SAMSUNG

SERVICE MANUAL

DVD-V2500

SAMSUNG

ELECTRONICS

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SAMSUNG

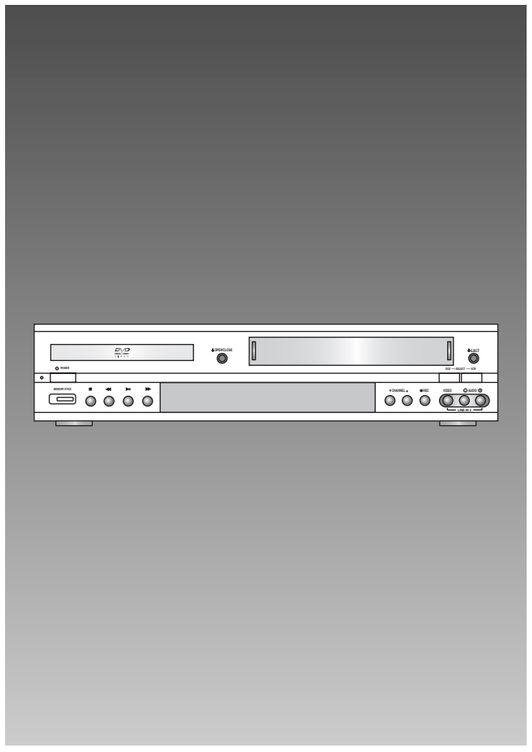
DVD-VCR COMBINATION

DVD-V2500

SERVICE *Manual*

For mechanical disassembly and adjustment, refer to the "Mechanical Manual" (TS-10A → AC82-00023A).

DVD-VCR COMBINATION



CONTENTS

1. Precautions

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 pretective devices, including : 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 (See Fig. 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 (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

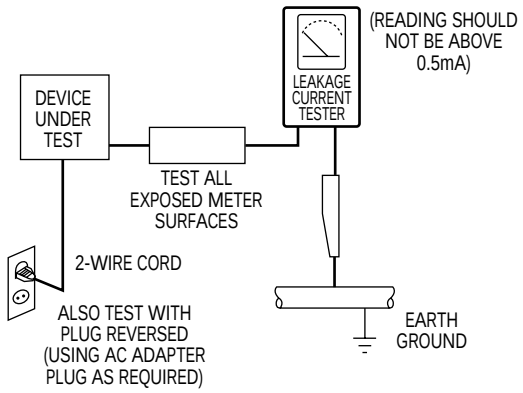


Fig. 1-1 AC Leakage Test

5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known erath 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.

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. 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.

8. Immediately before handling sny semiconductor 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.)

9. 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.

10. 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.

11. 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.

12. 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.

13. 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 Handling the optical pick-up

The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

(1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)

(2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.

(3) Place your hands on the conductive sheet(This gives them the same ground as the sheet.)

(4) Remove the optical pick up block

(5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.

Be sure to put on a wrist strap grounded to the sheet.
Be sure to lay a conductive sheet made of copper etc. Which is grounded to the table.

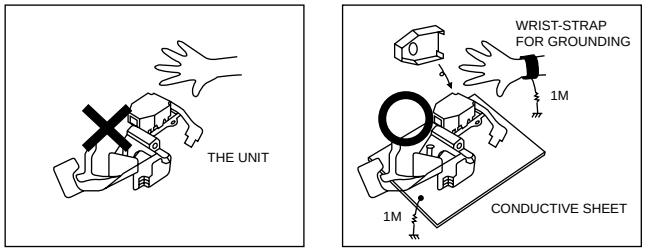


Fig.1-2

(6) Short the short terminal on the PCB, which is inside the Pick-Up ASS'Y, before replacing the Pick-Up. (The short terminal is shorted when the Pick-Up Ass'y is being lifted or moved.)

(7) After replacing the Pick-up, open the short terminal on the PCB.

1-3 Pick-up disassembly and reassembly

1-3-1 Disassembly

1) Remove the power cord.
2) Disassemble the Deck-Assy.
3) Make solder land 2 points short on Pick-up.
   (See Fig. 1-3)
4) Disassembly the Pick-up.

1-3-2 Assembly

1) Replace the Pick-up.
2) Remove the soldering 2 points on Pick-up.
3) Reassemble the Deck-Assy.

Note : If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

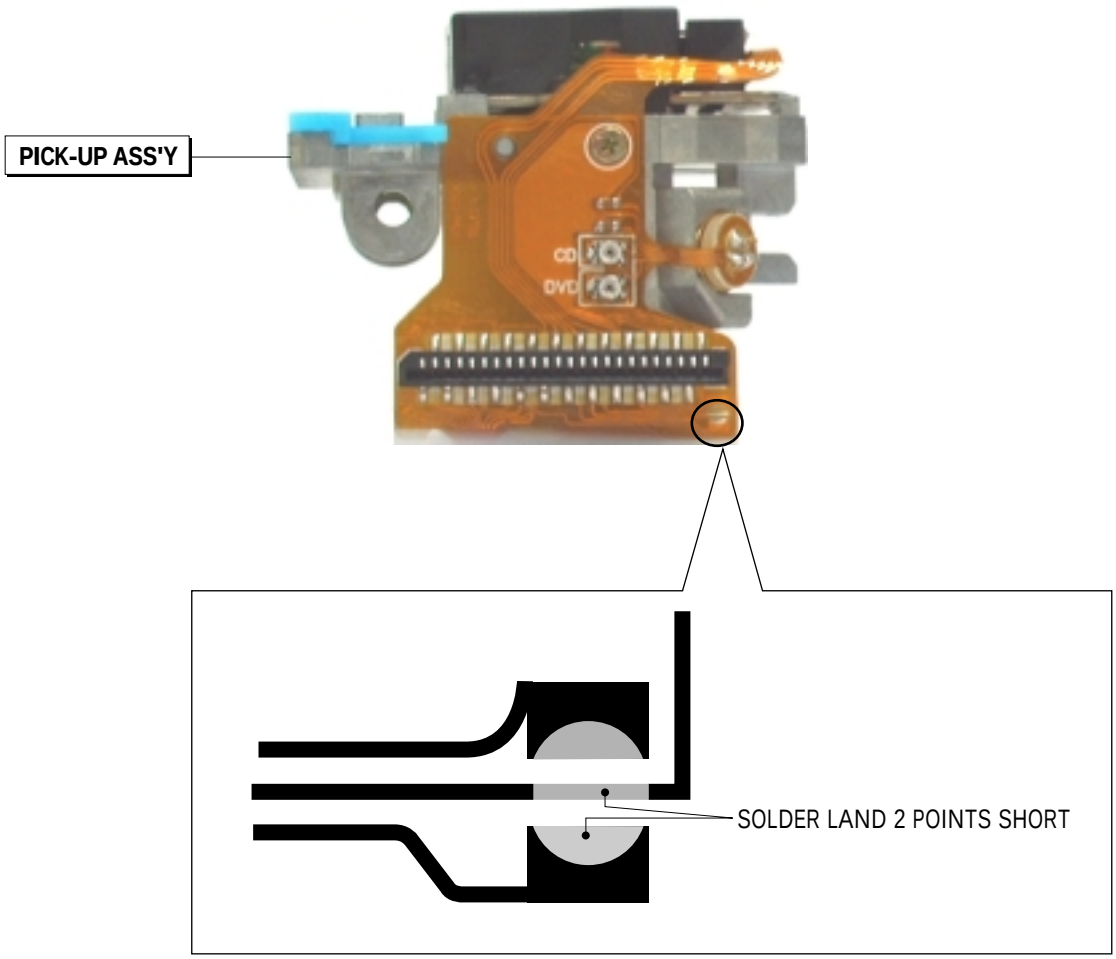


Fig. 1-3

2. Product Specifications

INPUTS	AUDIO	2 Stereo audio inputs, RCA Connector, -8dBm, 47KΩ, front and rear
	VIDEO	2 Composite video inputs, RCA Connector, 75Ω, 1Vp-p
	RF	Antenna or CATV Input, F-Connector, 75Ω
OUTPUTS	AUDIO	1 Stereo audio outputs, RCA Connector, -8dBm, 1.5KΩ
	AUDIO (DVD only)	2 Digital audio outputs, 1 optical, 1 coaxial 1 Stereo audio outputs
	VIDEO	1 Composite video output, RCA Connector, 75Ω, 1Vp-p
	VIDEO (DVD only)	1 S-video output, S-Connector, 75Ω, Y=1.0Vp-p, C=0.286Vp-p
		1 Component video output, 75Ω, Y=1.0Vp-p, Pb=0.7Vp-p, Pr=0.7Vp-p
VCR	RF	Channel 3 or 4
	VIDEO SYSTEM	1/2-inch VHS system, 4 rotary head helical scanning: FM azimuth luminance;chrominance: converted sub system phase shift
	AUDIO TRACK	Normal: 1 track; Hi-Fi: 2 track
	PLAY/RECORD TIME	T-180 tape: SP 3 hours, SLP 9 hours
	FF/REW TIME	T-120 tape: <2 minutes
	HEADS	Video: DA 4 rotary
		Audio: 2 rotary heads (Hi-Fi); 1 stationary head (Linear)
		Control: 1 stationary head
		Erase: 1 full track, 1 audio track
	WOW & FLUTTER	Less than 0.005% (Hi-Fi)
	FREQ. RESPONSE	20-20,000Hz (Hi-Fi)
DVD	DISC COMPATIBILITY	CD, CD-R, CD-RW DVD-Video, CD-Digital Audio (5" and 3.5"), CD-Video, MP3 files on CD-ROM
	FREQ. RESPONSE	96/48kHz Sampling: 4Hz-22kHz
	S/N RATIO	110dB
	DYNAMIC RANGE	96dB
	THD	0.003%
SYSTEM	POWER REQUIREMENT	120V AC, 60Hz, 27 watts
	ENVIRONMENT	41-104 F (5-40 C); 10%~75% humidity
	WEIGHT	21.5 lbs.

MEMO

3. Disassembly and Reassembly

3-1 Cabinet and PCB

3-1-1 Cabinet Top Removal

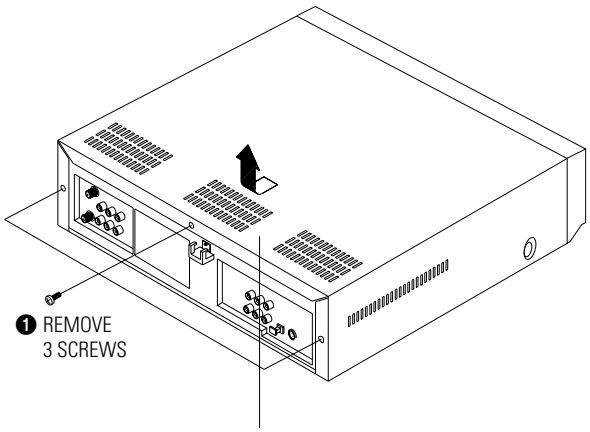


Fig. 3-1 Cabinet Top Removal

3-1-2 Bottom Cover/Decoration-LEG Removal

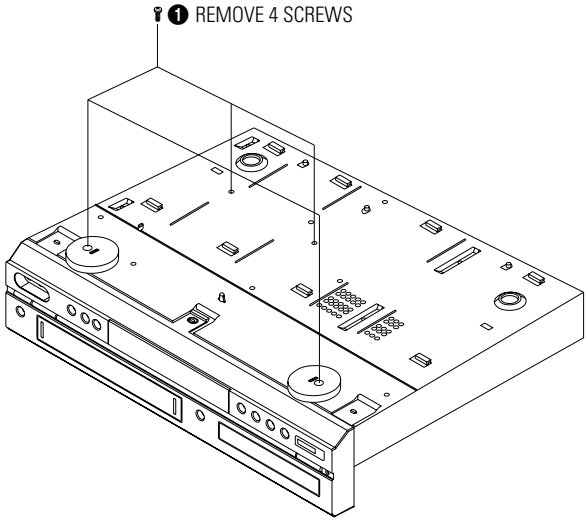
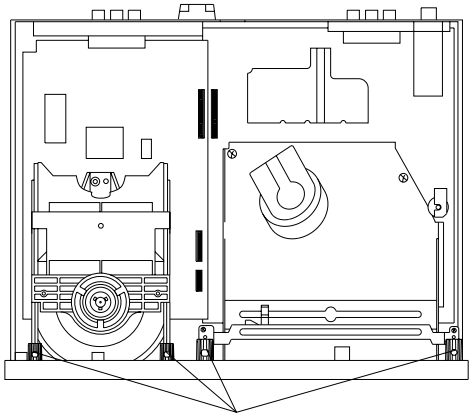


Fig. 3-2 Bottom Cover/Decoration-LEG Removal

3-1-3 Ass'y Front Panel Removal



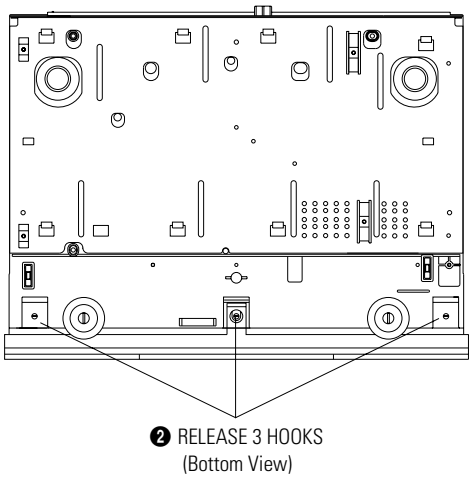


Fig. 3-3 Ass'y Front Panel Removal

3-1-4 Function-Timer PCB Removal

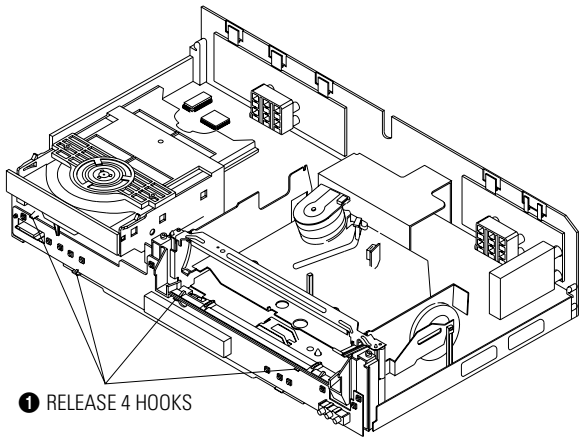


Fig. 3-4 Function-Timer PCB Removal

3-1-5 Chassis Removal

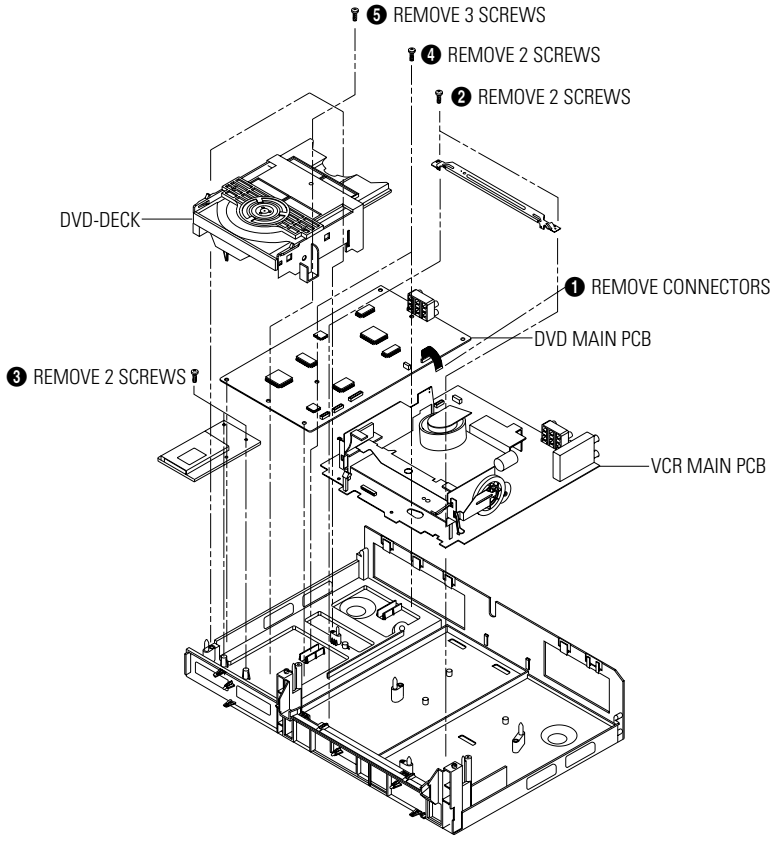


Fig. 3-5 Chassis Removal

3-1-6 VCR Main PCB Removal

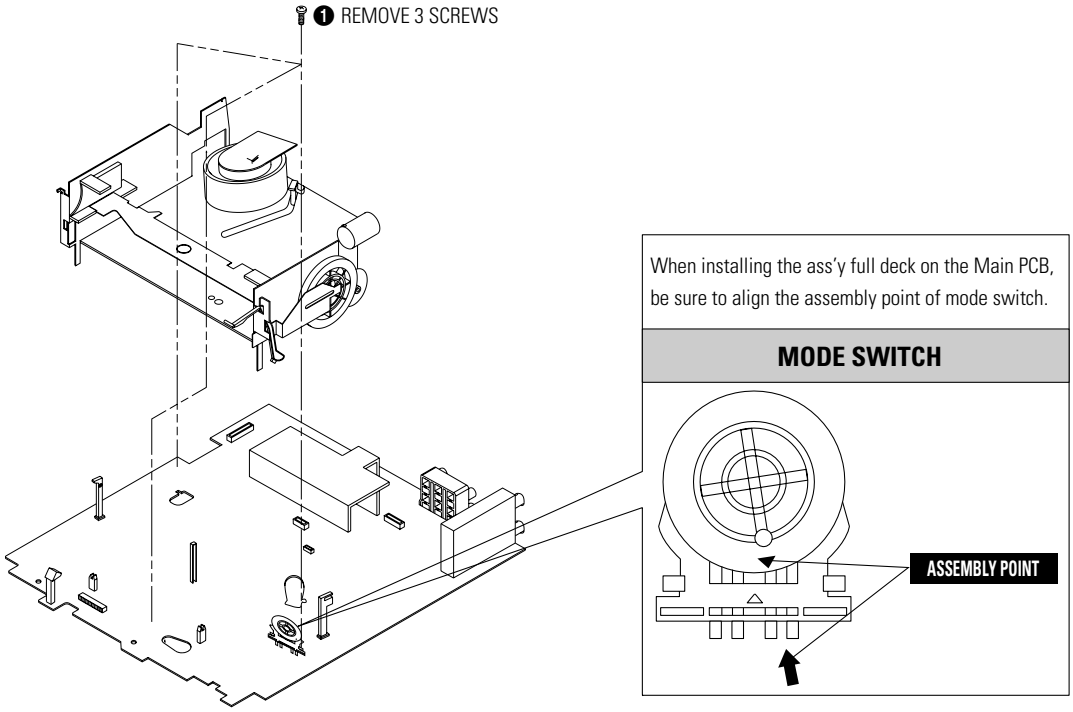


Fig. 3-6 VCR Main PCB Removal

3-2 Circuit Board Locations

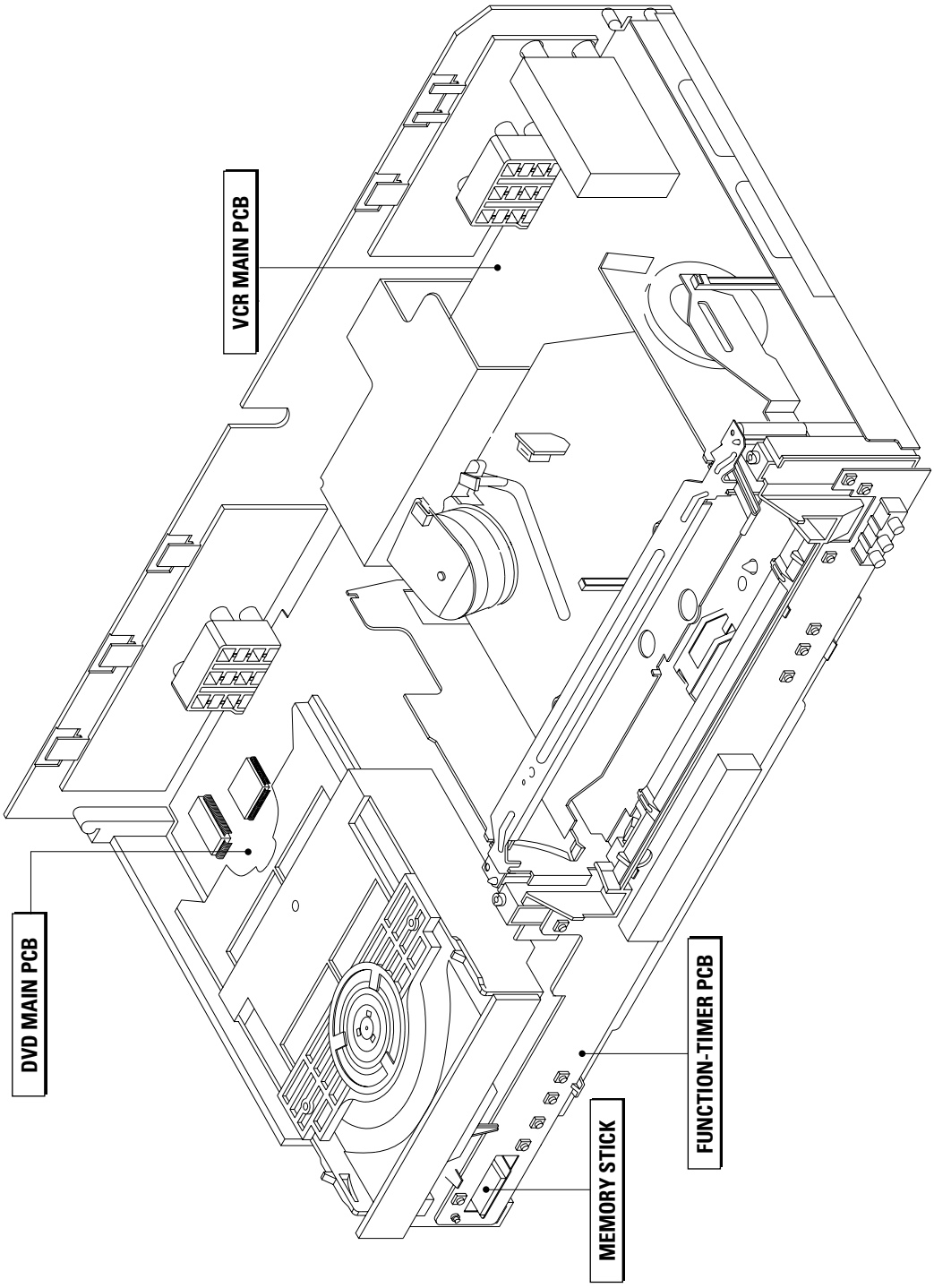


Fig. 3-7 Circuit Board Locations

3-3 DVD Deck

3-3-1 Tray Disc Removal

1) Insert a Screw Driver ❶ into Emergency Hole ❷ and push the Slider Housing ❸ in the direction arrow “A”.
2) When the Tray Disc ❹ comes out a little, pull it in the direction arrow “B” by hand.
3) Pull the Tray Disc ❹ to disassemble , while simultaneously pushing 2 Stoppers ❺ (left, right) in the direction arrow “C”, “D”.

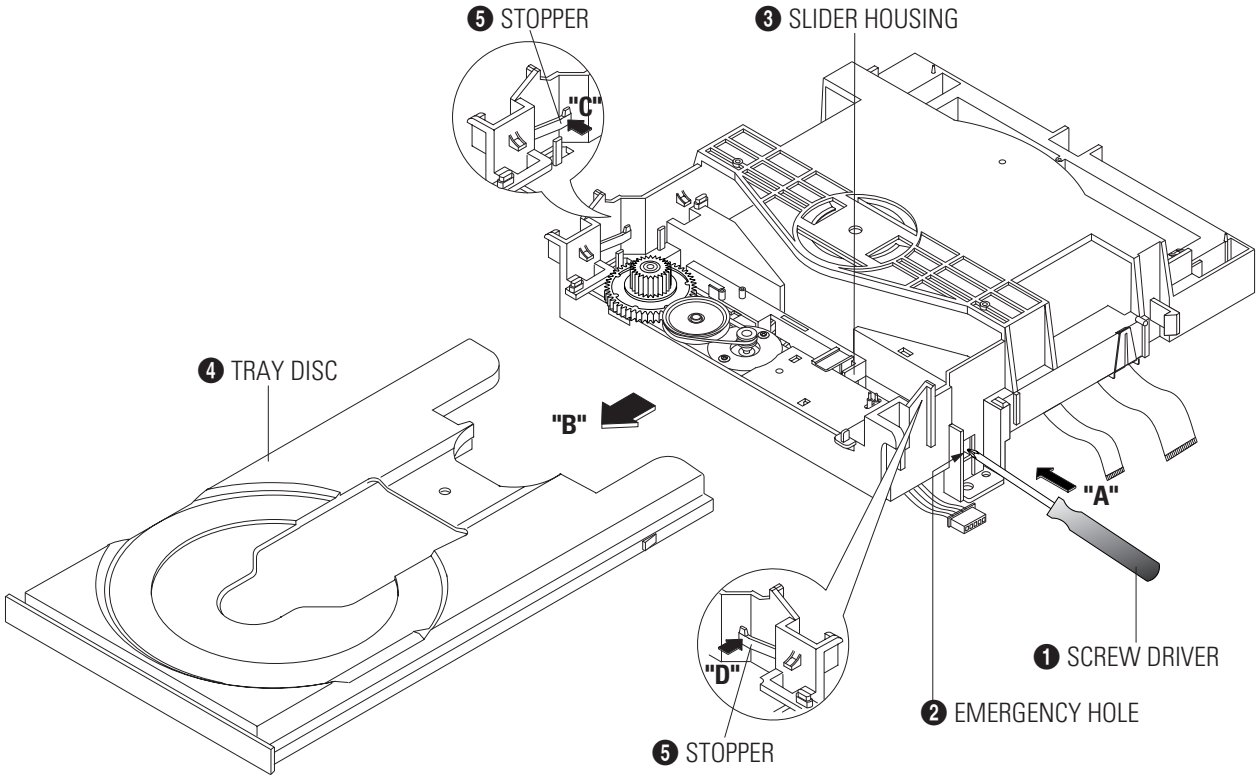


Fig. 3-8 Tray Disc Removal

3-3-2 Assy P/U Deck Removal

1) Disconnect DCN2 ❶, DCN3 ❷.
2) Lift down the Assy P/U Deck ❸ while simultaneously pushing 2 Hooks ❹, ❺ in the direction of arrow "A", "B".

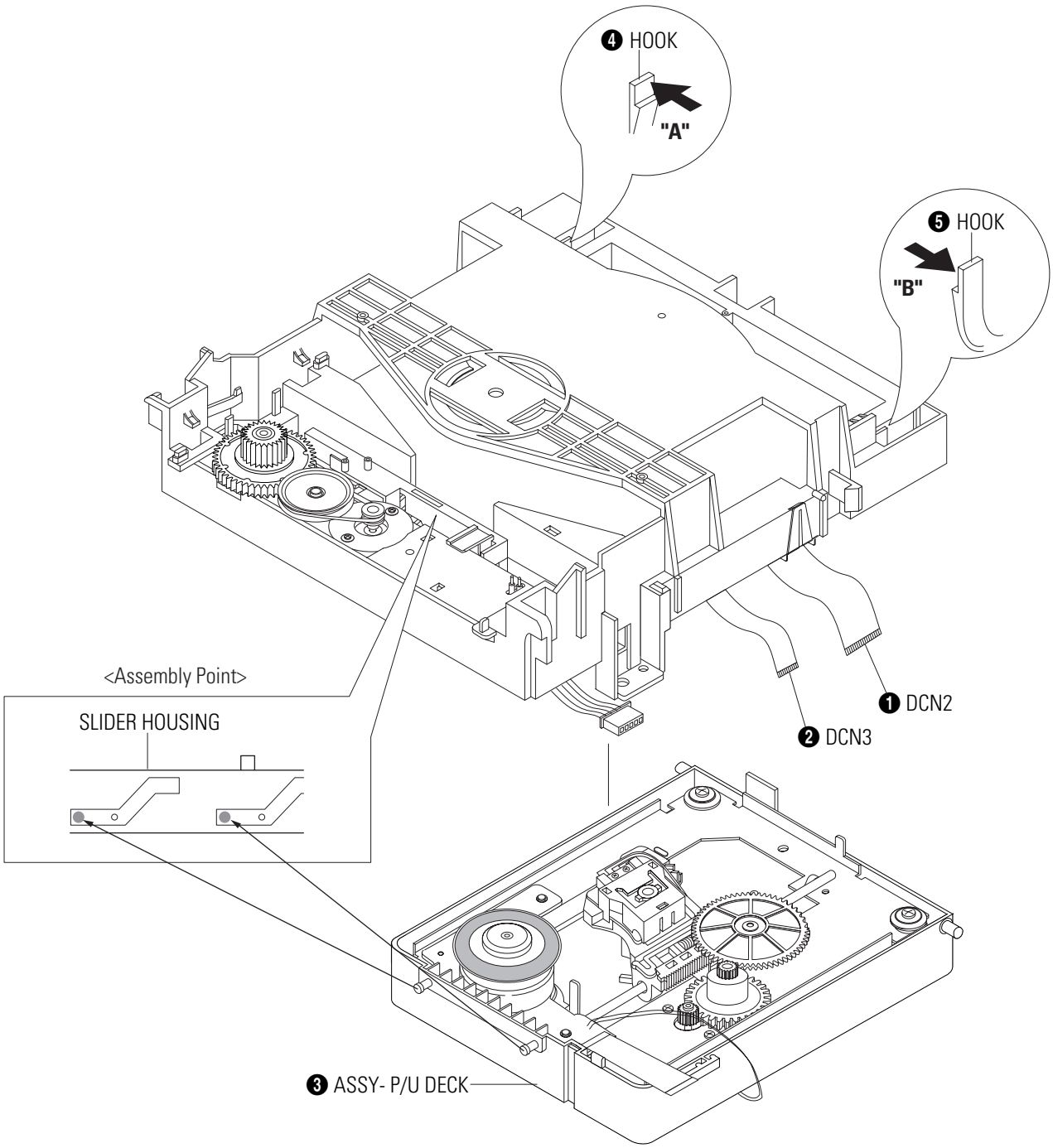


Fig. 3-9 Assy P/U Deck Removal

3-3-3 Housing Ass'y Removal

1) Remove Belt ❶.
2) Push the Hook ❷ in the direction arrow "A" and lift up Pulley Gear ❸.
3) Push the Slider Housing ❺ in the direction arrow "B" and lift up the Gear Tray ❹.
4) Lift up the Slider Housing ❺.
5) Remove the soldering ❻ of 2 points (Red, Black).
6) Remove 2 Screws ❼ and lift down the Motor Load Assy ❽.
7) Push the 3 Hooks ❾ bottom side in the direction arrow "C" and lift up the Housing PCB ❿.
8) Push the Hooks ⓫ and remove Deck PCB ⓬.

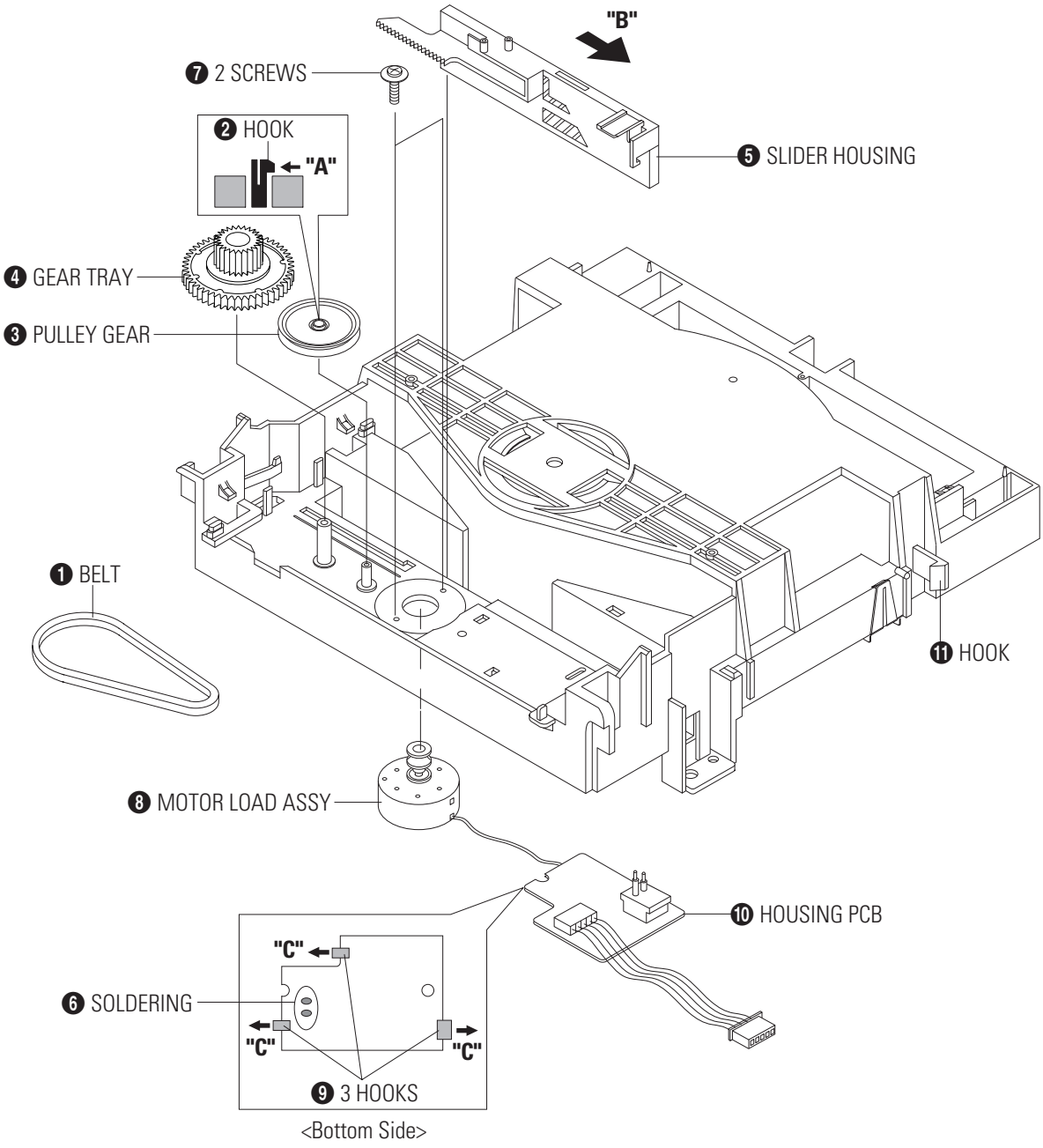


Fig. 3-10 Housing Ass'y Removal

3-3-4 Sub Chassis Removal

1) Remove the Soldering of Motor Feed (+, - wire) ❶.
2) Remove the 4 Screws ❷.
3) Lift up the Ass'y Brkt Deck ❸.

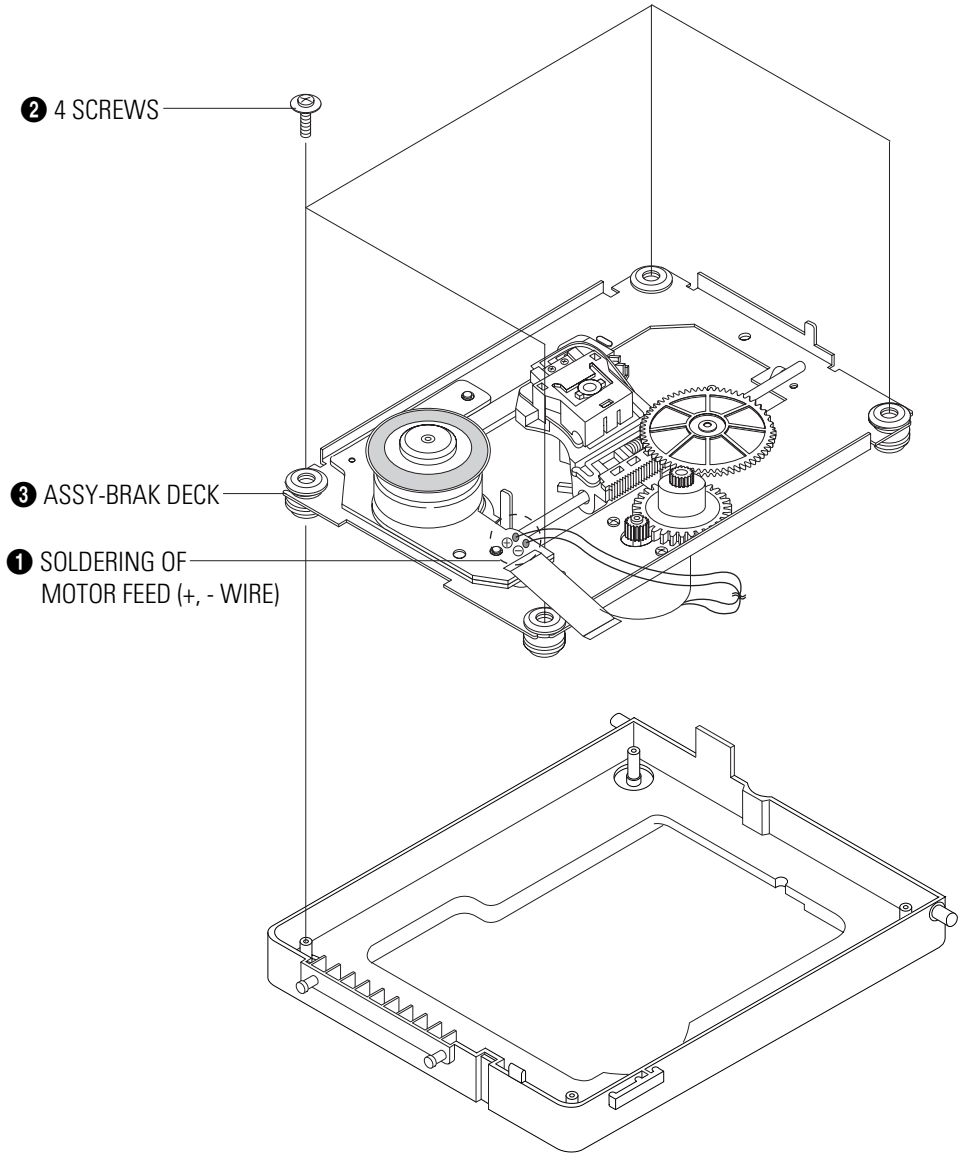


Fig. 3-11 Sub Chassis Removal

3-3-5 Ass'y Brkt Deck Removal

1) Remove Washer ❶.
2) Remove Gear Feed B ❷ , Gear Feed A ❸.
3) Remove 2 Screws ❹.
4) Remove Shaft Pick-Up ❺ and Pick-Up Assy ❻.
5) Remove 1 Screw ❼.
6) Remove 2 Screws ❽.
7) Remove 3 Spring Spindle ❾ and Motor Spindle Ass'y ❿.

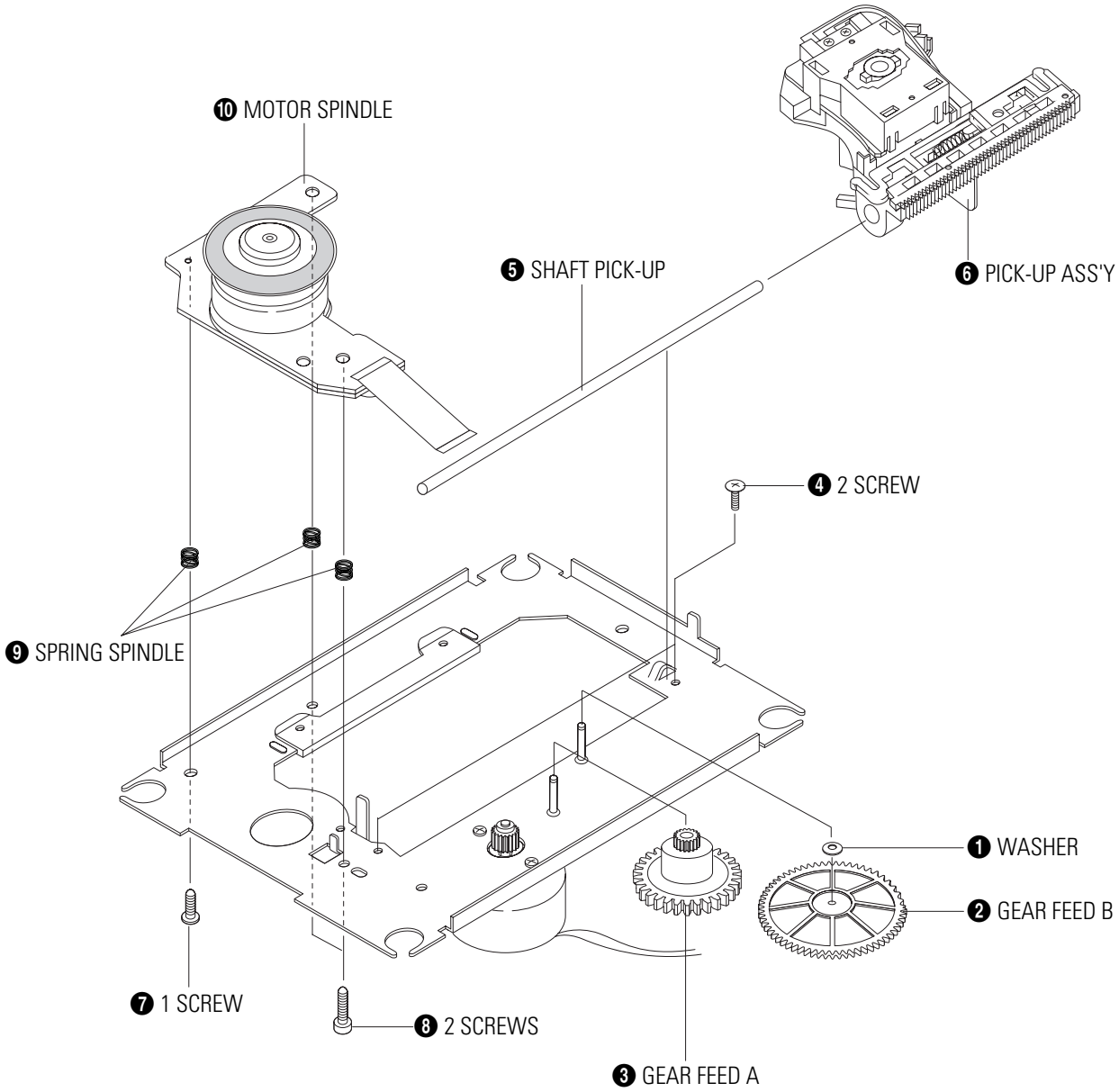


Fig. 3-12 Ass'y Brkt Deck Removal

4. VCR Alignment and Adjustments

4-1 Reference

1) X-Point (Tracking center) adjustment, “Head switching adjustment” and “NVRAM option setting” can be adjusted with remote control.
2) When replacing the VCR Main PCB Micom (IC601) and NVRAM (IC605 ; EEPROM) be sure to adjust the “Head switching adjustment” and “NVRAM option setting”.
3) When replacing the cylinder ass’y, be sure to adjust the “X-Point” and “Head switching adjustment”.
4) How to adjustment.
   - Momently short-circuit the test point on Function-Timer PCB with pincers to set the adjustment mode.
   - If the corresponding adjustment button is pressed, the adjustment is performed automatically.

4-1-1 Location of adjustment button of remote control

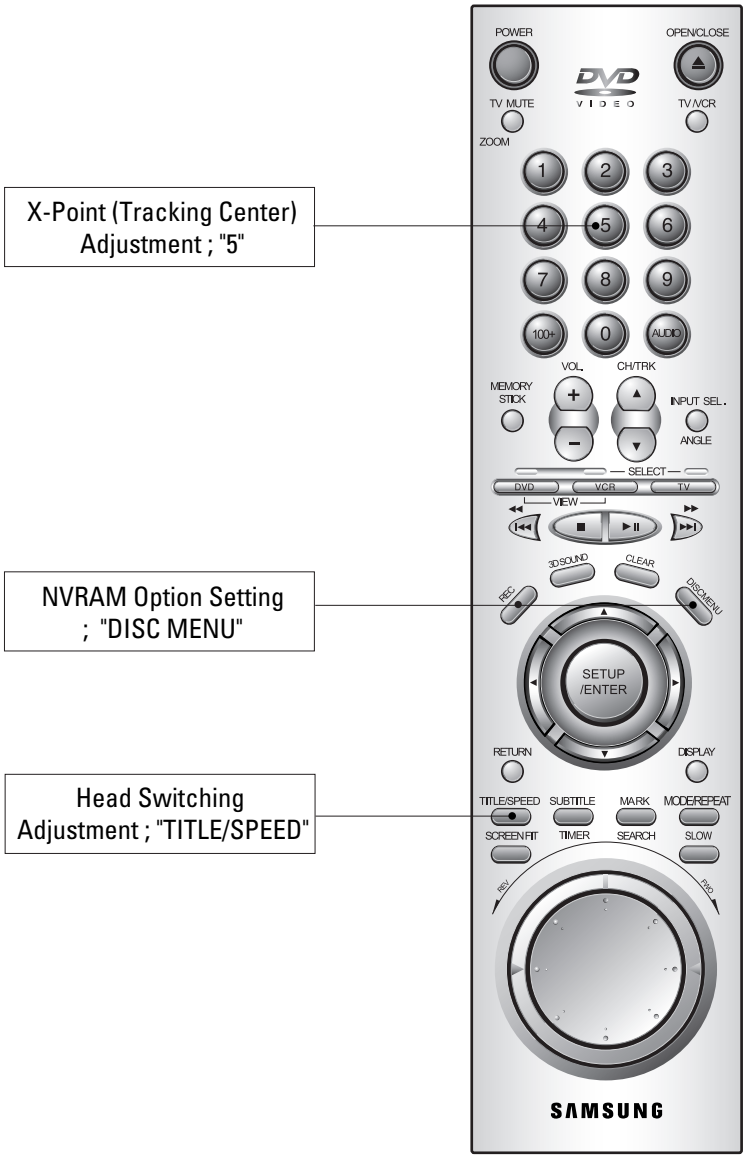


Fig. 4-1

4-1-2 TEST location for adjustment mode setting

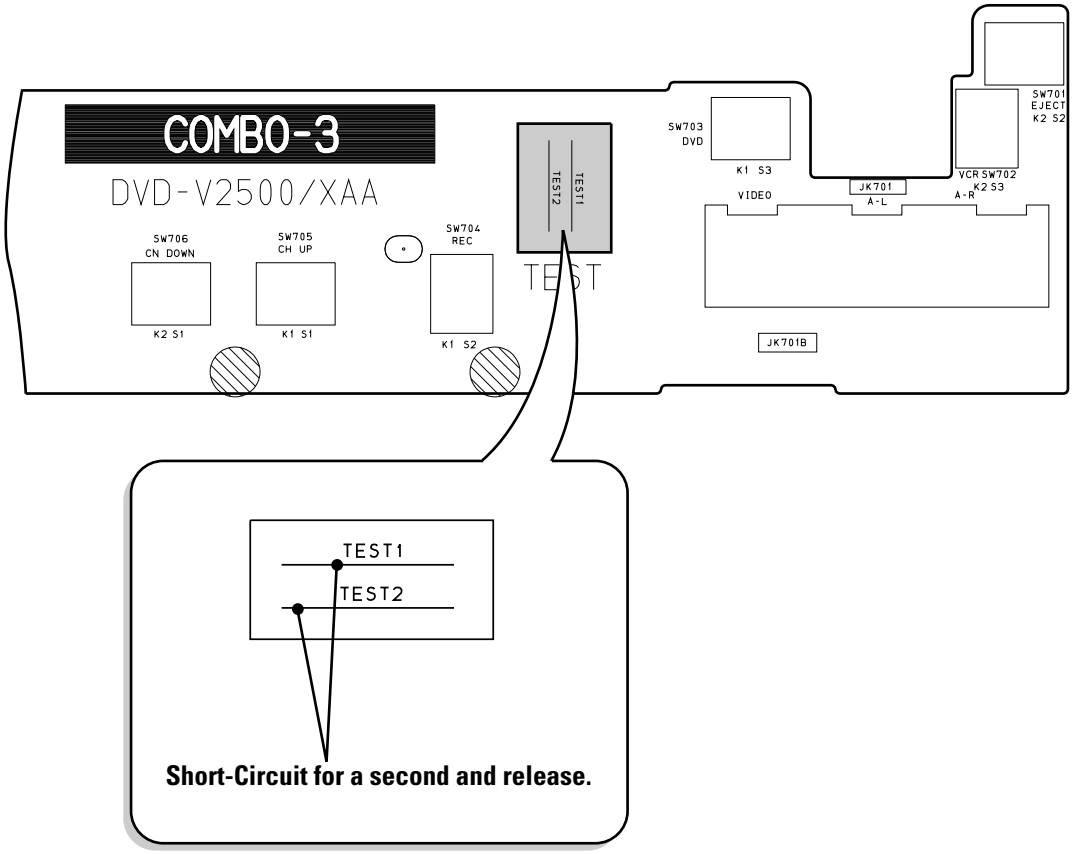


Fig. 4-2 Function-Timer PCB (Top View)

4-2 Mechanical Adjustment

Note : Refer to the Mechanical Manual "TS-10A (AC82-00023A)" for the adjustment and confirmation of ass'y full deck.

