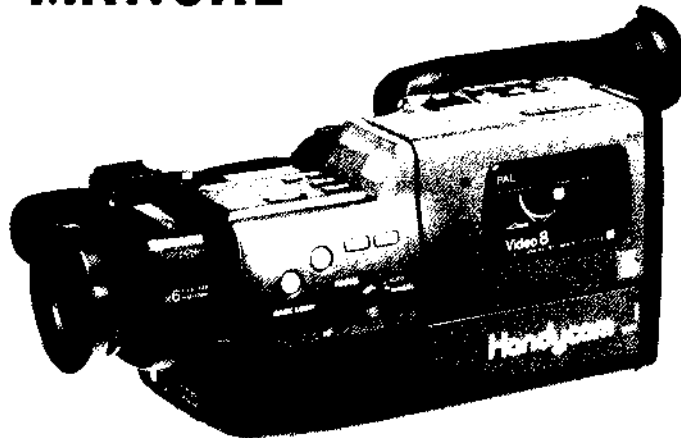


# SERVICE MANUAL



*AEP Model  
Australian Model  
UK Model  
E Model*

## Handycam Video 8

### SPECIFICATIONS

#### System

Video recording system	Rotary two heads, Helical scanning FM system
Audio recording system	Rotary head, FM system
Video signal	PAL colour, CCIR standards
Usable cassette	8 mm video format cassette
Tape speed	SP: Approx. 20.051 mm/sec. LP: Approx. 10.058 mm/sec.
Recording time	SP mode: 1 hour 30 min LP mode: 3 hours (P5-90)
Playback time	SP mode: 1 hour 30 min LP mode: 3 hours (P5-90)
Fast forward time	Approx. 6 min. 30 sec. (P5-90)
Image device	CCD (Charge Coupled Device)
Viewfinder	Electronic viewfinder
Lens	Combined 6 × power zoom lens f = 12-72 mm, F1.6 with macro Filter diameter: 46 mm
Auto focus system	TCL
Colour temperature	Auto: From the light at a tungsten lamp to the light on a slightly overcast day.
Minimum illumination	13 lux
Illumination range	13 lux-100,000 lux (1.2-9,294 footcandles)
Recommended illumination	More than 300 lux (28 footcandles)
Aperture correction	Automatic

#### Input and output connector

Video output	Phono jack, 1 Vp-p, 75 ohms unbalanced sync negative
Audio output	Phono jack, -10dBs, at output impedance less than 2.2 kilohms
RFU DC OUT	Special minijack, 5V DC
Earphone jack	Minijack, 8-ohm impedance
Remote jack	Stereo mini-minijack

#### Display in the viewfinder

Mode and caution indicators
Mode: REC/STBY
BACK LIGHT
Caution: BATTERY
DEW
TAPE END
CASSETTE
CAUTION
Time/date indication
Title colour indication

— Continued on next page —

**8** VIDEO CAMERA RECORDER  
**SONY**®



**General**

Power requirements	Battery compartment 6 V/7.5 V
Power consumption	7.1 W (camera recording) including the viewfinder
Installation	Vertically
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Dimensions	Approx. 116 × 130 × 312 mm (w/h/d) (4 <sup>5</sup> / <sub>8</sub> × 5 <sup>1</sup> / <sub>8</sub> × 12 <sup>3</sup> / <sub>8</sub> in.)

Weight	Approx. 1.2 kg (2 lb 10 oz) excluding the battery and cassette
Microphone	Electret condenser microphone, omni-directional monaural type
Supplied accessories	Lithium battery CR2025 (1) Shoulder strap (1)

**Precautions for replacement of CCD imager block.**



- With a pair of IC701 (CCD imager) on the VC-48 complete board and IC002 (corrector ROM) on the DT-61 complete board, it is used as a repair part of the CCD imager block.  
Since corrector ROM IC is manufactured to match the CCD imager, replacement of a single unit of the CCD imager corrector ROM cannot be allowed.
- When both a CCD imager and the corrector ROM, replace both the CCD imager and the corrector ROM, when a corrector ROM is not mounted on the service set, install a corrector ROM which is supplied anew.
- IC701 (CCD imager) is not mounted on the VC-48 complete board to be supplied as a repair part, and IC002 (corrector ROM) is not mounted on the DT-61 complete board to be supplied as a repair part. When the respective boards are replaced, remove the respective ICs from the old boards and install them to the new ones respectively.
- After the CCD imager block has been replaced, perform the entire adjustments of the camera section.
- CCD imager is structurally in case of being broken down by static electricity. For this reason, take care to handle it as well as MOS IC. Moreover, care should be taken for dust not to be stuck on the light receiving section and for strong light not to get into there.

**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!!**

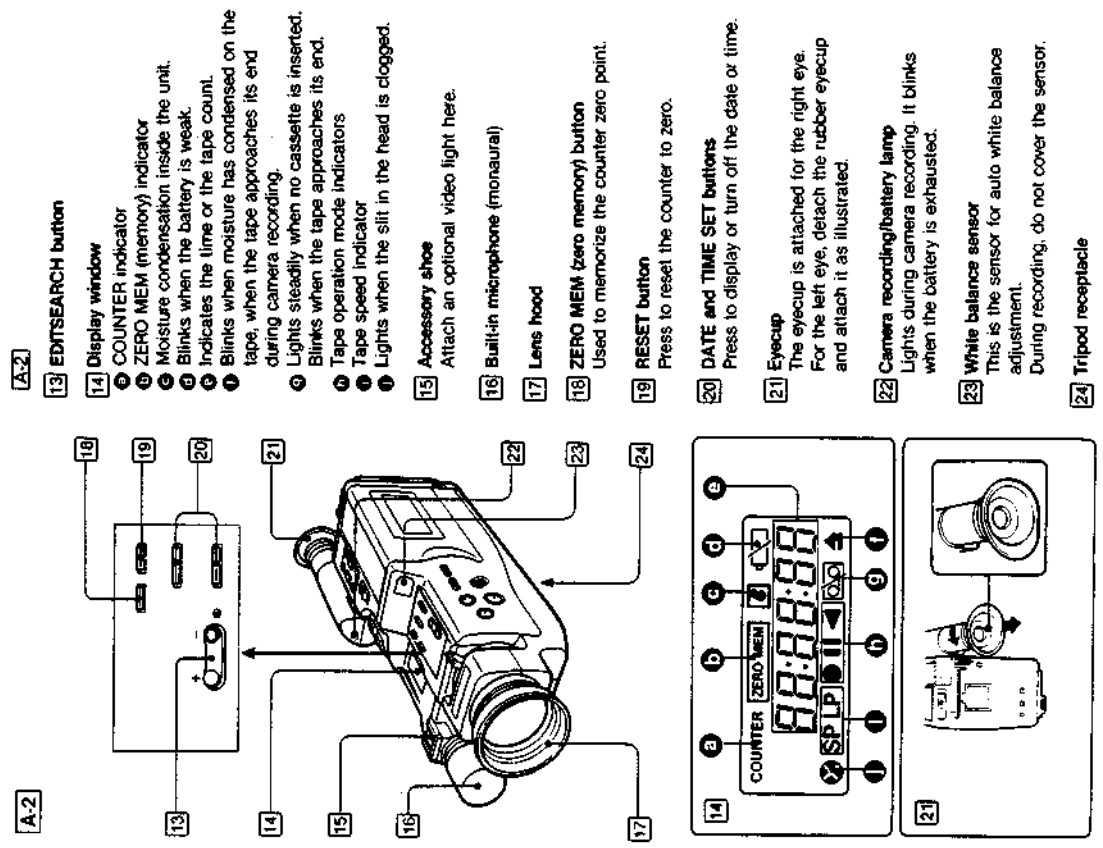
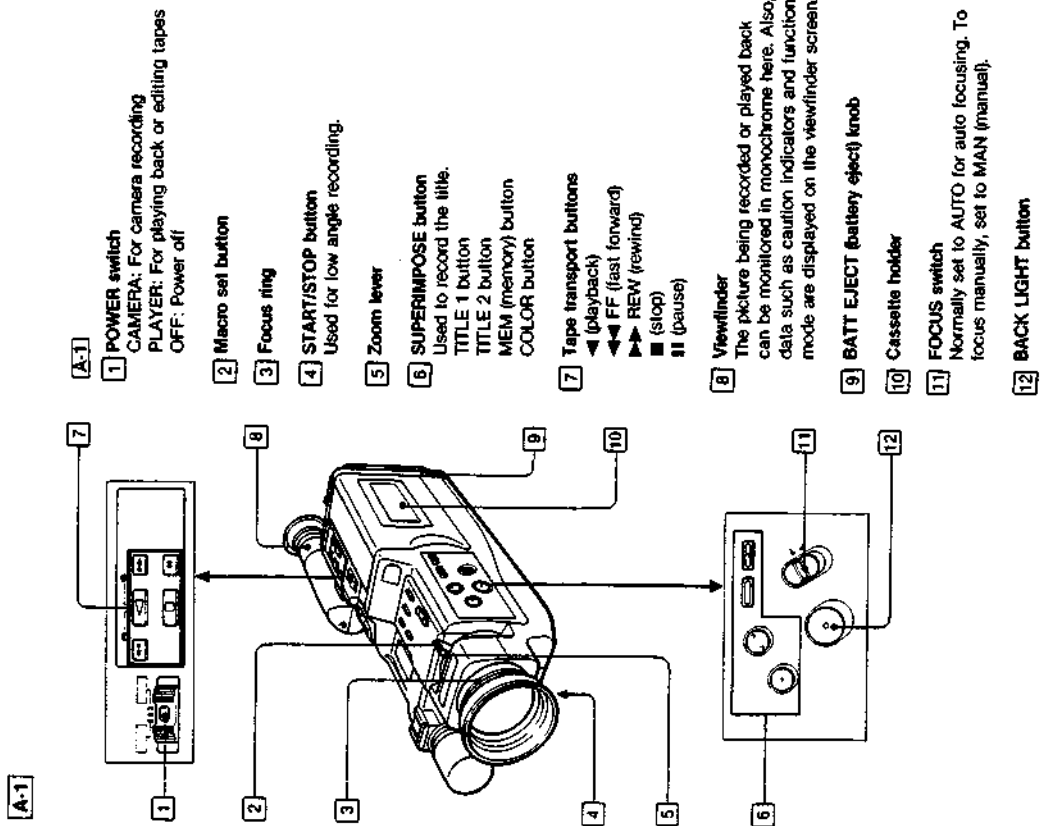
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## TABLE OF CONTENTS

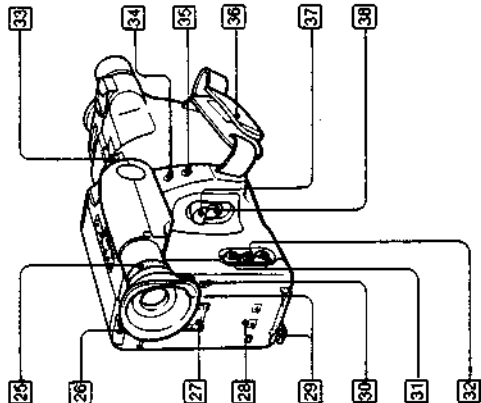
<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	<b>GENERAL</b>		4-5.	Video/Audio: SS-86, VA-41, and MC-28 Boards . . . . .	90
	Location and Function of Parts and Controls . . . . .	4	4-6.	Servo/System Control: SS-86, SW-76, ZM-7, LA-1, PA-13, CC-7, and FP-53 Boards . . . . .	100
2.	<b>DISASSEMBLY</b>		4-7.	Mode Control: FC-18, FV-1, FD-6, and EJ-4 Boards . . . . .	112
2-1.	Removing the View Finder . . . . .	6	4-8.	Viewfinder: VF-13, TL-18, and TL-19 Boards . . . . .	117
2-2.	Removing the Cabinet (Left) . . . . .	6	4-9.	Semiconductors . . . . .	122
2-3.	Removing the Cabinet (Right) . . . . .	6	5.	<b>EXPLODED VIEWS</b>	
2-4.	Separating the Camera and VTR Blocks . . . . .	7	5-1.	Right Cabinet Assembly . . . . .	124
2-5.	Removing the VC-48 (CCD Imager), VC-49, VC-50, and VC-51 Boards . . . . .	7	5-2.	Left Cabinet Assembly . . . . .	125
2-6.	Removing the LS Lid . . . . .	8	5-3.	Cassette Arm and Frame Assembly . . . . .	126
2-7.	Opening the VA-41 Board . . . . .	8	5-4.	LS Cassette Compartment Assembly . . . . .	127
2-8.	Opening the SS-86 Board . . . . .	8	5-5.	Chassis Assembly (1) . . . . .	128
2-9.	Removing the Cassette Arm . . . . .	9	5-6.	Chassis Assembly (2) . . . . .	129
2-10.	Removing LS Cassette Compartment Assembly . . . . .	9	5-7.	Camera Assembly . . . . .	130
3.	<b>DIAGRAMS</b>		6.	<b>ELECTRICAL PARTS LIST</b>	
3-1.	Circuit Boards Location . . . . .	10	•	FP-53 Board . . . . .	131
3-2.	Overall Block Diagram . . . . .	11	•	AF-32 Board . . . . .	131
3-3.	Camera Block Diagram . . . . .	16	•	FC-18 Board . . . . .	131
3-4.	Auto Focus Block Diagram . . . . .	21	•	VC-48 Board . . . . .	132
3-5.	Digital Titler Block Diagram . . . . .	24	•	VC-49 Board . . . . .	134
3-6.	Video Block Diagram . . . . .	27	•	VC-50 Board . . . . .	135
3-7.	Servo/System Control Block Diagram . . . . .	32	•	VC-51 Board . . . . .	136
3-8.	Mechanism Controller ( $\mu$ PD78112-GF) . . . . .	37	•	SS-86 Board . . . . .	137
3-9.	System Control – Camera Block Interface . . . . .	40	•	VA-41 Board . . . . .	141
3-10.	System Control – Video, Audio Block Interface . . . . .	40	•	EJ-4 Board . . . . .	147
3-11.	System Control – Servo Peripheral Circuit Interface . . . . .	41	•	FV-1 Board . . . . .	147
3-12.	System Control – Peripheral Circuit Interface . . . . .	44	•	MC-28 Board . . . . .	147
3-13.	Audio Block Diagram . . . . .	46	•	VF-13 Board . . . . .	148
3-14.	Power Supply Block Diagram . . . . .	49	•	TL-18 Board . . . . .	149
3-15.	Viewfinder Block Diagram . . . . .	54	•	TL-19 Board . . . . .	149
4.	<b>PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS</b>		•	PA-13 Board . . . . .	149
	Video/Audio Block IC Block Diagrams . . . . .	57	•	ZM-7 Board . . . . .	149
4-1.	Frame Schematic Diagram . . . . .	60	•	LA-1 Board . . . . .	149
4-2.	Camera (1): VC-48, VC-49, VC-50, and VC-51 Boards . . . . .	64	•	SW-76 Board . . . . .	149
4-3.	Camera (2): AF-32 and VC-48 Boards . . . . .	74	•	Hardware List . . . . .	150
4-4.	Digital Titler: SS-86 and VC-48 Boards . . . . .	81			

# SECTION 1 GENERAL

## Location and Function of Parts and Controls



A-3



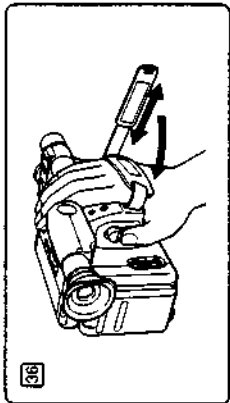
A-3

- 25 **Viewfinder lens adjustment ring**  
Adjust to your eyesight to assure good focus. Be sure to adjust this ring when shooting for the first time.
- 26 **Cassette eject button**
- 27 **Lithium battery compartment**
- 28 **Battery mounting surface**
- 29 **Hooks for shoulder strap**  
Attach a shoulder strap.
- 30 **REC MODE (recording mode)/EDIT switch**  
Switch it depending on the operating mode.

