	
	3001-001015	SPEAKER;2.5W,16ohm,88dB,150Hz	
	AA39-20015D	LEAD-CONNECTOR,ASSY;-,67096-003,-,3(2)P,	
		ASSY-ACCESSORY	
	AA26-90001C	TRANS-MATCHING;-,300ohm/75ohm,PAL,40-890	
	AA42-10001V	ANT-ROD;-,3S,620mm,BRN,UL/CSA	
	AA68-11211A	MANUAL-USERS;SCV11F,SPA,TM48,B5,W/P	
	AA68-20014A	MANUAL-SERVICE;ALL,W/P	

8-4 TB501VDZ1S/XET (TB501VAT AND TB501VDZ Dissimilar Parts)

Loc. No.	Code No.	Description ; Specification	Remark
		ASSY-PCB,MAIN(OPT)	
		BUYER : SECOSA (SPAIN)	
*	AA94-10130H	ASSY-PCB,MAIN(OPT);TB501VDZ1S/XET,SCV11F	
⚠ TU001	AA40-10005W	TUNER-F/S;TECC2979PK28B(S),PAL-B/G,TR,18	
⚠ IC902	1103-000156	IC-EEPROM;24C04,512X8BIT,DIP,8P,300MIL,1	
		ASSY-ACCESSORY	
	AA68-11212A	MANUAL-USERS;SCV11F,ITA,TM48,B5,W/P	
	AA68-20025A	MANUAL-S/D;SCV11A,W/P	
	AA68-20029A	MANUAL-S/D;SCV11A/B,W/P	

Loc. No.	Code No.	Description ; Specification	Remark
		REMOCON	
	AA59-10093Y	REMOCON;-,TM48,WHT,RM706,38,-,-,SS,-	

8-5 TB501VAT1S/XEG Parts List

ASSY-PCB,MAIN(OPT)

BUYER : SECOSA (SPAIN)

Loc. No.	Code No.	Description ; Specification	Remark
*	AA94-10131Y	ASSY-PCB,MAIN(OPT);TB501VAT1S/XEG,SCV11F	
C101	2401-000947	C-AL;22uF,20%,35V,GP,TP,5x11mm,-	
C102	2401-000832	C-AL;220uF,20%,25V,GP,TP,8x11.5,5mm	
C103	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C104	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5mm	
C105	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
C106	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
C107	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C108	2401-000962	C-AL;22uF,20%,50V,GP,TP,5x11,5	
C109	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
C112	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
C113	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
C116	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C201	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C202	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C204	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C205	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11mm,5mm	
C206	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C207	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5mm	
C208	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
C209	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C210	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
C211	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,	
C212	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C213	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C214	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C215	2401-001625	C-AL;6.8UF,20%,50V,GP,TP,5X11MM,5MM	
C219	2201-000273	C-CERAMIC,DISC;18pF,5%,50V,CH,TP,5x3mm,5	
C221	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C222	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5mm	
C225	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
C226	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
C227	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
C228	2309-000138	C-FILM,PE-PPF;100nF,5%,50V,TP,20x16x8.5,	
C229	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C230	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C231	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5	
C232	2201-000976	C-CERAMIC,DISC;22pF,5%,50V,CH,TP,5.0x3.0	
C233	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
C234	2301-000264	C-FILM,PEF;4.7nF,5%,50V,TP,6.5X5.5X3.0X5	
C236	2301-000204	C-FILM,PEF;2.7nF,5%,50V,TP,7.4x3.9x13mm,	
C238	2301-000201	C-FILM,PEF;2.2nF,5%,50V,TP,7.4x3.9x13mm,	
C239	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
C249	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C250	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C251	2301-000247	C-FILM,PEF;33nF,5%,50V,TP,8.1x4.5x13mm,5	
C252	2201-000980	C-CERAMIC,DISC;30pF,5%,50V,CH,TP,5.0x3.0	
C253	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C254	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
C255	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C257	2202-000154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
C258	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
C301	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
C302	2401-003140	C-AL;47uF,20%,50V,WT/NP,TP,10x20,5	
C303	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP,12x12.5x6.5	
C304	2301-000212	C-FILM,PEF;220nF,5%,100V,-,16.0x10.0x24.	
C305	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
C306	2401-002288	C-AL;470uF,20%,25V,WT,TP,10x20,5	
C307	2301-000212	C-FILM,PEF;220nF,5%,100V,-,16.0x10.0x24.	
C308	2305-000407	C-FILM,MPEF;470nF,5%,100V,TP,-,5mm	
C401	2301-000380	C-FILM,PEF;10nF,5%,50V,TP,6.5x3mm,5mm	
C402	2201-002028	C-CERAMIC,DISC;470pF,10%,2KV,B,TP,8x6mm,	
C403	2306-000267	C-FILM,MPPF;8.2nF,5%,1.6KV,TP,28.5x18.5x	
C404	2306-000187	C-FILM,MPPF;330nF,5%,400V,BK,26x20.5x13.	
C405	2305-000154	C-FILM,MPEF;100nF,5%,400V,TP,21.5x6.5x11	
C406	2201-000556	C-CERAMIC,DISC;470pF,10%,500V,Y5P,TP,7x4	
C407	2401-002288	C-AL;470uF,20%,25V,WT,TP,10x20,5	
C408	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5,	
C409	2401-002293	C-AL;68uF,20%,100V,WT,TP,10x20,5	
C411	2201-000556	C-CERAMIC,DISC;470pF,10%,500V,Y5P,TP,7x4	
C412	2401-000932	C-AL;22uF,20%,250V,LZ,TP,13x25mm,5m	
C413	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm	
C414	2201-000984	C-CERAMIC,DISC;680pF,10%,2KV,Y5P,TP,11x6	
C415	2305-000382	C-FILM,MPEF;4.7nF,5%,400V,TP,-,5mm	
C601	2401-001998	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	
C602	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C603	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5	
C604	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
C605	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5.5mm	
C606	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
C701	2401-000471	C-AL;10uF,20%,50V,BP,TP,5x11,5mm	
C702	2401-001264	C-AL;4.7UF,20%,50V,BP,TP,5X11,5MM	
C703	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
C704	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP	
C705	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5mm,	
C706	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C707	2401-000471	C-AL;10uF,20%,50V,BP,TP,5x11,5mm	
C708	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C710	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C711	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C713	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C714	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C715	2401-000493	C-AL;10uF,20%,50V,LZ,TP,5x11mm,5mm	
C717	2401-000471	C-AL;10uF,20%,50V,BP,TP,5x11,5mm	
C718	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C724	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C725	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C726	2401-000471	C-AL;10uF,20%,50V,BP,TP,5x11,5mm	
C727	2201-000673	C-CERAMIC,DISC;820pF,10%,50V,Y5P,TP,5x3,	
C728	2201-000673	C-CERAMIC,DISC;820pF,10%,50V,Y5P,TP,5x3,	
C729	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
C730	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C800A	2201-000963	C-CERAMIC,DISC;1nF,20%,400V,Y5U,TP,11x8m	
C800B	2201-000988	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,15x	
C801	2306-000318	C-FILM,MPPF;220NF,20%,250V,TP,-,22.5MM	
C802	2306-000318	C-FILM,MPPF;220NF,20%,250V,TP,-,22.5MM	
C803	2201-000315	C-CERAMIC,DISC;2.2nF,+80-20%,250VAC,Y5U,	
C804	2201-000315	C-CERAMIC,DISC;2.2nF,+80-20%,250VAC,Y5U,	
C805	2201-000315	C-CERAMIC,DISC;2.2nF,+80-20%,250VAC,Y5U,	
C806	2201-000315	C-CERAMIC,DISC;2.2nF,+80-20%,250VAC,Y5U,	
C807	2401-002241	C-AL;220uF,20%,400V,GP,ST,30x40,10	
C808	2306-000323	C-FILM,MPPF;2.2nF,5%,1.6KV,TP,28.5x15.5x	
C809	2401-002231	C-AL;470uF,20%,50V,WT,TP,13x20mm,5m	
C810	2401-000903	C-AL;22UF,20%,160V,WT,TP,10X20MM,5M	
C811	2401-003015	C-AL;220uF,20%,35V,WT,TP,10X12.5,5m	
C812	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
C813	2201-000991	C-CERAMIC,DISC;560pF,10%,2KV,Y5P,TP,13x7	
C814	2201-000991	C-CERAMIC,DISC;560pF,10%,2KV,Y5P,TP,13x7	
C815	2201-000467	C-CERAMIC,DISC;330pF,10%,2KV,Y5P,TP,8x6,	
C816	2201-000991	C-CERAMIC,DISC;560pF,10%,2KV,Y5P,TP,13x7	
C818	2201-000984	C-CERAMIC,DISC;680pF,10%,2KV,Y5P,TP,11x6	
C819	2401-003058	C-AL;100uF,20%,200V,WT,TP,16x25mm,7	
C820	2401-003058	C-AL;100uF,20%,200V,WT,TP,16x25mm,7	
C822	2401-001570	C-AL;47UF,20%,50V,WT,TP,10X20MM,5MM	
C823	2401-002293	C-AL;68uF,20%,100V,WT,TP,10x20,5	
C824	2401-000142	C-AL;1000uF,20%,16V,WT,TP,10x20mm,5	
C825	2401-003047	C-AL;2200uF,20%,25V,WT,TP,16x25,7.5	
C826	2401-000318	C-AL;100UF,20%,25V,LZ,TP,8X11.5,5	
C827	2201-000467	C-CERAMIC,DISC;330pF,10%,2KV,Y5P,TP,8x6,	
C828	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5mm,	
C829	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C830	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C831	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5mm,	
C832	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C833	2401-002288	C-AL;470uF,20%,25V,WT,TP,10x20,5	
C834	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C835	2401-001397	C-AL;470uF,20%,25v,GP,10x17mm,7.5mm	
C836	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C838	2401-000166	C-AL;1000uF,20%,25V,WT,TP,13x20mm,5	
C839	2401-001397	C-AL;470uF,20%,25v,GP,10x17mm,7.5mm	
C840	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	

Loc. No.	Code No.	Description ; Specification	Remark
C842	2401-001998	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	
C844	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
C845	2401-002288	C-AL;470uF,20%,25V,WT,TP,10x20,5	
C846	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5mm,	
C850	2401-001101	C-AL;330uF,20%,16V,GP,TP,8x11.5mm,5	
C852	2401-000318	C-AL;100UF,20%,25V,LZ,TP,8X11.5,5	
C853	2401-001397	C-AL;470uF,20%,25v,GP,10x17mm,7.5mm	
C855	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
C856	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C859	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C901	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
C902	2201-000247	C-CERAMIC,DISC;15pF,5%,50V,CH,TP,5x3,5	
C903	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5	
C904	2201-000247	C-CERAMIC,DISC;15pF,5%,50V,CH,TP,5x3,5	
C905	2301-000227	C-FILM,PEF;27nF,5%,50V,TP,7x3.5x6.5mm,5m	
C906	2401-000939	C-AL;22uF,20%,25V,GP,TP,5x11mm,5	
C907	2201-000423	C-CERAMIC,DISC;27pF,5%,50V,NPO,TP,5x3,2.	
C908	2201-000423	C-CERAMIC,DISC;27pF,5%,50V,NPO,TP,5x3,2.	
C915	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
C916	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
C917	2201-000982	C-CERAMIC,DISC;10nF,+80-20%,50V,Y5V,TP,6	
C918	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
C920	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
C921	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5	
CB03	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CK01	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
CN101	3711-002647	CONNECTOR-HEADER;BOX,8P,1R,2.5MM,STRAIGH	
CN102	3711-003641	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG	
CN501C	3711-002648	CONNECTOR-HEADER;BOX,9P,1R,2.5MM,STRAIGH	
CN701	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
CN701A	3711-002643	CONNECTOR-HEADER;BOX,4P,1R,2.5MM,STRAIGH	
CN901	3711-002644	CONNECTOR-HEADER;BOX,5P,1R,2.5mm,STRAIGH	
CNW901	2503-000154	C-NETWORK;100pFx3,20%,50V	
CU101	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
CU102	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
CU103	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
CU104	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
CU105	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
D102	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D205	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D209	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D401	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
D402	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
D403	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D404	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-	
D405	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D407	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
D801	0402-000532	DIODE-RECTIFIER;ERC13-08,800V,1.2A,DO-20	
D802	0402-000532	DIODE-RECTIFIER;ERC13-08,800V,1.2A,DO-20	
D803	0402-000532	DIODE-RECTIFIER;ERC13-08,800V,1.2A,DO-20	
D804	0402-000532	DIODE-RECTIFIER;ERC13-08,800V,1.2A,DO-20	
D805	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D806	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D807	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D808	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D809	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D810	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D811	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D812	0402-000250	DIODE-RECTIFIER;RG4C,1000V,1A,-	
D813	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D814	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D815	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D817	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D818	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-	
D820	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D821	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D827	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D829	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D831	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D832	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D833	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D834	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D836	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
D837	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D850	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D851	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D901	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D906	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D908	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D909	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D910	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D912	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D913	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D914	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D916	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D919	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D921	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D922	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DK01	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DZ101	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ201	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m	
DZ301	0403-000660	DIODE-ZENER;MTZ22A,22V,20.15-21.2V,500mW	
DZ302	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
DZ303	0403-001039	DIODE-ZENER;MA2560,56V,52-60V,1W,DO-41,T	
DZ304	0403-000656	DIODE-ZENER;MTZ15C,15V,14.35-15.09V,500m	
DZ702	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ704	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ705	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ706	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ707	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ801	1405-000152	VARISTOR;560V,2500A,14x8.5mm,TP	
DZ802	0403-000299	DIODE-ZENER;MTZ7.5C,7.5V,7.29-7.67V,500m	
DZ803	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
DZ804	0403-000654	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500m	
DZ805	0403-000658	DIODE-ZENER;MTZ18A,18V,16.22-17.06V,500m	
DZ806	1405-000152	VARISTOR;560V,2500A,14x8.5mm,TP	
DZ807	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ808	0403-000662	DIODE-ZENER;MTZ3.0B,3.0V,3.01-3.22V,500m	
DZ809	0403-000656	DIODE-ZENER;MTZ15C,15V,14.35-15.09V,500m	
DZ901	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500m	
DZ902	0403-000297	DIODE-ZENER;MTZ6.2B,6.2V,5.96-6.27V,500m	
DZ904	0403-000300	DIODE-ZENER;MTZ8.2B,7.78-8.19V,500mW,DO-	
DZ905	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500m	
DZ906	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m	
⚠F801	3601-000261	FUSE-FERRULE;250V,3.15A,TIME LAG,GLASS,5	
F81	3602-000114	FUSE-HOLDER;-,-,30mohm	
F82	3602-000114	FUSE-HOLDER;-,-,30mohm	
GT02A	AA39-20010B	LEAD-CONNECTOR,ASSY;-,YFH800-01,S,1P,500	
HC001	AA13-20004A	IC-HYBRID;-,PAP102T,SIP,6P,PRE-AMP,TP	
⚠IC201	1204-001191	IC-PAL/NTSC PROCESS;TDA8374A(N3),DIP,56P	
⚠IC301	1204-000441	IC-IF CIRCUIT;TDA8356,SIP,9P,-,PLASTIC,4	
⚠IC601	1201-000537	IC-AUDIO AMP;7057,ZIP,13P,-,DUAL,40DB,PL	
⚠IC701	0801-000961	IC-CMOS LOGIC;4053B,MUTIPLEXER,DIP,16P,3	
⚠IC702	1001-000227	IC-VIDEO SWITCH;KA8405,SP3T CMOS,SIP,9P,	
⚠IC703	1001-000227	IC-VIDEO SWITCH;KA8405,SP3T CMOS,SIP,9P,	
⚠IC704	1001-000216	IC-RF/V1/AUDIO S/W;KA8404,SPDT CMOS,SIP,	
⚠IC801	0604-001032	PHOTO-COUPLER;TR,170-260%,300mW,DIP-4,ST	
⚠IC804	1203-000284	IC-POSI.FIXED REG.;7806,TO-220,3P,-,PLAS	
⚠IC805	1203-000243	IC-POSI.FIXED REG.;7812A,TO-220,3P,-,PLA	
⚠IC806	1203-000243	IC-POSI.FIXED REG.;7812A,TO-220,3P,-,PLA	
⚠IC807	1203-000165	IC-POSI.ADJUST REG.;78R12,TO-220,3P,-,-,	
⚠IC811	1203-000006	IC-POSI.FIXED REG.;7808,TO-220,3P,-,PLAS	
⚠IC812	1203-000284	IC-POSI.FIXED REG.;7806,TO-220,3P,-,PLAS	
⚠IC901	AA13-30019J	IC-MCU;-,CXP85332A-323S,8BIT,SDIP,TF5	
⚠IC902	1103-000118	IC-EEPROM;24C08,1Kx8BIT,DIP,8P,300MIL,-,	
⚠IC903	1202-000001	IC-VOLTAGE COMP.;7533,TO-92,3P,-,SINGLE,	
⚠ICU101	1203-000274	IC-POSI.FIXED REG.;7805,TO-220,3P,-,PLAS	
⚠IF/CAB	AA39-30007A	IF-CABLE;-,T,100mm,1365#26	
JS701	3722-000183	JACK-SCART;21P,4mm,SN,BLK,NO	
L101	2701-000326	INDUCTOR-AXIAL;560nH,10%,2.3x3.4mm	
L102	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L103	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L104	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L105	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L106	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L108	2701-000180	INDUCTOR-AXIAL;33uH,5%,2.5x3.4mm	
L201	2701-000168	INDUCTOR-AXIAL;3.3UH,5%,2.5X3.4MM	
L205	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L206	2701-000116	INDUCTOR-AXIAL;10uH,10%,4.2x9.8mm	
L301	AA27-10001E	COIL-CHOKE;-,1.0UH,K,25,2100A,T,SP0408-1	
L302	AA27-10001E	COIL-CHOKE;-,1.0UH,K,25,2100A,T,SP0408-1	
L303	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L304	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L305	2701-000116	INDUCTOR-AXIAL;10uH,10%,4.2x9.8mm	