4-2-1 The number and position of test point

Test point :	TP2 (Audio Output)
	TP3 (Envelope)
	TP4 (H'D S/W -Trigger)
	TP5 (Control Pulse)

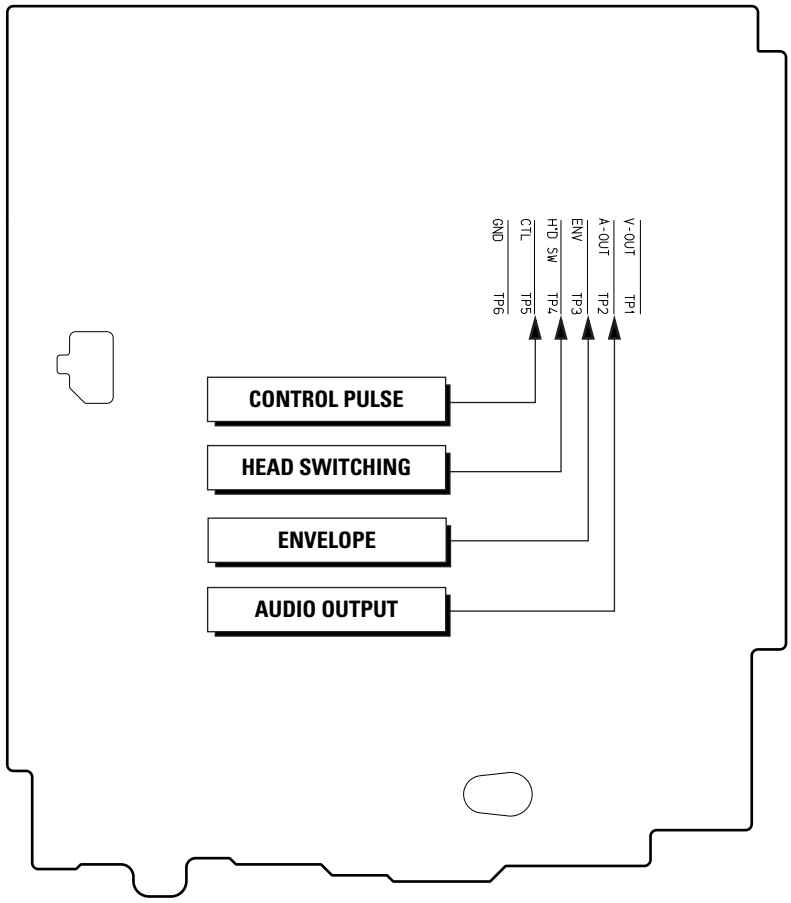


Fig. 4-3 Location of Test point (VCR Main PCB-Top View)

4-2-2 ACE Head position (X-Point) Adjustment

(See the 2-2-1(d) ACE Head Position (X-Point) Adjustment on page 2-2 of the Mechanical Manual)

1) Playback the alignment tape (Color bar).
2) Momently short-circuit the test point on F/Timer PCB with pincers to set the adjustment mode. (See Fig. 4-2)
3) Press the "5" button of remote control then adjustment is operated automatically. (See Fig. 4-1)
4) Connect the CH-1 probe to TP3 (Envelope) the CH-2 probe to TP4 (H'D switching pulse) and then trigger to CH-1.
5) Insert the (-) driver into the X-Point adjustment hole and adjust it so that envelope waveform is maximum.
6) Turn the Power off.

4-3 Head Switching Point Adjustment

1) Playback the alignment tape.
2) Momently short-circuit the test point on Function-Timer PCB with pincersto set the adjustment mode.
   (See Fig. 4-2)
3) Press the "TITLE/SPEED" button of remote control then adjustment is operated automatically. (See Fig. 4-1)

4-4 NVRAM Option Setting

1) NVRAM Option is adjusted at production line basically.
2) In case VCR Main PCB Micom (IC601) and NVRAM (IC605 ; EEPROM) is replaced, be sure to set the corresponding option number of the reqaired model. (If the option is not set, the unit is not operated.)

1) Momently short-circuit the test point on Function-Timer PCB with pincersto set the adjustment mode.
   (See Fig. 4-2)
2) Press the "DISC MENU" button on the remote control about 5 seconds then option setting is appeared.
   (See Fig. 4-4)
3) Select the option number (See table 4-1) of corresponding model with "◀, ▶, ▲, ▼" button on the remote control.
4) If selecting the option number is completed, press the "▼" button of remote control.
   (If "▼" button is pressed, the selected number is changes reversed color. ; See Fig. 4-4)
5) Press the "SET UP/ENTER" button of remote control again to store the option number.
   ("COMPLETE" is displayed for a second as shown Fig. 4-5 and this setting is completed.)
6) Turn the Power off.

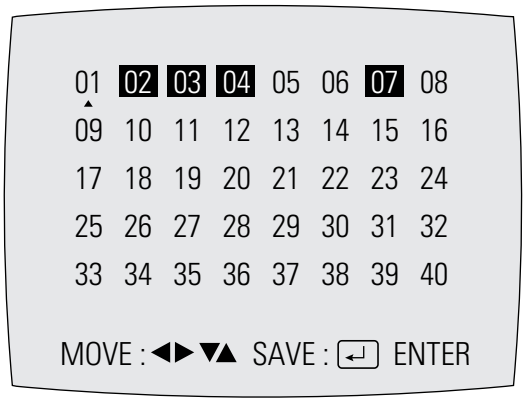


Fig.4-4

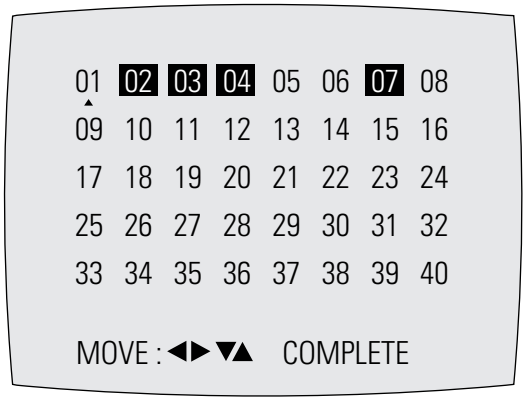
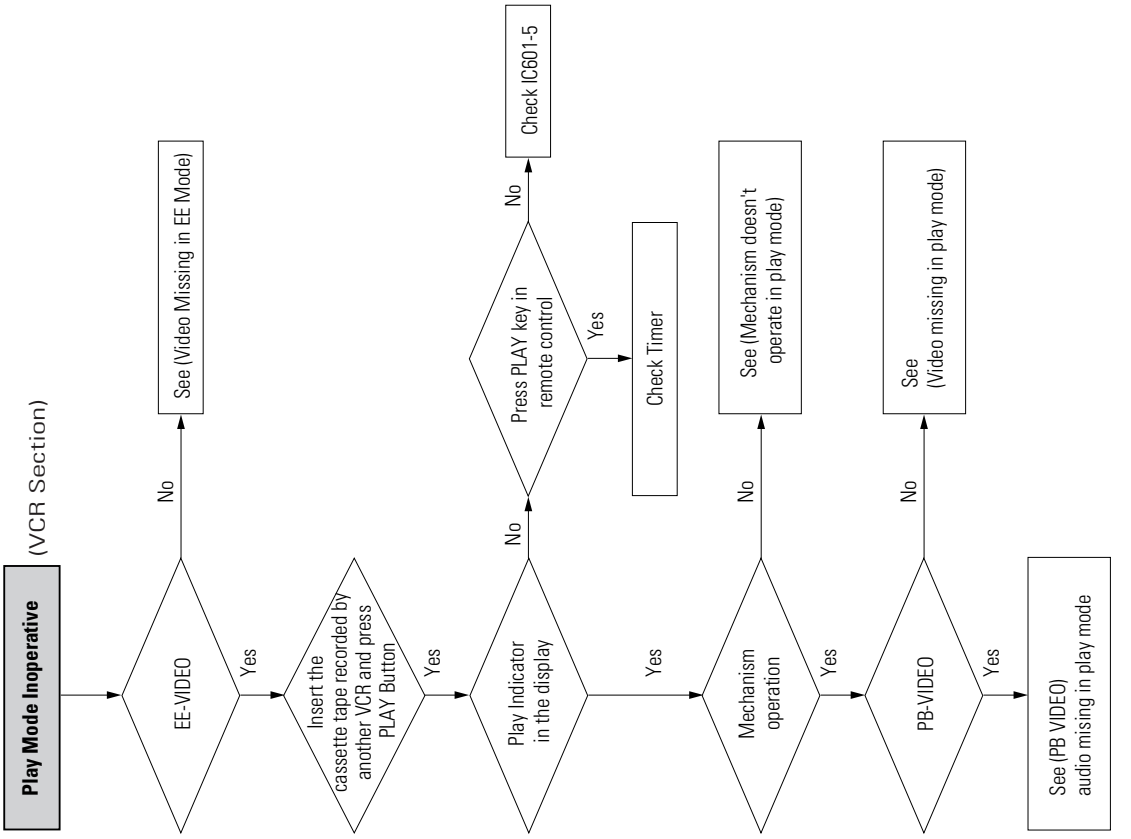


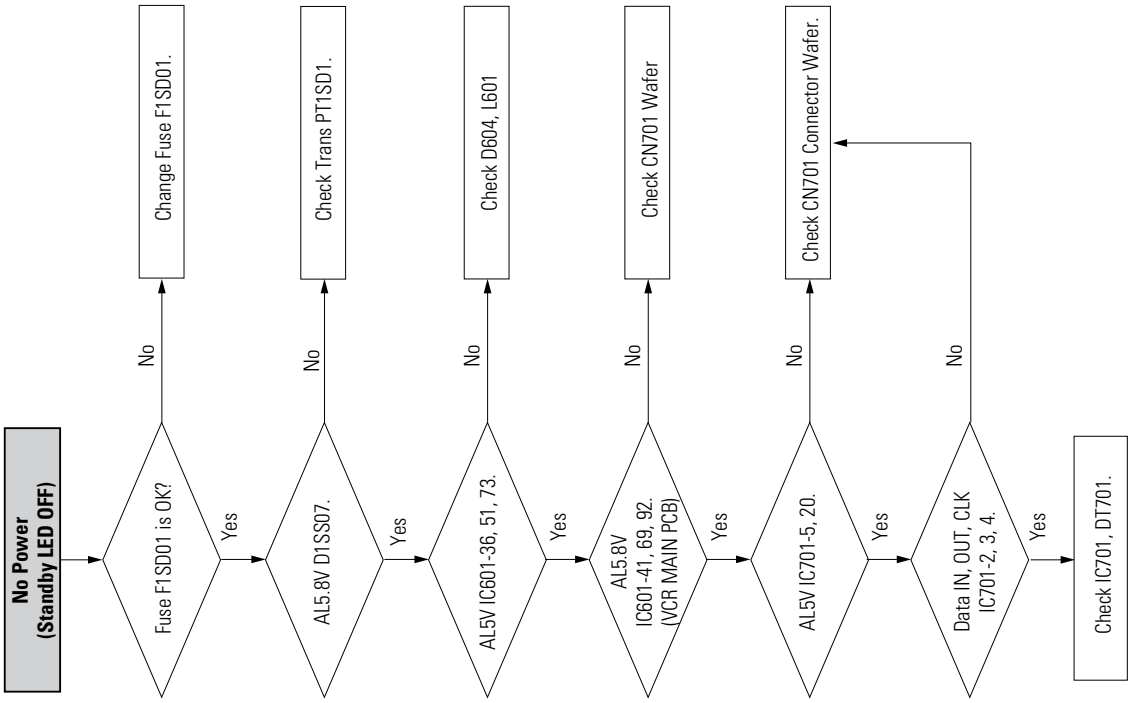
Fig. 4-5

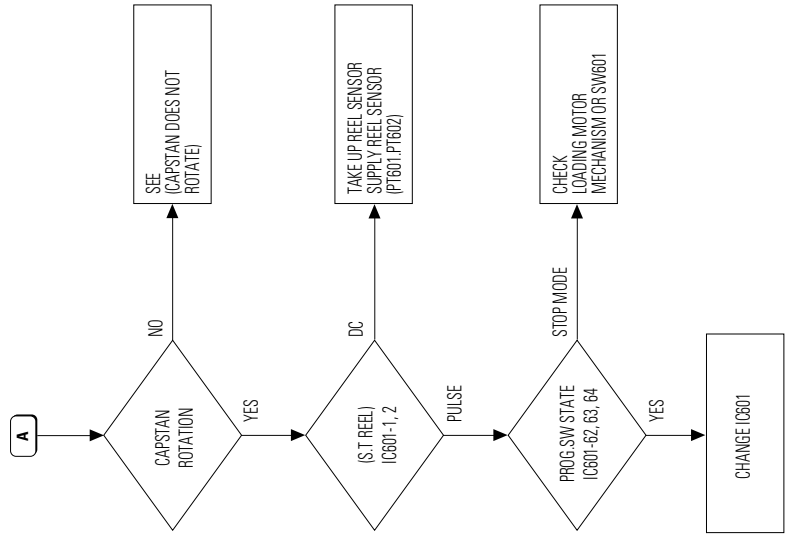
<Table 4-1 NVRAM Option Table>

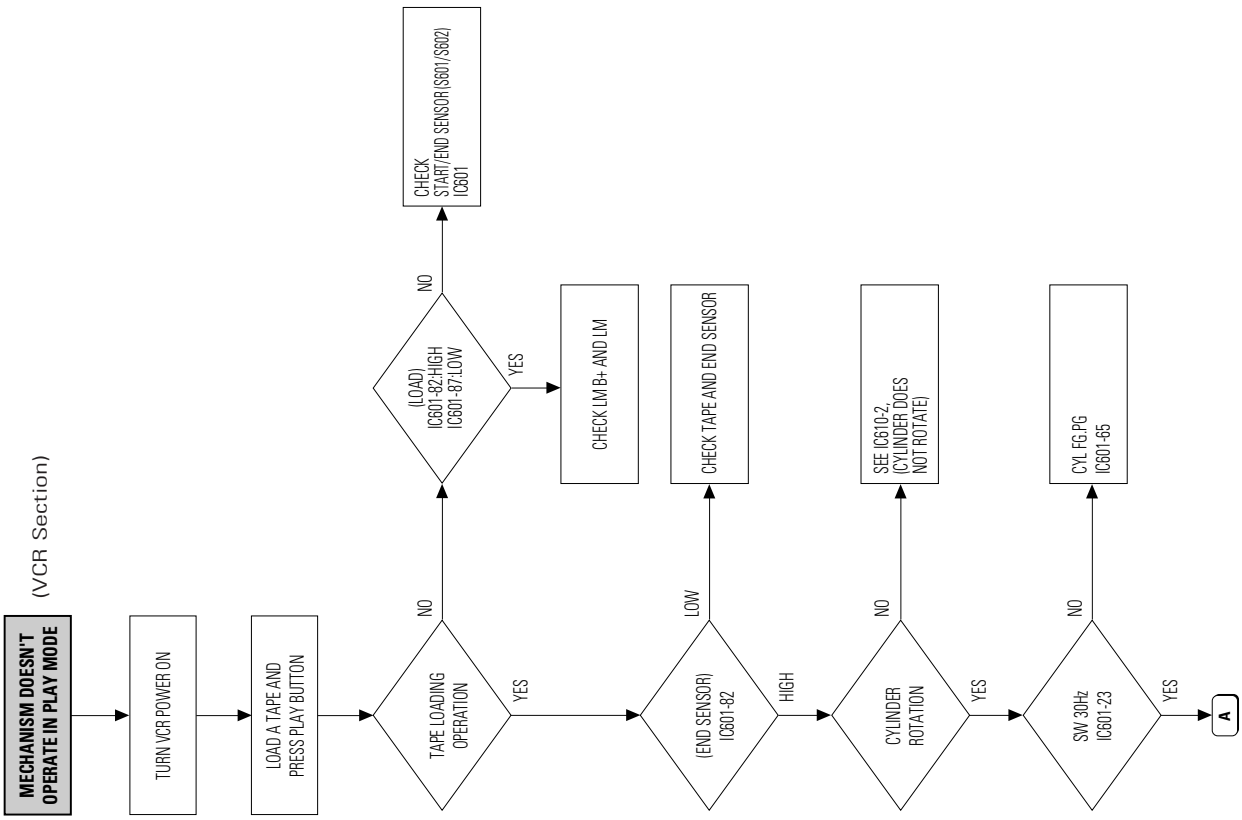
MODEL	OPTION NUMBER
DVD-V2500	2, 3, 4, 7, 25

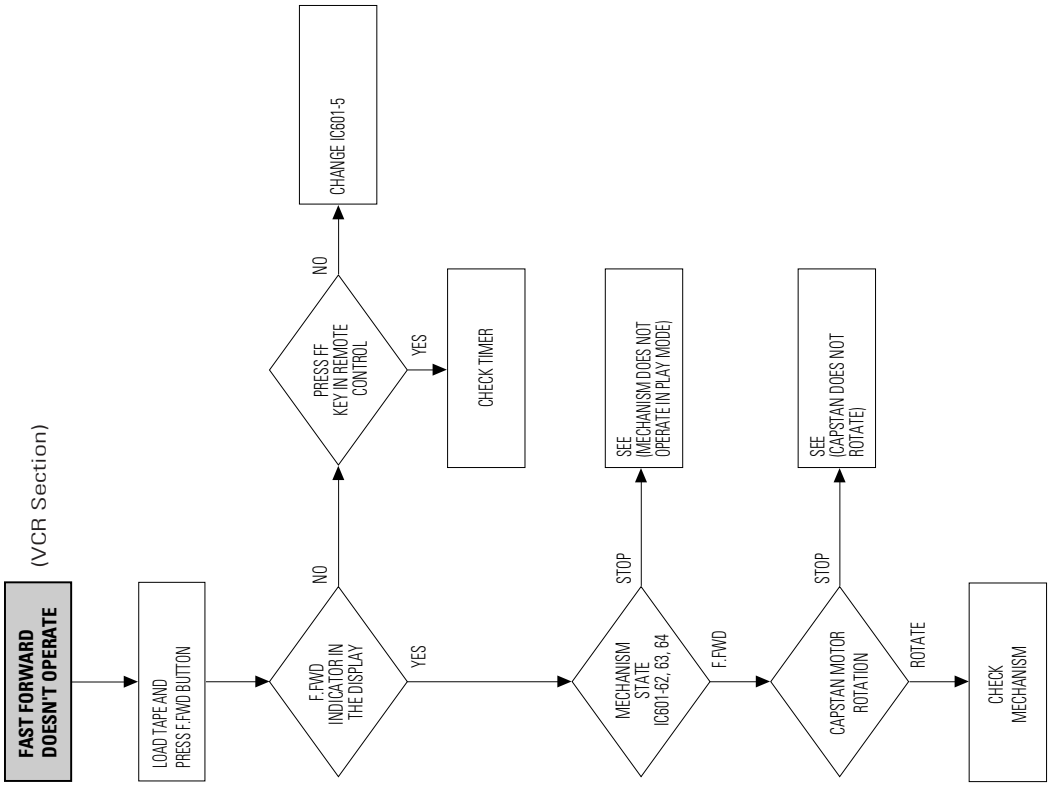
5. Troubleshooting

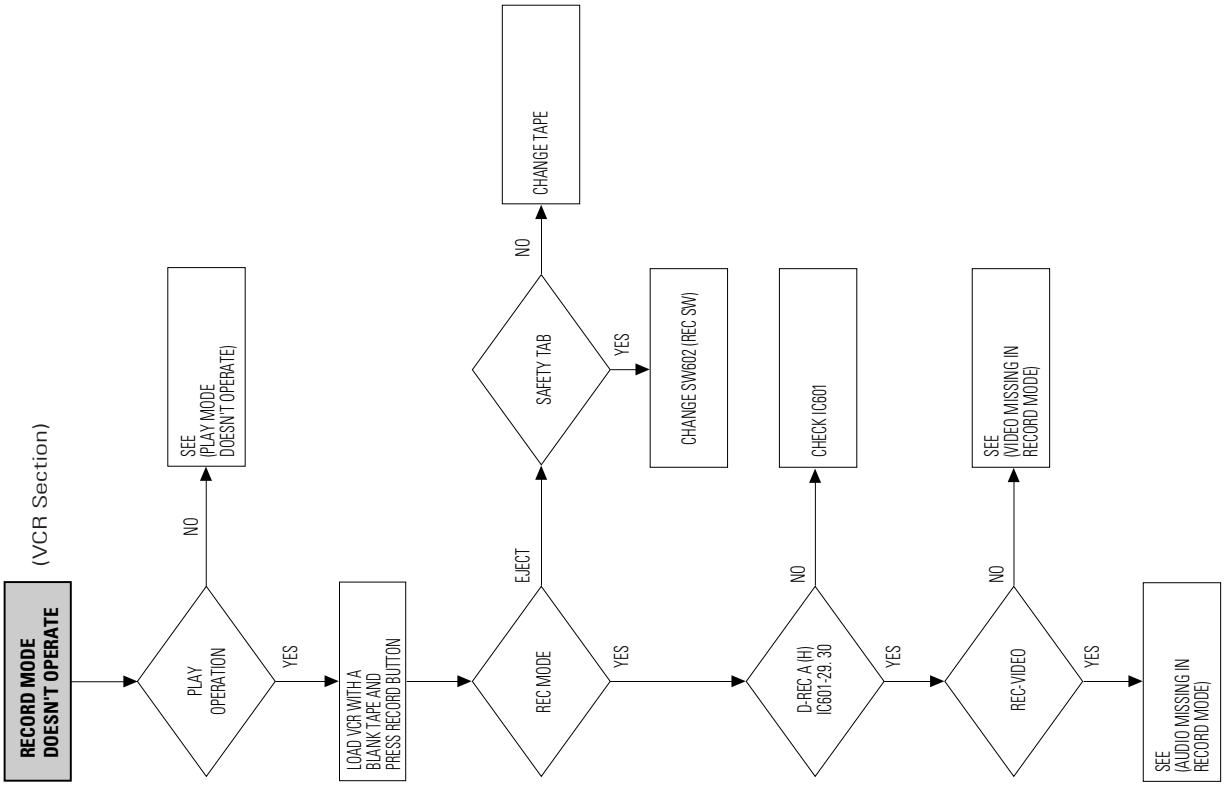


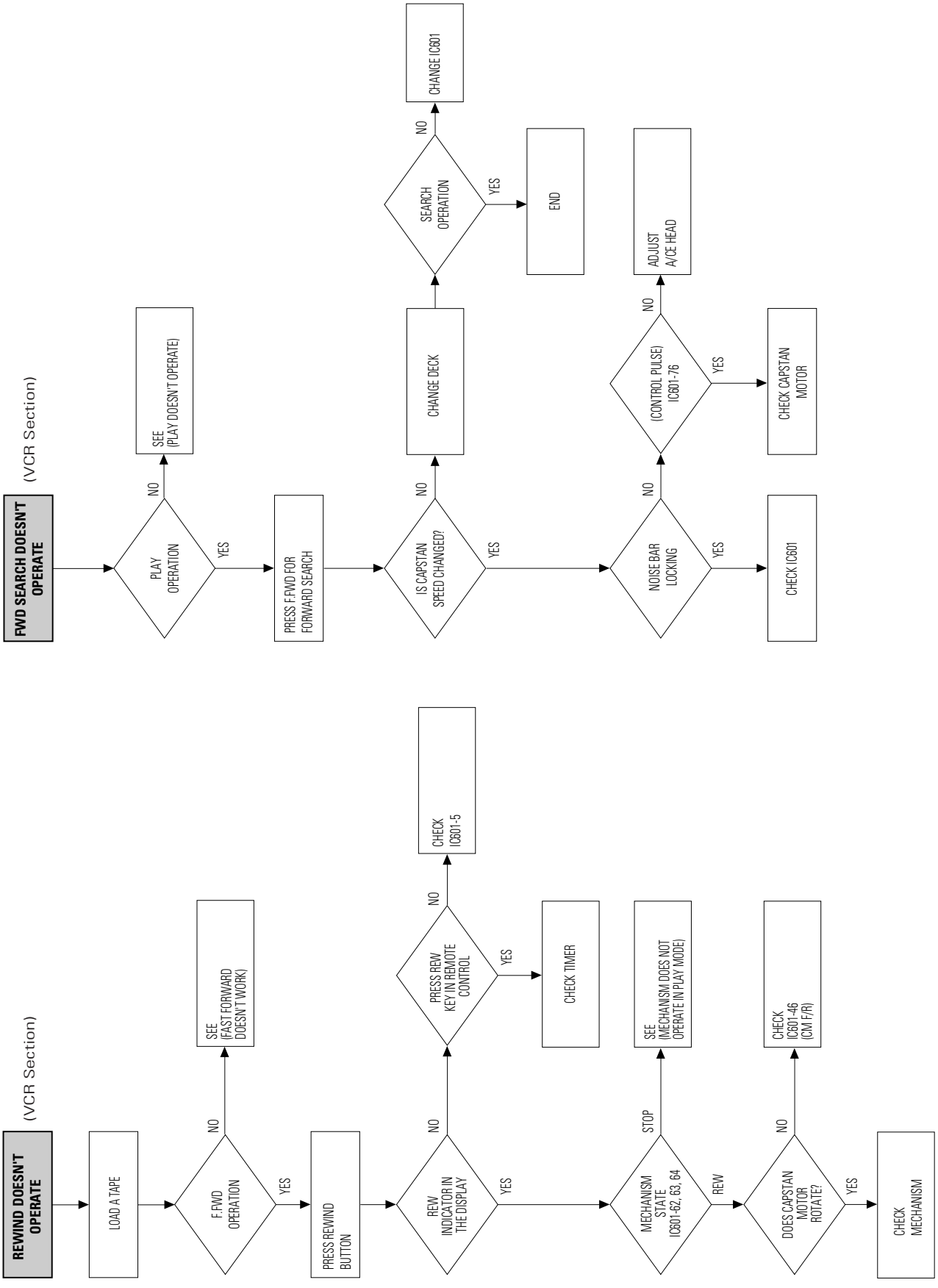


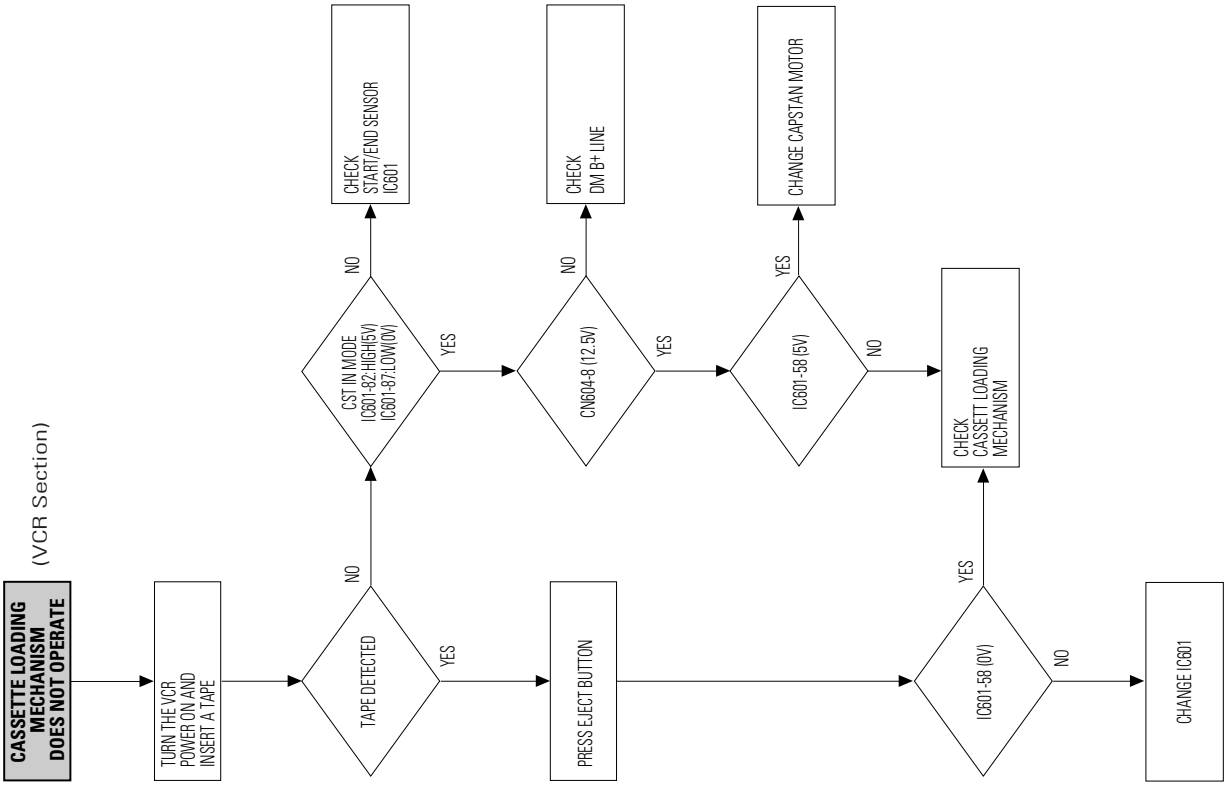

A
CAPSTAN ROTATION
NO
SEE (CAPSTAN DOES NOT ROTATE)
YES
(S.T REEL) IC601-1, 2
DC
TAKE UP REEL SENSOR SUPPLY REEL SENSOR (PT601-PT602)
PULSE
PROG.SW STATE IC601-62, 63, 64
STOP MODE
CHECK LOADING MOTOR MECHANISM OR SW601
YES
CHANGE IC601

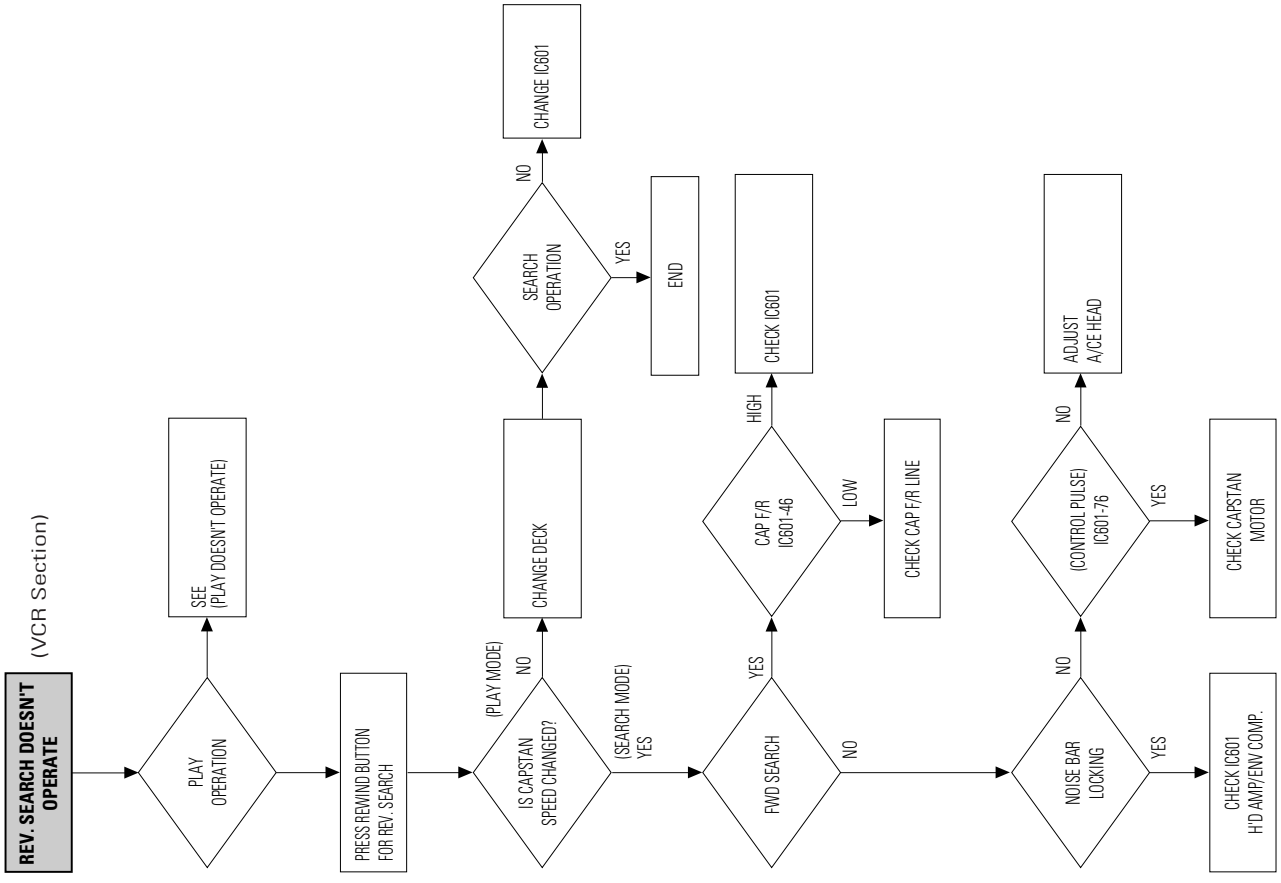

MECHANISM DOESN'T OPERATE IN PLAY MODE
(VCR Section)
TURN VCR POWER ON
LOAD A TAPE AND PRESS PLAY BUTTON
TAPE LOADING OPERATION
NO
YES
(LOAD) IC601-82:HIGH IC601-87:LOW
NO
CHECK START/END SENSOR(S601/S602) IC601
YES
CHECK LM B+ AND LM
(END SENSOR) IC601-82
LOW
CHECK TAPE AND END SENSOR
HIGH
CYLINDER ROTATION
NO
SEE IC610-2, (CYLINDER DOES NOT ROTATE)
YES
SW 30Hz IC601-23
NO
CYL FG,PG IC601-65
YES
A

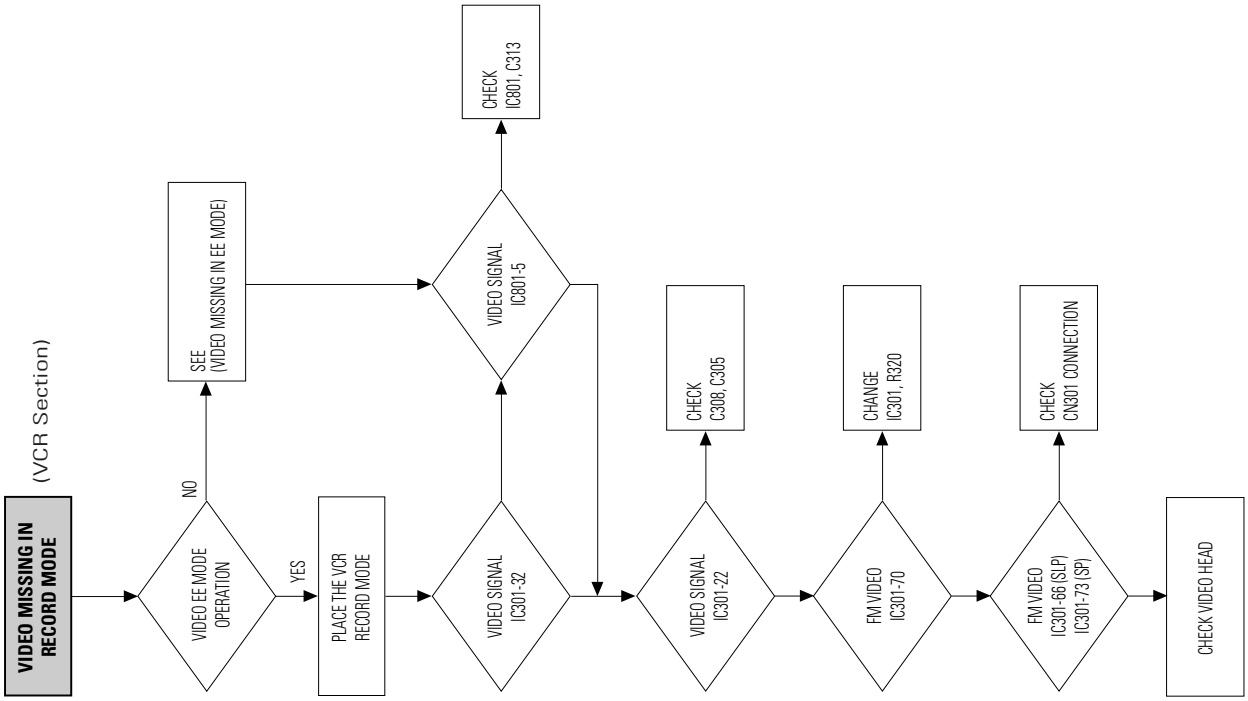

FAST FORWARD DOESN'T OPERATE
(VCR Section)
LOAD TAPE AND PRESS F.FWD BUTTON
F.FWD INDICATOR IN THE DISPLAY
NO
YES
PRESS FF KEY IN REMOTE CONTROL
NO
YES
CHANGE (IC601-5
CHECK TIMER
MECHANISM STATE (IC601-62, 63, 64
STOP
F.FWD
SEE (MECHANISM DOES NOT OPERATE IN PLAY MODE)
CAPSTAN MOTOR ROTATION
STOP
ROTATE
SEE (CAPSTAN DOES NOT ROTATE)
CHECK MECHANISM

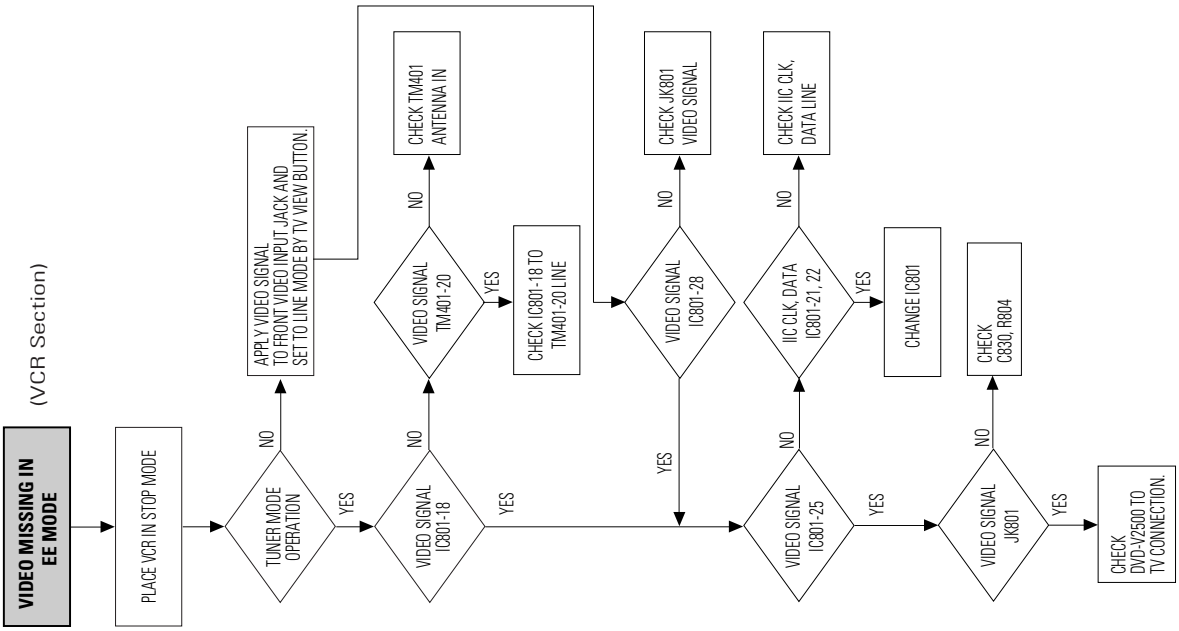

RECORD MODE DOESN'T OPERATE
(VCR Section)
PLAY OPERATION
NO
YES
SEE (PLAY MODE DOESN'T OPERATE)
LOAD VCR WITH A BLANK TAPE AND PRESS RECORD BUTTON
REC MODE
EJECT
YES
SAFETY TAB
NO
YES
CHANGE SW602 (REC SW)
CHANGE TAPE
D-REC A (H) IC601-29, 30
NO
YES
CHECK IC601
REC-VIDEO
NO
YES
SEE (VIDEO MISSING IN RECORD MODE)
SEE (AUDIO MISSING IN RECORD MODE)

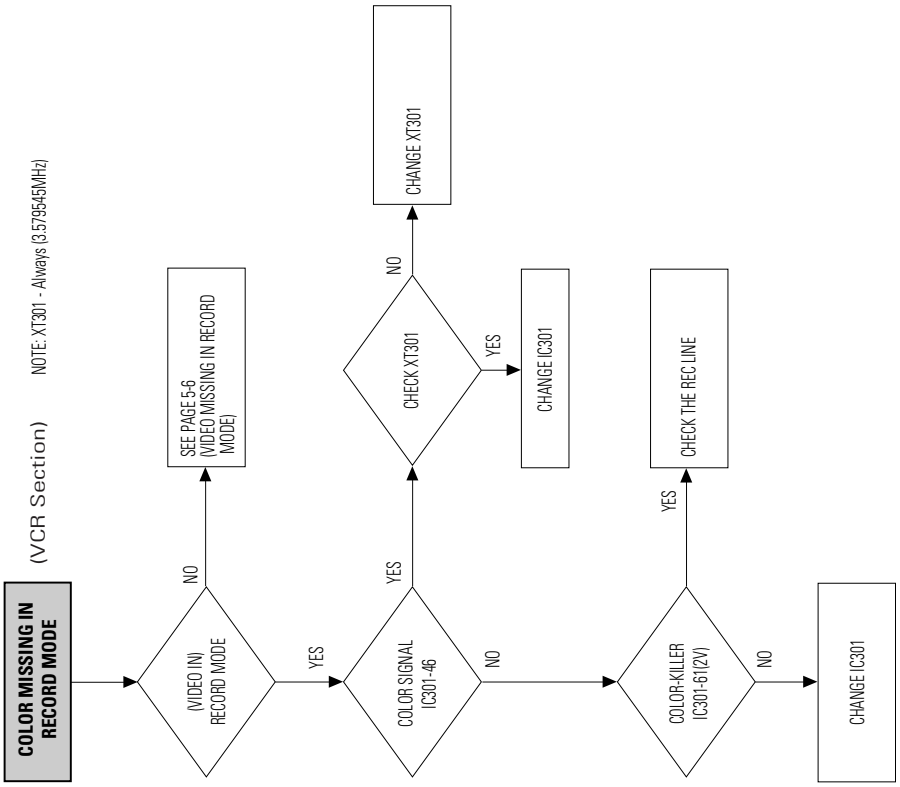

REWIND DOESN'T OPERATE
(VCR Section)
LOAD A TAPE
F.FWD OPERATION
NO
SEE (FAST FORWARD DOESN'T WORK)
YES
PRESS REWIND BUTTON
REW INDICATOR IN THE DISPLAY
NO
CHECK IC601-5
YES
PRESS REW KEY IN REMOTE CONTROL
NO
CHECK TIMER
YES
MECHANISM STATE IC601-62, 63, 64
STOP
SEE (MECHANISM DOES NOT OPERATE IN PLAY MODE)
REW
DOES CAPSTAN MOTOR ROTATE?
NO
CHECK IC601-46 (CM F/R)
YES
CHECK MECHANISM
FWD SEARCH DOESN'T OPERATE
(VCR Section)
PLAY OPERATION
NO
SEE (PLAY DOESN'T OPERATE)
YES
PRESS F.FWD FOR FORWARD SEARCH
IS CAPSTAN SPEED CHANGED?
NO
CHANGE DECK
YES
SEARCH OPERATION
NO
CHANGE IC601
YES
END
NOISE BAR LOCKING
NO
(CONTROL PULSE) IC601-76
NO
ADJUST A/CE HEAD
YES
CHECK CAPSTAN MOTOR
YES
CHECK IC601

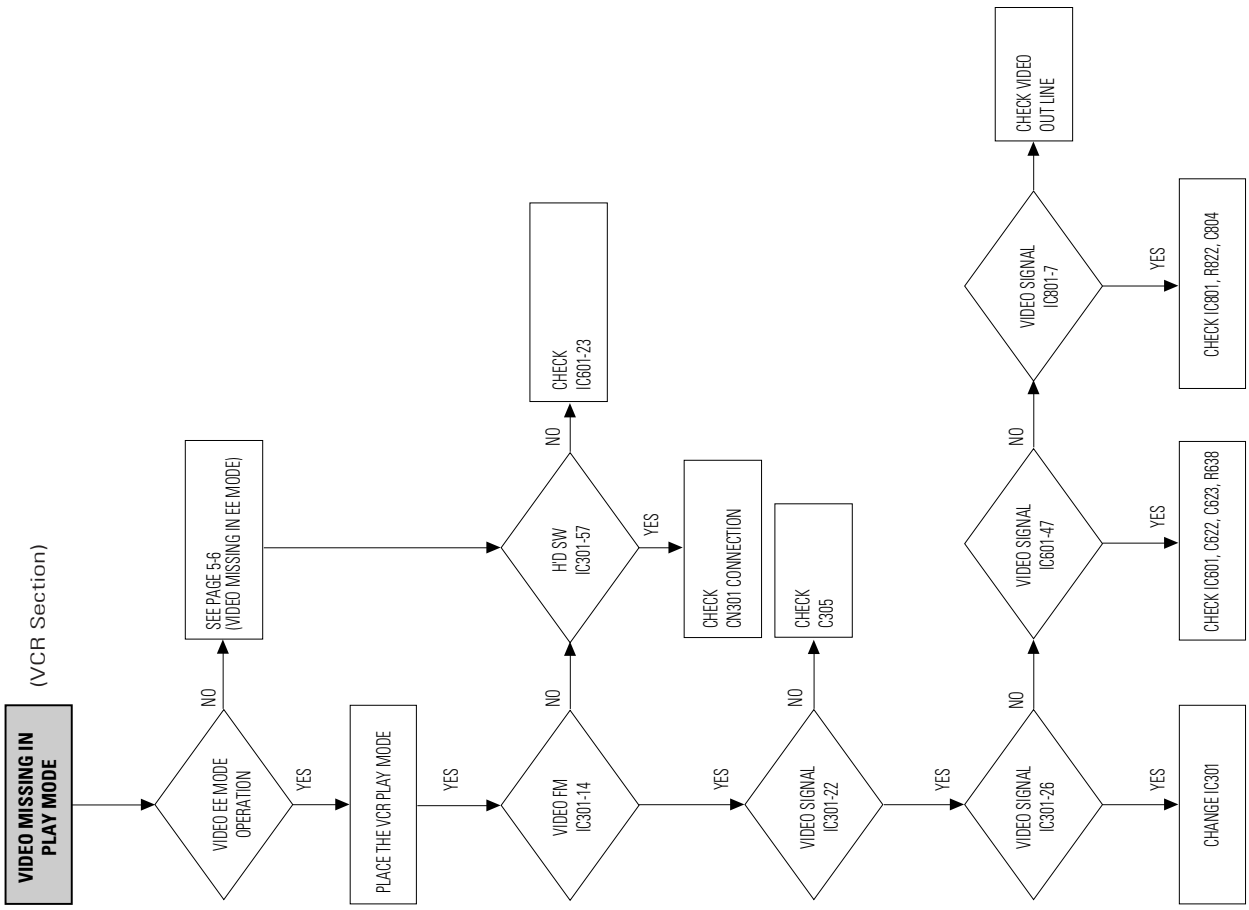

CASSETTE LOADING MECHANISM DOES NOT OPERATE
(VCR Section)
TURN THE VCR POWER ON AND INSERT A TAPE
TAPE DETECTED
NO
YES
CST IN MODE (IC601-82:HIGH(5V) IC601-87:LOW(0V)
NO
YES
CN604-8 (12.5V)
NO
YES
IC601-58 (5V)
NO
YES
CHECK START/END SENSOR IC601
CHECK DM B+ LINE
CHANGE CAPSTAN MOTOR
CHECK CASSETT LOADING MECHANISM
PRESS EJECT BUTTON
IC601-58 (0V)
YES
NO
CHANGE IC601

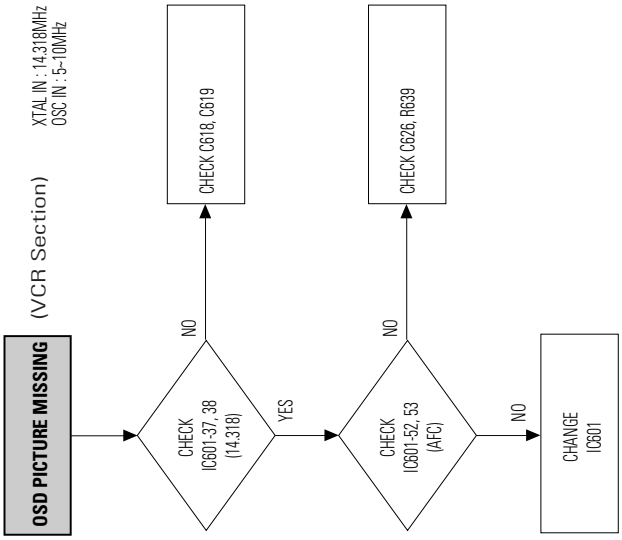

REV. SEARCH DOESN'T OPERATE
(VCR Section)
PLAY OPERATION
SEE (PLAY DOESN'T OPERATE)
PRESS REWIND BUTTON FOR REV. SEARCH
IS CAPSTAN SPEED CHANGED?
(PLAY MODE)
NO
(SEARCH MODE)
YES
CHANGE DECK
SEARCH OPERATION
NO
YES
END
CHANGE IC601
FWD SEARCH
YES
NO
CAP F/R IC601-46
HIGH
LOW
CHECK IC601
CHECK CAP F/R LINE
NOISE BAR LOCKING
NO
YES
(CONTROL PULSE) IC601-76
NO
YES
ADJUST A/CE HEAD
CHECK CAPSTAN MOTOR
CHECK IC601 H'D AMP/ENV COMP.