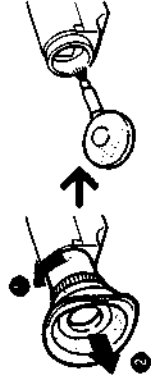
Mode	Recording	Playback	Editing
Setting	SP LP	EDIT	EDIT
Function	REC MODE switch	EDT switch	EDT switch

A-3

- 31 **VIDEO/AUDIO OUT (output) jacks (phone jacks)**
- 32 **RFU DC OUT (RFU adaptor DC output) jack (special mini-jack)**  
Supplies power to the RFU-88EA/ASA RFU adaptor.
- 33 **Power zoom button**
- 34 **REMOTE connector (stereo mini-mini-jack)**
- 35 **Ⓜ (earphone) jack (mini-jack)**
- 36 **Grip strap**  
Adjust the length so that your thumb can easily manipulate the START/STOP button.
- 37 **STANDBY switch**  
Slide up to set the unit to recording pause mode.
- 38 **START/STOP button**  
Press to start and stop camera recording.



A-4

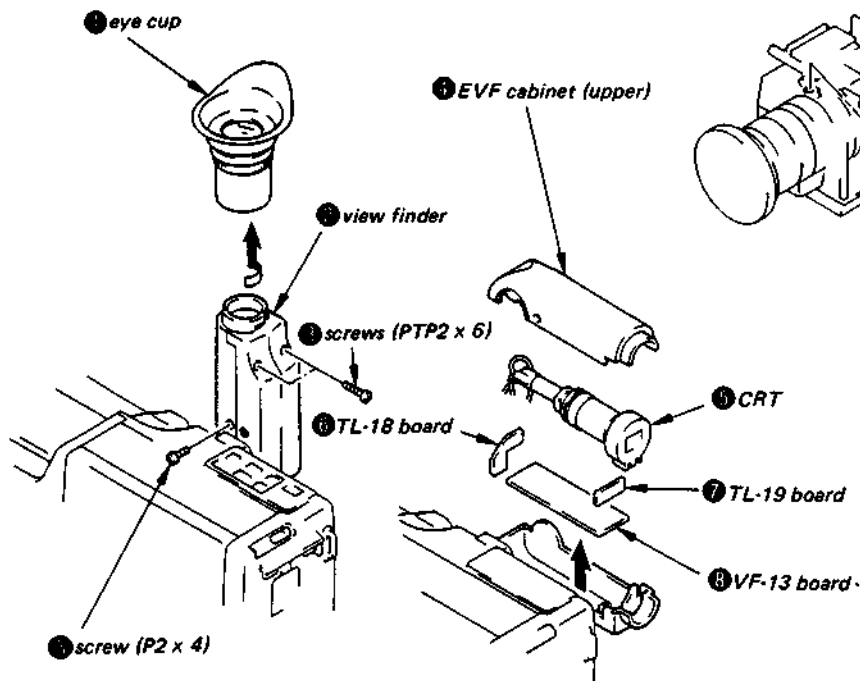


To remove dust from inside the viewfinder **A-4**  
Detach the eyecup as illustrated and clean the surface of the Braun tube with a blower.

## SECTION 2 DISASSEMBLY

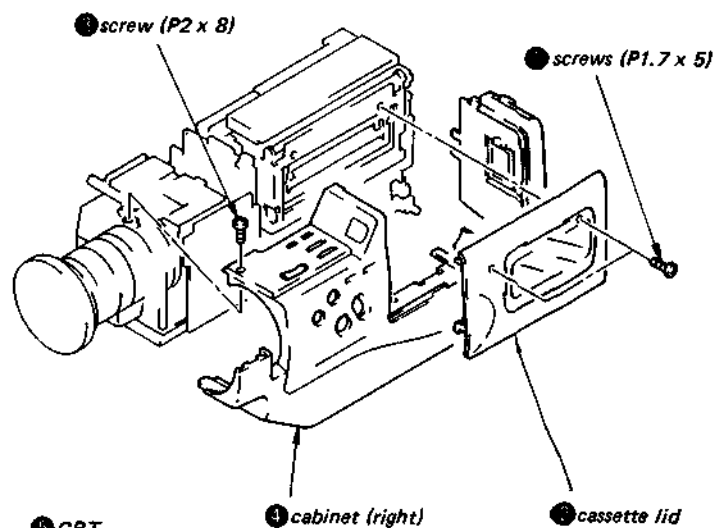
### 2-1. REMOVING THE VIEW FINDER

- 1) Turn the eye cup ① counterclockwise and remove.
- 2) Raise the view finder ②.
- 3) Remove three screws ③.
- 4) Put the view finder ② down on the bench.
- 5) Remove the EVF cabinet (upper) ④, and separate the CRT ⑤, TL-18 board ⑥, TL-19 board ⑦ and VF-13 board ⑧.



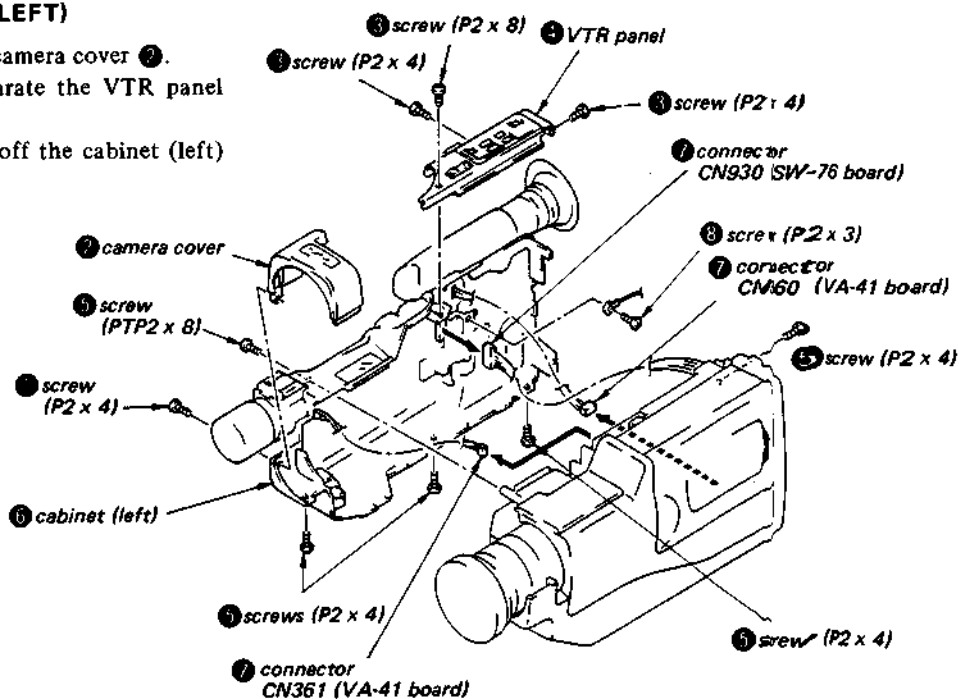
### 2-3. REMOVING THE CABINET (RIGHT)

- 1) Remove two of screws ① and detach the cassette lid ②.
- 2) Remove screw ③ and take off the cabinet (right) ④.



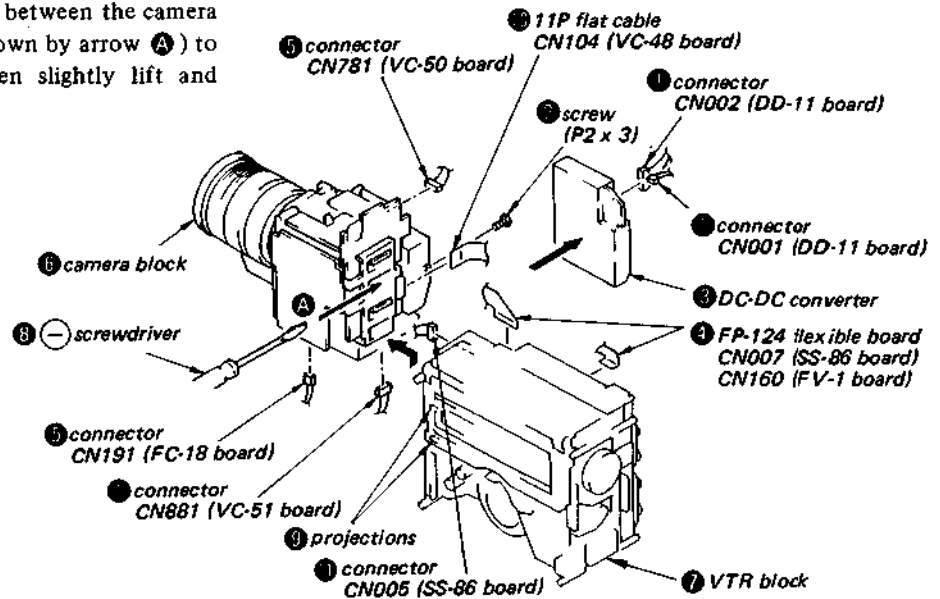
### 2-2. REMOVING THE CABINET (LEFT)

- 1) Remove screw ① and detach the camera cover ②.
- 2) Remove three screws ③ and separate the VTR panel ④.
- 3) Remove five screws ⑤ and take off the cabinet (left) ⑥.
- 4) Unplug the three connectors ⑦.
- 5) Remove screw ⑧.



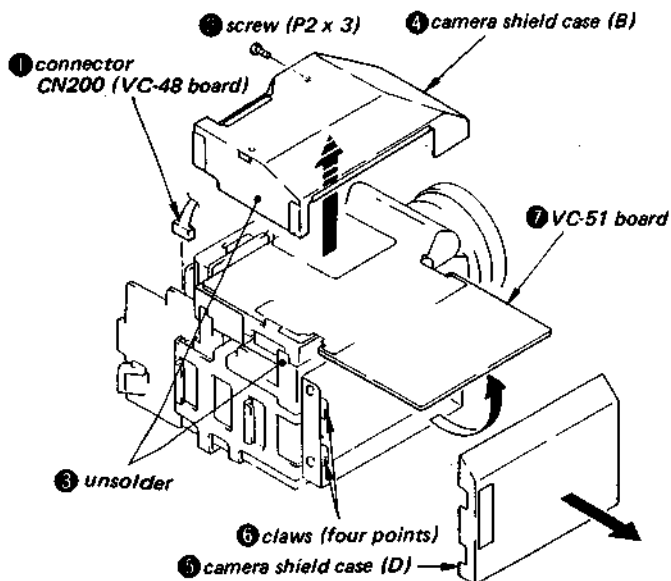
## 2-4. SEPARATING THE CAMERA AND VTR BLOCKS

- 1) Unplug three connectors ❶.
- 2) Remove screw ❷ and take off the DC-DC converter ❸.
- 3) Remove the FP-124 flexible board ❹.
- 4) Unplug two connectors ❺.
- 5) Insert a flat-bladed screwdriver ❽ between the camera block ❹ and VTR block ❺ (as shown by arrow A) to separate two projecting ❾. Then slightly lift and remove the camera block ❹.
- 6) Disconnect the 11P flat cable ❿.
- 7) Unplug connector ❶.

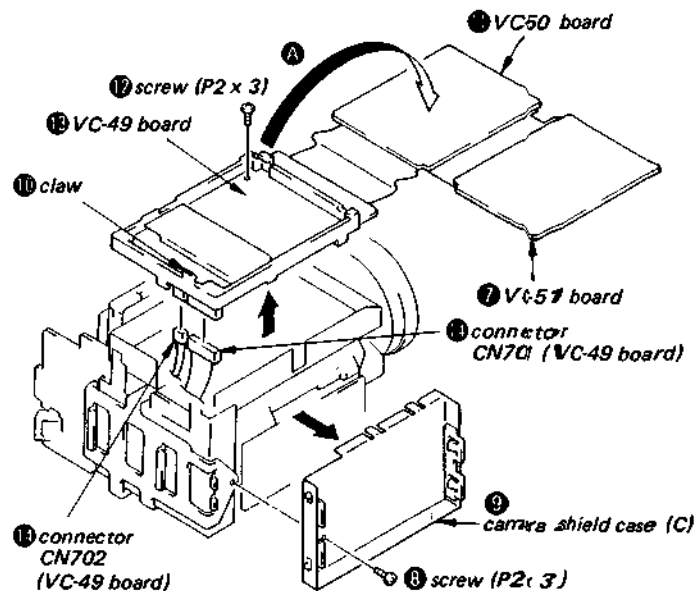


## 2-5. REMOVING THE VC-48 (CCD IMAGER), VC-49, VC-50, AND VC-51 BOARDS

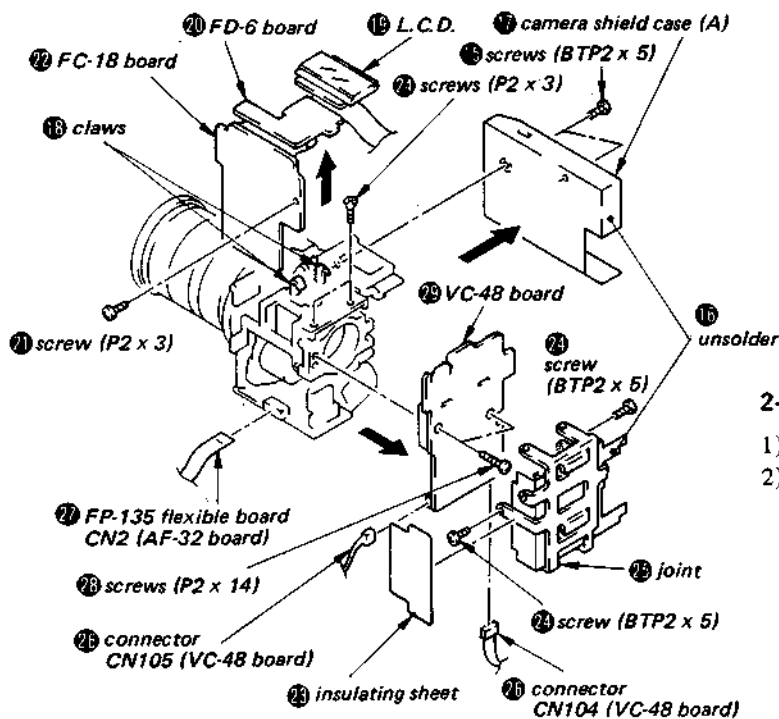
- 1) Unplug connector ❶.
- 2) Remove screw ❷.
- 3) Unsolder the point ❸ and take off the camera shield case (B) ❹.
- 4) Remove camera shield case (D) ❺.
- 5) Detach the claw ❻ at 4 points and raise the VC-51 board ❼.



- 6) Remove screw ❸ and take off the camera shield case (C) ❾.
- 7) Detach the claw ❿, and open the VC-50 and VC-51 boards ❶ and ❼ as shown by arrow A.
- 8) Remove screw ❿ and take off the VC-49 board ❷.
- 9) Unplug two connectors ❶.