Loc. No.	Code No.	Description ; Specification	Remark
L306	2701-000116	INDUCTOR-AXIAL;10uH,10%,4.2x9.8mm	
L401	AA27-30001A	COIL-LINEARITY;-,157uH,QIC1010,PI0.4,4.5	
L403	2901-000296	FILTER-EMI ON BOARD;-,4.4/4.4mH,-	
L404	AA27-40001N	COIL-HORIZ.WIDTH;-,90/260uH,SB-5S620,PI0	
L405	AA27-10002X	COIL-CHOKE;-,43UH,K,10,1A,T,43UH-K(SPT05	
L701	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L703	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L704	2901-000296	FILTER-EMI ON BOARD;-,4.4/4.4mH,-	
L801	AA29-30001H	FILTER-LINE;-,39MH,0.5A,-,-	
L803	AA27-20002A	COIL-DEGAUSSING;-,20,13.5OHM,35T,L2300,	
L805	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
L808	2901-000299	FILTER-EMI ON BOARD;-,6A,UL/CSA,-,9x7.5,	
L809	2901-000299	FILTER-EMI ON BOARD;-,6A,UL/CSA,-,9x7.5,	
L810	AA27-10002Y	COIL-CHOKE;-,100UH,K,10,700MA,T,100UH-K(	
L811	2901-000299	FILTER-EMI ON BOARD;-,6A,UL/CSA,-,9x7.5,	
L812	AA27-10002Y	COIL-CHOKE;-,100UH,K,10,700MA,T,100UH-K(	
L813	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
L814	2901-000296	FILTER-EMI ON BOARD;-,4.4/4.4mH,-	
L817	2901-000296	FILTER-EMI ON BOARD;-,4.4/4.4mH,-	
L818	2901-000296	FILTER-EMI ON BOARD;-,4.4/4.4mH,-	
L902	AA27-10003G	COIL-CHOKE;-,30uH,K,50,22.3mA,TP,EL0606R	
L904	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
L905	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
Q201	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q202	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q203	0501-000283	TR PNP;KSA539,PNP,-60V,-45V,200mA,40	
Q204	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q207	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
⚠ Q401	0502-000295	TR-POWER;KSD5072YD,NPN,1500V,800V,5A,60	
⚠ Q402	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1W,TO-92L,	
Q601	0504-000123	TR-DIGITAL;KSR1010,NPN,300mW,10K,TO-92,T	
Q701	0501-000283	TR PNP;KSA539,PNP,-60V,-45V,200mA,40	
Q702	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q703	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
⚠ Q801	AA13-20002H	IC-HYBRID;-,STRS6707,SIP,9P,SMPS CONTROL	
⚠ Q802	0503-000153	TR-DARLINGTON;TIP102,NPN,2W,TO-220,TP,10	
⚠ Q803	AA13-20002L	IC-HYBRID;-,SE125N,SIP,3P,ERROR AMP	
⚠ Q804	0501-000366	TR-SMALL SIGNAL;KSC2330-Y,NPN,1W,TO-92L,	
⚠ Q805	0502-000244	TR-POWER;KSA940,PNP,1.5W,TO-220,-,40-14	
⚠ Q806	0504-000119	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
⚠ Q807	0501-000366	TR-SMALL SIGNAL;KSC2330-Y,NPN,1W,TO-92L,	
Q901	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q902	1202-000001	IC-VOLTAGE COMP.;7533,TO-92,3P,-,SINGLE,	
Q903	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
Q904	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
QL03	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
R101	2004-001995	R-METAL;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R102	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R103	2003-001035	R-METAL OXIDE(S);27ohm,0.05,2W,AF,TP,3.9	
R107	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R119	2001-000331	R-CARBON;12Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R203	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R204	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R205	2001-000221	R-CARBON;1.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R206	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R207	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R208	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R209	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R210	2001-000832	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R211	2001-000645	R-CARBON;330Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R212	2001-000273	R-CARBON;100Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R213	2001-001146	R-CARBON(S);4.7ohm,5%,1/2W,AA,TP,2.4x6.4	
R215	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R216	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R217	2001-000397	R-CARBON;180Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R218	2004-001914	R-METAL;39Kohm,2%,1/8W,AA,TP,1.8x3.5mm	
R219	2001-000016	R-CARBON(S);1ohm,5%,1/2W,AA,TP,2.4x6.4mm	
R220	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R221	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R222	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R223	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R224	2001-000009	R-CARBON;20Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R225	2001-000633	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R228	2001-000800	R-CARBON;5.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R230	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R231	2001-000411	R-CARBON;18Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R233	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	

Loc. No.	Code No.	Description ; Specification	Remark
R234	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R237	2004-001995	R-METAL;9.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R243	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R244	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R247	2001-000490	R-CARBON;200ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R248	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R249	2001-000857	R-CARBON;560ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R250	2001-000832	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R252	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R301	2001-000006	R-CARBON;2.4Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R302	2001-001048	R-CARBON(S);1.2ohm,5%,1/2W,AA,TP,2.4x6.4	
R303	2008-000205	R-FUSIBLE(S);10ohm,5%,1/2W,AF,TP,2.5x6.5	
R304	2003-000652	R-METAL OXIDE(S);330ohm,5%,2W,AF,TP,4x12	
R305	2001-000085	R-CARBON(S);100Kohm,5%,1/2W,AA,TP,2.4x6.	
R306	2008-000254	R-FUSIBLE(S);0.68ohm,5%,2W,AF,TP,3.9x10m	
R401	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R402	2001-000591	R-CARBON;3.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R403	2001-001114	R-CARBON(S);270ohm,5%,1/2W,AA,TP,2.4x	
R404	2003-000713	R-METAL OXIDE(S);47ohm,5%,2W,AF,TP,4x12m	
R405	2003-000540	R-METAL OXIDE(S);1Kohm,5%,2W,AF,TP,4x12m	
R407	2004-001373	R-METAL(S);100Kohm,1%,1/2W,AA,TP,2.4x6.4	
R408	2008-000264	R-FUSIBLE(S);1ohm,5%,1W,AF,TP,3.9x10mm	
R409	2008-000204	R-FUSIBLE(S);0.22ohm,10%,1/2W,AF,TP,2.5x	
R410	2008-000264	R-FUSIBLE(S);1ohm,5%,1W,AF,TP,3.9x10mm	
R411	2004-001408	R-METAL(S);91Kohm,1%,1/2W,AA,TP,2.4x6.4m	
R412	2004-001390	R-METAL(S);1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	
R413	2001-003019	R-CARBON(S);0.39ohm,10%,1/2W,AA,TP,2.4x6	
R414	2001-000022	R-CARBON(S);33ohm,5%,1/2W,AA,TP,2.4x6.4m	
R415	2003-000993	R-METAL OXIDE(S);3.9Kohm,5%,1W,AF,TP,2.5	
R416	2008-000253	R-FUSIBLE(S);0.47ohm,5%,1W,AF,TP,3.9x10m	
R417	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
R418	2003-000649	R-METAL OXIDE(S);330ohm,5%,1W,AF,TP,3.3x	
R419	2001-000563	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R420	2004-001234	R-METAL;75Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R421	2008-000299	R-FUSIBLE(S);47ohm,5%,2W,AF,TP,3.9x10mm	
R422	2008-000299	R-FUSIBLE(S);47ohm,5%,2W,AF,TP,3.9x10mm	
R604	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R605	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R606	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R607	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R608	2001-000007	R-CARBON;3Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R609	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R612	2008-000256	R-FUSIBLE(S);1.5ohm,5%,2W,AA,TP,3.9x10mm	
R613	2008-000256	R-FUSIBLE(S);1.5ohm,5%,2W,AA,TP,3.9x10mm	
R614	2006-001002	R-CEMENT;1.2OHM,5%,5W,CB,TP,9X13X25MM	
R615	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R701	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R702	2004-001027	R-METAL;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R703	2004-001027	R-METAL;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R704	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R705	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R706	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R707	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R708	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R709	2003-000458	R-METAL OXIDE(S);100ohm,5%,2W,AF,TP,4x12	
R710	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R711	2004-001240	R-METAL;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R712	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R713	2004-001205	R-METAL;68ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R714	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R715	2001-000411	R-CARBON;18Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R716	2001-001026	R-CARBON;910ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R717	2004-001989	R-METAL;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R719	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R720	2001-000591	R-CARBON;3.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R721	2001-000633	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R723	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R725	2001-000969	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R726	2001-000969	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R728	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R729	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R730	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R800A	2002-000331	R-COMPOSITION;4.7Mohm,10%,1/2W,AA,TP,3.5	
R801	2002-000328	R-COMPOSITION;3.3Mohm,10%,1/2W,AA,TP,3.5	
R803	1404-000180	THERMISTOR-PTC;14ohm,20%,-,290V,25A,-,ST	
R804	2009-001012	R-METAL PLATE;0.27OHM,10%,5W,CJ,TP,5X14X	
R805	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	

Loc. No.	Code No.	Description ; Specification	Remark
R806	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R807	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R808	2006-000295	R-CEMENT;11ohm,5%,5W,CB,TP,9x13x25mm	
R809	2001-001096	R-CARBON(S);2.2ohm,5%,1/2W,AA,TP,2.4x6.4	
R810	2003-002007	R-METAL OXIDE(S);4.7KOHM,5%,2W,AF,TP,3.9	
R812	1404-000181	THERMISTOR-NTC;4.7ohm,20%,2900K,-,BK	
R813	2001-001045	R-CARBON(S);1.2Kohm,5%,1/2W,AA,TP,2.4x6.	
R814	2001-001097	R-CARBON(S);2.4Kohm,5%,1/2W,AA,TP,2.4x6.	
R816	2001-001117	R-CARBON(S);2Kohm,5%,1/2W,AA,TP,2.4x6.4m	
R819	2003-001027	R-METAL OXIDE(S);18ohm,5%,2W,AF,TP,3.9x1	
R822	2001-001088	R-CARBON(S);1Kohm,5%,1/2W,AA,TP,2.4x6.4m	
R823	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R824	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R825	2001-001131	R-CARBON(S);33Kohm,5%,1/2W,AA,TP,2.4x6.4	
R827	2003-001091	R-METAL OXIDE(S);10ohm,5%,2W,AF,TP,4x12m	
R828	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R831	2003-000512	R-METAL OXIDE(S);15Kohm,5%,3W,AA,TP,6x16	
R835	2003-001027	R-METAL OXIDE(S);18ohm,5%,2W,AF,TP,3.9x1	
R836	2001-001088	R-CARBON(S);1Kohm,5%,1/2W,AA,TP,2.4x6.4m	
R840	2001-001050	R-CARBON(S);1.5Kohm,5%,1/2W,AA,TP,2.4x6.	
R841	2008-001002	R-FUSIBLE(S);0.18ohm,5%,2W,AA,TP,3.9x10m	
R842	2008-000251	R-FUSIBLE(S);0.27ohm,10%,2W,AF,TP,3.9x10	
R845	2003-000713	R-METAL OXIDE(S);47ohm,5%,2W,AF,TP,4x12m	
R855	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R856	2003-000685	R-METAL OXIDE(S);4.7KOHM,5%,2W,AA,TP,4X1	
R857	2003-000685	R-METAL OXIDE(S);4.7KOHM,5%,2W,AA,TP,4X1	
R858	2003-000719	R-METAL OXIDE(S);5.6Kohm,5%,2W,AA,TP,4x1	
R859	2001-001182	R-CARBON(S);7.5Kohm,5%,1/2W,AA,TP,2.4x6.	
R860	2001-001143	R-CARBON(S);4.3Kohm,5%,1/2W,AA,TP,2.4x6.	
R861	2001-001070	R-CARBON(S);120ohm,5%,1/2W,AA,TP,2.4x6.4	
R863	2008-000204	R-FUSIBLE(S);0.22ohm,10%,1/2W,AF,TP,2.5x	
R864	2008-000204	R-FUSIBLE(S);0.22ohm,10%,1/2W,AF,TP,2.5x	
R869	2008-000253	R-FUSIBLE(S);0.47ohm,5%,1W,AF,TP,3.9x10m	
R870	2008-000290	R-FUSIBLE(S);2.4OHM,5%,2W,AF,TP,3.9X10MM	
R871	2008-001002	R-FUSIBLE(S);0.18ohm,5%,2W,AA,TP,3.9x10m	
R872	2008-000182	R-FUSIBLE(S);0.47ohm,10%,1W,AA,TP,3.5x9.	
R901	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R902	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R903	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R904	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R905	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R906	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R907	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R908	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R909	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R910	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R911	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R913	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R914	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R915	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R916	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R917	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R918	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R919	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
R920	2001-000016	R-CARBON(S);1ohm,5%,1/2W,AA,TP,2.4x6.4mm	
R922	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R923	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R924	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R925	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R927	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R928	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R930	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R931	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R932	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R933	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R934	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R935	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R936	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R937	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R938	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R939	2001-000793	R-CARBON;47ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R940	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R941	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R942	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R947	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R948	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R949	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

Loc. No.	Code No.	Description ; Specification	Remark
R950	2001-001062	R-CARBON(S);10Mohm,5%,1/2W,AA,TP,2.4x6.4	
R951	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R952	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R953	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R955	2001-000472	R-CARBON;2.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R956	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R958	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R959	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R960	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R961	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R962	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R963	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
R964	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R965	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RA802	2001-001129	R-CARBON(S);330Kohm,5%,1/2W,AA,TP,2.4x6.	
RB802	2001-001129	R-CARBON(S);330Kohm,5%,1/2W,AA,TP,2.4x6.	
RL06	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RL07	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RNW901	2011-000860	R-NETWORK;4.7Kohm,5%,1/8W,A,SIP,4P,TP	
RU102	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RU106	2004-001301	R-METAL;82Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RU107	2001-000008	R-CARBON;15Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RU109	2003-000713	R-METAL OXIDE(S);47ohm,5%,2W,AF,TP,4x12m	
RW701	2011-001133	R-NETWORK;33K/24K/75x3,5%,1/8W,X,SIP,6P,	
SF101	2904-000302	FILTER-SAW AV;38.90MHz,-,ST,13.9dB,PAL-B	
SP001	AA59-40002H	MODULE-RF,SPLITTER;-,USP210-010,PAL,-,-,	
⚠T201	AA26-10006A	TRANS-IF;-,7MG,VIF,0.15UH,7MM,5PF,77.8M	
⚠T401	AA26-50001B	HORIZ.DRIVE;-,7.1MH,102UH,10-20UH,YL081,	
⚠T444	AA26-30001Y	TRANS-FLYBACK;-,FSV-20A001,20,125V	
⚠T801	AA26-20004J	TRANS-SWITCHING;-,90~260V,JIS,EER444515,	
TOP/C	AA63-40206A	SHIELD-CASE;-,SPTE,T0.25,-,6844	
TOP/M	AA63-40027A	SHIELD-CASE,T;-,SPTE,T0.25,ACT51A,K1025,	
⚠TU001	AA40-10005M	TUNER-V/S;TECC2879PK28A(S),PAL-B/G,TR,18	
⚠TU002	AA40-10005M	TUNER-V/S;TECC2879PK28A(S),PAL-B/G,TR,18	
X202	2801-000274	CRYSTAL-UNIT;4.433619MHz,30ppm,28-AAM,20	
X901	2801-001480	CRYSTAL-UNIT;4.194304MHz,20ppm,28-ABQ,12	
Z101	2903-001019	FILTER-CERAMIC;TR,5.5/5.742MHz,-,-,-,TP,	
ZK01	2903-000184	FILTER-CERAMIC;BP,5.5MHz,+-60KHz,6dB,-,T	

ASSY-M/DECK

*	AA94-80003M	ASSY-M/DECK;M-320XK/SEG-S,2HD,PAL/MESECA	
690NM	0601-000459	LED;ROUND,RED,5mm,690nm	
BDM301	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
BDM302	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
BDM303	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
BDM601	3301-000287	CORE-FERRITE BEAD;AA,3.5x1x6mm,1500,2400	
CM104	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
CM105	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
CM106	2401-000455	C-AL;10UF,20%,35V,GP,TP,4X7MM,5MM	
CM109	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
CM110	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM111	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
CM113	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM115	2401-000318	C-AL;100UF,20%,25V,LZ,TP,8X11.5,5	
CM201	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM202	2202-000183	C-CERAMIC,MLC-AXIAL;2.2nF,20%,16V,Y5R,TP	
CM203	2202-000830	C-CERAMIC,MLC-AXIAL;82pF,10%,50V,Y5P,TP,	
CM205	2401-000910	C-AL;22uF,20%,16V,GP,TP,5x5mm,5mm	
CM206	2202-000830	C-CERAMIC,MLC-AXIAL;82pF,10%,50V,Y5P,TP,	
CM207	2301-000175	C-FILM,PEF;15nF,5%,50V,TP,7.1x3.5x13mm,5	
CM212	2401-000910	C-AL;22uF,20%,16V,GP,TP,5x5mm,5mm	
CM218	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5mm,5mm	
CM219	2202-000717	C-CERAMIC,MLC-AXIAL;2.7nF,20%,16V,Y5R,TP	
CM220	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
CM222	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5mm,5mm	
CM225	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5mm,5mm	
CM227	2202-002019	C-CERAMIC,MLC-AXIAL;68nF,10%,50V,X7R,TP,	
CM228	2202-002019	C-CERAMIC,MLC-AXIAL;68nF,10%,50V,X7R,TP,	
CM229	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM230	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5mm,5mm	
CM231	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5mm,5mm	
CM303	2301-000285	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,	
CM304	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM305	2301-000285	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,	