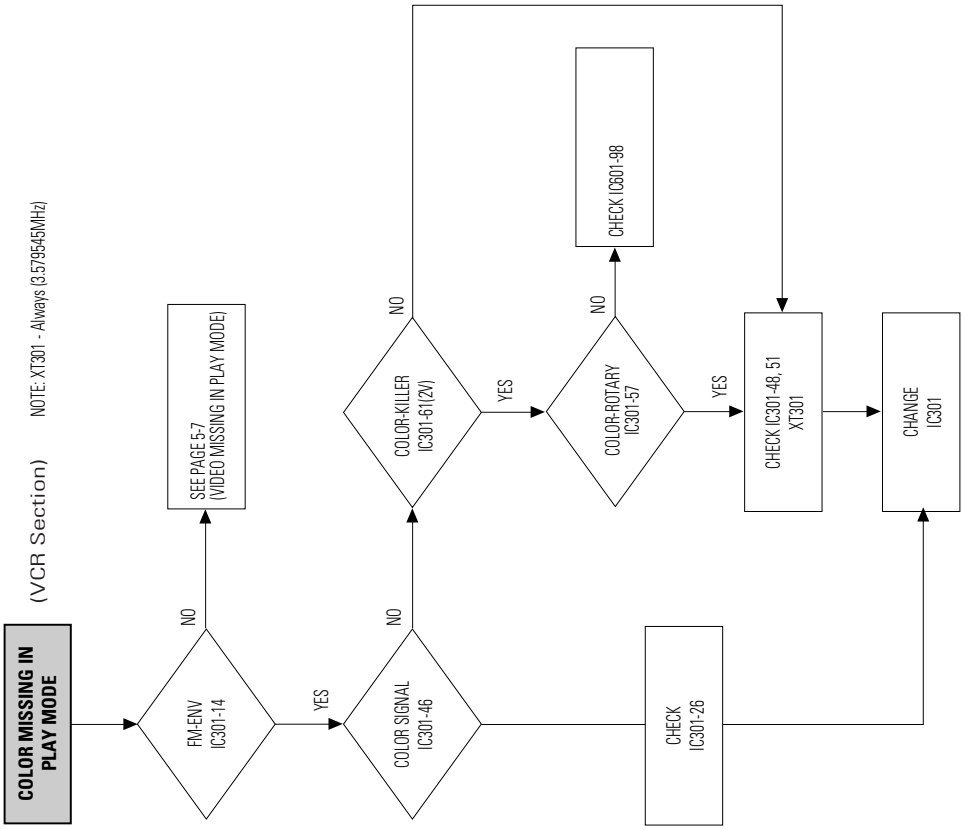

VIDEO MISSING IN RECORD MODE
(VCR Section)
VIDEO EE MODE OPERATION
NO
YES
SEE (VIDEO MISSING IN EE MODE)
PLACE THE VCR RECORD MODE
VIDEO SIGNAL IC801-5
CHECK IC801, C313
VIDEO SIGNAL IC301-32
VIDEO SIGNAL IC301-22
CHECK C308, C305
FM VIDEO IC301-70
CHANGE IC301, R320
FM VIDEO IC301-66 (SLP) IC301-73 (SP)
CHECK CN301 CONNECTION
CHECK VIDEO HEAD

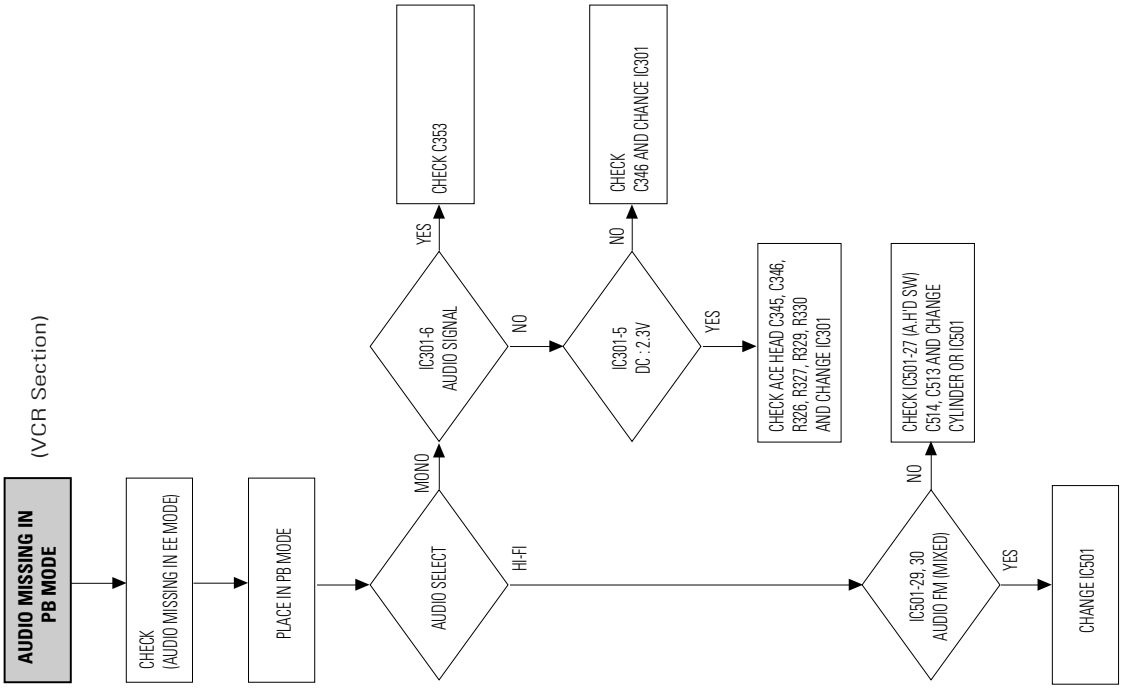

VIDEO MISSING IN EE MODE
(VCR Section)
PLACE VCR IN STOP MODE
TUNER MODE OPERATION
NO
YES
APPLY VIDEO SIGNAL TO FRONT VIDEO INPUT JACK AND SET TO LINE MODE BY TV VIEW BUTTON.
VIDEO SIGNAL IC801-18
NO
YES
CHECK TM401 ANTENNA IN
VIDEO SIGNAL TM401-20
NO
YES
CHECK IC801-18 TO TM401-20 LINE
VIDEO SIGNAL IC801-28
NO
YES
CHECK JK801 VIDEO SIGNAL
VIDEO SIGNAL IC801-25
NO
YES
CHECK IIC CLK, DATA
IIC CLK, DATA IC801-21, 22
NO
YES
CHANGE IC801
VIDEO SIGNAL JK801
NO
YES
CHECK C830, R804
CHECK DVD-V2500 TO TV CONNECTION.

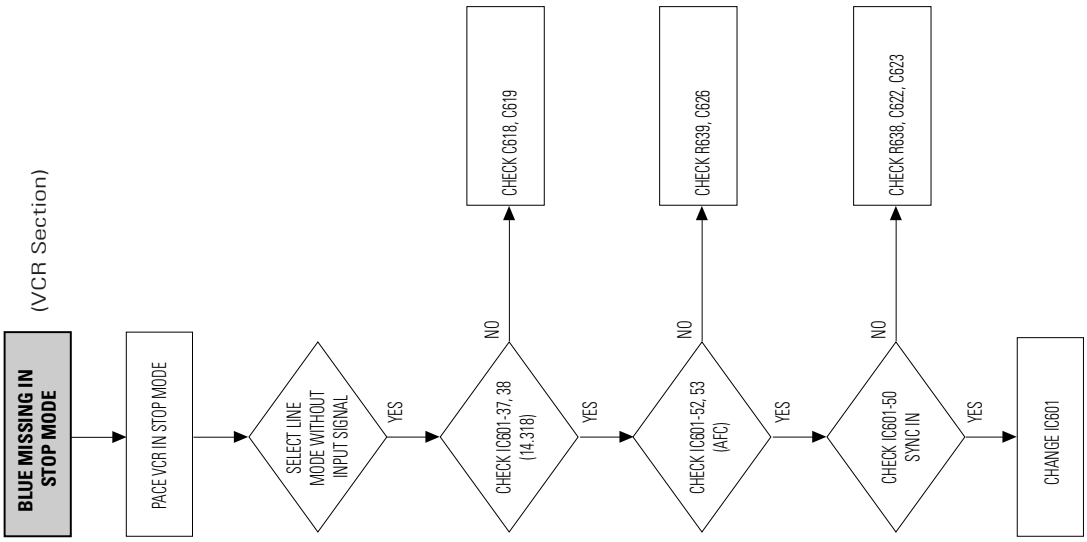

COLOR MISSING IN RECORD MODE
(VCR Section)
NOTE: XT301 - Always (3.579545MHz)
(VIDEO IN) RECORD MODE
NO
SEE PAGE 5-6 (VIDEO MISSING IN RECORD MODE)
YES
COLOR SIGNAL IC301-46
YES
CHECK XT301
NO
CHANGE XT301
YES
CHANGE IC301
NO
COLOR-KILLER IC301-61(2V)
YES
CHECK THE RED LINE
NO
CHANGE IC301

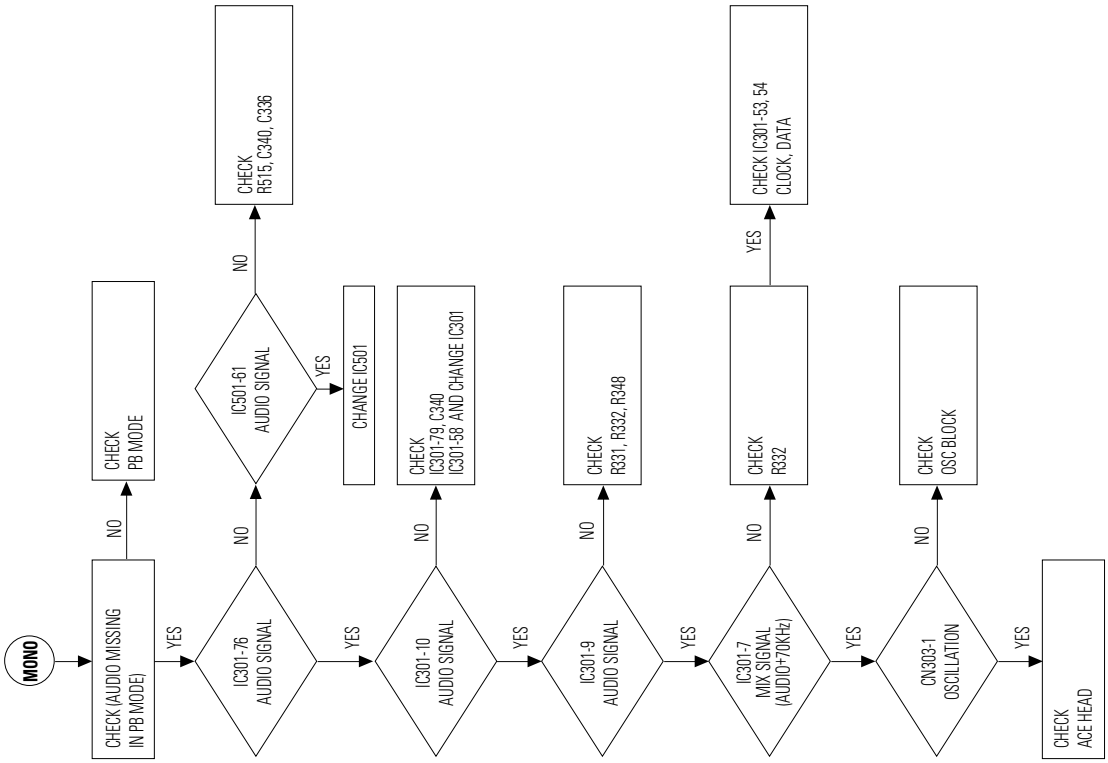

VIDEO MISSING IN PLAY MODE
(VCR Section)
VIDEO EE MODE OPERATION
NO
SEE PAGE 5-6 (VIDEO MISSING IN EE MODE)
YES
PLACE THE VCR PLAY MODE
YES
VIDEO FM IC301-14
NO
H'D SW IC301-57
NO
CHECK IC601-23
YES
CHECK CN301 CONNECTION
YES
VIDEO SIGNAL IC301-22
NO
CHECK C305
YES
VIDEO SIGNAL IC301-26
NO
VIDEO SIGNAL IC601-47
NO
VIDEO SIGNAL IC801-7
NO
CHECK VIDEO OUT LINE
YES
CHECK IC801, R822, C804
YES
CHECK IC601, C622, C623, R638
YES
CHANGE IC301

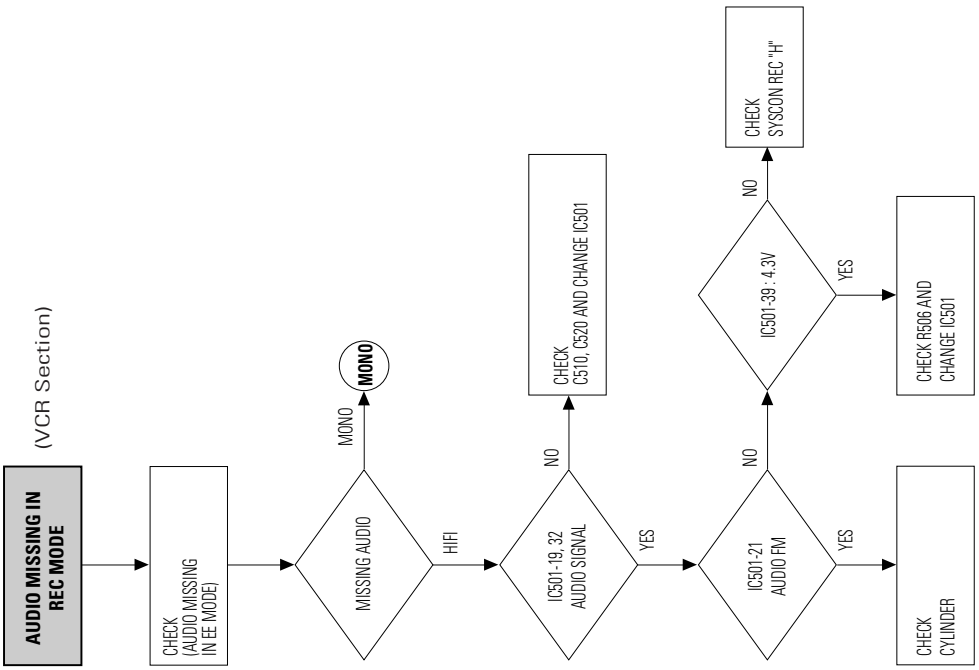

OSD PICTURE MISSING
(VCR Section)
XTAL IN : 14.318MHz
OSC IN : 5~10MHz
CHECK IC601-37, 38 (14.318)
NO
CHECK C618, C619
YES
CHECK IC601-52, 53 (AFC)
NO
CHECK C626, R639
NO
CHANGE IC601

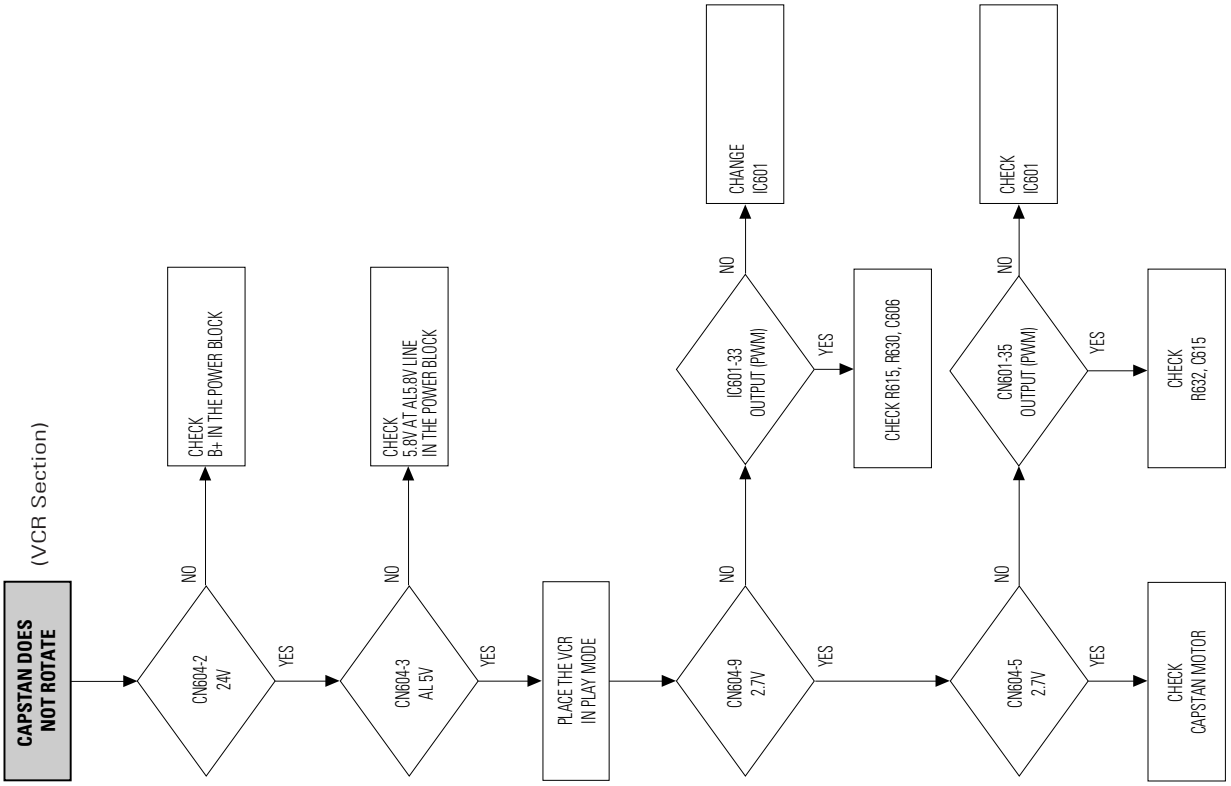

COLOR MISSING IN PLAY MODE
(VCR Section)
NOTE: XT301 - Always (3.579545MHz)
FM-ENV IC301-14
NO
SEE PAGE 5-7 (VIDEO MISSING IN PLAY MODE)
YES
COLOR SIGNAL IC301-46
NO
COLOR-KILLER IC301-61(2V)
NO
CHECK IC601-98
YES
COLOR-ROTARY IC301-57
YES
CHECK IC301-48, 51 XT301
CHANGE IC301
CHECK IC301-26

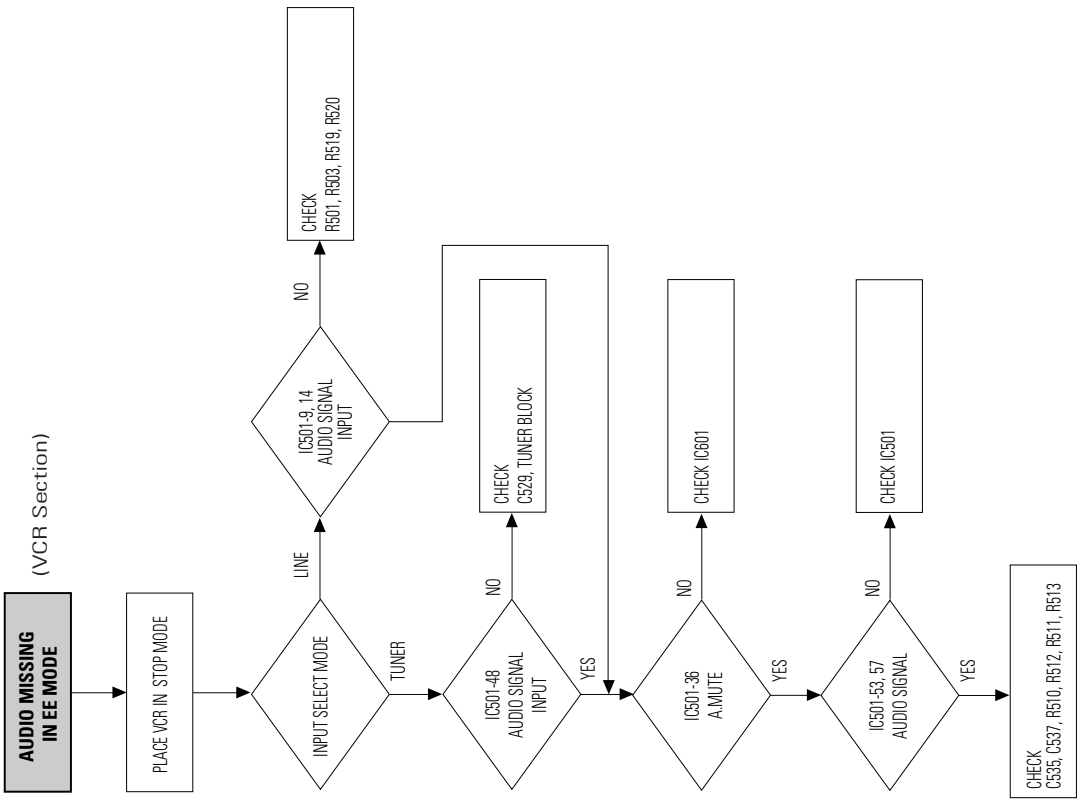

AUDIO MISSING IN PB MODE
(VCR Section)
CHECK (AUDIO MISSING IN EE MODE)
PLACE IN PB MODE
AUDIO SELECT
MONO
HI-FI
IC301-6 AUDIO SIGNAL
YES
CHECK C353
NO
IC301-5 DC : 2.3V
NO
CHECK C346 AND CHANCE IC301
YES
CHECK ACE HEAD C345, C346, R326, R327, R329, R330 AND CHANGE IC301
IC501-29, 30 AUDIO FM (MIXED)
NO
CHECK (IC501-27 (A.H'D SW) C514, C513 AND CHANGE CYLINDER OR (C501
YES
CHANGE IC501

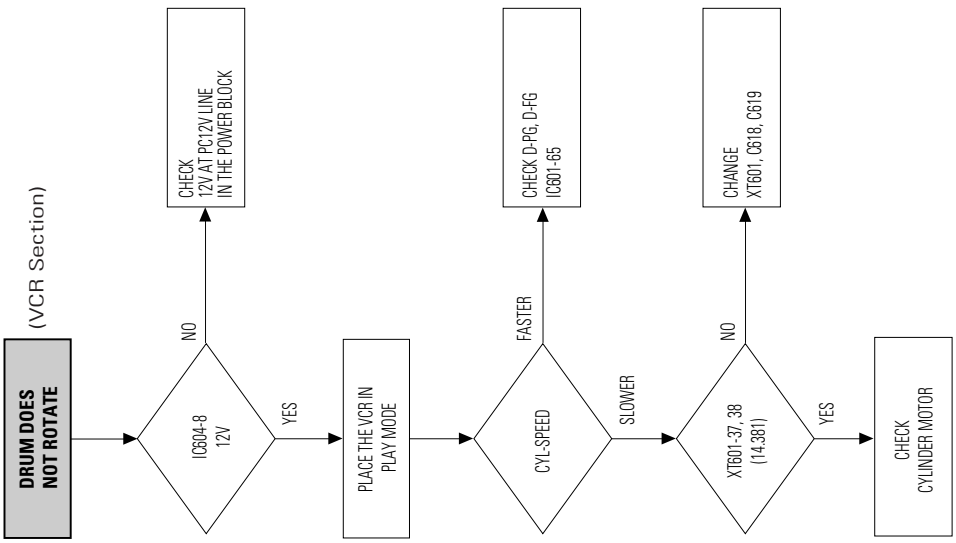

BLUE MISSING IN STOP MODE
(VCR Section)
PACE VCR IN STOP MODE
SELECT LINE MODE WITHOUT INPUT SIGNAL
YES
CHECK IC601-37, 38 (14.318)
NO
CHECK C618, C619
YES
CHECK IC601-52, 53 (AFC)
NO
CHECK R639, C626
YES
CHECK IC601-50 SYNC IN
NO
CHECK R638, C622, C623
YES
CHANGE IC601

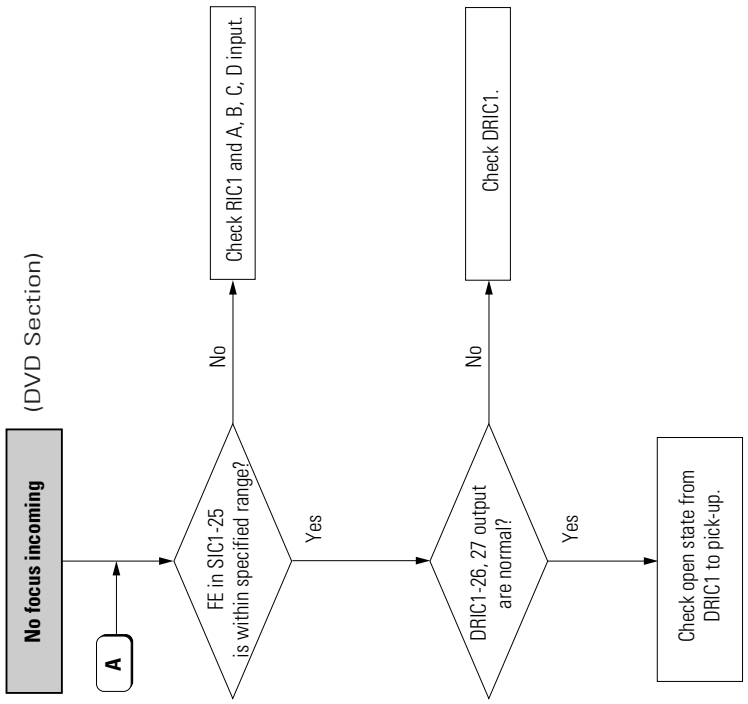

(MONO)
CHECK (AUDIO MISSING IN PB MODE)
NO
CHECK PB MODE
YES
IC301-76 AUDIO SIGNAL
NO
IC501-61 AUDIO SIGNAL
NO
CHECK R515, C340, C336
YES
CHANGE IC501
YES
IC301-10 AUDIO SIGNAL
NO
CHECK IC301-79, C340 IC301-58 AND CHANGE IC301
YES
IC301-9 AUDIO SIGNAL
NO
CHECK R331, R332, R348
YES
IC301-7 MIX SIGNAL (AUDIO+70KHz)
NO
CHECK R332
YES
CHECK IC301-53, 54 CLOCK, DATA
YES
CN303-1 OSCILLATION
NO
CHECK OSC BLOCK
YES
CHECK ACE HEAD

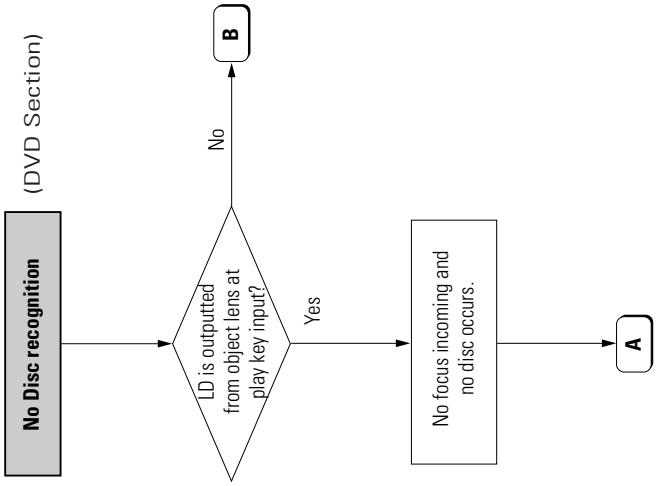

AUDIO MISSING IN REC MODE
(VCR Section)
CHECK (AUDIO MISSING IN EE MODE)
MISSING AUDIO
MONO
(MONO)
HIFI
IC501-19, 32 AUDIO SIGNAL
NO
CHECK C510, C520 AND CHANGE IC501
YES
IC501-21 AUDIO FM
NO
IC501-39 : 4.3V
NO
CHECK SYSCON REC "H"
YES
CHECK R506 AND CHANGE IC501
YES
CHECK CYLINDER

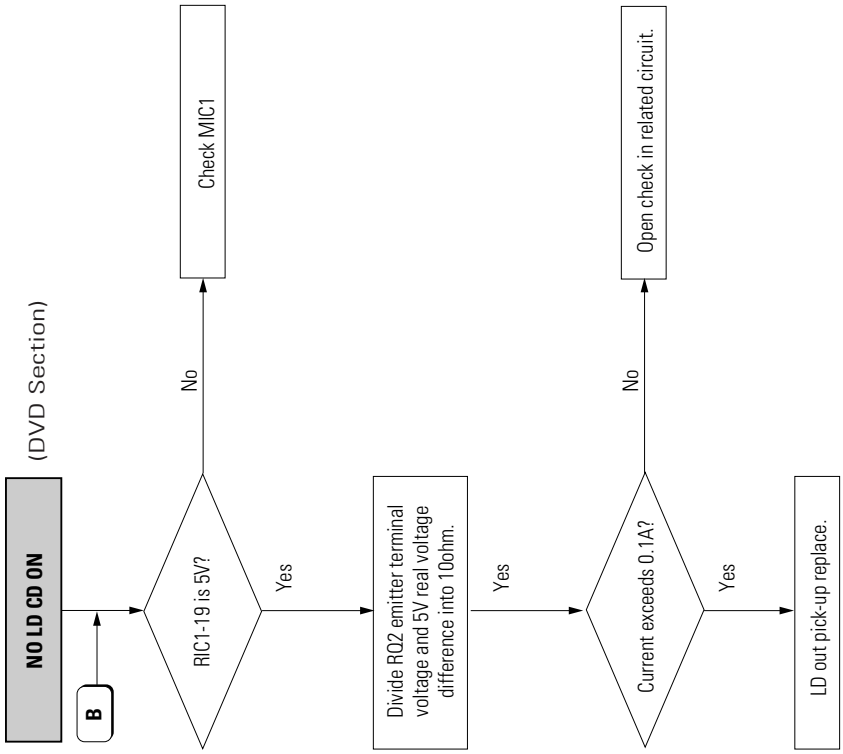

CAPSTAN DOES NOT ROTATE
(VCR Section)
CN604-2 24V
NO
CHECK B+ IN THE POWER BLOCK
YES
CN604-3 AL 5V
NO
CHECK 5.8V AT AL5.8V LINE IN THE POWER BLOCK
YES
PLACE THE VCR IN PLAY MODE
CN604-9 2.7V
NO
IC601-33 OUTPUT (PWM)
NO
CHANGE IC601
YES
CHECK R615, R630, C606
YES
CN604-5 2.7V
NO
CN601-35 OUTPUT (PWM)
NO
CHECK IC601
YES
CHECK R632, C615
YES
CHECK CAPSTAN MOTOR

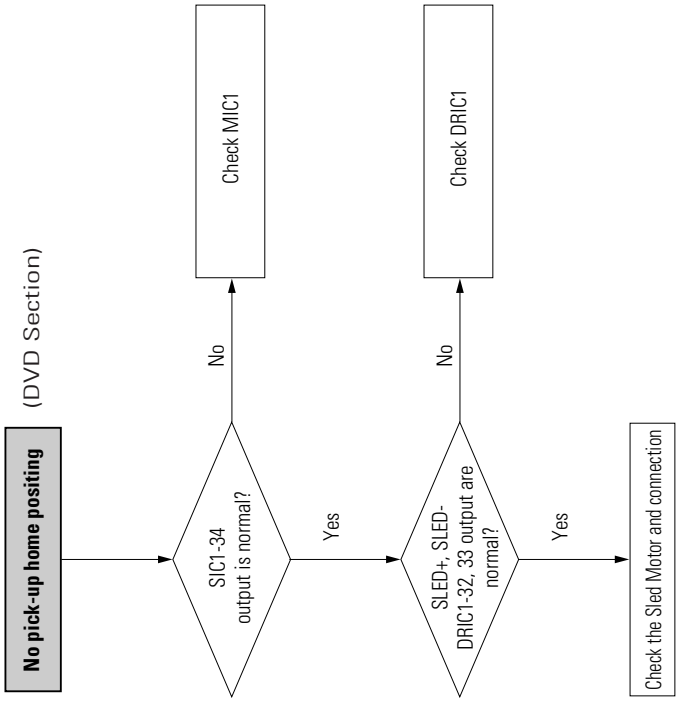

AUDIO MISSING IN EE MODE
(VCR Section)
PLACE VCR IN STOP MODE
INPUT SELECT MODE
LINE
IC501-9, 14 AUDIO SIGNAL INPUT
NO
CHECK R501, R503, R519, R520
TUNER
IC501-48 AUDIO SIGNAL INPUT
NO
CHECK C529, TUNER BLOCK
YES
IC501-36 A.MUTE
NO
CHECK IC601
YES
IC501-53, 57 AUDIO SIGNAL
NO
CHECK IC501
YES
CHECK C535, C537, R510, R512, R511, R513

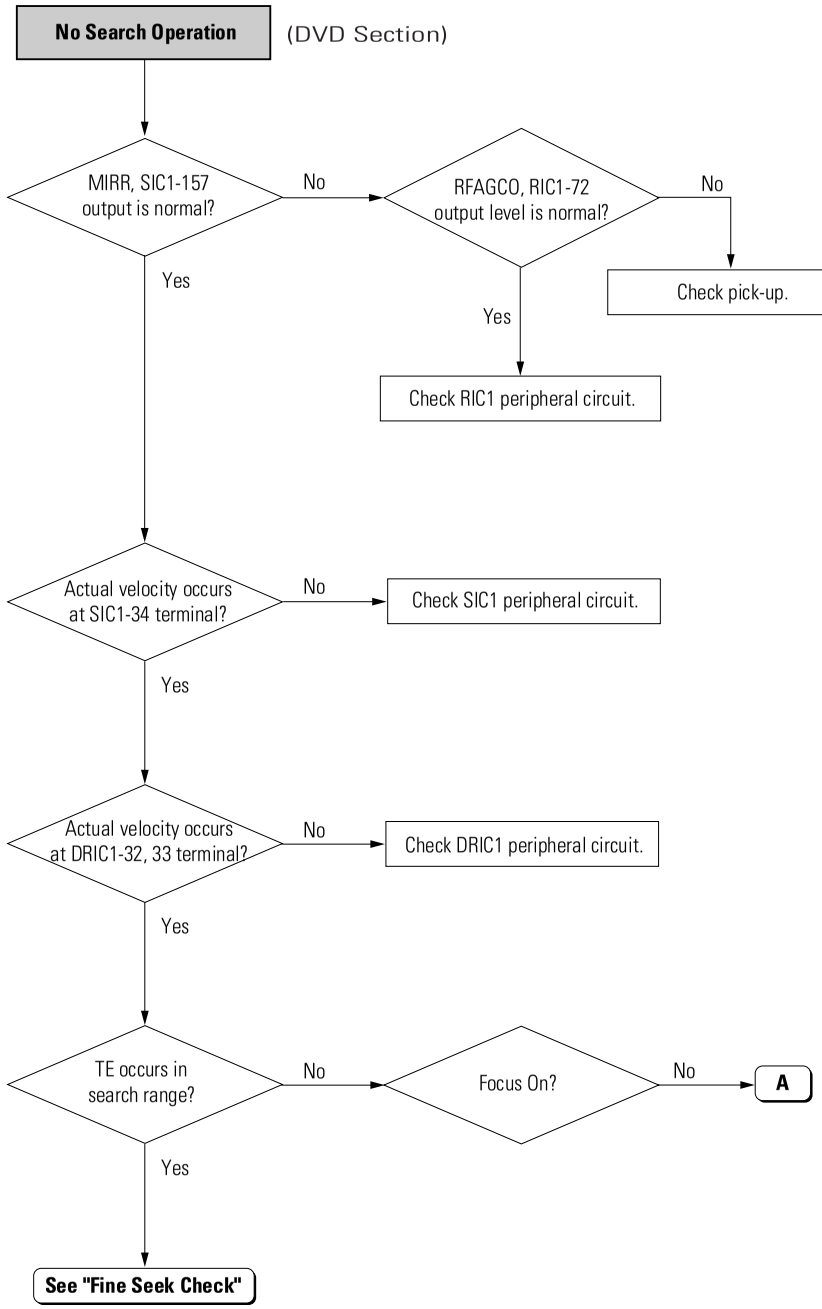

DRUM DOES NOT ROTATE
(VCR Section)
IC604-8 12V
NO
CHECK 12V AT PC12V LINE IN THE POWER BLOCK
YES
PLACE THE VCR IN PLAY MODE
CYL-SPEED
FASTER
CHECK D-PG, D-FG IC601-65
SLOWER
XT601-37, 38 (14.381)
NO
CHANGE XT601, C618, C619
YES
CHECK CYLINDER MOTOR

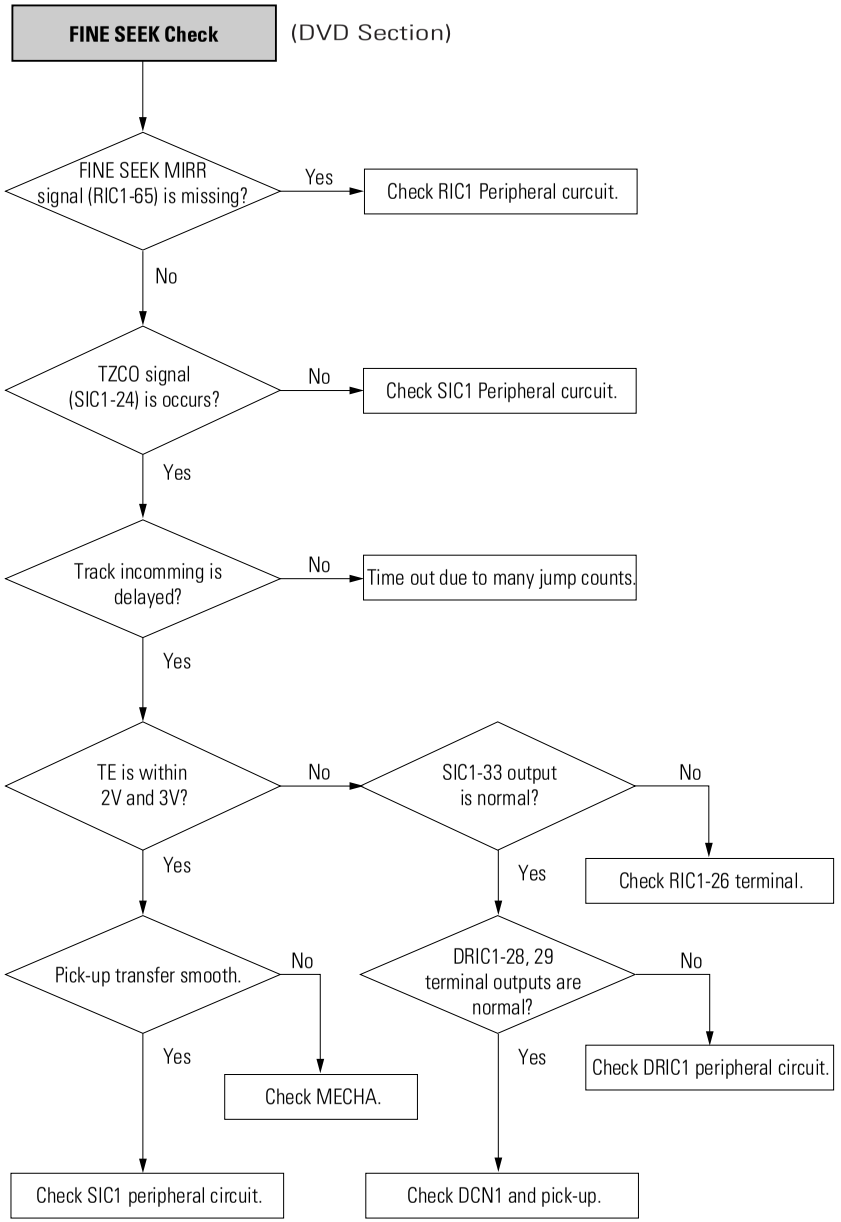

No focus incoming
(DVD Section)
A
FE in SIC1-25 is within specified range?
No
Check RIC1 and A, B, C, D input.
Yes
DRIC1-26, 27 output are normal?
No
Check DRIC1.
Yes
Check open state from DRIC1 to pick-up.

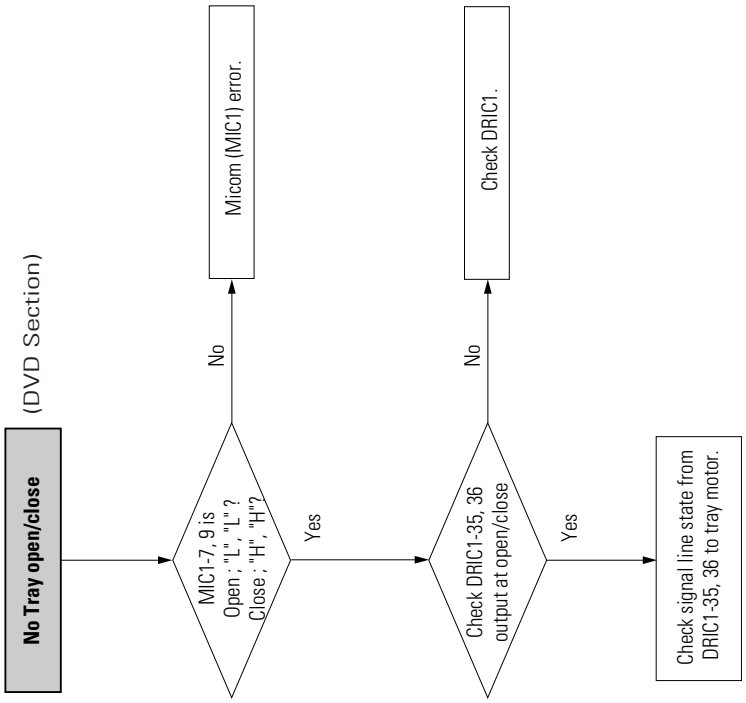

No Disc recognition
(DVD Section)
LD is outputted from object lens at play key input?
No
B
Yes
No focus incoming and no disc occurs.
A

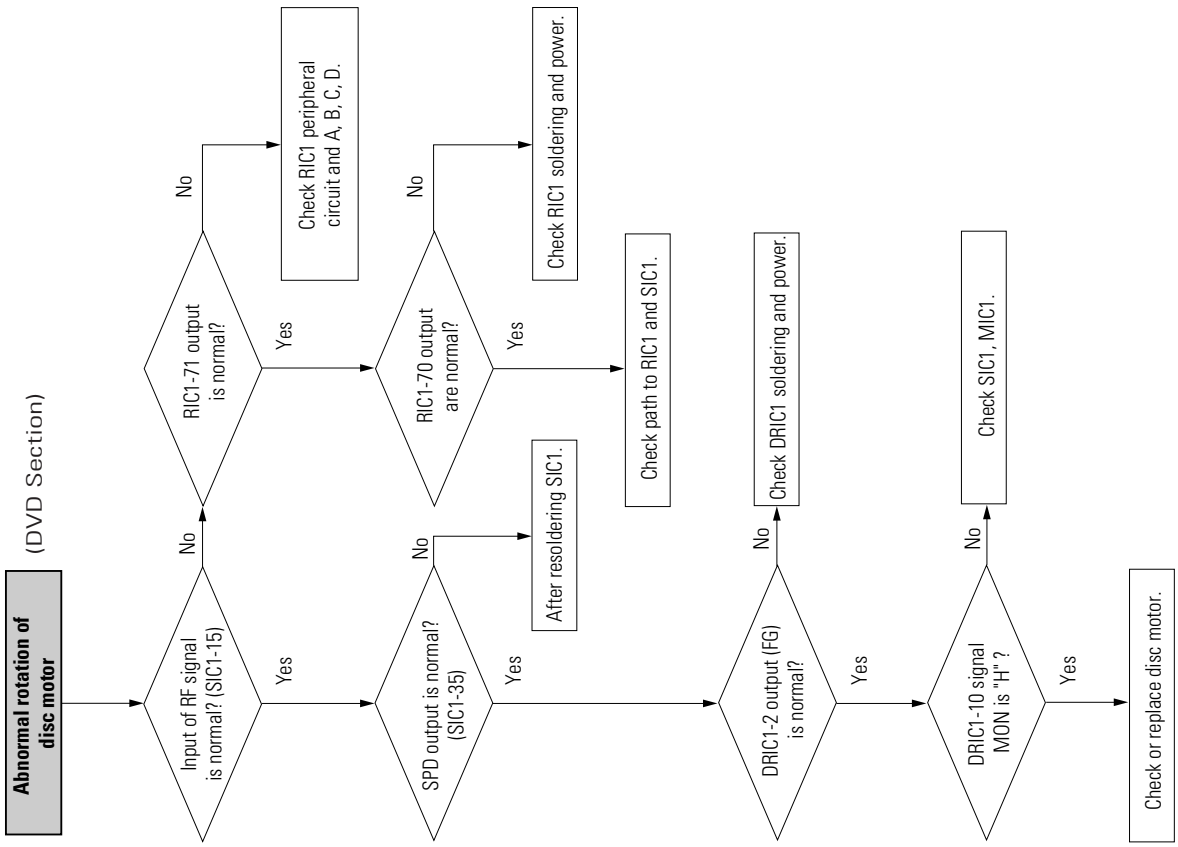

NO LD CD ON
(DVD Section)
B
RIC1-19 is 5V?
No
Check MIC1
Yes
Divide RQ2 emitter terminal voltage and 5V real voltage difference into 10ohm.
Yes
Current exceeds 0.1A?
No
Open check in related circuit.
Yes
LD out pick-up replace.

