SAMSUNG Electronics

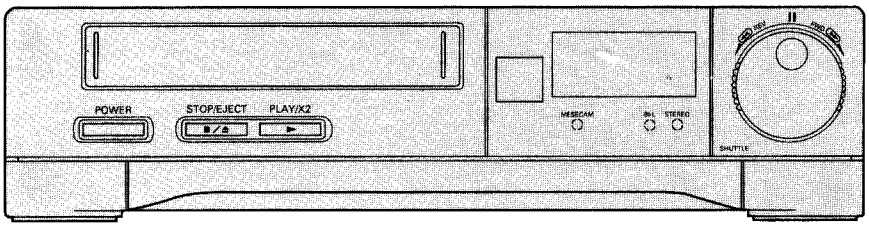
VHS PAL Hi-Fi STEREO HQ

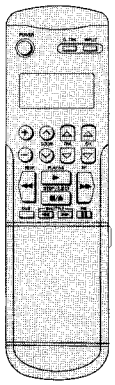
SERVICE MANUAL

MODEL : VX-370

SVM-P13-028-1E
68139 - 132 - 128

VIDEO CASSETTE RECORDER





SPECIFICATIONS

Format :	VHS PAL/MESECAM Hi-Fi standard
Video Recording	
System :	Double Azimuth 4 Rotary Heads Luminance ; FM Azimuth recording Color ; Down converted subcarrier phase shifted direct recording
Television System :	PAL and MESECAM color and B/W signal
Audio Recording	
System :	Normal ; Mono Hi-Fi ; Stereo (2 carrier FM azimuth recording)
Tape Width :	12.65 mm (1/2 inch)
Tape Speed :	SP ; 23.39 mm/sec LP ; 11.69 mm/sec
Recording/Playback Time :	SP ; 4 hours with E-240 type LP ; 8 hours with E-240 type
FF/REW Time :	Less than 3 min 10 sec in REW, Less than 3 min 40 sec in FF with E-180
Heads :	Video ; Double Azimuth 4 rotary heads Audio ; 2 Rotary heads (Hi-Fi) Audio/Control ; 1 stationary head (Linear) Erase ; 1 full track erase (Linear)

VIDEO	
Input :	0.5 to 2.0 Vp-p ; 75 ohm unbalanced
Output :	1.0 Vp-p ; 75 ohm unbalanced
Signal-to-Noise Ratio :	SP ; Better than 43 dB LP ; Better than 40 dB
Horizontal Resolution :	SP ; More than 240 Lines LP ; More than 220 Lines
AUDIO	
Input :	Line ; -8 dBm, 50 Kohm unbalanced
Output :	Line ; -4±3dBm, 1 Kohm unbalanced
Wow-Flutter :	SP ; 0.4 % Max Linear LP ; 1.5 % Max Audio
Frequency Response :	Linear Audio - SP ; 100Hz ~ 8KHz LP ; 100Hz ~ 5KHz Hi-Fi Audio ; 20Hz ~ 20KHz
Receiving Channel :	VHF LOW, VHF HIGH, UHF
Power Requirement :	100 ~ 240V (AC 50/60Hz)
Power Consumption :	Approx. 25 watts
Operation Temperature :	41° F ~ 104° F (5° C ~ 40° C)
Operation Humidity :	10 % ~ 75 %
Weight :	5Kg
Dimensions :	420 (W) x 87.5 (H) x 314 (D) mm

Designs and specifications are subject to change without notice.

Printed in Korea

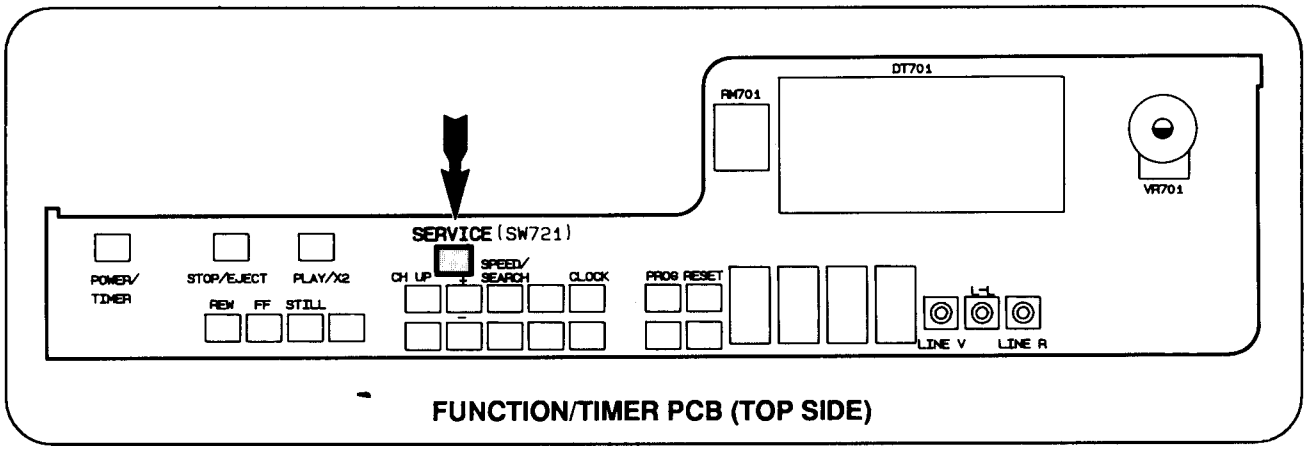
JUL. 1993

IMPORTANT SERVICE NOTICE

1. Service Option

For this chassis of VCR, the sensor (start / end / reel) are located on the Main PCB not in the deck assembly.
There is a important service option that has to be followed to repair Main PCB without "deck assembly" connected.
To imitate the function of the sensor, push the "SERVICE" key (SW721) on the Function/Timer PCB.
See diagram below.

Note : After connecting extension cable 4 between deck assembly and Main PCB, to make a cassette load, cover start sensor, then press and hold a cassette in the housing assembly.



FUNCTION/TIMER PCB (TOP SIDE)

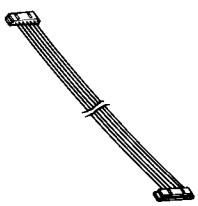
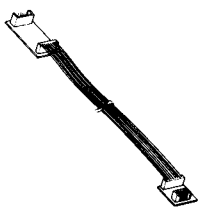
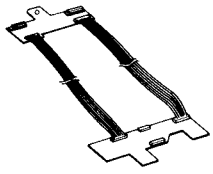
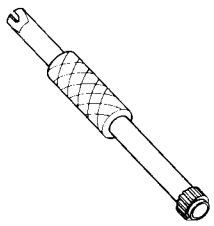
Note : To release the imitated function of sensor, push the "RESET" key on the Function/Timer PCB or unplug the AC power cord and plug it again.

2. How to use the Service Jig

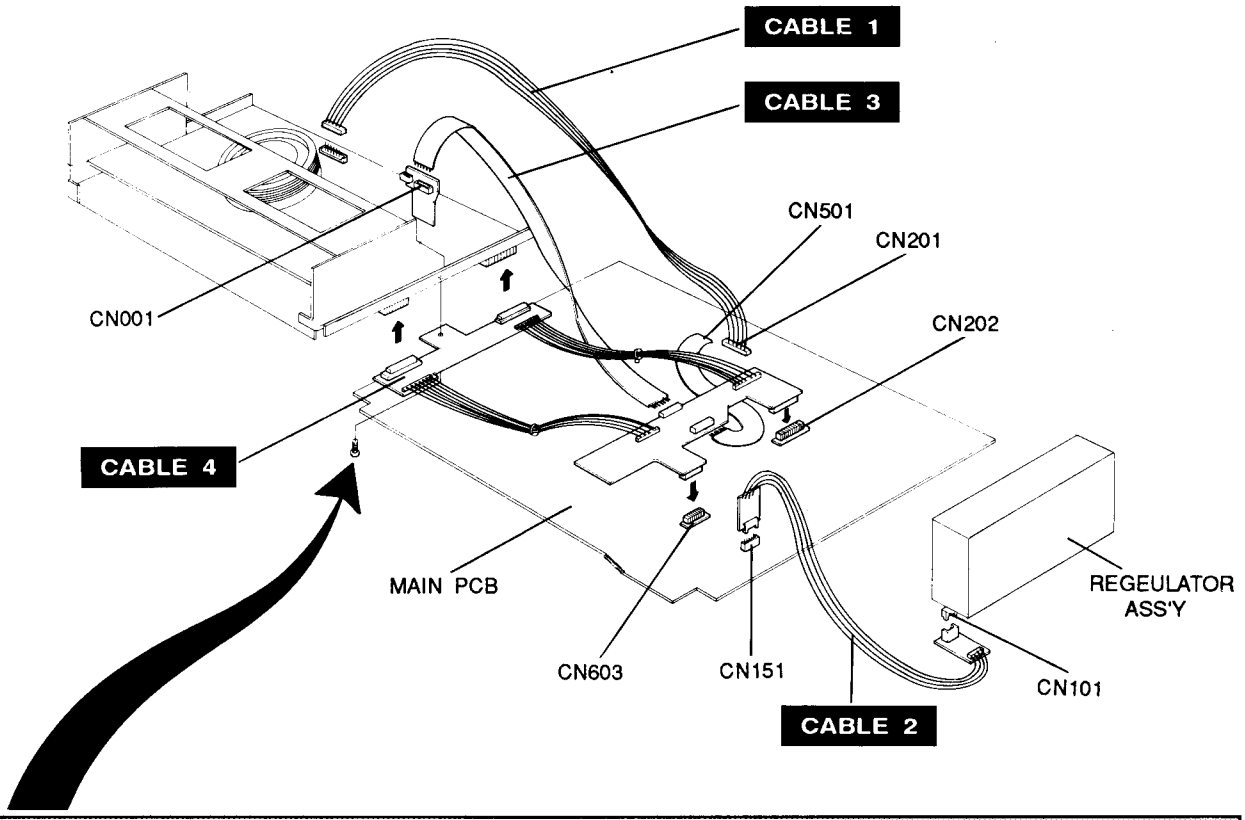
To have extended service ability for this unit, you must purchase the "Service Jig for X-3 Chassis VCR".

Note : This service jig can be used for several models of Samsung VCRs. Please keep it for future use.

Jig Item	Code NO.	Description	Sketch NO.
Extension			
Cable 1	68140-300-103	Use for Cylinder Motor ↔ Main PCB (CN201) Connecting Cable	A
Cable 2	68140-300-105	Use for Regulator (CN101) ↔ Main PCB (CN151) Connecting Cable	B
Cable 3	68140-300-106	Use for A/C Head (CN001) ↔ Extension Cable 4 Connecting Cable	C
Cable 4	68140-300-107	Use for Deck ↔ Main PCB (CN202, CN603) Connecting Cable	D
Special Driver	68140-500-100	Use for X-Point Adjust / Tape path Alignment	E

A : CABLE 1	B : CABLE 2	C : CABLE 3	D : CABLE 4	E : SPECIAL DRIVER
				

3. Extension Cable Connections



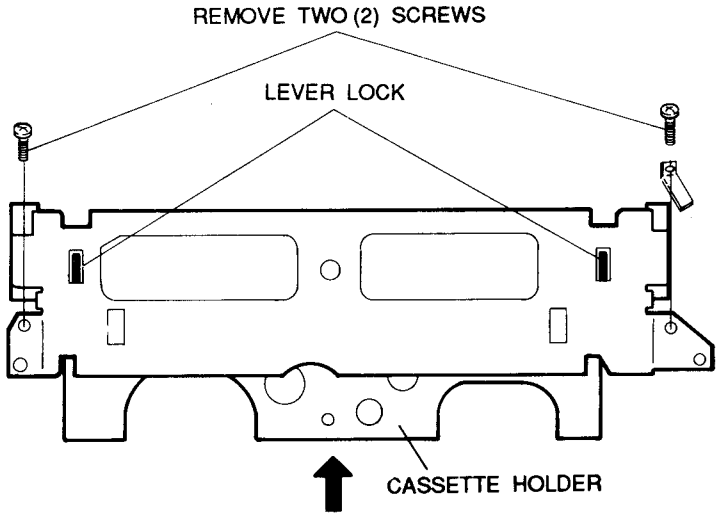
Note : Remove one (1) screw from the eject drive gear and connect extension cable, and install the screw again.

4. How to operate the VCR without a cassette tape

Note : First, push the "SERVICE" key (SW721) on the Function/Timer PCB.

Method 1 : Press the top of the lever lock (L) and (R) simultaneously, then push the cassette holder.
All function will work in this mode.

Method 2 : Remove two (2) screws securing the upper chassis, then lift up the upper chassis. Push the cassette holder.
All function will work in this mode.



CONTENTS

1. GENERAL DESCRIPTION

1-1. Safety Precautions 1-1
1-2. Electrostatically Sensitive (ES) Devices 1-2
1-3. General Information 1-3
1-4. Operation Controls and Functions 1-4
1-5. Replacement Procedure for Leadless (Chip) Component 1-11
1-6. How to Replace Leadless (Chip) Component .. 1-13
1-7. Cleaning and Lubrication 1-15
1-8. Abbreviations 1-16

2. DISASSEMBLY

2-1. Instrument Disassembly 2-1
2-2. Circuit Board Disassembly 2-2
2-3. Tape Transport Mechanism Identification 2-4
2-4. Housing Ass'y Removal & Reassembly 2-6
2-5. Cylinder Ass'y Removal & Reassembly 2-10
2-6. Reel Disk Ass'y Removal 2-14
2-7. Loading & Capstan Motor Ass'y Removal & Reassembly 2-17
2-8. Tape Transport Ass'y Removal 2-23

3. MECHANICAL ADJUSTMENT

3-1. Tape Transport System 3-1
3-2. Reel Torque 3-6

4. ELECTRICAL ADJUSTMENT

4-1. Preparation 4-1
4-2. Program Switch Timing Chart 4-2
4-3. Servo & Tuner Section 4-3
4-4. Linear Audio & Hi-Fi Audio Section 4-4

5. ELECTRICAL PARTS LIST

5-1. General Information 5-1
5-2. Electrical Replacement Parts List 5-2

6. MECHANICAL EXPLODED VIEW/ PARTS LIST

6-1. Instrument Assembly 6-2
6-2. Mechanical Parts (1) ; Top View 6-4
6-3. Mechanical Parts (2) ; Bottom View 6-6
6-4. Housing Assembly 6-8

7. BLOCK DIAGRAMS

7-1. Total Wiring Diagram 7-2
7-2. Cylinder Phase Control 7-3
7-3. Cylinder Speed Control 7-3
7-4. Capstan Phase Control 7-4
7-5. Capstan Speed Control 7-4
7-6. Linear Audio Playback Process 7-5
7-7. Linear Audio Record Process 7-5
7-8. Hi-Fi Audio Playback Process 7-6
7-9. Hi-Fi Audio Record Process 7-7
7-10. Luminance Playback Process 7-8
7-11. Luminance Record Process 7-9
7-12. Chrominance Playback Process 7-10
7-13. Chrominance Record Process 7-11

8. CIRCUIT BOARDS

8-1. Regulator 8-2
8-2. Hi-Fi 8-2
8-3. Pre-Amp 8-3
8-4. O.S.P 8-3
8-5. I/O 8-4
8-6. VIF-PACK 8-4
8-7. Main 8-5
8-8. Function/Timer 8-6

9. SCHEMATIC DIAGRAMS

9-1. Regulator 9-2
9-2. Power 9-3
9-3. System Control 9-4
9-4. Servo 9-6
9-5. Y/C - 1 (Pre-Amp) 9-8
9-6. Y/C - 2 9-10
9-7. Hi-Fi Audio 9-12
9-8. Linear Audio 9-14
9-9. Tuner 9-16
9-10. VIF-PACK/VPS 9-17
9-11. I/O (SUB PCB) 9-18
9-12. I/O (MAIN PCB) 9-19
9-13. O.S.P 9-20
9-14. Function/Timer 9-22
9-15. Remote Control 9-23

1. GENERAL DESCRIPTION

1-1. SAFETY PRECAUTIONS

1. Before returning a Video Cassette Recorder to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:

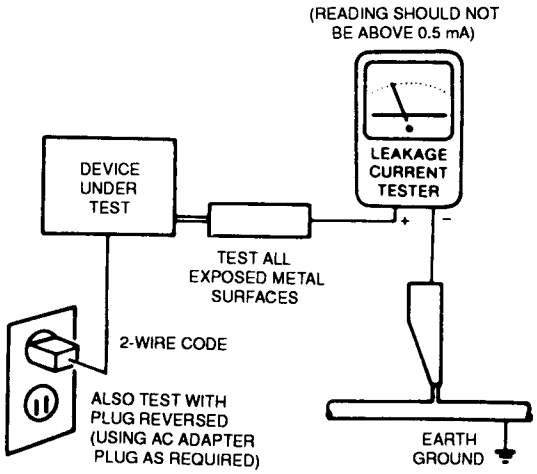
a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing.

(1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience.

(2) When reassembling the instrument, be sure to put back in place all protective devices, including, but not limited to nonmetallic control knobs, insulating, fish papers adjustment and compartment covers/shields, and isolation resistor/capacitor networks.
Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contract a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) improperly fitted and/or incorrectly secured cabinet covers.

c. Antenna Cold Check-With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, to each of the coaxial connectors.



AC Leakage Test

If the measured resistance is less than 1.0 megaohm or greater than 5.2 megaohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

d. Leakage Current Hot Check-With the instrument completely reassembled plug the AC line cord directly into a 220 (240V-UK) AC outlet. (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) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, Measure for current from a known earth ground (metal waterpipe, conduit, etc) to all exposed metal parts of the instrument (antennas, handle bracket, metal , etc), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat test.

ANY MEASUREMENT NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR CONNECTING ANTENNA OR ACCESSORIES.

e. AC Leakage Test
Avoid shock hazards. The television instrument, accessory, or cables (s) to which this VCR (VCP) is connected should have the applicable sections of the leakage resistance antenna cold check and the leakage current hot check performed. Do not connect this VCR (VCP) to a TV antenna, cable or accessory that exhibits excessive leakage currents.

2. Read and comply with all caution and safety related notes on or inside the VCR (VCP) cabinet and chassis.

3. **Design Alteration Warning**-Do not alter or add to the mechanical or electrical design of this Video Cassette Recorder (Player). Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you,the servicer responsible for personal injury or properly damage resulting therefrom.

4. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a) near sharp edges, b) near thermally hot parts-be sure that leads and components do not touch thermally hot parts, c) the AC supply, and d) antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring between components and the printed circuit board.
Check AC power cord for damage.

5. Components, parts and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications, Additionally, determine the cause of overheaing and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

6. Product Safety Notice
Some electrical and mechanical parts have special safety related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage,wattage etc. Parts that have special safety characteristics are identified by a (*) or (⚠) on schematics and parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards.
Products safety is under review continuously and new instructions are issued whenever appropriate.

1-2. ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to appling power to the unit under test

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive foam, aluminum foil or comparable conductive material)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

SPECIAL NOTE
All integrated circuits and many other 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. And 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.

• **VISS (VHS Index Search System)**
Viss is the function of searching swiftly to previously designated points of interest on the tape using the index signal.
– **Index Search**
This function fast forwards or rewinds the tape to the point with the specified index signal, and starts playback from there automatically.
– **Index Scan**
This function fast forwards or rewinds the tape to the point with the first adjacent index signal, and starts playback 5 seconds before searching for the next index signal. This operating continues until all index signals have been found in the selected direction.
– **Index Mark**
Index marks are recorded automatically on the tape each time the VCR being recording.
In the playback mode, index mark is recorded by pressing "MARK" button. (Index signals can only be set on cassettes with erase safety tab intact.)

• **SHUTTLE**
By turning the SHUTTLE ring clockwise or counter-clockwise, variable-speed search is possible in either the forward or reverse direction from either the Play or Still modes.
– **ON VCR**
To search in the reverse direction, turn the SHUTTLE ring gradually counterclockwise. The farther the dial is rotated, the faster the search speed becomes from - 1 to - 11 times in the SP and LP modes.
To search in the forward direction, turn the SHUTTLE ring gradually clokwise. The farther the dial is rotated, the faster the search speed becomes from 1 to 11 times in the SP and LP modes.
– **ON Remocon**
During playback, each time press the SHUTTLE button, the picture speed will be changed as follows. Slow motion - Still - 1 to - 11 times speed. During playback, each time press the SHUTTLE button, the picture speed will be changed as follows. 3 times speed - 7 times speed - 11 times speed picture.

• **MULTI ON - SCREEN DISPLAY**
On-screen display system for timer programming and mode display. It is possible to select one among 5 languages ; German, Spanish, English, Italian, French.

• **AUDIO DUBBING**
Audio dubbing is the process of recording new audio in place of the audio that was formerly recorded on the linear (monaural) audio track.

• **CHILD LOCK (SAFETY LOCK) SYSTEM**
Child lock system can be looked the VCR to prevent by young children. This feature can be operated by the remore control in eject mode only. If this system is operated, the tape can't be inserted.

• **AUTOMATIC DIGITAL TRACKING**
Adjusts the tracking automatically to optain the best tracking position. When a cassette is inserted the DIGITAL TRACKING will function untill the tracking is set.

• **Unattended (Timer) Recording**
The programmable timer can be preselected up to one month in advance to record up to 4 preselected programs. (Normal program, daily program or weekly program)
The timer turns VCR on and off, and changes channels automatically.

• **EPS (Easy Programming System)**
It is possible to record up to 9 hours without programming the timer. It is also possible to start (continue) recording immediately.

• **REMAIN**
This function displays remaining tape time in hours and minutes during playback or record mode.

• **Double Speed Playback (X2)**
Pushing PLAY button again in the playback mode, picture search is performed 2 times as fast as normal playback.

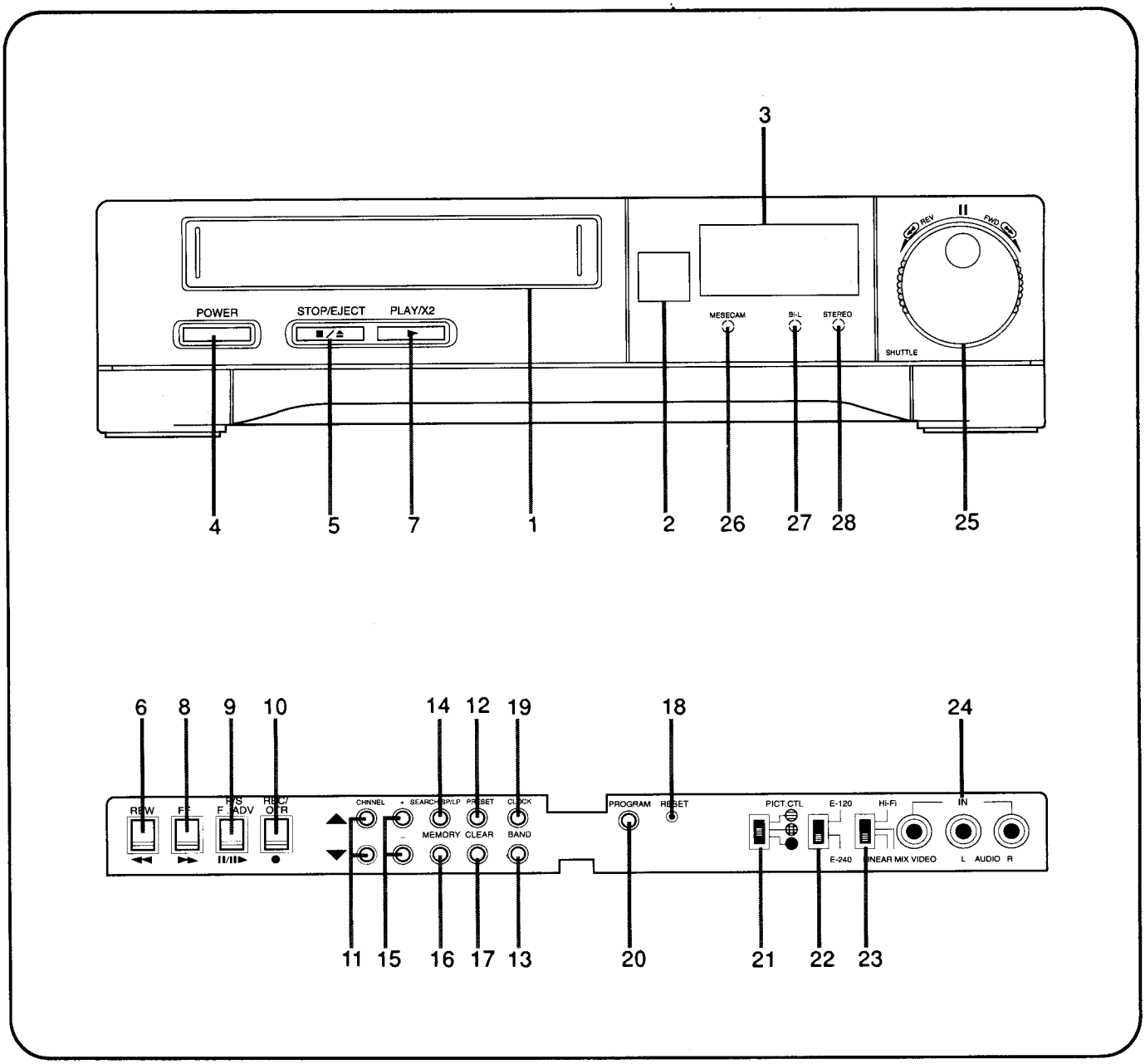
• **Frame Advance**
This function can be advanced one by one frame by pushing P/S button.

• **SLOW (Various Slow Motion Playback)**
This is for adjustment of the slow speed operation in playback.

• **Warp Search**
It is possible to search the picture during rewinding or fast forward the tape.

1-4. OPERATING CONTROLS AND FUNCTIONS

1-4-1. FRONT PANEL



1 VIDEO CASSETTE COMPARTMENT

Insert a cassette into cassette compartment.

2 WIRELESS REMOTE SENSOR

Receive signal from infrared remote control.

3 MULTIFUNCTION DISPLAY

4 POWER /TIMER BUTTON

Press to turn VCR on or off.
Press while in the timer programming mode to engage the timer standby mode.

5 STOP/EJECT BUTTON

Press to stop the tape during playback, recording, rewind or fast-forward.
Press to take out a cassette tape in STOP mode.

6 REWIND (REWIND/REVERSE PICTURE SEARCH) BUTTON

7 PLAY (PLAY X2) BUTTON

8 FF (FAST FORWARD/FORWARD PICTURE SEARCH) BUTTON

9 P/S F.ADV BUTTON

10 REC/OTR BUTTON

Press once to start recording.
Press twice to engage One Touch Recording mode.

11 CHANNEL UP/DOWN, AV/AUX SELECTION BUTTONS

Press to select the channel you wish to record or to view on TV. Also select AV or AUX input.

12 PRESET BUTTON

Press for TV channel programming.

13 BAND SELECT BUTTON

While TV Channel programming, press to select band.(VHF low, VHF high, UHF)

14 SEARCH/SP/LP BUTTON

Press to select recording speed.
While in TV channel programming mode, press to commence the search for a broadcast station.

15 +, - BUTTONS

- In still mode, adjust this control to minimize vertical shaking on the TV screen.
- Press these buttons for CLOCK or PROGRAMME setting and MFT operation.

16 MEMORY BUTTON

Press to store the tuned-in channel in TV channel programming mode. Press to go to the next step in CLOCK or PROGRAMME setting mode.

17 CLEAR BUTTON

Use to reset the counter to "0H00M0S" or to go to the previous step in CLOCK or PROGRAMME setting mode or to clear the memorized channel.

18 RESET BUTTON

Press to initialize the VCR in emergency or abnormal state.

19 CLOCK SET BUTTON

Press to set the date in clock set mode.

20 PROGRAMME BUTTON

Press to set the data in programme setting mode.

21 PICTURE CONTROL SWITCH

Use to adjust the picture quality.(effective only in the playback mode)

22 TAPE SELECT SWITCH PLAYBACK

Select the tape type for remaining tape time.

23 AUDIO SELECT SWITCH

Select the audio track to be listened to.
This switch is effective for all Audio output.
(RF out, Audio out)
Hi-Fi: To listen to the sound on the Hi-Fi audio track.
MIX: To listen to the mixed sound of Hi-Fi and normal audio track.
(For example, to enjoy Hi-Fi audio while at the same time listening to a narration dubbed on to the normal audio track).
LINEAR: To listen to the sound on the normal audio track.

24 VIDEO IN AND AUDIO IN JACKS

Use to receive signals from other devices.
(such as a camcorder, another VCR, or amplifier receiver).

25 SHUTTLE RING

Use for variable speed search.

26 MESECAM LED INDICATOR

Lights up when the SYSTEM SELECT switch is set to MESECAM position.

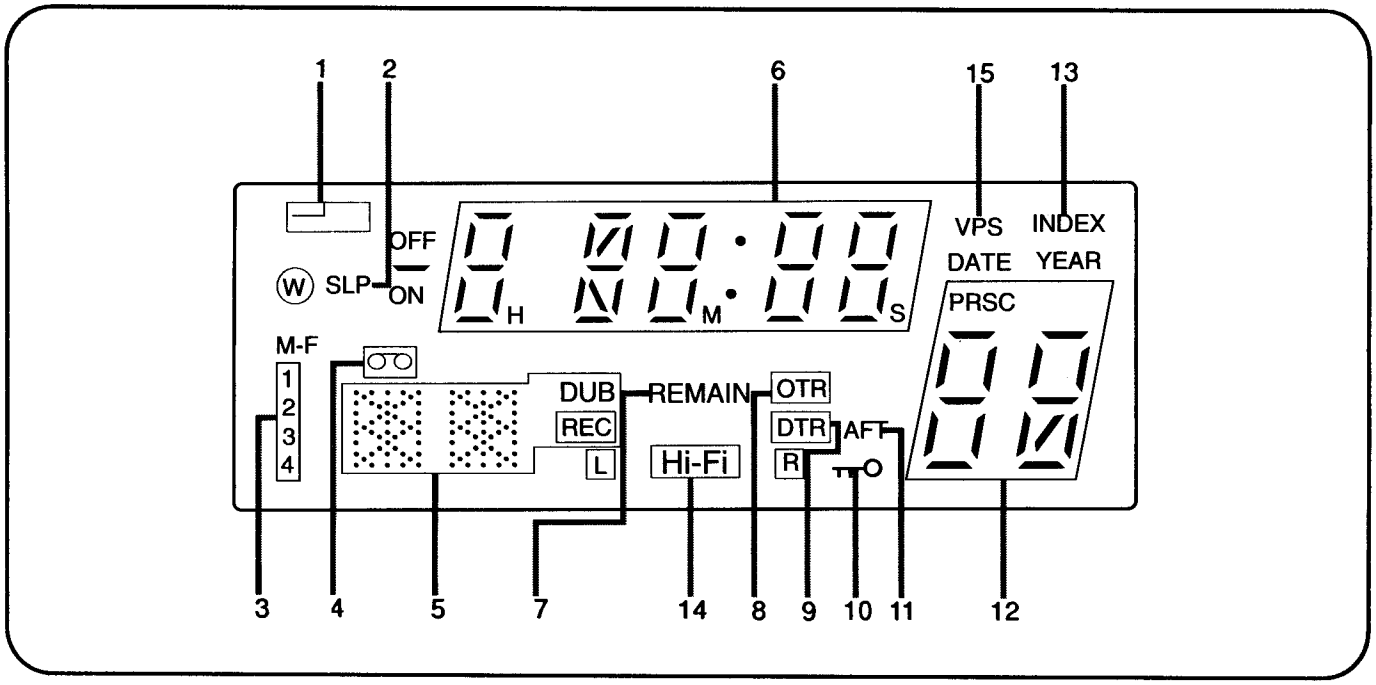
27 DUAL LED INDICATOR

This indicator light automatically when the station the VCR is tuned to is broadcasting bilingual.

28 STEREO LED INDICATOR

This indicator light automatically when the station the VCR is tuned to broadcasting stereo.

1-4-2. MULTI-FUNCTION DISPLAY



1 TIMER INDICATOR

This indicates timer standby and timer recording mode.

2 TAPE SPEED INDICATOR

This indicates the speed of tape.
When this indicator is SP, the speed of tape is standard play. When this indicator is LP, the speed of tape is long play.

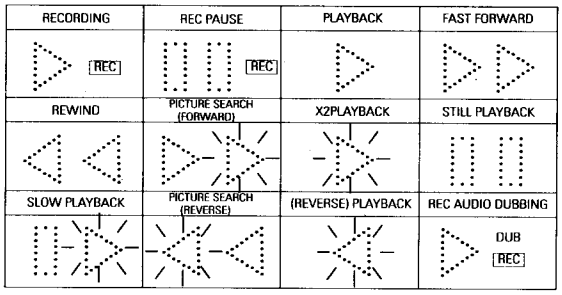
3 PROGRAMME NUMBER INDICATOR

This indicates timer stand by and timer recording mode.

4 CASSETTE-IN INDICATOR

This indicates that the cassette tape is in the unit.

5 FUNCTION MODE INDICATOR



6 CLOCK/COUNTER INDICATOR

Displays present time, counter number, time remaining and OTR length.

7 REMAIN INDICATOR

This indicates "6" indicator displays remaining tape time.

8 OTR INDICATOR

This indicates OTR recording mode.

9 DTR (DIGITAL TRACKING) INDICATOR

This indicator blinks and lights when you insert cassette with safety tab removed, change speed, or press D.TRK button. At the begining of play, Auto tracking is displayed.

10 SAFETY LOCK INDICATOR

11 AFT(AUTO FINE TUNING) INDICATOR

This indicated AUTO FINE TUNING is in operation.

12 CHANNEL NUMBER/INPUT SELECT INDICATOR

INPUT SELECT	DISPLAY	LINEAR	Hi-Fi	PICTURE
TUNER	PR 02	TV SOUND (from built in tuner)		TV Picture (from built in tuner)
SIMULCAST	PRSC 02	Audio signal from through front jack		TV Picture (from built in tnuer)
AV	Av	Audio signal from through Audio/video socket		Video singal from through video/audio socket
FRONT AUX	AU	Audio signal from through front jack		Video signal from through front jack

13 VISS (VHS INDEX SEARCH SYSTEM) INDICATOR

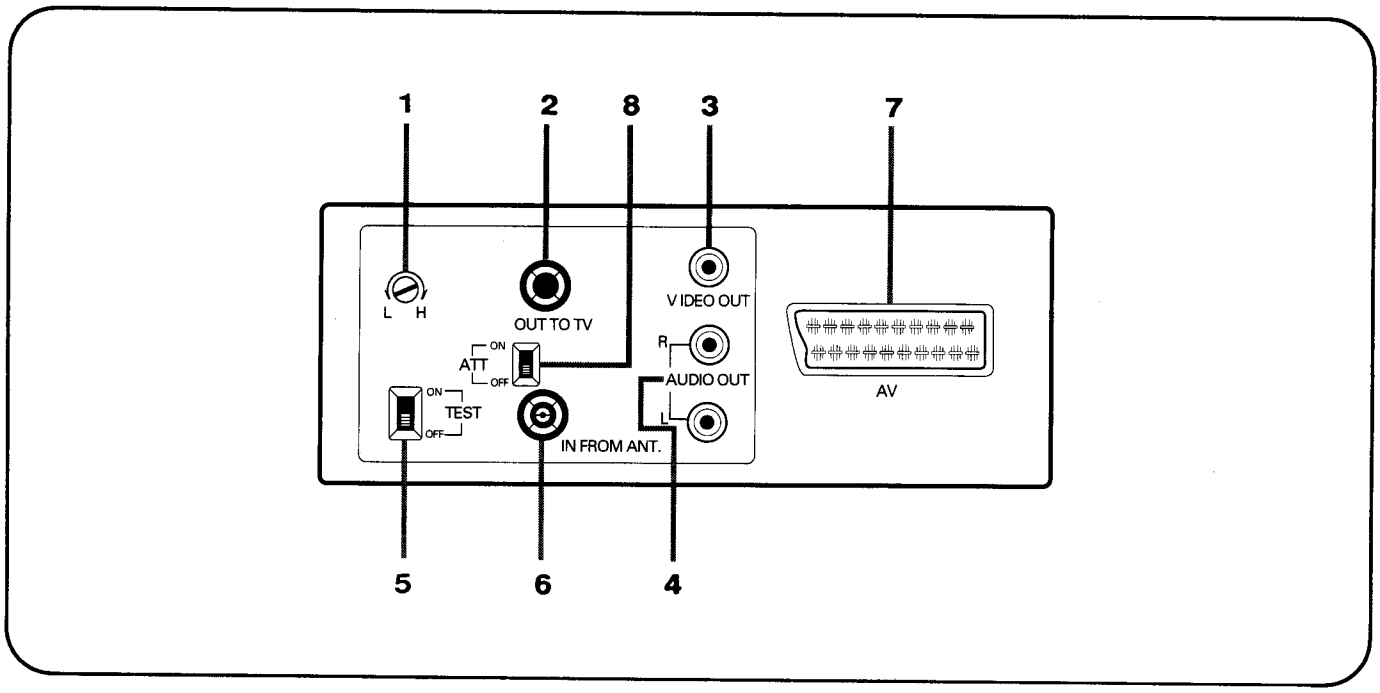
14 AUDIO OUTPUT INDICATOR

Illuminates to indicate audio output is Hi-Fi stereo, L-CH, or R-CH.
(NOTE: This indicator is off when AUDIO select switch is in linear position.)

15 VPS INDICATOR (OPTION)

This indicates VPS Recording mode.

1-4-3. REAR PANEL



1 RF CHANNEL PRESET

Set a now video channel and then return your TV channel to the new RF output.

2 RF OUT CONNECTOR

Connect to TV antenna (aerial) input

3 VIDEO OUT

To connect to TV monitor or another VCR.

4 AUDIO OUT

To connect to sound equipment, another VCR or TV monitor with AV jack.

5 TEST ON/OFF SWITCH

Turn this switch on and check that the video channel of your TV set is correct.

6 ANTENNA IN CONNECTOR

Connect an aerial to this connector.

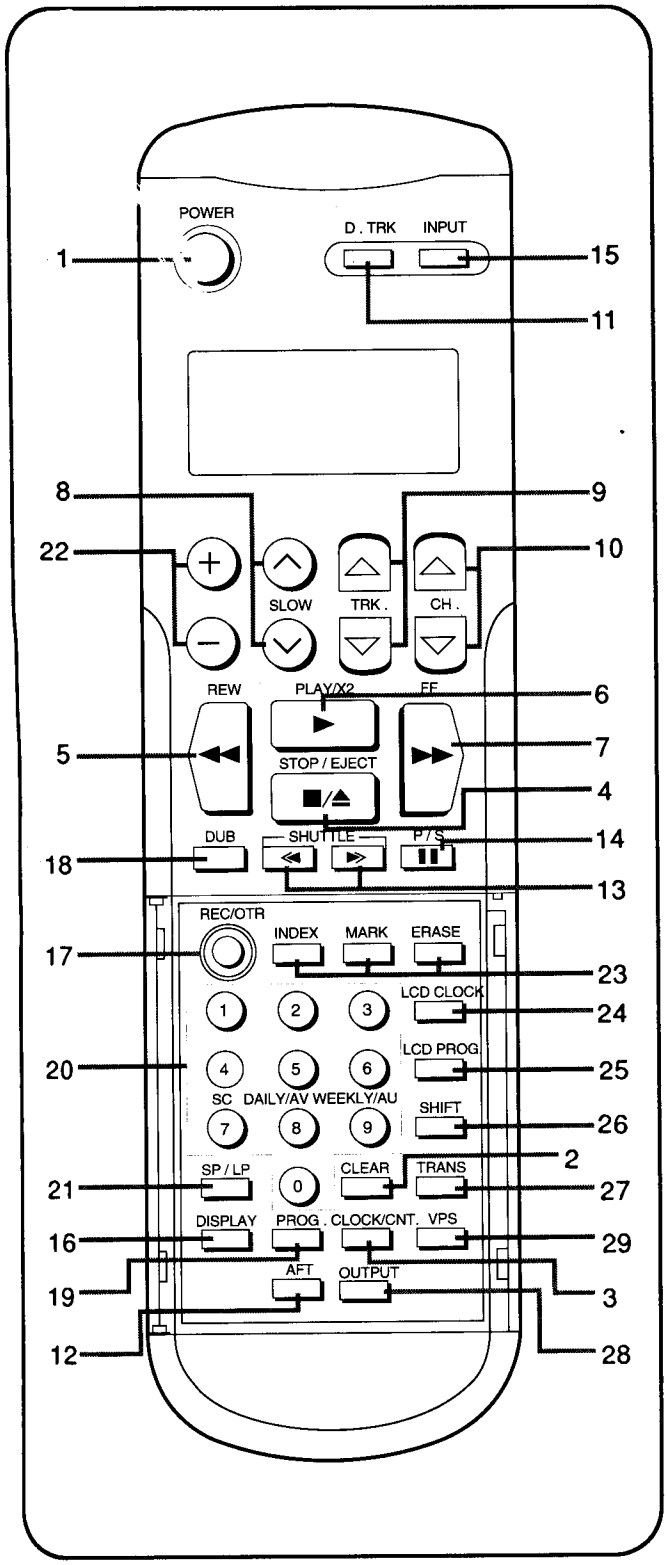
7 AUDIO/VIDEO(21-PIN SCART) SOCKET

A 21 pin standardized AUDIO/VIDEO input/output socket for AV connection to a stereo TV equipped with the same type of the connector.

8 ATTENUATOR SWITCH

If the VCR is used near a broadcasting attenna like that, any noise or saturation happens in the TV's screen. Then, set this switch on.

1-4-4. REMOTE CONTROL



1 POWER/TIMER BUTTON

Press to turn VCR on or off.
Press while in the timer programming mode to engage the timer standby mode.

2 CLEAR/RESET BUTTON

Use to reset the counter to 0H00M00S or to go to the previous step in CLOCK or PROGRAMME setting mode or to clear memorized channel.

3 CLOCK/COUNTER/REMAIN BUTTON

Press to switch between present time, tape counter and time remaining in the multifunction display.

4 STOP/EJECT BUTTON

Press to stop the tape during playback, recording, rewind or fast-forward.
Press to take out cassette tape in STOP mode.

5 REW (REWIND/REVERSE PICTURE SEARCH) BUTTON

6 PLAY (PLAY X2) BUTTON

7 FF (FAST FORWARD/FORWARD PICTURE SEARCH) BUTTON

8 SLOW/SPEED ∧ ,∨ BUTTONS

- Press slow to see slow motion picture.
- Press the slow ∧ to see the faster than slow motion picture.
- Press the slow ∨ to see the slower than slow motion picture.

9 TRACKING △ , ▽ BUTTONS

Tracking can be adjusted manually by pressing the TRACKING △ or △ button on the remote control. The VCR's automatic tracking is turned off whenever you press the TRACKING △ or ▽ button.

- During slow-motion playback, it is normal to see some streaks (noise bars) in the picture. If the streaks interfere with some pictures on the TV screen, press the TRACKING △ or ▽ button to move the streaks up or down.

10 CHANNEL △ , ▽ (AV/AUX SELECT) BUTTONS

Press to select the channel you wish to record or view on TV. Also select AV or AUX input.

11 D. TRK (DIGITAL TRACKING)

If you press one of the manual TRACKING buttons on the remote control, the automatic tracking feature is turned off. Press the DIGITAL TRACKING button on the remote control to turn the VCR's automatic tracking feature back on.

12 AFT (AUTO FINE TUNING) BUTTON

In manual tuning mode press this button to tune better picture automatically.
Then, AFT indicator lights.

13 SHUTTLE <◀, ▶> BUTTONS

Press to search for a specified segment at variable speeds.

14 P/S, F.ADV BUTTON

- Press to stop the tape temporarily during playback or recording and to view the still picture.
- In still mode, press to advance one frame at a time.

15 INPUT SEL BUTTON

Select recording signal from the tuner or front AUX or 21 Pin Audio/Video in jack or simulcast.

16 DISPLAY BUTTON

Press to reveal ON SCREEN DISPLAY information.

17 REC/OTR BUTTON

Press once to start recording.
Press twice to engage One Touch Recording mode.

18 AUDIO DUBBING BUTTON

While in the still mode, press to start audio dubbing stand by.

19 PROGRAMME BUTTON

Press this button to set the CLOCK, the timer programme, or the LANGUAGE.

20 10 KEY BUTTONS (0 through 9)

- These buttons are used for setting by using with OSD.
- Select INDEX NO in INDEX SEARCH mode.
- Select any position channel number.
  Single digit for any data preceded by button 0.

21 SP/LP BUTTON

Press this button to select tape speed you wish to record.

22 +, - BUTTONS

- In still mode, adjust this control to minimize vertical shaking on the TV screen.
- Press these buttons for CLOCK or PROGRAMME setting and MFT operation.

23 VISS (VHS Index Search System) BUTTONS

INDEX : Press to engage the INDEX Search mode.
MARK : While in the playback or recording mode, press to set the index signals onto the tape.
ERASE : Press while in the playback mode to erase the index signals.

24 LCD CLOCK BUTTON

Press to enter Remote control CLOCK mode.

25 LCD PROG BUTTON

Press to enter Remote control programming mode.

26 SHIFT BUTTON

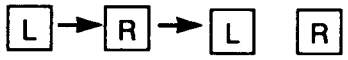
Press to go to the next step while clock setting, LCD programming.

27 TRANS BUTTON

Press to transfer LCD programme from remote control to VCR.

28 OUTPUT BUTTON

For selecting the audio output signals from the AUDIO OUTPUT terminals.



29 VPS BUTTON (OPTION)

Press this button for VPS recording.

1-5. REPLACEMENT PROCEDURE FOR LEADLESS (CHIP) COMPONENT

※ The following procedures are recommended for the replacement of the leadless components used in this unit.

1. Preparation for replacement

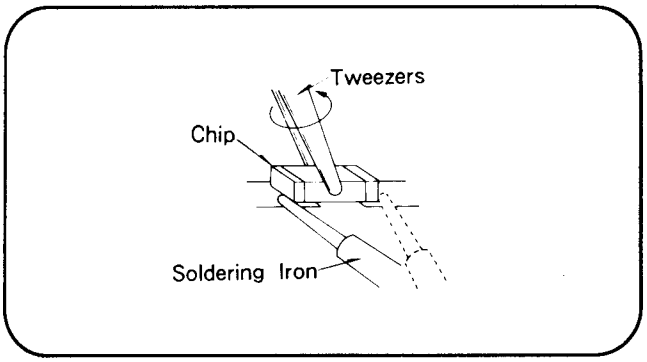
a. Soldering Iron
Use a pencil-type soldering iron that uses less than 30 watts.
b. Solder
Eutectic solder (Tin 63%, Lead 37%) is recommended.
c. Soldering time
Do not apply heat more than 4 seconds.
d. Preheating
Leadless capacitor must be preheated before installation. (130° C~150° C, for about two minutes).

Note :
a. Leadless component must not be reused after removal.
b. Excessive mechanical stress and rubbing of the component electrode must be avoided.

2. Removing the leadless component (Resistors, Capacitors)

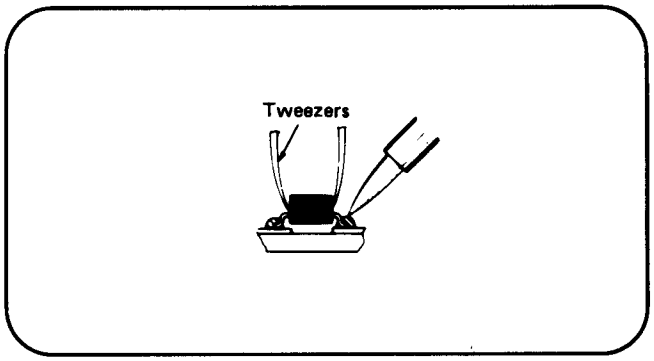
Grasp the leadless component body with tweezers and alternately apply heat to both electrodes. When the solder on both electrodes is melted, remove leadless component with a twisting motion.

Note :
a. Do not attempt to lift the component off the board until the component is completely disconnected from the board by a twising action.
b. Take care not to break the copper foil on printed board.

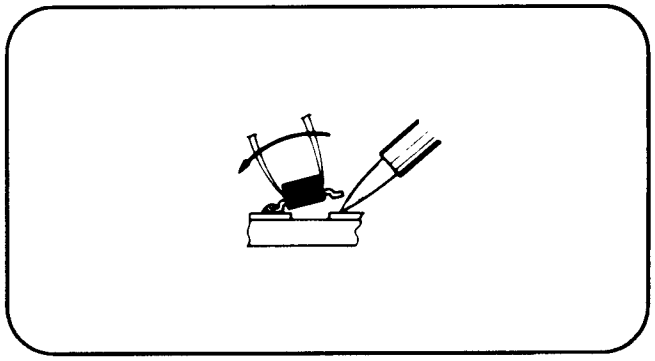


3. Removing the chip component (Transistors, Diodes)

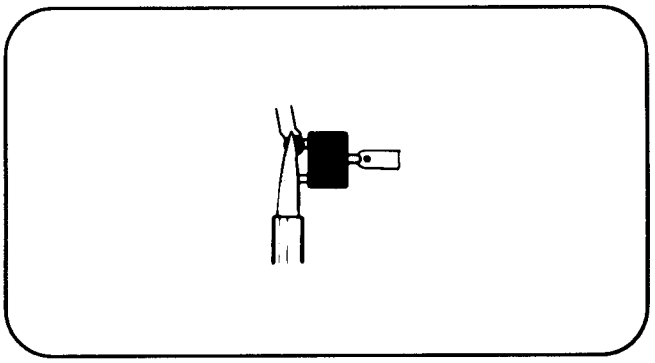
1) Melt the solder of one lead.



2) Lift the side of that lead upward.

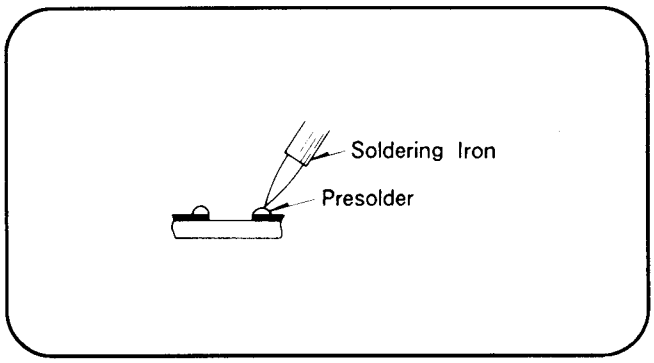


3) Simultaneously heat solder of the two remaining leads and lift part to remove.



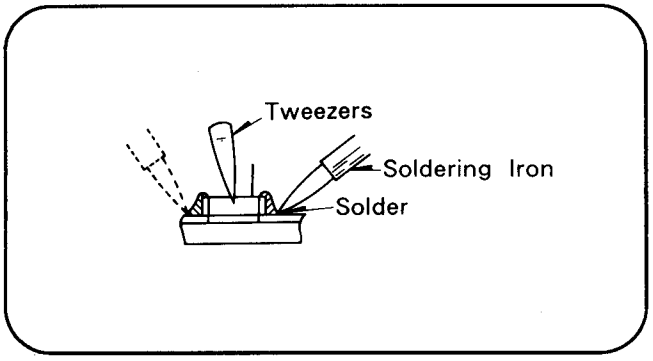
4. Installing the Leadless (chip) Component

1) Presolder the contact points of the circuit board.



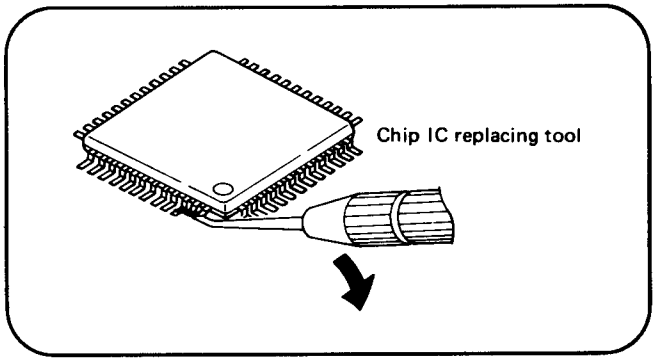
2) Press the part downward with tweezers and solder both electrodes as shown below.

Note :
Do not glue the replacement leadless component to the circuit board.



5. Removing of Flate ICs
(Recommendable manner)

1) For removing solder chips from IC's pins, use a solder remover or a wiry solder absorber.
2) Heat the IC's tips evenly by moving the chip IC replacing tool around them, and detach the IC's leads with a tool in the way of using a lever.
3) Do not reuse ICs removed once (Discard them).



1-6. HOW TO REPLACE LEADLESS (CHIP) COMPONENT

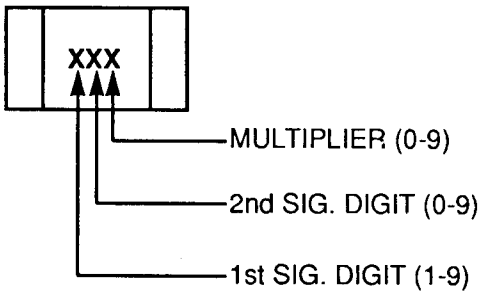
1. Check the followings before S.M.D Troubleshooting

* Cracked or Chipped Component Body
* Cracked or Separated Solder Joints
* Peeling end Terminations or Fractured Leads
* Rejection of Solder from Copper Pads or Component
* Foreign Matter on Copper Pads
* Solder Bridges

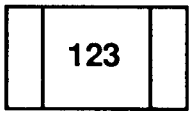
2. S.M.D (Surface Mounted Devices) Identification

1) Chip Resistor Identification

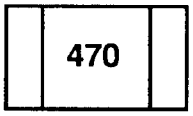
※ Standard Chip Resistor Code



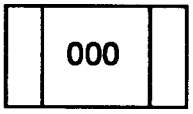
Examples



= 12 x 10^3(1000) = 12000 Ω
= 12K Ω



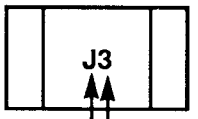
= 47 x 10^0 (1) = 47 Ω



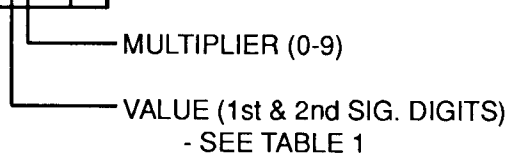
= CHIP JUMPER = 0 Ω

2) Chip Capacitor Identification

※ Standard Two Place Code



= 2.2 x 10^3 (1000)
= 2200 pF



Examples

S2 = 4.7 x 100 = 470 pF

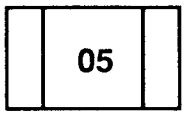
b0 = 3.5 x 1.0 = 3.5 pF

VALUE (33 VALUE SYMBOLS) - UPPER AND LOWER CASE LETTERS					MULTIPLIER
A — 1.0	H — 2.0	b — 3.5	f — 5.0	X — 7.5	0 = x 1.0
B — 1.1	J — 2.2	p — 3.6	T — 5.1	t — 8.0	1 = x 10
C — 1.2	K — 2.4	Q — 3.9	U — 5.6	Y — 8.2	2 = x 100
D — 1.3	a — 2.5	d — 4.0	m — 6.0	y — 9.0	3 = x 1000
E — 1.5	L — 2.7	R — 4.3	V — 6.2	Z — 9.1	4 = x 10000
F — 1.6	M — 3.0	e — 4.5	W — 6.8		5 = x 100000 etc.
G — 1.8	N — 3.3	S — 4.7	n — 7.0		

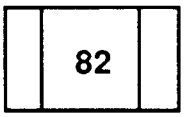
----- TABLE 1 -----

※ Alternate Two Place Code

- Values below 100 pF - Value Read Directly

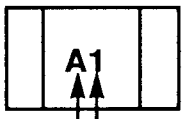


= 5 pF



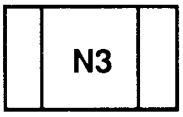
= 82 pF

- Values 100 pF and above - Letter / Number Code



= 10 x 10
= 100 pF

MULTIPLIER (1-9)
VALUE (1st & 2nd SIG. DIGITS)
- SEE TABLE 2

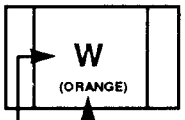


= 33 x 1000
= 33000 pF
= 0.33 uF

VALUE (24 VALUE SYMBOLS) - UPPERCASE LETTERS ONLY					MULTIPLIER
A — 10	F — 16	L — 27	R — 43	W — 68	1 = x 10
B — 11	G — 18	M — 30	S — 47	X — 75	2 = x 100
C — 12	H — 20	N — 33	T — 51	Y — 82	3 = x 1000
D — 13	J — 22	P — 36	U — 56	Z — 91	4 = x 10000
E — 15	K — 24	Q — 39	V — 62		5 = x 100000 etc.

----- TABLE 2 -----

※ Standard Single Place Code



= 4.7 x 1.0=4.7 pF

COLOR-MULTIPLIER

SYMBOL-VALUE
- SEE TABLE 3

Examples

R (Green) = 3.3 x 100 = 330 pF

7 (Blue) = 8.2 x 1000 = 8200 pF

VALUE (33 VALUE SYMBOLS) - UPPER AND LOWER CASE LETTERS					MULTIPLIER
A — 1.0	H — 1.6	N — 2.7	V — 4.3	3 — 6.8	ORANGE = x 1.0
B — 1.1	I — 1.8	O — 3.0	W — 4.7	4 — 7.5	BLACK = x 10
C — 1.2	J — 2.0	R — 3.3	X — 5.1	7 — 8.2	GREEN = x 100
D — 1.3	K — 2.2	S — 3.6	Y — 5.6	9 — 9.1	BLUE = x 1000
E — 1.5	L — 2.4	T — 3.9	Z — 6.2		VIOLET = x 10000
					RED = x 100000

----- TABLE 3 -----

1-7. CLEANING AND LUBRICATION

1-7-1. CLEANING TAPE MECHANISM

Periodic cleaning is necessary to insure continued excellent performance of the tape mechanism. To clean the following parts, patch and solvent are available.

1. Capstan shaft.
2. All tape guide posts.
3. Clitch pulley.
4. Pinch roller.
5. Belt capstan.
6. Capstan motor pulley.

1-7-2. CLEANING OF ROTATING & STATIONARY HEADS

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

> **Note** : When cleaning video heads, move the cleaning stick in the direction of head rotation. Wiping in a vertical direction may damage the heads.

Press a chamois cloth which has been dipped in cleaning fluid lightly against the rotating cylinder assembly, then do the cleaning by slowly rotaing upper cylinder ass'y by hand.

> **Note** : Never try to clean by using the motor to turn the cylinder ass'y.

1-7-3. LUBRICATING TAPE MECHANISM

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

Depending on the frequency of use and environmental conditions, periodic lubrication may be required.
When relubricating, remove old lubricant first, then sparingly apply new lubricant.(Excessive lubricant may be transferred to other assemblies causing malfunction).

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

1. Between base pole assembly (L, R) and main base.
2. Gear escalator.
3. Gear E/J drive.
4. Gear loading L, R.
5. Slide main.
6. Lever tension control.
7. Lever shift.

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

Main base
1. Arm tension molding.
2. Shaft reel disk L, R molding.
3. Shaft gear relay T, S1, S2, S3 molding.
4. Shaft clutch.
5. Shaft gear review.

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

1-8. ABBREVIATIONS

X2 : Double
4.43MHz : Color Sub Carrier

ACC : Automatic Color Circuit
ACK : Automatic Color Killer
ADD : Adder
AFC : Automatic Frequency Control
AFT : Automatic Fine Tuning
AGC : Automatic Gain Control
ALC : Automatic Level Control
AMP : Amplifier
APC : Automatic Phase Control
AUX : Auxiliary

BATT : Battery
BD : Burst Deemphasis
BE : Burst Emphasis
BH : Power Supply for Selecting VHF High Band
BL : Power Supply for Selecting VHF Low Band
BPF : Band Pass Filter

C.FG : Capstan Frequency Generator
C.SYNC : Composite Sync
CAFC : Capstan Auto Frequency Control
CAPC : Capstan Auto Phase Control
CATV : Cable TV
CAR : Carrier
CAP : Capstan
CCD : Charge Coupled Device
CH : Channel
CHAR. : Character
CHROMA : Chrominance
CM : Capstan Motor
COMP : Comparator
CST : Cassette
C-ERR : Capstan Error
CTL : Control
C.PG : Capstan Pulse Generator
CUR.EMPH : Current Emphasis

D.FG : Drum Frequency Generator
D.O.C : Drop Out Compensator
D.PG : Drum Pulse Generator
D/A : Digital-to-Analog
D/C : Dark/Clip
D.AFC : Drum Auto Frequency Control
D.APC : Drum Auto Phase Control
DE-EMPH : De-Emphasis
DET : Detector
DEV : Deviation
DLYD : Delayed
DM : Drum Motor
DEMOD : Demodulator
D.D : Direct Drive

E-E : Electronic-to Electronic
EMPH : Emphasis
ENV : Envelope
EQ : Equalizer
EPS : Easy Programming System

F.ADV : Frame Advance
F-V : Frequency to Voltage Converter
F.FWD : Fast Forward
FH : Frequency Horizontal
FG : Frequency Generator
FM : Frequency Modulator
FSC : Frequency Sub Carrier
FWD : Forward
FC : Frequency Center
FL : Frequency Low

GEN : Generator
GND : Ground

HPF : High Pass Filter

IF : Intermediate Frequency
IR : Infrared Receiver

LED : Light Emitting Diode
LIM : Limiter
LPF : Low Pass Filter
LUMA : Luminance
LCD : Liquid Crystal Display
LNR : Linear

MIX : Mixer
MM : Monostable Multivibrator
MTS : Multi Channel TV Sound
MEM : Memory
MFT : Manual Fine Tuning

N.C : No Connection

OSC : Oscillator
OTR : One Touch Recording
OSP : On Screen Programme
OSD : On Screen Display

PB : Play Back
P.C : Power Control
PG : Pulse Generator
PIF : Picture Intermediate Frequency
PLL : Phase Lock Loop
PRG : Programme
PWM : Pulse Width Modulation
PWR : Power
P/S : Pause/Still
PD : Power Detector

REG : Regulator
REC : Record
REC.SAF : Record Safety
REW : Rewind
RF : Radio Frequency
REV : Reverse
RECT : Rectifier
REF : Reference

SC : Simul-Cast
SC : Sub-Carrier
SCK : Shift Clock
SDA : Serial Data
SIF : Sound Intermediate Frequency
S.M.D : Surface Mounted Devices
S.M.P.S : Switching Mode Power Supply
SP : Standard Play
SW25Hz : Head Switching Pulse
SYNC : Synchronizing Signal
SYSCON : System Control
STB : Strobe
SI : Serial Input
SO : Serial Output
SW : Switch

TP : Test Point
TRK : Tracking

UL : Unloading

VT : Voltage Tuning
VLP : Vertical Lock Pulse
V-REF : Voltage Reference
V-SYNC : Vertical Sync
VCO : Voltage Controlled Oscillator
VCR : Video Cassette Recorder
VIF : Video Intermediate Frequency
VPS : Video Programming System
VHS : Video Home System
VXO : Voltage Controlled Crystal Oscillator
VSS : Voltage Super Source
VISS : VHS Index Search System

W/C : White /Clip
W/D : White/Dark

Y/C : Luminance/Chrominance

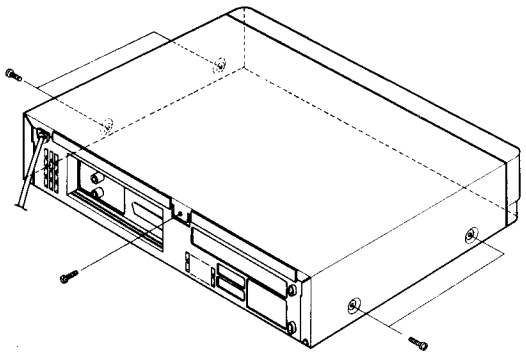
uP : Microprocessor

2. DISASSEMBLY

2-1. INSTRUMENT DISASSEMBLY

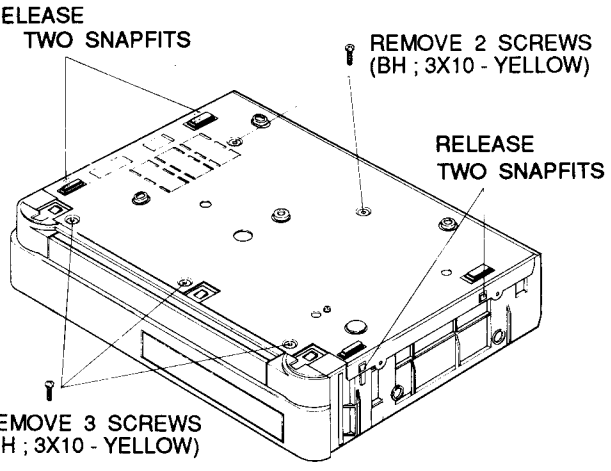
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the illustrations. Reassemble in reverse order.

2-1-1. Top Cabinet Removal

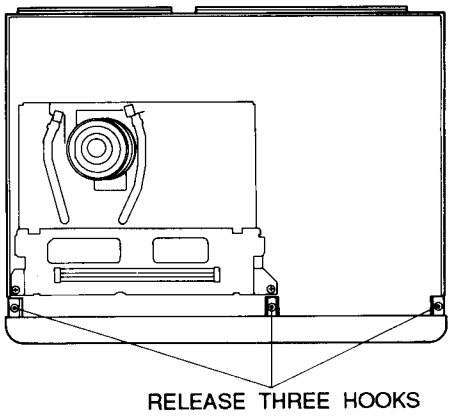


REMOVE 5 SCREWS
(BH ; 2-4X16 - BLACK)

2-1-2. Bottom Cover Removal

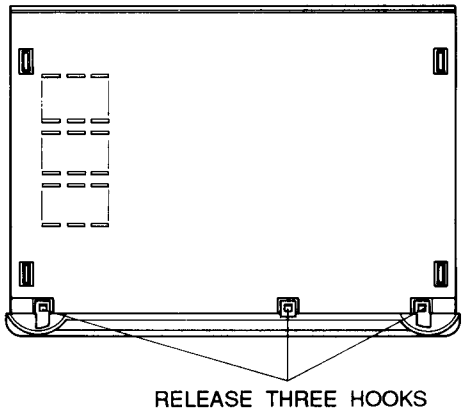


2-1-3. Front Panel Removal



RELEASE THREE HOOKS

(Top View)



RELEASE THREE HOOKS

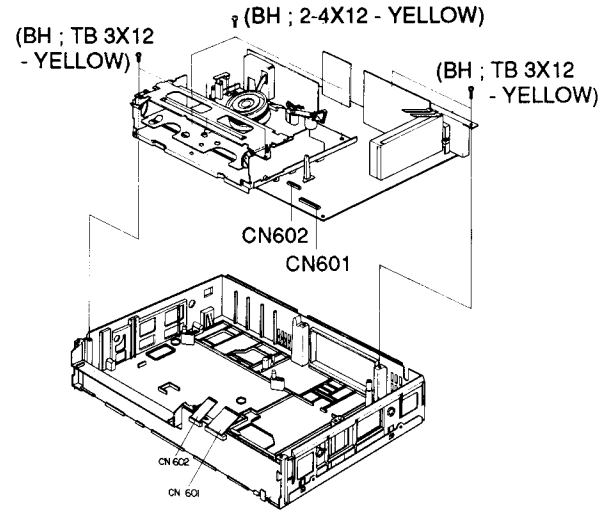
(Bottom View)

2-2. CIRCUIT BOARD DISASSEMBLY

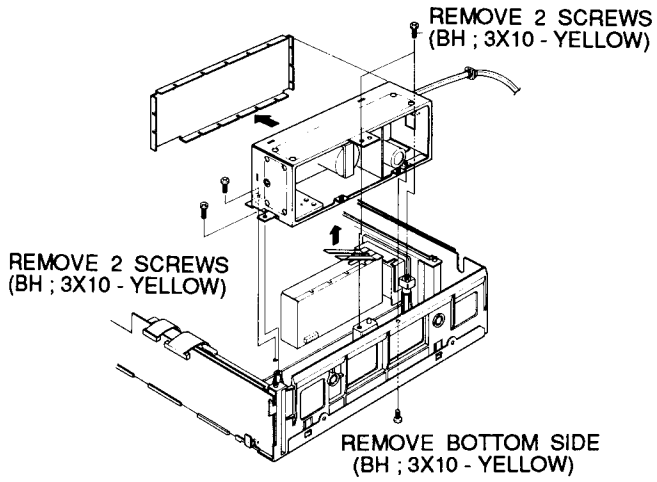
Note :

1. When removing chassis unit assembly, take extreme care not to damage the Main PCB front.
2. When reinstalling Deck on the Main PCB, take extreme care not to damage sensor.