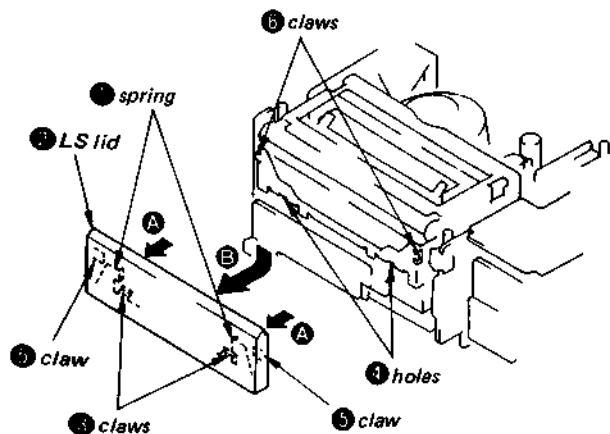
- 10) Remove two screws ⑤.
- 11) Unsolder the point ⑩ and take off the camera shield case (A) ⑪.
- 12) Release the claw ⑬ at 2 locations, and remove the LCD ⑫ and FD-6 board ⑭.
- 13) Remove screw ⑰ and take off the FC-18 board ⑱.
- 14) Take off the insulating sheet ⑲.
- 15) Remove four screws ⑳ and take off the joint ㉑.
- 16) Unplug two connectors ㉒.
- 17) Remove the FP-135 flexible board ㉓.
- 18) Remove two screws ㉔ and take off the VC-48 board ㉕.



## 2-6. REMOVING THE LS LID

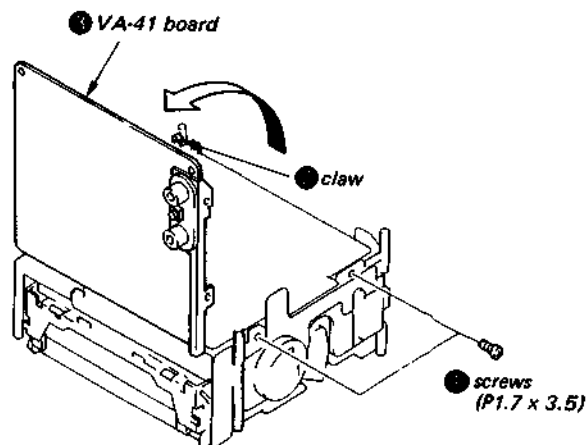
- 1) Insert a thin flat-bladed screwdriver into the spring ① at 2 points and push it in the direction of arrow A, and then remove the LS lid ② in the direction of arrow B.

**Note:** To re-assemble, locate the two claws ③ at the back of each hole ④ at 2 points, and also the two claws ⑤ at the back of each claw ⑥ at 2 locations.



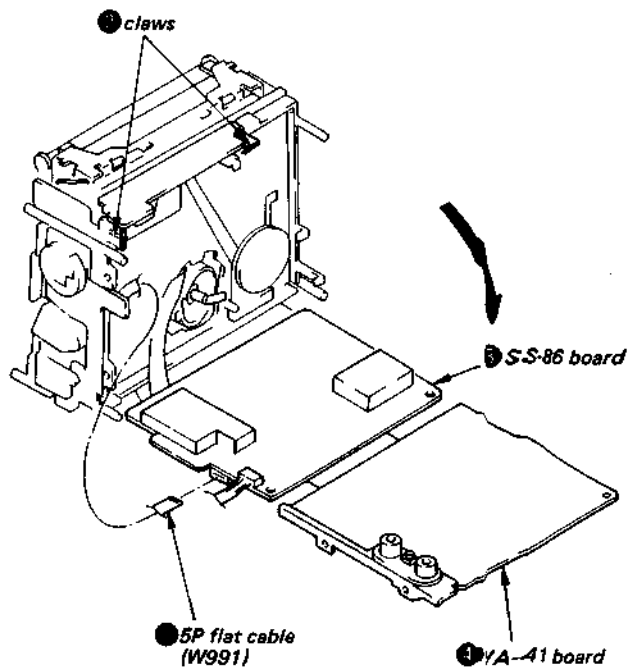
## 2-7. OPENING THE VA-41 BOARD

- 1) Remove two screws ①.
- 2) Release single claw ②.
- 3) Open the VA-41 board ③ as shown by the arrow.



## 2-8. OPENING THE SS-86 BOARD

- 1) Disconnect the 5P flat cable ①.
- 2) Release the claw ② at two points, and open the SS-86 and VA-41 boards ③ and ④ as shown by the arrow.

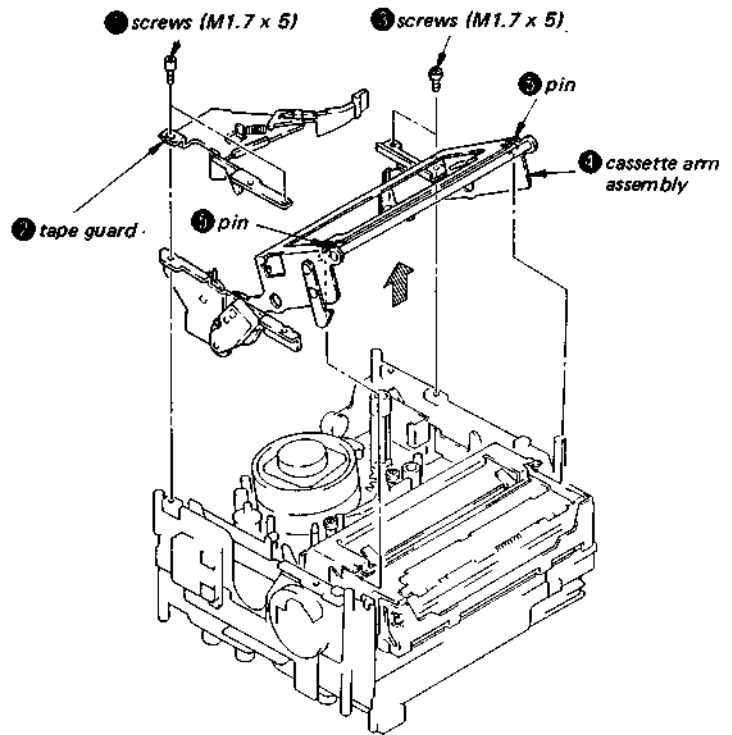




## 2-9. REMOVING THE CASSETTE ARM

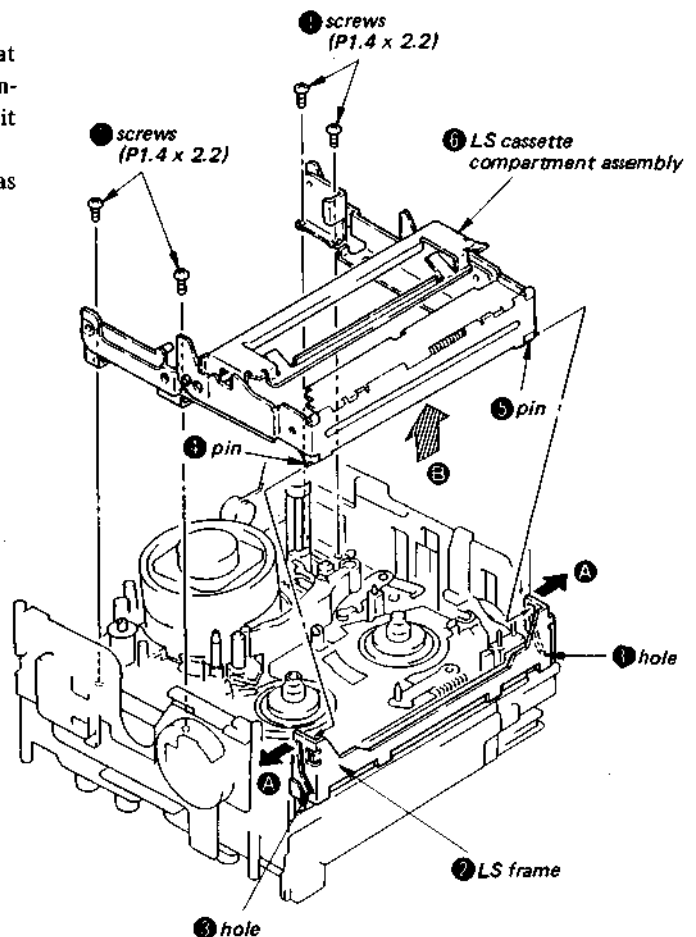
- 1) Remove two screws ❶ and take off the tape guard ❷.
- 2) Remove two screws ❸ and take off the cassette arm assembly ❹ in the direction of the arrow.

**Note:** To re-assemble the cassette arm assembly ❹, adjust it so that pin ❺ can be inserted in the correct position.



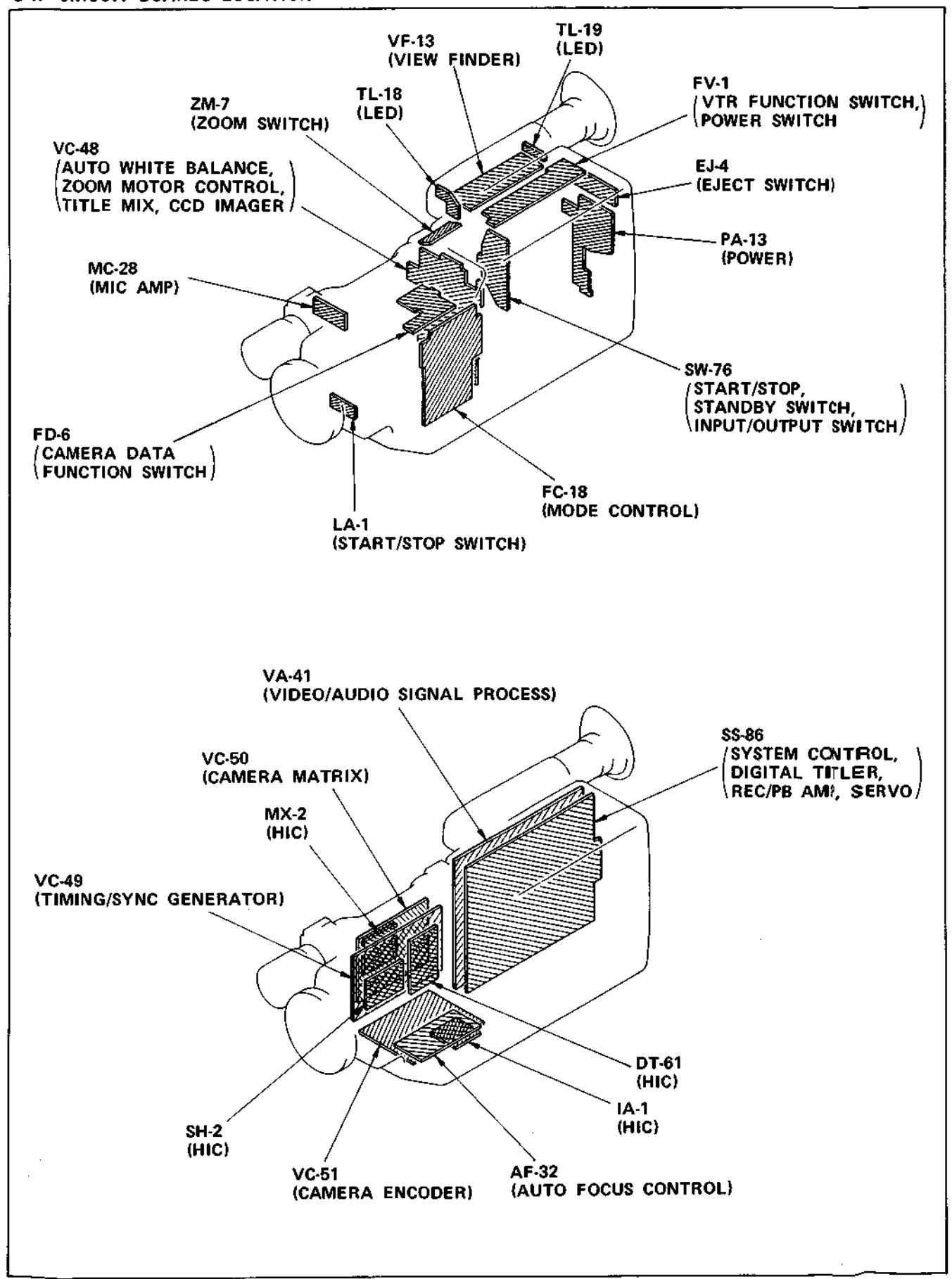
## 2-10. REMOVING LS CASSETTE COMPARTMENT ASSEMBLY

- 1) Remove four screws ❶.
- 2) Press the recessed parts, or hole ❸ on LS frame ❷ at 2 points as shown by the arrow A in order to disconnect pins ❹ and ❺. (First disconnect pin ❹ since it is shorter than pin ❺.)
- 3) Remove the LS cassette compartment assembly ❻ as shown by the arrow B.