Loc. No.	Code No.	Description ; Specification	Remark
CM306	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM307	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM308	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM309	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
CM310	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM311	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM312	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM313	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM314	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM315	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
CM316	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM317	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM318	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM319	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM320	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM321	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM322	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM323	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM324	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM325	2401-003144	C-AL;10uF,20%,16V,GP,TP,4x5mm,5mm	
CM326	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM327	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5mm,	
CM328	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
CM329	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM330	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM331	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM332	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM333	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM334	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
CM335	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
CM336	2401-001333	C-AL;470nF,20%,50V,GP,TP,5x11,5	
CM337	2202-000195	C-CERAMIC,MLC-AXIAL;220pF,10%,50V,Y5P,TP	
CM338	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
CM339	2202-000862	C-CERAMIC,MLC-AXIAL;390pF,10%,50V,Y5P,TP	
CM340	2401-000939	C-AL;22uF,20%,25V,GP,TP,5x11mm,5	
CM341	2202-000279	C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X1	
CM343	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM344	2202-000216	C-CERAMIC,MLC-AXIAL;27pF,5%,50V,SL,TP,3.	
CM345	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM346	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM347	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM348	2301-000285	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,	
CM349	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM350	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM351	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM353	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM356	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM371	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM405	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM409	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM410	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM411	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM412	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM414	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM415	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM416	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM417	2401-000603	C-AL;1UF,20%,50V,GP,TP,5X11MM,5MM	
CM425	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM426	2202-000222	C-CERAMIC,MLC-AXIAL;3.3nF,20%,16V,Y5P,TP	
CM428	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM431	2202-000205	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	
CM432	2202-000205	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.	
CM501	2305-000427	C-FILM,MPEF;47nF,5%,100V,TP,7.5x12.5x3.5	
CM570	2301-000380	C-FILM,PEF;10nF,5%,50V,TP,6.5x3mm,5mm	
CM571	2301-000175	C-FILM,PEF;15nF,5%,50V,TP,7.1x3.5x13mm,5	
CM572	2401-001537	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,5mm	
CM573	2301-000301	C-FILM,PEF;6.8nF,5%,50V,TP,6.5X5.5X3.0X5	
CM574	2301-000264	C-FILM,PEF;4.7nF,5%,50V,TP,6.5X5.5X3.0X5	
CM575	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-,5mm	
CM576	2401-000910	C-AL;22uF,20%,16V,GP,TP,5x5mm,5mm	
CM577	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,4x7,5	
CM578	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM580	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM581	2401-001495	C-AL;47uF,20%,16V,GP,5x11mm,5mm,TP	
CM582	2401-001036	C-AL;33uF,20%,16V,GP,TP,6.3x5,5	
CM583	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
CM584	2301-000204	C-FILM,PEF;2.7nF,5%,50V,TP,7.4x3.9x13mm,	
CM586	2401-003144	C-AL;10uF,20%,16V,GP,TP,4x5mm,5mm	
CM587	2301-000380	C-FILM,PEF;10nF,5%,50V,TP,6.5x3mm,5mm	
CM588	2401-000594	C-AL;1uF,20%,50V,GP,TP,4x7mm,5mm	
CM589	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5mm	
CM590	2301-000301	C-FILM,PEF;6.8nF,5%,50V,TP,6.5X5.5X3.0X5	
CM591	2301-000301	C-FILM,PEF;6.8nF,5%,50V,TP,6.5X5.5X3.0X5	
CM592	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5.5mm	
CM594	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,4x7,5	
CM595	2401-003144	C-AL;10uF,20%,16V,GP,TP,4x5mm,5mm	
CM596	2401-000594	C-AL;1uF,20%,50V,GP,TP,4x7mm,5mm	
CM597	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM601	2202-000295	C-CERAMIC,MLC-AXIAL;68PF,5%,50V,SL,3.5X1	
CM602	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM603	2401-003196	C-AL;4.7uF,20%,25V,GP,TP,4x5,5mm	
CM604	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM605	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM606	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM607	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM623	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM624	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
CM625	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
CM626	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
CM627	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
CM628	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
CM629	2202-000199	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
CM630	2401-002291	C-AL;47UF,20%,16V,GP,TP,6.3X5MM,5MM	
CM631	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM633	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
CM634	2202-000154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
CM635	2202-000154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
CM636	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM637	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM638	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM639	2401-000444	C-AL;10uF,20%,25V,GP,TP,5x5mm,5mm	
CM642	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM657	2401-001537	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,5mm	
CM658	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM659	2401-001537	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,5mm	
CM660	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM666	2202-000243	C-CERAMIC,MLC-AXIAL;33PF,5%,50V,SL,3.5X1	
CM667	2301-000175	C-FILM,PEF;15nF,5%,50V,TP,7.1x3.5x13mm,5	
CM670	2401-001537	C-AL;47uF,20%,25V,GP,TP,6.3x7mm,5mm	
CM671	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CM691	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CM701	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5mm	
CM702	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
CNM001	3711-002647	CONNECTOR-HEADER;BOX,8P,1R,2.5MM,STRAIGH	
CNM01A	AA39-20040A	LEAD CONNECTOR-ASSY;-,67096-008,S,8P,300	
CNM05A	AA39-20032B	LEAD-CONNECTOR,ASSY;-,67096-012,S,12P,30	
CNM201	3711-003749	CONNECTOR-HEADER;BOX,8P,2R,2mm,STRAIGHT,	
CNM202	3708-001165	CONNECTOR-FPC/FC/PIC;6P,1.25mm,STRAIGHT,	
CNM20A	3809-001048	CABLE-FLAT;30V,80C,110mm,6P,1.25mm,UL289	
CNM301	3708-000395	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,	
CNM501	3708-001053	CONNECTOR-FPC/FC/PIC;7P,1.25MM,STRAIGHT,	
CNM502	3710-000404	CONNECTOR-SOCKET;2P,2R,2.0MM,-,	
CNM601	3710-000405	CONNECTOR-SOCKET;2P,2R,2.5MM,-,	
CNM605	3711-003641	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG	
CNM606	3711-001061	CONNECTOR-HEADER;BOX,6P,1R,2mm,ANGLE,SN	
DM103	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DM106	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM601	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM602	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM606	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DM607	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DM608	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM609	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM610	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DM611	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41	
DM615	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM616	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM701	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DM705	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
FLM501	AA26-10006C	TRANS-IF;-,7ML,BIAS,-,7MM,3100PF,70KHZ,	
HOLDER	AA61-20268A	HOLDER-TR;-,SMV-267V,POM,-,-,-	
HOLDER	AA61-20269A	HOLDER-PHOTO;-,SMV-267V,POM,-,-,-	
ICM01	1203-000298	IC-POSI.FIXED REG.;7809,TO-220,3P,-,PLAS	
ICM201	1201-000229	IC-OP AMP;324,DIP,14P,300MIL,QUAD,100V/m	

Loc. No.	Code No.	Description ; Specification	Remark
ICM301	1204-001056	IC-SIGNAL PROCESSOR;SS11501M,QFP,80P,-,P	
ICM302	1209-001024	IC-DELAY LINE;SS23378M,SOP,14P,225MIL,PL	
ICM401	1201-001115	IC-PREAMP;7411,DIP,24P,400MIL,-,100MV/V,	
ICM601	AA13-30013C	IC-MCU;-,HD6473977F-OTP,8BIT,QFP,SMV-	
ICM602	1202-000001	IC-VOLTAGE COMP.;7533,TO-92,3P,-,SINGLE,	
ICM603	1003-001090	IC-MOTOR DRIVER;LB1643,SIP,10P,-,SINGLE,	
LDM601	AA91-60265A	ASSY-HOLDER,LED;-,-,-,POM BLK,M-260,SMV-	
LDM602	AA91-60278A	ASSY-HOLDER,LED;-,ABS,VO,BLK,M30,TVCR AL	
LM301	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM302	2701-000207	INDUCTOR-AXIAL;56uH,5%,2.5x3.4mm	
LM304	2701-000207	INDUCTOR-AXIAL;56uH,5%,2.5x3.4mm	
LM305	2701-000207	INDUCTOR-AXIAL;56uH,5%,2.5x3.4mm	
LM307	2701-000118	INDUCTOR-AXIAL;120uH,10%,2.5x3.4mm	
LM401	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM571	2702-000120	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
LM572	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM573	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM574	2701-000180	INDUCTOR-AXIAL;33uH,5%,2.5x3.4mm	
LM602	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM603	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LM604	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
PHOTO	0604-000188	PHOTO-INTERRUPTER;TR,-,-,-DIP-4,TR	
PTM601	AA91-60267A	ASSY-HOLDER,PHOTO;-,-,-,POM WHT,M-260,SM	
PTM602	AA91-60267A	ASSY-HOLDER,PHOTO;-,-,-,POM WHT,M-260,SM	
QM103	0501-000316	TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,	
QM104	0504-000118	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-	
QM105	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
QM301	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM302	0504-000119	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
QM303	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM304	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM305	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM306	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM308	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM309	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM310	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM570	0504-000119	TR-DIGITAL;KSR1004,NPN,300mW,47K-47K,TO-	
QM571	0501-000231	TR-SMALL SIGNAL;2SD1468SQ,NPN,300MW,TO-9	
QM572	0501-000231	TR-SMALL SIGNAL;2SD1468SQ,NPN,300MW,TO-9	
QM573	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM574	0501-000010	TR-SMALL SIGNAL;KSC1008,NPN,80V,60V,700m	
QM575	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM602	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM603	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM605	0501-000303	TR-SMALL SIGNAL;KSA733-Y,PNP,250mW,TO-92	
QM608	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
QM701	0504-000118	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-	
QM702	0504-000118	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-	
QM703	0504-000118	TR-DIGITAL;KSR1003,NPN,300mW,22K-22K,TO-	
REM701	AA59-60001U	MODULE-REMOCON;-,ORC-50VF/SR-12V,38KHz,9	
RM106	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM107	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM109	2001-001107	R-CARBON(S);220ohm,5%,1/2W,AA,TP,2.4x	
RM111	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM201	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM202	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM203	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM204	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM205	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM206	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM207	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM208	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM209	2004-001185	R-METAL;680Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM210	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM217	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM218	2001-000273	R-CARBON;100Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM219	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM220	2001-000331	R-CARBON;12Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM221	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM222	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM223	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM224	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM225	2001-001031	R-CARBON;91KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
RM226	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM227	2001-000221	R-CARBON;1.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM229	2001-000633	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM230	2001-000633	R-CARBON;30Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM231	2004-001089	R-METAL;560Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM303	2001-000003	R-CARBON;330 OHM,5%,1/8W,AA,T	
RM305	2001-000258	R-CARBON;1.8Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM306	2001-000258	R-CARBON;1.8Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM307	2001-000977	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM308	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM309	2001-000472	R-CARBON;2.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM310	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM311	2001-000319	R-CARBON;120Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM312	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM313	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM314	2001-000331	R-CARBON;12Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM315	2001-000969	R-CARBON;75ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM316	2001-000037	R-CARBON(S);330OHM,5%,1/2W,AT,TP	
RM317	2001-000221	R-CARBON;1.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM318	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM319	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM321	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM322	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM323	2001-000221	R-CARBON;1.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM324	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM325	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM326	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,	
RM327	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
RM328	2001-000995	R-CARBON;820 OHM,5%,1\8W,AA,T	
RM329	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,	
RM332	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
RM333	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM334	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM335	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
RM336	2001-000977	R-CARBON;8.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM337	2001-000472	R-CARBON;2.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM338	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM339	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM340	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM341	2001-000302	R-CARBON;10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM342	2001-000331	R-CARBON;12Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM343	2001-001154	R-CARBON(S);5.1Kohm,5%,1/2W,AA,TP,2.4x6.	
RM344	2001-000302	R-CARBON;10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM360	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM402	2001-000302	R-CARBON;10ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM403	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM405	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM406	2001-000864	R-CARBON;56Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM407	2001-000273	R-CARBON;100Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM408	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM409	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM567	2004-001989	R-METAL;620ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM568	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM569	2001-000007	R-CARBON;3Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM570	2001-000006	R-CARBON;2.4Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM571	2001-000405	R-CARBON;180 OHM,5%,1/8W,AA,T	
RM572	2001-000780	R-CARBON;470ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM573	2001-000258	R-CARBON;1.8Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM574	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM575	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM576	2001-000458	R-CARBON;2.2ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM577	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM578	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM579	2001-000702	R-CARBON;39Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM580	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
RM581	2001-000454	R-CARBON;2.2Mohm,5%,1/8W,AA,TP,1.8x3.2m	
RM582	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM585	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM586	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM587	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM588	2001-000645	R-CARBON;330Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM589	2001-000331	R-CARBON;12Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM591	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM594	2001-000221	R-CARBON;1.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM597	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM598	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM599	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM601	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM604	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM605	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM606	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

Loc. No.	Code No.	Description ; Specification	Remark
RM607	2001-000010	R-CARBON;68KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
RM608	2001-000832	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM610	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM612	2001-000435	R-CARBON;1Mohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM615	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM616	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM617	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM618	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM619	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM621	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM628	2001-000832	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM629	2001-000508	R-CARBON;220K OHM,5%,1/8W,AA,	
RM630	2001-000508	R-CARBON;220K OHM,5%,1/8W,AA,	
RM631	2001-000832	R-CARBON;510ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM632	2001-000508	R-CARBON;220K OHM,5%,1/8W,AA,	
RM633	2001-000508	R-CARBON;220K OHM,5%,1/8W,AA,	
RM634	2001-000411	R-CARBON;18Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM635	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
RM636	2001-000679	R-CARBON;36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
RM640	2001-000435	R-CARBON;1Mohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM641	2001-000347	R-CARBON;13Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM642	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
RM643	2003-000639	R-METAL OXIDE(S);3.9ohm,5%,2W,AA,TP,4x12	
RM644	2001-000241	R-CARBON;1.5Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM650	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM651	2001-000539	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM652	2001-000539	R-CARBON;24Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM653	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM654	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM655	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM656	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM657	2001-000786	R-CARBON;47Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM658	2001-000812	R-CARBON;5.6Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RM659	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM663	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM665	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM667	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM668	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM680	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM681	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM682	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM683	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM684	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM685	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM686	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM687	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM688	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM689	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM690	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM691	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM692	2001-000660	R-CARBON;33Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM693	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM698	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM701	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM702	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM703	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM704	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM705	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM706	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RM707	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
SCM01A	AA63-40271A	SHIELD-CASE,ASSY;-,-,-,-,SMV-267V	
SCM02A	AA63-40269A	SHIELD-CASE,BOT;-,SPTE,T0.3,-,SMV-267V	
SENSOR	0603-000112	PHOTO-TR;NPN,35V,6V,50mA,75mW,-	
SM601	AA91-60266A	ASSY-HOLDER,TR;-,-,-,POM BLK,M-260,SMV-2	
SM602	AA91-60266A	ASSY-HOLDER,TR;-,-,-,POM BLK,M-260,SMV-2	
SWM601	3409-000176	SWITCH-DETECTOR;30Vdc,100mA,SPST,-,-	
SWM602	3409-001019	SWITCH-LEVER;5V,1mA,DPST,-,11deg	
SWM603	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM701	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM702	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM703	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM704	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM705	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM706	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM707	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM708	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
SWM709	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	

Loc. No.	Code No.	Description ; Specification	Remark
VRM601	2103-000669	VR-SEMI;10Kohm,25%,1/5W,TOP	
XTM301	2801-003399	CRYSTAL;3.579545MHZ HC-49/U-S 15PPM SERI	
XTM302	2801-000277	CRYSTAL-UNIT;4.433619MHZ,8PPM,28-AAM,S,1	
XTM601	2801-003293	CRYSTAL-UNIT;10MHZ,50PPM,28-AAA,16PF,50O	
XTM602	2801-003224	CRYSTAL-UNIT;32.768KHZ,20PPM,28-AAY,12.5	
ZDM102	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500m	

ASSY-PCB,CRT

*	AA95-20008H	ASSY-PCB,CRT;-,SCV11D,21,EC,-	
C502	2301-000213	C-FILM,PEF;220nF,5%,250V,TP,21.5x11,7.5	
C503	2201-000158	C-CERAMIC,DISC;10nF,+80-20%,3KV,Y5V,BK,-	
C504	2401-001232	C-AL;4.7uF,20%,250V,GP,TP,10x12.5mm	
C506	2401-000430	C-AL;10uF,20%,250V,GP,TP,10x16mm,5m	
CN503B	3711-002648	CONNECTOR-HEADER;BOX,9P,1R,2.5MM,STRAIGH	
CN503B	AA39-20031C	LEAD-CONNECTOR,ASSY;-,67096-009,S,9P,400	
D501	0402-000216	DIODE-RECTIFIER;ERC24-06,600V,1.0A,DO-20	
D502	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D503	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D504	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41	
D505	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D506	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
D507	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
DZ501	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
DZ502	0403-000563	DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500m	
GT502A	AA39-20010D	LEAD-CONNECTOR,ASSY;-,YFH800-01,S,1P,400	
IC501	1201-001159	IC-VIDEO AMP;6107,ZIP,9P,300MIL,SINGLE,-	
Q501	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
R501H	2002-001009	R-COMPOSITION;2.7Kohm,10%,1/2W,AA,TP,3.7	
R502H	2002-001009	R-COMPOSITION;2.7Kohm,10%,1/2W,AA,TP,3.7	
R503	2002-001009	R-COMPOSITION;2.7Kohm,10%,1/2W,AA,TP,3.7	
R504	2001-001062	R-CARBON(S);10Mohm,5%,1/2W,AA,TP,2.4x6.4	
R505	2008-000264	R-FUSIBLE(S);1ohm,5%,1W,AF,TP,3.9x10mm	
R510	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R511	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R512	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R513	2001-000347	R-CARBON;13Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R514	2001-000290	R-CARBON;10Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
R515	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
⚠ V999	3704-000110	SOCKET-CRT;14P,29.1,25.5,SN,ISHS09S/BK	

ASSY-PCB,A/V

*	AA95-40010T	ASSY-PCB,A/V;DP,TVP5350FST,SCV11D,-,MONO	
CN603	3711-002643	CONNECTOR-HEADER;BOX,4P,1R,2.5MM,STRAIGH	
CN701A	AA39-20052A	LEAD-CONNECTOR,ASSY;-,YBNH025-04,YSH025-	
CN701B	AA39-20070C	LEAD-CONNECTOR,ASSY;-,YBNH025-07,67096-0	
CY701	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
CY702	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
CY703	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
CY704	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,1.	
CY705	2202-000720	C-CERAMIC,MLC-AXIAL;8.2NF,20%,16V,Y5R,3.	
CY706	2202-000720	C-CERAMIC,MLC-AXIAL;8.2NF,20%,16V,Y5R,3.	
JY701	3722-001033	JACK-RCA;2P,3.6MM,#18,AU	
JY702	3722-000143	JACK-PHONE;1P(VER),3.4mm,AG,BLK,NO	
LY701	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
LY702	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
LY703	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
RY701	2001-001153	R-CARBON(S);47ohm,5%,1/2W,AA,TP,2.4x6.4m	
RY702	2001-001153	R-CARBON(S);47ohm,5%,1/2W,AA,TP,2.4x6.4m	

ASSY-PCB,IF

*	AA95-90005Z	ASSY-PCB,IF;-,TVP5070XT/AMFX,PS14B,PAL/S	
MC02	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
MC03	2301-000380	C-FILM,PEF;10nF,5%,50V,TP,6.5x3mm,5mm	
MC04	2401-001264	C-AL;4.7UF,20%,50V,BP,TP,5X11,5MM	
MC05	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11mm,5mm	
MC12	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
MC13	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
MC14	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11mm,5mm	
MC16	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	

Loc. No.	Code No.	Description ; Specification	Remark
MC17	2401-000242	C-AL;100uF,20%,10V,GP,TP,6x11,5mm	
MC19	2202-000279	C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X1	
MC36	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11mm,5mm	
MIC01	1204-000508	IC-IF CIRCUIT;TDA9800,DIP,20P,300MIL,PLA	
ML02	2701-000215	INDUCTOR-AXIAL;8.2uH,10%,2.5x3.4mm	
ML08	2701-000189	INDUCTOR-AXIAL;470nH,10%,2.5x3.4mm	
MQ01	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
MR02	2001-000472	R-CARBON;2.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
MR03	2001-000003	R-CARBON;330 OHM,5%,1/8W,AA,T	
MR04	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,	
MR15	2001-000490	R-CARBON;200ohm,5%,1/8W,AA,TP,1.8x3.2mm	
MR16	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,	
MR18	2001-000362	R-CARBON;150ohm,5%,1/8W,AA,TP,1.8x3.2mm	
MR33	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
MR34	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
MR35	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,	
MT01	AA26-10003V	TRANS-IF;-,7MG,VIF,0.3UH,7MM,8PF,102.7M	
MVR01	2103-000667	VR-SEMI;50Kohm,25%,1/5W,SIDE	
MZ01	2904-000258	FILTER-SAW AV;38.9MHz,SIP5P,ST,15.1dB,PA	
MZ02	2903-000181	FILTER-CERAMIC;TR,5.5MHz,-,-,-,TP,TPS5.5	
MZ03	2903-001021	FILTER-CERAMIC;TR,5.74MHz,-,-,-,TP,-	
MZ05	2903-000185	FILTER-CERAMIC;BP,5.5MHz,+-75KHz,6dB,-,T	
P001	3711-001569	CONNECTOR-HEADER;NOWALL,5P,1R,2.5mm,ANGL	
P002	3711-001569	CONNECTOR-HEADER;NOWALL,5P,1R,2.5mm,ANGL	