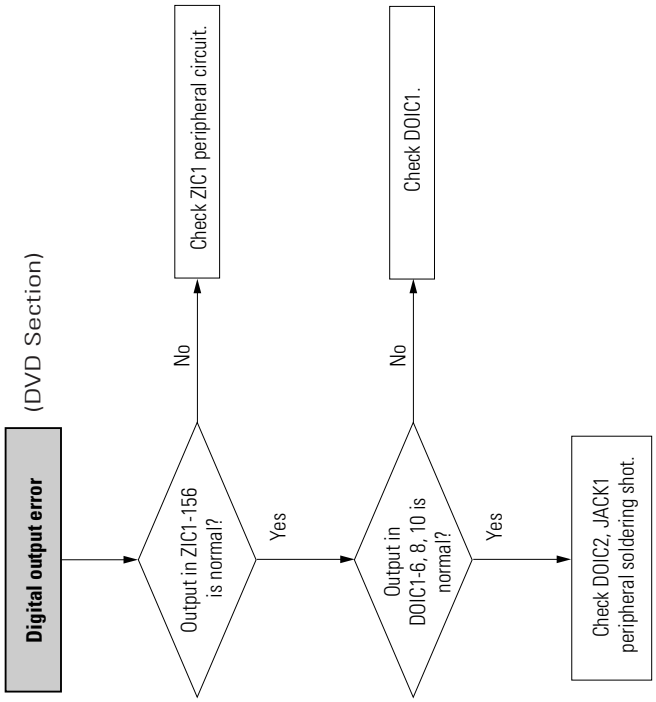

No pick-up home positing
(DVD Section)
SIC1-34 output is normal?
No
Check MIC1
Yes
SLED+, SLED- DRIC1-32, 33 output are normal?
No
Check DRIC1
Yes
Check the Sled Motor and connection

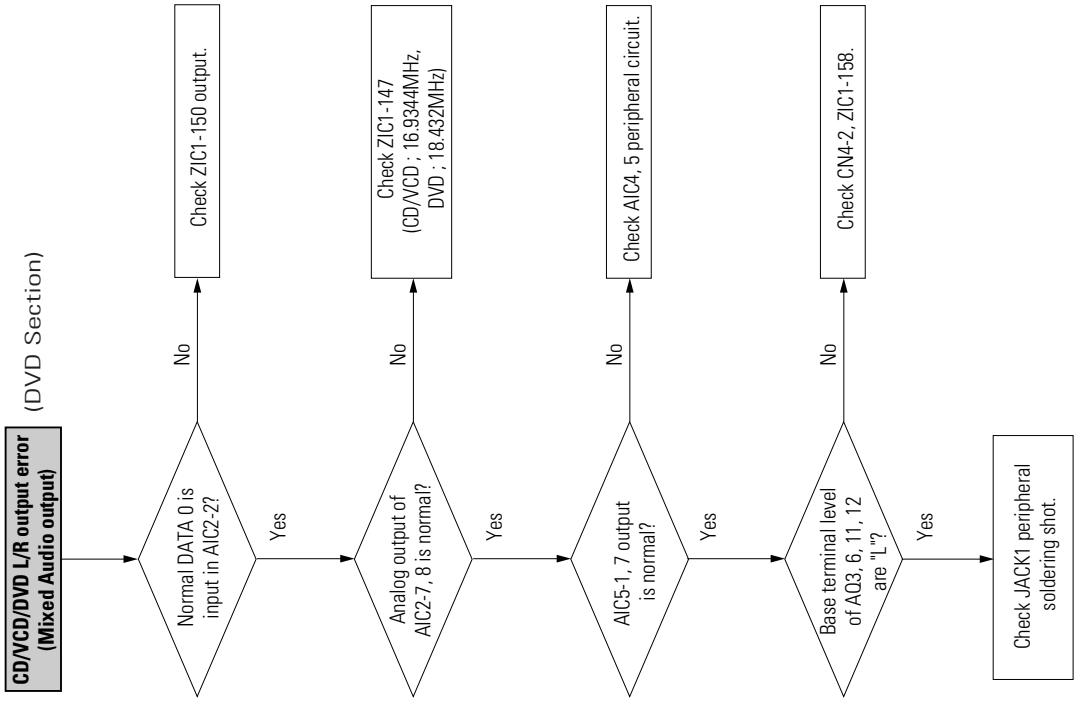

No Search Operation
(DVD Section)
MIRR, SIC1-157 output is normal?
No
RFAGCO, RIC1-72 output level is normal?
No
Check pick-up.
Yes
Check RIC1 peripheral circuit.
Yes
Actual velocity occurs at SIC1-34 terminal?
No
Check SIC1 peripheral circuit.
Yes
Actual velocity occurs at DRIC1-32, 33 terminal?
No
Check DRIC1 peripheral circuit.
Yes
TE occurs in search range?
No
Focus On?
No
A
Yes
See "Fine Seek Check"

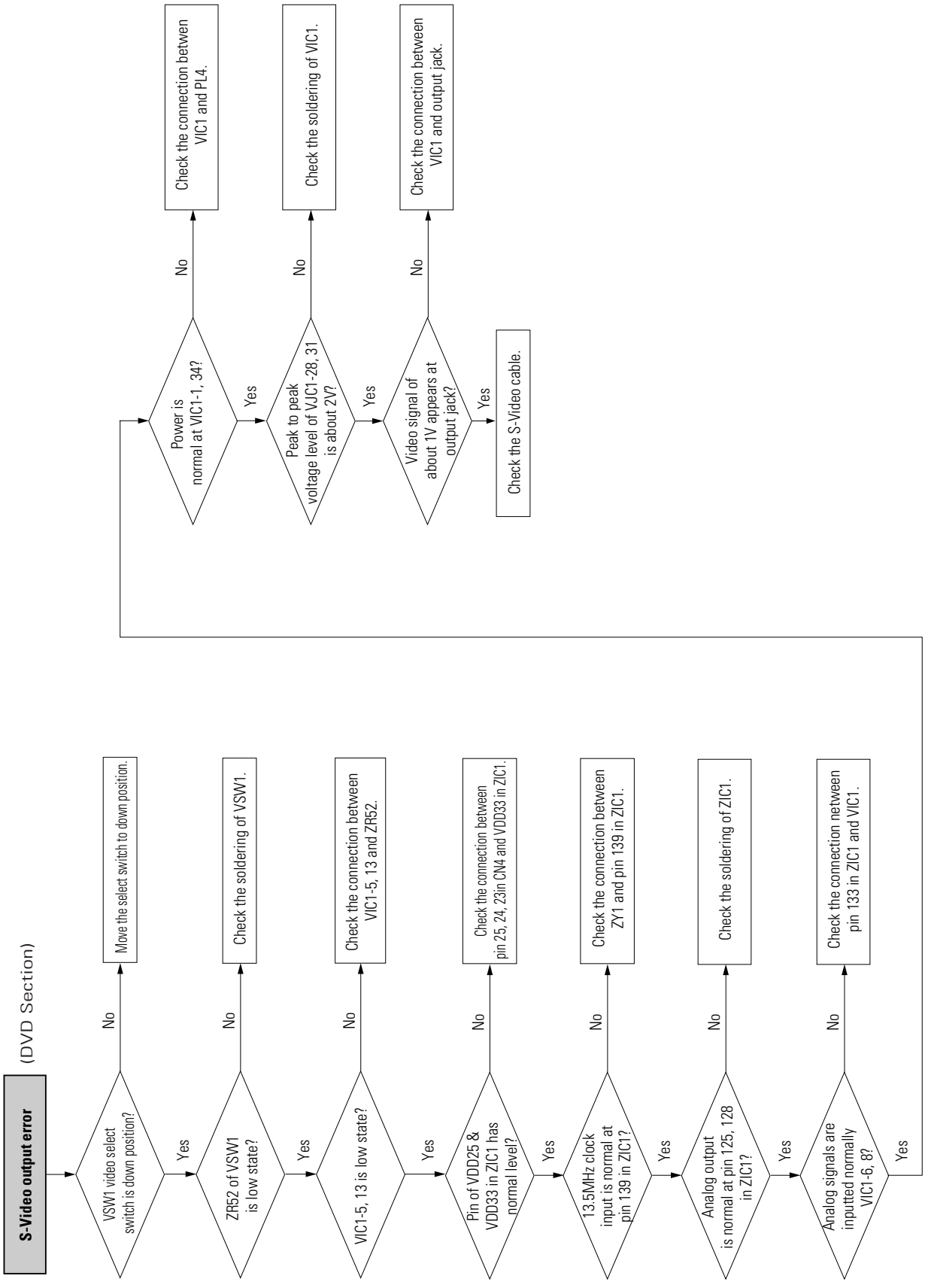

FINE SEEK Check
(DVD Section)
FINE SEEK MIRR signal (RIC1-65) is missing?
Yes
Check RIC1 Peripheral curcuit.
No
TZCO signal (SIC1-24) is occurs?
No
Check SIC1 Peripheral curcuit.
Yes
Track incomming is delayed?
No
Time out due to many jump counts.
Yes
TE is within 2V and 3V?
No
SIC1-33 output is normal?
No
Check RIC1-26 terminal.
Yes
Yes
Pick-up transfer smooth.
No
Check MECHA.
Yes
DRIC1-28, 29 terminal outputs are normal?
No
Check DRIC1 peripheral circuit.
Yes
Check SIC1 peripheral circuit.
Check DCN1 and pick-up.

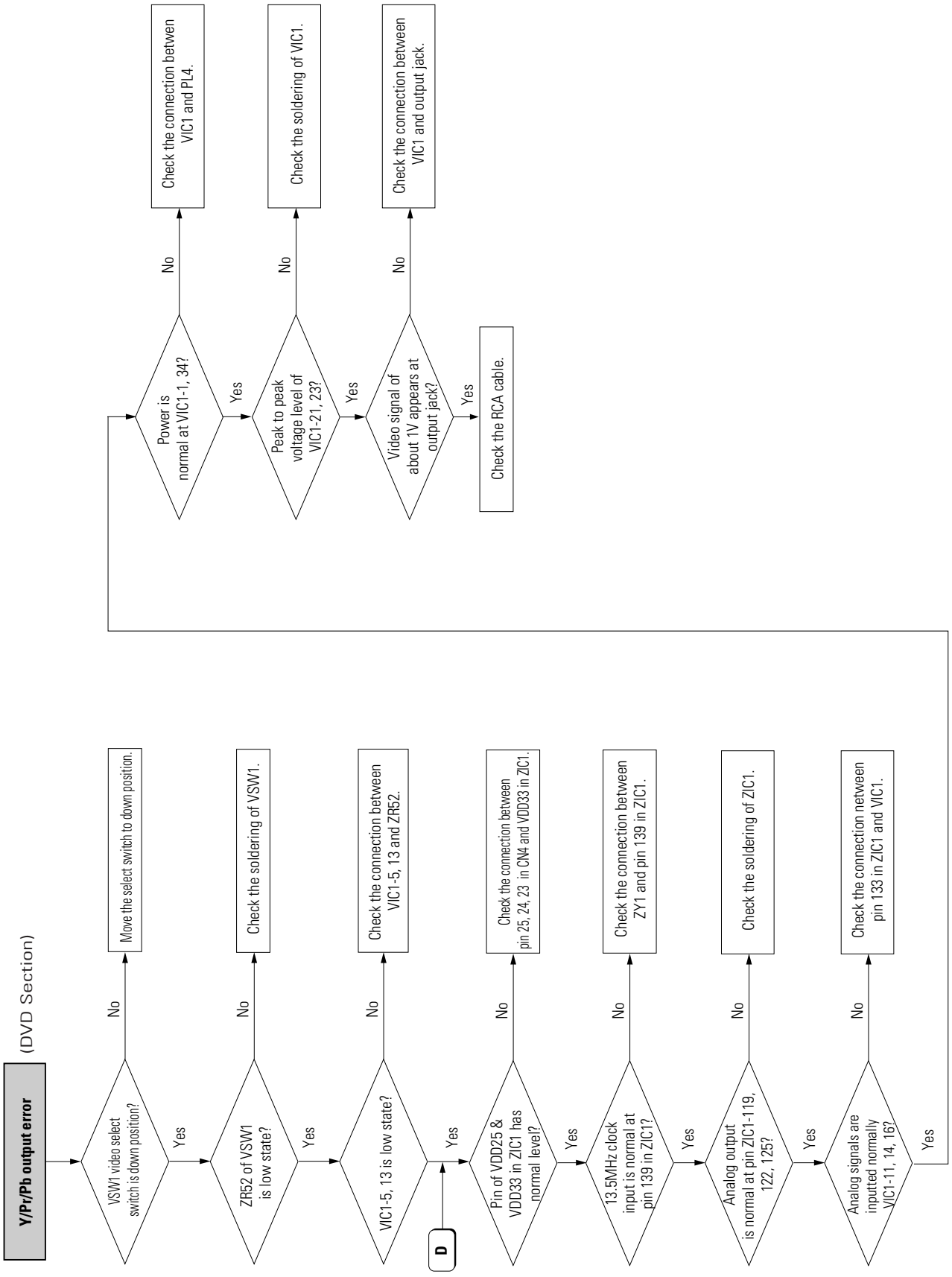

No Tray open/close
(DVD Section)
MIC1-7, 9 is
Open : "L", "L" ?
Close : "H", "H"?
No
Micom (MIC1) error.
Yes
Check DRIC1-35, 36
output at open/close
No
Check DRIC1.
Yes
Check signal line state from
DRIC1-35, 36 to tray motor.

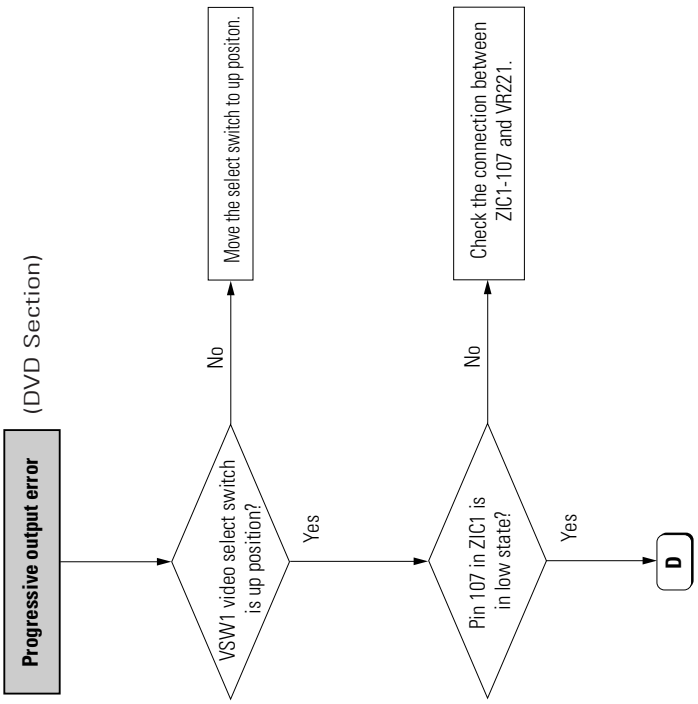

Abnormal rotation of
disc motor
(DVD Section)
Input of RF signal
is normal? (SIC1-15)
No
RIC1-71 output
is normal?
No
Check RIC1 peripheral
circuit and A, B, C, D.
Yes
RIC1-70 output
are normal?
No
Check RIC1 soldering and power.
Yes
Check path to RIC1 and SIC1.
Yes
SPD output is normal?
(SIC1-35)
No
After resoldering SIC1.
Yes
DRIC1-2 output (FG)
is normal?
No
Check DRIC1 soldering and power.
Yes
DRIC1-10 signal
MON is "H" ?
No
Check SIC1, MIC1.
Yes
Check or replace disc motor.

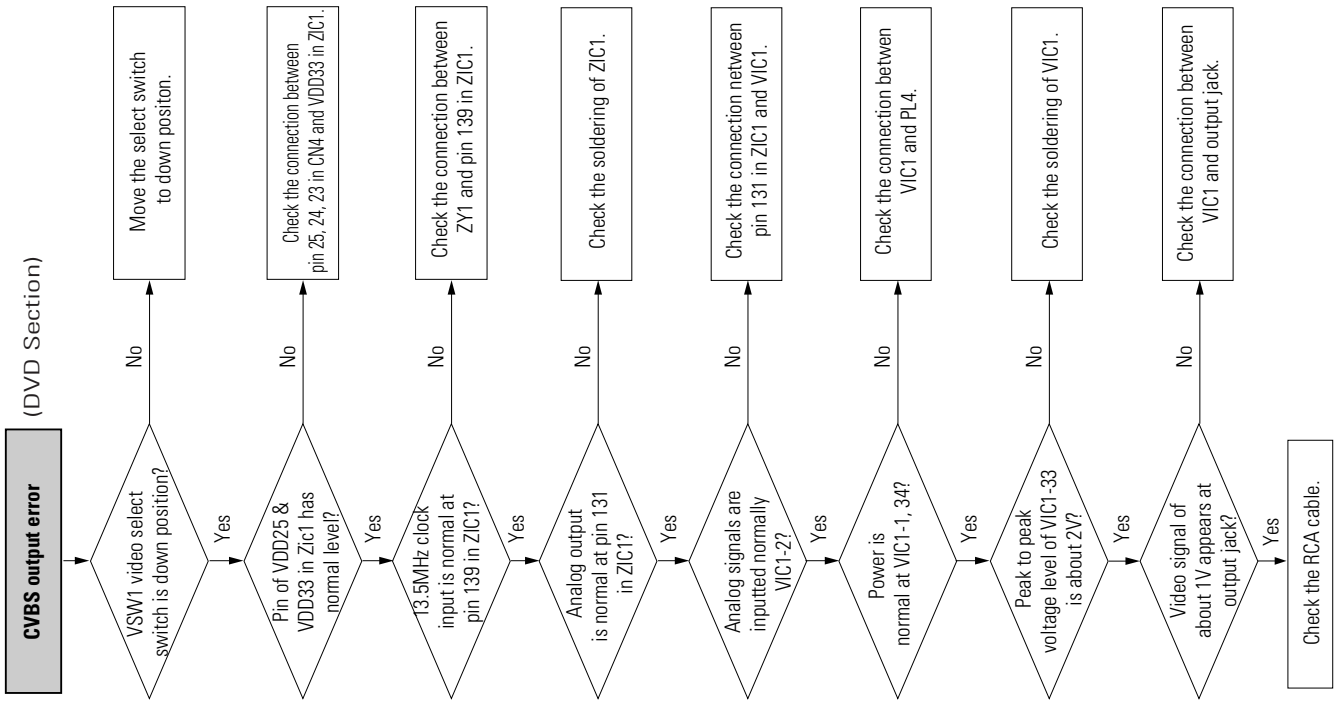

Digital output error
(DVD Section)
Output in ZIC1-156 is normal?
No
Check ZIC1 peripheral circuit.
Yes
Output in DOIC1-6, 8, 10 is normal?
No
Check DOIC1.
Yes
Check DOIC2, JACK1 peripheral soldering shot.

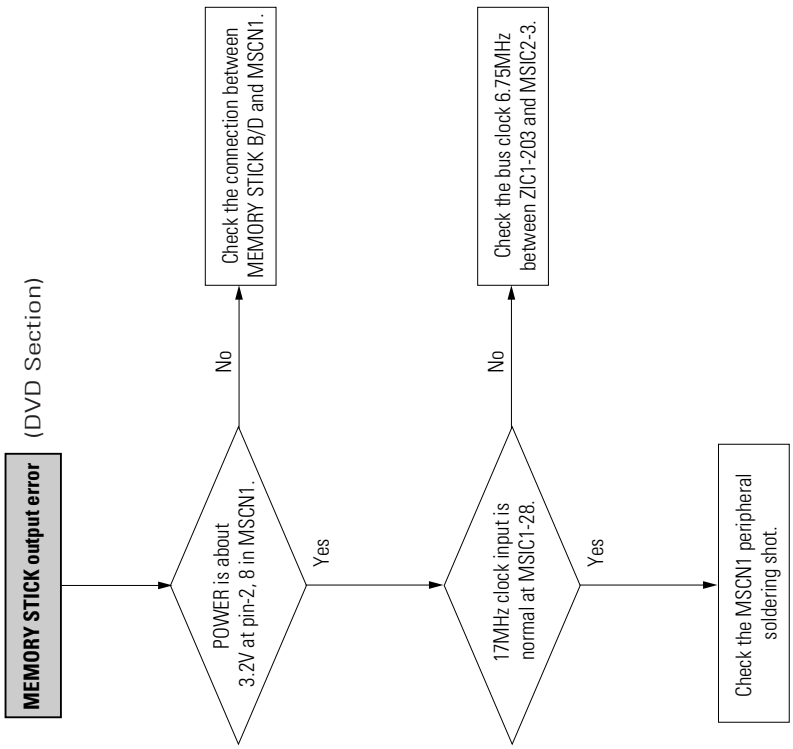

CD/VCD/DVD L/R output error (Mixed Audio output)
(DVD Section)
Normal DATA 0 is input in AIC2-2?
No
Check ZIC1-150 output.
Yes
Analog output of AIC2-7, 8 is normal?
No
Check ZIC1-147 (CD/VCD ; 16.9344MHz, DVD ; 18.432MHz)
Yes
AIC5-1, 7 output is normal?
No
Check AIC4, 5 peripheral circuit.
Yes
Base terminal level of AQ3, 6, 11, 12 are "L"?
No
Check CN4-2, ZIC1-158.
Yes
Check JACK1 peripheral soldering shot.


S-Video output error
(DVD Section)
VSW1 video select switch is down position?
No
Move the select switch to down position.
Yes
ZR52 of VSW1 is low state?
No
Check the soldering of VSW1.
Yes
VIC1-5, 13 is low state?
No
Check the connection between VIC1-5, 13 and ZR52.
Yes
Pin of VDD25 & VDD33 in ZIC1 has normal level?
No
Check the connection between pin 25, 24, 23in CN4 and VDD33 in ZIC1.
Yes
13.5MHz clock input is normal at pin 139 in ZIC1?
No
Check the connection between ZY1 and pin 139 in ZIC1.
Yes
Analog output is normal at pin 125, 128 in ZIC1?
No
Check the soldering of ZIC1.
Yes
Analog signals are inputted normally VIC1-6, 8?
No
Check the connection netween pin 133 in ZIC1 and VIC1.
Yes
Power is normal at VIC1-1, 34?
No
Check the connection betwen VIC1 and PL4.
Yes
Peak to peak voltage level of VJC1-28, 31 is about 2V?
No
Check the soldering of VIC1.
Yes
Video signal of about 1V appears at output jack?
No
Check the connection between VIC1 and output jack.
Yes
Check the S-Video cable.


Y/Pr/Pb output error
(DVD Section)
VSW1 video select switch is down position?
No
Move the select switch to down position.
Yes
ZR52 of VSW1 is low state?
No
Check the soldering of VSW1.
Yes
VIC1-5, 13 is low state?
No
Check the connection between VIC1-5, 13 and ZR52.
Yes
D
Pin of VDD25 & VDD33 in ZIC1 has normal level?
No
Check the connection between pin 25, 24, 23 in CN4 and VDD33 in ZIC1.
Yes
13.5MHz clock input is normal at pin 139 in ZIC1?
No
Check the connection between ZY1 and pin 139 in ZIC1.
Yes
Analog output is normal at pin ZIC1-119, 122, 125?
No
Check the soldering of ZIC1.
Yes
Analog signals are inputted normally VIC1-11, 14, 16?
No
Check the connection netween pin 133 in ZIC1 and VIC1.
Yes
Power is normal at VIC1-1, 34?
No
Check the connection betwen VIC1 and PL4.
Yes
Peak to peak voltage level of VIC1-21, 23?
No
Check the soldering of VIC1.
Yes
Video signal of about 1V appears at output jack?
No
Check the connection between VIC1 and output jack.
Yes
Check the RCA cable.


Progressive output error
(DVD Section)
VSW1 video select switch is up position?
No
Move the select switch to up positon.
Yes
Pin 107 in ZIC1 is in low state?
No
Check the connection between ZIC1-107 and VR221.
Yes
D

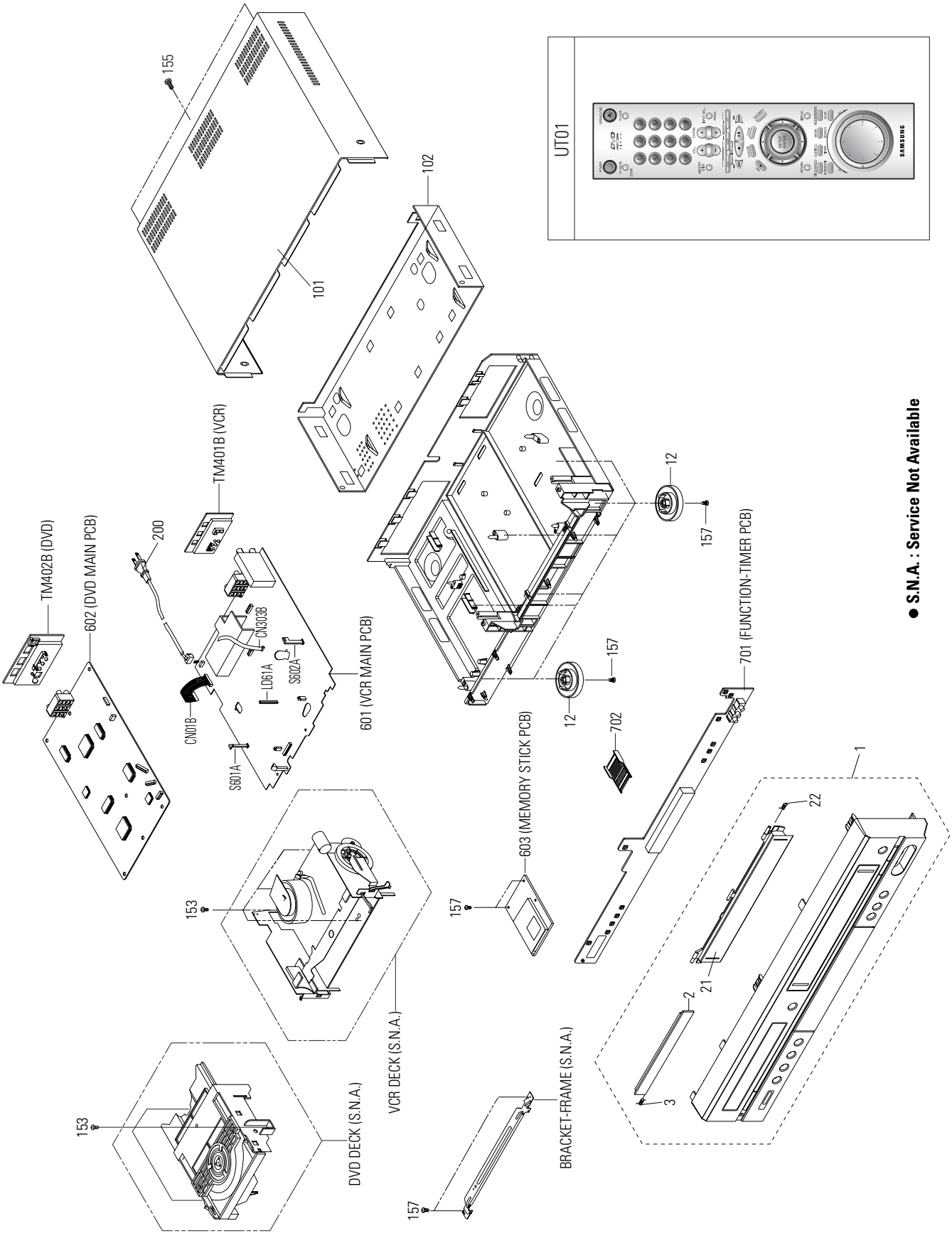

CVBS output error
(DVD Section)
VSW1 video select switch is down position?
No
Move the select switch to down positon.
Yes
Pin of VDD25 & VDD33 in Zic1 has normal level?
No
Check the connection between pin 25, 24, 23 in CN4 and VDD33 in ZIC1.
Yes
13.5MHz clock input is normal at pin 139 in ZIC1?
No
Check the connection between ZY1 and pin 139 in ZIC1.
Yes
Analog output is normal at pin 131 in ZIC1?
No
Check the soldering of ZIC1.
Yes
Analog signals are inputted normally VIC1-2?
No
Check the connection netween pin 131 in ZIC1 and VIC1.
Yes
Power is normal at VIC1-1, 34?
No
Check the connection betwen VIC1 and PL4.
Yes
Peak to peak voltage level of VIC1-33 is about 2V?
No
Check the soldering of VIC1.
Yes
Video signal of about 1V appears at output jack?
No
Check the connection between VIC1 and output jack.
Yes
Check the RCA cable.


MEMORY STICK output error
(DVD Section)
POWER is about 3.2V at pin-2, 8 in MSCN1.
No
Check the connection between MEMORY STICK B/D and MSCN1.
Yes
17MHz clock input is normal at MSIC1-28.
No
Check the bus clock 6.75MHz between ZIC1-203 and MSIC2-3.
Yes
Check the MSCN1 peripheral soldering shot.

MEMO

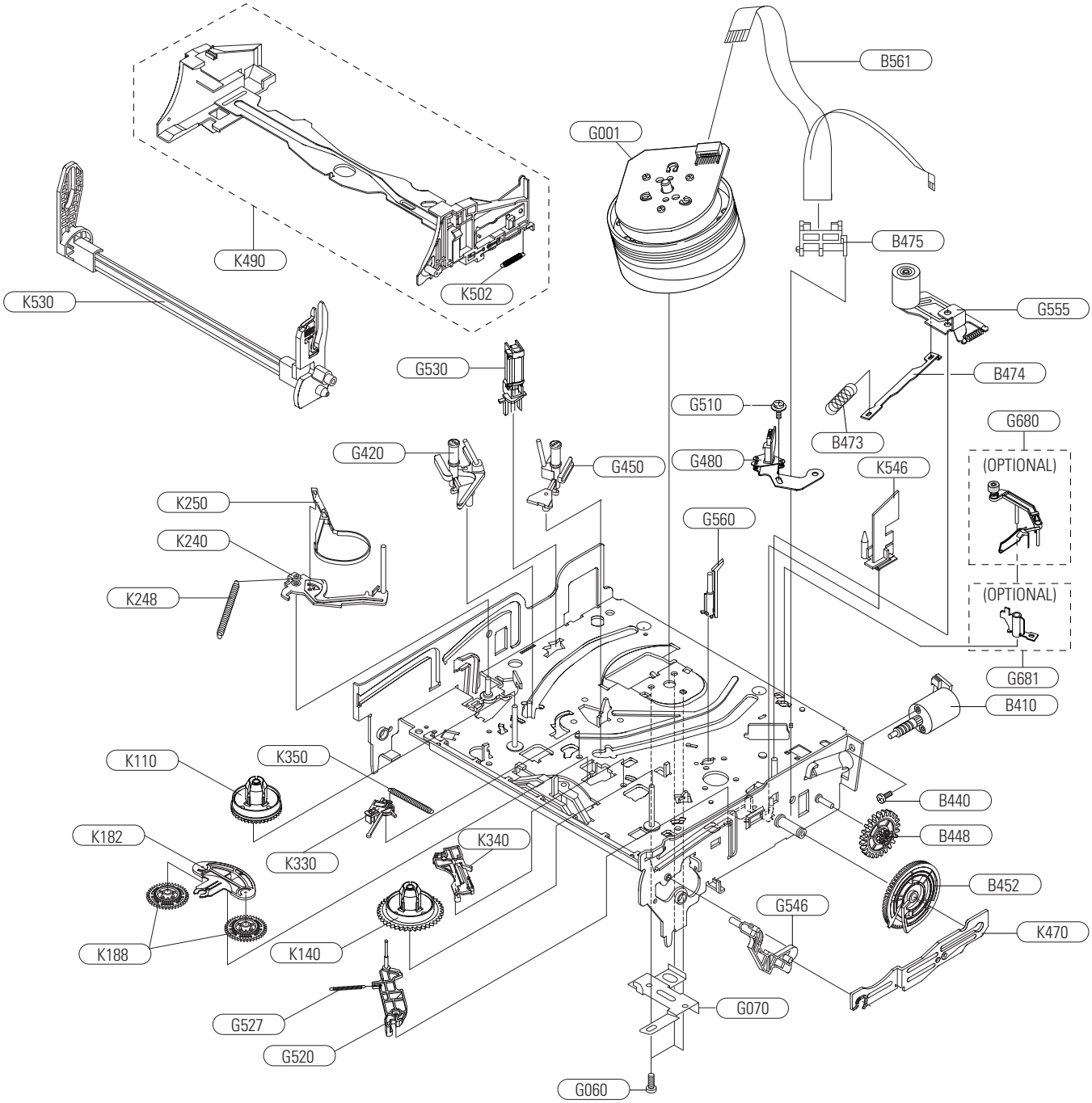
6. Exploded View and Parts List

6-1 Cabinet Assembly



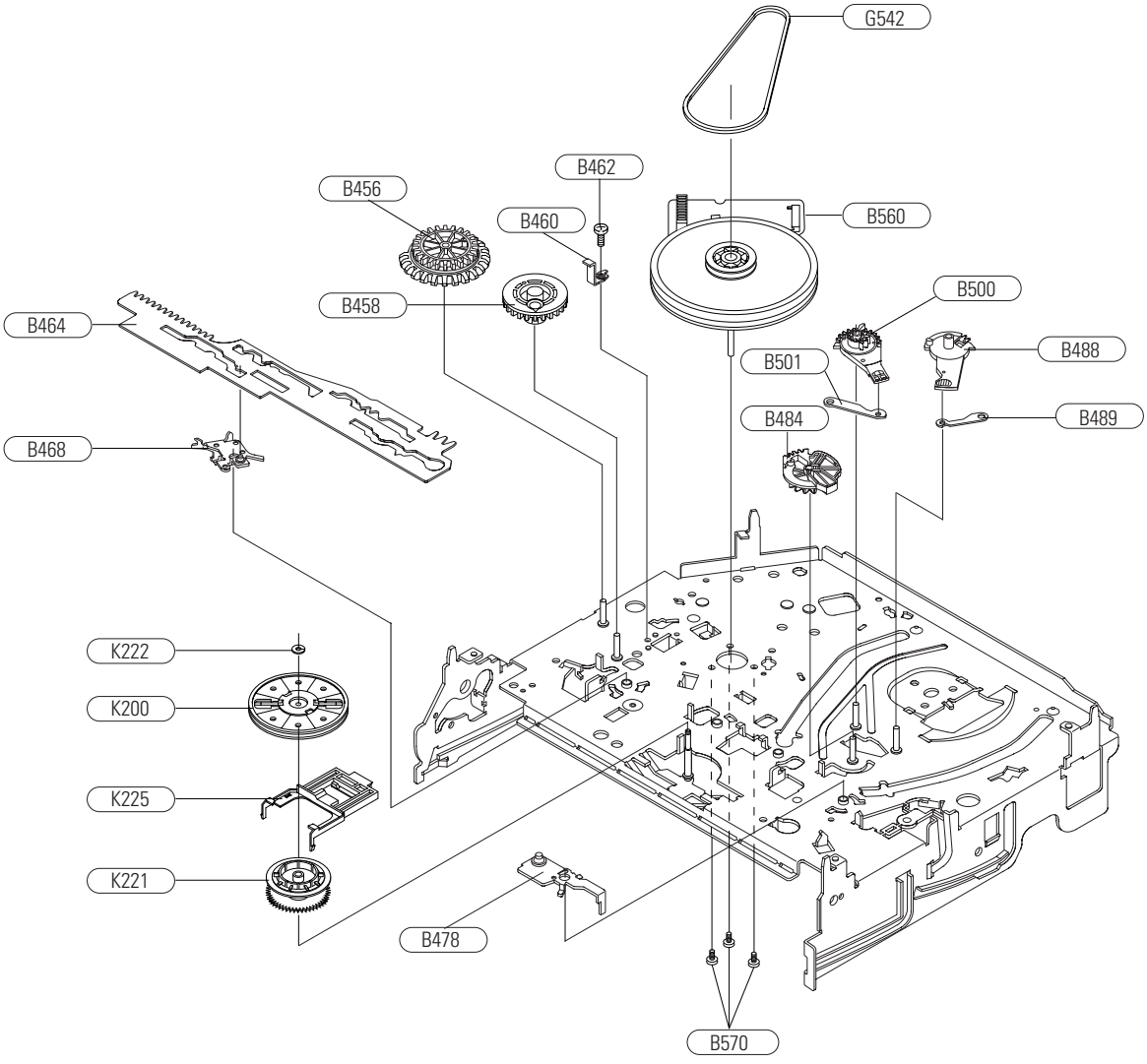
Loc. No	Parts No.	Description ; Specification	Remark
1	AK97-00117A	ASSY-PANEL FRONT;HIPS94V2,DVD-V2500,SILV	
2	AK64-00010A	DOOR-TRAY;DVD-V2500,ABS 94HB,-,-,-,-,SIL	
3	AC61-00267A	SPRING ETC-DOOR TRAY;DVD-V5000K,SUS304,-	
12	AC64-42114A	DECORATION-LEG;-,HB,D/GRY,-,-,-,-,SV-900	
21	AK64-00006A	DOOR-CASSETTE;DVD-V2500,ABS 94HB,-,-,-,-	
22	AK61-00014A	SPRING ETC;COMBO,SUS304,-,-,-,-,-,-,-,-,	
101	AC64-00992B	CABINET;SV-DVD3E,PCM T0.6,-,-,-,-,SV-3	
102	AC63-00077A	COVER-BOTTOM;DVD-V2000,SECC,T0.5,-,430,-	
153	AC60-12126A	SCREW-BH;-,-,FE,FZY,BH,-,-,4*12,-,-	
155	6003-000275	SCREW-TAPTITE;BH,+,B,M3,L10,BLK ,SWCH101	
157	AC60-10063A	SCREW-TAPTITE;-,-,L12,ZPC3,+,-,M3,-,SWRC	
200	AC39-10200N	CBF POWER CORD;EP2,SPT-2,AWG#18,1.8MT,WA	
601	AC92-01223C	ASSY PCB-MAIN(VCR);DVD-V2500,SEA,SELLINO	
602	AK92-00004A	ASSY PCB-MAIN(DVD);DVD-V2500,STEP-UP,DVD,MAIN	
603	AK92-00101A	ASSY PCB-M STICK;DVD-V2500,SV-DVD1000,20	
701	AC94-00150C	ASSY SORT-FUNCTION;DVD-V2500,COMBO-3	
702	3711-005008	CONNECTOR-HEADER;NOWALL,20P,1R,1.5MM,STR	
CN01B	3809-001317	CABLE-FLAT;30V,80C,80MM,27P,1.25MM,UL289	
CN303B	3809-001206	CABLE-FLAT;30V,-20to+80C,140mm,6P,1.25mm	
LD61A	AC61-21009A	HOLDER-LED;X-9,POM(M90-44),-,-,-,BLK,-	
S601A	AC61-00229A	HOLDER-SENSOR;SCORPIO2,POM,-,-,-,BLACK,-	
S602A	AC61-00229A	HOLDER-SENSOR;SCORPIO2,POM,-,-,-,BLACK,-	
TM401B	AC61-00292A	CONNECTOR BOARD;DVD-V2000-VCR,HIPS,T2,-,	
TM402B	AC97-01876A	ASSY-CONNECTOR BOARD;HIPS94HB,DVD-V2500,	
UT01	AK59-00001A	REMOCON-ASSY;DVD-V2500/XAA,-,-,-,47,-,-,	

6-2 VCR Mechanical Parts (Top Side)



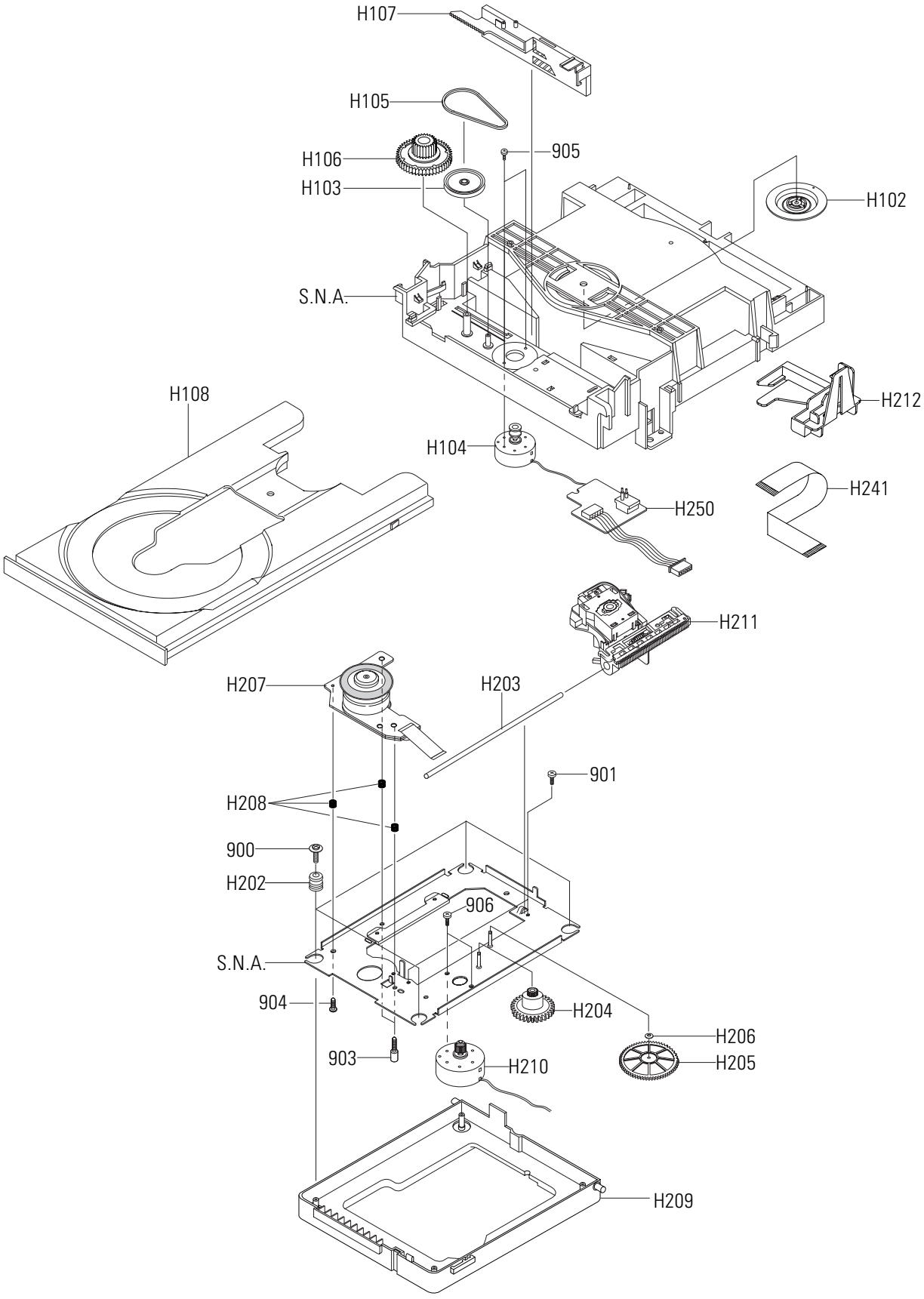
Loc. No	Parts No.	Description ; Specification	Remark
B410	AC31-00018A	MOTOR-LOADING ASSY;-,SCORPIO2(TS-10A),-,	
B440	AC60-10515A	SCREW-MACHINE;-,-,M3,L3,PH,+,-,-,ZPC,-	
B448	AC66-00008A	GEAR-WORM WHEEL;TS-10,POM,0.8,40,-,NAT,3	
B452	AC66-00011A	GEAR-FL CAM;TS-10,POM,0.8,59,-,BLK,48.48	
B473	AC61-00105A	SPRING ETC-PINCH DRIVE;TS-10,SUS304-WPB,	
B474	AC61-30180A	PLATE-JOINT;X-9,SECC20/20,T0.8,-,-,-,-	
B475	AC47-00003A	DAMPER-CAPSTAN;SCORPIO2,POM, NATUAL,-,-,	
B561	3809-001270	CABLE-FLAT;30V,80C,140MM,10P,1.25MM,UL28	
G001	AC97-01707A	ASSY-CYLINDER;NTSC, 6NJ,SCORPIO2,SEM'S D	
G060	6006-001092	SCREW-ASS'Y MACH;WS,PH,+,M3.0,L6.0,ZPC(Y	
G070	AC61-00161A	PLATE-GROUND DECK;TS-10,SPTE,T0.3,-,-,-,	
G420	AC66-80142A	SLIDER-SUPPLY ASSY;X-9,X-9(TS),-,-,-,-,-	
G450	AC66-80141A	SLIDER-TAKE UP ASSY;X-9,X-9(TS),-,-,-,-,	
G480	AC97-01655A	ASSY-HEAD ACE;-,SCORPIO2(TS-10A),HVMXA11	
G510	6006-001075	SCREW-ASS'Y TAPT;WSP,PH,+,M2.6,L5.0,ZPC(	
G520	AC66-00033A	LEVER-#9 GUIDE ASS'Y;TS-10,-,-,-,-,-,-,-	
G527	AC61-60553A	SPRING ETC-GUIDE 9;X-9,SUS304-WPB,0.25,-	
G530	AC33-00007A	HEAD-FE;-,-,HVFHPO043A,-,-	
G546	AC66-00005A	LEVER-FL DOOR;TS-10,POM,-,-,-,-,NAT,-	
G555	AC66-00032A	LEVER-UNIT PINCH ASS'Y;TS-10,-,-,-,-,-,-	
G680	AC66-00046A	LEVER-HEAD CLEANER ASS'Y;TS-10,POM+URETH	(OPTIONAL)
G681	AC61-50686A	SLEEVE-HEAD CLEANER;-,POM,-,-,-,-,-,-,TS	(OPTIONAL)
K110	AC66-10267A	REEL-DISK S;X-9,POM,-,-,-,-,-,-	
K140	AC66-10268A	REEL-DISK T;X-9,POM,-,-,-,-,-,-	
K182	AC66-30524A	LEVER-IDLER;-,POM,-,-,-,-,-,-	
K188	AC66-00039A	GEAR-IDLE;TS-10,PET K3372,0.5,-,-,NTR,28	
K240	AC66-00035A	LEVER-TENSION ASS'Y;TS-10,SECC E20/20+SU	
K248	AC61-00107A	SPRING ETC-TENSION LEVER;TS-10,SUS304-WP	
K250	AC69-00104A	BAND-BRAKE ASS'Y;TS-10,-,-,-,-,-,-	
K330	AC66-30550A	LEVER-S.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K340	AC66-30549A	LEVER-T.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K350	AC61-00106A	SPRING ETC-BRAKE;TS-10,SUS304-WPB,-,-,-,	
K470	AC66-00020A	SLIDER-FL DRIVE;TS-10,SECC E20/20,1.0,-,	
K490	AC61-00120A	HOLDER-FL CASS. ASS'Y;TS-10,-,-,-,-,-,-	
K502	AC61-60561A	SPRING ETC-FL.LEVER-LR;X-9,SUS304 WPB,OD	
K530	AC66-00034A	LEVER-FL ARM ASS'Y;TS-10,-,-,-,-,-,-,-	
K546	AC61-50658A	GUIDE-CASS. DOOR;X-9,POM,-,-,-,NTR	

6-3 VCR Mechanical Parts (Bottom Side)



Loc. No	Parts No.	Description ; Specification	Remark
B456	AC66-00009A	GEAR-JOINT 1;TS-10,POM,1.5,17.5(22),-,NA	
B458	AC66-00012A	GEAR-JOINT 2;TS-10,POM,1.0,23,-,BLK,24.6	
B460	AC61-00090A	BRACKET-GEAR;TS-10,SECC E20/20,0.8,-,-,-	
B462	AC60-10517A	SCREW-TAP TITE;-,-,M2.6,L5,PH,+,-,-,ZPC,	
B464	AC66-00019A	SLIDER-CAM;TS-10,SECC E20/20,1.2,-,-,-,-	
B468	AC66-00017A	LEVER-PINCH DRIVE;TS-10,SECC E20/20,1.0	
B478	AC66-00016A	LEVER-TENSION DRIVE;TS-10,SECC E20/20,1	
B484	AC66-00030A	GEAR-LOADING DR. ASS'Y;TS-10,POM+SWPB,-,	
B488	AC66-00023A	LEVER-S LOADING;TS-10,POM,-,-,-,-,NAT,-	
B489	AC66-00021A	LINK-LOADING S;TS-10,SECC E20/20,0.8,-,-	
B500	AC66-00024A	LEVER-T LOADING;TS-10,POM,-,-,-,-,NAT,-	
B501	AC66-00022A	LINK-LOADING T;TS-10,SECC E20/20,0.8,-,-	
B560	AC31-00016A	MOTOR-CAPSTAN;F2QVB05,SCORPIO2(TS-10A),-	
B570	AC60-10514A	SCREW-CAPSTAN;-,-,M2.6,L6,PH,+,-,-,-,-	
G542	AC66-60051A	BELT-PULLEY;-,5CM-70,2 * 2,-,71.3,-,X-9	
K200	AC61-21012A	HOLDER-CLUTCH ASSY;X-9,-,-,-,-,-,-	
K221	AC66-20581A	GEAR-CENTER ASSY;-,POM,M=0.5,-,HIGHT T.,	
K222	AC60-30306A	FASTENER-WASHER SLIT;-,-,ID2.1,OD5.0,T0.	
K225	AC66-00006A	LEVER-UP DOWN;TS-10,POM,-,-,-,-,NAT,-	