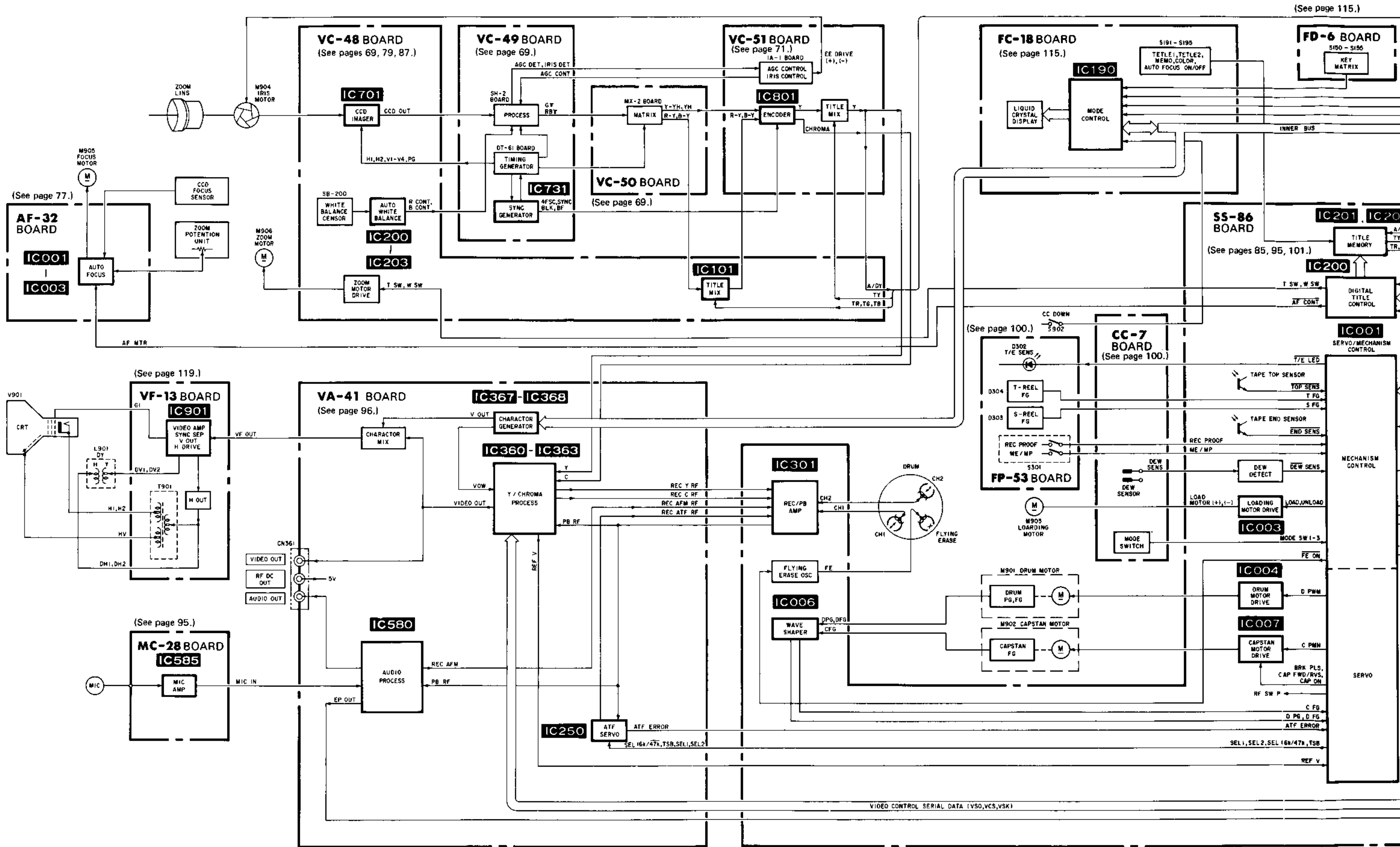
# SECTION 3 DIAGRAMS

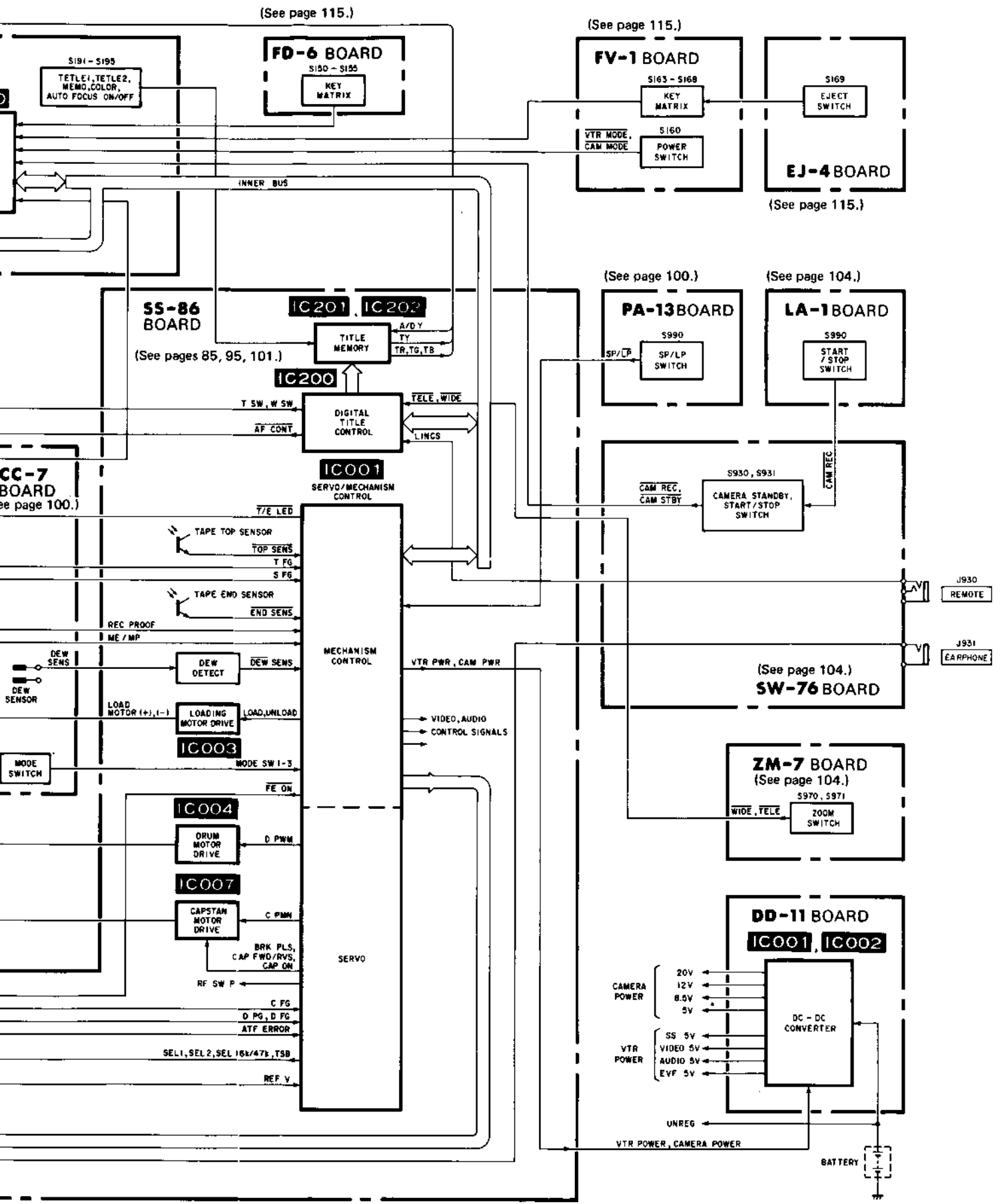
## 3-1. CIRCUIT BOARDS LOCATION



3-2. OVERALL BLOCK DIAGRAM

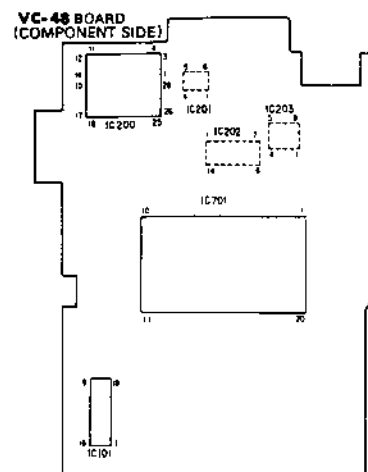
• ( ) near the board name indicates the schematic diagram page.



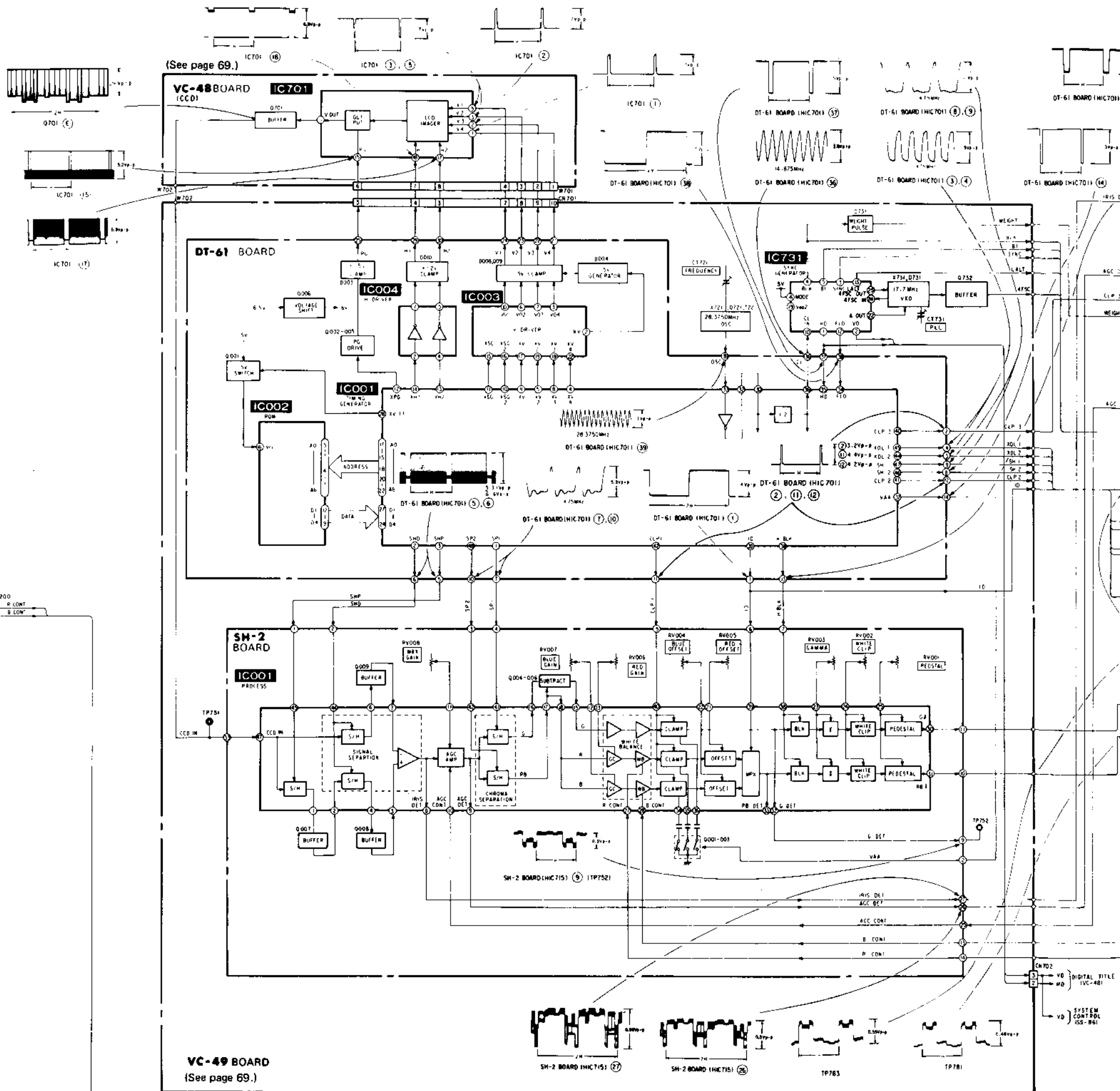
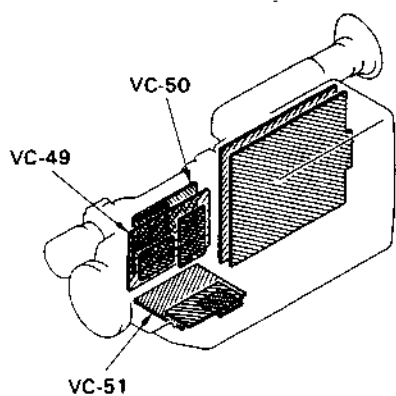
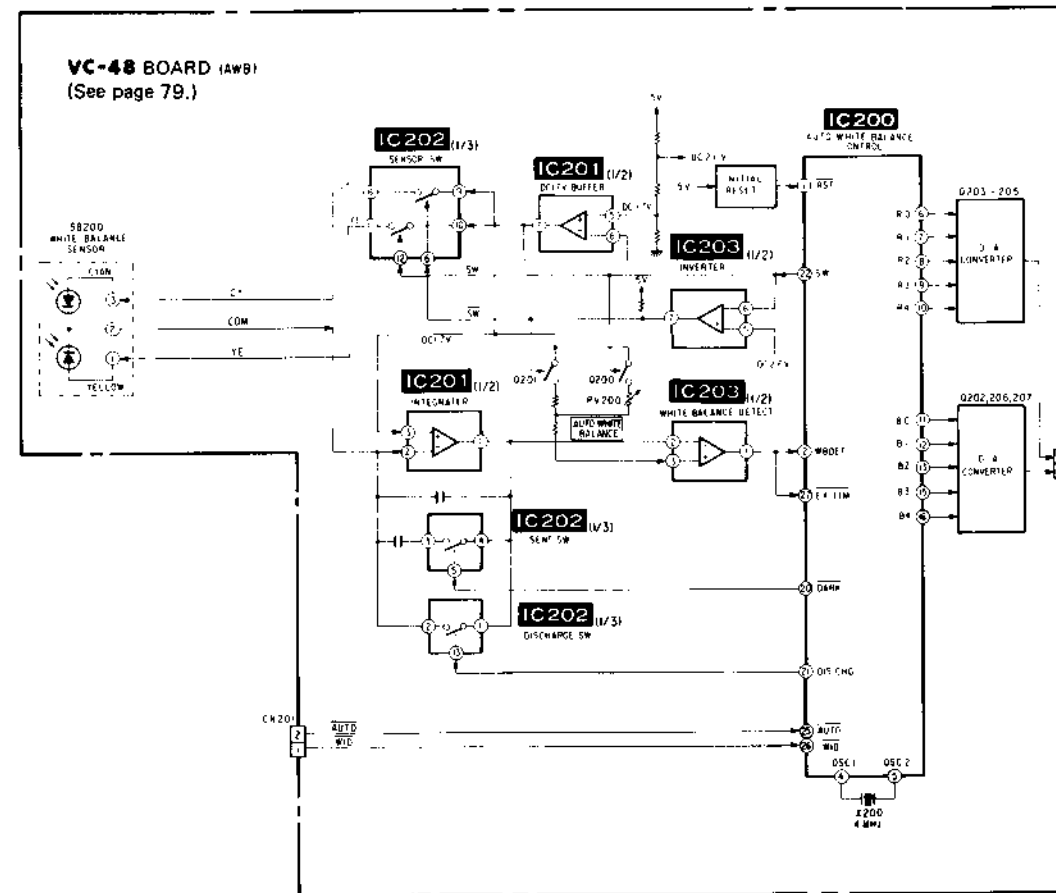
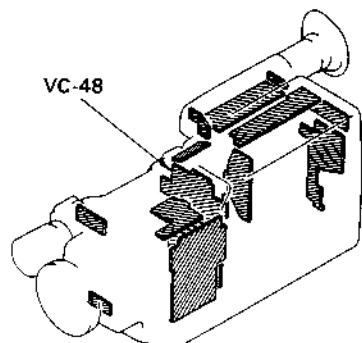


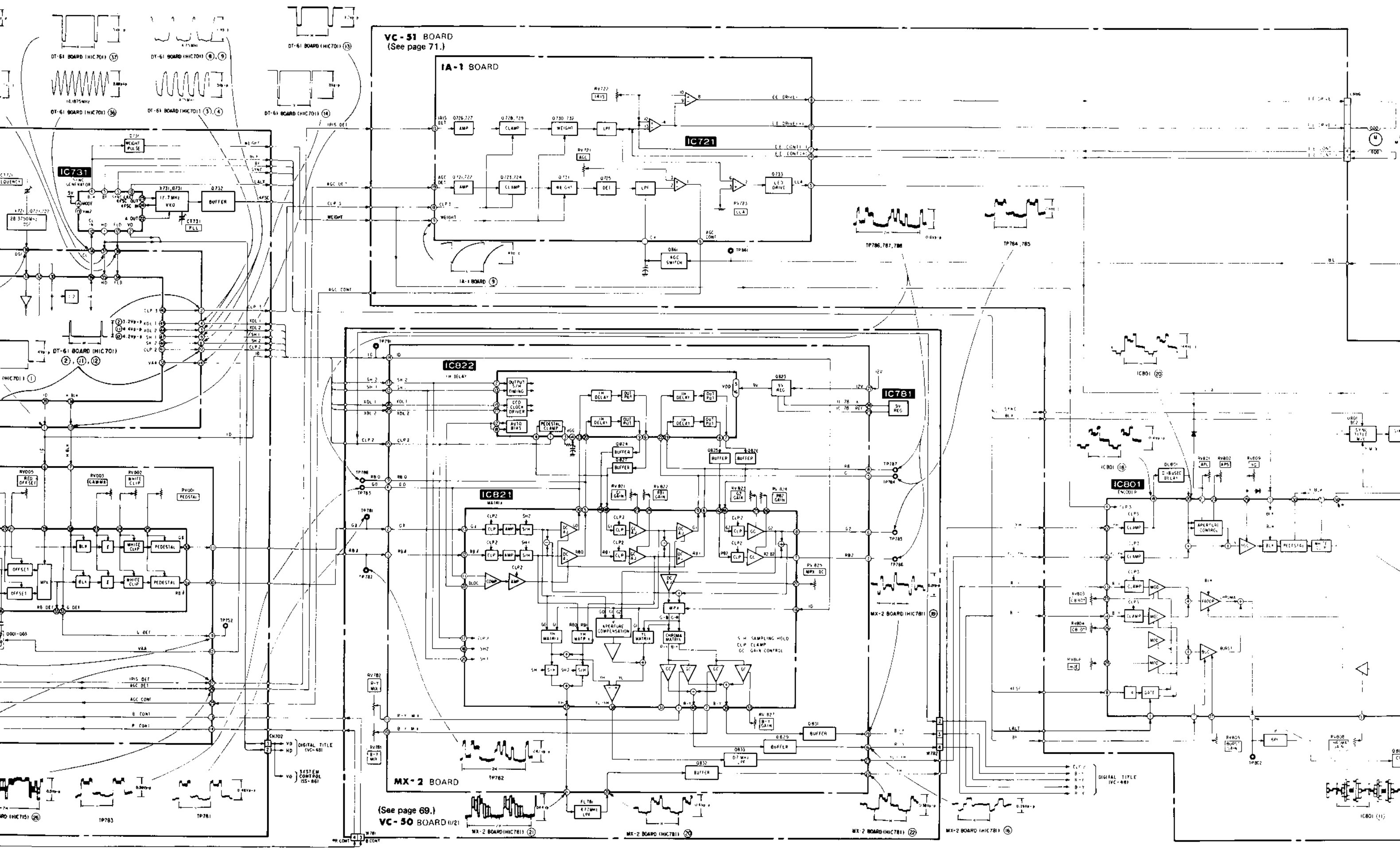
### 3-3. CAMERA BLOCK DIAGRAM

• ( ) near the board name indicates the schematic diagram page.