ASSY-PCB,TTX,VPS

*	AA95-90008K	ASSY-PCB,TTX,VPS;-,TVP5050XT,SCV11A,-,-,	
CN201	3711-002708	CONNECTOR-HEADER;NOWALL,10P,1R,2.5mm,ANG	
CN201A	3711-002701	CONNECTOR-HEADER;NOWALL,3P,1R,2.5mm,ANGL	
CP01	2401-000808	C-AL;220uF,20%,16V,GP,8x11mm,5mm,TP	
CP02	2202-000154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
CP03	2305-000355	C-FILM,MPEF;330nF,5%,63V,TP,-,5mm	
CP05	2301-000247	C-FILM,PEF;33nF,5%,50V,TP,8.1x4.5x13mm,5	
CP06	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,	
ICP01	1204-001164	IC-DECODER;SDA5642,DIP,14P,-,PLASTIC,6V,	
LP01	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
RP01	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RP02	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RP03	2004-001301	R-METAL;82Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RP04	2001-000449	R-CARBON;2.2Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RP05	2001-000435	R-CARBON;1Mohm,5%,1/8W,AA,TP,1.8x3.2mm	
RP06	2004-001284	R-METAL;820Kohm,5%,1/8W,AA,TP,1.8x3.2m	
RP08	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
RP10	2004-001140	R-METAL;6.8Kohm,5%,1/8W,AA,TP,1.8x3.2m	
TC01	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC02	2202-000143	C-CERAMIC,MLC-AXIAL;10pF,5%,50V,NPO,TP,1	
TC03	2202-000162	C-CERAMIC,MLC-AXIAL;15pF,5%,50V,SL,TP,3.	
TC04	2202-000796	C-CERAMIC,MLC-AXIAL;UP050 B102KB INF,10%	
TC05	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC06	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC07	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC08	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC09	2202-000109	C-CERAMIC,MLC-AXIAL;100nF,+80-20%,50V,Y5	
TC11	2401-000242	C-AL;100uF,20%,10V,GP,TP,6x11,5mm	
TC12	2202-000154	C-CERAMIC,MLC-AXIAL;150pF,10%,50V,Y5P,TP	
TD02	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
TD04	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
TD06	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
TD07	0401-000005	DIODE-SWITCHING;1N4148,75V,300mA,DO-35,T	
TIC01	1204-000523	IC-PAL DECODER;SAA5254,DIP,40P,-,PLASTIC	
TL01	2701-000170	INDUCTOR-AXIAL;3.9uH,10%,2.8x7mm	
TR01	2001-000232	R-CARBON;1.3Kohm,5%,1/8W,AA,TP,1.8x3.2m	
TR02	2001-000429	R-CARBON;1Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
TR04	2001-000563	R-CARBON;27Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
TR05	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
TR06	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
TR07	2001-000613	R-CARBON;3.9K OHM,5%,1/8,AA,T	
TR08	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
TR09	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
TR10	2001-000281	R-CARBON;100ohm,5%,1/8W,AA,TP,1.8x3.2mm	
TR13	2001-000472	R-CARBON;2.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
TX01	2801-001478	CRYSTAL-UNIT;27.0MHz,25ppm,28-ABR,20pF,4	

ASSY-PCB,PAL

*	AA95-90023N	ASSY-PCB,PAL;-,TVP5050X,SCV11D,TDA4665,-	
CNS201	3711-002707	CONNECTOR-HEADER;NOWALL,9P,1R,2.5mm,ANGL	
CS202	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CS203	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CS207	2401-001530	C-AL;47UF,20%,25V,GP,TP,5X11MM,5MM	
DZS201	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500m	
ICS202	1209-000214	IC-DELAY LINE;TDA4665,DIP,16P,300MIL,PLA	
RS201	2001-001077	R-CARBON(S);150ohm,5%,1/2W,AA,TP,2.4x6.4	
RS203	2001-000617	R-CARBON;3.9Mohm,5%,1/8W,AA,TP,1.8x3.2m	
RS205	2001-000009	R-CARBON;20Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RS207	2001-000009	R-CARBON;20Kohm,5%,1/8W,AA,TP,1.8x3.2mm	

ASSY-PCB,SIF

*	AA95-90023P	ASSY-PCB,SIF;-,TVP5050X,SCV11D,TDA3845,-	
CK00	2401-001271	C-AL;4.7uF,20%,50V,GP,TP,4x7mm,5mm	
CK01	2401-001271	C-AL;4.7uF,20%,50V,GP,TP,4x7mm,5mm	
CK02	2201-000573	C-CERAMIC,DISC;47pF,5%,50V,CH,TP,6.5x3.0	
CK03	2401-001271	C-AL;4.7uF,20%,50V,GP,TP,4x7mm,5mm	
CK04	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CL01	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CL02	2401-001264	C-AL;4.7UF,20%,50V,BP,TP,5X11,5MM	
CL03	2401-001271	C-AL;4.7uF,20%,50V,GP,TP,4x7mm,5mm	
CL07	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
CNL01	3711-002709	CONNECTOR-HEADER;NOWALL,12P,1R,2.5MM,ANG	
ICK01	1204-000439	IC-IF CIRCUIT;TDA3845,DIP,16P,300MIL,PLA	
RL01	2001-000522	R-CARBON;22Kohm,5%,1/8W,AA,TP,1.8x3.2mm	
RL02	2001-000734	R-CARBON;4.7Kohm,5%,1/8W,AA,TP,1.8x3.2m	
SFK01	2904-000260	FILTER-SAW AV;38.9MHZ,SIP5P,ST,24.2DB,PA	
TK01	AA26-10001Z	TRANS-IF;-,7MG,VIF,-,7MM,100PF,38.9MHZ,	

ASSY-SPEAKER

	3001-001008	SPEAKER;5W,16ohm,90dB,180Hz	
	AA39-20505D	LEAD CONNECTOR-ASSY;-,YSH025-04,REC,4P,3	

REMOCON

*	AA59-10105A	REMOCON;-,TM48,WHT,RM706,43,-,-,SS,-	

ASSY-PCB,MASTER

	3403-001020	SWITCH-PUSH;250V,5A,DPST,OFF-ON-OFF	
	6001-000057	SCREW-MACHINE;RH,+,M3,L6,ZPC(BLK),SWRCH1	
	AA39-20041B	LEAD-CONNECTOR,ASSY;-,YFH800-02,S,2P,300	
	AA61-10320A	BRACKET-MASTER;-,T3350,SECC,T1.0,-,-,-	

ASSY-ACCESSORY

I/B	AA68-11207A	MANUAL-USERS;SCV11F,GER,TM48,B5,W/P 100(	
I/B	AA68-11209A	MANUAL-USERS;SCV11F,ENG,TM48,B5,W/P 100(	

9. Block Diagrams

9-1 SCV11F Video Block Diagram

9-1-1 Notes

The TV's 1st and 2nd tuners (and VCR module) are "multi-system." compatible: IC201 (TDA8374) is the video, chroma, and deflection (VCD) IC .

9-1-1(A) TAPE PLAYBACK (REGARDLESS OF ORIGINAL RECORDING SYSTEM)

If the output PB signal of micom pin 6 is high, the PB signal outputs from module deck 1, passes through IC 702 pins 1 and 8 and out to another VCR . The output signal of IC701 pin 1 (pin 15) outputs from IC201 pin 17 (RBG OUT).

9-1-1(B) VIEWING NORMAL CHANNEL WHILE RECORDING A SCRAMBLED CHANNEL:

The output CVBS (Composite Video Signal) of the 2nd IF outputs to pin 8 when the micom's pin 7 V/T/H (VCR tuner high) is high (IC702 pin 3). The decoded signal goes to IC701 pin 2, where it is fed to IC 701 pin 4 (high output of micom's' pin 8— AV/Tuner), and out to VCR pin 3 (module deck) for recording.

9-1-1(C) VIEWING A SCRAMBLED CHANNEL WHILE RECORDING AN UNSCRAMBLED CHANNEL.

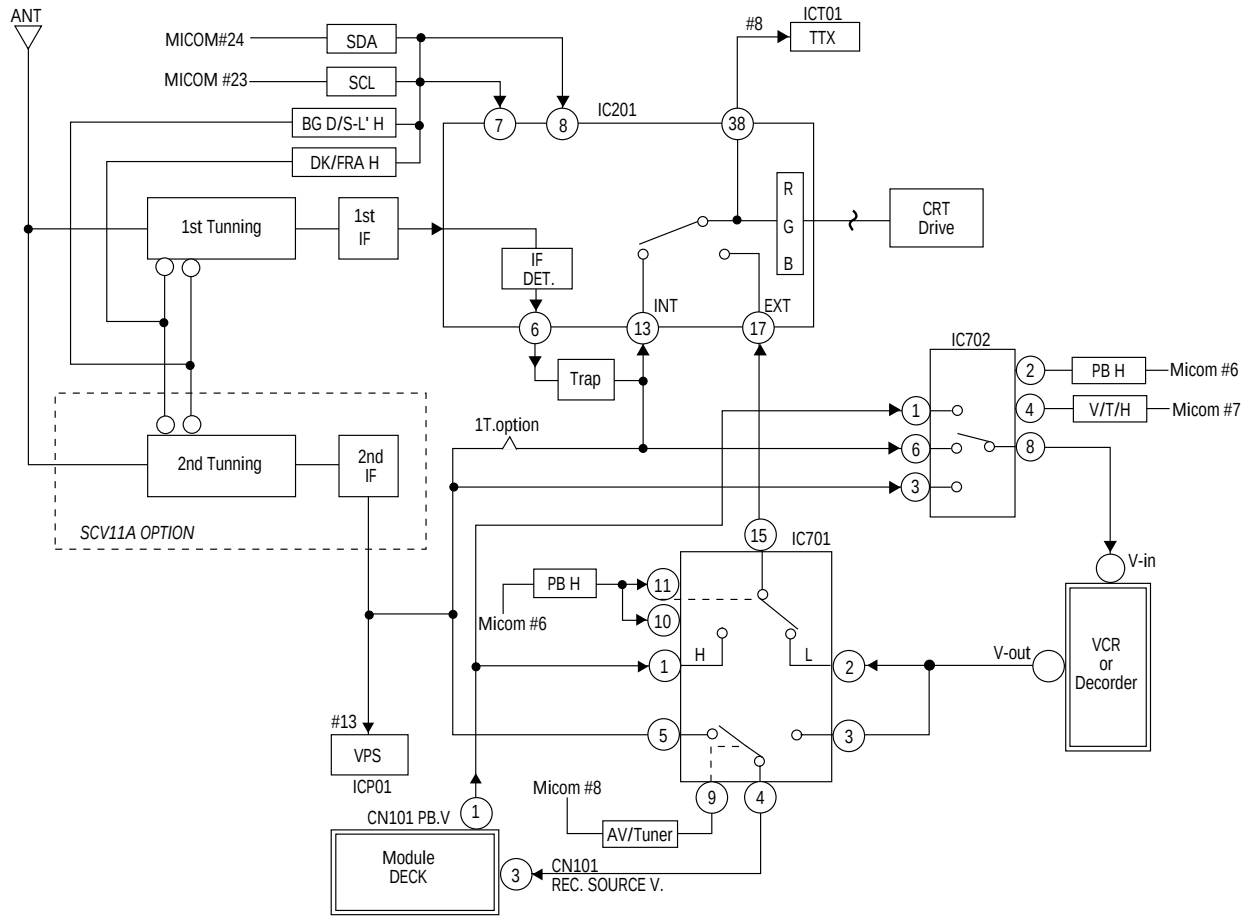
The output CVBS of the 2nd IF is fed from IC801 pin 5 to IC702 pin 4 (low output of micom pin 8—AV/tuner). Then it goes to the module deck pin 3 for recording.

The scrambled signal (CVBS) is fed to IC702 pin 6 through the 1st IF, and then to IC702 pin 8 (micom's pin 7, V/T/H registers low). Then it goes to the decoder input. The descrambled signal goes to IC701 pins 2 and 15 (PH high output of micom's pin 6), and then to IC201 pin 17, where it outputs as RGB.

9-1-1(D) SYNCHRONOUS RECORDING:

The viewer sees the signal from the 1st tuner , while the signal from the second tuner is recorded. Audio processing for the French system type is shown in the table.

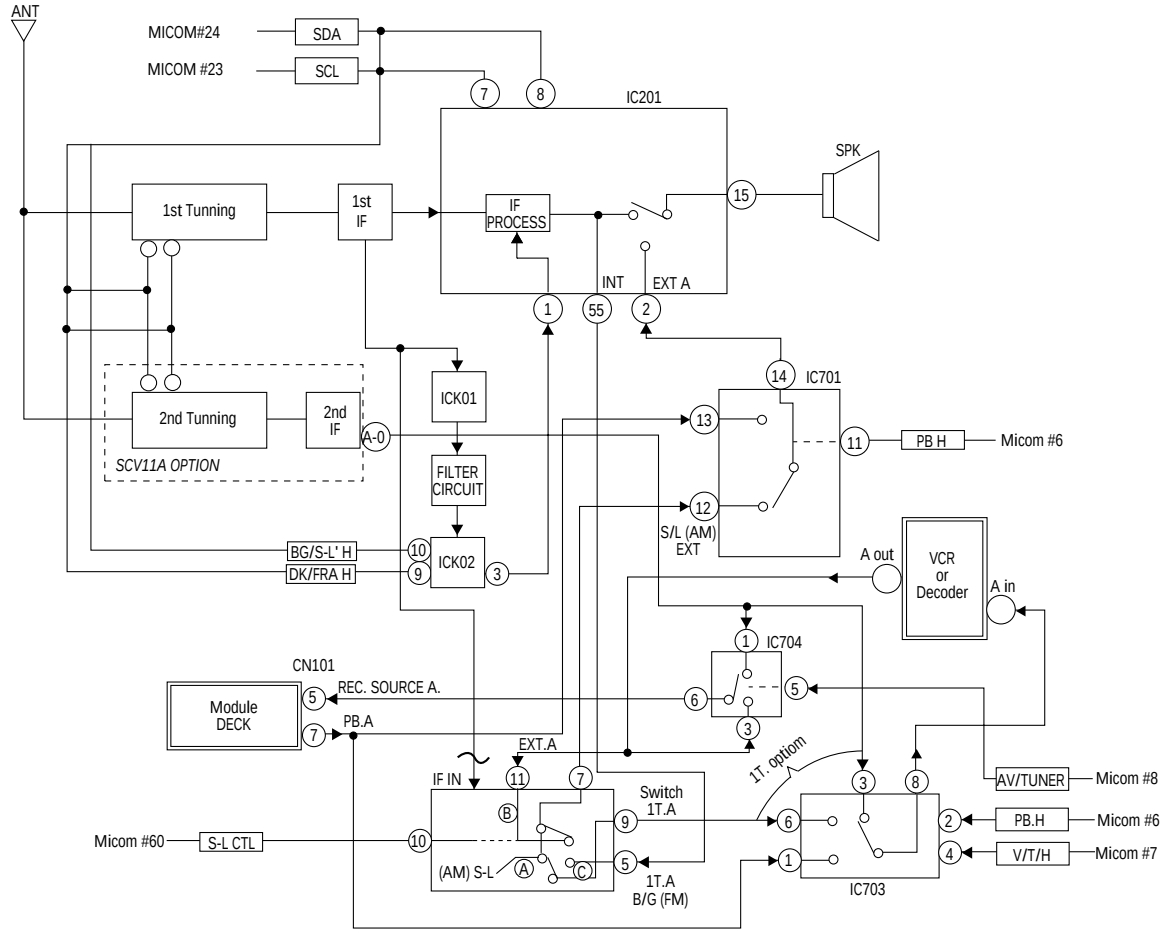
9-1 SCV11A,B Video Block Diagram (Continued)



Micom Pin Function

PIN NO.	PIN NAME	FUNCTION
6	PB H	High Output : Playback signal is monitored. The PB signal is output at scart.
7	V/T/H	High Output : The second tuner signal is output at scart.
8	AV/$\overline{\text{TUNER}}$	High Output : AV signal is recorded. Low output : TUNER signal is recorded.
23, 24	SDA, SCL BG/S-L' H DK/FRA H	Port / BG/S-L / DK/FRA PAL/SEC : L / L FRANCE-L : L / H FRANCE-L' : H / L ⓐC. SYSTEM : PAL/SEC ARE AUTO mode, and France is SECAM mode.
23,24	SDA,SCL	Extra control signals are all controlled by the I²C bus. Select INT/EXT FRENCH system modulation

9-1 SCV11F Audio Block Diagram (Continued)

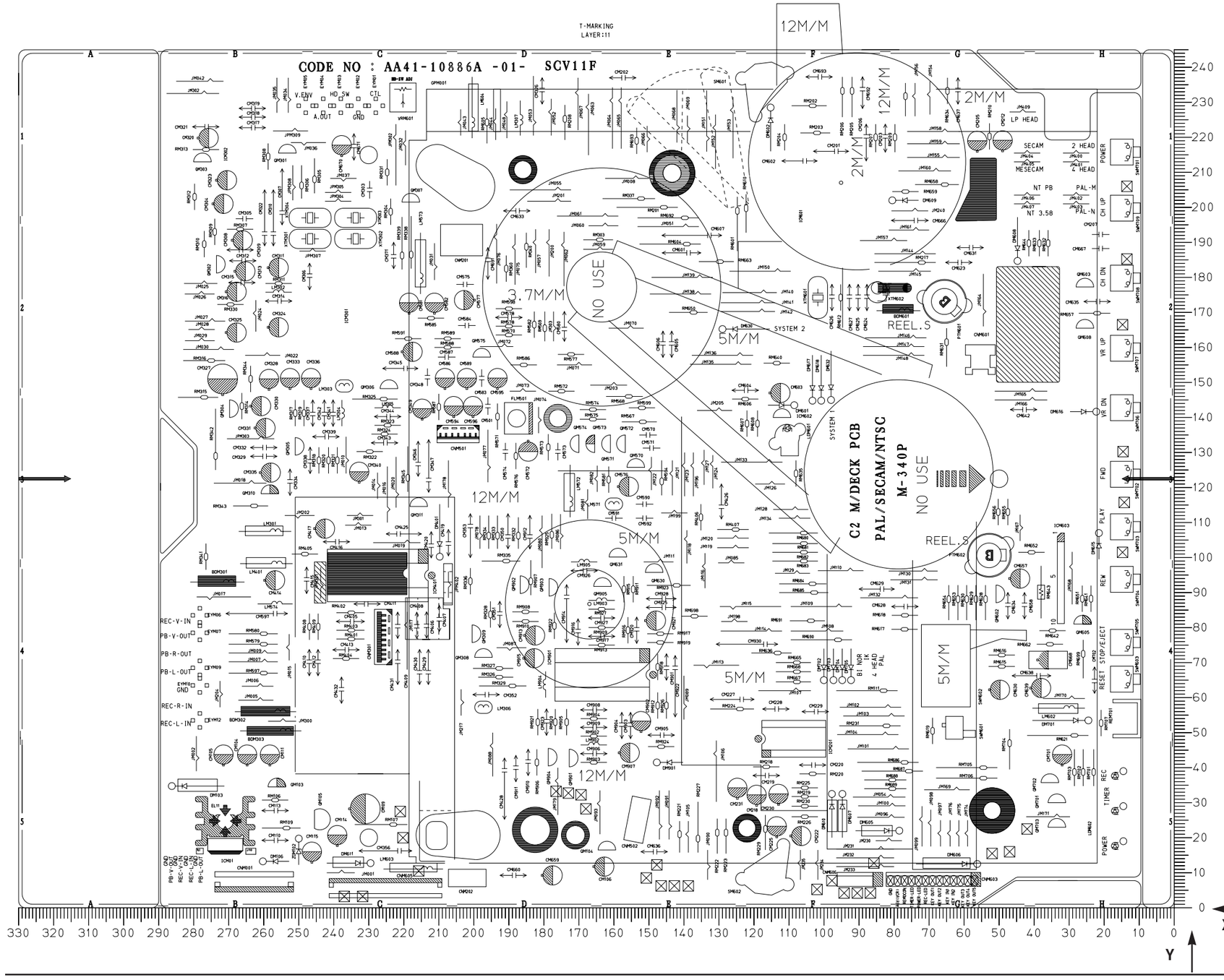


Micom Pin Function

PIN NO.	PIN NAME	FUNCTION
6	PB H	High output : PB audio is monitored. The PB audio is output at scart.
7	V/T/H	High output : The second tuner audio is output at a scart.
8	AV/$\overline{\text{TUNER}}$	High output : AV audio is recorded. Low output : TUNER audio is recorded.
60	S-L CTL ⓐ :S-L(AM) ⓑ : B/G (FM) ⓒ :EXT	① 1.8 ~ 2.6V : In TV FM Mode, connect pin 7 to A and pin 9 to C. ② 4.1 ~ 4.9V : In TV AM Mode, connect pin 7 to A and pin 9 to A. ③ 6.4 ~ 7.2V : In AV-AM Mode, connect pin 7 to B and pin 9 to A. ④ More than 7.3V : In AV-FM Mode, connect pin 7 to B and pin 9 to C.
23,24	SDA, SCL BG/S-L' H DK/FRA H	Port / S: AUTO H H; BG (NT) H L(111); DK L H; I L L ⓐ When system is output (111), mark with NT3.58 instead of B/G ⓑ Extra control signals are all controlled by the IC bus.