6-4 DVD Mechanical Parts



Loc. No	Parts No.	Description ; Specification		Remark
900	6003-001157	SCREW-TAPTITE;PWH,+,B,M2,L6,ZPC(YEL),SWR		
901	6001-001522	SCREW-MACHINE;FH,+,M2.6,L7,ZPC(YEL),SWRC		
903	6009-001245	SCREW-SPECIAL;SWRCH18A,NYLOCK,SOCKET,HEX		
904	6001-001466	SCREW-MACHINE;BH,+,M2,L6,ZPC(BLK),SWRCH1		
905	6001-001257	SCREW-MACHINE;PWH,+,M1.7,L3,ZPC(YEL),SWR		
906	AH60-00010A	SCREW-MACHINE-MOTOR;-,+,SWCH18AK,M1.7,L2		
H102	AH66-00111B	CLAMPER-ASSY;DP-5,POM+MAGNET,-,-,-,-,-,-		
H103	AH66-00123A	PULLEY-GEAR;DP-7,POM M90-44,-,-,-,-,-,-		
H104	AH31-00024A	MOTOR-LOAD ASSY;SM-2412L2,DP-7,-,-,-,-,-		
H105	6602-001076	BELT-RECTANGULAR;CR,T1.2,4.3%,1.2X25.1,B		
H106	AH66-00124A	GEAR-TRAY;DP-7,POM,M90-44,-,-,-,-,-,-		
H107	AH66-00125A	SLIDER-HOUSING;DP-7,POM,-,-,-,-,-		
H108	AH63-00422A	TRAY-DISC;-,ABS,-,-,-,-,BLK,DP-7S		
H202	AH73-00023A	RUBBER-INSULATOR;BUTYL RUBBER,-,DP-3,¡¯?	4.000	
H203	AH61-50327A	SHAFT-P/U;DP-3,SUS420J2,L84.7,OD3,-,-,-		
H204	AH66-00075A	GEAR-FEED A;-,POM M90-44,-,-,-,-,-,-,-,-		
H205	AH66-00170A	GEAR-FEED B;DP-7S,POM M90-44,0.5,14,-,-,		
H206	AC60-30306A	FASTENER-WASHER SLIT;-,-,ID2.1,OD5.0,T0.		
H207	AH31-00032A	MOTOR SPINDLE;RSM-2610F1,DP-7S,-,-,-,12V		
H208	AH61-00403A	SPRING ETC-SPINDLE;DP-5,SWPB,PI4.9,-,-,-		
H209	AH61-00513A	CHASSIS-SUB;DP-7,ABS(SR-0320),-,-,-,-,-,		
H210	AH31-00016A	MOTOR-FEED ASSY;-,DP-5,-,-		
H211	AH97-00961A	ASSY-PICK UP;-,SOH-DS2A,SEM,W/T		
H212	AH61-00891A	HOLDER-FFC;DP-7S,PP,1,-,-,NTR,-		
H241	3809-001303	CABLE-FLAT;30V,80C,230MM,24P,1MM,UL2896		
H250	AH92-00900A	ASSY-HOUSING PCB;DVD-M101,MILLENO DECK(B		

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7. Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark
601	**AC92-01223C**	**ASSY PCB-MAIN(VCR);DVD-V2500,SEA,SELLINO**	
S.M.P.S. PARTS			
BD1SS1	AC27-92001M	COIL-INDUCTOR;RH3.5X6.5RS,BEAD(RADIAL),-	
BD1SS2	AC27-92001M	COIL-INDUCTOR;RH3.5X6.5RS,BEAD(RADIAL),-	
BD1SS3	AC27-92001M	COIL-INDUCTOR;RH3.5X6.5RS,BEAD(RADIAL),-	
C1SD02	2201-000795	C-CERAMIC,DISC;10nF,10%,400V,Y5P,TP,15x1	⚠
C1SD03	2201-000812	C-CERAMIC,DISC;2.2nF,20%,400V,Y5U,BK,12.	⚠
C1SD11	2401-003365	C-AL;150uF,20%,200V,GP,TP,18x25,7.5	
C1SD12	2305-001029	C-FILM,MPEF;10nF,10%,630V,TP,12x9x12.5,5	
C1SD13	2201-000376	C-CERAMIC,DISC;0.22nF,5%,50V,SL,TP,6.3x3	
C1SD16	2201-000012	C-CERAMIC,DISC;0.22nF,10%,1kV,Y5P,TP,6.3	
C1SF03	2401-001200	C-AL;33UF,20%,50V,WT,TP,6.3X11,2.5	
C1SS01	2305-001021	C-FILM,MPEF;100nF,20%,275V,TP,17.5x7x13.	⚠
C1SS05	2401-003480	C-AL;1000UF,20%,10V,LZ,TP,10X16MM,5	
C1SS07	2401-003480	C-AL;1000UF,20%,10V,LZ,TP,10X16MM,5	
C1SS08	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C1SS09	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C1SS10	2401-003480	C-AL;1000UF,20%,10V,LZ,TP,10X16MM,5	
C1SS11	2301-000129	C-FILM,PEF;100nF,5%,50V,TP,10X9X4.3X5,5m	
C1SS12	2401-000385	C-AL;10uF,20%,100V,GP,TP6.3x11,5	
C1SS14	2401-003137	C-AL;330UF,20%,50V,WT,TP,10X16MM,5	
C1SS15	2401-001126	C-AL;330uF,20%,25V,WT,TP,10x12.5,5	
C1SS16	2401-000303	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
C1SS17	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
CN01	3708-000249	CONNECTOR-FPC/FFC/PIC;27P,1.25mm,STRAIGH	
CN1SS1	3711-000178	CONNECTOR-HEADER;1WALL,2P,1R,3.96mm,STRA	
D1SF01	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SF02	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS01	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS02	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS03	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS04	0402-001196	DIODE-RECTIFIER;1T5,600V,1A,TS-1,TP	
D1SS05	0404-001180	DIODE-SCHOTTKY;SE55,45V,5000MA,TO-220A,B	
D1SS07	0404-001180	DIODE-SCHOTTKY;SE55,45V,5000MA,TO-220A,B	
D1SS08	0404-001180	DIODE-SCHOTTKY;SE55,45V,5000MA,TO-220A,B	
D1SS09	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS11	0402-000012	DIODE-RECTIFIER;UF4007,1KV,1A,DO-41,TP	
D1SS12	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS13	0402-001194	DIODE-RECTIFIER;UG2D,200V,2A,DO-204AC,TP	
D1SS15	0402-001195	DIODE-RECTIFIER;F1T4,400V,1.0A,TS-1,TP	
D1SS16	0404-001180	DIODE-SCHOTTKY;SE55,45V,5000MA,TO-220A,B	
F1SD01	3601-001122	FUSE-CARTRIDGE;250V,1.6A,FAST-ACTING,GLA	⚠
IC1SS1	0604-000186	PHOTO-COUPLER;TR,-,200mW,DIP-4,ST	⚠
IC1SS2	AC14-12006D	IC;KA431Z,TO-92,TAPING	
L1SS01	AC27-92001Q	COIL-LINE FILTER;-,25MH,-,-,-,-,-,-,3.2o	⚠
L1SS02	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS03	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS04	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
L1SS05	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
PT1SD1	AC26-00001S	TRANS SWITCHING;EER3530,COMBO3,-,100~240	⚠
Q1SD11	1203-001803	IC-PWM CONTROLLER;STR-F6552,TO-220,5P,-,	
R1SD01	2001-000780	R-CARBON;4700HM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SD02	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SD11	2006-000273	R-CEMENT;27KOHM,5%,2W,CA,BK,6.4X6.5X18M	
R1SD13	2006-000273	R-CEMENT;27KOHM,5%,2W,CA,BK,6.4X6.5X18M	
R1SD14	2001-000869	R-CARBON;560HM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SF01	2001-000113	R-CARBON;18KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SF04	2001-000113	R-CARBON;18KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SF05	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R1SF06	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SF07	2003-000105	R-METAL OXIDE;0.33ohm,5%,2W,AD,TP,6x16mm	
R1SF15	2001-000096	R-CARBON(S);1MOHM,5%,1/2W,AA,TP,2.4X6.4M	
R1SR01	2002-001010	R-COMPOSITION;1.8Mohm,5%,1/2W,AA,TP,3.7x	
R1SR03	2001-000113	R-CARBON;18KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SR04	2001-000113	R-CARBON;18KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1SS01	2006-000262	R-CEMENT;2.7ohm,10%,2W,CB,TP,7.5x11x20.	
R1SS03	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1SS04	2004-000869	R-METAL;3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
R1SS05	2004-000459	R-METAL;2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
R1SS06	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VA1SS1	1405-001026	VARISTOR;470V,600A,9x7mm,TP	⚠
POWER DRIVE PARTS			
C1P101	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P102	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C1P103	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P104	2401-002036	C-AL;1uF,20%,50V,GP,TP,5x11,2.5	
C1P105	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C1P106	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P107	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C1P108	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C1P110	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P111	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P112	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C1P113	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C1P114	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P115	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
C1P116	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
C1P117	2401-001730	C-AL;10uF,20%,50V,GP,TP,5x11,2.5	
D1P101	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P102	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D1P103	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P104	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P105	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P107	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D1P108	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
L1P101	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L1P102	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
Q1P101	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P102	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
Q1P103	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q1P104	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q1P105	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P106	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P107	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P108	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
Q1P109	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q1P110	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
Q1P111	0501-000616	TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L	
R1P101	2001-000855	R-CARBON;560OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1P102	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1P103	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1P104	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R1P105	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1P108	2001-000062	R-CARBON;470OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R1P109	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R1P110	2007-000493	R-CHIP;2.2KOHM,5%,1/10W,DA,TP,2012	
R1P111	2001-000062	R-CARBON;470OHM,5%,1/4W,AA,TP,2.4X6.4MM	
ZD1P01	0403-000390	DIODE-ZENER;UZP33B,33V,31.4-34.6V,1W,DO-	
ZD1P02	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
ZD1P03	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
ZD1P04	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
ZD1P05	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	

Loc.No	Part No	Description ; Specification	Remark
ZD1P06	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
LOGIC PARTS			
C601	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C602	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C603	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C604	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C605	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
C606	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C607	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C608	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C609	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
C610	2202-002055	C-CERAMIC,MLC-AXIAL;47nF,+80-20%,50V,Y5V	
C611	2203-000361	C-CERAMIC,CHIP;0.15nF,5%,50V,NP0,TP,2012	
C613	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C614	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C615	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C616	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C617	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C618	2203-000429	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,201	
C619	2203-000429	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,201	
C620	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
C622	2203-000476	C-CERAMIC,CHIP;1000nF,+80-20%,16V,Y5V,TP	
C623	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
C624	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C625	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C626	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C627	2203-001245	C-CERAMIC,CHIP;0.082nF,5%,50V,NP0,TP,201	
C628	2401-001169	C-AL;33uF,20%,16V,GP,-,6.3x7,2.5mm	
C629	2203-001579	C-CERAMIC,CHIP;15nF,10%,50V,NP0,TP,2012	
C630	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C631	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C632	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C633	2203-000142	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,2012	
C634	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C635	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C636	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C643	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C644	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C651	2203-000634	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,201	
C652	2203-000634	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,201	
C657	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
CN604	3711-004833	CONNECTOR-HEADER;BOX,12P,2R,2MM,STRAIGHT	
D601	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D603	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D604	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
D605	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D606	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41,TP	
IC601	AC09-00334A	IC MICOM;MN101D06F,OTP,100P,5V,14.313MH	
IC603	1103-001149	IC-EEPROM;524C80D41,4KBit,DIP,8P,300MIL,	
IC6B1	AC14-12006C	IC;KA7533,DIP,-	
L601	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L602	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
LD601	0601-000517	LED-IR;RECTANGULA,4x6.0mm,75mW,6V,950	
PT601	0604-001206	PHOTO-INTERRUPTER;TR,-,150mW,CY5894102,B	
PT602	0604-001206	PHOTO-INTERRUPTER;TR,-,150mW,CY5894102,B	
Q601	0504-000119	TR-DIGITAL;KSR1004,NPN,300MW,47K/47K,TO-	
R601	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R602	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R603	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
R604	2007-000572	R-CHIP;220OHM,5%,1/10W,DA,TP,2012	
R605	2001-000111	R-CARBON;150OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R606	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
R607	2001-000633	R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R609	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R613	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	

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R614	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R615	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R616	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R617	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R618	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R619	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R621	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R622	2007-000931	R-CHIP;470OHM,5%,1/10W,DA,TP,2012	
R623	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R624	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R630	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R631	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R632	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R634	2007-000068	R-CHIP;470KOHM,5%,1/10W,DA,TP,2012	
R635	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R638	2007-000686	R-CHIP;3.3KOHM,5%,1/10W,DA,TP,2012	
R639	2007-000518	R-CHIP;2.7KOHM,5%,1/10W,DA,TP,2012	
R641	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R643	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R644	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R645	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R646	2007-000981	R-CHIP;5.6KOHM,5%,1/10W,DA,TP,2012	
R647	2007-000766	R-CHIP;330OHM,5%,1/10W,DA,TP,2012	
R648	2007-000766	R-CHIP;330OHM,5%,1/10W,DA,TP,2012	
R649	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
R650	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
R651	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
R652	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R653	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R656	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R660	2007-001124	R-CHIP;68KOHM,1%,1/10W,DA,TP,2012	
R661	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R662	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R664	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R666	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R667	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R668	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R669	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R670	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R671	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R673	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R674	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R676	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R677	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R690	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R691	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R692	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R6A01	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
S601	0603-001011	PHOTO TR;NPN,35V,6V,50mA,75mW,BK	
S602	0603-001011	PHOTO TR;NPN,35V,6V,50mA,75mW,BK	
SW602	AC34-20100B	SWITCH-REC;-,-,X-9,-	
SW603	AC34-20100A	SWITCH-MODE;-,-,X-9,-	
XT601	2801-001384	CRYSTAL-UNIT;14.31818MHz,30ppm,28-AAA,16	
AUDIO/VIDEO PARTS			
C301	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C302	2203-001721	C-CERAMIC,CHIP;360pF,5%,50V,NP0,TP,2012,	
C303	2203-000476	C-CERAMIC,CHIP;1000nF,+80-20%,16V,Y5V,TP	
C304	2202-000164	C-CERAMIC,MLC-AXIAL;0.18nF,10%,50V,Y5P,T	
C305	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C306	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C307	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C308	2401-000918	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C310	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C312	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C313	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	

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C314	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C315	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C316	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C317	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C318	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C319	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C320	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C321	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C322	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C323	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C324	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C325	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C326	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C327	2203-000476	C-CERAMIC,CHIP;1000nF,+80-20%,16V,Y5V,TP	
C328	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C329	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C330	2203-000966	C-CERAMIC,CHIP;47nF,+80-20%,50V,Y5V,TP,2	
C331	2203-000966	C-CERAMIC,CHIP;47nF,+80-20%,50V,Y5V,TP,2	
C332	2203-000966	C-CERAMIC,CHIP;47nF,+80-20%,50V,Y5V,TP,2	
C333	2203-000966	C-CERAMIC,CHIP;47nF,+80-20%,50V,Y5V,TP,2	
C334	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C335	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C336	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C337	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C338	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C340	2401-000918	C-AL;22uF,20%,16V,GP,-,6.3x7,5	
C342	2401-001169	C-AL;33uF,20%,16V,GP,-,6.3x7,2.5mm	
C343	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C344	2203-000417	C-CERAMIC,CHIP;18nF,10%,50V,X7R,TP,2012,	
C345	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C346	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C347	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
C348	2203-001665	C-CERAMIC,CHIP;0.56nF,10%,50V,X7R,TP,201	
C349	2401-001254	C-AL;4.7uF,20%,35V,GP,TP,4x7,5	
C350	2301-001014	C-FILM,PEF;6.8nF,5%,50V,TP,7x3x6,5mm	
C351	2203-001214	C-CERAMIC,CHIP;8.2nF,10%,50V,X7R,TP,2012	
C352	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C353	2401-001254	C-AL;4.7uF,20%,35V,GP,TP,4x7,5	
C354	2203-000938	C-CERAMIC,CHIP;0.47nF,5%,50V,NP0,TP,2012	
C355	2301-000110	C-FILM,PEF;1.8nF,5%,100V,TP,7x3.0x6.5mm,	
C356	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C357	2301-000174	C-FILM,PEF;15nF,5%,100V,TP,7.2x4.0x7.5mm	
C358	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C359	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C360	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C371	2203-001077	C-CERAMIC,CHIP;0.056nF,5%,50V,NP0,TP,201	
C372	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C399	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
CN301	3708-000391	CONNECTOR-FPC/FFC/PIC;10P,1.25mm,STRAIGH	
CN302	3710-001648	CONNECTOR-SOCKET;2P,1R,2.5mm,STRAIGHT,SN	
CN303	3708-001165	CONNECTOR-FPC/FFC/PIC;6P,1.25mm,STRAIGHT	
IC301	1204-001952	IC-VIDEO PROCESS;LA71207,QFP,80P,14X14MM	
L301	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L302	AC27-92001M	COIL-INDUCTOR;RH3.5X6.5RS,BEAD(RADIAL),-	
L303	AC27-92001M	COIL-INDUCTOR;RH3.5X6.5RS,BEAD(RADIAL),-	
L304	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L305	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L306	2702-000120	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
L307	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L308	2702-000166	INDUCTOR-RADIAL;47uH,5%,6x6.4mm	
Q302	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q303	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
Q304	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q305	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400mW,T0-9	
Q306	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
Q307	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400mW,T0-9	
Q308	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400mW,T0-9	
R301	2007-000409	R-CHIP;15KOHM,5%,1/10W,DA,TP,2012	
R302	2007-001055	R-CHIP;6.2KOHM,5%,1/10W,DA,TP,2012	
R303	2007-000267	R-CHIP;1.8KOHM,5%,1/10W,DA,TP,2012	
R304	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R305	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R306	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R308	2007-000565	R-CHIP;220KOHM,5%,1/10W,DA,TP,2012	
R309	2001-000004	R-CARBON;200KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R310	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R311	2007-001113	R-CHIP;680KOHM,5%,1/10W,DA,TP,2012	
R312	2007-000221	R-CHIP;1.2KOHM,5%,1/10W,DA,TP,2012	
R313	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R314	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R315	2007-001177	R-CHIP;8.2KOHM,5%,1/10W,DA,TP,2012	
R316	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R317	2001-000387	R-CARBON;16KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R318	2001-000387	R-CARBON;16KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R319	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R320	2007-000241	R-CHIP;1.5KOHM,5%,1/10W,DA,TP,2012	
R322	2001-000723	R-CARBON;4.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R326	2007-000221	R-CHIP;1.2KOHM,5%,1/10W,DA,TP,2012	
R328	2001-001015	R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R329	2001-000645	R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R330	2007-000401	R-CHIP;150OHM,5%,1/10W,DA,TP,2012	
R331	2007-000653	R-CHIP;27KOHM,5%,1/10W,DA,TP,2012	
R332	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R333	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R334	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
R335	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
R336	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R338	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R339	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R340	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R341	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R342	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R343	2007-001001	R-CHIP;510OHM,5%,1/10W,DA,TP,2012	
R344	2007-001001	R-CHIP;510OHM,5%,1/10W,DA,TP,2012	
R3D05	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R3D06	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
XT301	2801-003610	CRYSTAL-UNIT;3.579545MHz,8ppm,28-AAA,S,1	
TM-BLOCK			
C401	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
C402	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C403	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C405	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C406	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C407	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
R401	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R402	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	
TM401	AC40-00012A	TM BLOCK;TMDH2A32A,NTSC-M,181CH,-,25DB,	
HI-FI/MTS PARTS			
C501	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C502	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C503	2401-001254	C-AL;4.7uF,20%,35V,GP,TP,4x7,5	
C504	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C505	2401-001254	C-AL;4.7uF,20%,35V,GP,TP,4x7,5	
C506	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C507	2401-001169	C-AL;33uF,20%,16V,GP,-,6.3x7,2.5mm	
C508	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C509	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C510	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
C511	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C512	2203-000126	C-CERAMIC,CHIP;1.2nF,10%,50V,X7R,TP,2012	

Loc.No	Part No	Description ; Specification	Remark
C513	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C514	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C515	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C516	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C517	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C518	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C519	2401-001931	C-AL;220nF,20%,50V,-,TP,4x7mm,5	
C520	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
C521	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C522	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C523	2401-001169	C-AL;33uF,20%,16V,GP,-,6.3x7,2.5mm	
C526	2401-001254	C-AL;4.7uF,20%,35V,GP,TP,4x7,5	
C527	2401-001931	C-AL;220nF,20%,50V,-,TP,4x7mm,5	
C528	2401-001020	C-AL;3.3UF,20%,50V,GP,TP,4X7,5	
C529	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C530	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C531	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C532	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C533	2203-000206	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,2012	
C534	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
C535	2401-000407	C-AL;10uF,20%,16V,GP,TP,3.5x5,2.5	
C536	2401-001919	C-AL;2.2uF,20%,50V,-,TP,4x7mm,5	
C537	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C538	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C540	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C541	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
C542	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C543	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
C544	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
D503	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
IC501	1204-001754	IC-SIGNAL PROCESSOR;AN3663FBP,QFP,64P,-,	
L501	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L502	3301-000297	CORE-FERRITE BEAD;AA,3.6x1.2x5.7mm,1400,	
L503	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L504	2701-000126	INDUCTOR-AXIAL;150uH,5%,2.4x3.4mm	
R501	2007-001141	R-CHIP;7.5KOHM,5%,1/10W,DA,TP,2012	
R503	2007-001141	R-CHIP;7.5KOHM,5%,1/10W,DA,TP,2012	
R506	2007-000774	R-CHIP;33KOHM,5%,1/10W,DA,TP,2012	
R507	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R510	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R512	2001-000005	R-CARBON;390ohm,5%,1/8W,AA,TP,1.8x3.2mm	
R514	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R515	2007-001055	R-CHIP;6.2KOHM,5%,1/10W,DA,TP,2012	
R516	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R517	2007-000804	R-CHIP;36KOHM,5%,1/10W,DA,TP,2012	
R518	2007-001224	R-CHIP;9.1KOHM,5%,1/10W,DA,TP,2012	
R519	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
R520	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R521	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R522	2007-000518	R-CHIP;2.7KOHM,5%,1/10W,DA,TP,2012	
R525	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
INPUT-OUTPUT PARTS			
C801	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C802	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C804	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C805	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C806	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C807	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C808	2401-003107	C-AL;47uF,20%,16V,GP,TP,5x7,5	
C809	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C810	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C811	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
C812	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C813	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C814	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	

Loc.No	Part No	Description ; Specification	Remark
C815	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C816	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C817	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C818	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C819	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C820	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C821	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C822	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C823	2401-000407	C-AL;10uF,20%,16V,GP,TP,3.5x5,2.5	
C824	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C825	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
C826	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C829	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C830	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
C831	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C832	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
C834	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
CN701	3710-001146	CONNECTOR-SOCKET;20P,1R,1.5mm,ANGLE,SN	
D801	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D803	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D804	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
IC801	1204-001763	IC-AUDIO PROCESSOR;LA73024V,SSOP,44P,154	
JK801	3722-001814	JACK-PIN;6P,3.5MM,NI,BLK,-	
L801	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
L804	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
R710	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R801	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R802	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R804	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R805	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R806	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R807	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R808	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R809	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R810	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
R811	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R812	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R813	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R814	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R816	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R817	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R819	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
R820	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R821	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R822	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
602	**AK92-00004A**	**ASSY PCB-MAIN(DVD);DVD-V2500,STEP-UP,DVD,MAIN**	
AC14	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
AC15	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC16	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC17	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC18	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC19	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC20	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC21	2203-000315	C-CERAMIC,CHIP;0.12nF,5%,50V,NP0,TP,1608	
AC22	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC23	2203-000125	C-CERAMIC,CHIP;1.2nF,10%,50V,X7R,TP,1608	
AC24	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC25	2203-000315	C-CERAMIC,CHIP;0.12nF,5%,50V,NP0,TP,1608	
AC26	2203-000125	C-CERAMIC,CHIP;1.2nF,10%,50V,X7R,TP,1608	
AC27	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
AC9	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
AD1	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
AD2	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
AD3	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
AD4	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,	

Loc.No	Part No	Description ; Specification	Remark
AD5	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
AD6	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-	
AE1	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
AE10	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
AE11	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
AE12	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
AE13	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
AE14	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
AE15	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
AE16	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
AE17	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
AE18	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
AE2	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
AE21	2401-000240	C-AL;100uF,20%,10V,GP,TP,5x11,5	
AE3	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
AE5	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
AE6	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
AE7	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
AE8	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
AE9	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
AIC2	1002-001294	IC-D/A CONVERTER;PCM1742KE,24BIT,TSSOP,1	
AIC4	1201-000163	IC-OP AMP;4560,SOP,8P,173MIL,DUAL,100V/m	
AIC5	1201-000163	IC-OP AMP;4560,SOP,8P,173MIL,DUAL,100V/m	
AJP1	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
AL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
AL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
AQ1	0504-000128	TR-DIGITAL;-,NPN,200MW,22K/22K,SOT-23,TP	
AQ11	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
AQ12	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
AQ2	0504-000156	TR-DIGITAL;KSR2103,PNP,200MW,22K/22K,SOT	
AQ3	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
AQ4	0504-000128	TR-DIGITAL;-,NPN,200MW,22K/22K,SOT-23,TP	
AQ5	0504-000156	TR-DIGITAL;KSR2103,PNP,200MW,22K/22K,SOT	
AQ6	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
AQ7	0504-000128	TR-DIGITAL;-,NPN,200MW,22K/22K,SOT-23,TP	
AQ8	0504-000156	TR-DIGITAL;KSR2103,PNP,200MW,22K/22K,SOT	
AQ9	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150mW,SOT-23,	
AR14	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
AR15	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR16	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR18	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR28	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
AR29	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR30	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR31	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR32	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
AR33	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR34	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
AR35	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR36	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
AR37	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR38	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
AR39	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR40	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
AR41	2007-001179	R-CHIP;8.2Kohm,5%,1/16W,DA,TP,1608	
AR42	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR43	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
AR44	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR45	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR46	2007-001179	R-CHIP;8.2Kohm,5%,1/16W,DA,TP,1608	
AR47	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR48	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
AR49	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR50	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
AR51	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR52	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR54	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
AR55	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
AR58	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR59	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
AR60	2007-001135	R-CHIP;68OHM,5%,1/8W,DA,TP,3216	
AR61	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
AR62	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
AZ1	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
AZ2	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
AZ3	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
AZ4	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
CAP1	AK61-00070A	BRACKET-SHIELD DVD PCB;DVD-V2500,SPTE,T0	
CN1	3708-001696	CONNECTOR-FPC/FFC/PIC;24P,1MM,STRAIGHT,S	
CN2	3708-001695	CONNECTOR-FPC/FFC/PIC;13P,1MM,STRAIGHT,S	
CN3	3711-001018	CONNECTOR-HEADER;BOX,5P,1R,2mm,STRAIGHT,	
CN4	3708-000249	CONNECTOR-FPC/FFC/PIC;27P,1.25mm,STRAIGH	
CNL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
CNL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
CVL0	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
CVL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
CVL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
CVL3	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
DOC1	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
DOC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DOC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DOC4	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
DOE1	2401-000598	C-AL;1uF,20%,50V,GP,TP,4x7,5	
DOIC1	AH14-10004R	IC;M74HCU04,SOP,TAPE 14P	
DOIC2	3707-001052	CONNECTOR-OPTICAL;PLUG,GP1FA550TZ,6dB,2.	
DOL1	2901-001125	FILTER-EMI ON BOARD;50V,0.5A,-,220pF,7x2	
DOL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
DOR1	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
DOR2	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
DOR3	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
DOR4	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
DOZ1	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
DOZ2	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
DRC1	2203-001222	C-CERAMIC,CHIP;820pF,10%,50V,X7R,TP,1608	
DRC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC12	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC13	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC5	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC6	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC8	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRC9	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
DRE1	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
DRE2	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
DRE3	2401-002196	C-AL;4.7UF,20,25V,GP,TP,4X5,5MM,-	
DRE4	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
DRE5	2401-002095	C-AL;47uF,20%,25V,GP,TP,6.3x5,5	
DRIC1	1003-001298	IC-MOTOR DRIVER;KA3017,HQFP,48P,550MIL,1	
DRR1	2007-000034	R-CHIP;1OHM,5%,1/4W,DA,TP,3216	
DRR10	2007-000655	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608	
DRR11	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
DRR12	2007-000116	R-CHIP;120ohm,5%,1/16W,DA,TP,1608	
DRR13	2007-000116	R-CHIP;120ohm,5%,1/16W,DA,TP,1608	
DRR2	2007-000034	R-CHIP;1OHM,5%,1/4W,DA,TP,3216	
DRR3	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
DRR4	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
DRR5	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	

Loc.No	Part No	Description ; Specification	Remark
DRR6	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
DRR7	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608	
DRR8	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608	
DRR9	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
FR1	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR2	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR3	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR4	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR5	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR6	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
FR7	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
JACK1	3722-001778	JACK-PIN;6P,3.2MM,NI,BLK,-	
JL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
JL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
L2	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
MC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC10	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC12	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC13	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC14	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC15	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC16	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
MC17	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC22	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MC26	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC5	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MC6	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
MC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MC8	2203-000426	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,160	
MC9	2203-000426	C-CERAMIC,CHIP;0.018nF,5%,50V,NP0,TP,160	
MIC1	0903-001271	IC-MICROCONTROLLER;91C829,16BIT,QFP,100P	
MIC2	1102-001102	IC-EPROM;27C020,256Kx8Bit,DIP,32P,600MI	
MIC2B	3704-000472	SOCKET-IC;32P,DIP,SN,2.54mm	
MIC3	1103-001204	IC-EEPROM;24C021,256x8Bit,SOP,8P,150MIL,	
MIC4	0801-002701	IC-CMOS LOGIC;74VHCT125A,BUFFER,TSSOP,14	
MIC5	0801-002143	IC-CMOS LOGIC;7S32,OR GATE,SOT-23,5P,63M	
MJP1	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
MR1	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR10	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR11	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR12	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR13	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR14	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
MR15	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
MR16	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
MR17	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
MR18	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR19	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR2	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR20	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR21	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR22	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR25	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR26	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR28	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR29	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR30	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR31	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR32	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR33	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR34	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR4	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR5	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR6	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MR7	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR8	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MR9	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MSC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MSC10	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
MSC11	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
MSC12	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
MSC13	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
MSC14	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MSC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MSC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
MSC5	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
MSC6	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
MSC7	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
MSC8	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
MSC9	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
MSCN1	3708-001734	CONNECTOR-FPC/FFC/PIC;10P,1MM,STRAIGHT,-	
MSE1	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
MSE2	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
MSIC1	0904-001644	IC-MEMORY CONT.;MB86189,-,LQFP,48P,7X7MM	
MSIC2	0801-002327	IC-CMOS LOGIC;74LCX74,D FLIP-FLOP,TSSOP,	
MSJP1	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
MSL1	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
MSL10	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL11	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL12	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL13	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
MSL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL3	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL4	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL5	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL6	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
MSL7	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL8	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSL9	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
MSQ1	0501-000314	TR-SMALL SIGNAL;KSA812,PNP,150mW,SOT-23,	
MSQ2	0504-000128	TR-DIGITAL;-,NPN,200MW,22K/22K,SOT-23,TP	
MSR1	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MSR10	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
MSR12	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MSR13	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
MSR15	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR16	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR17	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR18	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR19	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MSR2	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR20	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
MSR21	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MSR22	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR23	2007-000415	R-CHIP;150HM,5%,1/10W,DA,TP,2012	
MSR28	2007-000415	R-CHIP;150HM,5%,1/10W,DA,TP,2012	
MSR29	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
MSR30	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MSR4	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR5	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
MSR6	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
MSR7	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
MY1	2802-001152	RESONATOR-CERAMIC;20MHZ,0.5%,TP,5.5X3.5X	
PC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	

Loc.No	Part No	Description ; Specification	Remark
PC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC5	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
PC6	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PC8	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
PE1	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE10	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE2	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE3	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE4	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE5	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE6	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PE7	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
PE8	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
PIC1	1203-002178	IC-VOLTAGE REGULATOR;1563,SOP,7P,173MIL,	
PIC2	1203-002220	IC-POSI.ADJUST REG.;LD1117,DPAK,3P,240MI	
PIC3	1203-001993	IC-VOLTAGE REGULATOR;378,TO-220,4P,-,PLA	
PL1	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
PL2	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
PL3	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
PL4	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
PR1	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
PR3	2007-001101	R-CHIP;62ohm,5%,1/16W,DA,TP,1608	
PR4	2007-000342	R-CHIP;120OHM,1%,1/10W,DA,TP,2012	
RC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC12	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC13	2203-000975	C-CERAMIC,CHIP;47nF,10%,25V,X7R,TP,1608,	
RC14	2203-000975	C-CERAMIC,CHIP;47nF,10%,25V,X7R,TP,1608,	
RC15	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
RC16	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1608	
RC17	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
RC18	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC19	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
RC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC21	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC22	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC23	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC24	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC25	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC26	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC27	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1608	
RC28	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC29	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC33	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
RC34	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
RC35	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NP0,TP,1608	
RC36	2203-000140	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,1608	
RC37	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC38	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC39	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC40	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC41	2203-000140	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,1608	
RC5	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC6	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RC8	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
RD1	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-	
RE1	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
RE10	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
RE11	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	

Loc.No	Part No	Description ; Specification	Remark
RE2	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
RE3	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
RE4	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
RE5	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
RE6	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
RE7	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
RE8	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
RE9	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
RIC1	AH13-00009A	IC ASIC;KS1462B,DVD-M201/XAA,80,+5V,-4	
RL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
RL2	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
RQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
RQ2	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
RQ3	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
RQ4	0501-000279	TR-SMALL SIGNAL;KSA1182-Y,PNP,150mW,SOT-	
RQ5	0501-000279	TR-SMALL SIGNAL;KSA1182-Y,PNP,150mW,SOT-	
RR10	2007-000312	R-CHIP;10OHM,5%,1/8W,DA,TP,3216	
RR11	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
RR12	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RR13	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RR14	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RR15	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RR16	2007-001235	R-CHIP;910Kohm,5%,1/16W,DA,TP,1608	
RR17	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR18	2007-000655	R-CHIP;27Kohm,5%,1/16W,DA,TP,1608	
RR19	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	
RR20	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
RR22	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR23	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RR24	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RR25	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
RR26	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RR27	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
RR28	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RR29	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RR3	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR30	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RR31	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
RR32	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RR33	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR4	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR5	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RR6	2007-001179	R-CHIP;8.2Kohm,5%,1/16W,DA,TP,1608	
RR7	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	
RR8	2007-000312	R-CHIP;10OHM,5%,1/8W,DA,TP,3216	
RR9	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RVR1	2104-001068	VR-SMD;10Kohm,25%,1/20W,TOP	
SC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC11	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608	
SC12	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC13	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608	
SC14	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC15	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
SC16	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
SC17	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	
SC18	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	
SC19	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC2	2203-001222	C-CERAMIC,CHIP;820pF,10%,50V,X7R,TP,1608	
SC20	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC21	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC22	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC23	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC24	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC25	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC27	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	

Loc.No	Part No	Description ; Specification	Remark
SC28	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC29	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
SC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC30	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
SC31	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC32	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC33	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC34	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC35	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
SC36	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
SC37	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
SC38	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
SC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC41	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC42	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC43	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC45	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
SC46	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
SC5	2203-000975	C-CERAMIC,CHIP;47nF,10%,25V,X7R,TP,1608,	
SC6	2203-001634	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,1608,	
SC7	2203-001126	C-CERAMIC,CHIP;0.68nF,10%,50V,X7R,TP,160	
SC8	2203-000715	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,1608	
SC9	2203-000975	C-CERAMIC,CHIP;47nF,10%,25V,X7R,TP,1608,	
SE1	2401-000414	C-AL;10uF,20%,16V,GP,TP,4x7,5	
SE2	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
SE3	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
SE4	2401-001728	C-AL;10uF,20%,35V,GP,TP,5x7,5	
SE5	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
SIC1	AH13-00006A	IC ASIC;KS1454,DVD-611/XAA,160,+3.3V,+	
SIC2	1105-001243	IC-DRAM;416C256,256KX16BIT,SOJ,40P,400	
SIC4	0801-002097	IC-CMOS LOGIC;7ST08,AND GATE,SOP,5P,110M	
SJACK	3722-001375	JACK-DIN;4P,-,NI,BLK,-	
SL1	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
SQ1	0504-000156	TR-DIGITAL;KSR2103,PNP,200MW,22K/22K,SOT	
SR1	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	
SR10	2007-000133	R-CHIP;330Kohm,5%,1/16W,DA,TP,1608	
SR11	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SR14	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
SR15	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
SR16	2007-001235	R-CHIP;910Kohm,5%,1/16W,DA,TP,1608	
SR17	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
SR18	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
SR19	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
SR2	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	
SR20	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
SR21	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
SR22	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
SR23	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
SR24	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SR26	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SR27	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
SR28	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
SR29	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
SR3	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	
SR30	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
SR31	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
SR32	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
SR33	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
SR34	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
SR35	2007-000093	R-CHIP;20Kohm,5%,1/16W,DA,TP,1608	
SR36	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
SR38	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
SR39	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
SR4	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	
SR5	2007-000381	R-CHIP;13Kohm,5%,1/16W,DA,TP,1608	
SR6	2007-000799	R-CHIP;360ohm,5%,1/16W,DA,TP,1608	

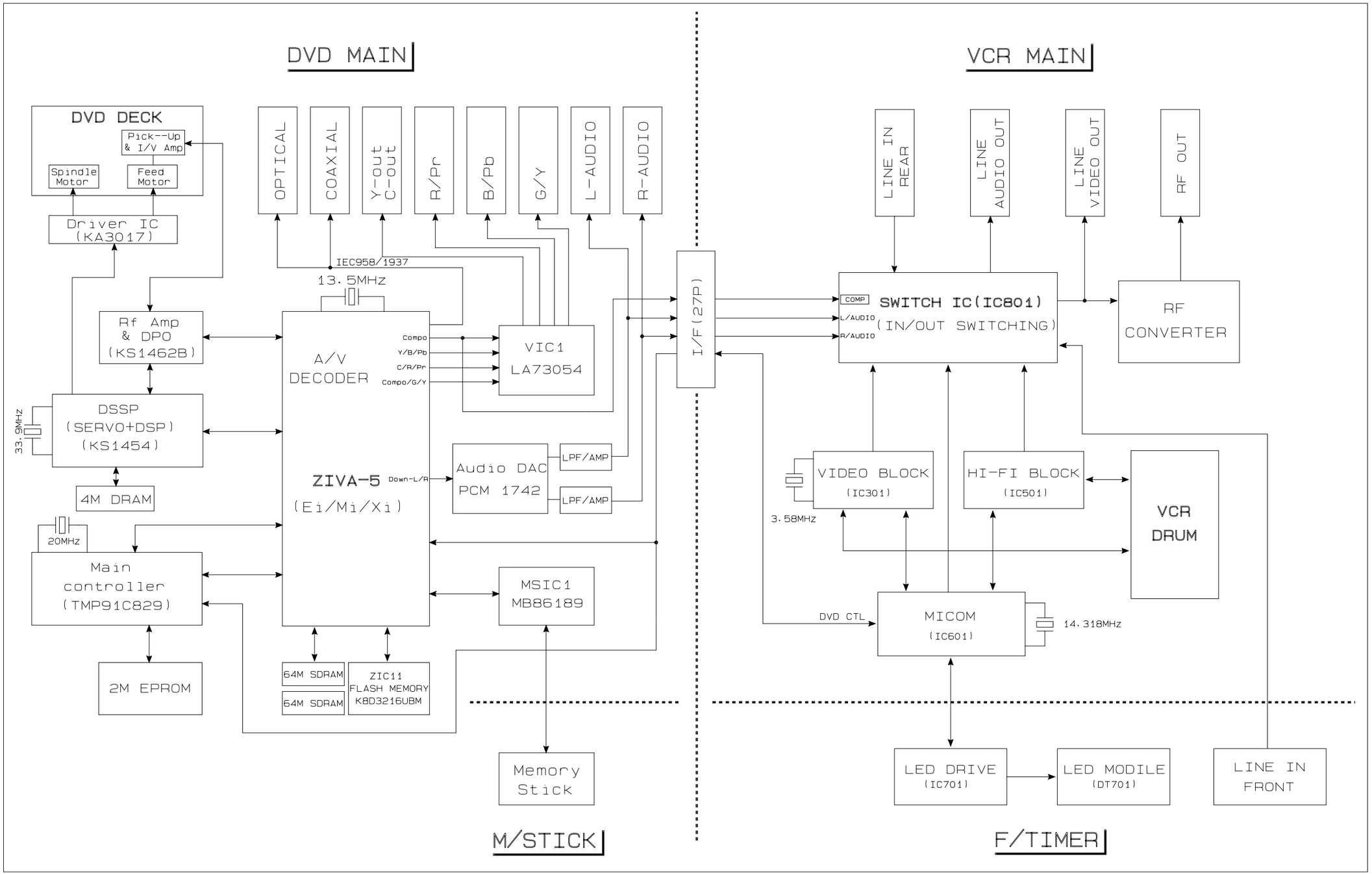
Loc.No	Part No	Description ; Specification	Remark
SR7	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
SR8	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
SR9	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
SVL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
SVL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
SY1	2801-000261	CRYSTAL-UNIT;33.8688MHz,50ppm,28-AAA,12p	
VC1	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
VC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC12	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
VC13	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
VC14	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
VC15	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
VC16	2203-001607	C-CERAMIC,CHIP;0.22nF,5%,50V,NP0,TP,1608	
VC17	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC2	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
VC3	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
VC30	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC4	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
VC5	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
VC6	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC8	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VC9	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
VE1	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
VE2	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
VE4	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
VE5	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
VE6	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
VE7	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
VIC1	1204-001978	IC-VIDEO PROCESS;LA73054,-,36P,-,SSOP,7V	
VL1	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
VL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
VL3	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
VL4	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
VL5	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
VL6	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
VR1	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR10	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR11	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
VR12	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
VR13	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
VR14	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
VR15	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
VR16	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
VR18	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
VR2	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR29	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
VR3	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR30	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
VR31	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
VR32	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
VR33	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
VR35	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
VR4	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR5	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR50	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
VR51	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
VR6	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR7	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR8	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VR9	2007-001164	R-CHIP;75ohm,1%,1/16W,DA,TP,1608	
VSW1	AH34-00010A	SWITCH SLIDE;-,50V DC,-,-,100MOHM,-,-,-,	
VZ1	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ10	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ2	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	

Loc.No	Part No	Description ; Specification	Remark
VZ3	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ4	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ5	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ6	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ7	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ8	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
VZ9	0403-001083	DIODE-ZENER;UDZ9.1B,9.1V,8.85-9.23V,200m	
W2	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
XC1	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
XC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
XC3	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
XC4	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
XC6	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
XIC1	AH14-10004R	IC;M74HCU04,SOP,TAPE 14P	
XL2	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
XR1	2007-000607	R-CHIP;240OHM,5%,1/10W,DA,TP,2012	
XR2	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	
XR3	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
XR4	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
XY1	2801-003554	CRYSTAL-UNIT;27MHz,10ppm,28-AAM,12pF,40o	
ZC1	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC10	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC11	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC12	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC13	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC14	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC15	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC16	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC17	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC18	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC19A	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
ZC2	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC20	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC21	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC22	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC23	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC24	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC25	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC26	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC27	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC28	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC29	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC3	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC30	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC31	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC32	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC33	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC34	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC35	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC36	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC37	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC38	2203-000626	C-CERAMIC,CHIP;0.022nF,5%,50V,NP0,TP,160	
ZC39	2203-000384	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,160	
ZC4	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC40	2203-000384	C-CERAMIC,CHIP;0.015nF,5%,50V,NP0,TP,160	
ZC41	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC42	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC43	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC44	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC45	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC46	2203-000815	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,160	
ZC47	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC48	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC49	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC5	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC50	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	

Loc.No	Part No	Description ; Specification	Remark
ZC51	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC52	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC53	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC54	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC55	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC56	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC57	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC58	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC59	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC6	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC60	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
ZC61	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC62	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC66	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
ZC67A	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
ZC68	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC69	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NP0,TP,160	
ZC7	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC70	2203-000681	C-CERAMIC,CHIP;0.027nF,5%,50V,NP0,TP,160	
ZC8	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZC9	2203-005148	C-CERAMIC,CHIP;100nF,10%,16V,X7R,TP,1608	
ZE1	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
ZE2	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
ZE3	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
ZE4	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
ZE5	2401-001479	C-AL;470uF,20%,10V,GP,TP,-,-	
ZIC1	1204-001826	IC-ENCODER/DECODER;ZIVA-5,QFP,208P,1100M	
ZIC10	0801-002626	IC-CMOS LOGIC;74LVX573,LATCH,TSSOP,20P,1	
ZIC11	1107-001335	IC-FLASH MEMORY;8D3216UBM,4MX8/2MX16BIT,	
ZIC2	1105-001305	IC-DRAM;4S641632,1Mx16x4Bit,TSOP,54P,4	
ZIC3	1105-001305	IC-DRAM;4S641632,1Mx16x4Bit,TSOP,54P,4	
ZIC4	0801-002701	IC-CMOS LOGIC;74VHCT125A,BUFFER,TSSOP,14	
ZIC5	1103-001204	IC-EEPROM;24C021,256x8Bit,SOP,8P,150MIL,	
ZIC6	0801-002001	IC-CMOS LOGIC;7W74,D FLIP-FLOP,SSOP,8P,1	
ZIC7	0801-002166	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,63	
ZIC8	0801-002626	IC-CMOS LOGIC;74LVX573,LATCH,TSSOP,20P,1	
ZIC9	0801-002626	IC-CMOS LOGIC;74LVX573,LATCH,TSSOP,20P,1	
ZJP1	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP2	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP3	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP4	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZJP5	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP6	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP7	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP8	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZJP9	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
ZL1	3301-001309	CORE-FERRITE BEAD;AB,47ohm,1.6x0.8x0.8mm	
ZL10	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZL2	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZL3	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZL4	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZL5	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZL6	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
ZL8	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
ZL9	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
ZNR1	2011-001093	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP	
ZNR15	2011-000816	R-NETWORK;100ohm,5%,63mW,L,CHIP,8P,TP	
ZNR2	2011-001093	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP	
ZNR3	2011-001093	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP	
ZNR4	2011-001093	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP	
ZQ1	0501-000341	TR-SMALL SIGNAL;KSC1623-L,NPN,200mW,SOT-	
ZR1	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
ZR10	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZR12	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZR16	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR2	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	

Loc.No	Part No	Description ; Specification	Remark
ZR21	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
ZR22	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
ZR29	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR3	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR30	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR31	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR32	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
ZR33	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
ZR34	3301-001419	CORE-FERRITE BEAD;AB,220ohm,1.6x0.8x0.8m	
ZR35	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
ZR36	2007-000113	R-CHIP;33ohm,5%,1/16W,DA,TP,1608	
ZR37	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZR39	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZR4	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR40	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR41	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR43	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR45	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR46	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
ZR47	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
ZR51	3301-001309	CORE-FERRITE BEAD;AB,47ohm,1.6x0.8x0.8mm	
ZR52	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
ZR53	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
ZR54	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	
ZR56	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR58	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
ZR59	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
ZR5A	2007-001167	R-CHIP;75ohm,5%,1/16W,DA,TP,1608	
ZR6	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR61	2007-000076	R-CHIP;330ohm,5%,1/16W,DA,TP,1608	
ZR62	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR63	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
ZR64	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR65	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR66	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR67	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR68	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
ZR7	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
ZR9	2007-007332	R-CHIP;1.18KOHM,1%,1/10W,DA,TP,2012	
ZY1	2801-004132	CRYSTAL-UNIT;13.5MHZ,10PPM,ATS-49/U,24PF	
603	**AK92-00101A**	**ASSY PCB-M STICK;DVD-V2500,SV-DVD1000,20**	
MS001	3709-001223	CONNECTOR-CARD EDGE;10P;-,SMD-A,AU	
MSCN2	3708-001738	CONNECTOR-FPC/FFC/PIC;10P,1MM,SMD-A,SN	
701	**AC94-00150C**	**ASSY SORT-FUNCTION;DVD-V2500,COMBO-3**	
C701	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
C702	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
C705	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,	
D701	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D702	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D703	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
D704	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
L701	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
R701	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R702	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R703	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R704	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R705	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R706	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R707	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R708	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R709	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R711	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R712	2001-000837	R-CARBON;51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C703	2401-002165	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
C704	2401-000118	C-AL;1000uF,20%,10V,GP,TP,10x12.5,5	
CN702	3710-001145	CONNECTOR-SOCKET;20P,1R,1.5mm,STRAIGHT,S	
DT701	AC07-00050A	LED DISPLAY;LTG-0149M(LITE-ON),DVD-V2200	
IC701	1003-001443	IC-LED DRIVER;PT6959,SOIC,28P,300MIL,-,-	
JK701	3722-001811	JACK-PIN;3P,8.3PI,NI,BLK,-	
LD701	0601-000497	LED;ROUND,GRN,3.1mm,565nm	
Q701	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
RM701	AC59-60060A	MODULE REMOCON;GP1U281R,SHARP,38KHZ,-,-,	
SW701	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW702	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW703	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW704	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW705	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW706	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW707	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW708	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW709	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW710	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW711	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
SW712	3404-001188	SWITCH-TACT;12V,50MA,100GF,6X6X5,SPST	
H250	**AH92-00900A**	**ASSY-HOUSING PCB;DVD-M101,MILLENO DECK(B**	
HCN1	AH39-00266B	CONNECT WIRE;-,#26,-,-,-,WHT/BLK,-,-,-,-	
HSW1	3409-001119	SWITCH-DETECTOR;5V DC,1.0A,DPST,30gf,-	