• Components on the rear side indicated by "..." line.





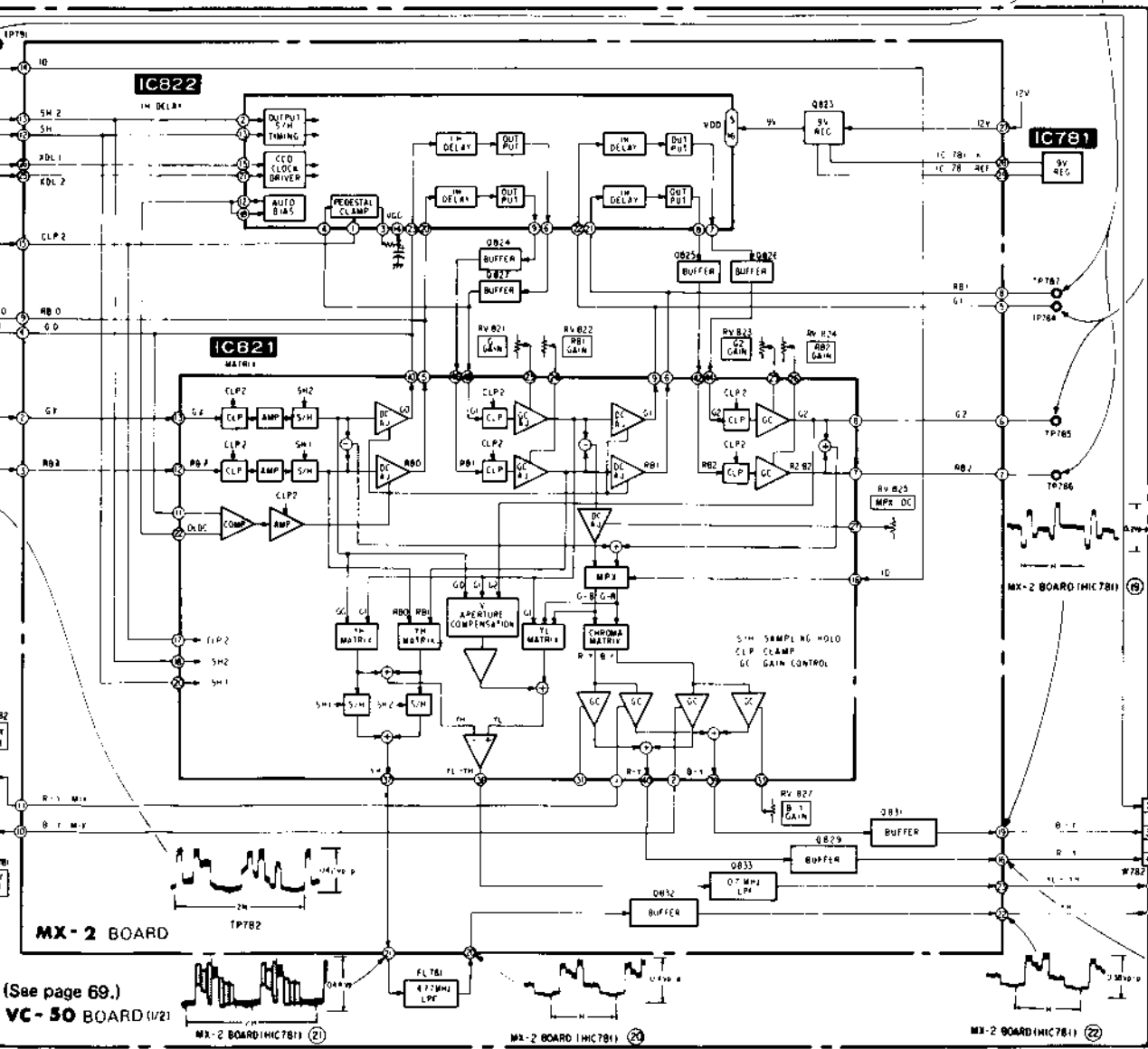
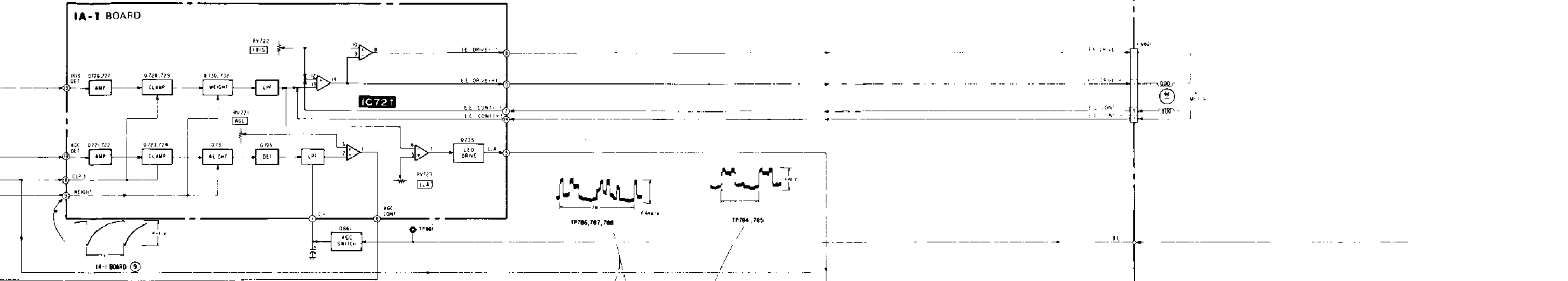
VC-51 BOARD  
(See page 71.)

IA-1 BOARD

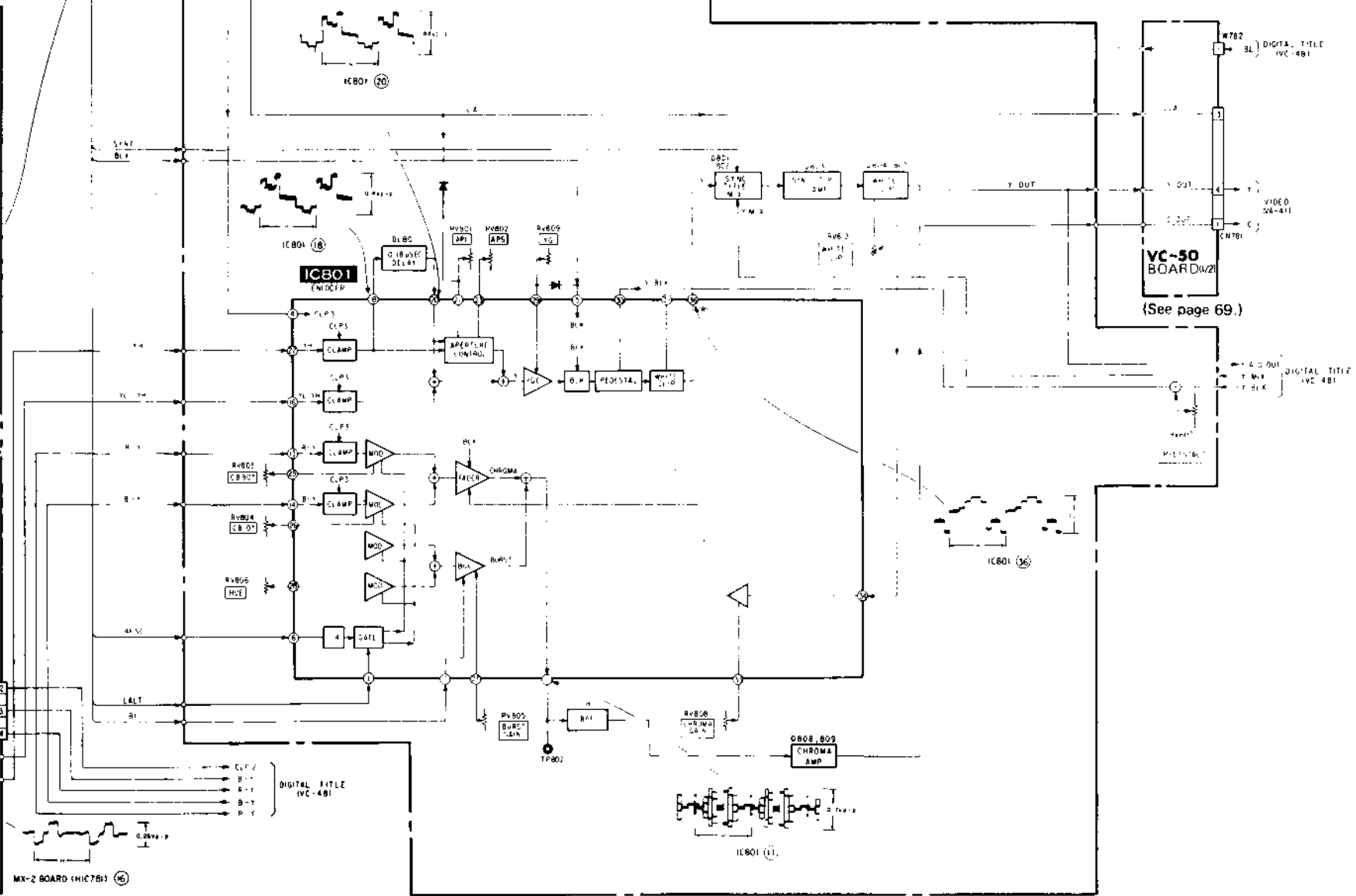
MX-2 BOARD  
(See page 69.)

VC-50 BOARD (1/2)

**VC-51 BOARD**  
(See page 71.)



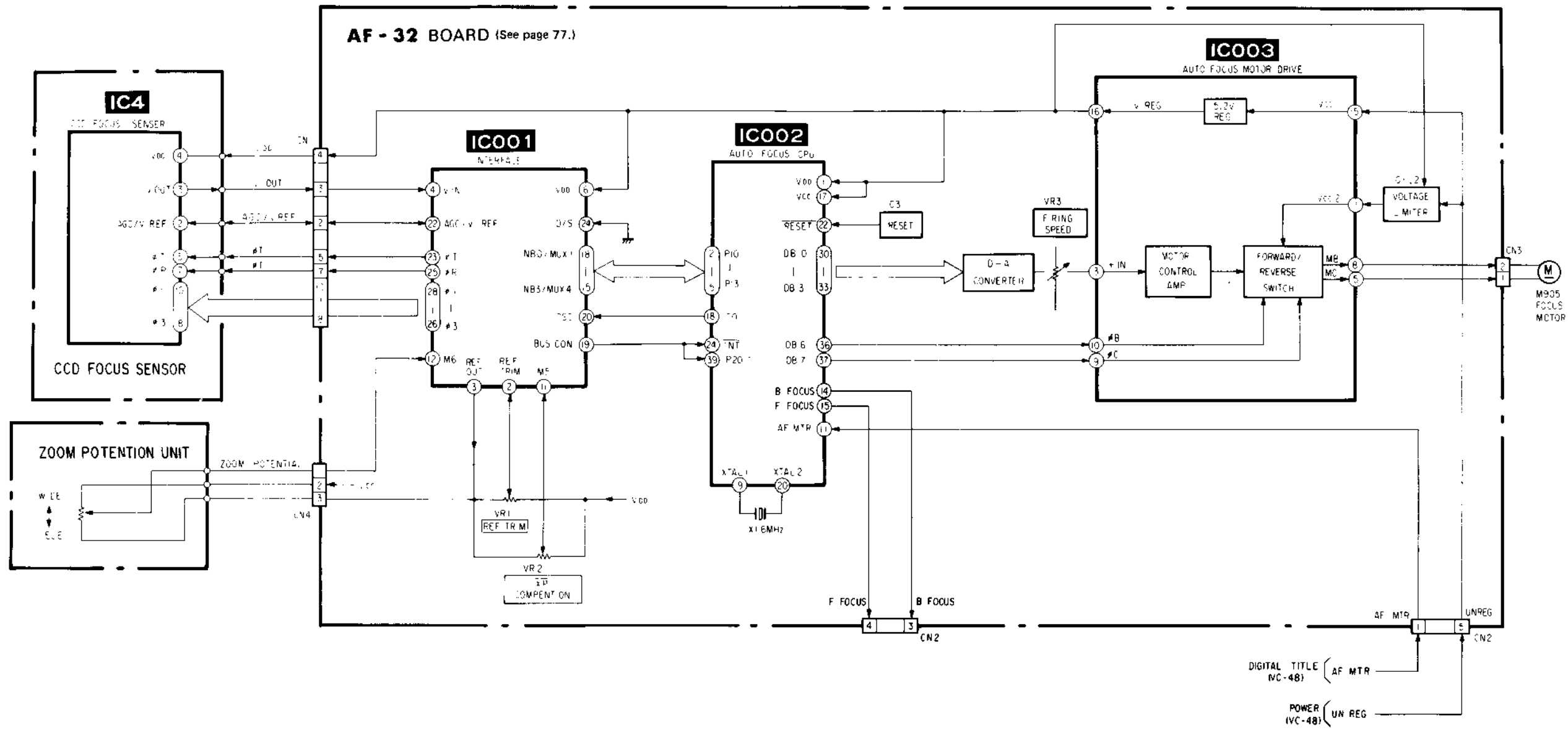
(See page 69.)  
**VC-50 BOARD (1/2)**



**VC-50 BOARD (1/2)**  
(See page 69.)

3-4. AUTO FOCUS BLOCK DIAGRAM

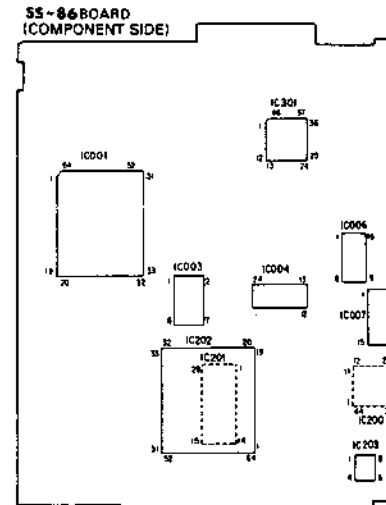
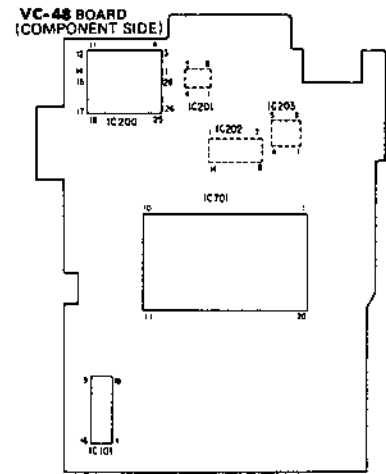
● ( ) near the board name indicates the schematic diagram page.



