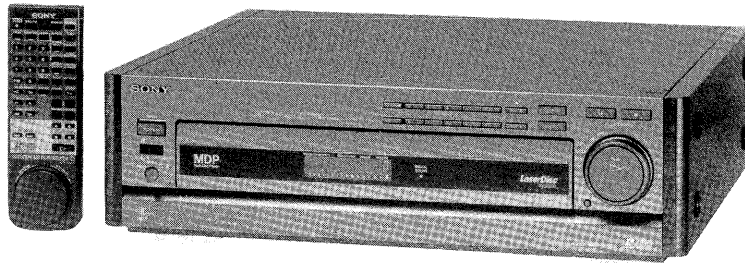


MDP-605

RMT-S605A

SERVICE MANUAL

US Model
Canadian Model
E Model



SPECIFICATIONS

Type
 Signal readout
 Signal format
 Playing time

CD/CDV/LD Player
 Optical (Laser beam reflection)
 EIA standard, NTSC color system
 (minutes)

LD	CAV	30 cm (12 in) double-sided	60
		20 cm (8 in) double-sided	28
		20 cm (8 in) single-sided	14
	CLV	30 cm (12 in) double-sided	120
		20 cm (8 in) double-sided	40
		20 cm (8 in) single-sided	20
CD	12 cm (5 in) single-sided	74	
	8 cm (3 in) single-sided	20	
CDV	Audio portion	20	
	Video portion	5	

Digital audio specifications

Frequency response 4 Hz to 20kHz (± 0.2 dB)
 Signal-to-noise ratio More than 110 dB (EIAJ)*
 Dynamic range More than 100 dB (EIAJ)
 Total harmonic distortion 0.003% or less (at 1kHz, EIAJ)
 Channel separation More than 100 dB (EIAJ)
 Wow and flutter Below measurement limit ($\pm 0.001\%$ W.PEAK) (EIAJ)

Video specifications

Horizontal video resolution 425 lines
 Signal-to-noise ratio More than 51 dB

Input/output specifications

Video output 1, 2 1.0 Vp-p, 75 ohms, unbalanced
 Video output 1.0 Vp-p, 75 ohms.
 S video output 1, 2 Luminance: 1 Vp-p, 75 ohms, unbalanced, sync negative
 Chrominance: 0.286 Vp-p, 75 ohms, unbalanced
 Audio output 1, 2 Stereo L, R
 Analog: 200 mVrms (1 kHz, 40% modulation)
 Digital: 200 mVrms (1 kHz, -20 dB)

— Continued on next page —



CD CDV LD PLAYER
SONY®

Audio output	Monaural (only for RFU adaptor) MIX output: 77.5 mVrms (1 kHz, -20 dB)
Audio digital output (optical)	-18 dBm, wavelength 660 nm
RFU DC output	Mini mini jack DC 5 V
CONTROL S IN	Mini jack (1)
Power requirements	
Power requirements	120 V AC, 60 Hz
Power consumption	52 W
Weight	13.1 kg
Dimensions	Approx. 430 × 141 × 446 mm (w/h/d) (17 × 4 ¹ / ₂ × 17 ⁹ / ₁₆ inches)
Operating temperature	+5°C to +35°C
Ambient humidity	5 to 90%
* Measured according to EIAJ (Electronic Industries Association of Japan) standards.	

Remote Commander

Principle of operation	Infrared pulse
Power requirements	3 V DC (2 size AA batteries)
Dimensions	Approx. 62 × 44.5 × 185 mm (w/h/d) (2 ⁷ / ₁₆ × 1 ¹³ / ₁₆ × 7 ³ / ₈ inches)
Weight	Approx. 170 g (including batteries)

Supplied accessories

Remote Commander RMT-S605A (1)
Size AA (R6) batteries (2)
RFU adaptor RFU-90 UC (1)
Video connecting cord (phono plug 1 ↔ phono plug 1) (1)
Audio connecting cord (phono plug 2 ↔ phono plug 2) (1)
Operating Instructions



Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!


LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	GENERAL		5.	EXPLODED VIEWS	
	Location and Function of Controls	5	5-1.	Cabinet Assembly	162
	Connections	7	5-2.	Front Panel Assembly	163
	To Play an LD	8	5-3.	Main Boards Assembly	164
	To Play an CD	14	5-4.	Chuck Plate Block Assembly	165
	LD/CD/CDV	17	5-5.	Chassis Assembly (1)	166
			5-6.	Chassis Assembly (2)	167
2.	DISASSEMBLY		5-7.	Optical Chassis Assembly	168
	2-1. Removal of Front Panel and Upper, Case	20	5-8.	Optical Block Assembly	169
	2-2. Removal of PS-251, LV-20, AU-81, SV-60 and CL-23 Boards	20	6.	ELECTRICAL PARTS LIST	170
	2-3. Removal of Plate Sub Block Assembly	21		HARDWARE LIST	204
	2-4. Attachment of the Chuck Cam	21	7.	ELECTRICAL ADJUSTMENT	
	2-4-1. Attachment of the Tray	22	7-1.	Equipments Used	205
	2-4-2. Attachment of the Chuck Plate	22	7-2.	Precautions for Adjustment	205
	2-5. Removal of the OPT Chassis Block Assembly and the Optical Device	23	7-3.	Adjustment Cable	206
3.	DIAGRAM		7-3-1.	MD Adjustment Cable (J-6282-059-B)	206
	3-1. Circuit Boards Location	24	7-4.	Power Supply Block Check (PS-251 Board)	206
	3-2. Overall Block Diagram	25	7-5.	System Control System Adjustment	206
	3-3. Video Block Diagram	29	7-5-1.	Microprocessor Clock Adjustment (LV-20 Board)	206
	3-4. Servo Block Diagram	33	7-6.	Servo System Adjustments	206
	3-5. Spindle Servo Block Diagram	37	7-6-1.	Side A LD Servo System Adjustment	207
	3-6. Syscon Block Diagram	41	1.	Side A Tracking Balance Adjustment (SV-60 Board)	207
	3-7. Audio Block Diagram	45	2.	Focus Gain Adjustment (SV-60 Board)	207
	3-8. Power Block Diagram	49	3.	Side A Crosstalk Adjustment	208
4.	PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS		3-1.	Side A Tangential Adjustment (Mechanical section)	208
	4-1. Frame Schematic Diagram	53	3-2.	Side A RAD Tilt, Focus Balance Adjustment (SV-60 Board)	208
	4-2. Printed Wiring Boards and Schematic Diagrams	56	4.	LD Tracking Gain Adjustment (SV-60 Board)	209
	• CH-70 Board, SL Board	57	7-6-2.	CD Servo System Adjustment	210
	• LV-20 (Video) Board	69	1.	Side A RD Adjustment (Mechanical section)	210
	• LV-20 (Video), RM-45 Boards	73	2.	CD Focus Balance Adjustment (SV-60 Board)	210
	• LV-20 (Video), LV-20 (AFM Audio) Boards	87	3.	CD RF H Level Adjustment (CH-70 Board)	211
	• LV-20 (System Control) Board	97	4.	CD RF L Level Adjustment (SV-60 Board)	211
	• LV-20 (Spindle Error), CS-32 Boards	101	7-6-3.	Side B LD Servo System Adjustment	211
	• YC-117 Board	111	1.	Side B Tracking Balance Adjustment (SV-60 Board)	211
	• SV-60, HT-11, HT-12 Boards	118	2.	Side B Crosstalk Adjustment	212
	• MC-62, SK-40, FG-40 Boards	132	2-1.	Side B Tangential Adjustment (Mechanical section)	212
	• AU-81 Board	138	2-2.	Side B RAD Tilt, Focus Balance Adjustment (SV-60 Board)	212
	• FP-301, FP-302, JS-21, ES-30, PL-21 Boards	145	3.	Side B RD Adjustment (Mechanical section)	213
	• PS-251, CL-23, TR-43, SW-154 Boards	153	7-7.	Video System Adjustment	213
	4-3. Semiconductors	161	1.	Burst Gate Position Adjustment (LV-20 Board)	213
			2.	REF H Adjustment (LV-20 Board)	214
			2-1.	Coarse Adjustment	214
			2-2.	Fine Adjustment	214
			3.	TBC Range Adjustment (LV-20 Board)	215
			4.	DEMODO Video Level Adjustments (LV-20 Board)	215

<u>Section</u>	<u>Title</u>	<u>Page</u>
5.	Color DOC Adjustment (LV-20 Board)	216
6.	Picture Enhancer Chroma Trap Adjustment (LV-20 Board)	216
7.	Picture Enhancer HPF DC Balance Adjustment (LV-20 Board)	217
8.	Video Output Level Adjustment (LV-20 Board)	217
9.	S Video Output Level Adjustment (YC-117 Board)	218
7-8.	Audio System Adjustment.....	218
7-8-1.	Digital Audio System Adjustment.....	218
1.	RF PLL Offset Adjustment (AU-81 Board)	218
2.	RF PLL Free-run Adjustment (AU-81 Board).....	218
7-8-2.	Digital Audio System Check	219
1.	CD Playback Level Check.....	219
2.	LD Playback Level Check	219
7-8-3.	Analog Audio System Adjustment.....	219
1.	LD Playback Level Check	219
7-9.	Layout Diagrams of Adjustment Related Parts.....	220

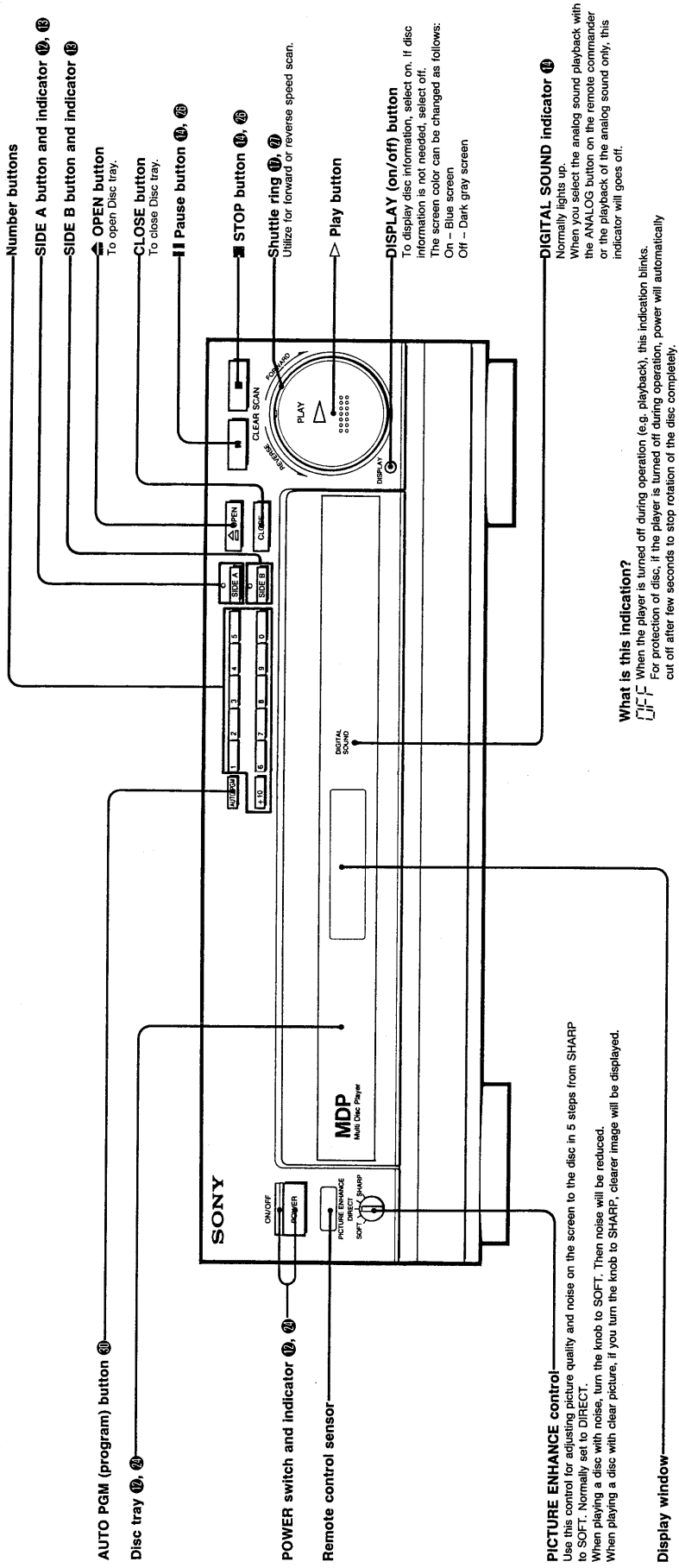
SECTION 1 GENERAL

This section is extracted from instruction manual.

Location and Function of Controls

Refer to the page indicated in the black circle for details. Continued overleaf →

Front panel



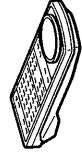




Number buttons
SIDE A button and indicator ③
SIDE B button and indicator ③
OPEN button
 To open Disc tray.
CLOSE button
 To close Disc tray.
Pause button ④, ⑤
STOP button ⑤, ⑥
Shuttle ring ⑥, ⑦
 Utilize for forward or reverse speed scan.
Play button
DISPLAY (on/off) button
 To display disc information, select on, if disc information is not needed, select off. The screen color can be changed as follows:
 On - Blue screen
 Off - Dark gray screen
DIGITAL SOUND INDICATOR ⑧
 Normally lights up.
 When you select the analog sound playback with the ANALOG button on the remote commander or the playback of the analog sound only, this indicator will goes off.

What is this indication?
OFF
 For protection of disc, if the player is turned off during operation, power will automatically cut off after few seconds to stop rotation of the disc completely.

PICTURE ENHANCE control
 Use this control for adjusting picture quality and noise on the screen to the disc in 5 steps from SHARP to SOFT. Normally set to DIRECT.
 When playing a disc with noise, turn the knob to SOFT. Then noise will be reduced.
 When playing a disc with clear picture, if you turn the knob to SHARP, clearer image will be displayed.

Display window

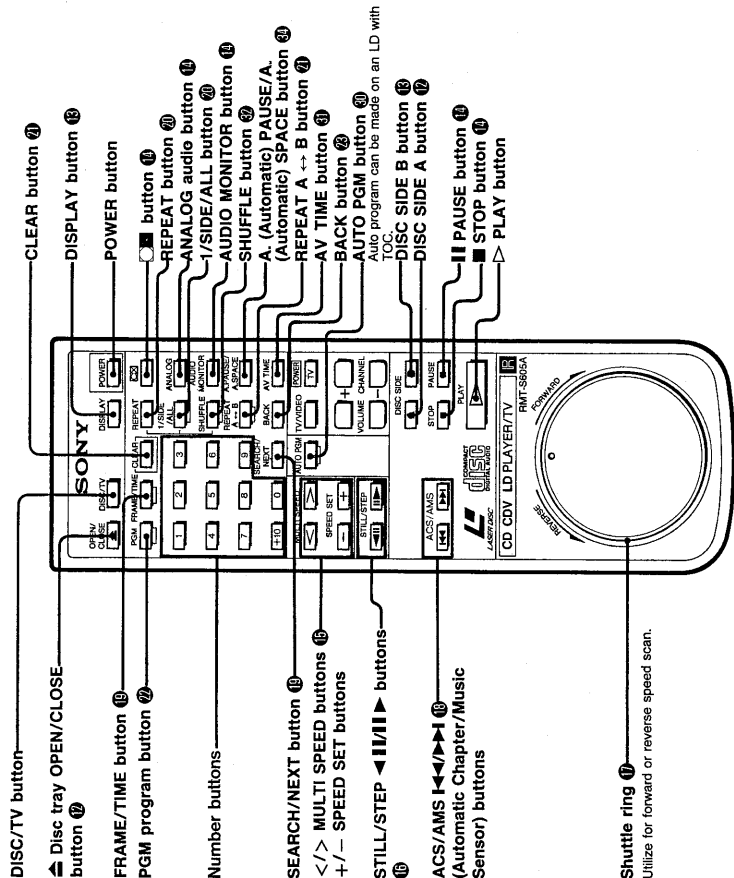
Accessories

- RMT-S605A Remote Commander 
- Two size AA (R6) batteries 
- RFU adaptor RFU-90UC (1) 
- Audio connecting cord (phono 2 ↔ phono 2) 
- Video connecting cord (phono 1 ↔ phono 1) 

Location and Function of Controls Refer to the page indicated in the black circles for details.

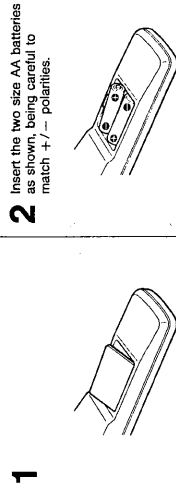
Remote Commander

LD Operation

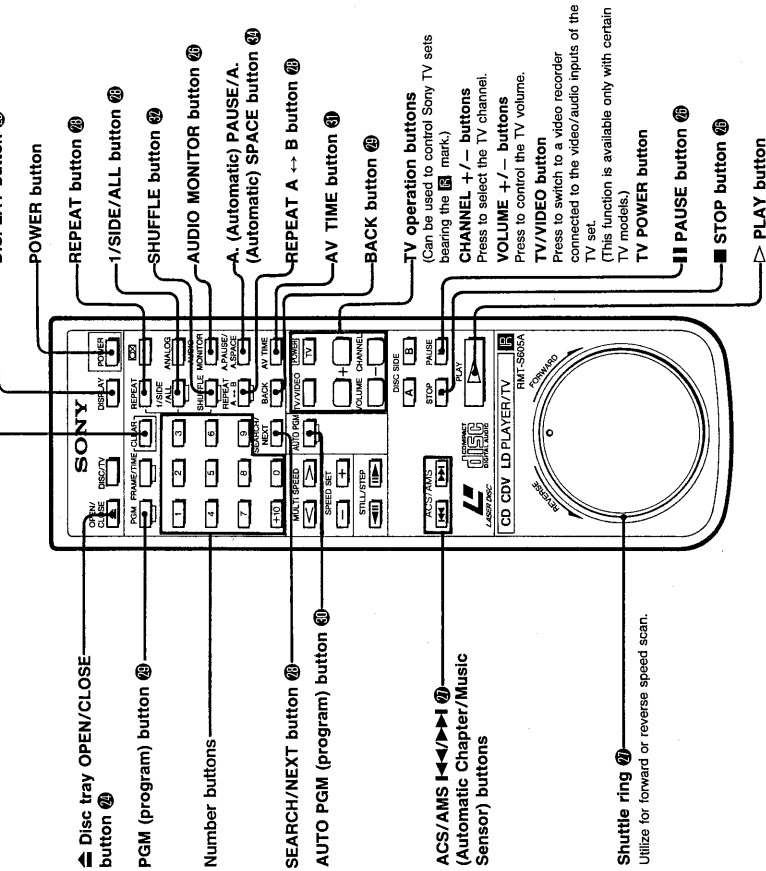


The yellow bar under a button indicates that the function of that button can be released by pressing the CLEAR button.

Battery Insertion



CD, CDV, Others Operation



Battery life

Under normal operations, the batteries will last for approximately six months. If the operating range of the Remote Commander becomes noticeably short, replace all the batteries with new ones. If the Remote Commander is not to be used for a long period of time, remove the batteries to avoid possible damage from battery leakage.

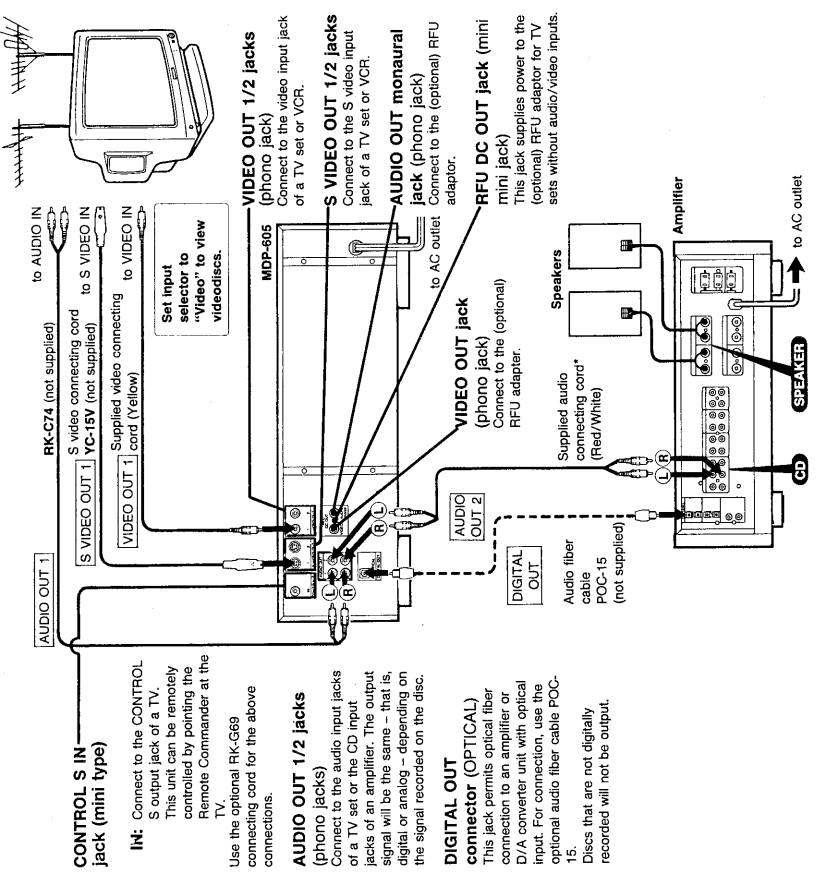
Remote Commander Precautions

Do not let sunlight or light from a powerful artificial light source fall directly on the Remote Commander sensor on the front panel as it may interfere with operation or damage the sensor.

Connections

To Connect to TV Without Audio/Video Inputs

To Connect to Audio System and to TV with Video Inputs



CONTROL S IN jack (mini type)
IN: Connect to the CONTROL S output jack of a TV. This unit can be remotely controlled by pointing the Remote Commander at the TV.

Use the optional RK-G69 connecting cord for the above connections.

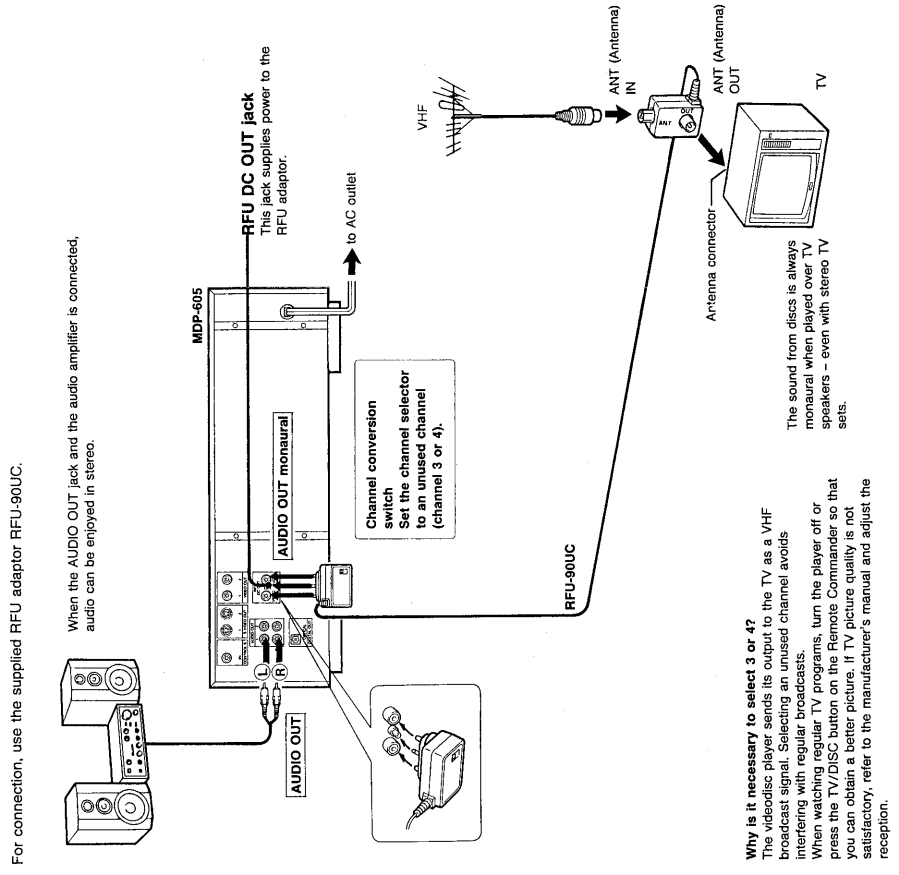
AUDIO OUT 1/2 jacks (phono jacks)
 Connect to the audio input jacks of a TV set or the CD input jacks of an amplifier. The output signal will be the same - that is, digital or analog - depending on the signal recorded on the disc.

DIGITAL OUT connector (OPTICAL)
 This jack permits optical fiber connection to an amplifier or D/A converter unit with optical input. For connection, use the optional audio fiber cable POC-15. Discs that are not digitally recorded will not be output.

* You can connect the player's audio output to the TV instead of an audio system. If the TV set has only a monaural phono jack for audio, use the VMC-720M/730M connecting cord (not supplied).

- Precautions on connecting**
- Make sure that all equipment is turned off before connecting or disconnecting any cables.
 - Firmly insert the plugs into the jacks. A loose connection can lead to noise.
 - When unplugging a cable, grasp the plug. Never pull the cable itself.
 - To prevent interference, turn off all equipment connected, but not currently in use.
 - If noise is emitted from the audio or video input, try moving the equipment further apart.

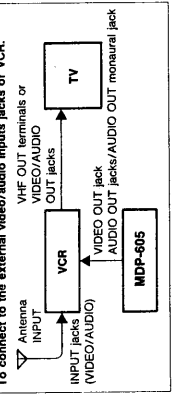
- Connection methods differ. When in doubt, consult the manufacturer's manual.
- **Connection of optical fiber cable**
 Remove protective cover. Plug connector in firmly.



When the AUDIO OUT jack and the audio amplifier is connected, audio can be enjoyed in stereo.

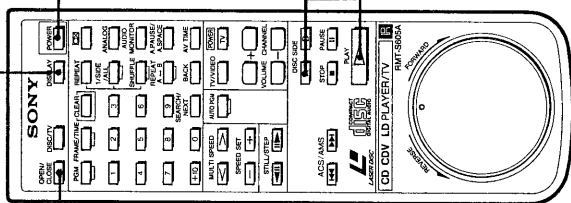
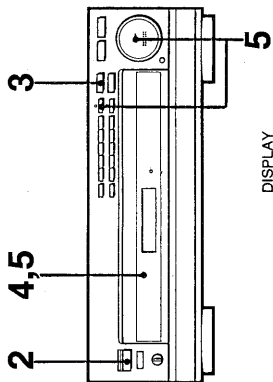
Channel conversion switch
 Set the channel selector to an unused channel (channel 3 or 4).

Why is it necessary to select 3 or 4?
 The videodisc player sends its output to the TV as a VHF broadcast signal. Selecting an unused channel avoids interfering with regular broadcasts. When watching regular TV programs, turn the player off or press the TV/DISC button on the Remote Commander so that you can obtain a better picture. If TV picture quality is not satisfactory, refer to the manufacturer's manual and adjust the reception.



To obtain a better picture
 Always switch off the player when watching a TV program.

During FM or AM reception
 Turn off the power of the player to prevent the possibility of noise interference.



Notes on disc tray
Do not insert a hand or finger in the player while it is operating. Although the player will stop automatically if an object is inserted while in play, serious injury may result. Be sure to place the unit out of the reach of small children. Insert only one disc at a time. Incorrect placement of two or more discs may lead to malfunction.

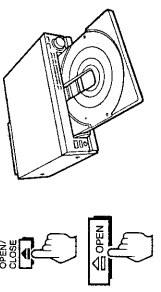
Identical buttons on the main unit can also be used.

1 Turn on the TV and stereo system.
TV: Select the channel used for videodisc playback or the video input (channel 3 or 4). (See p. ⑩)
Stereo system:
Turn on the amplifier or receiver and select the proper audio input [CD] or [AUX].

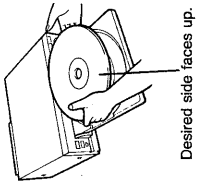
2 Turn on the player.



3 Open the disc tray.

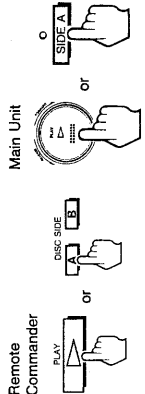


4 Place the disc on the tray.



Place the disc on the center of the tray. If the disc is not placed correctly, playback may not start.
This player determines the sides on the disc, A or B, in the disc tray. The upper side is always A regardless of label A or B on the surfaces.

5 Start playback.



Or push the disc tray compartment, then playback will also begin.
After inserting a disc, playback cannot be started by pressing CLOSE button on the main unit or OPEN/CLOSE button on the Remote Commander.

To pause at the beginning of a disc
Press the II button instead of conducting step 5. The tray closes, and the player pauses at the beginning of the disc side A.
To pause the first track of the side B, press the SIDE B button on the main unit or the DISC SIDE B button on the Remote Commander, then press II button.

AV calendar
When playing an LD containing TOC (Table of Contents) data, the AV calendar shows information on the total number of selections. As selections are played, its corresponding numbers on the display disappear.

To play the side B first
Press the DISC SIDE B button on the Remote Commander or the SIDE B button on the main unit instead of step 5.

After playback on side A is over
It plays the side B automatically after ending to play the side A. If the side B does not get recorded anything, it will stop.

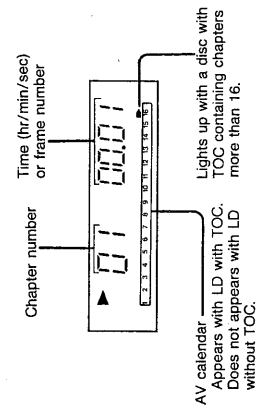
Using an optional timer
Set the timer after pressing STOP button on the unit to change the STOP indication from blinking to lighting on the screen. To start playback with an optional timer automatically, leave the POWER switch of the disc player in the depressed position. When the preset time arrives, the timer will supply power to the main unit and playback will begin at that point.

To turn the disc sides

In playing the side A: Press the DISC SIDE B button on the Remote Commander or the SIDE B button on the main unit.

In playing the side B: Press the DISC SIDE A button on the Remote Commander or the SIDE A button on the main unit.

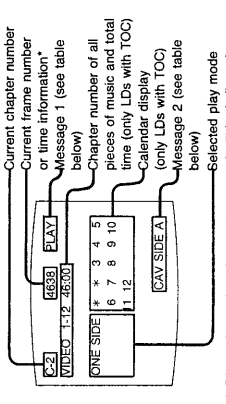
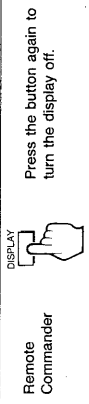
Display on playback message



Screen Messages

Information on the operating condition of the unit and chapter or track numbers can be superimposed on the TV or monitor screen. While no image is displayed, such as during search, information for LD is shown on a blue background.

To show the on-screen display



* Discs without time data to the second will be indicated as "22".
Message 1 (Examples)

Display	Explanation
OPEN	Disc table open
CLOSE	Disc table closed
PLAY	Playback
STOP	Stop
PAUSE	Pause
⏮ / ⏪	Forward/reverse speed scan
SEARCH	Search
▶ X1/2	1/2 speed display in forward direction

Message 2 (Examples)

Display	Explanation
SIDE A CAV	Standard-play disc side A
SIDE B CAV	Standard-play disc side B
SIDE A CLV	Long-play disc side A
SIDE B CLV	Long-play disc side B
1/L	Main soundtrack/left channel
2/R	Second soundtrack/right channel
DIGITAL	Digital sound
ANALOG	Analog sound

Note
This player determines the side on the disc, A or B, in the disc tray. The upper side is always A regardless of label A or B on the surfaces.

To stop playback and remove disc

Remove the disc and press the **OPEN/CLOSE** button (or **CLOSE** button on the unit) to close the empty tray.

To play a stereo LD or a second audio program (SAP) LD

Press the playback (▶) button, then press the **AUDIO MONITOR** button repeatedly to select the sound in the following information.

```

    graph TD
        Disc[Reproduced sound] --> Stereo[Stereo]
        Disc --> SAP[SAP disc]
        SAP --> AS1[Audio signal 1  
left channel]
        SAP --> AS2[Audio signal 2  
right channel]
        AS1 --> LCH[Left channel]
        AS2 --> RCH[Right channel]
    
```

To temporarily interrupt playback

When playing CAV discs, the sound is cut off and a still picture is shown. When playing other discs, the unit enters the pause mode (blue or dark gray screen). To resume playback from the same point, press the **II** or **▷** button.

To stop playback

Press the **▷** button to restart playback from the beginning of the disc.

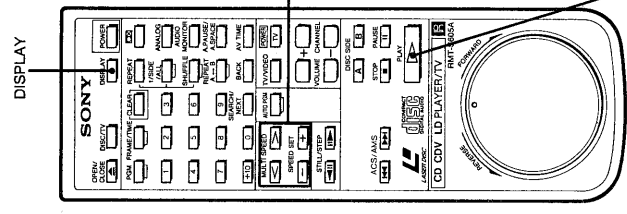
To Change Playback Speed and Direction – Speed Play (CAV standard-play)

Speed and Direction

- To select the playback direction.
 - Reverse
 - Forward
- The direction can be changed regardless of playback speed.
- To display the speed and direction
 - The playback speed and direction appear.
- To select the playback speed.
 - To reduce speed
 - To increase speed

Speed Indication	Speed (approx.)	Speed Indication	Speed (approx.)
Faster	10 times normal speed	x1/4	1/4 normal speed
x10	10 times normal speed	x1/6	1/6 normal speed
x5	5 times normal speed	x1/16	1/16 normal speed
x3	3 times normal speed	x1/30	1/30 normal speed
x2	2 times normal speed	x1/90	1/90 normal speed
x1	Normal speed	Slower	Slower
x1/2	1/2 normal speed		

To resume normal playback




- **Sound during speed play**
Audio output occurs only during × 1 (normal) speed play in the forward direction. There is no sound for other speed and direction combinations.
- **Extended-play discs (GLV)** (See p. 8)
Speed play, freeze frame and step playback are not possible with CLV discs.
- **Disc with automatic picture stop code**
When an automatic picture stop code is encountered during speed playback (at × 1, 1/2, 1/4, 1/8, 1/16, 1/30, 1/90), the unit automatically stops at that frame. To resume playback, press the **▷** button, **II** button, **</>** button, **</>** button, or the shuttle ring.

Identical buttons on the main unit can also be used.

- **To switch between digital and analog sound on an LD**
If the LD contains a digital stereo sound signal, the player automatically sends that to the output jacks. Pressing the **ANALOG** button on the Remote Commander switches to the analog audio signal and turns the **DIGITAL SOUND** indicator off. Press the **ANALOG** button again to return to digital sound output.
- **With certain discs, there may be a difference in volume between the digital and the analog sound.**
When playback sound on side A is selected by **AUDIO MONITOR** or **ANALOG** button, the playback side changes, playback sound resume digital sound.
- **Discs with Label**
Discs bearing the **Label** are recorded with the noise reduction system, which gives lower noise levels and higher dynamic range. Press **Label** button on the Remote Commander, and the **Label** indication is displayed for 3 seconds at the right bottom on the screen.
- **Some discs do not include the code necessary to automatically activate the player's noise reduction system.** In this case, press the **Label** button on the Remote Commander to manually activate the system.


To Play Frame by Frame – Freeze-frame, STEP playback (CAV standard play)


To view a still picture: – Freeze-frame



The screen stops at the current frame.


To view a frame one by one: – STEP playback

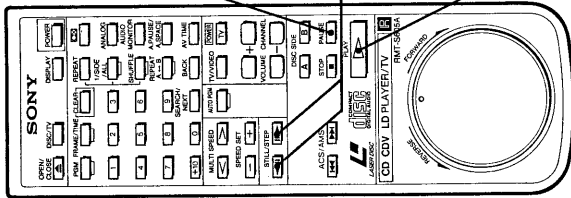
1.  Press once for freeze-frame.

2.  Each press shifts one frame backward. Each press shifts one frame forward.

Hold the button down for continuous step playback. You can also use the STILL/STEP button during playback.

To resume normal playback

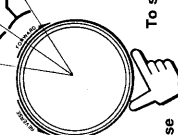




To Search for a Particular Scene – Dual Speed Clear Scan

To forward or reverse speed clear scan

The playback speed can be changed depending on the degree of the shuttle ring.

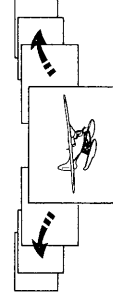


Scan at approx. 10 times speed of normal scan.
Scan at approx. 30 times speed of normal scan.

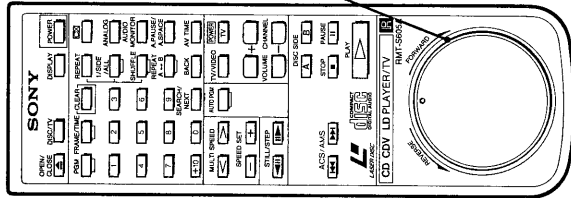
To scan in reverse

To scan forward

Identical speeds are available for reverse speed scan.



Scanning continues until the shuttle ring is released.



- During freeze-frame or step playback operation There is no sound.
- Extended-play (CLV) discs Speed play, freeze frame and step playback are not possible with CLV discs. When the PAUSE button is pressed, the screen becomes blue.

- While scanning in either direction There is no sound.
- Scanning speed varies as the laser beam moves away from the center of the CLV disc. In addition, the image during scanning with a CLV disc will skip, though the image itself is stable by the clear scan function.
- A certain amount of noise is inevitable with all scanning operations.

Searching by Chapter/Track Number – Chapter/Track Search

Chapters are contained in a disc. LDs are divided into sections called chapters. Such discs usually have a list of chapters on the jacket or label.

Direct chapter or track search
Example: Locate the beginning of chapter 8.
 Press the "8" button.

Skip chapter search
 Press the **SKIP** button once to return to the beginning of the current chapter.
 Press the **SKIP** button twice – before the picture reappears – to return to the beginning of the previous chapter.
 Press the **SKIP** button to advance to the beginning of the next chapter.

Example: Current chapter = 12
 Press the **SKIP** button once. → CHAPTER 13 → Beginning of chapter 13
 Press the **SKIP** button once. → CHAPTER 12 → Beginning of chapter 12

To check the current chapter and frame/time numbers
 These numbers appear in the display window on the player.
 Or to display them on the screen, press the DISPLAY button on the Remote Commander.

To enter a number greater than 10
 Use the +10 and 0 buttons.
 Examples: 10: **+10** → **0**
 14: **+10** → **4**
 20: **+10** → **+10** → **0**

If the +10 button is pressed by mistake
 Press the +10 button repeatedly until – or 1 – is displayed.

Notes

- The chapter search feature will not function if the disc does not include chapter numbers. In this case, the screen message will give only frame or time numbers.
- As for a disc with TOC (see p. 9), if a chapter number not included in the disc is entered, the entry will be ignored.
- As for a disc without TOC, if a chapter number not included in the disc is entered, the last picture will be displayed and the side to be played will be changed to the opposite side then the player will stop.

Searching by Frame Number/Time – Frame/Time Search

Frame search – For CAV (standard-play) discs only
 Enter the frame number to search for a particular scene.
 • Each picture on a standard-play disc is called as a frame.

Time search – For CLV (extended-play) discs only
 Enter the time to search for a particular scene.
 • Extended-play discs keep track of positions as elapsed time from the beginning of the disc.

1 Press the FRAME/TIME button.
 CAV (standard-play) disc: FRAME 00000
 CLV (extended-play) disc: TIME 0:00:00

2 Enter the desired frame or time numerals.

- CAV (standard-play) disc
Example: Locate frame number 12340.
 Press the number buttons in the following order.
1 → **2** → **3** → **4** → **0**
- CLV (extended-play) disc
Example: Locate the 12 min 05 sec point.
 Press the number buttons in the following order.
1 → **2** → **0** → **5**

If you make a mistake
 Press the FRAME/TIME button once more to return the display indication to zero, and then enter the correct numbers as follows.
 For CAV – five digits
0 → **0** → **0** → **0** → **0**
 For CLV with seconds – four digits
0 → **0** → **0** → **0**

3 Press the SEARCH/NEXT button.
 Playback starts at the specified number in step 2.

To cancel frame/time search
 Before pressing the SEARCH/NEXT button, press the CLEAR button.

To check the current frame/time numbers
 These numbers appear in the display window on the player.
 Or to display them on the screen, press the DISPLAY button on the Remote Commander.

Notes

- If a frame/time number not contained on a disc is entered, the playback stops.
- If the disc does not include seconds-unit time data, enter the time in minutes only.

To Play Repeatedly – Repeat Playback

To repeat the entire both sides of the disc

Current chapter/track

When the player reaches the end of the side A, it automatically repeats the side A.

When the player reaches the end of the side B, it automatically repeats the side B.

To repeat the current chapter

Current chapter

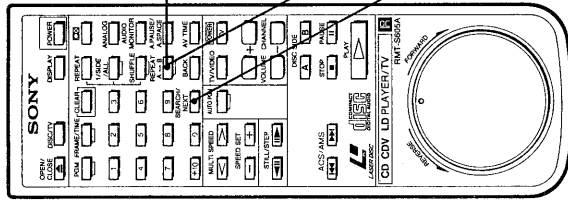
When the player reaches the end of the current chapter, it automatically repeats that chapter.

To repeat the entire side of the disc

Current chapter/track

When the player reaches the end of the side, it automatically repeats the side.

To check the current status
Press the DISPLAY button on the Remote Commander to display the message on the screen.



To cancel A ↔ B repeat and Memory search
Press the CLEAR button.

To cancel repeat functions other than A ↔ B
Press the REPEAT button again to cancel the REPEAT indication in the display window.

To repeat a specific section of a disc.

1 At the beginning of desired section

Shown on the screen when DISPLAY button is pressed) A ↔ B lights up in the player's display window.

2 At the end of desired section

Beginning point

Unit returns to the beginning of specified section and repeats playback.

To return to a specific point – Memory search

1 At the beginning of a desired point

Shown on the screen when DISPLAY button is pressed) A-B blinks in the player's display window.

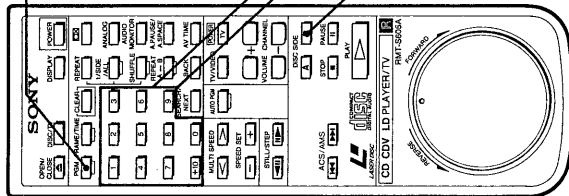
2 To return to the desired point

Unit returns to the beginning of specified section and repeats playback.

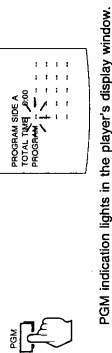
To Play an LD

To Play Only Certain Chapters – Program Playback

Example: Play LD chapters the side A 1,2,3 the side B 12,14, the side A 7 – in that order.



1 Press the PGM button.



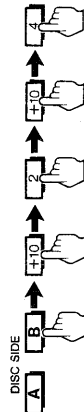
PGM indication lights in the player's display window.

2 Press the Number button 1,2,3.



For LDs containing TOC (Table of Contents) data, the total playback time of programmed chapters is shown.

3 Press the DISC SIDE B, then input 12,14 to press the Number button.



The total playback time shows only the side A program. It will be disappeared when it changes to the side B. Only the information of side A is displayed in the display window on the player, when programming a chapter with the number up to 20, total playback time will be displayed.

To enter chapter numbers over 10

Use the +10 and 0 buttons.

Examples: To enter 10: $\pm 10 \rightarrow 0$

To enter 14: $\pm 10 \rightarrow 4$

To enter 20: $\pm 10 \rightarrow \pm 10 \rightarrow 0$

If the +10 button is pressed by mistake

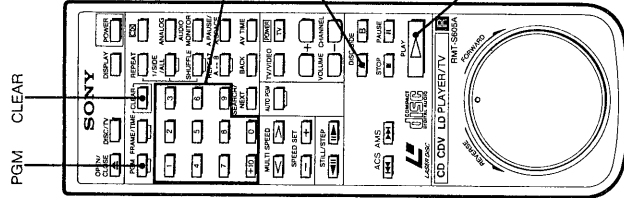
Press the +10 button repeatedly until -- or 1-- is displayed.

To set a pause between programs

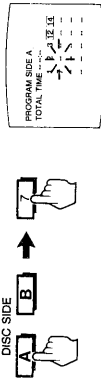
Press \square button at the desired point between programs in step 2, 3 or 4.

When the player reached the pause point in playback, it goes into pause mode.

To play again, press \triangleright button.



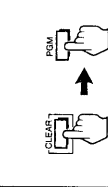
4 Press the DISC SIDE A, then input 7 to press the Number button.



If you make a mistake

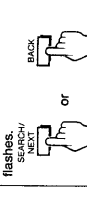
To start over

Press the CLEAR and PGM button and enter the correct number.



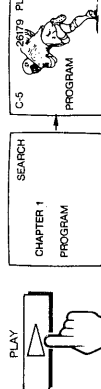
To change a number

Press the SEARCH/NEXT (to advance) or BACK (to back up) button until the incorrect number on the screen flashes.



Then enter a new number.

5 To play an LD



Searching for the first programmed chapter

Playback starts from the beginning of chapter 5.

After playing all programmed chapters side A1,2,3, side B1,2,14, side A7 in order, playback stops.

To release or cancel program playback

Press the CLEAR button or the 1/SIDE/ALL button. The unit resumes normal playback.

To repeat program playback

Press the REPEAT button, then the REPEAT is displayed.

To move to a preceding or following programmed chapter

Press the \ll or \gg button.

To check the program contents during program playback

When nothing is displayed on the screen, press the PGM button. The program is displayed for about 3 seconds. The currently playing program number will flash.

Cautions

- When the shuttle ring is kept turned to the forward direction during program playback and the playback comes to the end of the current selection, the next programmed chapter will be played back. When the shuttle ring is kept turned to the reverse direction, the unit will not go back to previous chapters. If you want to move a preceding programmed chapter, keep \ll button pressed until the desired programmed number comes up.
- If not-existing chapter numbers on a disc are entered, skipping the chapters and tracks entered, the next program will be performed.
- Programmed contents are stored until the disc is removed or the power is switched off.

To Play a CD

Continued over page 25

2 Turn on the stereo system. Turn on the amplifier or receiver and select [CD] or the connected audio input.

3 Turn on the player. Press the **POWER** button on the Remote Commander or the **ON/OFF POWER** button on the Main Unit.

4 Place the disc on the tray. Place the disc on the center of the tray. If the disc is not placed correctly, playback may not start.

5 Start playback. Press the **PLAY** button on the Remote Commander or the **PLAY** button on the Main Unit. Or push the disc tray compartment, then playback will also begin. Playback does not start with **OPEN/CLOSE** button.

Notes on disc tray
Do not insert a hand or finger in the player while it is operating. The player will stop automatically, if an object is inserted while in play, serious injury may result. Be sure to place the unit out of the reach of especially babies. Insert only one disc at a time. Incorrect placement of two or more discs may lead to malfunction.

Identical buttons on the main unit can also be used.

1 Turn on the stereo system. Turn on the amplifier or receiver and select [CD] or the connected audio input.

2 Turn on the player. Press the **POWER** button on the Remote Commander or the **ON/OFF POWER** button on the Main Unit.

3 Open the disc tray. Press the **OPEN/CLOSE** button on the Remote Commander or the **OPEN** button on the Main Unit.

4 Place the disc on the tray. Place the disc on the center of the tray. If the disc is not placed correctly, playback may not start.

5 Start playback. Press the **PLAY** button on the Remote Commander or the **PLAY** button on the Main Unit. Or push the disc tray compartment, then playback will also begin. Playback does not start with **OPEN/CLOSE** button.

To pause at the beginning of a disc
Press the **II** button on the player or the Remote Commander. The tray closes, and the player pauses at the beginning of the disc.

AV calendar
When playing a CD, the AV calendar shows information on the total number of selections. As selections are played, the corresponding numbers on the display disappear.

Using an optional timer
Set the timer after the STOP indication has changed from blinking to lighting in the screen. To start playback with an optional timer automatically, leave the POWER switch of the disc player in the depressed position. When the preset time arrives, the timer will supply power to the main unit and playback will begin at that point.

Playback display

Track number, Index, Elapsed time (min/sec) for selection, AV calendar. This mark lights up when a disc with more over 16 track is set.

Screen Messages
Information on the operating condition of the unit and chapter or track numbers can be superimposed on the TV or monitor screen. While no image is displayed, such as during search, information for CD is shown on a green background.

To call up the on-screen display
Press the **DISPLAY** button on the Remote Commander. Press the button again to turn the display off.

Message

Message	Display	Explanation
OPEN	Disc tray open	Disc tray open
CLOSE	Disc tray closed	Disc tray closed
PLAY	Playback	Playback
STOP	Stop	Stop
PAUSE	Pause	Pause
SEARCH	Manual search (Forward/reverse speed scan)	Search

(Examples)

To stop playback and remove disc

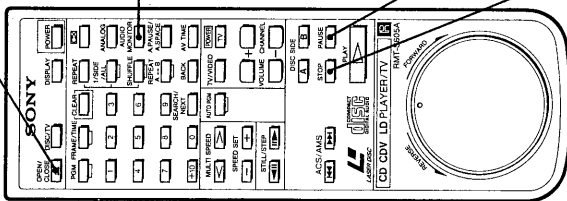
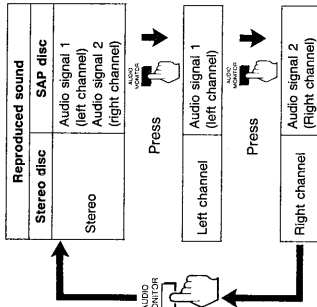
Remove the disc and press the **OPEN/CLOSE** button again to close the tray.



To play a stereo CD or a second audio program (SAP) CD

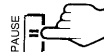
After playback has started

Each time the AUDIO MONITOR button is pressed, the mode changes to give you the following order.



To temporarily interrupt playback

To resume play from the same point, press the **PAUSE** or **▷** button.



To stop playback

To restart playback from the beginning of the disc, press the **▷** button.



Identical buttons on the main unit can also be used.

To Search for a Particular Selection – Search

To search by track number



Enter the track number.

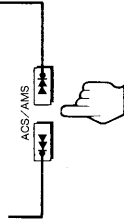
To play a single track once

1. Press the 1/SIDE/ALL button on the remote commander to display the 1 display.
2. Then select the track with the number buttons. When the track has been played, the unit enters the stop mode. To release the setting, press the 1/SIDE/ALL button again.

If you press the wrong numbers, simply press the correct ones.

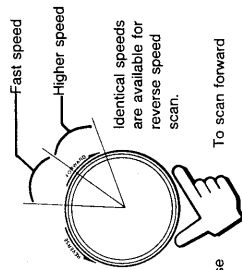
To skip selections

Press once to return to the beginning of the current selection. Press again to return to the previous selection.



To search for a particular point – Dual Speed Scan

The playback speed can be changed depending on the degree of the shuttle ring.



To scan in reverse

To scan forward

Scanning continues until the shuttle ring is released.

To enter track numbers over 10

Use the +10 and 0 buttons.

Examples: To enter 10: **+10** → **0**

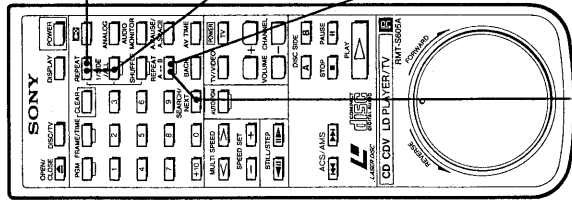
To enter 14: **+10** → **4**

To enter 20: **+10** → **+10** → **0**

If the +10 button is pressed by mistake

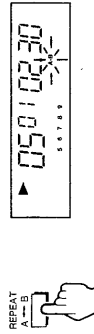
Press the +10 button repeatedly until — or 1 — is displayed.

To Play Repeatedly – Repeat Playback

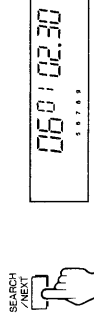


To return to the desired section – Memory search

1 At the beginning of desired point



2 To return to the desired point



To cancel Memory search, press the CLEAR button.

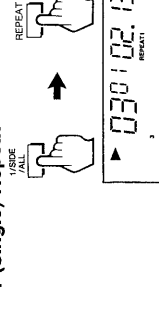
To repeat all selections – All Repeat

Remove Commander

The entire disc is continuously repeated.

To cancel All Repeat
Press the REPEAT button that was used to activate repeat either from the remote commander – again.

To repeat the current selection – 1 (Single) Repeat

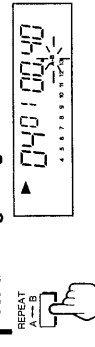


Current selection (track) is continuously repeated. Deactivate REPEAT display to playback a selection only once.

To cancel 1 (single) Repeat
Press the REPEAT button, then press the CLEAR button.

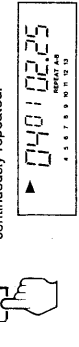
To repeat a specific section of a disc – A ↔ B Repeat

1 At the beginning of desired section



2 At the end of desired section

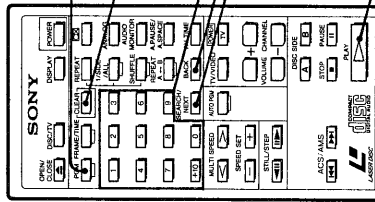
Flashing of A ↔ B indicator stops and the specified section is continuously repeated.



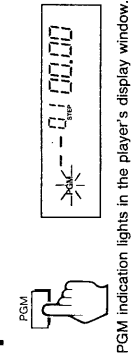
To cancel A ↔ B Repeat, press the CLEAR button.

To Play Only Certain Selections – Program Playback

You can program up to 20 tracks playback in a specified order.

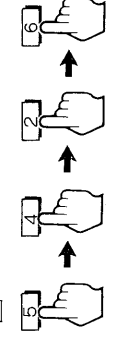


1 Press the PGM button.



PGM indication lights in the player's display window.

2 Press the Number buttons



If you make a mistake

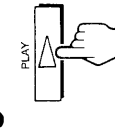
<p>To start over</p> <p>Press the CLEAR and PGM button and enter the correct number.</p>	<p>To change a number</p> <p>or</p> <p>Press the SEARCH/NEXT (to advance) or BACK (to back up) buttons until the incorrect number on the screen flashes.</p> <p>Enter a new number.</p>
---	--

To enter track numbers over 10
Use the +10 and 0 buttons.

Examples: To enter 10: $\text{+10} \rightarrow 0$
To enter 14: $\text{+10} \rightarrow 4$
To enter 20: $\text{+10} \rightarrow \text{+10} \rightarrow 0$

If the +10 button is pressed by mistake Press +10 button repeatedly until -- or 1 -- is displayed.

3 Press the Δ button.



After searching and playing all programmed selections 5, 4, 2, 6, in order, playback stops.

Program playing time
The total playing time of the program is displayed only when tracks with numbers under 20 are programmed.

- Notes**
- You can program playback up to 79 tracks even when the disc tray is open. For a disc with 80 tracks or more, program after closing the disc tray.
 - When the shuttle ring is kept turned to the forward direction during program playback and the playback programmed track will be played back. When the shuttle ring is kept turned to the reverse direction, the unit will not go back to previous tracks.
 - If not existing track numbers on a disc are entered, the program may not be conducted.
 - To set a pause between programs**
Press II button at the desired point between programs in step 2. P appears in the screen.
 - The player goes into pause mode at the point after playing a program.
 - To start playing next program, press Δ button.
 - To release or cancel program playback
Press the CLEAR button or the 1/SIDE/ALL button. The unit resumes normal playback.
 - To check track and time information on the screen
Turn on the power of the TV or monitor. Time and track for the CD/CDV will be turned on the screen.
 - To repeat program playback
Use the REPEAT button to turn the REPEAT display on. When the total playback time exceeded 99 minutes, --- is displayed.
 - During program playback
The numbers on the AV calendar display disappear as selections are played. The contents of a program are stored until the disc is removed or the player is turned off.
 - To move to a preceding programmed track
Press the 144 button.
 - To move to a following programmed track
Press ▶▶ button.

To Play Only Certain Selections Within a Designated Time - Auto Program Playback

You can designate a length of time and make 2 different programs of your selections fitting within that period. Selections can be entered in the desired order. When there is only minimal time left within the designated length of time a selection with the closest playing time will be entered. This section explains how to conduct Auto Program Playback on a CD, but the function can also be used for LDs with TOC, and CDVs.

- 1 Press the AUTO PGM button.**
AUTO PGM
PGM blinks in the player display window.
- 2 Designate the time length for a single side or double sides (LD only) of your tape.**
Example: For 30 minutes of playback
Program A (corresponding to Side A of tape)
Program B (corresponding to Side B of tape)
If you press the wrong number, simply press the correct one.
- 3 Press the Δ button.**
The selections for Program A will be played and then the unit will pause. The number of the selection that finishes its play disappears from the AV calendar display.
- 4 Press the Δ button to play back Program B.**
To resume normal playback Press the CLEAR button or the 1/SIDE/ALL button.

To change the programmed chapter (track).
Press PGM button after step2, then press the desired chapter (track) number.

AV calendar on the screen
The AV calendar shows information on the contents of two different programs: program A and program B, separated with a pause.

Auto Program contents

Program contents are stored until the disc is removed or the power is turned off.

If your disc contains more than 20 selections
Selection with numbers over 20 may not be programmed with the Auto Program function.

Notes

- Auto Program will not be run if your selection is larger than the designated playing time.
- Auto Program cannot be set on side B of LD.

To Change Time Display - Time Counter

Press AV/TIME → Press AL/PAUSE → Press AL/PAUSE → Press AV/TIME

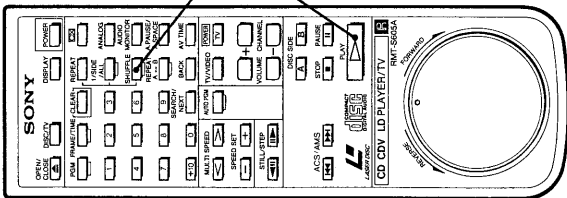
Elapsed time for selection
Remaining time for selection*
Remaining Total remaining selections playback time** on the disc

- * Do not display for track numbers above 21.
- ** For CDV discs, these figures refer only to the current portion (audio/video) are displayed. When playing the LD side B, remaining time of a current chapter will appear with "----" display.

Display on TV screen
If the TV set or monitor connected to the player is on and the DISPLAY button is pressed, the track number, time, and other information recorded on the CD/CDV will appear on a green background on the monitor.

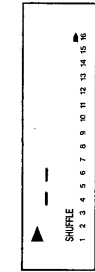
Note on LD discs
The time display function is available only with LDs containing TOC data. First, the elapsed time or the number of frames is displayed. Pressing the AV TIME button then changes the time display as shown above.

Playing in a Random Order – Shuffle Playback/Delete Shuffle Playback

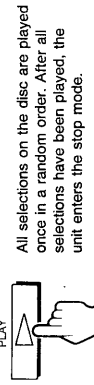


To play all tracks or chapters on a disc

1 Press the SHUFFLE button.



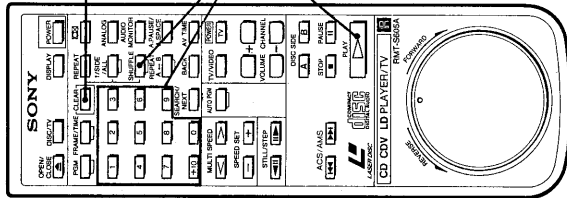
2 Press the \blacktriangleright button.



All selections on the disc are played once in a random order. After all selections have been played, the unit enters the stop mode.

To cancel shuffle playback

Press the CLEAR button or the 1/SIDE/ALL button. Normal playback resumes from the next selection.

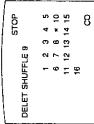


To play only certain selections – Delete Shuffle

1 Press the SHUFFLE button.



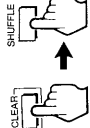
2 Enter the chapter number or track number of the selection you do not wish to play.



If you make a mistake

To start over

Press the CLEAR button and then press the SHUFFLE button again and enter the correct number.



To change a number

Press the incorrect number again, resume the delete chapter (track) number.

When a LD without TOC data, the indication "NO TOC" appears on the display window, and shuffle playback cannot be conducted.

Note
Shuffle playback cannot be performed on side B.

To skip to the next selection during shuffle playback
Press the \blacktriangleright button. Returning to a previous selection with the \blacktriangleleft button is not possible.

Shuffle playback with CDV discs
Selections from the audio portion and video portion are played in random order.

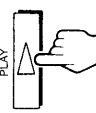
SHUFFLE button timing
To ensure correct operation, do not press the SHUFFLE button immediately after the disc tray has closed. Instead, press the SHUFFLE button only after the \blacktriangleright (play) indication in the display has stopped flashing. The selections on the disc can be played back in a random order.

Delete shuffle
This function lets you exclude specific chapters or tracks from shuffle playback. When the function is used, DELETE SHUFFLE appears on the screen.

To repeat shuffle or delete shuffle playback
Press the REPEAT button on the Remote Commander to activate the REPEAT indication on the display window. When the unit is turned off or the disc is removed, shuffle functions are cancelled.

Note
A chapter (track) with the number over 20 cannot be deleted.

3 Press the \blacktriangleright button.

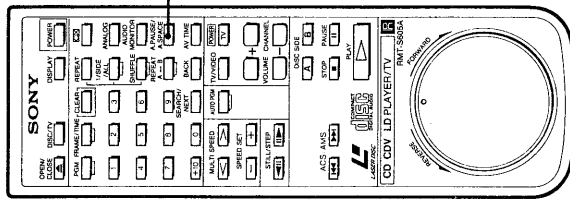


The player automatically selects a random program without the deleted selections.

To resume normal playback
Press the CLEAR button or the 1/SIDE/ALL button.

To Pause After a Each Selection – Auto Pause To Insert a Blank Space Between Selections – Auto Space

Auto Pause – After a selection is played, the player enters the pause mode.
Auto Space – A blank interval of 3 seconds is inserted between the playback of each selection.



Auto Pause

Press the A.PAUSE/A.SPACE button once.



To start playback of the next selection
Press the ▶ button.

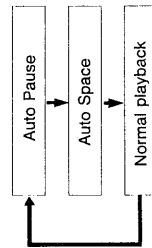
Auto Space

Press the A.PAUSE/A.SPACE button twice.



To resume normal playback

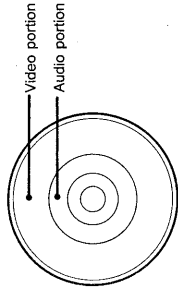
Each time the A.PAUSE/A.SPACE button is pressed, the mode changes to give you in the following order.



Auto Pause and Auto Space function use the same button.

If you playback in auto program, shuffle, or delete shuffle mode, auto space may insert a space more than 3 seconds.

To Play a CDV



The Compact Disc Video (CDV) format divides a CD into two sections. One section consists of 20 minutes of digital audio playable on any CD player. The other section which consists of 5 minutes of video and digital audio, requires a CDV player. Please note the following when playing a CDV.

- Time search is not applicable for CDV.
- To display the remaining time, simply press the AV TIME button.
- CDV's are divided into track numbers which are assigned to each selection for the audio and video portion. The track of the video portion corresponds to the chapter of the LD.

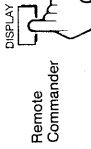
To play

Press the PLAY button. Playback will begin from the video portion. After the completion of the video portion, the audio portion will be played back.
To play back from the audio portion, search by entering the desired track number (see p. 30).

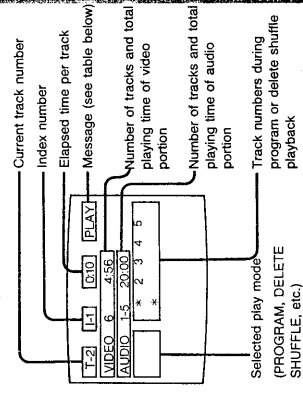
Screen Messages

Information on the operating condition of the unit and chapter or track numbers can be superimposed on the screen. During audio portion playback, information for CDV is shown on a blue background.