8. Block Diagram

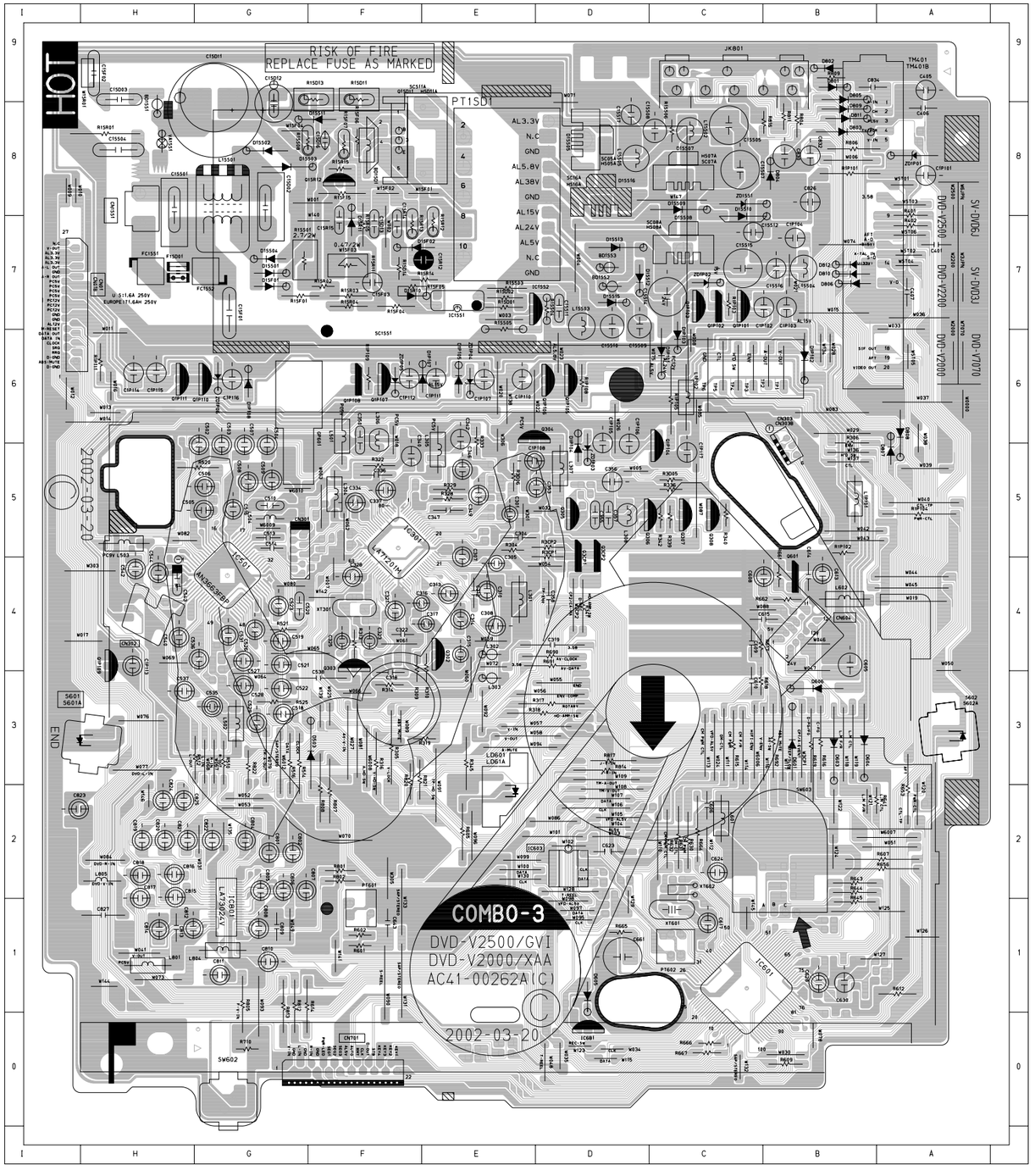


MEMO

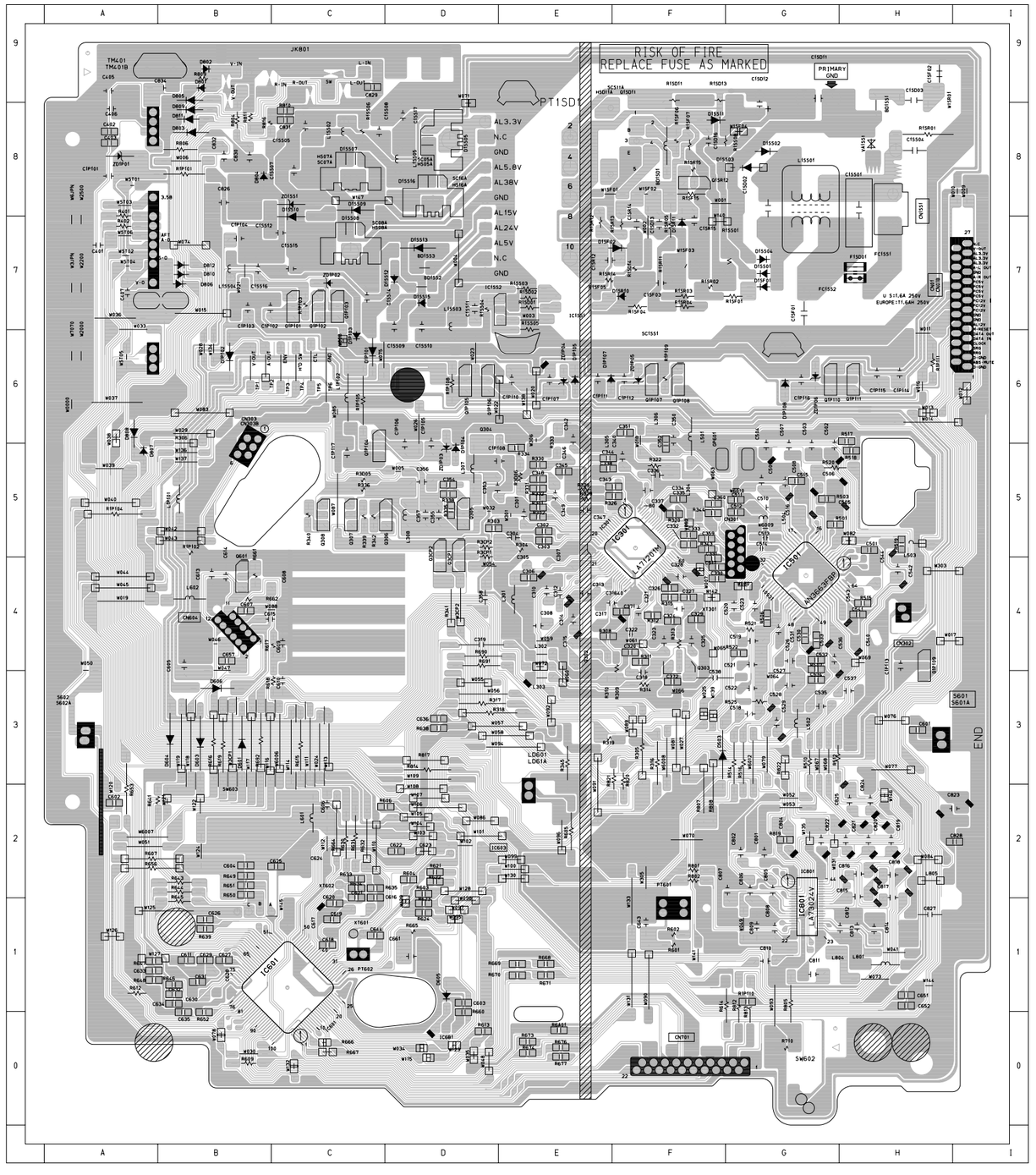
9. PCB Diagrams

9-1 VCR Main

COMPONENT SIDE

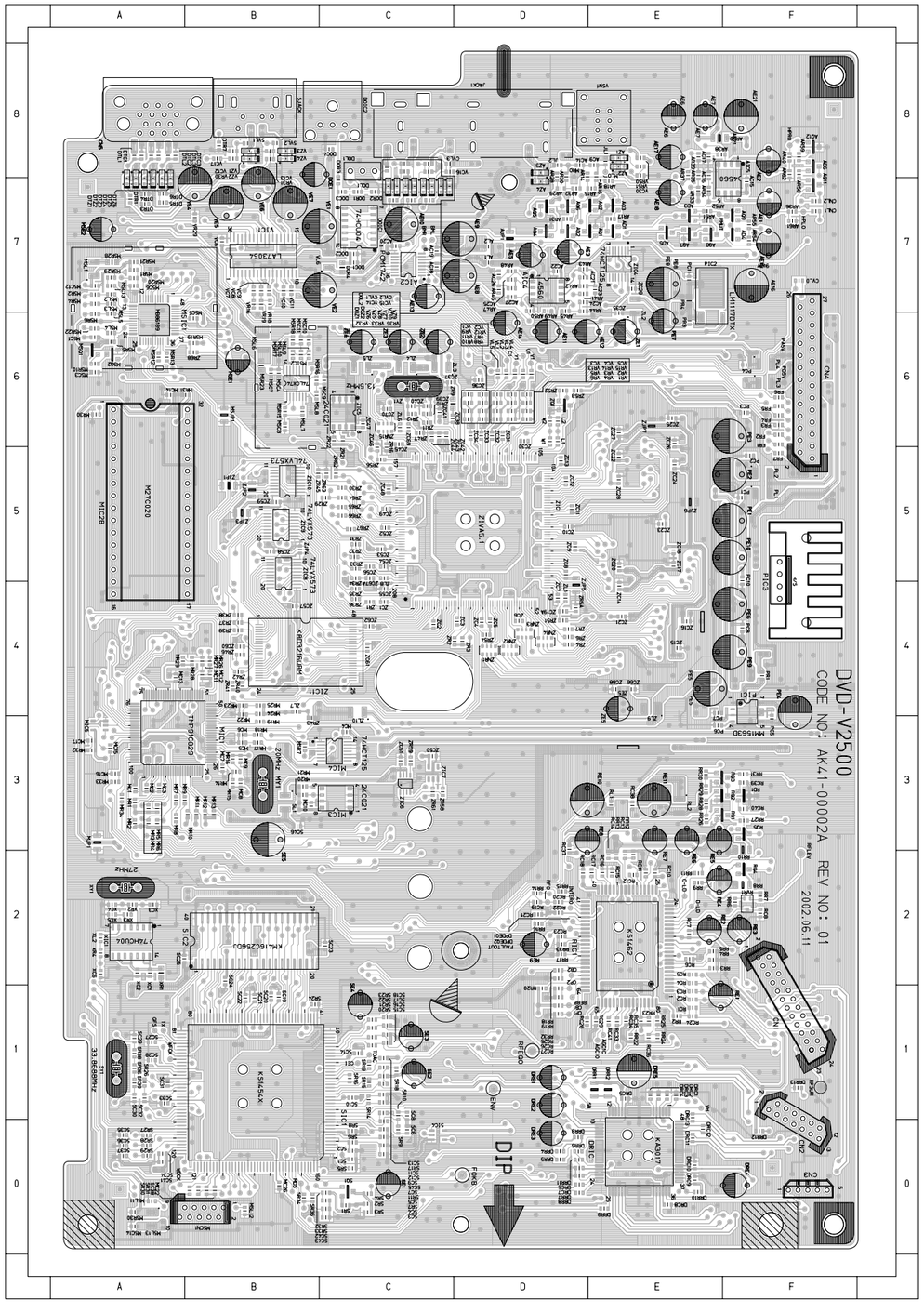


CONDUCTOR SIDE

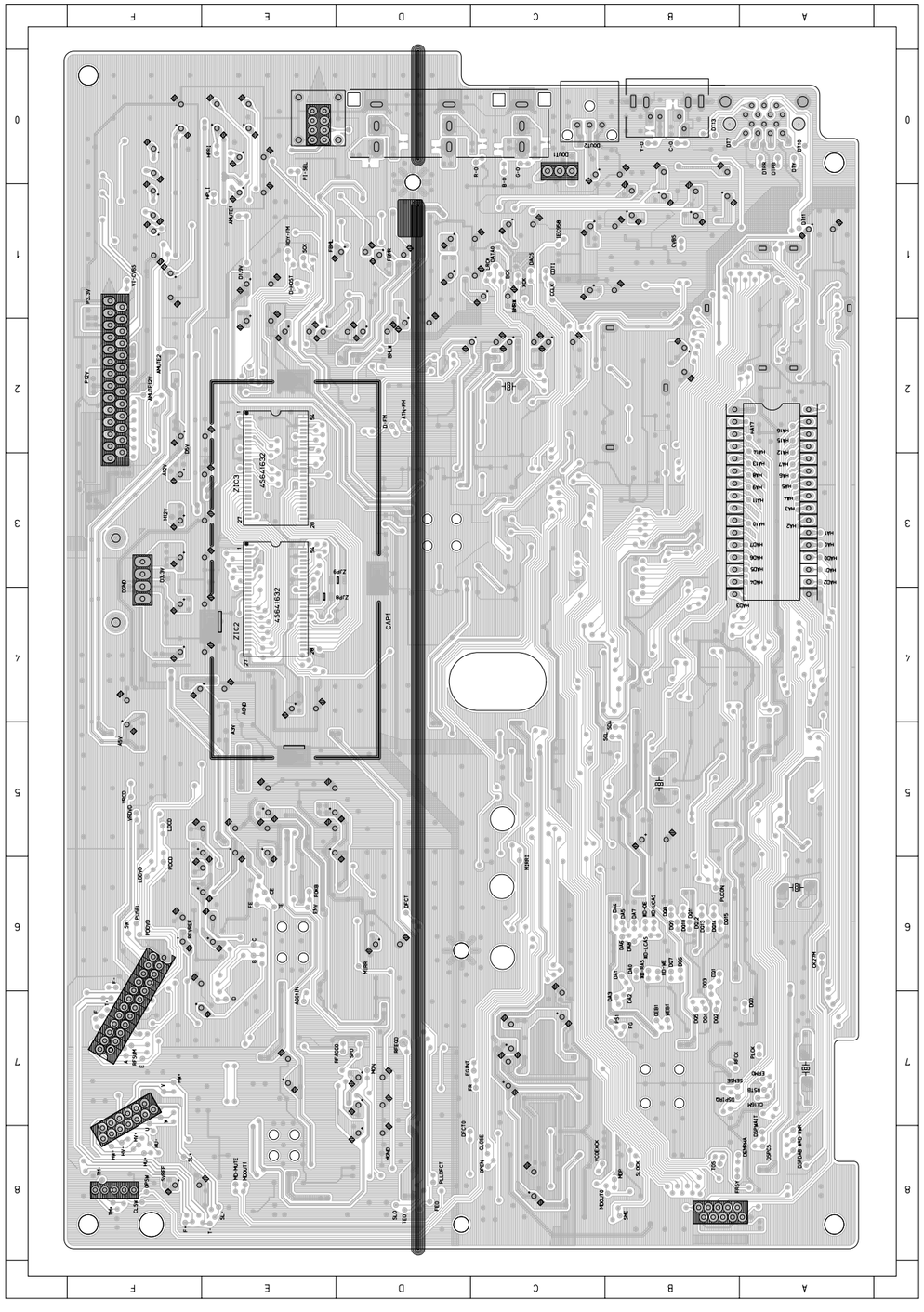


9-2 DVD Main

COMPONENT SIDE

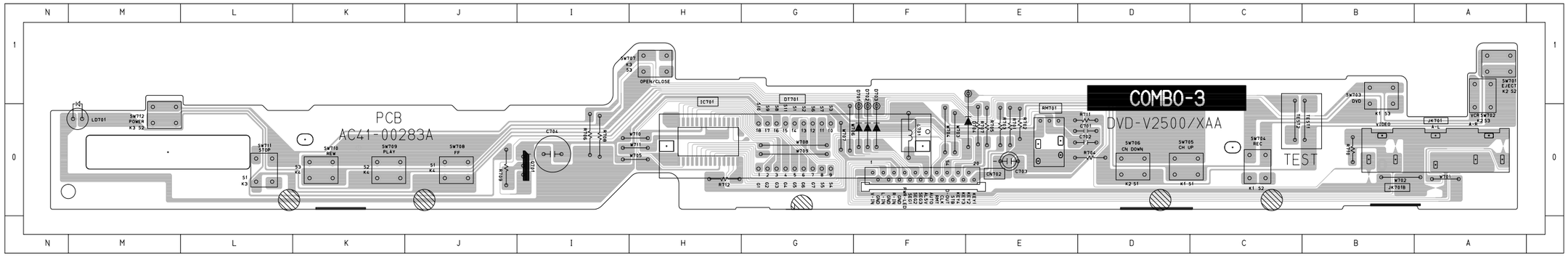


SOLDER SIDE

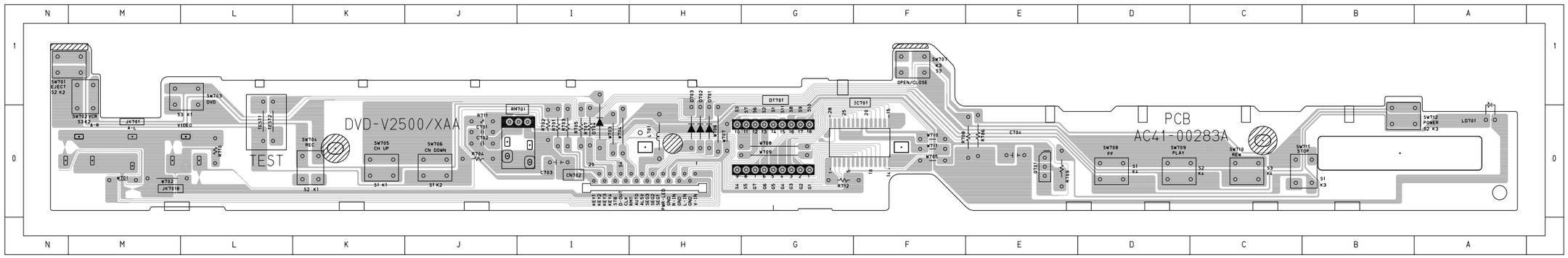


9-3 Function-Timer

COMPONENT SIDE

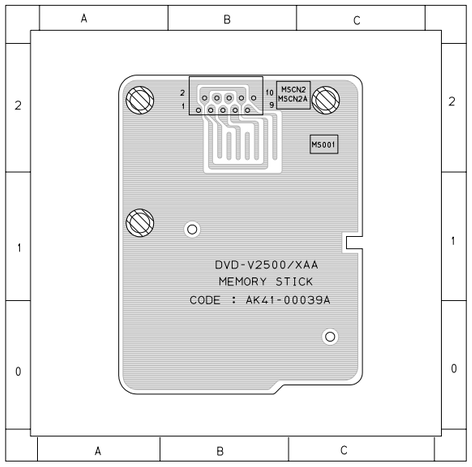


CONDUCTOR SIDE

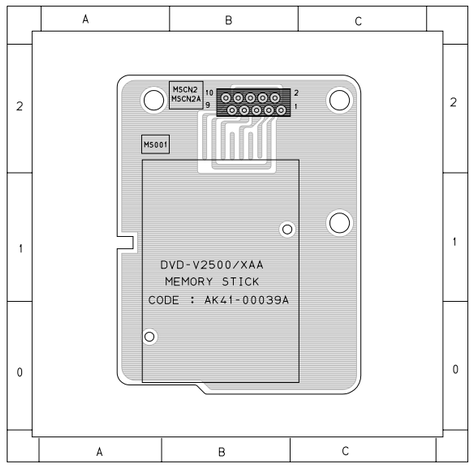


9-4 Memory Stick

COMPONENT SIDE



CONDUCTOR SIDE



10. Schematic Diagrams

Note

For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.

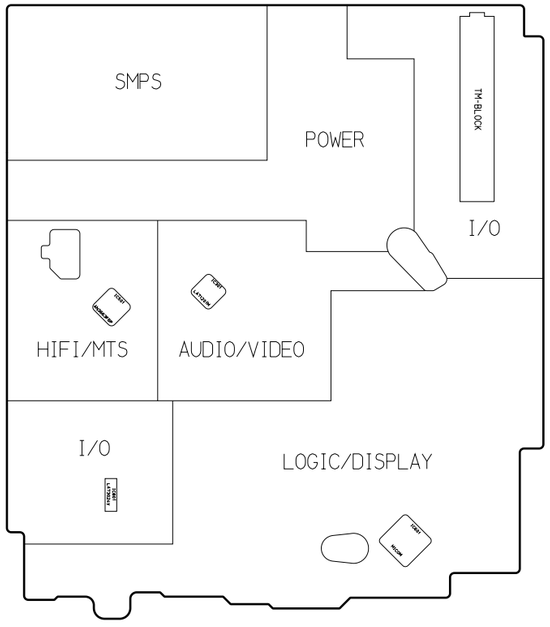
Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

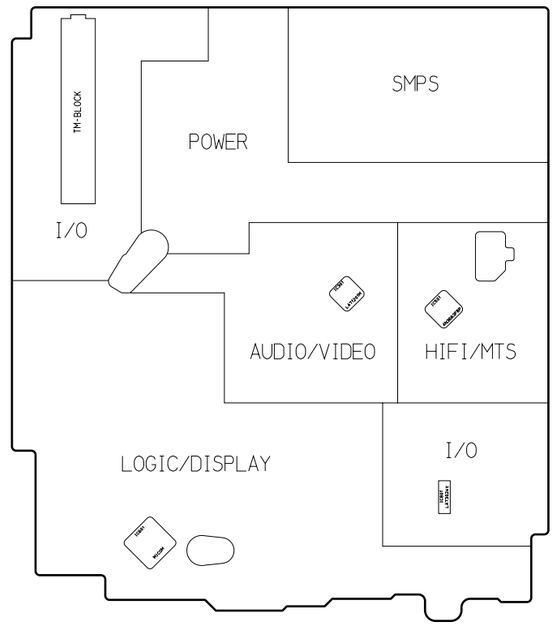
Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

◆ Block Identification of Main PCB

VCR MAIN PCB

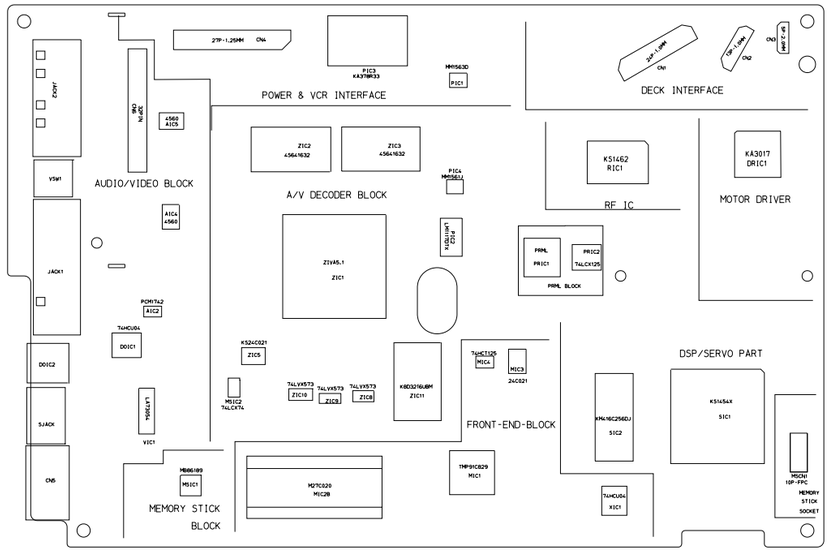


<Component Side>



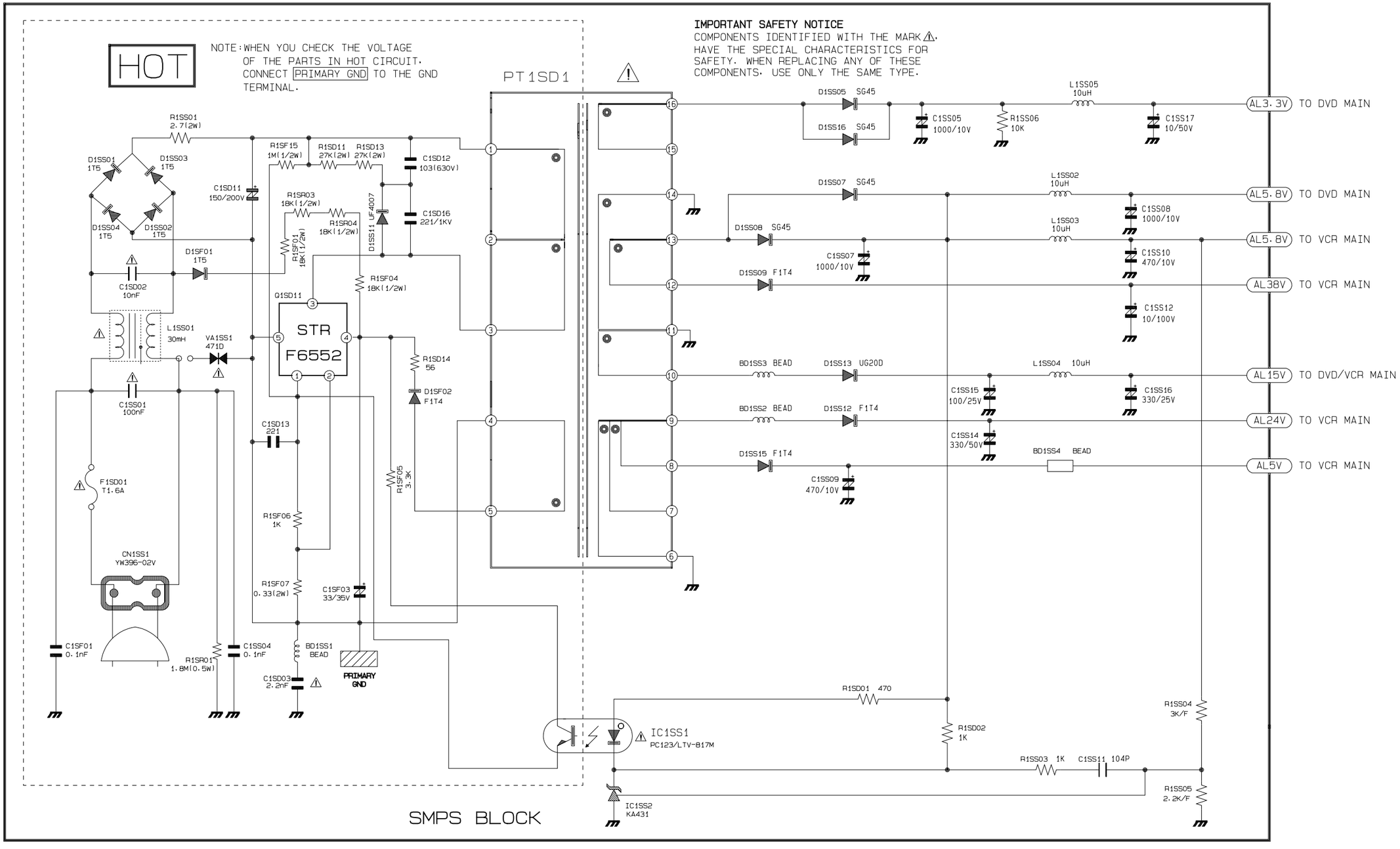
<Conductor Side>

DVD MAIN PCB

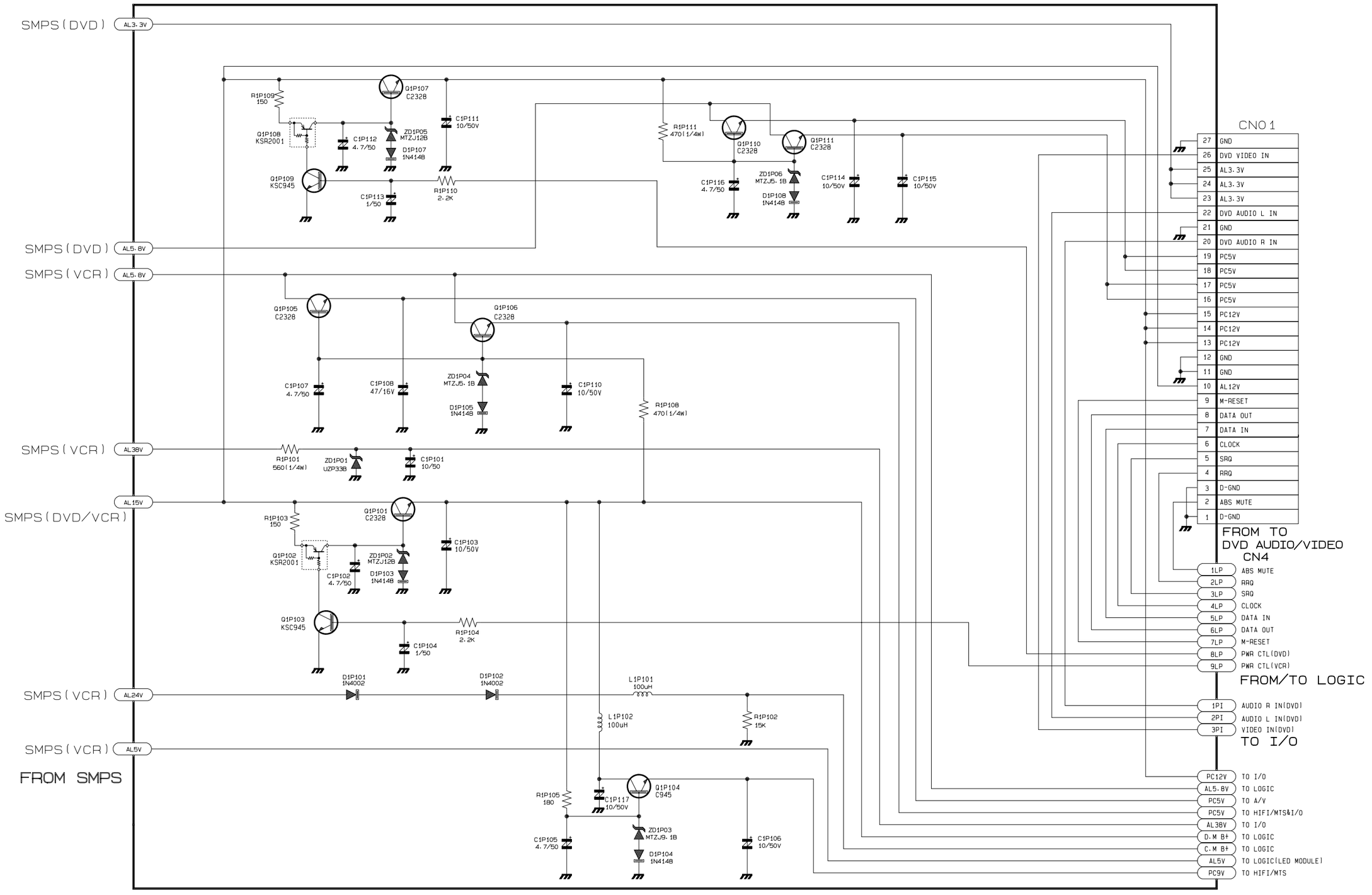


<Component Side>

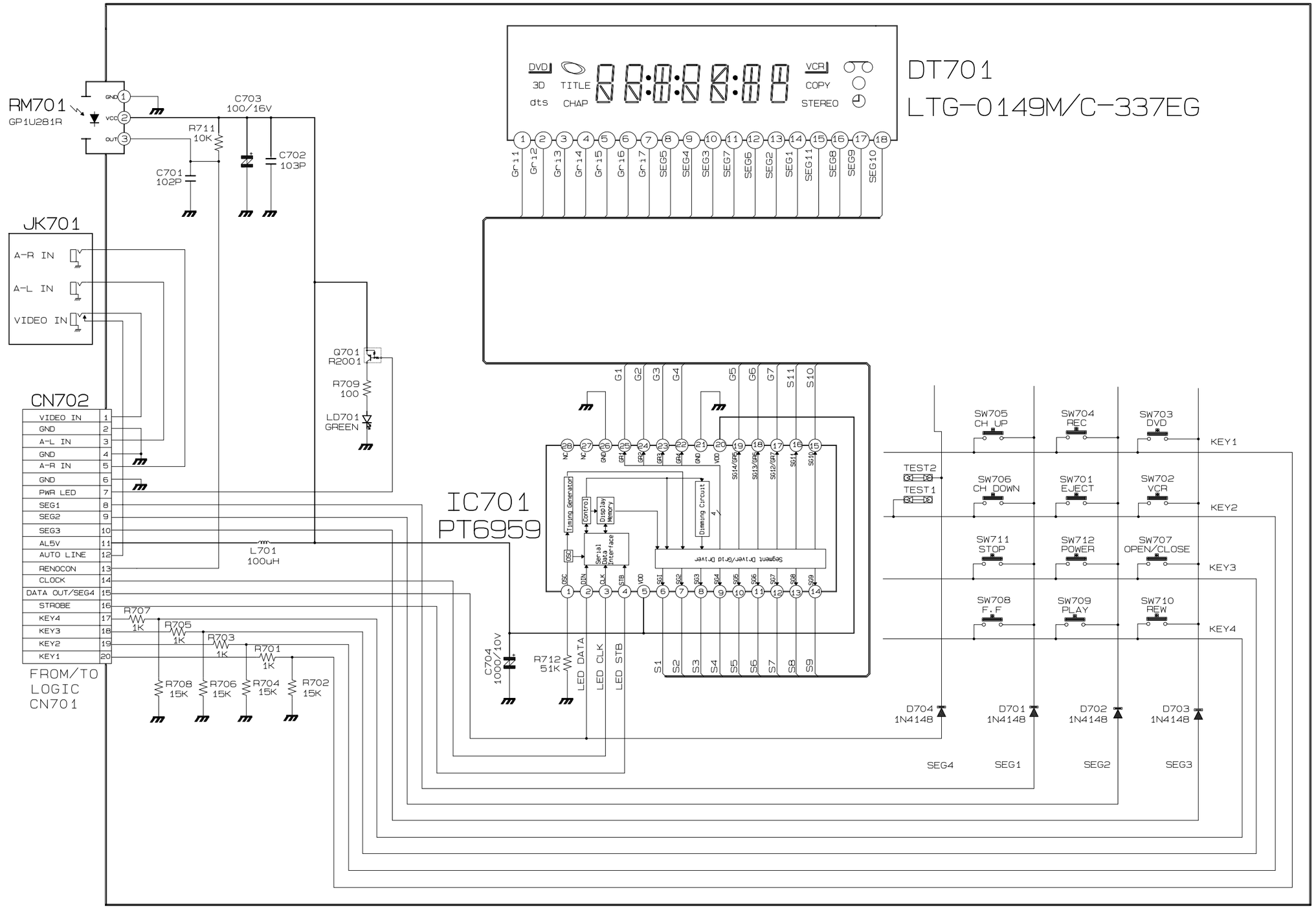
10-1 S.M.P.S.


HOT
NOTE: WHEN YOU CHECK THE VOLTAGE OF THE PARTS IN HOT CIRCUIT. CONNECT PRIMARY GND TO THE GND TERMINAL.
IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED WITH THE MARK ⚠. HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.
PT1SD1
R1SS01 2.7(2W)
D1SS01 1T5
D1SS03 1T5
D1SS04 1T5
D1SS02 1T5
C1SD11 150/200V
R1SF15 1M(1/2W)
R1SD11 27K(2W)
R1SD13 27K(2W)
C1SD12 103(630V)
R1SR03 18K(1/2W)
R1SR04 18K(1/2W)
R1SF01 18K(1/2W)
D1SS11 UF4007
C1SD16 221/1KV
D1SF01 1T5
C1SD02 10nF
R1SF04 18K(1/2W)
Q1SD11
STR F6552
L1SS01 30mH
VA1SS1 471D
R1SD14 56
D1SF02 F1T4
C1SS01 100nF
C1SD13 221
R1SF05 3.3K
F1SD01 T1.6A
R1SF06 1K
CN1SS1 YW396-02V
R1SF07 0.33(2W)
C1SF03 33/35V
C1SF01 0.1nF
R1SR01 1.8M(0.5W)
C1SS04 0.1nF
BD1SS1 BEAD
C1SD03 2.2nF
PRIMARY GND
D1SS05 SG45
D1SS16 SG45
C1SS05 1000/10V
R1SS06 10K
L1SS05 10uH
C1SS17 10/50V
AL3.3V TO DVD MAIN
D1SS07 SG45
L1SS02 10uH
C1SS08 1000/10V
AL5.8V TO DVD MAIN
D1SS08 SG45
L1SS03 10uH
C1SS07 1000/10V
C1SS10 470/10V
AL5.8V TO VCR MAIN
D1SS09 F1T4
AL38V TO VCR MAIN
C1SS12 10/100V
BD1SS3 BEAD
D1SS13 UG20D
L1SS04 10uH
C1SS15 100/25V
C1SS16 330/25V
AL15V TO DVD/VCR MAIN
BD1SS2 BEAD
D1SS12 F1T4
C1SS14 330/50V
AL24V TO VCR MAIN
D1SS15 F1T4
BD1SS4 BEAD
C1SS09 470/10V
AL5V TO VCR MAIN
R1SD01 470
R1SD02 1K
R1SS04 3K/F
IC1SS1 PC123/LTV-817M
R1SS03 1K
C1SS11 104P
R1SS05 2.2K/F
IC1SS2 KA431
SMPS BLOCK

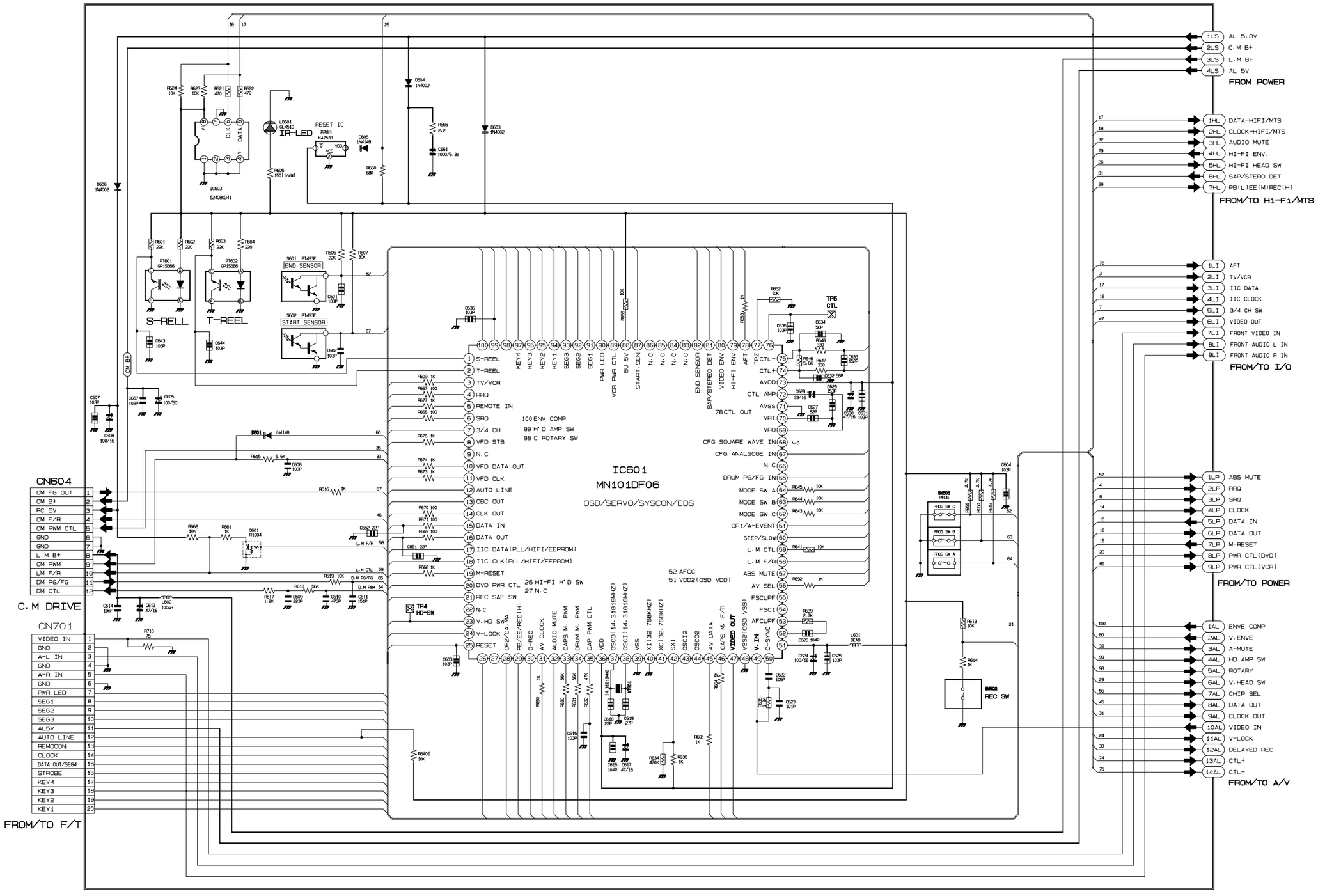
10-2 Power Drive



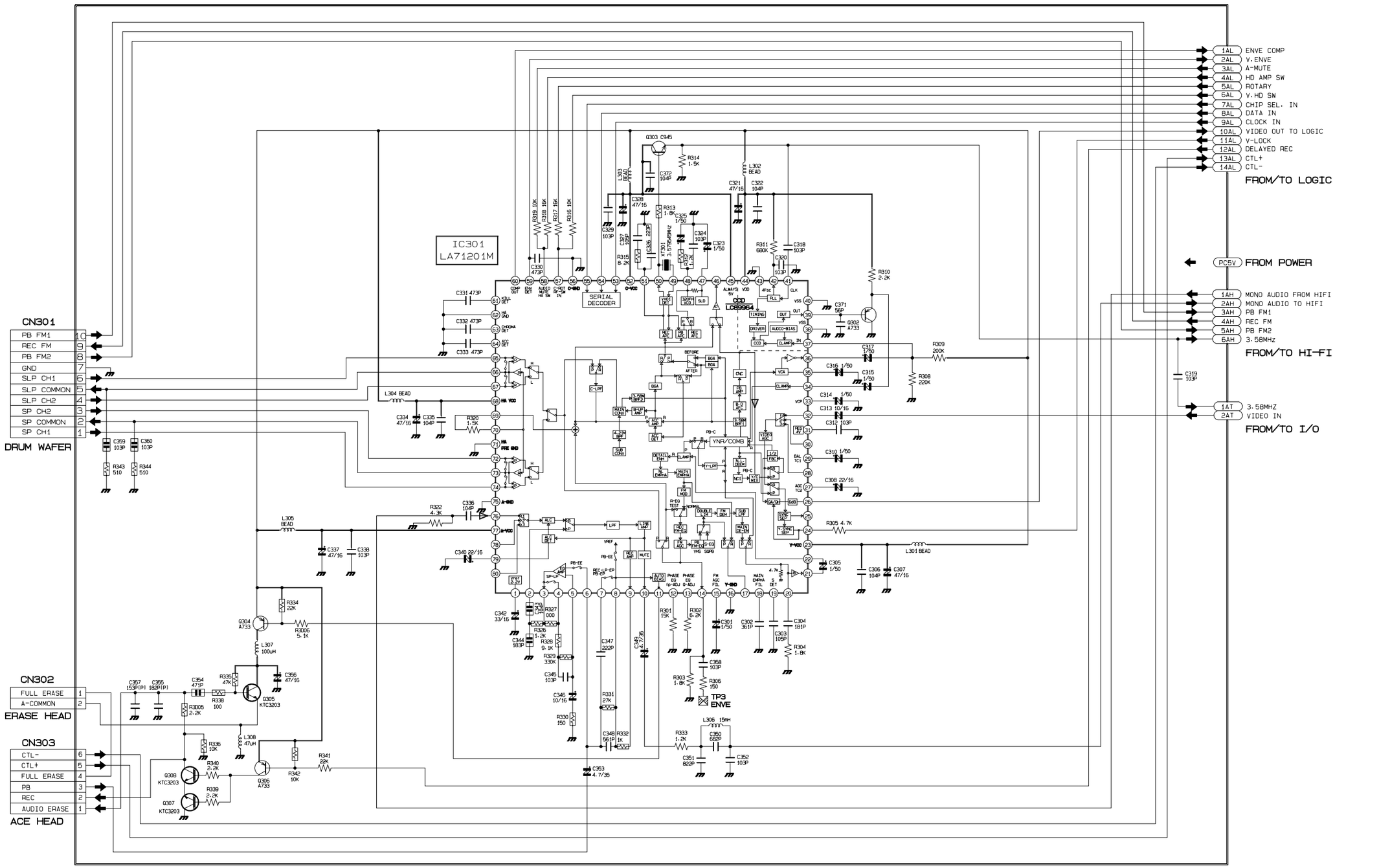
10-3 Function-Timer



10-4 Logic


IC601
MN101DF06
OSD/SERVO/SYSCON/EDS
CN604
C.M DRIVE
CN701
FROM/TO F/T
FROM POWER
FROM/TO Hi-Fi/MTS
FROM/TO I/O
FROM/TO POWER
FROM/TO A/V
S-REEL
T-REEL
IR-LED
RESET IC
TP5 CTL
TP4 HD-SW
REC SW
PROG SW
1LS AL 5.8V
2LS C.M B+
3LS L.M B+
4LS AL 5V
1HL DATA-HIFI/MTS
2HL CLOCK-HIFI/MTS
3HL AUDIO MUTE
4HL HI-FI ENV.
5HL HI-FI HEAD SW
6HL SAP/STERO DET
7HL PB(L)EE(M)REC(H)
1LI AFT
2LI TV/VCR
3LI IIC DATA
4LI IIC CLOCK
5LI 3/4 CH SW
6LI VIDEO OUT
7LI FRONT VIDEO IN
8LI FRONT AUDIO L IN
9LI FRONT AUDIO R IN
1LP ABS MUTE
2LP RRQ
3LP SRQ
4LP CLOCK
5LP DATA IN
6LP DATA OUT
7LP M-RESET
8LP PWR CTL(DVD)
9LP PWR CTL(VCR)
1AL ENVE COMP
2AL V.ENVE
3AL A-MUTE
4AL HD AMP SW
5AL ROTARY
6AL V.HEAD SW
7AL CHIP SEL
8AL DATA OUT
9AL CLOCK OUT
10AL VIDEO IN
11AL V-LOCK
12AL DELAYED REC
13AL CTL+
14AL CTL-
100 ENV COMP
99 H'D AMP SW
98 C ROTARY SW
76 CTL OUT
26 HI-FI H'D SW
27 N.C
52 AFCC
51 VDD2(OSD VDD)