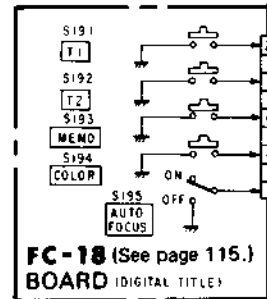
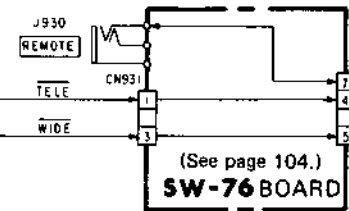
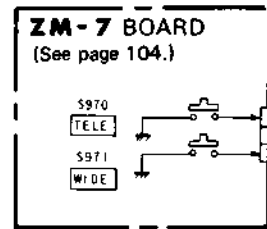


### 3-5. DIGITAL TITLER BLOCK DIAGRAM

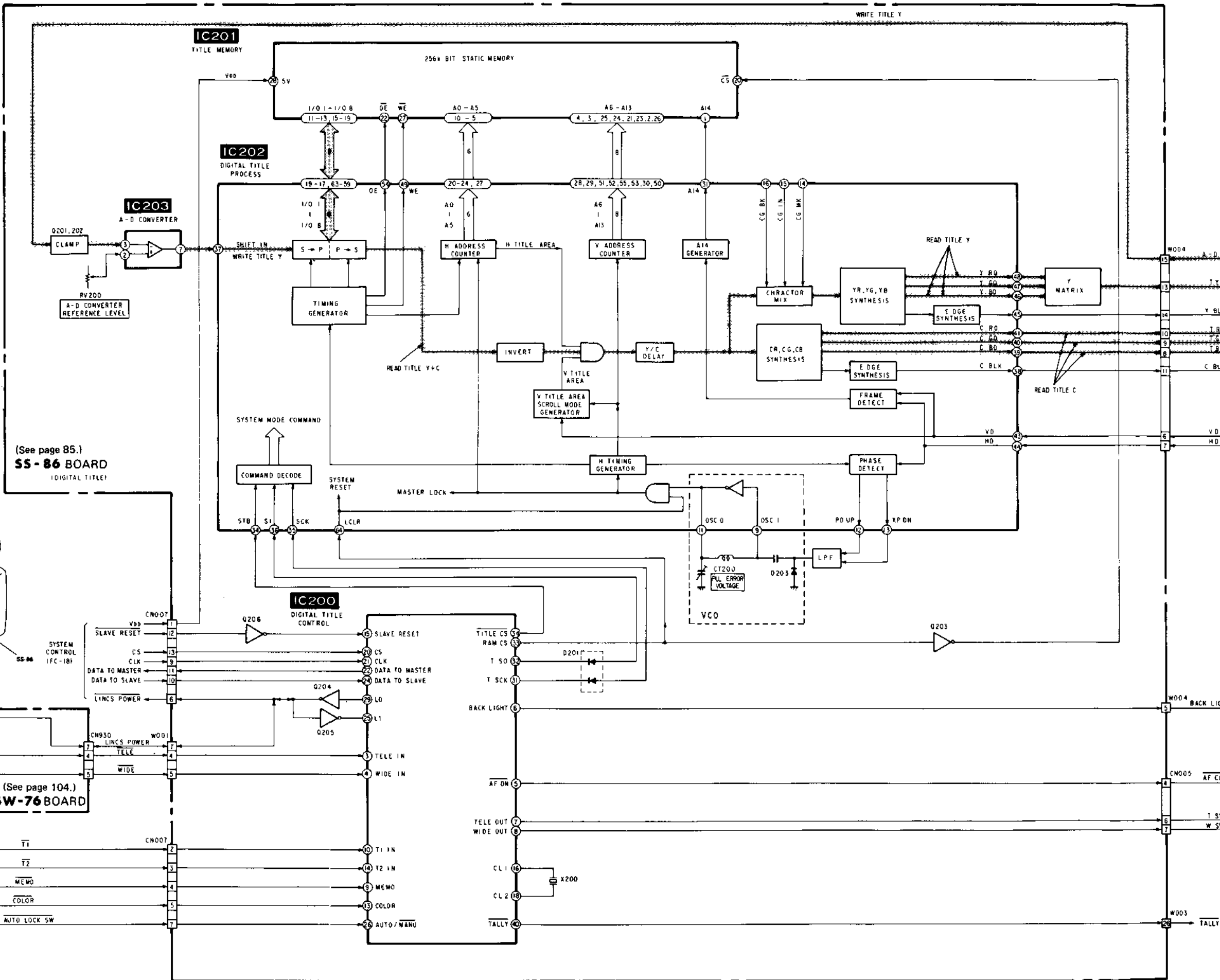
• ( ) near the board name indicates the schematic diagram page.

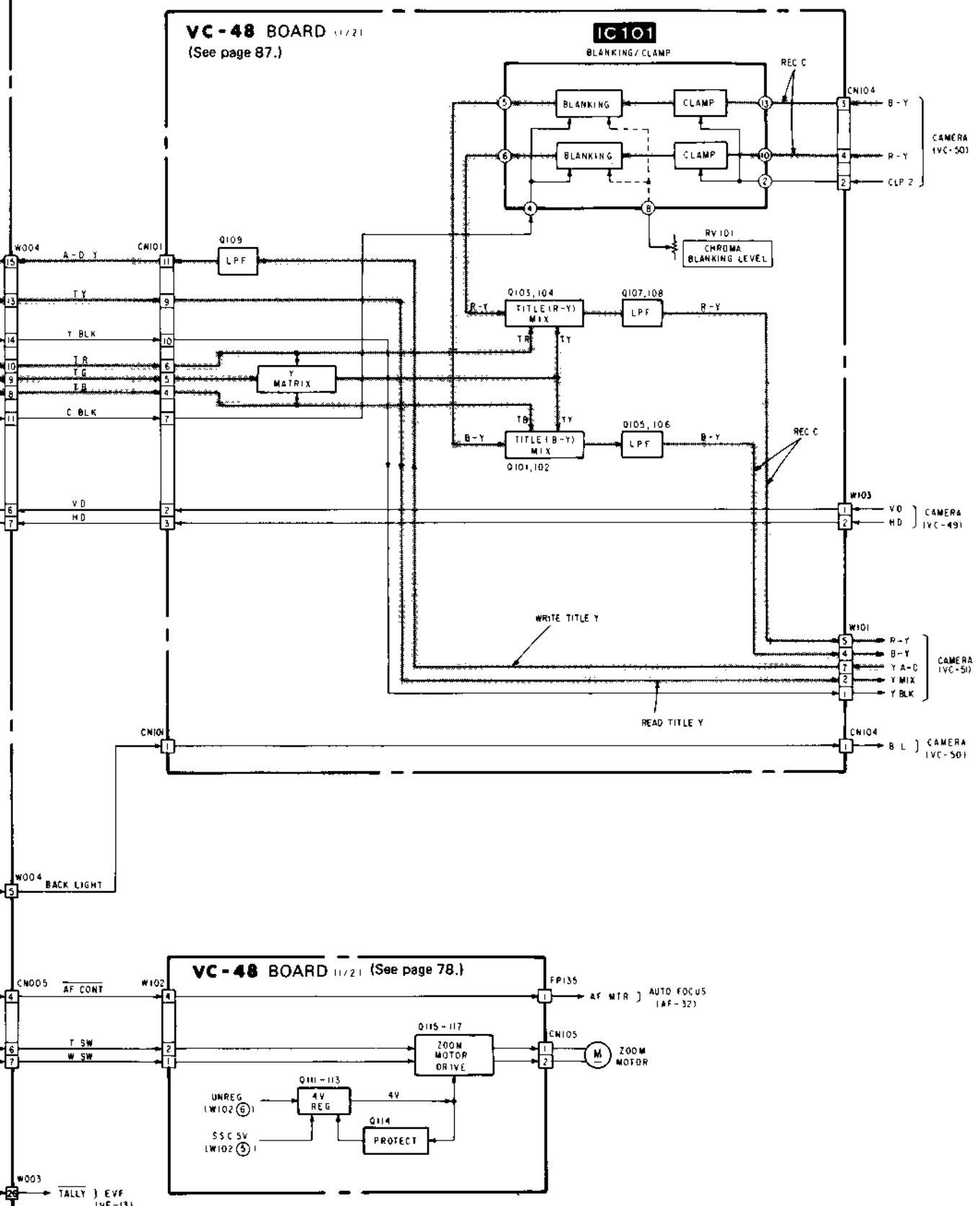
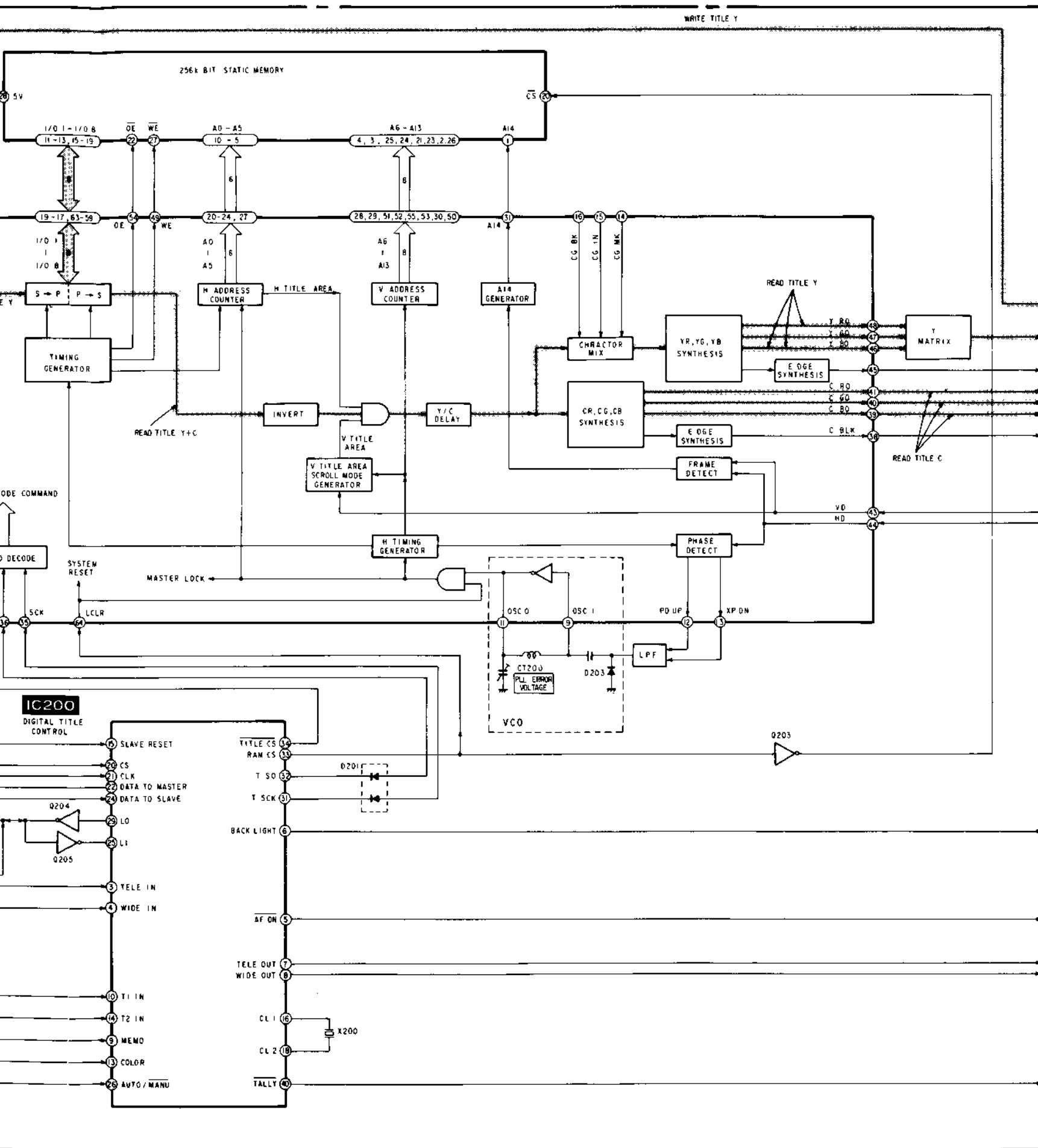


• Components on the rear side indicated by "... line.