To call up the on-screen display



Remote Commander
To turn the display off, press the DISPLAY button again

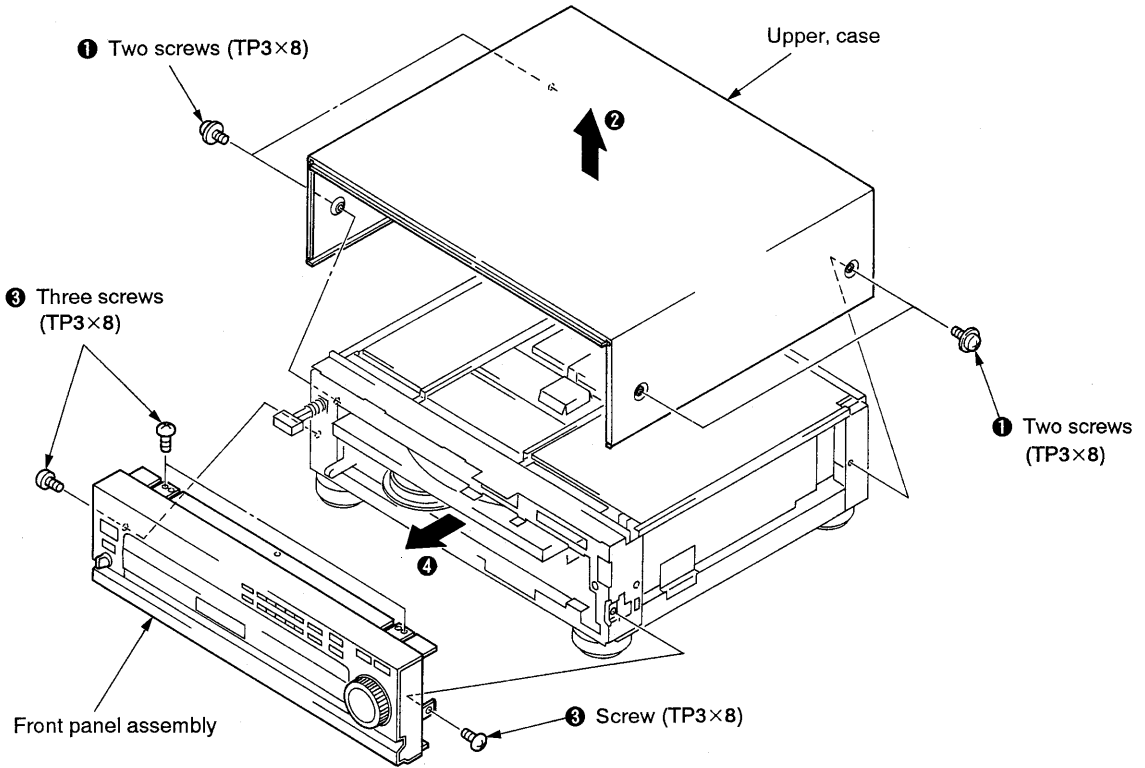


Message	Explanation
Display	Disc table open
OPEN	Disc table closed
CLOSE	Playback
PLAY	Stop
STOP	Pause
PAUSE	Manual search (Forward/reverse speed scan)
⏪ / ⏩	Search
SEARCH	

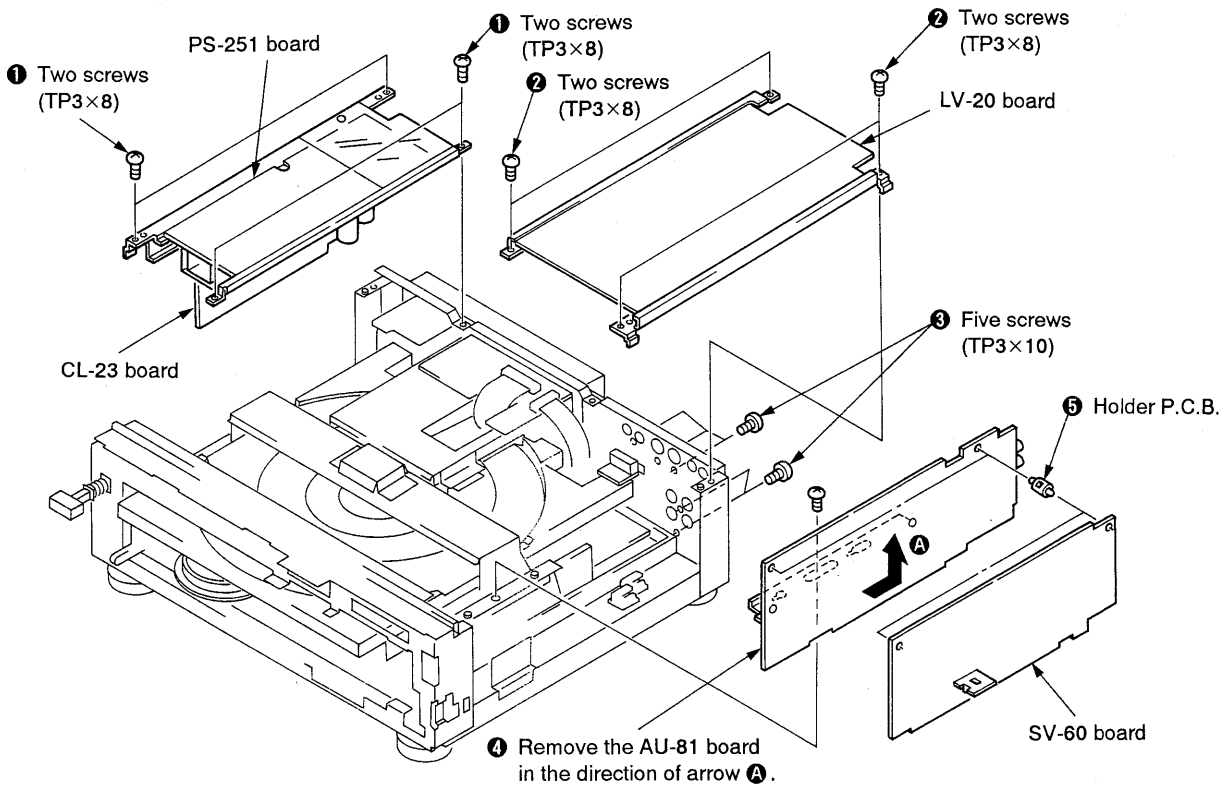
(Examples)

SECTION 2 DISASSEMBLY

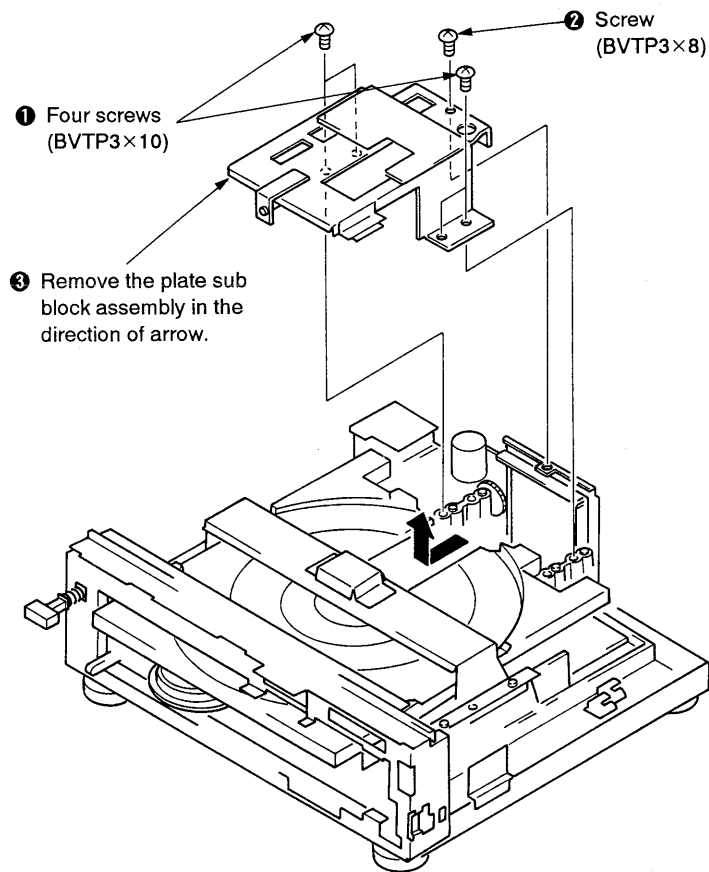
2-1. REMOVAL OF FRONT PANEL AND UPPER, CASE



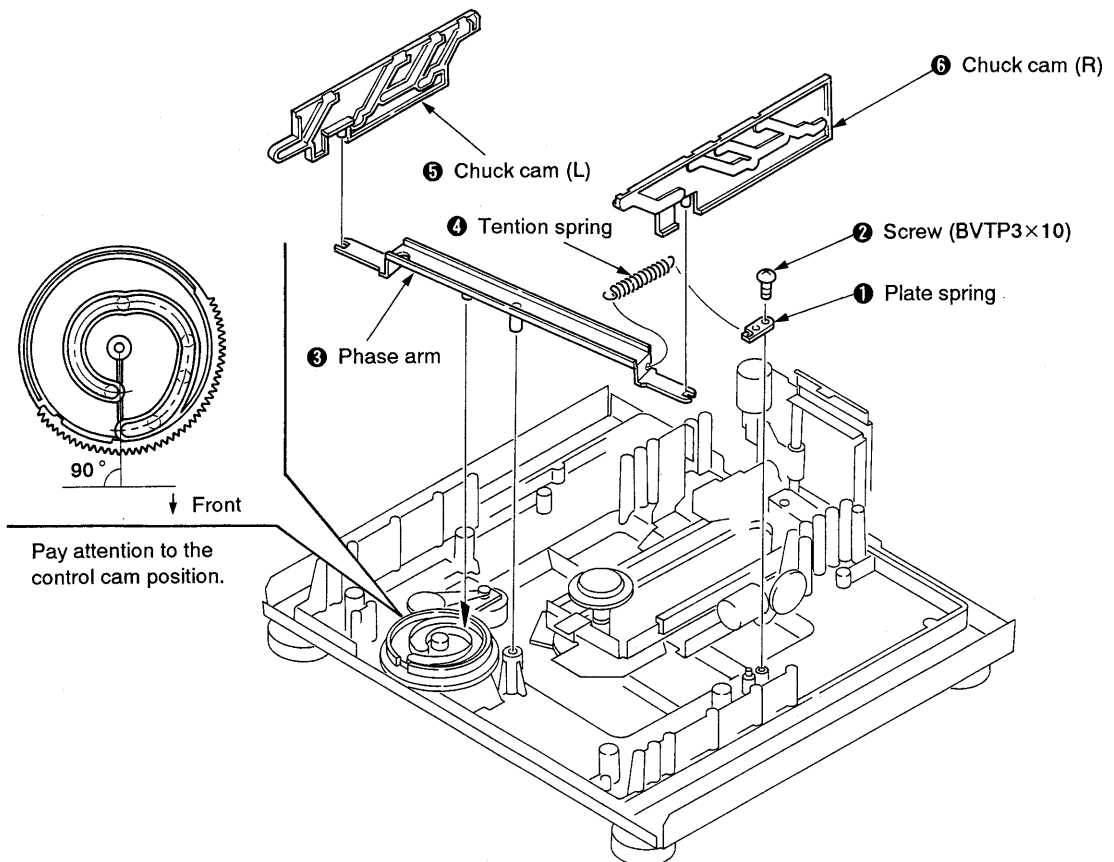
2-2. REMOVAL OF PS-251, LV-20, AU-81, SV-60 AND CL-23 BOARDS



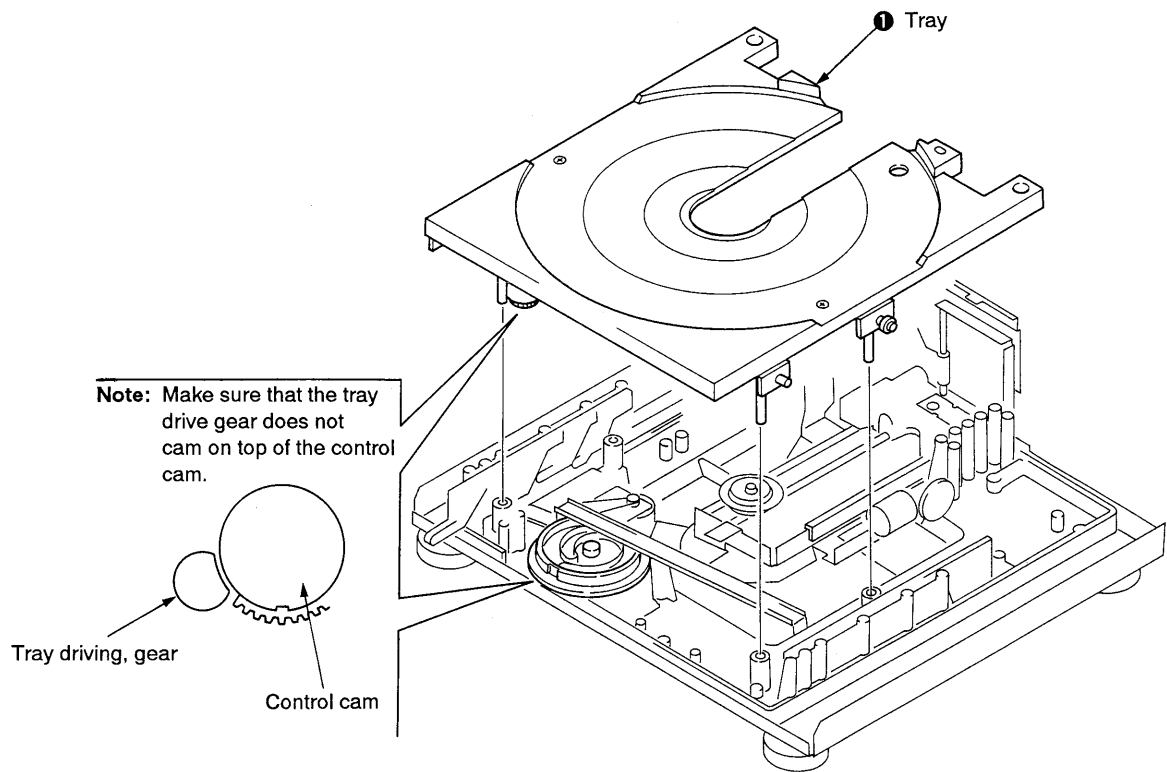
2-3. REMOVAL OF PLATE SUB BLOCK ASSEMBLY



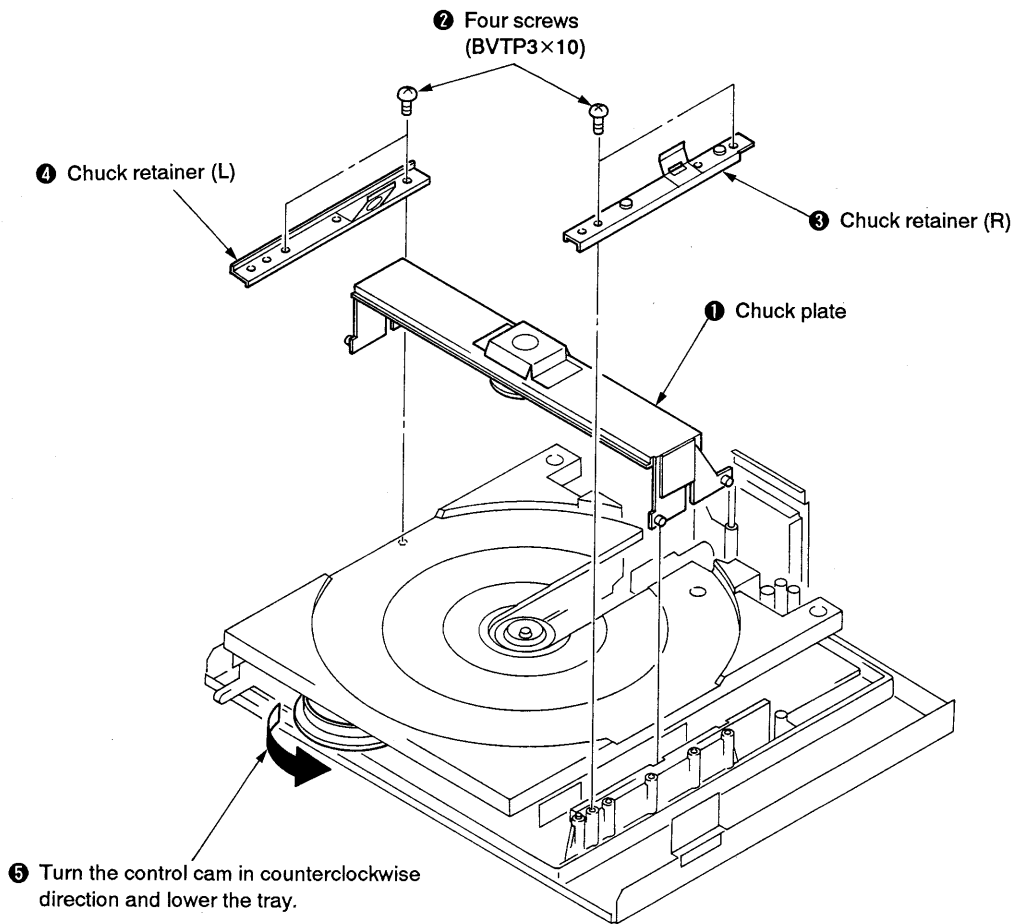
2-4. ATTACHMENT OF THE CHUCK CAM



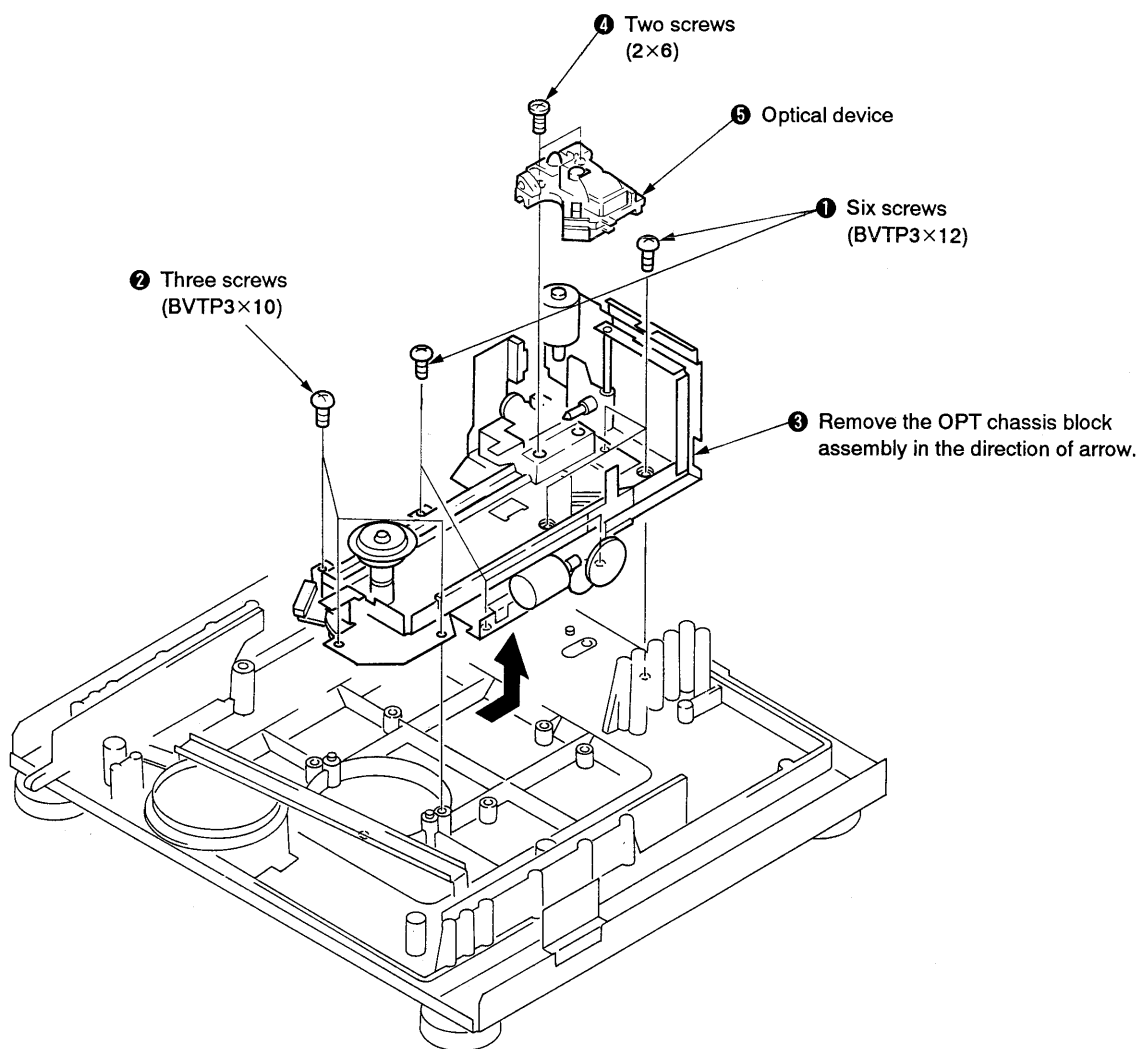
2-4-1. ATTACHMENT OF THE TRAY



2-4-2. ATTACHMENT OF THE CHUCK PLATE

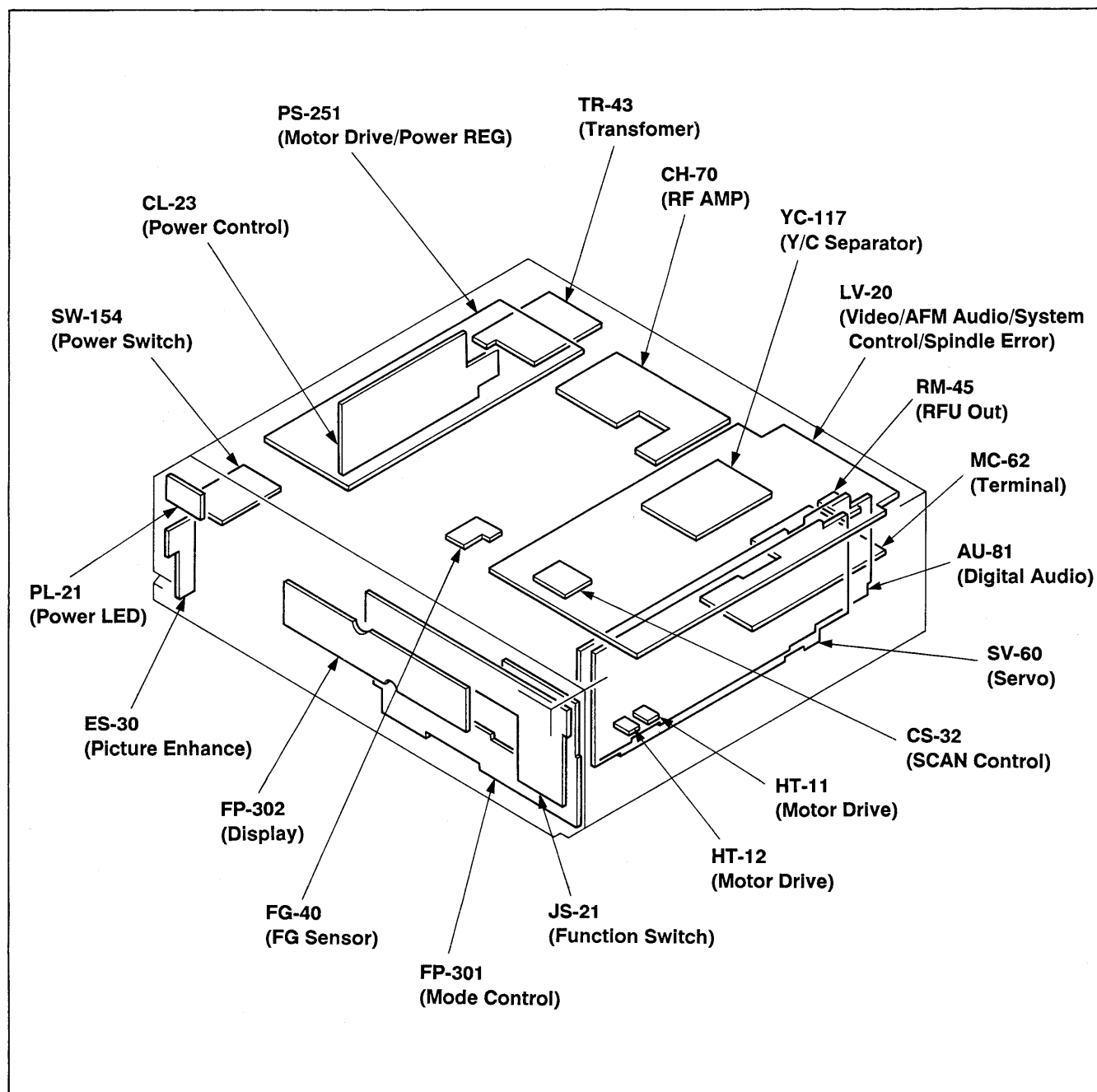


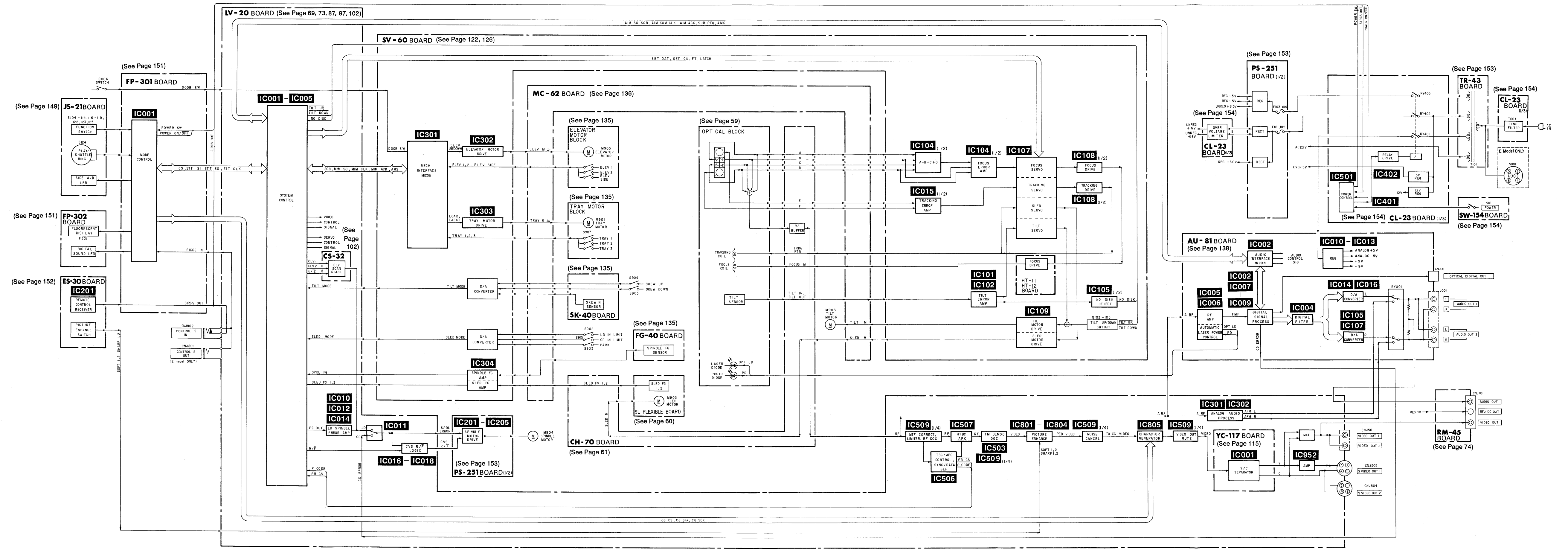
2-5. REMOVAL OF THE OPT CHASSIS BLOCK ASSEMBLY AND THE OPTICAL DEVICE



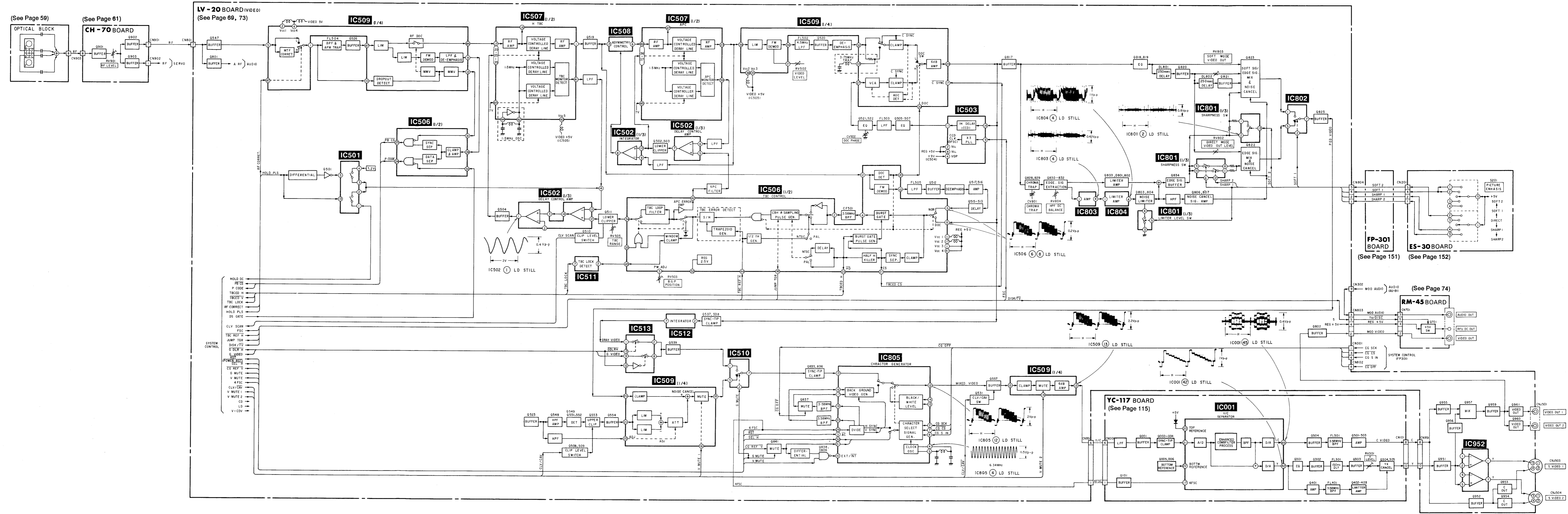
**SECTION 3
DIAGRAMS**

3-1. CIRCUIT BOARDS LOCATION

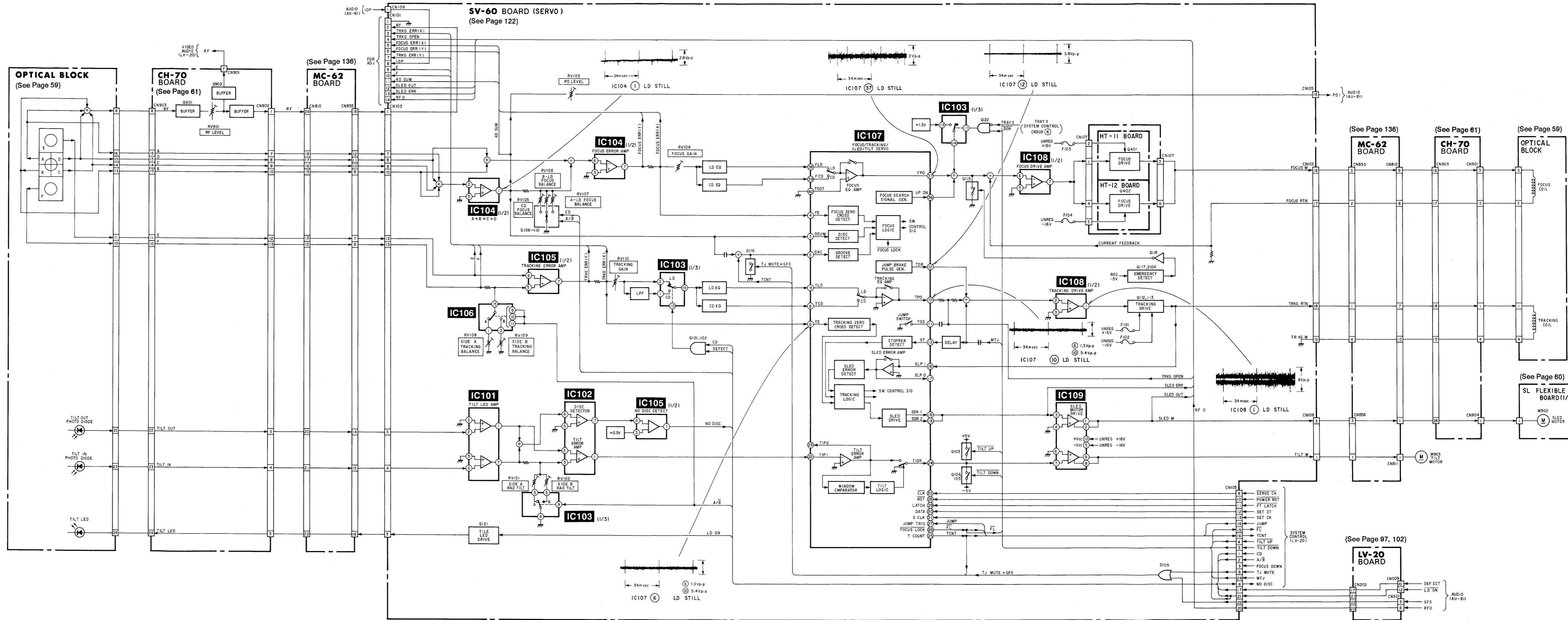


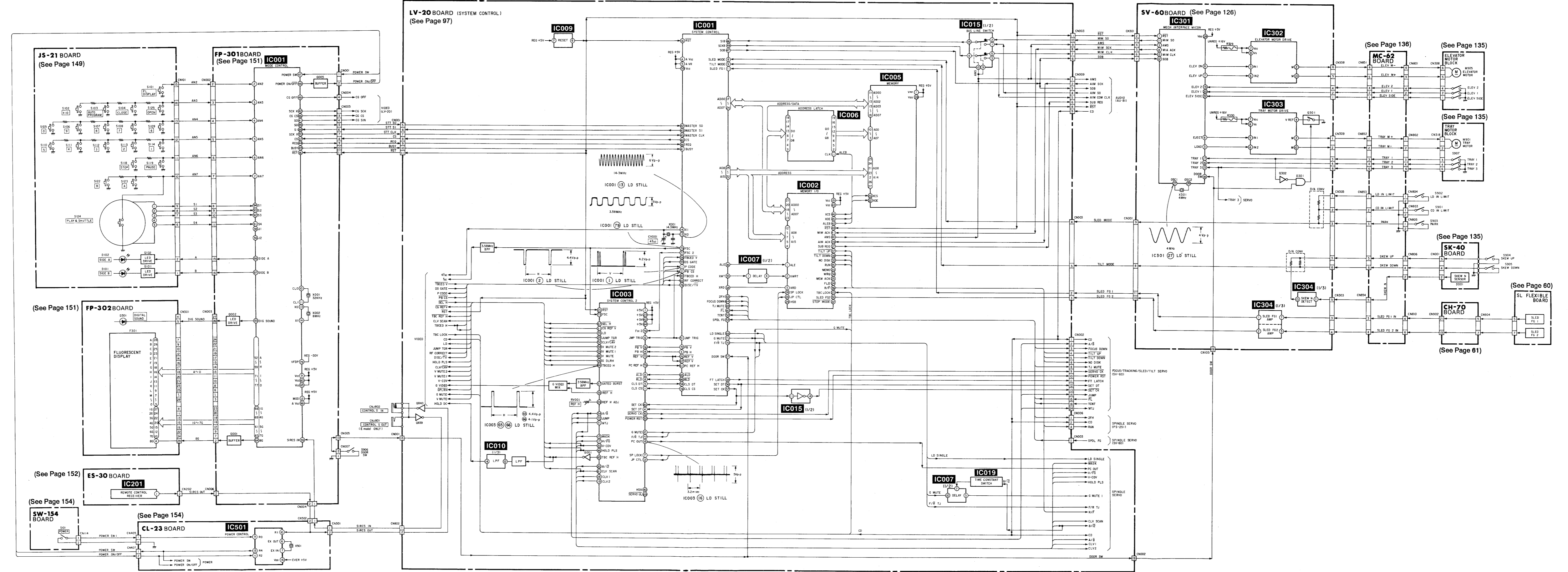


3-3. VIDEO BLOCK DIAGRAM

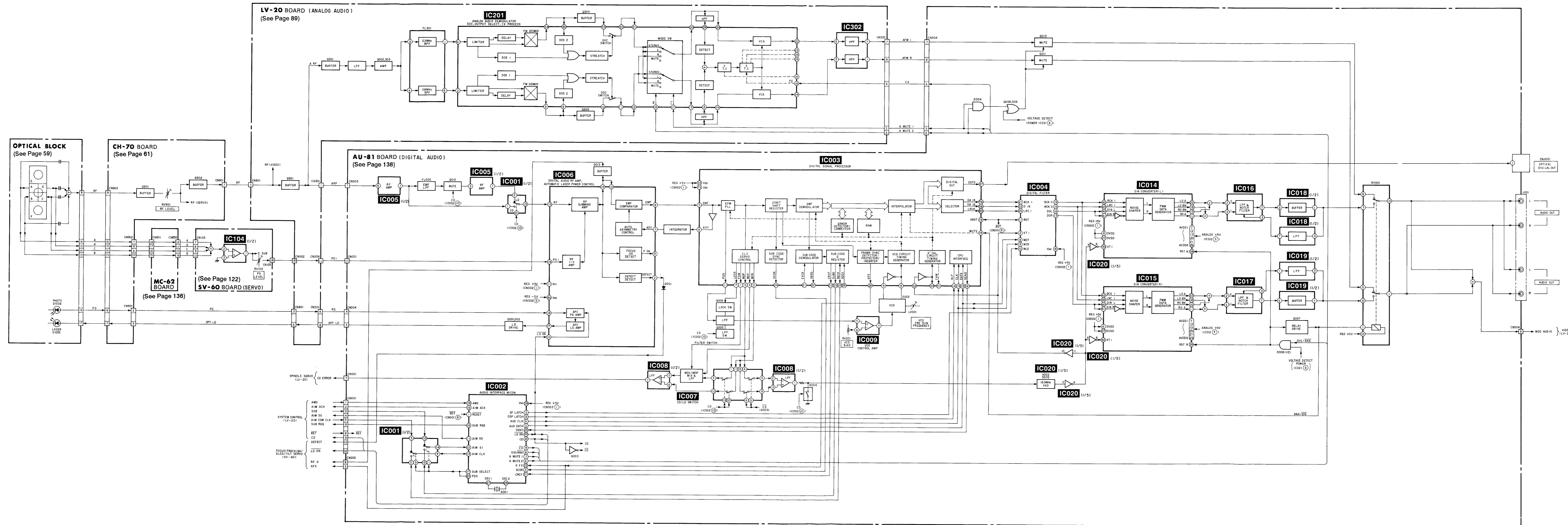


3-4. SERVO BLOCK DIAGRAM

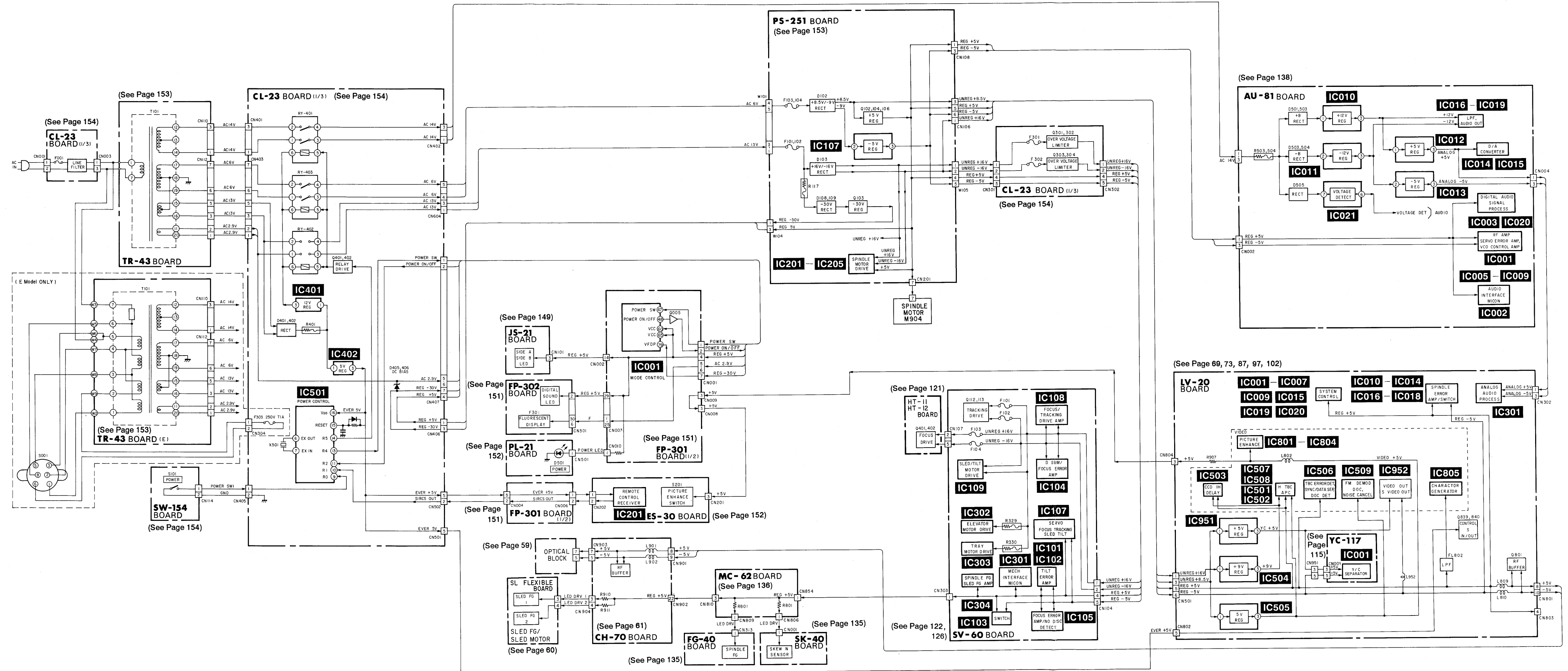




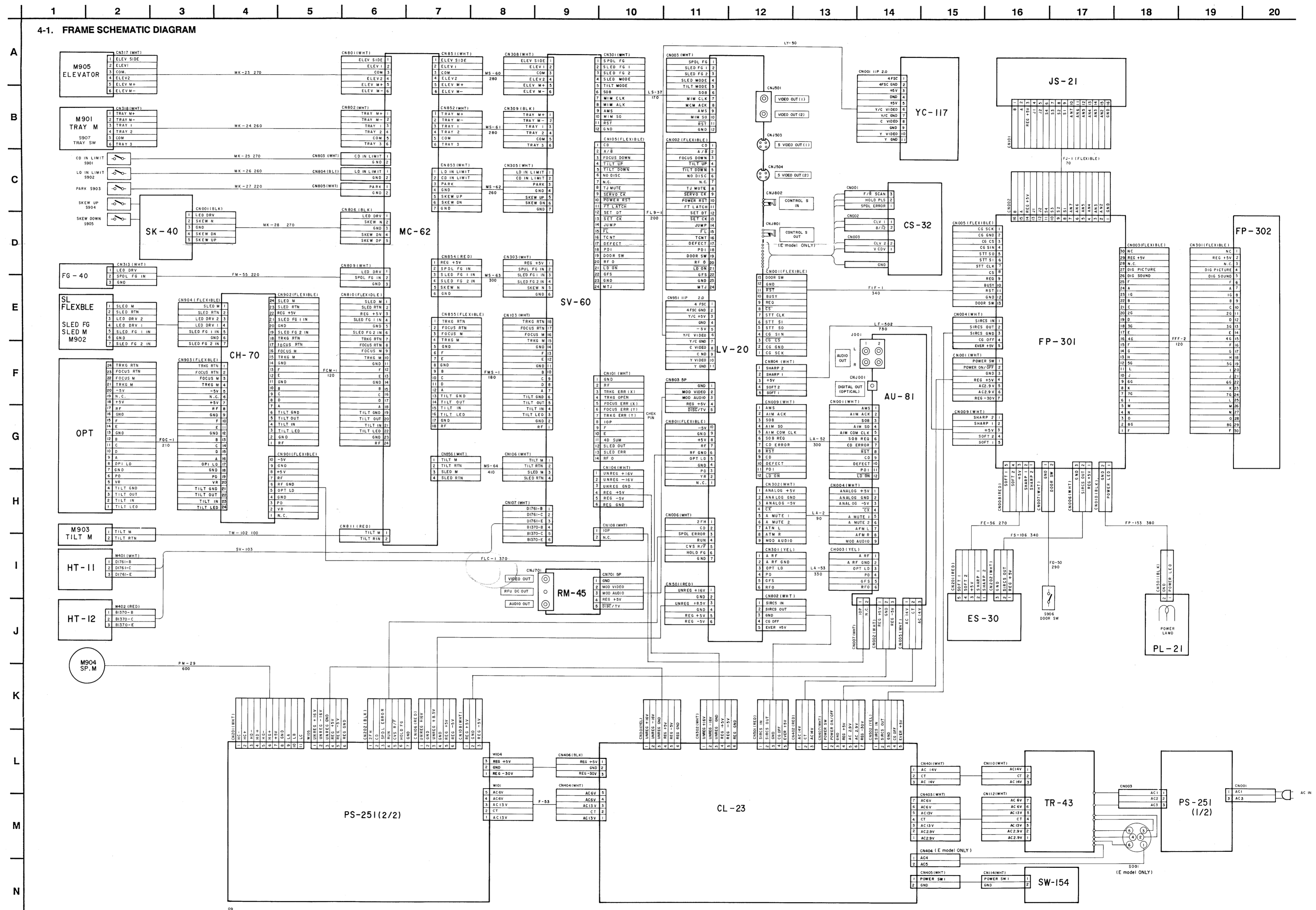
3-7. AUDIO BLOCK DIAGRAM



3-8. POWER BLOCK DIAGRAM



SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS



4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

• For printed wiring boards.

- — : indicated a lead wire mounted on the component side.
- ○ : indicated a lead wire mounted on the conductor side.
- : Through hole.
- : Parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- ◻ : Pattern of the rear side.
- (circled) : Circled numbers refer to waveforms.

Caution:

Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Component side) pattern face are indicated.

• For schematic diagrams.

- Caution when replacing chip parts.
New parts must be attached after removal of chip.
Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
Chip resistor are 1/10W unless otherwise noted.
kΩ : 1000Ω, MΩ : 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF: μ μF.
50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.
- : internal component.
- : adjustment for repair.
- — : B+ Line.
- - - - : B- Line.
- : IN/OUT direction of (+, -) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal production tolerances.

Note:
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

* A-6421-593-A CH-70 BOARD, COMPLETE (Ref. No. 1000 Series)

< DIODE >

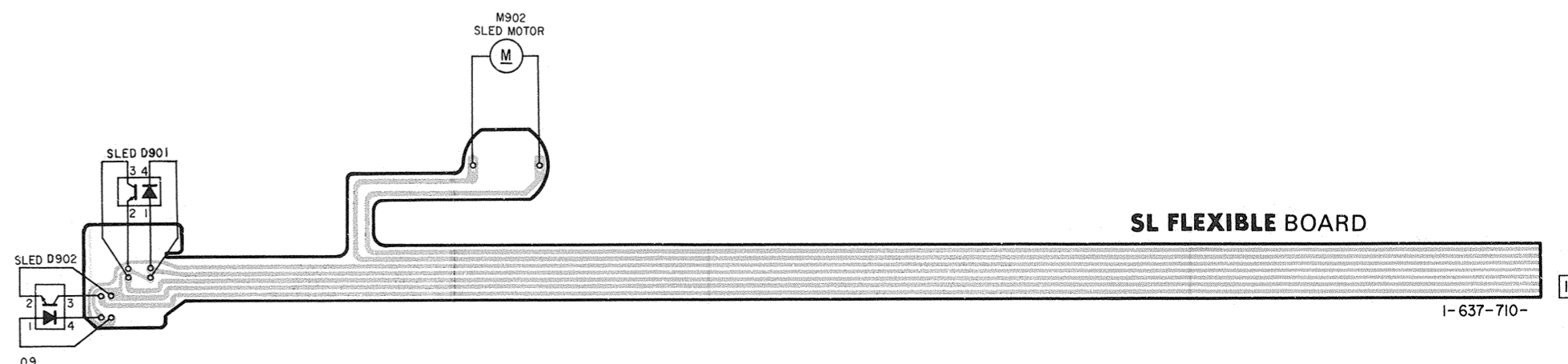
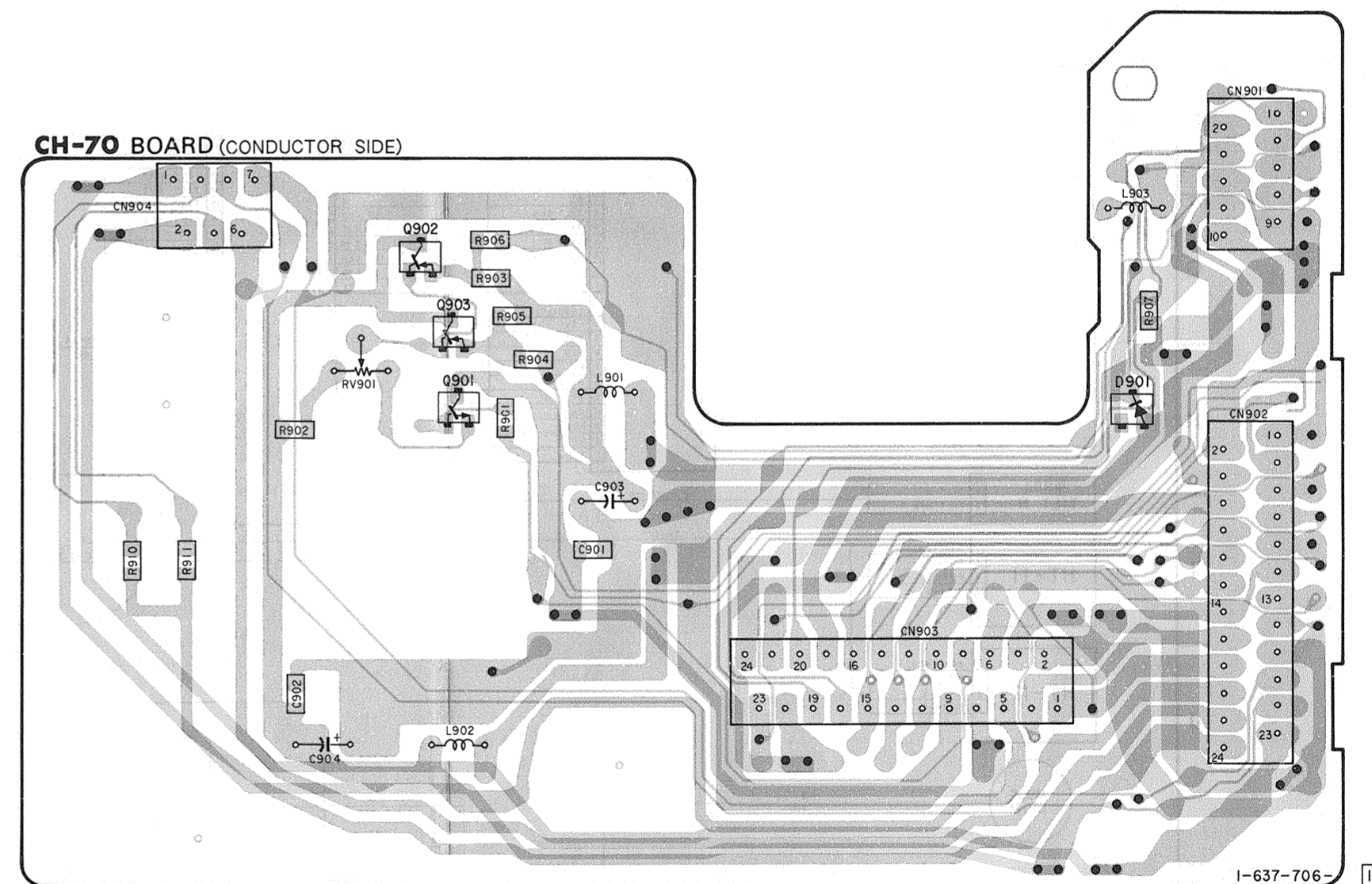
D901 8-719-400-18 DIODE MA152WK

< TRANSISTOR >

Q901 8-729-100-66 TRANSISTOR 2SC1623
Q902 8-729-216-22 TRANSISTOR 2SA1162
Q903 8-729-216-22 TRANSISTOR 2SA1162

CH-70 (RF AMP), SL BOARD (SLED MOTOR) PRINTED WIRING BOARDS

— Ref. No. CH-70, SL BOARDS: 1000 series —

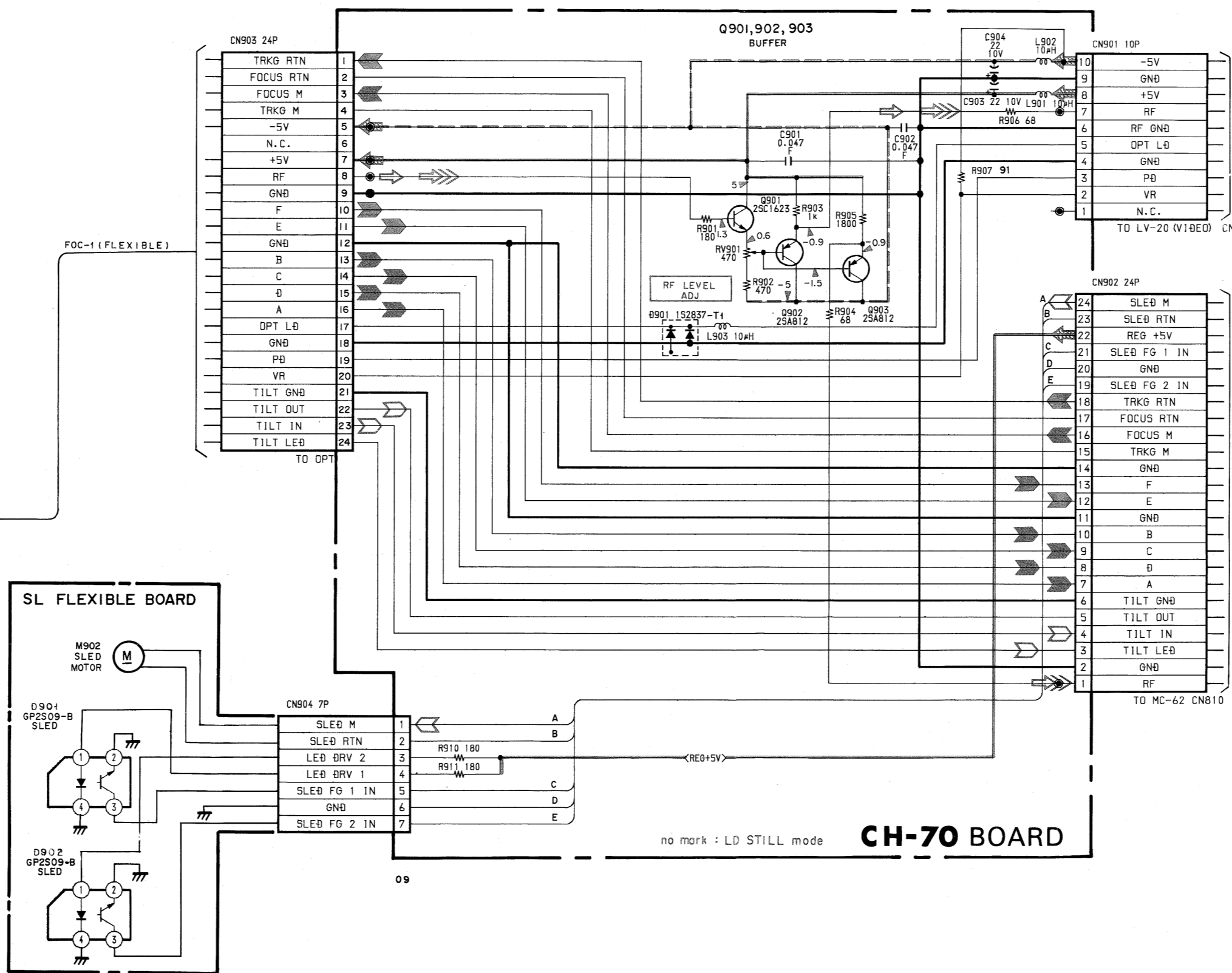
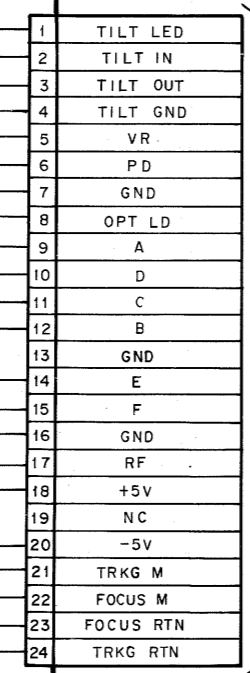
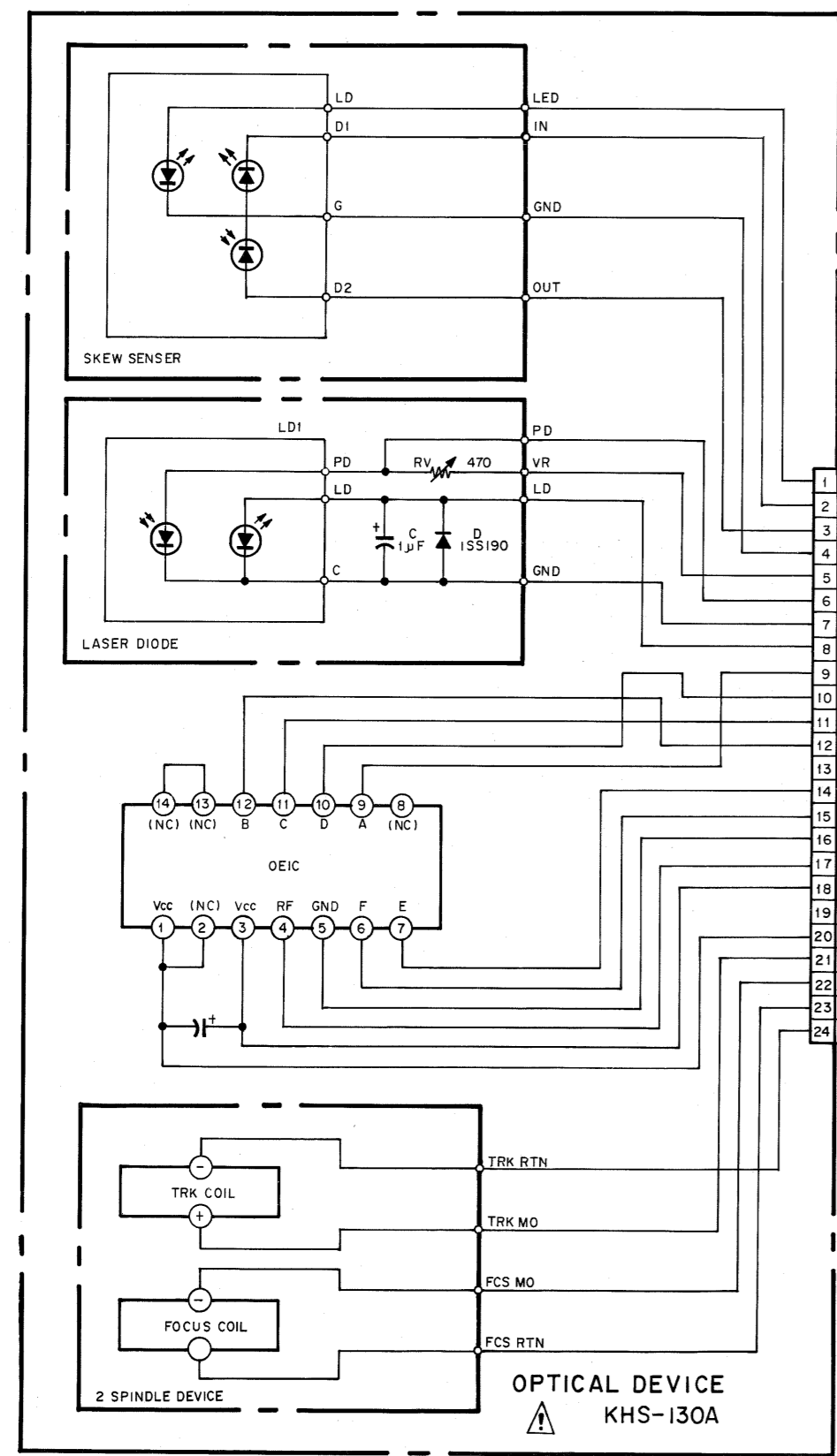


CH-70 (RF AMP), SL BOARD (SLED MOTOR) SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

— Ref. No. CH-70, SL BOARDS: 1000 series —

A
B
C
D
E
F
G
H
I
J



• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			⇒⇒	⇒
PB			⇒⇒	⇒

Spindle phase servo	⇒⇒
Spindle servo (Speed and phase)	⇒⇒⇒
Tracking servo	⇒
Sled servo	⇒
Focus servo	⇒
Skew servo	⇒

LV-20 (VIDEO, SYSTEM CONTROL, SPINDLE ERROR, AFM AUDIO), RM-45 (RFU OUT), CS-32 (SCAN CONTROL) PRINTED WIRING BOARDS

— Ref. No. LV-20 BOARD: 2000 series, RM-45 BOARD: 1000 series, CS-32 BOARD: 8000 series —

* A-6421-647-A LV-20 BOARD, COMPLETE (Ref. No. 2000 Series)

* 1-640-722-13 CS-32 BOARD (Ref. No. 8000 Series)

(DIODE)

Table listing diode components: D001 8-719-106-22 DIODE RD7. 5M-B1, D002 8-719-106-22 DIODE RD7. 5M-B1, D008 8-719-400-18 DIODE MA152WK, D009 8-719-400-18 DIODE MA152WK, D020 8-719-400-18 DIODE MA152WK

Table listing diode components: D501 8-719-400-18 DIODE MA152WK, D502 8-719-400-18 DIODE MA152WK, D503 8-719-400-18 DIODE MA152WK, D504 8-719-400-18 DIODE MA152WK, D801 8-719-400-18 DIODE MA152WK, D802 8-719-400-18 DIODE MA152WK, D803 8-719-400-18 DIODE MA152WK, D804 8-719-400-18 DIODE MA152WK, D805 8-719-400-18 DIODE MA152WK, D806 8-719-400-18 DIODE MA152WK, D807 8-719-106-43 DIODE RD9. 1M-B1, D808 8-719-106-43 DIODE RD9. 1M-B1, D809 8-719-400-18 DIODE MA152WK

(IC)

Table listing IC components: IC001 8-759-988-40 IC MB89795-119, IC002 8-759-971-70 IC MB674172U, IC003 8-759-987-71 IC MSM72H0326S-K, IC005 * 1-526-971-11 SO CKET, IC 28P, IC005 8-759-708-84 IC TMS27C256-20JL-48A, IC006 8-759-926-66 IC SN74HC373NS, IC007 8-759-907-81 IC SN74LS221NS, IC009 8-759-634-43 IC M519538FP, IC010 8-759-100-95 IC uPC324G2, IC011 8-759-009-06 IC MC14052BF

Table listing IC components: IC011 8-759-932-64 IC BU4052BF, IC013 8-759-981-92 IC RC4558M, IC014 8-759-009-07 IC MC140538F, IC015 8-759-009-07 IC MC140538F, IC016 8-759-981-65 IC LM2903M, IC017 8-759-925-72 IC SN74HC02NS, IC018 8-759-009-07 IC MC140538F, IC019 8-759-008-67 IC MC14066BF, IC020 8-759-008-52 IC MC74HC123AF, IC031 8-759-502-42 IC PA0034A, IC302 8-759-981-92 IC RC4558M, IC501 8-759-008-67 IC TC4066BFB-TP1, IC502 8-759-100-95 IC uPC324G2, IC503 8-752-322-35 IC CXL5005M, IC504 8-759-982-10 IC RC7809FA, IC505 8-759-604-29 IC M5F7805L, IC506 8-752-036-24 IC CXA1255Q, IC507 8-759-502-69 IC CXD1152-MS, IC508 8-759-233-66 IC TC74HCT04AF, IC509 8-752-036-23 IC CXA1254Q, IC510 8-759-941-68 IC BA7131F, IC511 8-759-981-65 IC LM2903M, IC512 8-759-981-92 IC RC4558M, IC513 8-759-008-67 IC MC14066BF, IC801 8-759-008-67 IC MC14066BF, IC802 8-759-941-68 IC BA7131F, IC803 8-759-200-60 IC TA7060AP, IC804 8-759-200-60 IC TA7060AP, IC805 8-759-634-74 IC M50455-196FP, IC951 8-759-144-83 IC uPC24M09HF

LV-20 BOARD (CONDUCTOR SIDE)



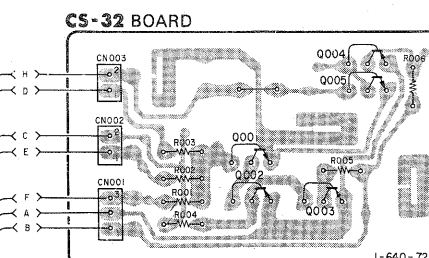
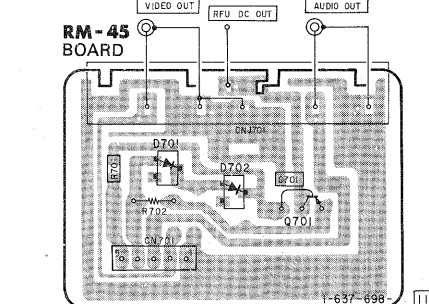
* 1-637-638-11 RM-45 BOARD (Ref. No. 1000 Series)

(DIODE)

Table listing diode components: D701 8-719-400-18 DIODE MA152WK, D702 8-719-400-18 DIODE MA152WK

(TRANSISTOR)

Table listing transistor component: Q701 8-729-374-02 TRANSISTOR 2SB740



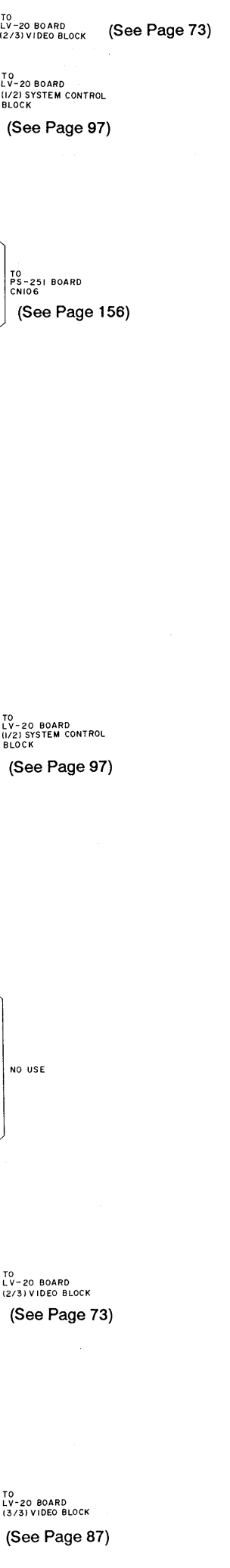
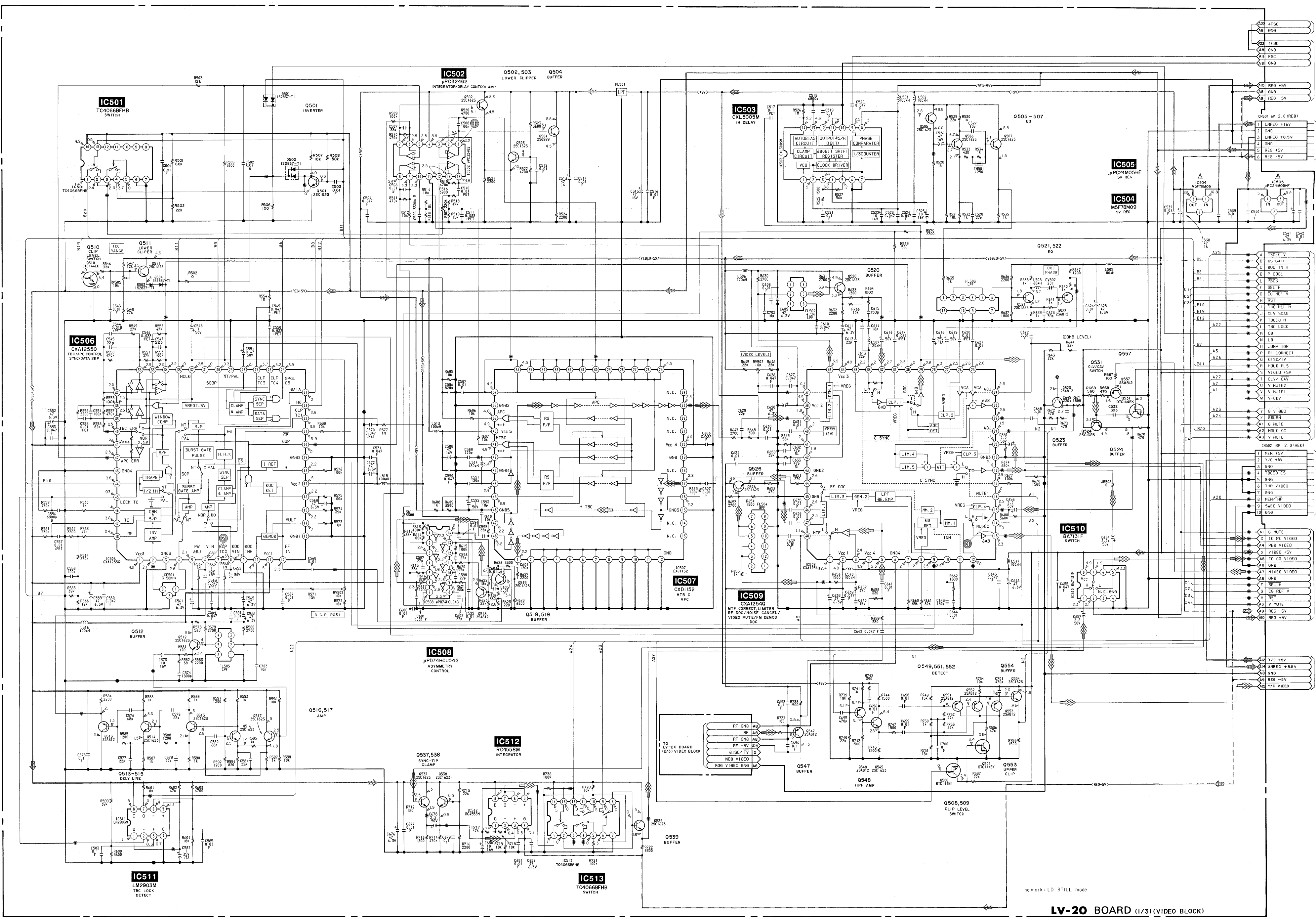
LV-20 BOARD

Table listing component locations on the LV-20 board: CN001 I-22, CN002 I-27, CN003 I-25, CN006 I-24, CN009 A-25, CN301 I-35, CN302 I-36, CN501 I-31, CN502 I-32, CN801 A-35, CN802 F-37, CN803 I-33, CN804 F-36, CN951 E-38, CV001 D-21, CV502 G-29, CV801 C-37, D001 E-21, D002 C-19, D008 H-22, D009 H-17, D020 H-21, D501 B-13, D502 E-4, D503 D-27, D504 D-27, D801 A-31, D802 E-4, D804 E-5, D805 H-31, D806 H-11, D807 H-39, D808 G-39, D809 H-38, IC001 D-18, IC002 C-15, IC003 G-13, IC005 B-23, IC006 B-23, IC007 A-21, IC009 C-21, IC010 G-22, IC011 H-21, IC013 G-21, IC014 H-21, IC015 B-14, IC016 G-19, IC017 H-19, IC018 I-18, IC019 B-19, IC301 H-36, IC302 H-38, IC501 A-13, IC502 E-9, IC503 F-27, IC504 G-30, IC505 G-29, IC506 C-12, IC507 C-9, IC508 C-30, IC509 B-7, IC510 D-6, IC511 A-11, IC512 B-9, IC513 A-10, IC801 D-37, IC802 E-4, IC803 E-34, IC804 F-34, IC805 H-29, IC951 D-38, IC952 D-38, Q001 H-24, Q301 G-34, Q302 G-6, Q303 G-34, Q304 I-35, Q305 G-36, RV001 F-14, RV501 D-9, RV503 C-13, RV505 E-13, RV802 B-3, RV803 C-3, RV804 D-4

LV-20 (VIDEO) SCHEMATIC DIAGRAM

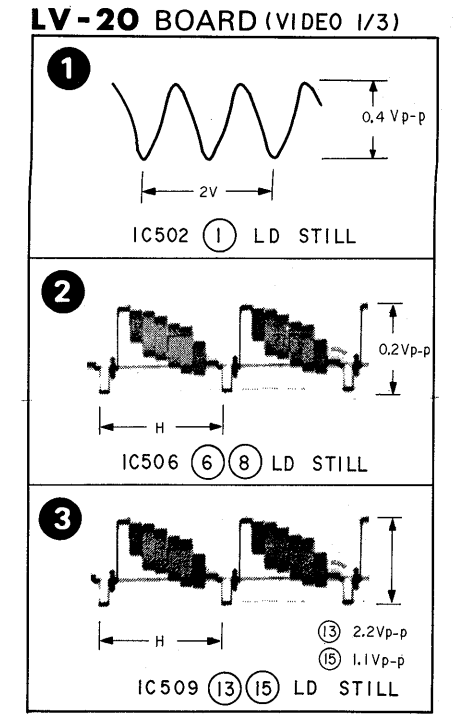
— Ref. No. LV-20 BOARD: 2000 series —

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O



• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB				



LV-20 BOARD (1/3) (VIDEO BLOCK)

LV-20 (VIDEO), RM-45 (RFU OUT) SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

— Ref. No. LV-20 BOARD: 2000 series, RM-45 BOARD: 1000 series —

LV-20 BOARD (VIDEO 2/3)

4 IC801 (2) LD STILL

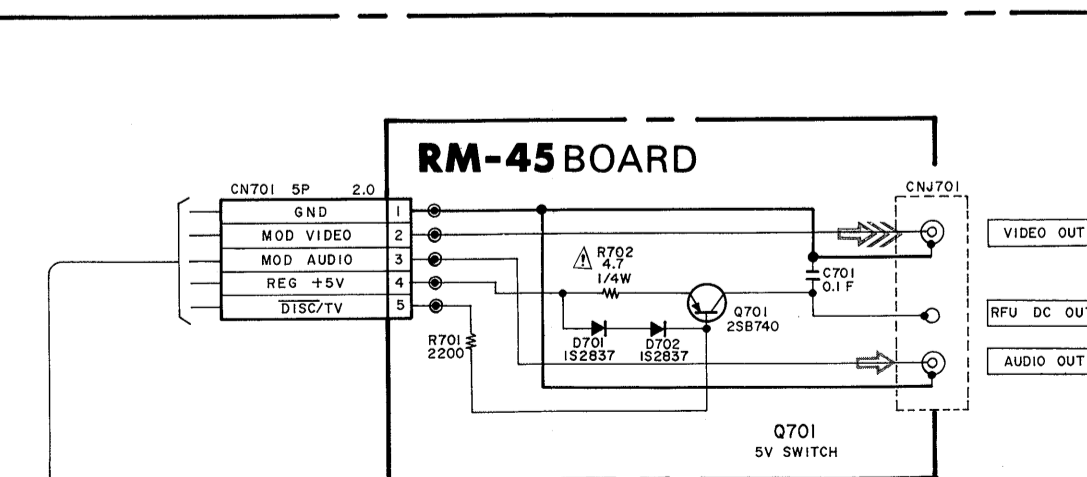
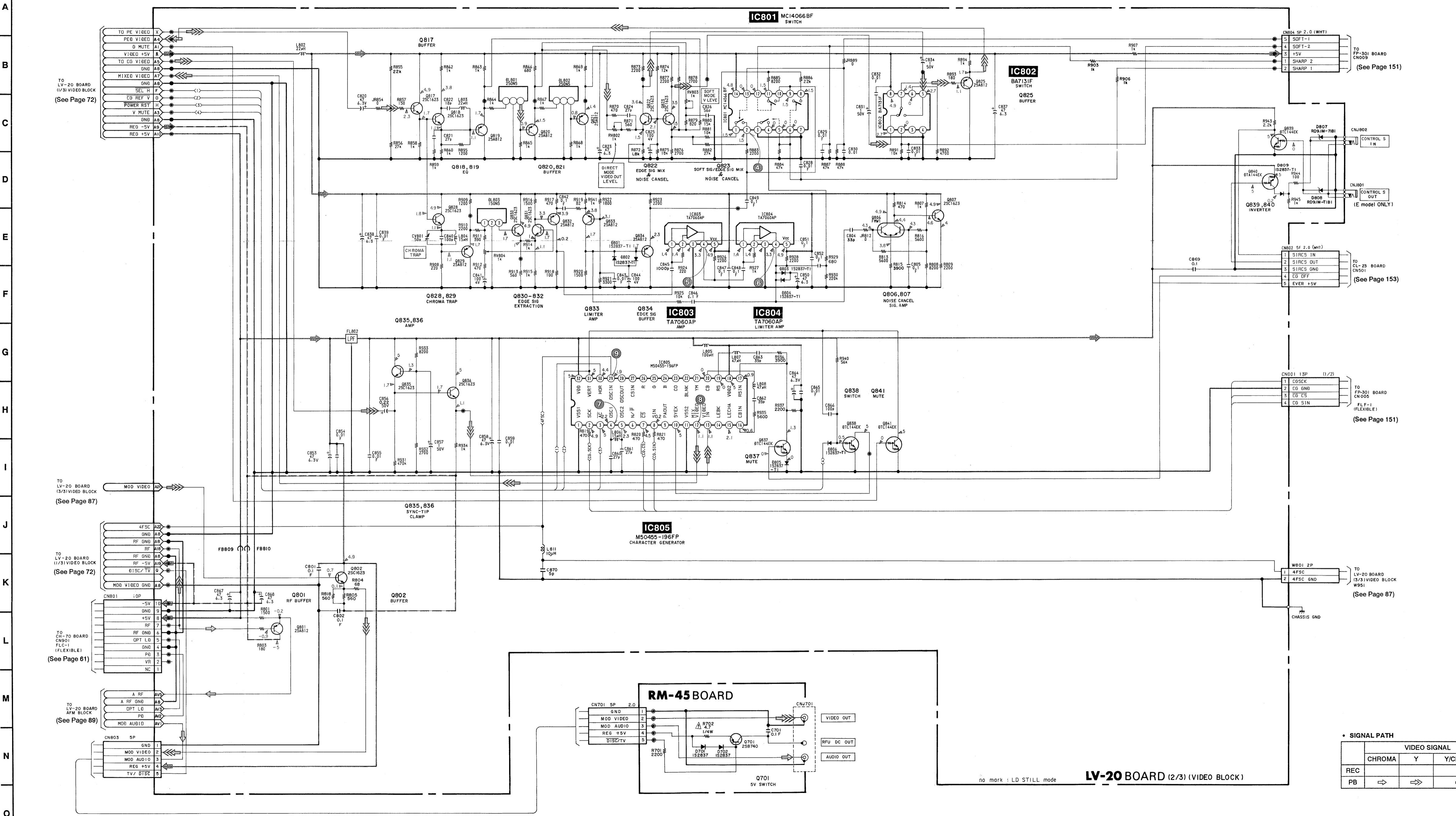
5 IC803 (4) LD STILL