10-5 A/V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SLP CH2
SP CH2
SP COMMON
SP CH1
DRUM WAFER
CN302
FULL ERASE
A-COMMON
ERASE HEAD
CN303
CTL-
CTL+
FULL ERASE
PB
REC
AUDIO ERASE
ACE HEAD
1AL ENVE COMP
2AL V.ENVE
3AL A-MUTE
4AL HD AMP SW
5AL ROTARY
6AL V.HD SW
7AL CHIP SEL. IN
8AL DATA IN
9AL CLOCK IN
10AL VIDEO OUT TO LOGIC
11AL V-LOCK
12AL DELAYED REC
13AL CTL+
14AL CTL-
FROM/TO LOGIC
PC5V FROM POWER
1AH MONO AUDIO FROM HIFI
2AH MONO AUDIO TO HIFI
3AH PB FM1
4AH REC FM
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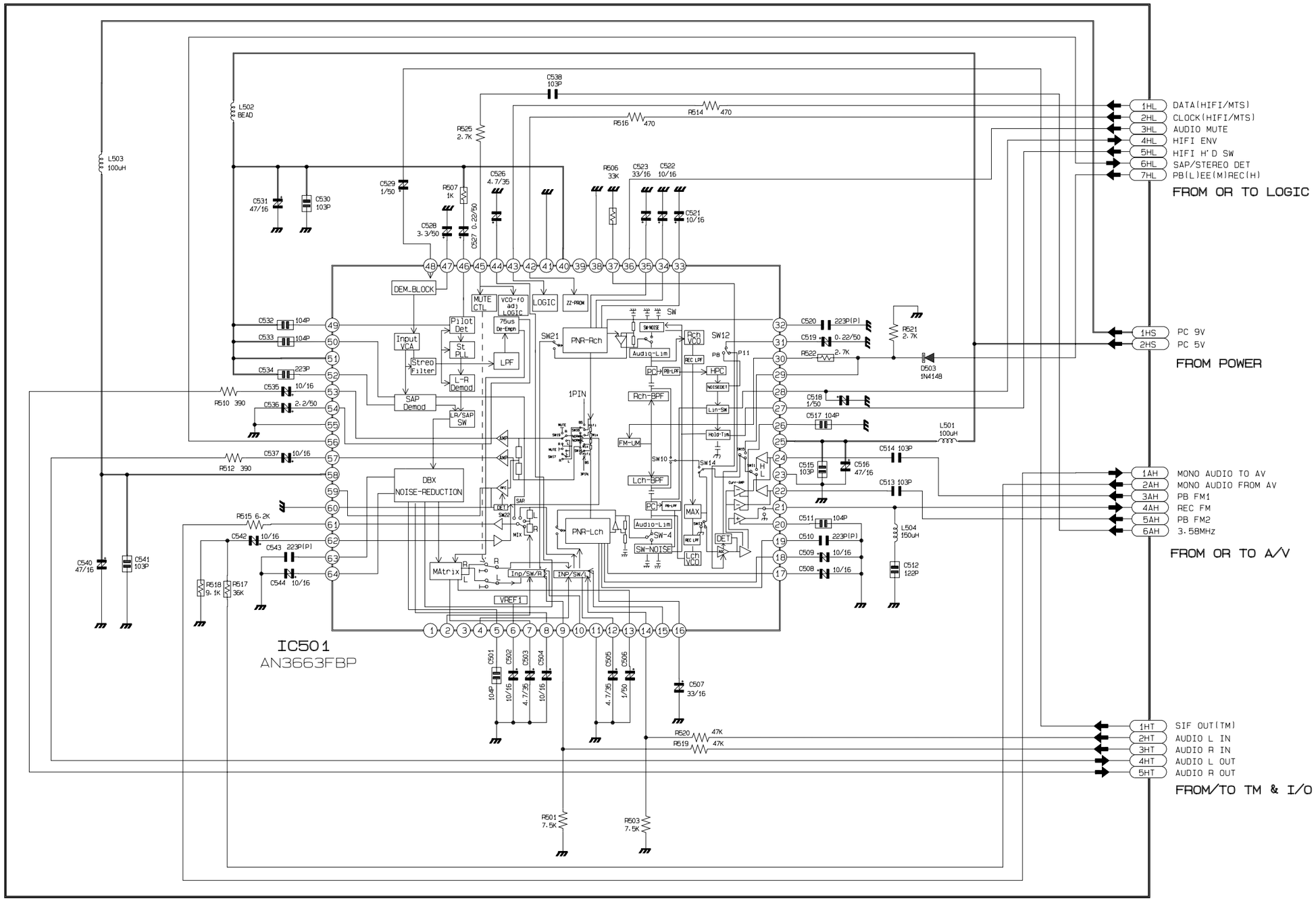
TP3 ENVE
YNR/COMB

10-6 Hi-Fi/MTS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St PLL
LPF
75us De-Emph
L-R Demod
SAP Demod
LR/SAP SW
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PNR-Lch
Rch VCO
Lch VCO
Audio-Lim
SW-NOISE
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Lch-BPF
Lin-SW
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6HL SAP/STEREO DET
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5HT AUDIO R OUT
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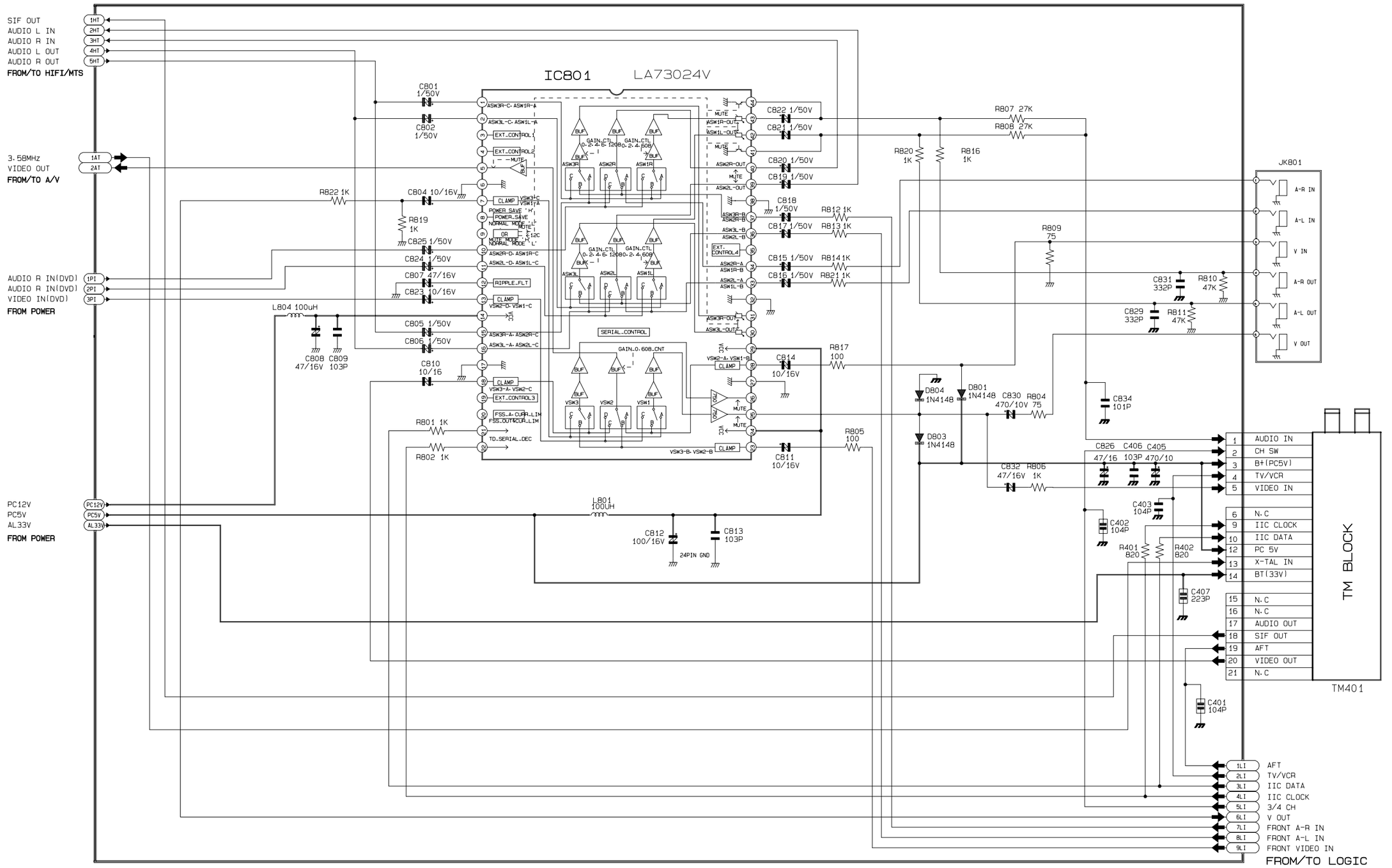

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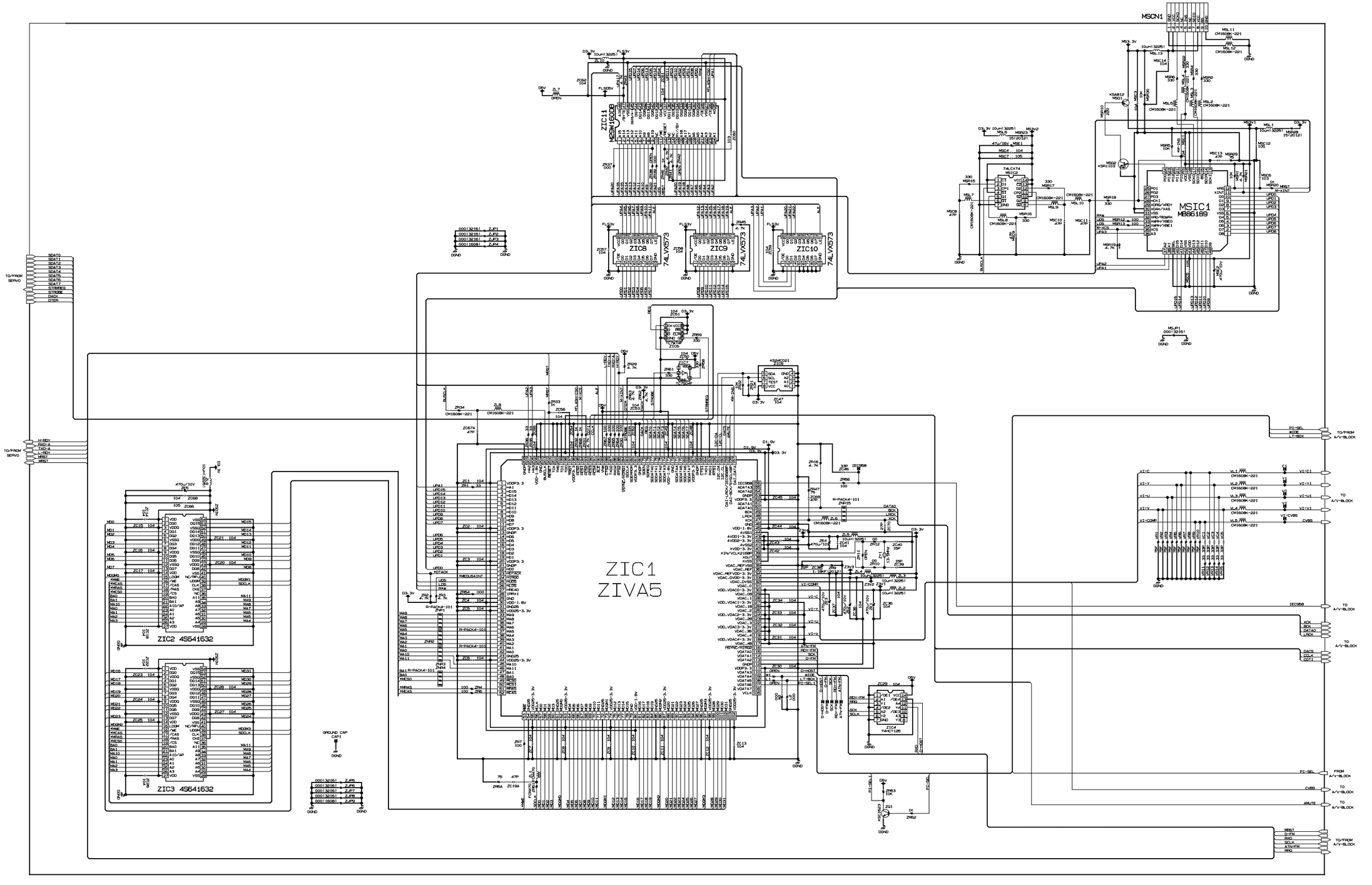

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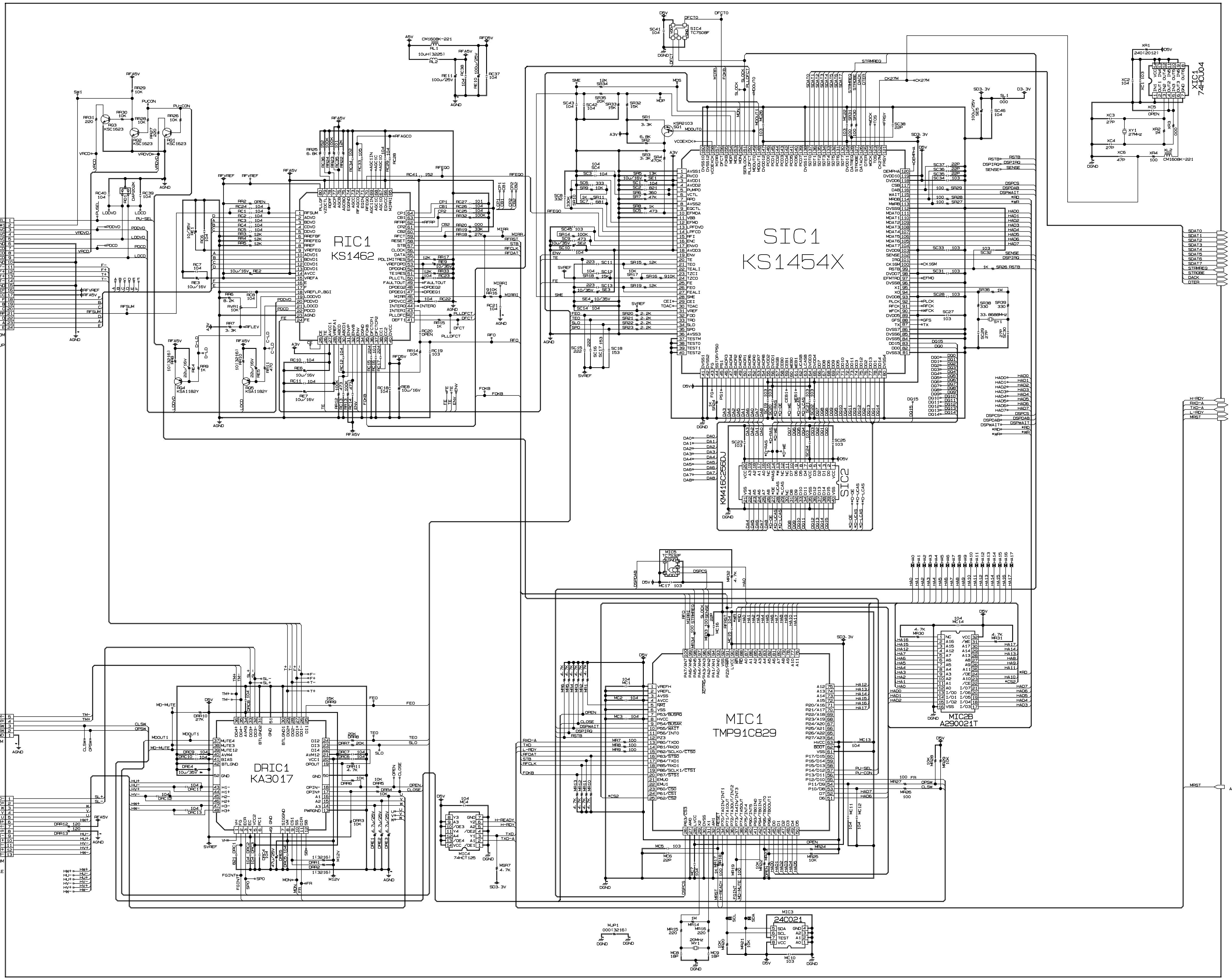

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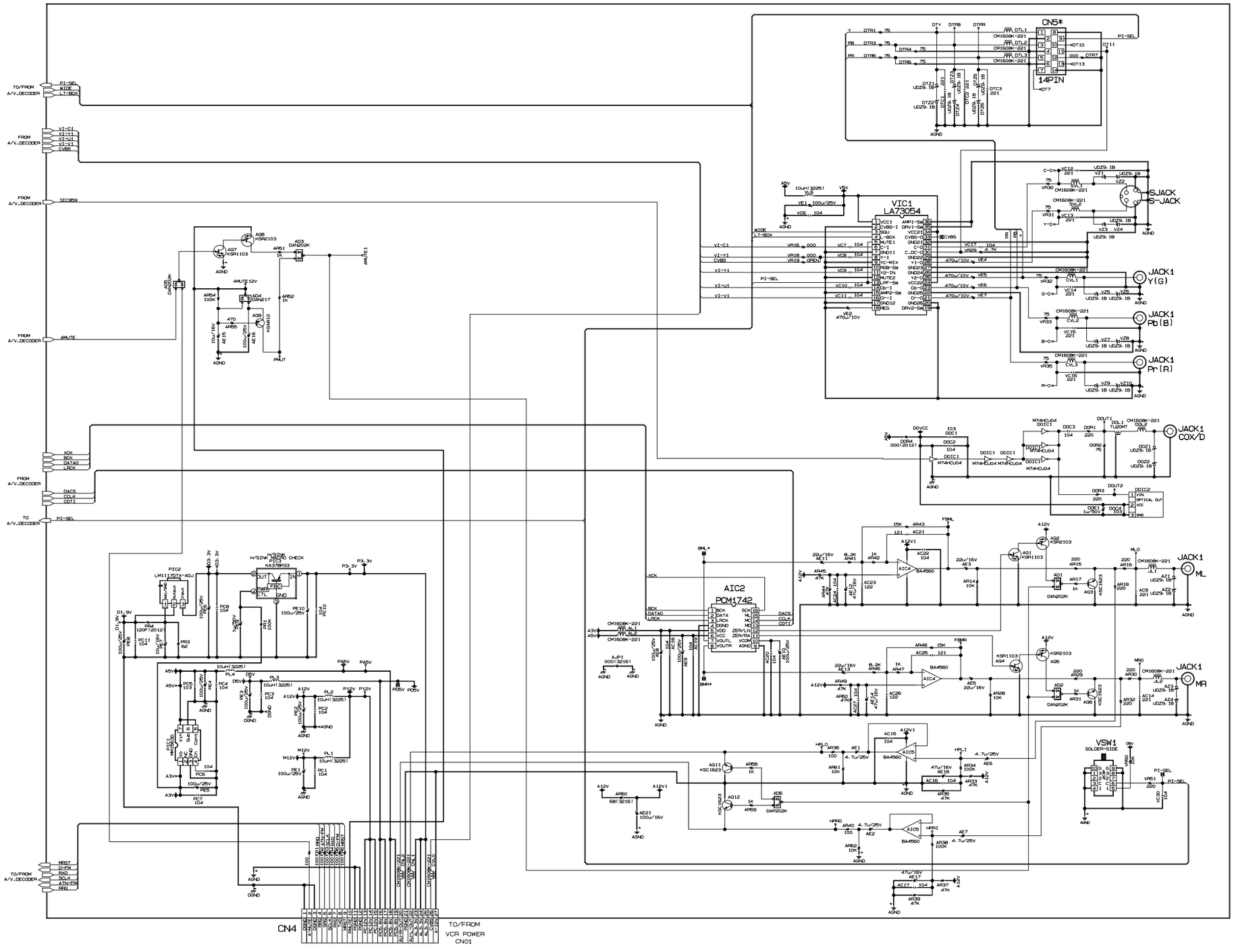

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TS-10A DECK

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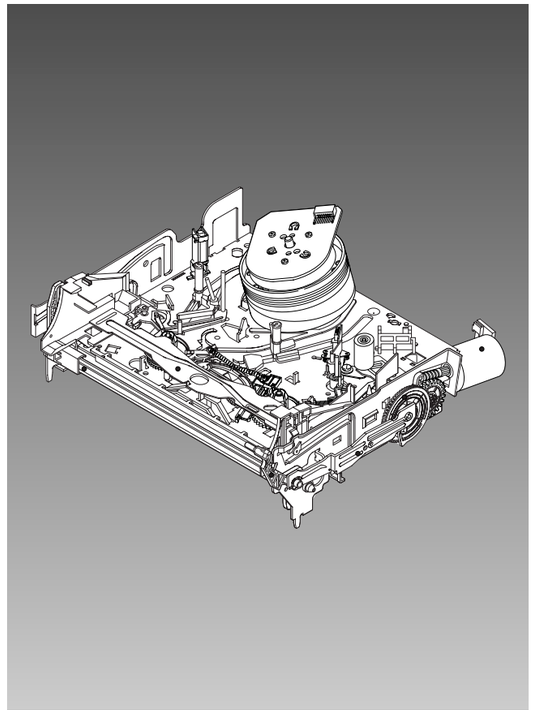
TS-10 DECK



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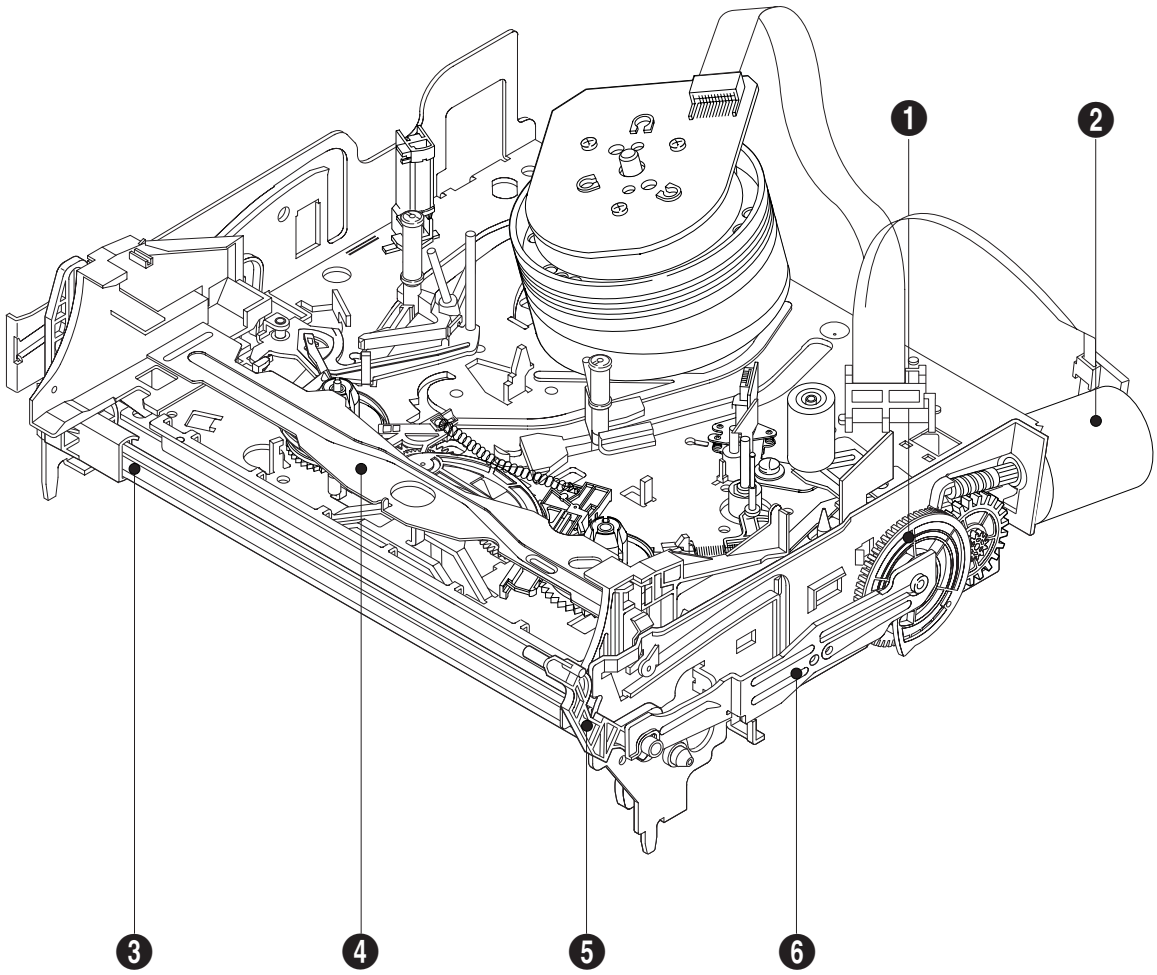


Fig. 1-1 Top parts Location-1

1. GEAR FL CAM
2. MOTOR LOADING ASS'Y
3. LEVER FL ARM ASS'Y
4. HOLDER FL CASSETTE ASS'Y
5. LEVER FL DOOR
6. SLIDER FL DRIVE

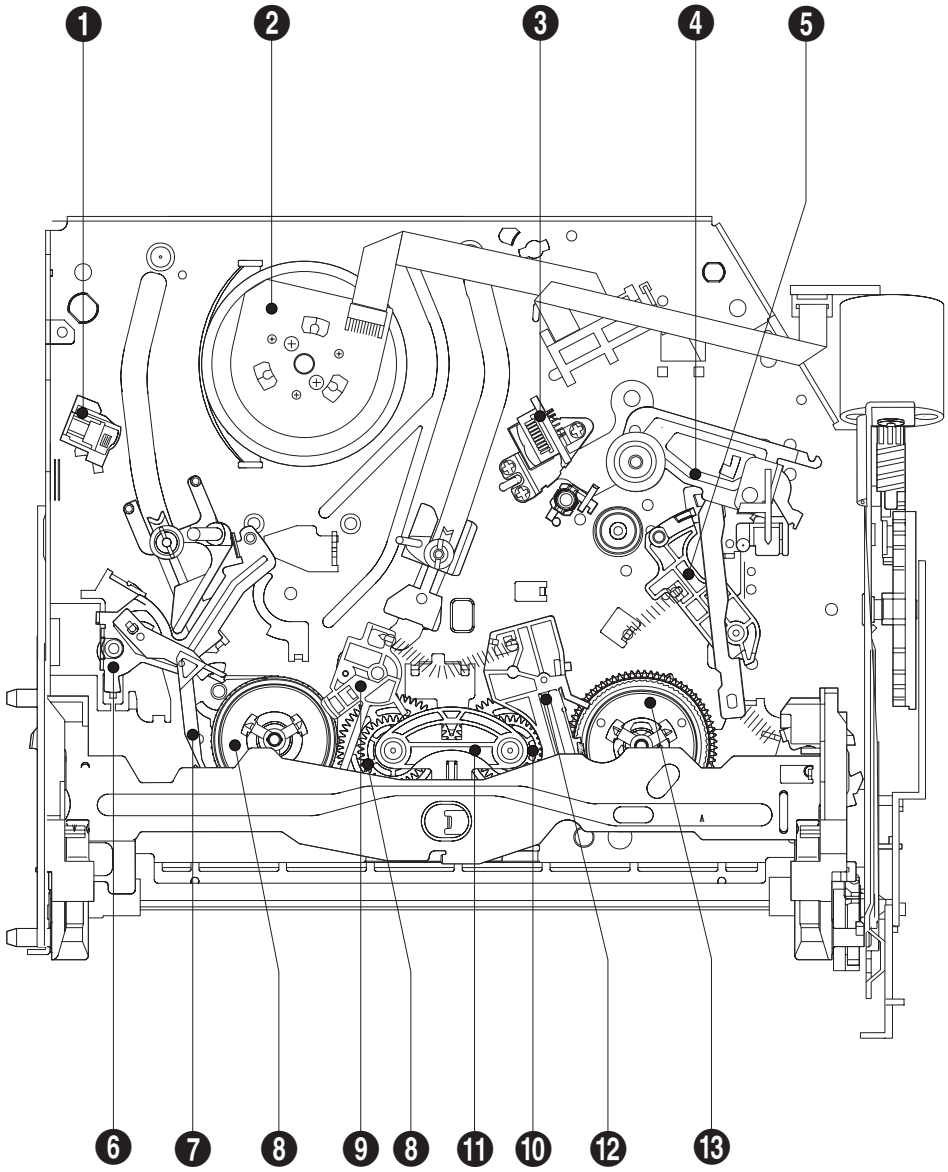


Fig. 1-2 Top Parts Location-2

1. FE HEAD
2. CYLINDER ASS'Y
3. ACE HEAD ASS'Y
4. LEVER UNIT PINCH ASS'Y
5. LEVER #9 GUIDE ASS'Y
6. LEVER TENSION ASS'Y
7. BAND BRAKE ASS'Y
8. DISK S REEL
9. LEVER S BRAKE ASS'Y
10. GEAR IDLE
11. LEVER IDLE
12. LEVER T BRAKE ASS'Y
13. DISK T REEL

1-1-2 Bottom View

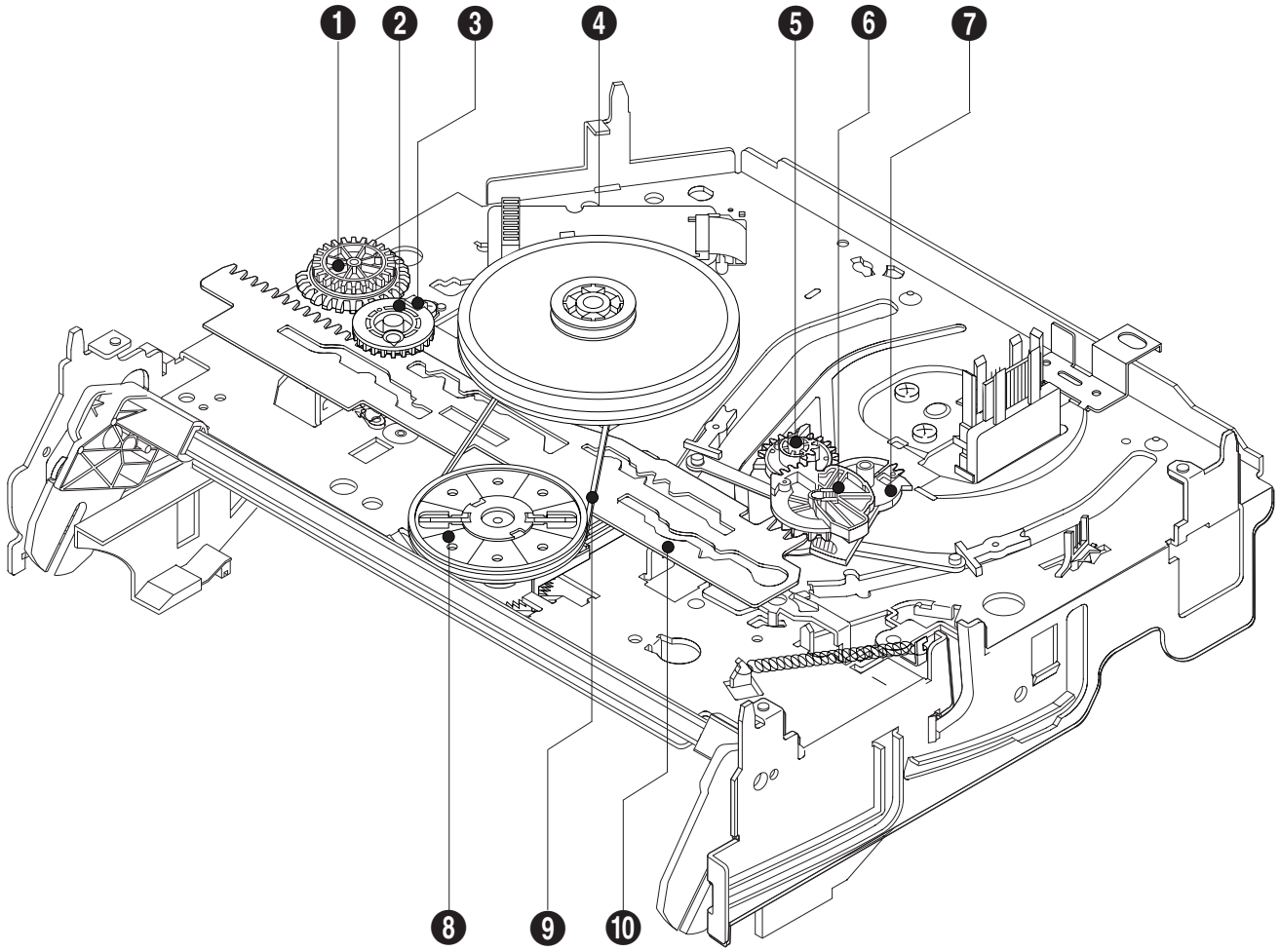


Fig. 1-3 Bottom Parts Location

1. GEAR JOINT 1
2. GEAR JOINT 2
3. BRACKET GEAR
4. MOTOR CAPSTAN ASS'Y
5. LEVER T LOAD ASS'Y
6. GEAR LOADING DRIVE
7. LEVER S LOAD ASS'Y
8. HOLDER CLUTCH ASS'Y
9. BELT PULLEY
10. SLIDER CAM

1-2 Main Deck

1-2-1 Holder FL Cassette Ass'y Removal

1) Pull the Holder FL Cassette Ass'y ❶ to the eject position.
2) Pull the Holder FL Cassette Ass'y ❶ as grasping the Holder FL Cassette Ass'y ❶ and Lever FL Cassette-R ❷ in the same time to release hooking from Main Base until the Boss [A] of Holder FL Cassette Ass'y ❶ is taken out from the Rail [B].
3) Lift the Holder FL Cassette Ass'y ❶, in this time, you have to grasp the Lever FL Cassette-R ❷ Continuously until the Holder FL Cassette Ass'y ❶ is taken out completely.

Note : Be sure to insert Lever FL Cassette-R ❷ in the direction of "A" to prevent separation and breakage of the Lever FL Cassette-R ❷ at disassembling and reassembling.

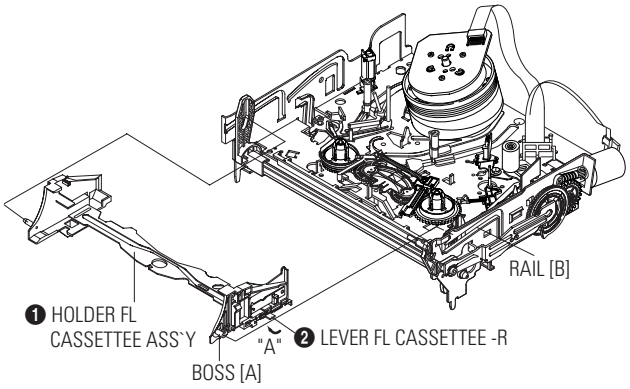


Fig. 1-4 Holder FL Cassette Ass'y Removal

1-2-2 Lever FL Door Removal

1) Release the Hook ❷ and Remove the Lever FL Door ❶ in the direction of arrow "C".

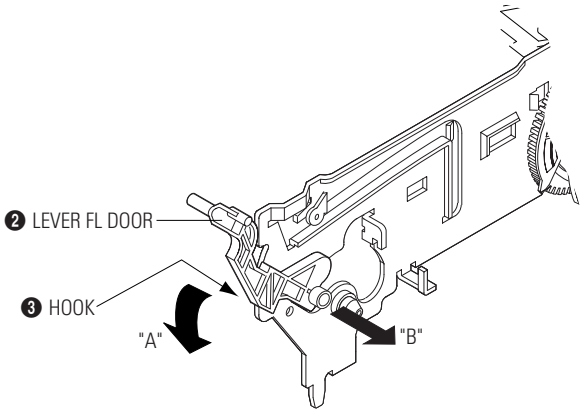


Fig. 1-5 Lever FL Door Removal

1-2-3 Slider FL Drive, Gear FL Cam Removal

1) Pull the Slider FL Drive ❶ to the front direction.
2) Remove the Slider FL Drive ❶ in the direction of arrow. (Refer to Fig. 1-6)
3) Remove the Gear FL cam ❷.

Note : When reinstalling be sure to reassemble Slider FL drive ❶ after you insert the Boss of Lever FL ARM-R in Groove of Slider Fl drive ❶.

Assembly : Align the Gear FL Cam ❶ with the Gear worm wheel Post as shown drawing.
(Refer to Timing point)

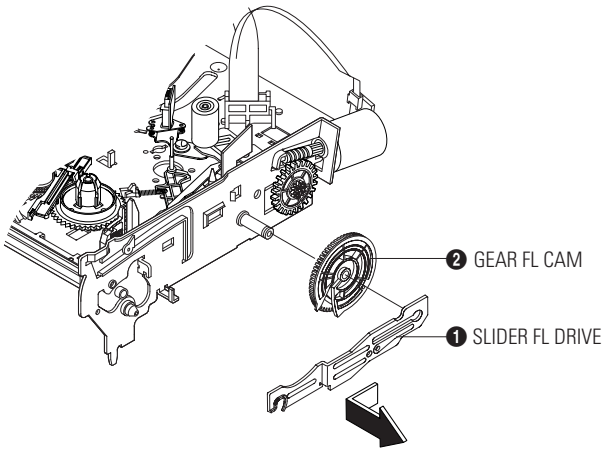


Fig. 1-6 Slider FL Drive Removal

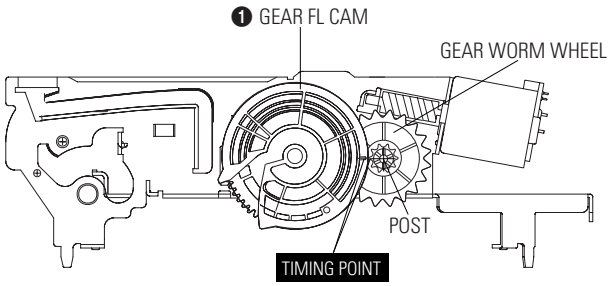


Fig. 1-7 Gear FL Cam, Gear Worm

1-2-4 Lever FL Arm Ass'y Removal

1) Push the hole "A" in the direction of arrow "B" use the pin.(about Dia. 2.5)
2) Pull out the Lever FL Arm Ass'y ❶ from the Boss of Main Base.
3) Remove the Lever FL Arm Ass'y ❶ in the direction of arrow "C".

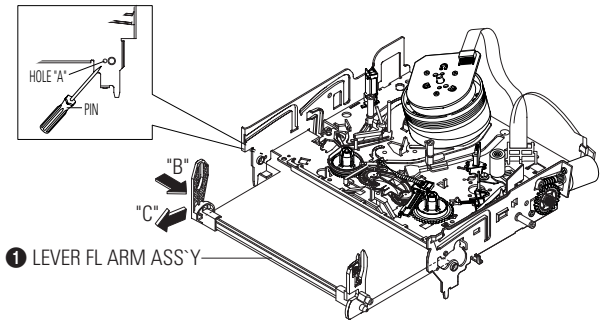


Fig. 1-8 Lever FL Arm Ass'y Removal

1-2-5 Gear Worm Wheel Removal

1) Remove the Gear Worm wheel ❶.

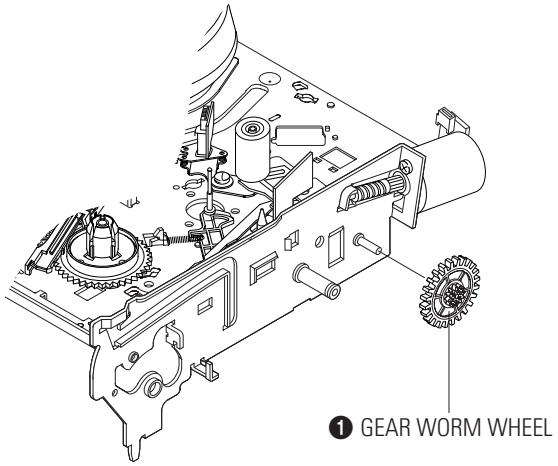


Fig. 1-9 Gear Worm Wheel Removal

1-2-6 Cable Flat Removal

1) Remove the Drum connecting part of Cable Flat ❶ from Connector Waffer ❷.
2) Remove the Loading Motor connecting part of Cable Flat ❶ from Connector Waffer ❸.
3) Rotate the Damper Capstan ❹ in the direction of arrow "A" and remove it toward "B".
4) Pull the Cable Flat ❶ in the direction of arrow "C" to remove.

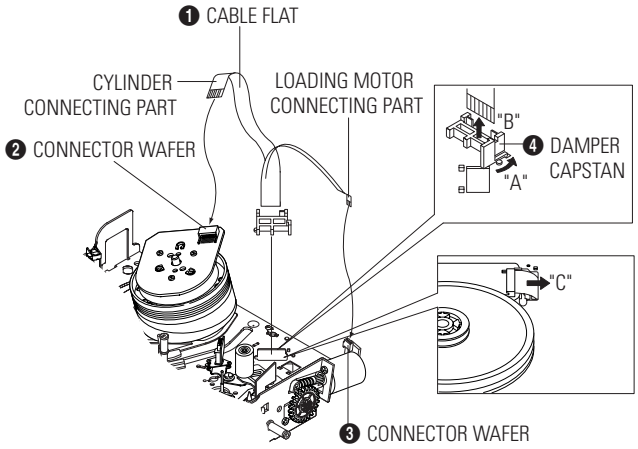


Fig. 1-10 Cable Flat Removal

1-2-7 Motor Loading Ass'y Removal

1) Remove the screw ❶.
2) Remove the Motor Loading Ass'y ❷.

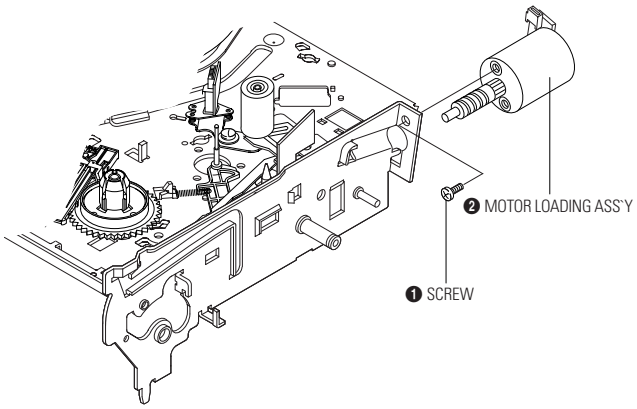


Fig. 1-11 Motor Loading Ass'y Removal

1-2-8 Bracket Gear, Gear Joint 2, 1 Removal

1) Remove the SCREW ❶.
2) Remove the Bracket Gear ❷.
3) Remove the Gear Joint 2 ❸.
4) Remove the Gear Joint 1 ❹.

Assembly :
1) Be sure to align dot mark of Gear Joint 1 ❶ with dot mark of Gear Joint 2 ❷ as shown Fig 1-13. (Refer to Timing point1)
2) Confirm the Timing Point 2 of the Gear Joint 2 ❷ and Slider Cam ❸.

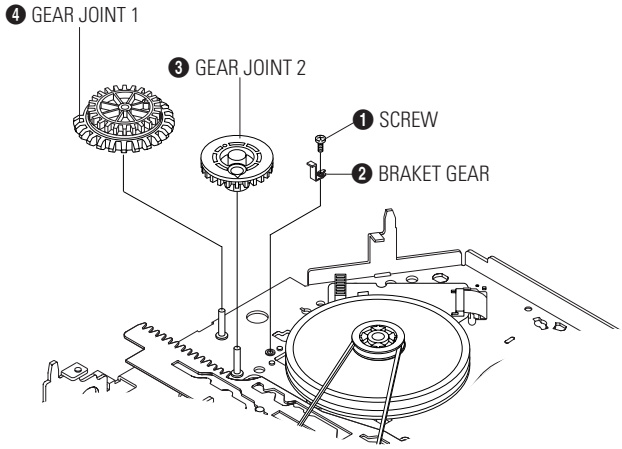


Fig. 1-12 Bracket Gear, Gear Joint 1,2 Removal

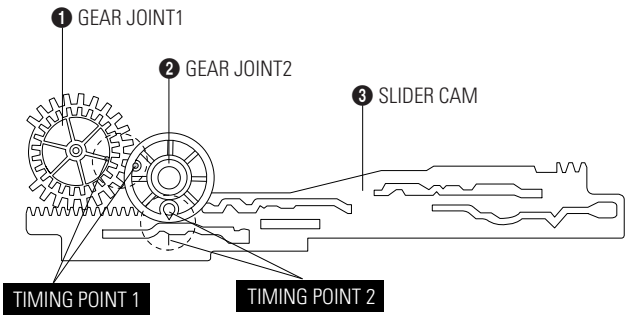


Fig. 1-13 Gear Joint 1,2 Assembly

1-2-9 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Removal

1) Remove the Belt Pulley. (Refer to Fig. 1-31)
2) Remove the Gear Loading Drive ❶ after releasing Hook [A] in the direction arrow as shown in detail drawing.
3) Remove the Slider Cam ❷.
4) Remove the Lever Load ❸, Link Load ❺ & Lever Load ❹, Link Load ❻.

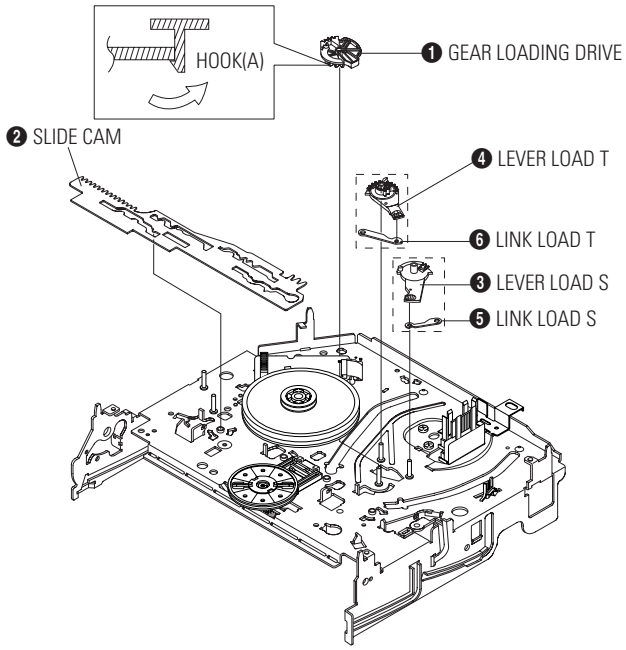


Fig. 1-14 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

1-2-10 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1) When reinstalling, be sure to align dot of Lever Load T Ass'y ❶ with dot of Lever Load S Ass'y ❷ as shown in drawing, (Refer to Timing Point 1).
2) Insert the Pin A,B,C,D into the Slider Cam ❸ hole,
3) Be sure to align dot of Lever Load T ❶ and dot of Gear Loading Drive ❹, (Refer to Timing Point 2).
4) Aline dot of Gear Loading drive ❹ with mark of Slider Cam ❸ as shown in drawing(Refer to Timing Point 3).

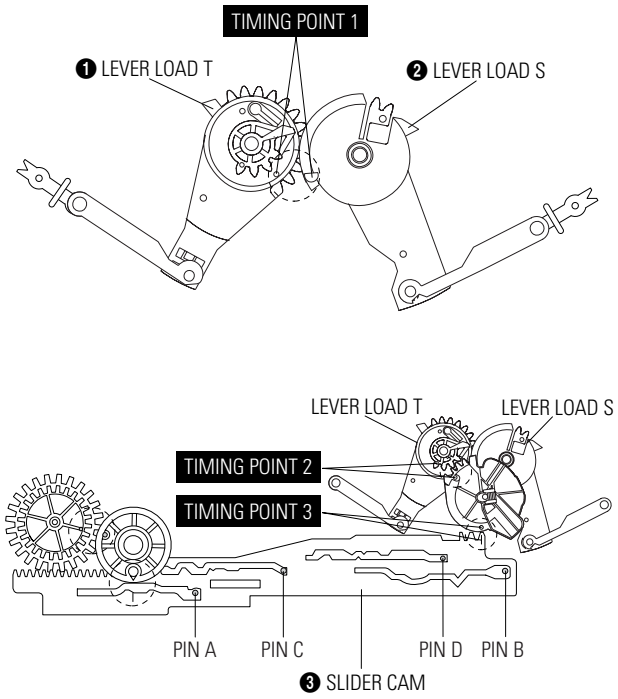


Fig. 1-15 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1-2-11 Lever Pinch Drive, Lever Tension Drive Removal

1) Remove the Lever Pinch Drive ❶, Lever Tension Drive ❷.

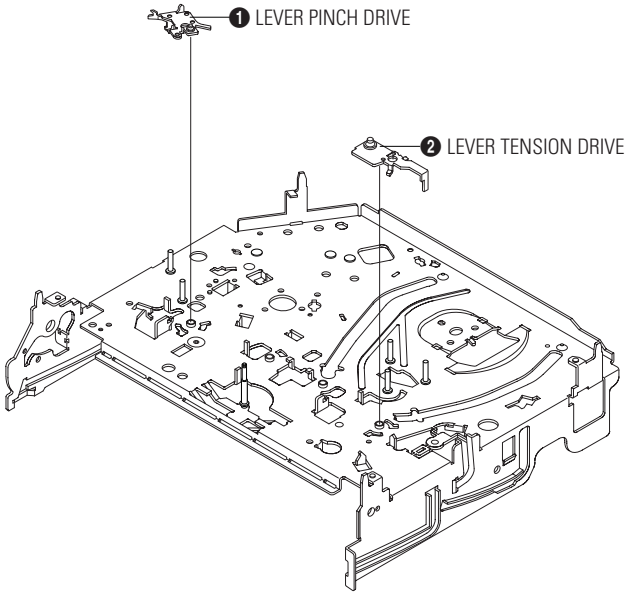


Fig. 1-16 Lever Pinch Drive, Lever Tension Drive Removal

1-2-12 Lever Tension Ass'y, Band Brake Ass'y Removal

1) Remove the Lever Brake S Ass'y (Refer to Fig 1-18).
2) Remove the Spring Tension Lever ❶.
3) Rotate stopper of Main Base in the direction of arrow "A".
4) Lift the Lever Tension Ass'y ❷ & Band brake Ass'y ❸.

Note :
1) When replacing the Lever Tension Ass'y ❷, be sure to apply Grease on the post,
2) Take care not to touch stain on the felt side, and not to be folder and broken Band brake Ass'y
3) After Lever Tension Ass'y seated, Rotate stopper of Main Base to the Mark[B].