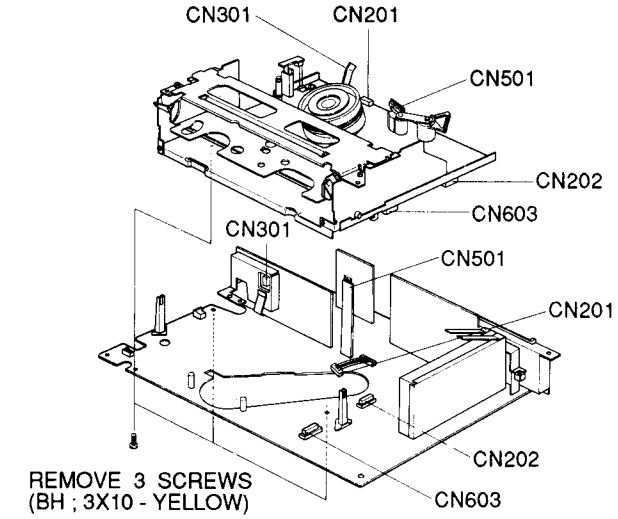
2-2-3. Chassis Unit Removal



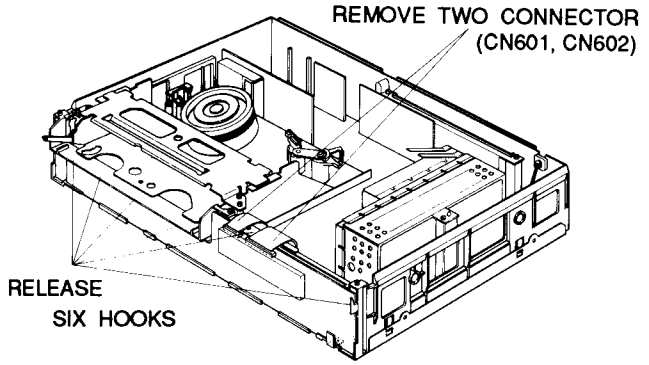
2-2-1. Regulator Ass'y Removal



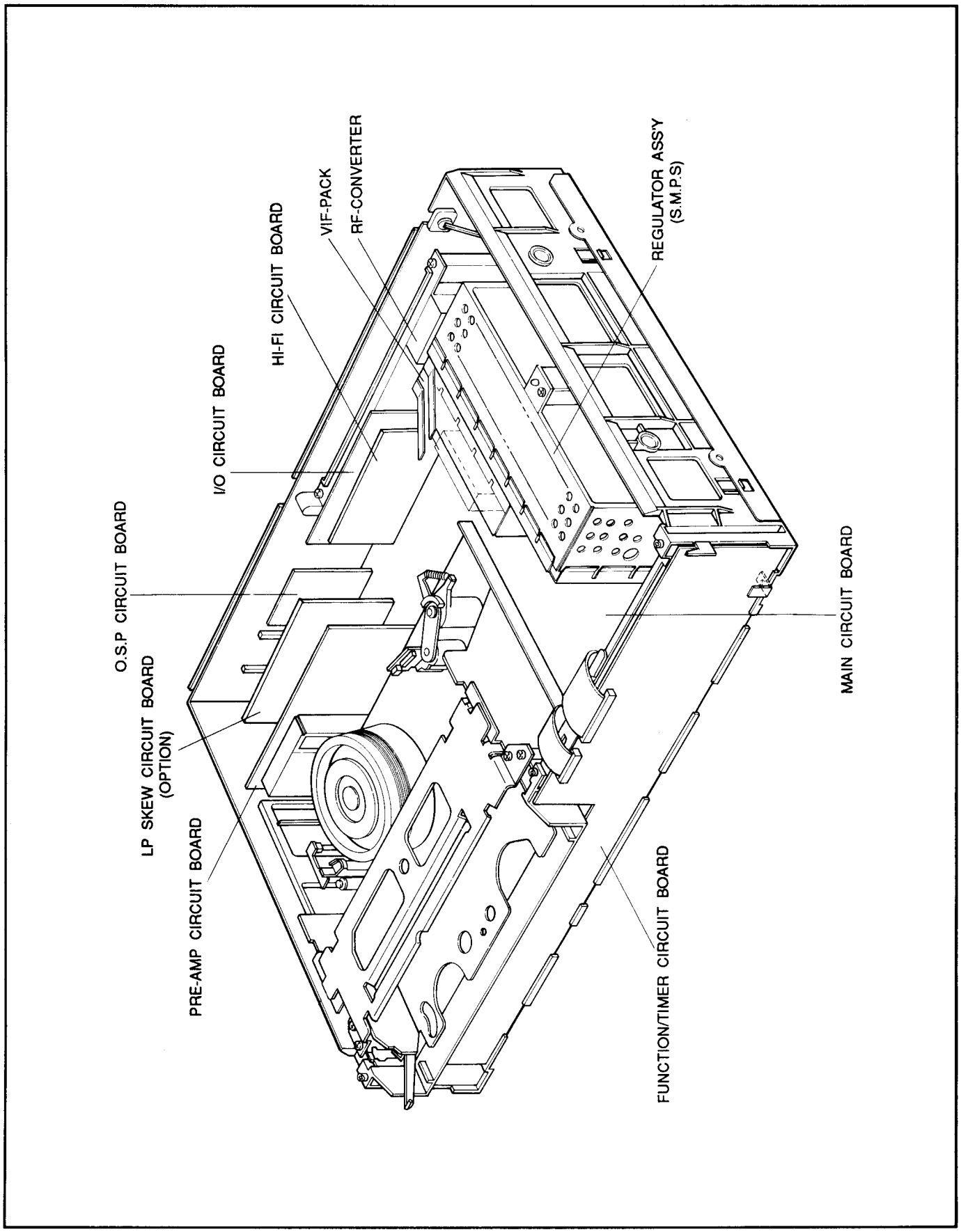
2-2-4. Main Circuit Board Removal



2-2-2. Function/Timer Circuit Board Removal



*** Circuit Boards Location**



2-3. TAPE TRANSPORT MECHANISM IDENTIFICATION

2-3-1. Top View

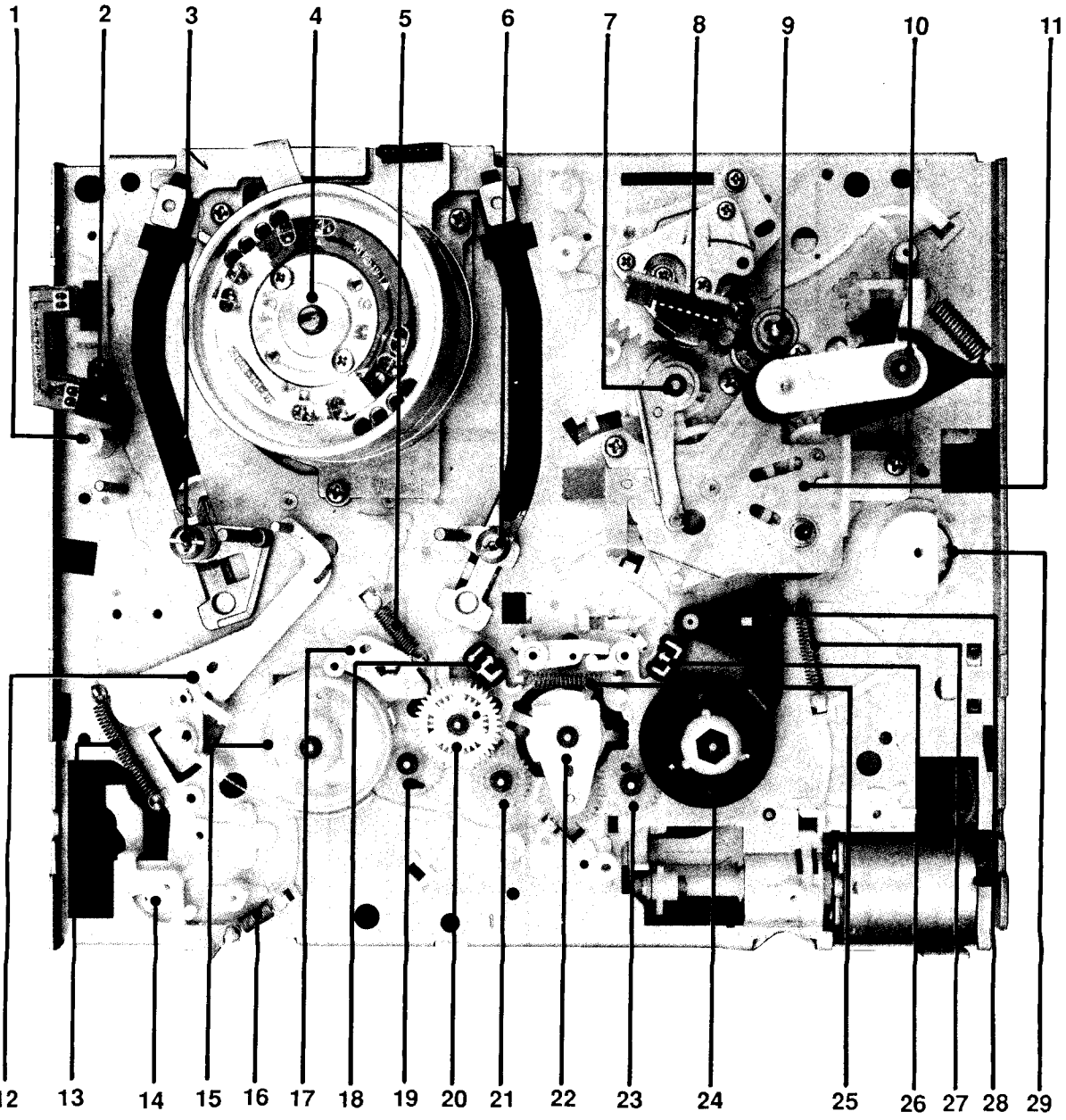


Fig. 1 Tape Transport Mechanism - Top View

1. SUPPLY ROLLER
2. F/E HEAD ASS'Y
3. P.B & G.R (L)
4. CYLINDER ASS'Y
5. S/P BRAKE SUB "L"
6. P.B & G.R (R)
7. REVIEW ARM ASS'Y
8. A/C HEAD ASS'Y
9. CAPSTAN SHAFT
10. PINCH ROLLER UNIT
11. UNIT DRIVE PINCH
12. ARM TENSION ASS'Y
13. SPRING TENSION
14. LEVER REC S/W
15. REEL DISK "L"
16. S/P RECORD S/W
17. BRAKE SUB "L"
18. BRAKE MAIN "L" ASS'Y
19. GEAR RELAY S3
20. GEAR RELAY S2
21. GEAR RELAY S1
22. IDLER SUB ASS'Y
23. GEAR RELAY "T"
24. REEL DISK "R"
25. S/P BRAKE MAIN
26. BRAKE MAIN "R" ASS'Y
27. S/P BRAKE SUB "R"
28. BRAKE SUB "R" ASS'Y
29. GEAR EJECT DRIVE

2-3-2. Bottom View

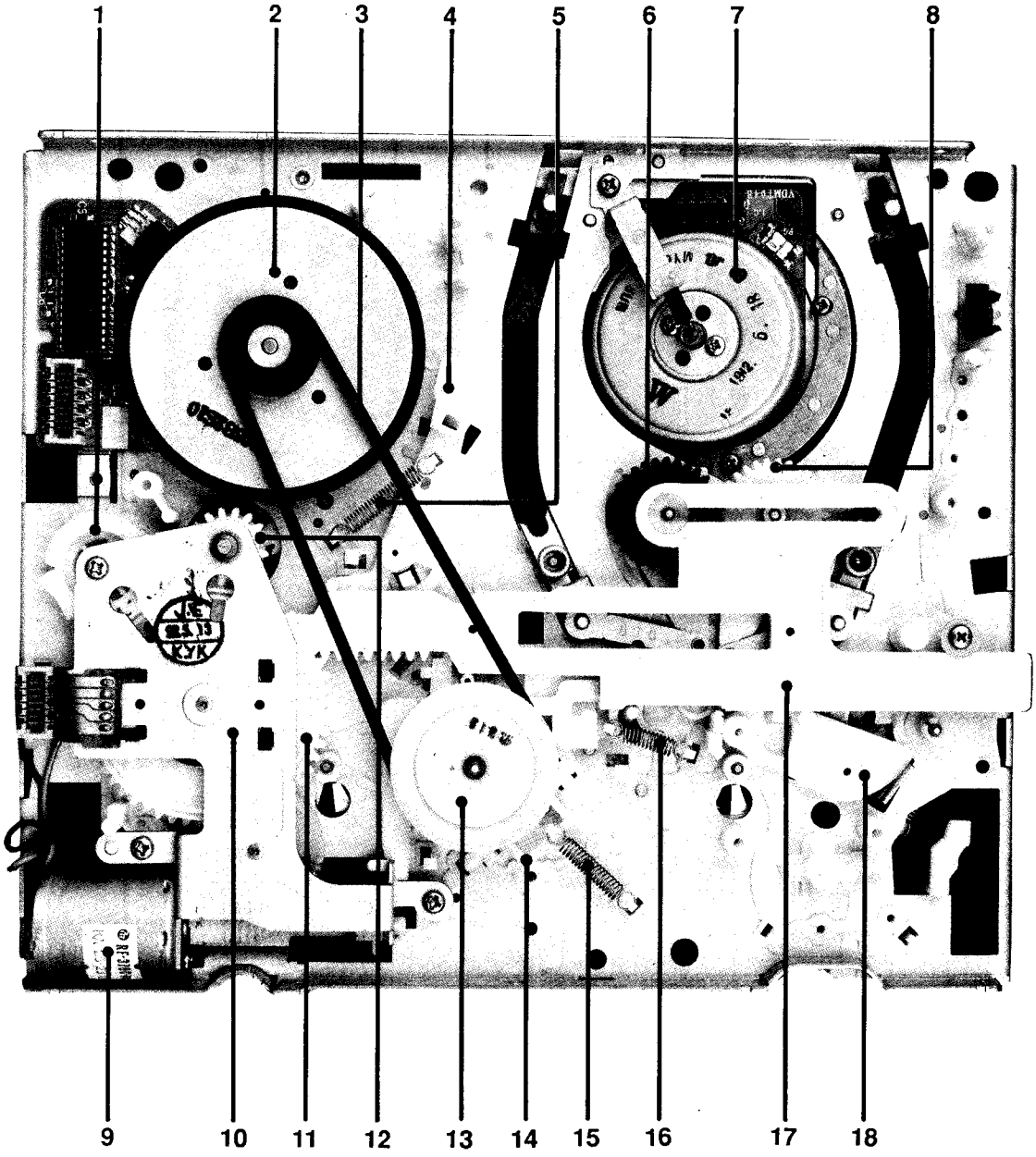


Fig. 2 Tape Transport Mechanism - Bottom View

1. GEAR EJECT DRIVE
2. MOTOR D/D CAPSTAN
3. BELT CAPSTAN
4. BRAKE D/D CAPSTAN
5. S/P BRAKE CAPSTAN
6. GEAR LOADING "R"
7. CYLINDER MOTOR
8. GEAR LOADING "L"
9. MOTOR LOADING
10. LOADING UNIT ASS'Y
11. GEAR MASTER
12. GEAR RELAY PINCH
13. CLUTCH ASS'Y
14. LEVER SHIFT
15. S/P BRAKE SUB "R"
16. S/P RELEASE BRAKE
17. SLIDE MAIN
18. LEVER TENSION CONTROL

2-4. HOUSING ASS'Y REMOVAL & REASSEMBLY

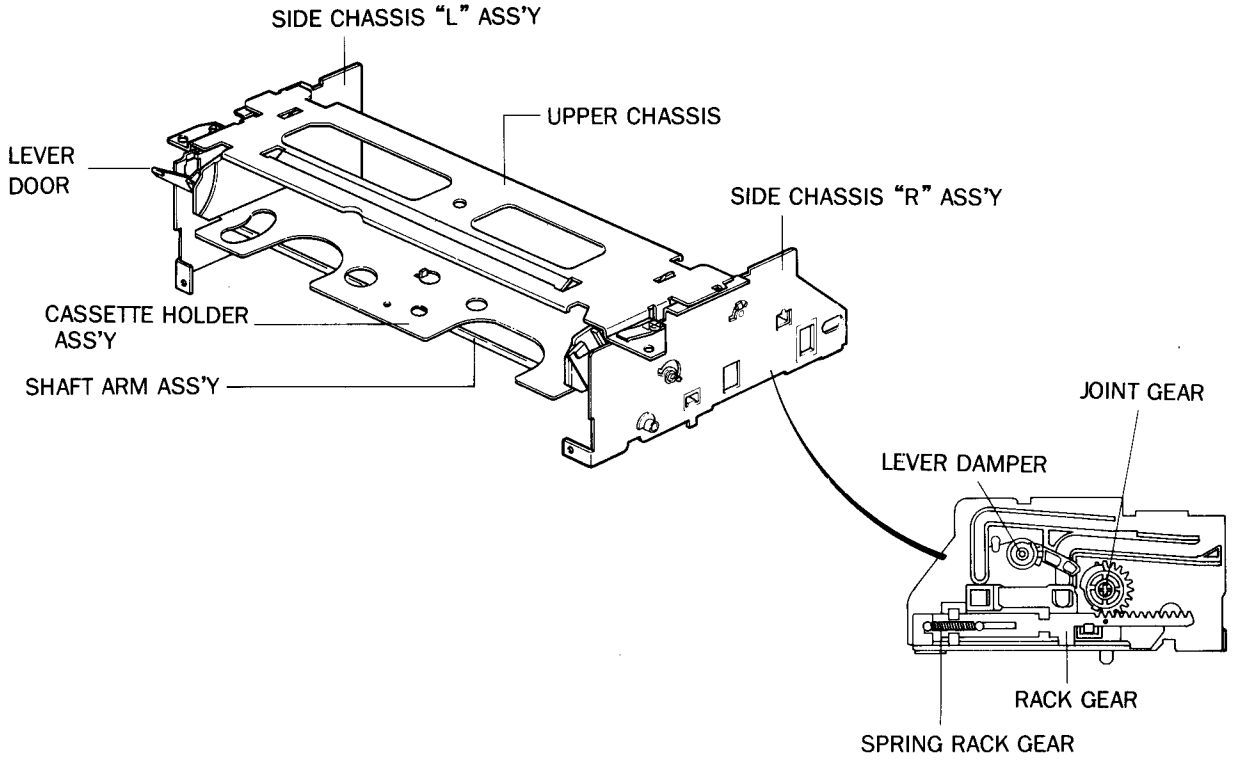


Fig. 3 Housing Ass'y Identification

2-4-1. Housing Ass'y Removal

1. Remove four (4) screws ①, ②.
2. Lift up the housing ass'y in the direction of arrow.

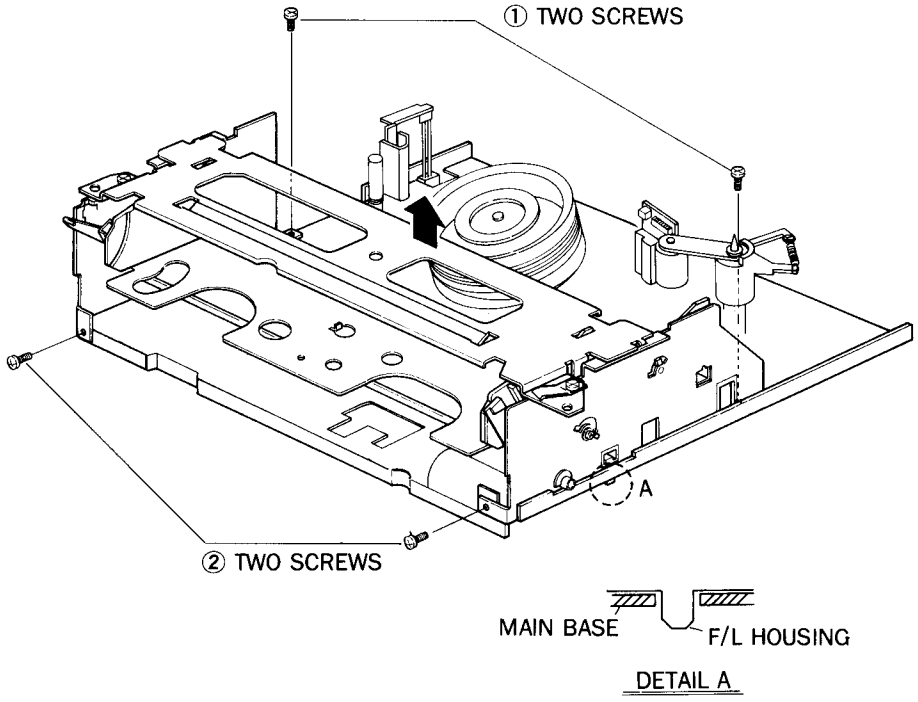


Fig. 4 Housing Ass'y Removal

2-4-2. Cassette Holder Ass'y & Side Chassis "L", "R" Removal

1. Remove two (2) screws ①.
2. Lift up the upper chassis ② and the cassette holder ass'y ③ in the direction of arrow (A).
3. Remove the side chassis "L", "R" ④, ⑤ from the shaft arm ass'y in the direction of arrows (B).

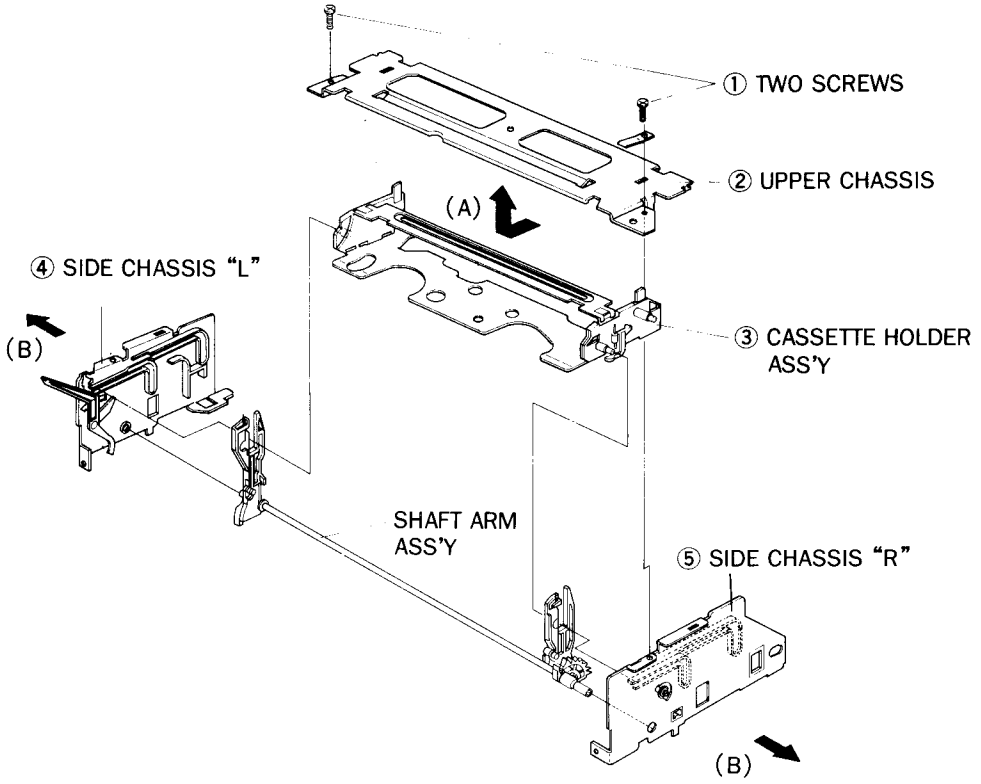


Fig. 5 Cassette Holder Ass'y & Side Chassis "L", "R" Removal

2-4-3. Joint Gear & Rack Gear Removal

1. Pull the rack gear ① in the direction of arrow (A) to the end.
2. Remove one screw ② and then the joint gear ③.
3. Remove the rack gear ① toward arrow (B).

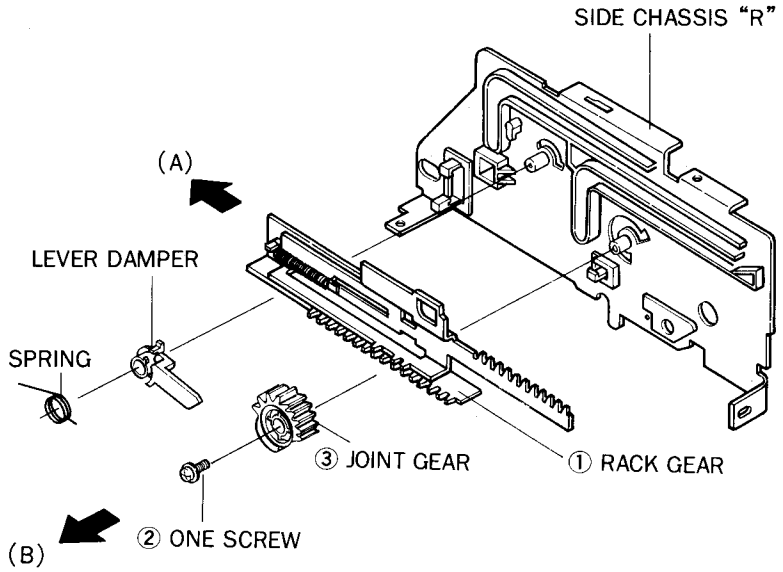


Fig. 6 Joint Gear & Rack Gear Removal

2-4-4. Reinstallation of Rack Gear and Joint Gear

Reinstallation and Timing of Rack Gear and Joint Gear

1. Assemble the rack gear ① to the side chassis "R".
2. Pull the rack gear ① in the direction of arrow to the end.
3. Install the joint gear so that the slot #1 of joint gear ② is aligned with the tooth #1 of rack gear ①.
4. Tighten one (1) screw with the joint gear.

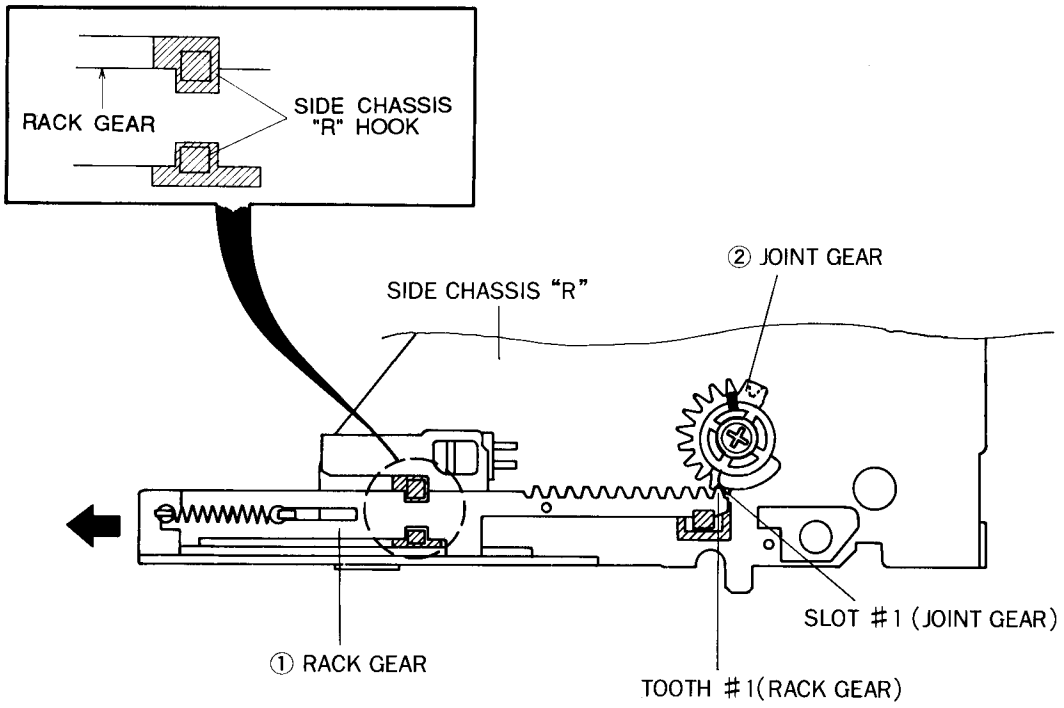


Fig. 7 Reinstallation and Timing of Rack Gear and Joint Gear

Timing Confirmation of Rack Gear and Joint Gear (Eject mode)

1. Push the rack gear ① in the direction of arrow to the end.
2. Make sure that the tooth #12 of joint gear ② and the Timing Point of rack gear ① are aligned correctly as shown in Fig. 8.

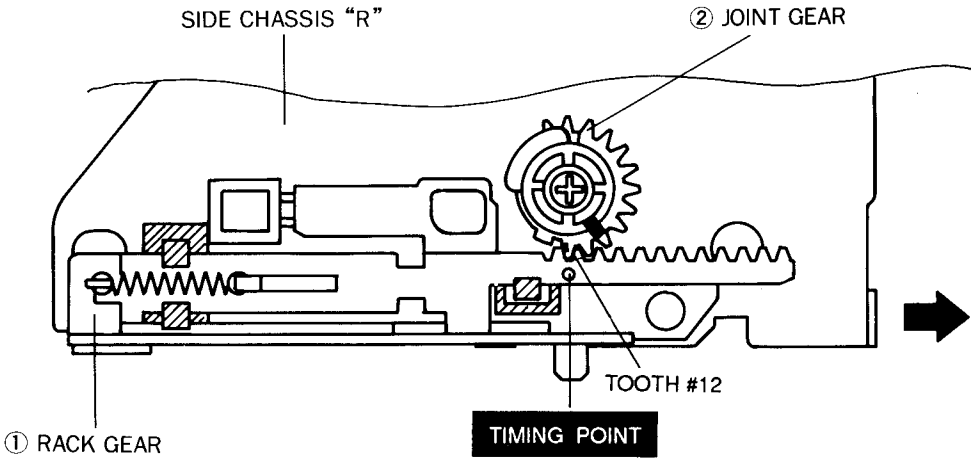


Fig. 8 Timing Confirmation of Rack Gear and Joint Gear

2-4-5. Reassembly of Housing Ass'y

1. After pushing the rack gear in direction of arrow to the end, insert the pin of the arm gear into the hole of side chassis "R".
2. Align the slot #1 (arrow mark) of the arm gear ① with the tooth #3 of the joint gear ②.
   (Refer to timing in Fig. 9)
3. Install the side chassis "L" so that the shaft arm pin goes into the hole in the side chassis "L".
4. Turn the shaft arm to up-position and drop the cassette holder into the arm grooves.
5. Install the upper chassis and secure with two (2) screws.

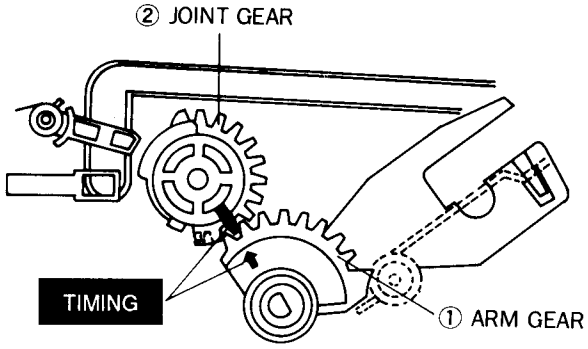


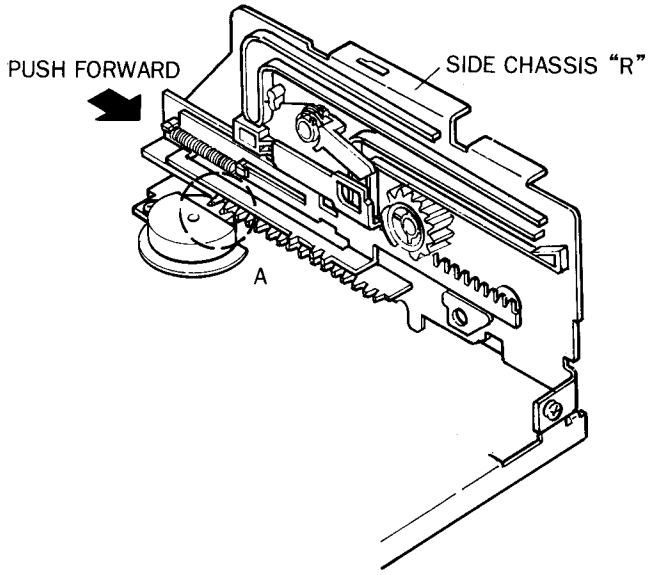
Fig. 9 Reassembly Joint Gear & Arm Gear

2-4-6. Reinstallation of Housing Ass'y & Deck Ass'y

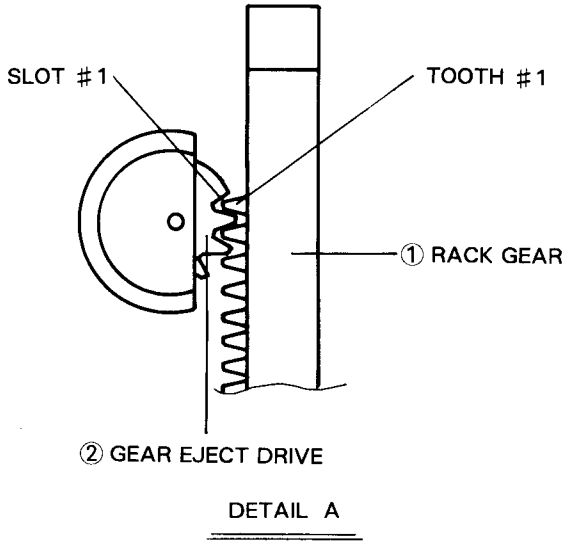
Note : Make sure deck is in the eject position.

1. Assemble the housing ass'y while pushing the rack gear forward to align the slot #1 of gear eject drive ② and the tooth #1 of rack gear ①. (Refer to Detail A)

2. Install the housing ass'y and then tighten four (4) screws (See Fig. 4)



(SIDE VIEW)



(TOP VIEW)

Fig. 10 Reinstallation of Housing Ass'y

2-5. CYLINDER ASS'Y REMOVAL & REASSEMBLY

2-5-1. Cylinder Ass'y Removal from Main Base

1. Release the F.P.C cable ① from Pre-Amp PCB (CN301) and disconnect the lead connector ass'y ② from the cylinder PCB.
2. Remove three (3) screws ③ securing the base cylinder and the main base.
3. Lift the cylinder ass'y ④ in the direction of arrow.

CAUTION : Take extreme care when removing the cylinder ass'y. Do not touch the video head tips during servicing.

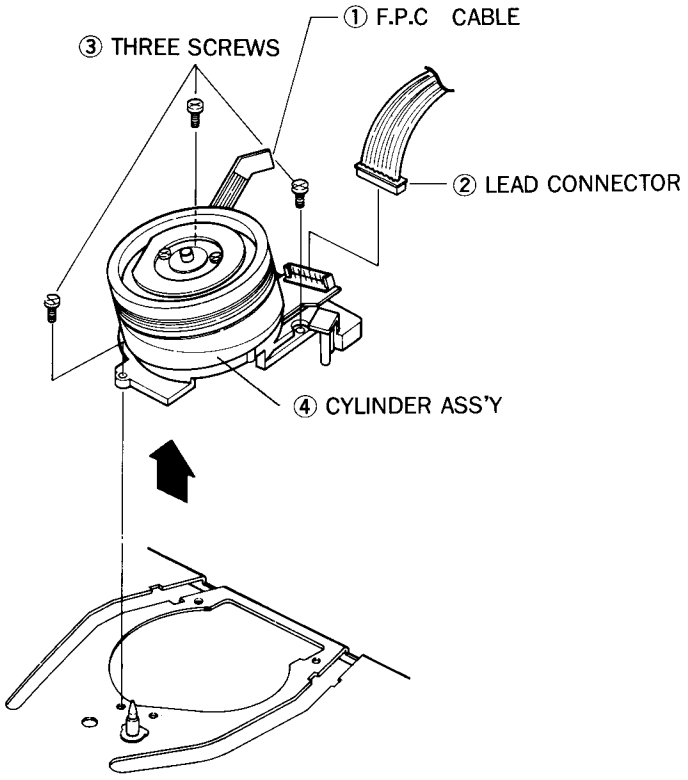


Fig. 11 Cylinder Ass'y Removal

2-5-2. Exploded View of Cylinder Ass'y

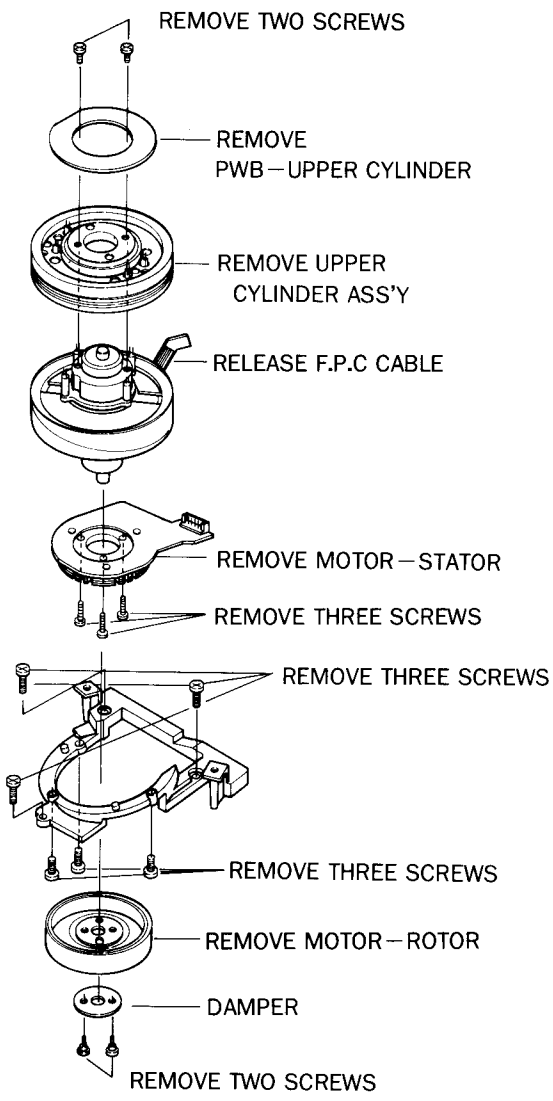


Fig. 12 Exploded View of Cylinder Ass'y

2-5-3. Upper Cylinder Ass'y Removal

1. Remove two (2) screws ① from the upper cylinder ass'y ③.
2. Unsolder the PWB-Upper cylinder ② from the upper cylinder ass'y ③ and remove the upper cylinder ass'y ③ from the cylinder ass'y. (See Fig. 14)

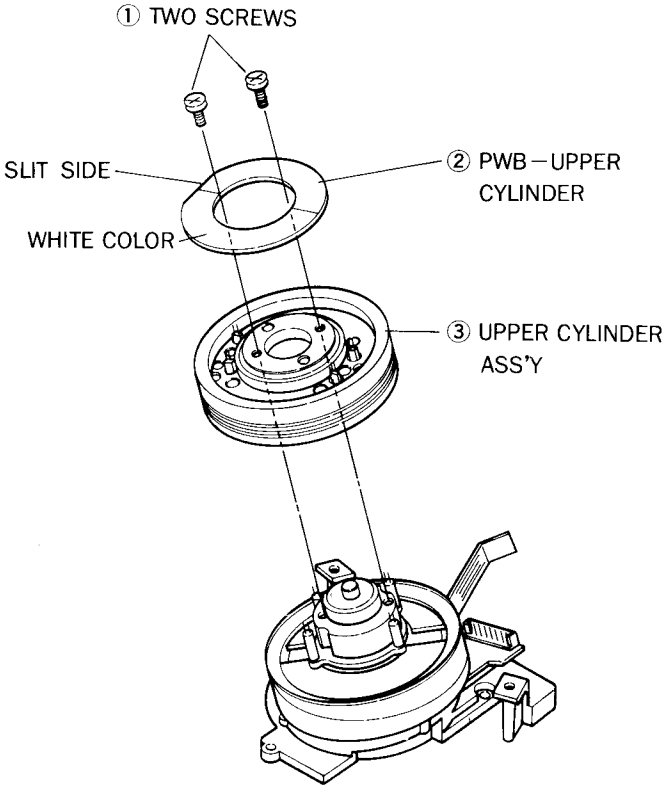


Fig. 13 Upper Cylinder Ass'y Removal

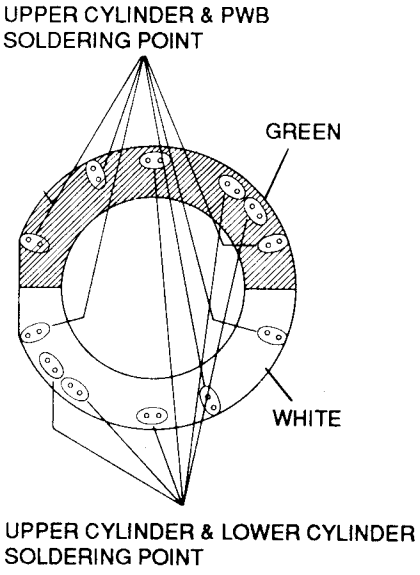


Fig. 14 PWB Upper Cylinder Top View

2-5-4. Lower Cylinder Ass'y Removal

1. Remove three (3) screws ① from the base cylinder ②.
2. Lift up the lower cylinder ass'y ③ from the base cylinder ②.

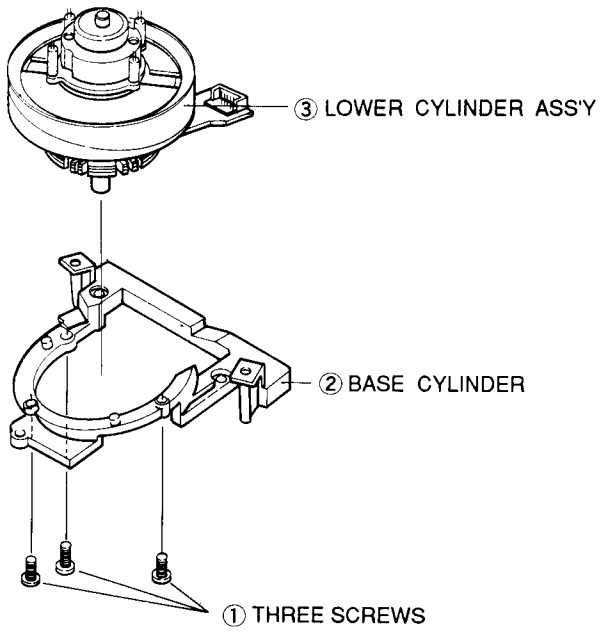


Fig. 15 Lower Cylinder Ass'y Removal

2-5-5. Cylinder Motor Removal

1. Remove three (3) screws ① from the base cylinder ②.
2. Remove two (2) screws ③ from the damper ④,then remove the damper ④ and the motor-rotor ⑤.
3. Remove three (3) screws ⑥ from the motor-stator ⑦ and take it out.

Note : Mark rotor position to insure correct phase orientation upon reinstallation.

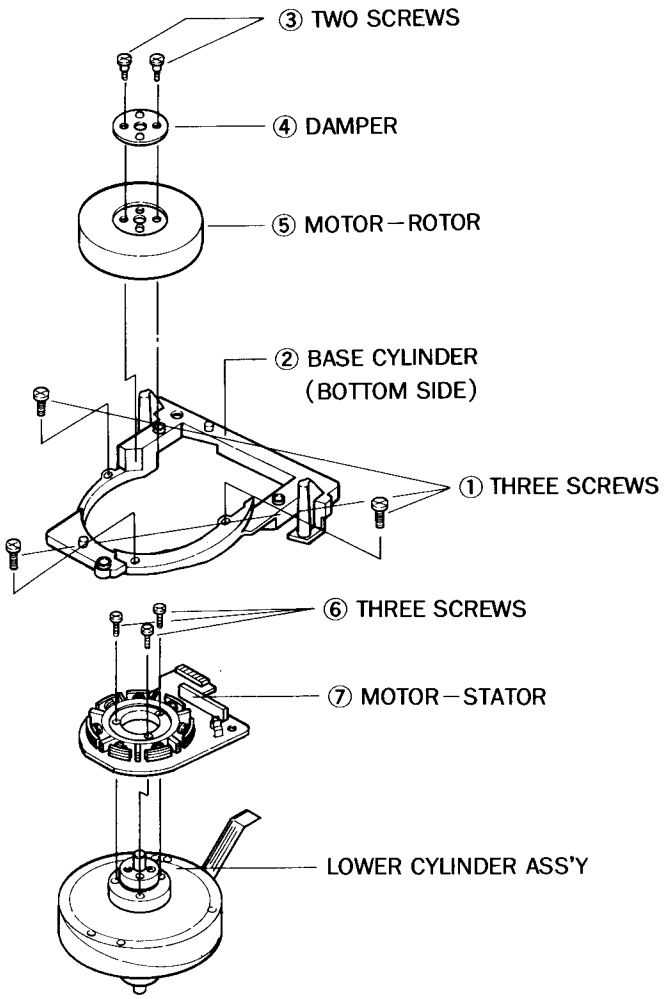


Fig. 16 Cylinder Motor Removal

2-5-6. Assembly of Lower Cylinder

1. Tighten three (3) screws with the motor-stator. (Refer to Fig. 16)
2. Reinstall the motor-rotor, damper and secure with two (2) screws. (Refer to Fig. 16)

Note : Make sure that the hole of bush cylinder on lower cylinder and the hole of motor rotor are aligned correctly as shown in Fig. 17.

3. Reinstall the lower cylinder to the base cylinder and secure with three (3) screws.

Note : Align two (2) base cylinder pin before reinstalling.

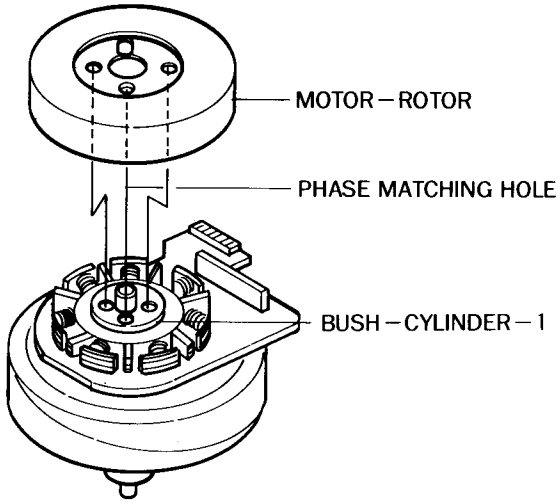


Fig. 17 Bush Cylinder -1 & Motor Rotor Timing

2-5-7. Assembly of Upper Cylinder

1. When installing the upper cylinder, make sure green color (CH1) goes to CH1 head tip position on lower cylinder.
2. Tighten two (2) screws on the upper cylinder. (Refer to Fig. 13)

Note : Timing of the upper cylinder PCB.

2-5-8. Assembly of Cylinder Ass'y

1. Reinstall cylinder ass'y on the main base.
2. Tighten three (3) screws securing the base cylinder and the main base.
3. Reconnect F.P.C cable to the Pre-Amp PCB and the lead connector ass'y to the bottom cylinder PCB.

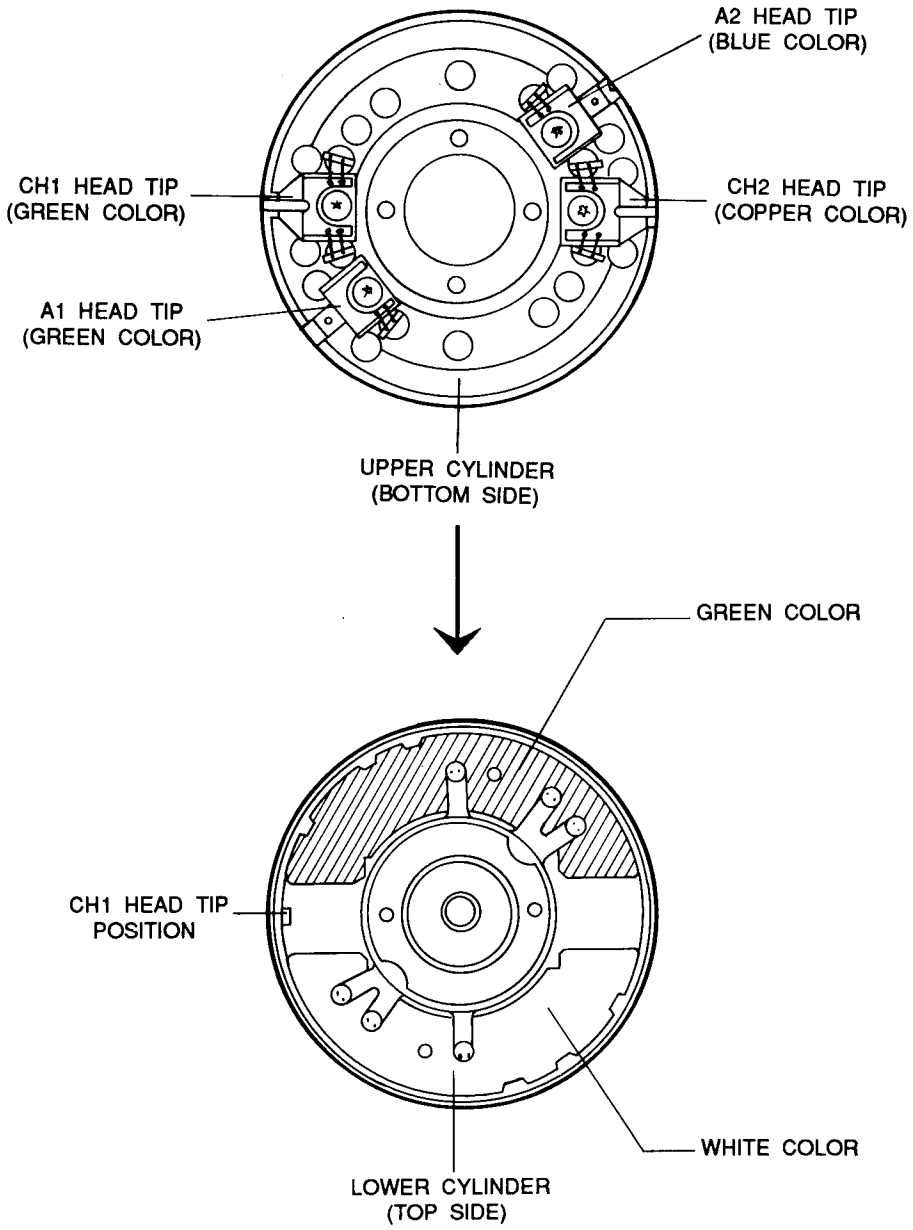


Fig. 18 Upper Cylinder Ass'y Timing

2-6. REEL DISK ASS'Y REMOVAL

2-6-1. Brake Sub "L" Removal

1. Remove the spring brake sub "L" ①.
2. Lift up the brake sub "L" ② while pushing the clip brake sub"L" ③ in the direction of arrow.

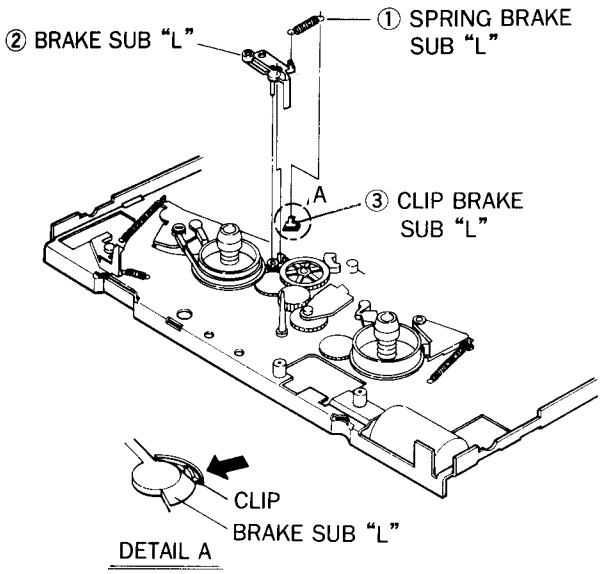


Fig. 19 Brake Sub "L" Removal

2-6-2. Gear Relay S2 & S1 Removal

1. Remove the washer slits ①.
2. Lift up the gear relay S2 ② and S1 ③.

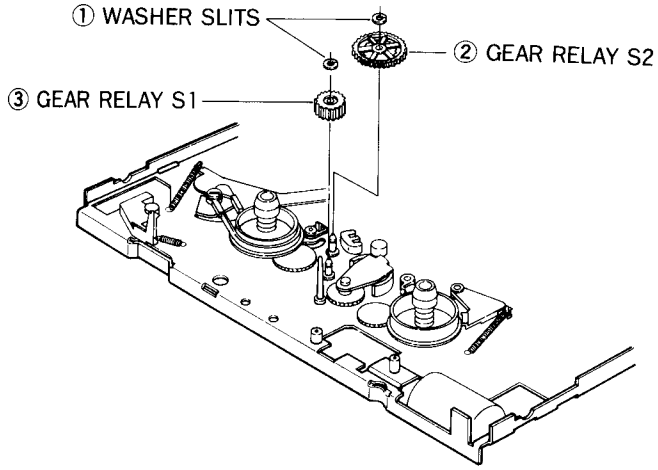


Fig. 20 Gear Relay S2 & S1 Removal

2-6-3. Full Arm Tension Ass'y Removal

1. Take off the spring tension ①.
2. Push the pin arm tension ② releasing the clip in the direction of arrow (Bottom View).
3. Lift up the full arm tension ass'y ③.

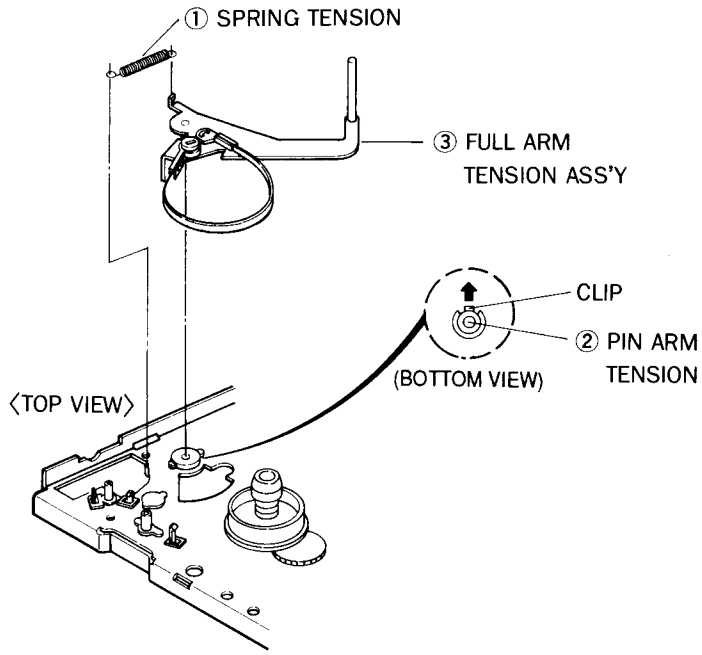


Fig. 21 Full Arm Tension Ass'y Removal

2-6-4. Reel Disk "L" Ass'y & Gear Relay S3 Removal

1. Remove the washer slit (A) ①.
2. Lift up the reel disk "L" ass'y ② and the washer plain③.
3. Remove the washer slit (B) ④.
4. Lift up the gear relay S3 ⑤.

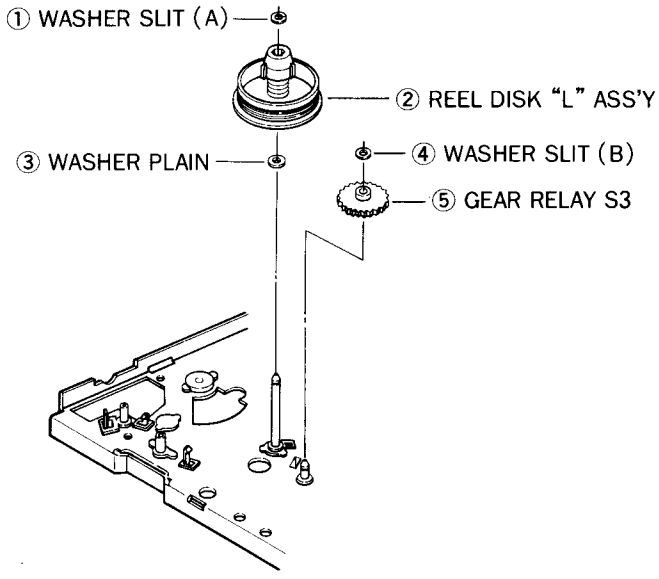


Fig. 22 Reel Disk "L" Ass'y & Gear Relay S3 Removal

2-6-5. Brake Sub "R" Ass'y Removal

1. Remove the spring brake sub "R" ①.
2. Lift up the brake sub "R" ass'y ② while pushing the clip brake sub "R" ③ in the direction of arrow.

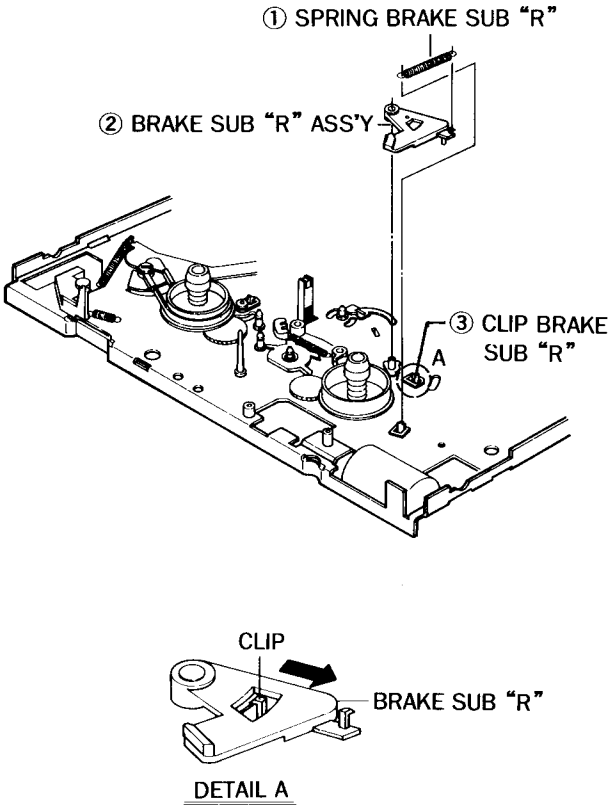


Fig. 23 Brake Sub "R" Ass'y Removal

2-6-6. Brake Main "L" & "R" Ass'y Removal (Fig. 24)

1. Remove the spring brake main ①.
2. Lift up the brake main "L" ass'y ② while pushing the clip in the direction of arrow (A). (Detail A)
3. Lift up the brake main "R" ass'y ③ while pushing the clip in the direction of arrow (B). (Detail B)

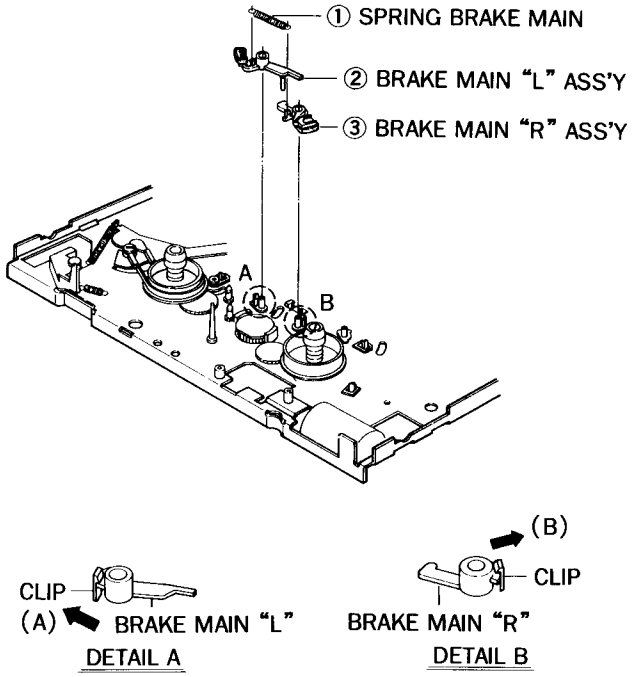


Fig. 24 Brake Main "L" & "R" Ass'y Removal

2-6-7. Reel Disk "R" Ass'y & Gear Relay "T" Removal (Fig. 25)

1. Remove the washer slit (A) ①.
2. Lift up the reel disk "R" ass'y ②.
3. Lift up the washer plain ③.
4. Remove the washer slit (B) ④.
5. Lift up the Gear Relay "T" ⑤.

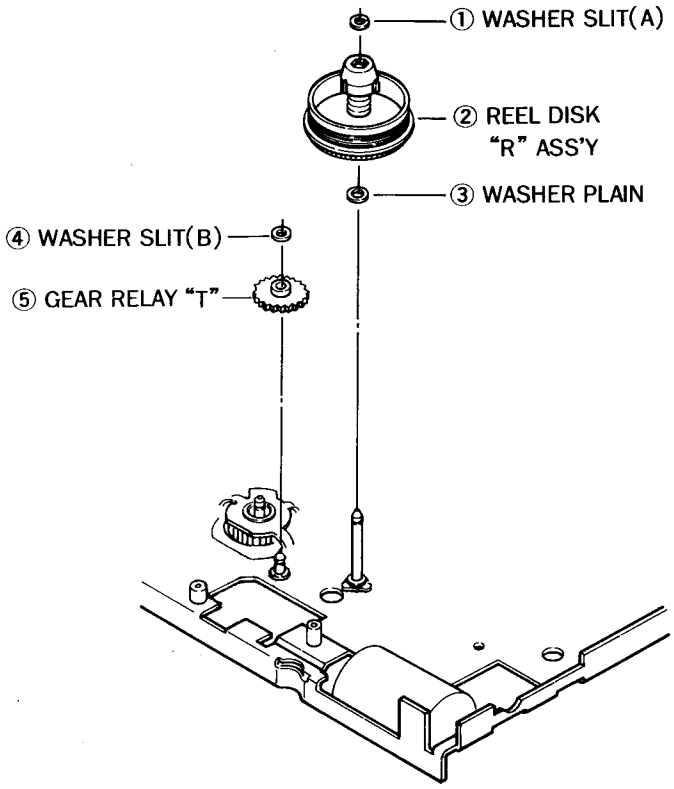


Fig. 25 Reel Disk "R" Ass'y & Gear Relay "T" Removal

2-6-8. Idler Sub Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the idler sub ass'y ②.

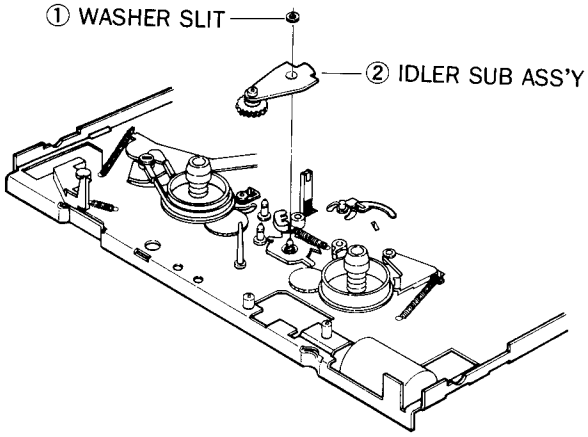


Fig. 26 Idler Sub Ass'y Removal

2-6-9. Lever REC S/W Removal

1. Remove the spring record S/W ①.
2. Lift up the lever record S/W ② while pushing the clip in the direction of arrow.

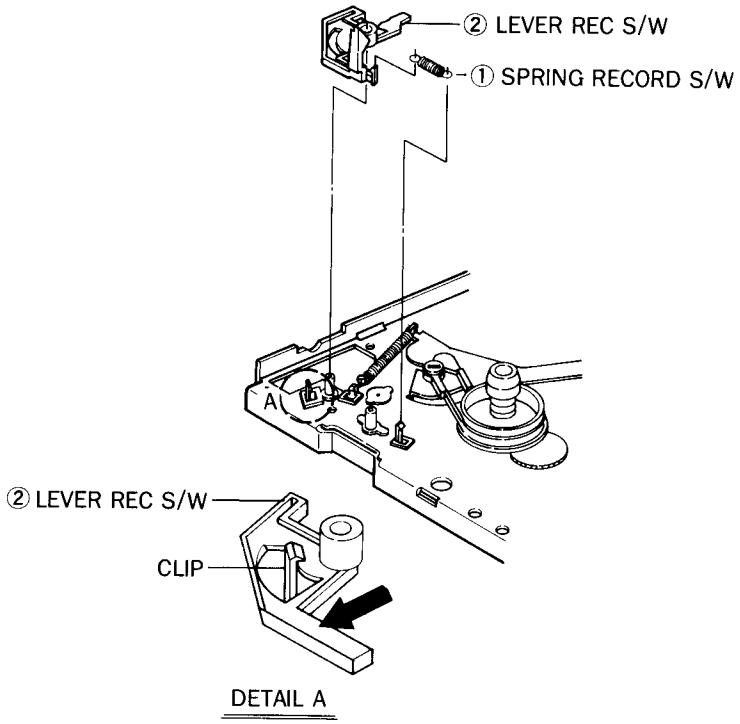


Fig. 27 Lever REC S/W Removal

2-7. LOADING & CAPSTAN MOTOR ASS'Y REMOVAL & REASSEMBLY

2-7-1. Belt Capstan Removal

1. Remove the belt capstan ①.

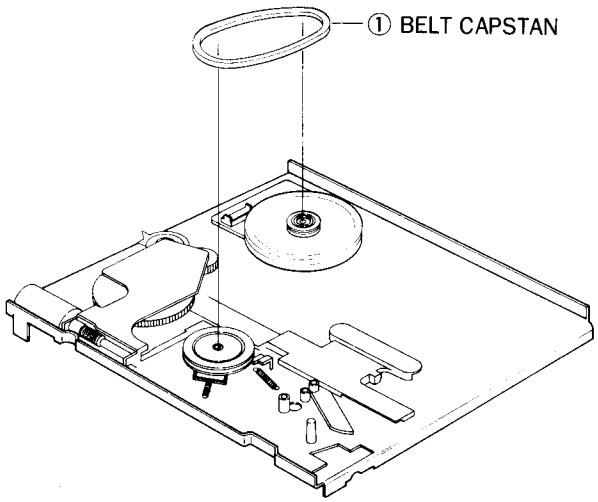


Fig. 28 Belt Capstan Removal

2-7-2. Motor D/D Capstan Removal

1. Remove three (3) screws ①. (Top View)
2. Lift up the motor D/D capstan ②. (Bottom View)

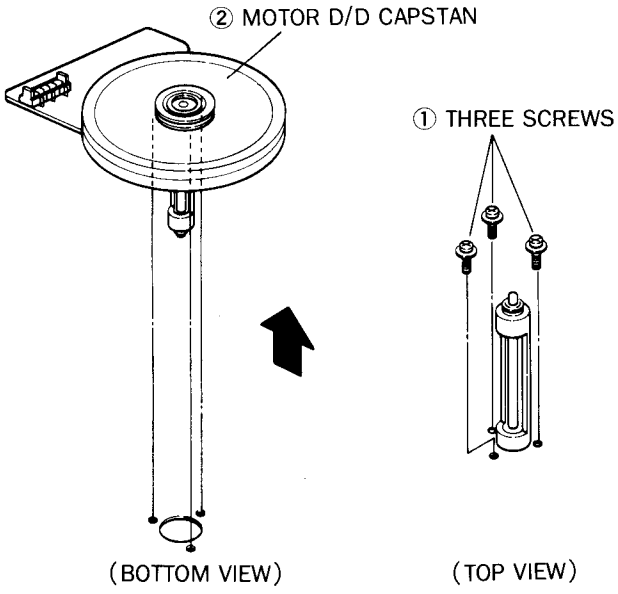


Fig. 29 Motor D/D Capstan Removal

2-7-3. Clutch Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the clutch ass'y ②.
3. Remove the washer plain ③.

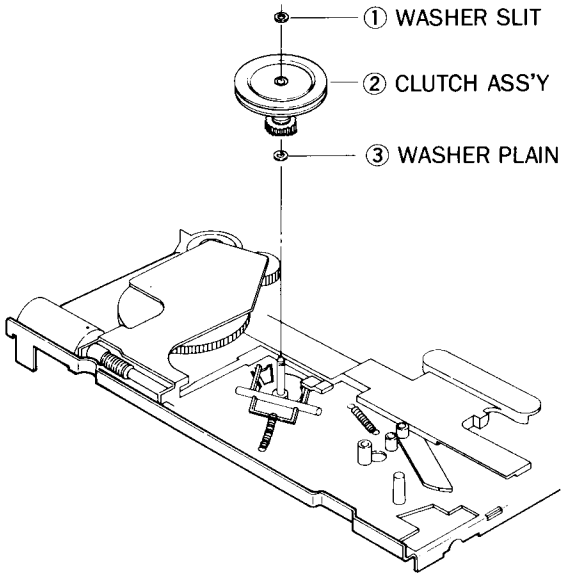


Fig. 30 Clutch Ass'y Removal

2-7-4. L/D Unit Ass'y & Gear Eject Drive Removal

1. Remove three (3) screws ① holding the loading unit ass'y ②.
2. Lift up the loading unit ass'y ②.
3. Lift up the gear eject drive ③.

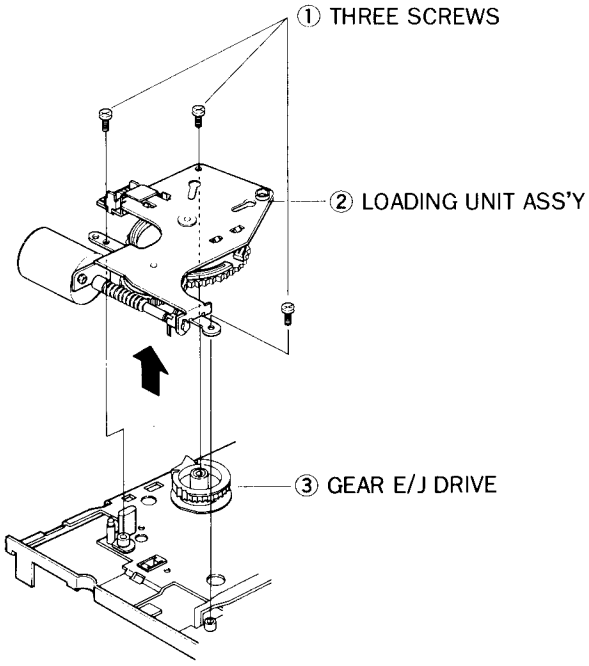


Fig. 31 L/D Unit Ass'y & Gear Eject Drive Removal

2-7-5. Slide Main Removal

1. Remove the screw ① and washer slit ②.
2. Release the clip ③ holding the slide main ④ and then lift up the slide main ④.

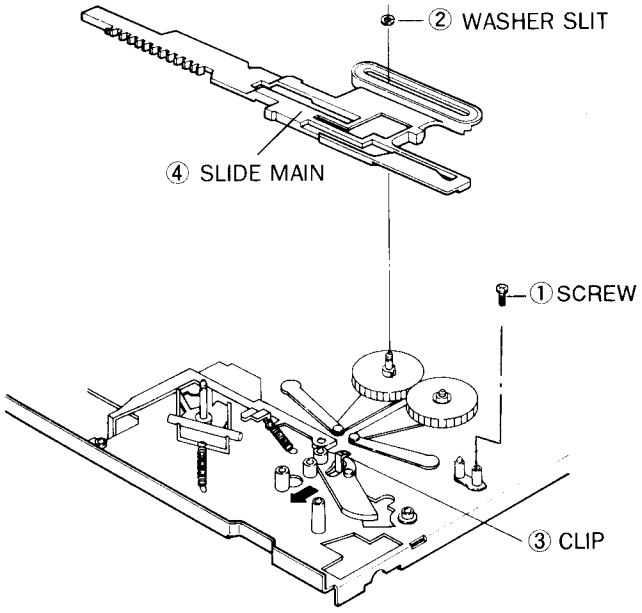


Fig. 32 Slide Main Removal

2-7-6. Brake D/D Capstan Ass'y Removal

1. Remove the spring brake capstan ①.
2. Turn the brake D/D capstan ass'y ③ clockwise and then lift up it while pushing clip in the direction of arrow.