6 IC804 (4) LD STILL

7 IC805 (4) LD STILL

8 IC805 (4) LD STILL

9 IC805 (29) LD STILL



• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	⇐	⇐	⇐	⇐
PB	⇐	⇐	⇐	⇐

LV-20 (VIDEO, SYSTEM CONTROL, SPINDLE ERROR, AFM AUDIO), RM-45 (RFU OUT), CS-32 (SCAN CONTROL) PRINTED WIRING BOARDS

— Ref. No. LV-20 BOARD: 2000 series, RM-45 BOARD: 1000 series, CS-32 BOARD: 8000 series —

* A-6421-647-A LV-20 BOARD, COMPLETE (Ref. No. 2000 Series)

* 1-640-722-13 CS-32 BOARD (Ref. No. 8000 Series)

(DIODE)

Table listing diode components: D001 8-719-106-22 DIODE RD7.5M-B1, D002 8-719-106-22 DIODE RD7.5M-B1, D008 8-719-400-18 DIODE MA152WK, D009 8-719-400-18 DIODE MA152WK, D020 8-719-400-18 DIODE MA152WK

Table listing diode components: D501 8-719-400-18 DIODE MA152WK, D502 8-719-400-18 DIODE MA152WK, D503 8-719-400-18 DIODE MA152WK, D504 8-719-400-18 DIODE MA152WK, D802 8-719-400-18 DIODE MA152WK, D803 8-719-400-18 DIODE MA152WK, D804 8-719-400-18 DIODE MA152WK, D805 8-719-400-18 DIODE MA152WK, D806 8-719-400-18 DIODE MA152WK, D807 8-719-106-43 DIODE RD9.1M-B1, D808 8-719-106-43 DIODE RD9.1M-B1, D809 8-719-400-18 DIODE MA152WK

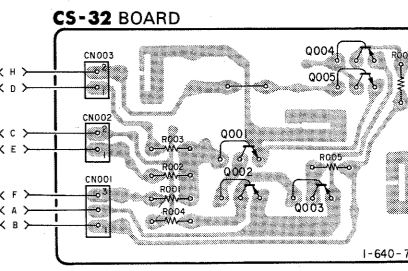
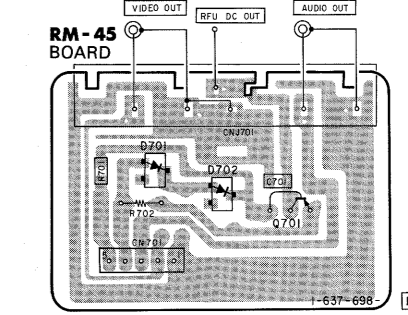
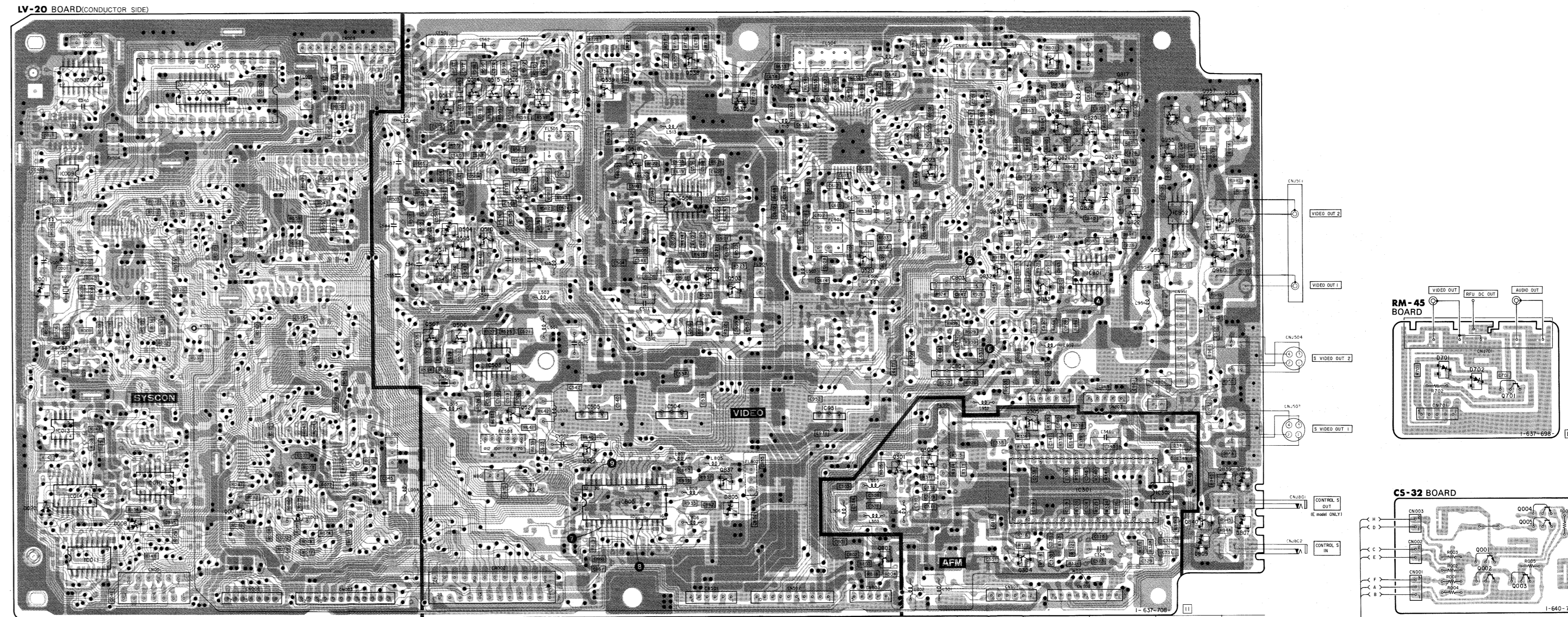
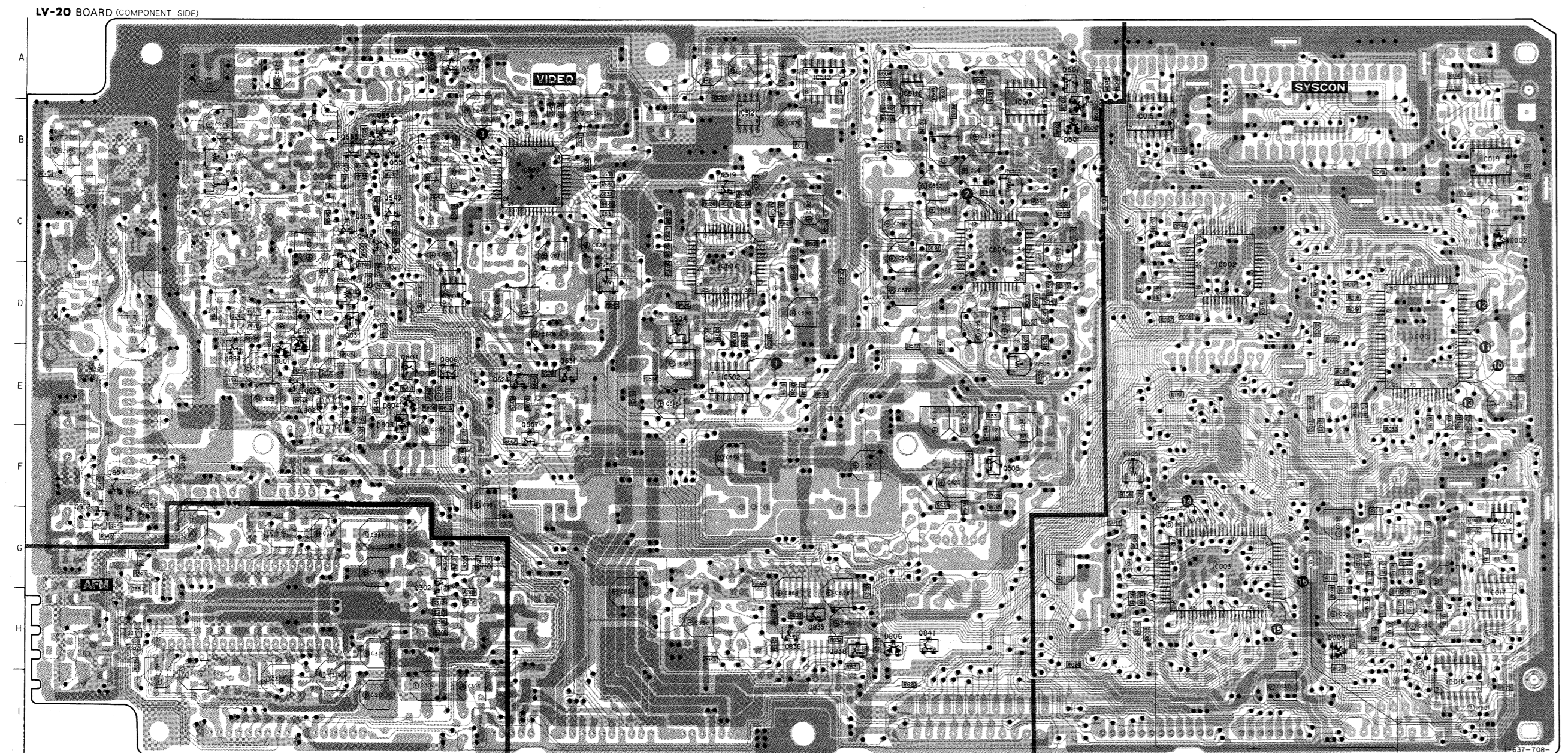
(IC)

Table listing IC components: IC001 8-759-988-40 IC MB89795-119, IC002 8-759-971-70 IC MB674172U, IC003 8-759-987-71 IC NSM72H032GS-K, IC005 * 1-526-971-11 SO CKET, IC 28P, IC005 8-759-708-84 IC TMS27C256-20JL-48A, IC006 8-759-926-66 IC SN74HC373NS, IC007 8-759-907-81 IC SN74LS21NS, IC008 8-759-634-43 IC M51953BFP, IC010 8-759-100-95 IC uPC324G2, IC011 8-759-009-06 IC MC14052BF, IC011 8-759-932-64 IC BU4052BF, IC013 8-759-981-92 IC RC4558M, IC014 8-759-009-07 IC MC14053BF, IC015 8-759-009-07 IC MC14053BF, IC016 8-759-981-65 IC LM2903M, IC017 8-759-925-72 IC SN74HC02NS, IC018 8-759-009-07 IC MC14053BF, IC019 8-759-008-67 IC MC14066BF, IC020 8-759-008-52 IC MC74HC123AF, IC301 8-759-502-42 IC PA0034A, IC302 8-759-981-92 IC RC4558M, IC501 8-759-008-67 IC TC4066BFB-TP1, IC502 8-759-100-95 IC uPC324G2, IC503 8-752-322-35 IC CXL5005M, IC504 8-759-982-10 IC RC7809FA, IC505 8-759-604-29 IC M5F7805L, IC506 8-752-036-24 IC CXA12550, IC507 8-759-502-69 IC CXD1152-MS, IC508 8-759-233-66 IC TC74HCT04AF, IC509 8-752-036-23 IC CXA1254Q, IC510 8-759-941-68 IC BA7131F, IC511 8-759-981-65 IC LM2903M, IC512 8-759-981-92 IC RC4558M, IC513 8-759-008-67 IC MC14066BF, IC801 8-759-008-67 IC MC14066BF, IC802 8-759-941-68 IC BA7131F, IC803 8-759-200-60 IC TA7060AP, IC804 8-759-200-60 IC TA7060AP, IC805 8-759-634-74 IC M50455-196PF, IC951 8-759-144-83 IC uPC24M9HF, IC952 8-759-037-30 IC MC14576AF

(TRANSISTOR)

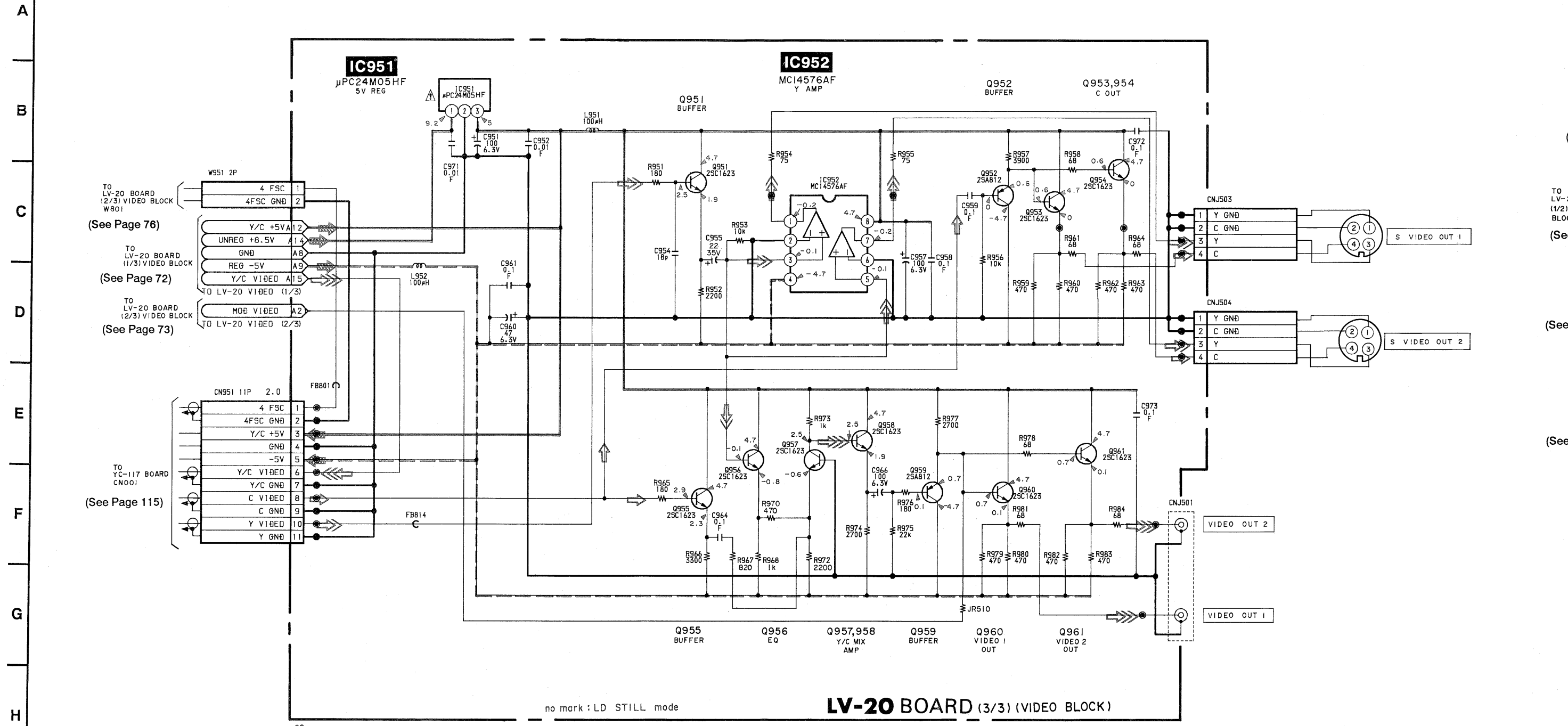
Table listing transistor components: Q001 8-729-901-00 TRANSISTOR DTC124EK, Q001 8-729-901-00 TRANSISTOR DTC124EK, Q002 8-729-900-65 TRANSISTOR DTA144ES, Q003 8-729-900-65 TRANSISTOR DTA144ES, Q004 8-729-900-65 TRANSISTOR DTA144ES, Q005 8-729-900-89 TRANSISTOR DTC144ES, Q301 8-729-100-66 TRANSISTOR 2SC1623, Q302 8-729-100-66 TRANSISTOR 2SC1623, Q303 8-729-100-66 TRANSISTOR 2SC1623, Q304 8-729-216-22 TRANSISTOR 2SA1162, Q305 8-729-216-22 TRANSISTOR 2SA1162, Q501 8-729-100-66 TRANSISTOR 2SC1623, Q502 8-729-100-66 TRANSISTOR 2SC1623, Q503 8-729-100-66 TRANSISTOR 2SC1623, Q504 8-729-140-75 TRANSISTOR 2SD999-CLK, Q505 8-729-100-66 TRANSISTOR 2SC1623, Q506 8-729-100-66 TRANSISTOR 2SC1623, Q507 8-729-100-66 TRANSISTOR 2AC1623, Q508 8-729-901-01 TRANSISTOR DTC144EK, Q509 8-729-901-01 TRANSISTOR DTC144EK, Q510 8-729-901-01 TRANSISTOR DTC144EK, Q511 8-729-100-66 TRANSISTOR 2SC1623, Q512 8-729-100-66 TRANSISTOR 2SC1623, Q513 8-729-216-22 TRANSISTOR 2SA1162, Q514 8-729-100-66 TRANSISTOR 2SC1623, Q515 8-729-100-66 TRANSISTOR 2SC1623, Q516 8-729-100-66 TRANSISTOR 2SC1623, Q517 8-729-100-66 TRANSISTOR 2SC1623, Q518 8-729-216-22 TRANSISTOR 2SA1162, Q519 8-729-100-66 TRANSISTOR 2SC1623, Q520 8-729-100-66 TRANSISTOR 2SC1623, Q521 8-729-100-66 TRANSISTOR 2SC1623, Q522 8-729-216-22 TRANSISTOR 2SA1162, Q523 8-729-216-22 TRANSISTOR 2SA1162, Q524 8-729-100-66 TRANSISTOR 2SC1623, Q526 8-729-100-66 TRANSISTOR 2SC1623, Q531 8-729-901-01 TRANSISTOR DTC144EK, Q537 8-729-100-66 TRANSISTOR 2SC1623, Q538 8-729-100-66 TRANSISTOR 2SC1623, Q539 8-729-100-66 TRANSISTOR 2SC1623, Q547 8-729-216-22 TRANSISTOR 2SA1162, Q548 8-729-216-22 TRANSISTOR 2SA1162, Q549 8-729-100-66 TRANSISTOR 2SC1623, Q551 8-729-216-22 TRANSISTOR 2SA1162, Q552 8-729-216-22 TRANSISTOR 2SA1162, Q553 8-729-216-22 TRANSISTOR 2SA1162, Q554 8-729-100-66 TRANSISTOR 2SC1623, Q557 8-729-216-22 TRANSISTOR 2SA1162, Q801 8-729-216-22 TRANSISTOR 2SA1162, Q802 8-729-100-66 TRANSISTOR 2SC1623, Q828 8-729-100-66 TRANSISTOR 2SC1623, Q829 8-729-216-22 TRANSISTOR 2SA1162, Q830 8-729-100-66 TRANSISTOR 2SC1623, Q831 8-729-100-66 TRANSISTOR 2SC1623, Q832 8-729-216-22 TRANSISTOR 2SA1162, Q833 8-729-216-22 TRANSISTOR 2SA1162, Q834 8-729-216-22 TRANSISTOR 2SA1162, Q835 8-729-100-66 TRANSISTOR 2SC1623, Q836 8-729-100-66 TRANSISTOR 2SC1623, Q837 8-729-901-01 TRANSISTOR DTC144EK, Q838 8-729-901-00 TRANSISTOR DTC124EK, Q839 8-729-901-01 TRANSISTOR DTC144EK, Q840 8-729-901-06 TRANSISTOR DTA144EK, Q841 8-729-901-00 TRANSISTOR DTC124EK, Q951 8-729-216-22 TRANSISTOR 2SA1162, Q952 8-729-216-22 TRANSISTOR 2SA1162, Q953 8-729-100-66 TRANSISTOR 2SC1623, Q954 8-729-100-66 TRANSISTOR 2SC1623, Q955 8-729-216-22 TRANSISTOR 2SA1162, Q956 8-729-100-66 TRANSISTOR 2SC1623, Q957 8-729-100-66 TRANSISTOR 2SC1623, Q958 8-729-100-66 TRANSISTOR 2SC1623, Q959 8-729-216-22 TRANSISTOR 2SA1162, Q960 8-729-100-66 TRANSISTOR 2SC1623, Q961 8-729-100-66 TRANSISTOR 2SC1623

Table listing components for LV-20 BOARD: CN001 I-22, CN002 I-27, CN003 I-25, CN006 I-24, CN009 A-25, CN301 I-35, CN302 I-36, CN501 I-31, CN502 I-32, CN801 A-35, CN802 A-37, CN803 I-33, CN804 F-38, CN851 E-38, CV001 D-21, CV502 G-29, CV801 C-37, D001 E-21, D002 C-19, D008 H-22, D009 H-17, D020 H-21, D501 B-13, D502 B-14, D503 D-27, D504 D-27, D801 E-4, D802 E-4, D803 E-5, D804 E-5, D805 H-31, D806 H-11, D807 H-39, D808 G-39, D809 H-38, IC001 D-18, IC002 C-15, IC003 G-15, IC005 B-23, IC006 B-23, IC007 A-21, IC009 C-21, IC010 G-22, IC011 H-21, IC013 G-21, IC014 H-21, IC015 B-14, IC016 G-19, IC017 H-19, IC301 H-36, IC302 H-38, IC501 A-13, IC502 E-9, IC503 F-27, IC504 G-30, IC505 G-29, IC506 C-12, IC507 C-9, IC508 C-30, IC509 B-7, IC510 D-6, IC511 A-11, IC512 B-7, IC513 A-10, IC801 D-37, IC802 E-4, IC803 F-34, IC804 F-34, IC805 H-29, IC951 G-33, IC952 D-38, Q001 H-24, Q301 G-34, Q302 G-6, Q303 G-34, Q304 I-36, Q305 G-36, Q501 A-13, Q502 E-31, Q503 E-31, Q504 D-9, Q505 F-12, Q506 E-27, Q507 E-27, Q508 C-4, Q509 C-4, Q510 D-27, Q511 F-27, Q512 C-28, Q513 B-27, Q514 B-27, Q515 B-28, Q516 B-28, Q517 B-28, Q518 C-30, Q519 C-33, Q521 F-28, Q522 G-29, Q523 B-34, Q524 E-7, Q525 B-32, Q526 B-32, Q527 B-31, Q528 A-31, Q529 B-29, Q547 A-6, Q548 C-5, Q549 C-5, Q551 B-5, Q552 B-5, Q553 B-5, Q554 B-5, Q557 F-7, Q801 I-35, Q802 I-33, Q806 E-6, Q807 G-15, Q817 B-37, Q818 B-37, Q819 B-38, Q820 B-37, Q821 C-36, Q822 C-37, Q823 C-37, Q824 C-37, Q825 E-4, Q826 C-37, Q827 C-37, Q828 C-37, Q830 D-35, Q831 D-5, Q832 E-5, Q833 E-36, Q834 E-3, Q835 H-10, Q836 H-10, Q837 H-31, Q838 G-30, Q839 G-39, Q840 H-38, Q841 H-38, Q951 D-38, Q952 G-2, Q953 C-38, Q954 F-2, Q955 C-38, Q956 B-38, Q957 B-38, Q958 B-39, Q959 B-39, Q960 D-39, Q961 D-39, RV001 F-14, RV502 D-8, RV503 C-13, RV505 E-13, RV802 B-3, RV803 C-3, RV804 D-4



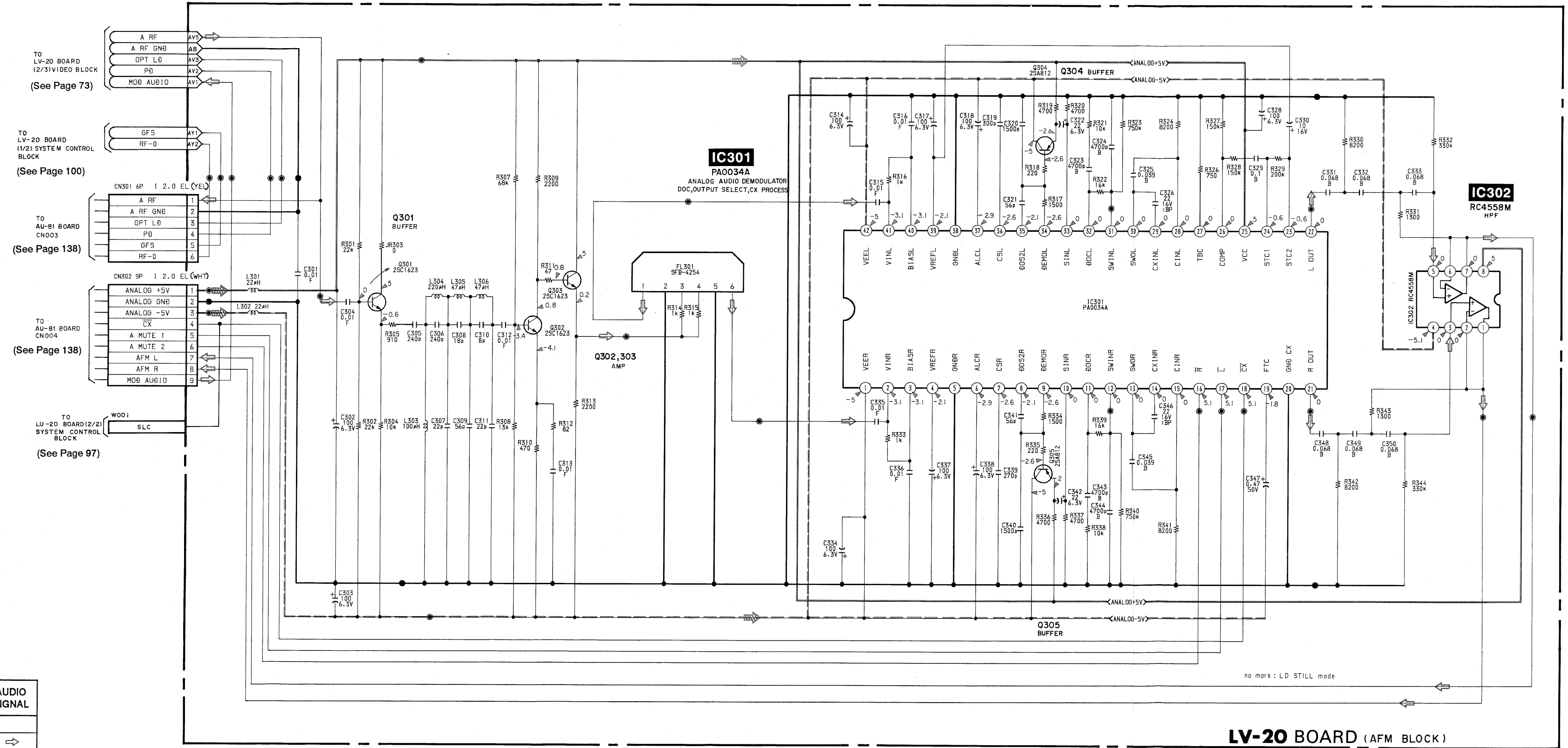
LV-20 (VIDEO), LV-20 (AFM AUDIO) SCHEMATIC DIAGRAMS

— Ref. No. LV-20 BOARD: 2000 series —



• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB	⇒	⇒	⇒	⇒



A
B
C
D
E
F
G
H
I
J

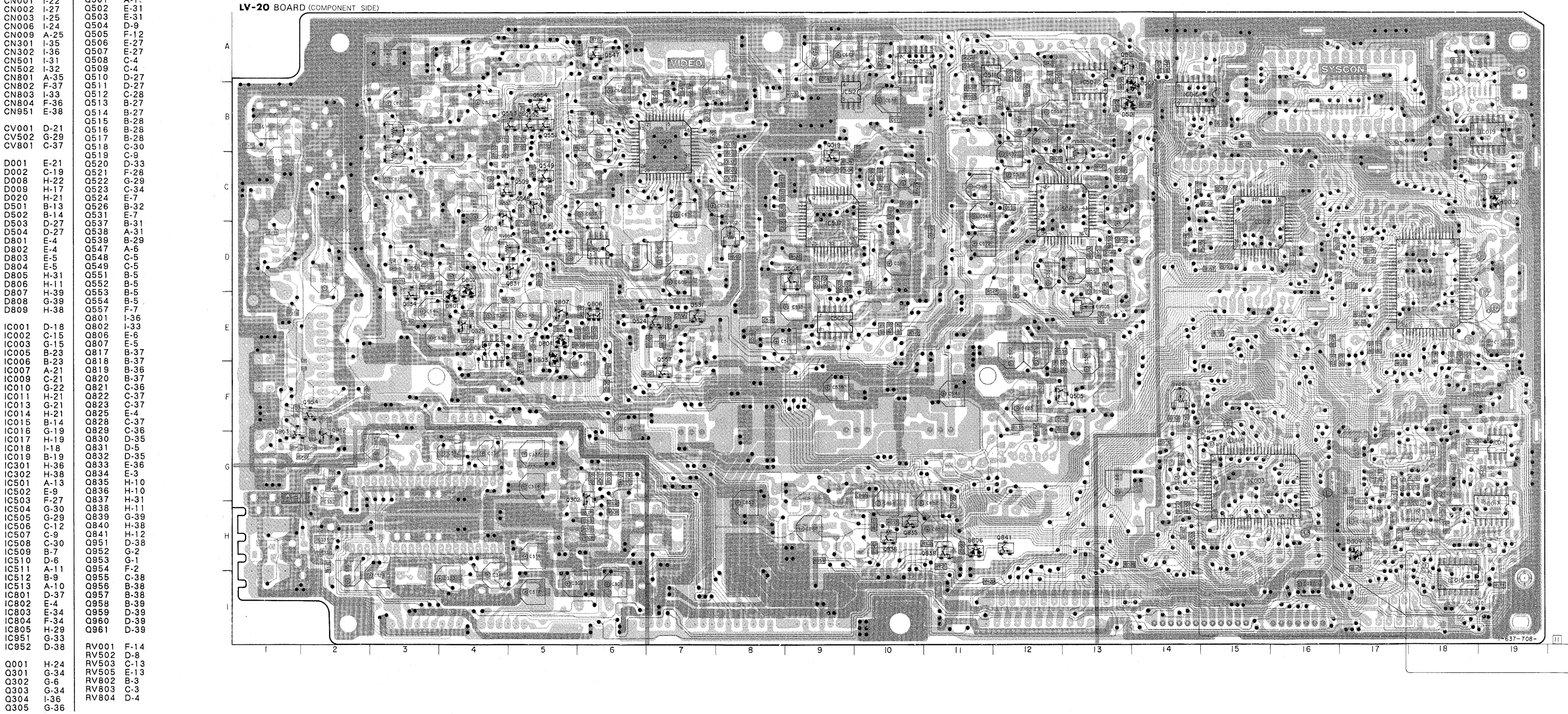
LV-20 (VIDEO, SYSTEM CONTROL, SPINDLE ERROR, AFM AUDIO), RM-45 (RFU OUT), CS-32 (SCAN CONTROL) PRINTED WIRING BOARDS

— Ref. No. LV-20 BOARD: 2000 series, RM-45 BOARD: 1000 series, CS-32 BOARD: 8000 series —

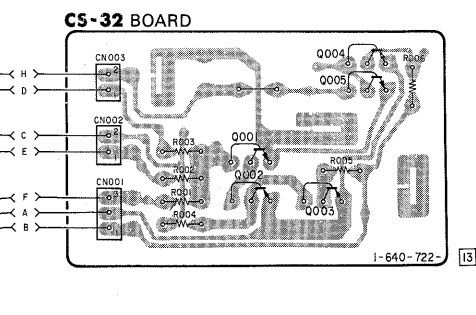
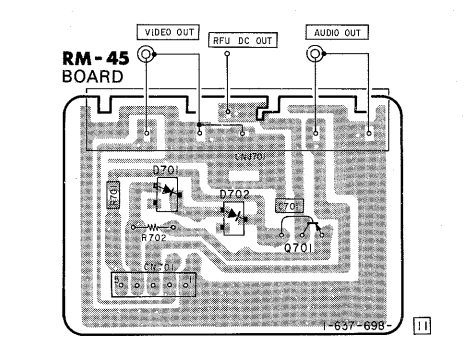
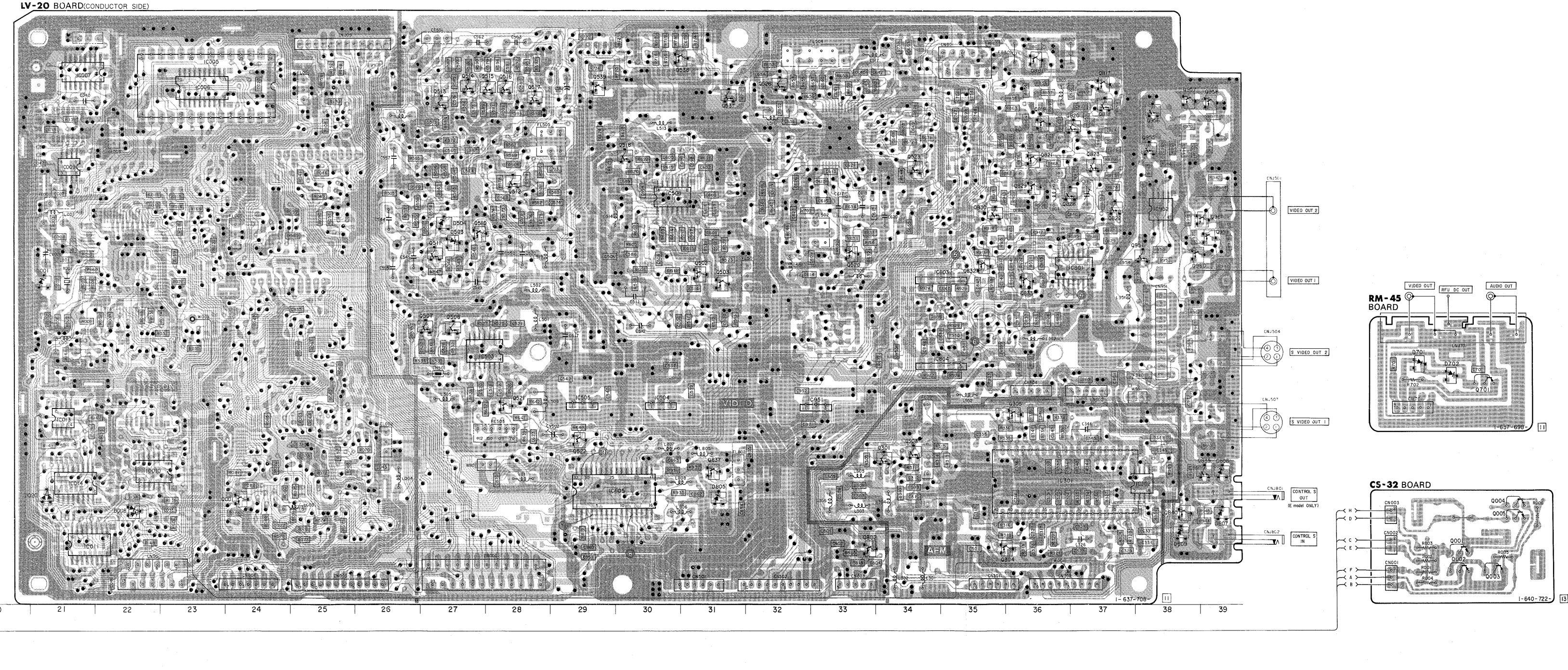
* A-6421-647-A LV-20 BOARD, COMPLETE (Ref. No. 2000 Series)			
D501	8-719-400-18 DIODE	MA152WK	(IC)
D502	8-719-400-18 DIODE	MA152WK	
D503	8-719-400-18 DIODE	MA152WK	
D504	8-719-400-18 DIODE	MA152WK	
D801	8-719-400-18 DIODE	MA152WK	
* 1-640-722-13 CS-32 BOARD (Ref. No. 8000 Series)			
(DIODE)			
D001	8-719-106-22 DIODE	RD7. 5M-B1	
D002	8-719-106-22 DIODE	RD7. 5M-B1	
D008	8-719-400-18 DIODE	MA152WK	
D009	8-719-400-18 DIODE	MA152WK	
D020	8-719-400-18 DIODE	MA152WK	

LV-20 BOARD

CN001 I-22 Q501 A-1
 CN002 I-27 Q502 E-31
 CN003 I-25 Q503 E-31
 CN006 I-24 Q504 D-9
 CN009 A-25 Q505 F-12
 CN301 I-35 Q506 E-27
 CN302 I-36 Q507 E-27
 CN501 I-31 Q508 C-4
 CN502 I-32 Q509 C-4
 CN501 A-35 Q510 A-35
 CN802 F-37 Q511 D-27
 CN803 I-33 Q512 C-28
 CN804 F-36 Q513 B-27
 CN951 E-38 Q514 B-27
 Q515 B-28
 Q516 B-28
 Q517 B-28
 Q518 C-30
 Q519 C-9
 Q520 C-33
 Q521 F-28
 Q522 C-24
 Q523 C-24
 Q524 E-7
 Q525 E-7
 Q526 B-32
 Q527 B-31
 Q528 A-31
 Q529 B-29
 Q530 B-29
 Q531 B-29
 Q532 B-31
 Q533 B-31
 Q534 B-31
 Q535 B-31
 Q536 B-31
 Q537 B-31
 Q538 B-31
 Q539 B-29
 Q540 B-29
 Q541 B-29
 Q542 B-29
 Q543 B-29
 Q544 B-29
 Q545 B-29
 Q546 B-29
 Q547 A-6
 Q548 C-5
 Q549 B-5
 Q550 B-5
 Q551 B-5
 Q552 B-5
 Q553 B-5
 Q554 B-5
 Q555 B-5
 Q556 B-5
 Q557 F-7
 Q558 F-7
 Q801 I-36
 Q802 I-33
 Q803 E-6
 Q804 E-6
 Q805 E-6
 Q806 B-37
 Q807 B-37
 Q808 B-37
 Q809 B-37
 Q810 B-37
 Q811 B-37
 Q812 B-37
 Q813 B-37
 Q814 B-37
 Q815 B-37
 Q816 B-37
 Q817 B-37
 Q818 B-37
 Q819 B-36
 Q820 B-37
 Q821 C-36
 Q822 C-37
 Q823 C-37
 Q824 C-37
 Q825 E-4
 Q826 B-37
 Q827 B-37
 Q828 C-36
 Q829 C-36
 Q830 D-35
 Q831 D-35
 Q832 D-35
 Q833 E-36
 Q834 E-36
 Q835 H-10
 Q836 H-10
 Q837 F-27
 Q838 H-11
 Q839 G-39
 Q840 H-12
 Q841 H-12
 Q842 H-12
 Q843 H-12
 Q844 H-12
 Q845 H-12
 Q846 H-12
 Q847 H-12
 Q848 H-12
 Q849 H-12
 Q850 H-12
 Q851 D-38
 Q852 D-38
 Q853 D-38
 Q854 F-2
 Q855 C-38
 Q856 A-38
 Q857 B-38
 Q858 B-38
 Q859 B-38
 Q860 D-39
 Q861 D-39
 Q862 B-39
 Q863 B-39
 Q864 D-39
 Q865 D-39
 Q866 D-39
 Q867 D-39
 Q868 D-39
 Q869 D-39



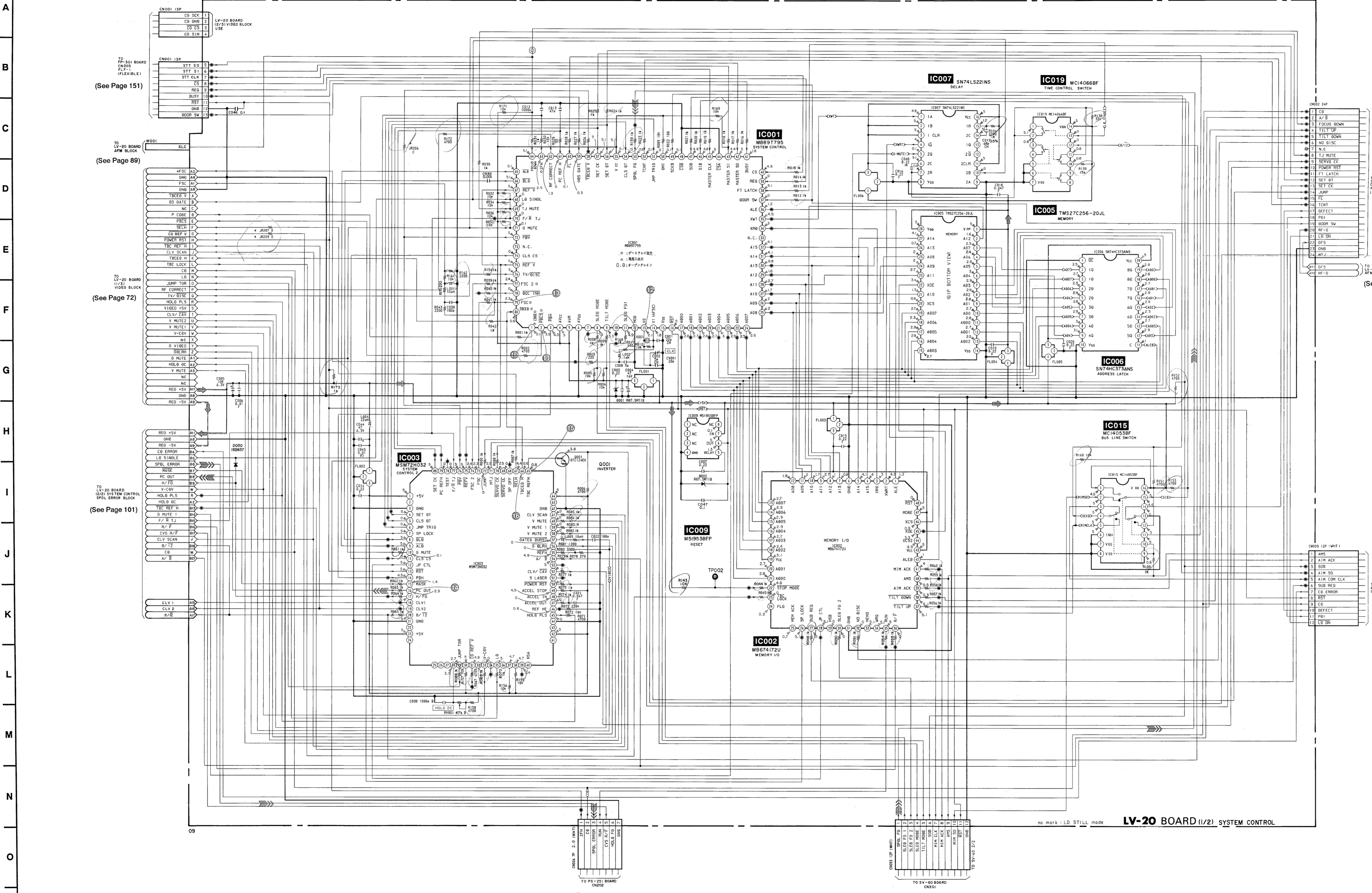
IC011	8-759-932-64 IC	BU4052BF	IC505	8-759-604-29 IC	M5F7805L	IC952	8-759-037-30 IC	MC14576AF	Q305	8-729-216-22 TRANSISTOR	2SA1162	Q515	8-729-100-66 TRANSISTOR	ZSC1623	Q547	8-729-216-22 TRANSISTOR	2SA1162	Q820	8-729-216-22 TRANSISTOR	2SA1162	Q839	8-729-901-00 TRANSISTOR	DTC124EK
IC013	8-759-981-92 IC	RC4558M	IC506	8-752-036-24 IC	CXA12550				Q501	8-729-100-66 TRANSISTOR	ZSC1623	Q516	8-729-100-66 TRANSISTOR	ZSC1623	Q548	8-729-216-22 TRANSISTOR	2SA1162	Q821	8-729-216-22 TRANSISTOR	2SA1162	Q839	8-729-901-01 TRANSISTOR	DTC144EK
IC014	8-759-009-07 IC	MC14053BF	IC507	8-759-502-69 IC	CXD1152-MS	(TRANSISTOR)			Q502	8-729-100-66 TRANSISTOR	ZSC1623	Q517	8-729-100-66 TRANSISTOR	ZSC1623	Q549	8-729-216-22 TRANSISTOR	2SA1162	Q822	8-729-100-66 TRANSISTOR	ZSC1623	Q840	8-729-901-06 TRANSISTOR	DTA144EK
IC015	8-759-009-07 IC	MC14053BF	IC508	8-759-233-66 IC	TC74HCT04AF				Q503	8-729-100-66 TRANSISTOR	ZSC1623	Q518	8-729-100-66 TRANSISTOR	ZSC1623	Q551	8-729-216-22 TRANSISTOR	2SA1162	Q823	8-729-100-66 TRANSISTOR	ZSC1623	Q841	8-729-901-00 TRANSISTOR	DTC124EK
IC016	8-759-981-65 IC	LM2903M	IC509	8-752-036-23 IC	CXA1254Q				Q504	8-729-140-75 TRANSISTOR	ZSD999-CLCK	Q519	8-729-100-66 TRANSISTOR	ZSC1623	Q552	8-729-216-22 TRANSISTOR	2SA1162	Q824	8-729-216-22 TRANSISTOR	2SA1162	Q842	8-729-901-00 TRANSISTOR	DTC124EK
IC017	8-759-925-72 IC	SN74HC02NS	IC510	8-759-941-68 IC	BA7131F				Q001	8-729-901-00 TRANSISTOR	DTC124EK	Q520	8-729-100-66 TRANSISTOR	ZSC1623	Q553	8-729-216-22 TRANSISTOR	2SA1162	Q825	8-729-216-22 TRANSISTOR	2SA1162	Q843	8-729-901-01 TRANSISTOR	DTC144EK
IC018	8-759-009-07 IC	MC14053BF	IC511	8-759-981-65 IC	LM2903M				Q002	8-729-900-65 TRANSISTOR	DTA144ES	Q521	8-729-100-66 TRANSISTOR	ZSC1623	Q554	8-729-100-66 TRANSISTOR	ZSC1623	Q826	8-729-100-66 TRANSISTOR	ZSC1623	Q844	8-729-100-66 TRANSISTOR	ZSC1623
IC019	8-759-008-67 IC	MC14066BF	IC512	8-759-981-92 IC	RC4558M				Q003	8-729-900-65 TRANSISTOR	DTA144ES	Q522	8-729-216-22 TRANSISTOR	2SA1162	Q555	8-729-216-22 TRANSISTOR	2SA1162	Q827	8-729-100-66 TRANSISTOR	ZSC1623	Q845	8-729-100-66 TRANSISTOR	ZSC1623
IC020	8-759-008-52 IC	MC74HC123AF	IC513	8-759-008-67 IC	MC14066BF				Q004	8-729-900-65 TRANSISTOR	DTA144ES	Q523	8-729-216-22 TRANSISTOR	2SA1162	Q556	8-729-216-22 TRANSISTOR	2SA1162	Q828	8-729-100-66 TRANSISTOR	ZSC1623	Q846	8-729-100-66 TRANSISTOR	ZSC1623
IC301	8-759-502-42 IC	PA0034A	IC801	8-759-008-67 IC	MC14066BF				Q005	8-729-900-89 TRANSISTOR	DTC144ES	Q524	8-729-100-66 TRANSISTOR	ZSC1623	Q557	8-729-216-22 TRANSISTOR	2SA1162	Q829	8-729-100-66 TRANSISTOR	ZSC1623	Q847	8-729-100-66 TRANSISTOR	ZSC1623
IC302	8-759-981-92 IC	RC4558M	IC802	8-759-941-68 IC	BA7131F				Q301	8-729-100-66 TRANSISTOR	ZSC1623	Q526	8-729-100-66 TRANSISTOR	ZSC1623	Q806	8-729-903-10 TRANSISTOR	FMW1	Q833	8-729-216-22 TRANSISTOR	2SA1162	Q848	8-729-100-66 TRANSISTOR	ZSC1623
IC501	8-759-008-67 IC	TC4066BFB-TP1	IC803	8-759-200-60 IC	TA7060AP				Q302	8-729-100-66 TRANSISTOR	ZSC1623	Q531	8-729-901-01 TRANSISTOR	DTC144EK	Q807	8-729-100-66 TRANSISTOR	ZSC1623	Q834	8-729-216-22 TRANSISTOR	2SA1162	Q849	8-729-100-66 TRANSISTOR	ZSC1623
IC502	8-759-100-95 IC	uPC324G2	IC804	8-759-200-60 IC	TA7060AP				Q303	8-729-100-66 TRANSISTOR	ZSC1623	Q537	8-729-100-66 TRANSISTOR	ZSC1623	Q817	8-729-100-66 TRANSISTOR	ZSC1623	Q835	8-729-100-66 TRANSISTOR	ZSC1623	Q850	8-729-216-22 TRANSISTOR	2SA1162
IC503	8-752-322-35 IC	CXL5005M	IC805	8-759-634-74 IC	M50455-196FP				Q304	8-729-216-22 TRANSISTOR	2SA1162	Q538	8-729-100-66 TRANSISTOR	ZSC1623	Q818	8-729-100-66 TRANSISTOR	ZSC1623	Q836	8-729-100-66 TRANSISTOR	ZSC1623	Q851	8-729-100-66 TRANSISTOR	ZSC1623
IC504	8-759-982-10 IC	RC7809FA	IC951	8-759-144-83 IC	uPC24M09HF				Q510	8-729-901-01 TRANSISTOR	DTC144EK	Q526	8-729-100-66 TRANSISTOR	ZSC1623	Q819	8-729-216-22 TRANSISTOR	2SA1162	Q837	8-729-901-01 TRANSISTOR	DTC144EK	Q852	8-729-100-66 TRANSISTOR	ZSC1623
									Q511	8-729-100-66 TRANSISTOR	ZSC1623	Q531	8-729-901-01 TRANSISTOR	DTC144EK	Q807	8-729-100-66 TRANSISTOR	ZSC1623	Q834	8-729-216-22 TRANSISTOR	2SA1162	Q849	8-729-100-66 TRANSISTOR	ZSC1623
									Q512	8-729-100-66 TRANSISTOR	ZSC1623	Q537	8-729-100-66 TRANSISTOR	ZSC1623	Q817	8-729-100-66 TRANSISTOR	ZSC1623	Q835	8-729-100-66 TRANSISTOR	ZSC1623	Q850	8-729-216-22 TRANSISTOR	2SA1162
									Q513	8-729-216-22 TRANSISTOR	2SA1162	Q538	8-729-100-66 TRANSISTOR	ZSC1623	Q818	8-729-100-66 TRANSISTOR	ZSC1623	Q836	8-729-100-66 TRANSISTOR	ZSC1623	Q851	8-729-100-66 TRANSISTOR	ZSC1623
									Q514	8-729-100-66 TRANSISTOR	ZSC1623	Q539	8-729-100-66 TRANSISTOR	ZSC1623	Q819	8-729-216-22 TRANSISTOR	2SA1162	Q837	8-729-901-01 TRANSISTOR	DTC144EK	Q852	8-729-100-66 TRANSISTOR	ZSC1623



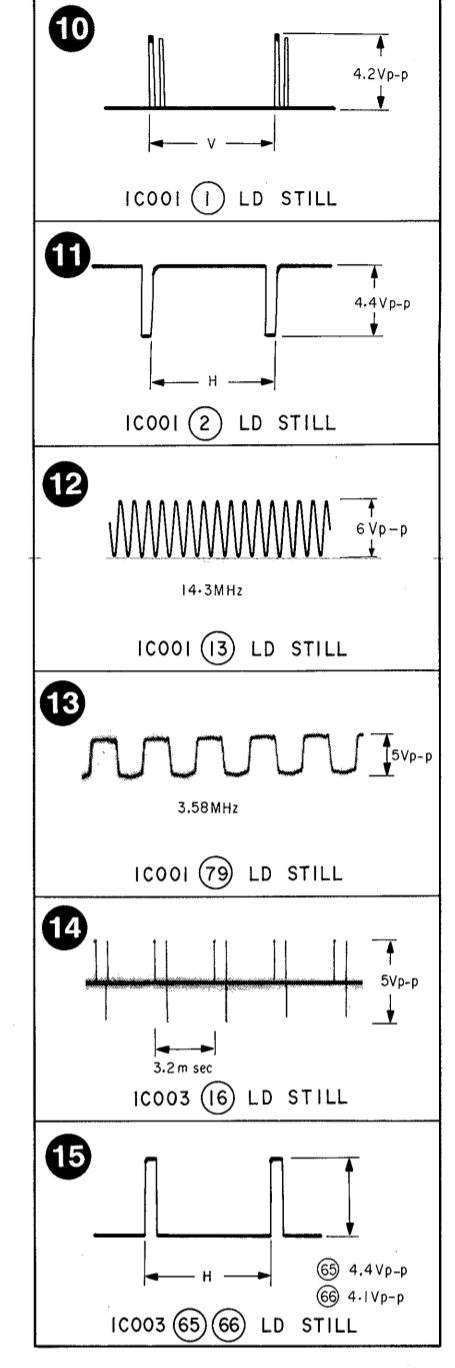
LV-20 (SYSTEM CONTROL) SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

— Ref. No. LV-20 BOARD: 2000 series —



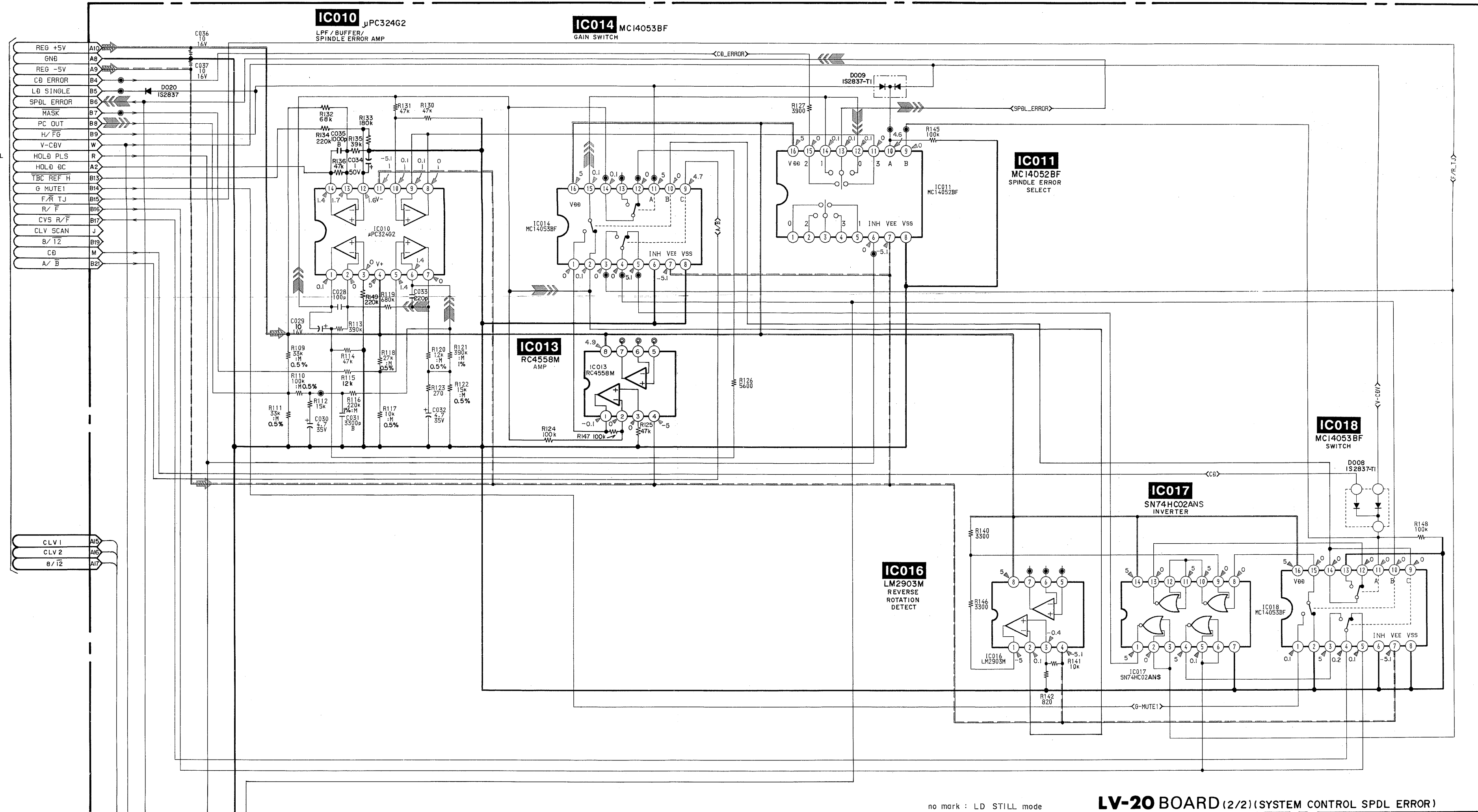
LV-20 BOARD (SYSTEM CONTROL)



SIGNAL PATH

Spindle phase servo	↔
Spindle servo (Speed and phase)	↔↔
Tracking servo	↔↔
Sled servo	↔
Focus servo	↔
Skrew servo	↔

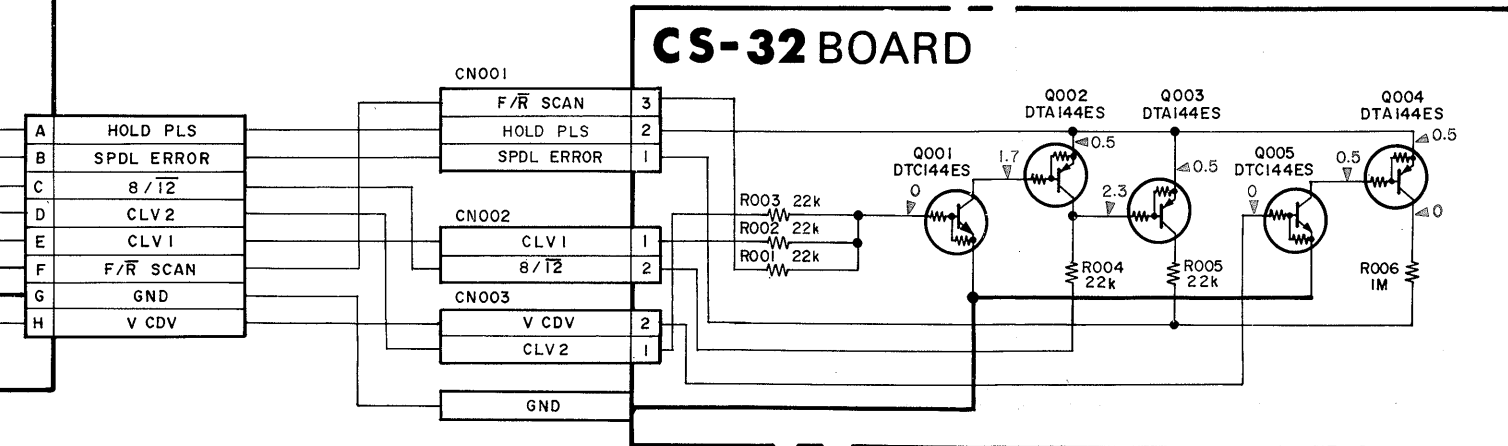
— Ref. No. LV-20 BOARD: 2000 series, CS-32 BOARD: 8000 series —



no mark : LD STILL mode LV-20 BOARD (2/2) (SYSTEM CONTROL SPDL ERROR)

SIGNAL PATH

Spindle phase servo	➤➤➤
Spindle servo (Speed and phase)	➤➤➤➤➤
Tracking servo	➤➤➤
Sled servo	➤➤
Focus servo	➤➤
Skew servo	➤➤



LV-20 (VIDEO, SYSTEM CONTROL, SPINDLE ERROR, AFM AUDIO), RM-45 (RFU OUT), CS-32 (SCAN CONTROL) PRINTED WIRING BOARDS

— Ref. No. LV-20 BOARD: 2000 series, RM-45 BOARD: 1000 series, CS-32 BOARD: 8000 series —

* A-6421-647-A LV-20 BOARD, COMPLETE (Ref. No. 2000 Series) *****

* 1-640-722-13 CS-32 BOARD (Ref. No. 8000 Series) *****

(DIODE)

D001	8-719-106-22	DIODE	RD7.5M-B1
D002	8-719-106-22	DIODE	RD7.5M-B1
D008	8-719-400-18	DIODE	MA152WK
D009	8-719-400-18	DIODE	MA152WK
D020	8-719-400-18	DIODE	MA152WK

D501	8-719-400-18	DIODE	MA152WK
D502	8-719-400-18	DIODE	MA152WK
D503	8-719-400-18	DIODE	MA152WK
D504	8-719-400-18	DIODE	MA152WK
D801	8-719-400-18	DIODE	MA152WK
D802	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK
D804	8-719-400-18	DIODE	MA152WK
D805	8-719-400-18	DIODE	MA152WK
D806	8-719-400-18	DIODE	MA152WK
D807	8-719-106-43	DIODE	RD9.1M-B1
D808	8-719-106-43	DIODE	RD9.1M-B1
D809	8-719-400-18	DIODE	MA152WK

IC011	8-759-932-64	IC	BU4052BF
IC013	8-759-981-92	IC	RC4558M
IC014	8-759-009-07	IC	MC14053BF
IC015	8-759-009-07	IC	MC14053BF
IC016	8-759-981-65	IC	LM2903M
IC017	8-759-925-72	IC	SN74HC02NS
IC018	8-759-009-07	IC	MC14053BF
IC019	8-759-008-67	IC	MC14066BF
IC020	8-759-008-52	IC	MCT4HC123AF
IC301	8-759-502-42	IC	PA0034A
IC302	8-759-981-92	IC	RC4558M
IC501	8-759-008-67	IC	TC4066BFH8-TP1
IC502	8-759-100-95	IC	uPC324G2
IC503	8-752-322-35	IC	CXL5005M
IC504	8-759-982-10	IC	RC7809FA

IC505	8-759-604-29	IC	M5F7805L
IC506	8-752-036-24	IC	CXA1255Q
IC507	8-759-502-69	IC	CXD01152-MS
IC508	8-759-233-66	IC	TC74HCT04AF
IC509	8-752-036-23	IC	CXA1254Q
IC510	8-759-941-68	IC	BA7131F
IC511	8-759-981-65	IC	LM2903M
IC512	8-759-981-92	IC	RC4558M
IC513	8-759-008-67	IC	MC14066BF
IC801	8-759-008-67	IC	MC14066BF
IC802	8-759-941-68	IC	BA7131F
IC803	8-759-200-60	IC	TA7060AP
IC804	8-759-200-60	IC	TA7060AP
IC805	8-759-634-74	IC	M50455-196FP
IC951	8-759-144-83	IC	uPC24M09HF

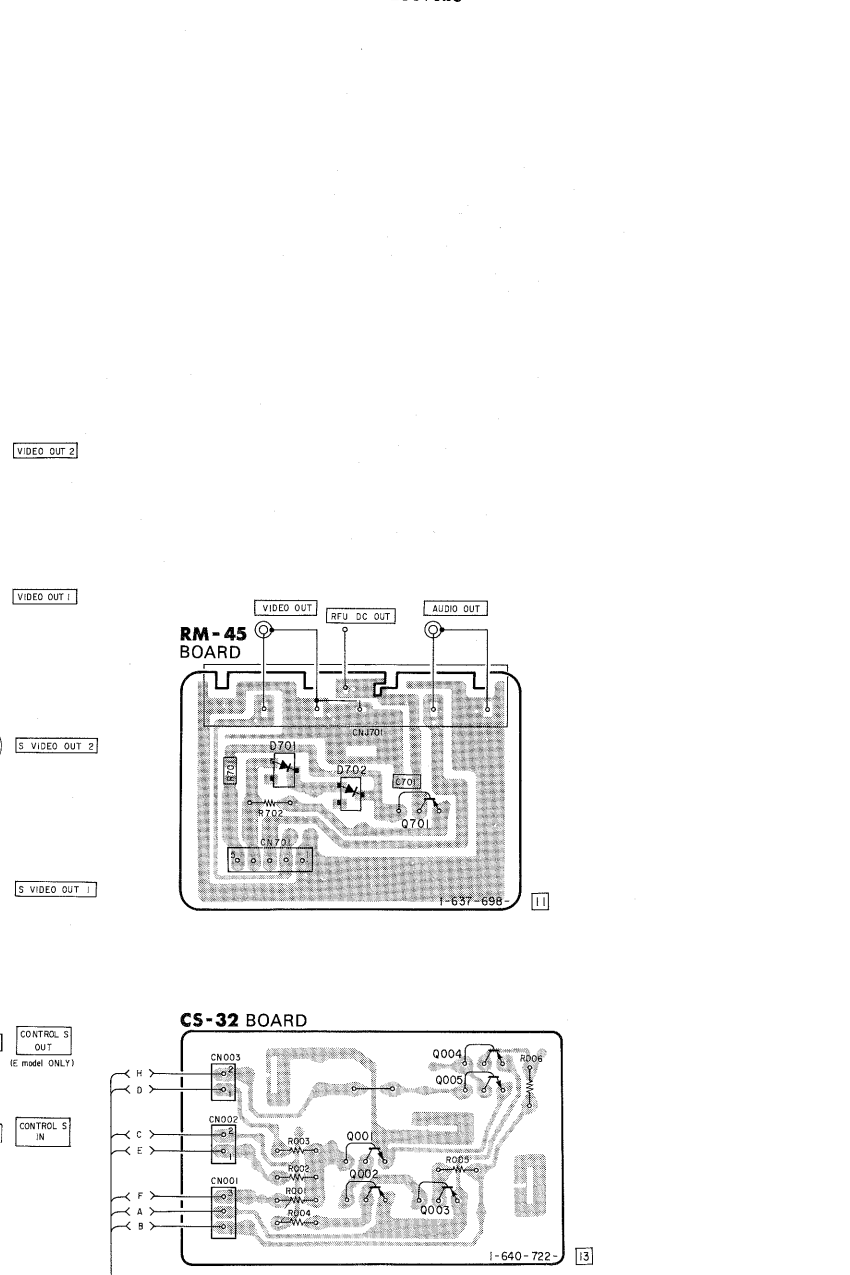
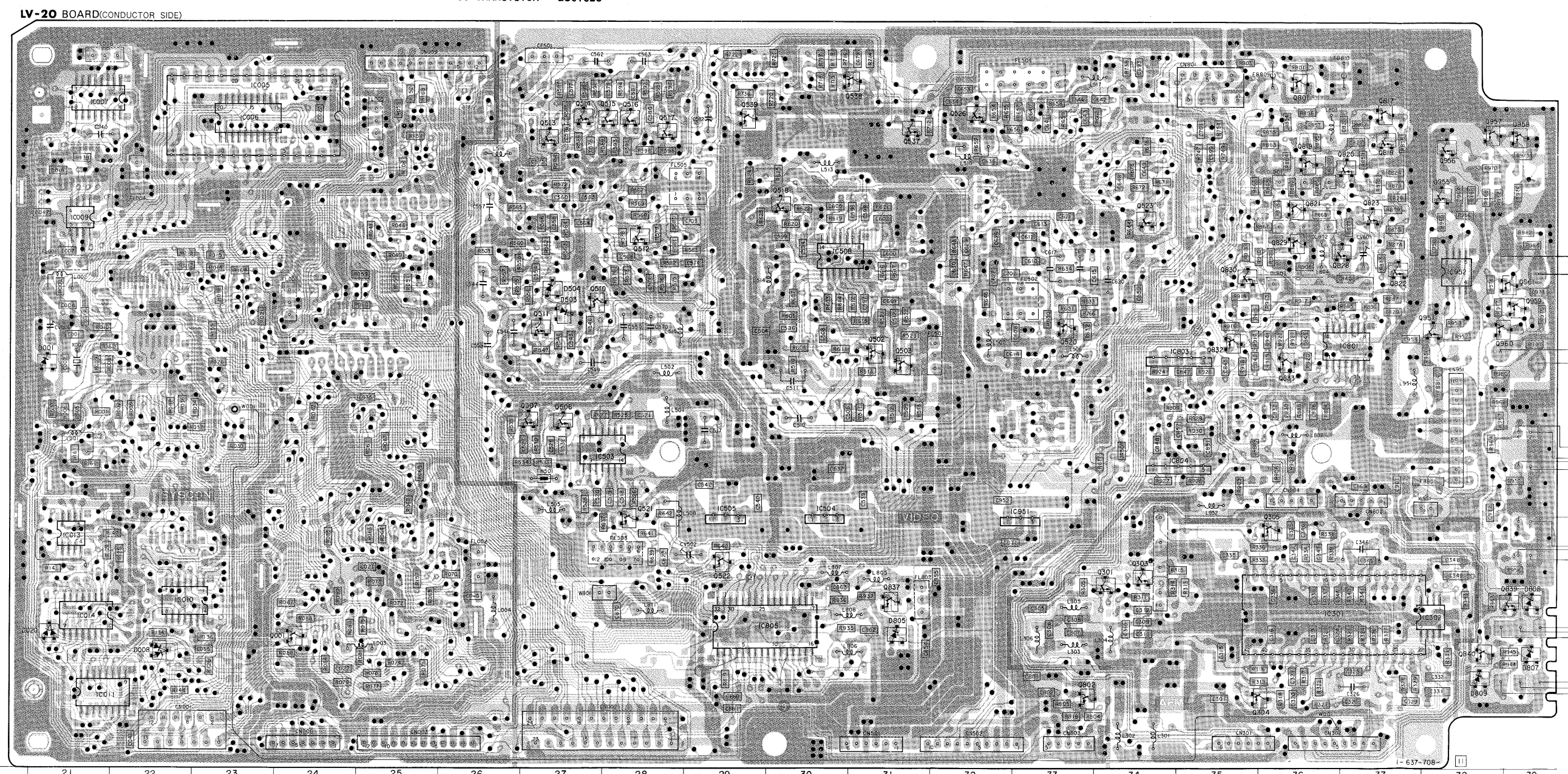
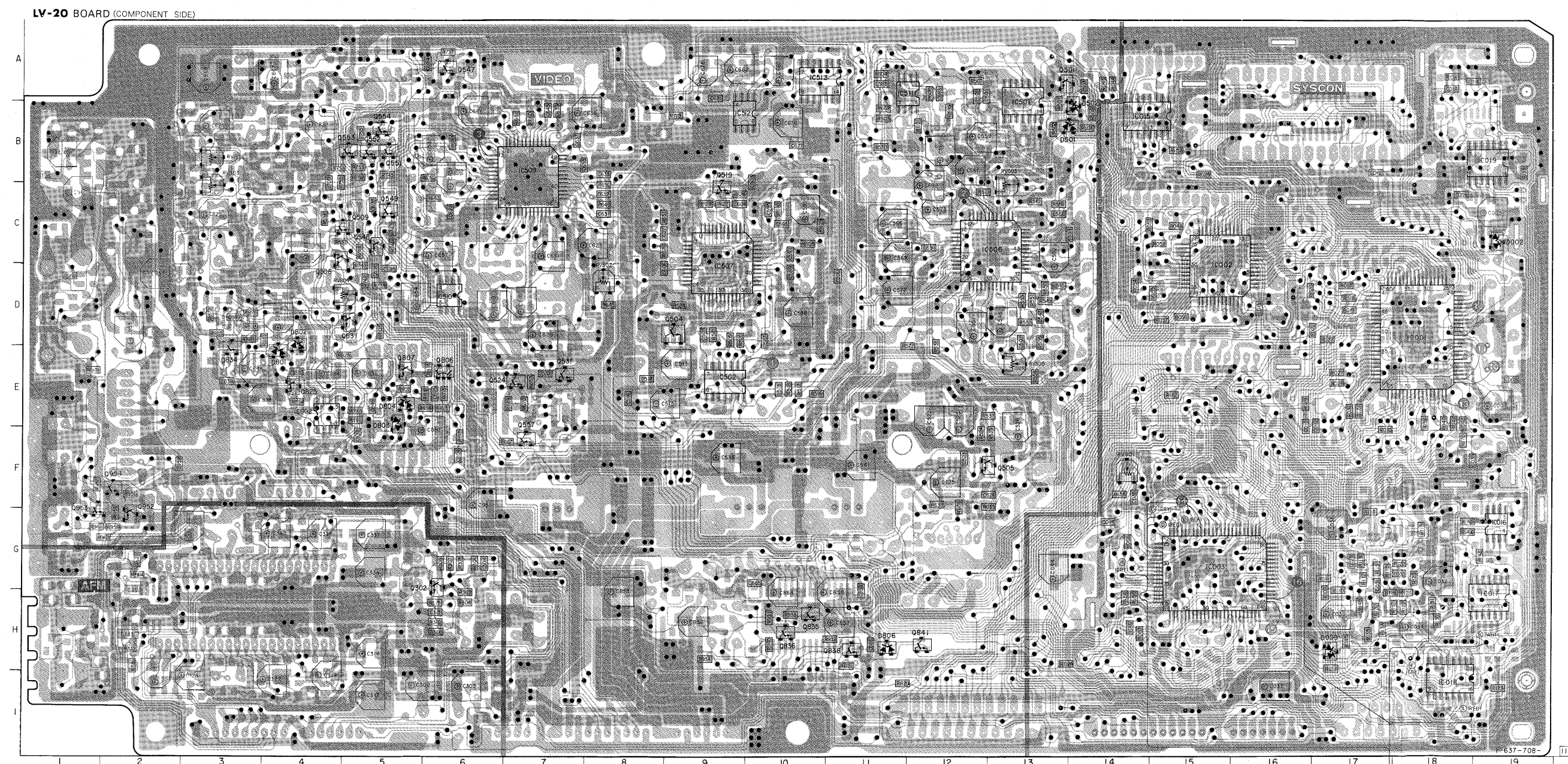
IC952	8-759-037-30	IC	MC14576AF
Q305	8-729-216-22	TRANSISTOR	2SA1162
Q501	8-729-100-66	TRANSISTOR	2SC1623
Q502	8-729-100-66	TRANSISTOR	2SC1623
Q503	8-729-100-66	TRANSISTOR	2SC1623
Q504	8-729-140-75	TRANSISTOR	ZSD999-CLCK
Q505	8-729-100-66	TRANSISTOR	2SC1623
Q506	8-729-100-66	TRANSISTOR	2SC1623
Q507	8-729-100-66	TRANSISTOR	2AC1623
Q508	8-729-901-01	TRANSISTOR	DTC144EK
Q509	8-729-901-01	TRANSISTOR	DTC144EK
Q510	8-729-901-01	TRANSISTOR	DTC144EK
Q511	8-729-100-66	TRANSISTOR	2SC1623
Q512	8-729-100-66	TRANSISTOR	2SC1623
Q513	8-729-216-22	TRANSISTOR	2SA1162
Q514	8-729-100-66	TRANSISTOR	2SC1623