10. PCB Layout

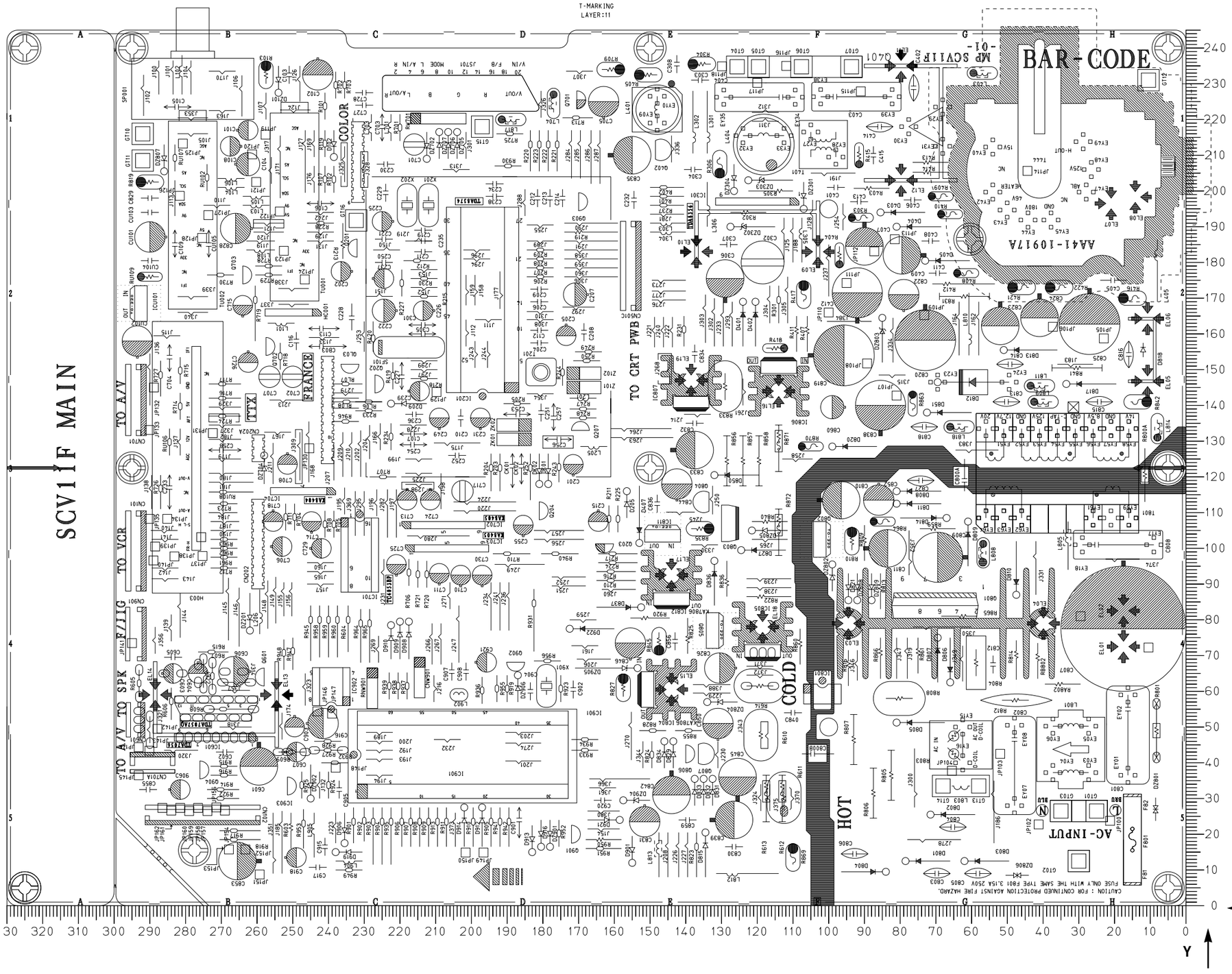
10-1 Video Main



Loc. No.	X	Y
DIODE		
D102	238	209
D205	156	116
D209	222	140
D401	124	169
D402	120	169
D403	85	194
D404	81	190
D405	73	180
D407	153	101
D801	78	12
D802	71	25
D803	62	12
D804	84	9
D805	81	51
D806	66	62
D807	69	75
D808	81	116
D809	61	107
D810	47	87
D811	81	112
D812	69	146
D813	51	155
D814	67	108
D815	134	20
D817	33	146
D818	12	158
D820	99	128
D821	94	85
D827	124	99
D829	143	46
D831	132	35
D832	135	35
D833	137	35
D834	146	46
D836	132	96
D837	152	83
D850	132	120
D851	72	138
D901	155	12
D906	235	17
D908	217	79
D909	220	79
D910	222	78
D912	197	27
D913	183	15
D914	202	27
D916	180	16
D919	238	15
D921	158	24
D922	172	77
DK01	178	118
DK02	181	118
DZ101	254	227
DZ201	262	77
DZ301	107	195
DZ302	127	190
DZ303	122	203
DZ304	126	200
DZ702	212	209
DZ704	258	126

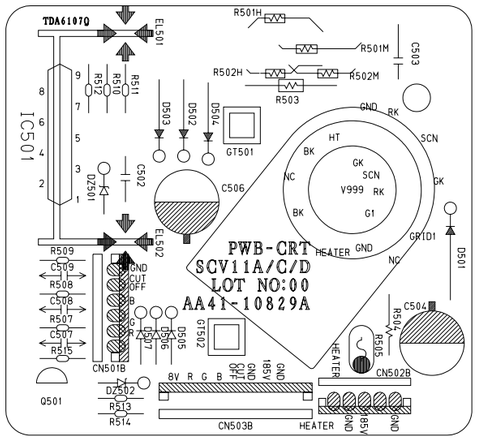
Loc. No.	X	Y
DZ705	204	216
DZ706	206	216
DZ707	209	216
DZ801	8	23
DZ802	99	95
DZ803	85	164
DZ804	134	57
DZ805	121	105
DZ806	51	8
DZ807	286	205
DZ808	92	85
DZ809	88	85
DZ901	178	16
DZ902	245	30
DZ904	157	29
DZ905	153	66
DZ906	187	64
IC		
IC201	205	145
IC301	137	183
IC601	254	59
IC701	227	107
IC702	218	106
IC703	217	100
IC704	239	116
IC801	97	60
IC804	144	60
IC805	118	78
IC806	114	144
IC807	138	147
IC811	144	104
IC812	144	92
IC901	230	52
IC902	243	57
IC903	251	31
ICU101	293	171
TRANSISTOR		
Q201	232	186
Q202	227	143
Q203	165	101
Q204	181	108
Q207	167	133
Q401	79	235
Q402	147	209
Q601	258	66
Q701	170	223
Q702	257	154
Q703	264	174
Q801	94	79
Q802	102	100
Q803	128	104
Q804	135	115
Q805	132	74
Q806	140	40
Q807	135	40
Q901	172	17
Q902	190	68
Q903	170	194
Q904	276	35
QL03	236	151

10-2 TV Main

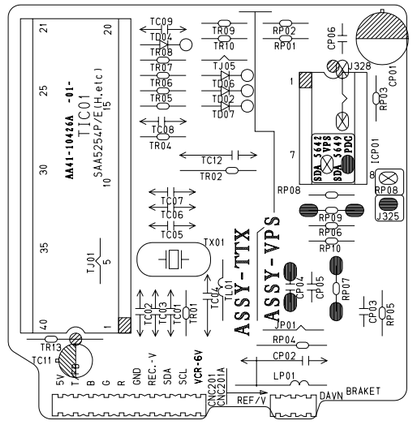


Loc. No.	X	Y
DIODE		
D102	238	209
D205	156	116
D209	222	140
D401	124	169
D402	120	169
D403	85	194
D404	81	190
D405	73	180
D407	153	101
D801	78	12
D802	71	25
D803	62	12
D804	84	9
D805	81	51
D806	66	62
D807	69	75
D808	81	116
D809	61	107
D810	47	87
D811	81	112
D812	69	146
D813	51	155
D814	67	108
D815	134	20
D817	33	146
D818	12	158
D820	99	128
D821	94	85
D827	124	99
D829	143	46
D831	132	35
D832	135	35
D833	137	35
D834	146	46
D836	132	96
D837	152	83
D850	132	120
D851	72	138
D901	155	12
D906	235	17
D908	217	79
D909	220	79
D910	222	78
D912	197	27
D913	183	15
D914	202	27
D916	180	16
D919	238	15
D921	158	24
D922	172	77
DK01	178	118
DK02	181	118
DZ101	254	227
DZ201	262	77
DZ301	107	195
DZ302	127	190
DZ303	122	203
DZ304	126	200
DZ702	212	209
DZ704	258	126
DZ705	204	216
DZ706	206	216
DZ707	209	216
DZ801	8	23
DZ802	99	95
DZ803	85	164
DZ804	134	57
DZ805	121	105
DZ806	51	8
DZ807	286	205
DZ808	92	85
DZ809	88	85
DZ901	178	16
DZ902	245	30
DZ904	157	29
DZ905	153	66
DZ906	187	64
IC		
IC201	205	145
IC301	137	183
IC601	254	59
IC701	227	107
IC702	218	106
IC703	217	100
IC704	239	116
IC801	97	60
IC804	144	60
IC805	118	78
IC806	114	144
IC807	138	147
IC811	144	104
IC812	144	92
IC901	230	52
IC902	243	57
IC903	251	31
ICU101	293	171
TRANSISTOR		
Q201	232	186
Q202	227	143
Q203	165	101
Q204	181	108
Q207	167	133
Q401	79	235
Q402	147	209
Q601	258	66
Q701	170	223
Q702	257	154
Q703	264	174
Q801	94	79
Q802	102	100
Q803	128	104
Q804	135	115
Q805	132	74
Q806	140	40
Q807	135	40
Q901	172	17
Q902	190	68
Q903	170	194
Q904	276	35
QL03	236	151