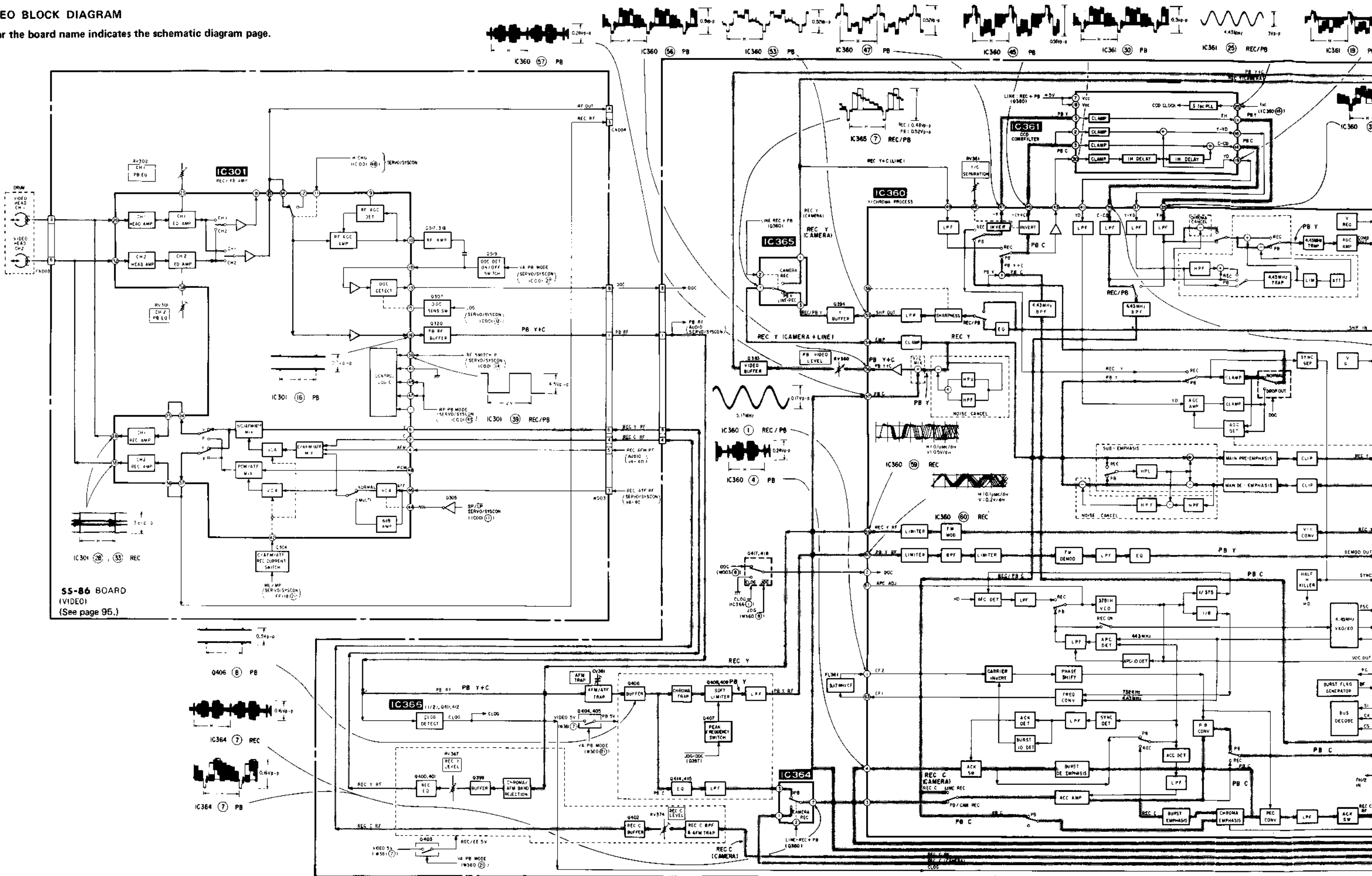
(See page 85.)  
**SS-86 BOARD (DIGITAL TITLE)**



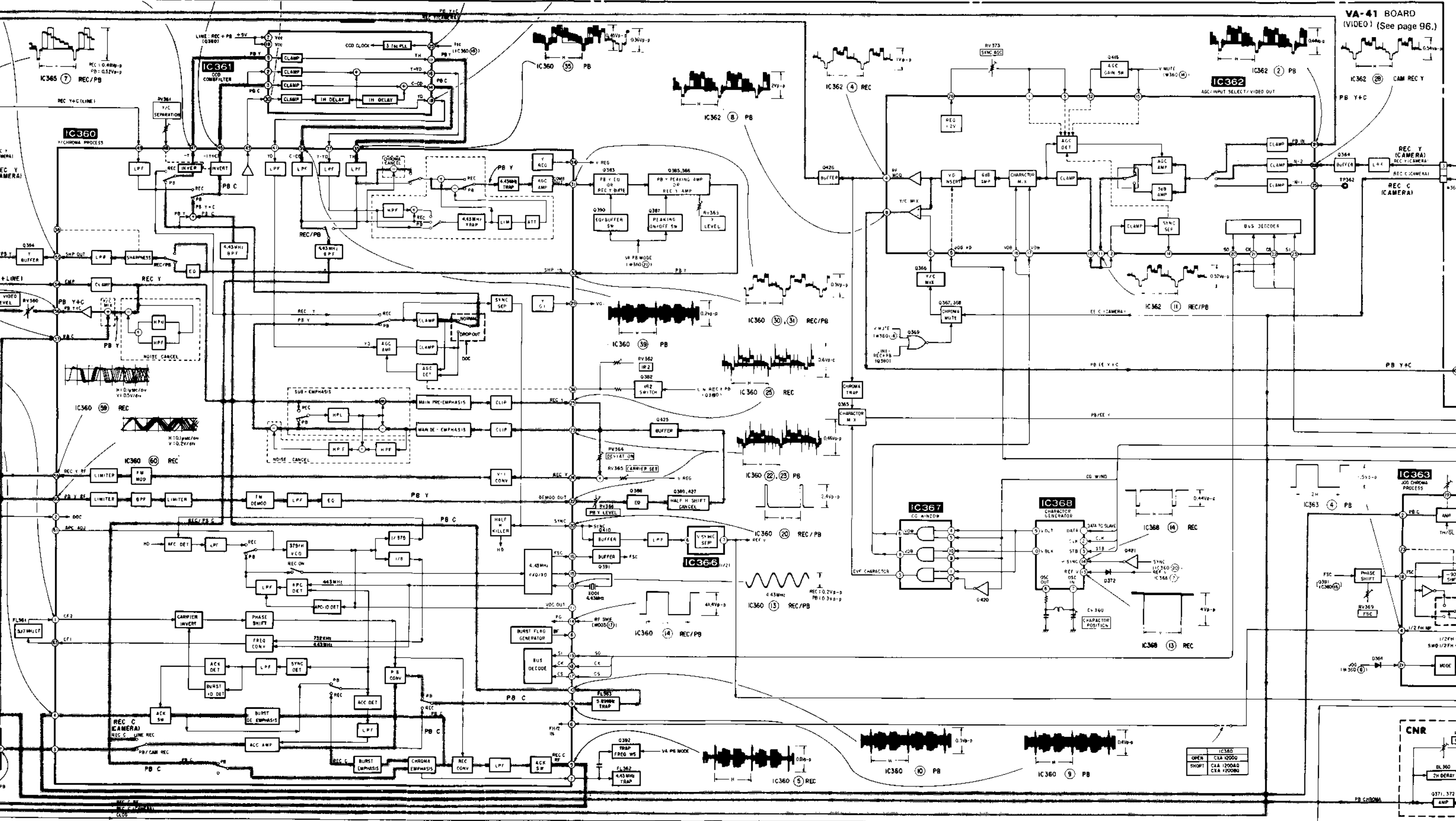


3-6. VIDEO BLOCK DIAGRAM

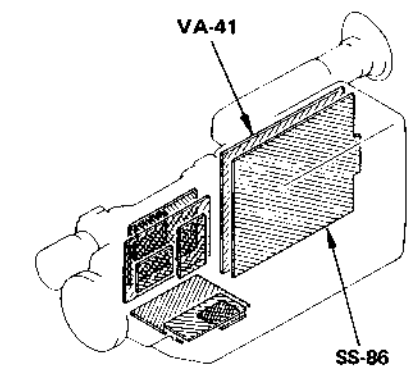
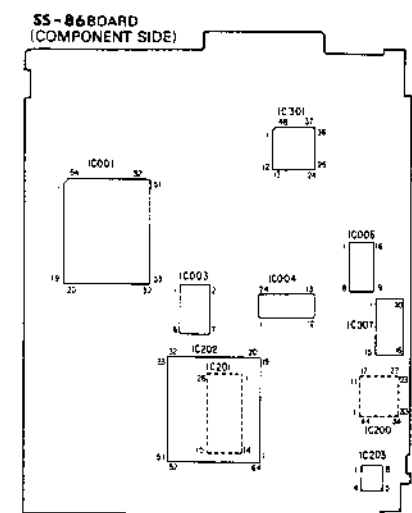
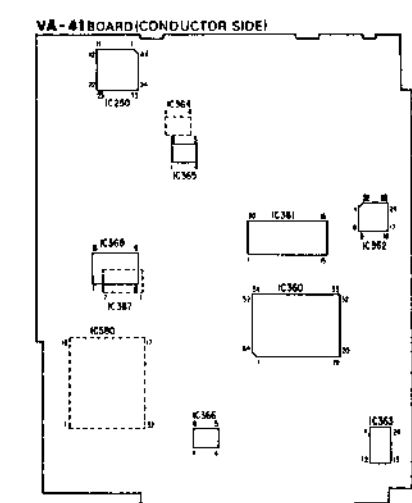
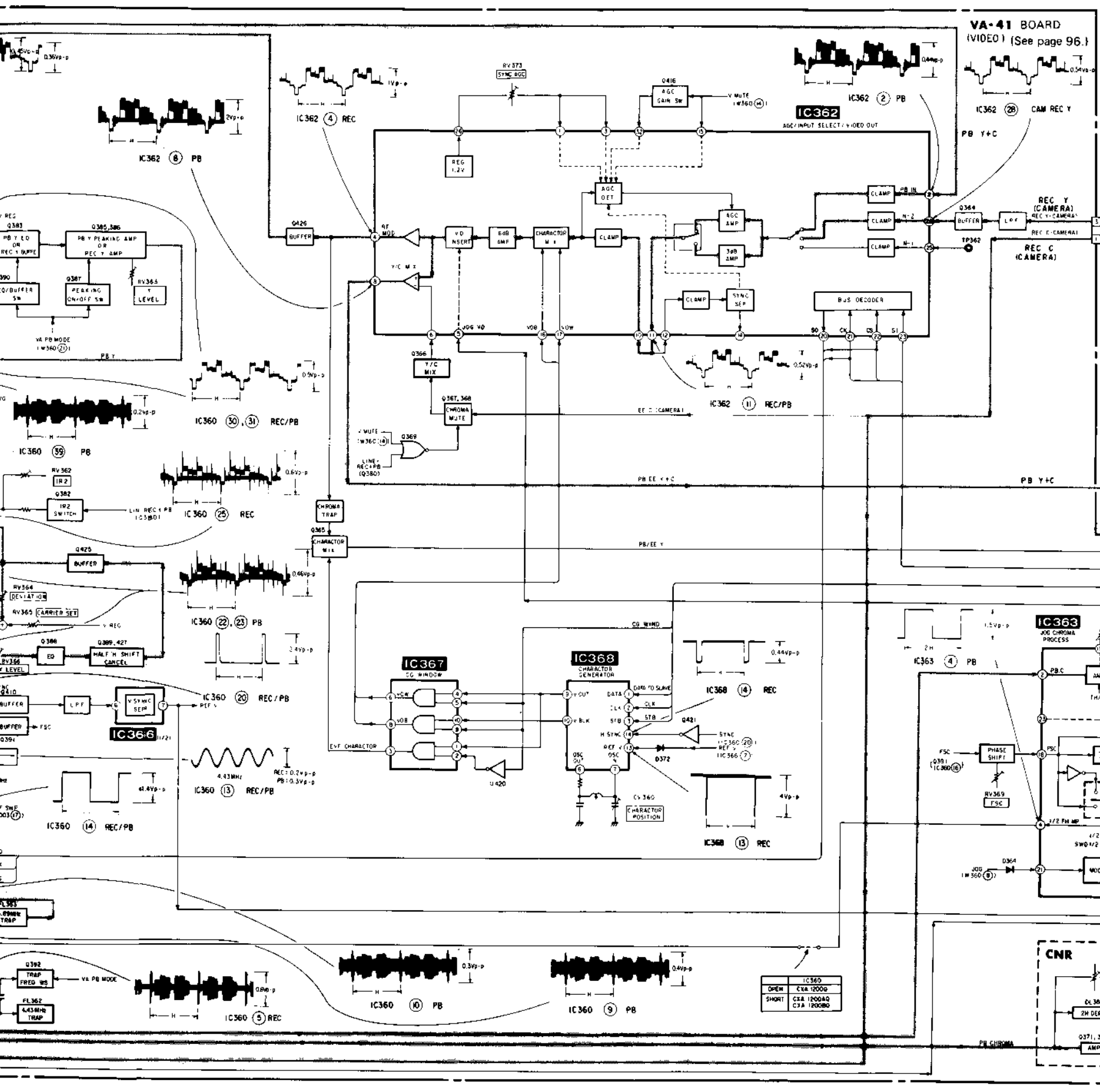
• ( ) near the board name indicates the schematic diagram page.



55-86 BOARD  
(VIDEO)  
(See page 95.)