Q515	8-729-100-66	TRANSISTOR	2SC1623
Q516	8-729-100-66	TRANSISTOR	2SC1623
Q517	8-729-100-66	TRANSISTOR	2SC1623
Q518	8-729-216-22	TRANSISTOR	2SA1162
Q519	8-729-100-66	TRANSISTOR	2SC1623
Q520	8-729-100-66	TRANSISTOR	2SC1623
Q521	8-729-100-66	TRANSISTOR	2SC1623
Q522	8-729-216-22	TRANSISTOR	2SA1162
Q523	8-729-216-22	TRANSISTOR	2SA1162
Q524	8-729-100-66	TRANSISTOR	2SC1623
Q525	8-729-100-66	TRANSISTOR	2SC1623
Q526	8-729-100-66	TRANSISTOR	2SC1623
Q531	8-729-901-01	TRANSISTOR	DTC144EK
Q537	8-729-100-66	TRANSISTOR	2SC1623
Q538	8-729-100-66	TRANSISTOR	2SC1623
Q539	8-729-100-66	TRANSISTOR	2SC1623
Q547	8-729-216-22	TRANSISTOR	2SA1162
Q548	8-729-216-22	TRANSISTOR	2SA1162
Q549	8-729-100-66	TRANSISTOR	2SC1623
Q551	8-729-216-22	TRANSISTOR	2SA1162
Q552	8-729-216-22	TRANSISTOR	2SA1162
Q553	8-729-216-22	TRANSISTOR	2SA1162
Q554	8-729-100-66	TRANSISTOR	2SC1623
Q557	8-729-216-22	TRANSISTOR	2SA1162
Q801	8-729-216-22	TRANSISTOR	2SA1162
Q802	8-729-100-66	TRANSISTOR	2SC1623
Q806	8-729-903-10	TRANSISTOR	FW1
Q807	8-729-100-66	TRANSISTOR	2SC1623
Q817	8-729-100-66	TRANSISTOR	2SC1623
Q818	8-729-100-66	TRANSISTOR	2SC1623
Q819	8-729-216-22	TRANSISTOR	2SA1162

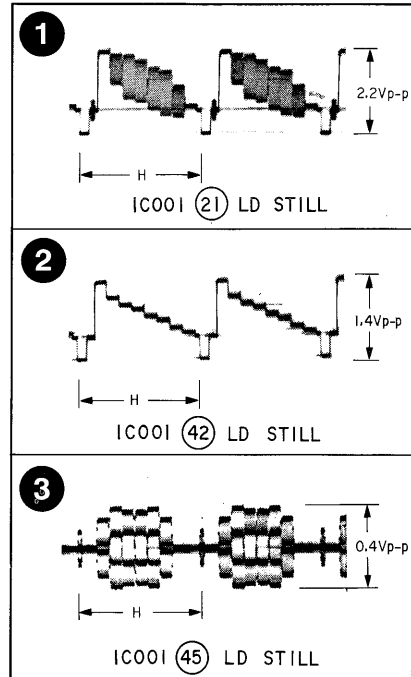
Q820	8-729-216-22	TRANSISTOR	2SA1162
Q821	8-729-216-22	TRANSISTOR	2SA1162
Q822	8-729-100-66	TRANSISTOR	2SC1623
Q823	8-729-100-66	TRANSISTOR	2SC1623
Q825	8-729-216-22	TRANSISTOR	2SA1162
Q828	8-729-100-66	TRANSISTOR	2SC1623
Q829	8-729-216-22	TRANSISTOR	2SA1162
Q830	8-729-100-66	TRANSISTOR	2SC1623
Q831	8-729-100-66	TRANSISTOR	2SC1623
Q832	8-729-216-22	TRANSISTOR	2SA1162
Q833	8-729-216-22	TRANSISTOR	2SA1162
Q834	8-729-216-22	TRANSISTOR	2SA1162
Q835	8-729-100-66	TRANSISTOR	2SC1623
Q836	8-729-100-66	TRANSISTOR	2SC1623
Q837	8-729-901-01	TRANSISTOR	DTC144EK
Q838	8-729-901-00	TRANSISTOR	DTC124EK
Q839	8-729-901-01	TRANSISTOR	DTC144EK
Q840	8-729-901-06	TRANSISTOR	DTA144EK
Q841	8-729-901-00	TRANSISTOR	DTC124EK
Q842	8-729-216-22	TRANSISTOR	2SA1162
Q843	8-729-100-66	TRANSISTOR	2SC1623
Q844	8-729-100-66	TRANSISTOR	2SC1623
Q845	8-729-216-22	TRANSISTOR	2SA1162
Q846	8-729-100-66	TRANSISTOR	2SC1623
Q847	8-729-100-66	TRANSISTOR	2SC1623
Q848	8-729-100-66	TRANSISTOR	2SC1623
Q849	8-729-100-66	TRANSISTOR	2SC1623
Q850	8-729-100-66	TRANSISTOR	2SC1623
Q851	8-729-100-66	TRANSISTOR	2SC1623

LV-20 BOARD

CN001	I-22	A-13	
CN002	I-27	E-31	
CN003	I-25	E-31	
CN006	I-24	D-8	
CN008	A-25	F-12	
CN301	I-35	E-27	
CN302	I-36	E-27	
CN501	I-31	C-4	
CN502	I-32	C-4	
CN801	A-35	C-27	
CN802	F-37	D-27	
CN803	I-33	C-28	
CN804	F-35	E-27	
CN951	E-38	B-27	
CV001	D-21	B-28	
CV502	G-29	B-28	
CV801	C-37	C-30	
D001	E-21	D-33	
D002	C-19	F-28	
D008	H-22	C-39	
D009	H-17	E-23	
D020	H-21	E-7	
D501	B-13	E-7	
D502	B-14	E-7	
D503	D-27	B-31	
D504	H-27	C-21	
D801	E-4	B-29	
D802	E-4	A-6	
D803	E-5	B-5	
D804	E-5	C-5	
D805	H-31	B-5	
D806	H-1	B-5	
D807	H-39	B-5	
D808	G-39	B-5	
D809	H-38	F-2	
IC001	D-18	Q801	I-33
IC002	C-15	Q806	E-6
IC003	E-5	Q807	E-6
IC005	B-23	Q817	B-37
IC006	B-23	Q818	B-37
IC007	A-21	Q819	B-36
IC009	C-21	Q820	B-37
IC010	G-22	Q821	C-36
IC011	H-21	Q822	C-37
IC013	G-21	Q823	C-37
IC014	H-21	Q825	E-4
IC015	B-14	Q826	C-37
IC016	G-19	Q829	C-36
IC017	H-19	Q830	D-35
IC018	I-18	Q831	D-35
IC019	B-19	Q832	D-35
IC301	H-36	Q833	E-36
IC302	H-36	Q834	B-38
IC501	A-13	Q835	H-10
IC502	E-8	Q836	H-10
IC503	F-27	Q837	F-21
IC504	G-30	Q838	H-11
IC505	G-29	Q839	G-38
IC506	C-12	Q840	H-38
IC507	C-9	Q841	H-12
IC508	C-30	Q851	D-38
IC509	B-7	Q852	H-38
IC510	D-6	Q853	G-1
IC511	A-11	Q854	F-2
IC512	B-9	Q855	C-38
IC513	A-10	Q856	B-38
IC801	D-37	Q857	B-38
IC802	E-4	Q858	D-39
IC803	E-34	Q859	D-39
IC804	F-34	Q860	D-39
IC805	H-29	Q861	D-39
IC951	G-33	RV001	F-14
IC952	D-38	RV002	D-8
Q001	H-24	RV505	C-13
Q301	G-34	RV505	E-13
Q302	G-6	RV802	B-3
Q303	G-34	RV803	B-3
Q304	I-36	RV804	D-4
Q305	G-36		



YC-117BOARD



YC-117 (Y/C SEPARATOR) PRINTED WIRING BOARD

— Ref. No. YC-117 BOARD: 1000 series —

* A-6421-663-A YC-117 BOARD, COMPLETE

(Ref. No. 1000 Series)

(DIODE)

D001	8-719-911-19	DIODE	1SS119
D002	8-719-911-19	DIODE	1SS119
D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119

D404	8-719-911-19	DIODE	1SS119
------	--------------	-------	--------

(IC)

IC001	8-759-039-25	IC	MC141620FU
-------	--------------	----	------------

(TRANSISTOR)

Q001	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q002	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q003	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q004	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q005	8-729-119-78	TRANSISTOR	2SC2785-HFE

Q006	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q101	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q301	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE

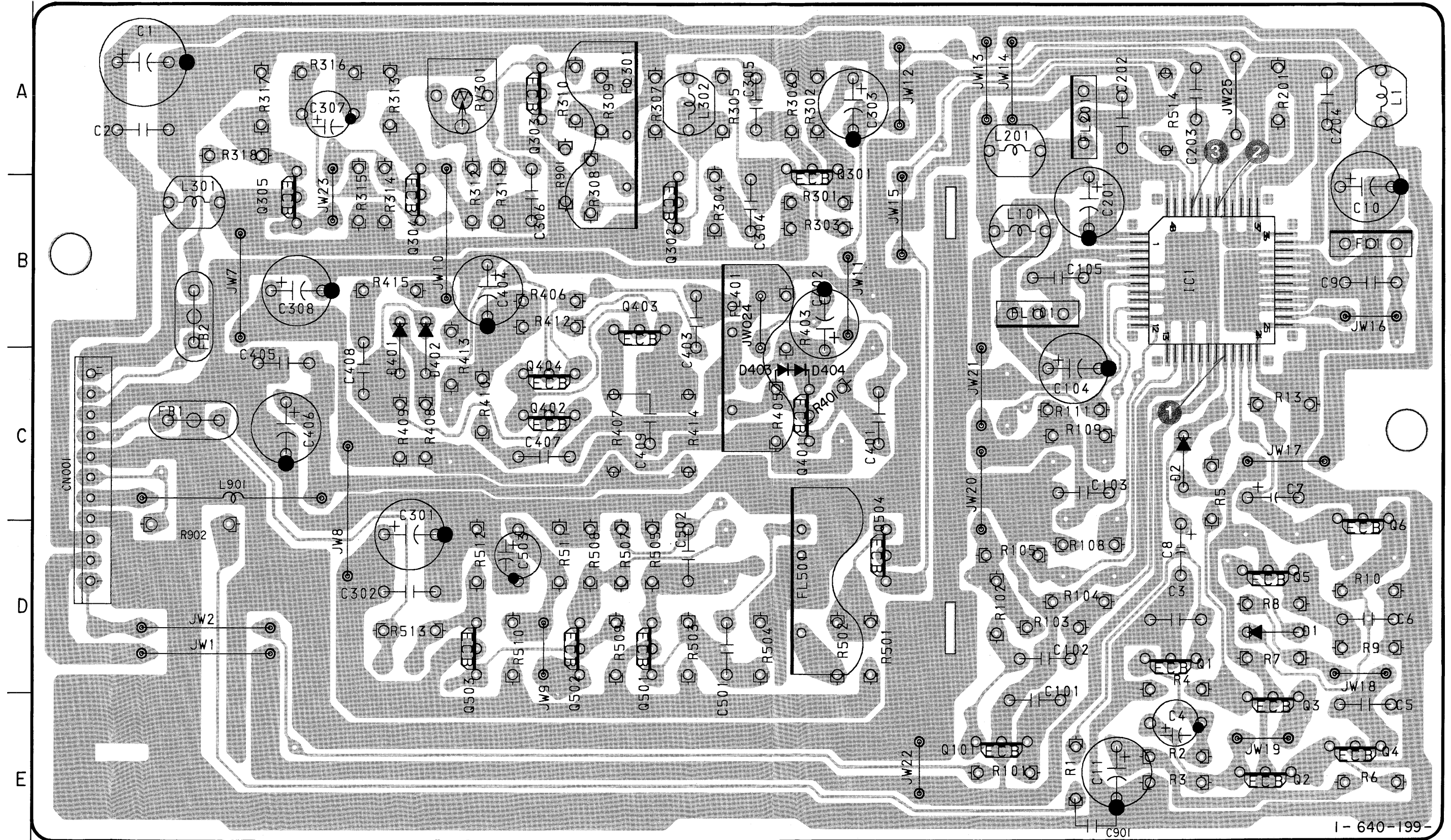
Q304	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q305	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE

Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q501	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q502	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q504	8-729-119-76	TRANSISTOR	2SA1175-HFE

YC-117 BOARD

CN001	C-1
D001	D-8
D002	C-7
D401	C-3
D402	C-3
D403	C-5
D404	C-5
Q001	D-7
Q002	D-8
Q003	D-8
Q004	D-8
Q005	D-5
Q006	D-5
Q101	D-6
Q301	B-5
Q302	B-4
Q303	A-3
Q304	B-3
Q305	B-2
Q401	C-5
Q402	C-3
Q403	B-4
Q404	C-3
Q501	D-4
Q502	D-4
Q503	D-3
Q504	D-5
RV301	A-3

YC-117 BOARD (CONDUCTOR SIDE)



I-640-199-

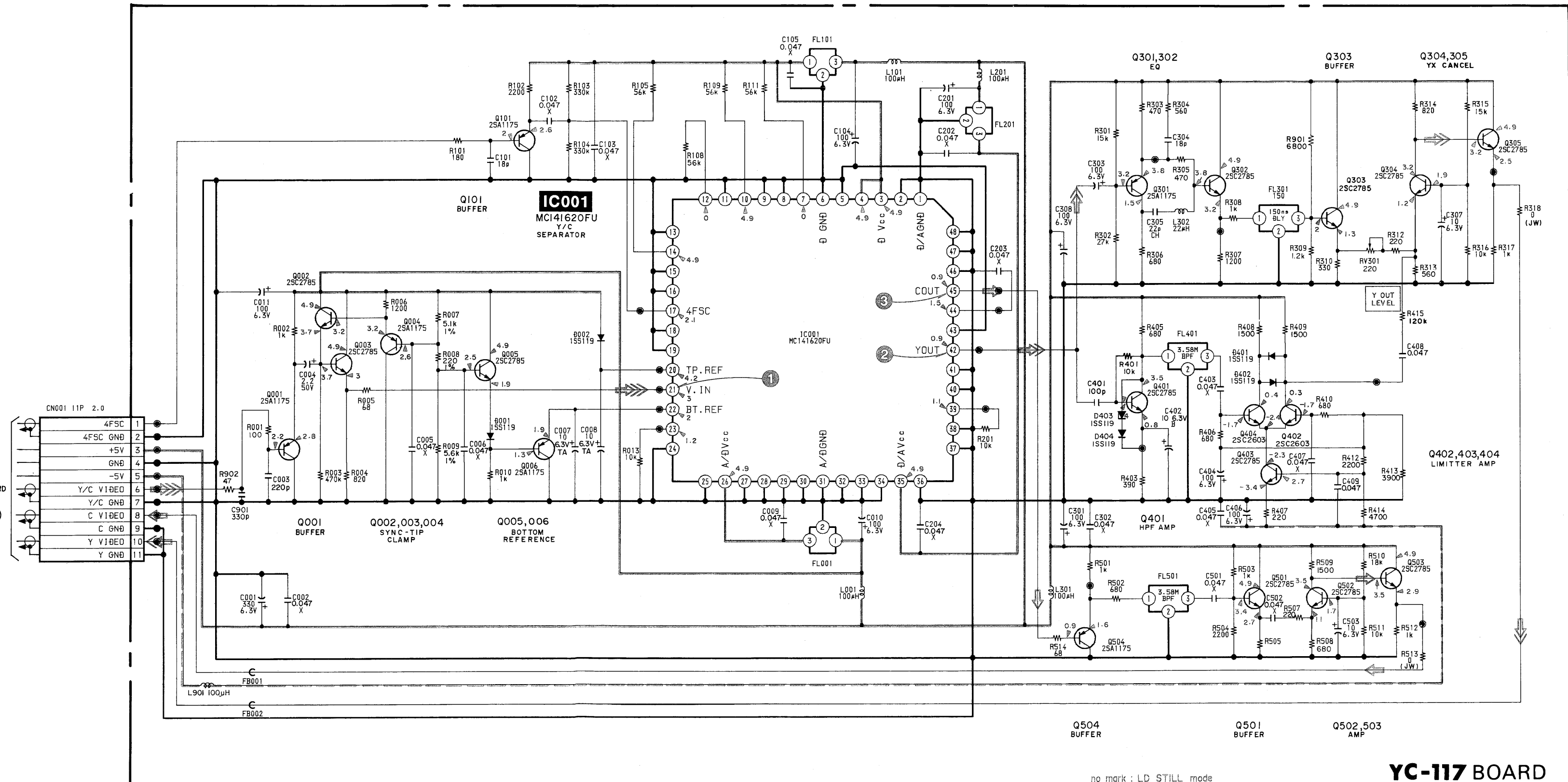
YC-117 (Y/C SEPARATOR) SCHEMATIC DIAGRAM

— Ref. No. YC-117 BOARD: 1000 series —

A
B
C
D
E
F
G
H
I
J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

TO LV-20 BOARD
CN951
(See Page 87)



no mark : LD STILL mode

YC-117 BOARD

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB	⇒	⇒⇒	⇒⇒⇒	

SV-60 (SERVO), HT-11 (MOTOR DRIVE), HT-12 (MOTOR DRIVE) PRINTED WIRING BOARDS

— Ref. No. SV-60, HT-12 BOARDS: 3000 series, HT-11 BOARD: 2000 series —

* A-6421-583-A SV-60 BOARD, COMPLETE (Ref. No. 3000 Series)

(DIODE)

D101	8-719-400-18	DIODE	MA152WK
D102	8-719-400-18	DIODE	MA152WK
D105	8-719-400-18	DIODE	MA152WK
D301	8-719-104-34	DIODE	1S2836
D302	8-719-104-34	DIODE	1S2836
D303	8-719-104-34	DIODE	1S2835-T1
D304	8-719-100-35	DIODE	RD5.6EB2T

(IC)

IC101	8-759-981-92	IC	RC4558M
IC102	8-759-981-92	IC	RC4558M
IC103	8-759-009-07	IC	MC14053BF
IC104	8-759-981-92	IC	RC4558M
IC105	8-759-981-92	IC	RC4558M
IC106	8-759-009-07	IC	MC14053BF
IC107	8-759-321-40	IC	HA11529
IC108	8-759-982-04	IC	RC5532M
IC109	8-759-822-38	IC	LA6510
IC301	8-759-036-05	IC	MC68HC05P7-480M00
IC302	8-759-231-92	IC	TA7291P
IC303	8-759-231-92	IC	TA7291P
IC304	8-759-981-61	IC	LM2901M

(TRANSISTOR)

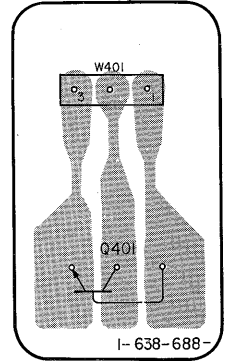
Q101	8-729-901-01	TRANSISTOR	DTC144EK
Q102	8-729-901-06	TRANSISTOR	DTA144EK
Q103	8-729-901-06	TRANSISTOR	DTA144EK
Q104	8-729-901-01	TRANSISTOR	DTC144EK
Q105	8-729-901-06	TRANSISTOR	DTA144EK
Q106	8-729-901-01	TRANSISTOR	DTC144EK
Q107	8-729-901-01	TRANSISTOR	DTC144EK
Q108	8-729-901-06	TRANSISTOR	DTA144EK
Q109	8-729-100-66	TRANSISTOR	2SC1623
Q110	8-729-901-01	TRANSISTOR	DTC144EK
Q112	8-729-107-26	TRANSISTOR	2SD1585-K
Q113	8-729-924-90	TRANSISTOR	2SB1370-EF
Q115	8-729-100-66	TRANSISTOR	2SC1623
Q116	8-729-901-00	TRANSISTOR	DTC124EK
Q117	8-729-100-66	TRANSISTOR	2SC1623
Q121	8-729-216-22	TRANSISTOR	2SA1162
Q301	8-729-901-00	TRANSISTOR	DTC124EK
Q302	8-729-901-00	TRANSISTOR	DTC124EK
Q303	8-729-900-53	TRANSISTOR	DTC114EK
Q401	8-729-202-03	TRANSISTOR	2SD1761-F
Q402	8-729-924-90	TRANSISTOR	2SB1370-F

* 1-638-088-11 HT-11 BOARD (Ref. No. 2000 Series)

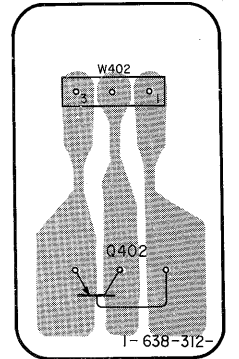
(TRANSISTOR)

Q401	8-729-202-03	TRANSISTOR	2SD1761-F
------	--------------	------------	-----------

HT-11 BOARD (CONDUCTOR SIDE)



HT-12 BOARD (CONDUCTOR SIDE)



* 1-638-312-11 HT-12 BOARD (Ref. No. 3000 Series)

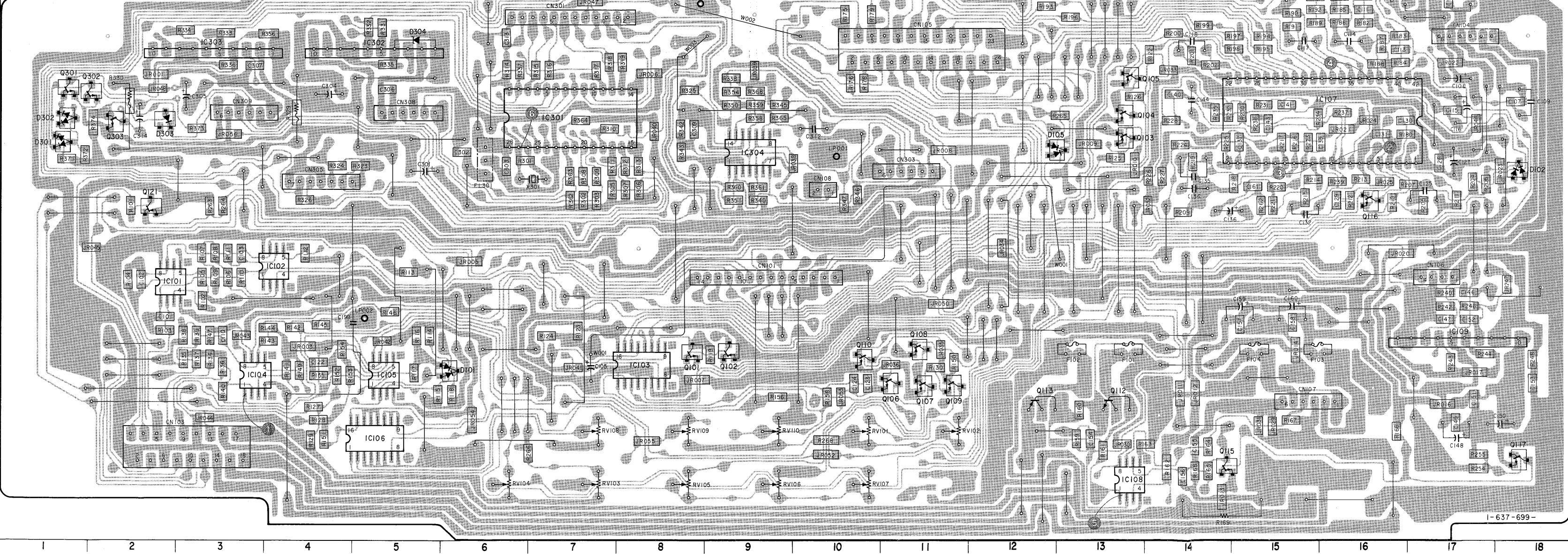
(TRANSISTOR)

Q402	8-729-924-90	TRANSISTOR	2SB1370-F
------	--------------	------------	-----------

SV-60 BOARD

CN101	D-9
CN103	F-3
CN104	A-17
CN105	A-11
CN106	D-17
CN107	E-15
CN108	C-10
CN301	A-7
CN303	A-11
CN305	C-4
CN308	B-5
CN309	B-3
D101	E-6
D102	C-18
D105	B-13
D301	B-1
D302	B-1
D303	B-2
D304	A-5
IC101	D-2
IC102	D-4
IC103	F-8
IC104	F-8
IC105	F-9
IC106	F-5
IC107	B-15
IC108	F-13
IC109	E-17
IC301	B-7
IC302	A-5
IC303	A-3
IC304	B-9
Q101	E-8
Q102	E-9
Q103	B-13
Q104	B-13
Q105	B-13
Q106	F-11
Q107	F-11
Q108	F-11
Q109	F-11
Q110	E-10
Q112	F-13
Q113	F-12
Q115	F-14
Q116	C-16
Q117	F-18
Q121	C-2
Q301	B-1
Q302	B-2
Q303	B-2
RV101	F-10
RV102	F-11
RV103	F-7
RV104	F-6
RV105	F-8
RV106	F-9
RV107	F-10
RV108	F-7
RV109	F-8
RV110	F-9

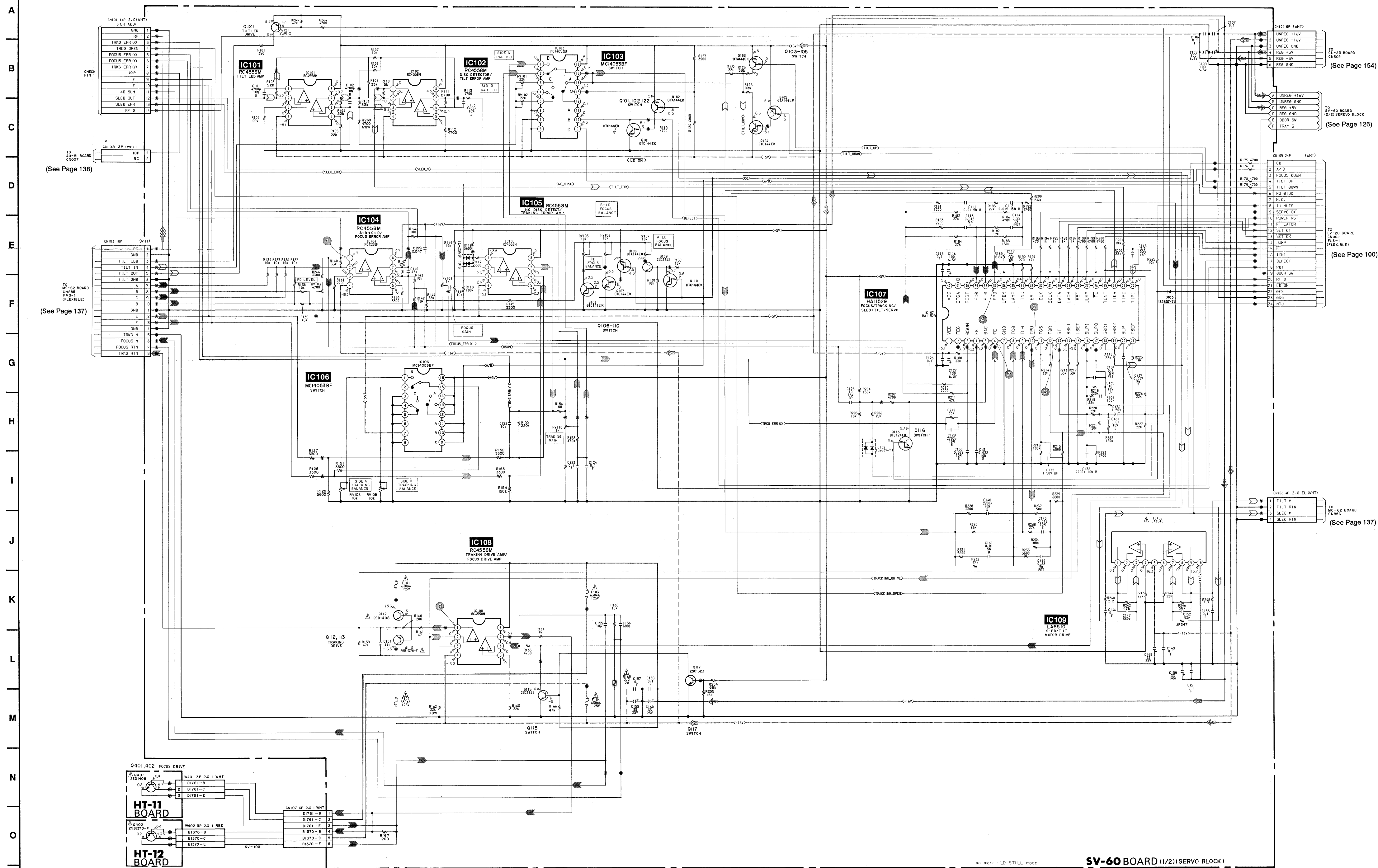
SV-60 BOARD (CONDUCTOR SIDE)



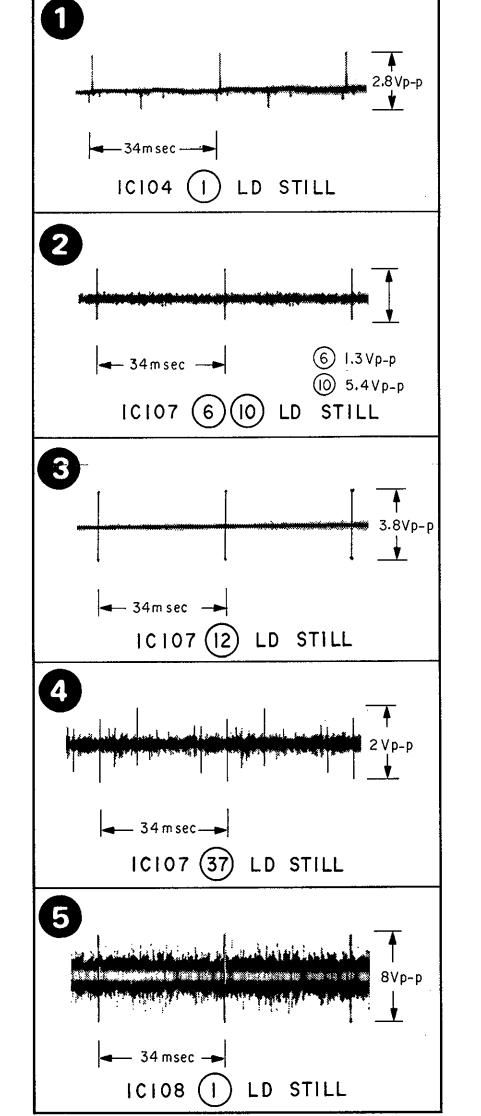
SV-60 (SERVO), HT-11 (MOTOR DRIVE), HT-12 (MOTOR DRIVE) SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

— Ref. No. SV-60, HT-12 BOARDS: 3000 series, HT-11 BOARD: 2000 series —



SV-60 BOARD (SERVO 1/2)

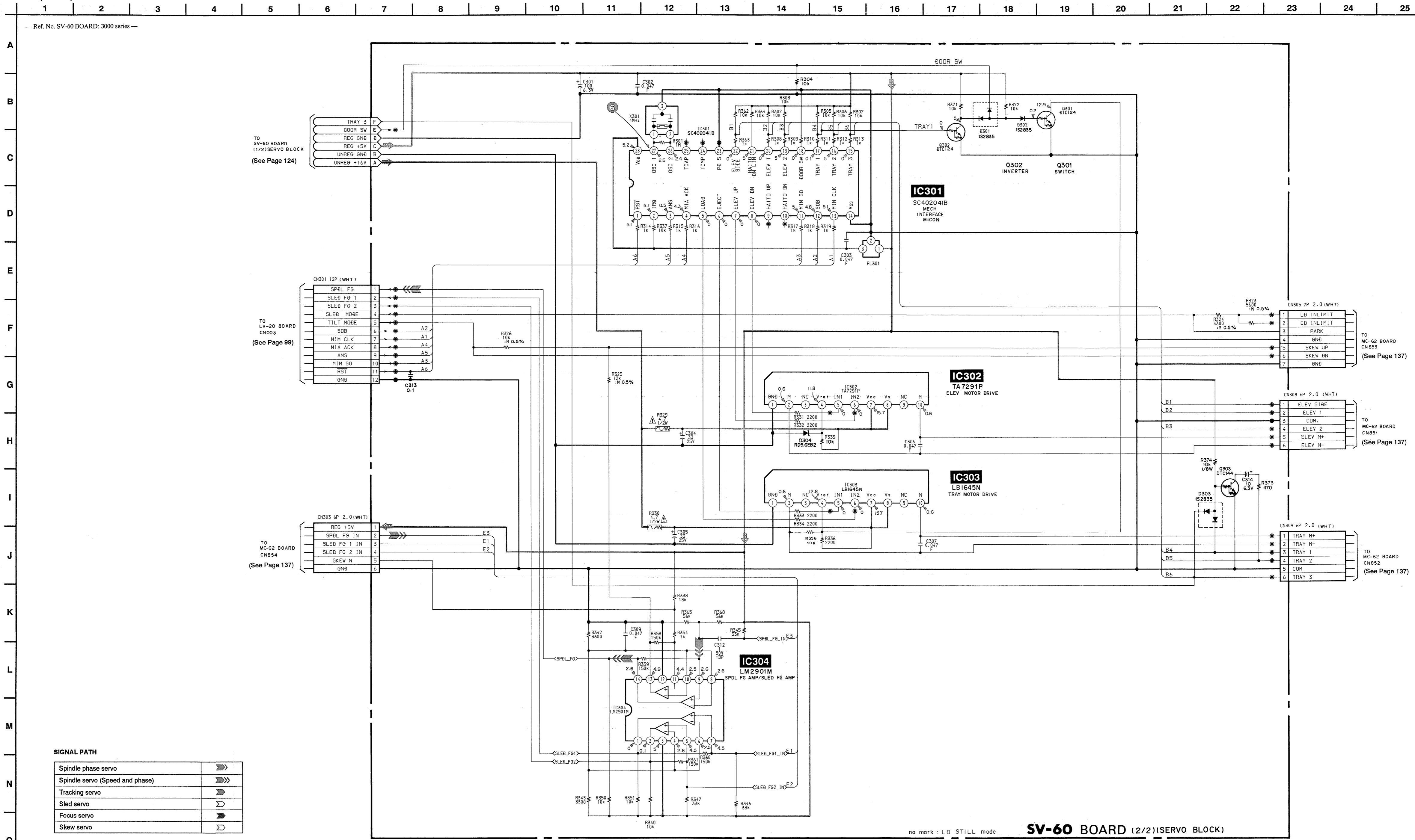
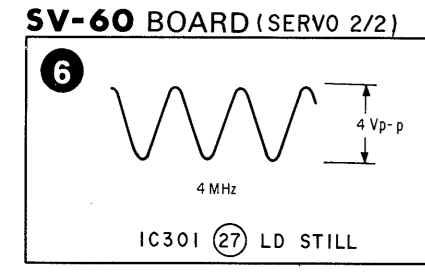


SIGNAL PATH

Spindle phase servo	⇒⇒
Spindle servo (Speed and phase)	⇒⇒⇒
Tracking servo	⇒⇒⇒⇒
Sled servo	⇒⇒⇒⇒⇒
Focus servo	⇒⇒⇒⇒⇒⇒
Skew servo	⇒⇒⇒⇒⇒⇒⇒

SV-60 (SERVO) SCHEMATIC DIAGRAM

— Ref. No. SV-60 BOARD: 3000 series —



SIGNAL PATH

Spindle phase servo	▶▶▶
Spindle servo (Speed and phase)	▶▶▶▶
Tracking servo	▶▶▶▶▶
Sled servo	▶▶▶▶▶▶
Focus servo	▶▶▶▶▶▶▶
Skew servo	▶▶▶▶▶▶▶▶

no mark : LD STILL mode **SV-60 BOARD (2/2) (SERVO BLOCK)**

SV-60 (SERVO), HT-11 (MOTOR DRIVE), HT-12 (MOTOR DRIVE) PRINTED WIRING BOARDS

— Ref. No. SV-60, HT-12 BOARDS: 3000 series, HT-11 BOARD: 2000 series —

* A-6421-583-A SV-60 BOARD, COMPLETE (Ref. No. 3000 Series)

(DIODE)

D101	8-719-400-18	DIODE	MA152WK
D102	8-719-400-18	DIODE	MA152WK
D105	8-719-400-18	DIODE	MA152WK
D301	8-719-104-34	DIODE	1S2836
D302	8-719-104-34	DIODE	1S2836
D303	8-719-104-34	DIODE	1S2835-T1
D304	8-719-100-35	DIODE	RD5. 6EB2T

(IC)

IC101	8-759-981-92	IC	RC4558M
IC102	8-759-981-92	IC	RC4558M
IC103	8-759-009-07	IC	MC14053BF
IC104	8-759-981-92	IC	RC4558M
IC105	8-759-981-92	IC	RC4558M
IC106	8-759-009-07	IC	MC14053BF
IC107	8-759-321-40	IC	HA11529
IC108	8-759-982-04	IC	RC5532M
IC109	8-759-822-38	IC	LA6510
IC301	8-759-036-05	IC	MC68HC05P7-480M00

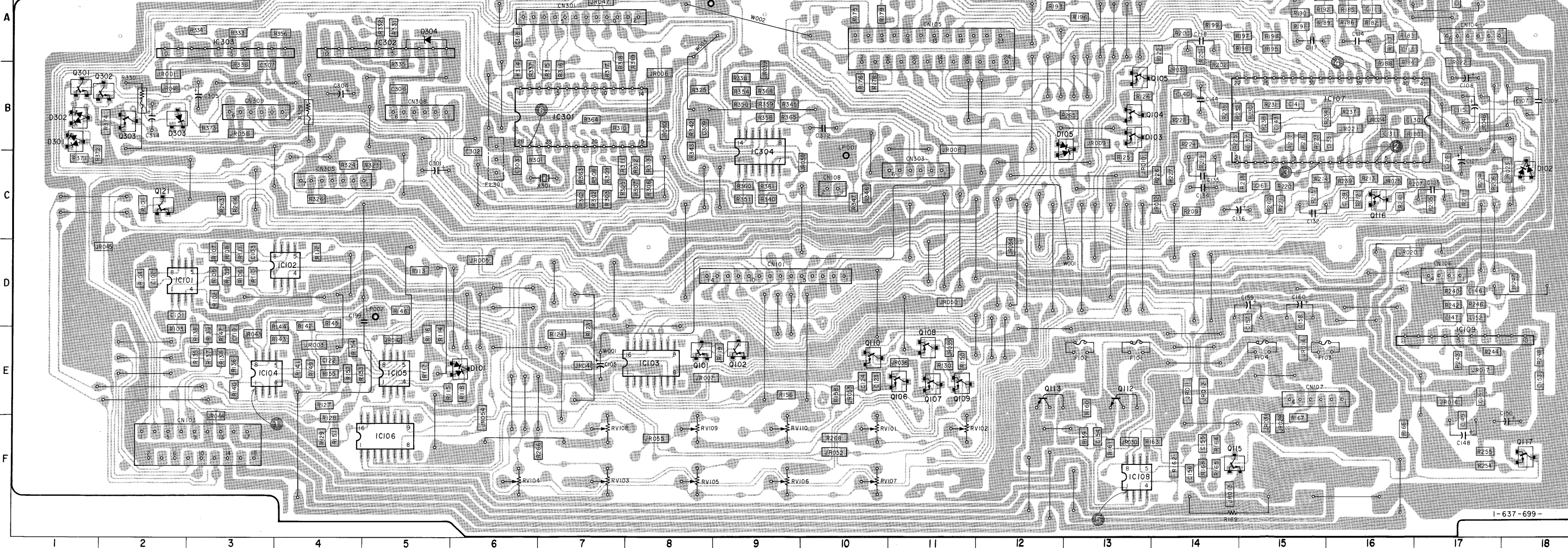
(TRANSISTOR)

Q101	8-729-901-01	TRANSISTOR	DTC144EK	Q116	8-729-901-00	TRANSISTOR	DTC124EK
Q102	8-729-901-06	TRANSISTOR	DTA144EK	Q117	8-729-100-66	TRANSISTOR	2SC1623
Q103	8-729-901-06	TRANSISTOR	DTA144EK	Q121	8-729-216-22	TRANSISTOR	2SA1162
Q104	8-729-901-01	TRANSISTOR	DTC144EK	Q301	8-729-901-00	TRANSISTOR	DTC124EK
Q105	8-729-901-06	TRANSISTOR	DTA144EK	Q302	8-729-901-00	TRANSISTOR	DTC124EK
Q106	8-729-901-01	TRANSISTOR	DTC144EK	Q303	8-729-900-53	TRANSISTOR	DTC114EK
Q107	8-729-901-01	TRANSISTOR	DTC144EK				
Q108	8-729-901-06	TRANSISTOR	DTA144EK				
Q109	8-729-100-66	TRANSISTOR	2SC1623				
Q110	8-729-901-01	TRANSISTOR	DTC144EK				

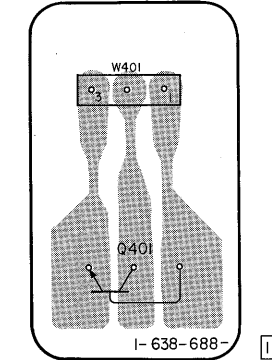
SV-60 BOARD

CN101	D-9
CN103	F-3
CN104	A-17
CN105	A-11
CN106	D-17
CN107	E-15
CN108	C-10
CN301	A-7
CN303	A-11
CN305	C-4
CN308	B-5
CN309	B-3
D101	E-6
D102	C-18
D105	B-13
D301	B-1
D302	B-1
D303	B-2
D304	A-5
IC101	D-2
IC102	D-2
IC103	E-8
IC104	E-3
IC105	E-5
IC106	F-5
IC107	B-15
IC108	F-13
IC109	E-17
IC301	B-7
IC302	A-5
IC303	A-3
IC304	B-9
Q101	E-8
Q102	E-9
Q103	B-13
Q104	B-13
Q105	F-13
Q106	E-11
Q107	E-11
Q108	E-11
Q109	E-11
Q110	F-10
Q111	F-10
Q112	F-10
Q113	F-12
Q115	F-14
Q116	C-16
Q117	F-18
Q121	C-2
Q301	B-1
Q302	B-2
Q303	B-2
RV101	F-10
RV102	F-11
RV103	F-7
RV104	F-6
RV105	F-8
RV106	F-9
RV107	F-10
RV108	F-7
RV109	F-8
RV110	F-9

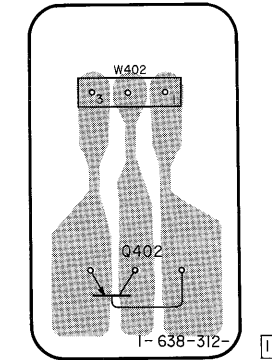
SV-60 BOARD (CONDUCTOR SIDE)



HT-11 BOARD (CONDUCTOR SIDE)



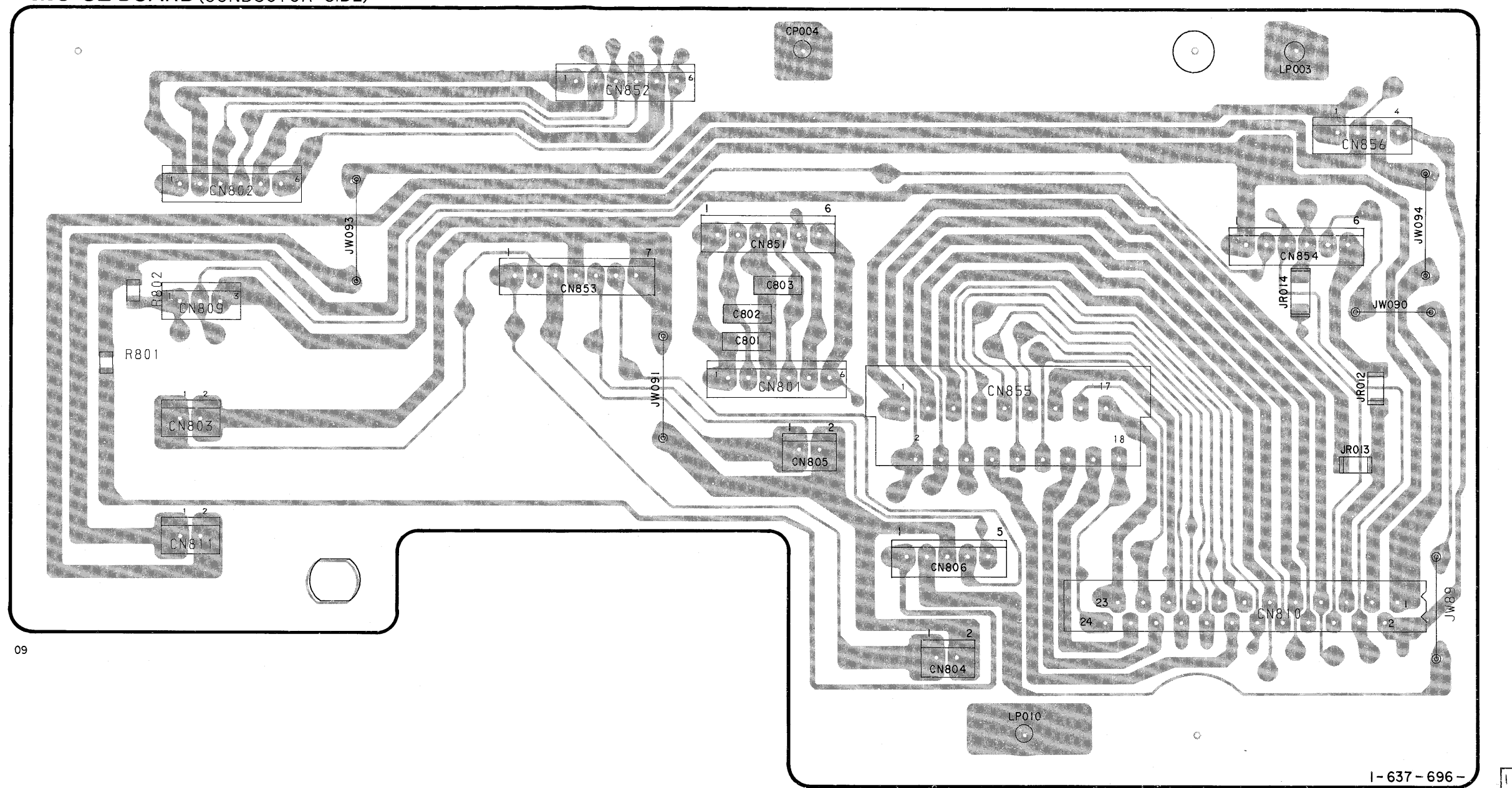
HT-12 BOARD (CONDUCTOR SIDE)



MC-62 (TERMINAL), SK-40 (SKEW UP/DOWN SENSOR), FG-40 (FG SENSOR) PRINTED WIRING BOARDS

— Ref. No. MC-62, SK-40, FG-40 BOARDS: 4000 series —

MC-62 BOARD (CONDUCTOR SIDE)



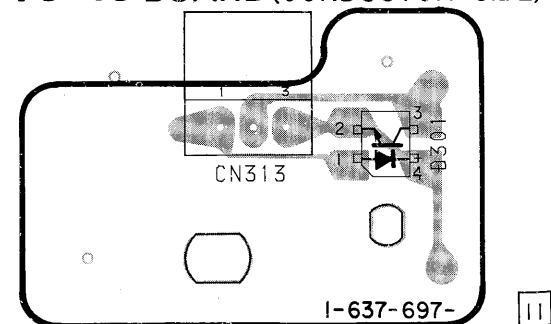
09

* 1-637-697-11 FG-40 BOARD (Ref. No. 4000 Series)

(DIODE)

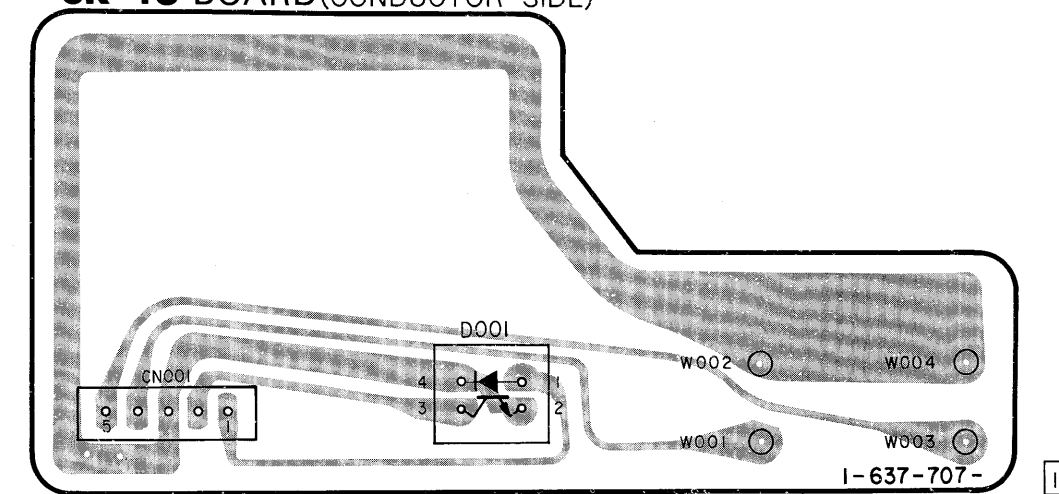
D301 8-719-939-11 PHOTO INTERRUPTER GP-2S09-B

FG-40 BOARD (CONDUCTOR SIDE)



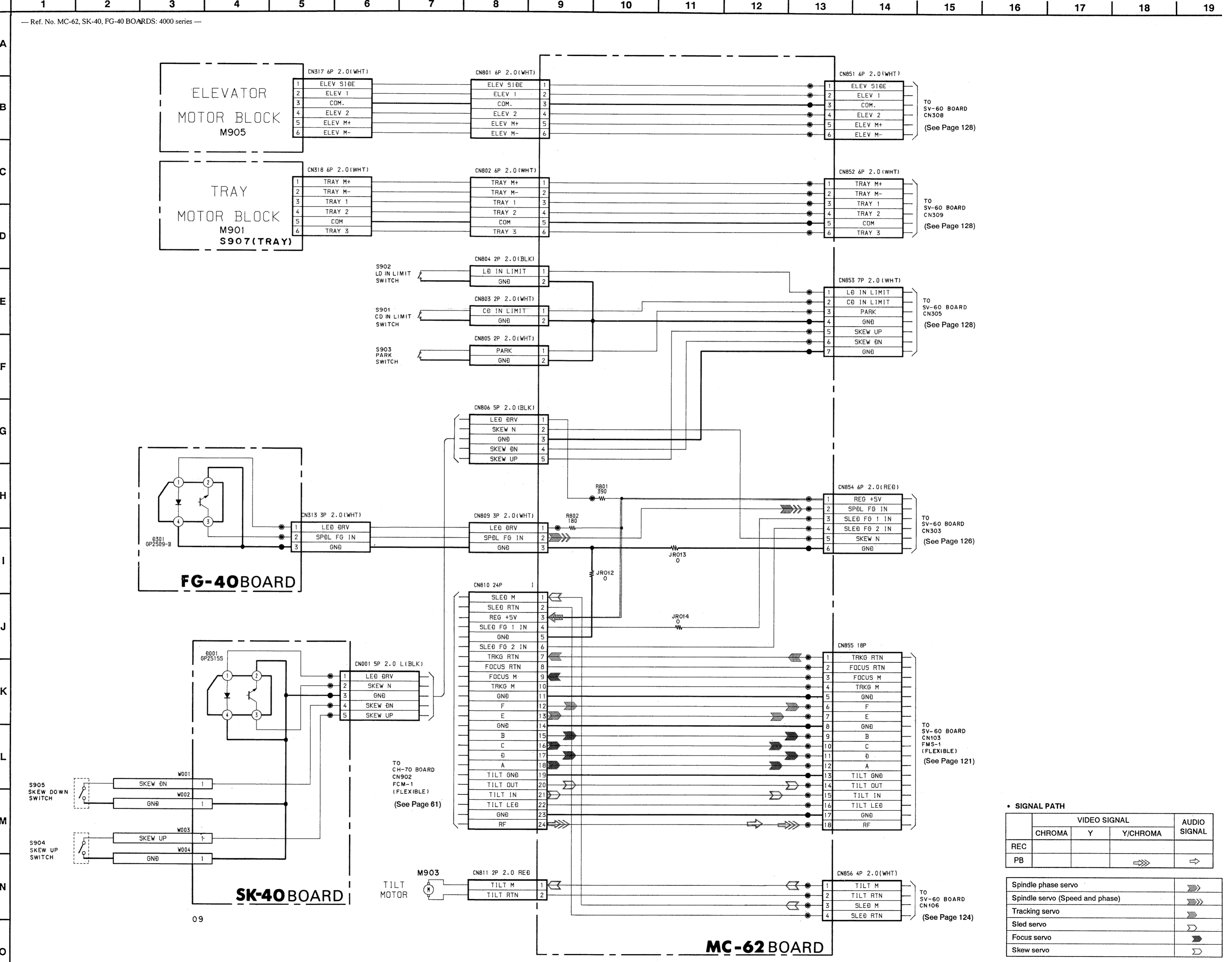
I-637-697-

SK-40 BOARD (CONDUCTOR SIDE)



I-637-707-

MC-62 (TERMINAL), SK-40 (SKEW UP/DOWN SENSOR), FG-40 (FG SENSOR) SCHEMATIC DIAGRAMS

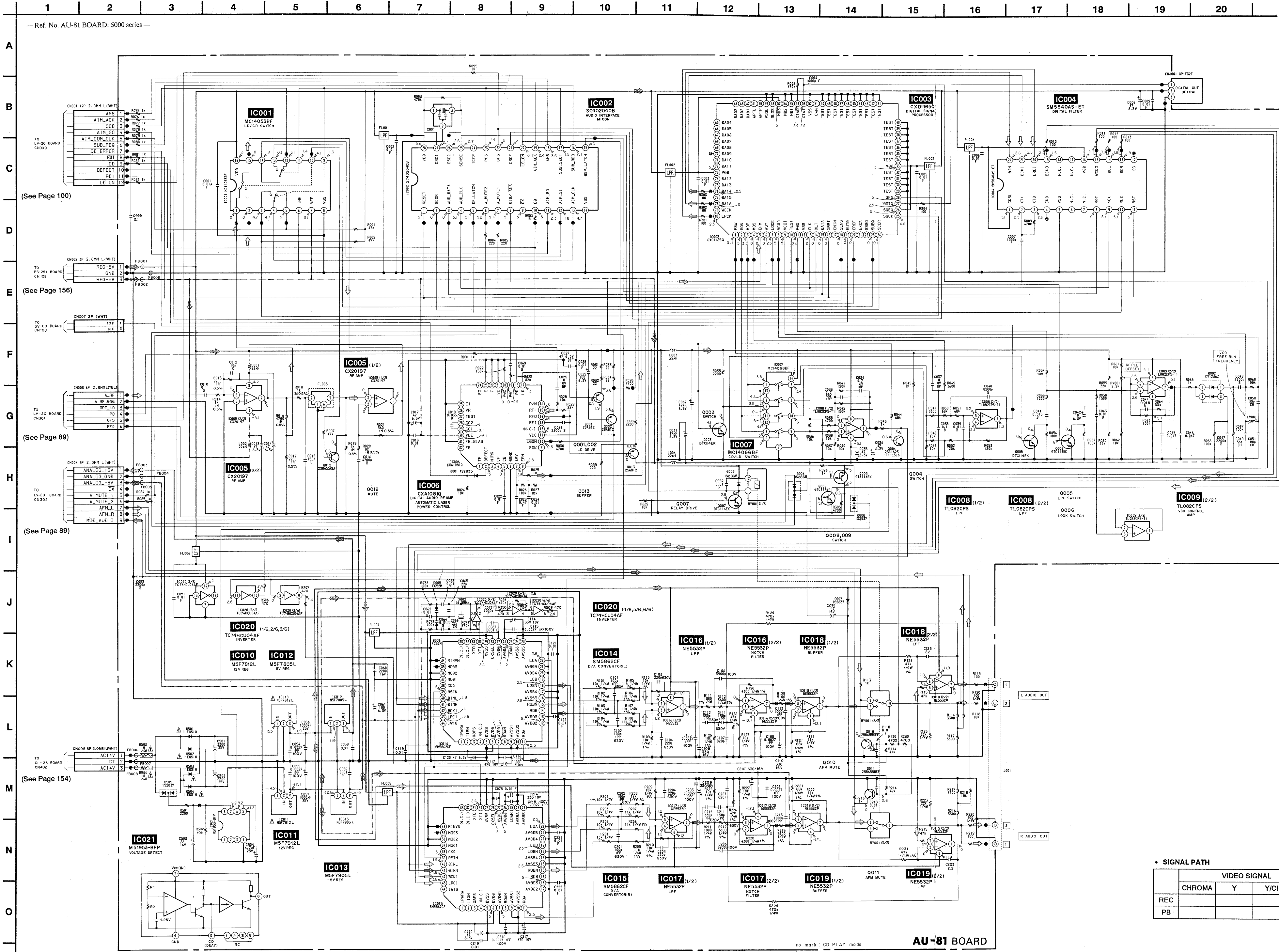


• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB			⇒	⇒

Spindle phase servo	⇒
Spindle servo (Speed and phase)	⇒⇒
Tracking servo	⇒
Sled servo	⇒
Focus servo	⇒
Skew servo	⇒

— Ref. No. AU-81 BOARD: 5000 series —



(See Page 100)

(See Page 156)

(See Page 89)

(See Page 89)

(See Page 154)

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB				⇒

AU-81 BOARD

AU-81 (DIGITAL AUDIO) PRINTED WIRING BOARD

— Ref. No. AU-81 BOARD: 5000 series —

* A-6421-707-A AU-81 BOARD, COMPLETE

(Ref. No 5000 Series)

AU-81 BOARD

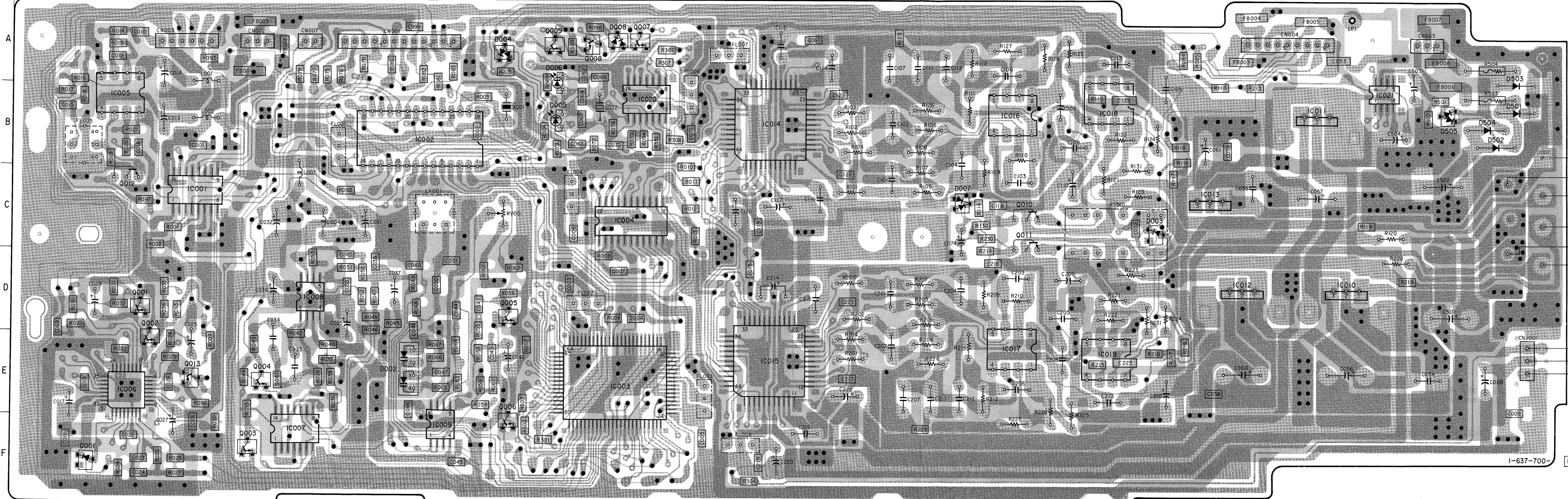
AU-81 BOARD (CONDUCTOR SIDE)

CN001 A-5
CN002 A-3
CN003 A-3
CN004 A-16
CN005 A-18
CN007 A-4

D001 F-1
D002 E-5
D003 C-14
D004 A-6
D005 B-7
D006 A-7
D007 C-12
D008 A-8
D501 B-19
D502 B-18
D503 A-19
D504 B-18
D505 B-18

IC001 C-3
IC002 B-5
IC003 B-8
IC004 C-8
IC005 B-2
IC006 F-2
IC007 F-4
IC008 D-4
IC009 F-6
IC010 D-17
IC011 B-16
IC012 D-15
IC013 C-15
IC014 B-10
IC015 E-10
IC016 B-13
IC017 F-13
IC018 B-14
IC019 E-14
IC020 B-8
IC021 B-17

Q001 D-2
Q002 E-2
Q003 F-3
Q004 F-4
Q005 D-6
Q006 F-7
Q007 A-8
Q008 A-8
Q009 A-7
Q010 C-13
Q011 C-13
Q012 C-2
Q013 E-3
RV001 C-6



(DIODE)

D001	8-719-104-34	DIODE	1S2836
D002	8-719-923-64	DIODE	KV1236D
D003	8-719-104-34	DIODE	1S2836
D004	8-719-104-34	DIODE	1S2836
D005	8-719-907-19	DIODE	FC52M-5

D006	8-719-907-19	DIODE	FC52M-5
D007	8-719-400-18	DIODE	MA152WK
D008	8-719-400-18	DIODE	MA152WK
D501	8-719-200-91	DIODE	11EQS10
D502	8-719-200-91	DIODE	11EQS10
D503	8-719-200-91	DIODE	11EQS10
D504	8-719-200-91	DIODE	11EQS10
D505	8-719-400-18	DIODE	MA152WK

(IC)

IC001	8-759-009-07	IC	MC14053BF
IC002	8-759-036-04	IC	MC68HC05P7-480A00
IC003	8-752-325-59	IC	CX01165Q
IC004	8-759-502-48	IC	SM5840AS-ET
IC005	8-759-603-24	IC	CX20197

IC006	8-752-033-14	IC	CXA1081Q
IC007	8-759-008-67	IC	MC14066BF
IC008	8-759-908-17	IC	TL082CPS
IC009	8-759-908-17	IC	TL082CPS
IC010	8-759-604-33	IC	M5F7812L

IC011	8-759-604-51	IC	M5F7912L
IC012	8-759-604-29	IC	M5F7805L
IC013	8-759-245-79	IC	M5F7905L
IC014	8-759-502-43	IC	SM5862CF
IC015	8-759-502-43	IC	SM5862CF

IC016	8-759-900-72	IC	NE5532P
IC017	8-759-900-72	IC	NE5532P
IC018	8-759-900-72	IC	NE5532P
IC019	8-759-900-72	IC	NE5532P
IC020	8-759-233-64	IC	TC74HC004AF

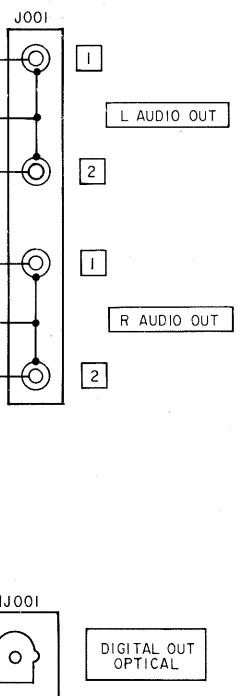
IC021	8-759-634-43	IC	M51953BFP
-------	--------------	----	-----------

(TRANSISTOR)

Q001	8-729-216-22	TRANSISTOR	2SA1162
Q002	8-729-216-22	TRANSISTOR	2SA1162
Q003	8-729-900-53	TRANSISTOR	DTC114EK
Q004	8-729-100-66	TRANSISTOR	2SC1623
Q005	8-729-900-53	TRANSISTOR	DTC114EK

Q006	8-729-900-53	TRANSISTOR	DTC114EK
Q007	8-729-900-53	TRANSISTOR	DTC114EK
Q008	8-729-900-53	TRANSISTOR	DTC114EK
Q009	8-729-901-04	TRANSISTOR	DTA114EK
Q010	8-729-303-37	TRANSISTOR	2SD655E

Q011	8-729-303-37	TRANSISTOR	2SD655E
Q012	8-729-303-37	TRANSISTOR	2SD655E
Q013	8-729-216-22	TRANSISTOR	2SA1162



FP-301 (MODE CONTROL), FP-302 (DISPLAY), JS-21 (FUNCTION SWITCH), ES-30 (PICTURE ENHANCE), PL-21 (POWER LED) PRINTED WIRING BOARDS

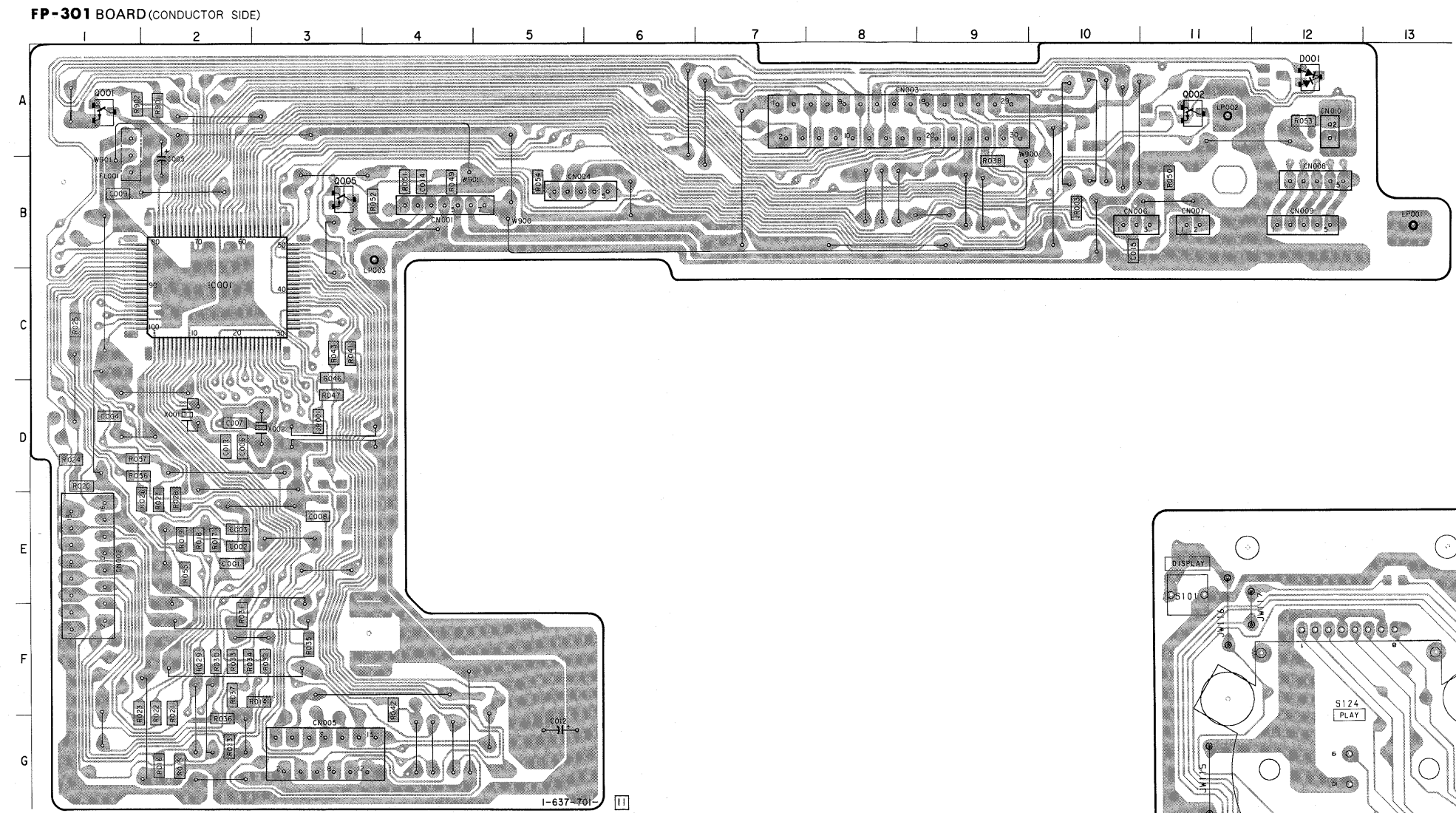
— Ref. No. FP-301, FP-302, JS-21, ES-30, PL-21 BOARDS: 6000 series —

* A-6421-589-A FP-301 BOARD, COMPLETE

(Ref. No. 6000 Series)