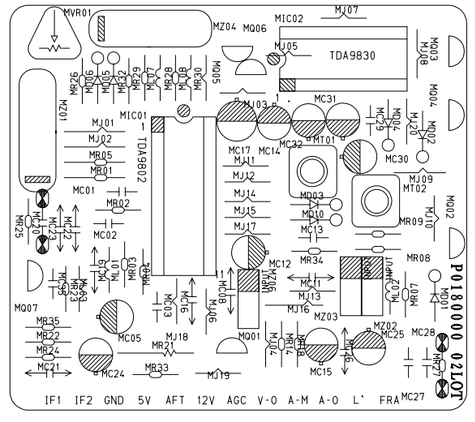
10-3 PCB-CRT



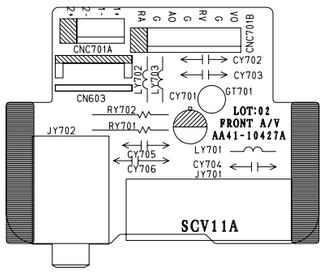
10-4 PCB-TTX

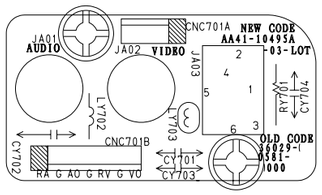


10-4 PCB-I/F

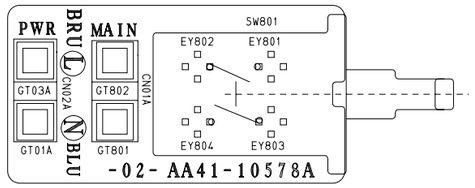


10-6 PWB-A/V

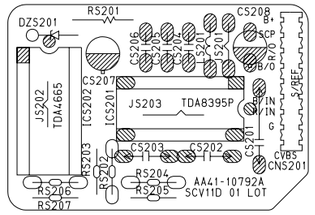




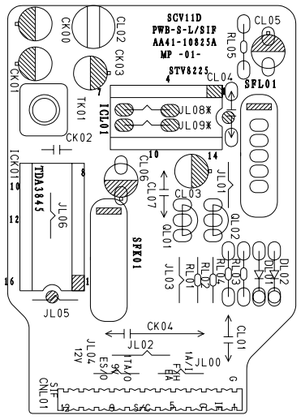
10-7 PCB-MASTER



10-8 PCB-COLOR

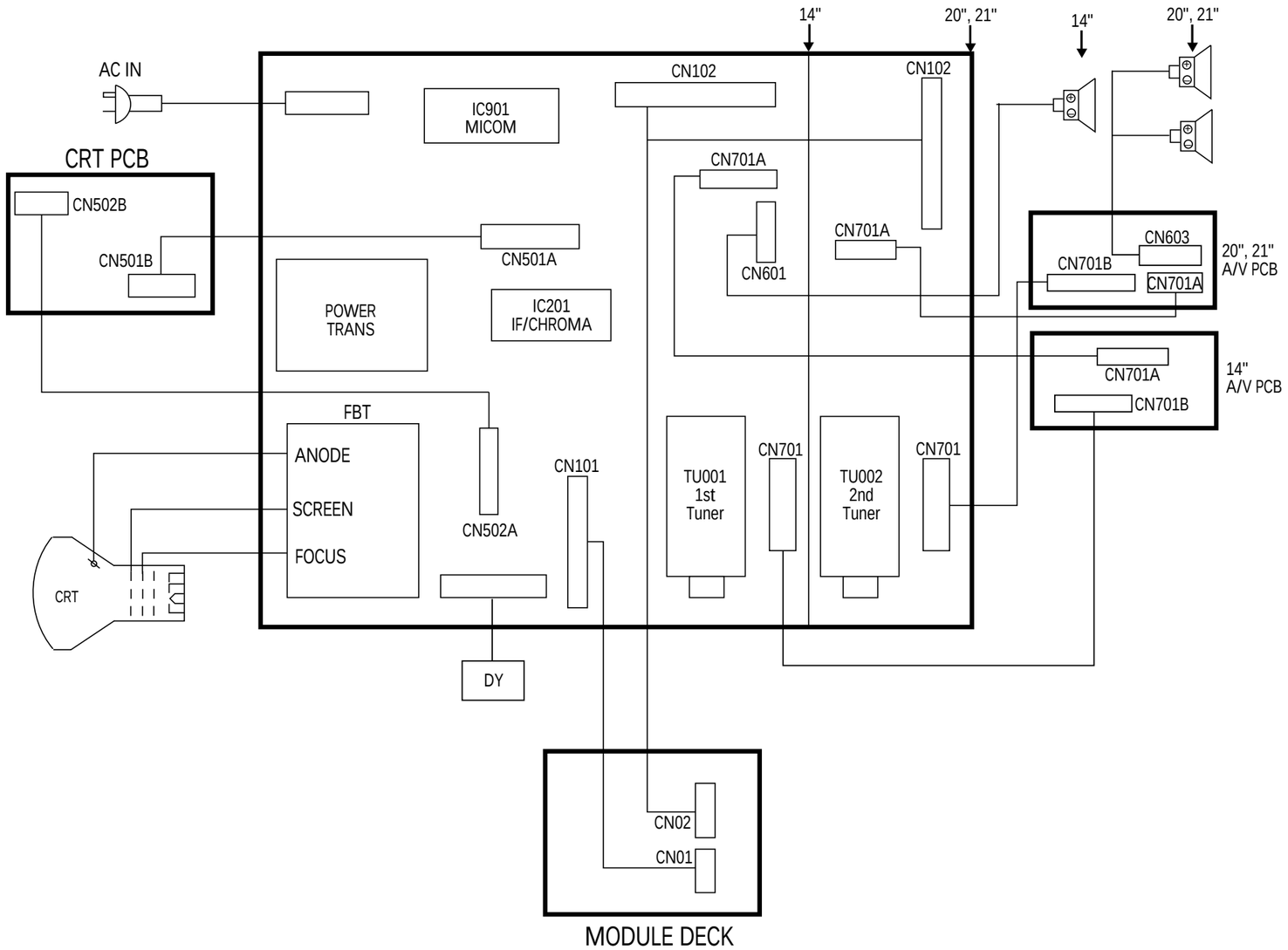


10-9 PCB-SECL'/SIF

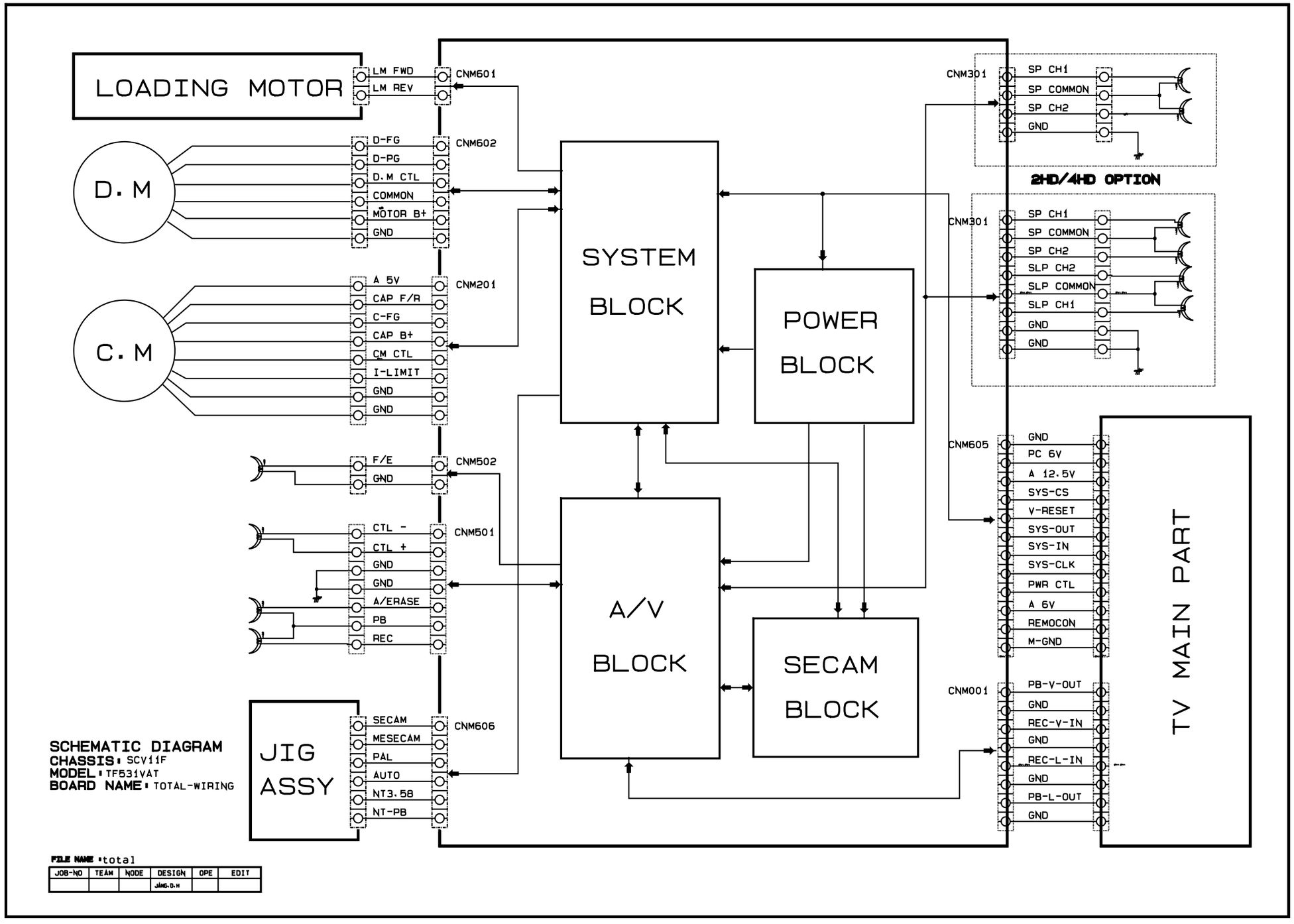


11. Wiring Diagram

11-1 SCV11F Wiring Diagram

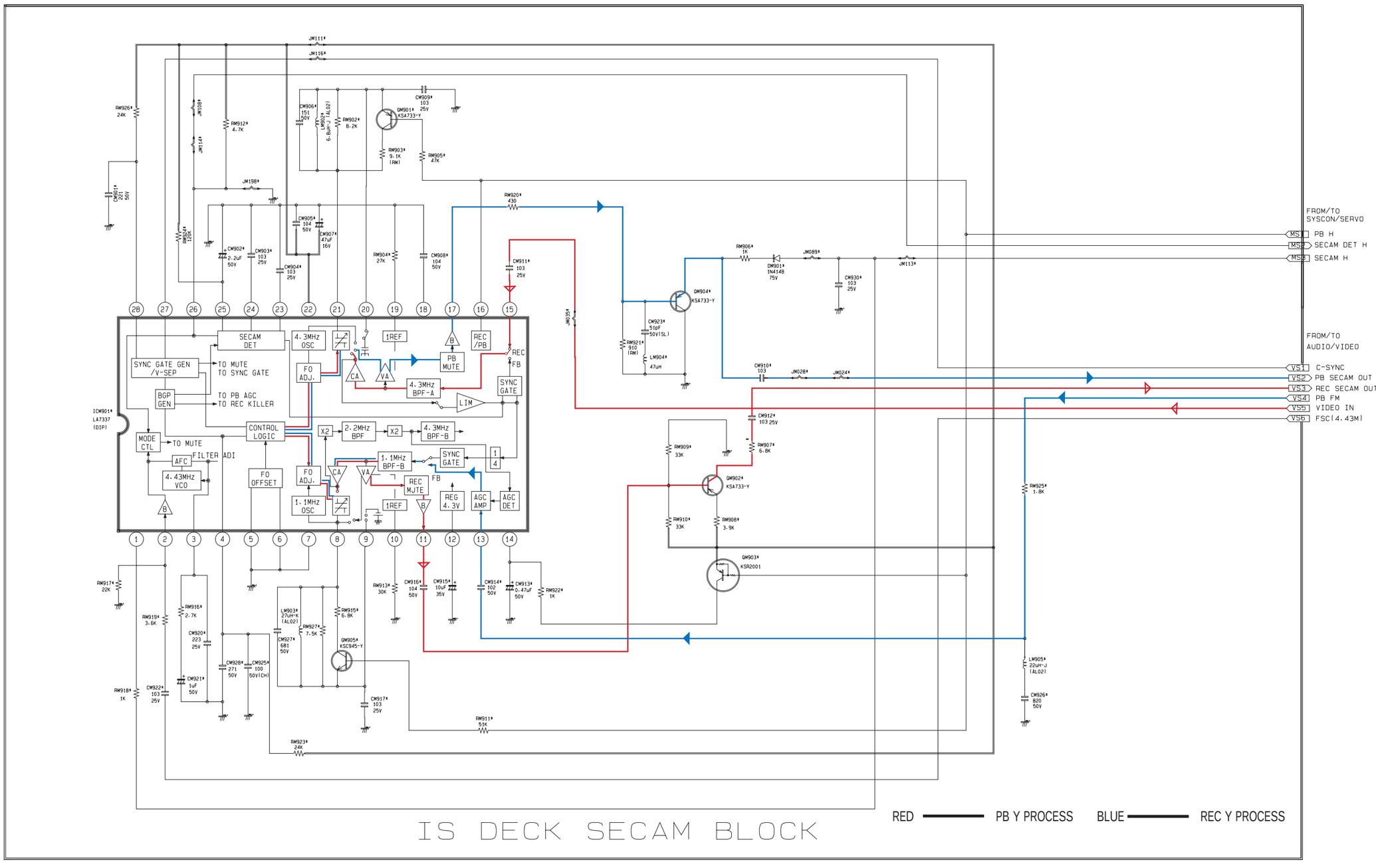


11-2 SCV11F Wiring Diagram

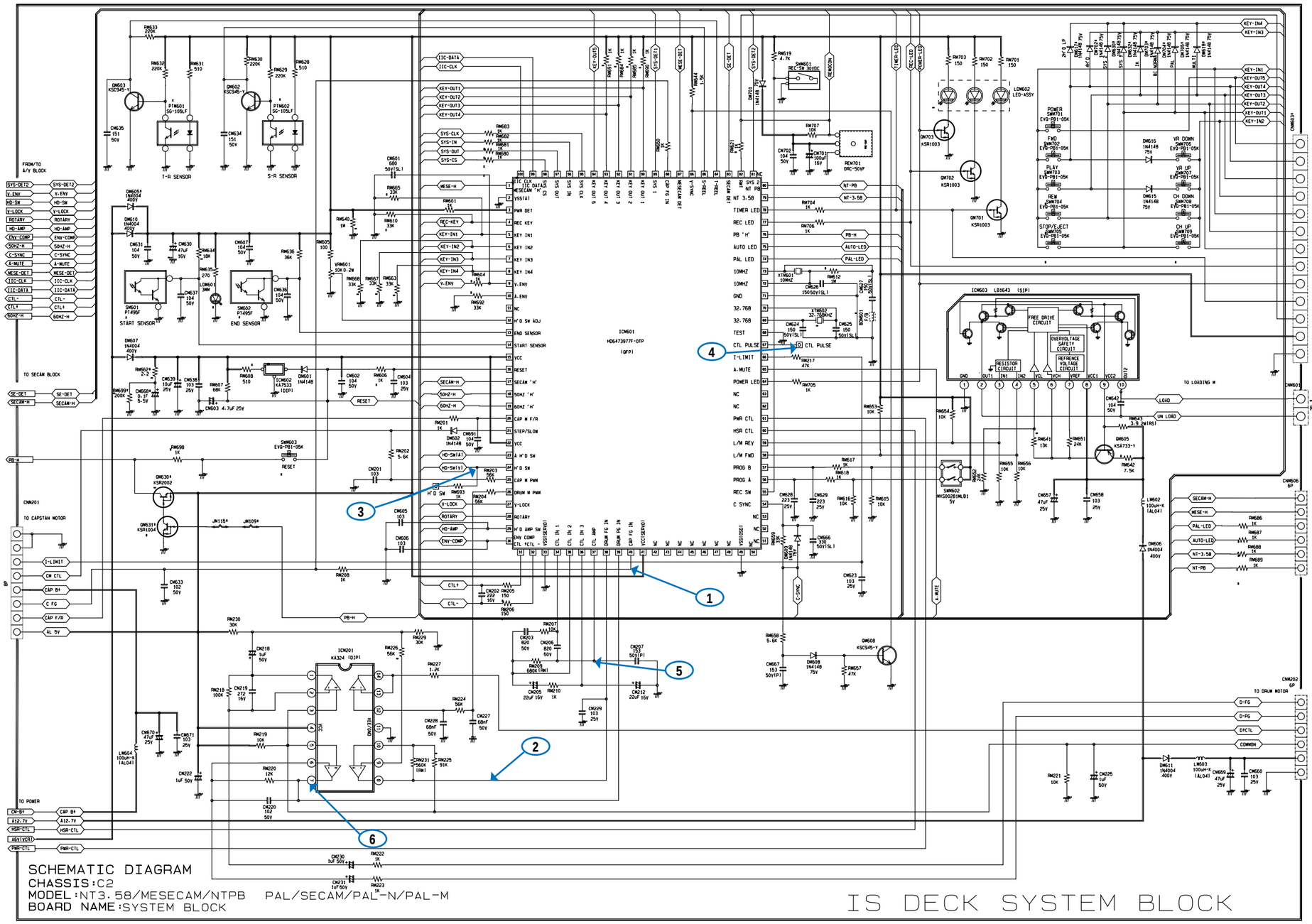


12. Schematic Diagrams

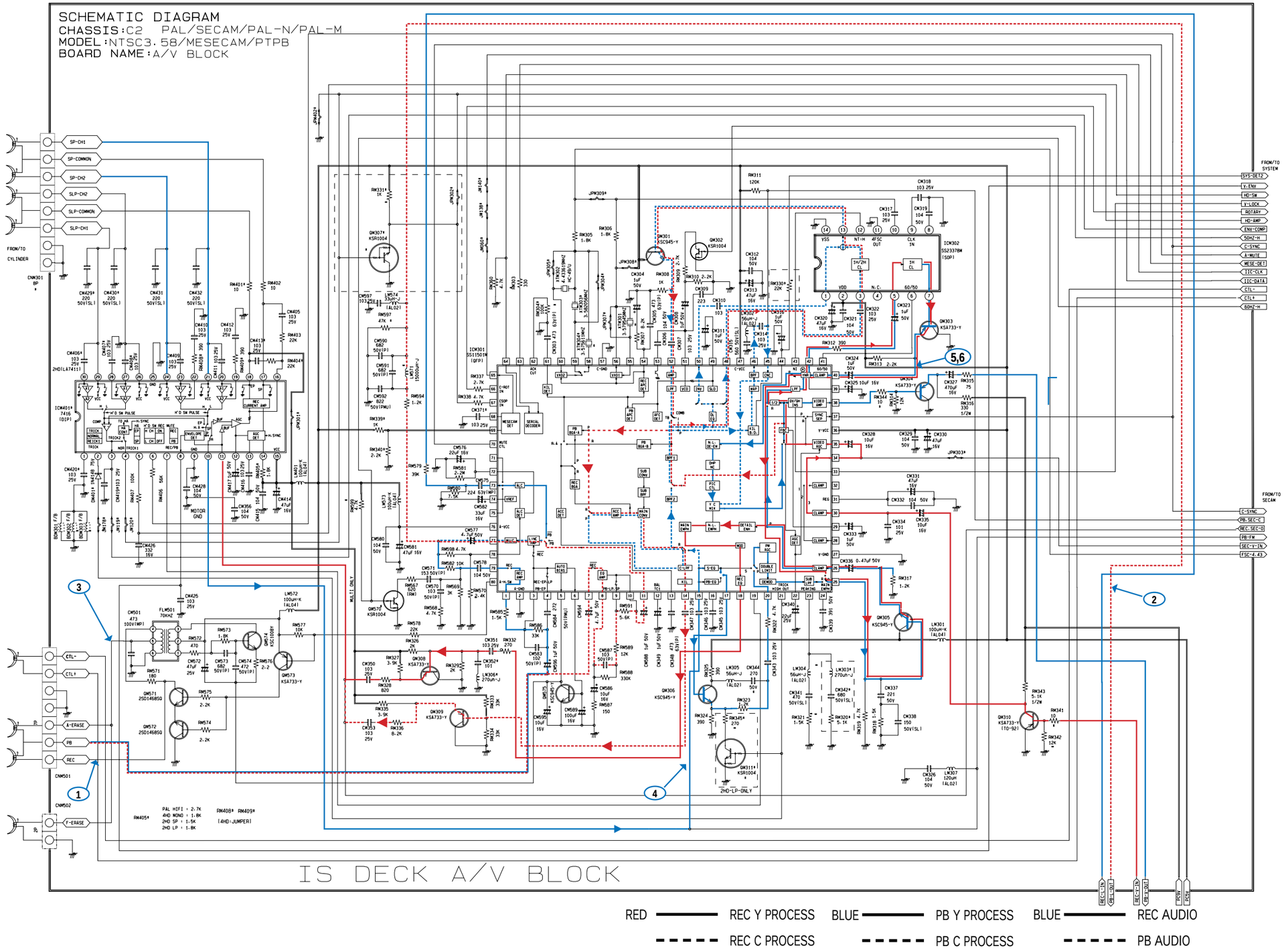
12-1 VCR (SECAM-BLOCK)



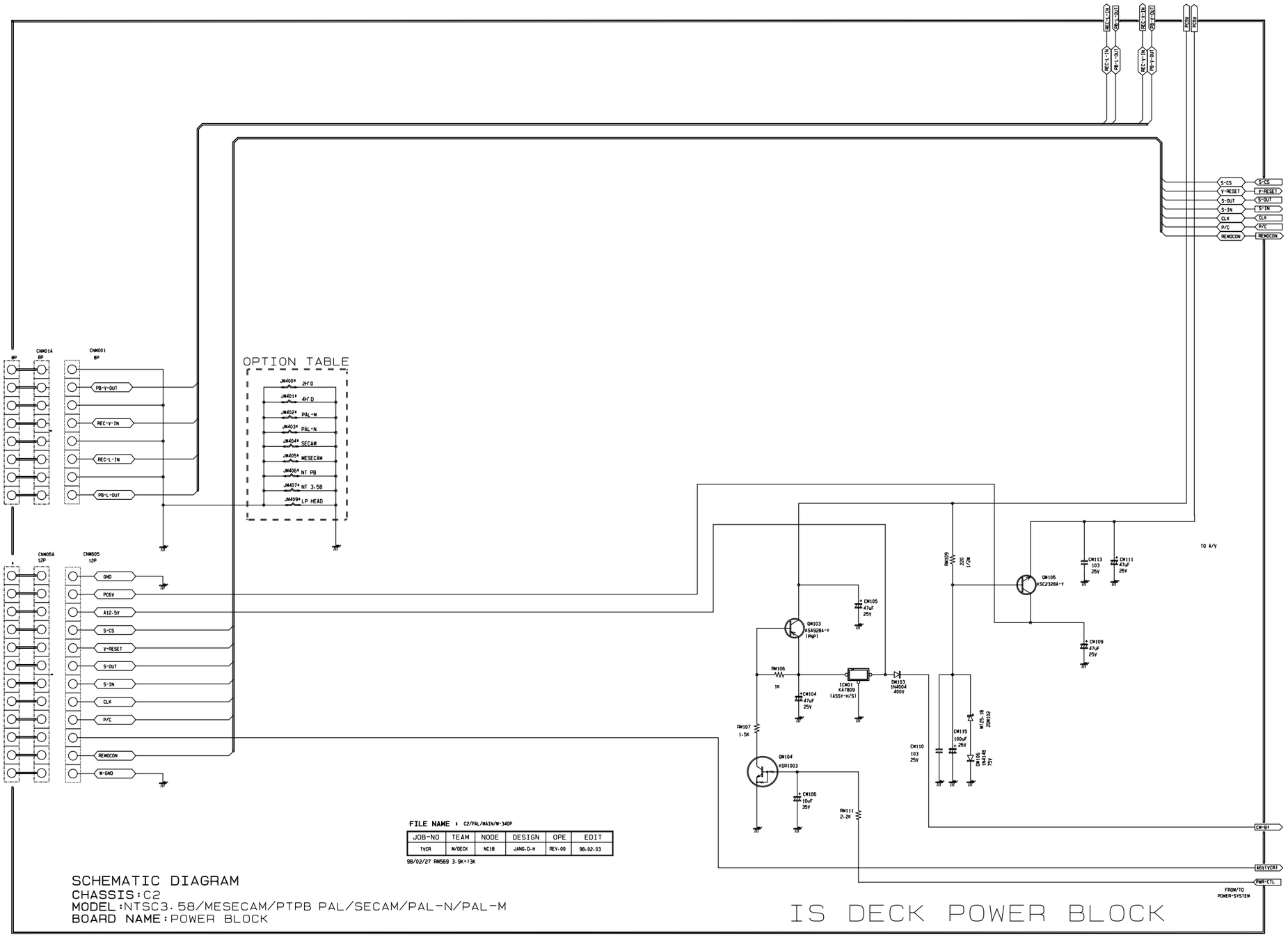
12-2 VCR (SYSTEM BLOCK)



12-3 VCR (A/V BLOCK)