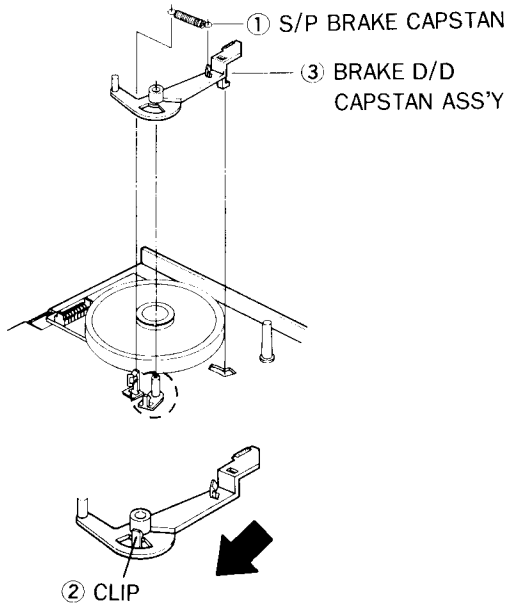
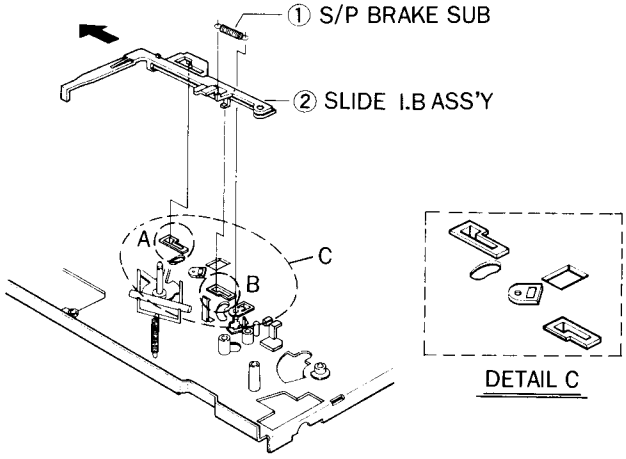


Fig. 33 Brake D/D Capstan Ass'y Removal

2-7-7. Slide I.B Ass'y Removal

1. Remove the spring brake sub ①.
2. Lift up the slide I.B ass'y ② while pushing the slide I.B ass'y ② to the end of the slot in the direction of arrow.



Note : These two slots are the reason why you must push I.B ass'y in the direction of arrow.

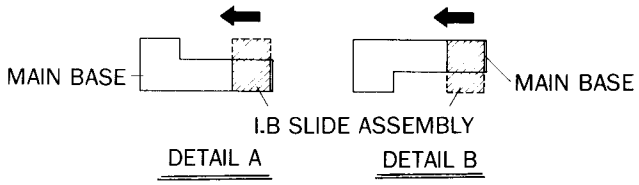


Fig. 34 Slide I.B Ass'y Removal

2-7-8. Lever Shift Removal

1. Remove the spring lever shift ①.
2. Lift up the lever shift ②.

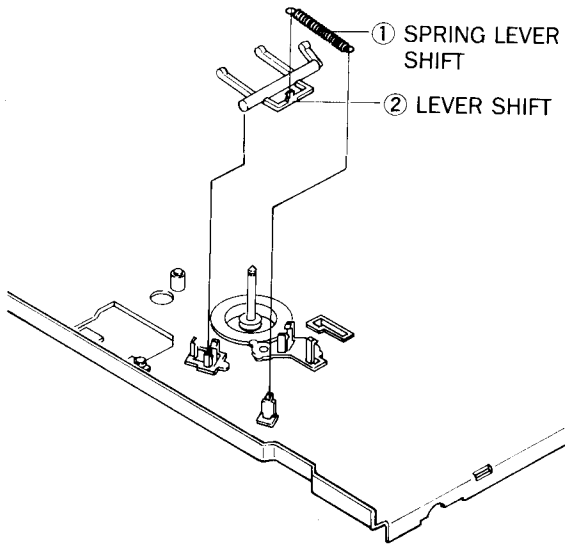


Fig. 35 Lever Shift Removal

2-7-9. Lever Tension Control Removal

1. Lift up the lever tension control ①.

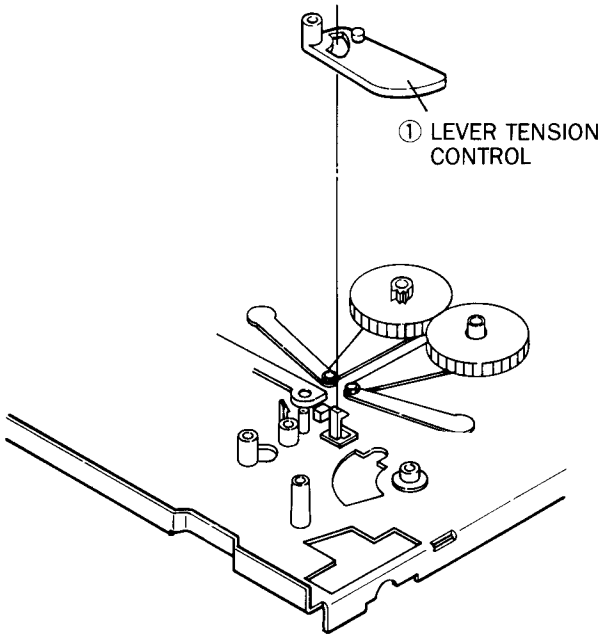


Fig. 36 Lever Tension Control Removal

2-7-10. Gear Loading "L", "R" Ass'y Removal

1. Lift up the gear loading "R" ass'y ①.
2. Lift up the gear loading "L" ass'y ③ while pushing the gear loading "L" clip ② in the direction of arrow.

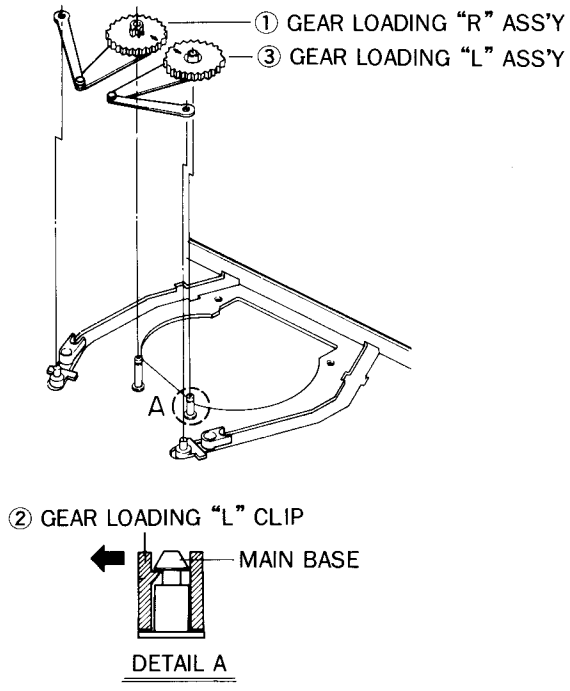


Fig. 37 Gear Loading "L", "R" Ass'y Removal

2-7-11. Review Arm Ass'y Removal

1. Remove the washer slit ①.
2. Lift up the full review arm ass'y ②.

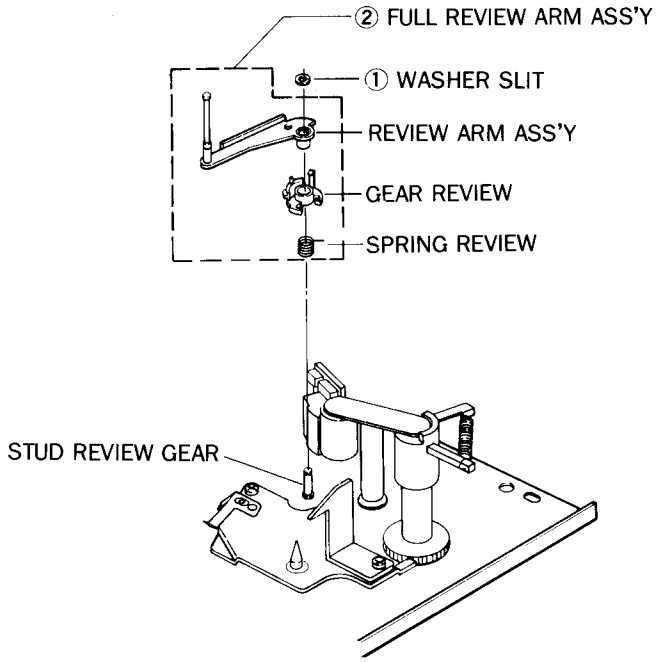


Fig. 38 Review Arm Ass'y Removal

2-7-12. Drive Cam Pinch Ass'y Removal

1. Remove two (2) screws ①.
2. Lift up the drive cam pinch ass'y ②.

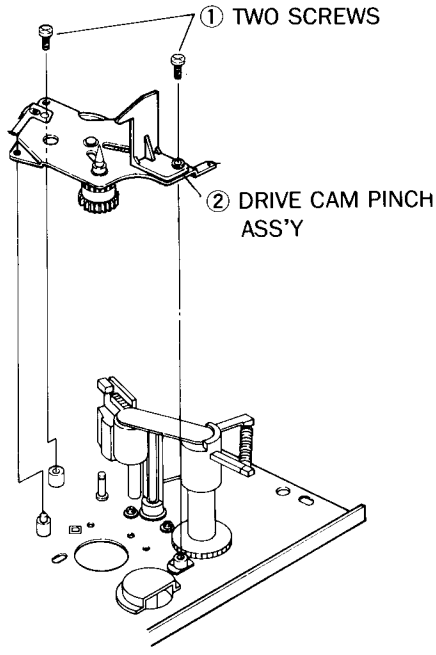


Fig. 39 Drive Cam Pinch Ass'y Removal

2-7-13. Pinch Roller Unit & Gear Escalator Removal

1. Remove the spring pinch roller ①.
2. Remove the washer slit ②.
3. Lift up the arm pinch ass'y ③.
4. Lift up the holder escalator ④ and the gear escalator ⑤.

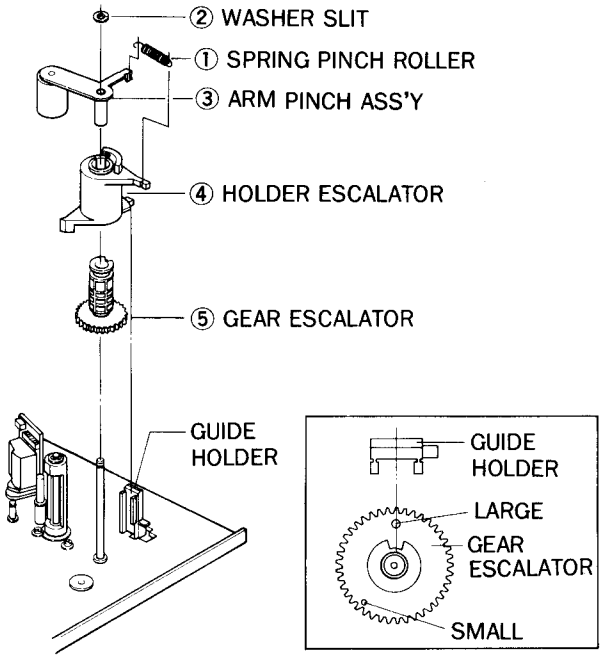


Fig. 40 Pinch Roller Unit & Gear Escalator Removal

2-7-14. Reassembly of Unit Drive Pinch Ass'y and Gear Escalator

1. Align the hole of the bracket pinch drive ① with the hole of the gear cam drive ②.
   (Refer to timing (A) in Fig. 41)
2. Align the hole of the bracket pinch drive ① with the hole of the gear cam pinch ③.
   (Refer to timing (B) in Fig. 41)
3. Align the protrusion on the side of the gear relay pinch ④ with the hole of the gear cam drive ②.
   (Refer to timing (C) in Fig. 41)
4. Install the gear escalator on the shaft and align the holes.
   (Refer to timing in Fig. 40)
5. While installing align the arrow mark of the gear cam pinch ③ with the hole of the gear escalator ⑤.
   (Refer to timing (D) in Fig. 42)
6. When aligning the timing (D), be sure to line up the timing (A), (B), (C).
7. Install the two (2) screws.

Bottom View of Drive Pinch Ass'y

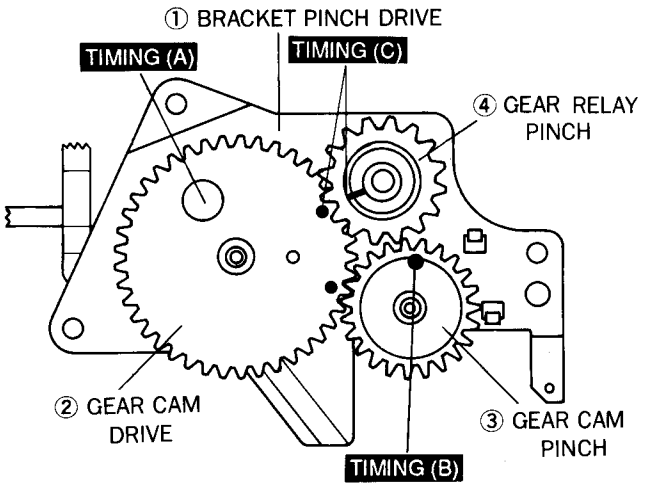


Fig. 41 Timing of Gear Cam Drive, Gear Cam Pinch & Gear Relay Pinch

Top View of Drive Pinch Ass'y

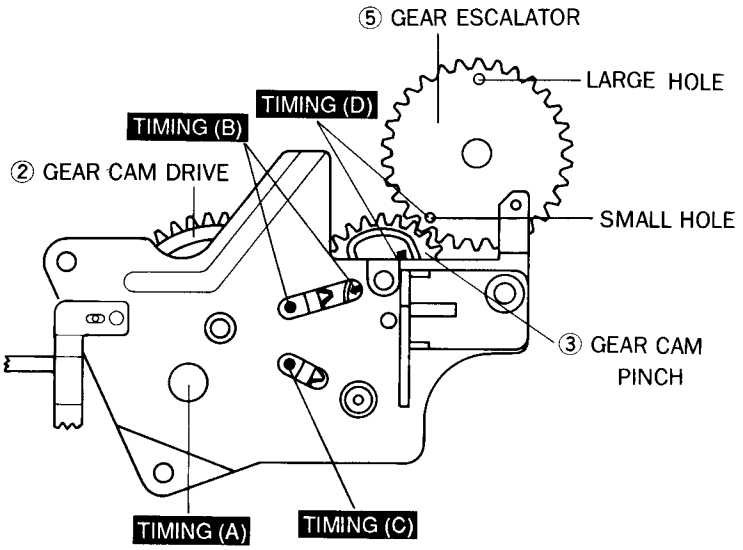


Fig. 42 Reassembly of Drive Pinch Ass'y & Gear Escalator

2-7-13. Pinch Roller Unit & Gear Escalator Removal

1. Remove the spring pinch roller ①.
2. Remove the washer slit ②.
3. Lift up the arm pinch ass'y ③.
4. Lift up the holder escalator ④ and the gear escalator ⑤.

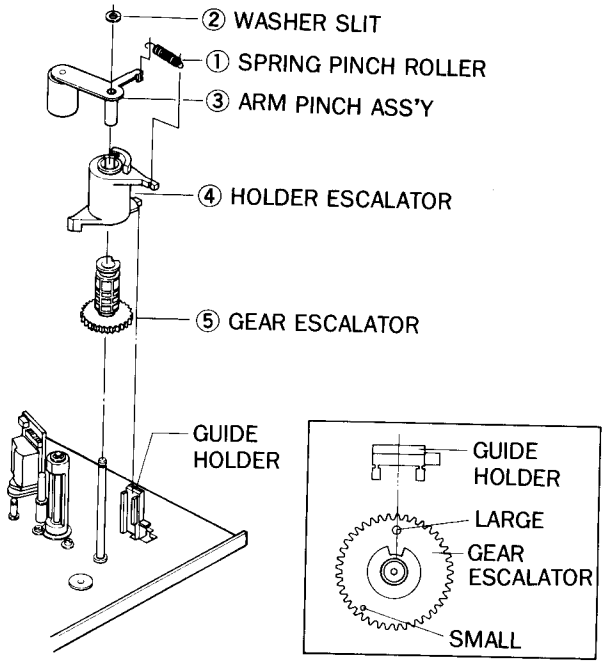


Fig. 40 Pinch Roller Unit & Gear Escalator Removal

2-7-14. Reassembly of Unit Drive Pinch Ass'y and Gear Escalator

1. Align the hole of the bracket pinch drive ① with the hole of the gear cam drive ②.
   (Refer to timing (A) in Fig. 41)
2. Align the hole of the bracket pinch drive ① with the hole of the gear cam pinch ③.
   (Refer to timing (B) in Fig. 41)
3. Align the protrusion on the side of the gear relay pinch ④ with the hole of the gear cam drive ②.
   (Refer to timing (C) in Fig. 41)
4. Install the gear escalator on the shaft and align the holes.
   (Refer to timing in Fig. 40)
5. While installing align the arrow mark of the gear cam pinch ③ with the hole of the gear escalator ⑤.
   (Refer to timing (D) in Fig. 42)
6. When aligning the timing (D), be sure to line up the timing (A), (B), (C).
7. Install the two (2) screws.

Bottom View of Drive Pinch Ass'y

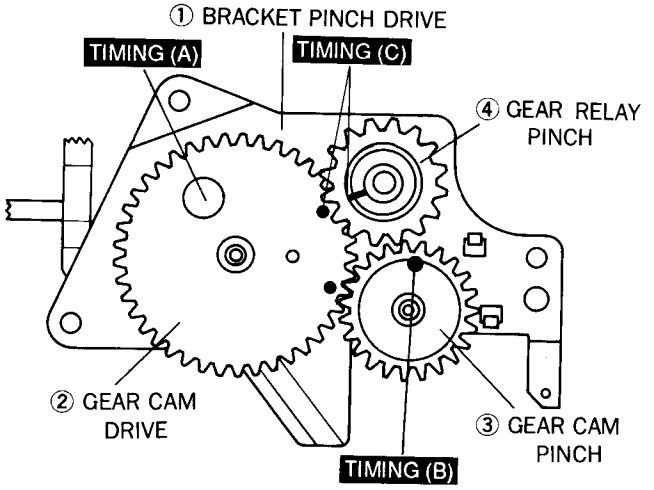


Fig. 41 Timing of Gear Cam Drive, Gear Cam Pinch & Gear Relay Pinch

Top View of Drive Pinch Ass'y

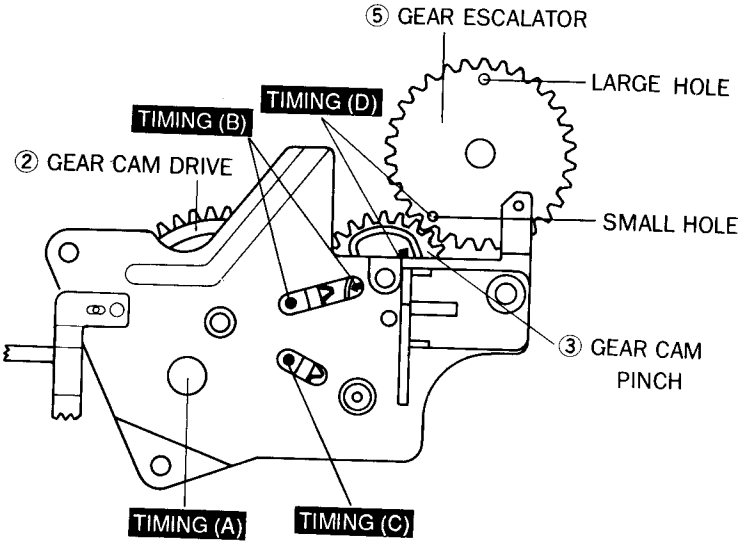


Fig. 42 Reassembly of Drive Pinch Ass'y & Gear Escalator

2-7-15. Reassembly of Full Review Arm Ass'y

1. Assemble the full review arm ass'y ① so that the gear review ② is touching the review stopper ③ as shown in Fig. 43.
2. Install the washer slit.

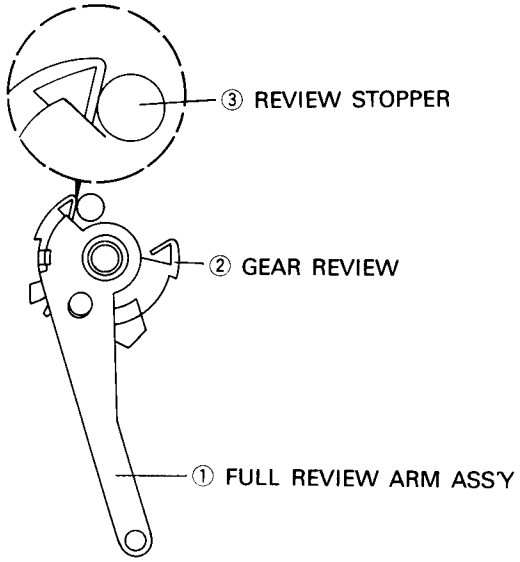


Fig. 43 Reassembly and Timing of Full Review Arm Ass'y

2-7-16. Reassembly of Gear Loading "L", "R" Ass'y

1. Reassemble the gear loading L/R ass'y in the eject mode while aligning the timing mark. (Refer to Fig. 44)

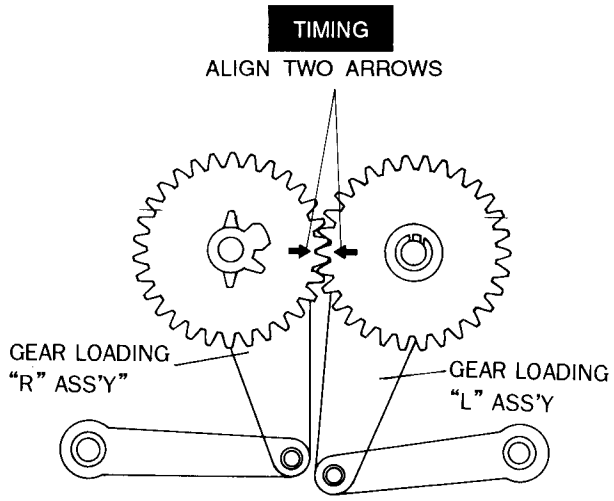


Fig. 44 Reassembly of Gear Loading "L", "R" Ass'y

2-7-17. Timing of Slide Main

1. Install the brake D/D capstan, lever tension control and slide I.B ass'y.
2. Install the slide main between brake D/D capstan and brake main "L" , while pulling the brake D/D capstan and the brake main"L" toward arrow (A) and (B) respectivcly.
3. At the same time, make sure the brake sub "L" and the pole base is located as shown in the Fig. 45.
4. Install the one screw.

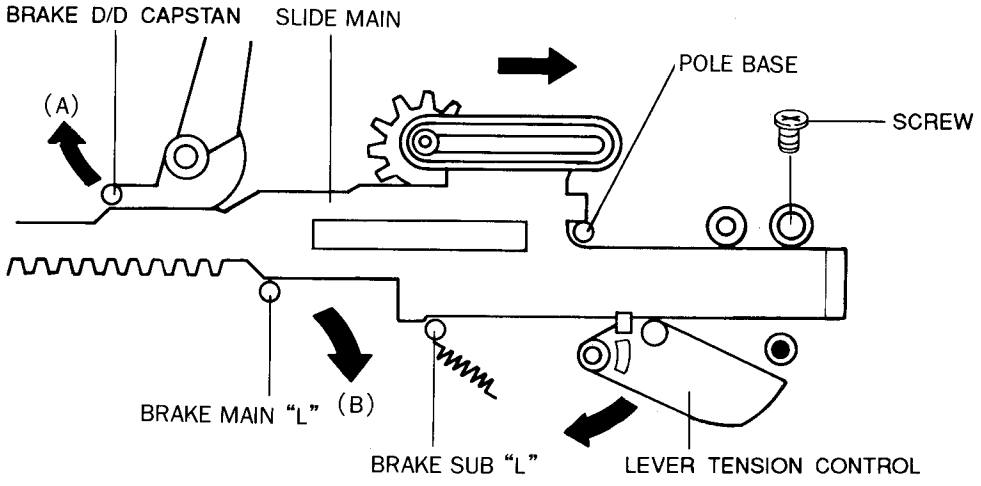


Fig. 45 Timing of Slide Main

2-7-18. Reassembly and Timing of Program S/W & Gear Master

1. Align two arrows on the program S/W ①. (Refer to timing (A))
2. After aligning timing (A) completely, install the gear master ② so that the boss on the program S/W ① is inserted into the small hole of gear master ②. (Refer to timing (B))
3. Install the gear worm wheel and then washer slit.

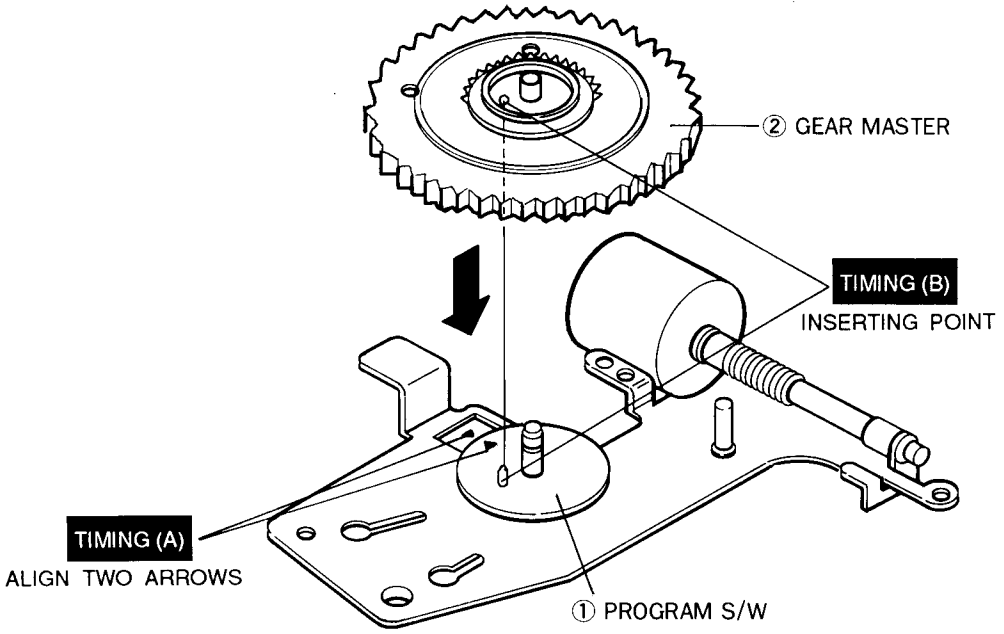


Fig. 46 Reassembly and Timing of Program S/W & Gear Master

2-7-19. Timing of Gear Master & Gear Eject Drive

1. Install the gear eject drive.
2. Install the loading unit and align the slot #2 of the gear eject drive ① with the hole of the gear master ②. (Refer to timing (A) in Fig. 47)
3. At this time make sure that the arrow marks of the gear relay pinch ③ and the gear master ② are aligned correctly. (Refer to timing (B) in Fig. 47)

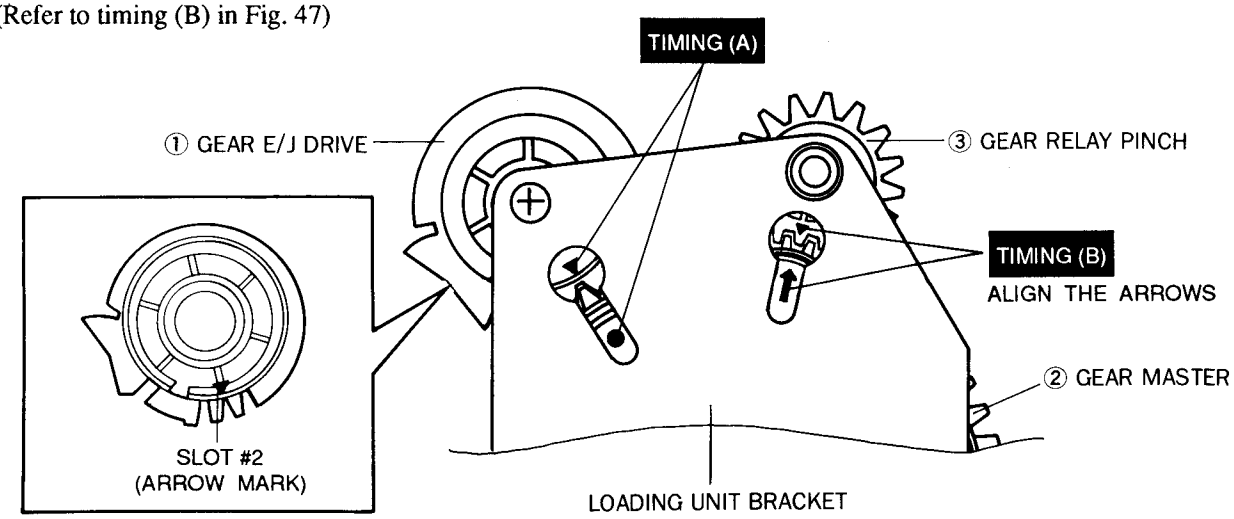


Fig. 47 Timing of Gear Master & Gear Eject Drive

2-8. TAPE TRANSPORT ASS'Y REMOVAL

2-8-1. Pole Base "L", "R" Ass'y Removal

1. Remove cylinder ass'y. (Refer to 2-5-1)
2. Move the pole base "L", "R" ass'y ①, ② to the end of slot.
3. Lift up the pole base "L", "R" ass'y ①, ②.

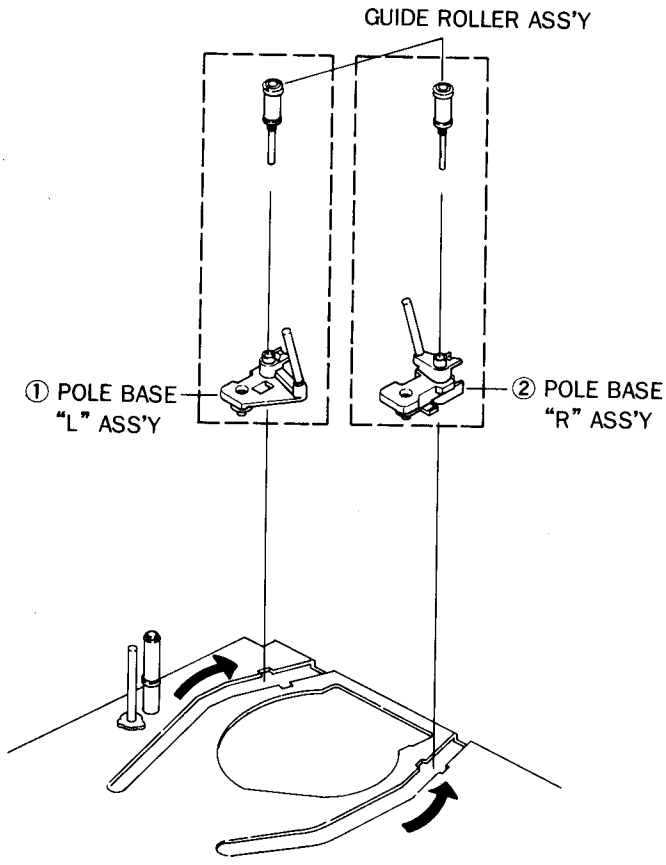


Fig. 48 Pole Base "L", "R" Ass'y Removal

2-8-2. Head Magnetic F/E Removal (Fig. 49)

1. Remove one (1) screw ① holding the full erase head ②.
2. Unsolder the F/E head P.C.B. ② from the head magnetic F/E ③.
3. Lift up the head magnetic F/E ③.

2-8-3. A/C Head Ass'y Removal (Fig. 50)

1. Remove two (2) screws ①.
2. Lift up A/C head ass'y ②.
3. Reinstall in reverse order.

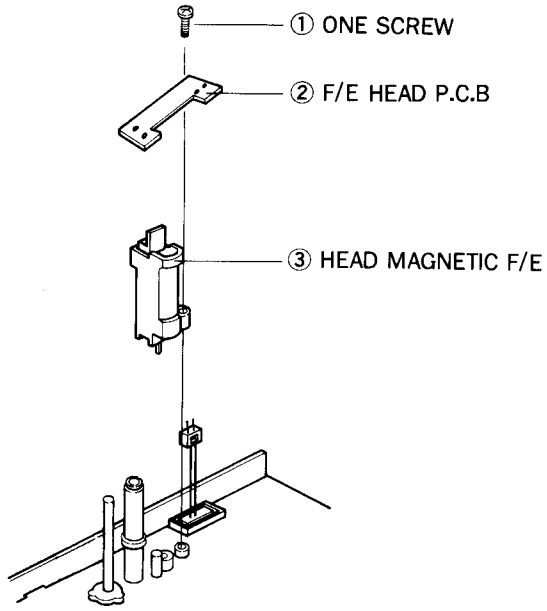


Fig. 49 Head Magnetic F/E Removal

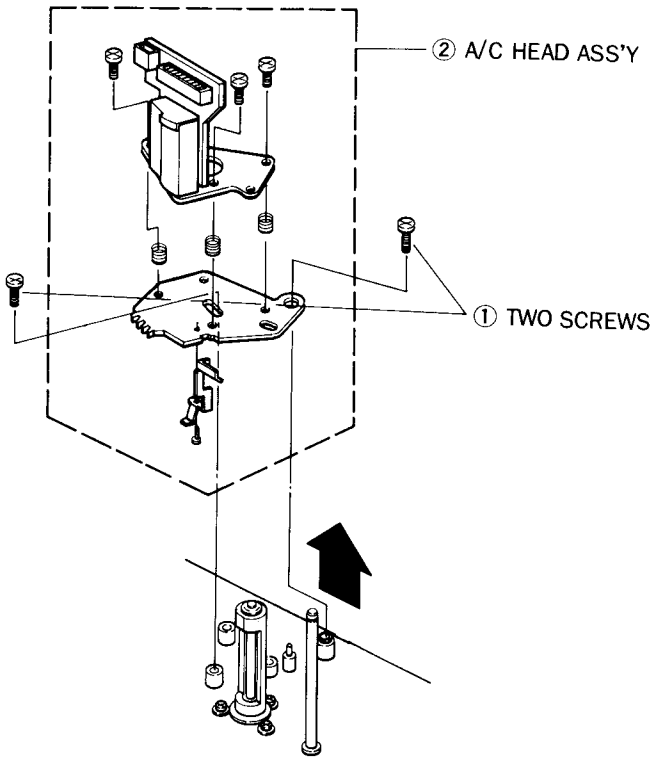


Fig. 50 A/C Head Ass'y Removal

3. MECHANICAL ADJUSTMENT

3-1. TAPE TRANSPORT SYSTEM

Note :
The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the followings :
*** Noises observed on the screen.**
*** Tape damage.**
*** Parts replacement in the tape transport system.**

3-1-1. Location of Tape Transport Adjustment (Adjustment Reference)

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

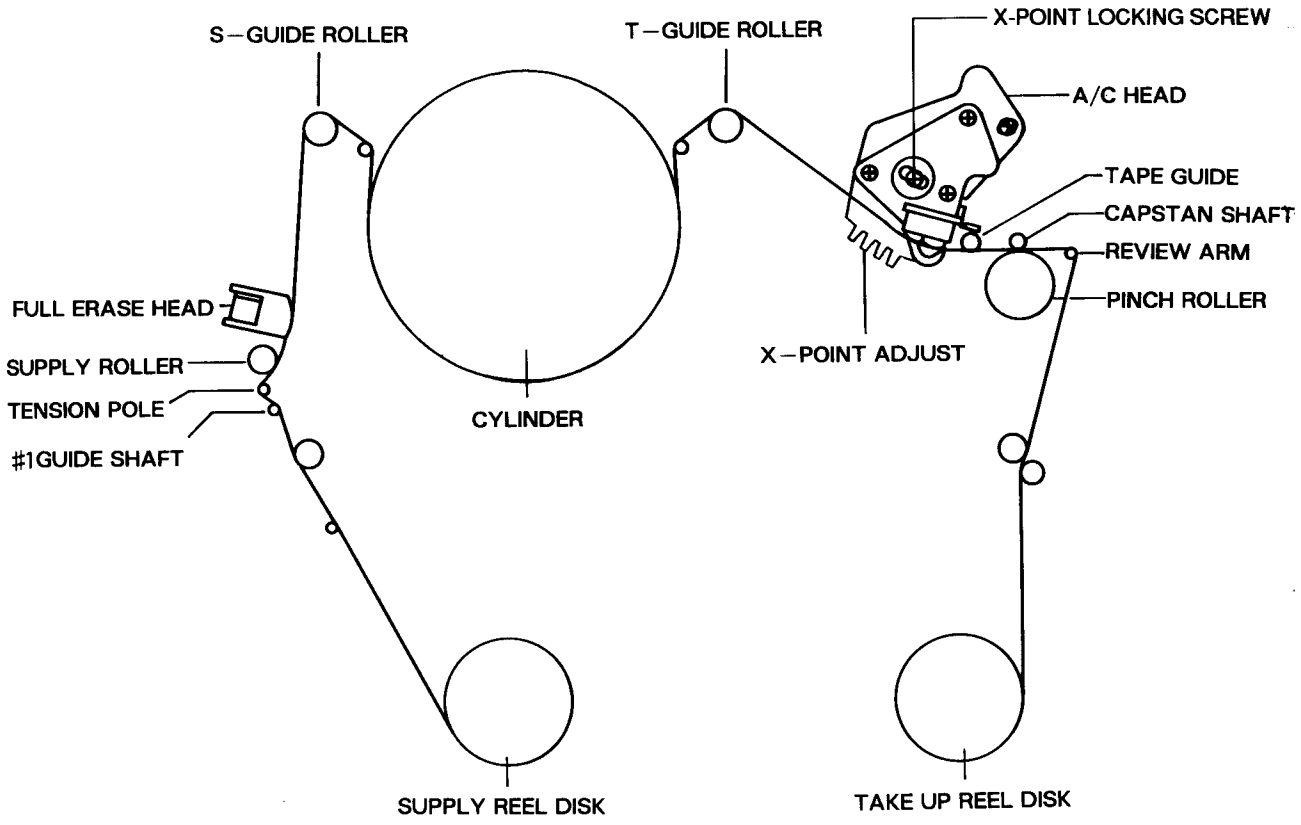


Fig. 1 Location of Tape Transport Adjustment

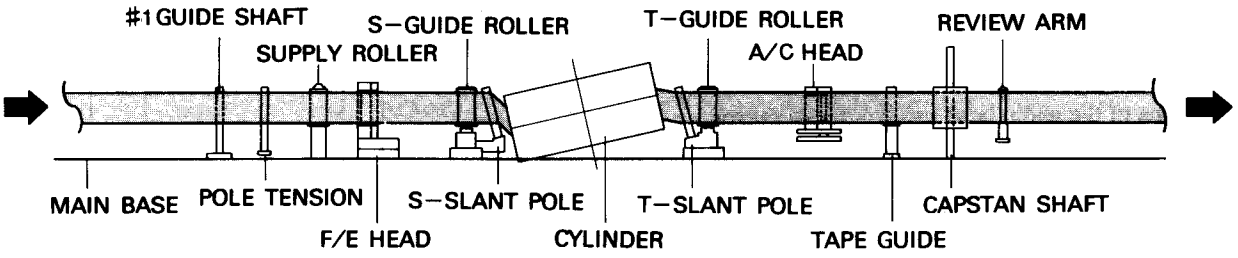


Fig. 2 Tape Travel Diagram

3-1-2. Tape Transport System Adjustment

1) Pre-adjustment

When the part(s) are replaced, perform required adjustments by referring to procedures for the tape transport system. When the part (s) are replaced, the tape path may be changed.
First run a E-180 tape and make sure excessive tape wrinkle does not occur at each tape guide.

1. If tape wrinkle is observed at the S, T-guide rollers, turn the S,T-guide rollers until wrinkle disappears.
2. If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the A/C head.

2) Adjustment procedure

1. A/C head assembly adjustment

Test Point :	W3V01 (Envelope)
	W3V02 (H'D SW - Trigger)
	W3V03 (CTL Pulse)
	TP4301 - 2PIN (Audio Out)
Test Tape :	SR2-2 (Color Bar ; 1KHz)
	SR1-2 (Mono Scope ; 6KHz)
	Blank Tape (E-240)

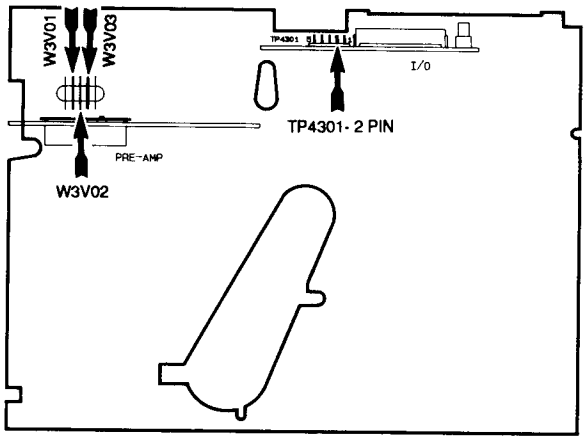


Fig. 3 Location of Test Point (Main PCB)

a. A/C head height adjustment

1. Run the alignment tape SR2-2 in the playback mode.
2. Observe surface of the audio head using a dental mirror.
3. Turn screw (A), (B), (C) clockwies or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25 mm.
(Refer to Fig. 4 and 5)

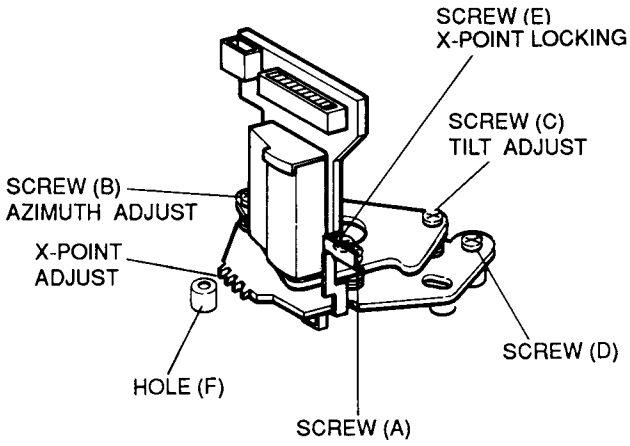


Fig. 4 Location of A/C Head Adjustment Screw

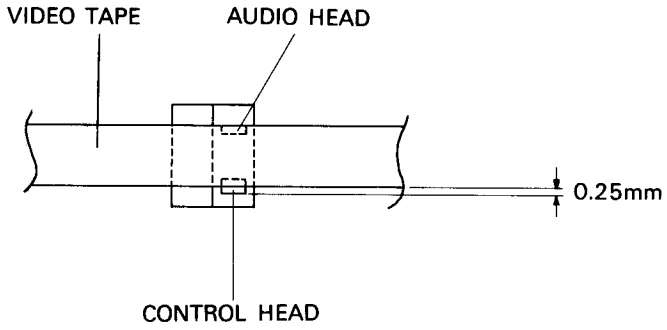


Fig. 5 A/C Head Height Adjustment

b. A/C head tilt adjustment

1. Playback a E-240 tape and observe 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. 6 (B).
3. If a curl or wrinkle of the tape has occured, slightly turn the screw (C) tilt adjust on the A/C H'd ass'y clockwise until it disappears as shown in Fig. 6 (B).
4. Reconfirm the A/C head height.

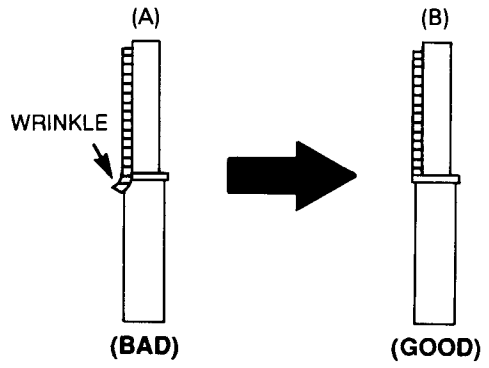


Fig. 6 Tape Guide Check

c. Audio azimuth adjustment

1. Load alignment tape (SR1-2 ; 6KHz) and playback the 6KHz signal.
2. Connect channel-1 scope probe to 2pin of TP4301 on the I/O PCB.
3. Adjust screw (B) vertically to achieve maximum audio level. (See Fig. 4)

d. A/C head position (X-Point) adjustment

1. Playback the SR1-2 alignment tape.
2. Connect CH-1 scope probe to W3V03.
3. Connect CH-2 scope probe to W3V02 and trigger head switching pulse.
4. Set tracking preset to 15msec using the "TRK" (Tracking) button ▲/▼ of remote control. (Refer to Fig. 7 and 8)
5. Connect CH-1 scope probe to W3V01.
6. Turn the screw (E) counterclockwise. (See Fig. 4)
7. Insert the adjusting driver (X-Point) into the hole (F) of main base and adjust the A/C head ass'y so that envelope waveform is maximum amplitude and then tighten the screw (E).

◈ Setting of Scope ◈

- Volt/div. ; CH-1 = 0.1V
  CH-2 = 0.2V
- Time/div. ; 5msec

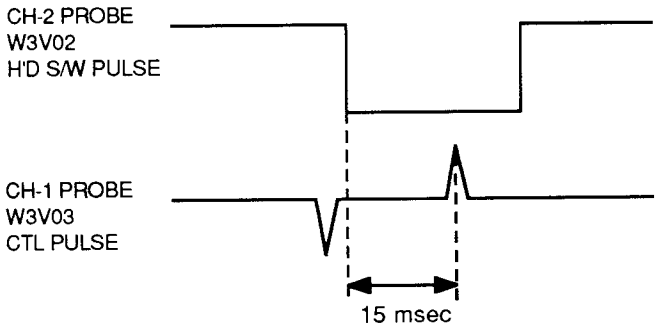


Fig. 7 Tracking Preset Adjustment

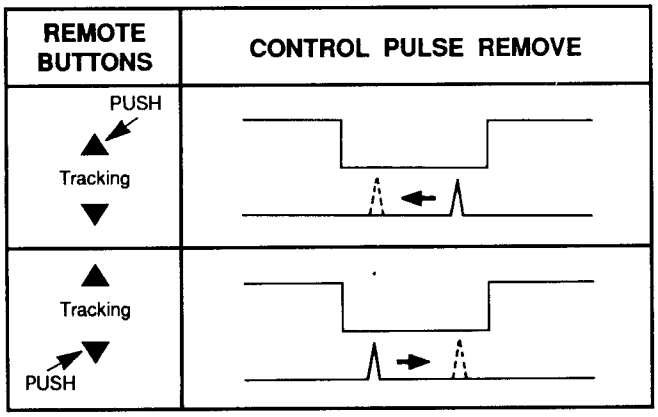


Fig. 8 Control Pulse Adjustment

2. Linearity adjustment (S, T-guide rollers adjustment)

Test Point : W3V01 (Envelope)
W3V02 (H'D SW - Trigger)
Test Tape : SR1-2 (Mono Scope ; 6KHz)

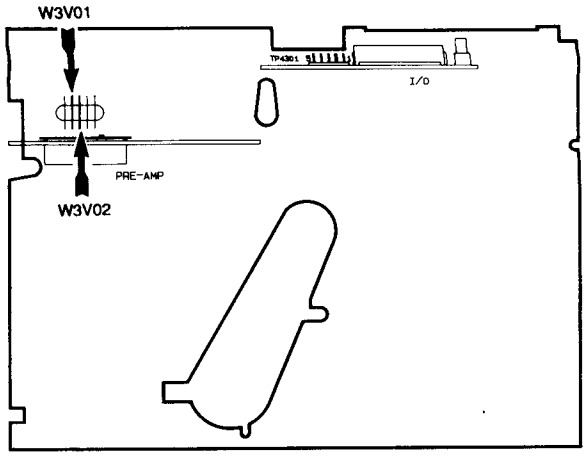
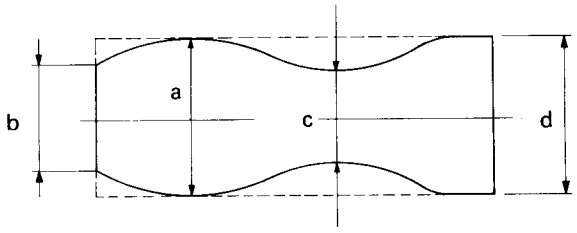


Fig. 9 Location of Test Point (Main PCB)

1. Playback the SR1-2 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 (in its minimum output) meets the specification shown in Fig. 10. If it does not, adjust as follows ;

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



a b c d

c, b, d/a ≧ 63%

Fig. 10 Envelope Waveform Adjustment

4. If the section A in Fig. 11 does not meet the specification, adjust the S-guide roller up or down.
5. If the section B in Fig. 11 does not meet the specification, adjust T-guide roller up or down.

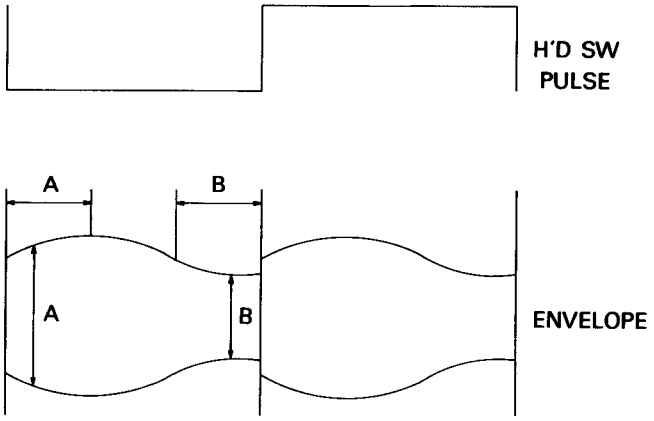


Fig. 11 Adjustment Points

6. Slightly loosen the set screw at the lower part of the S, T-guide rollers with a (Hex Wrench - 0.9mm) so that the guide roller can be adjusted with reasonable tightness. (Refer to Fig. 12)

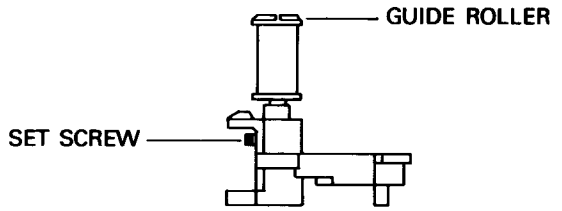


Fig. 12

7. Playback the SR1-2 alignment tape (SP mode).
8. Connect an oscilloscope CH-1 to the W3V01 and CH-2 to the W3V02 on the same PCB for triggering.
9. Turn the guide roller heads with a flat head (▬) screw driver to obtain flat video RF envelope as shown in Fig. 13.
10. After the adjustment is completed, tighten the set screws.

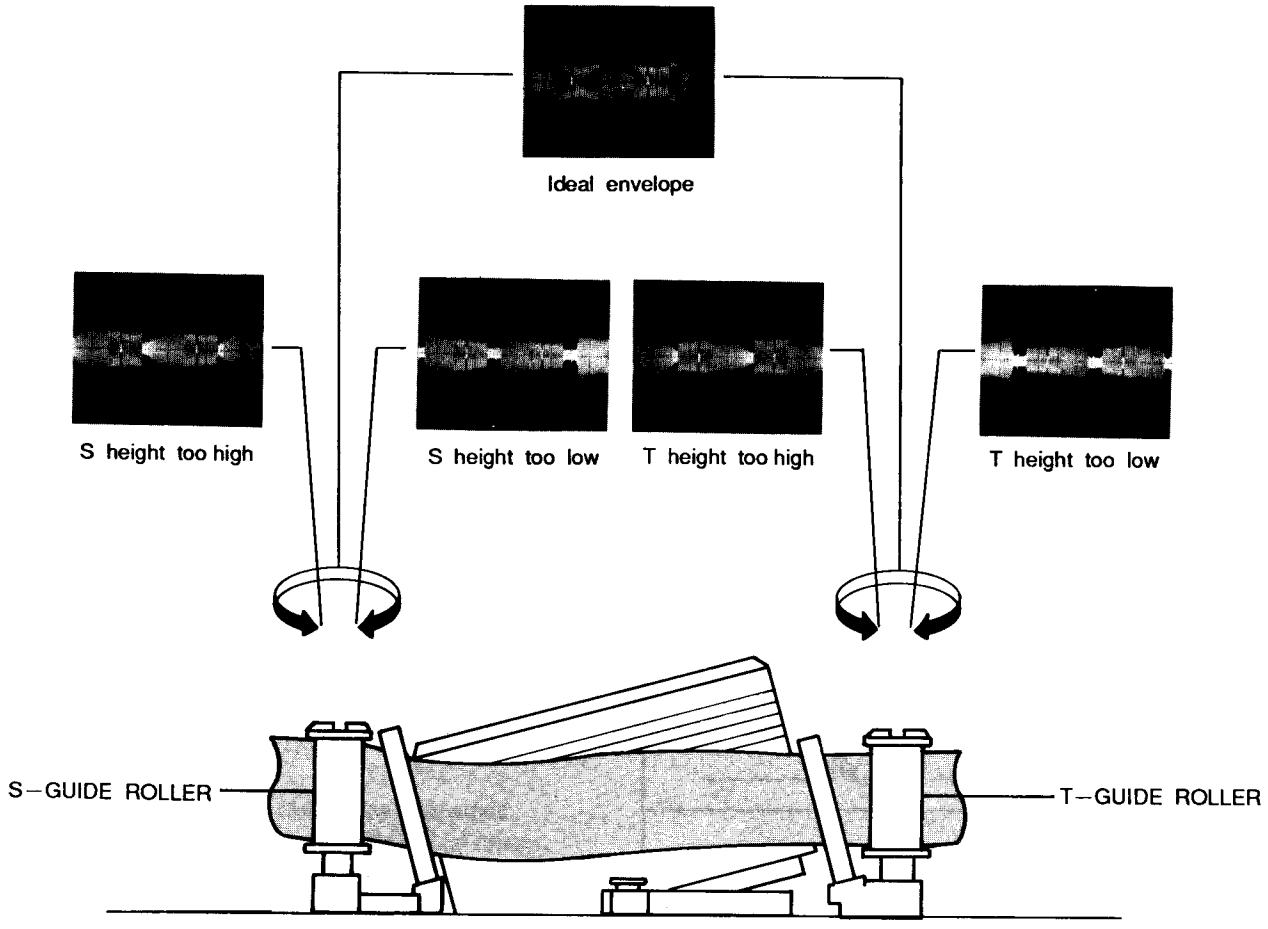


Fig. 13 S, T-Guide Roller Height Adjustments

3. Check for transitional operation from RPS to play

Check transition from RPS mode to play mode, using a pre-recorded SP tape, make sure the entrance side of envelope comes to an appropriate steady state within 3 seconds as shown in Fig. 14.

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 entrance side of envelope rises within 3 seconds.

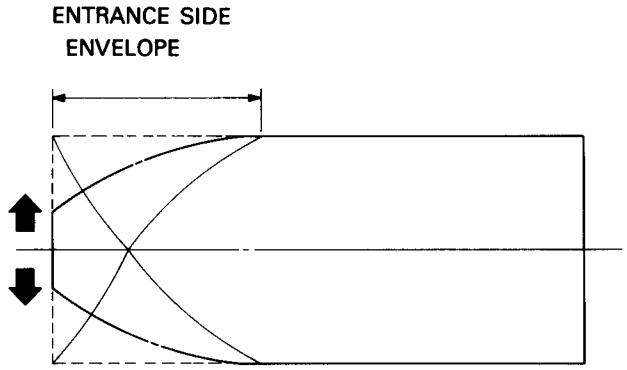


Fig. 14 Video envelope rising when operation mode changes from RPS to play mode.

4. Envelope check

1. Make recordings on E-120 and E-180 tapes, and make sure the playback output envelope meets the specification as shown in Fig. 15.
2. Playback a self recorded tape (recording made on this unit), (with a E-120) the video envelope should meet the specification as shown in Fig. 15.
   In SP mode, (A) should be same as (B).
   If the head gap is wide, upper cylinder should be checked.

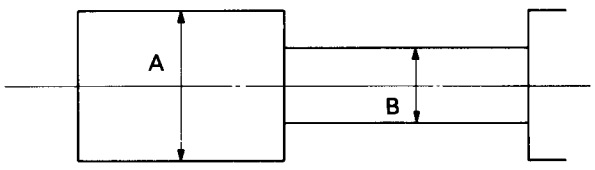


Fig. 15 Envelope Output and Output Level Difference

5. Tape wrinkle check

1. Run the E-240 tape in the playback, FPS, RPS and the pause mode and then observe tape wrinkle at each guide.
2. If excessive tape wrinkle is observed in the mode shown below, perform the associated adjustment shown below.

a. Playback mode

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

3-2. REEL TORQUE

3-2-1. Reel Torque

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

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

Note : If the spec is out of above chart, replace the clutch ass'y and then recheck.

3-2-2. Location of Tension Pole and Back Tension Adjustment

1. Remove the housing ass'y and set the deck to play mode.
2. Adjust the cam tension to 0 ~ −0.5mm from the center of supply roller.
3. The back tension meter should be used for checking back tension.

Check back tension, should be 40 ~ 47g.cm.
If not, adjust cam tension.

Counterclockwise : Torque UP
Clockwise : Torque DOWN

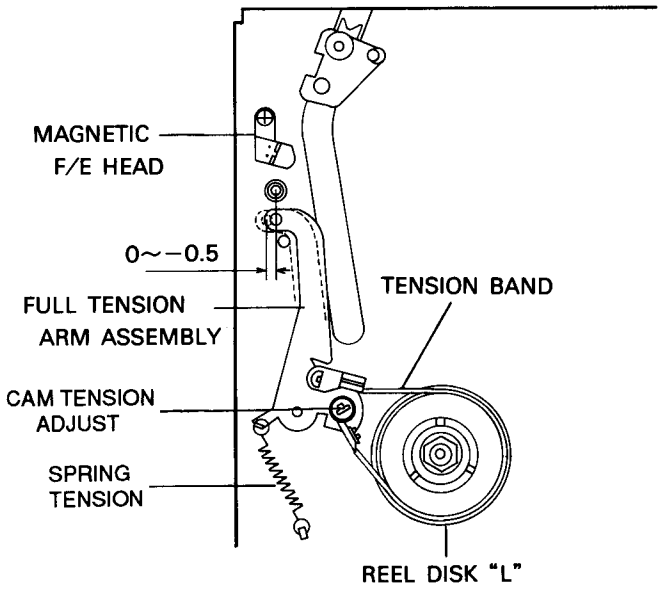


Fig. 16 Tension Pole and Back Tension Adjustment

BACK TENSION METER

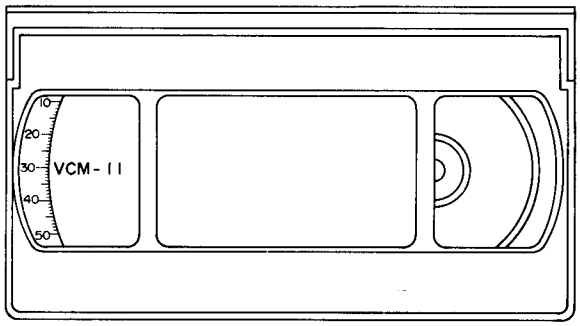


Fig. 17 Back Tension Tape Torque Cassette

4. ELECTRICAL ADJUSTMENTS

4-1. PREPARATION

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

4-1-1. Required Test Equipment

1. Color Television or Monitor.
2. Oscilloscope : wide-band, dual-trace, triggered delayed sweep.
3. Trackingscope.
4. AC Voltmeter.
5. Audio Analyzer.
6. Sinewave Signal Generator.
7. Recording tape. (Blank tape)
8. Alignment tapes : SR1-2, SR2-2, SR2-3

Tapes	Video Signal	Audio Signal
SR1-2 (PAL)	Mono Scope	6 KHz
SR2-2 (PAL)	Color Bars	1 KHz
SR2-3 (SECAM)	Color Bars	1 KHz

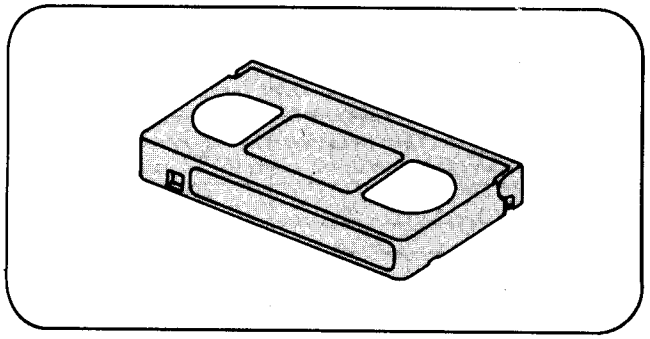


Fig. 1 Alignment Tape

9. Pattern Generator : PAL color bar. 100% White.

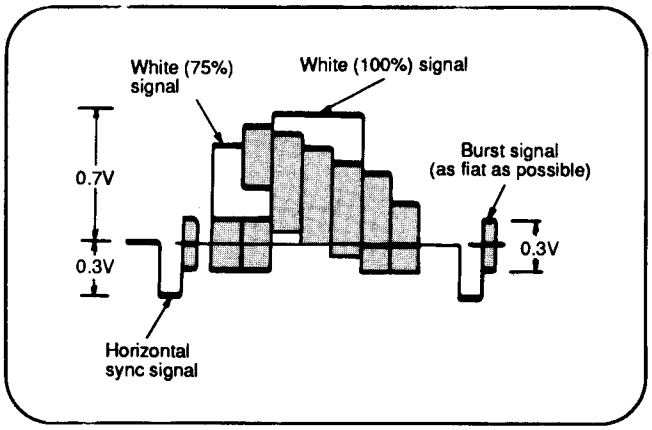


Fig. 2 Color bar signal of pattern generator

(Color Bar Signal)
The 75% color bar signal recorded on the alignment tape is shown in Fig. 3.

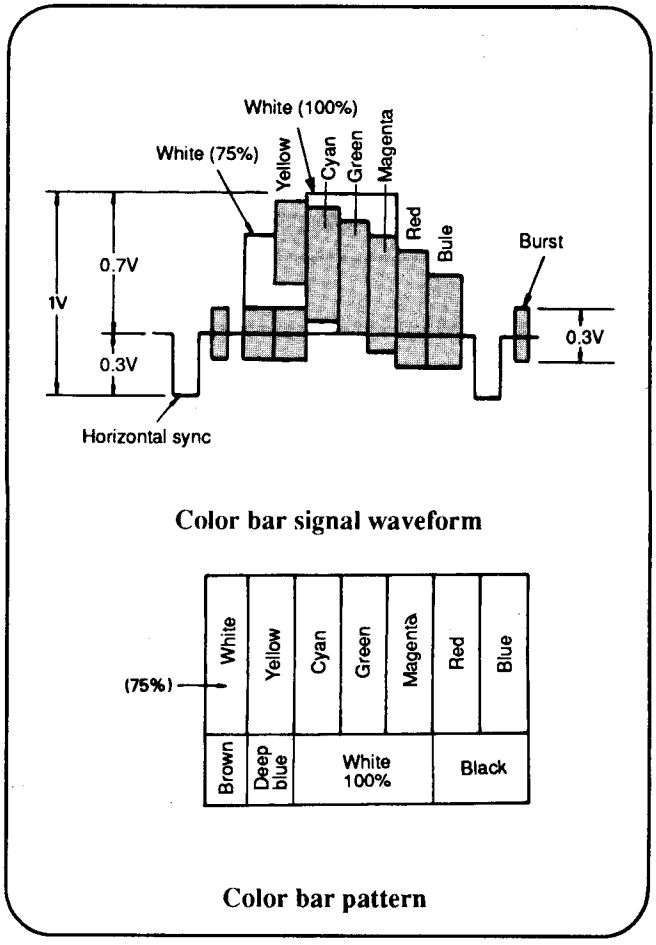
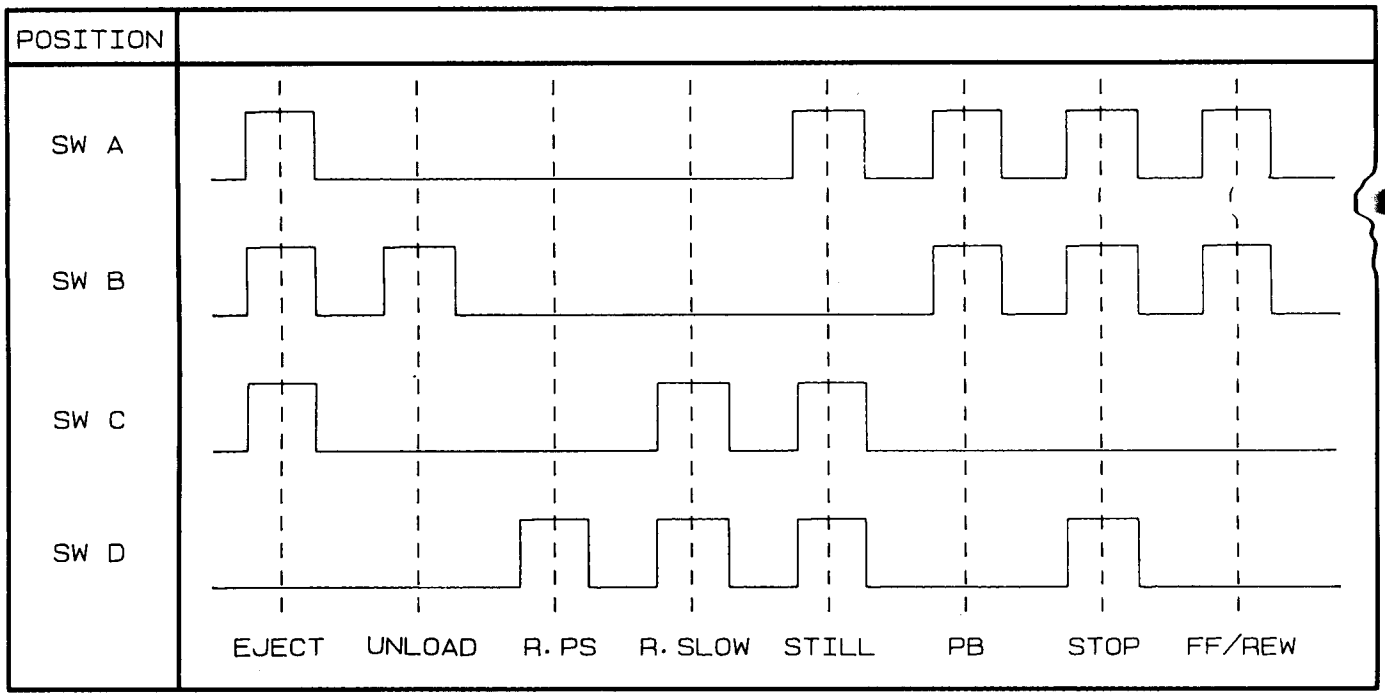


Fig. 3 Color bar signal of alignment tape

4-2. PROGRAM SWITCH TIMING CHART



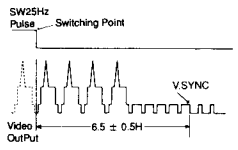
MODE (OPERATION CONDITION)	SWITCH POSITION	IC606			
		A	B	C	D
EJECT	EJECT	H	H	H	L
UNLOAD	UNLOAD	L	H	L	L
R. PS	R. PS	L	L	L	H
R. SLOW	R. SLOW	L	L	H	H
STILL	STILL	H	L	H	H
PLAY. FPS. REC	PB	H	H	L	L
STOP	STOP	H	H	L	H
FF/REW	FF/REW	H	H	L	L

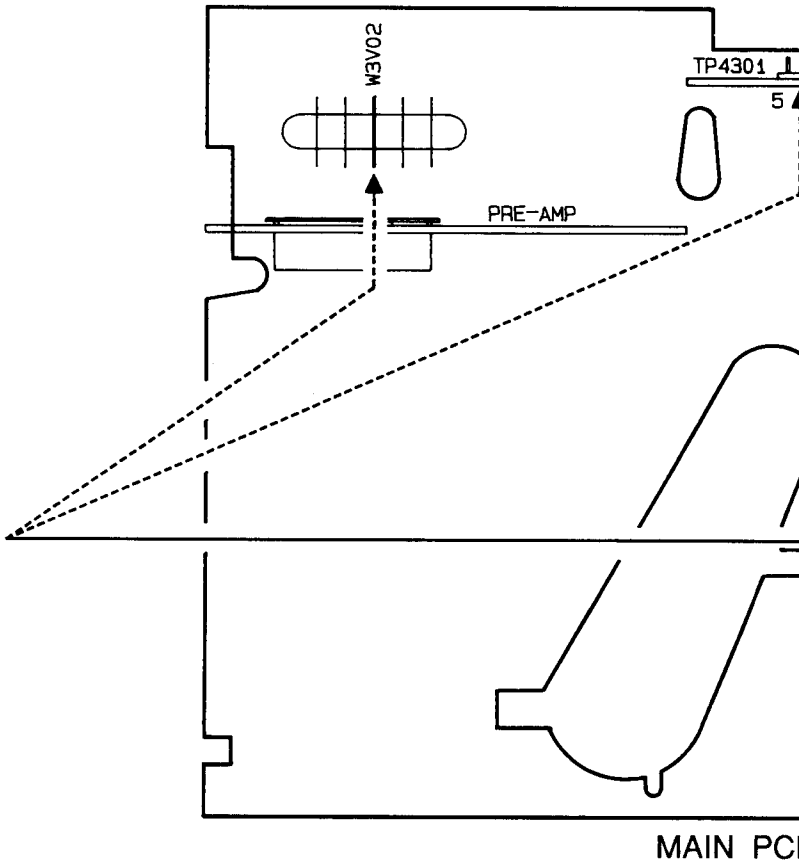
4-3. SERVO & TUNER SECTION

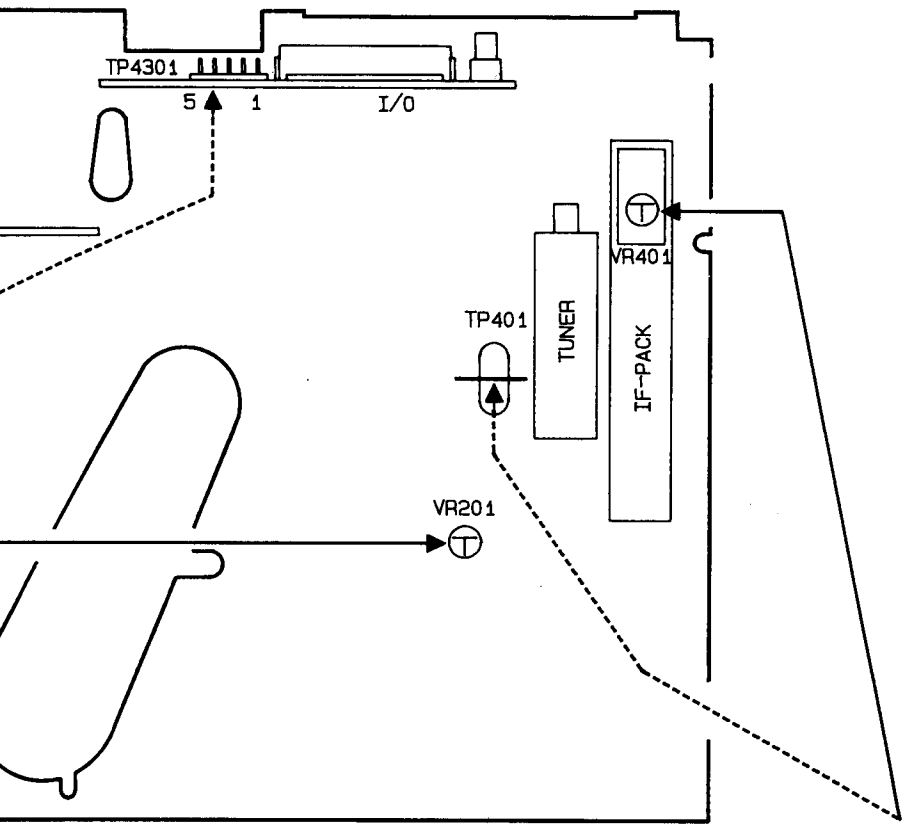
STEP	ADJUSTMENT ITEM
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	ADJ. part Test Point

1	SWITCHING POINT

1. "PB", Alignment tape SR2-2
2. W3V02 (Main PCB), TP4301 - 4 pin (I/O PCB) & VR201 (Main PCB)
3. * Connect an oscilloscope's CH-1 to W3V02 for triggering and CH-2 to TP4301 - 4 pin.
   * Adjust VR201 so that the switching point is positioned 6.5 ± 0.5 H from the V-SYNC left edge as shown.