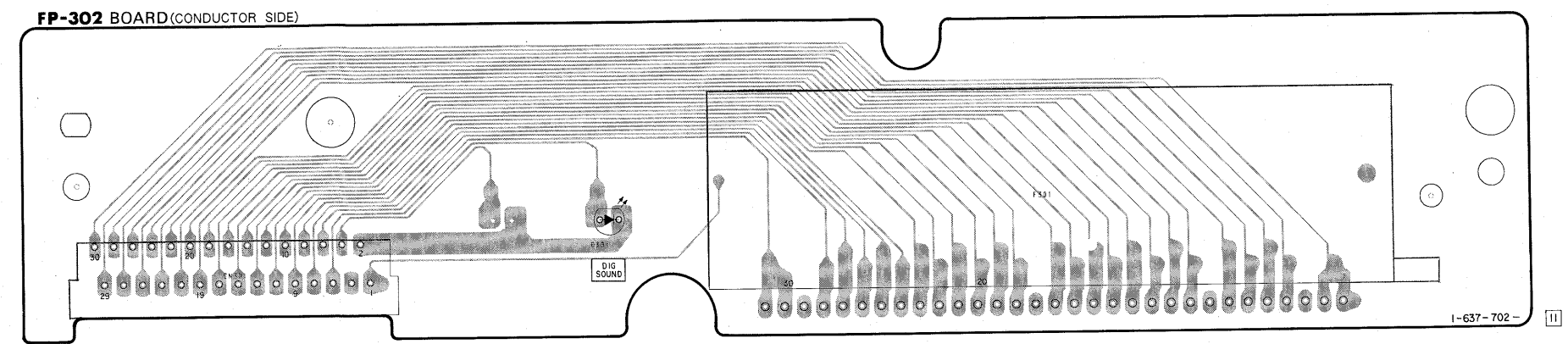
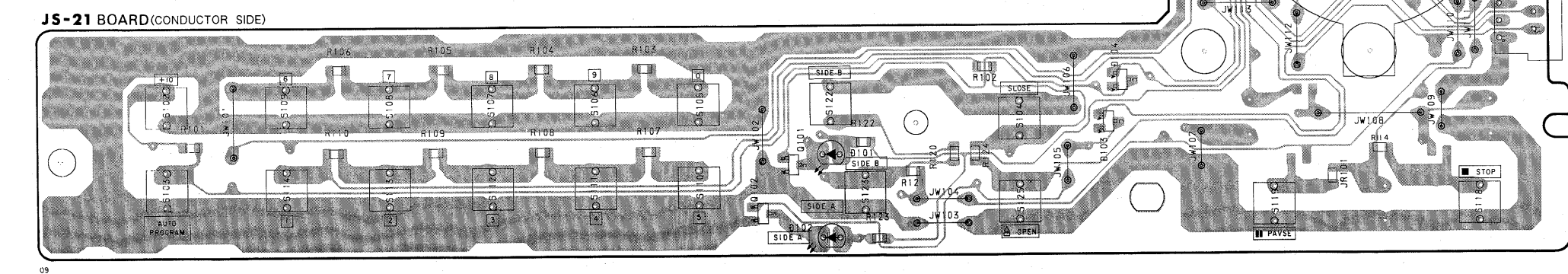
- < DIODE >
- D001 8-719-400-18 DIODE MA152WK
- < IC >
- IC001 8-759-045-34 IC MB89793B-154
- < TRANSISTOR >
- Q001 8-729-100-66 TRANSISTOR 2SC1623
Q002 8-729-900-53 TRANSISTOR DTC114EK
Q005 8-729-100-66 TRANSISTOR 2SC1623

- FP-301 BOARD
- CN001 B-4
CN002 E-1
CN003 A-8
CN004 B-5
CN005 G-3
CN006 B-10
CN007 B-11
CN008 B-12
CN009 B-12
CN010 A-12
- D001 A-12
IC001 C-2
Q001 A-1
Q002 A-11
Q005 B-3



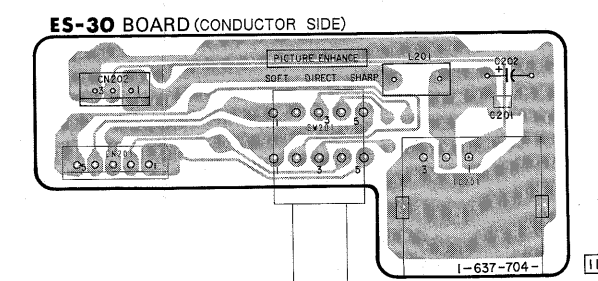
* A-6421-590-A JS-21 BOARD, COMPLETE (Ref. No. 6000 Series)

- < DIODE >
- D101 8-719-303-79 DIODE SEL4414G-C (SIDE B)
D102 8-719-303-79 DIODE SEL4414G-C (SIDE A)
D103 8-719-400-18 DIODE MA152WK
D104 8-719-400-18 DIODE MA152WK
- < TRANSISTOR >
- Q101 8-729-900-53 TRANSISTOR DTC114EK
Q102 8-729-900-53 TRANSISTOR DTC114EK



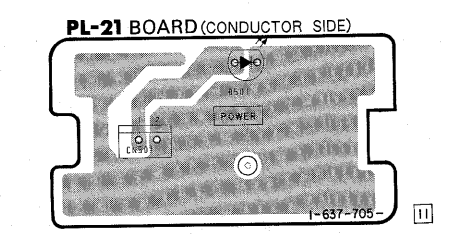
* 1-637-702-11 FP-302 BOARD (Ref. No. 6000 Series)

- < DIODE >
- D301 8-719-303-79 DIODE SEL4414G-C



* 1-637-704-11 ES-30 BOARD (Ref. No. 6000 Series)

- < IC >
- IC201 1-466-131-31 IC GP1U52Y



* 1-637-705-11 PL-21 BOARD (Ref. No. 6000 Series)

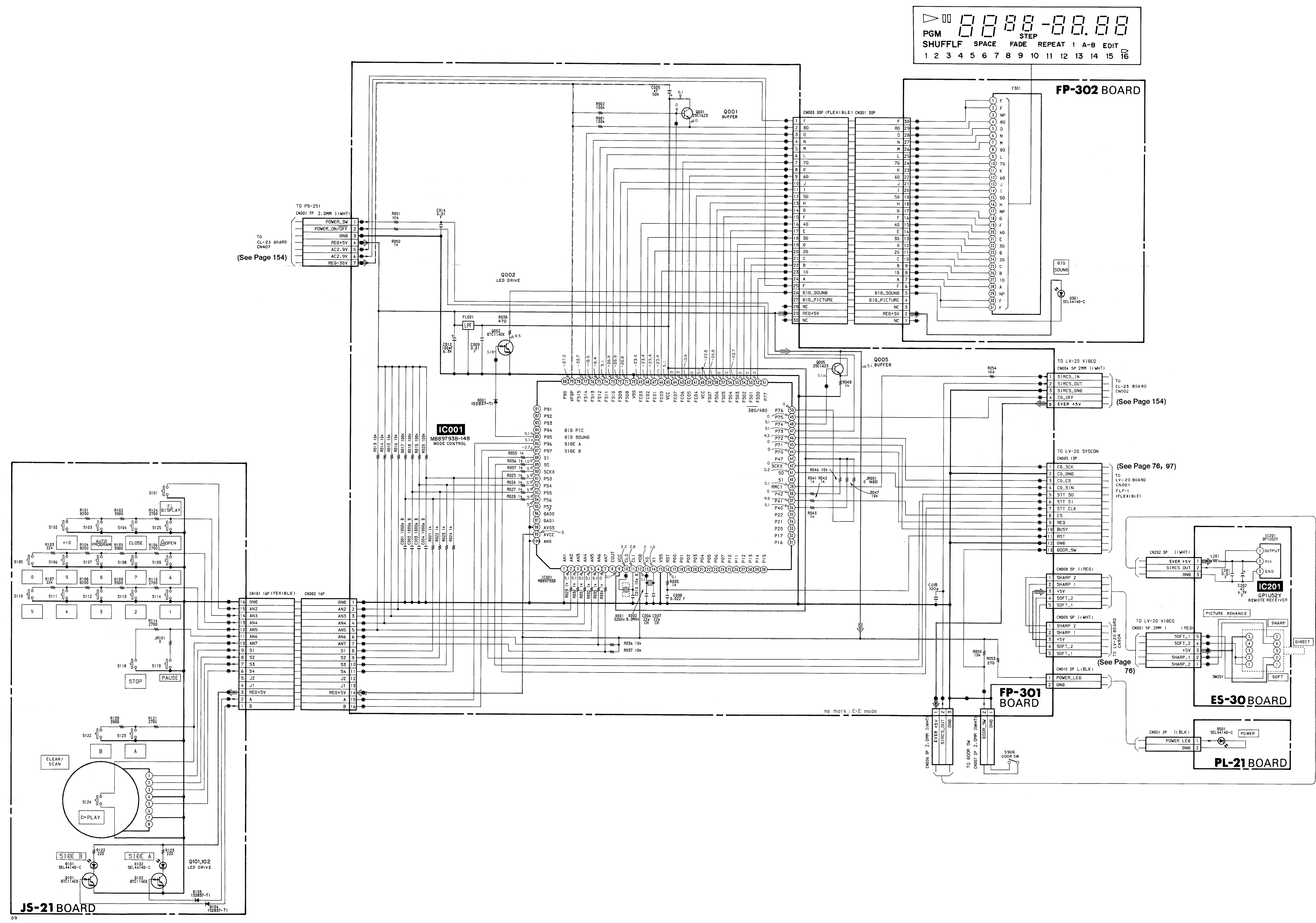
- < DIODE >
- D501 8-719-303-79 DIODE SEL4414G-C

FP-301 (MODE CONTROL), FP-302 (DISPLAY), JS-21 (FUNCTION SWITCH), ES-30 (PICTURE ENHANCE), PL-21 (POWER LED) SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

— Ref. No. FP-301, FP-302, JS-21, ES-30, PL-21 BOARDS: 6000 series —

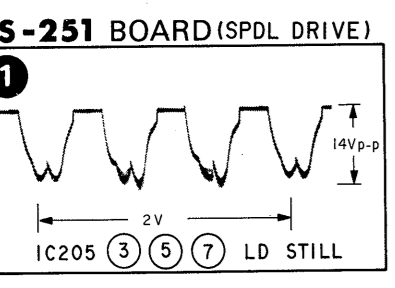
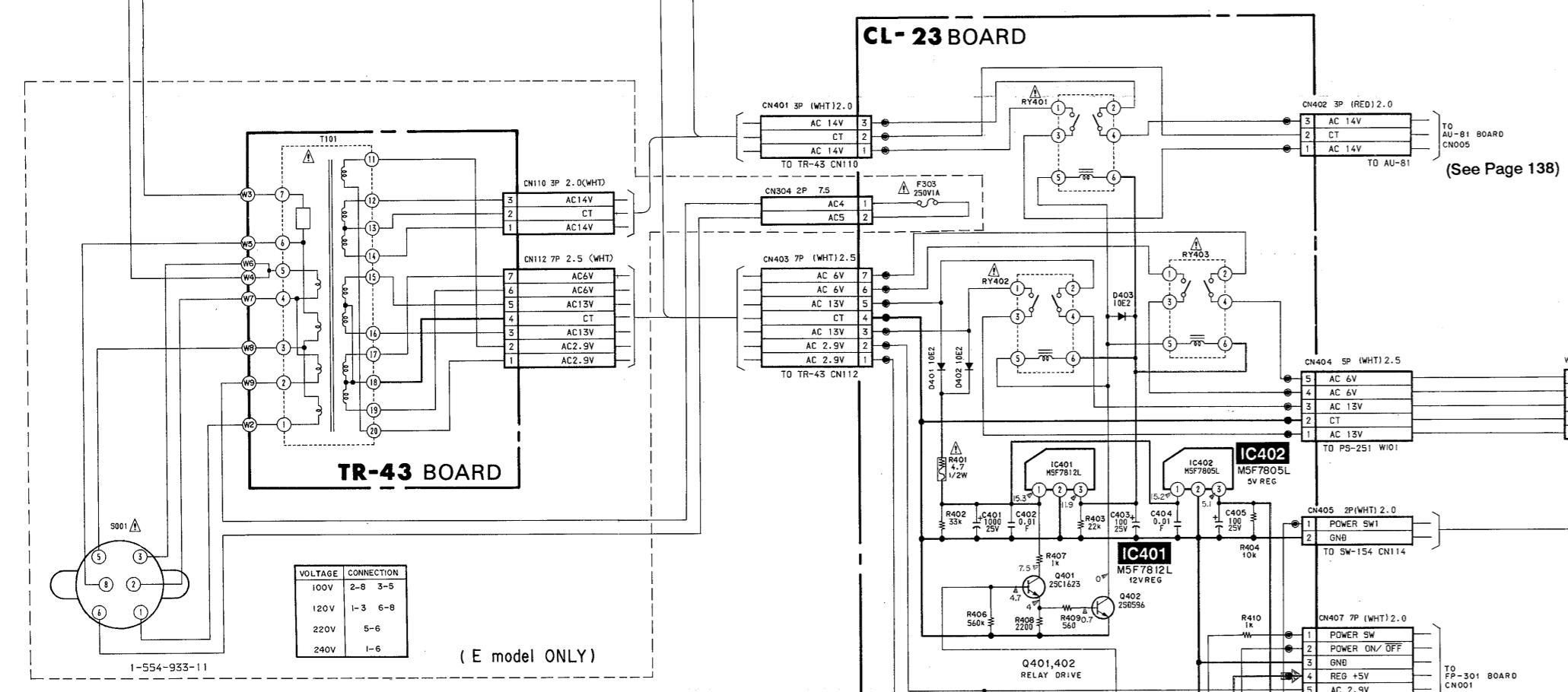
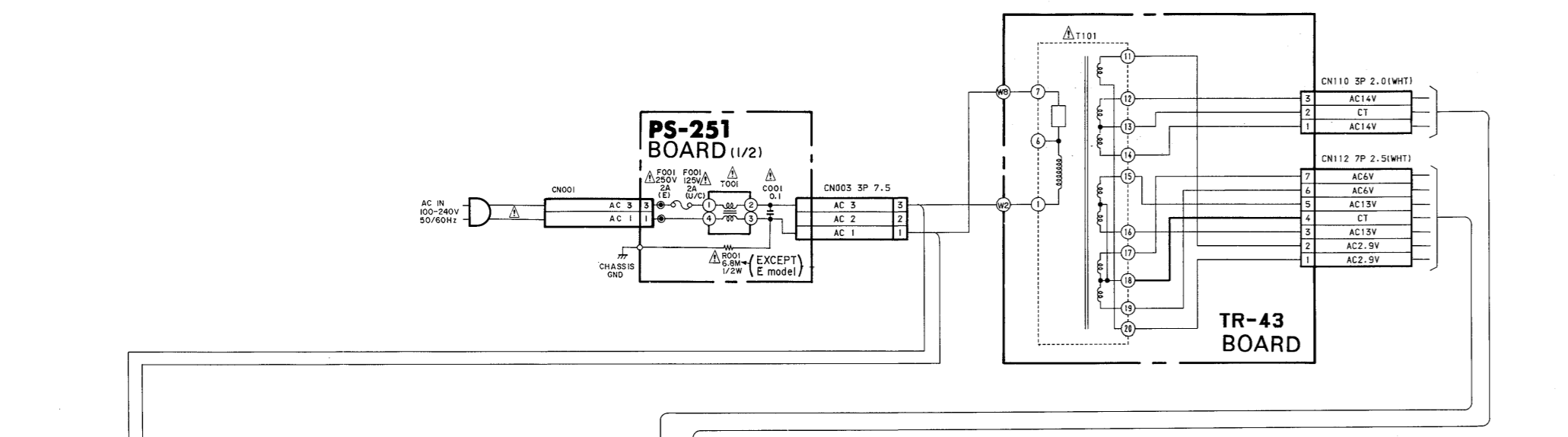
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O



— Ref. No. PS-251, CL-23 BOARDS: 7000 series, TR-43 BOARD: 8000 series, SW-154 BOARD: 9000 series —

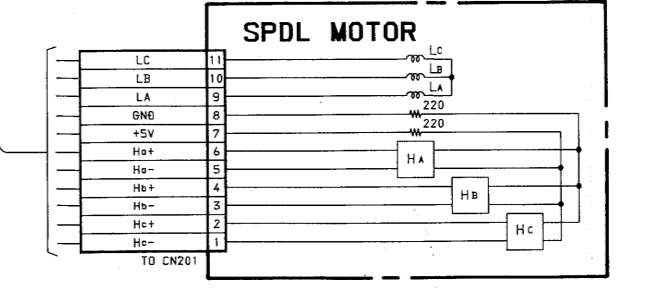
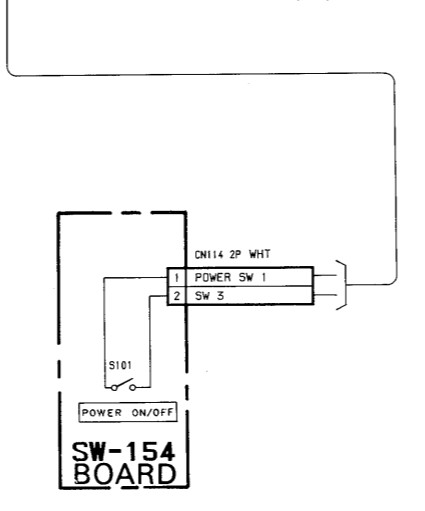
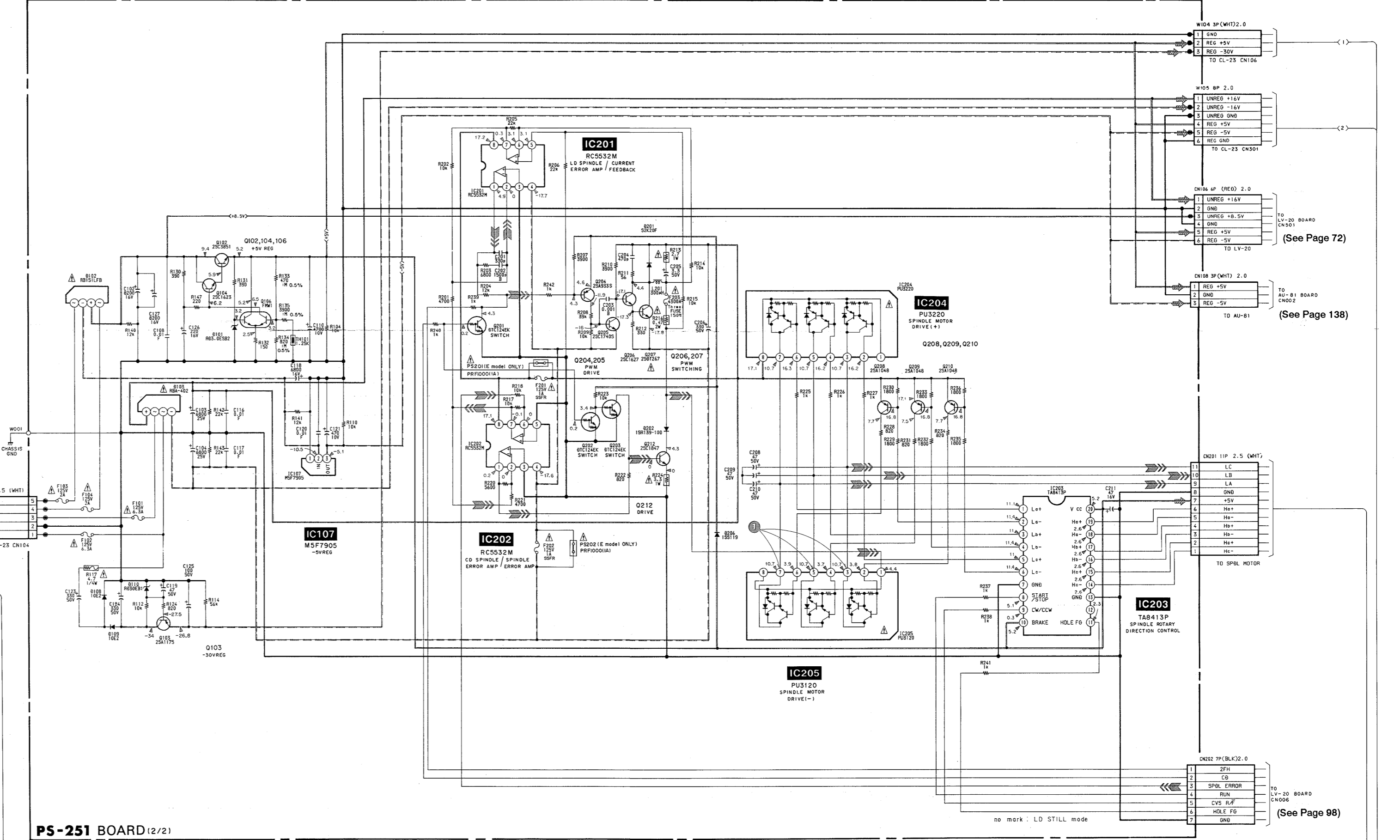
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



SIGNAL PATH

Spindle phase servo	➡➡➡
Spindle servo (Speed and phase)	➡➡➡➡
Tracking servo	➡➡➡➡➡
Sled servo	➡➡➡➡➡➡
Focus servo	➡➡➡➡➡➡➡
Skew servo	➡➡➡➡➡➡➡➡



PS-251 (MOTOR DRIVE/POWER REG), CL-23 (POWER CONTROL), TR-43 (TRANSFORMER), SW-154 (POWER SWITCH) PRINTED WIRING BOARDS

— Ref. No. PS-251, CL-23 BOARDS: 7000 series, TR-43 BOARD: 8000 series, SW-154 BOARD: 9000 series —

* A-6421-646-A PS-251 BOARD, COMPLETE

(Ref. No. 7000 Series)

(DIODE)

D101	8-719-109-63	DIODE	RD3.0ES-B2
D102	8-719-302-92	DIODE	RB-151LFB
D103	8-719-312-09	DIODE	RBA-402
D108	8-719-200-02	DIODE	10E2
D109	8-719-200-02	DIODE	10E2

D110	8-719-110-72	DIODE	RD30ES-B2
D201	8-719-500-39	DIODE	S2K20F
D202	8-719-974-59	DIODE	1SR139-100
D206	8-719-911-19	DIODE	1SS119

(IC)

IC107	8-759-604-47	IC	M5F7905L
IC201	8-759-981-92	IC	RC4558M
IC202	8-759-981-92	IC	RC4558M
IC203	8-759-239-19	IC	TA8413P
IC204	8-759-420-74	IC	PU3220

IC205	8-759-420-73	IC	PU3120
-------	--------------	----	--------

(TRANSISTOR)

Q102	8-729-303-61	TRANSISTOR	2SC3851-G
Q103	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q104	8-729-100-67	TRANSISTOR	2SC1623-L7
Q106	8-729-903-10	TRANSISTOR	FMM1
Q201	8-729-901-00	TRANSISTOR	DTC124EK

Q202	8-729-901-00	TRANSISTOR	DTC124EK
Q203	8-729-901-00	TRANSISTOR	DTC124EK
Q204	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q205	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q206	8-729-140-96	TRANSISTOR	2SD774-34

Q207	8-729-422-89	TRANSISTOR	2SD1267-Q
Q208	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q209	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q210	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q212	8-729-804-91	TRANSISTOR	2SD1682-S

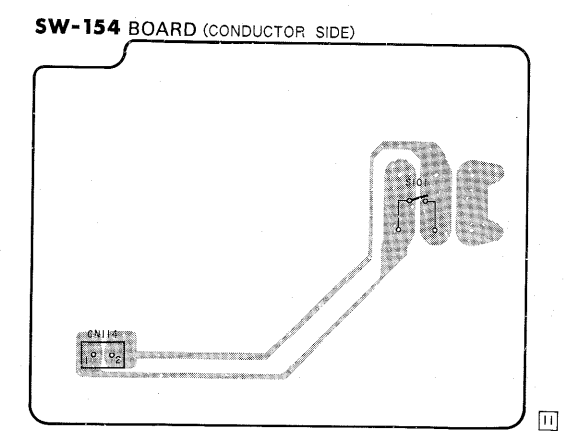
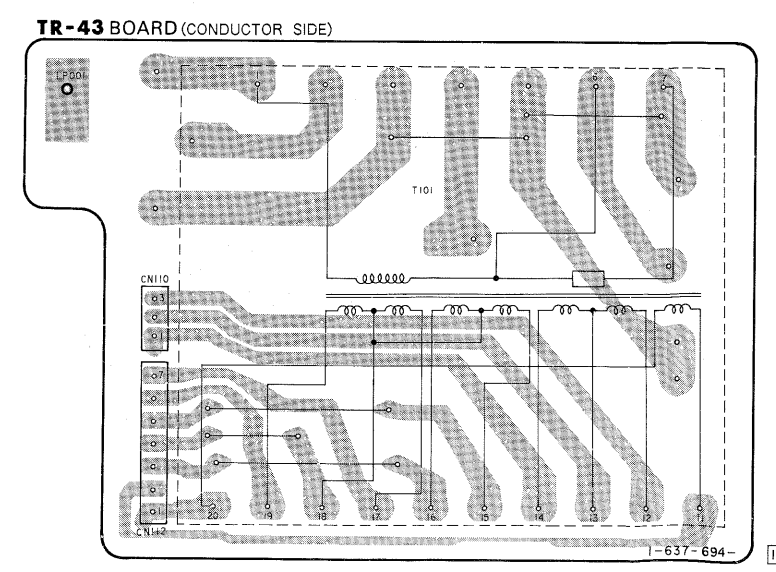
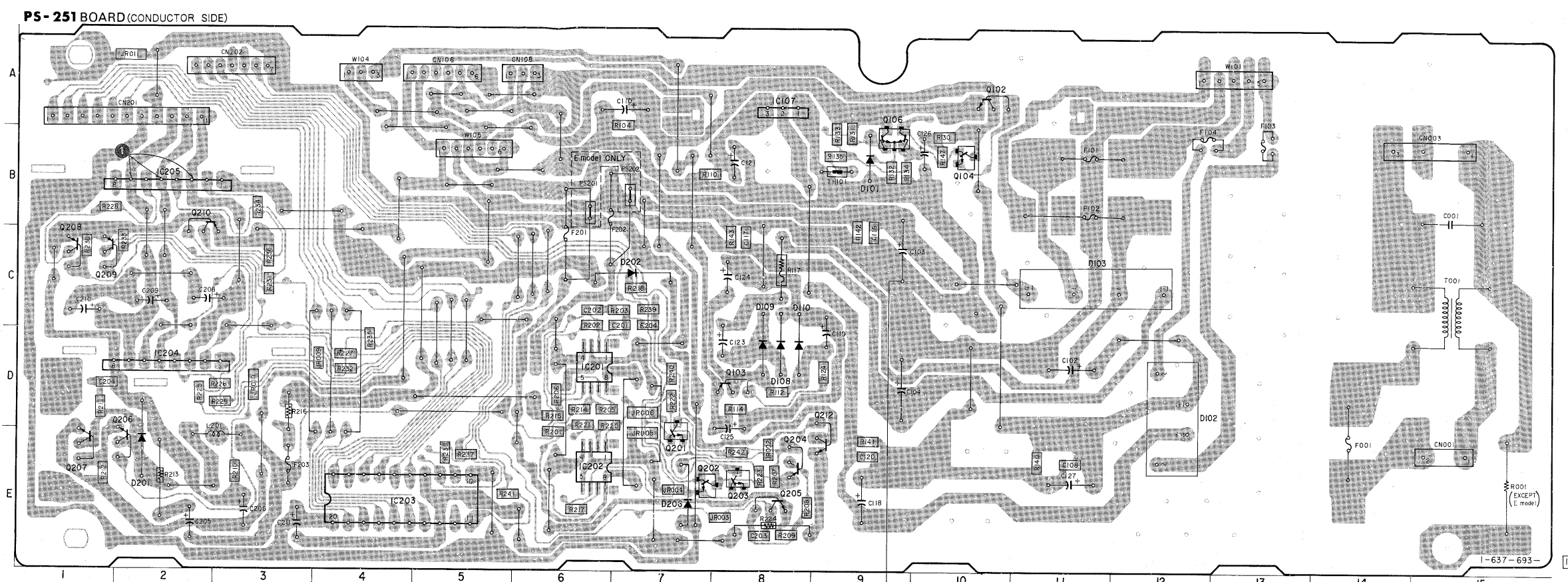
PS-251 BOARD

CN001	E-15
CN003	B-15
CN108	A-5
CN108	A-6
CN201	A-2
CN202	A-3

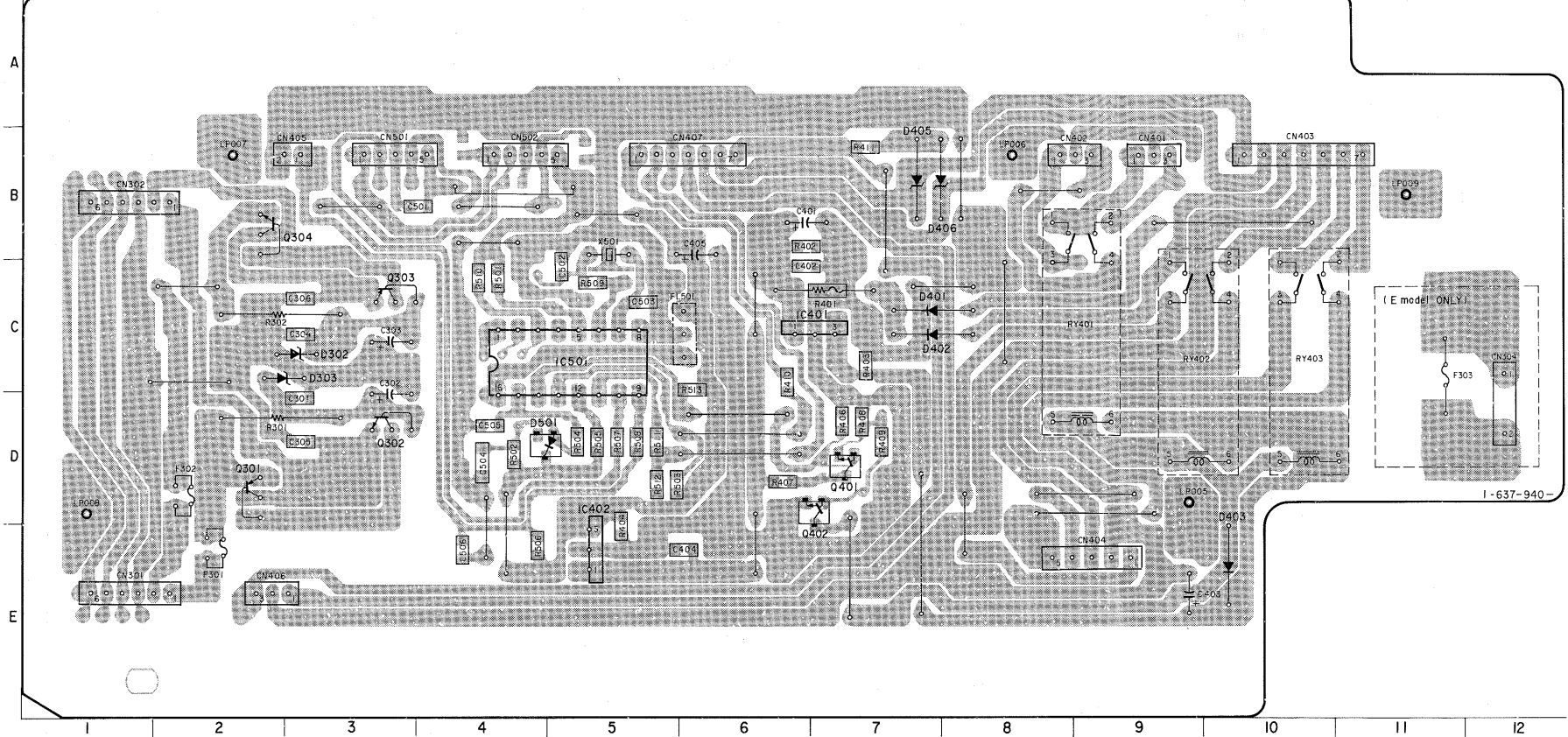
D101	B-9
D102	D-12
D103	C-11
D108	D-9
D109	D-8
D110	D-8
D201	E-2
D202	C-7
D206	E-7

IC107	A-8
IC201	D-6
IC202	E-6
IC203	E-4
IC204	D-2
IC205	B-2

Q102	A-10
Q103	D-8
Q104	B-10
Q106	B-9
Q201	D-7
Q202	E-7
Q203	E-8
Q204	E-8
Q205	E-8
Q206	E-2
Q207	E-1
Q208	C-1
Q209	C-1
Q210	B-2
Q212	E-9



CL-23 BOARD (CONDUCTOR SIDE)



CL-23 BOARD

CN301	E-1
CN302	B-1
CN304	C-12
CN401	A-9
CN402	A-9
CN403	B-10
CN404	E-9
CN405	A-3
CN406	E-2
CN407	B-5
CN501	A-3
CN502	B-4

D302	C-3
D303	C-3
D401	C-7
D402	C-7
D403	E-10
D405	A-7
D406	A-7
D501	D-4

IC401	C-7
IC402	E-5
IC501	C-5

Q301	D-2
Q302	D-3
Q303	C-3
Q304	B-2
Q401	D-7
Q402	D-7

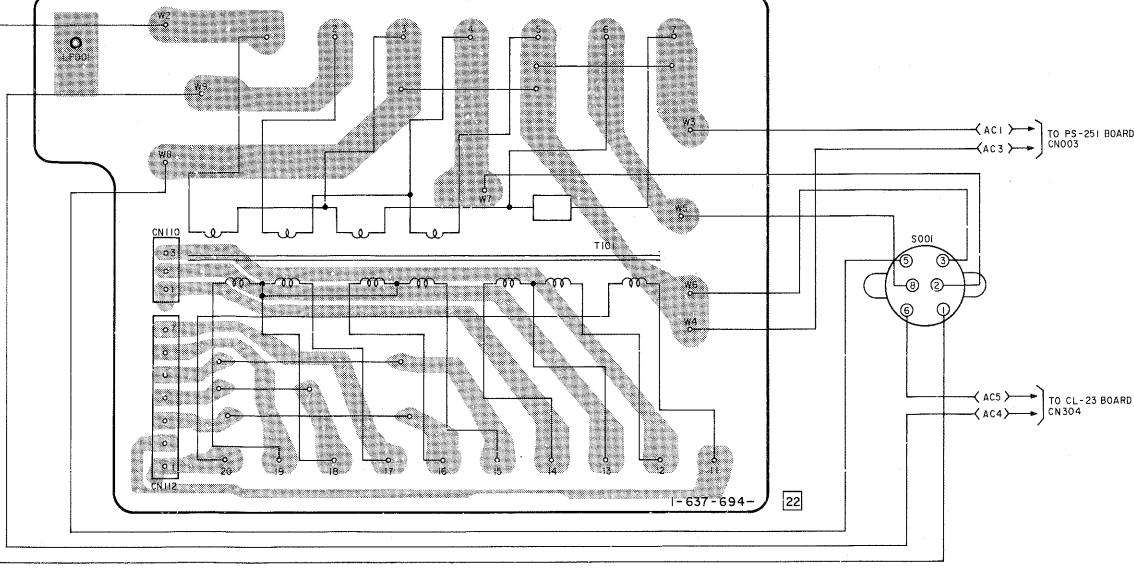
(IC)

IC401	8-759-231-58	IC	M5F7812L
IC402	8-759-231-53	IC	M5F7805L
IC501	8-759-520-70	IC	MB88201-1044K

(TRANSISTOR)

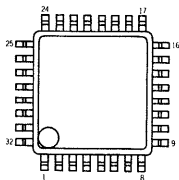
Q301	8-729-924-90	TRANSISTOR	2SB1370-F
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q303	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q304	8-729-209-15	TRANSISTOR	2SD2061-F
Q401	8-729-100-66	TRANSISTOR	2SC1623
Q402	8-729-159-64	TRANSISTOR	2SD596

TR-43 BOARD (E) (CONDUCTOR SIDE) (E model ONLY)



4-3. SEMICONDUCTORS

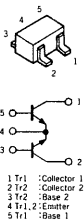
CXA1081Q



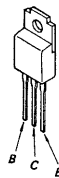
**M5F7805L
M5F7812L
μPC24M09HF**



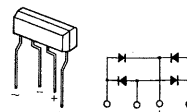
FMW1



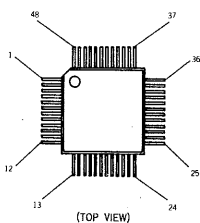
2SD1267-Q



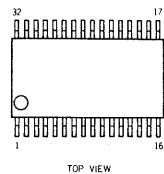
RB-151LFB



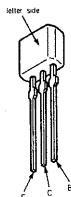
**CXA1254Q
CXA1255Q
CXD1152-MS
MB674172U
MC141620FU**



M50455-196FP



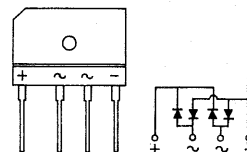
**2SA1175-HFE
2SC2785-HFE**



2SD1682-S

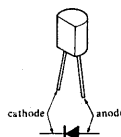


RBA-402

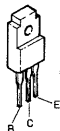


**RD3.0ES-B2
RD10ES-B2
RD20ES-B1
RD30ES-B2
1SR139-100
1SS119**

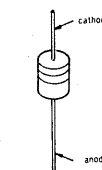
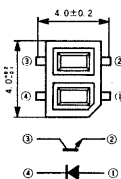
FC52M-5



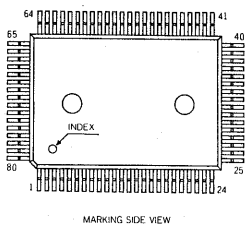
**2SB1370-EF
2SD2061-F**



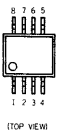
GP-2S09-B



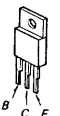
**CXD1165Q
MB89795-119**



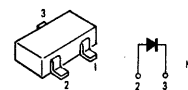
M51953BFP



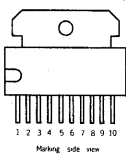
**2SC3851-G
2SD1585-K**



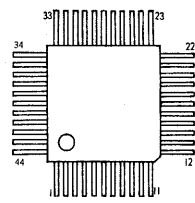
**RD5.1M-B2
RD7.5M-B1
RD9.1M-B1**



**LA6510
TA7291P**



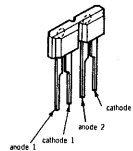
SM5862CF



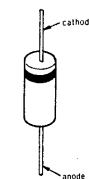
2SD655-E



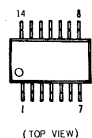
KV1236-D



**10E2
11EQS**



LM2901



**PU3120
PU3220**



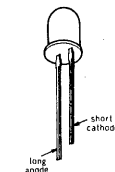
2SD774-34



**MA152WK
1S2836**



SEL4414G-C



SECTION 5 EXPLODED VIEWS

NOTE:

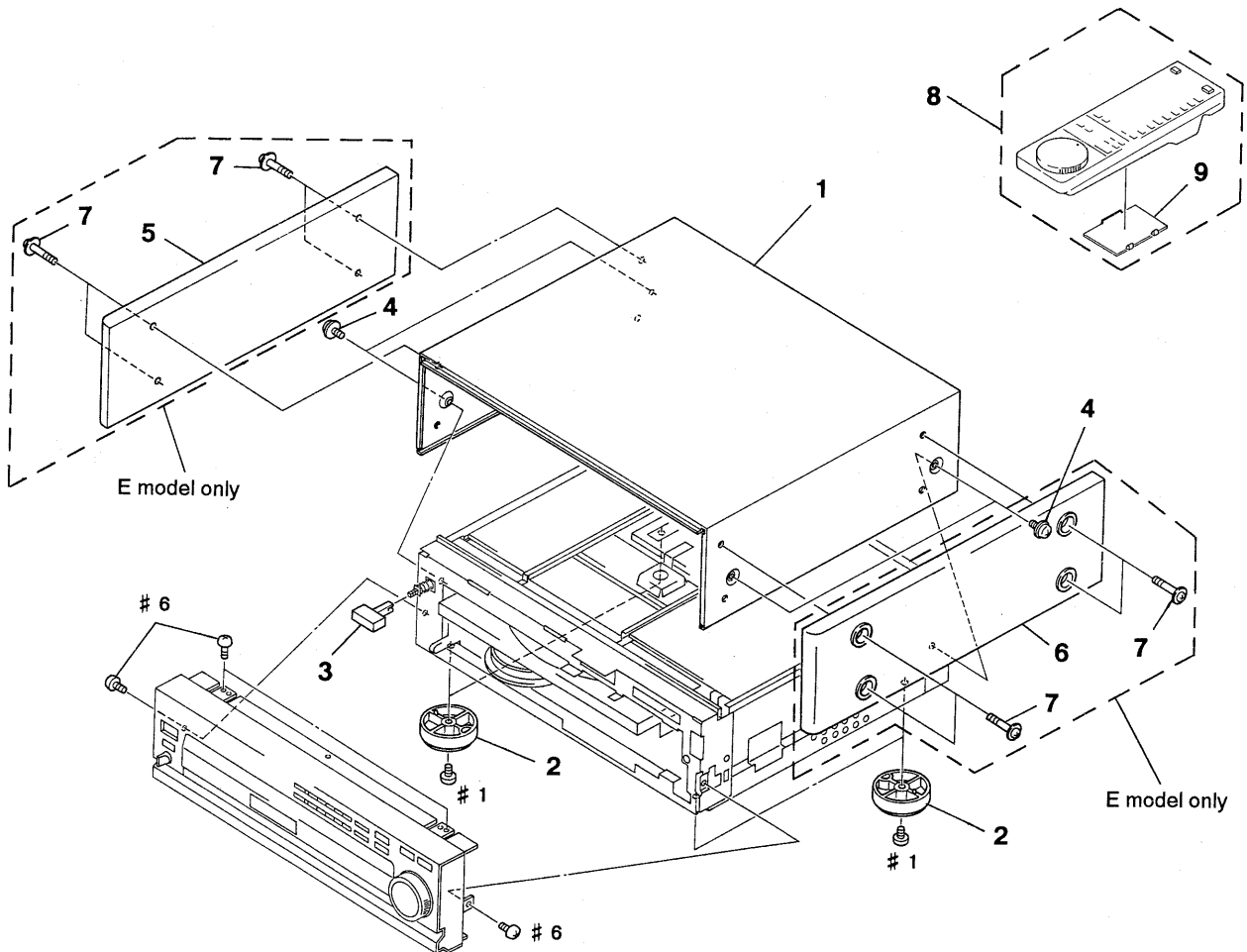
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) ... (RED)
 ↑ ↑
Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

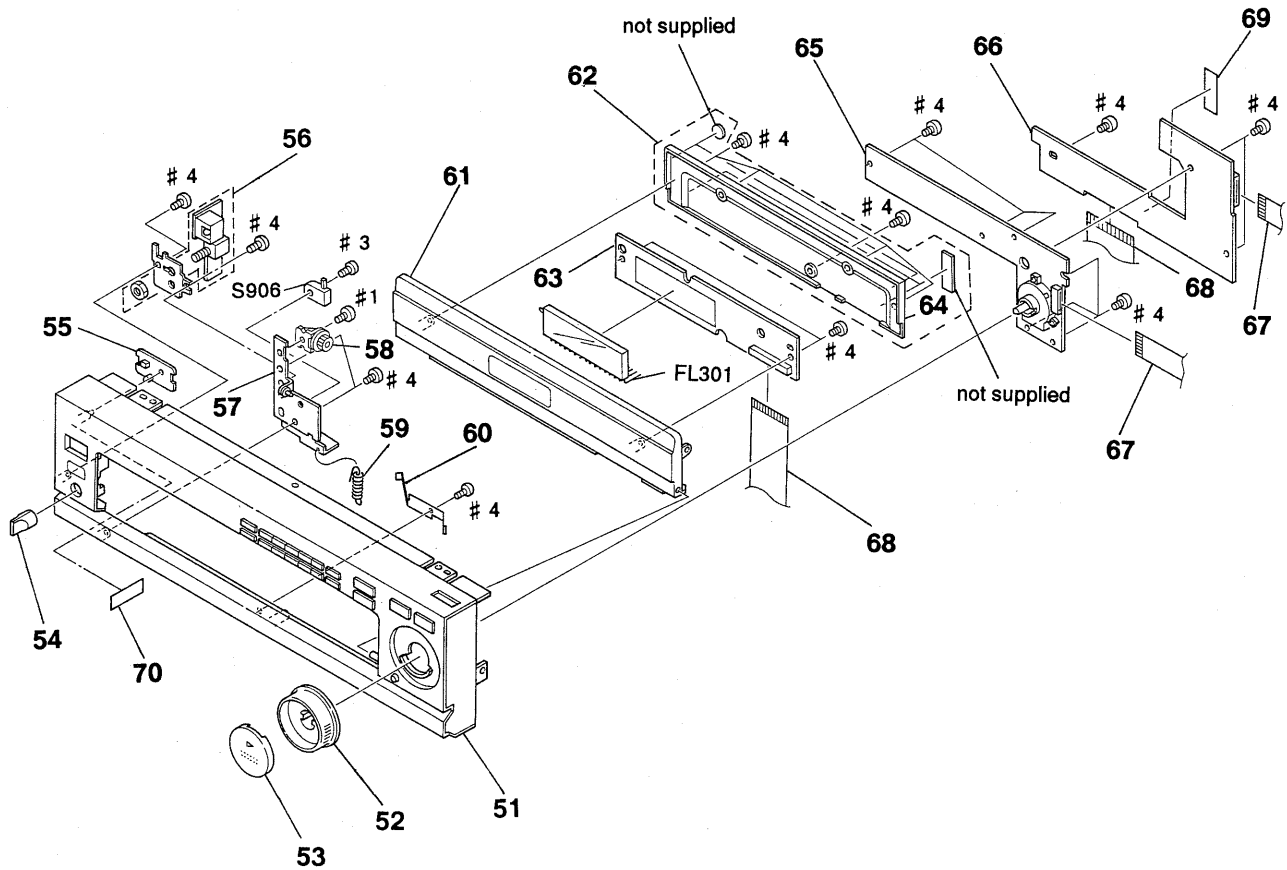
5-1. CABINET ASSEMBLY



Ref. No.	Part No.	Description
1	3-941-116-01	CASE, UPPER (US, Canadian)
1	3-941-116-12	CASE, UPPER (E)
2	X-3940-201-1	FOOT ASSY
3	3-941-084-01	BUTTON, POWER
4	3-710-901-11	SCREW, TAPPING

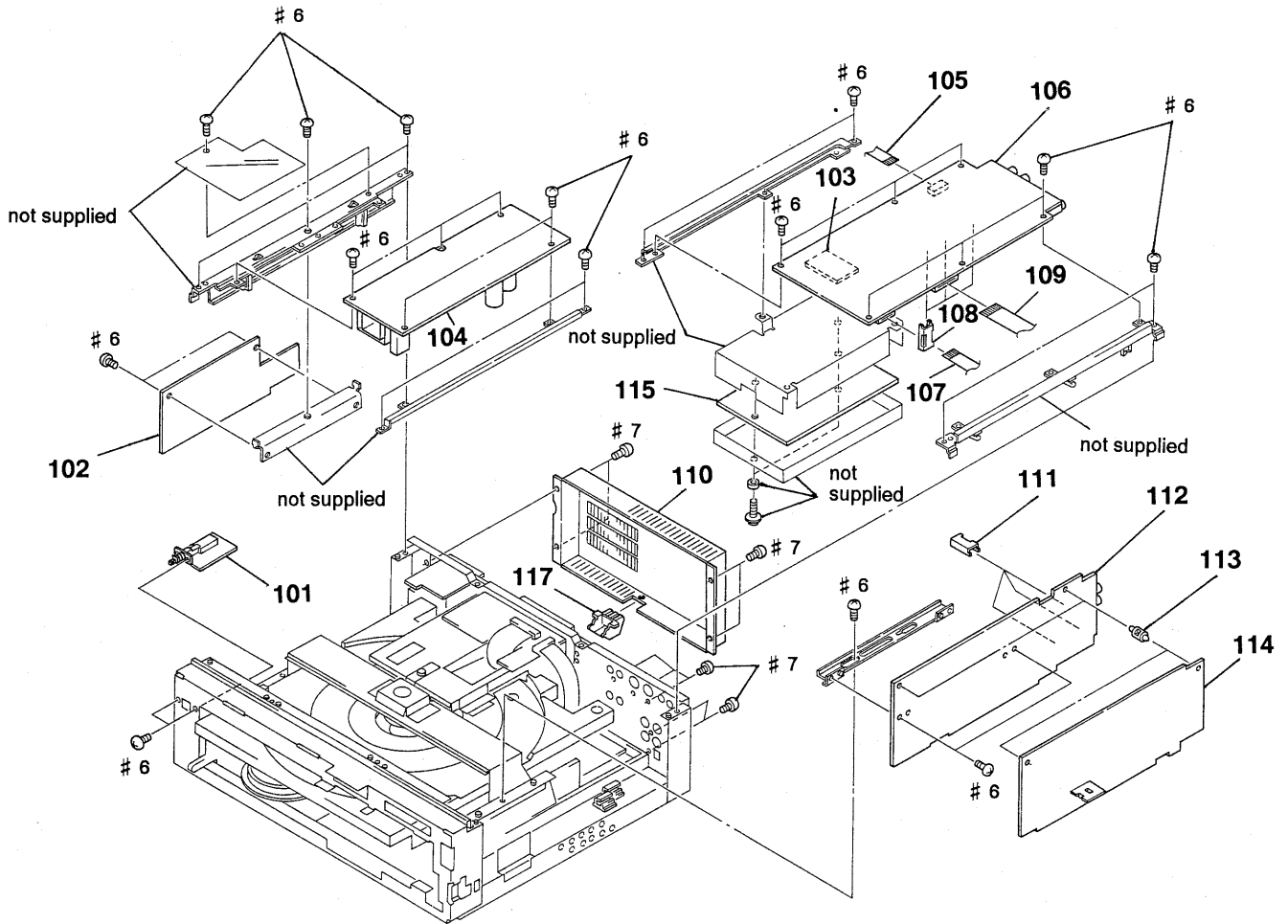
Ref. No.	Part No.	Description	Remark
5	X-3940-901-2	PLATE (L) ASSY, SIDE, ORNAMENTAL (E)	
6	X-3940-902-2	PLATE (R) ASSY, SIDE, ORNAMENTAL (E)	
7	3-945-185-01	SCREW (M3), SIDE WOOD (E)	
8	1-465-496-73	REMOTE CONTROLLER (RMT-S605A)	
9	3-942-754-01	COVER, BATTERY	

5-2. FRONT PANEL ASSEMBLY



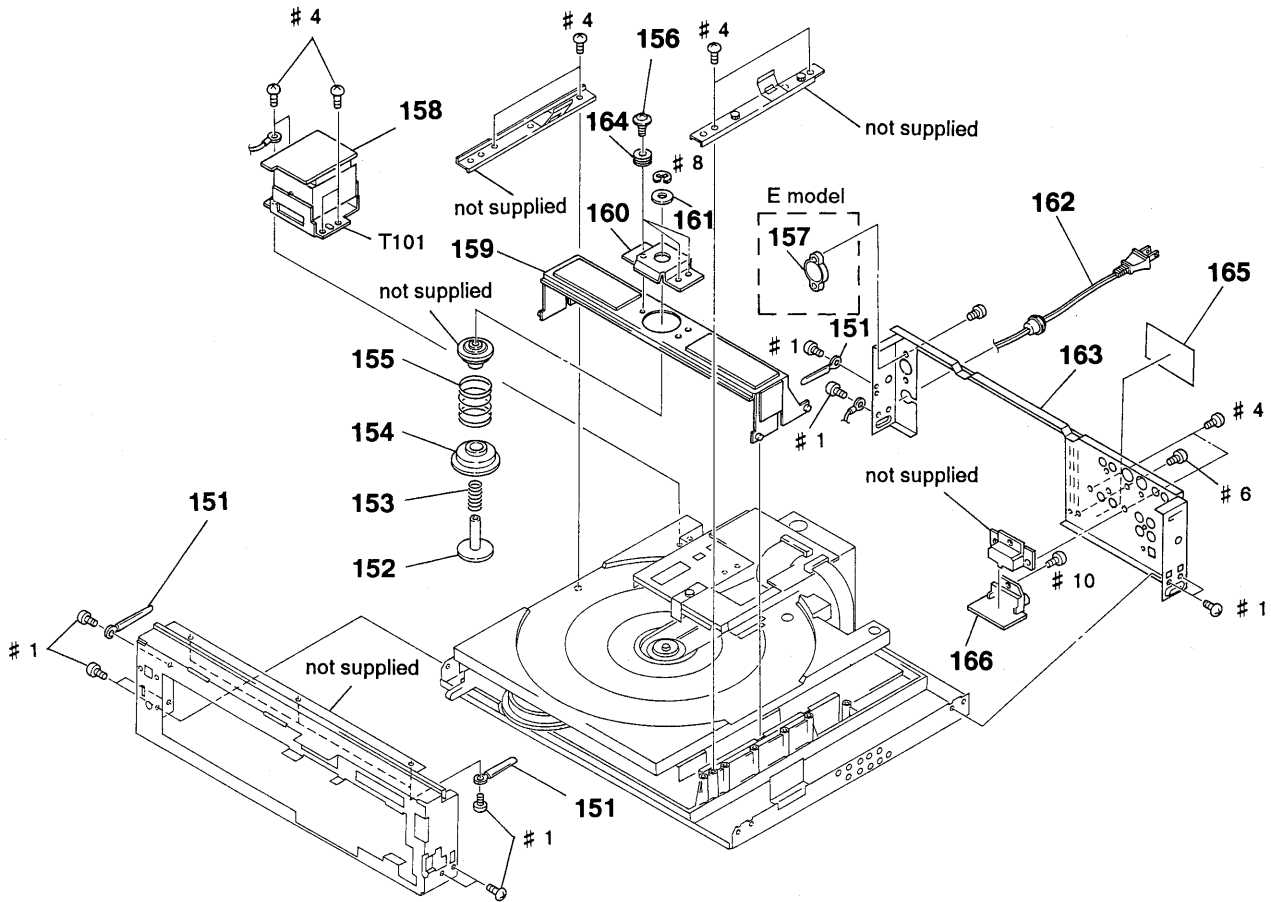
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3940-730-1	PANEL ASSY, FRONT (US, Canadian)		61	X-3940-227-5	DOOR (A) ASSY (E)	
51	X-3940-728-5	PANEL ASSY, FRONT (E)		62	X-3940-931-1	COVER ASSY, DOOR	
52	3-941-114-01	SHUTTLE		63	*1-637-702-11	PC BOARD, EP-302	
53	3-941-077-01	BUTTON, SHUTTLE		64	3-941-081-01	COVER, DOOR	
54	3-940-996-01	KNOB		65	*A-6421-590-A	JS-21 BOARD, COMPLETE	
55	*1-637-705-11	PC BOARD, PL-21		66	*A-6421-589-A	FP-301 BOARD, COMPLETE	
56	*1-637-704-11	PC BOARD, ES-30		67	1-590-420-11	CABLE, FLEXIBLE FLAT (FFJ1)	
57	*X-3940-202-1	BRACKET ASSY, DOOR		68	1-590-422-11	CABLE, FLEXIBLE FLAT (FFF2)	
58	4-919-393-01	DAMPER		69	9-911-837-XX	CUSHION(A), FILTER	
59	3-942-656-01	SPRING, TENSION		70	*3-561-902-00	CLOTH, RETAINING, CASSETTE	
60	*3-941-791-03	SPRING, FP GROUND		S906	1-570-771-21	SWITCH (DOOR)	
61	X-3940-729-1	DOOR (A) ASSY (US, Canadian)					

5-3. MAIN BOARDS ASSEMBLY



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	*1-637-695-11	PC BOARD, SW-154		110	3-941-105-01	COVER, REAR	
102	*1-637-940-11	PC BOARD, CL-23		111	*3-746-535-01	HEAT SINK	
103	*1-640-722-13	PC BOARD, CS-32		112	*A-6421-707-A	AU-81 (U48) BOARD, COMPLETE	
104	*A-6421-646-A	PS-251 (U48) BOARD, COMPLETE		113	*3-682-419-01	HOLDER, P. C. B	
105	1-590-417-11	CABLE, FLEXIBLE FLAT (FLC-1)		114	*A-6421-583-A	SV-60 BOARD, COMPLETE (US, Canadian)	
106	*A-6421-647-A	LV-20 (U48) BOARD, COMPLETE		114	*A-6421-710-A	SV-60 BOARD, COMPLETE (E)	
107	1-590-419-11	CABLE, FLEXIBLE FLAT (SMCD)		115	*A-6421-663-A	YC-117 BOARD, COMPLETE	
108	*3-309-144-21	HEAT SINK		117	*3-940-988-01	COVER, RACK	
109	1-590-418-11	CABLE, FLEXIBLE FLAT (FLS-1)					

5-4. CHUCK PLATE BLOCK ASSEMBLY

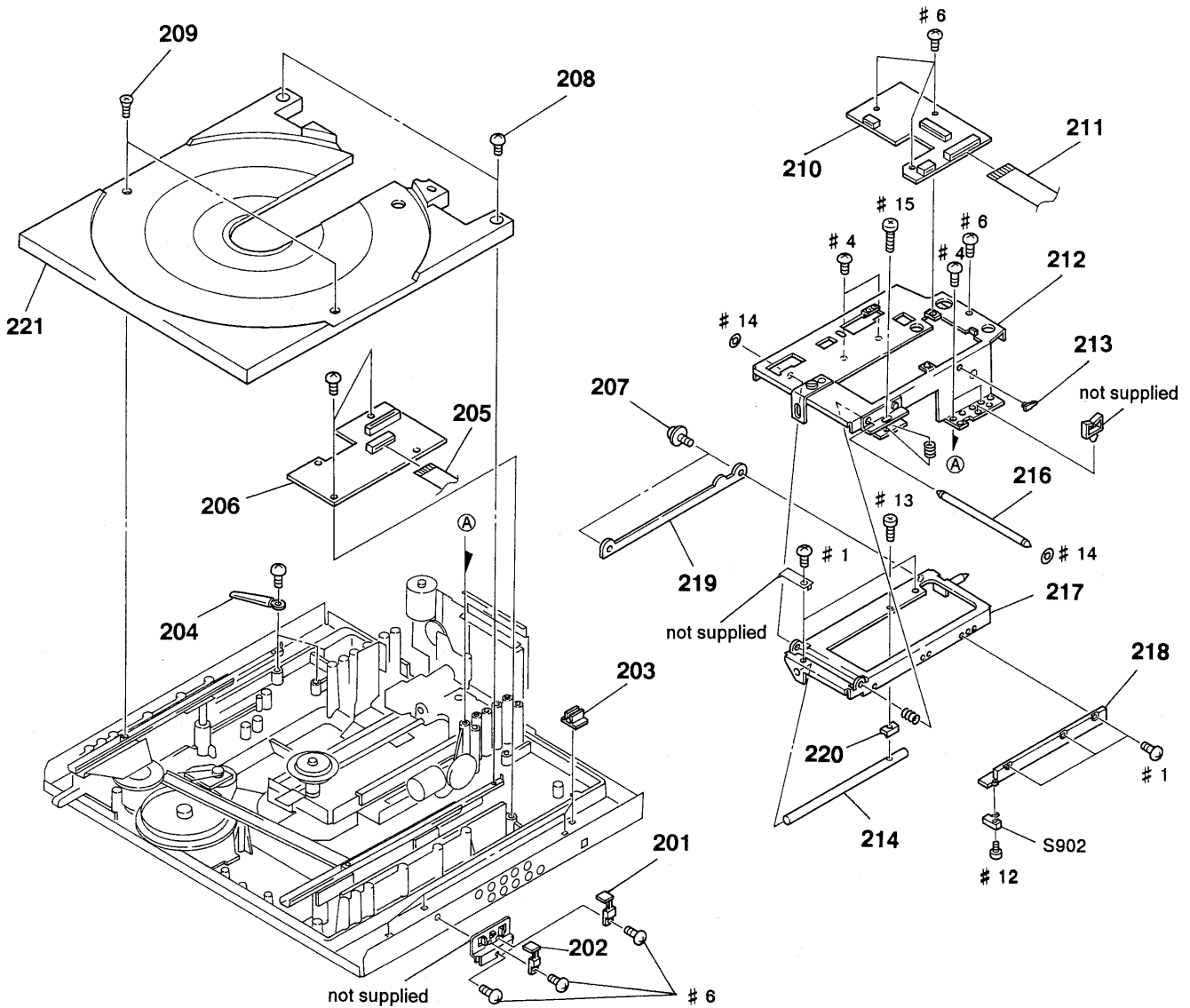


The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

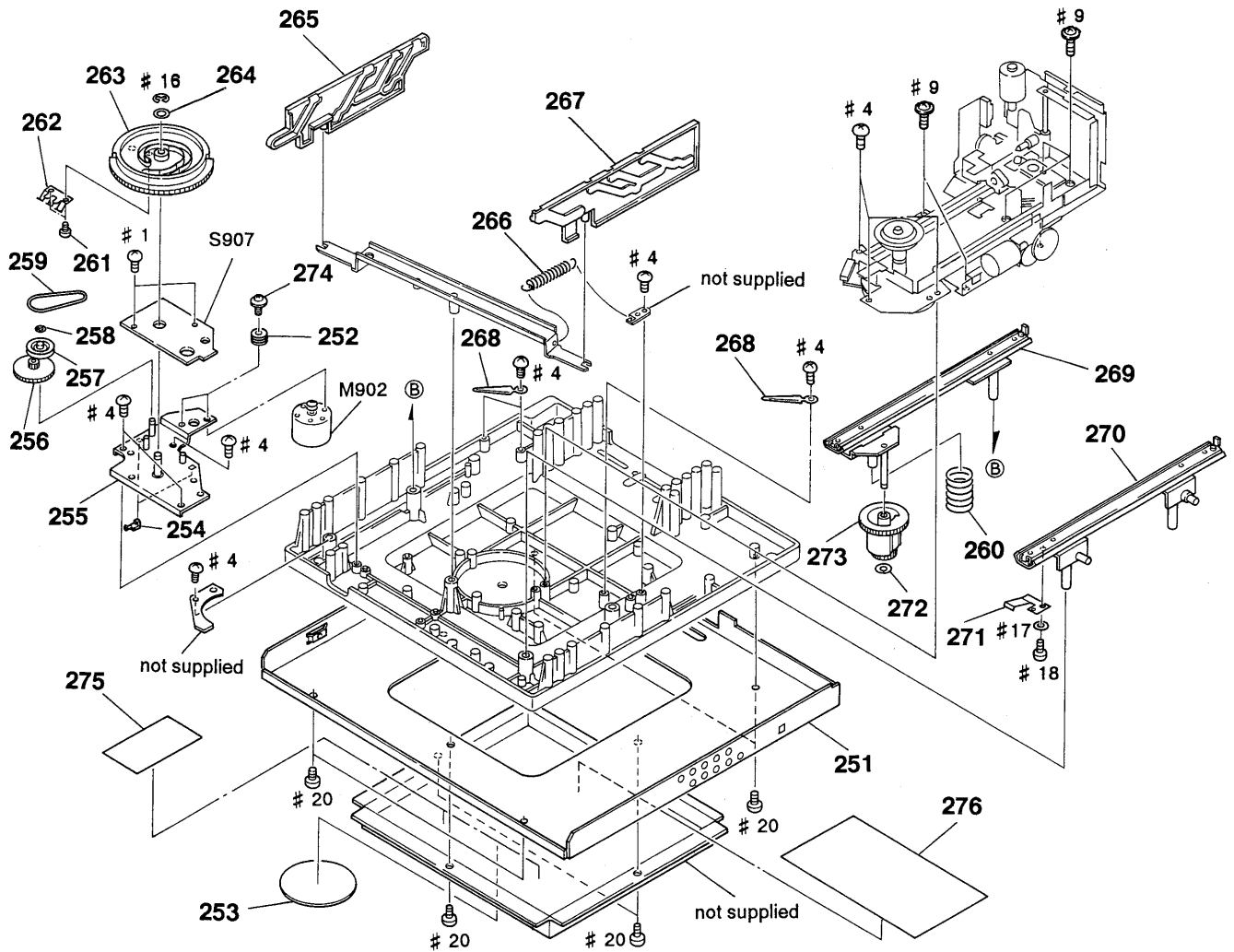
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-703-150-11	STOPPER, WIRING		161	3-940-967-01	STOPPER	
152	3-940-962-01	GUIDE (B), CENTER		162	1-590-327-12	CORD, POWER (US, Canadian)	
153	3-940-958-01	SPRING, COMPRESSION		162	1-590-328-12	CORD, POWER (E)	
154	3-941-044-01	CLAMP, DISK		163	*3-941-104-11	PANEL, REAR (US, Canadian)	
155	3-940-959-01	SPRING, COMPRESSION		163	3-941-104-22	PANEL, REAR (E)	
156	3-703-249-01	SCREW, (M3x6) TAPPING		164	3-645-058-01	SPACER	
157	\triangle 1-554-933-11	SELECTOR, VOLTAGE (E)		165	*3-943-510-01	LABEL, MODEL NUMBER (US, Canadian)	
158	*1-637-649-11	PC BOARD, TR-43		166	*1-637-698-11	PC BOARD, RM-45	
159	*X-3940-218-1	PLATE ASSY, CHUCK		T101	\triangle 1-450-327-12	TRANS FORMER, POWER (US, Canadian)	
160	*X-3940-205-4	PLATE ASSY, THRUST		T101	\triangle 1-450-351-11	TRANS FORMER, POWER (E)	

5-5. CHASSIS ASSEMBLY (1)



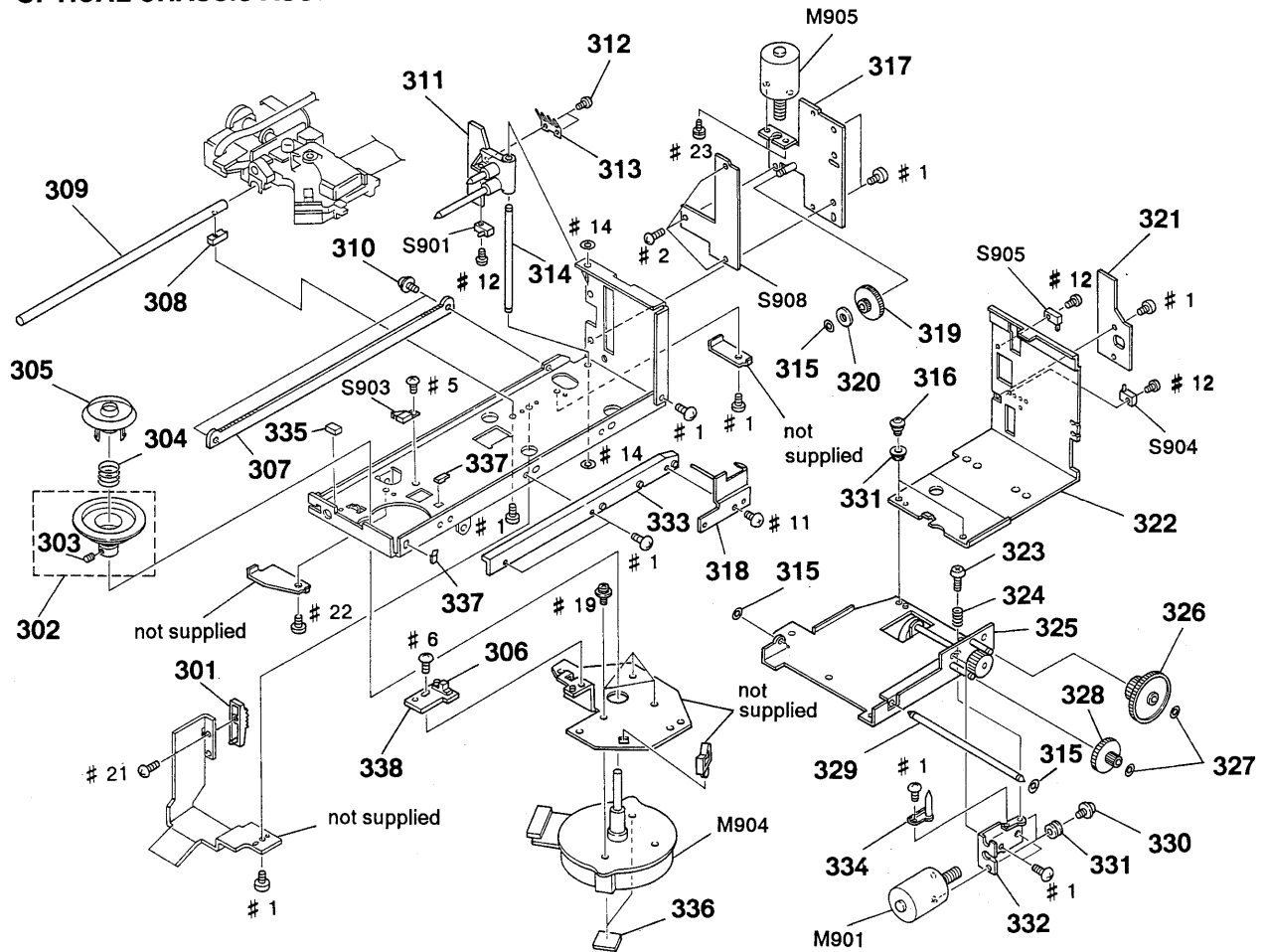
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	*1-638-088-11	PC BOARD, HT-11		212	*X-3940-220-1	PLATE ASSY, BASE, CHASSIS	
202	*1-638-312-11	PC BOARD, HT-12		213	*3-671-150-11	CLAMP	
203	*3-642-310-00	HOLDER, CIRCUIT BOARD		214	*3-941-036-01	SHAFT (2), FEED	
204	*3-701-822-00	HOLDER, WIRE		216	*3-940-997-01	SHAFT (2), FULCRUM	
205	1-590-416-11	CABLE, FLEXIBLE FLAT (FMS-1)		217	*X-3940-221-1	CHASSIS (2) ASSY, CARRIAGE	
206	*1-637-696-11	PC BOARD, MC-62		218	*3-941-033-01	HOLDER (2), TANGENTIAL	
207	3-941-011-01	SCREW (M3X3.5), TAPPING		219	*3-941-099-01	RACK (2), FEED	
208	3-942-655-02	SCREW (2.6X5), +B		220	*3-941-040-01	BEARING (2), FEED	
209	3-942-654-01	SCREW (2.6X5), +K		221	X-3940-228-5	TRAY ASSY	
210	*A-6421-593-A	CH-70 BOARD, COMPLETE		S902	1-570-771-11	SWITCH (LD IN LIMIT)	
211	1-590-415-11	CABLE, FLEXIBLE FLAT (FMC-1)					

5-6. CHASSIS ASSEMBLY (2)