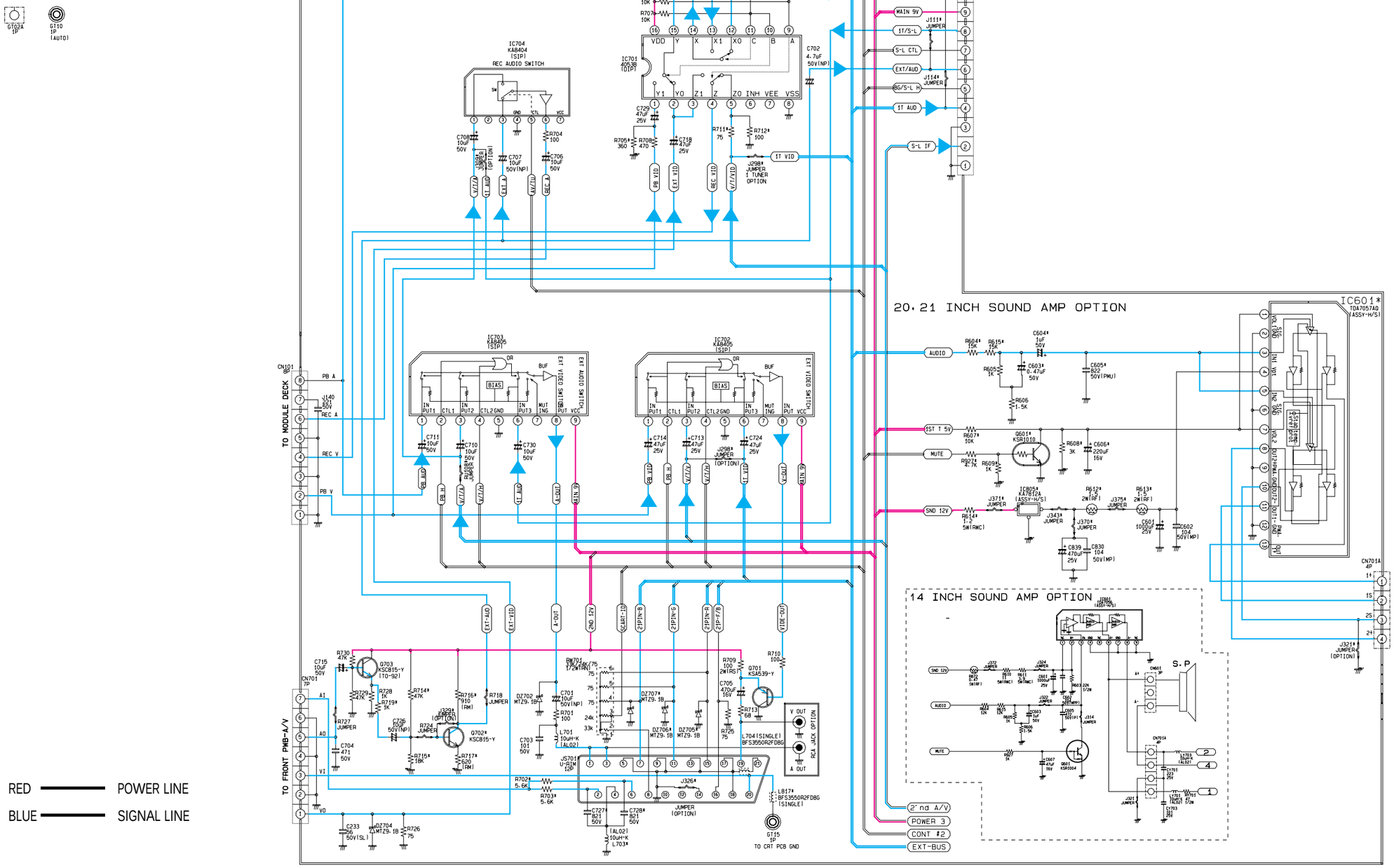


12-4 VCR (POWER BLOCK)

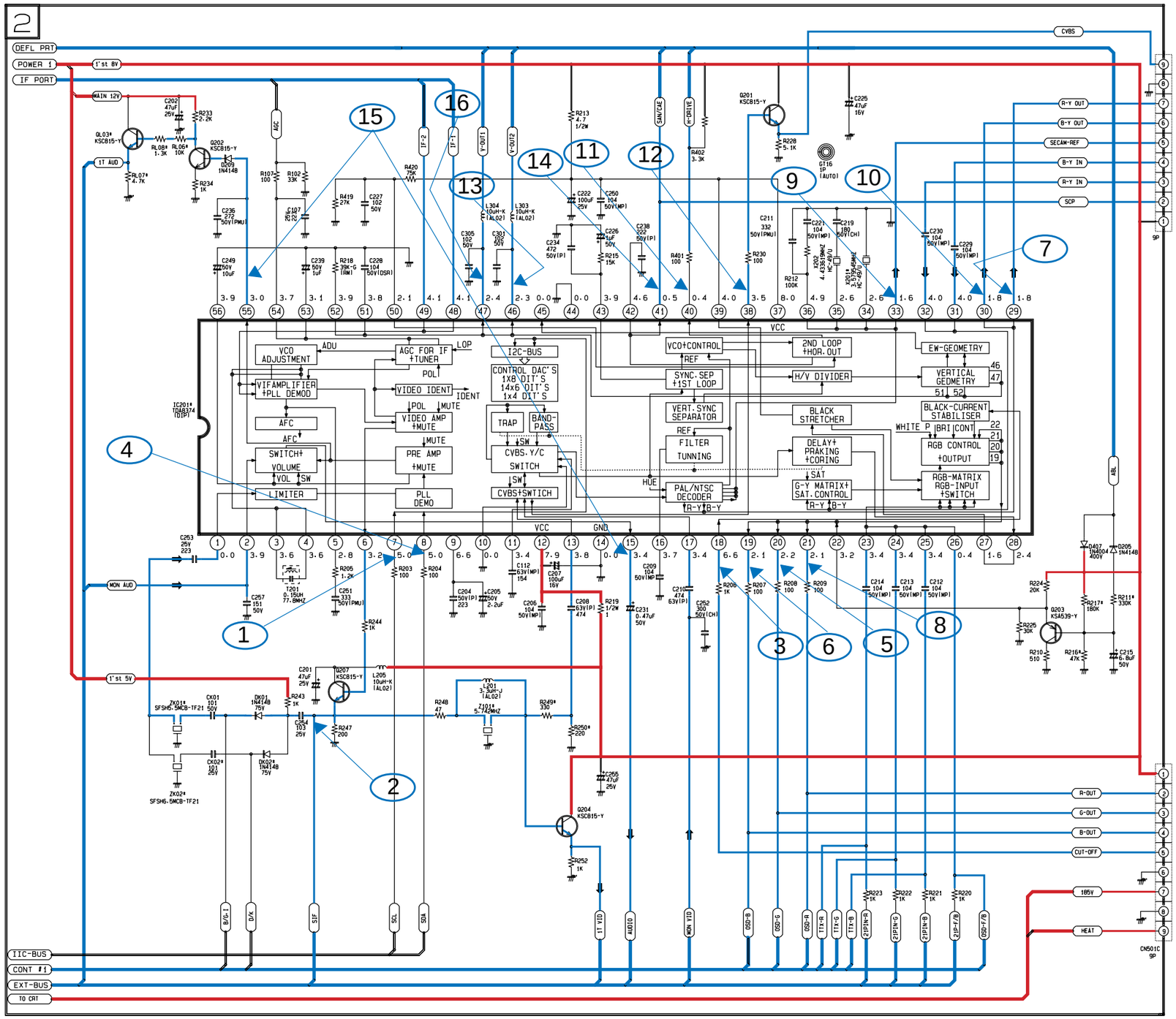


12-5 TV (1/4)

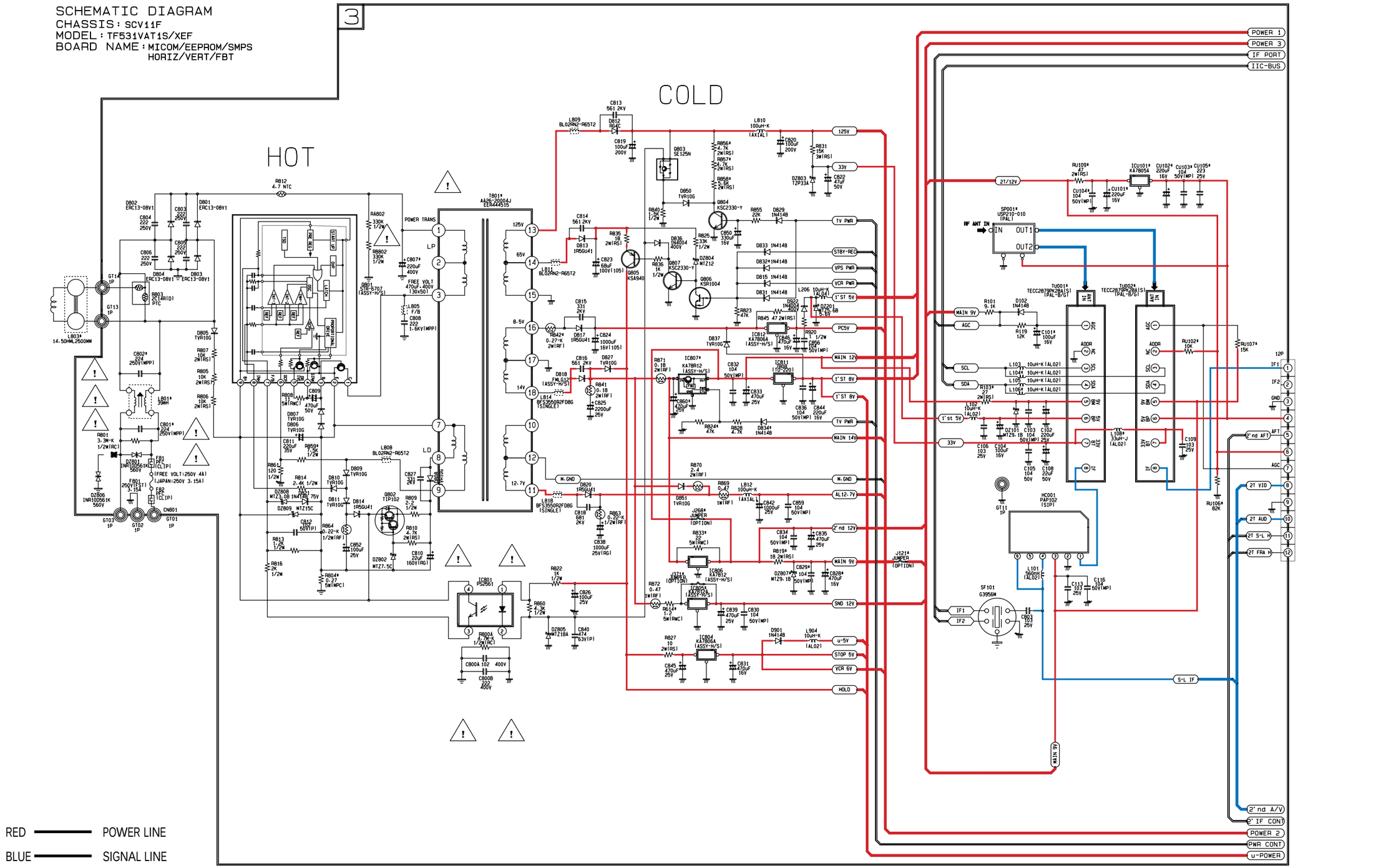
SCHEMATIC DIAGRAM
CHASSIS: SCV11F SCV11F
MODEL: TF531VAT1S/XEF
BOARD NAME: A/V SWITCHING
1'sT IF/CHROMA/2'nd TUNER



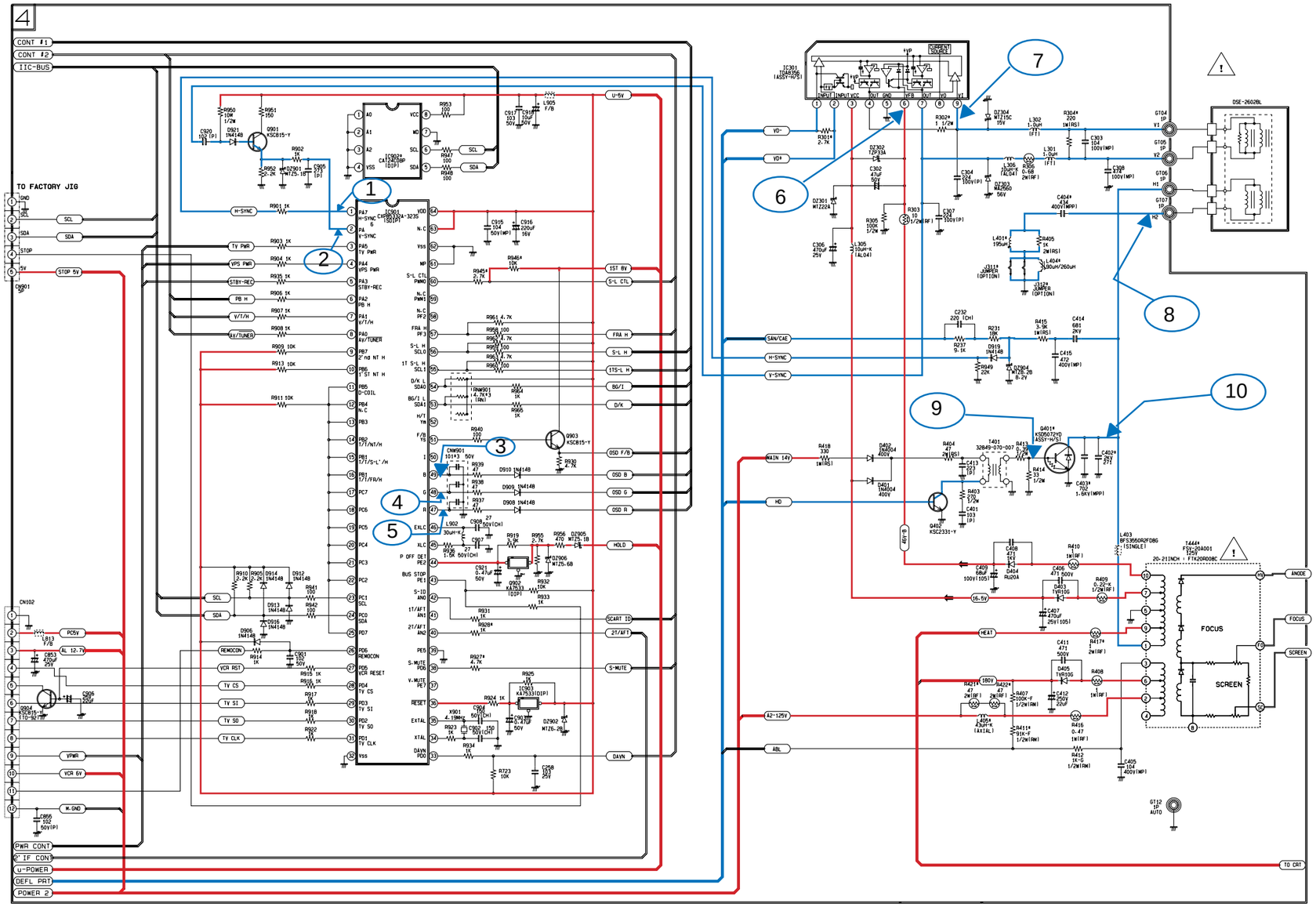
12-6 TV (2/4)


DEFL PRT
POWER 1
IF PORT
1'st 8V
MAIN 12V
1T AUD
MON AUD
1'st 5V
IIC-BUS
CONT #1
EXT-BUS
TO CRT
CVBS
R-Y OUT
B-Y OUT
SECAM-REF
B-Y IN
R-Y IN
SCP
R-OUT
G-OUT
B-OUT
CUT-OFF
185V
HEAT
VCC
GND
VCO ADJUSTMENT
AGC FOR IF +TUNER
I2C-BUS
VCO+CONTROL
2ND LOOP +HOR.OUT
EW-GEOMETRY
VIF AMPLIFIER +PLL DEMOD
VIDEO IDENT
CONTROL DAC'S 1X8 DIT'S 14x6 DIT'S 1x4 DIT'S
SYNC.SEP +1ST LOOP
H/V DIVIDER
VERTICAL GEOMETRY
AFC
VIDEO AMP +MUTE
TRAP
BAND-PASS
VERT.SYNC SEPARATOR
BLACK STRETCHER
BLACK-CURRENT STABILISER
SWITCH+ VOLUME
PRE AMP +MUTE
CVBS.Y/C SWITCH
FILTER TUNNING
DELAY+ PRAKING +CORING
RGB CONTROL +OUTPUT
LIMITER
PLL DEMO
CVBS+SWTICH
PAL/NTSC DECODER
G-Y MATRIX+ SAT.CONTROL
RGB-MATRIX RGB-INPUT +SWITCH
IC201* TDA8374 (DIP)
1 2 3 4 5 6 7 8
RED — POWER LINE
BLUE — SIGNAL LINE

12-7 TV (3/4)


SCHEMATIC DIAGRAM
CHASSIS : SCV11F
MODEL : TF531VAT1S/XEF
BOARD NAME : MICOM/EEPROM/SMPS
HORIZ/VERT/FBT
3
HOT
COLD
POWER 1
POWER 3
IF PORT
IIC-BUS
RED POWER LINE
BLUE SIGNAL LINE

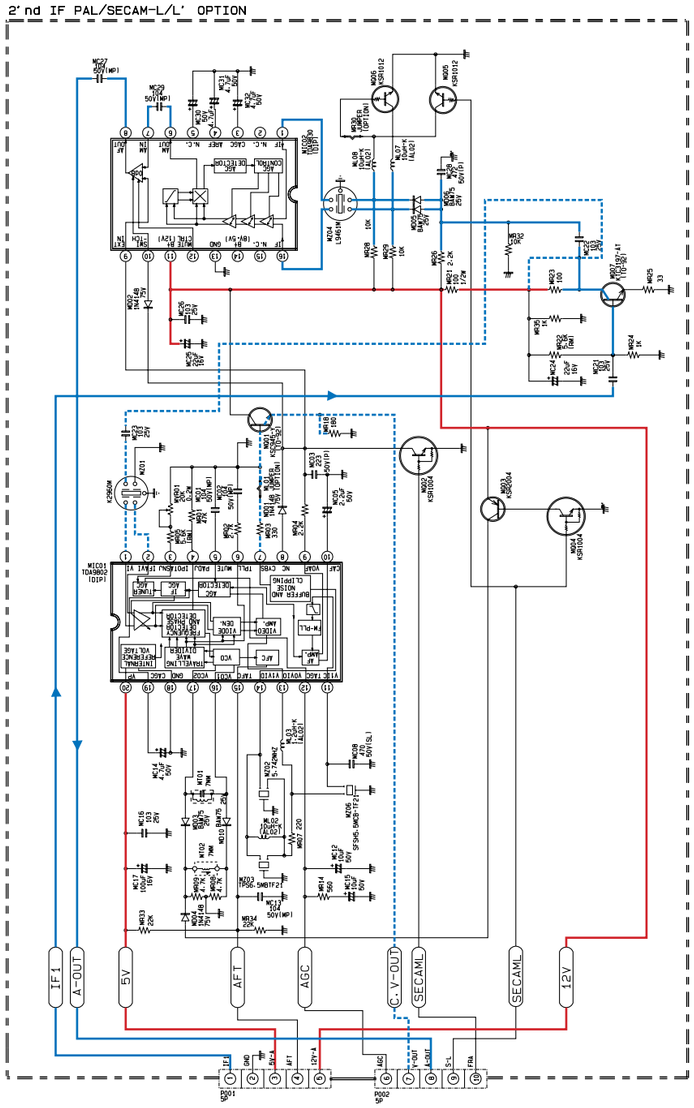
12-8 TV (4/4)