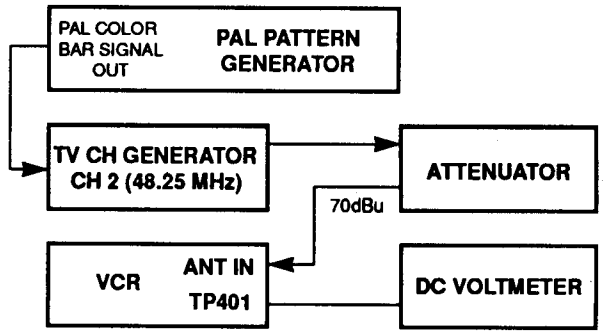






MAIN PCB

*** Composition for RF AGC Adjustment**

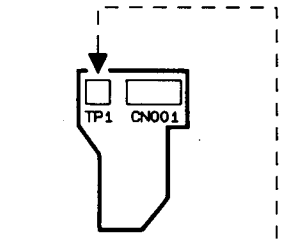


3	RF AGC

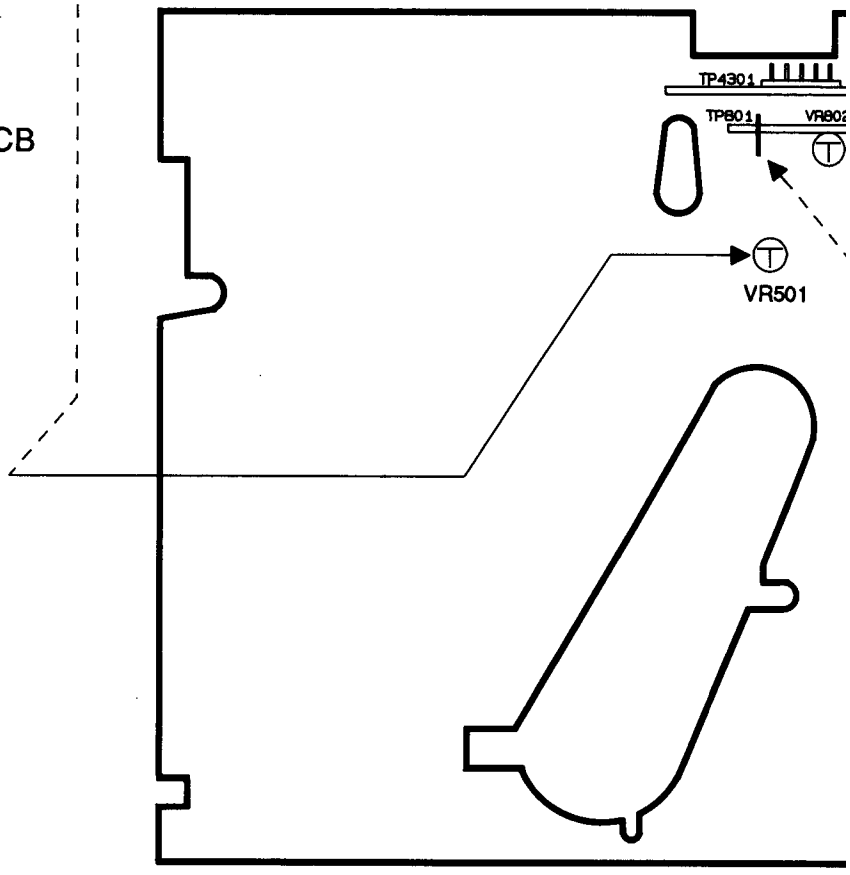
1. "E-E' (stop mode), RF signal
2. TP401 (Main PCB) & VR401 (IF-PACK)
3. * Apply PAL color bar signal to the video input terminal of the TV channel generator and set channel selector to CH 2 (48.25 MHz).
   * Adjust the point signal level so that the output of attenuator is 70 dBu.
   * Apply the output of attenuator to the ANT IN terminal of VCR.
   * Set the channel of VCR to CH 2.
   * Connect DC voltmeter to TP401.
   * Adjust VR401 for DC 4.6 ± 0.1V.

4-4. LINEAR AUDIO & HI-FI AUDIO SECTION

STEP	ADJUSTMENT ITEM
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	ADJ. part Test Point



A/C HEAD PCB



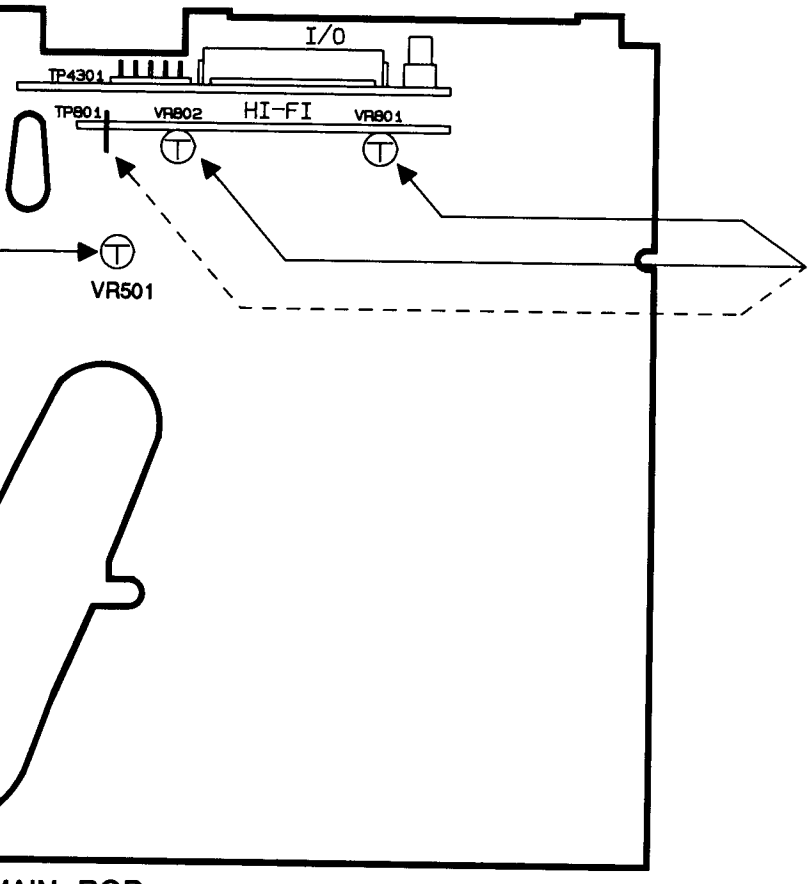
MAIN PCB

Precautionary items prior to adjustment

1. Perform the azimuth adjustment and height adjustment perfectly and then proceed the adjustment.
2. Audio monitor select switch on the panel front : LINEAR
3. Source input select : AU
   (How to set AU mode ; Press the input select button on the remote control.)

1	LINEAR AUDIO BIAS CURRENT

1."REC"(SP mode), 1KHz, -8dBm audio input (L-CH) (LINE or AV)
2. TP1 (A/C Head) & VR501 (Main PCB)
3. * Connect AC voltmeter probes to TP1 on the A/C Head PCB.
   * Adjust VR501 so that the reading on the AC voltmeter becomes 2.5mVrms.



MAIN PCB

Precautionary items prior to adjustment

1. Audio monitor select switch on the panel front : Hi-Fi
2. Source input select : AU
   (How to set AU mode ; Press the input select button on the remote control.)

2	Hi-Fi AUDIO CARRIER

1."E-E"(stop mode),
   L-CH ; 400Hz, -8dBm audio input (LINE or AV)
   R-CH ; 1KHz, -8dBm audio input (LINE or AV)
2. TP801 & VR801 (L-CH), VR802 (R-CH)
3. * Connect an audio analyzer probe to TP801.
   * Adjust VR801 (L-CH) so that the frequency is 1.4MHz ± 3.5KHz.
   * Adjust VR802 (R-CH) so that the frequency is 1.8MHz ± 3.5KHz.

5. ELECTRICAL PARTS LIST

5-1. GENERAL INFORMATION

1. Parts Replacement

Many electrical and mechanical parts in Video Cassette Recorder (Player) have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual ; electrical components having such features are identified by ⚠ in the replacement parts lists and schematic diagrams. The use of a replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

2. Unless otherwise specified :

1) All resistors are in ohms (Ω)

- **K** = 1,000
- **M** = 1,000K

* **RD** : 1/4W, ± 5% Carbon
* **RM** : 1/8W, ± 5% Metal-film

2) All capacitors are in ± 10%, MF = μF.

* **CC** : PF = uuF, Ceramic, Temp
* **CK** : PK = uuF, Ceramic, MK
* **CS** : Tantalium
* **CQ** : Polyester
* **CE** : Electrolytic

3) All coils are in microhenry (uH)

- **1mH** = 1,000uH

3. ASS'Y = Assembly

4. ⚠ Mark : Safety related parts.

5. How to order replacement parts

To have your order filed promptly and correctly, please furnish the following informations.

1) Model Number
2) Location Number
3) Part Number
4) Description & Specification

5-2. ELECTRICAL REPLACEMENT PARTS LIST

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
660	69098-220-501	ASSY SMPS;PAL CP2(VX-370/AMFO,EURO)
	69098-220-521	ASSY SMPS;PAL CP2(VX-370/NECK,SEG,SEI)
	A6006-0007	POWER CORD;VX-370/NECK,SEG,SEI)
	63053-811-221	POWER CORD ASSY;VX-370/AMFO,EURO)
BD101	B4104-0060	DIODE-RECT;DF06M 720V 1A STICK BRIDGE
C101	B1102-0100	C-FILM;KNB 1530 0.22UF/AC250V
C102	61419-001-001	C-FILM;KNB1530 0.1UF/AC250V
C103	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C104	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C105	61659-611-101	C-ELECTROLYTIC;CE04W 100uF/400V
C106	61419-001-004	C-POLYESTER;6TM2JRB 473K 630V
C107	A1100-0660	C-CERAMIC;CC 45 SL 1KV T 101-K 08ECFK
C108	61507-121-511	C-POLYESTER;CQ921M TAPG 100V 223-J
C109	61637-511-470	C-ELEC;CEAP 100V 47M SG(10X12.5)
C110	A1104-0364	C-ELEC;CE 04 C 25V 101-M
C111	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C112	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C113	A1104-0365	C-ELEC;CE 04 C 50V 331-M
C114	A1104-0289	C-ELEC;CE04C 10V 2200M STX10X20(105C)
C115	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C116	A1104-0290	C-ELEC;CE04C 25V 1000M STX10X20(105C)
C117	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C118	61637-508-470	C-ELEC;CEAP 50V 47M SG(6.3X11)
C119	61637-511-100	C-ELEC;CEAP 100V 10M SG(6.3X11)
C120	61637-504-101	C-ELEC;CEAP 16V 100M SG(6.3X11)
C121	61507-121-480	C-POLYESTER;CQ921M TAPG 100V 153-K
C122	A1104-0366	C-ELEC;CE 04 B 250V 2R2-M
C123	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
C124	A1100-0450	C-CERAMIC;CK45B 400V 222M 12/SCE 2G 222M
CN101	A6010-0407	CONNECTOR-WAFER;28-5085-009-000 BLK
D101	B4102-0006	DIODE-FR;EG01C(3.3)V 500MA (0.1)US
D103	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D104	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D105	B4102-0033	DIODE-FR;UF4007 1000V 1A 75NS T
D106	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D107	B4102-0005	DIODE-FR;FMP-G12S(1.15)V 5A (0.15)US
D108	B4102-0039	DIODE-FR ERC90G-02YMG 200V 5A 35NS T
D109	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D110	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
D111	B4102-0029	DIODE-FR;EU02W 400V 1A 0.4US T
F101	64709-085-040	FUSE;T1.6A 250V 218 5X20MM LT EUR
F102	64709-085-140	FUSE;T2A 250V 218 LF
IC101	B4010-0015	IC-HYBRID;STR11006 SMPS SIP
IC102	62119-401-313	IC;PQ12RF11
L101	64529-420-230	LINE FILTER;SHL 030
L102	A1130-0017	COIL-CHOCK;20UH MP
L103	64529-630-010	FILTER CHOKE;8PI
Q101	A4056-0019	TR-SWITCHING;2SD1207T 1W 150MHZ SI/NPN T
R101	A1014-0011	R-CEMENT;RWC 2R 2R7-K
R102	A1006-0458	R-METAL FILM;RM 1/4 T 753-J
R103	A1004-0196	R-METAL OXIDE;RS 1/2 T(S) 154-J
R104	A1014-0029	R-CEMENT;RWC 5W 683-J
R105	A1014-0044	R-CEMENT;RWC 2R 330-J
R106	B1004-0304	R-METAL OXIDE;RS 2 T 330-J/ERG2SJ330E
R107	A1014-0014	R-CEMENT;RMC 2R(S) R47-K
R108	61048-277-102	R-METAL FILM;RM 1/4 T 102-J
R109	61048-277-102	R-METAL FILM;RM 1/4 T 102-J
R110	A1006-0550	R-METAL FILM;RM 1/4 T 5R1-J
R111	A1006-0457	R-METAL FILM;RM 1/4 T 120-J
R112	A1006-0458	R-METAL FILM;RM 1/4 T 753-J
R113	61048-277-152	R-METAL FILM;RM 1/4 T 152-J
R115	B1004-0304	R-METAL OXIDE;RS 2 T 330-J/ERG2SJ330E
R116	61048-177-103	R-METAL FILM;RM 1/8 T 103-J
T101	A1206-0003	TRANS-SWITCHING;P(100-240V) S(6.5-38)
ZD101	62169-423-096	DIODE-ZENER;MTZ 22D

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
	69099-625-703	ASSY REMOCON;(VX-370/AMFO,SEI)
	69099-625-702	ASSY REMOCON;(VX-370/EURO,NECK,SEG)
	64043-0051-00	DOOR-BATTERY RE;ABS94HB T2.0 BLK NR2559
	64043-0055-00	DOOR-HIDDEN;ABS94HB T1.5 BLK
CT01	61453-131-330	C-CERAMIC.CHIP;0805 5A 330JAT MA
CT02	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
CT03	61453-130-301	C-CERAMIC.CHIP;0805 5A 300JAT MA
CT04	61453-130-301	C-CERAMIC.CHIP;0805 5A 300JAT MA
CT05	61637-806-229	C-ELEC;CEAP 35V 2.2M SE(3X5)
CT06	61647-702-470	C-ELEC;CEAP 6.3V 47M SS(2.5)
CT07	61453-130-104	C-CERAMIC.CHIP;0805 5E 104ZAT MA
DT01	62169-406-482	DIODE;1N4148 SAMSUNG
ICT01	67199-0142-00	MICOM;KS56C820-59 VF-370 QFP
ICT01	67199-0109-00	MICOM;KS56C820-35 VF-370 QFP
IT01	62309-112-041	LED-IR;GL538
IT02	62309-112-041	LED-IR;GL538
LCT01	A4155-0023	LCD;LE-010-004A VF-370
QT01	62129-301-123	TRANSISTOR.CHIP;2SC 2412
QT02	62129-301-123	TRANSISTOR.CHIP;2SC 2412
RT01	61079-917-334	R-CHIP;RH C2012 CS 334-J
RT02	61079-917-333	R-CHIP;RH C2012 CS 333-J
RT03	61079-917-751	R-CHIP;RH C2012 CS 750-J
RT04	61079-917-339	R-CHIP;RH C2012 CS 3R3-J
XT01	64539-021-010	CRYSTAL;P-3(32.768KHZ)
XT02	A1260-0056	CRYSTAL;2.4256MHZ HC-49/U-A 30PPM

****

670	69373-302-217	ASSY TIMER;X-3 PAL VX-370/AMF
	69373-302-216	ASSY TIMER;X-3 PAL VX-370/EURO
	69373-302-218	ASSY TIMER;X-3 VX-370/NECK,SEG
	69373-302-219	ASSY TIMER;X-3 PAL VX-370/SEI
	63054-316-150	FFC CABLE;BNCD=1.25-K-16P-150M/M
	63054-327-130	FFC CABLE;BNCD=1.25-K-27P-130M/M
	63053-917-553	LEAD CONNECTOR ASSY;53015-0310 VF-370
C701	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C703	61407-101-320	C-CERAMIC.TEMP;CC45 SL TAPG 50V 82-J
C704	A1100-0561	C-CERAMIC;CK OA Y 50V T 2200-N
C705	A1100-0561	C-CERAMIC;CK OA Y 50V T 2200-N
C706	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C707	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C708	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C709	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
CN701	B6010-0359	CONNECTOR-WAFER;HLEM-27R-1 BLK
CN702	B6010-0361	CONNECTOR-WAFER;HLEM-16R-1 BLK
CN703	63349-601-320	CONNECTOR-WAFER;5233-03A
D702	62169-406-482	DIODE;1N4148 SAMSUNG
D705	62169-406-482	DIODE;1N4148 SAMSUNG
D706	62169-406-482	DIODE;1N4148 SAMSUNG
D707	62169-406-482	DIODE;1N4148 SAMSUNG
D710	62169-406-482	DIODE;1N4148 SAMSUNG
D711	62169-406-482	DIODE;1N4148 SAMSUNG
D712	62169-406-482	DIODE;1N4148 SAMSUNG
D714	62169-102-057	DIODE-SHOTTKY;1SS108TA
D715	62169-102-057	DIODE-SHOTTKY;1SS108TA
D716	62169-406-482	DIODE;1N4148 SAMSUNG
D717	62169-406-482	DIODE;1N4148 SAMSUNG
D718	62169-406-482	DIODE;1N4148 SAMSUNG
D719	62169-406-482	DIODE;1N4148 SAMSUNG
D720	62169-406-482	DIODE;1N4148 SAMSUNG
D721	62169-406-482	DIODE;1N4148 SAMSUNG
D722	62169-406-482	DIODE;1N4148 SAMSUNG
D723	62169-406-482	DIODE;1N4148 SAMSUNG
D724	62169-406-482	DIODE;1N4148 SAMSUNG
D725	62169-406-482	DIODE;1N4148 SAMSUNG
D726	62169-406-482	DIODE;1N4148 SAMSUNG
D727	62169-406-482	DIODE;1N4148 SAMSUNG
D728	62169-406-482	DIODE;1N4148 SAMSUNG
D730	62169-406-482	DIODE;1N4148 SAMSUNG
D731	62169-406-482	DIODE;1N4148 SAMSUNG
DT701	A4153-0018	V.F. DISPLAY;SVV-9ME01
JA701	A3040-0004	JACK PIN;DSP-8805-03(YEL)
JA702	A3040-0003	JACK PIN;DSP-8805-03(WHT)
JA703	A3040-0002	JACK PIN;DSP-8805-03(RED)
LD701	62309-110-340	LED;GL-3HD7/GL3HD8
LD702	62309-110-340	LED;GL-3HD7/GL3HD8
LD704	62309-110-340	LED;GL-3HD7/GL3HD8
Q701	62137-701-011	TRANSISTOR;KSR 1002 TAPG
Q702	62137-701-020	TRANSISTOR;KSR 2001 TAPG
Q703	62137-701-011	TRANSISTOR;KSR 1002 TAPG

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
Q704	62137-701-020	TRANSISTOR;KSR 2001 TAPG
R701	61048-177-473	R-METAL FILM;RM 1/8 T 473-J
R702	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R703	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R704	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R705	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R706	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R707	61048-177-682	R-METAL FILM;RM 1/8 T 682-J
R708	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R710	61048-177-472	R-METAL FILM;RM 1/8 T 472-J
R711	61048-277-101	R-METAL FILM;RM 1/4 T 101-J
R712	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R713	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R714	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R715	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R716	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R717	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R718	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R719	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R720	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R721	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R722	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R723	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R724	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R725	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R726	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R727	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R728	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R729	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R730	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R731	61048-177-683	R-METAL FILM;RM 1/8 T 683-J
R732	61048-177-224	R-METAL FILM;RM 1/8 T 224-J
R733	61048-177-224	R-METAL FILM;RM 1/8 T 224-J
R734	61048-177-750	R-METAL FILM;RM 1/8 T 750-J
R735	61048-177-153	R-METAL FILM;RM 1/8 T 153-J
R736	61048-177-153	R-METAL FILM;RM 1/8 T 153-J
R737	61048-277-101	R-METAL FILM;RM 1/4 T 101-J
R738	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R739	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R740	A1006-0550	R-METAL FILM;RM 1/4 T 5R1-J
R741	61048-177-472	R-METAL FILM;RM 1/8 T 472-J
R742	61048-177-472	R-METAL FILM;RM 1/8 T 472-J
RM701	64529-312-041	REMOCON-MODULE;SBX1610-82
SW701	63599-016-070	SW-TACT;EVQ-QS2 05K
SW702	63599-016-070	SW-TACT;EVQ-QS2 05K
SW703	63599-016-070	SW-TACT;EVQ-QS2 05K
SW704	63599-016-070	SW-TACT;EVQ-QS2 05K
SW705	63599-016-070	SW-TACT;EVQ-QS2 05K
SW706	63599-016-070	SW-TACT;EVQ-QS2 05K
SW707	63599-016-070	SW-TACT;EVQ-QS2 05K
SW708	63599-016-070	SW-TACT;EVQ-QS2 05K
SW709	63599-016-070	SW-TACT;EVQ-QS2 05K
SW711	63599-016-070	SW-TACT;EVQ-QS2 05K
SW712	63599-016-070	SW-TACT;EVQ-QS2 05K
SW713	63599-016-070	SW-TACT;EVQ-QS2 05K
SW714	63599-016-070	SW-TACT;EVQ-QS2 05K
SW715	63599-016-070	SW-TACT;EVQ-QS2 05K
SW716	63599-016-070	SW-TACT;EVQ-QS2 05K
SW719	63599-016-070	SW-TACT;EVQ-QS2 05K
SW720	63599-016-070	SW-TACT;EVQ-QS2 05K
SW721	63599-016-070	SW-TACT;EVQ-QS2 05K
SW722	63599-016-070	SW-TACT;EVQ-QS2 05K
SW723	63599-016-070	SW-TACT;EVQ-QS2 05K
SW724	63519-102-071	SW-SLIDE;KSA 2340A/T00230002-3
SW725	63519-102-072	SW-SLIDE;KSA 2240A/T00220003-2
SW726	63519-102-071	SW-SLIDE;KSA 2340A/T0023002-3
VR701	B1052-0001	VR-ROTARY BLOCK;RK16Y12S 100KBX1
ZD701	62169-423-092	DIODE-ZENER;MTZ 6.8B/UZ 6.8BH

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600	69357-302-377	ASSY MAIN;X-3 PAL PB

POWER PARTS

C151	61637-505-331	C-ELEC;CEAP 25V 330M SG(10X12.5)
C152	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C153	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 203ZT
CN151	A6010-0406	CONNECTOR-WAFER;18-5085-009-000 BLK
D151	62169-406-482	DIODE;1N4148 SAMSUNG
D152	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D153	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D154	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D155	B4104-0046	DIODE-RECT;1N4002GP 200V 1A

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
D156	62169-406-482	DIODE;1N4148 SAMSUNG
D157	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D158	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D160	62169-901-095	DIODE-CHIP;DAN202K (T96)
D162	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D163	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
Q151	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q152	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q153	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
Q154	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG
Q155	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q156	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q157	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG
Q158	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q159	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q160	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q161	62147-101-950	TRANSISTOR;KSA 643-Y TAPG
Q162	62137-701-012	TRANSISTOR;KSR 1003 TAPG
Q163	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG
R151	61048-177-561	R-METAL FILM;RM 1/8 T 561-J
R152	61048-277-221	R-METAL FILM;RM 1/4 T 221-J
R153	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R154	61048-177-561	R-METAL FILM;RM 1/8 T 561-J
R155	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R156	61048-177-122	R-METAL FILM;RM 1/8 T 122-J
R157	61048-177-152	R-METAL FILM;RM 1/8 T 152-J
R159	61048-177-152	R-METAL FILM;RM 1/8 T 152-J
R160	61048-177-392	R-METAL FILM;RM 1/8 T 392-J
R161	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R162	61048-277-272	R-METAL FILM;RM 1/4 T 272-J
R163	61079-917-223	R-CHIP;RH C2012 CS 223-J
R166	61048-277-821	R-METAL FILM;RM 1/4 T 821-J
ZD151	62169-403-821	DIODE-ZENER;MTZ 5.1B
ZD152	A4106-0064	DIODE-ZENER;UZ-5.6BCC 5.6V 20MAT

SYSTEM CONTROL PARTS

C601	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C602	A1100-0086	C-CERAMIC.CHIP;2012C 120J
C603	A1100-0086	C-CERAMIC.CHIP;2012C 120J
C604	61627-402-471	C-ELEC;CEAP 6.3V 470M RSS(6.3X7)
C605	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C606	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C607	B1104-0294	C-ELEC;CE 03E 5.5V T 104F Z
C608	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C610	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C611	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C620	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C621	A1100-0009	C-CERAMIC.CHIP;2012C 101J
C640	A1100-0015	C-CERAMIC.CHIP;2012B 152K
C641	A1100-0015	C-CERAMIC.CHIP;2012B 152K
C643	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C644	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C645	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
CN601	B6010-0360	CONNECTOR-WAFER;HLEM-27S-1 BLK
CN602	B6010-0415	CONNECTOR-WAFER;HLEM 16S-1 BLK
CN603	B6010-0256	CONNECTOR WAFER;52556-0790 WHT
D601	62169-406-482	DIODE;1N4148 SAMSUNG
D604	B4104-0046	DIODE-RECT;1N4002GP 200V 1A
D606	A4106-0065	DIODE-ZENER;UZP-27BH 27V 30MAT(1W)
IC601	B4002-0186	IC-MCU;HD6433724 A60F QFP
IC602	62119-401-300	IC;KA8301(N.M)
IC603	62119-401-186	IC;KM93C46
IC604	62119-101-770	IC;TC4094BP/CD4094BCN
IC605	62119-101-770	IC;TC4094BP/CD4094BCN
IC606	62119-103-712	IC;TC4021BP
IC607	A4008-0754	IC;KA7533
L601	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
L610	62429-958-628	INDUCTOR FERRITE BEAD;BL02RN1-R62T2
LD601	62309-112-043	LED IR;GL-451(SHARP)
Q601	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q602	62137-701-013	TRANSISTOR;KSR 1004 TAPG
Q604	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q641	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q643	66219-0010-00	SENSOR-PHOTO TRANSISTOR;PT 493F
Q644	66219-0010-00	SENSOR-PHOTO TRANSISTOR;PT 493F
Q645	66419-0001-00	INTERUPTER-PHOTO;SG-105LF
Q646	66419-0001-00	INTERUPTER-PHOTO;SG-105LF
R601	61079-917-122	R-CHIP;RH C2012 CS 122-J
R602	A1020-0315	R-MG.CHIP;RMC 1/10 51K-J
R604	61079-917-682	R-CHIP;RH C2012 CS 682-J
R605	61079-917-220	R-CHIP;RH C2012 CS 220-J
R606	61079-917-102	R-CHIP;RH C2012 CS 102-J
R607	61079-917-102	R-CHIP;RH C2012 CS 102-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
R608	61079-917-102	R-CHIP;RH C2012 CS 102-J
R609	61079-917-472	R-CHIP;RH C2012 CS 472-J
R611	61079-917-683	R-CHIP;RH C2012 CS 683-J
R612	61079-917-511	R-CHIP;RH C2012 CS 511-J
R613	61079-917-220	R-CHIP;RH C2012 CS 220-J
R614	61079-917-472	R-CHIP;RH C2012 CS 472-J
R618	61079-917-472	R-CHIP;RH C2012 CS 472-J
R619	61079-917-472	R-CHIP;RH C2012 CS 472-J
R620	61079-917-102	R-CHIP;RH C2012 CS 102-J
R630	B1004-0229	R-METAL OXIDE;RS 1R 7.5-J/ERX1SJ7R5E
R631	B1004-0229	R-METAL OXIDE;RS 1R 7.5-J/ERX1SJ7R5E
R632	61079-917-101	R-CHIP;RH C2012 CS 101-J
R633	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R634	61079-917-000	R-CHIP;RH C2012 CS 000-J
R635	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R636	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R637	61048-177-561	R-METAL FILM;RM 1/8 T 561-J
R638	61079-917-101	R-CHIP;RH C2012 CS 101-J
R639	61079-917-105	R-CHIP;RH C2012 CS 105-J
R640	61079-917-224	R-CHIP;RH C2012 CS 224-J
R641	61079-917-224	R-CHIP;RH C2012 CS 224-J
R642	61079-917-203	R-CHIP;RH C2012 CS 203-J
R643	61079-917-472	R-CHIP;RH C2012 CS 472-J
R644	61079-917-472	R-CHIP;RH C2012 CS 472-J
R645	61079-917-472	R-CHIP;RH C2012 CS 472-J
R646	61079-917-472	R-CHIP;RH C2012 CS 472-J
R648	61079-917-391	R-CHIP;RH C2012 CS 391-J
R649	61079-917-274	R-CHIP;RH C2012 CS 274-J
R650	61079-917-224	R-CHIP;RH C2012 CS 224-J
R651	61079-917-391	R-CHIP;RH C2012 CS 391-J
R652	61079-917-221	R-CHIP;RH C2012 CS 221-J
R653	61079-917-224	R-CHIP;RH C2012 CS 224-J
R655	61079-917-304	R-CHIP;RH C2012 CS 304-J
R660	61079-917-102	R-CHIP;RH C2012 CS 102-J
R661	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R662	61079-917-102	R-CHIP;RH C2012 CS 102-J
R663	61079-917-102	R-CHIP;RH C2012 CS 102-J
R664	61079-917-101	R-CHIP;RH C2012 CS 101-J
R670	61079-917-102	R-CHIP;RH C2012 CS 102-J
R671	61079-917-102	R-CHIP;RH C2012 CS 102-J
R672	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R673	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R674	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R675	61079-917-102	R-CHIP;RH C2012 CS 102-J
R676	61079-917-102	R-CHIP;RH C2012 CS 102-J
R677	61079-917-102	R-CHIP;RH C2012 CS 102-J
R678	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R679	61079-917-102	R-CHIP;RH C2012 CS 102-J
R680	61079-917-102	R-CHIP;RH C2012 CS 102-J
R681	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R682	61079-917-102	R-CHIP;RH C2012 CS 102-J
R683	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R684	61079-917-102	R-CHIP;RH C2012 CS 102-J
R685	61079-917-102	R-CHIP;RH C2012 CS 102-J
R686	61079-917-102	R-CHIP;RH C2012 CS 102-J
R687	61079-917-102	R-CHIP;RH C2012 CS 102-J
R688	61079-917-102	R-CHIP;RH C2012 CS 102-J
R689	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R691	61079-917-102	R-CHIP;RH C2012 CS 102-J
R692	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R693	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R694	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
SW640	66209-0008-00	SWITCH-REC;MPU 10105 MMBO 5V
W652	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
W655	61048-177-682	R-METAL FILM;RM 1/8 T 682-J
XT601	B1283-0018	RESONATOR-CERAMIC;8MHZ EF0GC8004T5 3/CN
XT602	64539-021-009	CRYSTAL;32 768KHZ

SERVO PARTS

C201	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C202	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C203	61453-131-392	C-CERAMIC.CHIP;0805 5C 392KAT MA
C204	61453-130-474	C-CERAMIC.CHIP;0805 5C 473MAT 050M
C205	61637-204-220	C-ELEC;CEAP 16V 22M SA
C206	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C207	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C208	A1100-0015	C-CERAMIC.CHIP;2012B 152K
C209	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C210	61453-131-471	C-CERAMIC.CHIP;0805 5A 470JAT MA
C211	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C212	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C213	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C214	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C215	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C216	A1100-0015	C-CERAMIC.CHIP;2012B 152K
C217	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C218	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C219	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C220	61407-101-440	C-CERAMIC.TEMP;CC45 SL TAPG 50V 220-J
C221	61453-131-271	C-CERAMIC.CHIP;0805 5A 271JAT MA
C222	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)
C223	61637-204-220	C-ELEC;CEAP 16V 22M SA
C224	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C225	B1102-0112	C-FILM;CQ298PVT224J/ECQV1H224JZ3
C226	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C227	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C228	61637-204-220	C-ELEC;CEAP 16V 22M SA
C229	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
C230	61637-204-220	C-ELEC;CEAP 16V 22M SA
C231	61637-204-220	C-ELEC;CEAP 16V 22M SA
CN201	A6010-0092	CONNECTOR-WAFER;00-8283-0612-00 WHT 6P
CN202	B6010-0254	CONNECTOR WAFER;52556-0990 WHT
D201	62169-406-482	DIODE;1N4148 SAMSUNG
D202	62169-406-482	DIODE;1N4148 SAMSUNG
D203	62169-406-482	DIODE;1N4148 SAMSUNG
D204	62169-406-482	DIODE;1N4148 SAMSUNG
D205	62169-406-482	DIODE;1N4148 SAMSUNG
D206	62169-406-482	DIODE;1N4148 SAMSUNG
D207	62169-406-482	DIODE;1N4148 SAMSUNG
D208	62169-403-830	DIODE-ZENER;MTZ6.2B
D209	62169-403-830	DIODE-ZENER;MTZ6.2B
D216	62169-406-482	DIODE;1N4148 SAMSUNG
IC201	A4012-0106	IC-LINEAR;KA8321 SIP VTR SERVO
Q201	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q202	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q203	62129-301-109	TRANSISTOR.CHIP;KSR 2103-(REEL)
Q204	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
R201	61079-917-102	R-CHIP;RH C2012 CS 102-J
R203	61079-917-912	R-CHIP;RH C2012 CS 912-J
R205	61079-917-822	R-CHIP;RH C2012 CS 822-J
R206	61079-917-472	R-CHIP;RH C2012 CS 472-J
R207	61079-917-154	R-CHIP;RH C2012 CS 154-J
R208	61079-917-394	R-CHIP;RH C2012 CS 394-J
R209	61079-917-683	R-CHIP;RH C2012 CS 683-J
R210	61079-917-393	R-CHIP;RH C2012 CS 393-J
R211	61079-917-105	R-CHIP;RH C2012 CS 105-J
R212	61079-917-334	R-CHIP;RH C2012 CS 334-J
R213	61079-917-103	R-CHIP;RH C2012 CS 103-J
R214	61079-917-102	R-CHIP;RH C2012 CS 102-J
R215	61079-917-105	R-CHIP;RH C2012 CS 105-J
R216	61079-917-105	R-CHIP;RH C2012 CS 105-J
R217	61079-917-564	R-CHIP;RH C2012 CS 564-J
R218	61079-917-473	R-CHIP;RH C2012 CS 473-J
R219	61079-917-302	R-CHIP;RH C2012 CS 302-J
R220	61079-917-561	R-CHIP;RH C2012 CS 561-J
R222	61079-917-102	R-CHIP;RH C2012 CS 102-J
R223	61079-917-202	R-CHIP;RH C2012 CS 202-J
R224	61079-917-105	R-CHIP;RH C2012 CS 105-J
R225	61079-917-103	R-CHIP;RH C2012 CS 103-J
R226	61079-917-431	R-CHIP;RH C2012 CS 431-J
R227	61079-917-431	R-CHIP;RH C2012 CS 431-J
R228	61079-917-474	R-CHIP;RH C2012 CS 474-J
R229	61079-917-823	R-CHIP;RH C2012 CS 823-J
R230	61079-917-823	R-CHIP;RH C2012 CS 823-J
R231	61079-917-183	R-CHIP;RH C2012 CS 183-J
R232	61079-917-154	R-CHIP;RH C2012 CS 154-J
R233	61079-917-243	R-CHIP;RH C2012 CS 243-J
R234	61079-917-561	R-CHIP;RH C2012 CS 561-J
R235	61079-917-683	R-CHIP;RH C2012 CS 683-J
R236	61079-917-224	R-CHIP;RH C2012 CS 224-J
R237	61079-917-103	R-CHIP;RH C2012 CS 103-J
R238	61079-917-222	R-CHIP;RH C2012 CS 222-J
R239	61079-917-752	R-CHIP;RH C2012 CS 752-J
R240	61079-917-822	R-CHIP;RH C2012 CS 822-J
R241	61079-917-912	R-CHIP;RH C2012 CS 912-J
R242	61079-917-433	R-CHIP;RH C2012 CS 433-J
R243	61079-917-153	R-CHIP;RH C2012 CS 153-J
R244	61079-917-433	R-CHIP;RH C2012 CS 433-J
R245	61079-917-334	R-CHIP;RH C2012 CS 334-J
R246	61079-917-223	R-CHIP;RH C2012 CS 223-J
R247	61079-917-512	R-CHIP;RH C2012 CS 512-J
R248	61079-917-562	R-CHIP;RH C2012 CS 562-J
R249	61079-917-682	R-CHIP;RH C2012 CS 682-J
R271	61079-917-102	R-CHIP;RH C2012 CS 102-J
VR201	61246-105-473	VR-SEMI;RH0615C 47KB

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
		TUNER PARTS
J4A1	63054-401-670	CABLE-COAXIAL ASSY;UL B65 AWG 30 BLK 100 AA
U4A1	A1292-0019	TUNER;TECC2889VA15A 106CH PAL/CCIR VS
U4A2	67189-0028-00	CONVERTER-RF;MDLK6D929A(B/G)
C4A1	61637-208-100	C-ELEC;CEAP 50V 10M SA(5X11)
C4A10	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C4A2	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A3	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A4	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
C4A5	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
C4A6	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C4A8	B1102-0125	C-FILM;CQ982P 50V T 104J-40/85 ECQV1H104JZ3
D420	62169-901-095	DIODE-CHIP;DAN202K (T96)
DH02	62169-901-095	DIODE-CHIP;DAN202K (T96)
IC4A1	62119-401-370	IC;LA7920
IC4A2	62119-501-561	IC-L;KA33V TAPG
L4A1	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
Q4A1	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
R4A0	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4A1	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A2	61079-917-432	R-CHIP;RH C2012 CS 432-J
R4A3	61079-917-223	R-CHIP;RH C2012 CS 223-J
R4A5	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A6	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A7	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A8	61079-917-103	R-CHIP;RH C2012 CS 103-J
R4A9	61079-917-822	R-CHIP;RH C2012 CS 822-J
R4B1	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4B2	61079-917-335	R-CHIP;RH C2012 CS 335-J
R4B3	61079-917-223	R-CHIP;RH C2012 CS 223-J
R4B4	61079-917-223	R-CHIP;RH C2012 CS 223-J
		AUDIO PARTS
C501	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)
C502	61617-405-470	C-ELECTROLYTIC;CE04W TAPG 25V 47M(RSS 6.3X7)
C503	61617-405-470	C-ELECTROLYTIC;CE04W TAPG 25V 47M(RSS 6.3X7)
C504	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C505	61507-121-481	C-POLTESTER;CQ921M TAPG 50V 153-J
C506	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J
C507	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C508	61507-121-460	C-POLYESTER;CQ921M TAPG 100V 822-K
C509	61507-121-451	C-POLYESTER;CQ921M TAPG 100V 682-J
C510	61507-121-451	C-POLYESTER;CQ921M TAPG 100V 682-J
C511	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)
C512	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C513	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)
C514	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C515	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C516	61637-208-478	C-ELEC;CEAP 50V 0.47M SA(5X11)
C517	61507-121-350	C-POLTESTER;CQ921M TAPG 100V 122-K
C518	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)
C519	61507-121-371	C-POLYESTER;CQ921M TAPG 50V 182-J
C520	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C521	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C522	61507-121-371	C-POLYESTER;CQ921M TAPG 50V 182-J
C524	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C525	B1102-0126	C-FILM;CQ982P 100V T 682J-40/85 ECQB1682JF3
C527	61453-131-221	C-CERAMIC.CHIP;0805 5A 221JAT MA
C528	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
C529	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
CD1	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
CD2	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
CD3	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
CD4	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
CD5	61507-121-431	C-POLYESTER;CQ921M TAPG 50V 472-J
CN501	63054-307-160	FLAT WIRE;UL2878 #26-07P 160
CN502	B6010-0436	CONNECTOR-WAFER;TMC-E02X-A1 BLK STICK
IC501	62119-103-685	IC;LA7295
L501	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L502	62427-813-153	COIL-PEAKING;EL0607RA 15mH-J
L503	62427-813-153	COIL-PEAKING;EL0607RA 15mH-J
L504	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
LD01	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
LD02	62429-014-110	COIL BIAS OSC;B02 70KHZ W(TOKO)VX1850
OSC501	62429-014-109	COIL BIAS OSC;B01 70KHZ B(TOKO)VX1850
Q501	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG
Q503	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
QD1	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG
R501	61079-917-103	R-CHIP;RH C2012 CS 103-J
R502	61048-177-203	R-METAL FILM;RM 1/8 T 203-J
R503	61079-917-361	R-CHIP;RH C2012 CS 361-J
R504	61079-917-332	R-CHIP;RH C2012 CS 332-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
R505	61079-917-331	R-CHIP;RH C2012 CS 331-J
R506	61079-917-363	R-CHIP;RH C2012 CS 363-J
R507	61048-177-122	R-METAL FILM;RM 1/8 T 122-J
R508	61079-917-223	R-CHIP;RH C2012 CS 223-J
R509	61079-917-822	R-CHIP;RH C2012 CS 822-J
R510	61079-917-475	R-CHIP;RH C2012 CS 475-J
R511	61048-177-223	R-METAL FILM;RM 1/8 T 223-J
R512	61079-917-392	R-CHIP;RH C2012 CS 392-J
R513	61079-917-562	R-CHIP;RH C2012 CS 562-J
R514	61079-917-562	R-CHIP;RH C2012 CS 562-J
R515	61079-917-822	R-CHIP;RH C2012 CS 822-J
R516	61079-917-334	R-CHIP;RH C2012 CS 334-J
R517	61079-917-101	R-CHIP;RH C2012 CS 101-J
R518	61079-917-561	R-CHIP;RH C2012 CS 561-J
R519	61079-917-152	R-CHIP;RH C2012 CS 152-J
R520	61079-917-363	R-CHIP;RH C2012 CS 363-J
R521	61079-917-478	R-CHIP;RH C2012 CS 4R7-J
R522	61079-917-473	R-CHIP;RH C2012 CS 473-J
R525	61079-917-122	R-CHIP;RH C2012 CS 122-J
R527	61079-917-682	R-CHIP;RH C2012 CS 682-J
R528	61048-177-332	R-METAL FILM;RM 1/8 T 332-J
RD1	61048-177-479	R-METAL FILM;RM 1/8 T 4R7-J
RD2	61048-177-223	R-METAL FILM;RM 1/8 T 223-J
VR501	61246-105-473	VR-SEMI;RH0615C 47KB
		MESECAM. DET PARTS
C3S31	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3S32	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3S33	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C3S34	61637-204-330	C-ELEC;CEAP 16V 33M SA(5X11)
C3S35	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)
FL3S07	64527-310-010	FILTER CERAMIC;SFE4.5MB TAPG
FL3S08	62429-014-112	COIL-TRAP(1/2FH);7.8K TUNING-COIL
IC3S02	A4008-0035	IC;BA7025L SIP
R3S31	61079-917-223	R-CHIP;RH C2012 CS 223-J
R3S32	61079-917-103	R-CHIP;RH C2012 CS 103-J
R3S33	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3S34	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3S35	61079-917-823	R-CHIP;RH C2012 CS 823-J
R3S36	61079-917-222	R-CHIP;RH C2012 CS 222-J
R3S37	61079-917-154	R-CHIP;RH C2012 CS 154-J
R3S38	61079-917-103	R-CHIP;RH C2012 CS 103-J
R3S39	61079-917-471	R-CHIP;RH C2012 CS 471-J
		LUMA/CHROMA PARTS
C3V02	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V03	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V04	61453-131-471	C-CERAMIC.CHIP;0805 5A 470JAT MA
C3V05	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C3V49	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
D3N02	62169-406-482	DIODE;1N4148 SAMSUNG
D3V01	62169-406-482	DIODE;1N4148 SAMSUNG
FL3V01	64569-006-011	DELAY LINE;MS-31PC-5K
L3V01	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
L3V02	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
Q3V01	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q3V02	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q3V03	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
R3N22	61079-917-222	R-CHIP;RH C2012 CS 222-J
R3V01	61079-917-271	R-CHIP;RH C2012 CS 271-J
R3V02	61079-917-000	R-CHIP;RH C2012 CS 000-J
R3V04	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3V05	61079-917-102	R-CHIP;RH C2012 CS 102-J
R3V06	61079-917-102	R-CHIP;RH C2012 CS 102-J
		I/O (MAIN) PARTS
DC01	62169-406-482	DIODE;1N4148 SAMSUNG
DC02	62169-406-482	DIODE;1N4148 SAMSUNG
DC03	62169-406-482	DIODE;1N4148 SAMSUNG
RC01	61079-917-104	R-CHIP;RH C2012 CS 104-J
RC02	61079-917-104	R-CHIP;RH C2012 CS 104-J
RC03	61079-917-104	R-CHIP;RH C2012 CS 104-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
601	69312-302-244	ASSY PREAMP;X-3PAL 6H'D HI-FI
C301	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C302	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C303	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C304	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C305	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C306	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C307	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C308	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C309	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C310	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C311	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C312	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C313	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C314	61637-808-010	C-ELEC;CEAP 50V 1M SE(4X5)
C315	61637-808-010	C-ELEC;CEAP 50V 1M SE(4X5)
C316	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C317	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C318	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C319	61453-130-474	C-CERAMIC.CHIP;0805 5C 473MAT 050M
C321	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C322	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C323	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C324	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C325	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C326	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C327	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C328	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C329	61453-131-221	C-CERAMIC.CHIP;0805 5A 221JAT MA
C330	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C331	A1100-0038	C-CERAMIC.CHIP;2012C 151J
C332	61453-131-270	C-CERAMIC.CHIP;0805 5A 270JAT MA
C333	61453-131-680	C-CERAMIC CHIP;0805 5A 680JAT MA
C336	A1100-0628	C-CERAMIC.CHIP;CC 73 CH 50V T 201-J C2012
C338	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C339	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C340	61453-131-180	C-CERAMIC.CHIP;0805 5A 180JAT MA
C341	A1100-0053	C-CERAMIC.CHIP;2012C 390J
C342	61453-131-181	C-CERAMIC CHIP;0805 5A 181JAT MA
C344	61453-130-151	C-CERAMIC.CHIP;0805 5A 151JAT MA
C345	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C346	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C347	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C348	61453-130-121	C-CERAMIC.CHIP;0805 5A 121JAT MA
C349	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C350	61453-131-100	C-CERAMIC.CHIP;08055A100JAT050M
C351	61453-131-270	C-CERAMIC.CHIP;0805 5A 270JAT MA
C353	61453-131-181	C-CERAMIC CHIP;0805 5A 181JAT MA
C354	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C355	61627-208-010	C-ELEC;CEAP 50V 1M NP(6X11)
C358	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C359	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)
C360	61637-608-338	C-ELEC;CEAP 50V 0.33M SV(5X9)
C361	A1100-0080	C-CERAMIC.CHIP;2012C 820J
C362	A1100-0009	C-CERAMIC.CHIP;2012C 101J
C363	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C364	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C365	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C366	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C367	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C368	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C369	61453-131-751	C-CERAMIC.CHIP;0805 5A 750JAT MA
C370	61617-408-019	C-ELEC;CEAP 50V 0.1M RSS(4X7)
C371	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C372	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C373	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C374	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C376	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C379	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C398	61454-139-209	C-CERAMIC.CHIP;0805 5A 2R0CAT MA
C399	61453-130-121	C-CERAMIC.CHIP;0805 5A 121JAT MA
C8101	A1100-0017	C-CERAMIC.CHIP;2012F 104Z
C8102	A1100-0009	C-CERAMIC.CHIP;2012C 101J
C8103	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C8104	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C8105	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C8106	A1100-0009	C-CERAMIC.CHIP;2012C 101J
C8107	A1100-0009	C-CERAMIC.CHIP;2012C 101J
C8108	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C8109	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C8110	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C8111	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C8112	61453-131-103	C-CERAMIC.CHIP;0805 5C 103KAT MA
C8113	A1100-0010	C-CERAMIC.CHIP;2012B 102K
C8114	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C8115	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
CN301	63344-111-160	CONNECTOR FPC;52045-1010
CN302	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN303	A6010-0264	CONNECTOR WAFER;GC200-10P-LS WHT
CN304	A6010-0264	CONNECTOR WAFER;GC200-10P-LS WHT
D301	62169-406-482	DIODE;1N4148 SAMSUNG
D302	62169-406-482	DIODE;1N4148 SAMSUNG
D303	62169-406-482	DIODE;1N4148 SAMSUNG
D305	62169-406-482	DIODE;1N4148 SAMSUNG
D306	62169-406-482	DIODE;1N4148 SAMSUNG
IC301	B4012-0044	IC-LINER;BA7277S DIP
IC302	A4010-0009	IC-HYBRID;SVH-350DIP
IC303	B4008-0432	IC;MSM 7403RS SIP
IC801	B4012-0043	IC-LINER;BA7743S DIP
L301	62427-812-471	COIL-PEAKING;EL0606RA 470uH-J
L302	62427-020-221	COIL PEAKING.AXIAL;LAL02TB 221J TAPG
L303	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG
L304	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG
L305	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG
L306	62427-812-331	COIL-PEAKING;EL0606RA 330uH-J
L307	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG
L308	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG
L309	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG
L310	62427-020-101	COIL PEAKING.AXIAL;LAL02TB 101J TAPG
L311	62427-812-221	COIL-PEAKING;EL0606RA 220uH-J
L312	62427-020-820	COIL PEAKING.AXIAL;LAL02TB 820J TAPG
L313	62427-020-221	COIL PEAKING.AXIAL;LAL02TB 221J TAPG
L314	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG
L315	62427-020-680	COIL PEAKING.AXIAL;LAL02TB 680J TAPG
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
L317	62427-020-339	COIL PEAKING.AXIAL;LAL02TB 3R3J TAPG
L399	62427-020-820	COIL PEAKING.AXIAL;LAL02TB 820J TAPG
L8101	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L8102	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
Q301	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q302	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q305	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q306	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q307	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)
Q308	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q309	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)
Q310	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q312	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q313	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q314	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q315	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q318	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q319	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q320	62129-101-130	TRANSISTOR.CHIP;KSR 2102 (REEL)
Q322	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
Q323	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)
Q330	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)
Q331	62129-101-130	TRANSISTOR.CHIP;KSR 2102 (REEL)
Q8101	62129-101-172	TRANSISTOR.CHIP;KSC 1623G(REEL)
R301	61079-917-102	R-CHIP;RH C2012 CS 102-J
R302	61079-917-471	R-CHIP;RH C2012 CS 471-J
R303	61079-917-471	R-CHIP;RH C2012 CS 471-J
R304	61079-917-121	R-CHIP;RH C2012 CS 121-J
R305	61079-917-121	R-CHIP;RH C2012 CS 121-J
R306	61079-917-102	R-CHIP;RH C2012 CS 102-J
R307	61079-917-511	R-CHIP;RH C2012 CS 511-J
R308	61079-917-331	R-CHIP;RH C2012 CS 331-J
R309	61079-917-101	R-CHIP;RH C2012 CS 101-J
R310	61079-917-181	R-CHIP;RH C2012 CS 181-J
R312	61079-917-152	R-CHIP;RH C2012 CS 152-J
R313	61079-917-102	R-CHIP;RH C2012 CS 102-J
R314	61079-917-273	R-CHIP;RH C2012 CS 273-J
R315	61079-917-123	R-CHIP;RH C2012 CS 123-J
R316	61079-917-181	R-CHIP;RH C2012 CS 181-J
R317	61079-917-102	R-CHIP;RH C2012 CS 102-J
R318	61079-917-102	R-CHIP;RH C2012 CS 102-J
R319	61079-917-222	R-CHIP;RH C2012 CS 222-J
R320	61079-917-471	R-CHIP;RH C2012 CS 471-J
R321	61079-917-471	R-CHIP;RH C2012 CS 471-J
R322	61079-917-182	R-CHIP;RH C2012 CS 182-J
R323	61079-917-000	R-CHIP;RH C2012 CS 000-J
R324	61079-917-471	R-CHIP;RH C2012 CS 471-J
R325	61079-917-751	R-CHIP;RH C2012 CS 750-J
R326	61079-917-471	R-CHIP;RH C2012 CS 471-J
R327	61079-917-102	R-CHIP;RH C2012 CS 102-J
R328	61079-917-102	R-CHIP;RH C2012 CS 102-J
R329	61079-917-271	R-CHIP;RH C2012 CS 271-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
R330	61079-917-102	R-CHIP;RH C2012 CS 102-J
R331	61079-917-681	R-CHIP;RH C2012 CS 681-J
R332	61079-917-271	R-CHIP;RH C2012 CS 271-J
R333	61079-917-122	R-CHIP;RH C2012 CS 122-J
R334	61079-917-333	R-CHIP;RH C2012 CS 333-J
R335	61079-917-333	R-CHIP;RH C2012 CS 333-J
R336	61079-917-152	R-CHIP;RH C2012 CS 152-J
R337	61079-917-152	R-CHIP;RH C2012 CS 152-J
R338	61079-917-102	R-CHIP;RH C2012 CS 102-J
R339	61079-917-102	R-CHIP;RH C2012 CS 102-J
R340	61079-917-122	R-CHIP;RH C2012 CS 122-J
R341	61079-917-392	R-CHIP;RH C2012 CS 392-J
R342	61079-917-472	R-CHIP;RH C2012 CS 472-J
R343	61079-917-682	R-CHIP;RH C2012 CS 682-J
R344	61079-917-122	R-CHIP;RH C2012 CS 122-J
R345	61079-917-222	R-CHIP;RH C2012 CS 222-J
R346	61079-917-102	R-CHIP;RH C2012 CS 102-J
R347	61079-917-102	R-CHIP;RH C2012 CS 102-J
R348	61079-917-271	R-CHIP;RH C2012 CS 271-J
R349	61048-177-182	R-METAL FILM;RM 1/8 T 182-J
R350	61048-177-333	R-METAL FILM;RM 1/8 T 333-J
R352	61079-917-103	R-CHIP;RH C2012 CS 103-J
R353	61079-917-822	R-CHIP;RH C2012 CS 822-J
R354	61079-917-153	R-CHIP;RH C2012 CS 153-J
R356	61079-917-471	R-CHIP;RH C2012 CS 471-J
R396	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R399	61079-917-183	R-CHIP;RH C2012 CS 183-J
R8101	61079-917-224	R-CHIP;RH C2012 CS 224-J
R8102	61079-917-102	R-CHIP;RH C2012 CS 102-J
R8103	61079-917-152	R-CHIP;RH C2012 CS 152-J
R8104	61079-917-100	R-CHIP;RH C2012 CS 100-J
R8105	61079-917-000	R-CHIP;RH C2012 CS 000-J
R8106	61079-917-561	R-CHIP;RH C2012 CS 561-J
R8107	61079-917-561	R-CHIP;RH C2012 CS 561-J
R8108	61079-917-152	R-CHIP;RH C2012 CS 152-J
R8109	61079-917-473	R-CHIP;RH C2012 CS 473-J
R8110	61079-917-103	R-CHIP;RH C2012 CS 103-J
R8111	61079-917-182	R-CHIP;RH C2012 CS 182-J
R8112	61079-917-102	R-CHIP;RH C2012 CS 102-J
R8113	61079-917-221	R-CHIP;RH C2012 CS 221-J
R8114	61079-917-822	R-CHIP;RH C2012 CS 822-J
R8116	61079-917-821	R-CHIP;RH C2012 CS 821-J
R8117	61079-917-102	R-CHIP;RH C2012 CS 102-J
XT301	64539-012-079	X-TAL;4.43 3619MHZ 8PPM TAPG

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602	69353-302-201	ASSY OSP;X-3 W-PAL
C901	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C902	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C903	61453-131-270	C-CERAMIC.CHIP;0805 5A 270JAT MA
C904	61453-131-220	C-CERAMIC.CHIP;0805 5A 220JAT MA
C905	61453-130-034	C-CERAMIC.CHIP;0805 5C 103JAT MA
C906	61453-130-034	C-CERAMIC.CHIP;0805 5C 103JAT MA
C907	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C908	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C909	61507-121-341	C-POLYESTER;CQ921M TAPG 50V 102-J
C910	61507-121-420	C-POLYESTER;CQ921M TAPG 100V 392-K
C911	61453-130-121	C-CERAMIC.CHIP;0805 5A 121JAT MA
C912	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C913	61453-131-471	C-CERAMIC.CHIP;0805 5A 470JAT MA
C914	A1100-0004	C-CERAMIC.CHIP;2012C 560J
C915	61453-131-821	C-CERAMIC CHIP;0805 5A 820JAT MA
C916	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C917	61617-408-478	C-ELEC;CEAP 50V 0.47M RSS(4X7)
C918	A1102-0148	C-FILM;CF 922 P 100V T 104-J /C-M 365 26104/3E
C919	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C920	61453-130-034	C-CERAMIC.CHIP;0805 5C 103JAT MA
C921	61627-204-479	C-ELEC;CEAP 16V 4.7M NP(4X7)
C922	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C923	61453-130-034	C-CERAMIC.CHIP;0805 5C 103JAT MA
C924	61453-130-034	C-CERAMIC.CHIP;0805 5C 103JAT MA
C927	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C928	A1100-0044	C-CERAMIC.CHIP;2012B 223K
C929	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)
CN901	A6010-0363	CONNECTOR-WAFER;GC200-12P LS WHT
D901	62169-406-482	DIODE;1N4148 SAMSUNG
D902	62169-406-482	DIODE;1N4148 SAMSUNG
D903	62169-406-482	DIODE;1N4148 SAMSUNG
D904	62169-406-482	DIODE;1N4148 SAMSUNG
D905	62169-406-482	DIODE;1N4148 SAMSUNG
D906	62169-406-482	DIODE;1N4148 SAMSUNG
D907	62169-406-482	DIODE;1N4148 SAMSUNG

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
IC901	A4008-0995	IC;KS5513C DIP
L901	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG
L902	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG
L903	62427-020-120	COIL PEAKING.AXIAL;LAL02TB 120J TAPG
L904	62427-812-100	COIL-PEAKING;EL0606RA 10uH-J
L905	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K
L906	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
Q901	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q902	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q903	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q904	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q905	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
R901	61079-917-122	R-CHIP;RH C2012 CS 122-J
R902	61079-917-821	R-CHIP;RH C2012 CS 821-J
R903	61079-917-681	R-CHIP;RH C2012 CS 681-J
R904	61079-917-682	R-CHIP;RH C2012 CS 682-J
R905	61079-917-123	R-CHIP;RH C2012 CS 123-J
R906	61079-917-153	R-CHIP;RH C2012 CS 153-J
R907	61079-917-123	R-CHIP;RH C2012 CS 123-J
R909	61079-917-681	R-CHIP;RH C2012 CS 681-J
R910	61079-917-273	R-CHIP;RH C2012 CS 273-J
R911	61079-917-622	R-CHIP;RH C2012 CS 622-J
R912	61079-917-105	R-CHIP;RH C2012 CS 105-J
R913	61079-917-222	R-CHIP;RH C2012 CS 222-J
R914	61079-917-103	R-CHIP;RH C2012 CS 103-J
R915	61079-917-224	R-CHIP;RH C2012 CS 224-J
R916	61079-917-101	R-CHIP;RH C2012 CS 101-J
R917	61079-917-183	R-CHIP;RH C2012 CS 183-J
R918	61079-917-103	R-CHIP;RH C2012 CS 103-J
R919	61079-917-102	R-CHIP;RH C2012 CS 102-J
R921	61079-917-203	R-CHIP;RH C2012 CS 203-J
R922	61079-917-393	R-CHIP;RH C2012 CS 393-J
R923	61079-917-102	R-CHIP;RH C2012 CS 102-J
R924	61079-917-102	R-CHIP;RH C2012 CS 102-J
R925	61079-917-563	R-CHIP;RH C2012 CS 563-J
R926	61079-917-104	R-CHIP;RH C2012 CS 104-J
R927	61079-917-102	R-CHIP;RH C2012 CS 102-J
R933	61079-917-222	R-CHIP;RH C2012 CS 222-J
R936	61079-917-103	R-CHIP;RH C2012 CS 103-J
R937	61079-917-473	R-CHIP;RH C2012 CS 473-J
R947	61079-917-680	R-CHIP;RH C2012 CS 680-J
R948	61079-917-105	R-CHIP;RH C2012 CS 105-J
R951	61079-917-104	R-CHIP;RH C2012 CS 104-J
R953	61079-917-332	R-CHIP;RH C2012 CS 332-J
XT901	64539-012-543	CRYSTAL;17.734475M(20ppm)

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603	69326-302-210	ASSY I/O;X-3 PAL HI-FI I/O(FTZ)
C4306	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4307	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4308	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C4309	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 203ZT
C4310	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4311	61407-101-170	C-CERAMIC.TEMP;CC45 SL TAPG 50V 150-J
C4312	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4313	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4314	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4315	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4316	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4317	61407-101-360	C-CERAMIC.TEMP;CC45 SL TAPG 50V 100-J
C4318	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4319	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4320	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102-K
C4321	61637-502-471	C-ELEC;CEAP 6.3V 470M SG(8X11.5)
C4322	61637-602-471	C-ELEC;CEAP 6.3V 470M SV(10X9)
C4323	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C4324	61407-105-320	C-CERAMIC.TEMP;CC45 CH TAPG 50V 82-J
C4326	61407-101-440	C-CERAMIC.TEMP;CC45 SL TAPG 50V 220-J
C4327	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C4328	61407-101-460	C-CERAMIC.TEMP;CC45 SL TAPG 50V 270-J
C4330	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)
C4331	61407-101-360	C-CERAMIC.TEMP;CC45 SL TAPG 50V 100-J
CN4301	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN4302	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
D4301	62169-406-482	DIODE;1N4148 SAMSUNG
IC4302	62119-401-310	IC;KA8403
JC4301	A3040-0054	JACK-SCART;DSR-9102(S) BLK 21P
JC4302	A3040-0004	JACK PIN;DSP-8805-03(YEL)
JC4303	A3040-0002	JACK PIN;DSP-8805-03(RED)
JC4304	A3040-0003	JACK PIN;DSP-8805-03(WHT)
L4302	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L4303	62427-812-479	COIL-PEAKING;EL0606RA 4.7uH-K

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
L4304	62427-812-479	COIL-PEAKING;EL0606RA 4.7uH-K
L4305	62427-812-479	COIL-PEAKING;EL0606RA 4.7uH-K
L4306	62427-812-479	COIL-PEAKING;EL0606RA 4.7uH-K
L4307	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4308	62427-812-330	COIL-PEAKING;EL0606RA 33uH-J
L4309	62427-812-180	COIL-PEAKING;EL0606RA 18uH-J
Q4301	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4302	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q4304	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
Q4305	62137-701-013	TRANSISTOR;KSR 1004 TAPG
Q4306	62137-701-020	TRANSISTOR;KSR 2001 TAPG
Q4307	62137-103-380	TRANSISTOR;KSA 733-Y TAPG
R4301	61048-177-751	R-METAL FILM;RM 1/8 T 751-J
R4302	61048-177-751	R-METAL FILM;RM 1/8 T 751-J
R4303	61048-177-122	R-METAL FILM;RM 1/8 T 122-J
R4304	61048-177-224	R-METAL FILM;RM 1/8 T 224-J
R4305	61048-177-122	R-METAL FILM;RM 1/8 T 122-J
R4306	61048-177-224	R-METAL FILM;RM 1/8 T 224-J
R4307	61048-177-750	R-METAL FILM;RM 1/8 T 750-J
R4308	61048-177-751	R-METAL FILM;RM 1/8 T 751-J
R4309	61048-177-473	R-METAL FILM;RM 1/8 T 473-J
R4310	61048-177-473	R-METAL FILM;RM 1/8 T 473-J
R4311	61048-177-751	R-METAL FILM;RM 1/8 T 751-J
R4312	61048-177-750	R-METAL FILM;RM 1/8 T 750-J
R4313	61048-177-750	R-METAL FILM;RM 1/8 T 750-J
R4314	61048-177-820	R-METAL FILM;RM 1/8 T 820-J
R4315	61048-177-820	R-METAL FILM;RM 1/8 T 820-J
R4316	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R4317	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R4318	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R4319	61048-177-102	R-METAL FILM;RM 1/8 T 102-J
R4320	61048-177-471	R-METAL FILM;RM 1/8 T 471-J
R4321	61048-177-471	R-METAL FILM;RM 1/8 T 471-J
R4322	61048-177-471	R-METAL FILM;RM 1/8 T 471-J
R4323	61048-177-471	R-METAL FILM;RM 1/8 T 471-J
R4324	61048-177-911	R-METAL FILM;RM 1/8 T 911-J
R4325	61048-277-821	R-METAL FILM;RM 1/4 T 821-J
R4326	61048-177-203	R-METAL FILM;RM 1/8 T 203-J
R4328	61048-177-681	R-METAL FILM;RM 1/8 T 681-J
R4329	61048-177-820	R-METAL FILM;RM 1/8 T 820-J
R4334	61048-177-121	R-METAL FILM;RM 1/8 T 121-J
R4335	61048-177-271	R-METAL FILM;RM 1/8 T 271-J
ZD4301	62169-403-824	DIODE-ZENER;MTZ 9.1B

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604	69322-302-242	ASSY VIF PACK;(VX-370/AMFO,SEI)
	69322-302-243	ASSY VIF PACK;(VX-370/EURO,NECK,SEG)
C401	61079-917-220	R-CHIP;RH C2012 CS 220-J
C402	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C403	61079-917-101	R-CHIP;RH C2012 CS 101-J
C404	61453-131-270	C-CERAMIC CHIP;0805 5A 270JAT MA
C405	61454-139-479	C-CERAMIC CHIP;08055A 4R7 JAT MA
C406	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C407	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C408	61453-131-220	C-CERAMIC CHIP;0805 5A 220JAT MA
C409	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C410	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C415	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C416	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C417	61453-131-890	C-CERAMIC CHIP;08055A8R2DAT050M
C418	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C420	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C429	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C431	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C432	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C433	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C434	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C436	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C437	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)
C438	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C439	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C440	B1102-0125	C-FILM;CQ298P 50V T 104J-40/85 ECQV1H104JZ3
C441	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C442	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C448	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C449	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C450	61617-404-220	C-ELEC;CEAP 16V 22M RSS(5X7)
C451	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C452	61617-408-229	C-ELEC;CEAP 50V 2.2M RSS(4X7)
C454	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C457	61507-121-540	C-POLYESTER;CQ921M TAPG 100V 393-K