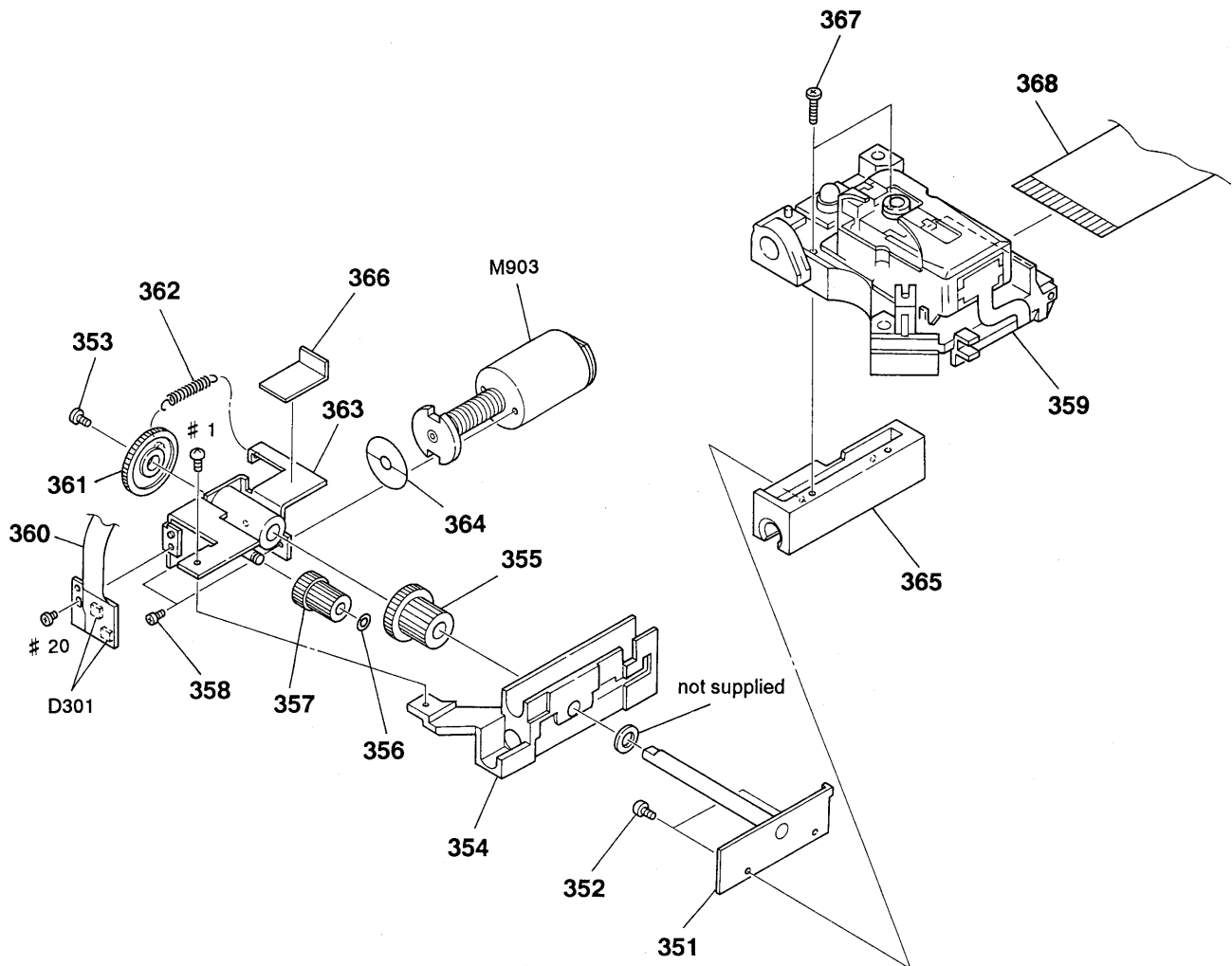
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	*3-941-115-01	PLATE, BOTTOM		266	3-941-006-01	SPRING, TENSION	
252	3-570-118-00	CUSHION, MOTOR		267	3-941-093-01	CAM (R), CHUCK	
253	*3-943-180-01	FOOT (C)		268	*3-701-822-00	HOLDER, WIRE	
254	*3-671-150-11	CLAMP		269	*X-3940-229-1	GUIDE (L) ASSY	
255	*X-3940-219-1	BASE ASSY, THREADING		270	*X-3940-230-1	GUIDE (R) ASSY	
256	3-725-560-01	GEAR (C)		271	3-941-730-01	SPRING, TRAY	
257	3-725-561-01	PULLEY (C)		272	3-940-987-01	RING, RETAINING	
258	3-669-595-00	WASHER (2), STOPPER		273	3-941-097-01	GEAR, TRAY DRIVING	
259	3-725-562-01	BELT		274	3-941-909-01	SCREW (M2.6X2), WASHER HEAD STEP	
260	3-944-060-01	SPRING, COMPRESSION		275	3-943-800-01	DAMPER (A)	
261	3-892-535-01	SCREW		276	*3-943-801-01	DAMPER (B)	
262	3-941-066-01	SLIDER (1)		M902	X-3940-203-1	MOTOR ASSY, THREADING	
263	3-941-096-01	CAM, CONTROL		S907	1-572-644-11	SWITCH, ROTARY (TRAY)	
264	3-701-443-21	WASHER, 5 DIA.					
265	3-941-094-01	CAM (L), CHUCK					

5-7. OPTICAL CHASSIS ASSEMBLY



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-940-992-01	RACK, REVERSE		325	*X-3940-225-7	PLATE ASSY, BASE, SKEW	
302	X-3940-199-1	TURNTABLE ASSY		326	3-941-028-01	GEAR (1), SKEW	
303	3-701-506-01	SET SCREW, DOUBLE POINT 3X4		327	3-940-985-01	RING, RETAINING	
304	*3-735-026-01	SPRING, COMPRESSION		328	3-941-029-01	GEAR (2), SKEW	
305	X-3940-198-1	GUIDE ASSY, CENTER		329	3-941-012-01	SHAFT, FULCRUM	
306	*3-941-065-01	SPACER, FG		330	3-941-733-01	SCREW (M3X2)	
307	3-941-100-01	RACK (1), FEED		331	3-570-118-00	CUSHION, MOTOR	
308	*3-941-039-01	BEARING (1), FEED		332	*3-941-734-01	BRACKET, MOTOR	
309	3-941-035-01	SHAFT (1), FEED		333	3-941-010-01	HOLDER (1), TANGENTIAL	
310	3-941-011-01	SCREW (M3X3.5), TAPPING		334	*3-940-989-01	PIN, POSITIONING	
311	3-941-110-01	LEVER, U/D		335	*3-941-993-01	DAMPER, FEED SHAFT	
312	3-892-535-01	SCREW		336	*3-743-799-01	SPACER (W)	
313	3-941-067-01	SLIDER (2)		337	*3-671-150-11	CLAMP	
314	3-941-023-01	SHAFT, UD GUIDE		338	*1-637-697-11	PC BOARD, FG-40	
315	3-940-986-01	RING, RETAINING		M901	X-3940-206-1	MOTOR ASSY, SKEW (TRAY)	
316	3-943-767-01	SCREW (M3X4), TAPPING		M904	1-541-845-11	MOTOR, LD SPINDLE	
317	*X-3940-210-1	BRACKET ASSY, U/D		M905	X-3940-204-1	MOTOR ASSY, U/D (ELEVATOR)	
318	*X-3940-372-1	BRACKET ASSY, FLEXIBLE		S901	1-570-771-11	SWITCH (CD IN LIMIT)	
319	3-941-026-01	GEAR, U/D		S903	1-572-765-11	SWITCH, MICRO (PARK)	
320	*3-941-735-01	WASHER, U/D		S904	1-570-771-11	SWITCH (SKEW UP)	
321	*1-637-707-11	PC BOARD, SK-40		S905	1-570-771-11	SWITCH (SKEW DOWN)	
322	*X-3940-217-1	BRACKET ASSY, RD ADJUSTMENT		S908	1-572-645-11	SWITCH, SLIDE (ELEVATOR)	
323	3-941-070-02	SCREW (3X18)					
324	3-944-105-01	SPRING, COMPRESSION					

5-8. OPTICAL BLOCK ASSEMBLY



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	X-3940-211-1	BRACKET ASSY, ROTARY		361	3-940-979-01	GEAR, REVERSE	
352	3-941-056-01	SCREW (2X4)		362	3-943-766-01	SPRING, TENSION	
353	3-714-118-01	SCREW (1.7X4)		363	X-3940-213-1	FEED ASSY	
354	3-941-020-01	HOLDER, PICK UP ROTARY		364	3-941-043-01	SHEET, FEED FG	
355	3-941-017-01	GEAR (2), FEED		365	3-941-098-01	BEARING, FEED	
356	3-940-985-01	RING, RETAINING		366	3-941-732-01	SHEET, FLEXIBEL	
357	3-941-018-01	GEAR (1), FEED		367	3-941-055-01	SCREW (2X6)	
358	3-944-638-01	SCREW (2X3)		368	1-641-223-11	PC BOARD, OP-10 FLEXIBLE	
359	\triangle 8-848-138-11	DEVICE, OPTICAL KHS-130A		D301	8-719-939-11	PHOTO INTERRUPTEGP-2S09-B	
360	\triangle 1-637-710-11	PC BOARD, SL FLEXIBLE		M903	X-3940-212-1	MOTOR ASSY, FEED (TILT)	

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* A-6421-707-A AU-81 BOARD, COMPLETE (Ref. No 5000 Series)				C038	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
*****				C039	1-164-232-11	CERAMIC CHIP	0.01uF 50V
* 3-746-535-01 HEAT SINK				C040	1-163-020-00	CERAMIC CHIP	0.0082uF 10% 50V
7-685-646-79 SCREW +BVTP 3X8 TYPE2 IT-3				C041	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V
(CAPACITOR)				C042	1-126-157-11	ELECT	10uF 20% 16V
C001	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C043	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C002	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C044	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V
C003	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C045	1-163-035-00	CERAMIC CHIP	0.047uF 50V
C004	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	C046	1-163-035-00	CERAMIC CHIP	0.047uF 50V
C005	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C047	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C006	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C048	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C007	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	C049	1-163-106-00	CERAMIC CHIP	36PF 5% 50V
C008	1-126-154-11	ELECT	47uF 20% 6.3V	C050	1-163-241-11	CERAMIC CHIP	39PF 5% 50V
C009	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C051	1-163-123-00	CERAMIC CHIP	180PF 5% 50V
C010	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C052	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C012	1-163-227-11	CERAMIC CHIP	10PF 5% 50V	C053	1-164-182-11	CERAMIC CHIP	0.0033uF 10% 50V
C013	1-126-154-11	ELECT	47uF 20% 6.3V	C054	1-130-729-00	FILM	0.0027uF 5% 100V
C014	1-126-154-11	ELECT	47uF 20% 6.3V	C055	1-130-729-00	FILM	0.0027uF 5% 100V
C015	1-163-121-00	CERAMIC CHIP	150PF 5% 50V	C056	1-124-557-11	ELECT	1000uF 20% 25V
C016	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V	C057	1-124-557-11	ELECT	1000uF 20% 25V
C017	1-126-154-11	ELECT	47uF 20% 6.3V	C058	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C018	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C059	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C019	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	C060	1-126-234-11	ELECT	2200uF 20% 16V
C022	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C061	1-126-177-11	ELECT	100uF 20% 10V
C023	1-164-005-11	CERAMIC CHIP	0.47uF 25V	C062	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C024	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C063	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C025	1-124-287-00	ELECT	10uF 20% 10V	C064	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C026	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	C065	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C027	1-126-154-11	ELECT	47uF 20% 6.3V	C066	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C028	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C067	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C029	1-124-584-00	ELECT	100uF 20% 10V	C069	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C031	1-126-154-11	ELECT	47uF 20% 6.3V	C071	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C032	1-126-154-11	ELECT	47uF 20% 6.3V	C072	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C033	1-126-099-11	ELECT	2.2uF 20% 35V	C074	1-124-589-11	ELECT	47uF 20% 16V
C034	1-126-151-11	ELECT, NONPOLAR	4.7uF 20% 16V	C075	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C035	1-126-154-11	ELECT	47uF 20% 6.3V	C101	1-136-433-11	FILM	100PF 5% 630V
C036	1-126-154-11	ELECT	47uF 20% 6.3V	C102	1-136-433-11	FILM	100PF 5% 630V
C037	1-124-287-00	ELECT	10uF 20% 10V	C103	1-136-437-11	FILM	220PF 5% 630V
				C104	1-136-437-11	FILM	220PF 5% 630V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C105	1-130-729-00	FILM	0.0027uF 5% 100V	C501	1-124-636-00	ELECT	3300uF 20% 25V
C106	1-136-257-00	FILM	0.0039uF 3% 100V	C502	1-124-636-00	ELECT	3300uF 20% 25V
C107	1-130-017-00	FILM	820PF 5% 50V	C503	1-124-234-00	ELECT	22uF 20% 16V
C108	1-130-729-00	FILM	0.0027uF 5% 100V	C504	1-126-163-11	ELECT	4.7uF 20% 50V
C109	1-126-025-11	ELECT	330uF 20% 16V	C999	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C110	1-126-025-11	ELECT	330uF 20% 16V	(CONNECTOR)			
C111	1-136-435-11	FILM	150PF 5% 630V	CN001	1-506-491-11	CONNECTOR	12P, MALE
C112	1-136-439-11	FILM	330PF 5% 630V	CN002	1-506-482-11	CONNECTOR	3P, MALE
C113	1-136-250-11	FILM	0.001uF 5% 100V	CN003	1-506-485-11	CONNECTOR	6P, MALE
C114	1-124-141-00	ELECT	330uF 20% 10V	CN004	1-506-488-11	PIN, CONNECTOR	9P
C115	1-130-729-00	FILM	0.0027uF 5% 100V	CN005	1-506-482-11	CONNECTOR	3P, MALE
C116	1-130-729-00	FILM	0.0027uF 5% 100V	CN007	1-506-481-11	CONNECTOR	2P, MALE
C117	1-126-103-11	ELECT	470uF 20% 16V	CNJ001	8-749-921-12	IC GP1F32T (DIGITAL OUT OPTICAL)	
C118	1-164-232-11	CERAMIC CHIP	0.01uF 50V	(DIODE)			
C119	1-164-232-11	CERAMIC CHIP	0.01uF 50V	D001	8-719-104-34	DIODE	1S2836
C120	1-126-154-11	ELECT	47uF 20% 6.3V	D002	8-719-923-64	DIODE	KV1236D
C121	1-164-232-11	CERAMIC CHIP	0.01uF 50V	D003	8-719-104-34	DIODE	1S2836
C122	1-164-232-11	CERAMIC CHIP	0.01uF 50V	D004	8-719-104-34	DIODE	1S2836
C123	1-164-337-11	CERAMIC CHIP	2.2uF 16V	D005	8-719-907-19	DIODE	FC52M-5
C201	1-136-433-11	FILM	100PF 5% 630V	D006	8-719-907-19	DIODE	FC52M-5
C202	1-136-433-11	FILM	100PF 5% 630V	D007	8-719-400-18	DIODE	MA152WK
C203	1-136-437-11	FILM	220PF 5% 630V	D008	8-719-400-18	DIODE	MA152WK
C204	1-136-437-11	FILM	220PF 5% 630V	D501	△ 8-719-200-91	DIODE	11EQS10
C205	1-130-729-00	FILM	0.0027uF 5% 100V	D502	△ 8-719-200-91	DIODE	11EQS10
C206	1-136-257-00	FILM	0.0039uF 3% 100V	D503	△ 8-719-200-91	DIODE	11EQS10
C207	1-130-017-00	FILM	820PF 5% 50V	D504	△ 8-719-200-91	DIODE	11EQS10
C208	1-130-729-00	FILM	0.0027uF 5% 100V	D505	8-719-400-18	DIODE	MA152WK
C209	1-126-025-11	ELECT	330uF 20% 16V	(FERRITE BEAD)			
C210	1-126-025-11	ELECT	330uF 20% 16V	FB001	1-543-610-11	BEAD, FERRITE	
C211	1-136-435-11	FILM	150PF 5% 630V	FB002	1-543-610-11	BEAD, FERRITE	
C212	1-136-439-11	FILM	330PF 5% 630V	FB003	1-543-610-11	BEAD, FERRITE	
C213	1-136-250-11	FILM	0.001uF 5% 100V	FB004	1-543-610-11	BEAD, FERRITE	
C214	1-124-141-00	ELECT	330uF 20% 10V	FB005	1-543-610-11	BEAD, FERRITE	
C215	1-130-729-00	FILM	0.0027uF 5% 100V	FB006	1-543-610-11	BEAD, FERRITE	
C216	1-130-729-00	FILM	0.0027uF 5% 100V	FB007	1-543-610-11	BEAD, FERRITE	
C217	1-126-103-11	ELECT	470uF 20% 16V	FB008	1-543-610-11	BEAD, FERRITE	
C218	1-164-232-11	CERAMIC CHIP	0.01uF 50V	FB009	1-543-610-11	BEAD, FERRITE	
C219	1-164-232-11	CERAMIC CHIP	0.01uF 50V				
C220	1-126-154-11	ELECT	47uF 20% 6.3V				
C221	1-164-232-11	CERAMIC CHIP	0.01uF 50V				
C222	1-164-232-11	CERAMIC CHIP	0.01uF 50V				
C223	1-164-337-11	CERAMIC CHIP	2.2uF 16V				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AU-81

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< FILTER >				< VARIABLE COIL >	
FL001	1-421-927-21	FILTER, NOISE		LV001	1-426-212-11	COIL (RF)	
FL002	1-421-927-21	FILTER, NOISE				< TRANSISTOR >	
FL003	1-421-927-21	FILTER, NOISE		Q001	8-729-216-22	TRANSISTOR 2SA1162	
FL004	1-421-927-21	FILTER, NOISE		Q002	8-729-216-22	TRANSISTOR 2SA1162	
FL005	1-235-922-11	FILTER, LOW PASS (1.7MHZ)		Q003	8-729-900-53	TRANSISTOR DTC114EK	
				Q004	8-729-100-66	TRANSISTOR 2SC1623	
FL006	1-421-927-21	FILTER, NOISE		Q005	8-729-900-53	TRANSISTOR DTC114EK	
FL007	1-421-927-21	FILTER, NOISE		Q006	8-729-900-53	TRANSISTOR DTC114EK	
FL008	1-421-927-21	FILTER, NOISE		Q007	8-729-900-53	TRANSISTOR DTC114EK	
		< IC >		Q008	8-729-900-53	TRANSISTOR DTC114EK	
IC001	8-759-009-07	IC MC14053BF		Q009	8-729-901-04	TRANSISTOR DTA114EK	
IC002	8-759-036-04	IC MC68HC05P7-480A00		Q010	8-729-303-37	TRANSISTOR 2SD655E	
IC003	8-752-325-59	IC CXD1165Q		Q011	8-729-303-37	TRANSISTOR 2SD655E	
IC004	8-759-502-48	IC SM5840AS-ET		Q012	8-729-303-37	TRANSISTOR 2SD655E	
IC005	8-759-603-24	IC CX20197		Q013	8-729-216-22	TRANSISTOR 2SA1162	
						< RESISTOR >	
IC006	8-752-033-14	IC CXA1081Q		R001	1-216-089-00	METAL CHIP 47K 5% 1/10W	
IC007	8-759-008-67	IC MC14066BF		R002	1-216-089-00	METAL CHIP 47K 5% 1/10W	
IC008	8-759-908-17	IC TL082CPS		R003	1-216-113-00	METAL CHIP 470K 5% 1/10W	
IC009	8-759-908-17	IC TL082CPS		R004	1-216-033-00	METAL CHIP 220 5% 1/10W	
IC010	△ 8-759-604-33	IC M5F7812L		R005	1-216-033-00	METAL CHIP 220 5% 1/10W	
IC011	△ 8-759-604-51	IC M5F7912L					
IC012	8-759-604-29	IC M5F7805L		R008	1-216-113-00	METAL CHIP 470K 5% 1/10W	
IC013	8-759-245-79	IC M5F7905L		R009	1-216-113-00	METAL CHIP 470K 5% 1/10W	
IC014	8-759-502-43	IC SM5862CF		R010	1-216-025-00	METAL CHIP 100 5% 1/10W	
IC015	8-759-502-43	IC SM5862CF		R011	1-216-025-00	METAL CHIP 100 5% 1/10W	
				R012	1-216-025-00	METAL CHIP 100 5% 1/10W	
IC016	8-759-900-72	IC NE5532P		R013	1-216-025-00	METAL CHIP 100 5% 1/10W	
IC017	8-759-900-72	IC NE5532P		R014	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
IC018	8-759-900-72	IC NE5532P		R015	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
IC019	8-759-900-72	IC NE5532P		R016	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
IC020	8-759-233-64	IC TC74HCU04AF		R017	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
IC021	8-759-634-43	IC M51953BFP					
		< JACK >		R018	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
J001	1-573-807-11	JACK, PIN 4P (AUDIO OUT)		R019	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
		< COIL >		R020	1-216-625-11	METAL CHIP 82 0.5% 1/10W	
L001	1-408-413-00	INDUCTOR 22uH		R021	1-216-645-11	METAL CHIP 560 0.5% 1/10W	
L002	1-408-413-00	INDUCTOR 22uH		R022	1-216-101-00	METAL CHIP 150K 5% 1/10W	
L003	1-408-413-00	INDUCTOR 22uH					
L004	1-408-413-00	INDUCTOR 22uH		R023	1-216-095-00	METAL CHIP 82K 5% 1/10W	
				R024	1-216-073-00	METAL CHIP 10K 5% 1/10W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
R025	1-216-049-00	METAL CHIP	1K	5%	1/10W		R067	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R026	1-216-097-00	METAL CHIP	100K	5%	1/10W		R068	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R027	1-216-073-00	METAL CHIP	10K	5%	1/10W		R069	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R028	1-216-073-00	METAL CHIP	10K	5%	1/10W		R072	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R029	1-216-081-00	METAL CHIP	22K	5%	1/10W		R073	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R030	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R074	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R031	1-216-009-00	METAL CHIP	22	5%	1/10W		R075	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R032	1-216-009-00	METAL CHIP	22	5%	1/10W		R076	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R033	1-216-009-00	METAL CHIP	22	5%	1/10W		R077	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R034	1-216-009-00	METAL CHIP	22	5%	1/10W		R078	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R035	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R079	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R036	1-216-073-00	METAL CHIP	10K	5%	1/10W		R080	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R037	1-216-073-00	METAL CHIP	10K	5%	1/10W		R081	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R038	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R082	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R039	1-216-073-00	METAL CHIP	10K	5%	1/10W		R083	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R040	1-216-073-00	METAL CHIP	10K	5%	1/10W		R084	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R041	1-216-099-00	METAL CHIP	120K	5%	1/10W		R085	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R042	1-216-101-00	METAL CHIP	150K	5%	1/10W		R091	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R043	1-216-049-00	METAL CHIP	1K	5%	1/10W		R092	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R044	1-216-093-00	METAL CHIP	68K	5%	1/10W		R093	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R045	1-216-121-00	METAL CHIP	1M	5%	1/10W		R094	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R046	1-216-073-00	METAL CHIP	10K	5%	1/10W		R095	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R047	1-216-061-00	METAL CHIP	3.3K	5%	1/10W		R096	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R048	1-216-073-00	METAL CHIP	10K	5%	1/10W		R097	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R049	1-216-062-00	METAL CHIP	3.6K	5%	1/10W		R098	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R050	1-216-093-00	METAL CHIP	68K	5%	1/10W		R099	1-216-033-00	METAL CHIP	220	5%	1/10W	
R051	1-216-093-00	METAL CHIP	68K	5%	1/10W		R101	1-259-191-21	CARBON	10K	1%	1/4W	
R052	1-216-099-00	METAL CHIP	120K	5%	1/10W		R102	1-259-191-21	CARBON	10K	1%	1/4W	
R053	1-216-099-00	METAL CHIP	120K	5%	1/10W		R103	1-259-191-21	CARBON	10K	1%	1/4W	
R054	1-216-073-00	METAL CHIP	10K	5%	1/10W		R104	1-259-191-21	CARBON	10K	1%	1/4W	
R055	1-216-051-00	METAL CHIP	1.2K	5%	1/10W		R105	1-247-856-00	CARBON	11K	1%	1/4W	
R056	1-216-097-00	METAL CHIP	100K	5%	1/10W		R106	1-247-856-00	CARBON	11K	1%	1/4W	
R057	1-216-097-00	METAL CHIP	100K	5%	1/10W		R107	1-247-856-00	CARBON	11K	1%	1/4W	
R058	1-216-053-00	METAL CHIP	1.5K	5%	1/10W		R108	1-247-856-00	CARBON	11K	1%	1/4W	
R059	1-216-081-00	METAL CHIP	22K	5%	1/10W		R109	1-259-191-21	CARBON	10K	1%	1/4W	
R060	1-216-081-00	METAL CHIP	22K	5%	1/10W		R110	1-259-191-21	CARBON	10K	1%	1/4W	
R061	1-216-073-00	METAL CHIP	10K	5%	1/10W		R111	1-259-173-21	CARBON	1.8K	1%	1/4W	
R062	1-216-073-00	METAL CHIP	10K	5%	1/10W		R112	1-249-565-11	CARBON	3.6K	1%	1/4W	
R063	1-216-097-00	METAL CHIP	100K	5%	1/10W		R113	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R064	1-216-085-00	METAL CHIP	33K	5%	1/10W		R114	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R065	1-216-049-00	METAL CHIP	1K	5%	1/10W		R115	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R066	1-216-097-00	METAL CHIP	100K	5%	1/10W								

Ref. No.	Part No.	Description			
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W
R119	1-216-025-00	METAL CHIP	100	5%	1/10W
R120	1-259-143-21	CARBON	100	5%	1/4W
R121	1-249-596-11	CARBON	68K	1%	1/4W
R122	1-247-856-00	CARBON	11K	1%	1/4W
R123	1-259-199-21	CARBON	22K	5%	1/4W
R124	1-259-231-11	CARBON	470K	5%	1/4W
R125	1-247-848-11	CARBON	5.1K	5%	1/4W
R126	1-259-207-21	CARBON	47K	1%	1/4W
R127	1-259-191-21	CARBON	10K	1%	1/4W
R128	1-259-182-21	CARBON	4.3K	1%	1/4W
R129	1-259-191-21	CARBON	10K	1%	1/4W
R130	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R131	1-259-207-21	CARBON	47K	1%	1/4W
R201	1-259-191-21	CARBON	10K	1%	1/4W
R202	1-259-191-21	CARBON	10K	1%	1/4W
R203	1-259-191-21	CARBON	10K	1%	1/4W
R204	1-259-191-21	CARBON	10K	1%	1/4W
R205	1-247-856-00	CARBON	11K	1%	1/4W
R206	1-247-856-00	CARBON	11K	1%	1/4W
R207	1-247-856-00	CARBON	11K	1%	1/4W
R208	1-247-856-00	CARBON	11K	1%	1/4W
R209	1-259-191-21	CARBON	10K	1%	1/4W
R210	1-259-191-21	CARBON	10K	1%	1/4W
R211	1-259-173-21	CARBON	1.8K	1%	1/4W
R212	1-249-565-11	CARBON	3.6K	1%	1/4W
R213	1-216-049-00	METAL CHIP	1K	5%	1/10W
R214	1-216-089-00	METAL CHIP	47K	5%	1/10W
R215	1-216-089-00	METAL CHIP	47K	5%	1/10W
R216	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R217	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W
R219	1-216-025-00	METAL CHIP	100	5%	1/10W
R220	1-259-143-21	CARBON	100	5%	1/4W
R221	1-249-596-11	CARBON	68K	1%	1/4W
R222	1-247-856-00	CARBON	11K	1%	1/4W
R223	1-259-199-21	CARBON	22K	5%	1/4W
R224	1-259-231-11	CARBON	470K	5%	1/4W
R225	1-247-848-11	CARBON	5.1K	5%	1/4W
R226	1-259-207-21	CARBON	47K	1%	1/4W

Remark	Ref. No.	Part No.	Description	Remark
	R227	1-259-191-21	CARBON 10K 1% 1/4W	
	R228	1-259-182-21	CARBON 4.3K 1% 1/4W	
	R229	1-259-191-21	CARBON 10K 1% 1/4W	
	R230	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
	R231	1-259-207-21	CARBON 47K 1% 1/4W	
	R301	1-216-025-00	METAL CHIP 100 5% 1/10W	
	R302	1-216-025-00	METAL CHIP 100 5% 1/10W	
	R303	1-216-025-00	METAL CHIP 100 5% 1/10W	
	R304	1-216-025-00	METAL CHIP 100 5% 1/10W	
	R305	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
	R306	1-216-041-00	METAL CHIP 470 5% 1/10W	
	R307	1-216-041-00	METAL CHIP 470 5% 1/10W	
	R308	1-216-041-00	METAL CHIP 470 5% 1/10W	
	R350	1-216-041-00	METAL CHIP 470 5% 1/10W	
	R351	1-216-041-00	METAL CHIP 470 5% 1/10W	
	R501	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
	R502	1-216-073-00	METAL CHIP 10K 5% 1/10W	
	R503 \triangle	1-212-857-00	FUSIBLE 10 5% 1/4W F	
	R504 \triangle	1-212-857-00	FUSIBLE 10 5% 1/4W F	
			< VARIABLE RESISTOR >	
	RV001	1-241-077-11	RES, ADJ, CARBON 2.2K	
			< RELAY >	
	RY001	1-515-622-11	RELAY	
			< CRYSTAL >	
	X001	1-567-819-11	VIBRATOR, CERAMIC	
	X002	1-567-515-11	VIBRATOR, VARIABLE CRYSTAL (16.9MHz)	

			* A-6421-593-A CH-70 BOARD, COMPLETE (Ref. No.1000 Series)	

			< CAPACITOR >	
	C901	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
	C902	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
	C903	1-124-234-00	ELECT 22uF 20% 16V	
	C904	1-124-234-00	ELECT 22uF 20% 16V	

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< CONNECTOR >				< CAPACITOR >			
CN901	* 1-562-885-11	CONNECTOR, F. P. C 10P		C301	1-164-232-11	CERAMIC CHIP 0.01uF	50V
CN902	1-566-939-11	CONNECTOR, F. P. C 24P		C302	1-124-903-11	ELECT 1uF	20% 50V
CN903	1-566-939-11	CONNECTOR, F. P. C 24P		C303	1-124-903-11	ELECT 1uF	20% 50V
CN904	* 1-563-969-11	CONNECTOR, F. P. C 7P		C304	1-164-232-11	CERAMIC CHIP 0.01uF	50V
< DIODE >				< CAPACITOR >			
D901	8-719-400-18	DIODE MA152WK		C305	1-164-232-11	CERAMIC CHIP 0.01uF	50V
< COIL >				< CAPACITOR >			
L901	1-408-409-00	INDUCTOR 10uH		C306	1-164-232-11	CERAMIC CHIP 0.01uF	50V
L902	1-408-409-00	INDUCTOR 10uH		C401	1-124-557-11	ELECT 1000uF	20% 25V
L903	1-408-409-00	INDUCTOR 10uH		C402	1-164-232-11	CERAMIC CHIP 0.01uF	50V
< TRANSISTOR >				< CAPACITOR >			
Q901	8-729-100-66	TRANSISTOR 2SC1623		C403	1-124-478-11	ELECT 100uF	20% 25V
Q902	8-729-216-22	TRANSISTOR 2SA1162		C404	1-164-232-11	CERAMIC CHIP 0.01uF	50V
Q903	8-729-216-22	TRANSISTOR 2SA1162		C405	1-124-478-11	ELECT 100uF	20% 25V
< RESISTOR >				< CAPACITOR >			
R901	1-216-031-00	METAL CHIP 180 5% 1/10W		C501	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R902	1-216-041-00	METAL CHIP 470 5% 1/10W		C502	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R903	1-216-049-00	METAL CHIP 1K 5% 1/10W		C503	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R904	1-216-021-00	METAL CHIP 68 5% 1/10W		C504	1-162-638-11	CERAMIC CHIP 1uF	16V
R905	1-216-055-00	METAL CHIP 1.8K 5% 1/10W		C505	1-164-232-11	CERAMIC CHIP 0.01uF	50V
R906	1-216-021-00	METAL CHIP 68 5% 1/10W		C506	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R907	1-216-024-00	METAL GLAZE 91 5% 1/10W		< CONNECTOR >			
R910	1-216-031-00	METAL CHIP 180 5% 1/10W		CN301	* 1-568-783-11	PIN, CONNECTOR 6P	
R911	1-216-031-00	METAL CHIP 180 5% 1/10W		CN302	* 1-568-783-11	PIN, CONNECTOR 6P	
< VARIABLE RESISTOR >				CN304	1-568-779-11	PIN, CONNECTOR 2P (E)	
RV901	1-241-075-11	RES, ADJ, CARBON 470		CN401	1-506-468-11	CONNECTOR 3P, MALE	
*****				CN402	1-506-468-11	CONNECTOR 3P, MALE	
	* 1-637-940-11	CL-23 BOARD (Ref.No. 7000 Series)		CN403	* 1-560-895-00	PIN, CONNECTOR 7P	
		*****		CN404	* 1-560-893-00	PIN, CONNECTOR 5P	
	* 1-637-940-22	CL-23 BOARD (E)		CN405	* 1-568-779-11	PIN, CONNECTOR 2P	
		*****		CN406	1-506-468-11	CONNECTOR 3P, MALE	
				CN407	1-506-472-11	CONNECTOR 7P, MALE	
				CN501	1-506-470-11	CONNECTOR 5P, MALE	
				CN502	1-506-470-11	CONNECTOR 5P, MALE	
				< DIODE >			
				D302	8-719-110-52	DIODE RD20ES-T1B1	
				D303	8-719-110-52	DIODE RD20ES-T1B1	
				D401	8-719-200-02	DIODE 10E2	
				D402	8-719-200-02	DIODE 10E2	
				D403	8-719-200-02	DIODE 10E2	
				D405	8-719-109-85	DIODE RD5.1ES-B2	
				D406	8-719-109-85	DIODE RD5.1ES-B2	

CL-23**LV-20****CS-32**

Ref. No.	Part No.	Description
D501	8-719-400-18	DIODE MA152WK < FUSE >
F301 Δ	1-532-960-11	FUSE, MICRO (125V, 1.25A)
F301 Δ	1-576-047-11	FUSE, MICRO (125V, 1.25A) (E)
F302 Δ	1-532-960-11	FUSE, MICRO (125V, 1.25A)
F302 Δ	1-576-047-11	FUSE, MICRO (125V, 1.25A) (E)
F303 Δ	1-532-078-11	FUSE, GLASS TUBE (250V, 1A) (E) < FILTER >
FL501	1-424-227-11	FILTER, NOISE < IC >
IC401	8-759-231-58	IC M5F7812L
IC402	8-759-231-53	IC M5F7805L
IC501	8-759-520-70	IC MB88201-1044K < TRANSISTOR >
Q301	8-729-924-90	TRANSISTOR 2SB1370-F
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q303	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q304	8-729-209-15	TRANSISTOR 2SD2061-F
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q402	8-729-159-64	TRANSISTOR 2SD596 < RESISTOR >
R301	1-247-752-11	CARBON 1K 5% 1/2W
R302	1-247-752-11	CARBON 1K 5% 1/2W
R401 Δ	1-212-950-00	FUSIBLE 4.7 5% 1/2W F
R402	1-216-085-00	METAL CHIP 33K 5% 1/10W
R403	1-216-081-00	METAL CHIP 22K 5% 1/10W
R404	1-216-073-00	METAL CHIP 10K 5% 1/10W
R406	1-216-115-00	METAL CHIP 560K 5% 1/10W
R407	1-216-049-00	METAL CHIP 1K 5% 1/10W
R408	1-216-057-00	METAL CHIP 2.2K 5% 1/10W
R409	1-216-043-00	METAL CHIP 560 5% 1/10W
R410	1-216-049-00	METAL CHIP 1K 5% 1/10W
R411	1-216-025-00	METAL CHIP 100 5% 1/10W
R501	1-216-049-00	METAL CHIP 1K 5% 1/10W
R502	1-216-097-00	METAL CHIP 100K 5% 1/10W
R503	1-216-073-00	METAL CHIP 10K 5% 1/10W

Ref. No.	Part No.	Description	Remark
R504	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R505	1-216-073-00	METAL CHIP 10K 5% 1/10W	
P506	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R507	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R508	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R509	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R510	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R511	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R512	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R513	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< RELAY >	
RY401 Δ	1-515-626-11	RELAY	
RY402 Δ	1-515-626-11	RELAY	
RY403 Δ	1-515-626-11	RELAY	
		< CRYSTAL >	
X501	1-577-637-11	VIBRATOR, CERAMIC	

		* A-6421-647-A LV-20 BOARD, COMPLETE (Ref. No. 2000 Series)	

		* A-642-710-A LV-20 BOARD, COMPLETE (E)	

		* 1-640-722-13 CS-32 BOARD (Ref. No. 8000 Series)	

		* 3-309-144-21 HEAT SINK	
		7-685-646-79 SCREW +BVTP 3X8 TYPE2 1T-3	
		9-910-999-33 IC TMS27C256-20JL	
		< CAPACITOR >	
C001	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C002	1-163-088-00	CERAMIC CHIP 5PF 50V	
C003	1-164-222-11	CERAMIC CHIP 0.22uF 25V	
C004	1-126-204-11	ELECT CHIP 47uF 20% 16V	
C005	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C006	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C007	1-164-222-11	CERAMIC CHIP 0.22uF 25V	
C008	1-163-088-00	CERAMIC CHIP 5PF 50V	
C012	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C013	1-163-109-00	CERAMIC CHIP	47PF 5% 50V	C315	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C014	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C316	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C015	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C317	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C016	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C318	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C017	1-163-113-00	CERAMIC CHIP	68PF 5% 50V	C319	1-163-128-00	CERAMIC CHIP	300PF 5% 50V
C018	1-163-035-00	CERAMIC CHIP	0.047uF 50V	C320	1-163-145-00	CERAMIC CHIP	0.0015uF 5% 50V
C019	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C321	1-163-111-00	CERAMIC CHIP	56PF 5% 50V
C020	1-164-222-11	CERAMIC CHIP	0.22uF 25V	C322	1-124-778-00	ELECT CHIP	22uF 20% 6.3V
C021	1-163-035-00	CERAMIC CHIP	0.047uF 50V	C323	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C022	1-163-123-00	CERAMIC CHIP	180PF 5% 50V	C324	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C028	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C325	1-162-587-11	CERAMIC CHIP	0.039uF 10% 25V
C030	1-126-603-11	ELECT CHIP	4.7uF 20% 35V	C326	1-124-282-00	ELECT	22uF 20% 16V
C031	1-164-182-11	CERAMIC CHIP	0.0033uF 10% 50V	C328	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C032	1-126-603-11	ELECT CHIP	4.7uF 20% 35V	C329	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C033	1-163-125-00	CERAMIC CHIP	220PF 5% 50V	C330	1-124-779-00	ELECT CHIP	10uF 20% 16v
C034	1-126-193-11	ELECT	1uF 20% 50V	C331	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C035	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	C332	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C036	1-124-779-00	ELECT CHIP	10uF 20% 16v	C333	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C037	1-124-779-00	ELECT CHIP	10uF 20% 16v	C334	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C038	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	C335	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C039	1-163-123-00	CERAMIC CHIP	180PF 5% 50V	C336	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C040	1-130-499-00	MYLAR	0.22uF 5% 50V	C337	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C042	1-136-177-00	FILM	1uF 5% 50V	C338	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C044	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	C339	1-163-127-00	CERAMIC CHIP	270PF 5% 50V
C045	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C340	1-163-145-00	CERAMIC CHIP	0.0015uF 5% 50V
C046	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C341	1-163-111-00	CERAMIC CHIP	56PF 5% 50V
C047	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C342	1-124-778-00	ELECT CHIP	22uF 20% 6.3V
C301	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C343	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C302	1-126-206-11	ELECT CHIP	100uF 20% 6.3V	C344	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C303	1-126-206-11	ELECT CHIP	100uF 20% 6.3V	C345	1-162-587-11	CERAMIC CHIP	0.039uF 10% 25V
C304	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C346	1-124-282-00	ELECT	22uF 20% 16V
C305	1-163-126-00	CERAMIC CHIP	240PF 5% 50V	C347	1-126-191-11	ELECT CHIP	0.47uF 20% 50V
C306	1-163-126-00	CERAMIC CHIP	240PF 5% 50V	C348	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C307	1-163-101-00	CERAMIC CHIP	22PF 5% 50V	C349	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C308	1-163-099-00	CERAMIC CHIP	18PF 5% 50V	C350	1-164-157-11	CERAMIC CHIP	0.068uF 10% 25V
C309	1-163-111-00	CERAMIC CHIP	56PF 5% 50V	C501	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C310	1-163-091-00	CERAMIC CHIP	8PF 50V	C502	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C311	1-163-101-00	CERAMIC CHIP	22PF 5% 50V	C503	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C312	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C504	1-163-035-00	CERAMIC CHIP	0.047uF 50V
C313	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C506	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C314	1-126-206-11	ELECT CHIP	100uF 20% 6.3V	C507	1-163-105-00	CERAMIC CHIP	33PF 5% 50V
				C508	1-163-117-00	CERAMIC CHIP	100PF 5% 50V

LV-20

CS-32

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C509	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	C557	1-130-483-00	MYLAR	0.01uF	5%	50V
C510	1-130-483-00	MYLAR	0.01uF	5%	50V	C558	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C511	1-130-489-00	MYLAR	0.033uF	5%	50V	C559	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C512	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C560	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C513	1-126-204-11	ELECT CHIP	47uF	20%	16V	C561	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C514	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C562	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C515	1-126-204-11	ELECT CHIP	47uF	20%	16V	C563	1-130-491-00	MYLAR	0.047uF	5%	50V
C516	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C564	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C517	1-130-495-00	MYLAR	0.1uF	5%	50V	C565	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C518	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	C566	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C519	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C567	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C520	1-163-035-00	CERAMIC CHIP	0.047uF		50V	C568	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C569	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C522	1-124-779-00	ELECT CHIP	10uF	20%	16v	C570	1-130-491-00	MYLAR	0.047uF	5%	50V
C523	1-163-035-00	CERAMIC CHIP	0.047uF		50V	C571	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C524	1-163-035-00	CERAMIC CHIP	0.047uF		50V	C572	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C525	1-124-779-00	ELECT CHIP	10uF	20%	16v	C573	1-124-779-00	ELECT CHIP	10uF	20%	16v
C526	1-126-204-11	ELECT CHIP	47uF	20%	16V	C574	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C527	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	C575	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C528	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	C576	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C532	1-163-107-00	CERAMIC CHIP	39PF	5%	50V	C577	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C537	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C578	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C538	1-126-204-11	ELECT CHIP	47uF	20%	16V	C579	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C539	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C580	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C540	1-164-346-11	CERAMIC CHIP	1uF		16V	C581	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C541	1-126-205-11	ELECT CHIP	47uF	20%	6.3V	C582	1-131-347-00	TANTALUM	1uF	10%	35V
C542	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C583	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C543	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C585	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C544	1-130-486-00	MYLAR	0.018uF	10%	50V	C586	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C545	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	C587	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C546	1-130-489-00	MYLAR	0.033uF	5%	50V	C588	1-126-204-11	ELECT CHIP	47uF	20%	16V
C546	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C589	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C547	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	C590	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C548	1-126-193-11	ELECT	1uF	20%	50V	C591	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C549	1-130-491-00	MYLAR	0.047uF	5%	50V	C592	1-126-193-11	ELECT	1uF	20%	50V
C550	1-130-489-00	MYLAR	0.033uF	5%	50V	C593	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C551	1-126-191-11	ELECT CHIP	0.47uF	20%	50V	C594	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C552	1-126-205-11	ELECT CHIP	47uF	20%	6.3V	C595	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C553	1-163-035-00	CERAMIC CHIP	0.047uF		50V	C596	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C554	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	C597	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C555	1-130-483-00	MYLAR	0.01uF	5%	50V	C598	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C556	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V						

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
C599	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C641	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C600	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C642	1-163-035-00	CERAMIC CHIP	0.047uF	50V
C601	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C643	1-163-121-00	CERAMIC CHIP	150PF	5% 50V
C602	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	C644	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C603	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C645	1-163-035-00	CERAMIC CHIP	0.047uF	50V
C604	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	C646	1-126-205-11	ELECT CHIP	47uF	20% 6.3V
C605	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C648	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C606	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	C649	1-163-125-00	CERAMIC CHIP	220PF	5% 50V
C607	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C651	1-126-601-11	ELECT	2.2uF	20% 50V
C608	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C653	1-126-601-11	ELECT	2.2uF	20% 50V
C609	1-126-205-11	ELECT CHIP	47uF	20% 6.3V	C654	1-126-601-11	ELECT	2.2uF	20% 50V
C610	1-163-035-00	CERAMIC CHIP	0.047uF	50V	C655	1-163-035-00	CERAMIC CHIP	0.047uF	50V
C611	1-126-205-11	ELECT CHIP	47uF	20% 6.3V	C657	1-126-601-11	ELECT	2.2uF	20% 50V
C612	1-163-101-00	CERAMIC CHIP	22PF	5% 50V	C676	1-126-205-11	ELECT CHIP	47uF	20% 6.3V
C613	1-163-101-00	CERAMIC CHIP	22PF	5% 50V	C677	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C614	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	C678	1-126-601-11	ELECT	2.2uF	20% 50V
C615	1-163-121-00	CERAMIC CHIP	150PF	5% 50V	C679	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C616	1-126-193-11	ELECT	1uF	20% 50V	C680	1-124-779-00	ELECT CHIP	10uF	20% 16v
C617	1-130-487-00	MYLAR	0.022uF	5% 50V	C681	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C618	1-131-347-00	TANTALUM	1uF	10% 35V	C682	1-126-205-11	ELECT CHIP	47uF	20% 6.3V
C619	1-126-193-11	ELECT	1uF	20% 50V	C691	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C620	1-130-483-00	MYLAR	0.01uF	5% 50V	C692	1-126-193-11	ELECT	1uF	20% 50V
C621	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C693	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C622	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C694	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C623	1-163-107-00	CERAMIC CHIP	39PF	5% 50V	C695	1-163-133-00	CERAMIC CHIP	470PF	5% 50V
C624	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C696	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C625	1-126-205-11	ELECT CHIP	47uF	20% 6.3V	C698	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C626	1-163-035-00	CERAMIC CHIP	0.047uF	50V	C699	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C627	1-163-035-00	CERAMIC CHIP	0.047uF	50V	C700	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C628	1-126-205-11	ELECT CHIP	47uF	20% 6.3V	C701	1-163-133-00	CERAMIC CHIP	470PF	5% 50V
C629	1-163-101-00	CERAMIC CHIP	22PF	5% 50V	C702	1-163-093-00	CERAMIC CHIP	10PF	5% 50V
C630	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C703	1-163-093-00	CERAMIC CHIP	10PF	5% 50V
C631	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C801	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C632	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	C802	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C633	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	C803	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C634	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C804	1-163-105-00	CERAMIC CHIP	33PF	5% 50V
C635	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C805	1-163-038-00	CERAMIC CHIP	0.1uF	25V
C636	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C820	1-126-205-11	ELECT CHIP	47uF	20% 6.3V
C637	1-164-232-11	CERAMIC CHIP	0.01uF	50V	C821	1-163-103-00	CERAMIC CHIP	27PF	5% 50V
C638	1-126-205-11	ELECT CHIP	47uF	20% 6.3V	C822	1-163-099-00	CERAMIC CHIP	18PF	5% 50V
C639	1-163-035-00	CERAMIC CHIP	0.047uF	50V	C823	1-126-205-11	ELECT CHIP	47uF	20% 6.3V
C640	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	C824	1-163-103-00	CERAMIC CHIP	27PF	5% 50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C825	1-126-209-11	ELECT CHIP	100uF 20% 4V	C869	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C826	1-163-111-00	CERAMIC CHIP	56PF 5% 50V	C870	1-163-088-00	CERAMIC CHIP	5PF 50V
C828	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C935	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C829	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C951	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C830	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C952	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C831	1-126-193-11	ELECT	1uF 20% 50V	C954	1-163-099-00	CERAMIC CHIP	18PF 5% 50V
C832	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C955	1-126-400-11	ELECT	22uF 20% 35V
C833	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C957	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C834	1-126-193-11	ELECT	1uF 20% 50V	C958	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C837	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	C959	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C838	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	C960	1-126-205-11	ELECT CHIP	47uF 20% 6.3V
C839	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C961	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C840	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C964	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C841	1-126-209-11	ELECT CHIP	100uF 20% 4V	C966	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C842	1-163-038-00	CERAMIC CHIP	0.1uF 25V	C971	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C843	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C972	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C844	1-126-209-11	ELECT CHIP	100uF 20% 4V	C973	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C845	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V			< FILTER >	
C846	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CF501	1-527-831-00	FILTER, CERAMIC	
C847	1-163-038-00	CERAMIC CHIP	0.1uF 25V			< CONNECTOR >	
C848	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CN001	* 1-563-233-11	CONNECTOR, F.P.C 13P	
C849	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CN001	1-506-482-11	CONNECTOR 3P, MALE	
C850	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	CN002	1-506-481-11	CONNECTOR 2P, MALE	
C851	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CN002	1-566-939-11	CONNECTOR, F.P.C 24P	
C852	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CN003	1-506-481-11	CONNECTOR 2P, MALE	
C853	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	CN003	* 1-568-789-11	PIN, CONNECTOR 12P	
C854	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CN006	* 1-568-784-21	PIN, CONNECTOR 7P	
C855	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CN009	* 1-568-789-11	PIN, CONNECTOR 12P	
C856	1-216-189-21	ELECT CHIP	0.22uF 50V	CN301	* 1-568-783-11	PIN, CONNECTOR 6P	
C857	1-126-193-11	ELECT	1uF 20% 50V	CN302	* 1-568-786-11	PIN, CONNECTOR 9P	
C858	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	CN501	* 1-568-783-31	PIN, CONNECTOR 6P	
C859	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CN801	* 1-562-885-11	CONNECTOR, F.P.C 10P	
C860	1-163-103-00	CERAMIC CHIP	27PF 5% 50V	CN802	1-506-470-11	CONNECTOR 5P, MALE	
C861	1-163-103-00	CERAMIC CHIP	27PF 5% 50V	CN803	1-506-470-11	CONNECTOR 5P, MALE	
C862	1-163-107-00	CERAMIC CHIP	39PF 5% 50V	CN804	1-506-470-11	CONNECTOR 5P, MALE	
C863	1-163-107-00	CERAMIC CHIP	39PF 5% 50V	CN951	* 1-568-788-21	PIN, CONNECTOR 11P	
C864	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	CNJ501	1-562-999-51	JACK, PIN 2P (VIDEO OUT)	
C865	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CNJ503	1-566-847-31	CONNECTOR, (S) TERMINAL 4P (S VIDEO OUT 1)	
C866	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	CNJ504	1-566-847-31	CONNECTOR, (S) TERMINAL 4P (S VIDEO OUT 2)	
C867	1-126-205-11	ELECT CHIP	47uF 20% 6.3V	CNJ801	1-507-678-00	JACK (CONTROL S OUT) (E)	
C868	1-126-205-11	ELECT CHIP	47uF 20% 6.3V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CNJ802	1-507-678-00	JACK (CONTROL S IN)		FL004	1-424-227-11	FILTER, NOISE	
		< TRIMMER >		FL005	1-424-227-11	FILTER, NOISE	
CV001	1-141-227-00	CAP, TRIMMER 20PF		FL006	1-424-227-11	FILTER, NOISE	
CV502	1-141-227-00	CAP, TRIMMER 20PF		FL301	1-236-840-11	FILTER, BAND PASS	
CV801	1-141-260-00	CAP, TRIMMER 50PF		FL501	1-424-227-11	FILTER, NOISE	
		< DIODE >		FL502	1-236-478-11	FILTER, LOW PASS	
D001	8-719-106-22	DIODE RD7.5M-B1		FL503	1-235-901-11	FILTER, LOW PASS	
D002	8-719-106-22	DIODE RD7.5M-B1		FL504	1-236-843-11	FILTER, BAND PASS	
D008	8-719-400-18	DIODE MA152WK		FL505	1-236-478-11	FILTER, LOW PASS	
D009	8-719-400-18	DIODE MA152WK		FL802	1-424-227-11	FILTER, NOISE	
D020	8-719-400-18	DIODE MA152WK				< IC >	
D501	8-719-400-18	DIODE MA152WK		IC001	8-759-988-40	IC MB89795-119	
D502	8-719-400-18	DIODE MA152WK		IC002	8-759-971-70	IC MB674172U	
D503	8-719-400-18	DIODE MA152WK		IC003	8-759-987-71	IC MSM72H032GS-K	
D504	8-719-400-18	DIODE MA152WK		IC005 *	1-526-971-11	SO CKET, IC 28P	
D801	8-719-400-18	DIODE MA152WK		IC005	8-759-708-84	IC TMS27C256-20JL-48A	
D802	8-719-400-18	DIODE MA152WK		IC006	8-759-926-66	IC SN74HC373NS	
D803	8-719-400-18	DIODE MA152WK		IC007	8-759-907-81	IC SN74LS221NS	
D804	8-719-400-18	DIODE MA152WK		IC009	8-759-634-43	IC M51953BFP	
D805	8-719-400-18	DIODE MA152WK		IC010	8-759-100-95	IC uPC324G2	
D806	8-719-400-18	DIODE MA152WK		IC011	8-759-009-06	IC MC14052BF	
D807	8-719-106-43	DIODE RD9.1M-B1		IC011	8-759-932-64	IC BU4052BF	
D808	8-719-106-43	DIODE RD9.1M-B1		IC013	8-759-981-92	IC RC4558M	
D809	8-719-400-18	DIODE MA152WK		IC014	8-759-009-07	IC MC14053BF	
		< DELAY LINE >		IC015	8-759-009-07	IC MC14053BF	
DL801	1-415-694-11	DELAY LINE, LC		IC016	8-759-981-65	IC LM2903M	
DL802	1-415-694-11	DELAY LINE, LC		IC017	8-759-925-72	IC SN74HC02NS	
DL803	1-236-314-11	FILTER, LOW PASS		IC018	8-759-009-07	IC MC14053BF	
		< FERRITE BEAD >		IC019	8-759-008-67	IC MC14066BF	
FB801	1-543-610-11	BEAD, FERRITE		IC020	8-759-008-52	IC MC74HC123AF	
FB809	1-410-397-21	FERRITE BEAD INDUCTOR		IC301	8-759-502-42	IC PA0034A	
FB810	1-410-397-21	FERRITE BEAD INDUCTOR		IC302	8-759-981-92	IC RC4558M	
FB814	1-543-610-11	BEAD, FERRITE		IC501	8-759-008-67	IC TC4066BFHB-TP1	
		< FILTER >		IC502	8-759-100-95	IC uPC324G2	
FL001	1-424-227-11	FILTER, NOISE		IC503	8-752-322-35	IC CXL5005M	
FL002	1-424-227-11	FILTER, NOISE		IC504 Δ	8-759-982-10	IC RC7809FA	
FL003	1-424-227-11	FILTER, NOISE		IC505 Δ	8-759-604-29	IC M5F7805L	
				IC506	8-752-036-24	IC CXA1255Q	
				IC507	8-759-502-69	IC CXD1152-MS	
				IC508	8-759-233-66	IC TC74HCT04AF	
				IC509	8-752-036-23	IC CXA1254Q	

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
IC510	8-759-941-68	IC BA7131F		L506	1-408-425-00	INDUCTOR 220uH	
IC511	8-759-981-65	IC LM2903M		L507	1-408-422-00	INDUCTOR 120uH	
IC512	8-759-981-92	IC RC4558M		L508	1-408-419-00	INDUCTOR 68uH	
IC513	8-759-008-67	IC MC14066BF		L510	1-408-421-00	INDUCTOR 100uH	
IC801	8-759-008-67	IC MC14066BF		L513	1-408-421-00	INDUCTOR 100uH	
IC802	8-759-941-68	IC BA7131F		L514	1-408-424-00	INDUCTOR 180uH	
IC803	8-759-200-60	IC TA7060AP		L515	1-408-421-00	INDUCTOR 100uH	
IC804	8-759-200-60	IC TA7060AP		L516	1-408-421-00	INDUCTOR 100uH	
IC805	8-759-634-74	IC M50455-196FP		L517	1-408-421-00	INDUCTOR 100uH	
IC951△	8-759-144-83	IC uPC24M09HF		L802	1-408-413-00	INDUCTOR 22uH	
IC952	8-759-037-30	IC MC14576AF		L803	1-408-413-00	INDUCTOR 22uH	
		< JUMPER RESISTOR >		L804	1-408-411-00	INDUCTOR 15uH	
JR164	1-216-295-00	METAL CHIP 0 5% 1/10W		L805	1-408-421-00	INDUCTOR 100uH	
JR165	1-216-295-00	METAL CHIP 0 5% 1/10W		L806	1-408-411-00	INDUCTOR 15uH	
JR166	1-216-295-00	METAL CHIP 0 5% 1/10W		L807	1-408-417-00	INDUCTOR 47uH	
JR206	1-216-295-00	METAL CHIP 0 5% 1/10W		L808	1-408-417-00	INDUCTOR 47uH	
JR207	1-216-295-00	METAL CHIP 0 5% 1/10W		L811	1-408-409-00	INDUCTOR 10uH	
JR209	1-216-295-00	METAL CHIP 0 5% 1/10W		L951	1-408-421-00	INDUCTOR 100uH	
JR303	1-216-295-00	METAL CHIP 0 5% 1/10W		L952	1-408-421-00	INDUCTOR 100uH	
JR502	1-216-295-00	METAL CHIP 0 5% 1/10W				< TRANSISTOR >	
JR508	1-216-295-00	METAL CHIP 0 5% 1/10W		Q001	8-729-901-00	TRANSISTOR DTC124EK	
JR510	1-216-295-00	METAL CHIP 0 5% 1/10W		Q001	8-729-901-00	TRANSISTOR DTC124EK	
JR776	1-216-295-00	METAL CHIP 0 5% 1/10W		Q002	8-729-900-65	TRANSISTOR DTA144ES	
JR812	1-216-295-00	METAL CHIP 0 5% 1/10W		Q003	8-729-900-65	TRANSISTOR DTA144ES	
JR854	1-216-295-00	METAL CHIP 0 5% 1/10W		Q004	8-729-900-65	TRANSISTOR DTA144ES	
JR889	1-216-295-00	METAL CHIP 0 5% 1/10W		Q005	8-729-900-89	TRANSISTOR DTC144ES	
		< COIL >		Q301	8-729-100-66	TRANSISTOR 2SC1623	
L001	1-408-409-00	INDUCTOR 10uH		Q302	8-729-100-66	TRANSISTOR 2SC1623	
L002	1-408-397-00	INDUCTOR 1uH		Q303	8-729-100-66	TRANSISTOR 2SC1623	
L003	1-408-409-00	INDUCTOR 10uH		Q304	8-729-216-22	TRANSISTOR 2SA1162	
L004	1-408-413-00	INDUCTOR 22uH		Q305	8-729-216-22	TRANSISTOR 2SA1162	
L301	1-408-413-00	INDUCTOR 22uH		Q501	8-729-100-66	TRANSISTOR 2SC1623	
L302	1-408-413-00	INDUCTOR 22uH		Q502	8-729-100-66	TRANSISTOR 2SC1623	
L303	1-408-421-00	INDUCTOR 100uH		Q503	8-729-100-66	TRANSISTOR 2SC1623	
L304	1-408-425-00	INDUCTOR 220uH		Q504	8-729-140-75	TRANSISTOR 2SD999-CLCK	
L305	1-408-417-00	INDUCTOR 47uH		Q505	8-729-100-66	TRANSISTOR 2SC1623	
L306	1-408-417-00	INDUCTOR 47uH		Q506	8-729-100-66	TRANSISTOR 2SC1623	
L501	1-408-421-00	INDUCTOR 100uH		Q507	8-729-100-66	TRANSISTOR 2AC1623	
L502	1-408-421-00	INDUCTOR 100uH		Q508	8-729-901-01	TRANSISTOR DTC144EK	
L505	1-408-421-00	INDUCTOR 100uH		Q509	8-729-901-01	TRANSISTOR DTC144EK	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q510	8-729-901-01	TRANSISTOR	DTC144EK	Q830	8-729-100-66	TRANSISTOR	2SC1623
Q511	8-729-100-66	TRANSISTOR	2SC1623	Q831	8-729-100-66	TRANSISTOR	2SC1623
Q512	8-729-100-66	TRANSISTOR	2SC1623	Q832	8-729-216-22	TRANSISTOR	2SA1162
Q513	8-729-216-22	TRANSISTOR	2SA1162	Q833	8-729-216-22	TRANSISTOR	2SA1162
Q514	8-729-100-66	TRANSISTOR	2SC1623	Q834	8-729-216-22	TRANSISTOR	2SA1162
Q515	8-729-100-66	TRANSISTOR	2SC1623	Q835	8-729-100-66	TRANSISTOR	2SC1623
Q516	8-729-100-66	TRANSISTOR	2SC1623	Q836	8-729-100-66	TRANSISTOR	2SC1623
Q517	8-729-100-66	TRANSISTOR	2SC1623	Q837	8-729-901-01	TRANSISTOR	DTC144EK
Q518	8-729-216-22	TRANSISTOR	2SA1162	Q838	8-729-901-00	TRANSISTOR	DTC124EK
Q519	8-729-100-66	TRANSISTOR	2SC1623	Q839	8-729-901-01	TRANSISTOR	DTC144EK
Q520	8-729-100-66	TRANSISTOR	2SC1623	Q840	8-729-901-06	TRANSISTOR	DTA144EK
Q521	8-729-100-66	TRANSISTOR	2SC1623	Q841	8-729-901-00	TRANSISTOR	DTC124EK
Q522	8-729-216-22	TRANSISTOR	2SA1162	Q951	8-729-216-22	TRANSISTOR	2SA1162
Q523	8-729-216-22	TRANSISTOR	2SA1162	Q952	8-729-216-22	TRANSISTOR	2SA1162
Q524	8-729-100-66	TRANSISTOR	2SC1623	Q953	8-729-100-66	TRANSISTOR	2SC1623
Q526	8-729-100-66	TRANSISTOR	2SC1623	Q954	8-729-100-66	TRANSISTOR	2SC1623
Q531	8-729-901-01	TRANSISTOR	DTC144EK	Q955	8-729-216-22	TRANSISTOR	2SA1162
Q537	8-729-100-66	TRANSISTOR	2SC1623	Q956	8-729-100-66	TRANSISTOR	2SC1623
Q538	8-729-100-66	TRANSISTOR	2SC1623	Q957	8-729-100-66	TRANSISTOR	2SC1623
Q539	8-729-100-66	TRANSISTOR	2SC1623	Q958	8-729-100-66	TRANSISTOR	2SC1623
Q547	8-729-216-22	TRANSISTOR	2SA1162	Q959	8-729-216-22	TRANSISTOR	2SA1162
Q548	8-729-216-22	TRANSISTOR	2SA1162	Q960	8-729-100-66	TRANSISTOR	2SC1623
Q549	8-729-100-66	TRANSISTOR	2SC1623	Q961	8-729-100-66	TRANSISTOR	2SC1623
Q551	8-729-216-22	TRANSISTOR	2SA1162				
Q552	8-729-216-22	TRANSISTOR	2SA1162			< RESISTOR >	
Q553	8-729-216-22	TRANSISTOR	2SA1162	R001	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q554	8-729-100-66	TRANSISTOR	2SC1623	R001	1-249-433-11	CARBON	22K 5% 1/4W
Q557	8-729-216-22	TRANSISTOR	2SA1162	R002	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
Q801	8-729-216-22	TRANSISTOR	2SA1162	R002	1-249-433-11	CARBON	22K 5% 1/4W
Q802	8-729-100-66	TRANSISTOR	2SC1623	R003	1-216-033-00	METAL CHIP	220 5% 1/10W
Q806	8-729-903-10	TRANSISTOR	FMW1	R003	1-249-433-11	CARBON	22K 5% 1/4W
Q807	8-729-100-66	TRANSISTOR	2SC1623	R004	1-249-433-11	CARBON	22K 5% 1/4W
Q817	8-729-100-66	TRANSISTOR	2SC1623	R005	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q818	8-729-100-66	TRANSISTOR	2SC1623	R005	1-249-433-11	CARBON	22K 5% 1/4W
Q819	8-729-216-22	TRANSISTOR	2SA1162	R006	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q820	8-729-216-22	TRANSISTOR	2SA1162	R006	1-247-903-00	CARBON	1M 5% 1/4W
Q821	8-729-216-22	TRANSISTOR	2SA1162	R008	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q822	8-729-100-66	TRANSISTOR	2SC1623	R009	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q823	8-729-100-66	TRANSISTOR	2SC1623	R010	1-216-121-00	METAL CHIP	1M 5% 1/10W
Q825	8-729-216-22	TRANSISTOR	2SA1162	R011	1-216-025-00	METAL CHIP	100 5% 1/10W
Q828	8-729-100-66	TRANSISTOR	2SC1623	R012	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q829	8-729-216-22	TRANSISTOR	2SA1162	R013	1-216-049-00	METAL CHIP	1K 5% 1/10W

LV-20

CS-32

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R014	1-216-049-00	METAL CHIP	1K 5% 1/10W	R063	1-216-049-00	METAL CHIP	1K 5% 1/10W
R015	1-216-049-00	METAL CHIP	1K 5% 1/10W	R064	1-216-049-00	METAL CHIP	1K 5% 1/10W
R016	1-216-049-00	METAL CHIP	1K 5% 1/10W	R065	1-216-049-00	METAL CHIP	1K 5% 1/10W
R017	1-216-049-00	METAL CHIP	1K 5% 1/10W	R066	1-216-049-00	METAL CHIP	1K 5% 1/10W
R018	1-216-049-00	METAL CHIP	1K 5% 1/10W	R067	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R019	1-216-049-00	METAL CHIP	1K 5% 1/10W	R068	1-216-049-00	METAL CHIP	1K 5% 1/10W
R020	1-216-049-00	METAL CHIP	1K 5% 1/10W	R070	1-216-049-00	METAL CHIP	1K 5% 1/10W
R021	1-216-049-00	METAL CHIP	1K 5% 1/10W	R071	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R022	1-216-025-00	METAL CHIP	100 5% 1/10W	R072	1-216-073-00	METAL CHIP	10K 5% 1/10W
R023	1-216-049-00	METAL CHIP	1K 5% 1/10W	R073	1-216-105-00	METAL CHIP	220K 5% 1/10W
R024	1-216-049-00	METAL CHIP	1K 5% 1/10W	R074	1-216-049-00	METAL CHIP	1K 5% 1/10W
R025	1-216-049-00	METAL CHIP	1K 5% 1/10W	R075	1-216-049-00	METAL CHIP	1K 5% 1/10W
R026	1-216-049-00	METAL CHIP	1K 5% 1/10W	R077	1-216-049-00	METAL CHIP	1K 5% 1/10W
R027	1-216-049-00	METAL CHIP	1K 5% 1/10W	R078	1-216-035-00	METAL CHIP	270 5% 1/10W
R028	1-216-049-00	METAL CHIP	1K 5% 1/10W	R079	1-216-049-00	METAL CHIP	1K 5% 1/10W
R029	1-216-013-00	METAL CHIP	33 5% 1/10W	R080	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R030	1-216-073-00	METAL CHIP	10K 5% 1/10W	R081	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R031	1-216-049-00	METAL CHIP	1K 5% 1/10W	R082	1-216-040-00	METAL CHIP	1K 5% 1/10W
R032	1-216-073-00	METAL CHIP	10K 5% 1/10W	R083	1-216-049-00	METAL CHIP	1K 5% 1/10W
R034	1-216-073-00	METAL CHIP	10K 5% 1/10W	R084	1-216-049-00	METAL CHIP	1K 5% 1/10W
R035	1-216-049-00	METAL CHIP	1K 5% 1/10W	R085	1-216-049-00	METAL CHIP	1K 5% 1/10W
R036	1-216-073-00	METAL CHIP	10K 5% 1/10W	R086	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R037	1-216-073-00	METAL CHIP	10K 5% 1/10W	R087	1-216-049-00	METAL CHIP	1K 5% 1/10W
R039	1-216-049-00	METAL CHIP	1K 5% 1/10W	R088	1-216-049-00	METAL CHIP	1K 5% 1/10W
R040	1-216-049-00	METAL CHIP	1K 5% 1/10W	R089	1-216-073-00	METAL CHIP	10K 5% 1/10W
R041	1-216-049-00	METAL CHIP	1K 5% 1/10W	R090	1-216-049-00	METAL CHIP	1K 5% 1/10W
R042	1-216-049-00	METAL CHIP	1K 5% 1/10W	R104	1-216-661-11	METAL CHIP	2.7K 0.5% 1/10W
R043	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R108	1-216-049-00	METAL CHIP	1K 5% 1/10W
R044	1-216-049-00	METAL CHIP	1K 5% 1/10W	R109	1-216-687-11	METAL CHIP	33K 0.5% 1/10W
R045	1-216-049-00	METAL CHIP	1K 5% 1/10W	R110	1-216-699-11	METAL CHIP	100K 0.5% 1/10W
R048	1-216-049-00	METAL CHIP	1K 5% 1/10W	R111	1-216-687-11	METAL CHIP	33K 0.5% 1/10W
R050	1-216-049-00	METAL CHIP	1K 5% 1/10W	R112	1-216-077-00	METAL CHIP	15K 5% 1/10W
R051	1-216-049-00	METAL CHIP	1K 5% 1/10W	R113	1-216-111-00	METAL CHIP	390K 5% 1/10W
R054	1-216-049-00	METAL CHIP	1K 5% 1/10W	R114	1-216-089-00	METAL CHIP	47K 5% 1/10W
R055	1-216-049-00	METAL CHIP	1K 5% 1/10W	R115	1-216-075-00	METAL CHIP	12K 5% 1/10W
R056	1-216-049-00	METAL CHIP	1K 5% 1/10W	R116	1-218-165-11	METAL GLAZE	220K 1% 1/10W
R057	1-216-049-00	METAL CHIP	1K 5% 1/10W	R117	1-216-675-11	METAL CHIP	10K 0.5% 1/10W
R058	1-216-049-00	METAL CHIP	1K 5% 1/10W	R118	1-216-685-11	METAL CHIP	27K 0.5% 1/10W
R059	1-216-049-00	METAL CHIP	1K 5% 1/10W	R119	1-216-117-00	METAL CHIP	680K 5% 1/10W
R060	1-216-049-00	METAL CHIP	1K 5% 1/10W	R120	1-216-677-11	METAL CHIP	12K 0.5% 1/10W
R061	1-216-049-00	METAL CHIP	1K 5% 1/10W	R121	1-216-530-00	METAL GLAZE	390K 1% 1/10W
R062	1-216-049-00	METAL CHIP	1K 5% 1/10W				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R122	1-216-679-11	METAL CHIP	15K 0.5% 1/10W	R173	1-216-049-00	METAL CHIP	1K 5% 1/10W
R123	1-216-035-00	METAL CHIP	270 5% 1/10W	R301	1-216-081-00	METAL CHIP	22K 5% 1/10W
R124	1-216-097-00	METAL CHIP	100K 5% 1/10W	R302	1-216-081-00	METAL CHIP	22K 5% 1/10W
R125	1-216-089-00	METAL CHIP	47K 5% 1/10W	R304	1-216-073-00	METAL CHIP	10K 5% 1/10W
R126	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	R305	1-216-048-00	METAL CHIP	910 5% 1/10W
R127	1-216-063-00	METAL CHIP	3.9K 5% 1/10W	R307	1-216-093-00	METAL CHIP	68K 5% 1/10W
R130	1-216-089-00	METAL CHIP	47K 5% 1/10W	R308	1-216-076-00	METAL GLAZE	13K 5% 1/10W
R131	1-216-089-00	METAL CHIP	47K 5% 1/10W	R309	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R132	1-216-093-00	METAL CHIP	68K 5% 1/10W	R310	1-216-041-00	METAL CHIP	470 5% 1/10W
R133	1-216-103-00	METAL CHIP	180K 5% 1/10W	R311	1-216-017-00	METAL CHIP	47 5% 1/10W
R134	1-216-105-00	METAL CHIP	220K 5% 1/10W	R312	1-216-023-00	METAL CHIP	82 5% 1/10W
R135	1-216-748-11	METAL CHIP	39K 1% 1/10W	R313	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R136	1-216-089-00	METAL CHIP	47K 5% 1/10W	R314	1-216-049-00	METAL CHIP	1K 5% 1/10W
R138	1-216-085-00	METAL CHIP	33K 5% 1/10W	R315	1-216-049-00	METAL CHIP	1K 5% 1/10W
R139	1-216-077-00	METAL CHIP	15K 5% 1/10W	R316	1-216-049-00	METAL CHIP	1K 5% 1/10W
R140	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R317	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R141	1-216-073-00	METAL CHIP	10K 5% 1/10W	R318	1-216-033-00	METAL CHIP	220 5% 1/10W
R142	1-216-047-00	METAL CHIP	820 5% 1/10W	R319	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R143	1-216-073-00	METAL CHIP	10K 5% 1/10W	R320	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R145	1-216-097-00	METAL CHIP	100K 5% 1/10W	R321	1-216-073-00	METAL CHIP	10K 5% 1/10W
R146	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R322	1-216-078-00	METAL GLAZE	16K 5% 1/10W
R147	1-216-097-00	METAL CHIP	100K 5% 1/10W	R323	1-216-118-00	METAL GLAZE	750K 5% 1/10W
R148	1-216-097-00	METAL CHIP	100K 5% 1/10W	R324	1-216-071-00	METAL CHIP	8.2K 5% 1/10W
R149	1-216-105-00	METAL CHIP	220K 5% 1/10W	R326	1-216-046-00	METAL CHIP	750 5% 1/10W
R151	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R327	1-216-101-00	METAL CHIP	150K 5% 1/10W
R152	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R328	1-216-101-00	METAL CHIP	150K 5% 1/10W
R153	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R329	1-216-104-00	METAL CHIP	200K 5% 1/10W
R154	1-216-049-00	METAL CHIP	1K 5% 1/10W	R330	1-216-071-00	METAL CHIP	8.2K 5% 1/10W
R155	1-216-073-00	METAL CHIP	10K 5% 1/10W	R331	1-216-052-00	METAL CHIP	1.3K 5% 1/10W
R156	1-216-073-00	METAL CHIP	10K 5% 1/10W	R332	1-216-109-00	METAL CHIP	330K 5% 1/10W
R157	1-216-073-00	METAL CHIP	10K 5% 1/10W	R333	1-216-049-00	METAL CHIP	1K 5% 1/10W
R158	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R334	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R159	1-216-049-00	METAL CHIP	1K 5% 1/10W	R335	1-216-033-00	METAL CHIP	220 5% 1/10W
R160	1-216-049-00	METAL CHIP	1K 5% 1/10W	R336	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R161	1-216-073-00	METAL CHIP	10K 5% 1/10W	R337	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R162	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R338	1-216-073-00	METAL CHIP	10K 5% 1/10W
R163	1-216-105-00	METAL CHIP	220K 5% 1/10W	R339	1-216-078-00	METAL GLAZE	16K 5% 1/10W
R168	1-216-073-00	METAL CHIP	10K 5% 1/10W	R340	1-216-118-00	METAL GLAZE	750K 5% 1/10W
R169	1-216-073-00	METAL CHIP	10K 5% 1/10W	R341	1-216-071-00	METAL CHIP	8.2K 5% 1/10W
R170	1-216-033-00	METAL CHIP	220 5% 1/10W	R342	1-216-071-00	METAL CHIP	8.2K 5% 1/10W
R171	1-216-073-00	METAL CHIP	10K 5% 1/10W	R343	1-216-052-00	METAL CHIP	1.3K 5% 1/10W
R172	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R344	1-216-109-00	METAL CHIP	330K 5% 1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R501	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R550	1-216-113-00	METAL CHIP	470K 5% 1/10W
R502	1-216-081-00	METAL CHIP	22K 5% 1/10W	R551	1-216-083-00	METAL CHIP	27K 5% 1/10W
R503	1-216-075-00	METAL CHIP	12K 5% 1/10W	R552	1-216-089-00	METAL CHIP	47K 5% 1/10W
R505	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R553	1-216-097-00	METAL CHIP	100K 5% 1/10W
R506	1-216-097-00	METAL CHIP	100K 5% 1/10W	R554	1-216-121-00	METAL CHIP	1M 5% 1/10W
R507	1-216-073-00	METAL CHIP	10K 5% 1/10W	R555	1-216-097-00	METAL CHIP	100K 5% 1/10W
R508	1-216-101-00	METAL CHIP	150K 5% 1/10W	R556	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R509	1-216-097-00	METAL CHIP	100K 5% 1/10W	R557	1-216-113-00	METAL CHIP	470K 5% 1/10W
R510	1-216-113-00	METAL CHIP	470K 5% 1/10W	R558	1-216-095-00	METAL CHIP	82K 5% 1/10W
R511	1-216-113-00	METAL CHIP	470K 5% 1/10W	R559	1-216-113-00	METAL CHIP	470K 5% 1/10W
R512	1-216-073-00	METAL CHIP	10K 5% 1/10W	R560	1-216-049-00	METAL CHIP	1K 5% 1/10W
R513	1-216-079-00	METAL CHIP	18K 5% 1/10W	R561	1-216-109-00	METAL CHIP	330K 5% 1/10W
R514	1-216-079-00	METAL CHIP	18K 5% 1/10W	R562	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R515	1-216-113-00	METAL CHIP	470K 5% 1/10W	R563	1-216-089-00	METAL CHIP	47K 5% 1/10W
R516	1-216-063-00	METAL CHIP	3.9K 5% 1/10W	R564	1-216-109-00	METAL CHIP	330K 5% 1/10W
R517	1-216-105-00	METAL CHIP	220K 5% 1/10W	R565	1-216-748-11	METAL CHIP	39K 1% 1/10W
R518	1-216-089-00	METAL CHIP	47K 5% 1/10W	R566	1-216-075-00	METAL CHIP	12K 5% 1/10W
R519	1-216-077-00	METAL CHIP	15K 5% 1/10W	R567	1-216-121-00	METAL CHIP	1M 5% 1/10W
R520	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R568	1-216-121-00	METAL CHIP	1M 5% 1/10W
R521	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R569	1-216-043-00	METAL CHIP	560 5% 1/10W
R522	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R570	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R523	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	R571	1-216-077-00	METAL CHIP	15K 5% 1/10W
R524	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R572	1-216-079-00	METAL CHIP	18K 5% 1/10W
R525	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R573	1-216-079-00	METAL CHIP	18K 5% 1/10W
R526	1-216-121-00	METAL CHIP	1M 5% 1/10W	R574	1-216-748-11	METAL CHIP	39K 1% 1/10W
R527	1-216-091-00	METAL CHIP	56K 5% 1/10W	R575	1-216-097-00	METAL CHIP	100K 5% 1/10W
R528	1-216-049-00	METAL CHIP	1K 5% 1/10W	R576	1-216-097-00	METAL CHIP	100K 5% 1/10W
R529	1-216-081-00	METAL CHIP	22K 5% 1/10W	R577	1-216-121-00	METAL CHIP	1M 5% 1/10W
R530	1-216-049-00	METAL CHIP	1K 5% 1/10W	R578	1-216-043-00	METAL CHIP	560 5% 1/10W
R531	1-216-073-00	METAL CHIP	10K 5% 1/10W	R579	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R532	1-216-049-00	METAL CHIP	1K 5% 1/10W	R580	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R533	1-216-040-00	METAL GLAZE	430 5% 1/10W	R581	1-216-027-00	METAL CHIP	120 5% 1/10W
R534	1-216-049-00	METAL CHIP	1K 5% 1/10W	R582	1-216-021-00	METAL CHIP	68 5% 1/10W
R535	1-216-049-00	METAL CHIP	1K 5% 1/10W	R583	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R536	1-216-089-00	METAL CHIP	47K 5% 1/10W	R584	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R537	1-216-081-00	METAL CHIP	22K 5% 1/10W	R585	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R538	1-216-073-00	METAL CHIP	10K 5% 1/10W	R586	1-216-049-00	METAL CHIP	1K 5% 1/10W
R546	1-216-085-00	METAL CHIP	33K 5% 1/10W	R587	1-216-049-00	METAL CHIP	1K 5% 1/10W
R547	1-216-075-00	METAL CHIP	12K 5% 1/10W	R588	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R548	1-216-083-00	METAL CHIP	27K 5% 1/10W	R589	1-216-049-00	METAL CHIP	1K 5% 1/10W
R549	1-216-083-00	METAL CHIP	27K 5% 1/10W	R590	1-216-049-00	METAL CHIP	1K 5% 1/10W
				R591	1-216-051-00	METAL CHIP	1.2K 5% 1/10W