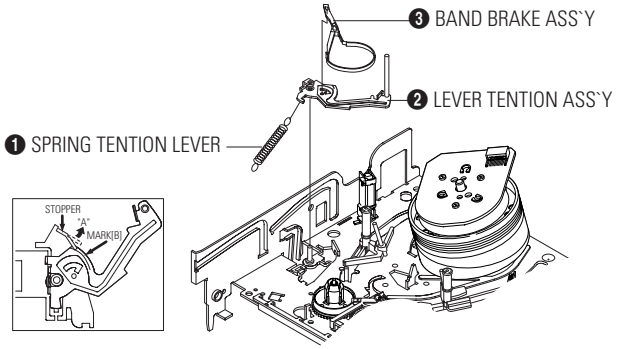


Fig. 1-17 Lever Tension Ass'y, Band Brake Ass'y Removal

1-2-13 Lever Brake S, T Ass'y Removal

1) Release the Hook [A] and the Hook [B], [C] in the direction of arrow as shown in Fig 1-18.
2) Lift the Lever S, T Brake Ass'y ❶, ❷ with spring brake ❸.

Assembly :
1)Assembly the Lever S Brake Ass'y ❶ on the Main Base.
2)Assembly the Lever T Brake Ass'y ❷ with spring brake ❸.

Note : Take extreme care not to be folded and transformed Spring Brake at removing or reinstalling.

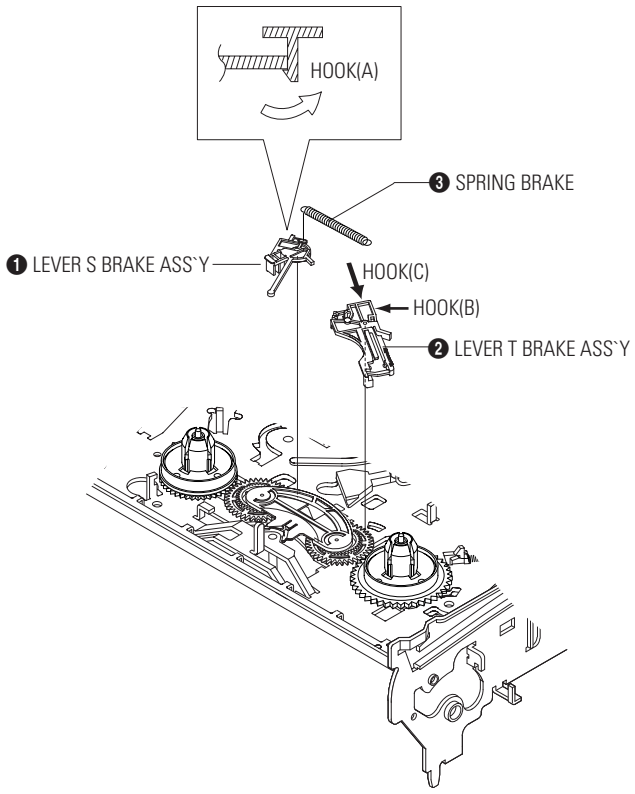


Fig. 1-18 Lever Brake S, T Ass'y Removal

1-2-14 Gear Idle Ass'y Removal

1) Push the Lever Idle ❶ in the direction of arrow "A", "B".
2) Lift the Lever Idle ❶.

Assembly :
1) Apply oil in two Bosses of Lever Idle ❶.
2) Assemble the Gear Idle ❷ with the Lever Idle ❶.

Note : When replacing the Gear Idle ❷, be sure to add oil in the boss of Lever Idle ❶.

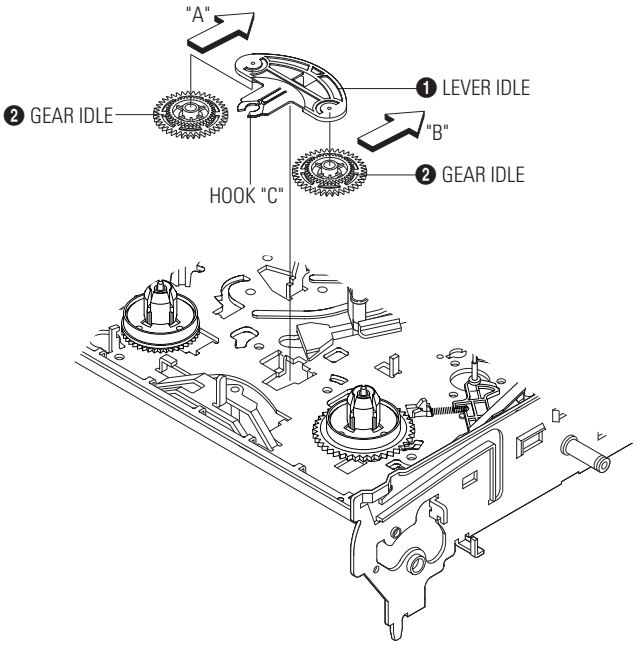


Fig. 1-19 Gear Idle Ass'y Removal

1-2-15 Disk S, T Reel Removal

1) Lift the Disk S, T Reel ❶, ❷.

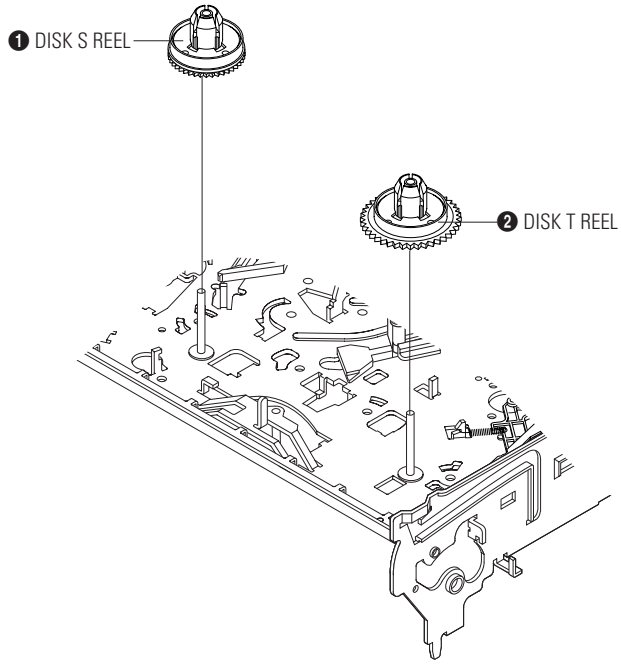
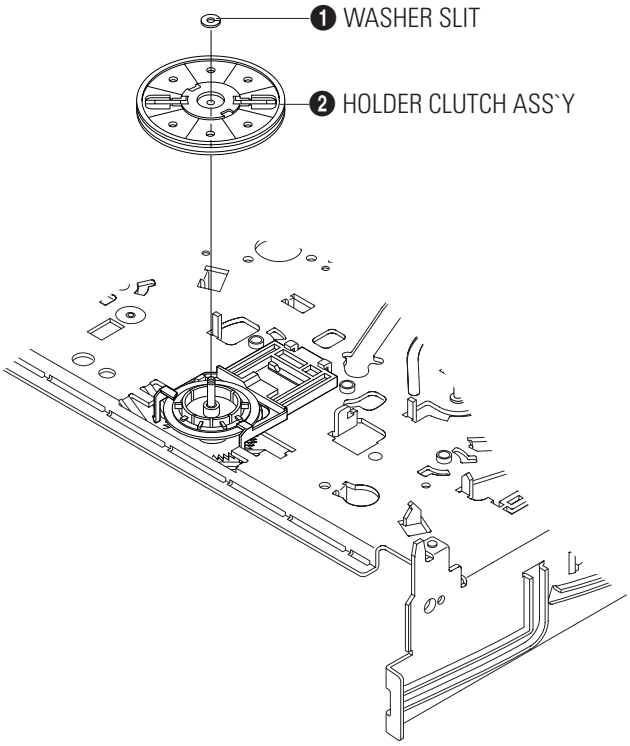


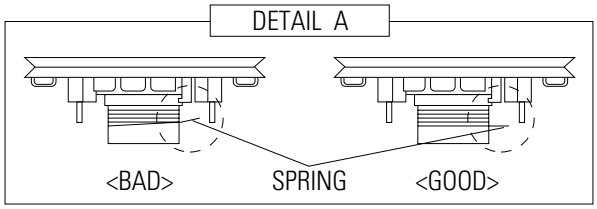
Fig. 1-20 Disk S, T Reel Removal

1-2-16 Holder Clutch Ass'y Removal

1) Remove the Washer Slit ❶.
2) Lift the Holder Clutch Ass'y ❷.

Note : When you reinstall Holder Clutch Ass'y
1) Check the condition of spring as shown in detail A.
2) Don't push Holder Clutch Ass'y down with excessive force Just insert Holder Clutch Ass'y into post center with dead force and Rotate it smoothly.
Be sure to confirm that spring is in the slit of Gear Center Ass'y as shown in detail B.





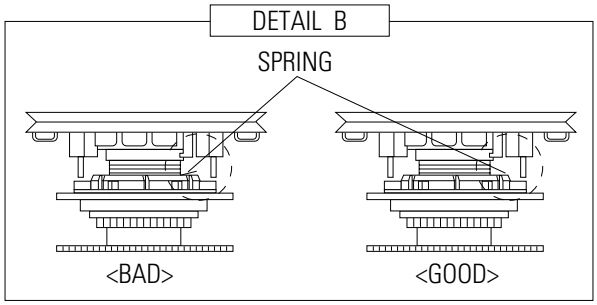


Fig. 1-21 Holder Clutch Ass'y Removal

1-2-17 Lever Up Down Ass'y, Gear Center Ass'y Removal

1) Remove the 2 hooks in the direction of arrow as shown Fig. 1-21 and lift the Lever Up Down Ass'y ❶.
2) Lift the Gear Center Ass'y ❷.

Assembly :
1) Insert the Lever Up Down Ass'y ❶ in the rectangular holes on Main Base as shown in Fig 1-23.
2) Lift the Lever Up Down Ass'y ❶ about 35°. (Refer to Fig 1-23)
3) Insert Ring of the Gear Center Ass'y ❷ in the Guide of the Lever Up Down Ass'y ❶.
4) Insert the Gear Center Ass'y ❷ in the post on Main Base.
5) Push down the Lever Up Down Ass'y ❶ for locking of the Hook.

Note :
1) Take care not to separate and sentence does not mark sense.
2) Be sure to confirm that Ring of the Gear Center Ass'y ❷ is in the Guide of the Lever Up Down Ass'y ❶ after finishing assembly of Lever Up Down Ass'y ❶ and Gear Center Ass'y ❷.

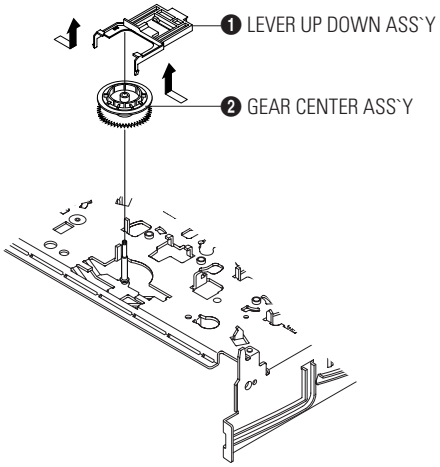


Fig. 1-22 Lever Up Down Ass'y Removal

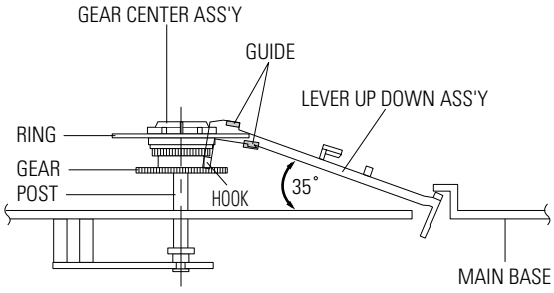


Fig. 1-23 Lever Up Down Ass'y Removal

1-2-18 Guide Cassette Door Removal

1) Lift the Hook [A].
2) Rotate the Guide Cassette Door ❶ in the direction of arrow.

Note : After reinstalling the Guide Cassette Door ❶ sure the Hook [A].

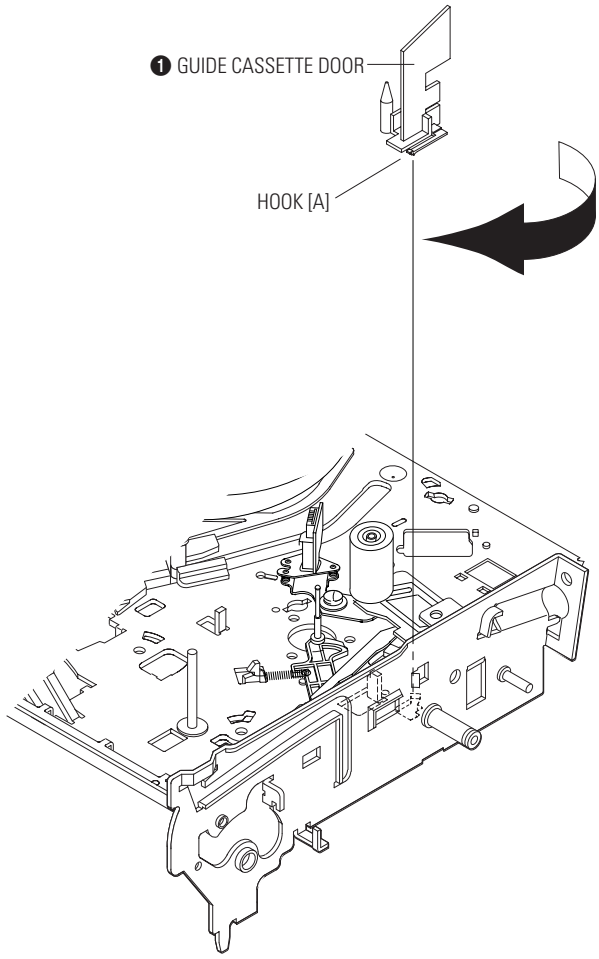


Fig. 1-24 Guide Cassette Door Removal

1-2-19 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1) Lift the Unit Pinch Ass'y ❶.
2) Remove the Plate Joint ❷ from Lever Pinch Drive.
3) Remove the Spring Pinch Drive ❸.

Note :
1) Take extreme care not to touch the grease on the Roller Pinch.
2) When reinstalling, be sure to apply grease on the post pinch roller.

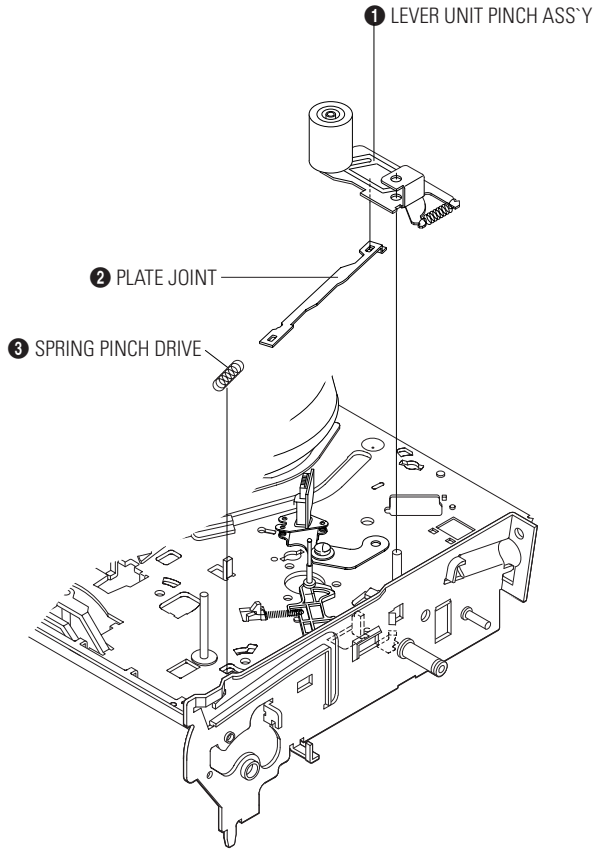


Fig. 1-25 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1-2-20 Lever #9 Guide Ass'y Removal

1) Remove the Spring #9 Guide ❶.
2) Lift the Spring #9 Guide Ass'y ❷ in the direction of arrow "A".

Note :
1) Take extreme care not to get grease on the tape Guide Post.
2) After reinstalling, check the bottom side of the Post #9 Guide to the top side of Main Base.

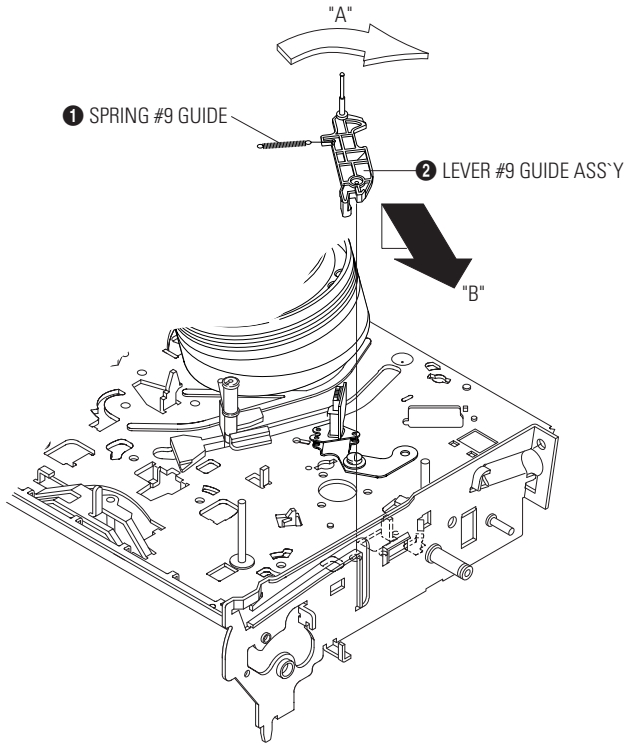


Fig. 1-26 Lever #9 Guide Ass'y Removal

1-2-21 FE Head Removal

1) Remove the screw ❶.
2) Lift the FE Head ❷.

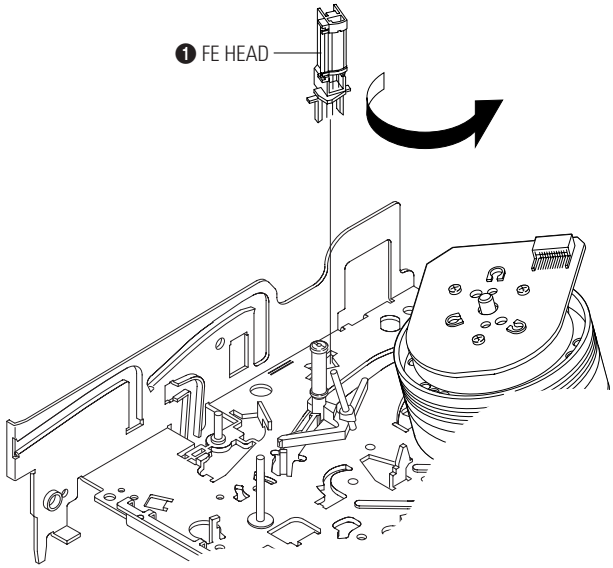


Fig. 1-27 FE Head Removal

1-2-22 ACE Head Removal

1) Pull out the FPC from connector of ACE Head Ass'y ❷.
2) Remove the screw ❶.
3) Lift the ACE Head Ass'y ❷.

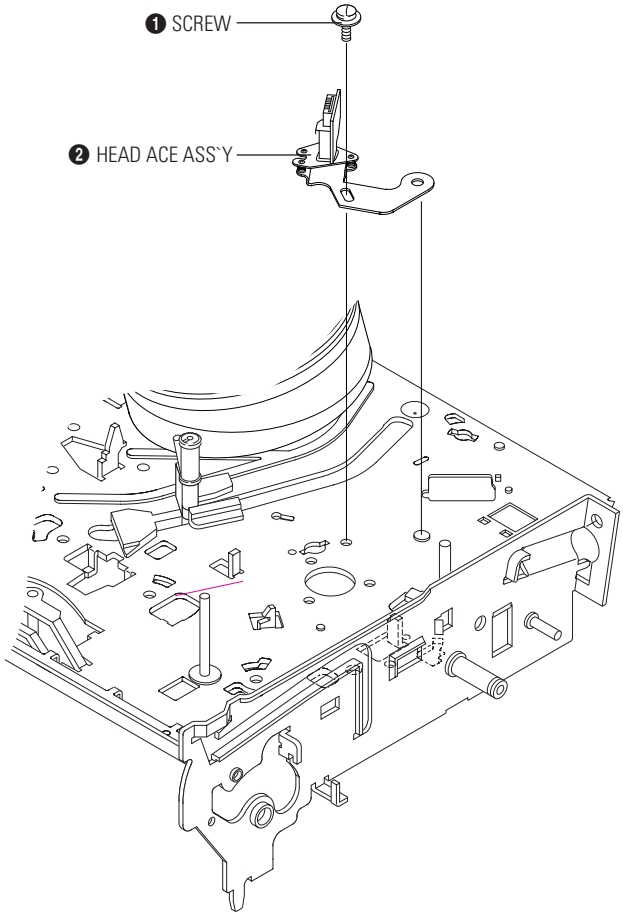


Fig. 1-28 ACE Head Removal

1-2-23 Slider S, T Ass'y Removal

1) Move the Slider S, T Ass'y ❶, ❷ to slot, and then lift it to remove. (Refer to arrow)

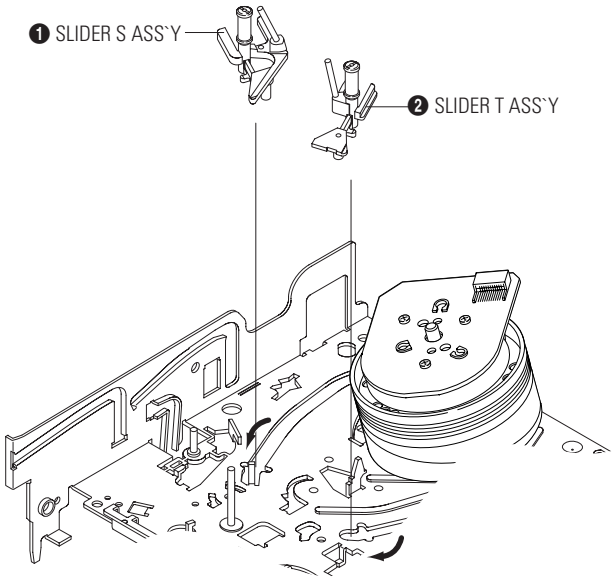


Fig. 1-29 Slider S, T Ass'y Removal

1-2-24 Plate Ground Deck, Cylinder Ass'y Removal

1) Remove the 3 Screws ❶.
2) Lift the Plate Ground Deck ❷.
3) Lift the Cylinder Ass'y ❸.

Assembly :
1) Match the 3 holes in the bottom of Cylinder ass'y ❸ to the 3 holes of Main Base as attending not to drop or knock the Cylinder ass'y ❸.
2) Tighten the 1 Screw ❶.
3) Match the Plate Ground Deck ❷ to the Hole of Base Main.
4) Tighten the other 2 Screws ❶.

Note :
1) Take care not to touch the Cylinder Ass'y ❸ and the tape guide post at reinstalling.
2) When reinstalling, Don't push down too much on Screw Driver.

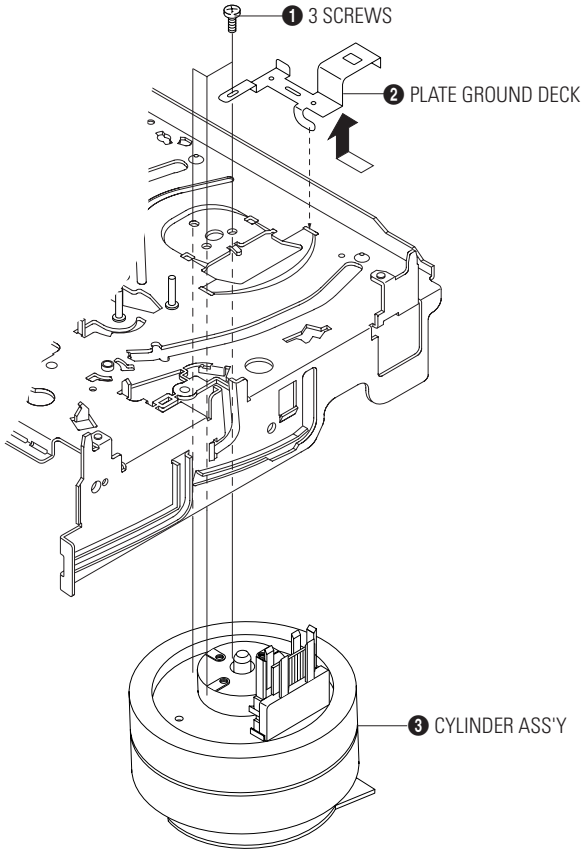


Fig. 1-30 Plate Ground Deck, Cylinder Ass'y Removal

1-2-25 Belt Pulley Removal

1) Remove the Belt Pulley ❶.

Note : Take extreme care not to get grease on Belt Pulley ❶ at assembling or reassembling.

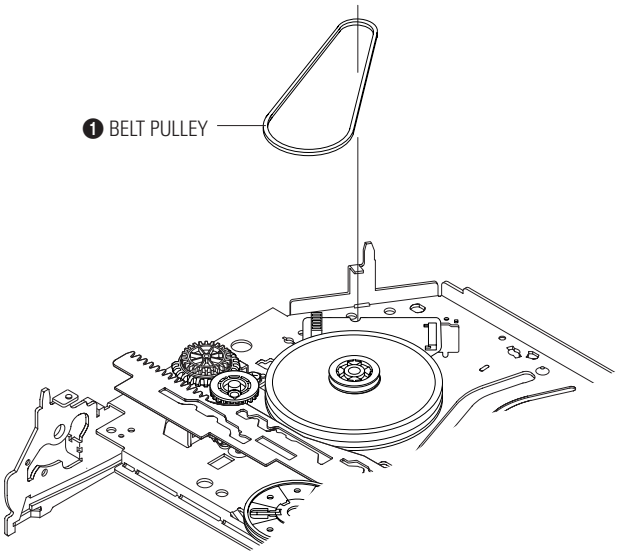


Fig. 1-31 Belt Pulley Removal

1-2-26 Damper Capstan, Motor Capstan Ass'y Removal

1) Remove the Damper Capstan ❶ in the direction of arrow.
2) Remove the 3 Screws ❷.
3) Remove the Motor Capstan Ass'y ❸.

Assembly :
1) Match the 3 holes of Motor Capstan Ass'y ❸ to the 3 holes of Main Base. Be careful not to drop or knock the Motor Capstan Ass'y ❸.
2) Tighten the 3 Screws ❷ in the direction of arrow as shown detail drawing.
3) Assemble the Damper Capstan ❶.

Note : After tightening screws, check if there is gap between the head of screws and the top side of Main Base. There should have no gap between the head of screws and the top side of Main Base.
After reinstalling, adjusting the tape transport system again.

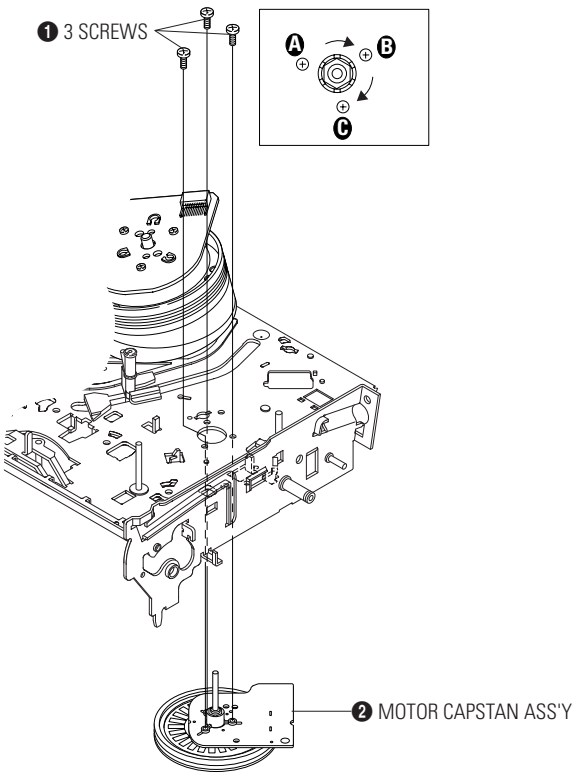


Fig. 1-32 Damper Capstan,Motor Capstan Ass'y Removal

1-2-27 Post #8 Guide Ass'y Removal

1) Rotate the Post #8 Guide Ass'y ❶ in the direction of arrow to lift up.

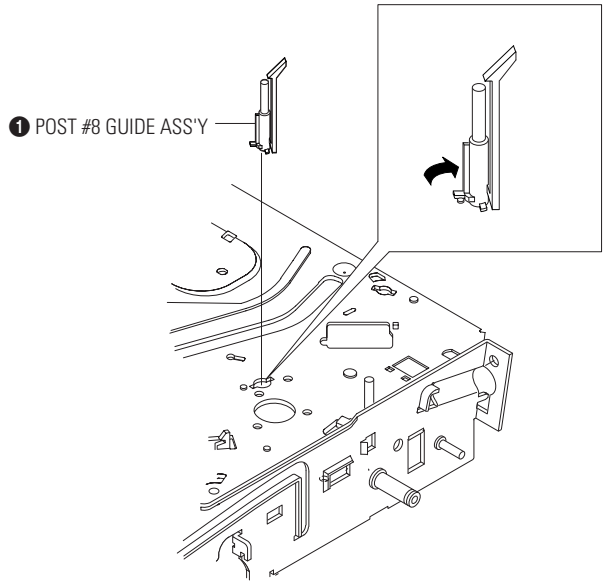


Fig. 1-33 Post #8 Guide Ass'y Removal

1-2-28 Level Head Cleaner Ass'y Removal (Optional)

1) Release the Hook ❶.
2) Lift the Lever Head Cleaner Ass'y ❷.

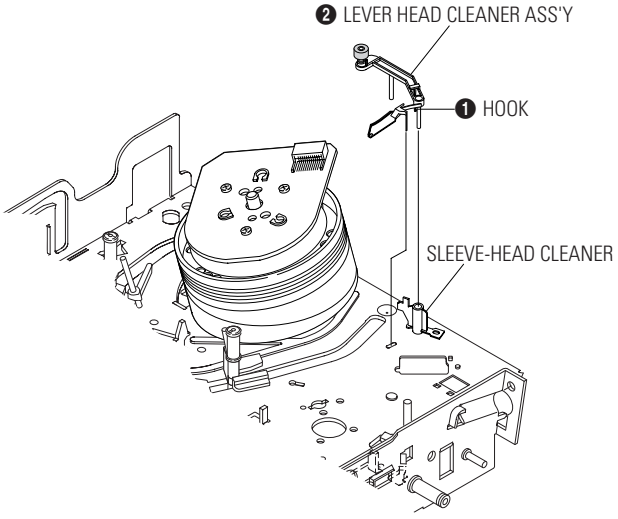


Fig. 1-34 Post #8 Guide Ass'y Removal

1-2-29 How to Eject the Cassette Tape (If the unit does not operate on condition that is inserted into housing ass'y)

1) Turn the Gear worm ❶ clockwise with screw driver.(Refer to arrow)
(Other method : Remove the Screw of Motor Load Ass'y, Separate the Motor Load Ass'y)

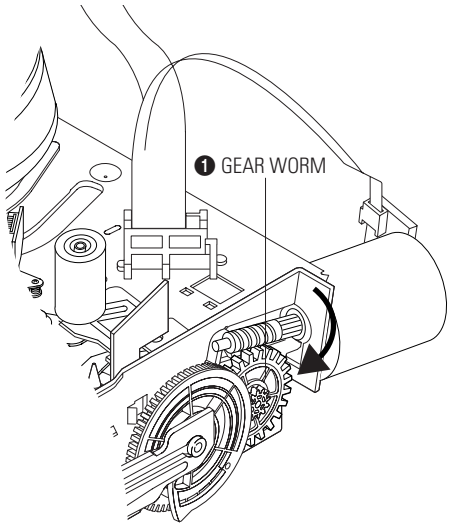


Fig. 1-35

2) When Slider S,T are approched in the position of unloading, rotate holder Clutch counterclockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwinded tape. (Refer to Fig.1-36)
(If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage. Be sure to wind the unwinded tape in the state of set horizontly.)
3) Rotate Gear Worm ❶ clockwise using screw driver again up to the state of eject mode and then pick out the tape.(Refer to Fig.1-35)

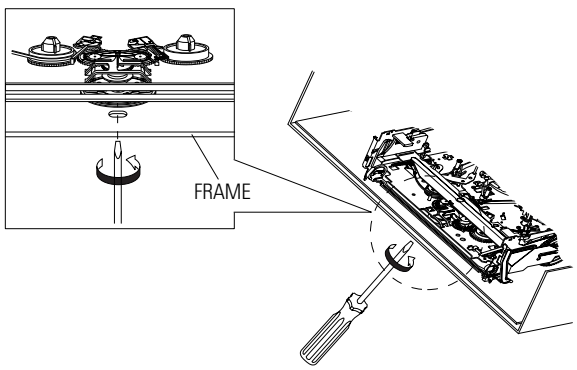


Fig. 1-36

1-3 The table of clearing, Lubrication and replacement time about principal parts

1) The replacement time of parts is not life of parts.
2) The table 1-1 is that the VCR Set is in normal condition (normal temperature, normal humidity).
   The checking period may be changed owing to the condition of use, runtime and environmental conditions.
3) Life of the Cylinder Ass'y is depend on the condition of use.
4) See exploded view for location of each parts.

<Table 1-1>

*	Parts Name	Checking Period										Remark
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
TAPE PATH SYSTEM	POST TENSION	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	- To clean the parts, use patch and alcohol (solvent). - After cleaning, use the video tape after alcohol is gone away completely. - We recommend to use oil [EP-50] or solvent. - One or two drops of oil should be applied after cleaning with alcohol.
	SLANT POST S, T	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#8 GUIDE SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	CAPSTAN SHAFT	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#9 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	#3 GUIDE POST	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	GUIDE ROLLER S, T	Δ	Δ	Δ	O	O	O	O	O	O	O	
	CYLINDER ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	FE HEAD	Δ	Δ	Δ	O	O	O	O	O	O	O	
	ACE HEAD	Δ	O	O	O	O	O	O	O	O	O	
	PINCH ROLLER	Δ	O	O	O	O	O	O	O	O	O	
	POST REEL S, T		◆		◆		◆		◆		◆	- Periodic time of applying oil (Apply oil after cleaning) - The excessive applying oil may be the cause of malfunction.
	SLEEVE TENSION		◆		◆		◆		◆		◆	
	POST CENTER		◆		◆		◆		◆		◆	
	LEVER IDLE BOSS (2Point)		◆		◆		◆		◆		◆	
DRIVING SYSTEM	CAPSTAN MOTOR PULLEY	Δ	Δ	Δ	Δ	Δ	O	O	O	O	O	
	BELT PULLEY				O	O	O	O	O	O	O	
	HOLDER CLUTCH ASS'Y	Δ	O	O	O	O	O	O	O	O	O	
	GEAR CENTER ASS'Y		O	O	O	O	O	O	O	O	O	
	GEAR IDLE (2Point)		O	O	O	O	O	O	O	O	O	
	LOADING MOTOR		O	O	O	O	O	O	O	O	O	
BRAKE SYSTEM	BAND BRAKE ASS'Y		O	O	O	O	O	O	O	O	O	
	BRAKE T ASS'Y		O	O	O	O	O	O	O	O	O	

Δ : Cleaning O : Check and replacement in necessary ◆ : Add Oil

2. Alignment and Adjustment

2-1 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.

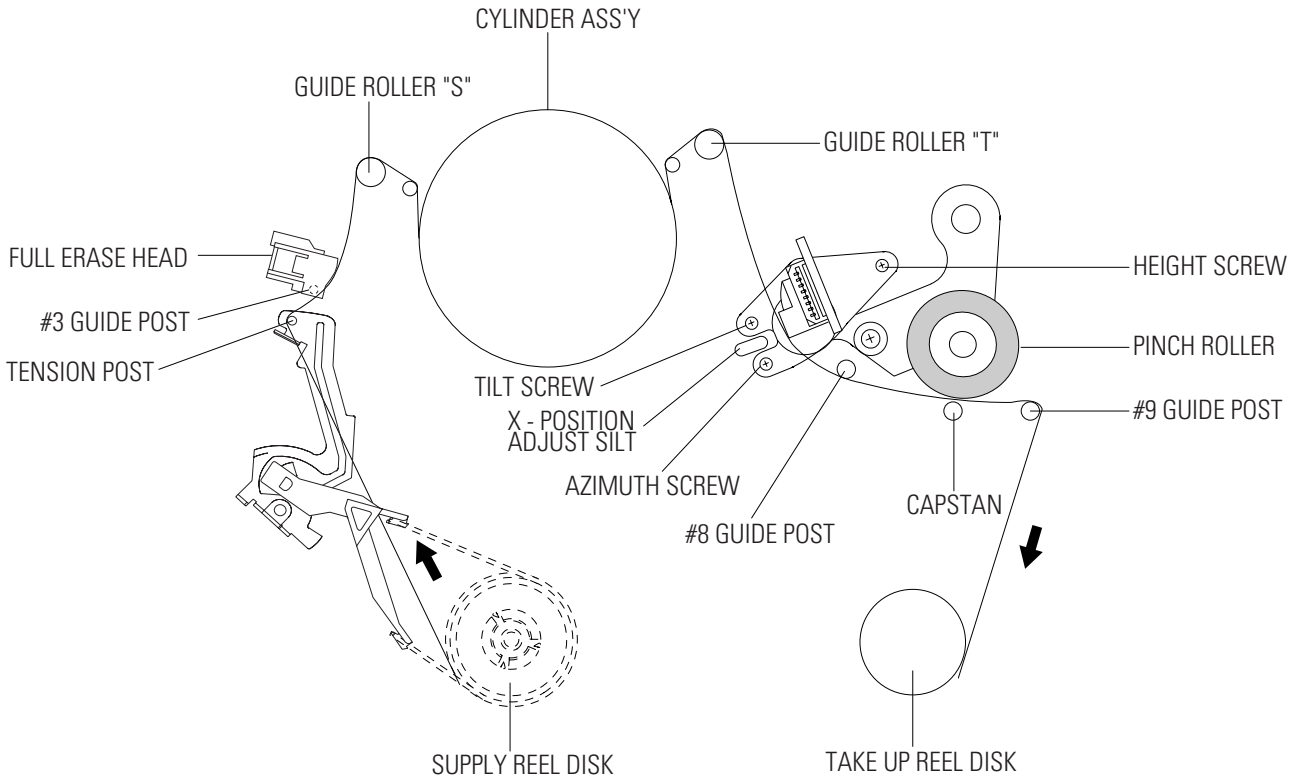


Fig. 2-1 Location of Tape Transport Adjustment

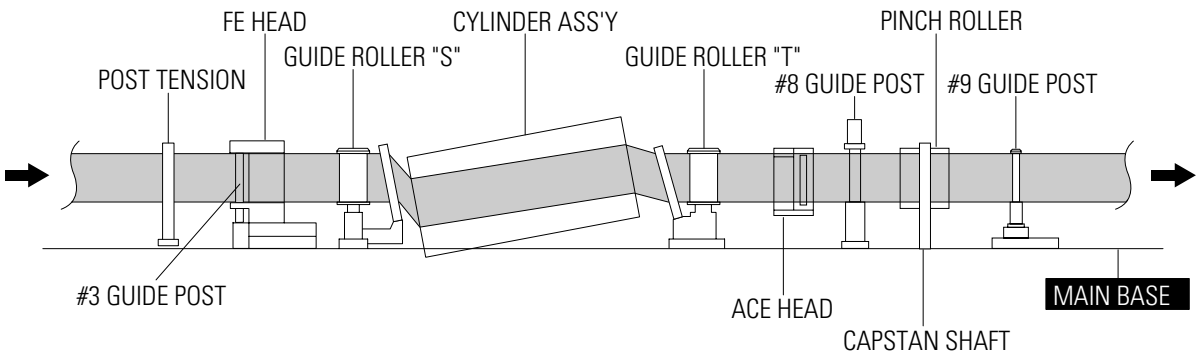


Fig. 2-2 Tape Travel Diagram

2-2 Tape Transport System Adjustment

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

1) If tape wrinkle is observed at the guide roller S, T, turn the guide roller S, T until wrinkle disappears.
2) If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the ACE head. (See "2. Alignment and Adjustment" of the Service Manual for Test Point Locations.)

2-2-1 ACE Head Assembly Adjustment

2-2-1(a) ACE 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 (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm. (Refer to Fig. 2-3 and 2-4)

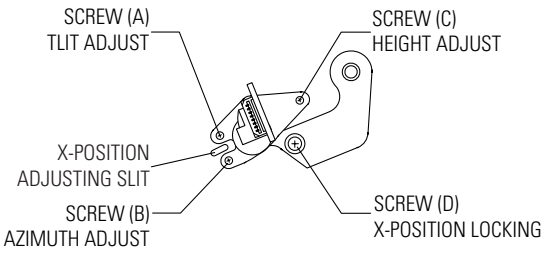


Fig. 2-3 Location of ACE Head Adjustment Screw

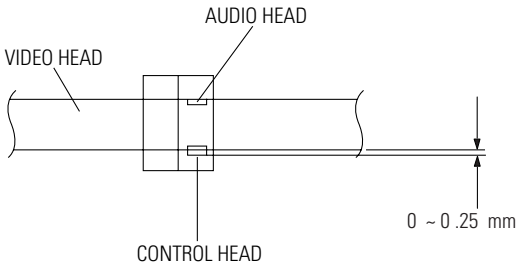


Fig. 2-4 ACE Head Height Adjustment

2-2-1(b) ACE HEAD TILT ADJUSTMENT

1) Playback a blank 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 occurs, slightly turn the screw (A) tilt adjust on the ACE head ass'y.
4) Reconfirm the ACE head height.

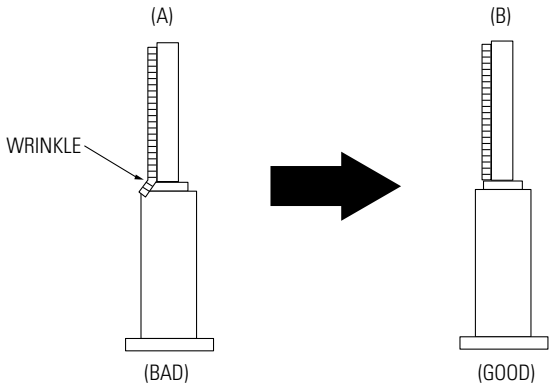


Fig. 2-5 Tape Guide Check

2-2-1(c) AUDIO AZIMUTH ADJUSTMENT

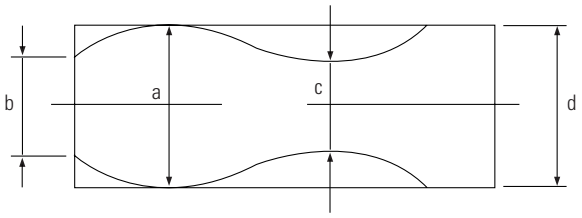
1) Load alignment tape (Mono scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
2) Connect channel-1 scope probe to audio output test point.
3) Adjust screw (B) to achieve maximum audio level. (See Fig. 2-3)

2-2-1(d) ACE HEAD POSITION (X-POINT) ADJUSTMENT

1) See "2. Alignment and Adjustment" for ACE Head position (X-Point) adjustment.

2-2-2 Linearity adjustment (Guide roller S, T adjustment)

1) Playback 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. 2-6.
   If it does not, adjust as follows :



a b c d
c,b,d/a ≧63%

Fig. 2-6 Envelope Waveform Adjustment

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.

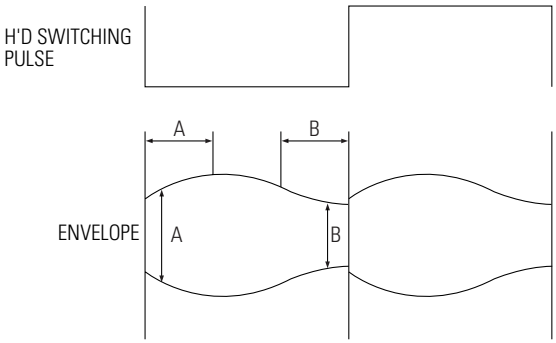


Fig. 2-7 Adjustment Points

4) If the section A in Fig. 2-7 does not meet the specification, adjust the guide roller S up or down.
5) If the section B in Fig. 2-7 does not meet the specification, adjust the guide roller T up or down.
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. 2-8.

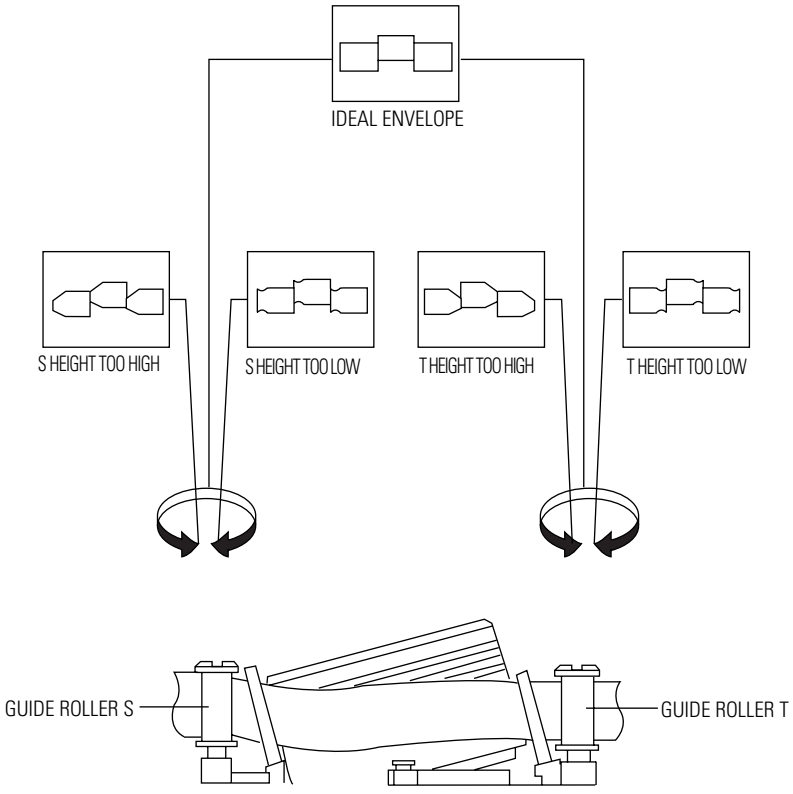


Fig. 2-8 Guide Roller S, T Height Adjustment

2-2-3 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. 2-9).
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.

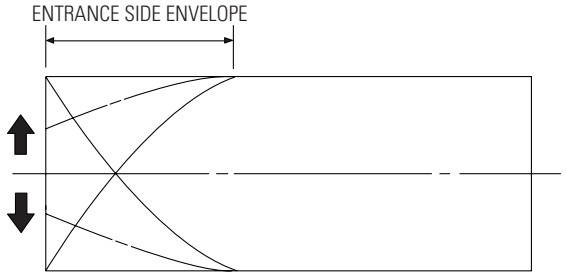


Fig. 2-9 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

2-2-4 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. 2-10.
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. 2-10.
   In SP mode, (A) should equal (B).
   If the head gap is wide, upper cylinder should be checked.

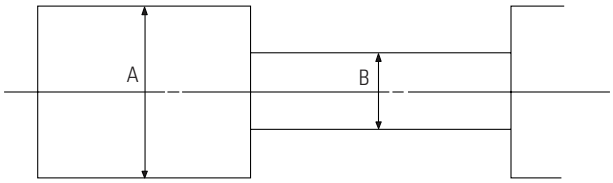


Fig. 2-10 Envelope Output and Output Level

2-2-5 Tape Wrinkle Check

1) Run the T-160 (E-180) 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 guide roller S, T section : Linearity adjustment.
- Tape wrinkle at tape guide flange : ACE head assembly coarse adjustment.

2-3 Reel Torque

1) The rotation of the capstan motor causes the Holder Clutch Ass'y to rotate through the Belt Pulley.
2) The spring wrap PLAY/REV of holder clutch ass'y drives the disk reel S, T through gear idle by rotation of gear center ass'y.
3) Brake is operated by slider cam at FF/REW mode.
4) Transportation of accurate driving force is done by gears. (Gear Center Ass'y)

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

<Table 2-1>

MODE	TORQUE g/cm	GAUGE
PB	42 ± 11	Cassette Torquemeter
RPS	145 ± 30	Cassette Torquemeter