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
C458	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C459	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C460	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C461	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C462	B1102-0112	C-FILM;CQ298PVT 224J/ECQV1H224JZ3
C463	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
C464	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
C465	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
C466	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
C467	61627-208-478	C-ELEC;CEAP 50V 0.47M NP(6X11)
C468	B1102-0113	C-FILM;CQ298PVT 473J/ECQV1473JZ3
C469	61507-121-431	C-POLYESTER;CQ921M TAPG 50V 472-J
C470	61507-121-431	C-POLYESTER;CQ921M TAPG 50V 472-J
C472	61454-139-479	C-CERAMIC CHIP;08055A 4R7 JAT MA
C473	61453-131-270	C-CERAMIC CHIP;0805 5A 270JAT MA
CN401	A6010-0414	CONNECTOR-WAFER;GC250-11P-LS-S1-MO GRY
CN402	A6010-0414	CONNECTOR-WAFER;GC250-11P-LS-S1-MO GRY
CN403	A6010-0413	CONNECTOR-WAFER;GC250-7P-LS-S1-MO GRY
D408	62169-406-482	DIODE;1N4148 SAMSUNG
D416	62169-901-047	DIODE CHIP;MA111-(TX) TYPE
D417	62169-901-047	DIODE CHIP;MA111-(TX) TYPE
FL401	62429-832-021	COIL-TRAP;DAISIN 40.4MHZ(G-10)
FL402	62429-832-009	COIL-TRAP;DAISIN 32.4MHZ(G-10)
FL403	B1245-0007	FILTER-SAW;SAF 38.9MZW80Z PAL BG
FL405	64527-101-001	FILTER CERAMIC TRAP;TPS 5.5MB TAPG
FL406	64527-101-002	FILTER CERAMIC TRAP;TPS 6.0MB TAPG
FL407	64527-103-001	FILTER CERAMIC;SFE 5.5MB TAPG
FL408	64527-103-001	FILTER CERAMIC;SFE 5.5MB TAPG
FL411	64529-418-044	FILTER SAW;SAF33.4MD 70Z
FL412	64529-425-042	FILTER-CERAMIC;SFT 5.74MA
FL413	64529-425-043	FILTER-CERAMIC;SFK54.7B
IC401	B4012-0046	IC-LINER;TDA 9800 DIP
IC403	B4012-0046	IC-LINER;TDA 9800 DIP
IC404	62119-101-043	IC;TDA3803A
L401	62427-812-270	COIL-PEAKING;EL0606RA 27uH-J
L402	62427-812-109	COIL-PEAKING;EL0606RA 1uH-K
L403	62427-812-139	COIL-PEAKING;EL0606RA 1.3uH-K
L404	62427-020-229	COIL PEAKING AXIAL;LAL02TB 2R2J TAPG
L407	62427-812-100	COIL-PEAKING;EL0606RA 10uH-J
L410	62427-812-139	COIL-PEAKING;EL0606RA 1.3uH-K
L4101	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
L413	62427-020-011	COIL PEAKING AXIAL;LAL02TB 100J TAPG
L414	62427-020-011	COIL PEAKING AXIAL;LAL02TB 100J TAPG
Q401	62129-101-110	TRANSISTOR CHIP;KSR 1102 (REEL)
Q402	62129-101-173	TRANSISTOR CHIP;KSR 1104(REEL)
Q403	62137-302-740	TRANSISTOR;KSC 945-Y TAPG
Q406	62137-702-010	TRANSISTOR;KTC 3197-AT(TAPG)
Q411	62137-702-010	TRANSISTOR;KTC 3197-AT(TAPG)
Q412	62137-701-011	TRANSISTOR;KSR 1002 TAPG
Q413	62129-101-173	TRANSISTOR CHIP;KSR 1104(REEL)
R403	61079-917-562	R-CHIP;RH C2012 CS 562-J
R404	61079-917-271	R-CHIP;RH C2012 CS 271-J
R405	61079-917-152	R-CHIP;RH C2012 CS 152-J
R409	61079-917-391	R-CHIP;RH C2012 CS 391-J
R412	61079-917-272	R-CHIP;RH C2012 CS 272-J
R414	61079-917-104	R-CHIP;RH C2012 CS 104-J
R415	61079-917-103	R-CHIP;RH C2012 CS 103-J
R416	61079-917-331	R-CHIP;RH C2012 CS 331-J
R418	61079-917-223	R-CHIP;RH C2012 CS 223-J
R421	61079-917-823	R-CHIP;RH C2012 CS 823-J
R422	61079-917-151	R-CHIP;RH C2012 CS 151-J
R423	61079-917-153	R-CHIP;RH C2012 CS 153-J
R424	61079-917-561	R-CHIP;RH C2012 CS 561-J
R425	61079-917-181	R-CHIP;RH C2012 CS 181-J
R426	61079-917-101	R-CHIP;RH C2012 CS 101-J
R431	61079-917-562	R-CHIP;RH C2012 CS 562-J
R432	61079-917-271	R-CHIP;RH C2012 CS 271-J
R435	61079-917-152	R-CHIP;RH C2012 CS 152-J
R436	61079-917-470	R-CHIP;RH C2012 CS 470-J
R437	61079-917-391	R-CHIP;RH C2012 CS 391-J
R444	61079-917-333	R-CHIP;RH C2012 CS 333-J
R445	61079-917-223	R-CHIP;RH C2012 CS 223-J
R446	61079-917-223	R-CHIP;RH C2012 CS 223-J
R447	61079-917-103	R-CHIP;RH C2012 CS 103-J
R448	61079-917-391	R-CHIP;RH C2012 CS 391-J
R449	61079-917-820	R-CHIP;RH C2012 CS 820-J
R458	61079-917-562	R-CHIP;RH C2012 CS 562-J
R459	61079-917-471	R-CHIP;RH C2012 CS 471-J
R460	61079-917-624	R-CHIP;RH C2012 CS 624-J
R461	61079-917-223	R-CHIP;RH C2012 CS 223-J
R462	61079-917-824	R-CHIP;RH C2012 CS 824-J
R463	61079-917-432	R-CHIP;RH C2012 CS 432-J
R464	61079-917-621	R-CHIP;RH C2012 CS 621-J
R465	61079-917-162	R-CHIP;RH C2012 CS 162-J

LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
R466	61079-917-473	R-CHIP;RH C2012 CS 473-J
R467	61079-917-473	R-CHIP;RH C2012 CS 473-J
R468	61079-917-432	R-CHIP;RH C2012 CS 432-J
R469	61079-917-432	R-CHIP;RH C2012 CS 432-J
R470	61079-917-223	R-CHIP;RH C2012 CS 223-J
R471	61079-917-362	R-CHIP;RH C2012 CS 362-J
R472	61079-917-512	R-CHIP;RH C2012 CS 512-J
R473	61079-917-202	R-CHIP;RH C2012 CS 202-J
R474	61079-917-102	R-CHIP;RH C2012 CS 102-J
R475	61079-917-102	R-CHIP;RH C2012 CS 102-J
R476	61079-917-202	R-CHIP;RH C2012 CS 202-J
R477	61079-917-624	R-CHIP;RH C2012 CS 624-J
R478	61079-917-102	R-CHIP;RH C2012 CS 102-J
R479	61079-917-102	R-CHIP;RH C2012 CS 102-J
R480	61079-917-331	R-CHIP;RH C2012 CS 331-J
R481	61079-917-182	R-CHIP;RH C2012 CS 182-J
R482	61079-917-103	R-CHIP;RH C2012 CS 103-J
R483	61079-917-331	R-CHIP;RH C2012 CS 331-J
R484	61079-917-182	R-CHIP;RH C2012 CS 182-J
R485	61079-917-431	R-CHIP;RH C2012 CS 431-J
R487	61079-917-390	R-CHIP;RH C2012 CS 390-J
R489	61079-917-103	R-CHIP;RH C2012 CS 103-J
R490	61048-177-221	R-METAL FILM;RM 1/8 T 221-J
R491	61048-177-821	R-METAL FILM;RM 1/8 T 821-J
R495	61048-177-331	R-METAL FILM;RM 1/8 T 331-J
TL401	A1197-0001	TRANS-DET A;M7T1/33301
TL403	A1197-0001	TRANS-DET A;M7T1/33301
TL404	62429-014-525	TRANS DET;54.68KHZ PILOT
VR401	B1054-0199	VR-SEMI;EVN-DCAA03-B1 47KB CARBON TAPG

VPS PARTS (OPTION)

C6101	61507-121-470	C-POLYESTER;CQ921M TAPG 100V 103-K
C6102	61507-121-530	C-POLYESTER;CQ921M TAPG 100V 333-K
C6103	61507-121-130	C-POLYESTER;CQ921M TAPG 100V 472-K
C6104	A1102-0148	C-FILM;CF 922 P 100V T 104-J /C-M 365 26104/3E
C6105	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)
C6106	A1100-0010	C-CERAMIC CHIP;2012B 102K
C6107	61454-139-471	C-CERAMIC CHIP;0805 5A 471JAT MA
C6108	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
IC6101	62119-403-013	IC;SAA4700(VPS)
R6101	61079-917-103	R-CHIP;RH C2012 CS 103-J
R6102	61079-917-103	R-CHIP;RH C2012 CS 103-J
R6103	61079-917-823	R-CHIP;RH C2012 CS 823-J
R6104	61079-917-103	R-CHIP;RH C2012 CS 103-J
R6105	61079-917-103	R-CHIP;RH C2012 CS 103-J
R6106	61079-917-472	R-CHIP;RH C2012 CS 472-J
R6107	61079-917-362	R-CHIP;RH C2012 CS 362-J

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605	69324-302-204	ASSY HI-FI;X-3 PAL HI-FI
C807	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C808	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C810	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C811	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C813	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C814	61637-504-331	C-ELEC;CEAP 16V 330M SMS(8X11)
C815	61637-804-220	C-ELEC;CEAP 16V 22M SE(5X5)
C816	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C817	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C818	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C819	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C820	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C821	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C822	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)
C823	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C824	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C825	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C826	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C827	61507-121-610	C-POLYESTER;CQ921M TAPG 100V 123-J
C828	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C829	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C830	61453-131-271	C-CERAMIC CHIP;0805 5A 271JAT MA
C831	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C832	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C833	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C834	61637-504-331	C-ELEC;CEAP 16V 330M SMS(8X11)
C835	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C836	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C837	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C838	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C839	61407-117-104	C-CERAMIC AXIAL;CAX Y TAPG 16V 0.01-N
C840	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C841	61507-121-610	C-POLYESTER;CQ921M TAPG 100V 123-J
C842	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C843	61637-805-100	C-ELEC;CEAP 25V 10M SE(5X5)
C844	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J
C845	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)
C846	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C847	A1100-0017	C-CERAMIC CHIP;2012F 104Z
C848	61637-804-220	C-ELEC;CEAP 16V 22M SE(5X5)
C849	61454-136-120	C-CERAMIC CHIP;0805 5A 120JAT 050M
C850	61453-129-223	C-CERAMIC CHIP;0805 5E 223ZAT MA
C851	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C853	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)
C854	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C860	61453-131-103	C-CERAMIC CHIP;0805 5C 103KAT MA
C870	61407-117-228	C-CERAMIC AXIAL;CK OA F 25V 223Z/F 25V 203ZT
CN801	A6010-0365	CONNECTOR-WAFER;GC200-15PLS WHT
CN802	A6010-0362	CONNECTOR-WAFER;GC200-9P LS WHT
CN803	A6010-0362	CONNECTOR-WAFER;GC200-9P LS WHT
CN804	63349-601-020	CONNECTOR-WAFER;5234-03A
FL801	A1240-0059	FILTER-LC;BP 1.4M/1.8M SFB-4174
IC802	B4012-0042	IC-LINER;TA8813N DIP
IC803	A4008-0112	IC;KIA 7809P SIP
L802	62427-020-101	COIL PEAKING AXIAL;LAL02TB 101J TAPG
L804	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J
Q801	A4050-0001	TRANSISTOR;2SD 1468SQ
Q802	A4050-0001	TRANSISTOR;2SD 1468SQ
Q803	62129-101-080	TRANSISTOR CHIP;KSA 812-G(REEL)
Q804	62129-301-104	TRANSISTOR CHIP;KSR 1103(REEL)
R807	61079-917-102	R-CHIP;RH C2012 CS 102-J
R808	61079-217-182	R-CHIP;RH C3216 CS 182-J
R809	61079-217-222	R-CHIP;RH C3216 CS 222-J
R810	61079-217-183	R-CHIP;RH C3216 CS 183-J
R811	61079-217-222	R-CHIP;RH C3216 CS 222-J
R812	61079-917-000	R-CHIP;RH C2012 CS 000-J
R814	61079-917-183	R-CHIP;RH C2012 CS 183-J
R815	61079-917-101	R-CHIP;RH C2012 CS 101-J
R816	61079-917-103	R-CHIP;RH C2012 CS 103-J
R817	61079-917-101	R-CHIP;RH C2012 CS 101-J
R818	61079-917-103	R-CHIP;RH C2012 CS 103-J
R819	61079-917-333	R-CHIP;RH C2012 CS 333-J
R819	61048-177-273	R-METAL FILM;RM 1/8 T 273-J
R820	61079-917-124	R-CHIP;RH C2012 CS 124-J
R821	61079-917-912	R-CHIP;RH C2012 CS 912-J
R823	61079-217-102	R-CHIP;RH C3216 CS 102-J
R824	61079-917-473	R-CHIP;RH C2012 CS 473-J
R825	61079-917-304	R-CHIP;RH C2012 CS 304-J
R826	61079-917-202	R-CHIP;RH C2012 CS 202-J
R827	61079-917-183	R-CHIP;RH C2012 CS 183-J
R828	61079-917-202	R-CHIP;RH C2012 CS 202-J
R829	61079-917-223	R-CHIP;RH C2012 CS 223-J
R830	61079-917-152	R-CHIP;RH C2012 CS 152-J
R831	61079-917-152	R-CHIP;RH C2012 CS 152-J
R832	61079-917-682	R-CHIP;RH C2012 CS 682-J
R833	61079-917-332	R-CHIP;RH C2012 CS 332-J
R834	61079-917-152	R-CHIP;RH C2012 CS 152-J
R835	61079-917-474	R-CHIP;RH C2012 CS 474-J
R836	61079-917-152	R-CHIP;RH C2012 CS 152-J
R837	61079-917-183	R-CHIP;RH C2012 CS 183-J
R838	61079-917-202	R-CHIP;RH C2012 CS 202-J
R839	61079-917-304	R-CHIP;RH C2012 CS 304-J
R840	61079-917-202	R-CHIP;RH C2012 CS 202-J
R841	61079-917-822	R-CHIP;RH C2012 CS 822-J
R844	61079-917-473	R-CHIP;RH C2012 CS 473-J
R845	61079-917-203	R-CHIP;RH C2012 CS 203-J
R847	61079-917-624	R-CHIP;RH C2012 CS 624-J
R848	61079-917-000	R-CHIP;RH C2012 CS 000-J
R849	61079-217-000	R-CHIP;RH C3216 CS 000-J
R850	61079-917-000	R-CHIP;RH C2012 CS 000-J
R851	61079-217-821	R-CHIP;RH C3216 CS 821-J
R854	61048-177-183	R-METAL FILM;RM 1/8 T 183-J
R855	61048-177-183	R-METAL FILM;RM 1/8 T 183-J
R856	61079-917-682	R-CHIP;RH C2012 CS 682-J
R857	61079-917-682	R-CHIP;RH C2012 CS 682-J
R858	61079-917-682	R-CHIP;RH C2012 CS 682-J
R859	61079-217-000	R-CHIP;RH C3216 CS 000-J
R860	61079-217-000	R-CHIP;RH C3216 CS 000-J
R861	61079-917-682	R-CHIP;RH C2012 CS 682-J
R862	61079-917-000	R-CHIP;RH C2012 CS 000-J
R863	61079-917-000	R-CHIP;RH C2012 CS 000-J
VR801	61247-101-223	VR-SEMI;EVN-DJA A03 BE4 TAPG 22KB
VR802	61247-101-223	VR-SEMI;EVN-DJA A03 BE4 TAPG 22KB

6. MECHANICAL EXPLODED VIEW/ PARTS LIST

Page

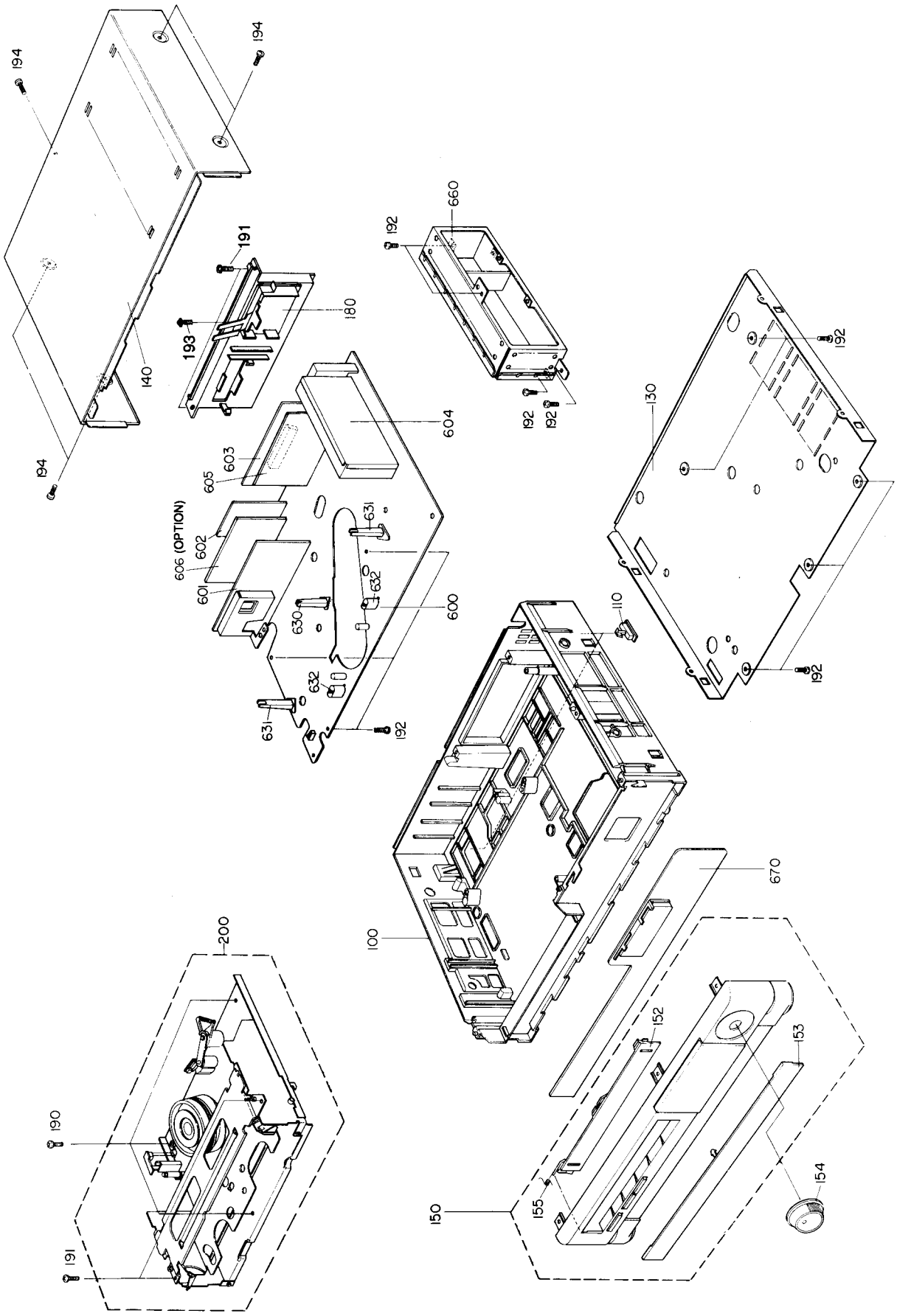
6-1. Instrument Assembly - - - - - - - - - - - - - - - - - - 6-2

6-2. Mechanical Parts (1) ; Top View - - - - - - - - - 6-4

6-3. Mechanical Parts (2) ; Bottom View - - - - - - 6-6

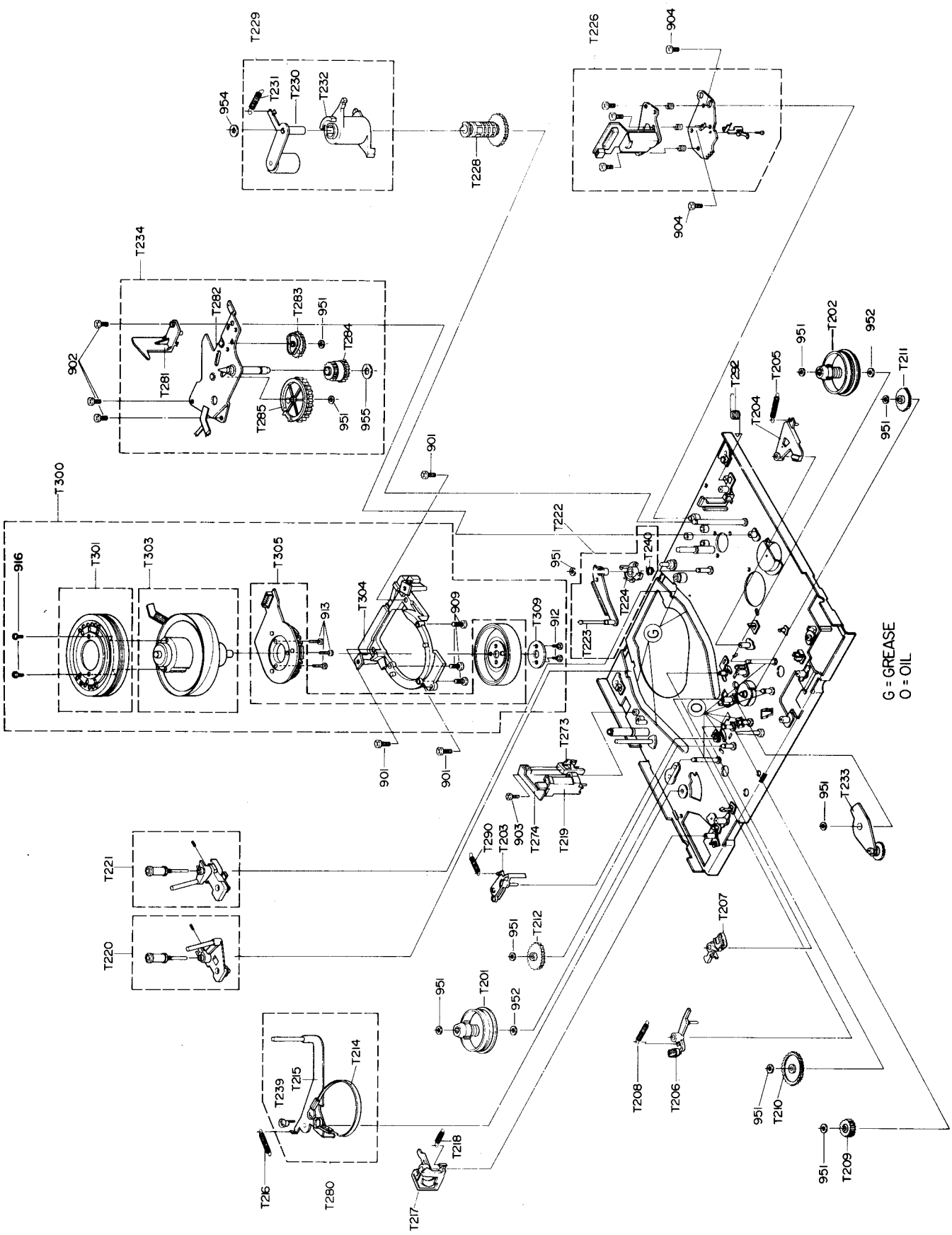
6-4. Housing Assembly - - - - - - - - - - - - - - - - - - - 6-8

6-1. Instrument Assembly



LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
100	62210-0031-00	FRAME;HIPS94HB T2 BLK
110	66074-601-410	LEG;VT-1260 TPE(BLK)7705
130	63312-0032-00	COVER-BOTTOM;SECC T0.5
140	62002-0009-00	CABINET-TOP;PVC+SECC T0.75
150	69000-302-395	ASSY PANEL FRONT;VX-370/AMFO
	69000-302-263	ASSY PANEL FRONT;VX-370/EURO
	69000-302-394	ASSY PANEL FRONT;VX-370/NECK
	69000-302-347	ASSY PANEL FRONT;VX-370/SEG(SUEDE BLACK)
	69000-302-346	ASSY PANEL FRONT;VX-370/SEI
152	64043-0043-10	DOOR-CASSETTE;ABS94HB T2.2 BLK SPARY VX-370/AMFO,SEG,SEI
	64043-0043-05	DOOR-CASSETTE;ABS94HB T2.2 BLK SPARY VX-370/EURO,NECK
153	64042-0084-16	DOOR-FRONT;ABS94HB T2.2 GRY VX-370/AMFO
	64042-0041-18	DOOR-FRONT;ABS94HB T2.2 GRY VX-370/EURO
	64042-0041-31	DOOR-FRONT;ABS94HB T2.2 GRY VX-370/NECK
	64042-0084-15	DOOR-FRONT;ABS94HB T2.2 GRY VX-370/SEG
	64042-0084-11	DOOR-FRONT;ABS94HB T2.2 GRY VX-370/SEI
154	69000-100-421	ASSY SHUTTLE;VX-370
155	62724-0090-00	SPRING;SUS304 (GE/RCA)
180	69333-100-102	ASSY PART CON-BOD(HI-F0);HIPS94HB+PVC
190	67158-240-121	SCREW BH;2-4*12 FE FZY
191	60504-0040-00	SCREW-TAP TITE;BH + TB 3 L12 SWRCH18A ZPC3 YEL
192	67158-230-120	SCREW-TAP TITE BH;3X10 FE FZY
193	67154-101-410	SCREW-TAP.PWH;2S-3X6 FE FZY
194	67158-240-163	SCREW-TAP BH;2-4X16 FE FZB
200	DX3W-R	FULL DECK ASSY;NTSC WINNER DECK
600	69357-302-377	ASSY MAIN;X-3 PAL PB VX-370/SEG
601	69312-302-244	ASSY PREAMP;X-3 PAL 6H'D HI-FI
602	69353-302-201	ASSY OSP;X-3 W-PAL
603	69326-302-210	ASSY I/O;X-3 PAL HI-FI I/O(FTZ)
604	69322-302-243	ASSY VIF PACK;X-3 PAL B/G A2(VPS)
	69322-302-243	ASSY VIF PACK;X-3 PAL B/G A2 (VX-370/EURO,NECK,SEG)
605	69324-302-204	ASSY HI-FI;X-3 PAL HI-FI
630	63322-0174-00	HOLDER-LED;POM BLK
631	63322-0173-00	HOLDER-TR;POM BLK
632	63323-0060-00	HOLDER-PHOTO INTER;POM M90-44 H14.1 WHT(WINNER)
660	69098-220-521	ASSY REGULATOR;PAL FREE CP2 FTZ(W-I)
	69098-220-501	ASSY REGULATOR;PAL FREE CP2 FTZ (VX-370/AMFO,EURO)
670	69373-302-218	ASSY F/TIMER;X-3 PAL/MESECAM VPS+FTZ (VX-370/NECK,SEG)
	69373-302-217	ASSY F/TIMER;X-3 PAL/MESECAM VPS+FTZ (VX-370/AMFO)
	69373-302-216	ASSY F/TIMER;X-3 PAL/MESECAM VPS+FTZ (VX-370/EURO)
	69373-302-219	ASSY F/TIMER;X-3 PAL/MESECAM VPS+FTZ (VX-370/SEI)

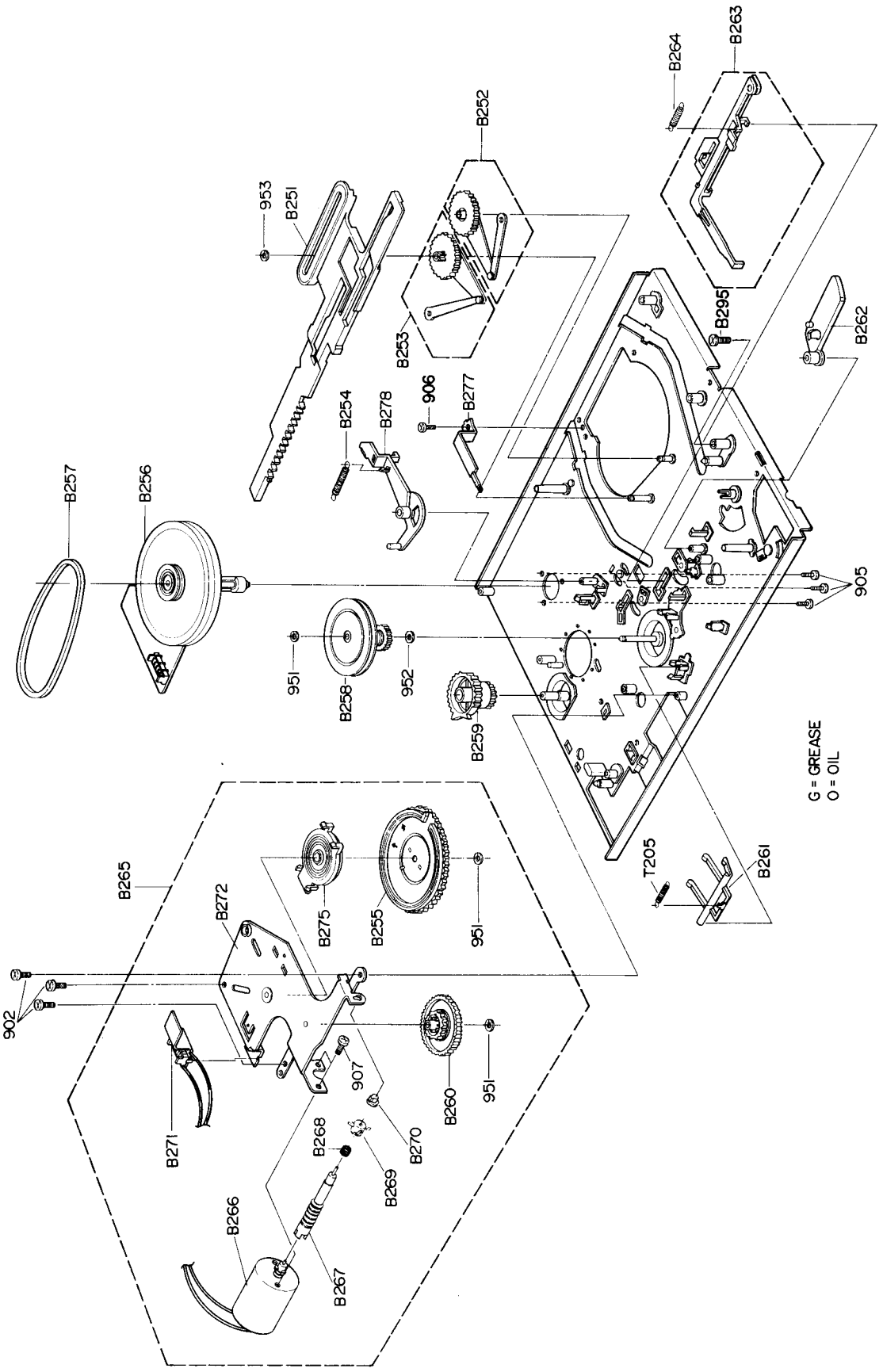
6-2. Mechanical Parts (1) ; Top View



LOCA NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
901	60509-0064-00	SCREW-MACHINE;BH FP M3 L8 FE FZY
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY
903	60504-0032-00	SCREW-PH;PH + 3 2.6 L10 SUM ZN YEL
904	60509-0059-00	SCREW-MACHINE;BH FP M2.6 L6 FE FZY
909	67008-126-081	SCREW-PH;+M2.6X8 FE FZY
912	67094-604-710	SCREW-DAMPER;M2.0X7.0 SWCM 10(MFZN2-C)
913	67008-123-101	SCREW-PH;+M2.3X10 FE FZY
916	67004-126-086	SCREW-BH;+M2.6X8 WSZN/70391398
951	67334-600-310	WASHER SLIT;PI2.5XPI5XT0.5
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER
954	60534-0024-00	WASHER-SLIT;ID3 OD8 T0.5 POLYSLIDE
955	60534-0019-00	WASHER-SLIT;A ID5 OD9 T0.5 POLYSLIDE
T201	61574-0010-01	REEL DISK(L) ASSY;X3RL03032A
T202	61574-0012-01	REEL DISK(R) ASSY;X3RL 03031A
T203	66603-620-110	BRAKE SUB L;POM(M90-44) NAT
T204	62614-0004-01	BRAKE SUB(R) ASSY;X3RL02021A
T205	66674-652-610	S/P BRAKE SUB "R";SUS304 WPB
T206	62614-0003-01	BRAKE MAIN(L) ASSY;X3RL02022A
T207	62614-0002-01	BRAKE MAIN(R) ASSY;X3RL02021A
T208	66674-652-510	S/P BRAKE MAIN;SUS304 WPB
T209	61474-0061-01	GEAR RELAY S1;PEBAX #6333
T210	61474-0062-01	GEAR RELAY S2;POM(M90-44) NAT
T211	61474-0060-01	GEAR RELAY T;PEBAX #6333
T212	61474-0063-01	GEAR RELAY S3;PEBAX #6333
T214	62024-0005-01	BAND TENSION ASSY;X3RL04051A
T215	69000-290-579	ARM-TENSION ASSY;SECC+SUS
T216	66674-652-910	SPRING TENSION;SUS304
T217	61533-0064-00	LEVER REC S/W;POM M90-44 H12.1 NAT
T218	62724-0075-00	S/P RECORD S/W;SUS304
T219	64079-700-454	HEAD MAGNETIC F/E;VTR-1X2ERS11-089(X-1)
T220	69000-291-035	ASSY-P.B & G.R(L);X-3
T221	69000-291-036	ASSY-P.B & G.R(R);X-3
T222	69000-291-004	FULL REVIEW ARM ASSY;X-3
T223	61544-0032-00	REVIEW ARM ASSY;SECC+SUS303C+C3604BD
T224	61473-0059-01	GEAR REVIEW;POM(M90-44) NAT
T226	69000-291-032	A/C HEAD ASSY;X-3(WINNER)
T228	61472-0054-01	GEAR ESCALATOR;POM(M90-44)
T229	61523-0021-01	PINCH ROLLER UNIT;X-3A
T230	61543-0040-01	ARM PINCH ASSY;SECC 1.6+SUS+C3604BD
T231	62724-0062-01	S/P PINCH ROLLER;SUS304-WPB

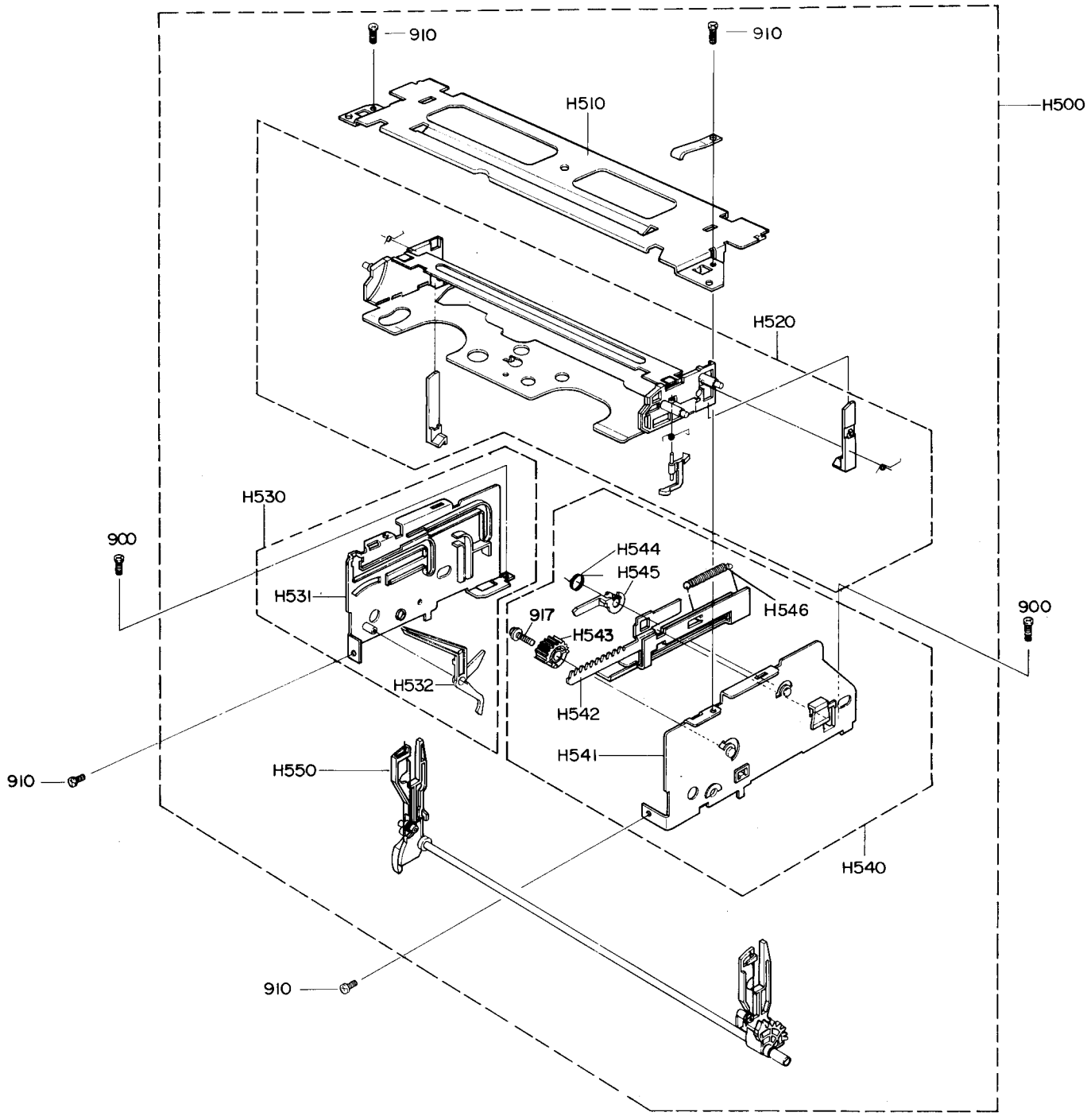
LOCA NO	PART-NUMBER	DESCRIPTION;SI
T232	63323-0043-01	HOLDER ESCAL
T233	61604-0003-01	IDLER SUB ASS
T234	67179-0069-01	UNIT-DRIVE PIN
T239	66654-617-810	CAM TENSION;P
T240	62724-0117-00	SPRING-REVIEV
T273	B6010-0248	CONNECTOR-W
T274	66029-0296-00	P.C.B F/E HEAD;
T280	69000-290-560	ASSY FULL ARM
T281	63073-0015-00	SUPPORTER-LI
T282	63012-0098-00	BRKT PINCH DR
T283	61473-0058-01	GEAR CAM PINC
T284	61473-0056-01	GEAR RELAY PI
T285	61473-0057-01	GEAR CAM DRI
T290	62724-0101-00	S/P BRAKE SUB
T292	62724-0082-01	S/P ESCALATOR
T300	69020-123-008	CYLINDER ASS
T301	69000-390-026	UPPER CYLIND
T303	69000-400-014	LOWER CYLIND
T304	62201-0051-00	CYLINDER BAS
T305	66823-0020-00	MOTOR CYLIND
T309	66124-601-710	RETAINER-RUE

6-3. Mechanical Parts (2) ; Bottom View



LOCA NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY
905	60504-0044-00	SCREW-TAPPING;BH + 3 M2.6 L7.5 SWRCH18A ZPC3 YEL
906	60509-0058-00	SCREW-MACHINE;BH FP M3 L4 SWRCH10A
951	67334-600-310	WASHER SLIT;PI2.5XPI5XT0.5
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER
953	67334-601-830	SLIT WASHER;2.5X9X0.5(RED)
B251	66602-603-510	SLIDE MAIN;PBT 6300T(NAT)
B252	61473-0047-01	GEAR LOADING "L" ASS'Y;X-3
B253	61473-0045-01	GEAR LODAING "R" ASS'Y;X-3
B254	66674-652-810	S/P BRAKE CAPSTAN;SUS304 WPB
B255	61472-0055-02	GEAR MASTER;POM(M90-44)
B256	66829-0024-02	MOTOR-D/D CAPSTAN;F2QKB 39 12V DX3W
B257	65274-603-910	BELT CAPSTAN;CY-65
B258	61453-0001-01	CLUTCH ASSY;X3RL10101A
B259	61473-0051-01	GEAR E/J DRIVE;KOPER(KN333G30)
B260	61473-0053-02	GEAR WORM WHEEL;NYLON 12
B261	66603-619-510	LEVER SHIFT;POM(M90-44)
B262	61534-0040-01	LEVER TENSION CONTROL;POM(M90-44) NAT
B263	61643-0016-01	SLIDE I.B ASSY;X3RL02021A
B264	62724-0129-00	SPRING-RELEASE BRAKE;SUS304 WPB
B265	67179-0068-02	L/D UNIT ASSY;X-3W
B266	66824-0013-01	L/D MOTOR ASSY;RF370C+POM
B267	69000-291-056	WORM LOADING ASSY;POM+SUS
B268	62724-0061-01	S/P CLUTCH;SUS304-WPB
B269	61504-0006-01	PULLEY RELEASE;POM(M90-44)
B270	63324-0042-01	HOLDER SHAFT;POM(M90-44)
B271	69000-291-054	CON. WAFER ASSY;WAFER+FPC+LEAD WIRE
B272	63011-0097-00	BRKT LOADING;SECC E20/20(T1.2)
B275	66203-0007-02	PROGRAM S/W;SMRS30A(K-ALPS)
B277	63374-0002-00	HEAD BRUSH ASSY;SECC+CARBON
B278	62614-0005-01	BRAKE DD CAP ASSY;X3RL02021A
B295	60504-0070-00	SCREW-TAP TITE;PWH + B M3 L8 SWCH1018 YEL
T205	66674-652-610	S/P BRAKE SUB "R";SUS304 WPB

6-4. Housing Assembly

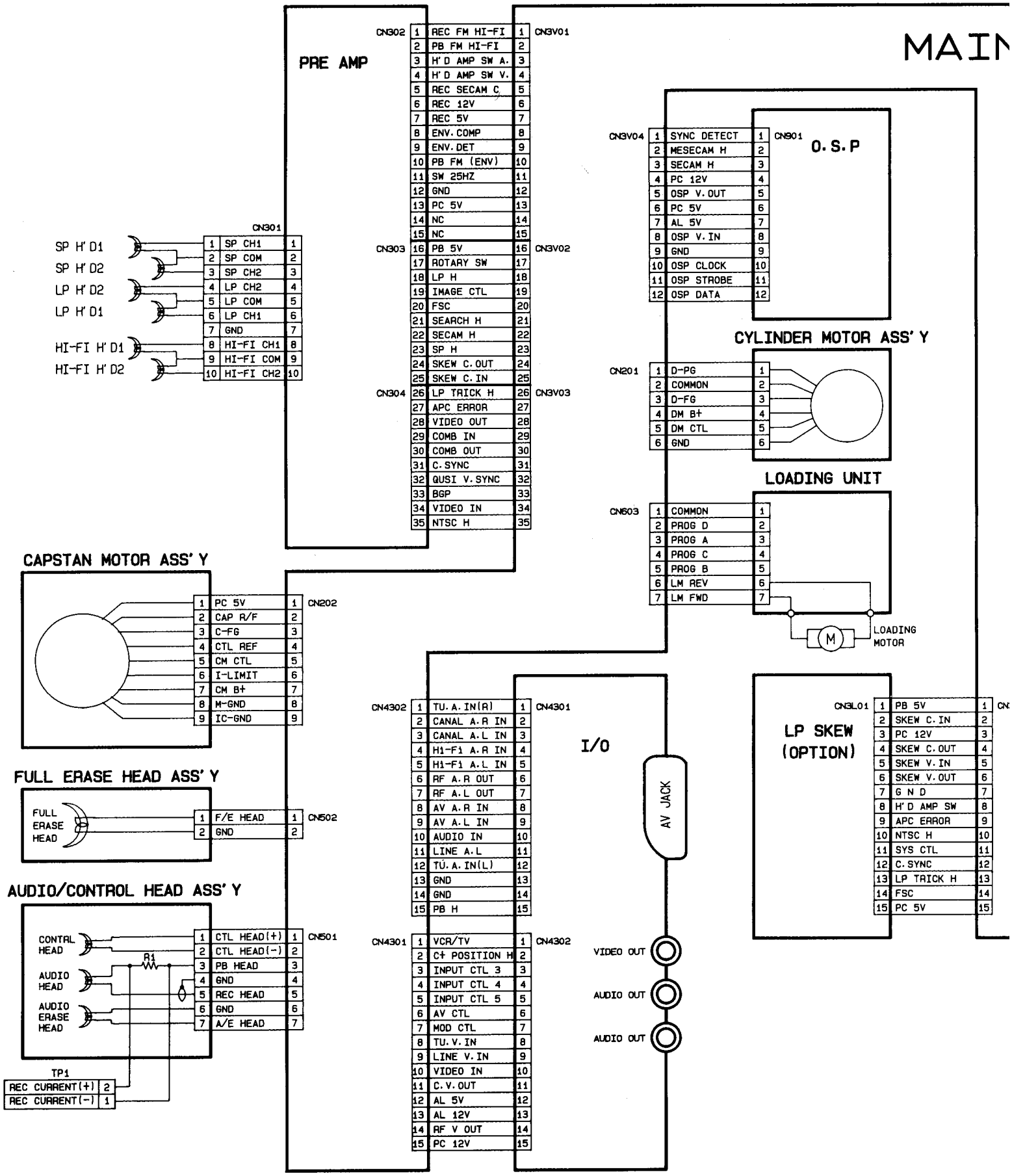


LOCA.NO	PART-NUMBER	DESCRIPTION;SPECIFICATION
900	60509-0061-00	SCREW-MACHINE;BH FP M3 L6 FE FZY
910	60509-0062-00	SCREW-TAP TITE;BH + TS M3 L6 FE FZY
917	67154-101-420	SCREW-TAP PWH;2S-3X8 FE FZY
H500	62052-0004-00	F/L HOUSING ASSY;X-3 FL28300A
H510	62202-0029-00	CHASSIS-UPPER;SECC E20/20 T1.2
H520	63322-0044-00	HOLDER-CASS ASSY;X3FL11120A
H530	62203-0027-00	CHASSIS SIDE "L"ASS'Y;X3FL02020A
H531	62203-0028-00	CHASSIS SIDE "L" OUTSERT;SECC T1.2+LUCEL/KEPITAL
H532	61533-0043-00	LEVER DOOR;LUCEL-N109-LD/KEPITAL F20-03
H540	62203-0025-00	CHASSIS SIDE "R" ASS'Y;X3FL08080A
H541	62203-0026-01	CHASSIS SIDE "R";SECC T1.2 LVCEL
H542	61474-0080-00	GEAR RACK ASSY;SECC T1.6+SWPB
H543	61473-0064-01	GEAR-JOINT;LUCEL MR-320/KT-20
H544	62724-0067-00	SPRING LEVER DAMPER;SUS304 WPB
H545	61533-0042-00	LEVER DAMPER;LUCEL N109-LD/KEPITAL F20-03
H546	62724-0112-00	SPRING-GEAR RACK;ES SWPB PI0.5 D3.5
H550	61043-0025-00	SHAFT ARM ASSY;X3FL05050A

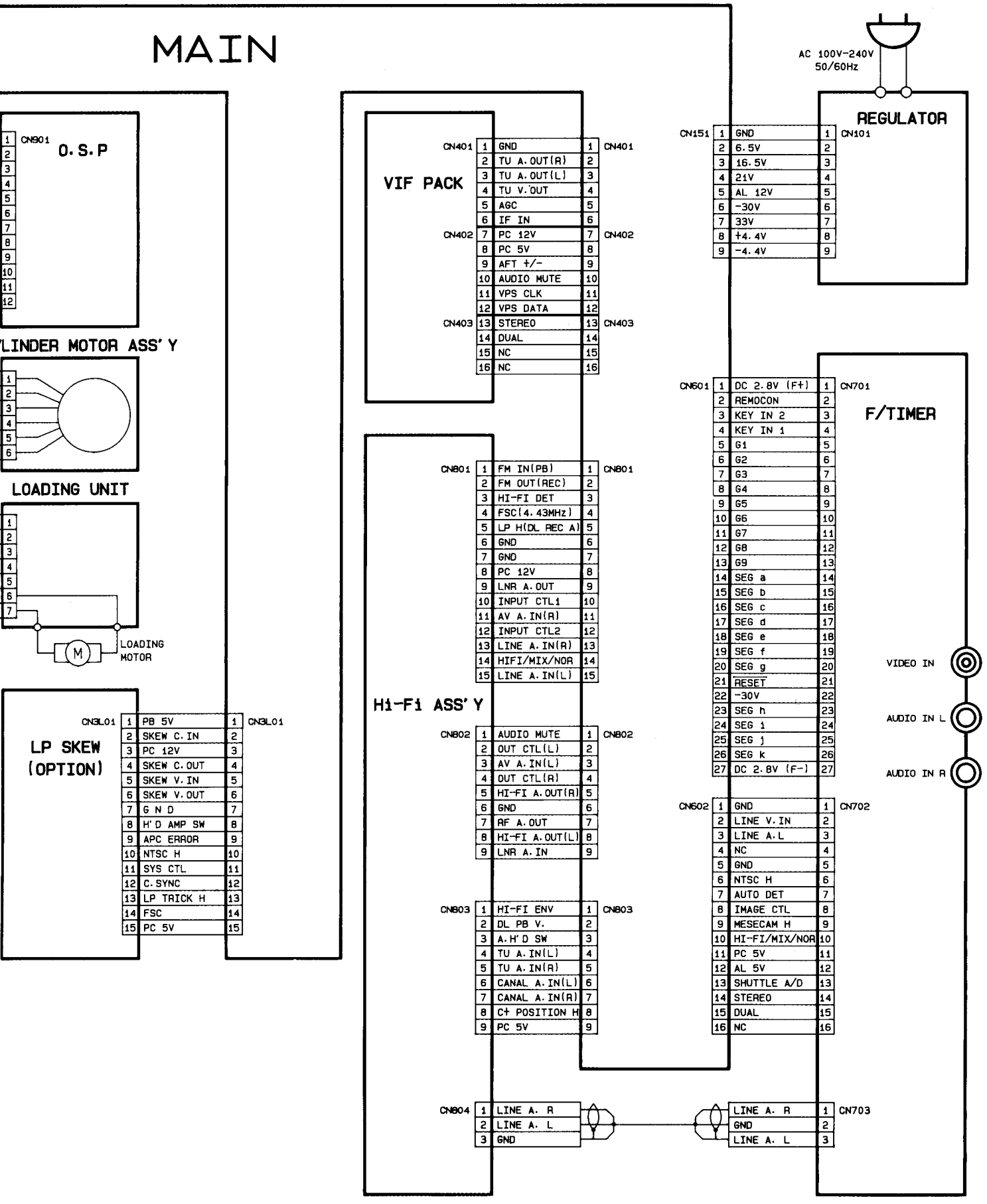
7. BLOCK DIAGRAMS

		Page
7-1.	Total Wiring Diagram	7-2
7-2.	Cylinder Phase Control	7-3
7-3.	Cylinder Speed Control	7-3
7-4.	Capstan Phase Control	7-4
7-5.	Capstan Speed Control	7-4
7-6.	Linear Audio Playback Process	7-5
7-7.	Linear Audio Record Process	7-5
7-8.	Hi-Fi Audio Playback Process	7-6
7-9.	Hi-Fi Audio Record Process	7-7
7-10.	Luminance Playback Process	7-8
7-11.	Luminance Record Process	7-9
7-12.	Chrominance Playback Process	7-10
7-13.	Chrominance Record Process	7-11

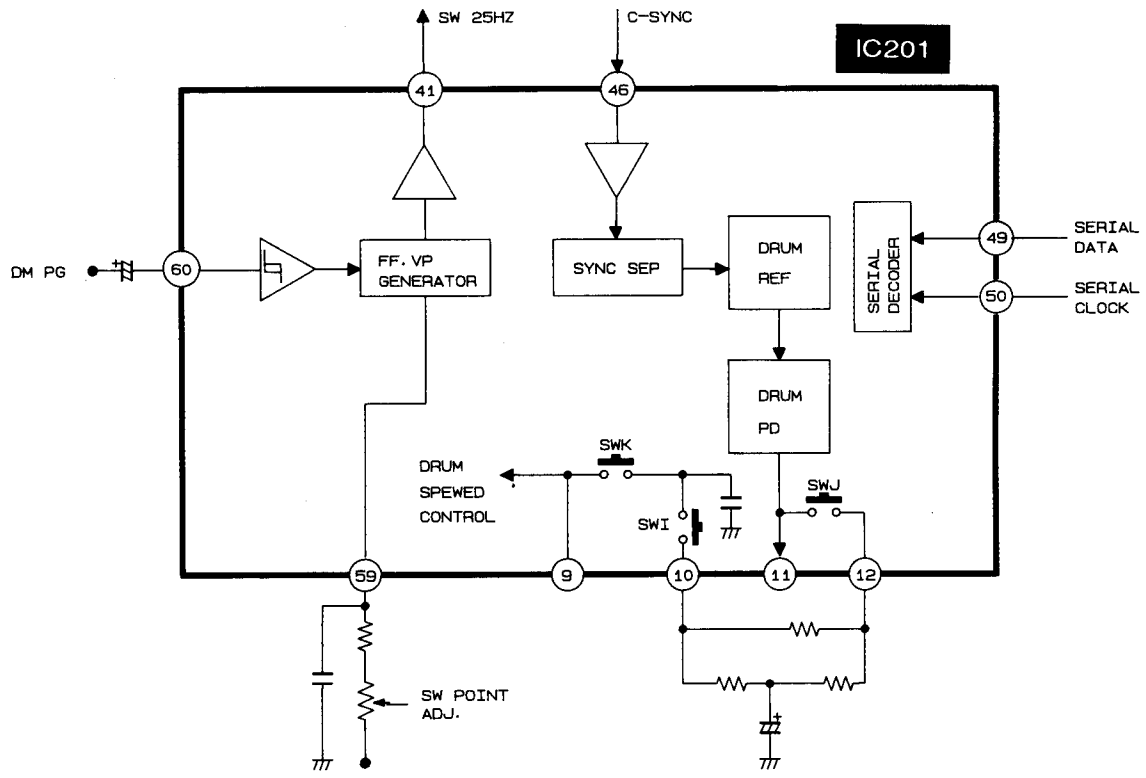
7-1. Total Wiring Diagram



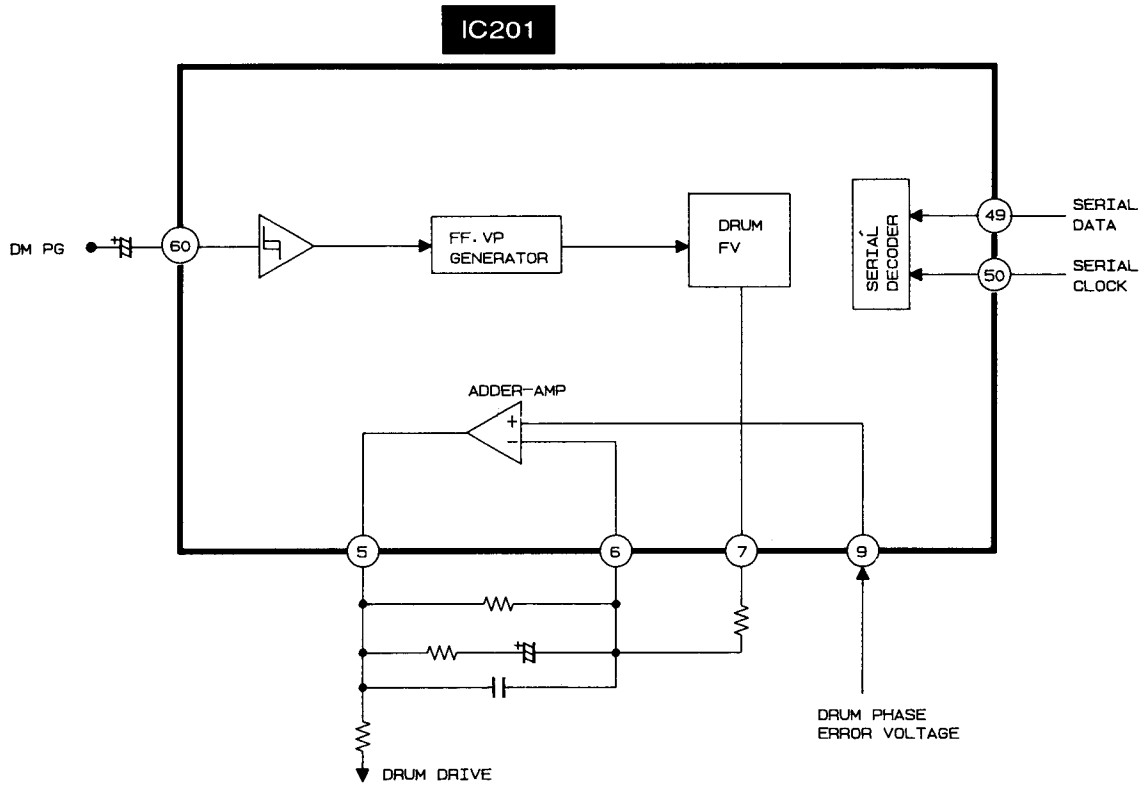
MAIN


AC 100V-240V
50/60Hz
REGULATOR
CN151 1 GND 1 CN101
2 6.5V 2
3 16.5V 3
4 21V 4
5 AL 12V 5
6 -30V 6
7 33V 7
8 +4.4V 8
9 -4.4V 9
CN901
O.S.P
CYLINDER MOTOR ASS'Y
LOADING UNIT
LOADING MOTOR
VIF PACK
CN401 1 GND 1 CN401
2 TU A.OUT(R) 2
3 TU A.OUT(L) 3
4 TU V.OUT 4
5 AGC 5
6 IF IN 6
CN402 7 PC 12V 7 CN402
8 PC 5V 8
9 AFT +/- 9
10 AUDIO MUTE 10
11 VPS CLK 11
12 VPS DATA 12
CN403 13 STEREO 13 CN403
14 DUAL 14
15 NC 15
16 NC 16
CN601 1 DC 2.8V (F+) 1 CN701
2 REMOCON 2
3 KEY IN 2 3
4 KEY IN 1 4
5 G1 5
6 G2 6
7 G3 7
8 G4 8
9 G5 9
10 G6 10
11 G7 11
12 G8 12
13 G9 13
14 SEG a 14
15 SEG b 15
16 SEG c 16
17 SEG d 17
18 SEG e 18
19 SEG f 19
20 SEG g 20
21 RESET 21
22 -30V 22
23 SEG h 23
24 SEG i 24
25 SEG j 25
26 SEG k 26
27 DC 2.8V (F-) 27
F/TIMER
VIDEO IN
AUDIO IN L
AUDIO IN R
CN602 1 GND 1 CN702
2 LINE V.IN 2
3 LINE A.L 3
4 NC 4
5 GND 5
6 NTSC H 6
7 AUTO DET 7
8 IMAGE CTL 8
9 MESECAM H 9
10 HI-FI/MIX/NOR 10
11 PC 5V 11
12 AL 5V 12
13 SHUTTLE A/D 13
14 STEREO 14
15 DUAL 15
16 NC 16
CN801 1 FM IN(PB) 1 CN801
2 FM OUT(REC) 2
3 HI-FI DET 3
4 FSC(4.43MHz) 4
5 LP H(DL REC A) 5
6 GND 6
7 GND 7
8 PC 12V 8
9 LNR A.OUT 9
10 INPUT CTL1 10
11 AV A.IN(R) 11
12 INPUT CTL2 12
13 LINE A.IN(R) 13
14 HIFI/MIX/NOR 14
15 LINE A.IN(L) 15
Hi-Fi ASS'Y
CN802 1 AUDIO MUTE 1 CN802
2 OUT CTL(L) 2
3 AV A.IN(L) 3
4 OUT CTL(R) 4
5 HI-FI A.OUT(R) 5
6 GND 6
7 RF A.OUT 7
8 HI-FI A.OUT(L) 8
9 LNR A.IN 9
CN803 1 HI-FI ENV 1 CN803
2 DL PB V. 2
3 A.H'D SW 3
4 TU A.IN(L) 4
5 TU A.IN(R) 5
6 CANAL A.IN(L) 6
7 CANAL A.IN(R) 7
8 C+ POSITION H 8
9 PC 5V 9
CN804 1 LINE A. R
2 LINE A. L
3 GND
LINE A. R 1 CN703
GND 2
LINE A. L 3
CN3L01 1 PB 5V 1 CN3L01
2 SKEW C.IN 2
3 PC 12V 3
4 SKEW C.OUT 4
5 SKEW V.IN 5
6 SKEW V.OUT 6
7 G N D 7
8 H'D AMP SW 8
9 APC ERROR 9
10 NTSC H 10
11 SYS CTL 11
12 C.SYNC 12
13 LP TRICK H 13
14 FSC 14
15 PC 5V 15
LP SKEW
(OPTION)