Ref. No.	Part No.	Description			
R592	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R593	1-216-049-00	METAL CHIP	1K	5%	1/10W
R594	1-216-047-00	METAL CHIP	820	5%	1/10W
R595	1-216-049-00	METAL CHIP	1K	5%	1/10W
R596	1-216-073-00	METAL CHIP	10K	5%	1/10W
R597	1-216-049-00	METAL CHIP	1K	5%	1/10W
R598	1-216-073-00	METAL CHIP	10K	5%	1/10W
R599	1-216-748-11	METAL CHIP	39K	1%	1/10W
R600	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R602	1-216-089-00	METAL CHIP	47K	5%	1/10W
R603	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R604	1-216-079-00	METAL CHIP	18K	5%	1/10W
R605	1-216-073-00	METAL CHIP	10K	5%	1/10W
R606	1-216-073-00	METAL CHIP	10K	5%	1/10W
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W
R608	1-216-049-00	METAL CHIP	1K	5%	1/10W
R609	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R610	1-216-073-00	METAL CHIP	10K	5%	1/10W
R611	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R612	1-216-085-00	METAL CHIP	33K	5%	1/10W
R613	1-216-097-00	METAL CHIP	100K	5%	1/10W
R614	1-216-097-00	METAL CHIP	100K	5%	1/10W
R615	1-216-085-00	METAL CHIP	33K	5%	1/10W
R616	1-216-047-00	METAL CHIP	820	5%	1/10W
R617	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R619	1-216-097-00	METAL CHIP	100K	5%	1/10W
R620	1-216-085-00	METAL CHIP	33K	5%	1/10W
R621	1-216-085-00	METAL CHIP	33K	5%	1/10W
R622	1-216-079-00	METAL CHIP	18K	5%	1/10W
R623	1-216-081-00	METAL CHIP	22K	5%	1/10W
R624	1-216-037-00	METAL CHIP	330	5%	1/10W
R625	1-216-033-00	METAL CHIP	220	5%	1/10W
R626	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R627	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R628	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R629	1-216-097-00	METAL CHIP	100K	5%	1/10W
R630	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R631	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R632	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R633	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R634	1-216-051-00	METAL CHIP	1.2K	5%	1/10W

Remark	Ref. No.	Part No.	Description			
	R635	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R636	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
	R637	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
	R638	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R639	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R640	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R641	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R642	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
	R643	1-216-081-00	METAL CHIP	22K	5%	1/10W
	R644	1-216-081-00	METAL CHIP	22K	5%	1/10W
	R645	1-216-081-00	METAL CHIP	22K	5%	1/10W
	R646	1-216-081-00	METAL CHIP	22K	5%	1/10W
	R647	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
	R648	1-216-039-00	METAL CHIP	390	5%	1/10W
	R649	1-216-091-00	METAL CHIP	56K	5%	1/10W
	R650	1-216-748-11	METAL CHIP	39K	1%	1/10W
	R651	1-216-035-00	METAL CHIP	270	5%	1/10W
	R652	1-216-041-00	METAL CHIP	470	5%	1/10W
	R653	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
	R654	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
	R655	1-216-049-00	METAL CHIP	1K	5%	1/10W
	R656	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
	R657	1-216-041-00	METAL CHIP	470	5%	1/10W
	R658	1-216-037-00	METAL CHIP	330	5%	1/10W
	R659	1-216-037-00	METAL CHIP	330	5%	1/10W
	R660	1-216-748-11	METAL CHIP	39K	1%	1/10W
	R661	1-216-095-00	METAL CHIP	82K	5%	1/10W
	R662	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
	R667	1-216-025-00	METAL CHIP	100	5%	1/10W
	R668	1-216-041-00	METAL CHIP	470	5%	1/10W
	R669	1-216-043-00	METAL CHIP	560	5%	1/10W
	R670	1-216-041-00	METAL CHIP	470	5%	1/10W
	R671	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
	R672	1-216-041-00	METAL CHIP	470	5%	1/10W
	R673	1-216-041-00	METAL CHIP	470	5%	1/10W
	R674	1-216-117-00	METAL CHIP	680K	5%	1/10W
	R677	1-216-097-00	METAL CHIP	100K	5%	1/10W
	R678	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
	R680	1-216-115-00	METAL CHIP	560K	5%	1/10W
	R712	1-216-031-00	METAL CHIP	180	5%	1/10W
	R713	1-216-051-00	METAL CHIP	1.2K	5%	1/10W

LV-20**CS-32**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
R714	1-216-113-00	METAL CHIP	470K	5%	1/10W		R821	1-216-041-00	METAL CHIP	470	5%	1/10W	
R715	1-216-081-00	METAL CHIP	22K	5%	1/10W		R855	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R716	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W		R856	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R717	1-216-089-00	METAL CHIP	47K	5%	1/10W		R857	1-216-029-00	METAL CHIP	150	5%	1/10W	
R718	1-216-073-00	METAL CHIP	10K	5%	1/10W		R858	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R719	1-216-073-00	METAL CHIP	10K	5%	1/10W		R859	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R720	1-216-073-00	METAL CHIP	10K	5%	1/10W		R860	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R721	1-216-097-00	METAL CHIP	100K	5%	1/10W		R862	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R722	1-216-063-00	METAL CHIP	3. 9K	5%	1/10W		R863	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R736	1-216-097-00	METAL CHIP	100K	5%	1/10W		R864	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R737	1-216-031-00	METAL CHIP	180	5%	1/10W		R865	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R738	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R866	1-216-045-00	METAL CHIP	680	5%	1/10W	
R739	1-216-073-00	METAL CHIP	10K	5%	1/10W		R867	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R740	1-216-081-00	METAL CHIP	22K	5%	1/10W		R868	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R741	1-216-049-00	METAL CHIP	1K	5%	1/10W		R869	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R742	1-216-039-00	METAL CHIP	390	5%	1/10W		R870	1-216-041-00	METAL CHIP	470	5%	1/10W	
R743	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R871	1-216-043-00	METAL CHIP	560	5%	1/10W	
R744	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R872	1-216-055-00	METAL CHIP	1. 8K	5%	1/10W	
R745	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R873	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W	
R747	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R874	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R749	1-216-077-00	METAL CHIP	15K	5%	1/10W		R875	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R750	1-216-049-00	METAL CHIP	1K	5%	1/10W		R876	1-216-059-00	METAL CHIP	2. 7K	5%	1/10W	
R751	1-216-079-00	METAL CHIP	18K	5%	1/10W		R877	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W	
R752	1-216-081-00	METAL CHIP	22K	5%	1/10W		R878	1-216-059-00	METAL CHIP	2. 7K	5%	1/10W	
R753	1-216-081-00	METAL CHIP	22K	5%	1/10W		R879	1-216-047-00	METAL CHIP	820	5%	1/10W	
R754	1-216-073-00	METAL CHIP	10K	5%	1/10W		R880	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R755	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R881	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R766	1-216-073-00	METAL CHIP	10K	5%	1/10W		R882	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R801	1-216-053-00	METAL CHIP	1. 5K	5%	1/10W		R883	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W	
R803	1-216-031-00	METAL CHIP	180	5%	1/10W		R884	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R804	1-216-021-00	METAL CHIP	68	5%	1/10W		R885	1-216-071-00	METAL CHIP	8. 2K	5%	1/10W	
R805	1-216-043-00	METAL CHIP	560	5%	1/10W		R886	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R807	1-216-049-00	METAL CHIP	1K	5%	1/10W		R887	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R808	1-216-071-00	METAL CHIP	8. 2K	5%	1/10W		R888	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R809	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W		R891	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R813	1-216-067-00	METAL CHIP	5. 6K	5%	1/10W		R892	1-216-065-00	METAL CHIP	4. 7K	5%	1/10W	
R814	1-216-041-00	METAL CHIP	470	5%	1/10W		R893	1-216-031-00	METAL CHIP	180	5%	1/10W	
R815	1-216-063-00	METAL CHIP	3. 9K	5%	1/10W		R894	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R816	1-216-067-00	METAL CHIP	5. 6K	5%	1/10W		R895	1-216-051-00	METAL CHIP	1. 2K	5%	1/10W	
R818	1-216-043-00	METAL CHIP	560	5%	1/10W		R903	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R819	1-216-041-00	METAL CHIP	470	5%	1/10W		R906	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R820	1-216-041-00	METAL CHIP	470	5%	1/10W		R907	1-216-049-00	METAL CHIP	1K	5%	1/10W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R908	1-216-033-00	METAL CHIP	220 5% 1/10W	R957	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
R909	1-216-051-00	METAL CHIP	1.2K 5% 1/10W	R958	1-216-021-00	METAL CHIP	68 5% 1/10W
R910	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R959	1-216-041-00	METAL CHIP	470 5% 1/10W
R911	1-216-039-00	METAL CHIP	390 5% 1/10W	R960	1-216-041-00	METAL CHIP	470 5% 1/10W
R912	1-216-041-00	METAL CHIP	470 5% 1/10W	R961	1-216-021-00	METAL CHIP	68 5% 1/10W
R913	1-216-043-00	METAL CHIP	560 5% 1/10W	R962	1-216-041-00	METAL CHIP	470 5% 1/10W
R914	1-216-049-00	METAL CHIP	1K 5% 1/10W	R963	1-216-041-00	METAL CHIP	470 5% 1/10W
R915	1-216-049-00	METAL CHIP	1K 5% 1/10W	R964	1-216-021-00	METAL CHIP	68 5% 1/10W
R916	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R965	1-216-031-00	METAL CHIP	180 5% 1/10W
R917	1-216-041-00	METAL CHIP	470 5% 1/10W	R966	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R918	1-216-025-00	METAL CHIP	100 5% 1/10W	R967	1-216-047-00	METAL CHIP	820 5% 1/10W
R919	1-216-023-00	METAL CHIP	82 5% 1/10W	R968	1-216-049-00	METAL CHIP	1K 5% 1/10W
R920	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R970	1-216-041-00	METAL CHIP	470 5% 1/10W
R921	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R972	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R922	1-216-055-00	METAL CHIP	1.8K 5% 1/10W	R973	1-216-049-00	METAL CHIP	1K 5% 1/10W
R923	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R974	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R924	1-216-033-00	METAL CHIP	220 5% 1/10W	R975	1-216-081-00	METAL CHIP	22K 5% 1/10W
R925	1-216-073-00	METAL CHIP	10K 5% 1/10W	R976	1-216-031-00	METAL CHIP	180 5% 1/10W
R926	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R977	1-216-059-00	METAL CHIP	2.7K 5% 1/10W
R927	1-216-049-00	METAL CHIP	1K 5% 1/10W	R978	1-216-021-00	METAL CHIP	68 5% 1/10W
R928	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R979	1-216-041-00	METAL CHIP	470 5% 1/10W
R929	1-216-045-00	METAL CHIP	680 5% 1/10W	R980	1-216-041-00	METAL CHIP	470 5% 1/10W
R930	1-216-105-00	METAL CHIP	220K 5% 1/10W	R981	1-216-021-00	METAL CHIP	68 5% 1/10W
R931	1-216-113-00	METAL CHIP	470K 5% 1/10W	R982	1-216-041-00	METAL CHIP	470 5% 1/10W
R932	1-216-059-00	METAL CHIP	2.7K 5% 1/10W	R983	1-216-041-00	METAL CHIP	470 5% 1/10W
R933	1-216-071-00	METAL CHIP	8.2K 5% 1/10W	R984	1-216-021-00	METAL CHIP	68 5% 1/10W
R934	1-216-049-00	METAL CHIP	1K 5% 1/10W			< VARIABLE RESISTOR >	
R935	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	RV001	1-230-873-11	RES, ADJ, METAL47K	
R936	1-216-063-00	METAL CHIP	3.9K 5% 1/10W	RV502	1-230-870-11	RES, ADJ, METAL10K	
R937	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	RV503	1-230-870-11	RES, ADJ, METAL10K	
R940	1-216-091-00	METAL CHIP	56K 5% 1/10W	RV505	1-230-870-11	RES, ADJ, METAL10K	
R941	1-216-049-00	METAL CHIP	1K 5% 1/10W	RV802	1-230-867-11	RES, ADJ, METAL1K	
R943	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	RV803	1-230-867-11	RES, ADJ, METAL1K	
R944	1-216-025-00	METAL CHIP	100 5% 1/10W	RV804	1-230-867-11	RES, ADJ, METAL1K	
R945	1-216-049-00	METAL CHIP	1K 5% 1/10W			< THERMISTOR >	
R951	1-216-031-00	METAL CHIP	180 5% 1/10W	TH501	1-800-199-00	THERMISTOR 1.25K	
R952	1-216-057-00	METAL CHIP	2.2K 5% 1/10W			< CRYSTAL >	
R953	1-216-073-00	METAL CHIP	10K 5% 1/10W	X001	1-567-900-11	OSCILLATOR, CRYSTAL (14.31818MH)	
R954	1-216-022-00	METAL CHIP	75 5% 1/10W				
R955	1-216-022-00	METAL CHIP	75 5% 1/10W				
R956	1-216-073-00	METAL CHIP	10K 5% 1/10W				

ES-30**FG-40****FP-301**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*****				* A-6421-589-A FP-301 BOARD, COMPLETE ***** (Ref. No. 6000 Series)			
* 1-637-704-11 ES-30 BOARD (Ref. No. 6000 Series) *****				< CAPACITOR >			
C201	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C001	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C202	1-126-154-11	ELECT	47uF 20% 6.3V	C002	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
< CONNECTOR >				C003	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
CN201	1-506-470-11	CONNECTOR	5P, MALE	C004	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
CN202	1-506-468-11	CONNECTOR	3P, MALE	C005	1-124-910-11	ELECT	47uF 20% 50V
< IC >				C006	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
IC201	1-466-131-31	IC	GP1U52Y	C007	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
< COIL >				C008	1-163-033-00	CERAMIC CHIP	0.022uF 50V
L201	1-424-033-21	FILTER, NOISE		C009	1-164-232-11	CERAMIC CHIP	0.01uF 50V
< SWITCH >				C012	1-124-584-00	ELECT	100uF 20% 10V
SW201	1-572-110-11	SWITCH, ROTARY (PICTURE ENHANCE)		C013	1-163-227-11	CERAMIC CHIP	10PF 5% 50V
*****				C014	1-164-232-11	CERAMIC CHIP	0.01uF 50V
* 1-637-697-11 FG-40 BOARD (Ref. No. 4000 Series) *****				C015	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
* 1-637-697-22 FG-40 BOARD (E) *****				< CONNECTOR >			
* 3-941-065-01 SPACER, FG 7-685-105-19 SCREW +P 2X8 TYPE2 SLIT				CN001	1-506-472-11	CONNECTOR	7P, MALE
< CONNECTOR >				CN002	* 1-580-400-11	CONNECTOR, F. P. C	16P
CN313	1-506-482-11	CONNECTOR	3P, MALE	CN003	* 1-563-017-11	CONNECTOR, FPC	30P
< DIODE >				CN004	1-506-470-11	CONNECTOR	5P, MALE
D301	8-719-939-11	PHOTO INTERRUPTER	GP-2S09-B	CN005	* 1-563-233-11	CONNECTOR, F. P. C	13P
*****				CN006	1-506-468-11	CONNECTOR	3P, MALE
				CN007	* 1-568-779-11	PIN, CONNECTOR	2P
				CN008	1-506-470-11	CONNECTOR	5P, MALE
				CN009	1-506-470-11	CONNECTOR	5P, MALE
				CN010	1-506-481-11	CONNECTOR	2P, MALE
				< DIODE >			
				D001	8-719-400-18	DIODE	MA152WK
				< FILTER >			
				FL001	1-421-927-21	FILTER, NOISE	
				< IC >			
				IC001	8-759-045-34	IC	MB89793B-154
*****				*****			

Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >			
JR001	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR003	1-216-295-00	METAL CHIP 0 5% 1/10W	
< TRANSISTOR >			
Q001	8-729-100-66	TRANSISTOR 2SC1623	
Q002	8-729-900-53	TRANSISTOR DTC114EK	
Q005	8-729-100-66	TRANSISTOR 2SC1623	
< RESISTOR >			
R013	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R014	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R015	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R016	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R017	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R018	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R019	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R020	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R021	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R022	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R023	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R024	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R025	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R026	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R027	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R028	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R029	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R030	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R031	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R032	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R033	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R034	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R035	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R036	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R037	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R038	1-216-041-00	METAL CHIP 470 5% 1/10W	
R041	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R042	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R043	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R046	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R047	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R049	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R050	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R051	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R052	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R053	1-216-035-00	METAL CHIP 270 5% 1/10W	
R054	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R055	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R056	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R057	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R901	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R902	1-216-097-00	METAL CHIP 100K 5% 1/10W	
< CRYSTAL >			
X001	1-579-431-11	VIBLATOR, CRYSTAL (32kHz)	
X002	1-579-223-11	OSCILLATOR, CERAMIC (8.0MHz)	

* 1-637-702-11 FP-302 BOARD (Ref. No. 6000 Series)			

< CONNECTOR >			
CN301	* 1-563-017-11	CONNECTOR, FPC 30P	
< DIODE >			
D301	8-719-303-79	DIODE SEL4414G-C	
< FUSE >			
F301	1-519-479-41	INDICATOR TUBE, FLUORESCENT	

* 1-638-088-11 HT-11 BOARD (Ref. No. 2000 Series)			

< TRANSISTOR >			
Q401	△ 8-729-202-03	TRANSISTOR 2SD1761-F	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HT-12**JS-21****MC-62**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* 1-638-312-11	HT-12 BOARD (Ref. No. 3000 Series)		R122	1-216-033-00	METAL CHIP 220 5% 1/10W	
	*****			R123	1-216-033-00	METAL CHIP 220 5% 1/10W	
		< TRANSISTOR >		R124	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
Q402	△ 8-729-924-90	TRANSISTOR 2SB1370-F				< SWITCH >	

	* A-6421-590-A	JS-21 BOARD, COMPLETE (Ref. No. 6000 Series)		S101	1-553-946-00	SWITCH, KEY BOARD (FL DISPLAY)	
	*****			S102	1-553-946-00	SWITCH, KEY BOARD (+10)	
		< CONNECTOR >		S103	1-553-946-00	SWITCH, KEY BOARD (AUTO PROGRAM)	
CN101	* 1-580-400-11	CONNECTOR, F. P. C 16P		S104	1-553-946-00	SWITCH, KEY BOARD (CLOSE)	
		< DIODE >		S105	1-553-946-00	SWITCH, KEY BOARD (0)	
D101	8-719-303-79	DIODE SEL4414G-C (SIDE B)		S106	1-553-946-00	SWITCH, KEY BOARD (9)	
D102	8-719-303-79	DIODE SEL4414G-C (SIDE A)		S107	1-553-946-00	SWITCH, KEY BOARD (8)	
D103	8-719-400-18	DIODE MA152WK		S108	1-553-946-00	SWITCH, KEY BOARD (7)	
D104	8-719-400-18	DIODE MA152WK		S109	1-553-946-00	SWITCH, KEY BOARD (6)	
		< JUMPER RESISTOR >		S110	1-553-946-00	SWITCH, KEY BOARD (5)	
JR101	1-216-295-00	METAL CHIP 0 5% 1/10W		S111	1-553-946-00	SWITCH, KEY BOARD (4)	
		< TRANSISTOR >		S112	1-553-946-00	SWITCH, KEY BOARD (3)	
Q101	8-729-900-53	TRANSISTOR DTC114EK		S113	1-553-946-00	SWITCH, KEY BOARD (2)	
Q102	8-729-900-53	TRANSISTOR DTC114EK		S114	1-553-946-00	SWITCH, KEY BOARD (1)	
		< RESISTOR >		S118	1-553-946-00	SWITCH, KEY BOARD (STOP)	
R101	1-216-071-00	METAL CHIP 8.2K 5% 1/10W		S119	1-553-946-00	SWITCH, KEY BOARD (PAUSE)	
R102	1-216-063-00	METAL CHIP 3.9K 5% 1/10W		S122	1-553-946-00	SWITCH, KEY BOARD (B)	
R103	1-216-081-00	METAL CHIP 22K 5% 1/10W		S123	1-553-946-00	SWITCH, KEY BOARD (A)	
R104	1-216-071-00	METAL CHIP 8.2K 5% 1/10W		S124	1-466-302-11	SWITCH, ROTARY (▶ PLAY) (CLEAR/SCAN)	
R105	1-216-063-00	METAL CHIP 3.9K 5% 1/10W		S125	1-553-946-00	SWITCH, KEY BOARD (▲ OPEN)	
R106	1-216-059-00	METAL CHIP 2.7K 5% 1/10W		*****			
R107	1-216-081-00	METAL CHIP 22K 5% 1/10W			* 1-637-696-11	MC-62 BOARD (Ref. No. 4000 Series)	
R108	1-216-071-00	METAL CHIP 8.2K 5% 1/10W			*****		
R109	1-216-063-00	METAL CHIP 3.9K 5% 1/10W				< CONNECTOR >	
R110	1-216-059-00	METAL CHIP 2.7K 5% 1/10W		CN801	* 1-568-783-11	PIN, CONNECTOR 6P	
R114	1-216-059-00	METAL CHIP 2.7K 5% 1/10W		CN802	* 1-568-783-11	PIN, CONNECTOR 6P	
R120	1-216-063-00	METAL CHIP 3.9K 5% 1/10W		CN803	* 1-568-779-11	PIN, CONNECTOR 2P	
R121	1-216-059-00	METAL CHIP 2.7K 5% 1/10W		CN804	* 1-568-779-11	PIN, CONNECTOR 2P	
				CN805	* 1-568-779-11	PIN, CONNECTOR 2P	
				CN806	1-506-470-11	CONNECTOR 5P, MALE	
				CN809	1-506-468-11	CONNECTOR 3P, MALE	
				CN810	1-580-702-11	SOCKET, CONNECTOR 24P	
				CN811	* 1-568-779-11	PIN, CONNECTOR 2P	
				CN851	* 1-568-783-11	PIN, CONNECTOR 6P	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MC-62**PL-21****PS-251**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN852	* 1-568-783-11	PIN, CONNECTOR 6P		C108	1-164-232-11	CERAMIC CHIP 0.01uF	50V
CN853	1-506-472-11	CONNECTOR 7P, MALE		C110	1-124-762-00	ELECT 4700uF	20% 10V
CN854	* 1-568-783-31	PIN, CONNECTOR 6P		C116	1-164-232-11	CERAMIC CHIP 0.01uF	50V
CN855	* 1-569-512-11	CONNECTOR, F. P. C 18P		C117	1-164-232-11	CERAMIC CHIP 0.01uF	50V
CN856	1-506-469-11	CONNECTOR 4P, MALE		C118	1-124-894-11	ELECT 6800uF	20% 16V
		< JUMPER RESISTOR >		C119	1-124-910-11	ELECT 47uF	20% 50V
JR012	1-216-296-00	METAL CHIP 0 5% 1/8W		C120	1-164-232-11	CERAMIC CHIP 0.01uF	50V
JR013	1-216-296-00	METAL CHIP 0 5% 1/8W		C121	1-124-472-11	ELECT 470uF	20% 10V
JR014	1-216-296-00	METAL CHIP 0 5% 1/8W		C123	1-124-912-11	ELECT 330uF	20% 50V
		< RESISTOR >		C124	1-124-912-11	ELECT 330uF	20% 50V
R801	1-216-039-00	METAL CHIP 390 5% 1/10W		C125	1-124-122-11	ELECT 100uF	20% 50V
R802	1-216-031-00	METAL CHIP 180 5% 1/10W		C126	1-124-120-11	ELECT 220uF	20% 25V
		*****		C127	1-128-266-11	ELECT 8200uF	20% 16V
	* 1-637-705-11	PL-21 BOARD (Ref. No. 6000 Series)		C201	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
		*****		C202	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
		< CONNECTOR >		C203	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
CN501	* 1-568-779-11	PIN, CONNECTOR 2P		C204	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
		< DIODE >		C205	1-123-382-00	ELECT 3.3uF	20% 100V
D501	8-719-303-79	DIODE SEL4414G-C		C206	1-124-912-11	ELECT 330uF	20% 50V
		*****		C208	1-124-910-11	ELECT 47uF	20% 50V
	* A-6421-646-A	PS-251 BOARD, COMPLETE		C209	1-124-910-11	ELECT 47uF	20% 50V
		*****		C210	1-124-910-11	ELECT 47uF	20% 50V
		(Ref. No. 7000 Series)		C211	1-124-477-11	ELECT 47uF	20% 25V
	* A-6421-657-A	PS-251 BOARD, COMPLETE (E)				< CONNECTOR >	
		*****		CN001	* 1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P	
	* 3-309-144-21	HEAT SINK		CN003	* 1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3		CN106	* 1-568-783-31	PIN, CONNECTOR 6P	
		< CAPACITOR >		CN108	1-506-468-11	CONNECTOR 3P, MALE	
C001	△ 1-136-345-21	FILM 0.1uF 20% 125V		CN201	* 1-560-899-00	PIN, CONNECTOR 11P	
C102	1-128-266-11	ELECT 8200uF 20% 16V		CN202	* 1-568-784-21	PIN, CONNECTOR 7P	
C103	1-128-228-11	ELECT 6800uF 20% 25V				< DIODE >	
C104	1-128-228-11	ELECT 6800uF 20% 25V		D101	8-719-109-63	DIODE RD3.0ES-B2	
				D102	△ 8-719-302-92	DIODE RB-151LFB	
				D103	△ 8-719-312-09	DIODE RBA-402	
				D108	8-719-200-02	DIODE 10E2	
				D109	8-719-200-02	DIODE 10E2	
				D110	8-719-110-72	DIODE RD30ES-B2	
				D201	8-719-500-39	DIODE S2K20F	
				D202	8-719-974-59	DIODE 1SR139-100	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

PS-251

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D206	8-719-911-19	DIODE 1SS119				< COIL >	
		< FUSE >		L201	1-424-219-11	COIL, CHOKE 300uH	
F001	△ 1-532-743-11	FUSE, GLASS TUBE (250V 2A)				< IC LINC >	
F101	△ 1-532-748-11	FUSE, GLASS TUBE (125V 6.3A)		PS201	△ 1-532-839-21	LINC. IC PRF1000 (1A) (E)	
F101	△ 1-532-325-11	FUSE, GLASS TUBE (250V 6.3A) (E)		PS202	△ 1-532-839-21	LINC. IC PRF1000 (1A) (E)	
F102	△ 1-532-748-11	FUSE, GLASS TUBE (125V 6.3A)				< TRANSISTOR >	
F102	△ 1-532-325-11	FUSE, GLASS TUBE (250V 6.3A) (E)		Q102	8-729-303-61	TRANSISTOR 2SC3851-G	
F103	△ 1-576-142-11	FUSE, MICRO (125V 2A)		Q103	8-729-119-76	TRANSISTOR 2SA1175-HFE	
F103	△ 1-576-208-11	FUSE, MICRO (250V 2A) (E)		Q104	8-729-100-67	TRANSISTOR 2SC1623-L7	
F104	△ 1-576-142-11	FUSE, MICRO (125V 2A)		Q106	8-729-903-10	TRANSISTOR FMW1	
F104	△ 1-576-208-11	FUSE, MICRO (250V 2A) (E)		Q201	8-729-901-00	TRANSISTOR DTC124EK	
F201	△ 1-532-776-21	FUSE, MICRO (125V 1A) (EXCEPT E)		Q202	8-729-901-00	TRANSISTOR DTC124EK	
F202	△ 1-532-776-21	FUSE, MICRO (125V 1A) (EXCEPT E)		Q203	8-729-901-00	TRANSISTOR DTC124EK	
F203	△ 1-532-634-00	FUSE, TEMPERATURE		Q204	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< FUSE HOLDER >		Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FH001	* 1-533-189-11	HOLDER, FUSE		Q206	8-729-140-96	TRANSISTOR 2SD774-34	
FH002	* 1-533-189-11	HOLDER, FUSE		Q207	△ 8-729-422-89	TRANSISTOR 2SD1267-0	
FH003	* 1-533-189-11	HOLDER, FUSE		Q208	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FH004	* 1-533-189-11	HOLDER, FUSE		Q209	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FH005	* 1-533-189-11	HOLDER, FUSE		Q210	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FH006	* 1-533-189-11	HOLDER, FUSE		Q212	8-729-804-91	TRANSISTOR 2SD1682-S	
		< IC >				< RESISTOR >	
IC107	8-759-604-47	IC M5F7905L		R001	△ 1-202-729-00	SOLID 6.8M 10% 1/2W (EXCEPT E)	
IC201	8-759-981-92	IC RC4558M		R104	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC202	8-759-981-92	IC RC4558M		R110	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC203	8-759-239-19	IC TA8413P		R112	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC204	△ 8-759-420-74	IC PU3220		R114	1-216-091-00	METAL CHIP 56K 5% 1/10W	
IC205	△ 8-759-420-73	IC PU3120		R117	△ 1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
		< JUMPER RESISTOR >		R124	1-216-047-00	METAL CHIP 820 5% 1/10W	
JR002	1-216-295-00	METAL CHIP 0 5% 1/10W		R130	1-216-039-00	METAL CHIP 390 5% 1/10W	
JR003	1-216-295-00	METAL CHIP 0 5% 1/10W		R131	1-216-039-00	METAL CHIP 390 5% 1/10W	
JR004	1-216-295-00	METAL CHIP 0 5% 1/10W		R132	1-216-029-00	METAL CHIP 150 5% 1/10W	
JR005	1-216-296-00	METAL CHIP 0 5% 1/8W		R133	1-216-643-11	METAL CHIP 470 0.5% 1/10W	
JR006	1-216-296-00	METAL CHIP 0 5% 1/8W		R134	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
JR009	1-216-295-00	METAL CHIP 0 5% 1/10W		R135	1-216-665-11	METAL CHIP 3.9K 0.5% 1/10W	
JR010	1-216-296-00	METAL CHIP 0 5% 1/8W		R140	1-216-075-00	METAL CHIP 12K 5% 1/10W	
JR011	1-216-296-00	METAL CHIP 0 5% 1/8W		R141	1-216-075-00	METAL CHIP 12K 5% 1/10W	
				R142	1-216-081-00	METAL CHIP 22K 5% 1/10W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R143	1-216-081-00	METAL CHIP	22K 5% 1/10W	R242	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R147	1-216-033-00	METAL CHIP	220 5% 1/10W			(FILTER)	
R201	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	T001	△ 1-421-771-11	FILTER, LINE	
R202	1-216-073-00	METAL CHIP	10K 5% 1/10W			(THERMISTOR)	
R203	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	TH101	1-800-199-00	THERMISTOR 1.25K	
R204	1-216-075-00	METAL CHIP	12K 5% 1/10W	*****			
R205	1-216-081-00	METAL CHIP	22K 5% 1/10W			* 1-637-698-11 RM-45 BOARD (Ref. No. 1000 Series)	
R206	1-216-081-00	METAL CHIP	22K 5% 1/10W			*****	
R207	1-216-063-00	METAL CHIP	3.9K 5% 1/10W			* 1-637-698-22 RM-45 BOARD (E)	
R208	1-216-748-11	METAL CHIP	39K 1% 1/10W			*****	
R209	1-216-073-00	METAL CHIP	10K 5% 1/10W			7-621-775-20 SCREW +BVTT 2.6X5 (S)	
R210	1-216-063-00	METAL CHIP	3.9K 5% 1/10W			(CAPACITOR)	
R211	1-216-019-00	METAL CHIP	56 5% 1/10W	C701	1-163-038-00	CERAMIC CHIP 0.1uF	25V
R212	1-216-037-00	METAL CHIP	330 5% 1/10W			(CONNECTOR)	
R213	△ 1-216-354-11	METAL OXIDE	2.7 5% 1W F	CN701	1-506-470-11	CONNECTOR 5P, MALE	
R214	1-216-073-00	METAL CHIP	10K 5% 1/10W	CNJ701	1-537-005-21	JACK BOARD (RFU OUT)	
R215	1-216-073-00	METAL CHIP	10K 5% 1/10W			(DIODE)	
R216	△ 1-216-365-00	METAL OXIDE	0.47 5% 2W F	D701	8-719-400-18	DIODE MA152WK	
R217	1-216-073-00	METAL CHIP	10K 5% 1/10W	D702	8-719-400-18	DIODE MA152WK	
R218	1-216-073-00	METAL CHIP	10K 5% 1/10W			(TRANSISTOR)	
R220	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	Q701	8-729-374-02	TRANSISTOR 2SB740	
R221	1-216-065-00	METAL CHIP	4.7K 5% 1/10W			(RESISTOR)	
R222	1-216-047-00	METAL CHIP	820 5% 1/10W	R701	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R223	1-216-073-00	METAL CHIP	10K 5% 1/10W	R702	△ 1-249-389-11	CARBON 4.7 5% 1/4W	
R224	△ 1-216-355-11	METAL OXIDE	3.3 5% 1W F	*****			
R225	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R226	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R227	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R228	1-216-047-00	METAL CHIP	820 5% 1/10W				
R229	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R230	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R231	1-216-047-00	METAL CHIP	820 5% 1/10W				
R232	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R233	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R234	1-216-047-00	METAL CHIP	820 5% 1/10W				
R235	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R236	1-216-055-00	METAL CHIP	1.8K 5% 1/10W				
R237	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R238	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R239	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R240	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R241	1-216-049-00	METAL CHIP	1K 5% 1/10W				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SK-40

SL FLEXIBLE

SV-60

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* 1-637-707-11	SK-40 BOARD (Ref. No. 4000 Series)		C125	1-126-320-11	ELECT, NONPOLAR 10uF	20% 16V
		*****		C126	1-163-038-00	CERAMIC CHIP 0.1uF	25V
		< CONNECTOR >		C127	1-124-443-00	ELECT 100uF	20% 10V
CN001	1-506-470-11	CONNECTOR 5P, MALE		C129	1-163-014-00	CERAMIC CHIP 0.0027uF	10% 50V
		< DIODE >		C130	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
D001	8-719-948-28	DIODE GP2515S		C131	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
		*****		C132	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V
	* 1-637-710-13	SL FLXIBLE BOARD		C133	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
		*****		C134	1-136-165-00	FILM 0.1uF	5% 50V
		*****		C135	1-126-320-11	ELECT, NONPOLAR 10uF	20% 16V
	* A-6421-583-A	SV-60 BOARD, COMPLETE (Ref. No. 3000 Series)		C136	1-124-903-11	ELECT 1uF	20% 50V
		*****		C137	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
	* A-6421-708-A	SV-60 BOARD, COMPLETE (E)		C140	1-163-016-00	CERAMIC CHIP 0.0039uF	10% 50V
		*****		C141	1-164-232-11	CERAMIC CHIP 0.01uF	50V
		< CAPACITOR >		C143	1-163-024-00	CERAMIC CHIP 0.018uF	10% 50V
C101	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	C144	1-136-169-00	FILM 0.22uF	5% 50V
C102	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	C146	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C103	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	C147	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C106	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C148	1-124-482-11	ELECT 33uF	20% 35V
C107	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C149	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C108	1-124-443-00	ELECT 100uF	20% 10V	C150	1-124-482-11	ELECT 33uF	20% 35V
C109	1-124-443-00	ELECT 100uF	20% 10V	C151	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C110	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C152	1-163-115-00	CERAMIC CHIP 82PF	5% 50V
C111	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C153	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C112	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V	C154	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C113	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V	C155	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C114	1-136-169-00	FILM 0.22uF	5% 50V	C156	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C115	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C157	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C116	1-124-443-00	ELECT 100uF	20% 10V	C158	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C117	1-124-282-00	ELECT 22uF	20% 16V	C159	1-124-242-00	ELECT 33uF	20% 25V
C118	1-124-273-00	ELECT 3.3uF	20% 50V	C160	1-124-242-00	ELECT 33uF	20% 25V
C122	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C161	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C123	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C301	1-124-584-00	ELECT 100uF	20% 10V
C124	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C302	1-163-035-00	CERAMIC CHIP 0.047uF	50V
				C303	1-163-035-00	CERAMIC CHIP 0.047uF	50V
				C304	1-124-242-00	ELECT 33uF	20% 25V
				C305	1-124-242-00	ELECT 33uF	20% 25V
				C306	1-163-035-00	CERAMIC CHIP 0.047uF	50V
				C307	1-163-035-00	CERAMIC CHIP 0.047uF	50V
				C309	1-163-035-00	CERAMIC CHIP 0.047uF	50V
				C312	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C313	1-163-038-00	CERAMIC CHIP 0.1uF	25V	IC106	8-759-009-07 IC	MC14053BF	
C314	1-126-157-11	ELECT 10uF	20% 16V	IC107	8-759-321-40 IC	HA11529	
< CONNECTOR >				IC108	8-759-982-04 IC	RC5532M	
CN101	1-580-744-11	CONNECTOR, BOARD TO BOARD 14P		IC109△	8-759-822-38 IC	LA6510	
CN103	* 1-569-512-11	CONNECTOR, F. P. C 18P		IC301	8-759-036-05 IC	MC68HC05P7-480M00	
CN104	* 1-568-783-11	PIN, CONNECTOR 6P		IC302	8-759-231-92 IC	TA7291P	
CN105	1-566-939-11	CONNECTOR, F. P. C 24P		IC303	8-759-231-92 IC	TA7291P	
CN106	1-506-469-11	CONNECTOR 4P, MALE		IC304	8-759-981-61 IC	LM2901M	
< DIODE >				< JUMPER RESISTOR >			
CN107	* 1-568-783-11	PIN, CONNECTOR 6P		JR001	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN108	* 1-568-779-11	PIN, CONNECTOR 2P		JR003	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN301	* 1-564-022-21	PIN, CONNECTOR 12P		JR005	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN303	* 1-568-783-31	PIN, CONNECTOR 6P		JR006	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN305	1-506-472-11	CONNECTOR 7P, MALE		JR007	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN308	* 1-568-783-11	PIN, CONNECTOR 6P		JR008	1-216-296-00 METAL CHIP	0 5% 1/8W	
CN309	* 1-568-783-11	PIN, CONNECTOR 6P		JR009	1-216-296-00 METAL CHIP	0 5% 1/8W	
< DIODE >				JR010	1-216-296-00 METAL CHIP	0 5% 1/8W	
D101	8-719-400-18	DIODE MA152WK		JR011	1-216-296-00 METAL CHIP	0 5% 1/8W	
D102	8-719-400-18	DIODE MA152WK		JR012	1-216-296-00 METAL CHIP	0 5% 1/8W	
D105	8-719-400-18	DIODE MA152WK		JR013	1-216-296-00 METAL CHIP	0 5% 1/8W	
D301	8-719-104-34	DIODE 1S2836		JR014	1-216-296-00 METAL CHIP	0 5% 1/8W	
D302	8-719-104-34	DIODE 1S2836		JR016	1-216-296-00 METAL CHIP	0 5% 1/8W	
D303	8-719-104-34	DIODE 1S2835-T1		JR017	1-216-296-00 METAL CHIP	0 5% 1/8W	
D304	8-719-100-35	DIODE RD5. 6EB2T		JR020	1-216-296-00 METAL CHIP	0 5% 1/8W	
< FUSE >				JR021	1-216-296-00 METAL CHIP	0 5% 1/8W	
F101 △	1-532-957-11	FUSE, MICRO (125V 0. 63A)		JR022	1-216-296-00 METAL CHIP	0 5% 1/8W	
F102 △	1-532-957-11	FUSE, MICRO (125V 0. 63A)		JR023	1-216-296-00 METAL CHIP	0 5% 1/8W	
F103 △	1-532-957-11	FUSE, MICRO (125V 0. 63A)		JR024	1-216-295-00 METAL CHIP	0 5% 1/10W	
F104 △	1-532-957-11	FUSE, MICRO (125V 0. 63A)		JR025	1-216-295-00 METAL CHIP	0 5% 1/10W	
< FILTER >				JR029	1-216-295-00 METAL CHIP	0 5% 1/10W	
FL301	1-424-031-11	FILTER, NOISE		JR030	1-216-295-00 METAL CHIP	0 5% 1/10W	
< IC >				JR031	1-216-295-00 METAL CHIP	0 5% 1/10W	
IC101	8-759-981-92 IC	RC4558M		JR032	1-216-295-00 METAL CHIP	0 5% 1/10W	
IC102	8-759-981-92 IC	RC4558M		JR033	1-216-295-00 METAL CHIP	0 5% 1/10W	
IC103	8-759-009-07 IC	MC14053BF		JR034	1-216-295-00 METAL CHIP	0 5% 1/10W	
IC104	8-759-981-92 IC	RC4558M		JR035	1-216-295-00 METAL CHIP	0 5% 1/10W	
IC105	8-759-981-92 IC	RC4558M		JR036	1-216-295-00 METAL CHIP	0 5% 1/10W	
				JR038	1-216-295-00 METAL CHIP	0 5% 1/10W	
				JR039	1-216-295-00 METAL CHIP	0 5% 1/10W	
				JR040	1-216-295-00 METAL CHIP	0 5% 1/10W	
				JR041	1-216-295-00 METAL CHIP	0 5% 1/10W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SV-60

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
JR042	1-216-295-00	METAL CHIP	0 5% 1/10W	R105	1-216-081-00	METAL CHIP	22K 5% 1/10W
JR043	1-216-295-00	METAL CHIP	0 5% 1/10W	R105	1-216-089-00	METAL CHIP	47K 5% 1/10W
JR044	1-216-295-00	METAL CHIP	0 5% 1/10W	R106	1-216-085-00	METAL CHIP	33K 5% 1/10W
JR045	1-216-295-00	METAL CHIP	0 5% 1/10W	R107	1-216-073-00	METAL CHIP	10K 5% 1/10W
JR046	1-216-295-00	METAL CHIP	0 5% 1/10W	R108	1-216-073-00	METAL CHIP	10K 5% 1/10W
JR047	1-216-296-00	METAL CHIP	0 5% 1/8W	R109	1-216-085-00	METAL CHIP	33K 5% 1/10W
JR048	1-216-295-00	METAL CHIP	0 5% 1/10W	R110	1-216-077-00	METAL CHIP	15K 5% 1/10W
JR050	1-216-296-00	METAL CHIP	0 5% 1/8W	R111	1-216-107-00	METAL CHIP	270K 5% 1/10W
JR052	1-216-296-00	METAL CHIP	0 5% 1/8W	R112	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
JR053	1-216-295-00	METAL CHIP	0 5% 1/10W	R113	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
JR054	1-216-296-00	METAL CHIP	0 5% 1/8W	R114	1-216-073-00	METAL CHIP	10K 5% 1/10W
JR055	1-216-296-00	METAL CHIP	0 5% 1/8W	R115	1-216-073-00	METAL CHIP	10K 5% 1/10W
JR056	1-216-296-00	METAL CHIP	0 5% 1/8W	R116	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
JR247	1-216-295-00	METAL CHIP	0 5% 1/10W	R117	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
		(TRANSISTOR)		R118	1-216-097-00	METAL CHIP	100K 5% 1/10W
Q101	8-729-901-01	TRANSISTOR	DTC144EK	R119	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
Q102	8-729-901-06	TRANSISTOR	DTA144EK	R122	1-216-085-00	METAL CHIP	33K 5% 1/10W
Q103	8-729-901-06	TRANSISTOR	DTA144EK	R123	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
Q104	8-729-901-01	TRANSISTOR	DTC144EK	R124	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
Q105	8-729-901-06	TRANSISTOR	DTA144EK	R125	1-216-085-00	METAL CHIP	33K 5% 1/10W
Q106	8-729-901-01	TRANSISTOR	DTC144EK	R126	1-216-085-00	METAL CHIP	33K 5% 1/10W
Q107	8-729-901-01	TRANSISTOR	DTA144EK	R127	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
Q108	8-729-901-06	TRANSISTOR	DTA144EK	R128	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
Q109	8-729-100-66	TRANSISTOR	2SC1623	R129	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
Q110	8-729-901-01	TRANSISTOR	DTC144EK	R130	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q112 \triangle	8-729-107-26	TRANSISTOR	2SD1585-K	R134	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q113 \triangle	8-729-924-90	TRANSISTOR	2SB1370-EF	R135	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q115	8-729-100-66	TRANSISTOR	2SC1623	R136	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q116	8-729-901-00	TRANSISTOR	DTC124EK	R137	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q117	8-729-100-66	TRANSISTOR	2SC1623	R138	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q121	8-729-216-22	TRANSISTOR	2SA1162	R139	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q301	8-729-901-00	TRANSISTOR	DTC124EK	R140	1-216-085-00	METAL CHIP	33K 5% 1/10W
Q302	8-729-901-00	TRANSISTOR	DTC124EK	R141	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
Q303	8-729-900-53	TRANSISTOR	DTC114EK	R142	1-216-079-00	METAL CHIP	18K 5% 1/10W
		(RESISTOR)		R143	1-216-073-00	METAL CHIP	10K 5% 1/10W
R101	1-216-039-00	METAL CHIP	390 5% 1/10W	R144	1-216-081-00	METAL CHIP	22K 5% 1/10W
R102	1-216-081-00	METAL CHIP	22K 5% 1/10W	R145	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R102	1-216-089-00	METAL CHIP	47K 5% 1/10W	R146	1-216-025-00	METAL CHIP	100 5% 1/10W
R103	1-216-081-00	METAL CHIP	22K 5% 1/10W	R147	1-216-089-00	METAL CHIP	47K 5% 1/10W
R104	1-216-081-00	METAL CHIP	22K 5% 1/10W	R149	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
				R150	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R151	1-216-061-00	METAL CHIP	3.3K 5% 1/10W

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R152	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W	R201	1-216-079-00	METAL CHIP	18K 5% 1/10W
R153	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W	R202	1-216-085-00	METAL CHIP	33K 5% 1/10W
R154	1-216-101-00	METAL CHIP	150K 5% 1/10W	R204	1-216-101-00	METAL CHIP	150K 5% 1/10W
R155	1-216-105-00	METAL CHIP	220K 5% 1/10W	R205	1-216-073-00	METAL CHIP	10K 5% 1/10W
R156	1-216-025-00	METAL CHIP	100 5% 1/10W	R206	1-216-077-00	METAL CHIP	15K 5% 1/10W
R158	1-216-113-00	METAL CHIP	470K 5% 1/10W	R207	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W
R159	1-216-089-00	METAL CHIP	47K 5% 1/10W	R208	1-216-091-00	METAL CHIP	56K 5% 1/10W
R160	1-216-051-00	METAL CHIP	1. 2K 5% 1/10W	R209	1-216-097-00	METAL CHIP	100K 5% 1/10W
R161	1-216-017-00	METAL CHIP	47 5% 1/10W	R210	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
R162	1-216-230-00	METAL GLAZE	22K 5% 1/8W	R211	1-216-089-00	METAL CHIP	47K 5% 1/10W
R163	1-216-081-00	METAL CHIP	22K 5% 1/10W	R212	1-216-085-00	METAL CHIP	33K 5% 1/10W
R164	1-216-017-00	METAL CHIP	47 5% 1/10W	R213	1-216-097-00	METAL CHIP	100K 5% 1/10W
R165	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R214	1-216-085-00	METAL CHIP	33K 5% 1/10W
R166	1-216-089-00	METAL CHIP	47K 5% 1/10W	R215	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W
R167	1-216-051-00	METAL CHIP	1. 2K 5% 1/10W	R216	1-216-085-00	METAL CHIP	33K 5% 1/10W
R168	1-216-073-00	METAL CHIP	10K 5% 1/10W	R217	1-216-748-11	METAL CHIP	39K 1% 1/10W
R169	1-216-373-11	METAL OXIDE	2. 2 5% 2W F	R218	1-216-105-00	METAL CHIP	220K 5% 1/10W
R175	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R219	1-216-081-00	METAL CHIP	22K 5% 1/10W
R176	1-216-049-00	METAL CHIP	1K 5% 1/10W	R220	1-216-081-00	METAL CHIP	22K 5% 1/10W
R178	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R221	1-216-099-00	METAL CHIP	120K 5% 1/10W
R179	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R223	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W
R180	1-216-085-00	METAL CHIP	33K 5% 1/10W	R224	1-216-085-00	METAL CHIP	33K 5% 1/10W
R181	1-216-051-00	METAL CHIP	1. 2K 5% 1/10W	R225	1-216-073-00	METAL CHIP	10K 5% 1/10W
R182	1-216-083-00	METAL CHIP	27K 5% 1/10W	R226	1-216-081-00	METAL CHIP	22K 5% 1/10W
R183	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W	R227	1-216-081-00	METAL CHIP	22K 5% 1/10W
R184	1-216-083-00	METAL CHIP	27K 5% 1/10W	R228	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W
R185	1-216-083-00	METAL CHIP	27K 5% 1/10W	R230	1-216-748-11	METAL CHIP	39K 1% 1/10W
R186	1-216-113-00	METAL CHIP	470K 5% 1/10W	R231	1-216-067-00	METAL CHIP	5. 6K 5% 1/10W
R187	1-216-075-00	METAL CHIP	12K 5% 1/10W	R232	1-216-089-00	METAL CHIP	47K 5% 1/10W
R188	1-216-101-00	METAL CHIP	150K 5% 1/10W	R234	1-216-097-00	METAL CHIP	100K 5% 1/10W
R189	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W	R235	1-216-067-00	METAL CHIP	5. 6K 5% 1/10W
R190	1-216-035-00	METAL CHIP	270 5% 1/10W	R237	1-216-101-00	METAL CHIP	150K 5% 1/10W
R191	1-216-089-00	METAL CHIP	47K 5% 1/10W	R238	1-216-083-00	METAL CHIP	27K 5% 1/10W
R192	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R239	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W
R193	1-216-041-00	METAL CHIP	470 5% 1/10W	R240	1-216-298-00	METAL CHIP	2. 2 5% 1/10W
R194	1-216-049-00	METAL CHIP	1K 5% 1/10W	R242	1-216-089-00	METAL CHIP	47K 5% 1/10W
R195	1-216-049-00	METAL CHIP	1K 5% 1/10W	R243	1-216-081-00	METAL CHIP	22K 5% 1/10W
R196	1-216-049-00	METAL CHIP	1K 5% 1/10W	R244	1-216-081-00	METAL CHIP	22K 5% 1/10W
R197	1-216-049-00	METAL CHIP	1K 5% 1/10W	R246	1-216-091-00	METAL CHIP	56K 5% 1/10W
R198	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R248	1-216-298-00	METAL CHIP	2. 2 5% 1/10W
R199	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R255	1-216-077-00	METAL CHIP	15K 5% 1/10W
R200	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W				

Ref. No.	Part No.	Description				
R262	1-216-099-00	METAL CHIP	120K	5%	1/10W	
R263	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R264	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R265	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R266	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R268	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R301	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R302	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R308	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R309	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R310	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R311	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R312	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R313	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R314	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R315	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R316	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R317	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R318	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R319	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R323	1-216-669-11	METAL CHIP	5.6K	0.5%	1/10W	
R324	1-216-666-11	METAL CHIP	4.3K	0.5%	1/10W	
R325	1-216-677-11	METAL CHIP	12K	0.5%	1/10W	
R326	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R329 △	1-212-950-00	FUSIBLE	4.7	5%	1/2W F	
R330 △	1-212-950-00	FUSIBLE	4.7	5%	1/2W F	
R331	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R332	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R333	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R334	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R335	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R336	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R337	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R338	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R340	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R342	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R343	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R345	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R346	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R347	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R350	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R351	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R354	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R356	1-216-073-00	METAL CHIP	10K	5%	1/10W (4MHz)	
R358	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R359	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R360	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R361	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R362	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R363	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R365	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R368	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R371	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R372	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R373	1-216-041-00	METAL CHIP	470	5%	1/10W	
R374	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
< VARIABLE RESISTOR >						
RV101	1-241-081-11	RES, ADJ, CARBON	22K			
RV102	1-241-081-11	RES, ADJ, CARBON	22K			
RV103	1-241-079-11	RES, ADJ, CARBON	4.7K			
RV104	1-241-076-11	RES, ADJ, CARBON	1K			
RV105	1-241-080-11	RES, ADJ, CARBON	10K			
RV106	1-241-080-11	RES, ADJ, CARBON	10K			
RV107	1-241-080-11	RES, ADJ, CARBON	10K			
RV108	1-241-080-11	RES, ADJ, CARBON	10K			
RV109	1-241-080-11	RES, ADJ, CARBON	10K			
RV110	1-241-076-11	RES, ADJ, CARBON	1K			
< CRYSTAL >						
X301	1-567-819-11	VIBRATOR, CERAMIC				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	* 1-637-695-11	SW-154 BOARD (Ref.No. 9000 Series)		C003	1-102-888-00	CERAMIC	68P 5% 50V
		*****		C004	1-124-257-00	ELECT	2. 2uF 20% 50V
	* 1-637-695-22	SW-154 BOARD (E)		C005	1-161-021-11	CERAMIC	0. 047uF 10% 25V
		*****		C006	1-161-021-11	CERAMIC	0. 047uF 10% 25V
		< CONNECTOR >		C007	1-131-377-00	TANTALUM	10uF 10% 10V
CN114	* 1-568-779-11	PIN, CONNECTOR 2P		C008	1-131-377-00	TANTALUM	10uF 10% 10V
		< SWITCH >		C009	1-161-021-11	CERAMIC	0. 047uF 10% 25V
S101	1-572-801-11	SWITCH, PUSH (POWER)		C010	1-124-584-00	ELECT	100uF 20% 10V
*****				C011	1-124-584-00	ELECT	100uF 20% 10V
	* 1-637-694-11	TR-43 BOARD (Ref.No. 8000 Series)		C101	1-102-953-00	CERAMIC	18PF 5% 50V
		*****		C102	1-161-021-11	CERAMIC	0. 047uF 10% 25V
	1-637-694-22	TR-43 BOARD (E)		C103	1-161-021-11	CERAMIC	0. 047uF 10% 25V
		*****		C104	1-124-584-00	ELECT	100uF 20% 10V
		< CONNECTOR >		C105	1-161-021-11	CERAMIC	0. 047uF 10% 25V
CN110	1-506-482-11	CONNECTOR 3P, MALE		C201	1-124-584-00	ELECT	100uF 20% 10V
CN112	* 1-564-032-00	PIN, CONNECTOR 7P		C202	1-161-021-11	CERAMIC	0. 047uF 10% 25V
		< SWITCH >		C203	1-161-021-11	CERAMIC	0. 047uF 10% 25V
S001	△ 1-554-933-11	SELECTOR, VOLTAGE (E)		C204	1-161-021-11	CERAMIC	0. 047uF 10% 25V
		< TRANSFORMER >		C301	1-124-584-00	ELECT	100uF 20% 10V
T101	△ 1-450-327-12	TRANSFORMER, POWER		C302	1-161-021-11	CERAMIC	0. 047uF 10% 25V
T101	△ 1-450-351-11	TRANSFORMER, POWER (E)		C303	1-124-584-00	ELECT	100uF 20% 10V
*****				C304	1-102-953-00	CERAMIC	18PF 5% 50V
	* A-6421-663-A	YC-117 BOARD, COMPLETE		C305	1-102-959-00	CERAMIC	22PF 5% 50V
		*****		C307	1-126-157-11	ELECT	10uF 20% 16V
		(Ref. No. 1000 Series)		C308	1-124-584-00	ELECT	100uF 20% 10V
	1-543-743-11	CORE, TROIDAL		C401	1-102-973-00	CERAMIC	100PF 5% 50V
		< CAPACITOR >		C402	1-126-157-11	ELECT	10uF 20% 16V
C001	1-128-057-11	ELECT	330uF 20% 6. 3V	C403	1-161-021-11	CERAMIC	0. 047uF 10% 25V
C002	1-161-021-11	CERAMIC	0. 047uF 10% 25V	C404	1-124-584-00	ELECT	100uF 20% 10V
				C405	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C406	1-124-584-00	ELECT	100uF 20% 10V
				C407	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C408	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C409	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C501	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C502	1-161-021-11	CERAMIC	0. 047uF 10% 25V
				C503	1-126-157-11	ELECT	10uF 20% 16V
				C901	1-102-820-00	CERAMIC	330PF 5% 50V
				< CONNECTOR >			
				CN001	1-568-788-21	PIN, CONNECTOR 11P	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< DIODE >					
D001	8-719-911-19	DIODE 1SS119		Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D002	8-719-911-19	DIODE 1SS119		Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D401	8-719-911-19	DIODE 1SS119		Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D402	8-719-911-19	DIODE 1SS119		Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D403	8-719-911-19	DIODE 1SS119		Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D404	8-719-911-19	DIODE 1SS119		Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< FERRITE BEAD >		Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FB001	1-410-397-21	FERRITE BEAD INDUCTOR		Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FB002	1-410-397-21	FERRITE BEAD INDUCTOR		Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< FILTER >		Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FL001	1-236-071-11	ENCAPSULATED COMPONENT		Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FL101	1-236-071-11	ENCAPSULATED COMPONENT		Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FL201	1-236-071-11	ENCAPSULATED COMPONENT				< RESISTOR >	
FL301	1-415-694-11	DELAY LINE, LC		R001	1-249-405-11	CARBON 100 5% 1/4W	
FL401	1-235-896-11	FILTER, BAND PASS		R002	1-249-417-11	CARBON 1K 5% 1/4W	
FL501	1-235-896-11	FILTER, BAND PASS		R003	1-247-895-00	CARBON 470K 5% 1/4W	
		< IC >		R004	1-249-416-11	CARBON 820 5% 1/4W	
IC001	8-759-039-25	IC MC141620FU		R005	1-249-403-11	CARBON 68 5% 1/4W	
		< COIL >		R006	1-249-418-11	CARBON 1.2K 5% 1/4W	
L001	1-408-421-00	INDUCTOR 100uH		R007	1-215-438-00	METAL 5.1K 1% 1/6W	
L101	1-408-421-00	INDUCTOR 100uH		R008	1-215-405-00	METAL 220 1% 1/6W	
L201	1-408-421-00	INDUCTOR 100uH		R009	1-215-439-00	METAL 5.6K 1% 1/6W	
L301	1-408-421-00	INDUCTOR 100uH		R010	1-249-417-11	CARBON 1K 5% 1/4W	
L302	1-408-413-00	INDUCTOR 22uH		R013	1-249-429-11	CARBON 10K 5% 1/4W	
L901	1-410-521-11	INDUCTOR 100uH		R101	1-249-408-11	CARBON 180 5% 1/4W	
		< TRANSISTOR >		R102	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q001	8-729-119-76	TRANSISTOR 2SA1175-HFE		R103	1-247-891-00	CARBON 330K 5% 1/4W	
Q002	8-729-119-78	TRANSISTOR 2SC2785-HFE		R104	1-247-891-00	CARBON 330K 5% 1/4W	
Q003	8-729-119-78	TRANSISTOR 2SC2785-HFE		R105	1-249-438-11	CARBON 56K 5% 1/4W	
Q004	8-729-119-76	TRANSISTOR 2SA1175-HFE		R108	1-249-438-11	CARBON 56K 5% 1/4W	
Q005	8-729-119-78	TRANSISTOR 2SC2785-HFE		R109	1-249-438-11	CARBON 56K 5% 1/4W	
Q006	8-729-119-76	TRANSISTOR 2SA1175-HFE		R111	1-249-438-11	CARBON 56K 5% 1/4W	
Q101	8-729-119-76	TRANSISTOR 2SA1175-HFE		R201	1-249-429-11	CARBON 10K 5% 1/4W	
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE		R301	1-249-431-11	CARBON 15K 5% 1/4W	
				R302	1-249-434-11	CARBON 27K 5% 1/4W	
				R303	1-249-413-11	CARBON 470 5% 1/4W	
				R304	1-249-414-11	CARBON 560 5% 1/4W	
				R305	1-249-413-11	CARBON 470 5% 1/4W	
				R306	1-249-415-11	CARBON 680 5% 1/4W	
				R307	1-249-418-11	CARBON 1.2K 5% 1/4W	
				R308	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R309	1-249-418-11	CARBON	1.2K 5% 1/4W			MISCELLANEOUS	
R310	1-249-411-11	CARBON	330 5% 1/4W			*****	
R312	1-249-409-11	CARBON	220 5% 1/4W		1-543-579-41	CORE ASSY, RING (US, Canadian)	
R313	1-249-414-11	CARBON	560 5% 1/4W	67	1-590-420-11	CABLE, FLEXIBLE FLAT (FFJ1)	
R314	1-249-416-11	CARBON	820 5% 1/4W	68	1-590-422-11	CABLE, FLEXIBLE FLAT (FFF2)	
R315	1-249-431-11	CARBON	15K 5% 1/4W	105	1-590-417-11	CABLE, FLEXIBLE FLAT (FLC-1)	
R316	1-249-429-11	CARBON	10K 5% 1/4W	107	1-590-419-11	CABLE, FLEXIBLE FLAT (SMCD)	
R317	1-249-417-11	CARBON	1K 5% 1/4W	109	1-590-418-11	CABLE, FLEXIBLE FLAT (FLS-1)	
R401	1-249-429-11	CARBON	10K 5% 1/4W	162	1-590-327-12	CORD, POWER (US, Canadian)	
R403	1-249-412-11	CARBON	390 5% 1/4W	162	1-590-328-12	CORD, POWER (E)	
R405	1-249-415-11	CARBON	680 5% 1/4W	205	1-590-416-11	CABLE, FLEXIBLE FLAT (FMS-1)	
R406	1-249-415-11	CARBON	680 5% 1/4W	211	1-590-415-11	CABLE, FLEXIBLE FLAT (FMC-1)	
R407	1-249-409-11	CARBON	220 5% 1/4W	359	△ 8-848-138-11	DEVICE, OPTICAL KHS-130A	
R408	1-249-419-11	CARBON	1.5K 5% 1/4W	360	1-637-710-11	PC BOARD, SL FLEXIBLE	
R409	1-249-419-11	CARBON	1.5K 5% 1/4W	368	1-641-223-11	PC BOARD, OP-10 FLEXIBLE	
R410	1-249-415-11	CARBON	680 5% 1/4W	D901	8-719-939-11	GP2S09-B	
R412	1-249-421-11	CARBON	2.2K 5% 1/4W	D902	8-719-939-11	GP2S09-B	
R413	1-249-424-11	CARBON	3.9K 5% 1/4W	M901	X-3940-206-1	MOTOR ASSY, SKEW (TRAY)	
R414	1-249-425-11	CARBON	4.7K 5% 1/4W	M902	X-3940-203-1	MOTOR ASSY, THREADING	
R415	1-247-881-00	CARBON	120K 5% 1/4W	M903	X-3940-212-1	MOTOR ASSY, FEED (TILT)	
R501	1-249-417-11	CARBON	1K 5% 1/4W	M904	1-541-845-11	MOTOR, LD SPINDLE	
R502	1-249-415-11	CARBON	680 5% 1/4W	M905	X-3940-204-1	MOTOR ASSY, U/D (ELEVATOR)	
R503	1-249-417-11	CARBON	1K 5% 1/4W	S906	1-570-771-21	SWITCH (DOOR)	
R504	1-249-421-11	CARBON	2.2K 5% 1/4W	S902	1-570-771-11	SWITCH (LD IN LIMIT)	
R505	1-249-417-11	CARBON	1K 5% 1/4W	S907	1-572-644-11	SWITCH, ROTARY (TRAY)	
R507	1-249-409-11	CARBON	220 5% 1/4W	S901	1-570-771-11	SWITCH (CD IN LIMIT)	
R508	1-249-415-11	CARBON	680 5% 1/4W	S903	1-572-765-11	SWITCH, MICRO (PARK)	
R509	1-249-419-11	CARBON	1.5K 5% 1/4W	S904	1-570-771-11	SWITCH (SKEW UP)	
R510	1-249-432-11	CARBON	18K 5% 1/4W	S905	1-570-771-11	SWITCH (SKEW DOWN)	
R511	1-249-429-11	CARBON	10K 5% 1/4W	S908	1-572-645-11	SWITCH, SLIDE (ELEVATOR)	
R512	1-249-417-11	CARBON	1K 5% 1/4W				
R514	1-249-403-11	CARBON	68 5% 1/4W				
R901	1-249-427-11	CARBON	6.8K 5% 1/4W			ACCESSORY & PACKING MATERIAL	
R902	1-249-401-11	CARBON	47 5% 1/4W			*****	
		< VARIABLE RESISTOR >				A-6768-253-A RF UNIT (RFU-90UC) (HK=IT)	
RV301	1-241-073-11	RES, ADJ, CARBON 220				1-465-496-73 REMOTE CONTROLLER	
						3-694-922-01 SHEET, PROTECTION	
						* 3-941-306-01 CUSHION (UPPER) (US, Canadian)	
						* 3-941-307-01 CUSHION (LOWER) (US, Canadian)	
						* 3-943-186-01 INDIVIDUAL CARTON (US, Canadian)	
						* 3-944-010-01 INDIVIDUAL CARTON (E)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
*	3-944-014-01	CUSHION (UPPER) (E)	
*	3-944-015-01	CUSHION (LOWER) (E)	
	1-559-533-11	CORD, CONNECTION	
	1-551-086-31	CORD, CONNECTION	
	3-752-670-21	MANUAL, INSTRUCTION (ENGLISH)	
		(US, Canadian)	
*	3-795-581-21	SAFEGUARD (SONY), IMPORTANT (US)	
	3-752-670-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH) (E)	
	3-752-670-31	MANUAL, INSTRUCTION (FRENCH) (Canadian)	

HARDWARE LIST

#1	7-682-547-04	SCREW +BVTT 3X6 (S)
#2	7-621-255-25	SCREW +BVTT 2X4 (S)
#3	7-621-255-45	SCREW +P 2X6
#4	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#5	7-621-772-10	SCREW +B 2X4
#6	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
#7	7-682-547-09	SCREW +BVTT 3X6 (S)
#8	7-624-111-04	STOP RING 7.0, TYPE -E
#9	7-685-648-79	SCREW, TAPPING
#10	7-621-775-20	SCREW +BVTT 2.6X5 (S)
#11	7-682-548-04	SCREW +BVTT 3X8 (S)
#12	7-621-772-35	SCREW +B 2X6
#13	7-621-775-65	SCREW +B 2.6X12
#14	7-624-106-04	STOP RING 3.0, TYPE -E
#15	7-683-406-04	BOLT, HEXAGON SOCKET M3X12
#16	7-624-108-04	STOP RING 4.0, TYPE -E
#17	7-688-002-03	W 2.6, SMALL
#18	7-621-773-86	SCREW +BVTT 2.6X4 (S)
#19	7-682-946-09	SCREW +PSW 3X5
#20	7-621-773-93	SCREW +B 2.6X3
#21	7-685-645-79	SCREW +BVTP 3X6 TYPE2 SLIT
#22	7-682-544-04	SCREW +B 3X3
#23	7-682-645-01	SCREW +PS 3X4

SECTION 7 ELECTRICAL ADJUSTMENTS

When performing adjustments, refer to the layout diagrams for adjustment related parts beginning from page 220.