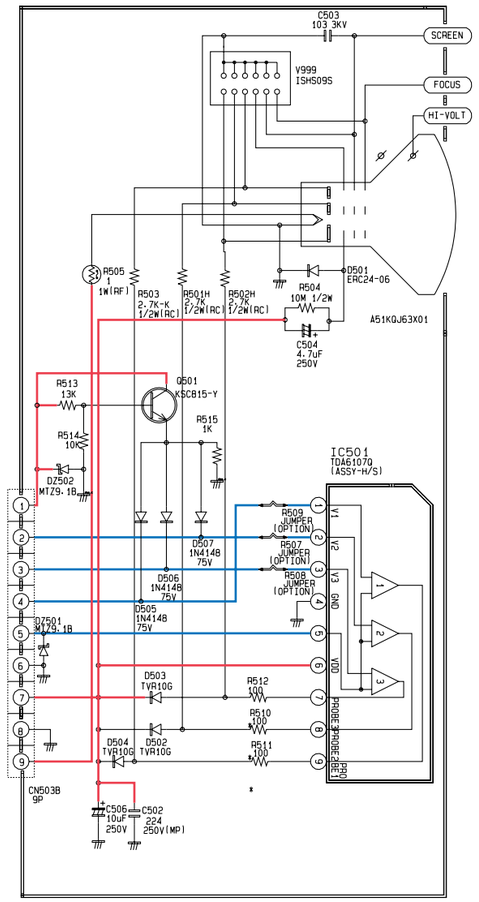
RED ——— POWER LINE

BLUE ——— SIGNAL LINE

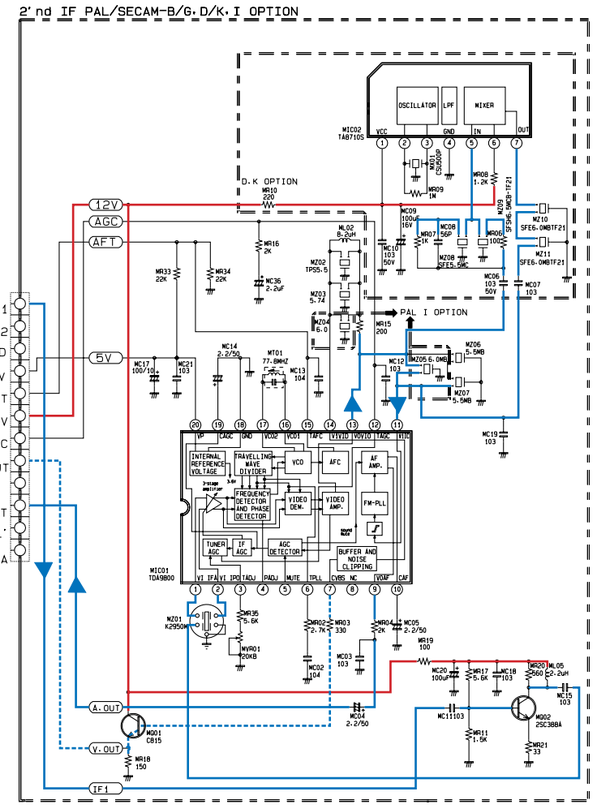
12-9 IF



12-10 CRT



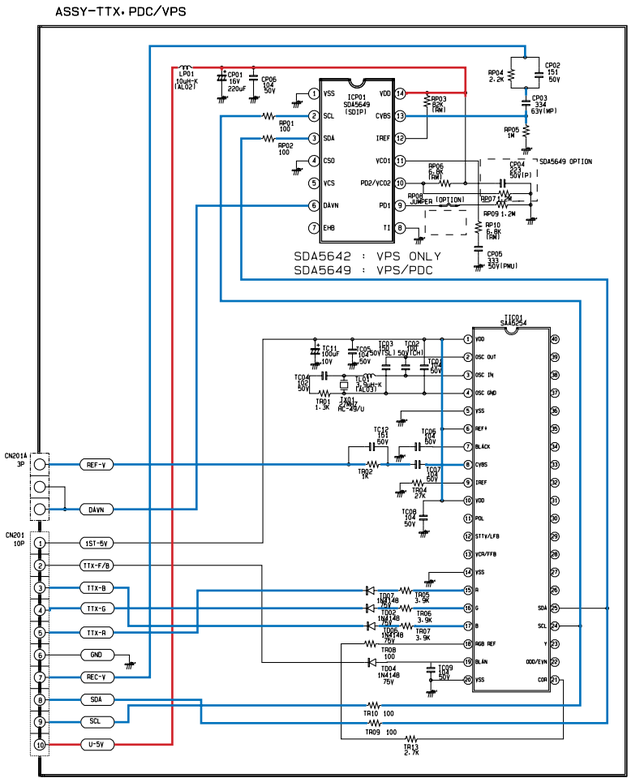
12-11 2'nd IF PAL/SECAM-B/G, D/K, I OPTION



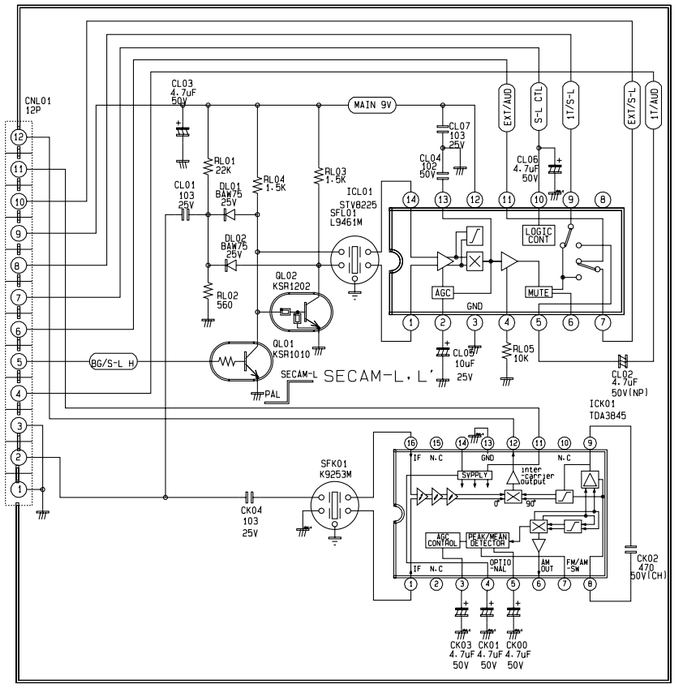
RED ——— POWER LINE
BLUE ——— SIGNAL LINE

RED - - - - POWER LINE
RED ——— AUDIO LINE
BLUE ——— VIDEO LINE

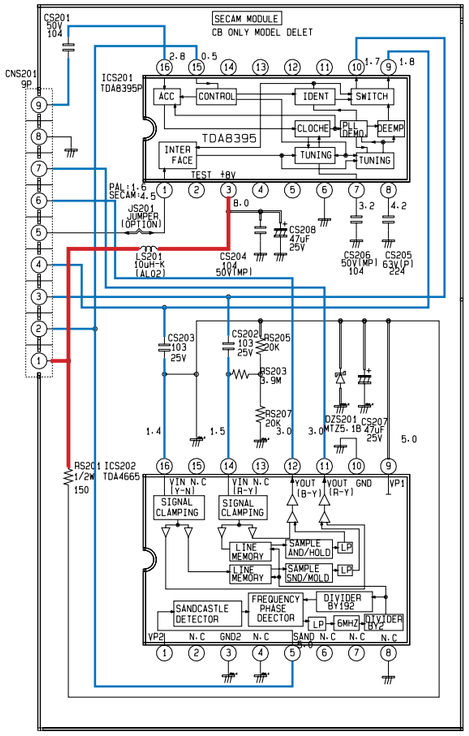
12-12 TTX



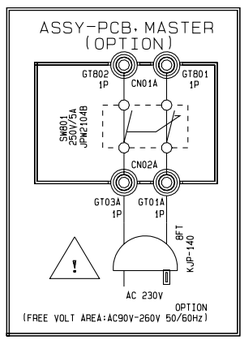
12-13 SECAM IF



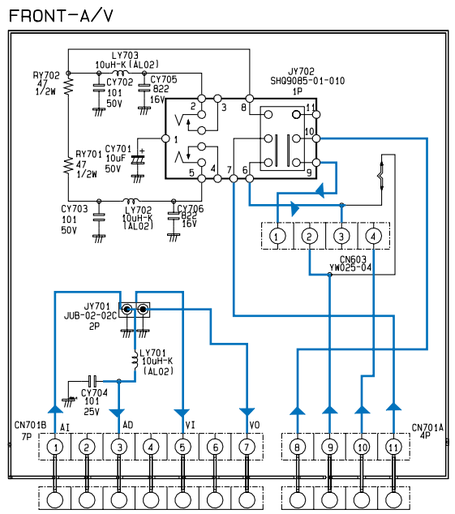
12-14 PAL, SECAM



12-15 MASTER



12-16 FRONT-A/V



RED ——— POWER LINE

BLUE ——— SIGNAL LINE

12-17 Voltages (VTR)

ICM601

PIN NO \ MODE	STOP	REC	PB
1	0	0	0
2	0	0	0
3	5	5	5
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0.8	0	2.5
10	0	0	0
11	0	0	0
12	0	1.5	1.5
13	5	5	5
14	5	5	5
15	5	5	5
16	5	5	5
17	5	5	5
18	5	5	5
19	0	0	0
20	5	5	5
21	0	0	0
22	5	5	5
23	5	5	5
24	5	5	5
25	5	5	5
26	0	5	5
27	0	0	0
28	5	5	5
29	0	0	0
30	0	0	0
31	2.6	3	2.6
32	2.6	3	2.6

PIN NO \ MODE	STOP	REC	PB
33	0	0	0
34	2.5	2.5	2.5
35	2.6	2.6	2.6
36	2.6	2.6	2.6
37	2.6	2.6	2.6
38	0.6	4.0	4.0
39	2.6	2.6	2.6
40	5.0	5.0	5.0
41	0.2	5.0	5.0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	0	0	0
52	5.2	5.2	5.2
53	0	0	0
54	0	3.6	3.6
55	5.2	5.2	5.2
56	5.2	5.2	5.2
57	0	0	0
58	2.6	2.6	2.6
59	2.6	2.6	2.6
60	0	0	0
61	5.2	5.2	5.2
62	0	0	0
63	5.2	5.2	5.2
64	0	0	0

PIN NO \ MODE	STOP	REC	PB
65	0	0	0
66	0	0	5.4
67	0	5.0	5.0
68	0	0	0
69	2.5	2.5	2.5
70	0	0.6	0
71	0	0	0
72	4.0	4.0	4.0
73	4.5	4.5	4.5
74	0	0	0
75	5.0	5.0	5.0
76	0	0	5.0
77	0	5.0	0
78	0	0	0
79	0	0	0
80	0	0	0
81	0	0	0
82	4.5	4.5	4.5
83	5.0	5.0	5.0
84	5.0	5.0	5.0
85	5.0	5.0	5.0
86	5.0	5.0	5.0
87	5.0	4.5	0
88	0	5.0	0
89	0	0	0
90	0	0	0
91	0	0	0
92	0	0	0
93	0	0	0
94	0	0	0
95	5.0	0	5.0
96	5.0	5.0	5.0

PIN NO \ MODE	STOP	REC	PB
97	0	5.0	5.0
98	5.0	5.0	5.0
99	5.0	5.0	5.0
100	5.0	5.0	5.0

ICM201

PIN NO \ MODE	STOP	REC	PB
1	2.5	3.0	3.0
2	2.5	2.5	2.5
3	2.5	2.5	2.5
4	5.0	5.0	5.0
5	2.5	2.5	2.5
6	2.5	2.5	2.5
7	4.0	4.0	4.0
8	0.6	4.0	4.0
9	3.2	3.2	3.2
10	2.8	2.8	2.8
11	0	0	0
12	0	2.5	2.5
13	0	2.5	2.5
14	0	2.5	2.5

ICM603

PIN NO \ MODE	STOP	REC	PB
1	0	0	0
2	0.4	0.4	0.4
3	2.5	2.5	2.5
4	2.5	2.5	2.5
5	2.5	2.5	2.5
6	4	4	4
7	6.5	6.5	6.5
8	13.5	13.5	13.5
9	13.5	13.5	13.5
10	0	0	0

12-18 Voltages (TV)

*** Conditions of Measurement**
1. Normal Condition
2. Receiving Color Bar Pattern
3. DC Voltage

Q801 STR6707

Units :Volts

PIN NO.	PIN NAME	STAND-BY	POWER ON
1	C	298	291
2	E	-	-
3	B	0.8	0.5
4	SINK	-	0.7
5	DRIVE	-	1.3
6	OCP	-	-
7	F/B	-	-
8	INH	-	1.3
9	B+	6.3	7.7

IC801 LTV817B

Units :Volts

PIN NO.	STAND-BY	POWER
1	9.2	14.3
2	8.2	13.3
3	3.2	1.2
4	6.3	7.7

IC501~IC503 TDA6101Q

Units :Volts

PIN NO.	PIN NAME	VOLTAGES (V)
1	Vip	2.1
2	Vcc	12.3
3	Vin	2.1
4	GND	-
5	Iom	8.3
6	Vdd	172.6
7	Vcn	96~120
8	Vcc	96~120
9	Vof	96~120

IC301 TDA8356

PIN NO.	PIN NAME	VOLTAGES (V)
1	VD-INPUT	2.2
2	VD+ INPUT	2.2
3	Vcc	15.8
4	OUTPUT	7.6
5	GND	-
6	VFB	43.2
7	OUT	8.0
8	VO	-
9	VI	7.7

IC602 TDA7056

PIN NO.	PIN NAME	VOLTAGES (V)
1	NC	12.1
2	Vcc	12.1
3	IN	-
4	GND	-
5	NC	-
6	A+	6.2
7	GND	-
8	A-	6.0
9	NC	-

IC902 24C08, 24C04

PIN NO.	PIN NAME	VOLTAGE (V)
1	GND	-
2	GND	-
3	GND	-
4	GND	-
5	SDA	4.8
6	SCL	4.8
7	GND	-
8	VDD	5.2

IC601 TDA7057AQ

PIN NO.	PIN NAME	VOLTAGES (V)
1	VOL 1	1.2
2	SIG.GND	-
3	IN 1	2.4
4	Vcc	12.1
5	IN 2	2.4
6	SIG.GND	-
7	VOL 2	1.2
8	OUT 2+	5.6
9	PWA GND	-
10	OUT 2-	5.7
11	OUT 1-	5.7
12	PWA GND	-
13	OUT 1+	5.7

12-18 Voltages (TV)

IC901 CXP853P40S-1

PIN NO.	PIN NAME	VOLTAGES (V)
1	H-sync	1.2
2	V-sync	0.0
3	TV POWER	5.1
4	VPS POWER	-
5	STBY-REC	-
6	PB-H	0.0
7	V/T/H	-
8	AV/TUNER	0.0
9	2nd NT H	5.1
10	1st NT H	5.1
11	D-coil	-
12 ~ 22	Not used	5.1
23	SCL	4.7
24	SDA	4.7
25	No used	5.1
26	REMOCON	5.4
27	VCR RESET	5.1
28	TV CS	4.2
29	TV SI	4.0
30	TV SO	2.1
31	TV CLK	5.0
32	Vss	-
33	DAVN	5.1

PIN NO.	PIN NAME	VOLTAGES (V)
34	Xtal	2.5
35	EXtal	2.4
36	RESET	5.1
37	V.MUTE	-
38	S.MUTE	-
39	GND	-
40	2T AFT	3.0
41	1T AFT	-
42	SCART ID	-
43	BUS STOP	5.1
44	P OFF DET	5.5
45	XLC	3.0
46	EXLC	3.0
47	OSD R	-
48	OSD G	-
49	OSD B	-
50	NC	-
51	F/B	-
52 ~ 59	NC	-
60	S-L CTL	-
61 ~ 62	GND	-
63 ~ 64	VDD	5.1

* Pin No 4, 5, 6, 7, 8, 11, 33, 38, 42 are High, Low output ports.

IC201 TDA8374

PIN NO.	PIN NAME	VOLTAGES (V)
1	SOUND IF INPUT	-
2	EXT AUDIO INPUT	3.9
3	VCO REF FILTER	3.6
4	VCO REF FILTER	3.6
5	PLL LOOP FILTER	2.7
6	IF VIDEO OUTPUT	3.4
7	SCL	4.7
8	SDA	4.7
9	BANDGAP DECOUPLING	6.7
10	CHROMA INPUT	-
11	Y/CVBS INPUT	3.4
12	MAIN B+	8.0
13	INT CVBS INPUT	3.8
14	GND	-
15	AUDIO OUT	3.4
16	DECOUPLING FILTER TUNING	3.6
17	EXT CVBS INPUT	3.4
18	BLACK CURRENT INPUT	6.8
19	BLUE OUTPUT	2.6
20	GREEN OUTPUT	2.5
21	RED OUTPUT	2.7
22	BEAM CUR LIMITER	2.9
23	RED INPUT	3.4
24	GREEN INPUT	3.4
25	BLUE INPUT	3.4
26	RGB SWITCH INPUT	0.2
27	Y INPUT	1.9
28	Y OUTPUT	2.5

PIN NO.	PIN NAME	VOLTAGES (V)
29	B-Y OUTPUT	1.8
30	R-Y OUTPUT	1.8
31	B-Y OUTPUT	3.9
32	R-Y INPUT	3.9
33	SECAM REF OUTPUT	1.6
34	X-TAL (3.58)	2.6
35	X-TAL (4.43)	2.6
36	LOOPFILTER BURST PHASE DET	4.8
37	VCC	8.0
38	CVBS OUTPUT	3.3
39	BLACK PEAK HOLD CAPACITOR	4.0
40	HOR. OUTPUT	0.4
41	SANDCASTLE OUTPUT	0.5
42	PHI2 FILTER	4.1
43	PHI 1 FILTER	3.9
44	GND	-
45	EAST-WEST DRIVE	-
46	VERT DRIVE POS	2.2
47	VERT DRIVE NEG	2.2
48	IF INPUT	4.2
49	IF INPUT	4.2
50	EHT/OVP INPUT	2.1
51	VERT. SAWTOOTH CAPACITOR	3.9
52	REF. CURR INPUT	3.9
53	AGC DECOUPLING CAPACITOR	3.2
54	TUNER AGC OUTPUT	5.8
55	AUDIO DEEMPHASSIS	3.0
56	DECOUPLING SOUND DEMOD.	4.0

12-18 Voltages (TV)

Terminal Voltages of ICs

Unit : Voltage (V)

IC / PIN NO	IC203* TDA8395P	IC202 TDA4665	IC701 TC4053BP	ICK01* TDA3845	ICL01* STV8225	IC702 KA8405	IC703 KA8405	IC704 KA8404
1	4.5	5.0	-	1.8	4.2	6.1	6.1	6.1
2	1.1	-	-	-	3.2	0.9	0.9	-
3	8.1	-	-	2.0	-	6.1	6.1	6.1
4	-	-	0.9	4.4	0.6	-	-	-
5	-	0.5	0.9	-	4.3	-	-	0.9
6	-	-	-	1.7	3.5	6.1	6.1	5.3
7	3.3	-	-	1.7	4.3	-	-	9.0
8	4.2	-	-	5.1	6.3	5.3	5.3	
9	2.9	5.0	0.9	5.1	4.3	9.0	9.0	
10	2.9	-	0.9	-	3.5			
11	-	3.0	0.9	12.0	4.3			
12	-	3.1	4.3	1.8	9.0			
13	-	-	-	-	4.3			
14	-	1.6	4.3	6.1	4.3			
15	0.5	-	-	0.6				
16	2.8	1.4	9.0	1.8				