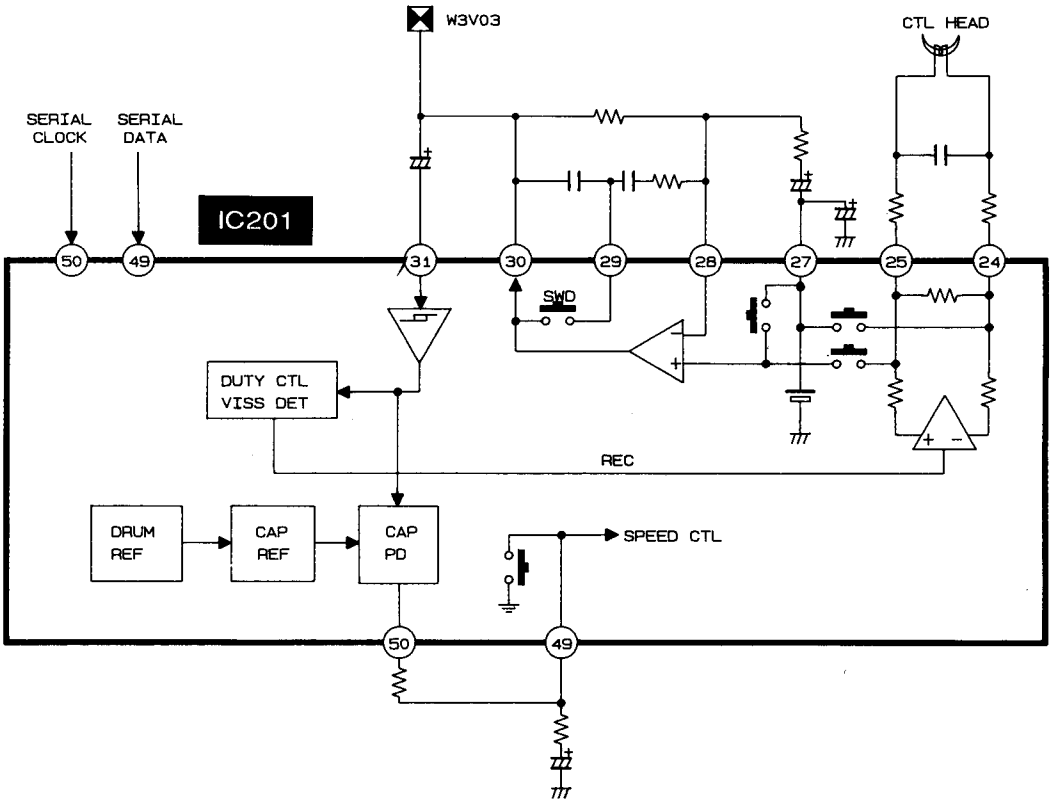
7-2. Cylinder Phase Control



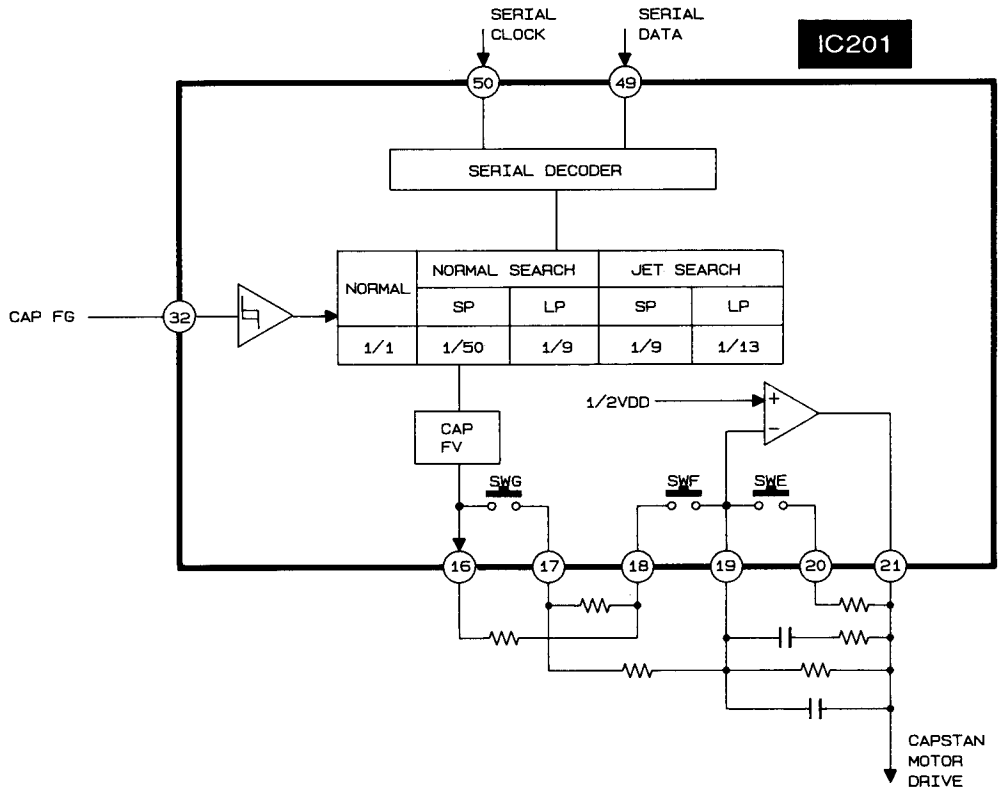
7-3. Cylinder Speed Control



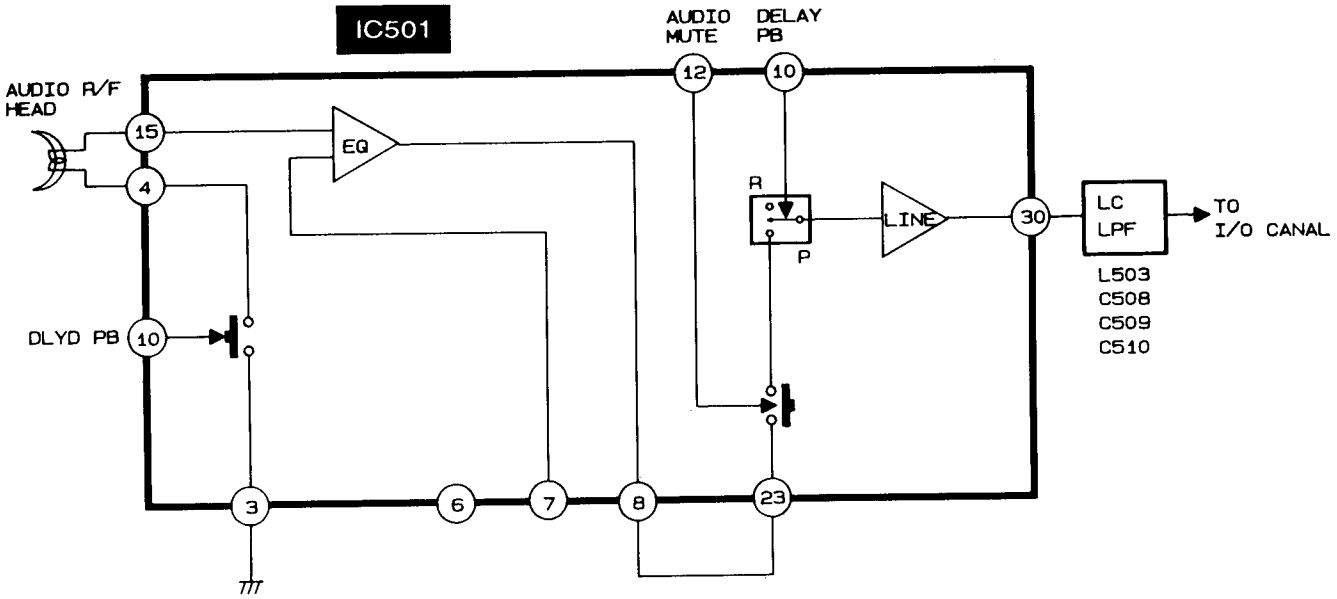
7-4. Capstan Phase Control



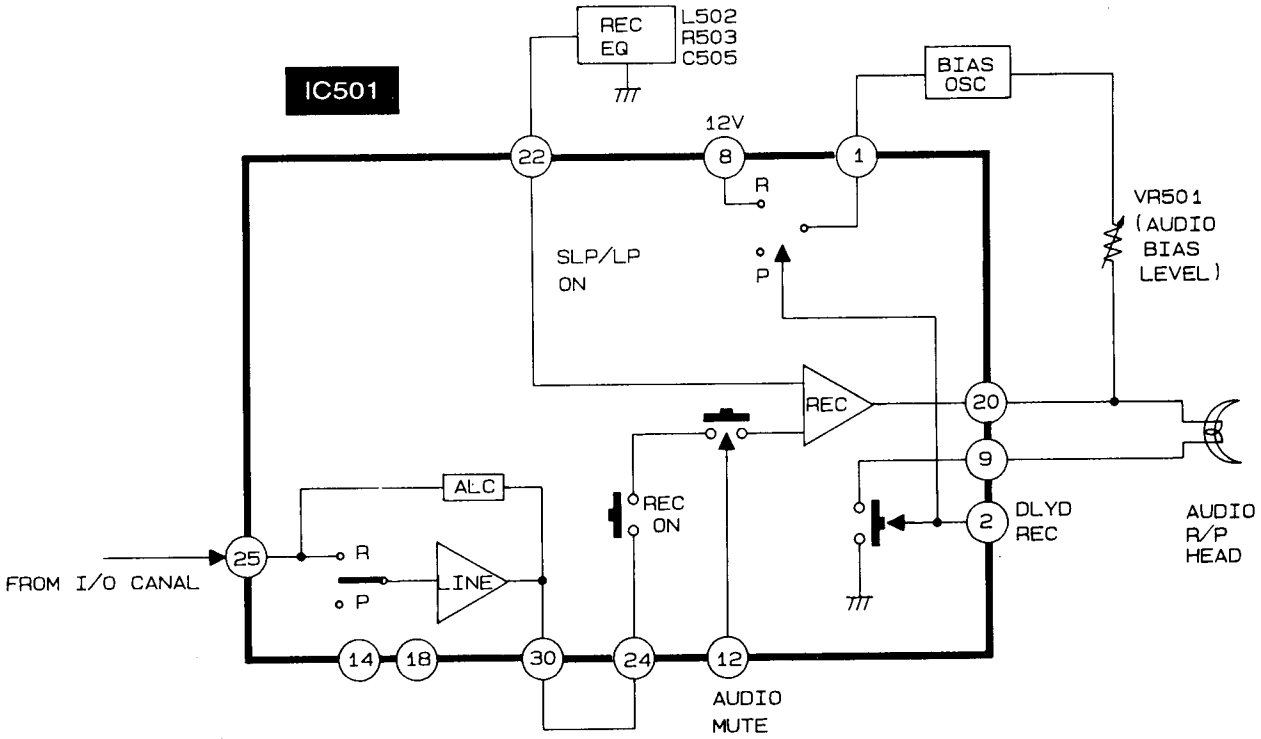
7-5. Capstan Speed Control



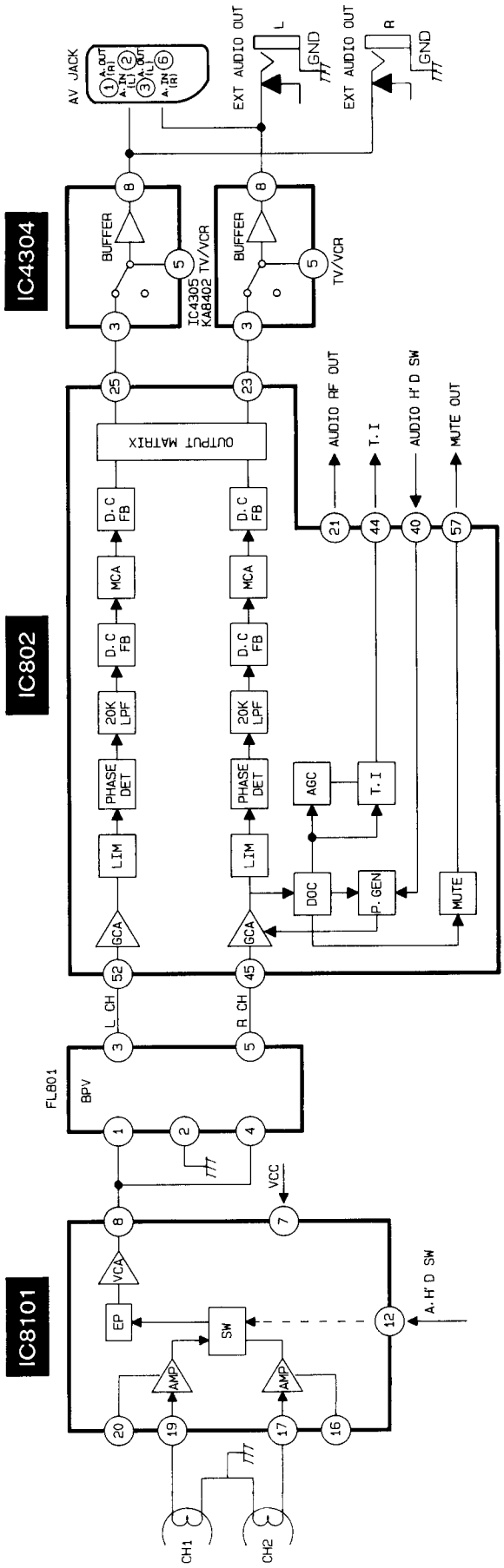
7-6. Linear Audio Playback Process



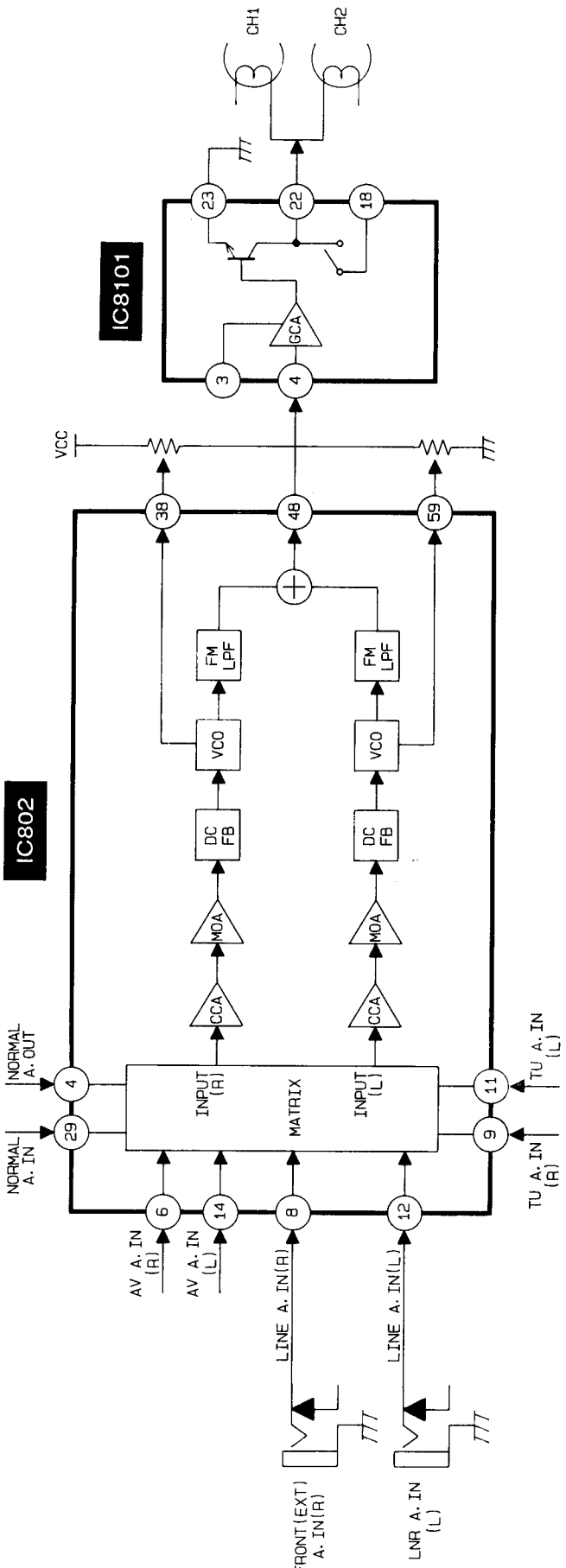
7-7. Linear Audio Record Process



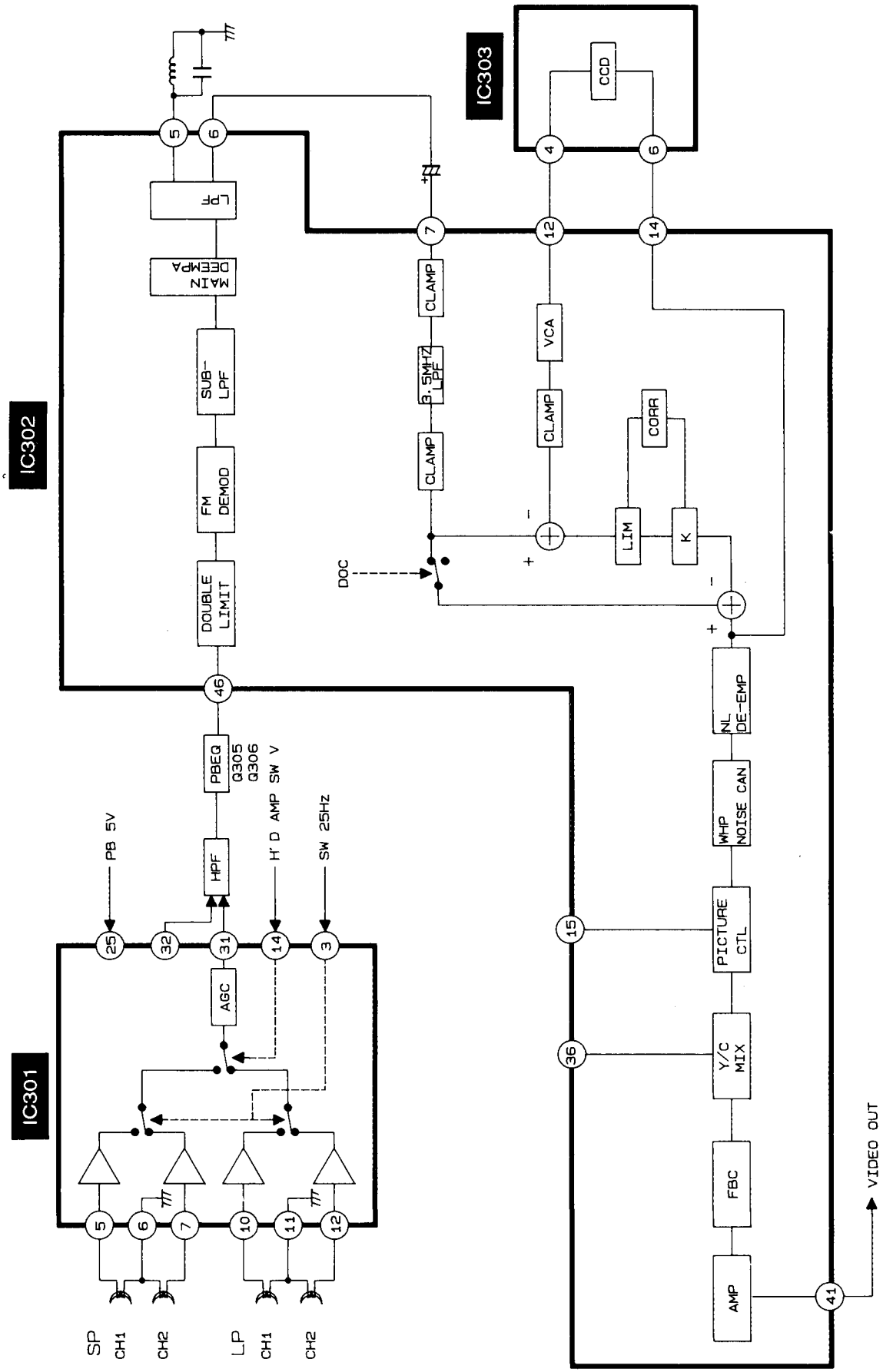
7-8. Hi-Fi Audio Playback Process



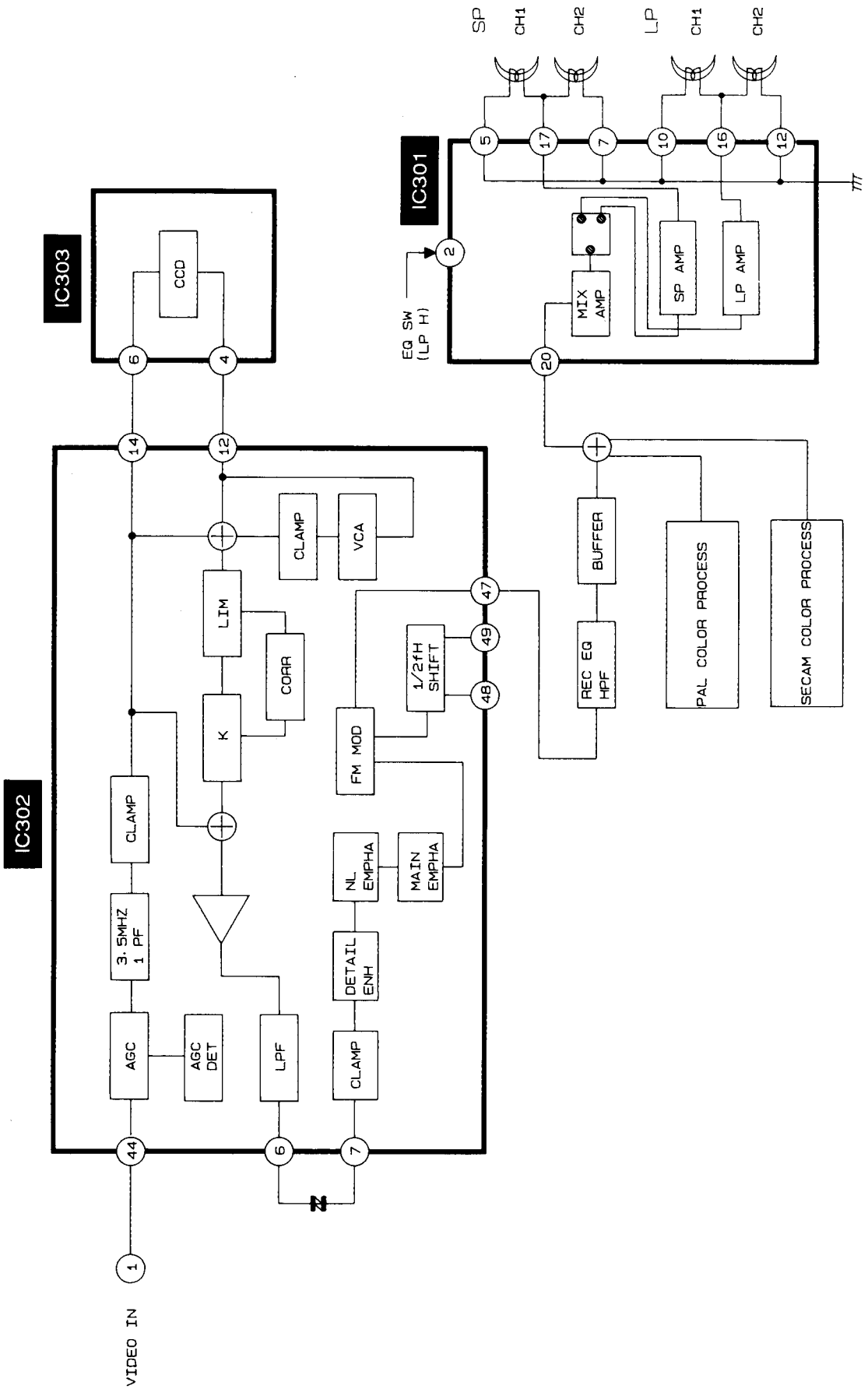
7-9. Hi-Fi Audio Record Process



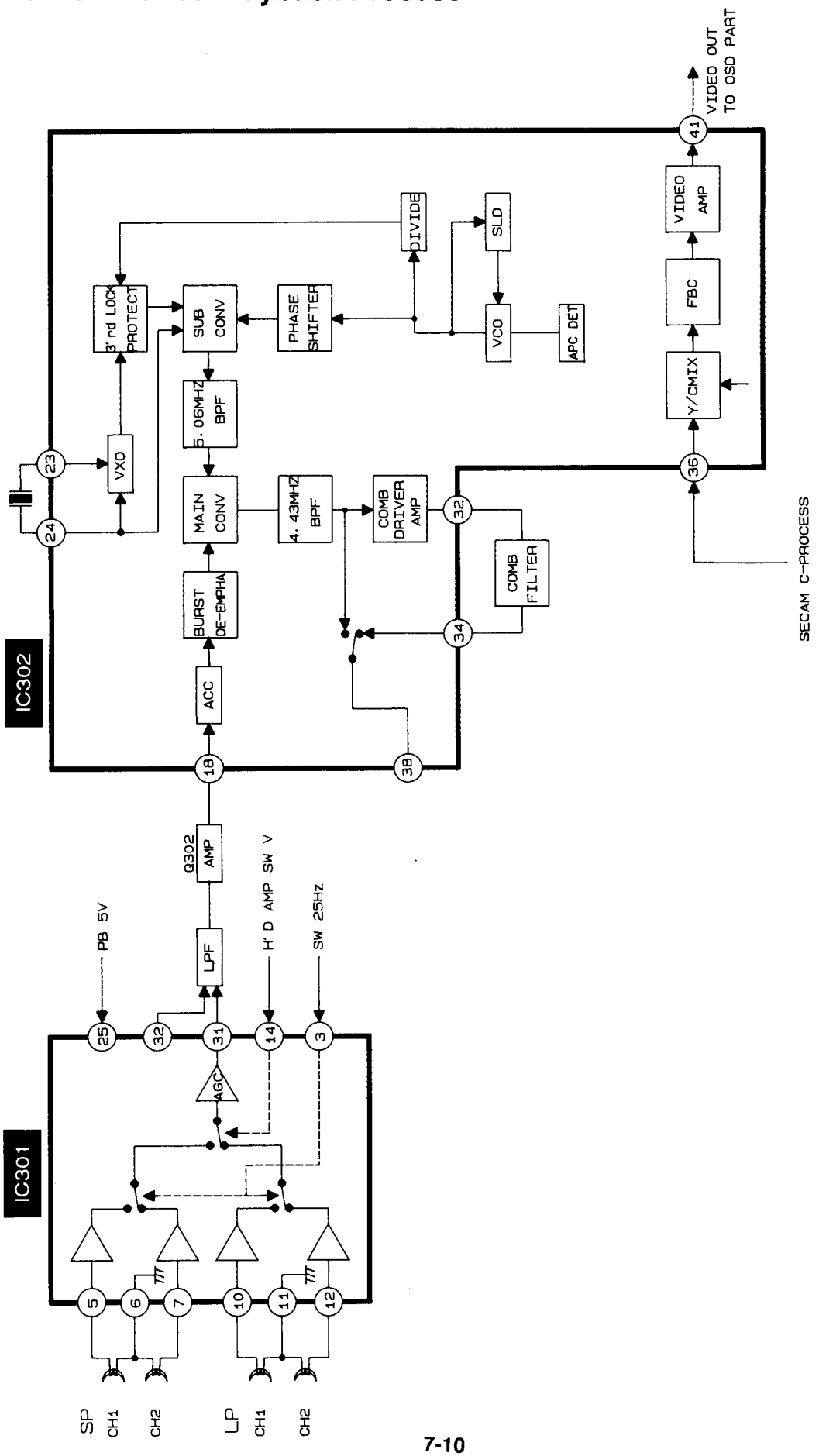
7-10. Luminance Playback Process



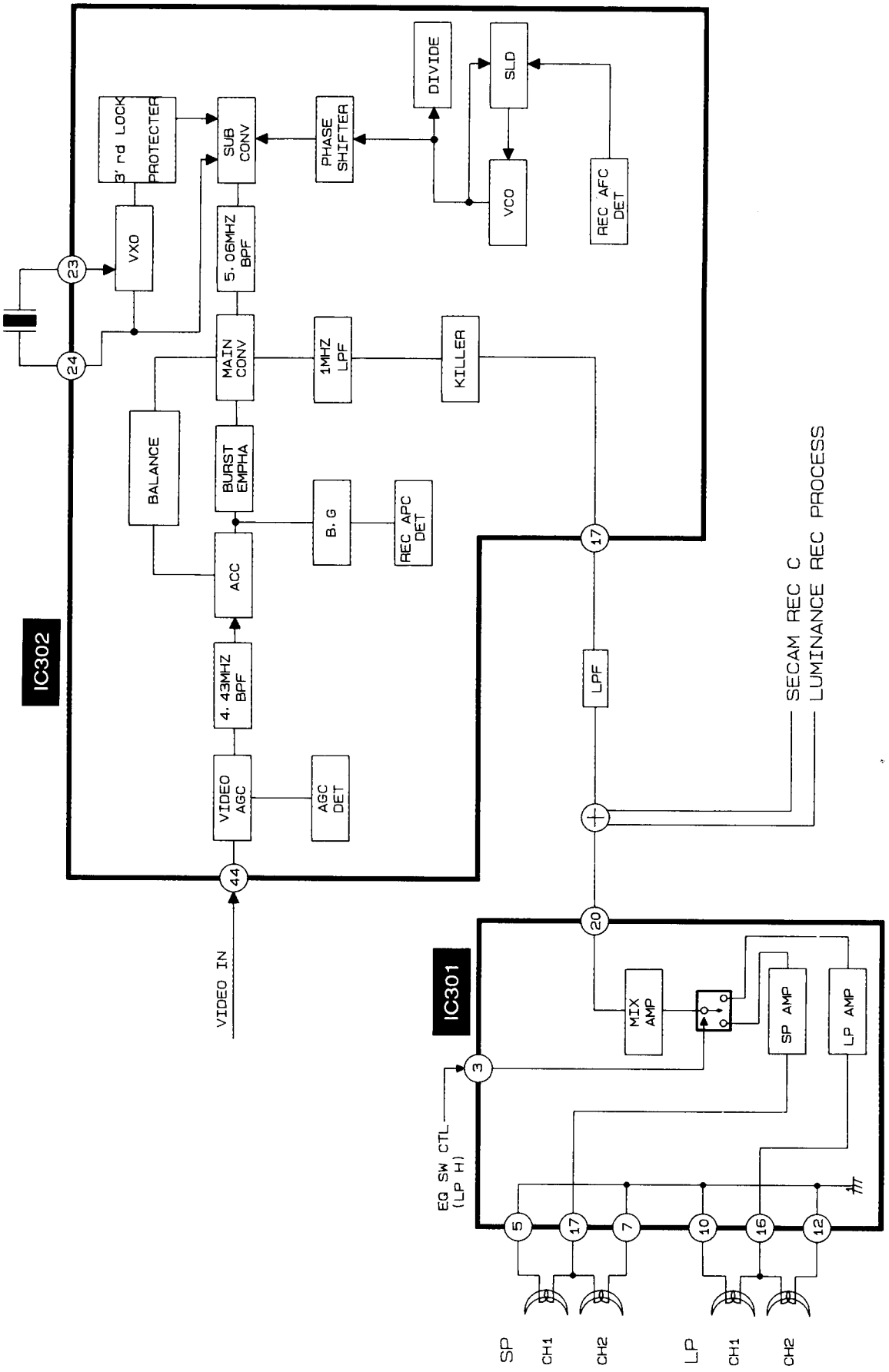
7-11. Luminance Record Process



7-12. Chrominance Playback Process



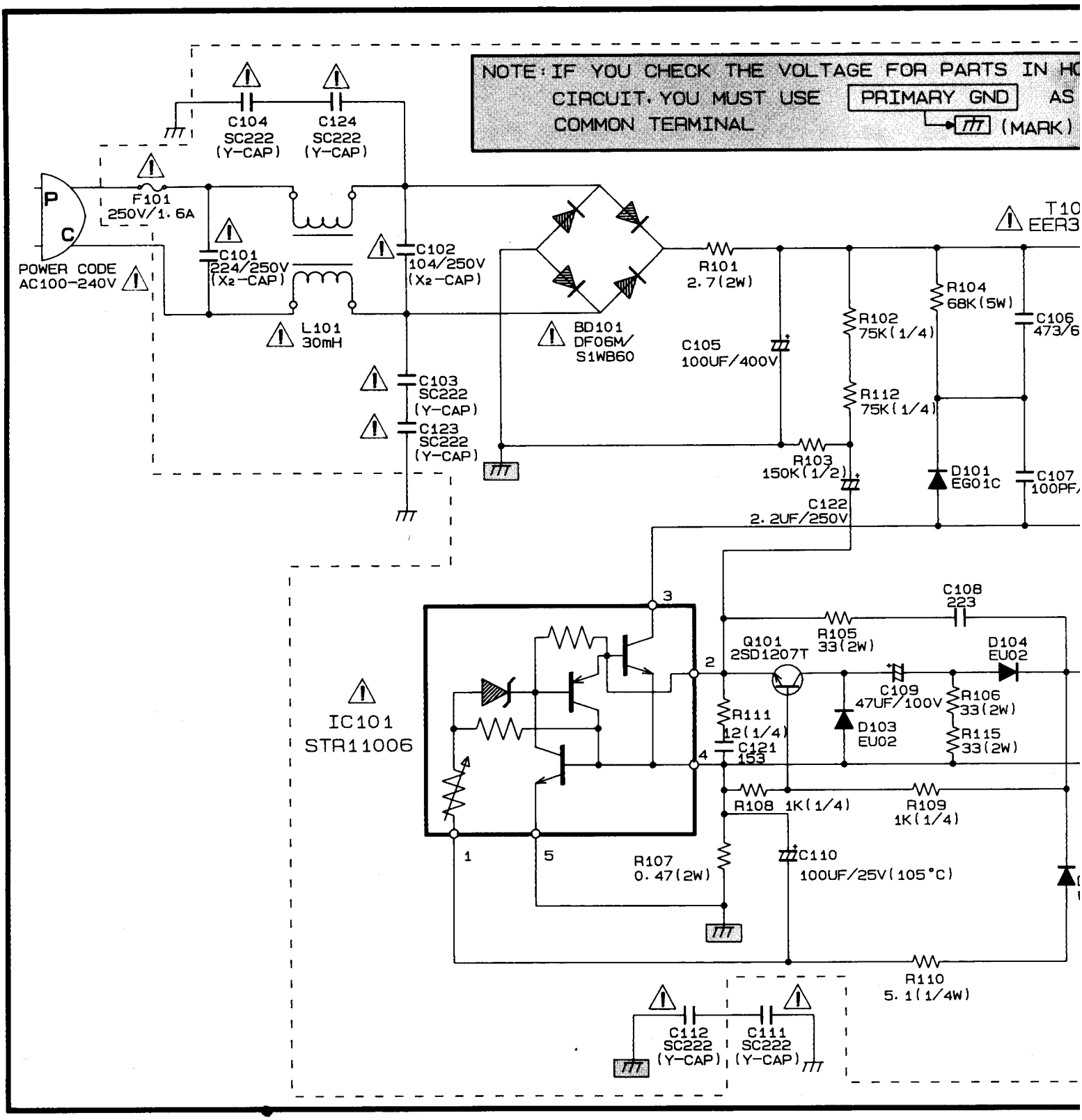
7-13. Chrominance Record Process



9. SCHEMATIC DIAGRAMS

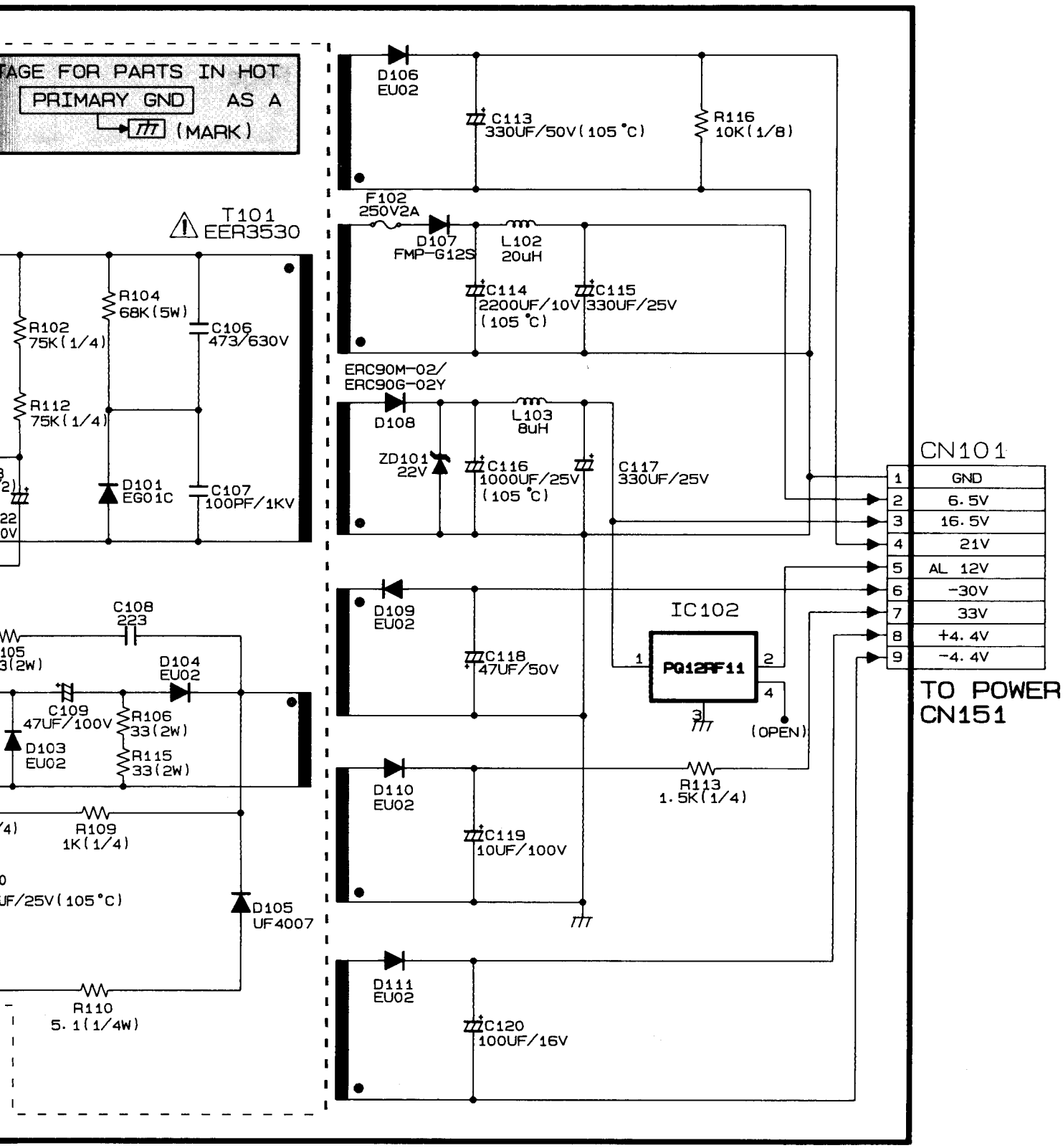
		Page
9-1.	Regulator	9-2
9-2.	Power	9-3
9-3.	System Control	9-4
9-4.	Servo	9-6
9-5.	Y/C - 1 (Pre-Amp)	9-8
9-6.	Y/C - 2	9-10
9-7.	Hi-Fi Audio	9-12
9-8.	Linear Audio	9-14
9-9.	Tuner	9-16
9-10.	VIF-PACK/VPS	9-17
9-11.	I/O (SUB PCB)	9-18
9-12.	I/O (MAIN PCB)	9-19
9-13.	O.S.P	9-20
9-14.	Function/Timer	9-22
9-15.	Remote Control	9-23

9-1. Regulator



SPECIAL NOTE
All integrated circuits and many ot devices are electrostatically sensiti quire the special handling techniqu the "electrostatically sensitive (ES) this service manual.

REGULATOR

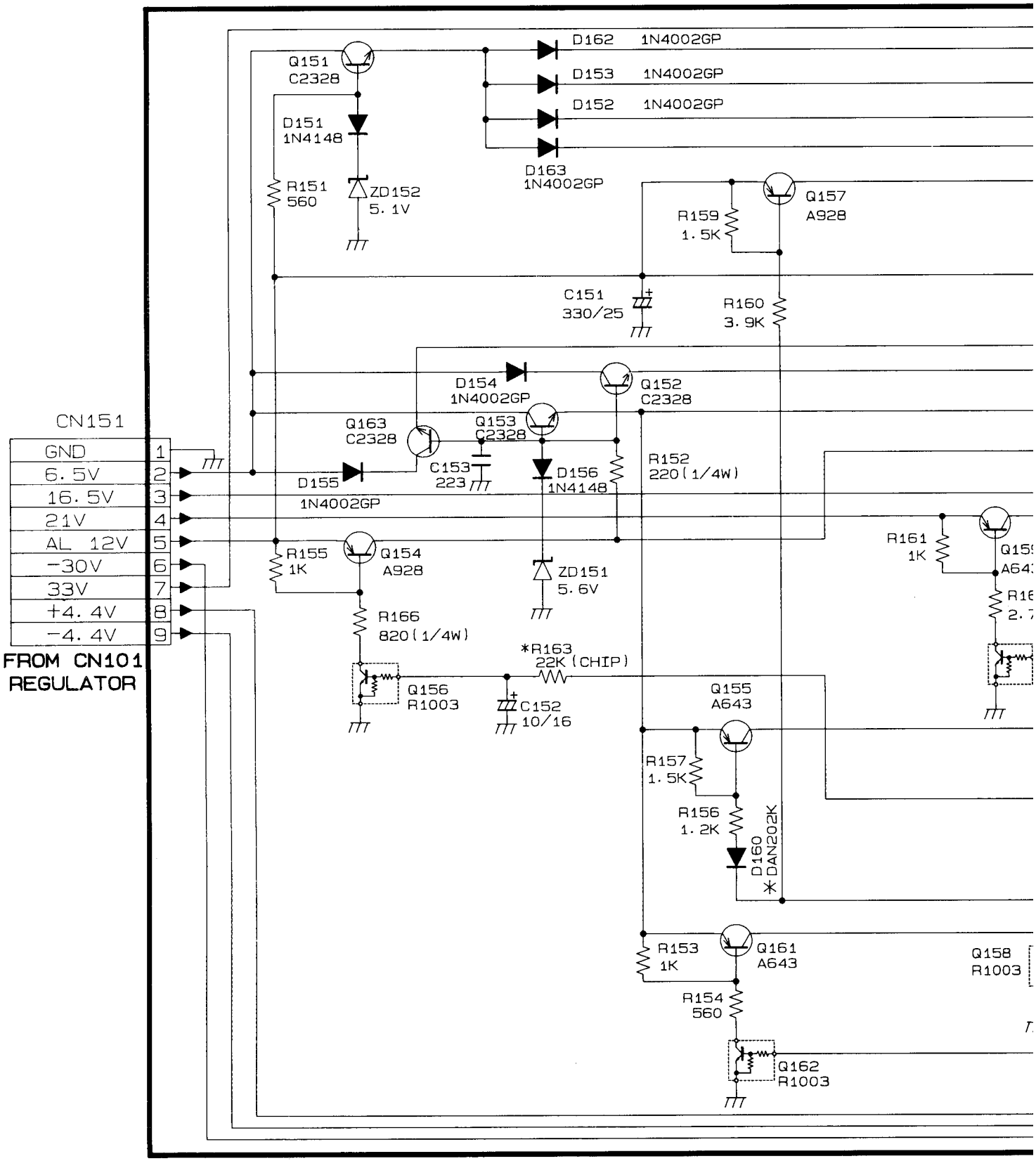


SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

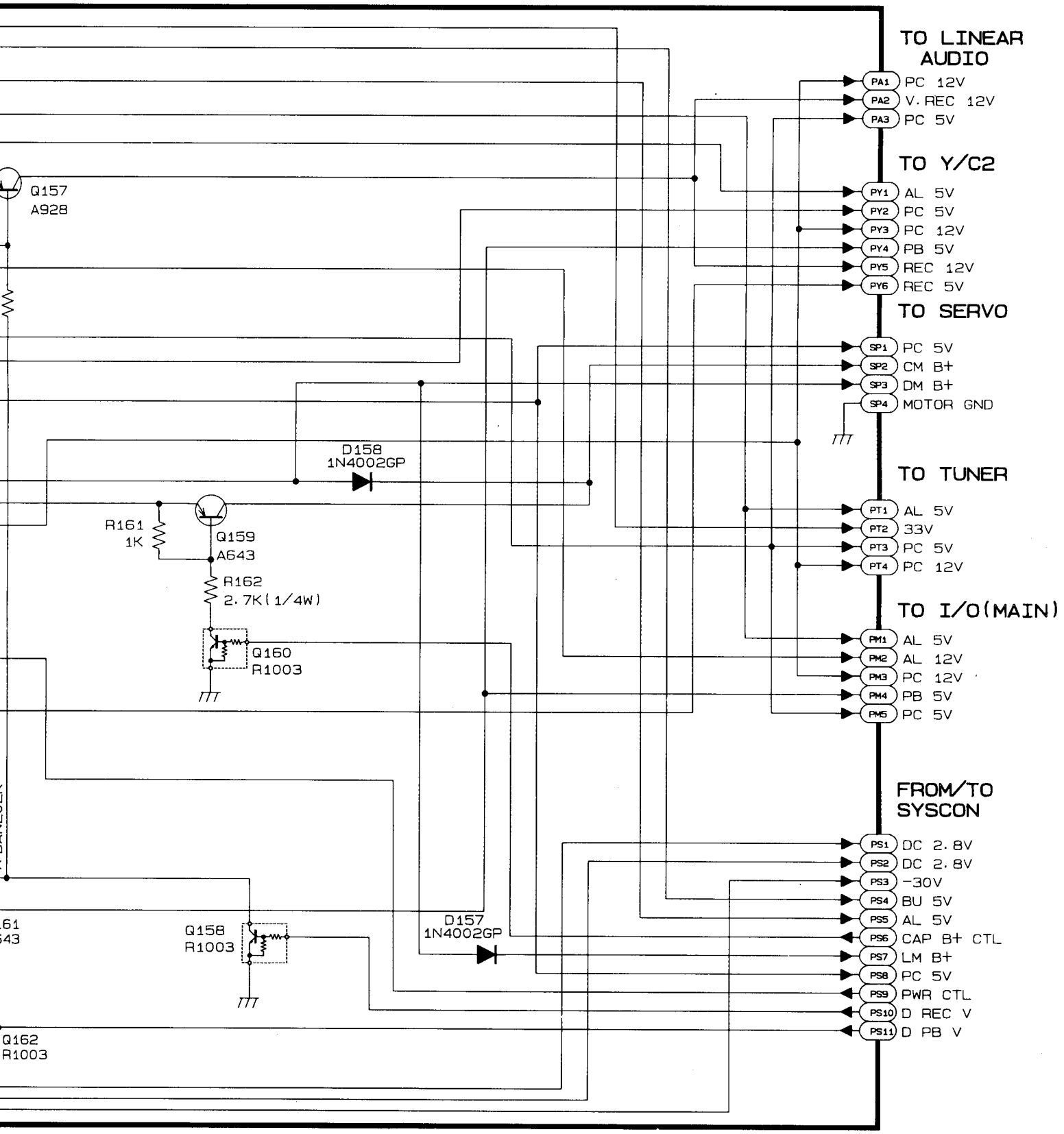
NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slighly different or amended since this drawing was prepared.

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.

9-2. Power


CN151
GND 1
6.5V 2
16.5V 3
21V 4
AL 12V 5
-30V 6
33V 7
+4.4V 8
-4.4V 9
FROM CN101 REGULATOR
Q151 C2328
D151 1N4148
R151 560
ZD152 5.1V
D162 1N4002GP
D153 1N4002GP
D152 1N4002GP
D163 1N4002GP
R159 1.5K
Q157 A928
C151 330/25
R160 3.9K
D154 1N4002GP
Q152 C2328
Q163 C2328
Q153 C2328
C153 223
D155 1N4002GP
D156 1N4148
R152 220(1/4W)
R155 1K
Q154 A928
ZD151 5.6V
R166 820(1/4W)
*R163 22K(CHIP)
Q156 R1003
C152 10/16
Q155 A643
R157 1.5K
R156 1.2K
D160 *DAN202K
R153 1K
Q161 A643
R154 560
Q162 R1003
R161 1K
Q158 R1003

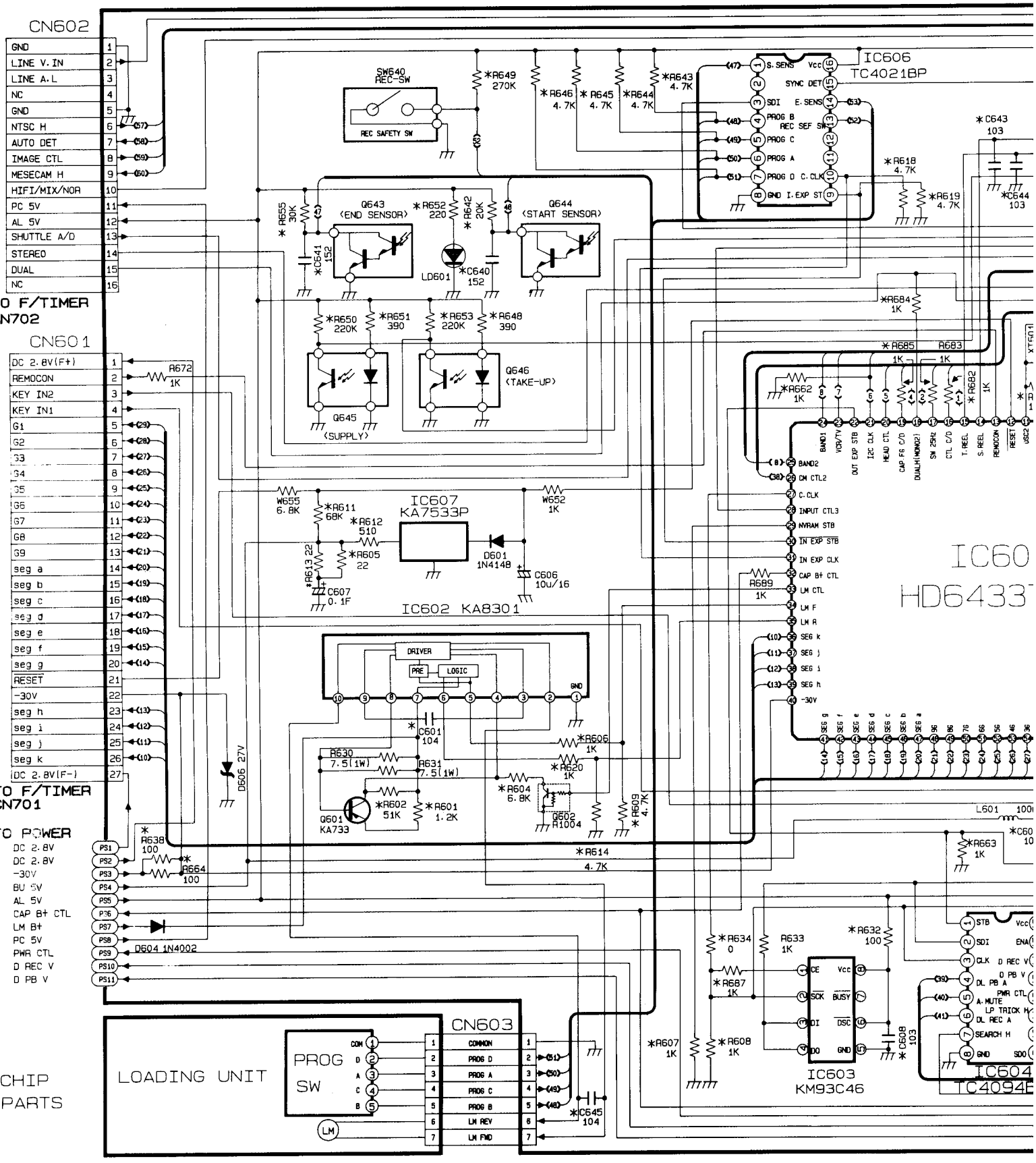
POWER

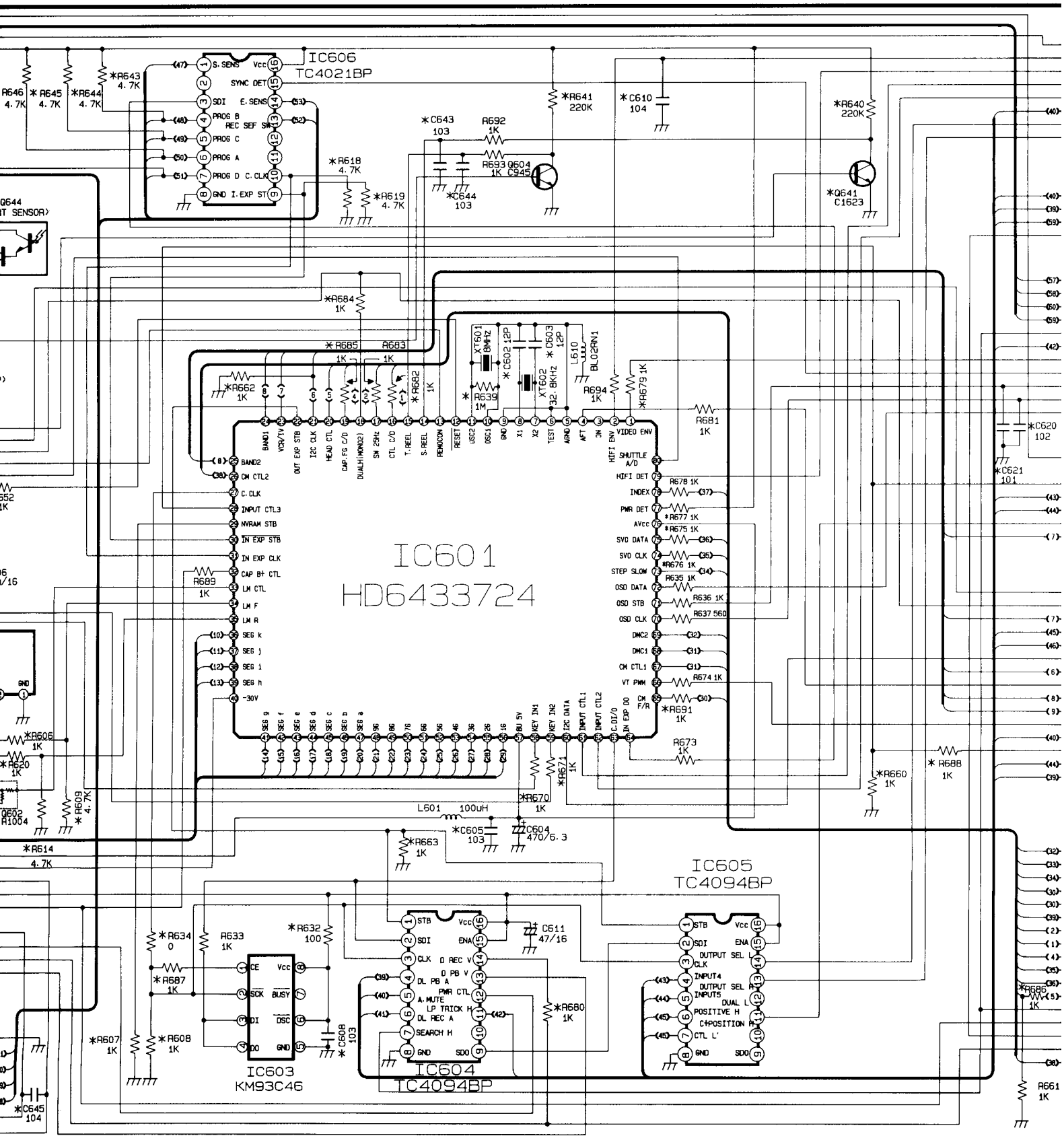


SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

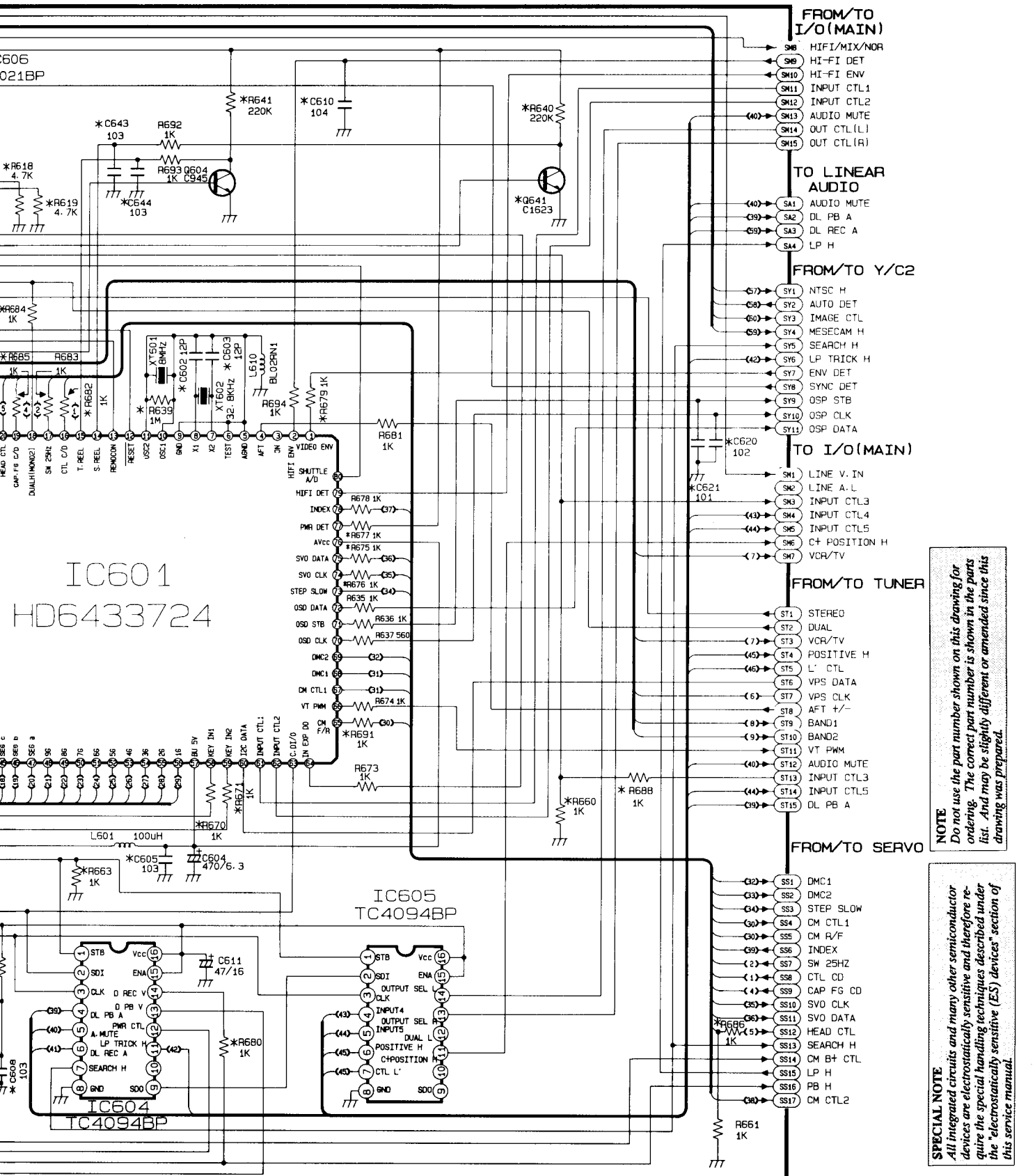
NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

9-3. System Control




IC606
TC4021BP
IC601
HD6433724
IC603
KM93C46
IC604
TC4094BP
IC605
TC4094BP
XT601
8MHz
XT602
32.8KHz
L610
BL02RN1
L501
100uH
Q604
C945
Q641
C1623
Q644
T SENSOR)
R646
4.7K
R645
4.7K
R644
4.7K
R643
4.7K
R618
4.7K
R619
4.7K
R641
220K
R640
220K
C610
104
C643
103
R692
1K
R693
1K
C644
103
R684
1K
R685
1K
R683
1K
R662
1K
R682
1K
C602
12P
C603
12P
R639
1M
R694
1K
R679
1K
R681
1K
C620
102
C621
101
R689
1K
R606
1K
R620
1K
R609
4.7K
R614
4.7K
R634
0
R633
1K
R632
100
R687
1K
R607
1K
R608
1K
C608
103
C611
47/16
R680
1K
R660
1K
R688
1K
R686
1K
R661
1K
R673
1K
R671
1K
R670
1K
R663
1K
C605
103
C604
470/6.3
C645
104
R691
1K
R674
1K
R676
1K
R675
1K
R677
1K
R678
1K
R635
1K
R636
1K
R637
560
BAND1
VCR/TV
OUT EXP STB
I2C CLK
HEAD CTL
CAP.FG C/D
DUAL(MONO2)
SW 25Hz
CTL C/D
T.REEL
S.REEL
REMOCON
RESET
OSC2
OSC1
GND
X1
X2
TEST
AGND
AFT
IN
HIFI ENV
VIDEO ENV
SHUTTLE A/D
HIFI DET
INDEX
PWR DET
AVcc
SVD DATA
SVD CLK
STEP SLOW
OSD DATA
OSD STB
OSD CLK
DMC2
DMC1
CM CTL1
VT PWM
CM F/R
BAND2
CM CTL2
C.CLK
INPUT CTL3
NVRAM STB
IN EXP STB
IN EXP CLK
CAP B+ CTL
LM CTL
LM F
LM R
SEG k
SEG j
SEG i
SEG h
-30V
SEG g
SEG f
SEG e
SEG d
SEG c
SEG b
SEG a
G6
G5
G4
G3
G2
G1
BU 5V
KEY IN1
KEY IN2
I2C DATA
INPUT CTL1
INPUT CTL2
I.DI/O
IN EXP DO
S.SENS
SYNC DET
E.SENS
PROG B
REC SEF SW
PROG C
PROG A
PROG D
C.CLK
GND
I.EXP ST
Vcc
STB
SDI
CLK
ENA
D REC V
D PB V
DL PB A
PWR CTL
A.MUTE
LP TRICK H
DL REC A
SEARCH H
SDO
OUTPUT SEL L
INPUT4
OUTPUT SEL H
INPUT5
DUAL L
POSITIVE H
POSITION H
CTL L
CE
SCK
DI
DO
BUSY
DSC

SYSTEM CONTROL



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

SPECIAL NOTE
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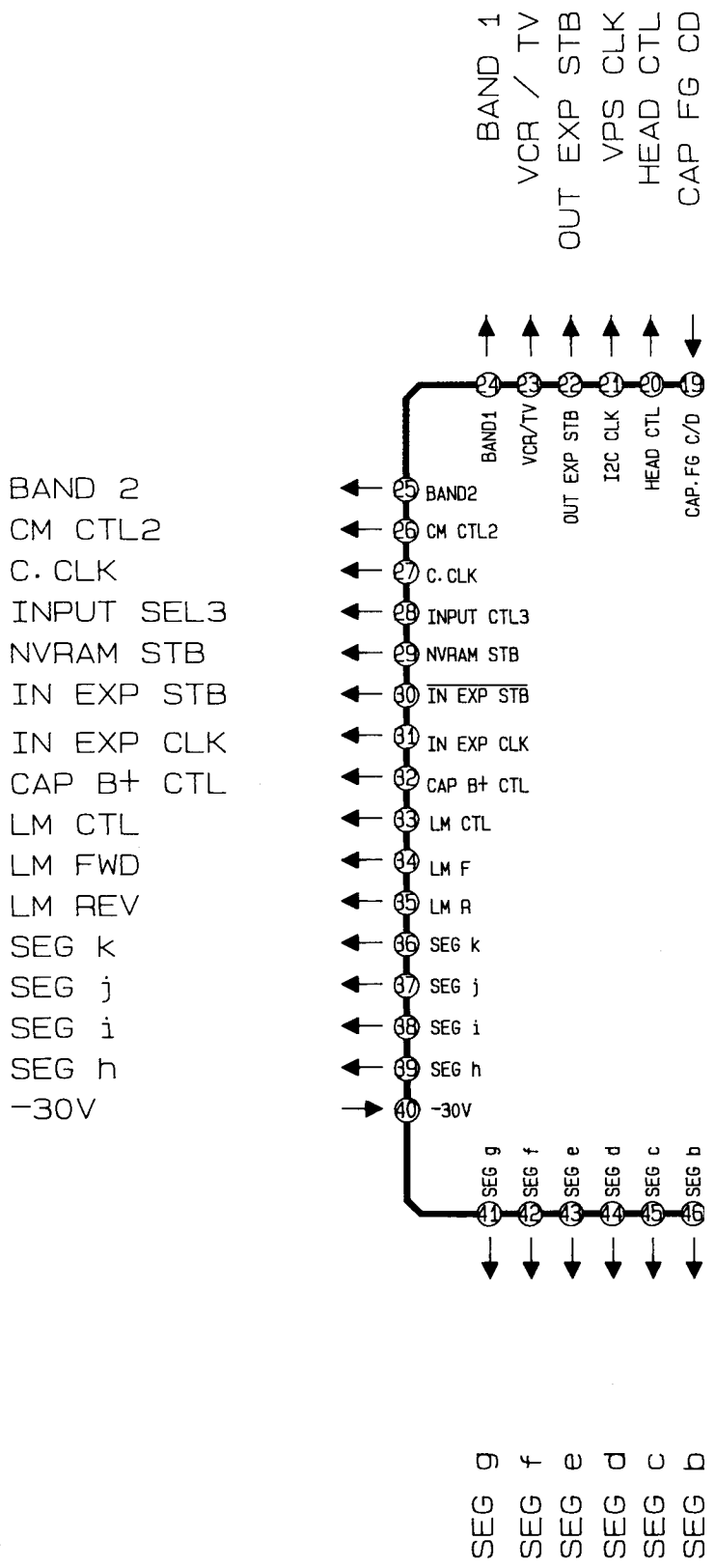
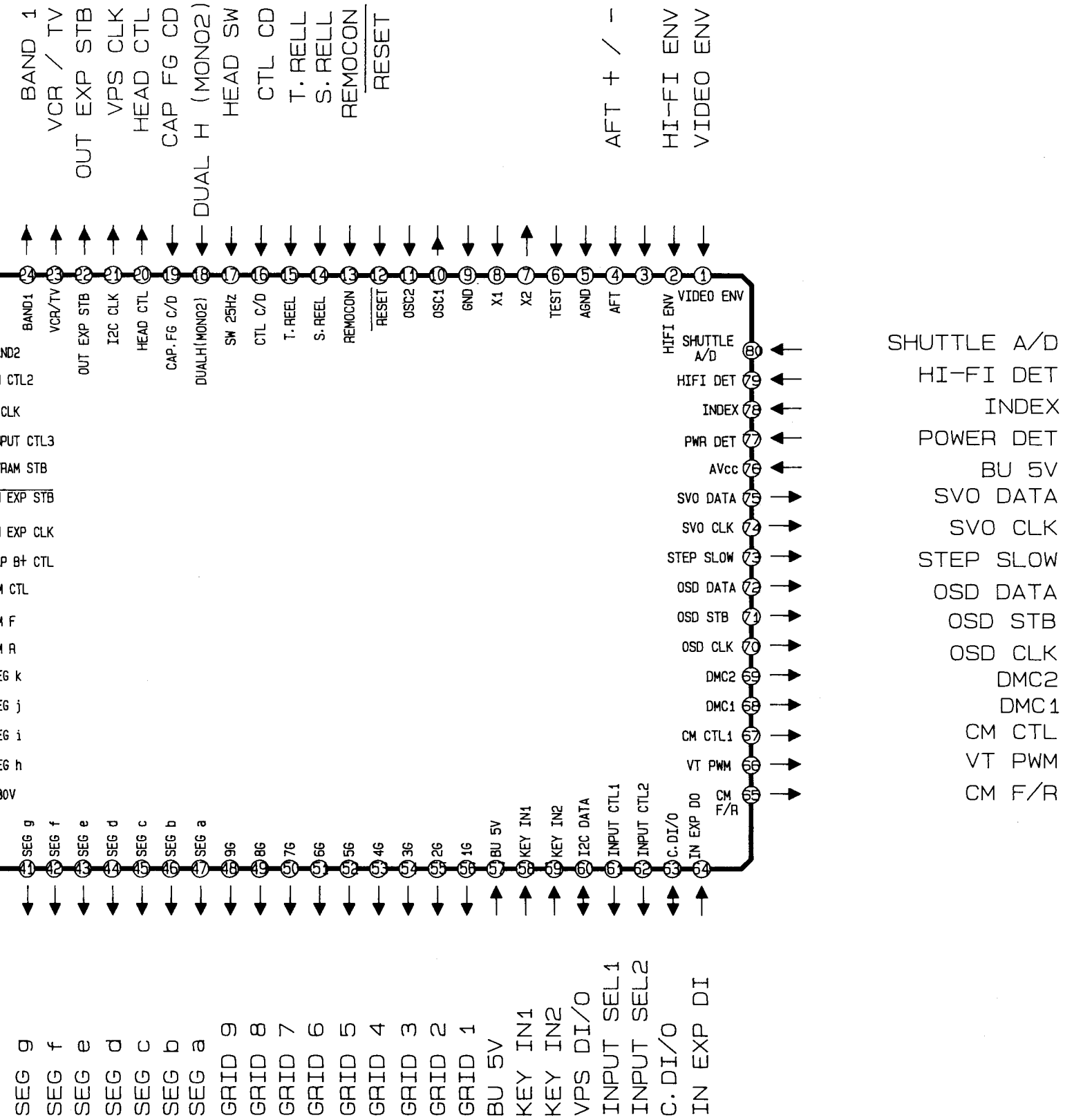
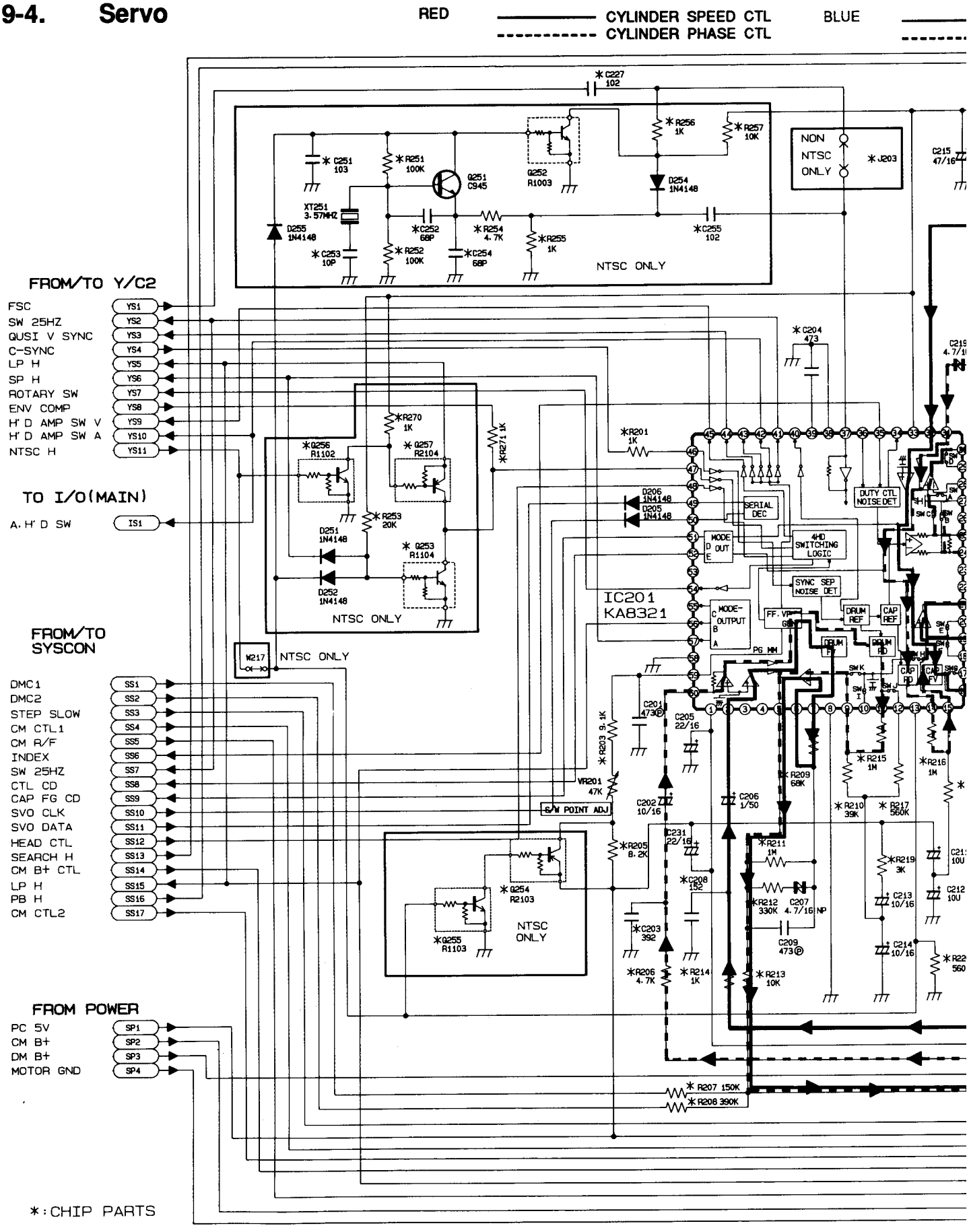
IC601							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	0	0	1.1~3.8	41	-28	-28	-28
2	-	-	-	42	-28	-28	-28
3	0	0	0	43	-28	-28	-28
4	0~4.8	0~4.8	0~4.8	44	-28	-28	-28
5	0	0	0	45	-28	-28	-28
6	0	0	0	46	-28	-28	-28
7	0.3~2.4	0~2.3	0~2.3	47	-28	-28	-28
8	0.8	0.8	0.8	48	-28	-28	-28
9	0	0	0	49	-28	-28	-28
10	0.4~4.4	0.4~4.4	0.4~4.4	50	-28	-28	-28
11	0~5.0	0~5.0	0~5.0	51	-28	-28	-28
12	5.0	5.0	5.0	52	-28	-28	-28
13	5.0	5.0	5.0	53	-28	-28	-28
14	0/4.9	0~4.9	0~4.9	54	-28	-28	-28
15	0/4.9	0~4.9	0~4.9	55	4.6~-28	4.6~-28	4.6~-28
16	0/5	5.0	0~5.0	56	4.7~-28	4.7~-28	4.7~-28
17	0.5	0~5.0	0~5.0	57	5.0	5.0	5.0
18	5.0	5.0	5.0	58	0/4.3	0/4.3	0/4.3
19	0/5	0~5.0	0~5.0	59	0/4.3	0/4.3	0/4.3
20	0.5	0.5	0.5	60	5.0	5.0	5.0
21	0	0	0	61	0/5	0/5	0/5
22	0~4.8	0~4.8	0~4.8	62	0/5	0/5	0/5
23	0.6/4.9	0.6/4.9	0.6/4.9	63	0~5.0	0~5.0	0~5.0
24	0/4.9	0/4.9	0/4.9	64	0~5.0	0~5.0	0~5.0
25	0/4.9	0/4.9	0/4.9	65	4.9	4.9	4.9
26	4.9	4.9	4.9	66	0~4.9	0~4.9	0~4.9
27	0~5.0	0~5.0	0~5.0	67	0.1	4.6	4.6
28	0/4.6	0/4.6	0/4.6	68	1.2	1.4	1.4
29	0	0	0	69	1.2	1.4	1.4
30	4.9~0	4.9~0	4.9~0	70	4.9~0	4.9~0	4.9~0
31	0/5.0	0/5.0	0/5.0	71	4.9~0	4.9~0	4.9~0
32	0	0	0	72	0~5.0	0~5.0	0~5.0
33	4.8	4.8	4.8	73	0	0	0
34	4.7	4.7	4.7	74	0~5.0	0~5.0	0~5.0
35	4.7	4.7	4.7	75	0~5.0	0~5.0	0~5.0
36	4.8/-28	4.8/-28	4.8/-28	76	5.0	5.0	5.0
37	4.8/-28	4.8/-28	4.8/-28	77	5.0	5.0	5.0
38	4.8/-28	4.8/-28	4.8/-28	78	5.0	5.0	5.0
39	4.8/-28	4.8/-28	4.8/-28	79	5.0	5.0	5.0
40	-28	-28	-28	80	2.5	2.5	2.5

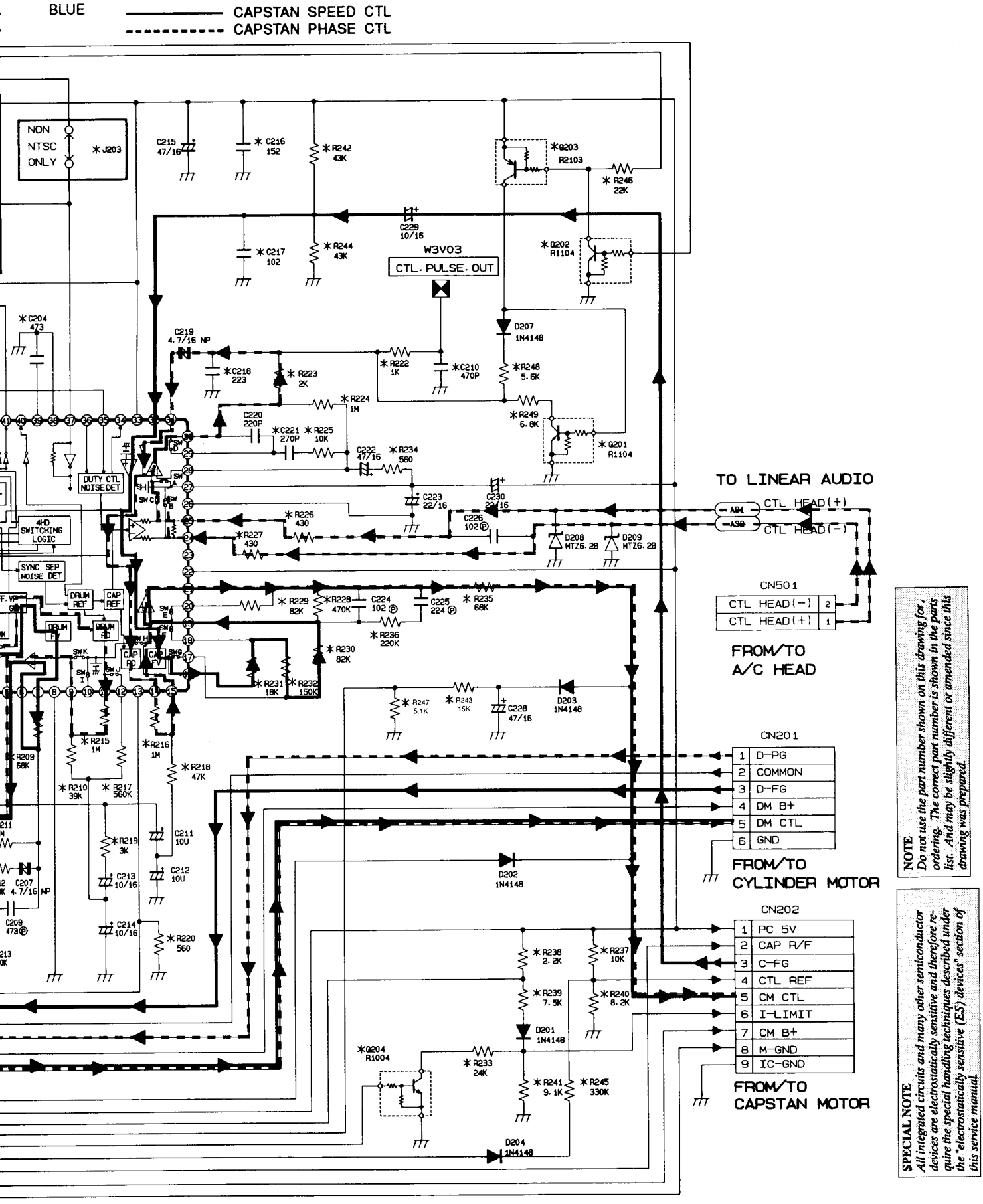


IC601 HD6433724



9-4. Servo


RED
CYLINDER SPEED CTL
CYLINDER PHASE CTL
BLUE
FROM/TO Y/C2
FSC
SW 25HZ
QUSI V SYNC
C-SYNC
LP H
SP H
ROTARY SW
ENV COMP
H' D AMP SW V
H' D AMP SW A
NTSC H
YS1
YS2
YS3
YS4
YS5
YS6
YS7
YS8
YS9
YS10
YS11
TO I/O(MAIN)
A. H' D SW
IS1
FROM/TO SYSCON
DMC1
DMC2
STEP SLOW
CM CTL1
CM R/F
INDEX
SW 25HZ
CTL CD
CAP FG CD
SVO CLK
SVO DATA
HEAD CTL
SEARCH H
CM B+ CTL
LP H
PB H
CM CTL2
SS1
SS2
SS3
SS4
SS5
SS6
SS7
SS8
SS9
SS10
SS11
SS12
SS13
SS14
SS15
SS16
SS17
FROM POWER
PC 5V
CM B+
DM B+
MOTOR GND
SP1
SP2
SP3
SP4
*: CHIP PARTS
NTSC ONLY
IC201
KA8321
NON NTSC ONLY
J203
W217
6/W POINT ADJ
VR201 47K
SERIAL DEC
MODE D OUT E
MODE-C OUTPUT B A
4HD SWITCHING LOGIC
SYNC SEP NOISE DET
DUTY CTL NOISE DET
DRUM REF
CAP REF
DRUM FG
DRUM PG
CAP FG
CAP PG
PG MM
C227 102
C251 103
C252 68P
C253 10P
C254 68P
C255 102
C201 473
C202 10/16
C203 392
C204 473
C205 22/16
C206 1/50
C207 4.7/16 NP
C208 152
C209 473
C213 10/16
C214 10/16
C215 47/16
C231 22/16
R201 1K
R202 9.1K
R203 9.1K
R204 8.2K
R205 8.2K
R206 4.7K
R207 150K
R208 390K
R209 68K
R210 39K
R211 1M
R212 330K
R213 10K
R214 1K
R215 1M
R216 1M
R217 560K
R219 3K
R251 100K
R252 100K
R253 20K
R254 4.7K
R255 1K
R256 1K
R257 10K
R270 1K
R271 1K
Q251 C945
Q252 R1003
Q253 R1104
Q254 R2103
Q255 R1103
Q256 R1102
Q257 R2104
D205 1N4148
D206 1N4148
D251 1N4148
D252 1N4148
D254 1N4148
D255 1N4148
XT251 3.57MHZ