7-1. EQUIPMENTS USED

- Oscilloscope
- Color TV monitor
- Digital voltmeter
- Audio level meter
- Frequency counter
- Remote control unit (RMT-S605A)
- LD reference disc HVL-8* (8-797-008-00)
- CD reference disc YEDS-18 (3-702-101-01)
- MD adjustment cable (J-6082-059-B)
- Audio oscillator

*1 REF7C-8AL (8-597-901-03) is usable.

7-2. PRECAUTIONS FOR ADJUSTMENT

- Disconnect the AC plug at once when the unit begins to function abnormally. (Note that the power may not become off completely even when the power switch has been turned off.)
- The elevator section will protrude out of the rear section of the unit during Side A/Side B switchover operations, and so on. If the rear panel cover has been removed, ensure that nothing touches this section.

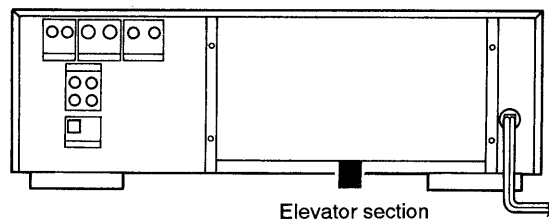


Fig. 7-1.

- Play back Side 1 (CAV recording side) of the LD reference disc at Side A of the unit and perform the necessary adjustments unless specified otherwise.
- If the unit is to be laid on its side, do so after it has been set into the playback mode.
- Never insert or remove a disc, perform Side A/Side B switchovers and turn the power on/off while the unit is on its side. (Do not depress the buttons: "OPEN", "CLOSE", "Side A", "Side B", "STOP" or "POWER".)
- Always place the unit in the upright position when performing the adjustments.
- Holes for securing the LV-20 board or PS-251 board in their unfolded conditions are located on the left and right sides of the chassis as shown in the figure. Insert the claws on the frame of the LV-20 board or the PS-251 board into these holes.

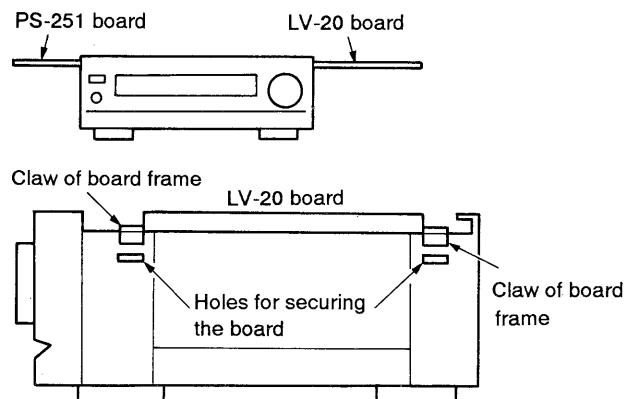


Fig 7-2.

7-3. ADJUSTMENT CABLE

7-3-1. MD Adjustment Cable (J-6282-059-B)

This cable is used to adjust the servo system by connecting it to the SV-60 board. Disconnect it when not in use.

7-4. POWER SUPPLY BLOCK CHECK (PS-251 Board)

Mode	Still
Measuring Instrument	Digital voltmeter
UN REG+16V Check	
Measurement Point	Pin ① of W105 (Pin ③ GND)
Specified Value	+17.0 ± 0.8 Vdc* ¹
UN REG-16V Check	
Measurement Point	Pin ② of W105 (Pin ③ GND)
Specified Value	-17.6 ± 0.8 Vdc* ¹
REG+5V Check	
Measurement Point	Pin ④ of W105 (Pin ⑥ GND)
Specified Value	5.1 ± 0.2 Vdc
REG-5V Check	
Measurement Point	Pin ⑤ of W105 (Pin ⑥ GND)
Specified Value	-5.0 ± 0.2 Vdc

- *1. Value when the AC input voltage is the specified voltage ± 1%
- Check that the various power supply voltages satisfy the specified values.

7-5. SYSTEM CONTROL SYSTEM ADJUSTMENT

7-5-1. Microprocessor Clock Adjustment (LV-20 Board)

Mode	Stop
Measurement Point	Pin ⑦ of IC001
Measuring Instrument	Frequency counter
Adjusting Element	CV001
Specified Value	3,579,545 ± 10 Hz

Adjusting method:

- 1) Adjust CV001 so that it is 3,579,545 ± 10 Hz.

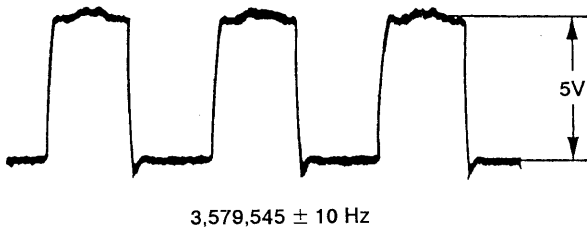


Fig. 7-3.

7-6. SERVO SYSTEM ADJUSTMENTS

Take note of the following precautions when adjusting the servo system.

- Use the MD adjustment cable (J-6082-059-B).
- Perform CD servo system adjustments after the digital audio system has been adjusted.
- After setting the tracking servo to OPEN, set to STOP mode first before performing the next adjustment.
- Perform the following adjustments in the given order if the optical block has been replaced.

Note: Begin adjustments at the maximum (Rotate in the counterclockwise direction completely) RF level (CH-70 board RV901).

1. Side A tracking balance adjustment
2. Focus gain adjustment
3. Side A crosstalk adjustment
 - Side A tangential adjustment
 - Side A RAD TILT, focus balance adjustments
4. LD tracking gain adjustment
5. Side A RD adjustment
6. CD Focus balance adjustment
7. CD RF H level adjustment
8. CD RF L level adjustment
9. Side B tracking balance adjustment
10. Side B crosstalk adjustment
 - Side B tangential adjustment
 - Side B RAD TILT, focus balance adjustments
11. Side B RD adjustment


7-6-1. Side A LD Servo System Adjustment

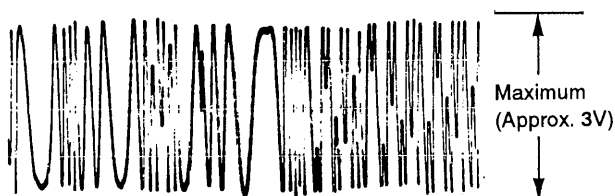
- Play back the LD reference disc (Side 1:CAV recording side) at Side A of the unit and perform the adjustments.

1. Side A Tracking Balance Adjustment (SV-60 Board)

Mode	Still
Signal	Frame 2201 (GRAY)
Measurement Point	MD Adjustment Cable [TRKG ERR (X)] (Pin ③ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	RV108 (A TRK BAL)
Specified Value	A=B

Adjusting method:

- 1) Set to the still mode (STILL: .
- 2) Search for frame 2201 (GRAY).
- 3) Turn off the sled servo. (MD adjustment cable SLED SW OFF)
- 4) Turn off the tracking servo. (MD adjustment cable TRKG SW OFF)
- 5) Adjust RV107 (A LD FCS BAL) so that the signal level is maximum.



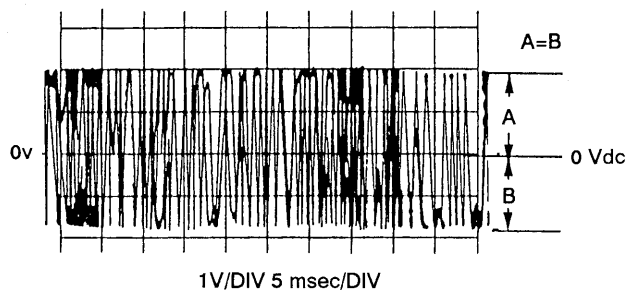
1V/DIV 5 msec./DIV

Fig. 7-4.

- 6) Adjust RV108 (A TRK BAL) so that the center voltage of the tracking error signal is 0 ± 0.1 Vdc.

Note: Perform adjustments using 770 frame (vertical bar) if the upper or lower sections of the waveform is clipped.

- 7) Set to the STOP mode.
- 8) Turn on the tracking servo.
- 9) Turn on the sled servo.



1V/DIV 5 msec./DIV

Fig. 7-5.

2. Focus Gain Adjustment (SV-60 Board)

Mode	Still
Signal	Frame 2201 (GRAY)
Measurement Point	MD adjustment cable • CH1: FOCUS ERR (Y) (Pin ⑥ of CN101) • CH2: FOCUS ERR (X) (Pin ⑤ of CN101)
Measuring Instrument	Oscilloscope (X-Y mode)
Adjustment Element	RV104 (F CS GAIN)
Specified Value	Left and right sides are symmetrical

Connection:

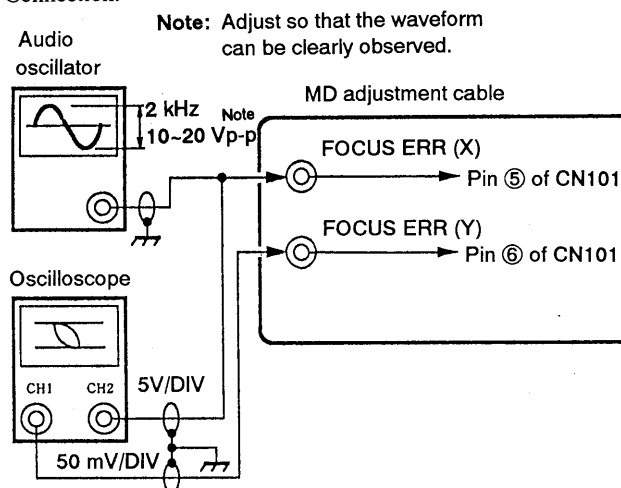



Fig. 7-6.

Adjusting method:

- 1) Set to the still mode (STILL: .
- 2) Search for frame 2201.
- 3) Adjust RV104 so that the left and right sides of the resurge waveform are symmetrical.

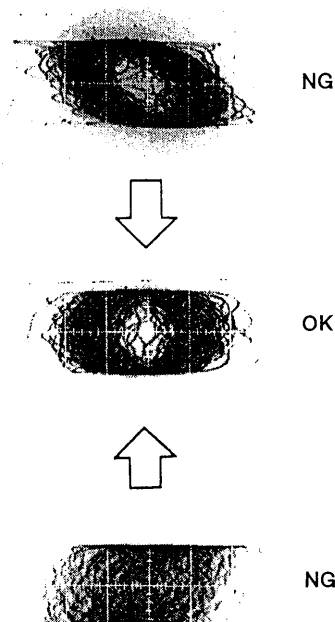


Fig. 7-7.

3. Side A Crosstalk Adjustment

3-1. Side A Tangential Adjustment (Mechanical section)

This adjustment is performed only when the optical block has been replaced.

Do not touch the adjustment screw at other times.

Adjustment Element	Side A tangential screw
--------------------	-------------------------

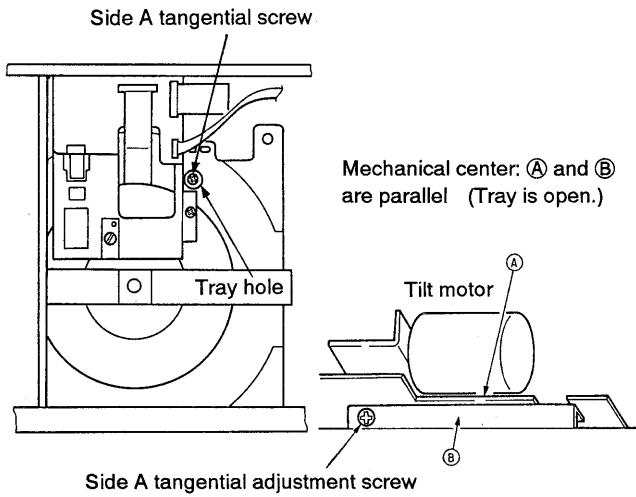


Fig. 7-8.

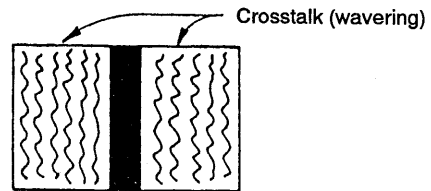
3-2. Side A RAD TILT, Focus Balance Adjustment (SV-60 Board)

Mode	Still
Signal	Frame 770 (Vertical bar)
Measurement Point	Monitor TV
Measuring Instrument	
Adjustment Element	RV101 (A TILT BAL) RV107 (A LD FCS BAL)
Specified Value	Equal and minimum left and right crosstalk (waving)

Setting the switch:
PICTURE ENHANCE.....DIRECT

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 770, and output the vertical bar.
- 3) Adjust RV101 (A TILT BAL) so that the crosstalk (waving) on the left and right sides are equal and minimum.
- 4) Adjust RV107 (A LD FCS BAL) so that the crosstalk is minimum.



Adjust so that the crosstalk on the left and right sides of the screen are equal and minimum.

Fig. 7-9.

4. LD Tracking Gain Adjustment (SV-60 Board)

Mode	Still
Signal	Frame 2201 (GRAY)
Measurement Point	MD adjustment cable <ul style="list-style-type: none"> • CH1: TRKG ERR (X) (Pin ③ of CN101) • CH2: TRKG ERR (Y) (Pin ⑦ of CN101)
Measuring Instrument	Oscilloscope (X-Y Mode)
Adjustment Element	RV110 (TRK GAIN)
Specified Value	Left and right sides are symmetrical.

Connection:

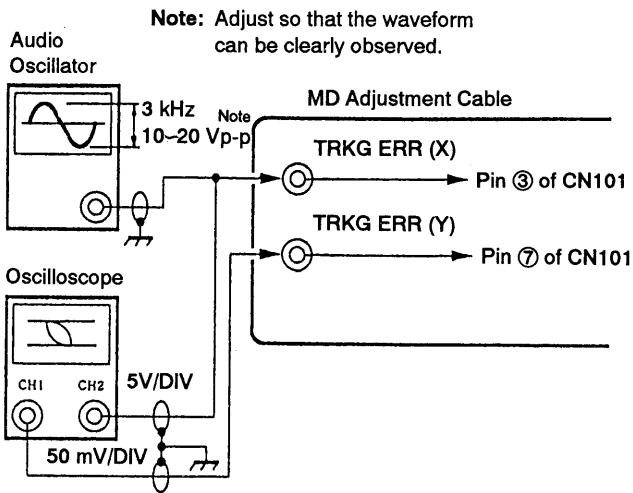



Fig. 7-10.

Adjusting method:

- 1) Set to the still mode (STILL: .
- 2) Search for frame 2201.
- 3) Adjust RV110 so that the left and right sides of the resurge waveform are symmetrical.

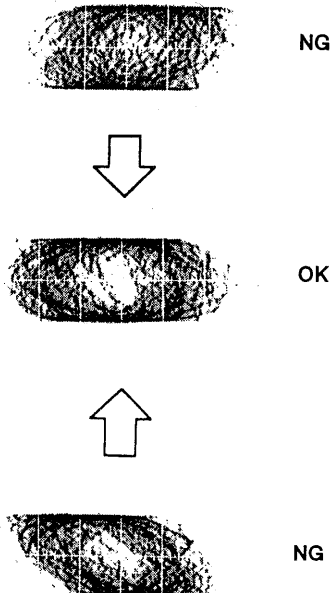


Fig. 7-11.

7-6-2. CD Servo System Adjustment

- Play back the CD reference disc and then perform the adjustments.
- Perform the CD servo system adjustment after completing the digital audio system adjustment.

1. Side A RD Adjustment (Mechanical section)

Mode	PAUSE
Signal	Track number 1, YEDS-18
Measurement Point	MD adjustment cable • CH1:E terminal (Pin ⑩ of CN101) • CH2:F terminal (Pin ⑨ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	Side A RD adjustment cam ^(Note)
Specified Value	A:B ≤ 10:1

Note: Adjustment holes for Side A RD adjustment cam are located on the rear panel cover.

Position of Side A RD adjustment cam.
(When the rear panel cover has been removed)

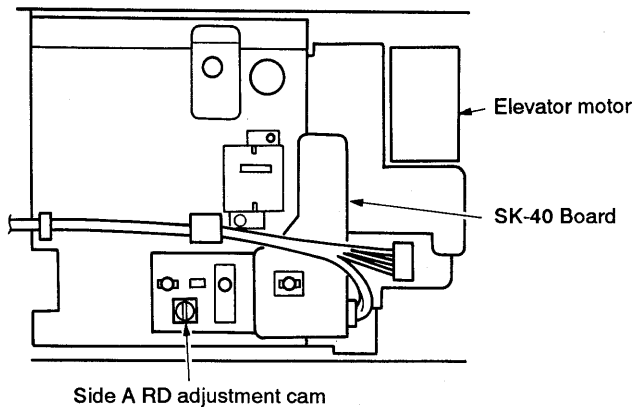


Fig 7-12.

- Note 1:** Turn off the TV monitor switch for noise prevention.
Note 2: The spindle motor may stop if the TRKG servo has been turned off for quite some time.

- 1) Play back track number 1, and set to the PAUSE mode.
- 2) Turn off the sled servo.
(MD adjustment cable SLED SW OFF)
- 3) Turn off the tracking servo.
(MD adjustment cable TRKG SW OFF)
- 4) Adjust Side A RD adjustment cam so that width B of the resurge waveform is minimum.
- 5) Perform "Side A LD tracking balance adjustment (RV108)".

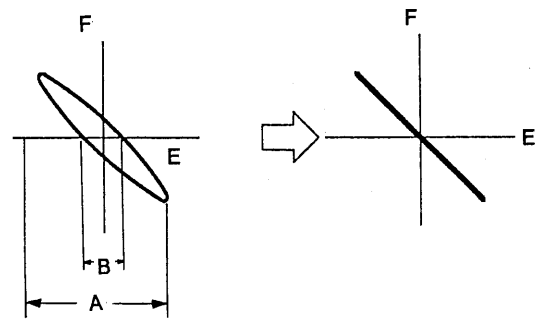


Fig. 7-13.

2. CD Focus Balance Adjustment (SV-60 Board)

Mode	Playback
Signal	Track number 1, YEDS-18
Measurement Point	MD adjustment cable • RF (CD) OUT (Pin ⑭ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	RV105 (CD FCS BAL)
Specified Value	Maximum amplitude

Adjusting method:

- 1) Play back track number 1.
- 2) Adjust RV105 so that the level is maximum and the lines of the rhombic sections of the waveform are clear.

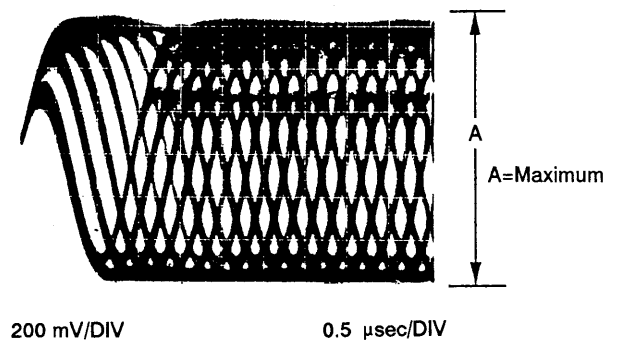


Fig. 7-14.

3. CD RF H Level Adjustment (CH-70 Board)

Mode	Playback
Signal	Track number 1, YEDS-18
Measurement Point	MD adjustment cable • RF (CD) OUT (Pin ④ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	RV901 (RF LEVEL ADJ)
Specified Value	1.2 ± 0.1 Vp-p

Adjusting method:

- 1) Play back track number 1.
- 2) Adjust RV901 so that it is 1.2 ± 0.1 Vp-p.

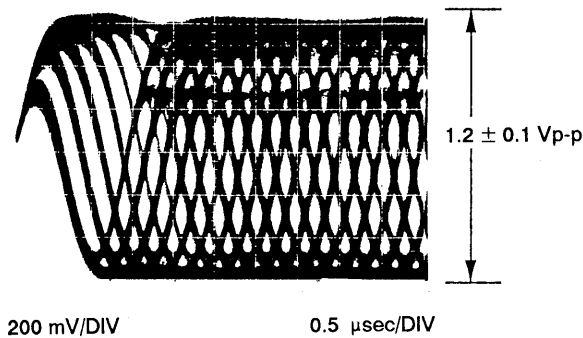


Fig. 7-15.

4. CD RF L Level Adjustment (SV-60 Board)

Mode	Playback
Signal	Track number 1, YEDS-18
Measurement Point	MD adjustment cable • RF (CD) OUT (Pin ④ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	RV103 (RF L GAIN)
Specified Value	Clearest rhombic lines

Adjusting method:

- 1) Play back track number 1.
- 2) Adjust RV103 so that the rhombic sections of the RF waveform is the clearest.

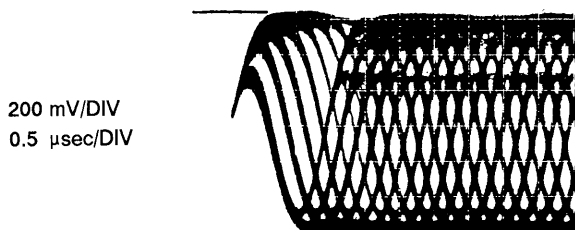


Fig. 7-16.

7-6-3. Side B LD SERVO System Adjustment

- Play back the LD reference disc (Side 1:CAV recording side) at Side B of the unit and perform the necessary adjustments unless specified otherwise.

1. Side B Tracking Balance Adjustment (SV-60 Board)

Mode	Still
Signal	Frame 2201 (GRAY)
Measurement Point	MD adjustment cable [TRKG ERR (X)] (Pin ③ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	RV109 (B TRK BAL)
Specified Value	A=B

Adjusting Method:

- 1) Set to the still mode (STILL: \blacktriangleleft).
- 2) Search for frame 2201 (GRAY).
- 3) Turn off the sled servo. (MD adjustment cable SLED SW OFF)
- 4) Turn off the tracking servo. (MD adjustment cable TRKG SW OFF)
- 5) Adjust RV106 (B LD FCS BAL) so that the signal level is maximum.



Fig. 7-17.

- 6) Adjust RV109 (B TRK BAL) so that the center voltage of the tracking error signal is 0 ± 0.1 Vdc.

Note: Perform adjustments using 770 frame (vertical bar) if the the upper or lower sections of the waveform is clipped.

- 7) Set to the still mode.
- 8) Turn on the tracking servo.
- 9) Turn on the sled servo.

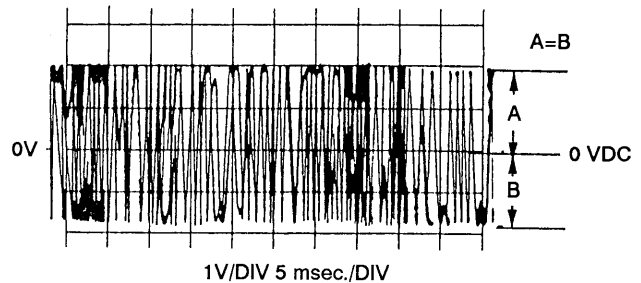


Fig. 7-18.

2. Side B Crosstalk Adjustment

2-1. Side B Tangential Adjustment (Mechanical section)

This adjustment is performed only when the optical block has been replaced.

Do not touch the adjustment screw at other times.

Adjustment Element	Side B tangential screw
--------------------	-------------------------

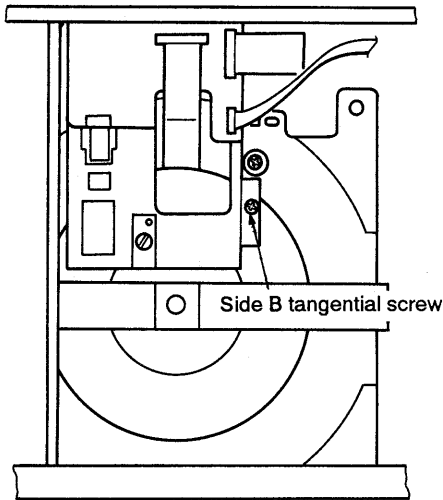


Fig. 7-19.

Adjusting method:

- 1) Adjust the Side B tangential screw to mechanical center.

Mechanical center is the condition in which the heights of these sections are equal.

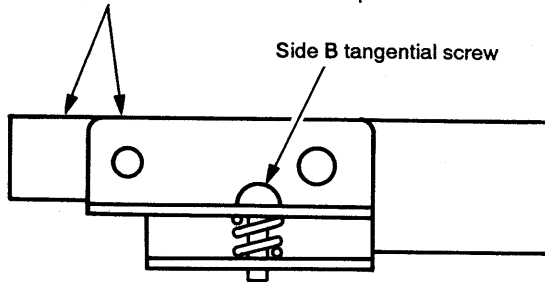


Fig. 7-20.

2-2. Side B RAD TILT, Focus Balance Adjustment (SV-60 Board)

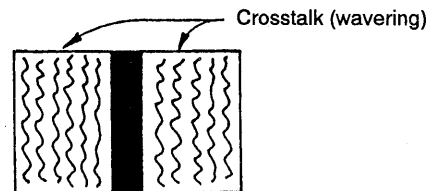
Mode	Still
Signal	Frame 770 (Vertical bar)
Measurement Point	Monitor TV
Measuring Instrument	
Adjustment Element	RV102 (B TILT BAL) RV106 (B LD FCS BAL)
Specified Value	Equal and minimum left and right crosstalk (wavering).

Setting the switch:

PICTURE ENHANCE.....DIRECT

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 770, and output the vertical bar.
- 3) Adjust RV102 (B TILT BAL) so that the crosstalk (wavering) on the left and right sides are equal and minimum.
- 4) Adjust RV106 (B LD FCS BAL) so that the crosstalk is minimum.



Adjust so that the crosstalk on the left and right sides of the screen are equal and minimum.

Fig. 7-21.

3. Side B RD Adjustment (Mechanical section)

Mode	PAUSE
Signal	Side 2 (CLV), Chapter 1
Measurement Point	MD adjustment cable <ul style="list-style-type: none"> • CH1: E terminal (Pin ⑩ of CN101) • CH2: F terminal (Pin ⑨ of CN101)
Measuring Instrument	Oscilloscope
Adjustment Element	Side B RD adjustment cam
Specified Value	A:B ≤ 10:1

Note 1: Play back Side 2 (CVL recording side) of the LD reference disc at Side B of the unit and perform the adjustments.

Note 2: Turn off the TV monitor switch for noise prevention.

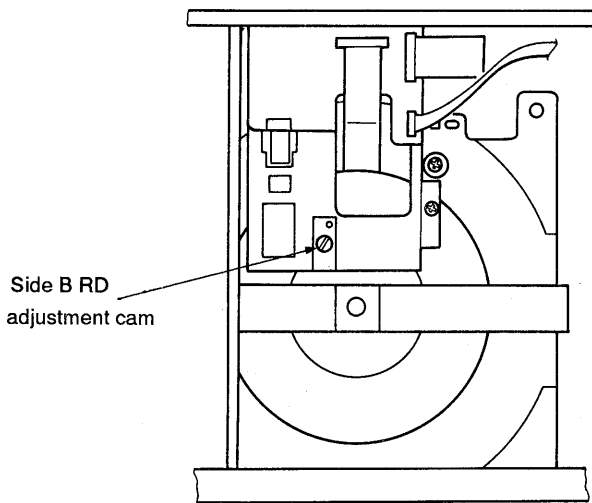


Fig. 7-22.

Adjusting method:

- 1) Play back chapter 1, and set to the pause mode. (Check that the DIGITAL SOUND LED is lit.)
- 2) Turn off the sled servo. (MD adjustment cable SLED SW OFF)
- 3) Turn off the tracking servo. (MD adjustment cable TRKG SW OFF)
- 4) Adjust the Side B RD adjustment cam so that width B of the resurge waveform is minimum.
- 5) Perform "Side B LD tracking balance adjustment (RV109)".

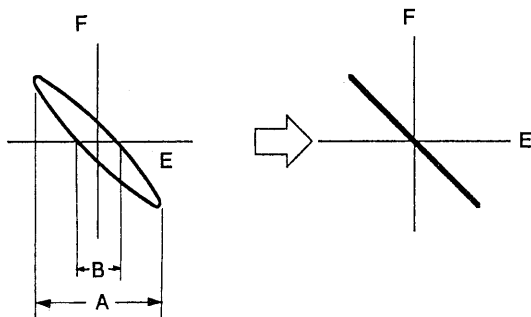


Fig. 7-23.

7-7. VIDEO SYSTEM ADJUSTMENT

1. Burst Gate Position Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	Pin ② of IC506
Adjustment Element	RV503
Specified Value	$8.6 \pm 0.3 \mu\text{sec}$

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100.
- 3) Adjust RV503 so that t_w is $8.6 \pm 0.3 \mu\text{sec}$.

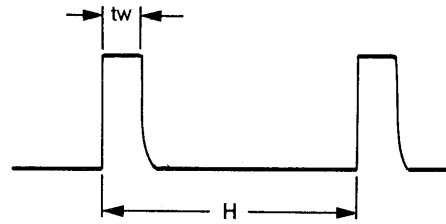


Fig. 7-24.

2. REF H Adjustment (LV-20 Board)

2-1. Coarse Adjustment

Mode	Still
Signal	Frame 4100 (Color bars)
Measurement Point	Pin ②⑤ of IC507
Measuring Instrument	Oscilloscope (DC range)
Adjustment Element	RV001
Specified Value	4.3 ± 0.1 Vdc.

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100.
- 3) Adjust RV001 so that the center value of the TBC voltage is 4.3 ± 0.1 Vdc.

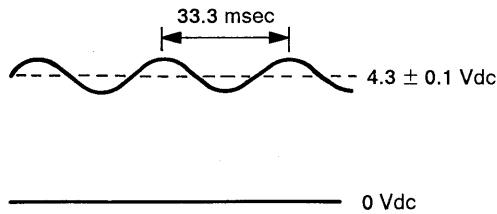


Fig. 7-25.

2-2. Fine Adjustment

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	CH1: Pin ③⑨ of IC003 CH2: Pin ④⑥ of IC003 See the figure below.
Measuring Instrument	Oscilloscope TRIG. SOURCE : CH2 TRIG. SLOPE : +
Adjustment Element	RV001
Specified Value	Coincidental waveform falling edges

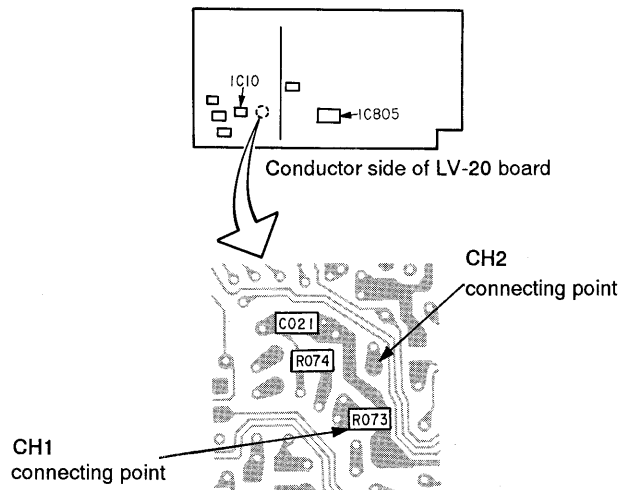


Fig. 7-26.

Adjusting method:

- 1) Adjust so that the falling edge of Pin ④⑥ waveform of IC003 nearest to that of Pin ③⑨ waveform coincide.

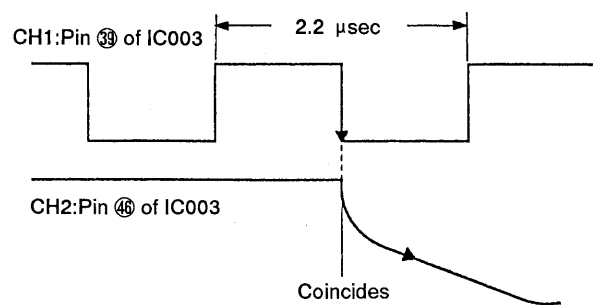


Fig. 7-27.

3. TBC Range Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	CH1: Pin ⑮ of IC506 CH2: Pin ⑳ of IC506 See the figure below.
Measuring Instrument	Oscilloscope, TRIG. SOURCE:CH1
Adjustment Element	RV505
Specified Value	$t_1 = 22 \pm 1 \mu\text{sec.}$

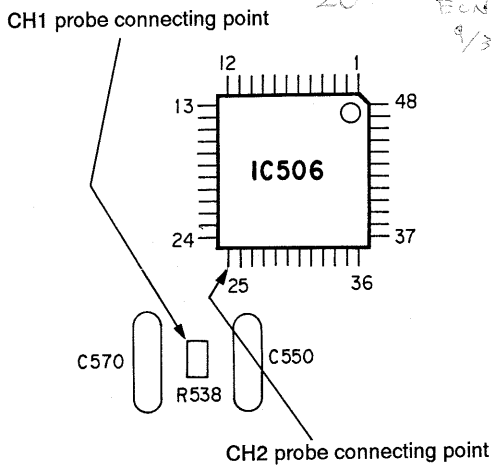


Fig. 7-28.

Preparations:

- 1) Prepare to connect Pin ④ (TBC ERROR) of IC506 to Pin ⑤ (REG +5V) of CN501 with a 1 kΩ resistor.

Pattern for connecting Pin ④ of IC506.

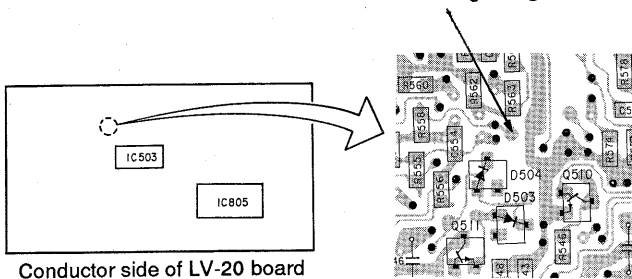


Fig. 7-29.

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100.
- 3) Check the falling edge position (∇) of CH2 waveform.
- 4) Connect Pin ④ (TBC ERROR) of IC506 to Pin ⑤ (REG +5V) of CN501 with a 1 kΩ resistor.
- 5) Adjust RV505 so that the horizontal direction movement (t_1) of CH2 waveform is $22 \pm 1 \mu\text{sec.}$
- 6) Remove the 1 kΩ resistor.

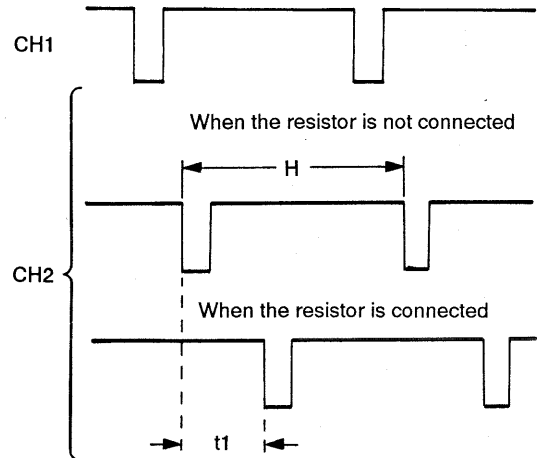


Fig. 7-30.

4. DEMOD VIDEO Level Adjustments (LV-20 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	Pin ⑳ of IC509
Measuring Instrument	Oscilloscope
Adjustment Element	RV502
Specified Value	$1.0 \pm 0.1 \text{ Vp-p}$

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100 and output the color bar.
- 3) Adjust RV502 so that it is $1.0 \pm 0.1 \text{ Vp-p}$.

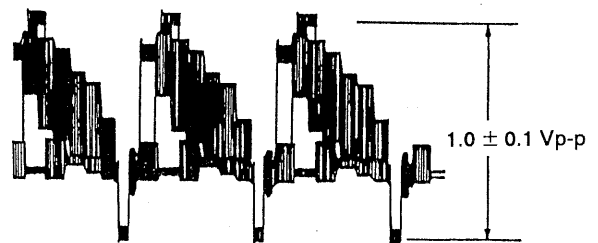


Fig. 7-31.

5. Color DOC Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 23500 (Yellow Green)
Measuring Instrument	Monitor screen
Adjustment Element	CV502
Specified Value	Dropout section and surrounding section are of the same colors.

Preparations:

- 1) Paste a black tape onto the 1H interval of the outer most circumference of the LD reference disc CAV recording side (The side where the radial can be seen). (Length: Approx. 10 mm)

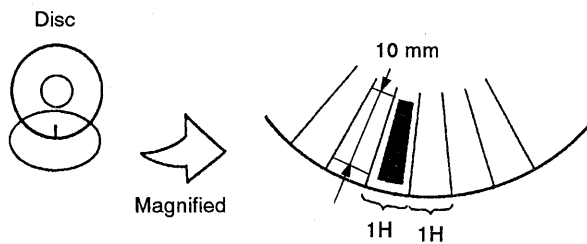


Fig. 7-32.

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 23500.
- 3) Adjust the color of the dropout section of CV502 to that of the surrounding section.

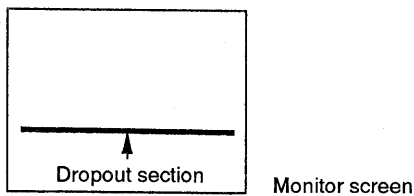


Fig. 7-33.

6. Picture Enhancer Chroma Trap Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	Q829 emitter
Measuring Instrument	Oscilloscope
Adjustment Element	CV801
Specified Value	Below 50 mVp-p

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100, and output the color bar.
- 3) Adjust CV801 so that the residual chroma component is minimum.

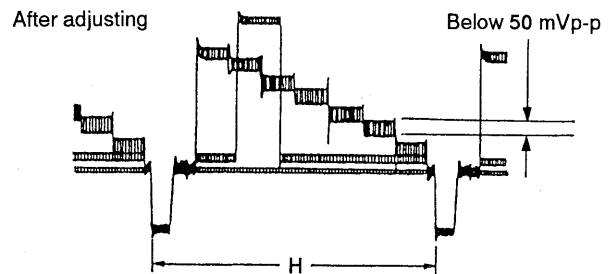
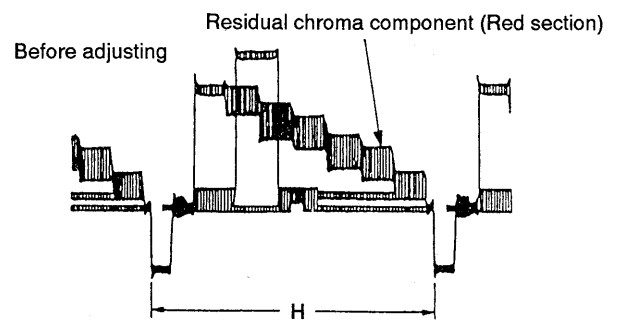


Fig. 7-34.

7. Picture Enhancer HPF DC Balance Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 6200 (Pulse bar)
Measurement Point	Emitter of Q834
Measuring Instrument	Oscilloscope
Adjustment Element	RV804
Specified Value	DC level deviation is below +0.1V

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 6200 and output the pulse bar.
- 3) Adjust RV804 so that the DC level deviation (A) is minimum.

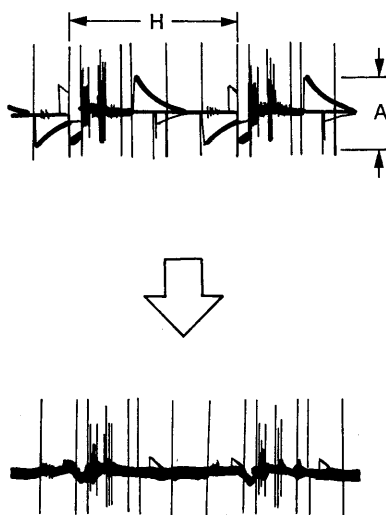


Fig. 7-35.

8. Video Output Level Adjustment (LV-20 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	Pin ⑥ of CN951
Measuring Instrument	Oscilloscope
Adjustment Element	DIRECT mode : RV802 SOFT mode : RV803
Specified Value	2.00 ± 0.02 Vp-p

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100, and output the color bar.
- 3) Set the PICTURE ENHANCE switch to SOFT position.
- 4) Adjust RV803 so that the video signal level is 2.00 ± 0.02 Vp-p.
- 5) Set the PICTURE ENHANCE switch to DIRECT position.
- 6) Adjust RV802 so that the video signal level is 2.00 ± 0.02 Vp-p.



Fig. 7-36.

9. S Video Output Level Adjustment (YC-117 Board)

Mode	Still
Signal	Frame 4100 (Color bar)
Measurement Point	Pin ⑩ of CN001
Measuring Instrument	Oscilloscope
Adjustment Element	RV301
Specified Value	1.00 ± 0.02 Vp-p

Note: The hole for RV301 adjustment are located on the YC-117 board shield case.

Adjusting method:

- 1) Set to the still mode (STILL: $\blacktriangleleft\blacktriangleright$).
- 2) Search for frame 4100, and output the color bar.
- 3) Adjust R301 so that the Y signal level is 1.00 ± 0.02 Vp-p.
- 4) Connect the oscilloscope to Pin ⑩ of CN001.
- 5) Check that the burst signal level is 400 ± 100 mVp-p.

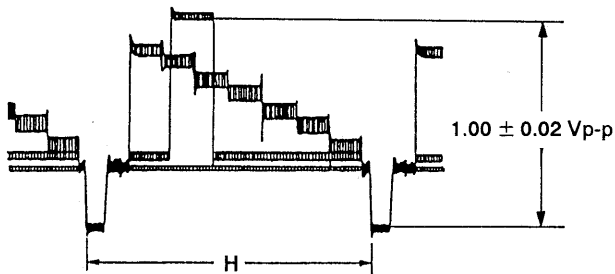


Fig. 7-37.

7-8. AUDIO SYSTEM ADJUSTMENT

7-8-1. Digital Audio System Adjustment

- CN901 of the CH-70 board and CN801 on the LV-20 board do not need to be connected to each other. Disconnect them and perform the adjustments.

1. RF PLL Offset Adjustment (AU-81 Board)

Mode	Tray open
Measurement Point	Pin ⑦ of IC009
Measuring Instrument	Digital voltmeter
Adjustment Element	RV001
Specified Value	0 ± 0.05 Vdc

Adjusting method:

- 1) Adjust RV001 so that the voltage of Pin ⑦ of IC009 is 0 ± 0.05 Vdc.

2. RF PLL Free-run Adjustment (AU-81 Board)

Mode	Tray open
Measurement Point	Pin ⑩ of IC003
Measuring Instrument	Frequency counter
Adjustment Element	LV001
Specified Value	4.30 ± 0.005 MHz

Note: The oscillation frequency will fluctuate if a metallic driver is used. Use a ceramic driver.

Adjusting method:

- 1) Adjust LV001 so that it is 4.30 ± 0.005 MHz.

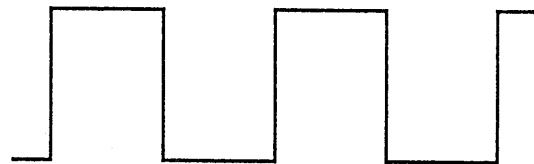


Fig. 7-38.

7-8-2. Digital Audio System Check

1. CD Playback Level Check

Mode	Playback
Signal	CD reference disc track number 2 (1 kHz, 0 dB)
Measurement Point	Audio output terminal l left and right
Measuring Instrument	Audio level meter
Specified Value	10.0 ± 1.0 dBs

Checking method:

- 1) Check that the level of the 1 kHz playback signal satisfies the specifications.

2. LD Playback Level Check

Mode	Playback
Signal	LD reference disc Side 2 (CLV) Chapter 1 (1 kHz, 0 dB)
Measurement Point	Audio output terminal l left and right
Measuring Instrument	Audio level meter
Specified Value	10.0 ± 1.0 dBs

Checking method:

- 1) Check that the DIGITAL SOUND LED is lit.
- 2) Check that the level of the 1 kHz playback signal satisfies the specifications.

7-8-3. Analog Audio System Adjustment

1. LD Playback Level Check

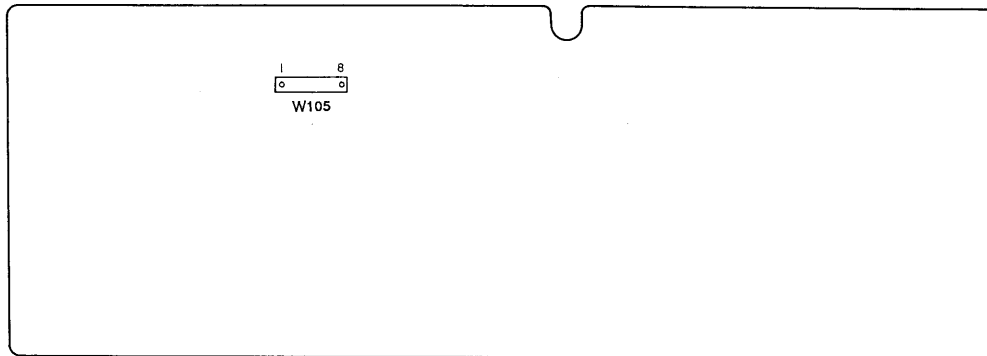
Mode	Playback
Signal	LD reference disc Side 1 (CAV) Chapter 6 (1 kHz, 100%)
Measurement Point	Audio output terminal l left and right
Measuring Instrument	Audio level meter
Specified Value	-3.8 ± 3.0 dBs

Checking method:

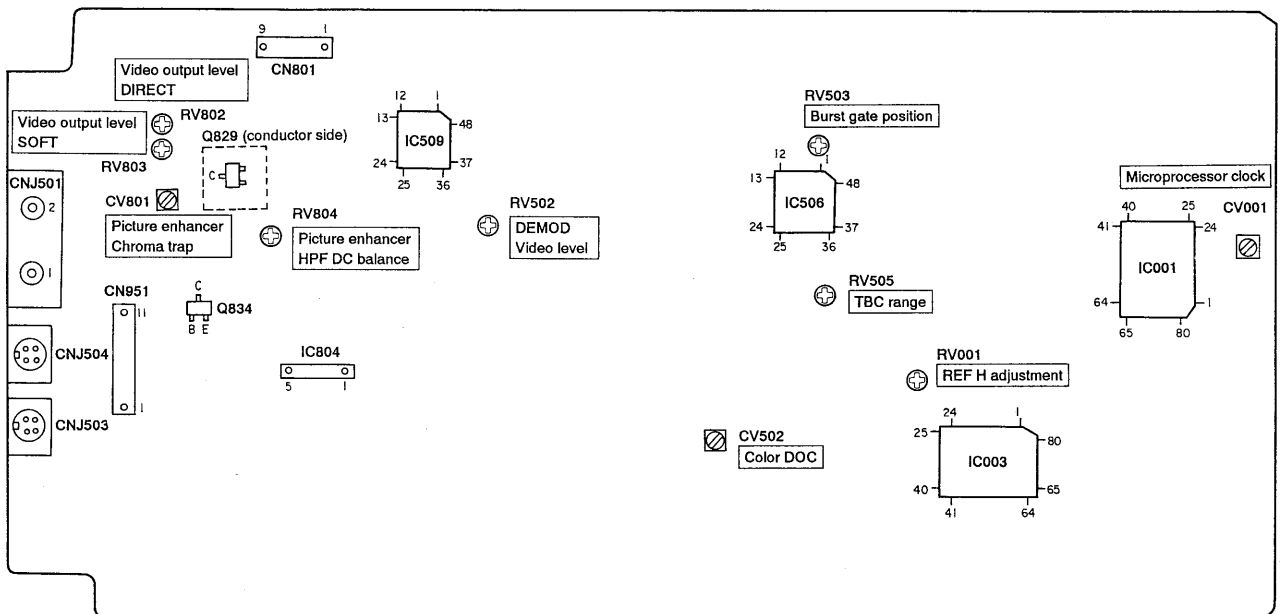
- 1) Check that the level of the 1 kHz playback signal satisfies the specifications.

7-9. ARRANGEMENT DIAGRAM FOR ADJUSTMENT PARTS

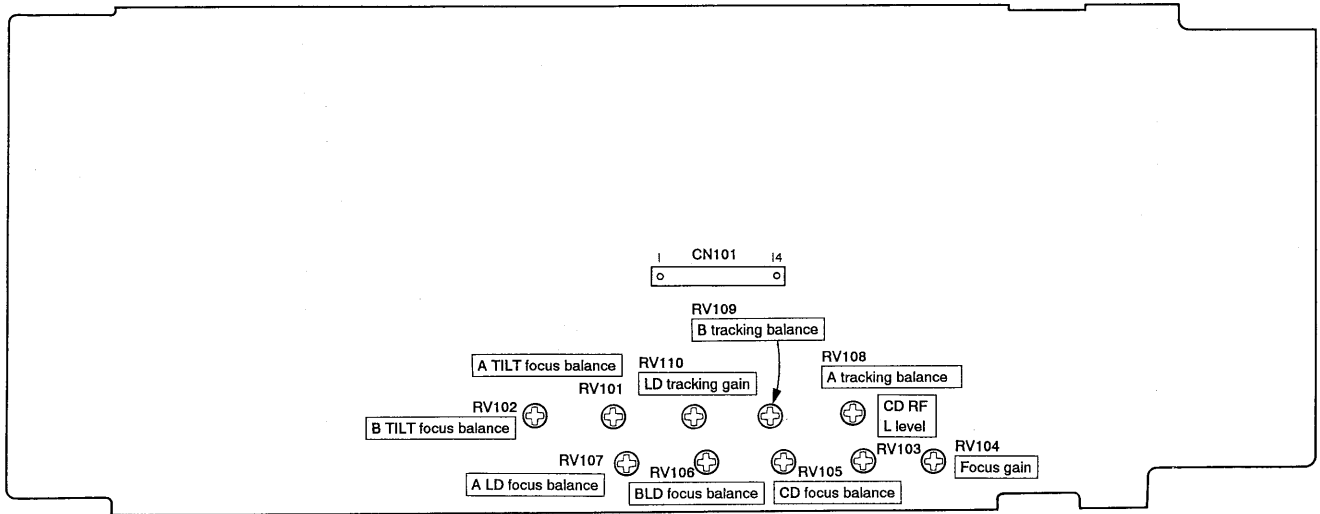
PS-251 Board (Conductor side)



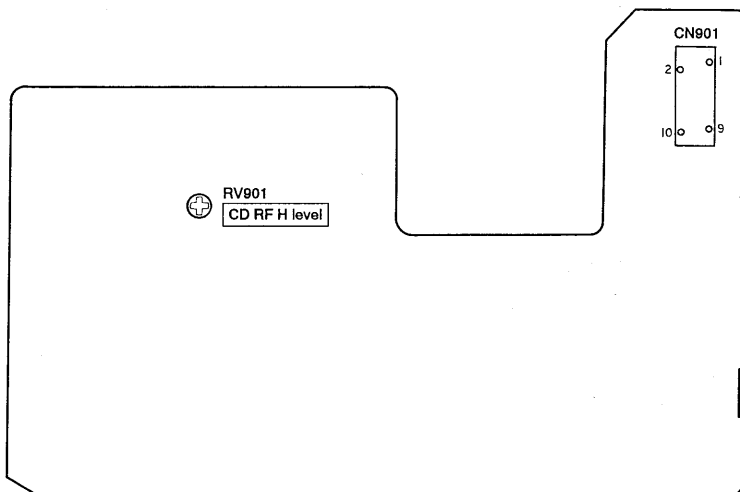
LV-20 Board (Component side)



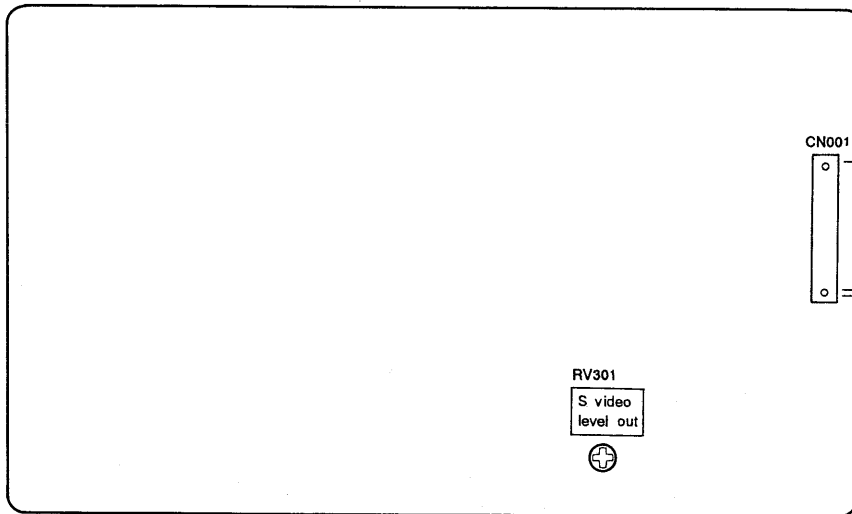
SV-60 Board (Component side)



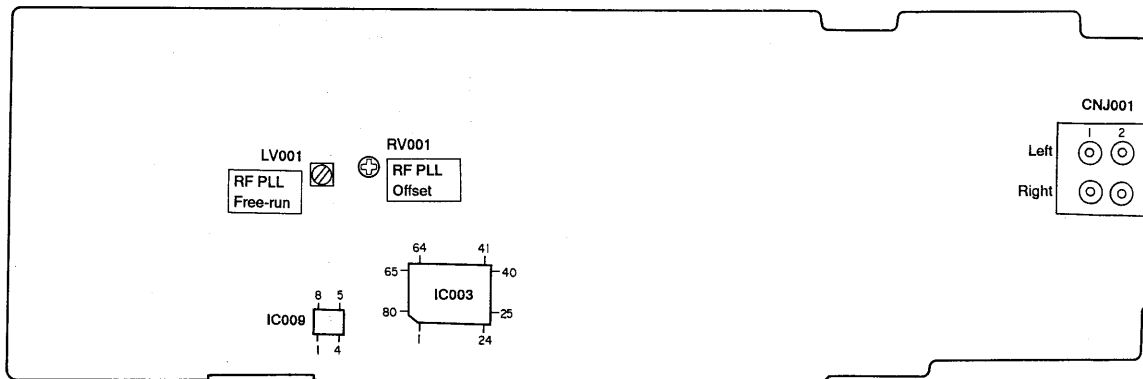
CH-70 Board (Component side)



YC-117 Board (Conductor side)



AU-81 Board (Conductor side)



MDP-605
RMT-S605A

9-973-035-11

Sony Corporation
Videodisc Player Group

English
91H0936-1
Printed in Japan
© 1991. 8

Published by Customer Relations and Service Group

MDP-605

RMT-S605A

SONY[®]

SERVICE MANUAL

US Model
Canadian Model
E Model

SUPPLEMENT-1

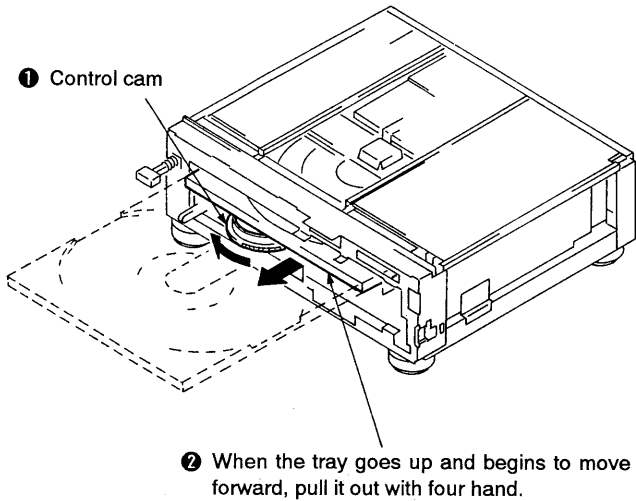
File this supplement with your Service Manual.

Subject	1. Disassemblies and replacements are added.
	2. Correction

SECTION 1 DISASSEMBLY

1-6. DISC REMOVAL

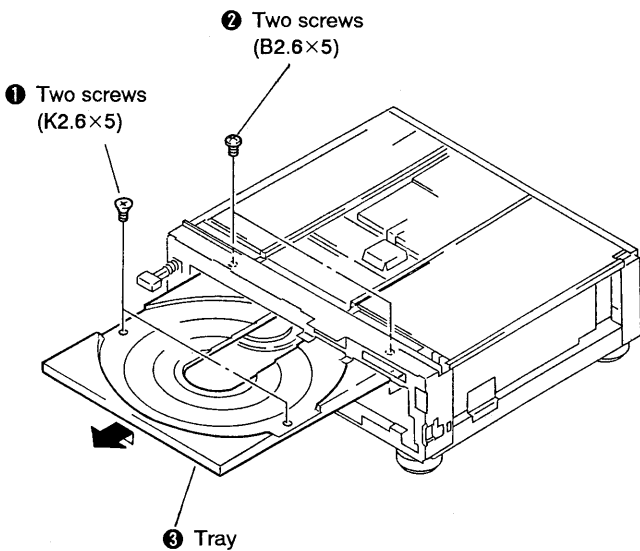
- 1) Remove the upper case. (Refer to 1-1. of 1. Disassembly)
- 2) Remove the front panel. (Refer to 1-1. of 1. Disassembly)
* With the tray lowered
- 3) Rotate the control cam in the clockwise direction, and pull out the tray.



1-7. TRAY ASSEMBLY REPLACEMENT

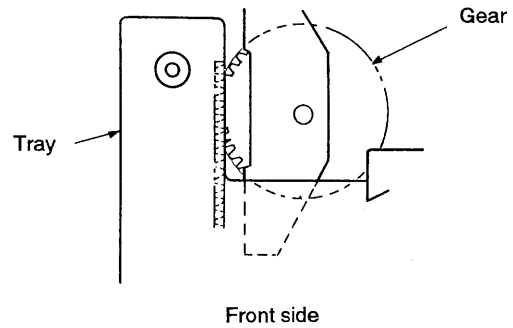
Removal

- 1) Remove the upper case and front panel. (Refer to 1-1. of 1. Disassembly)
- 2) With the tray pulled out, remove the four screws and tray.

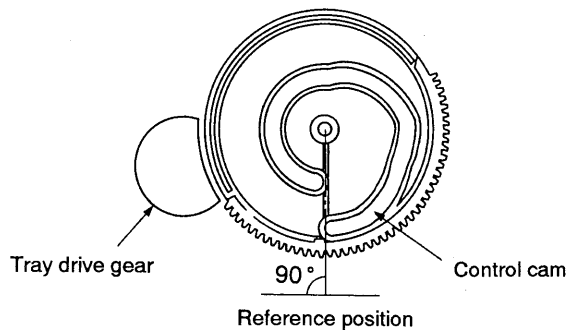


Installation

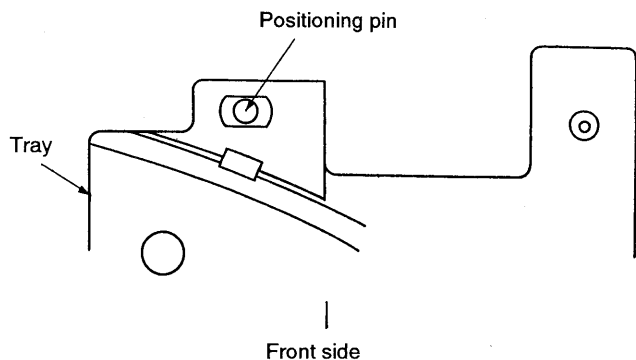
- 1) Replace the tray, and check that the gear engages with it.



- 2) Tighten the left front screw of the tray.
- 3) Tighten the left rear screw of the tray.
- 4) Move the slide rail on the right side to adjust the screw holes of the tray to those of the slide rail, and tighten the two screws.
- 5) Insert the tray deeply, and check that the control cam is at the reference position.



- 6) After installing, move the control cam, and check that the tray moves smoothly.
- 7) Rotate the control cam in the counterclockwise direction, and when the tray is lowered, check that the positioning pin is at the center of the tray hole.

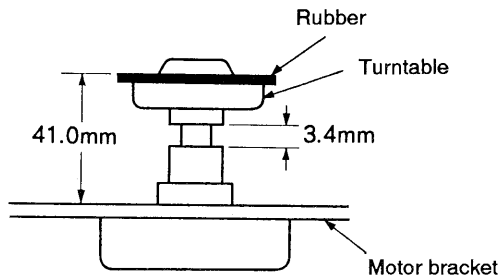


1-8. SPINDLE MOTOR REPLACEMENT

- 1) Remove the rear panel.
- 2) Remove the eight screws, and remove the carriage chassis.
(Remove also the flexible cable, etc.)
- 3) Pull out the tray.
- 4) Remove the FG sensor board.
- 5) Remove the six screws, and remove the optical chassis.
- 6) Remove the three screws, and remove the spindle motor.
- 7) Replace the motor after installing the turntable onto the motor for replacement. Be sure to adjust the position of the turntable.
- 8) After replacing the motor, adjust the servo system.

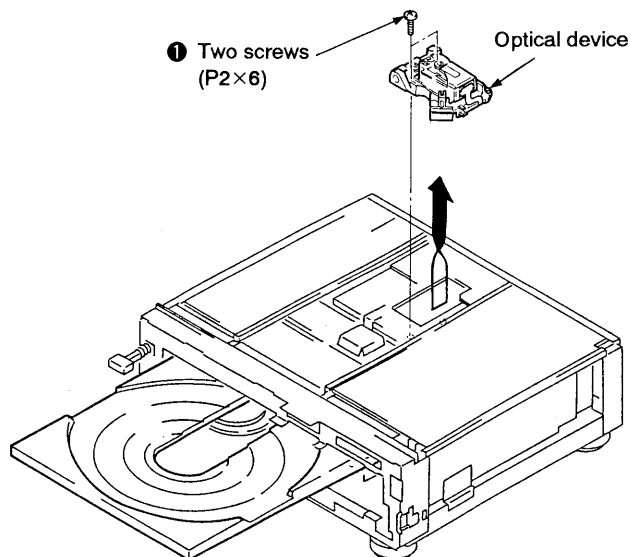
1-9. TURNTABLE POSITION ADJUSTMENT

- 1) The distance between the motor bracket and the top of the turntable should be 41.0 mm. The distance between the turntable and motor shaft bearing should be 3.4 mm.



1-10. OPTICAL DEVICE REPLACEMENT

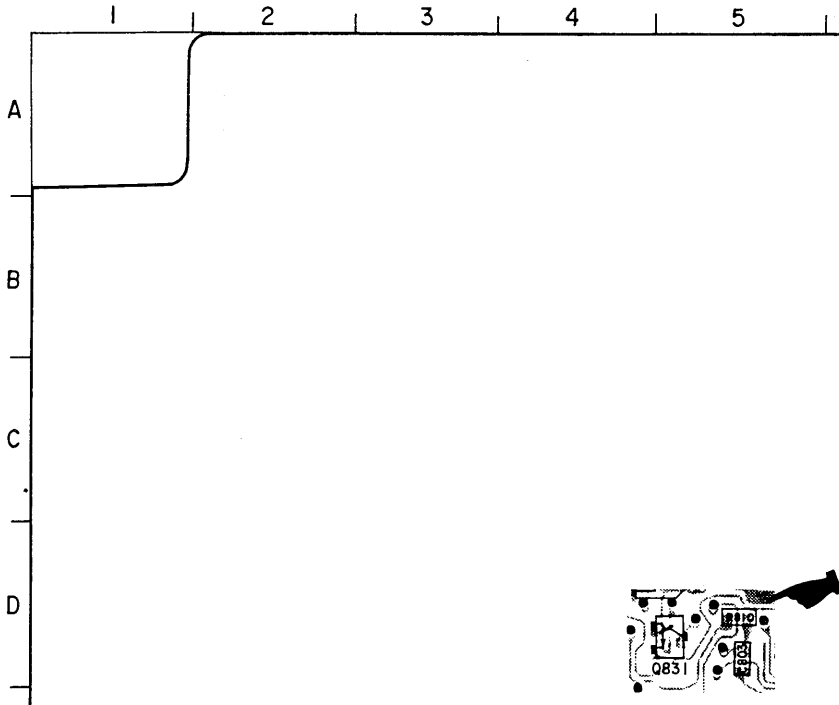
- 1) Remove the upper case.
- 2) Remove the two screws, and remove the optical device carefully.
- 3) Install by sliding it along the rail of the tangential holder.



Correction
1. SCHEMATIC DIAGRAMS

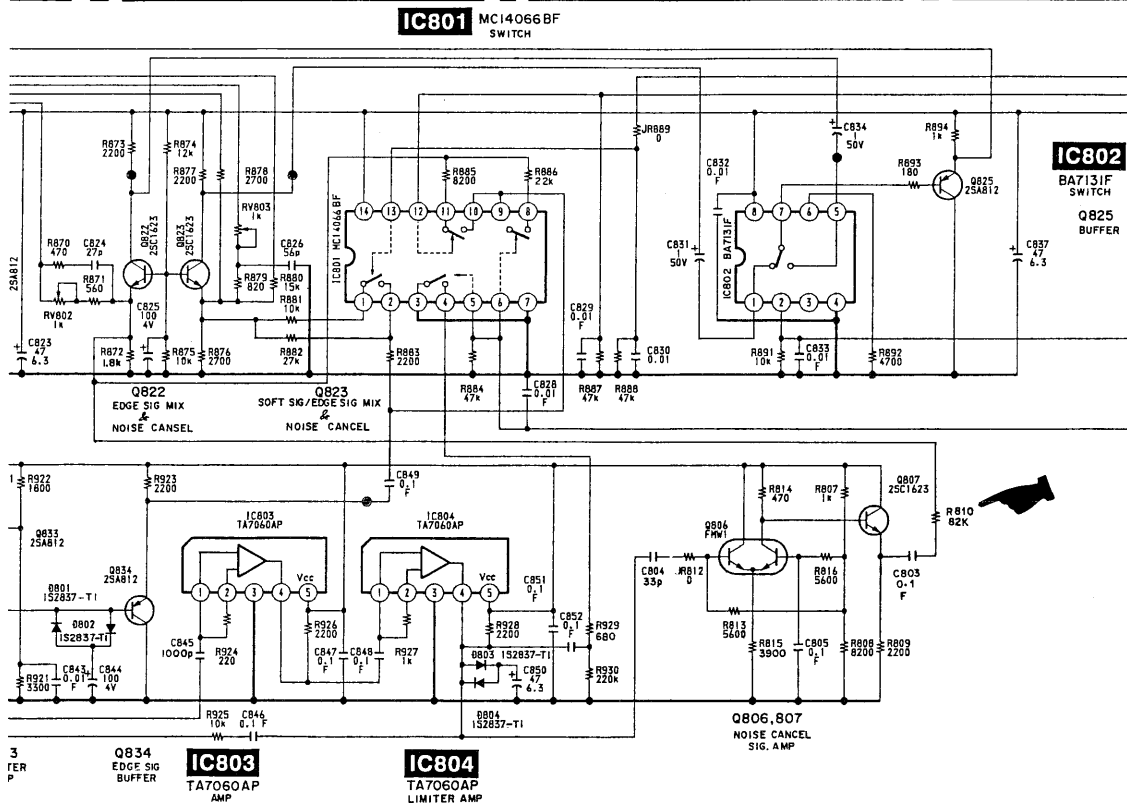
 : Corrected Portion

LV-20 BOARD (COMPONENT SIDE)



Page 75

LV-20 (VIDEO) SCHEMATIC DIAGRAM



C803	1-163-038-00 CERAMIC CHIP	0.1uF	5%	25V
R810	1-216-095-00 METAL CHIP	82K	5%	1/10W

2. SPECIFICATIONS

Page 2

RFU DC output Mini mini jack DC 5V (US/Canadian)
CONTROLS IN Mini jack (1)

Power requirements (US/Canadian) : add

Power requirements 120 V AC, 60 Hz
Power consumption 52 W
Weight 13.1 kg
Dimensions Approx. 430 × 141 × 446 mm
(w/h/d)
(17 × 4¹/₂ × 17⁹/₁₆ inches)

Power requirements (E) : add

Power requirements 100/120/220/240V AC
adjustable, 50/60 Hz

Power consumption 43W (E)

Weight 14 kg (E)

Operating temperature +5°C to +35°C

Ambient humidity 5 to 90%

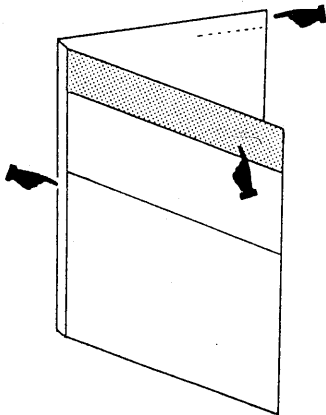
* Measured according to EIAJ (Electronic Industries Association of Japan) standards.

Supplied accessories

Remote Commander RMT-S605A (1)
Size AA (R6) batteries (2)
RFU adaptor RFU-90 UC (1) (US/Canadian)
Video connecting cord (phono plug 1 ↔ phono plug 1) (1)
Audio connecting cord (phono plug 2 ↔ phono plug 2) (1)
Operating Instructions

Design and specifications are subject to change without notice.

3. CORRECT THE MODEL NAME AS SHOWN BELOW.



MDP-605/605GX

RMT-S605A

US Model

Canadian Model

MDP-605

E Model

MDP-605GX

MDP-605/605GX

RMT-S605A

SONY[®] SERVICE MANUAL

US Model
Canadian Model
MDP-605
E Model
MDP-605GX

CORRECTION-1

Correct your service manual as shown below.

• Page 164 5-3. MAIN BOARDS ASSEMBLY for the EXPLODED VIEWS

 : Corrected portion

Incorrect			Correct		
Ref No.	Part No.	Description	Ref No.	Part No.	Description
106	* A-6421-647-A	LV-20 (U48) BOARD, COMPLETE	106	* A-6421-647-A	LV-20 (U48) BOARD, COMPLETE (US, Canadian)
				* <u>A-6421-710-A</u>	LV-20 (E48) BOARD, COMPLETE (E)
114	* A-6421-583-A	SV-60 BOARD, COMPLETE (US, Canadian)	114	* A-6421-583-A	SV-60 BOARD, COMPLETE (US, Canadian)
	* A-6421-710-A	SV-60 BOARD, COMPLETE (E)		* <u>A-6421-708-A</u>	SV-60 BOARD, COMPLETE (E)

• Page 176 LV-20 BOARD for the ELECTRICAL PARTS LIST

* A-6421-647-A LV-20 BOARD, COMPLETE (US, Canadian)

* A-642-710-A LV-20 BOARD, COMPLETE (E)

* A-6421-710-A LV-20 BOARD, COMPLETE (E)

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English
9410948-1
Printed in Japan
©1994. 9
Published by Personal A&V Products Div.
Quality Engineering Dept.