NOTE
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SPECIAL NOTE
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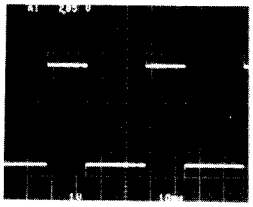
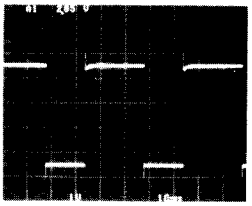
IC201							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	2.5	2.5	2.5	31	2.5	2.5	–
2	2.5	2.5	2.5	32	2.5	–	–
3	2.6	2.6	2.6	33	5.1	5.1	5.1
4	2.6	2.6	2.6	34	0~5	0~5	0~5
5	1.4	1.5	1.5	35	5.0	5.0	5.0
6	2.5	2.5	2.5	36	5.0	5.0	5.0
7	2.5	2.5	2.5	37	–	–	–
8	0	0	0	38	0	0	0
9	2.5	2.5	2.5	39	5.0	5.0	5.0
10	0	0	0	40	0~5	0~5	0~5
11	2.5	2.5	2.5	41	0~5	0~5	0~5
12	2.3	2.3	2.3	42	0~5	5.0	0~5
13	0.1	0.1	0.1	43	5.0	5.0	5.0
14	5.1	2.6	2.6	44	0	0	0
15	2.5	2.5	2.5	45	0	0	0
16	0	2.6	2.6	46	0.3~4.1	0.3~4.1	0.3~4.1
17	0	2.6	2.6	47	5.0	5.0	0.4~5
18	0	2.6	2.6	48	0.4	0.4	0.4
19	0.8	2.5	2.5	49	0.6~5	0.6~5	0.6~5
20	5.1	2.5	2.5	50	0.6~5	0.6~5	0.6~5
21	5.1	2.5	2.5	51	5.0	0~5	0~5
22	5.1	5.1	5.1	52	5.0	5.0	0~5
23	0	0	0	53	0	0	0
24	2.5	–	2.5	54	0~5	0~5	0~5
25	2.5	–	2.5	55	0	0	0
26	0	0	0	56	0	0	0
27	2.5	2.5	2.5	57	5.0	5.0	5.0
28	2.5	2.5	2.5	58	0	0	0
29	2.5	2.5	–	59	–	–	–
30	2.5	2.5	–	60	2.5	2.5	2.5

DRU
DRU
DRU
DRU
DRU
DRU
DRU
GND
DRU
SW
DRU
SW
NTS
CAP
CAP

IC201-2
25mVp-p
PB

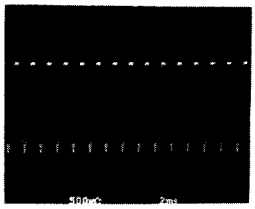


IC201-24
5.4Vp-p
REC

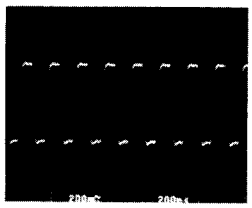


IC201-25
5.4Vp-p
REC

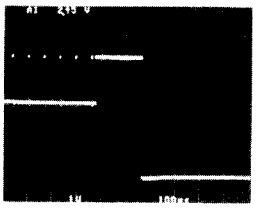
IC201-31
2Vp-p
PB



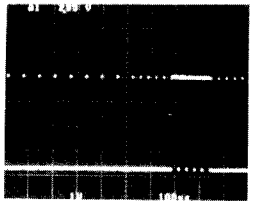
IC201-32
1.8Vp-p
PB



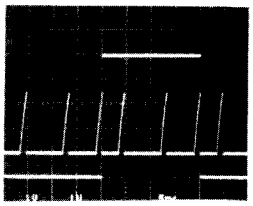
IC201-37
600mVp-p
PB



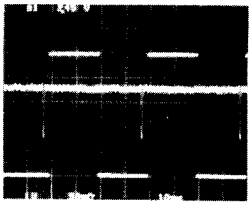
IC201-44
5Vp-p
STILL/SLOW



IC201-46
3.7Vp-p
PB

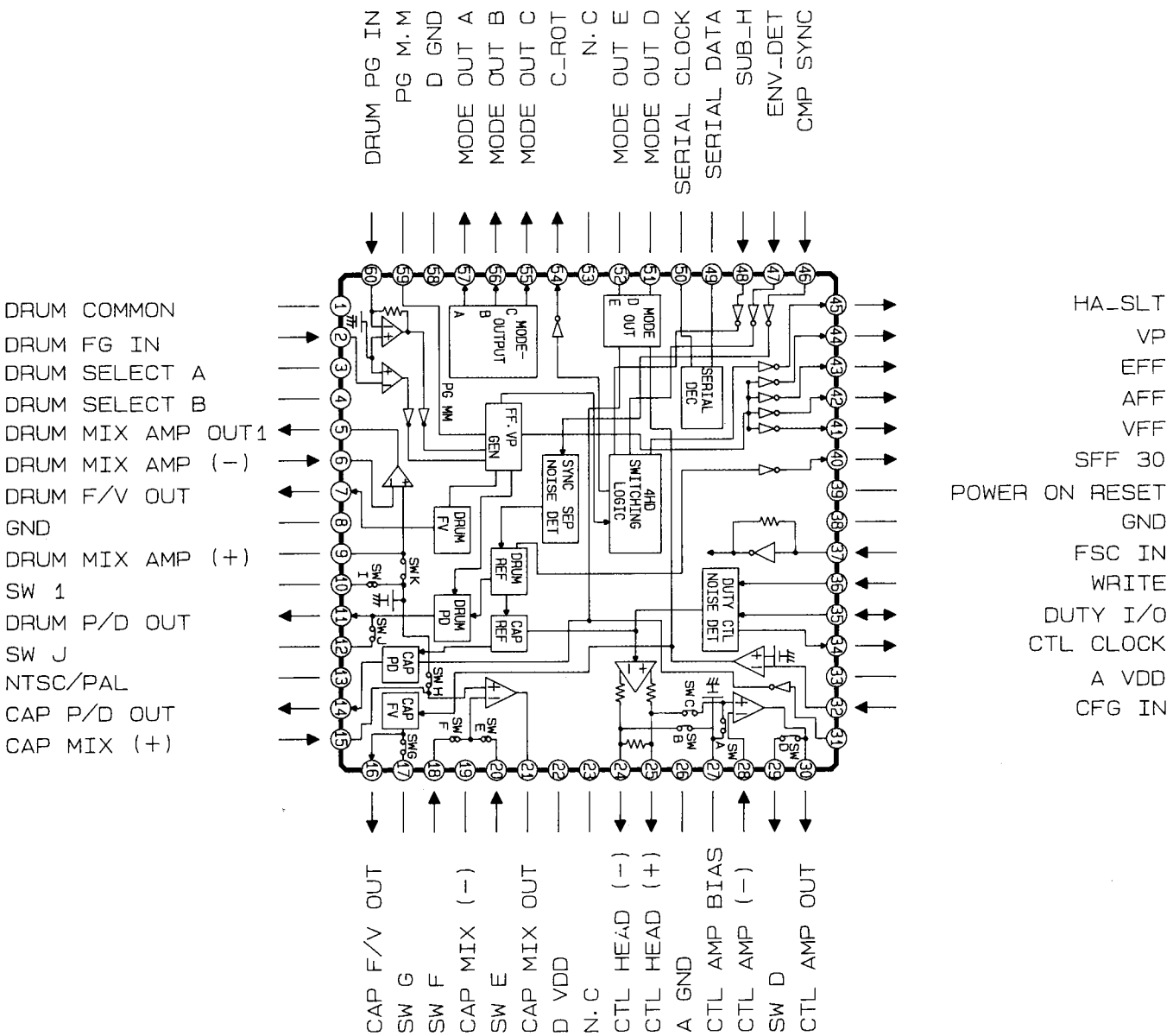


IC201-59
2.5Vp-p
PB



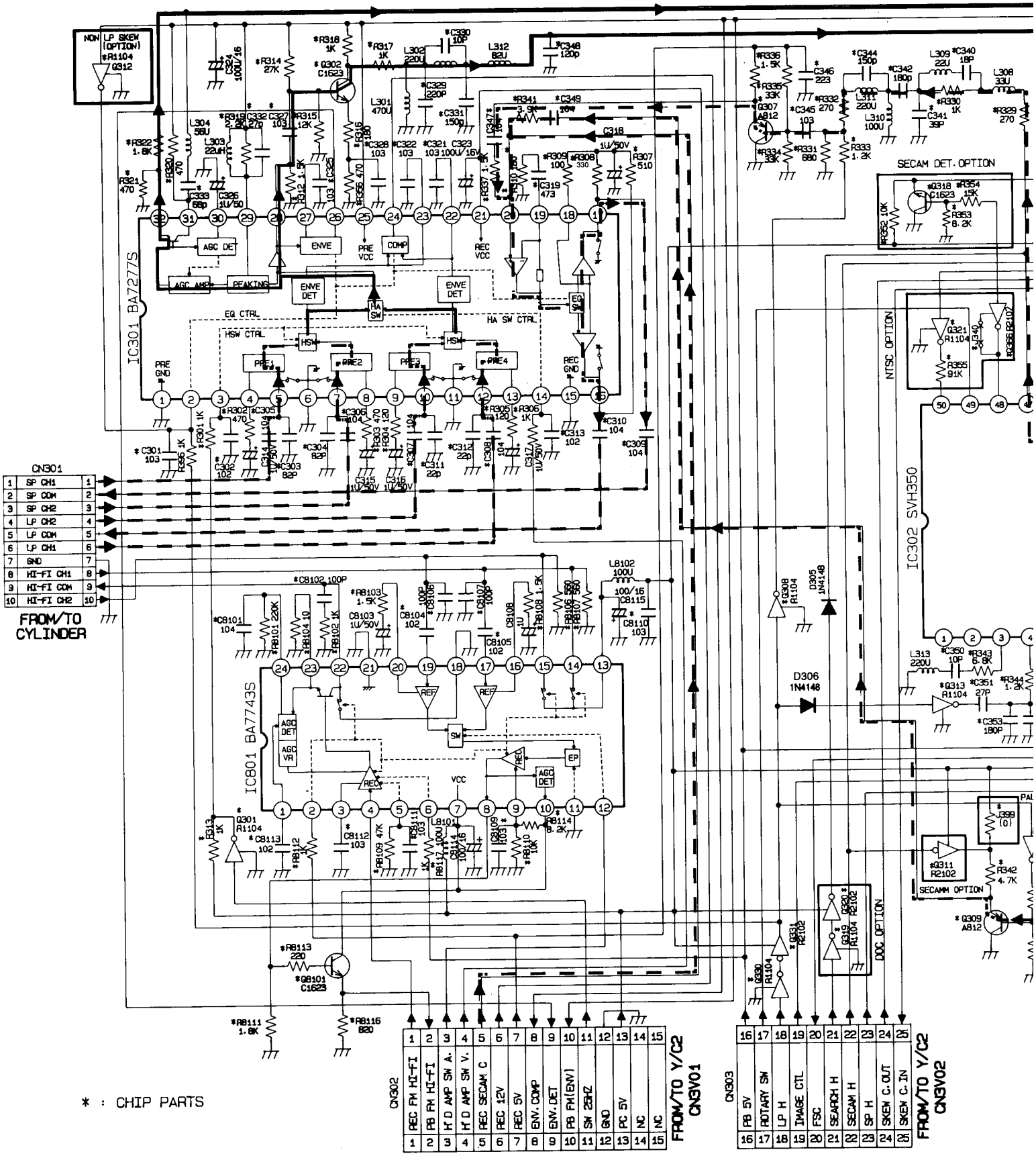
IC201-60
100mVp-p
PB

IC201 KA8321



9-5. Y/C - 1 (Pre-Amp)

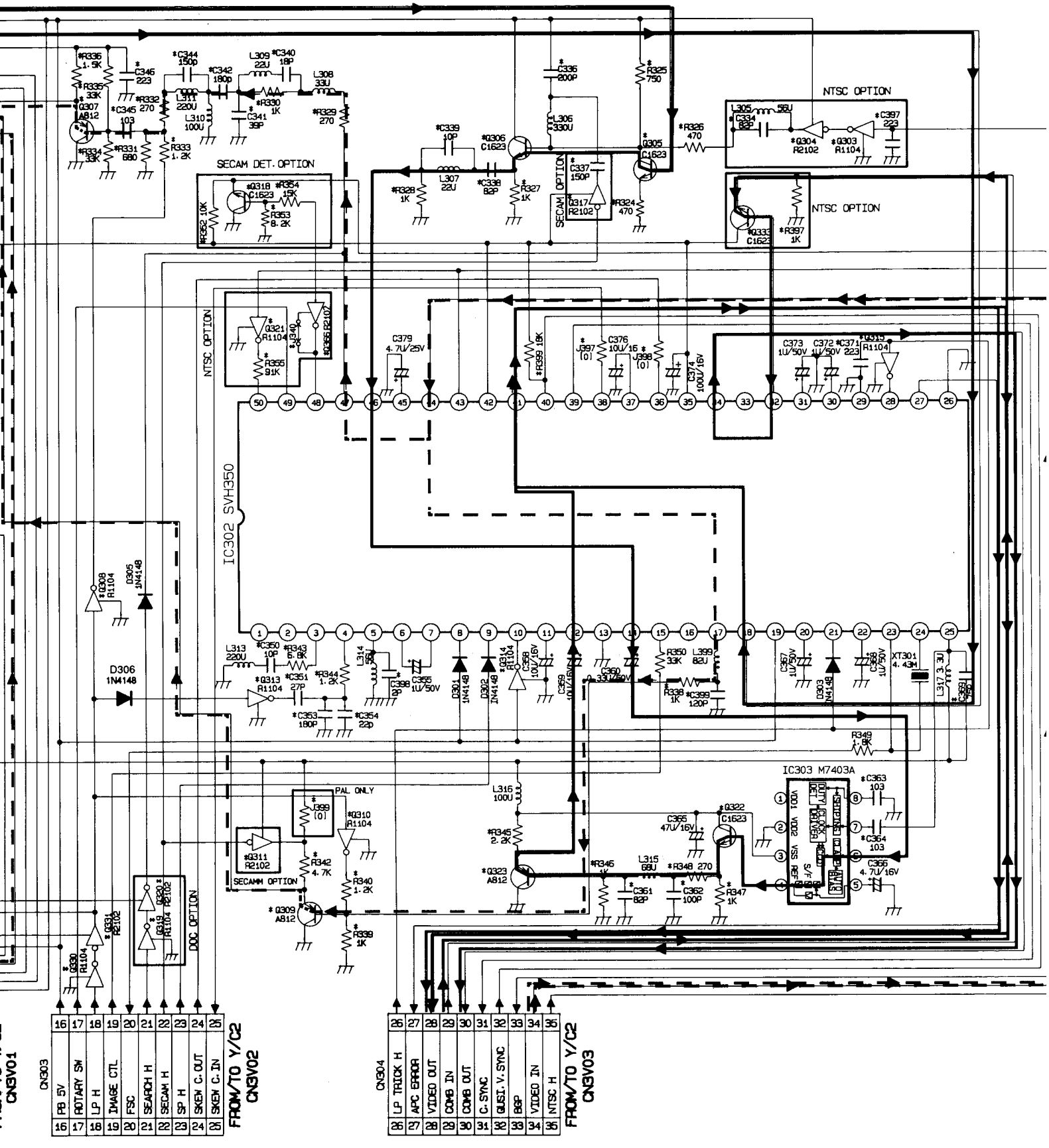
RED ——— PB Y PROCESS
RED - - - - - - - - - - REC Y PROCESS
BLUE ——— PB C P
BLUE - - - - - - - - - - REC C



* : CHIP PARTS

Y / C - 1

PROCESS BLUE —————— PB C PROCESS
PROCESS ---------- REC C PROCESS



IC301			
MODE / PIN NO	STOP	REC	PLAY
1	0	0	0
2	0	0	0
3	SW 25HZ		
4	0	0	0.8
5	0	0	0.65
6	0	0	0
7	0	0	0.65
8	0	0	0.8
9	0	0	0.8
10	0	0	0.65
11	0	0	0
12	0	0	0.65
13	0	0	0.8
14	0	0	4.45
15	0	0	0
16	0	6.15	0
17	0	6.4	0
18	0	6.1	0
19	0	6.1	0
20	0.2	6.8	0
21	0	12.0	0.35
22	0	0	2.45
23	0	0	2.8
24	0	0	3.9
25	0	0	5.0
26	0	0	3.8
27	0	0	2.8
28	0	0	2.9
29	0	0	5.0
30	0.2	0	3.3
31	0	0	3.45
32	0	0	1.6

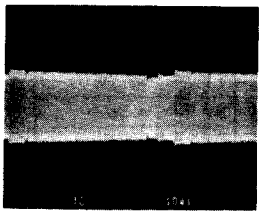
IC303			
MODE / PIN NO	STOP	REC	PLAY
1	0	0	0
2	0	0	0
3	5.0	5.0	5.0
4	3.5	3.5	3.5
5	1.9	1.9	1.9
6	2.0	2.0	2.0
7	2.55	2.55	2.55
8	8.25	8.25	8.25

IC302							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	NC	NC	NC	26	0	0	0
2	0	0	0	27	3.25	3.25	3.25
3	0	0	2.25	28	0	0	0
4	2.4	2.4	1.8	29	0	0	0
5	0	0	0	30	3.25	3.25	3.25
6	3.6	3.6	3.2	31	3.25	3.25	3.25
7	2.8	2.8	2.45	32	2.5	2.5	2.75
8	2.8	2.8	4.55	33	2.5	2.5	2.75
9	4.55	4.55	4.55	34	2.0	2.0	2.0
10	0	0	0	35	5.0	5.0	5.0
11	3.6	3.6	3.6	36	2.55	2.55	0.35
12	2.1	2.1	2.1	37	4.2	4.2	4.2
13	0	0	0	38	2.55	2.55	2.6
14	2.1	2.1	2.1	39	H-SYNC		
15	2.55	2.55	2.55	40	0	0	0
16	1.6	1.6	1.3	41	2.2	2.2	1.7
17	0	0	1.9	42	5.0	5.0	5.0
18	0	0	0	43	BGP		
19	0	0	5.0	44	3.25	3.25	3.15
20	2.55	2.55	2.2	45	1.45	1.45	1.5
21	2.2	2.2	2.55	46	0	0	0
22	2.2	2.2	2.55	47	3.0	3.0	3.6
23	3.75	3.75	3.7	48	5.0	5.0	1.35
24	3.2	3.2	2.4	49	SW 25HZ		
25	5.0	5.0	5.0	50	2.45	2.45	2.45

IC8101			
MODE / PIN NO	STOP	REC	PLAY
1	1.3	1.3	1.3
2	0.8	5.0	0.8
3	0.5	1.3	0.5
4	2.7	2.9	2.9
5	1.3	1.3	1.3
6	0.2	0.2	5.0
7	5.0	5.0	5.0
8	1.5	3.4	1.7
9	2.5	2.5	2.5
10	5.0	4.8	5.0
11	0	0	0
12	–	0	–
13	5.0	4.7	5.0
14	0	3.9	0
15	0	0	0
16	0.8	0	0.8
17	0.7	0	0.7
18	0	0	0
19	0.7	0	0.7
20	0.8	0	0.8
21	0	0	0
22	0	2.5	0
23	0	0.5	0
24	0	1.0	0

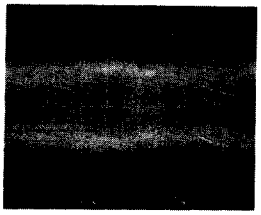
NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

SPECIAL NOTE
All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

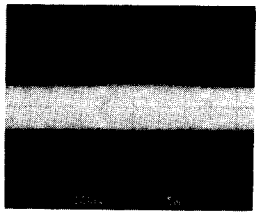


IC301-16
2.4Vp-p
REC-LP

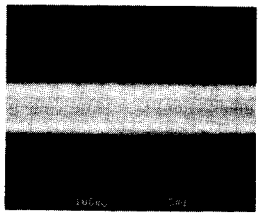
IC301-17
3.4Vp-p
REC-SP



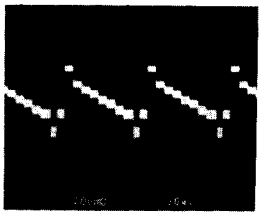
IC301-20
250mVp-p
REC



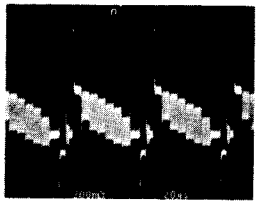
IC301-28
400mVp-p
PB-SP



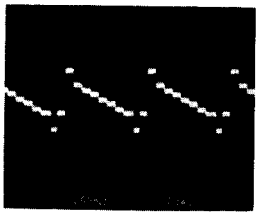
IC301-32
200mVp-p
PB-SP



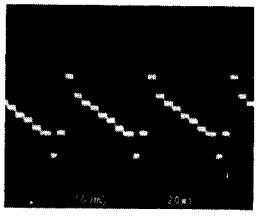
IC302-5
0.5Vp-p
PB



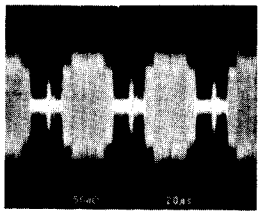
IC302-8
0.5Vp-p
REC/EE



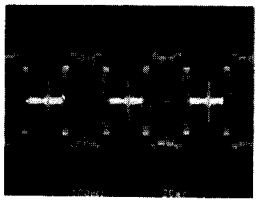
IC302-12
0.5Vp-p
PB



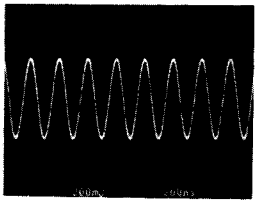
IC302-14
0.3Vp-p
PB



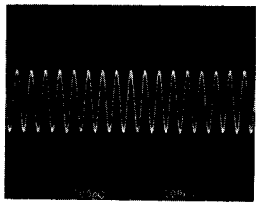
IC302-17
200mVp-p
PB



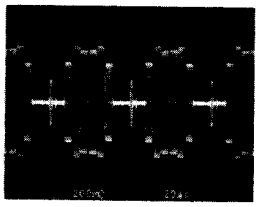
IC302-17
400mVp-p
REC/EE



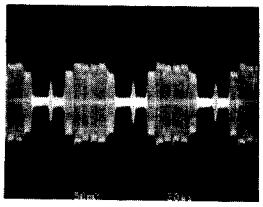
IC302-23
600mVp-p
PB/REC/EE



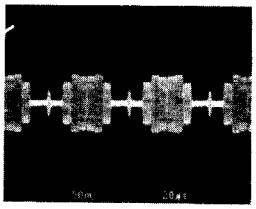
IC302-25
500mV-pp
REC/EE



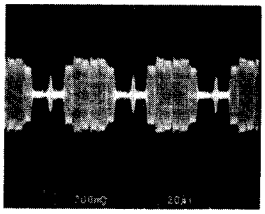
IC302-33
900mVp-p
REC/EE



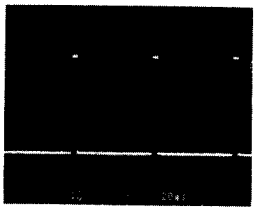
IC302-34
150mVp-p
PB



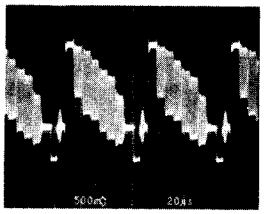
IC302-34
120mVp-p
REC/EE



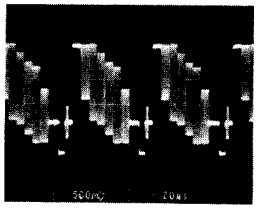
IC302-38
600mVp-p
PB



IC302-38
4Vp-p
PB/REC/EE

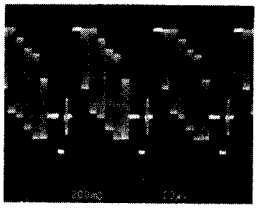


IC302-41
2.15Vp-p
PB

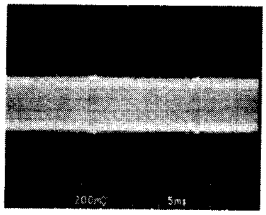


IC302-41
2.15Vp-p
REC/EE

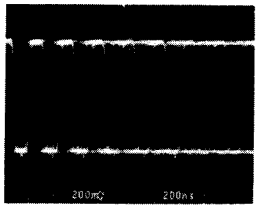
IC302-43
4Vp-p
PB/REC/EE



IC302-44
1Vp-p
REC/EE

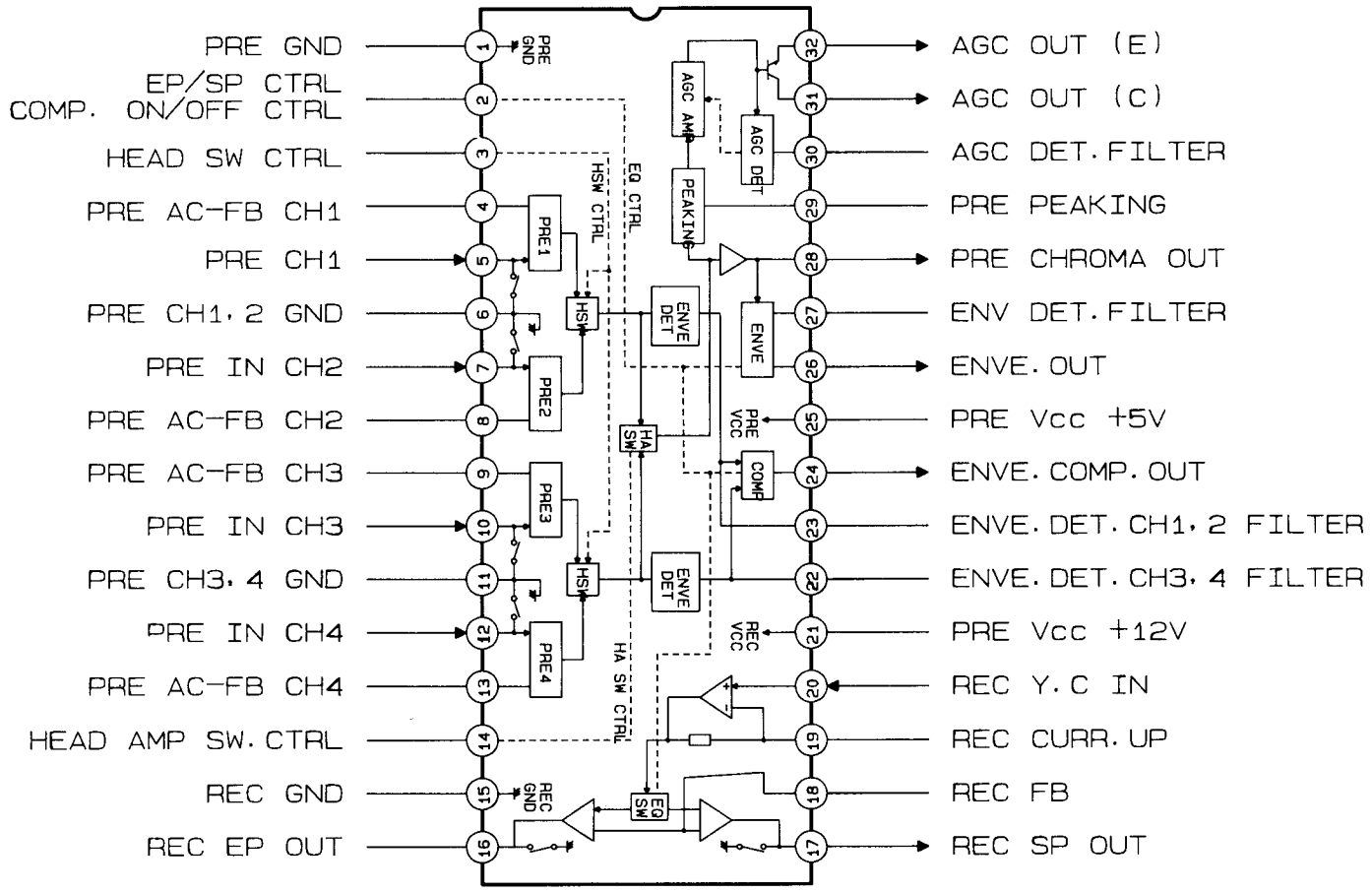


IC302-46
400mVp-p
PB

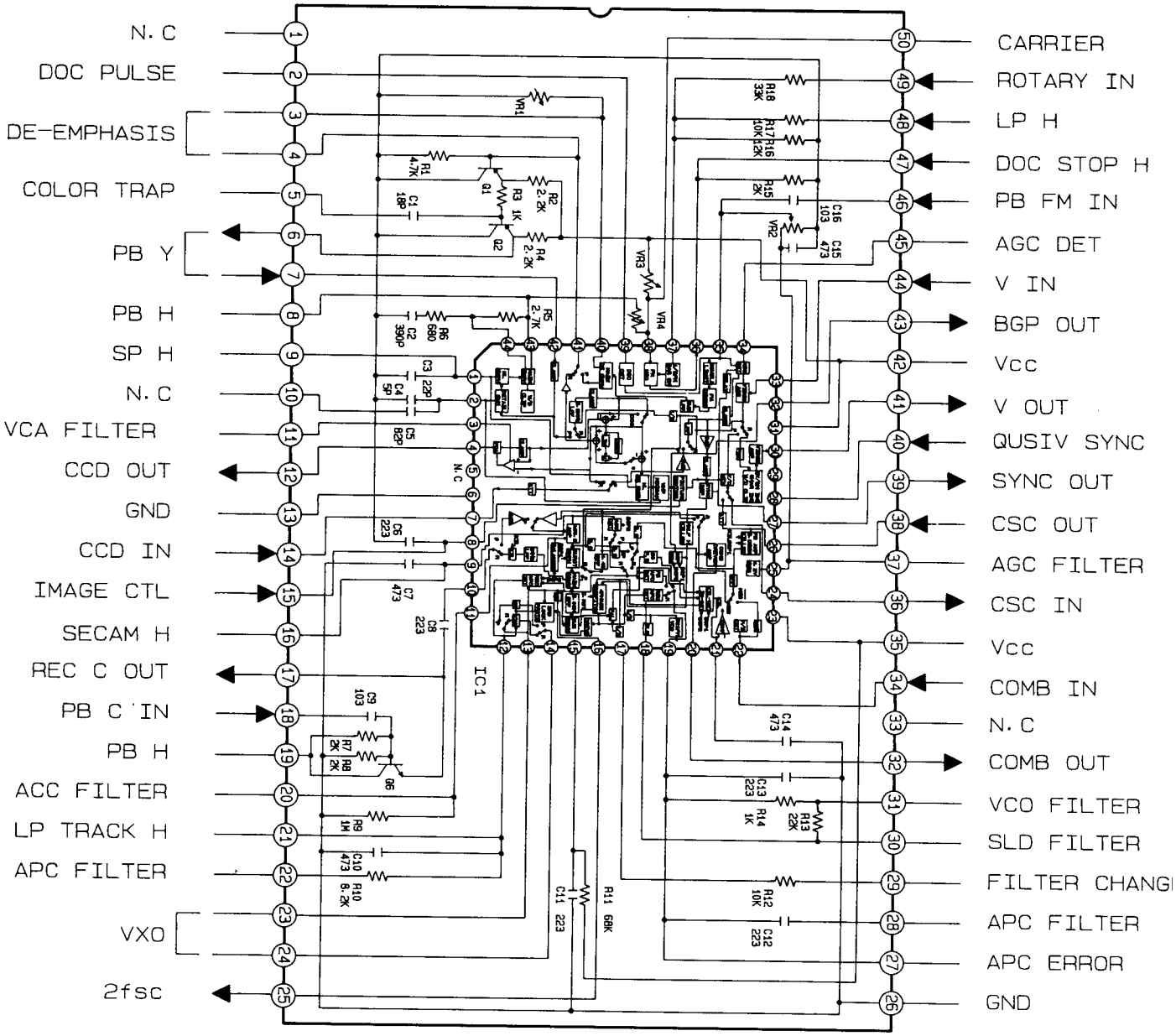


IC302-47
900mVp-p
REC/EE

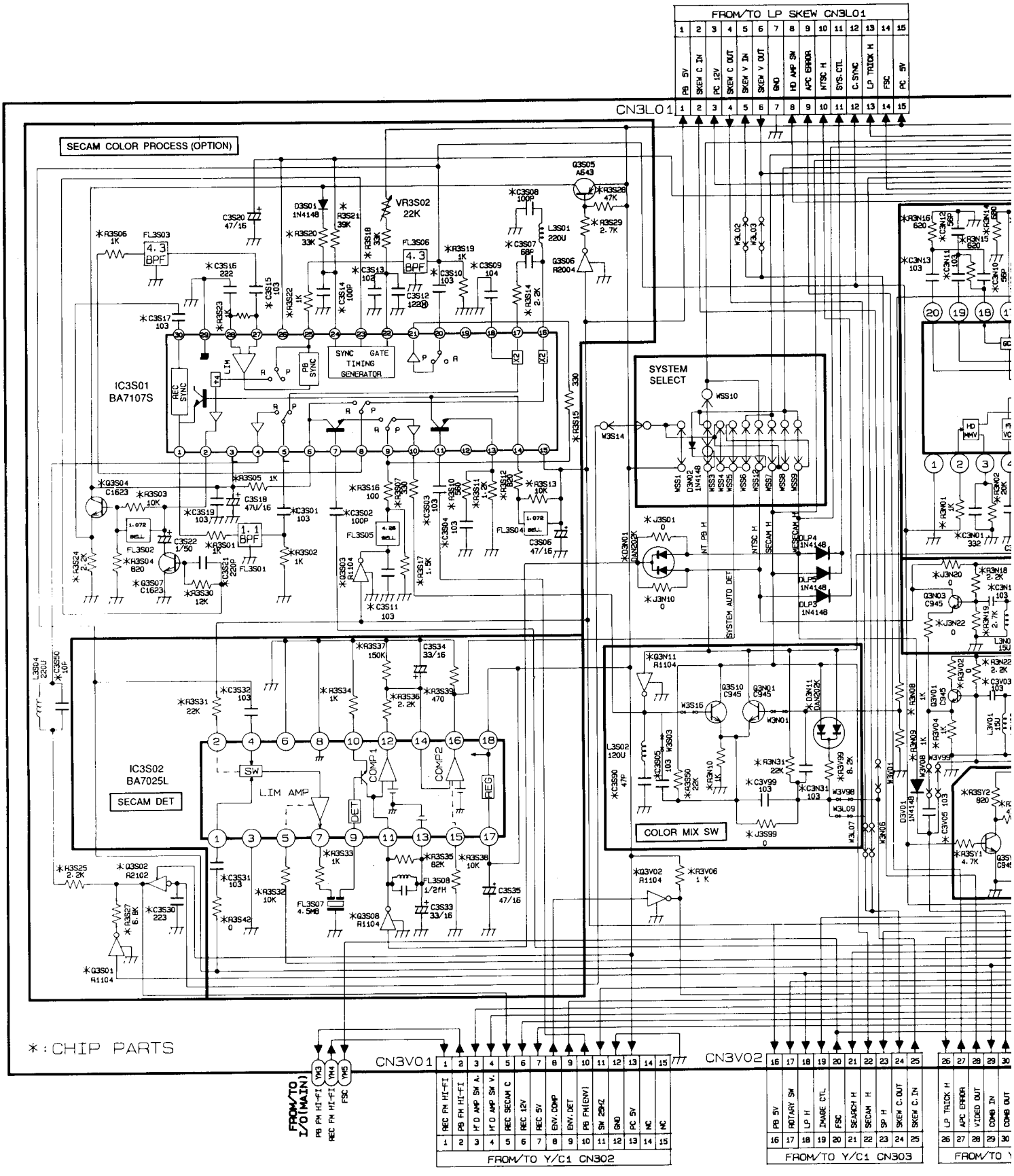
IC301 BA7277S

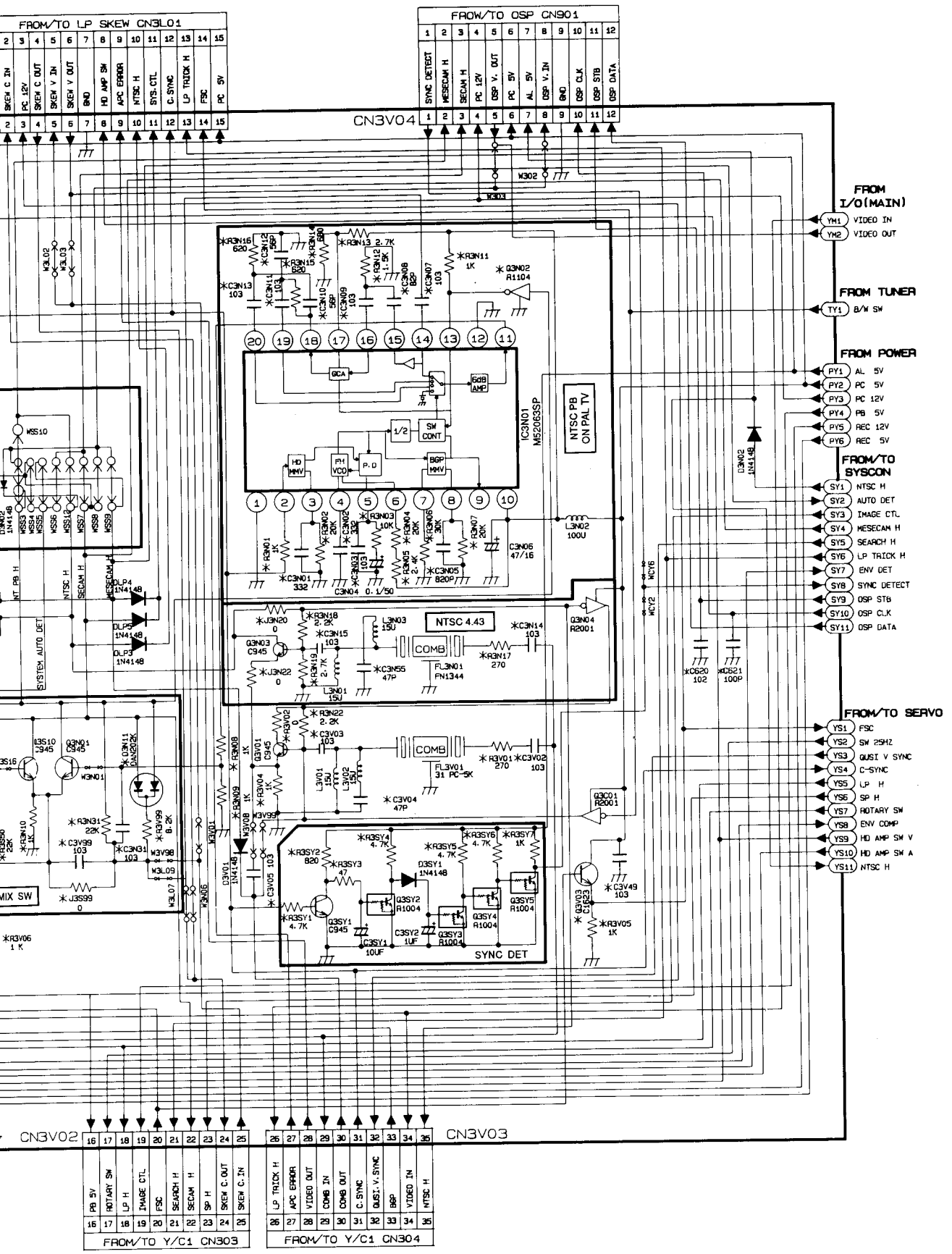


IC302 SVH-350



9-6. Y/C - 2


FROM/TO LP SKEW CN3L01
CN3L01
SECAM COLOR PROCESS (OPTION)
IC3S01
BA7107S
SYNC GATE TIMING GENERATOR
SYSTEM SELECT
IC3S02
BA7025L
SECAM DET
LIM AMP
COLOR MIX SW
*:CHIP PARTS
CN3V01
CN3V02
FROM/TO I/O(MAIN)
FROM/TO Y/C1 CN302
FROM/TO Y/C1 CN303



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

SPECIAL NOTE
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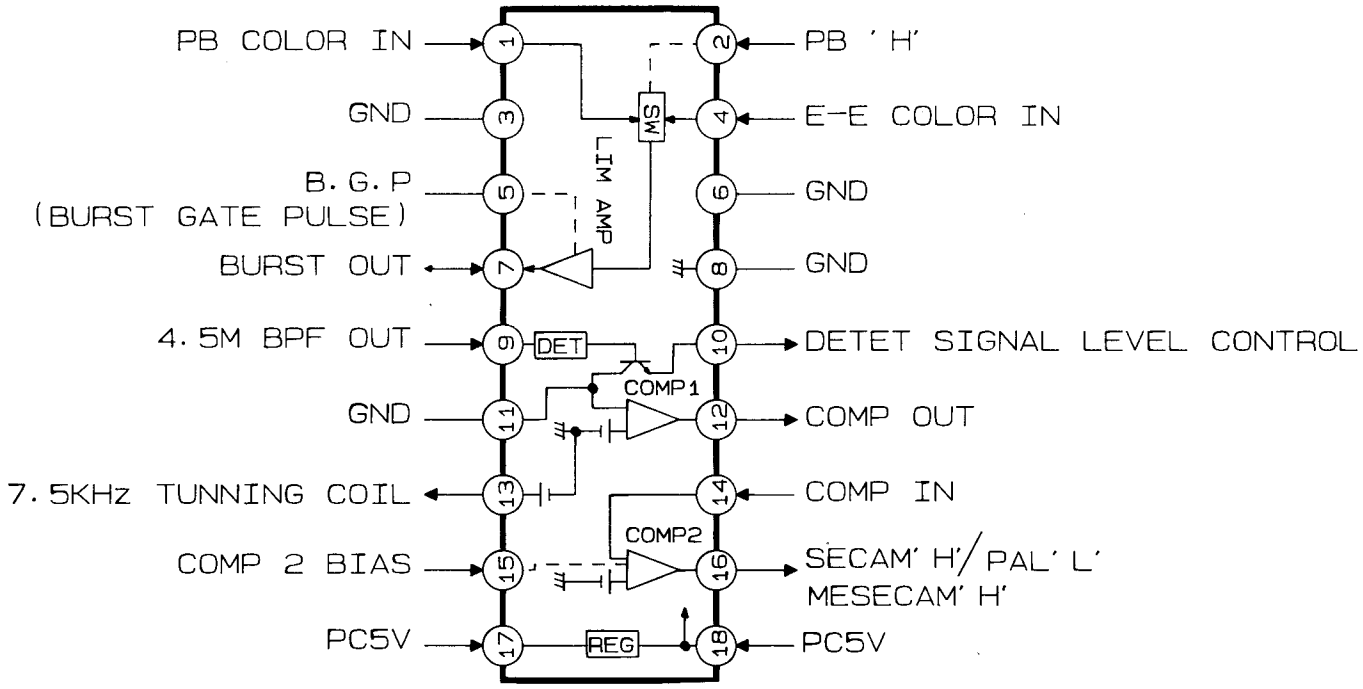
IC3S02 BA7025L

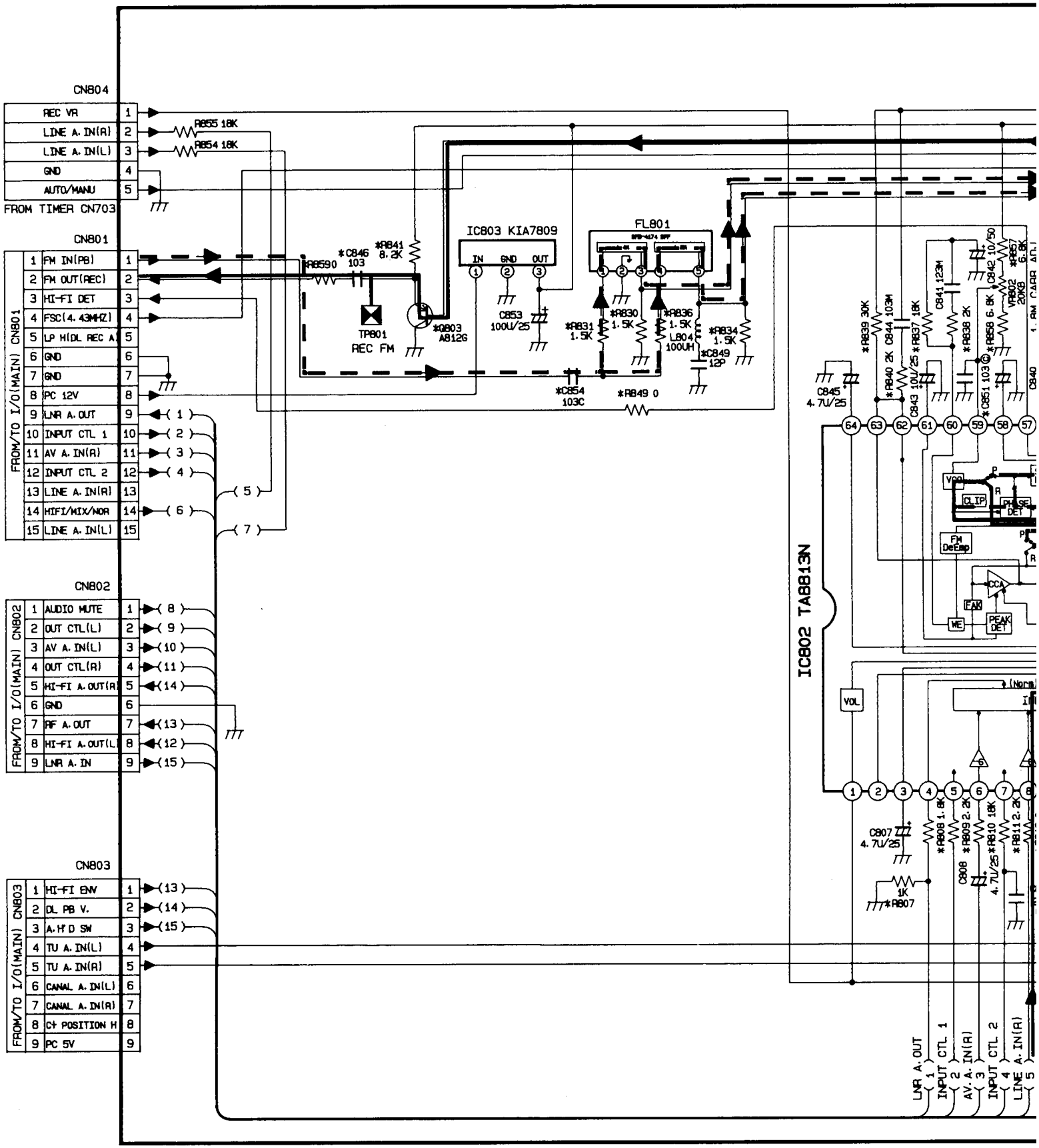


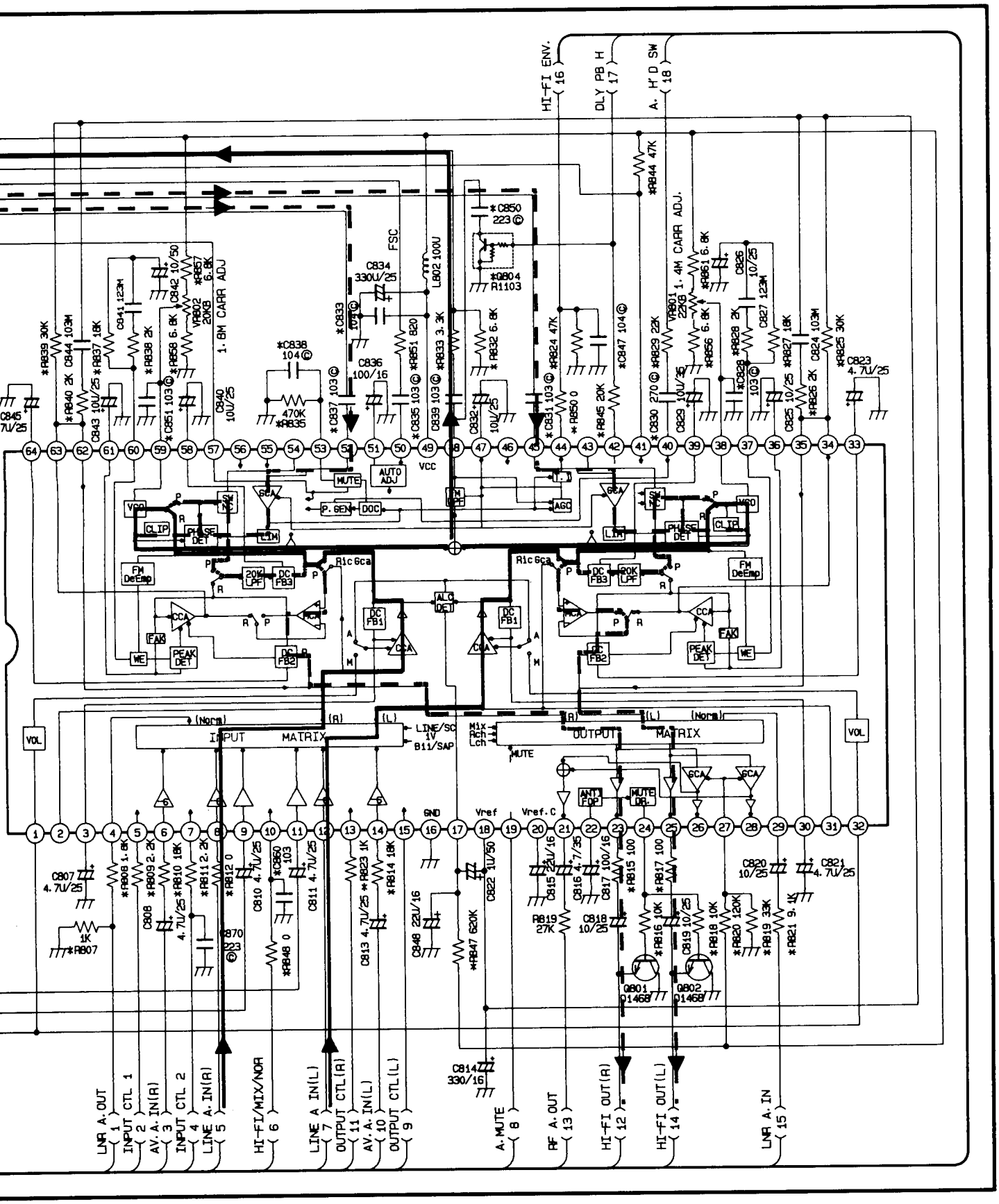
IC3S02			
MODE / PIN NO	STOP	REC	PLAY
1	3.5	3.5	3.7
2	0	0	1.05
3	0	0	0
4	3.6	3.6	3.6
5	3.6	3.6	2.55
6	0	0	0
7	3.65	3.65	3.8
8	0	0	0
9	1.35	1.35	1.35
10	0.45	0.45	0.5
11	3.4	3.4	3.4
12	4.25	4.25	4.10
13	3.55	3.55	0
14	4.15	4.15	4.2
15	5	5	5
16	5	5	5

CONTROL

9-7. Hi-Fi Audio

RED ---------- PB PROCESS
——————— REC PROCESS





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

SPECIAL NOTE
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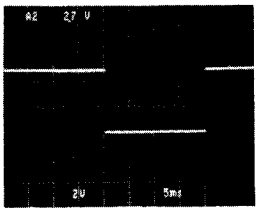
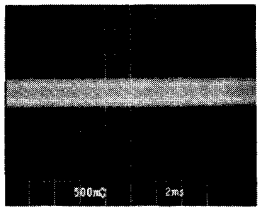
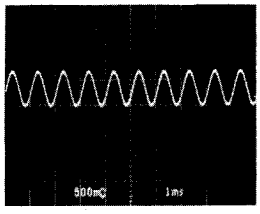
IC802							
MODE / PIN NO	STOP	REC	PLAY	MODE / PIN NO	STOP	REC	PLAY
1	0	0	0	33	4.2	4.2	0
2	4.2	4.2	4.3	34	4.2	4.2	4.2
3	4.1	4.1	4.2	35	4.15	4.2	4.2
4	3.9	4.0	4.0	36	0.3	0.3	0.4
5	2.6	2.6	2.7	37	4.05	4.2	4.1
6	4.2	4.2	4.2	38	3.75	3.8	3.8
7	2.5	2.6	2.7	39	4.25	4.3	4.5
8	4.2	4.2	4.3	40	3.6	3.6	3.0
9	4.1	4.2	4.2	41	5.0	5.1	5.1
10	2.5	2.6	2.7	42	0.7	0.7	4.5
11	4.1	4.2	4.2	43	3.5	3.5	3.6
12	4.2	4.2	4.3	44	0	0	3.4
13	4.95	5.0	5.0	45	3.7	3.7	3.5
14	4.2	3.1	4.3	46	2.6	2.7	2.7
15	5.0	5.0	5.0	47	1.25	1.3	1.3
16	0	0	0	48	4.5	4.8	5.3
17	3.05	3.1	2.0	49	9.0	9.0	9.0
18	4.2	4.2	4.2	50	2.8	2.8	2.8
19	0	0	0	51	2.0	2.0	2.0
20	4.2	4.2	4.2	52	3.7	3.7	3.5
21	4.2	4.2	4.2	53	1.8	1.8	1.8
22	7.0	7.0	7.1	54	3.6	3.6	3.6
23	4.2	4.2	4.2	55	0	0	0
24	0	0	0	56	0.5	0.5	0.5
25	4.2	4.3	4.2	57	0	0	0.9
26	4.2	4.2	4.3	58	4.3	4.2	4.8
27	2.0	2.0	2.0	59	3.7	3.7	3.7
28	4.3	4.3	4.3	60	4.3	4.3	4.2
29	4.2	4.2	4.3	61	0.4	0.4	0.4
30	4.1	4.1	4.3	62	4.2	4.2	4.4
31	4.05	4.2	4.3	63	4.3	4.2	4.2
32	0	0	0	64	4.3	4.3	4.2



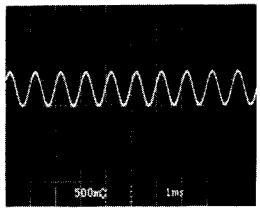
IC801-12
5.0Vp-p
E-E/PB



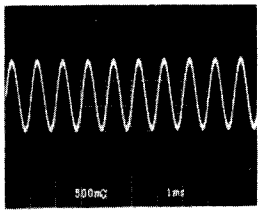
IC801-23
500mVp-p
REC



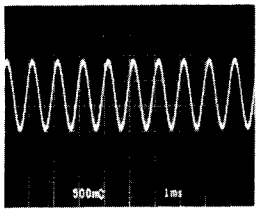
IC802-8
0.7Vp-p
E-E/PB



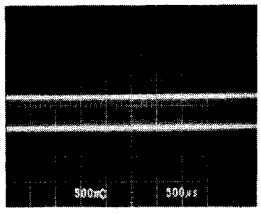
IC802-12
0.7Vp-p
E-E/PB



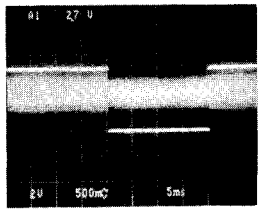
IC802-23
1.4Vp-p
E-E/PB



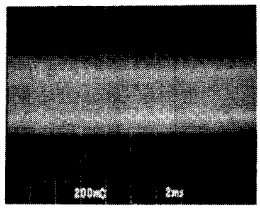
IC802-25
1.4Vp-p
E-E/PB



IC802-50
600mVp-p
E-E/PB

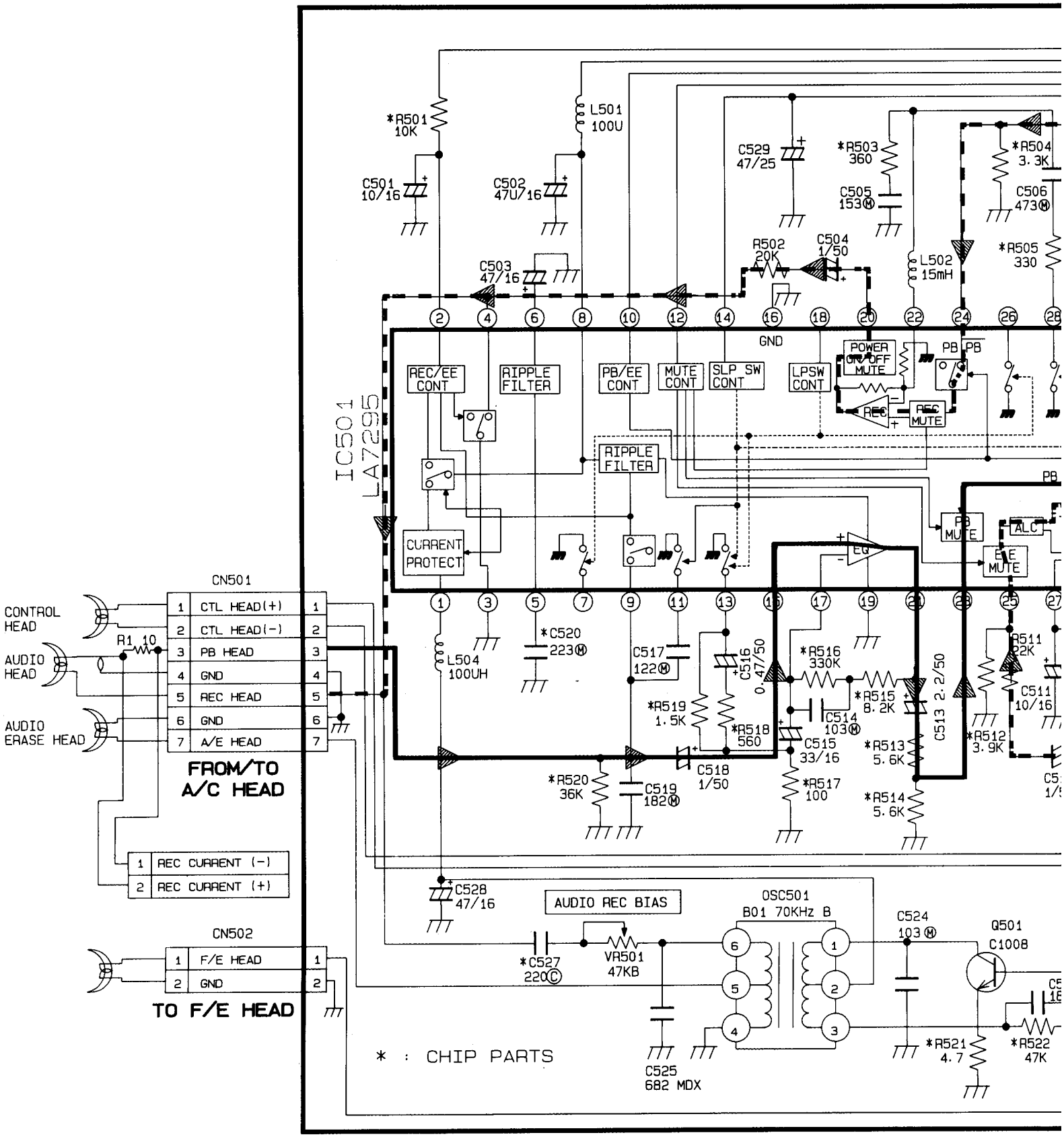


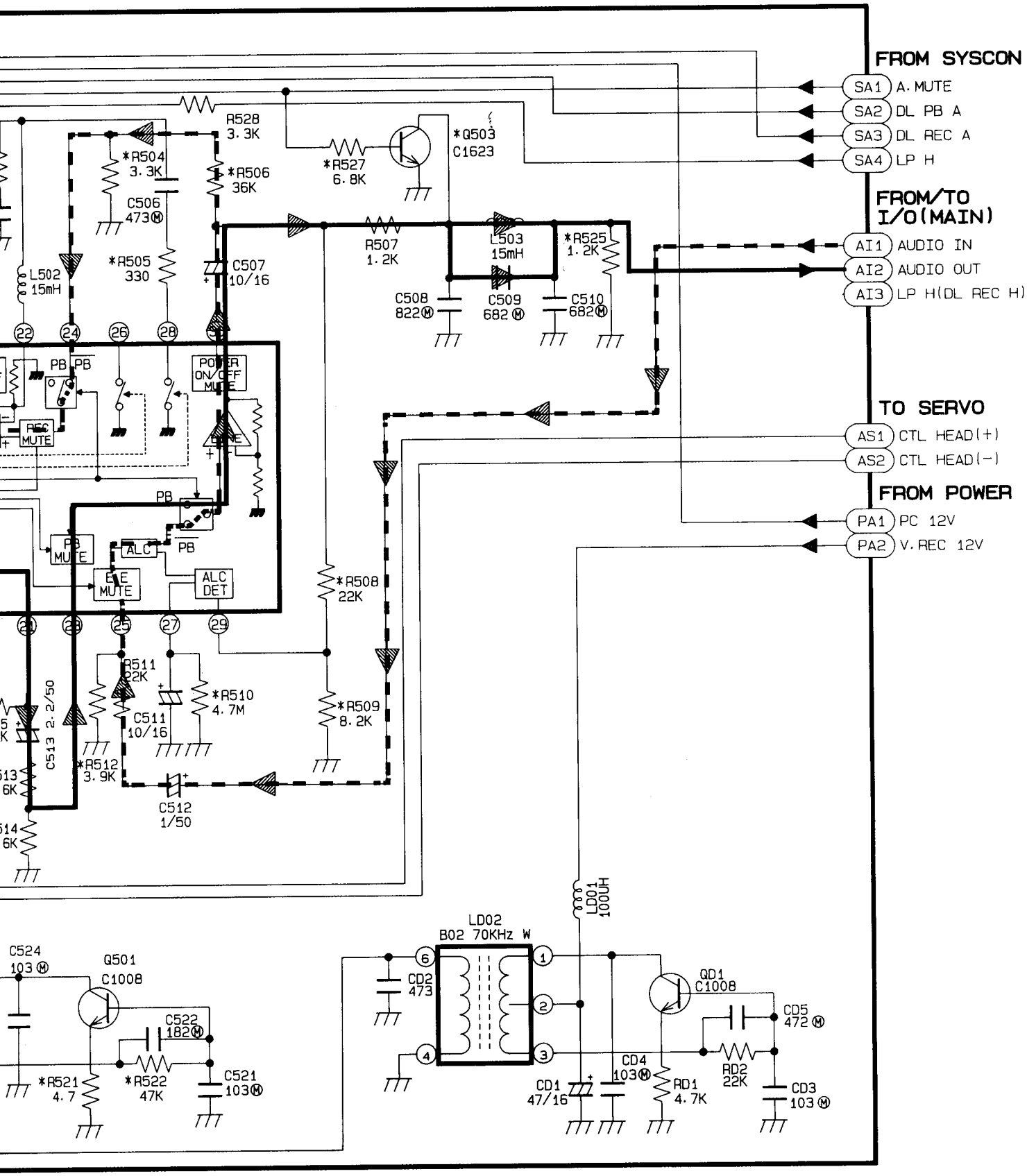
CN801-1
500mVp-p
PB



TP801
600mVp-p
REC

9-8. Linear Audio





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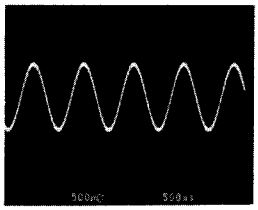
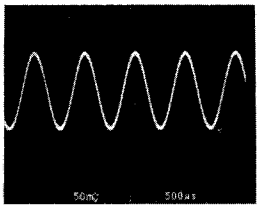
NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

IC501			
MODE / PIN NO	STOP	REC	PLAY
PIN 1	0	0	0
PIN 2	0	0	0
PIN 3	0	0	0
PIN 4	0	0	0
PIN 5	0	0	0
PIN 6	0.6	0.6	0.6
PIN 7	0	0	0
PIN 8	3.3	3.3	3.3
PIN 9	3.7	3.7	3.7
PIN 10	0.6	0.6	0
PIN 11	3.7	3.7	3.7
PIN 12	0	0	0
PIN 13	3.7	3.7	3.7
PIN 14	0	0	0
PIN 15	0	0	0
PIN 16	1.5	1.5	1.5
PIN 17	4.2	4.2	4.2
PIN 18	9.1	9.1	9.1
PIN 19	12.0	12.0	12.0
PIN 20	0	0	0
PIN 21	0	0	0
PIN 22	0	0	0
PIN 23	4.8	4.8	0
PIN 24	0	5.1	0

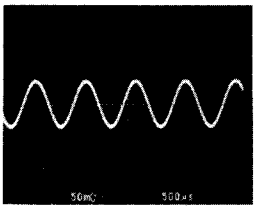
R1



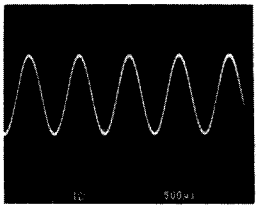
IC501-20
1.3Vp-p
REC



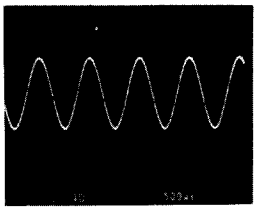
IC501-21
150mVp-p
PB



IC501-25
100mVp-p
REC/EE

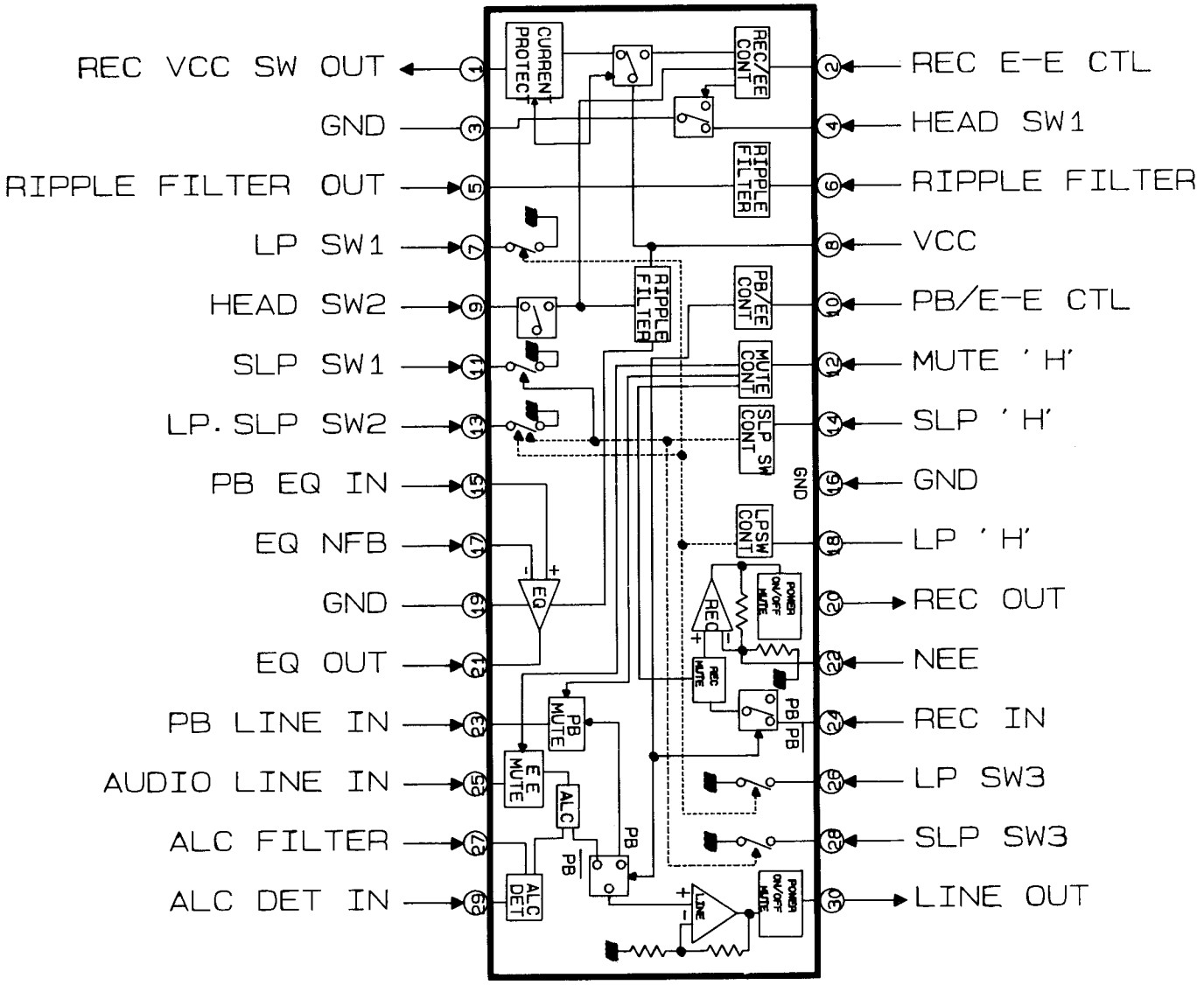


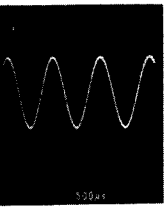
IC501-30
3Vp-p
PB



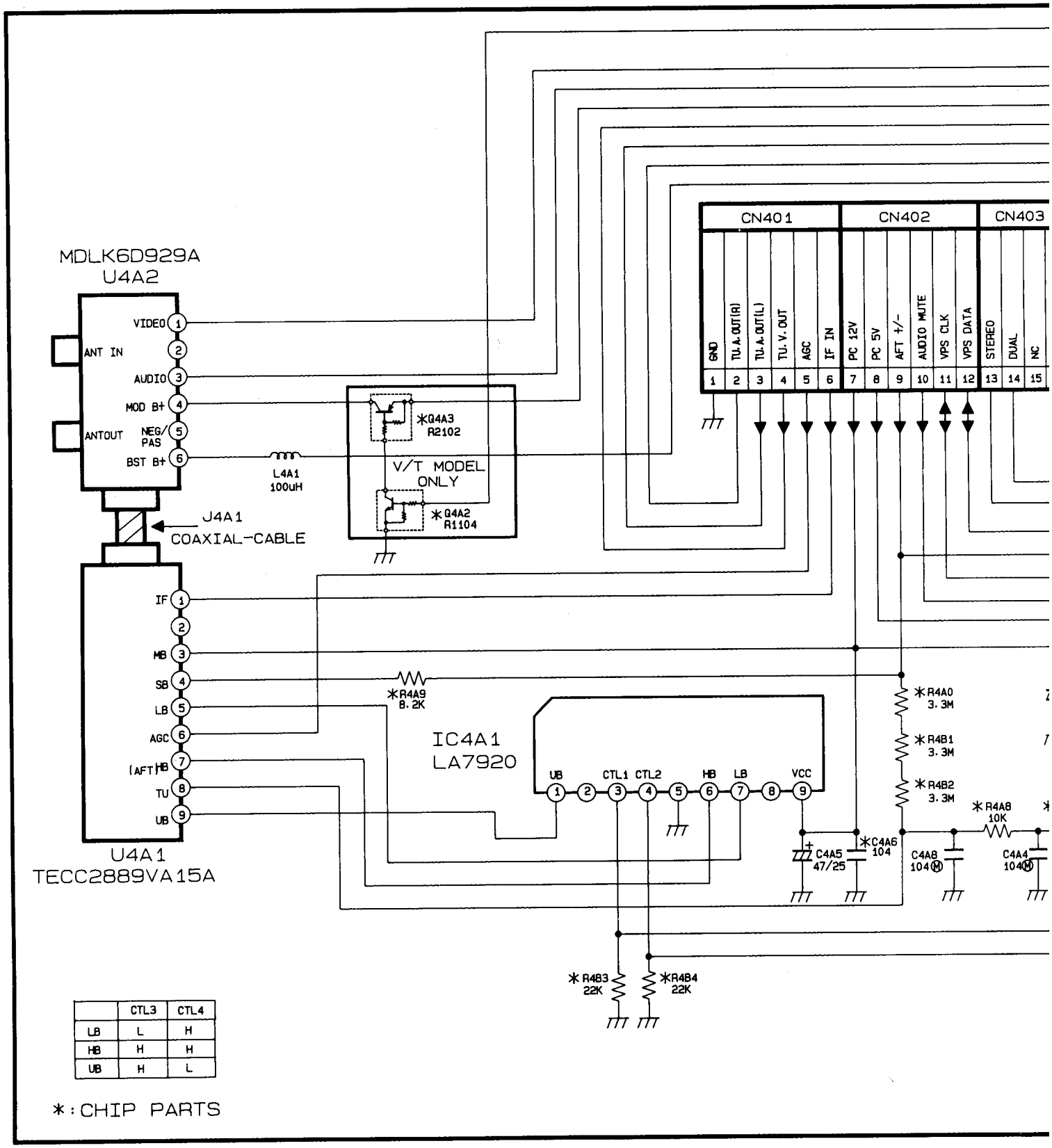
IC501-30
2.8Vp-p
REC/EE

IC501 LA7295



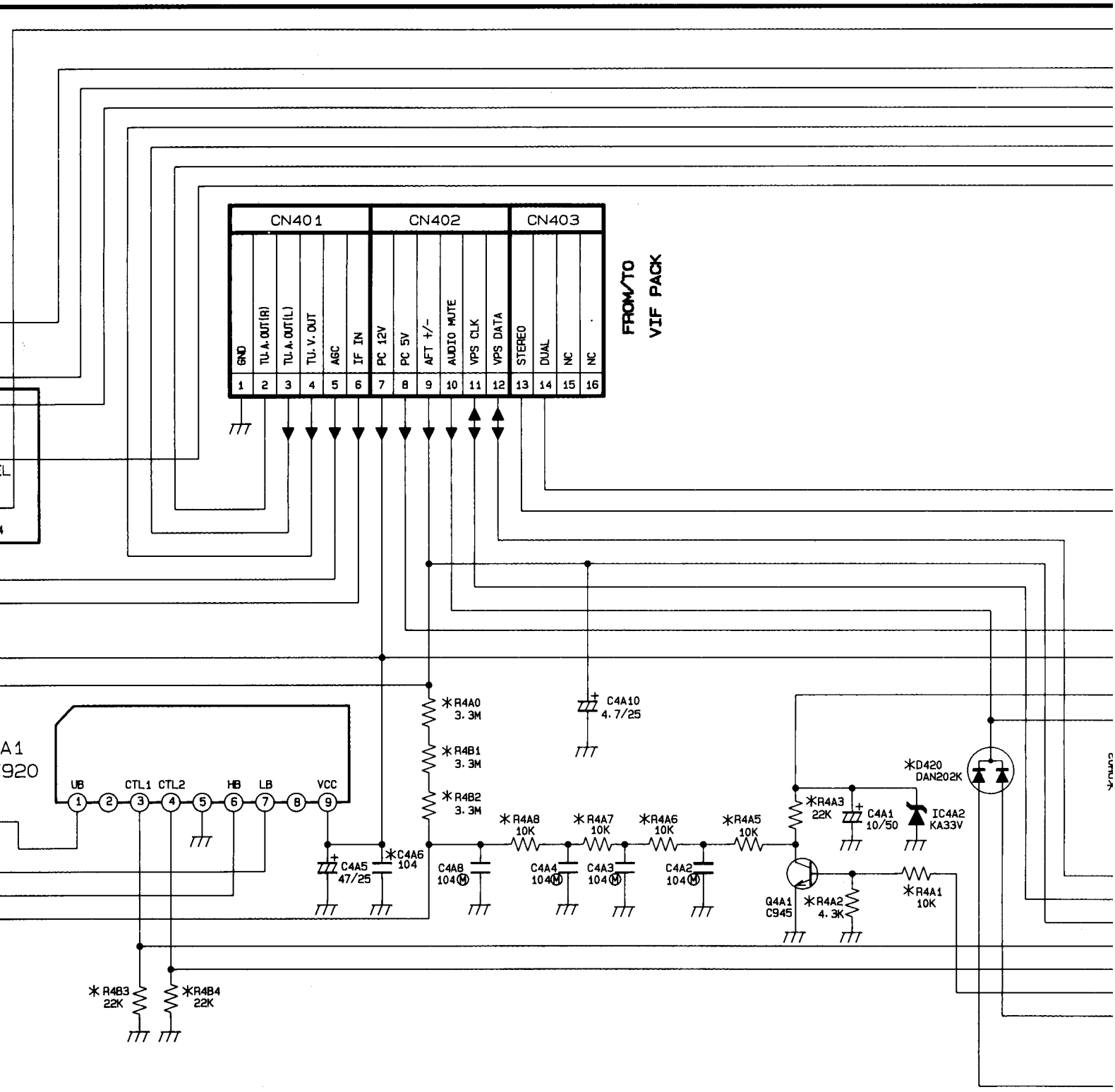


9-9. Tuner



	CTL3	CTL4
LB	L	H
HB	H	H
UB	H	L

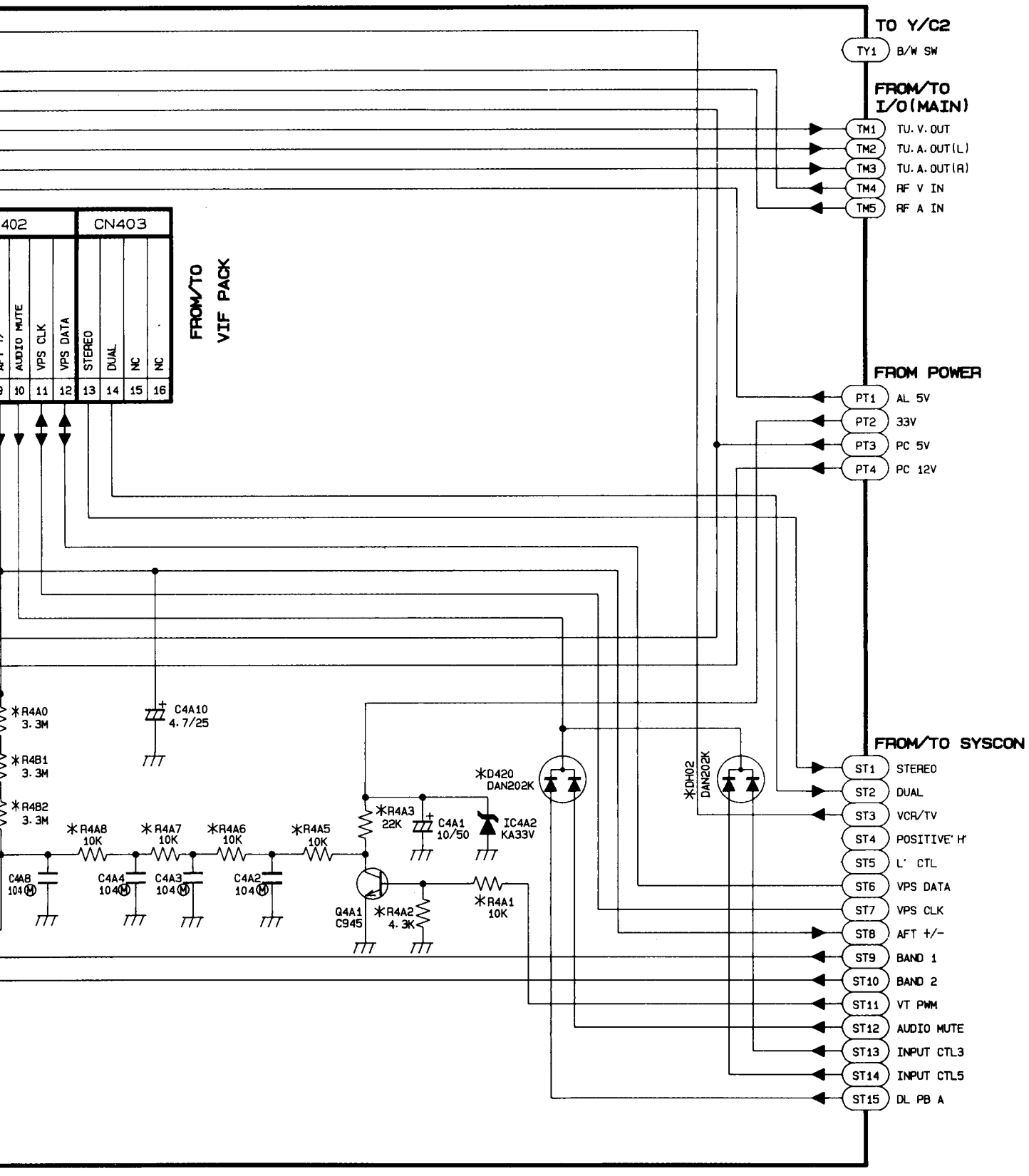
*: CHIP PARTS



SPECIAL NOTE
All integrated circuits and many other 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 ordering. The correct part numbe list. And may be slightly different drawing was prepared.

TUNER



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NOTE
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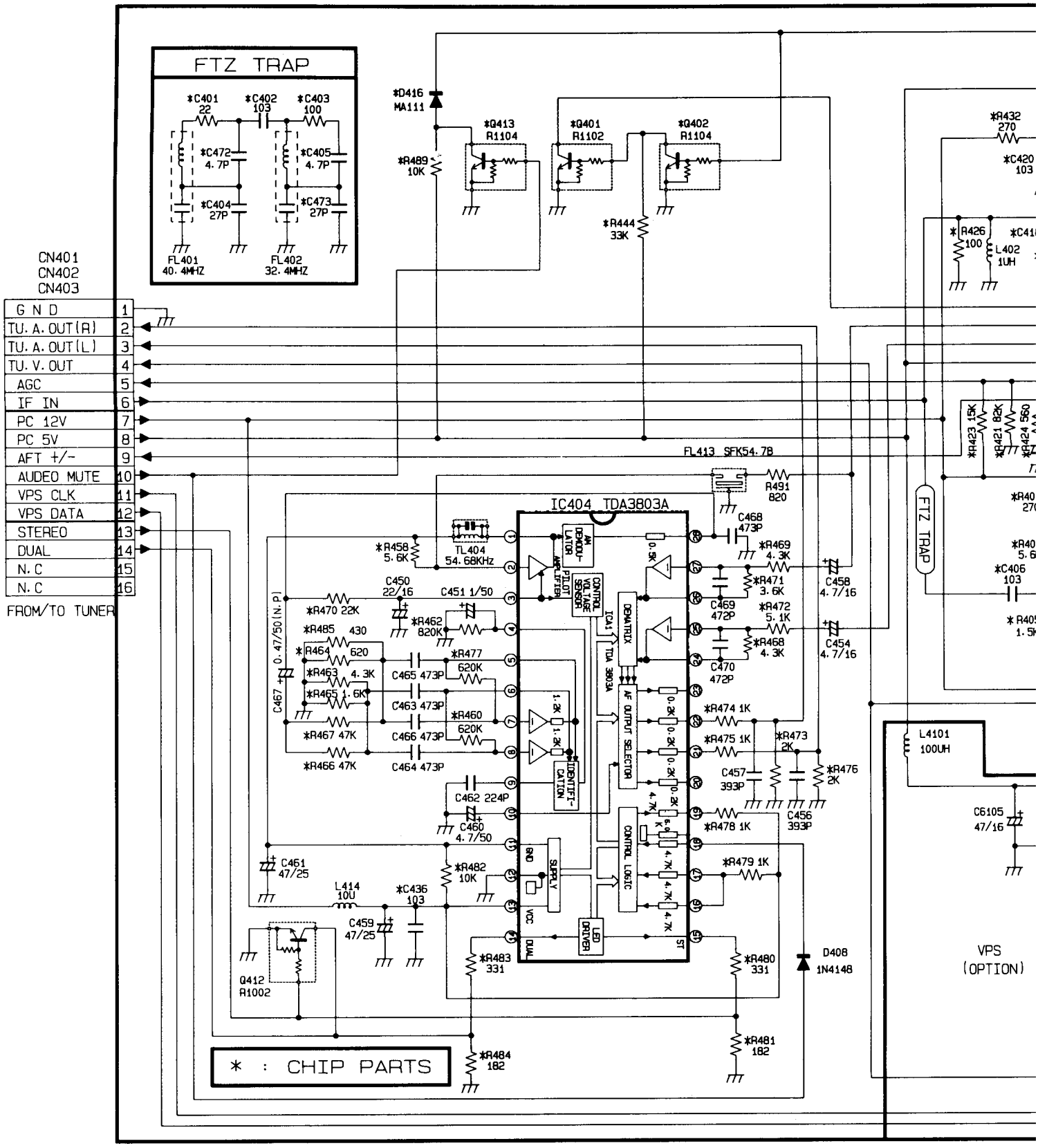
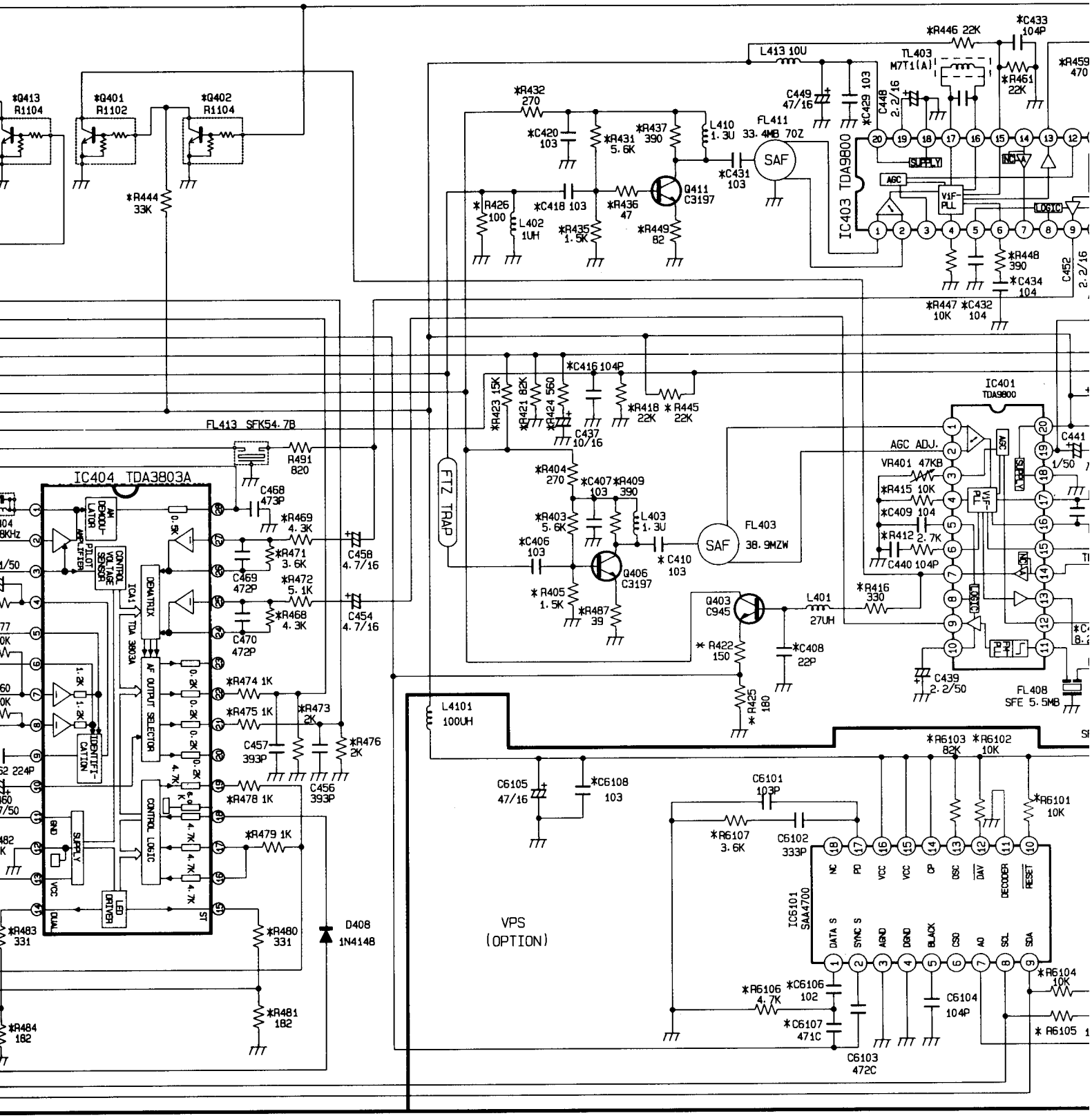
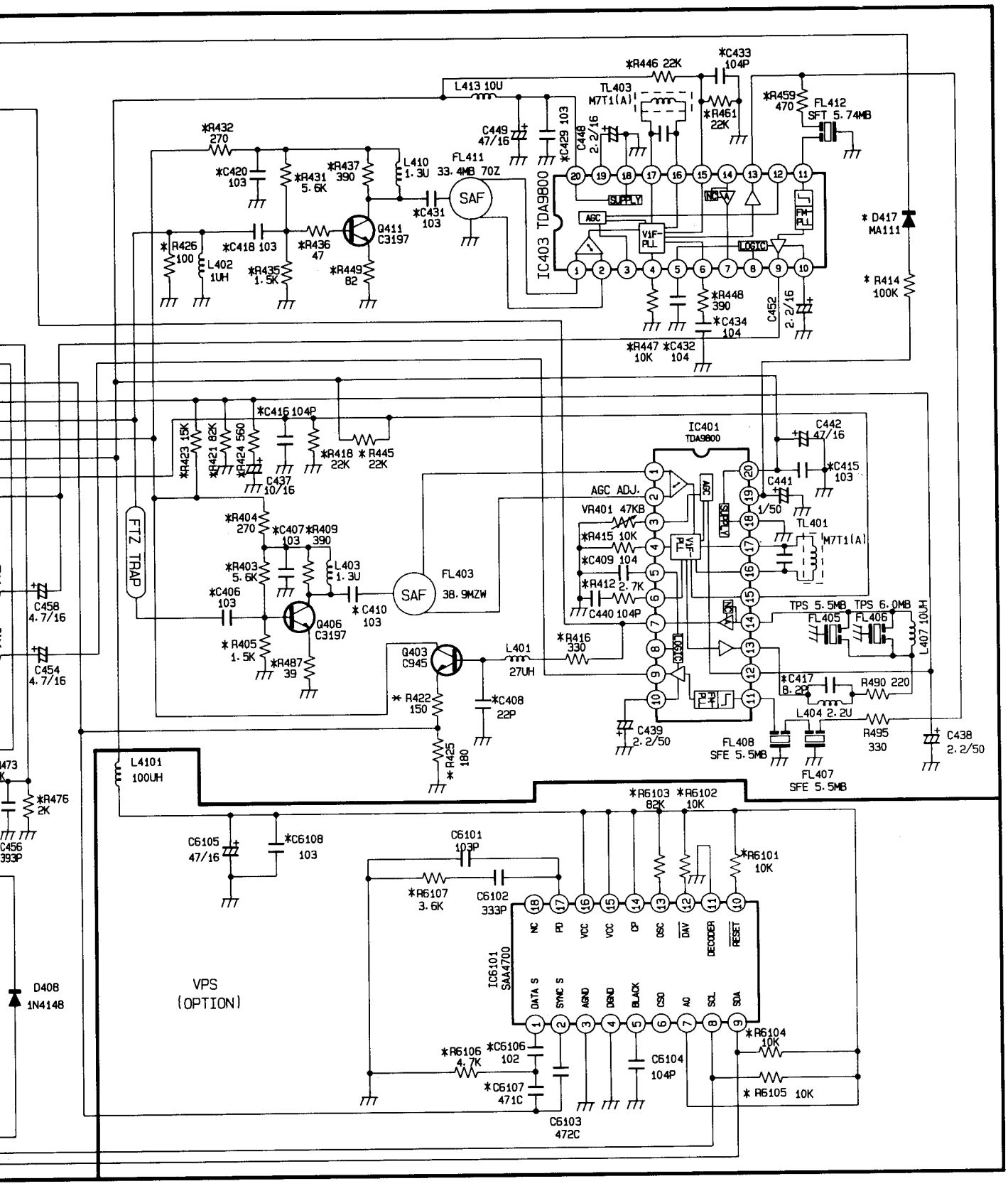
9-10. VIF-PACK/VPS




IC404 TDA3803A
IC403 TDA9800
IC401 TDA9800
IC6101 SAA4700
FL413 SFK54.7B
FL411 33.4MB 70Z
FL403 38.9MZW
FL408 SFE 5.5MB
FTZ TRAP
SAF
VPS (OPTION)
AGC ADJ.
VR401 47KB
*Q413 R1104
*Q401 R1102
*Q402 R1104
*R444 33K
*R491 820
C468 473P
*R469 4.3K
*R471 3.6K
C469 472P
*R472 5.1K
*R468 4.3K
C470 472P
C458 4.7/16
C454 4.7/16
*R474 1K
*R475 1K
*R473 2K
*R476 2K
C457 393P
C456 393P
*R478 1K
*R479 1K
*R483 331
*R480 331
D408 1N4148
*R481 182
*R484 182
*R432 270
*C420 103
*R431 5.6K
*R437 390
L410 1.3U
*C431 103
*R426 100
L402 1UH
*C418 103
*R436 47
*R435 1.5K
Q411 C3197
*R449 82
C449 47/16
*C429 103
C448 2.2/16
*R446 22K
*C433 104P
TL403 M7T1(A)
*R461 22K
*R459 470
*R448 390
*C434 104
C452 2.2/16
*R447 10K
*C432 104
*C416 104P
*R423 15K
*R421 82K
*R424 560
C437 10/16
*R418 22K
*R445 22K
*R404 270
*C407 103
*R409 390
*R403 5.6K
L403 1.3U
*C406 103
*C410 103
Q406 C3197
*R405 1.5K
*R487 39
Q403 C945
L401 27UH
*R416 330
*R422 150
*C408 22P
*R425 180
C439 2.2/50
*R415 10K
*C409 104
*R412 2.7K
C440 104P
C441 1/50
L4101 100UH
C6105 47/16
*C6108 103
C6101 103P
*R6107 3.6K
C6102 333P
*R6103 82K
*R6102 10K
*R6101 10K
*R6106 4.7K
*C6106 102
*C6107 471C
C6103 472C
C6104 104P
*R6104 10K
*R6105
NC
PD
VCC
VCC
OP
DSC
DAV
DECODER
RESET
DATA S
SYNC S
AGND
DGND
BLACK
CSO
AO
SCL
SDA
SUPPLY
AGC
V1F-PLL
LOGIC
PLL
VCO
DEMATRIX
AF OUTPUT SELECTOR
CONTROL LOGIC
IDENTIFICATION
CONTROL VOLTAGE SENSOR
PILOT AMPLIFIER
LED DRIVER
TDA 3803A



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

SPECIAL NOTE
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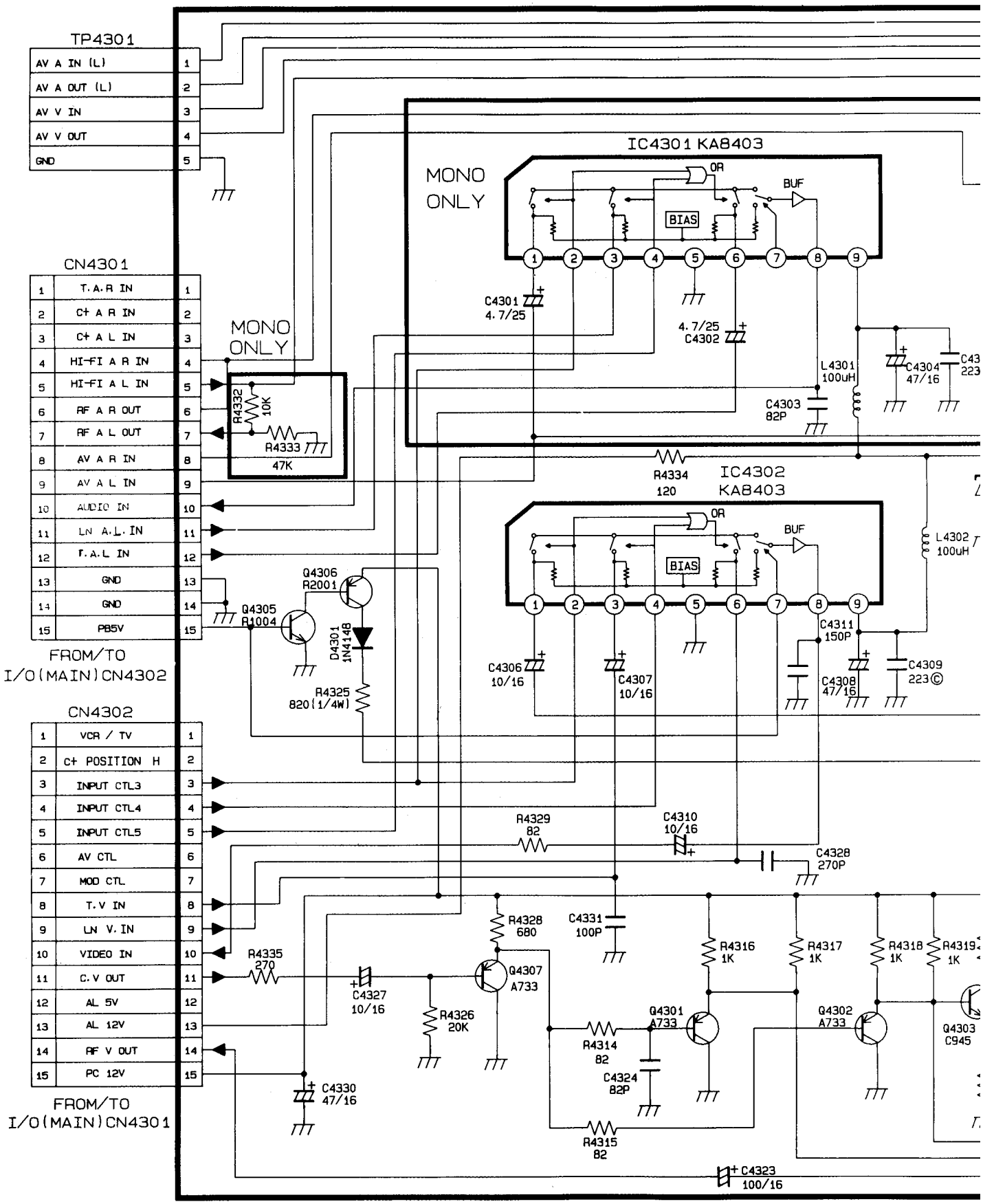
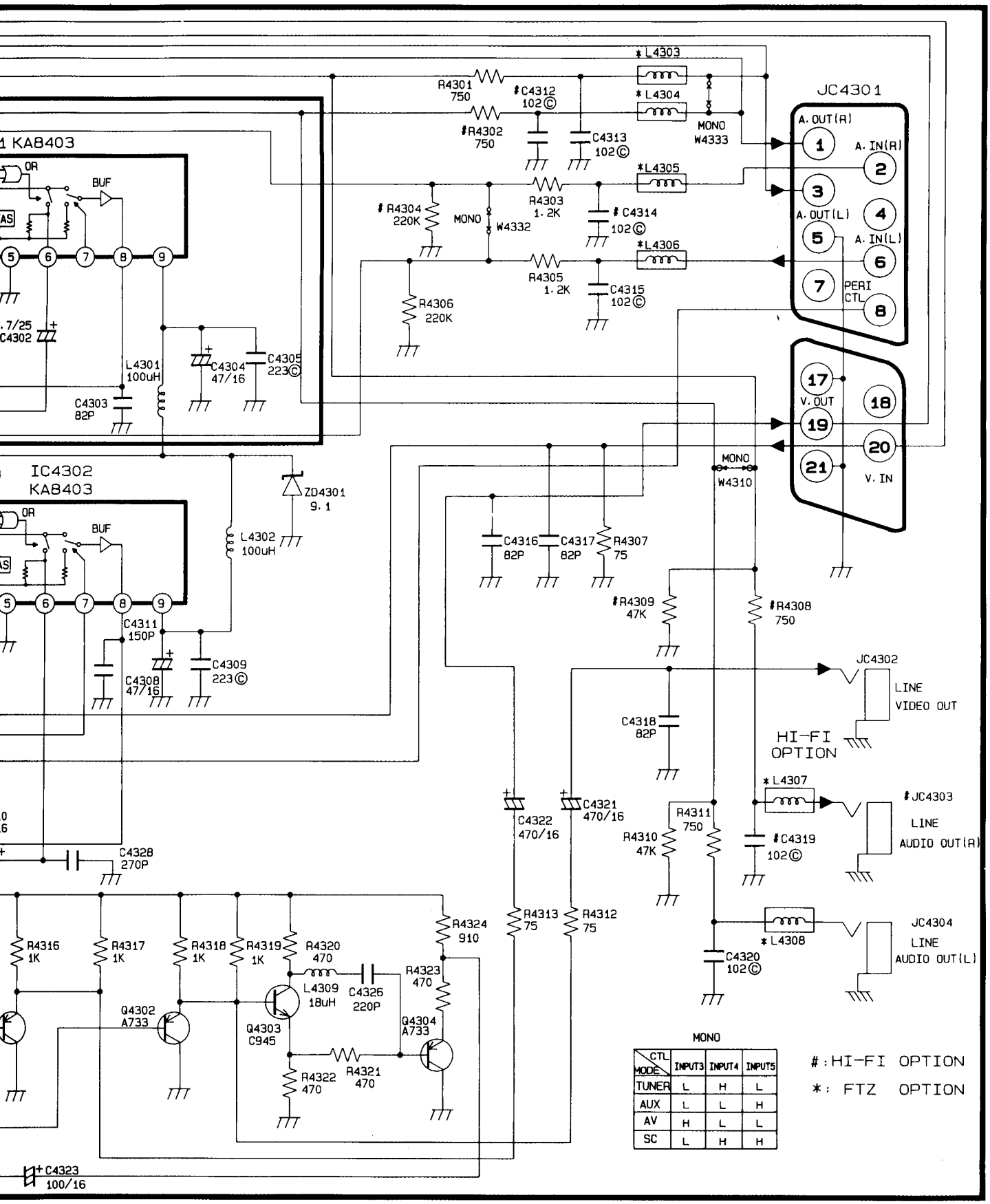
9-11. I/O (SUB PCB)





NOTE
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this

SPECIAL NOTE
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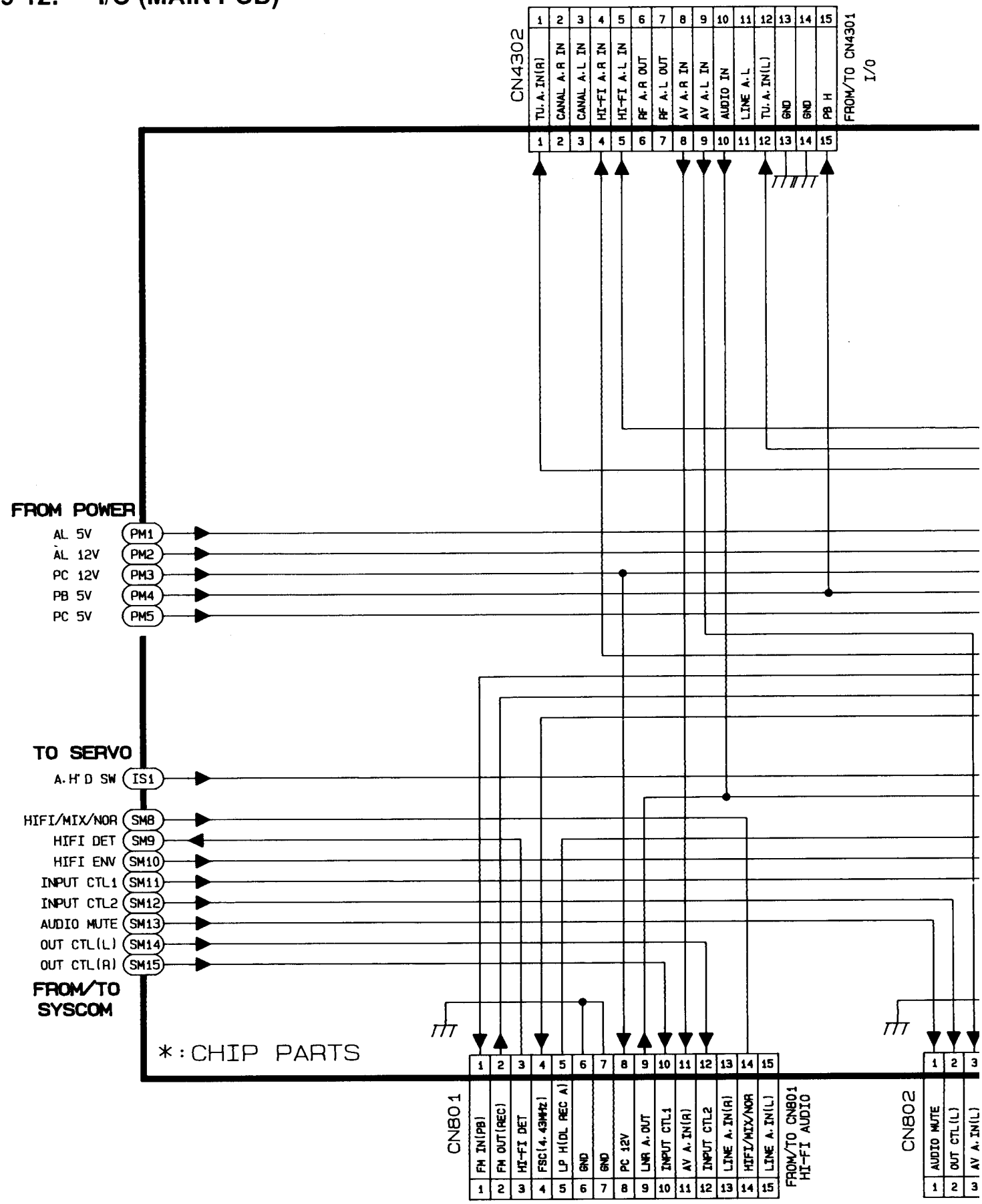
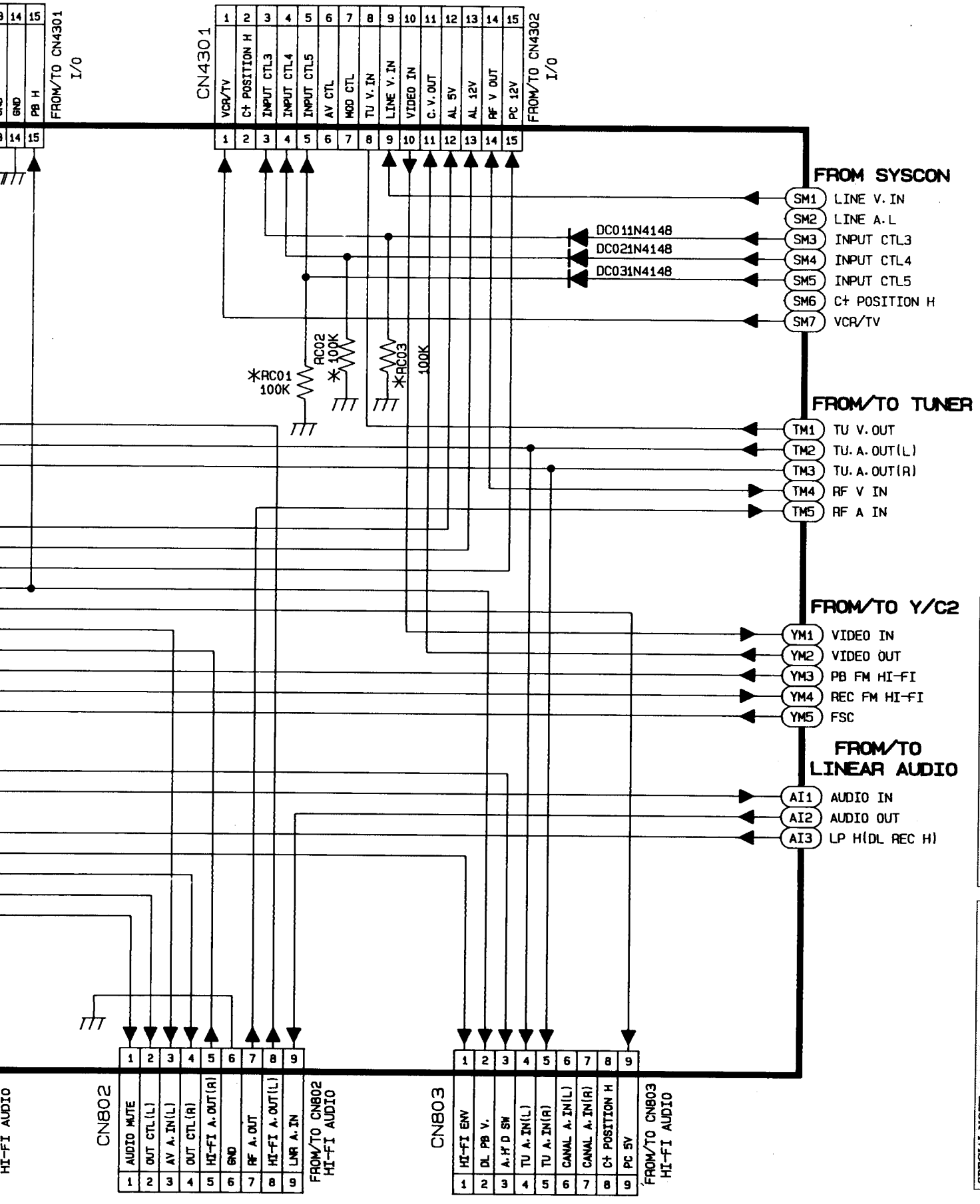
9-12. I/O (MAIN PCB)



I / O (MAIN)



NOTE
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SPECIAL NOTE
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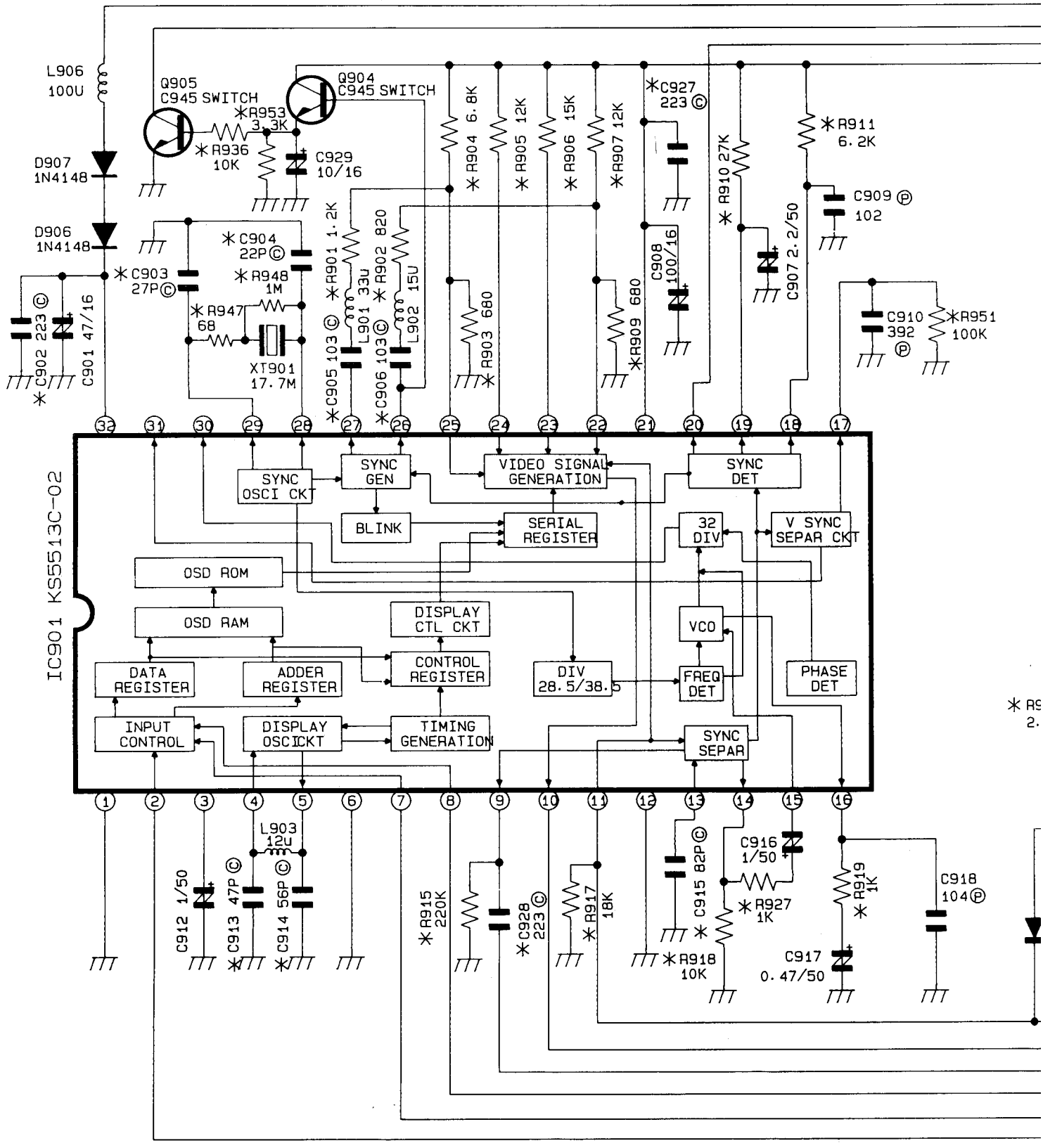
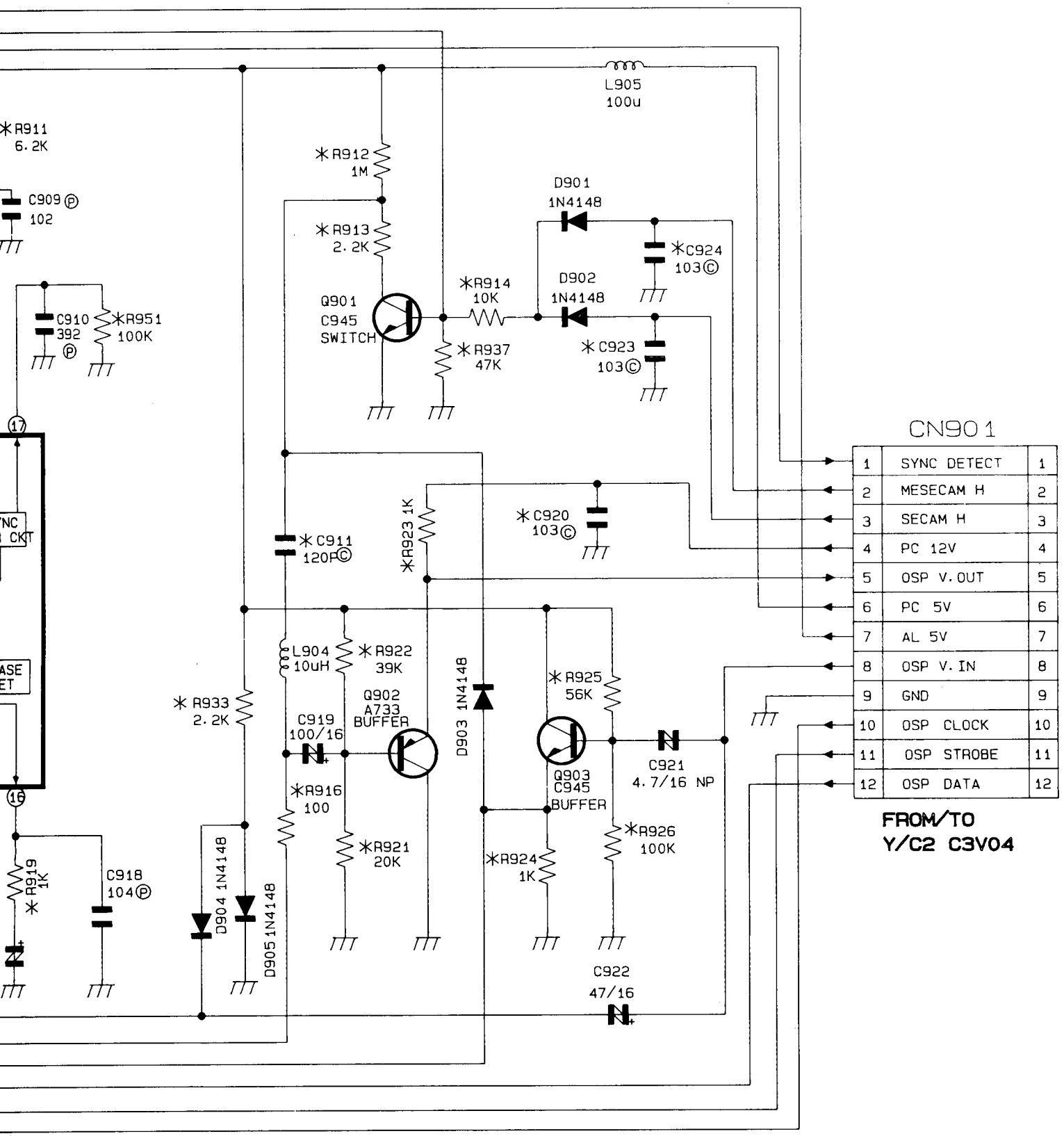
9-13. O.S.P



*: CHIP PARTS

O. S. P



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NOTE
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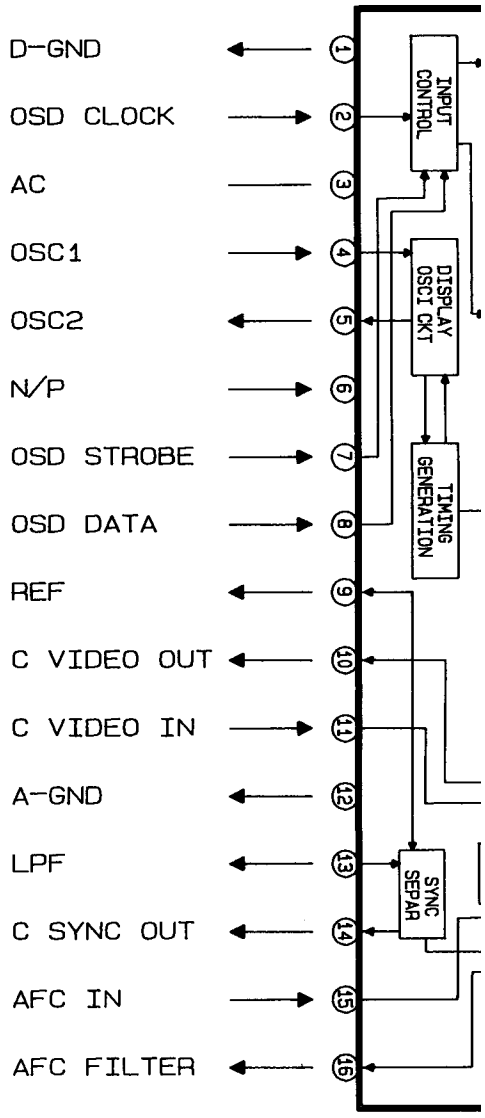
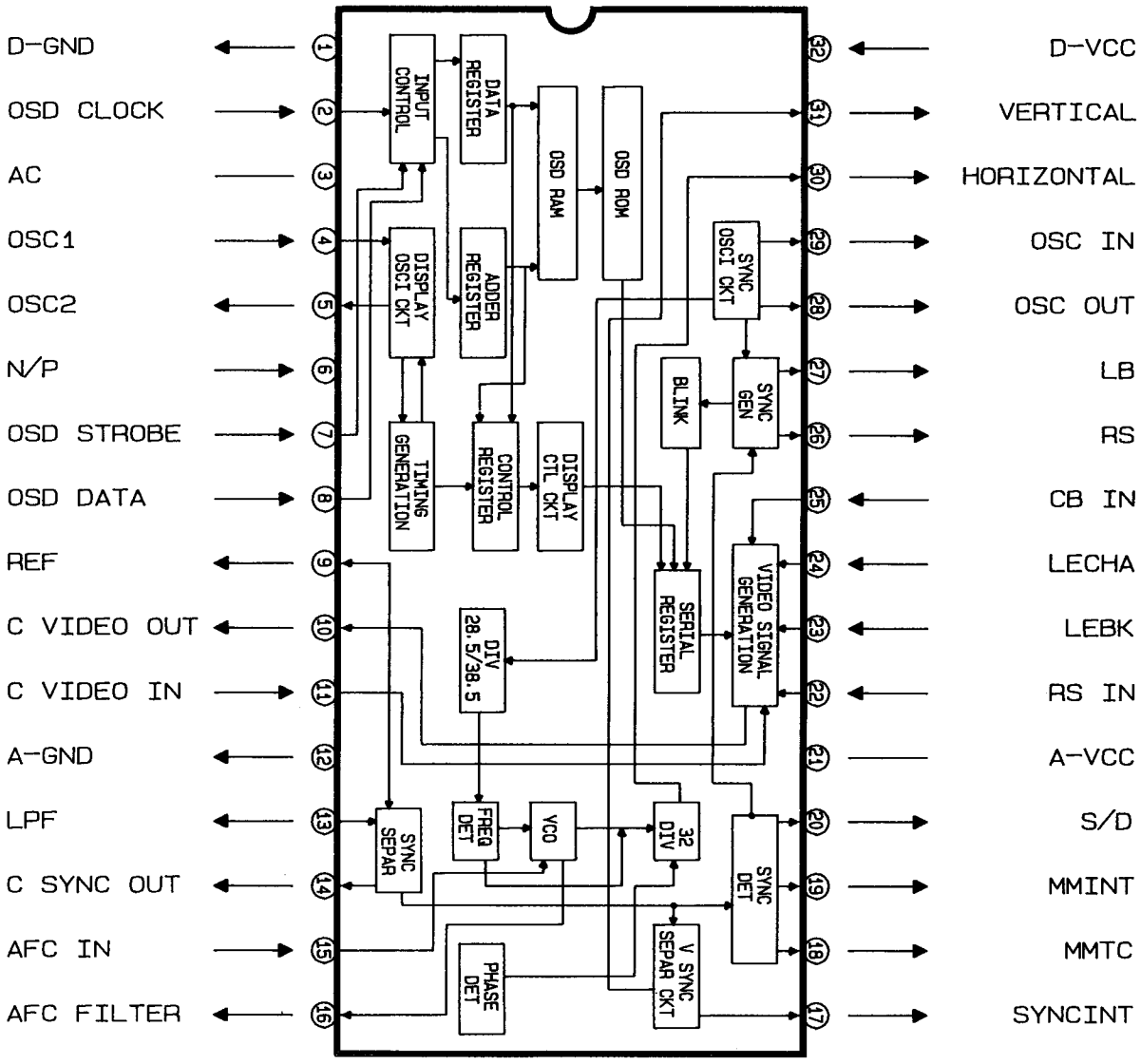
O. S. P

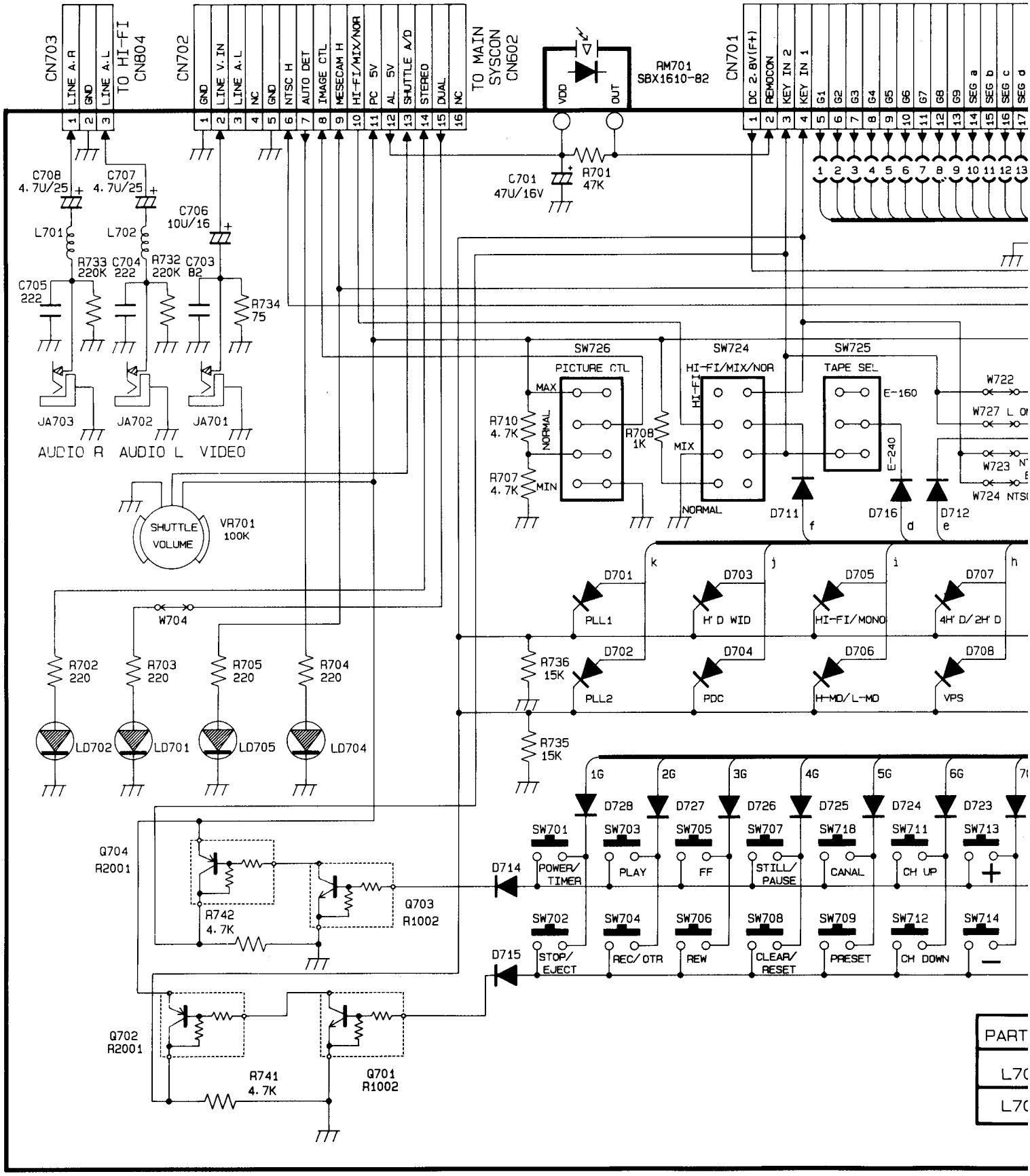
IC901		
MODE / PIN NO	SIGNAL OUT	BLUE OUT
1	0	0
2	0~4.4	0~4.4
3	3.6	3.6
4	-	-
5	-	-
6	0	0
7	4.4	4.4
8	0	0
9	-	1.6
10	-	-
11	-	0.6
12	0	0
13	-	1.7
14	0.1~4.1	4.0
15	0.3~2.9	0
16	2.2	2.3
17	-	4.8
18	-	0.5
19	1.75	5.0
20	0	0
21	5.0	5.0
22	0.8	
23	0.8	0.8
24	2.2	2.1
25	0.6	0.6
26	0	
27	0	0
28	-	-
29	-	-
30	0~3.7	0~3.7
31	0~3.7	0~3.7
32	3.7	3.7



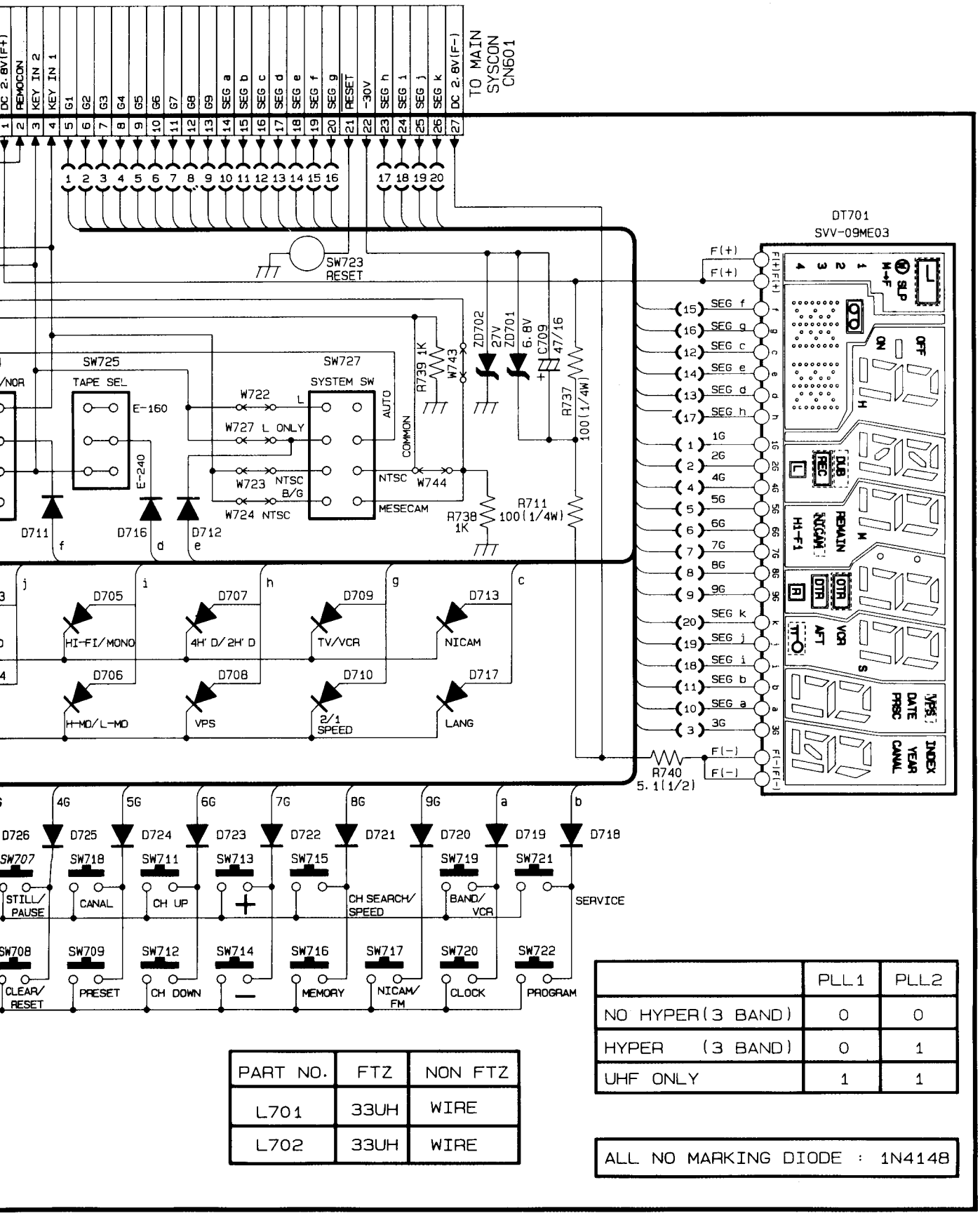
IC901 KS5513



9-14. Function/Timer



FUNCTION/TIMER



PART NO.	FTZ	NON FTZ
L701	33UH	WIRE
L702	33UH	WIRE

	PLL1	PLL2
NO HYPER(3 BAND)	0	0
HYPER (3 BAND)	0	1
UHF ONLY	1	1

ALL NO MARKING DIODE : 1N4148

NOTE
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SPECIAL NOTE
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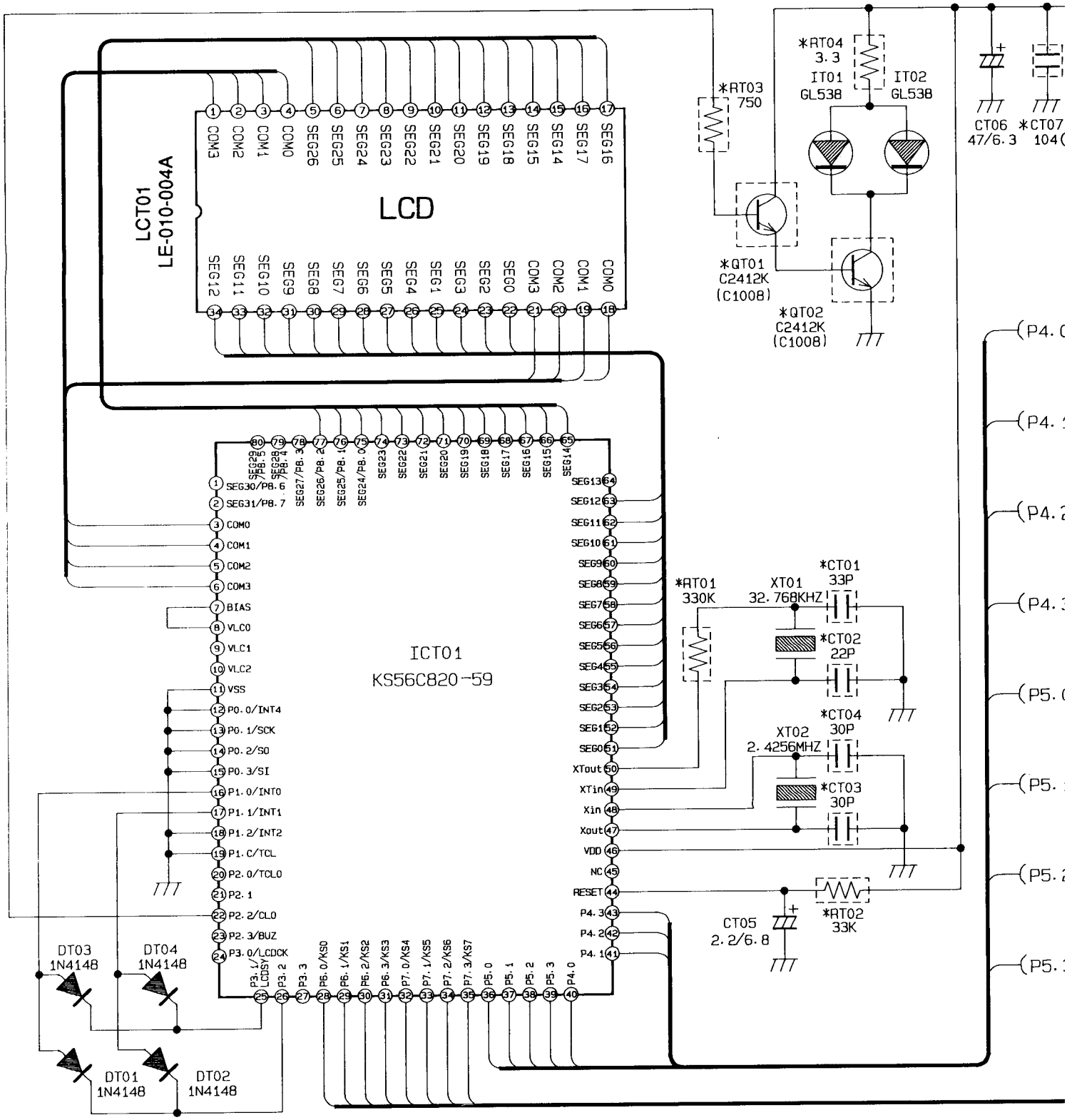
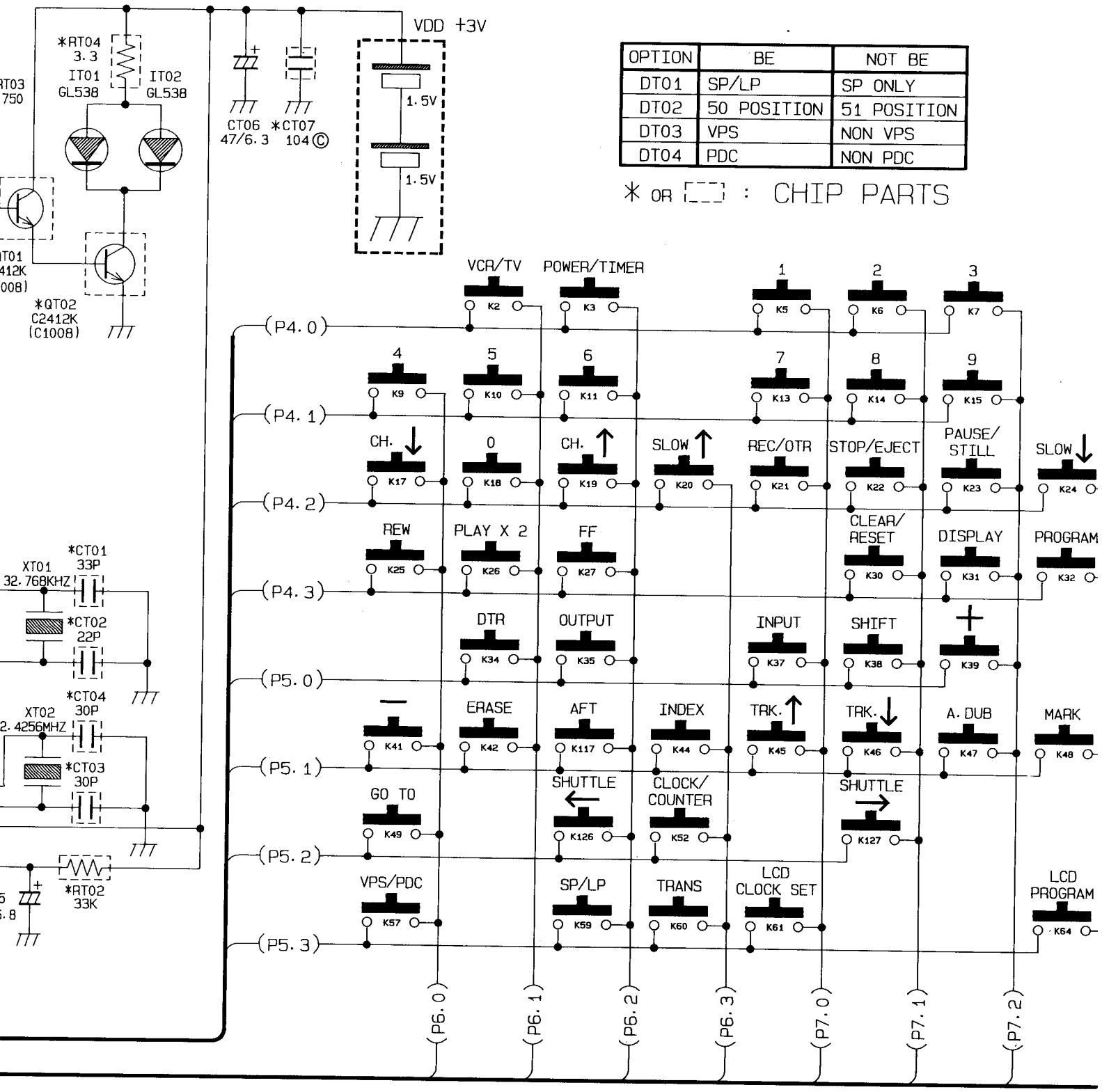
9-15. Remote Control





OPTION	BE	NOT BE
DT01	SP/LP	SP ONLY
DT02	50 POSITION	51 POSITION
DT03	VPS	NON VPS
DT04	PDC	NON PDC

* OR [ ] : CHIP PARTS

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NOTE
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