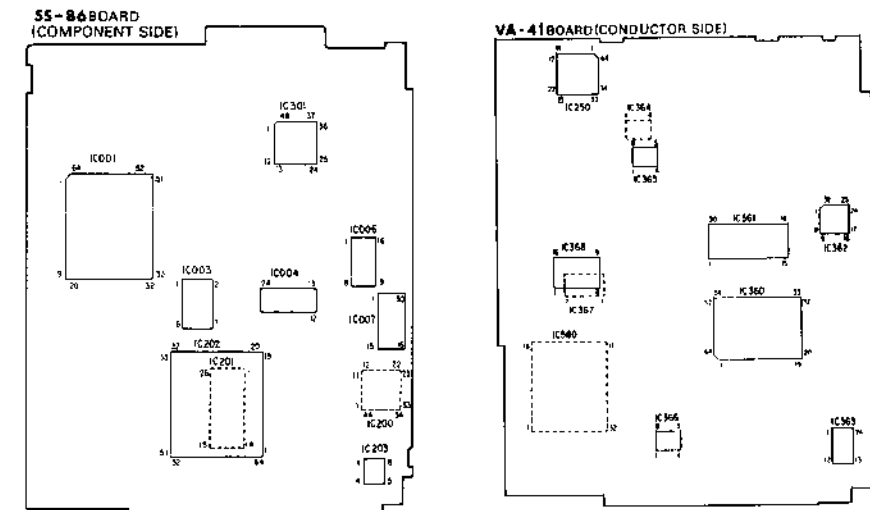
0.36V-p



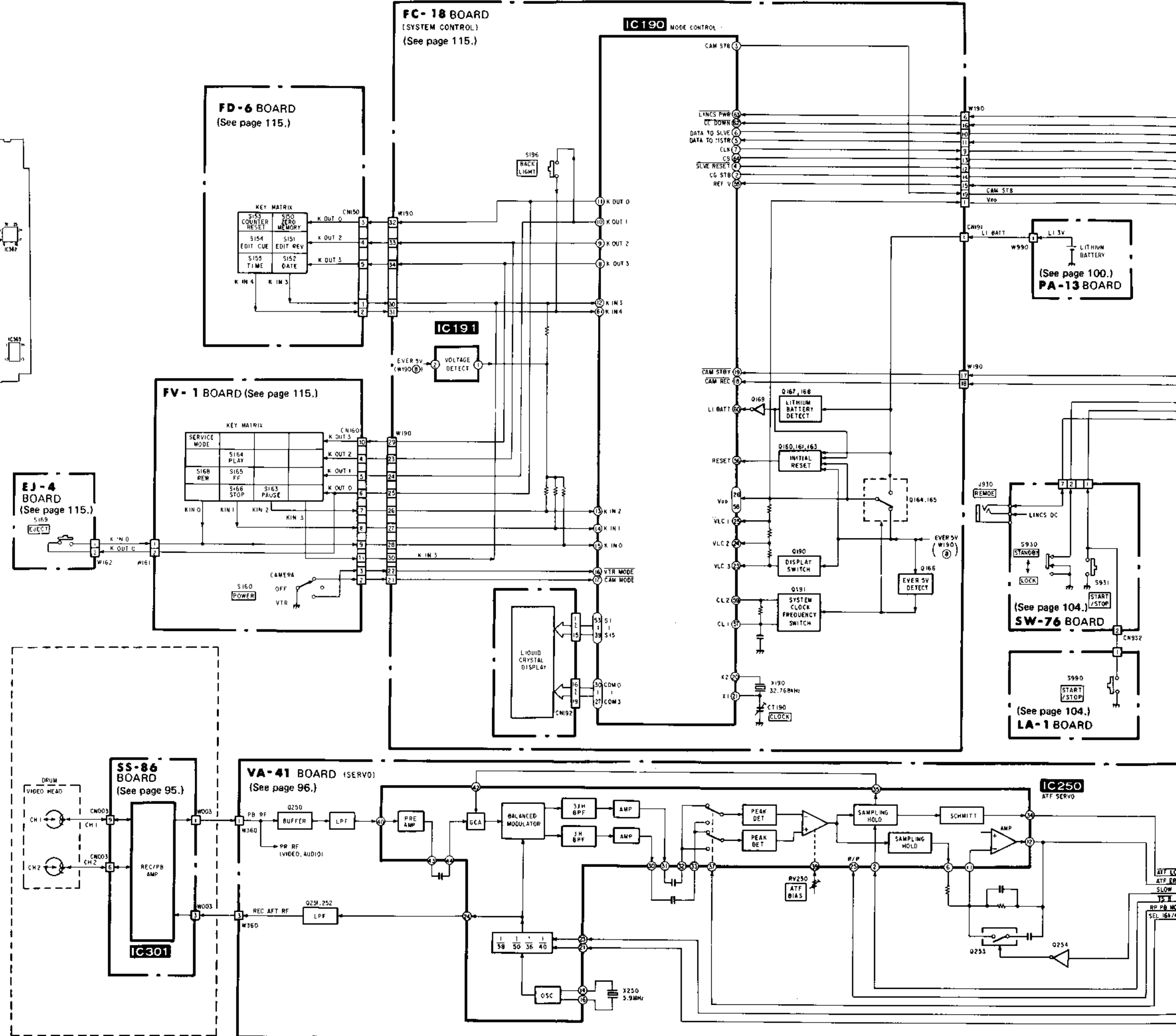
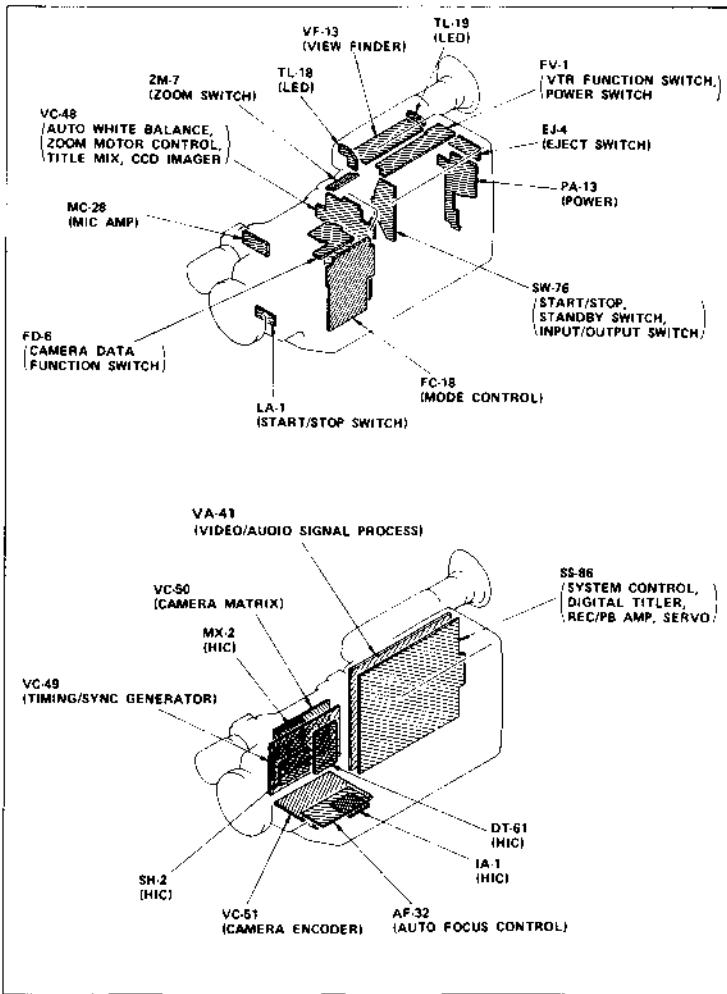
• Components on the rear side indicated by "..." line.

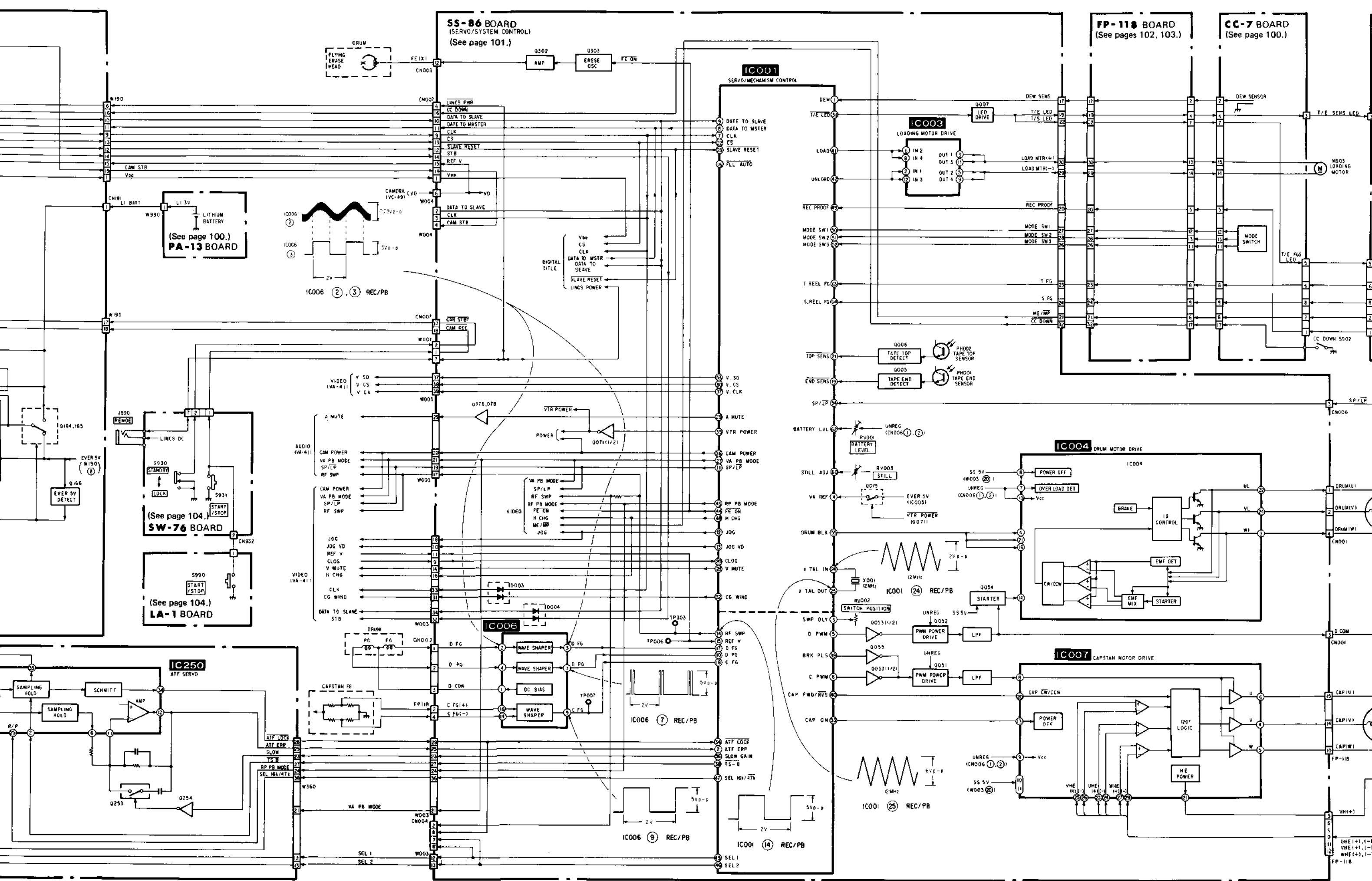
### 3-7. SERVO/SYSTEM CONTROL BLOCK DIAGRAM

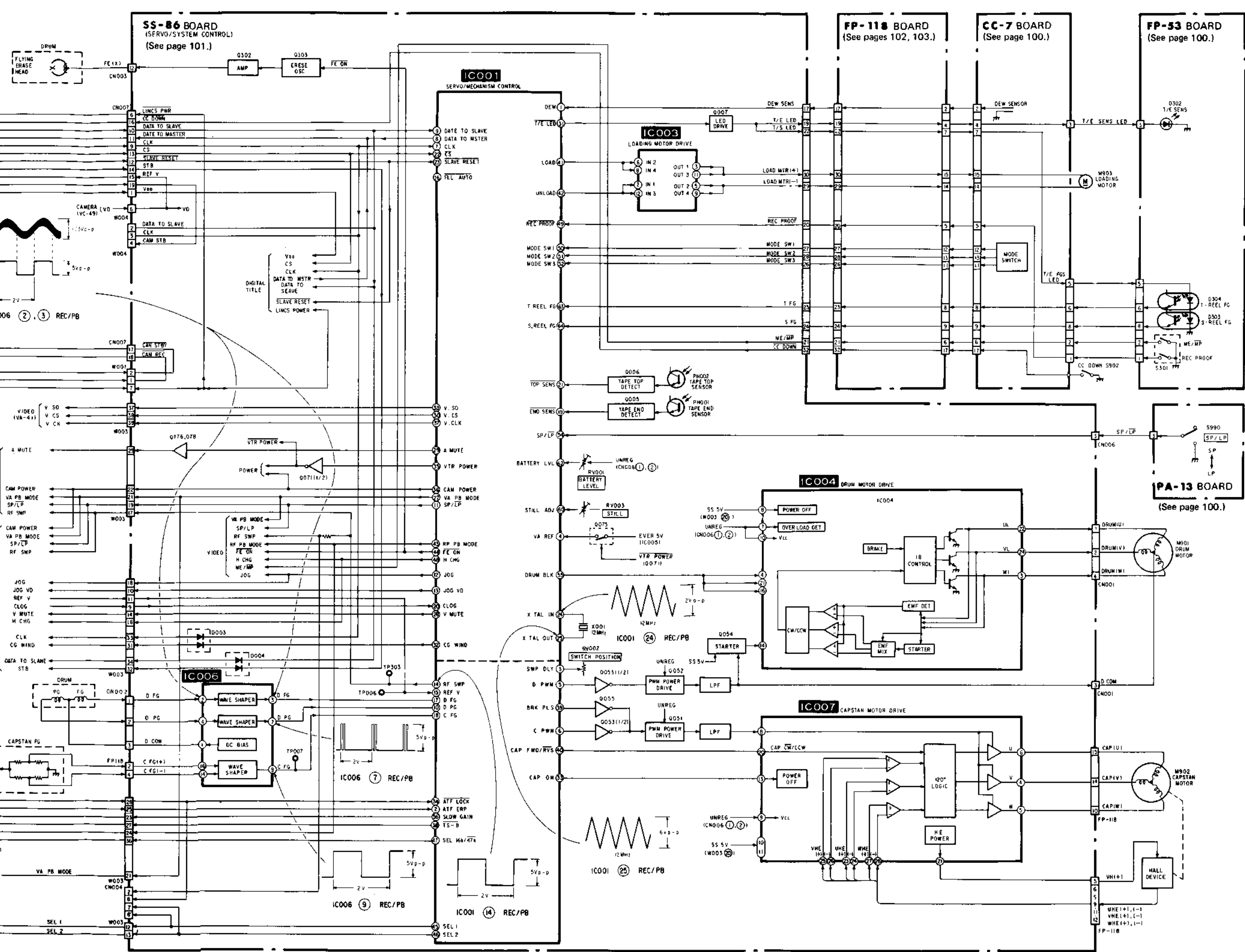
● ( ) near the board name indicates the schematic diagram page.



● Components on the rear side indicated by "..." line.







**SS-86 BOARD**  
(SERVO/SYSTEM CONTROL)  
(See page 101.)

**FP-118 BOARD**  
(See pages 102, 103.)

**CC-7 BOARD**  
(See page 100.)

**FP-53 BOARD**  
(See page 100.)

**PA-13 BOARD**  
(See page 100.)



### 3-8. MECHANISM CONTROLLER (μPD78112-GF)

This is the 8-bit, single chip microprocessor having the following characteristics.

- μCOM-78K/I
- high speed instruction execution  
Instruction cycle : 333ns/12MHz
- On-chip memory mapping for peripheral hardware (special function register)
- On-chip high function interrupt controller  
Two kinds of processing forms (vector interrupt function/macro service function)
- On-chip high precision A/D converter  
8 bit precision : 8 analog inputs  
One analog input conversion time : 26.7μs/12MHz
- On-chip hardware suitable for servo control of VTR, etc. (servo control unit)  
16 bit free running counter + capture register x 2  
special pulse output control function  
12 bit precision PWM output x 2

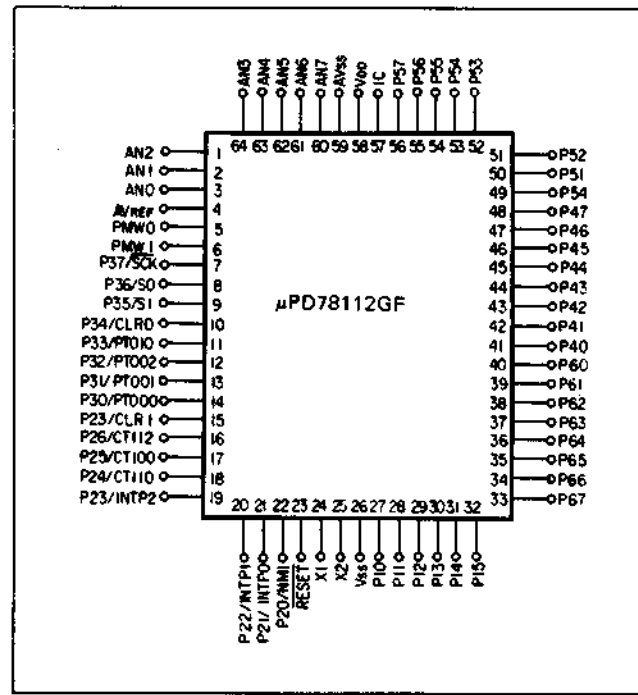


Fig. 1. μPD78112 pin assignment diagram

PIN NO	Signal name	I/O	Signal status	Function
1	DEW	I	Analog input	DEW detecting pin. When DEW (condensation) occurs, more than 430mV generates.
2	ATF ERR	I	Analog input	ATF ERROR input pin.
3	SWP DLY	I	Analog input	RF SWP adjustment input pin.
4	VA REF	O		A/D converter reference voltage input pin.
5	D PWM	O	PWM output	Drum motor drive signal
6	C PWM	O	PWM output	Capstan motor drive signal
7	CLK	I		Serial communication clock input.
8	DATA TO MSTR	O		Data output pin for the data to be sent to mode control CPU.
9	DATA TO SLVE	I		Data input pin for the data coming from the mode control CPU.
10	D PG	I		Drum PG input pin.
11	SP/LP	O	Logic status	Playback mode output pin. SP="H", LP="L"
12	JOG	O	Logic status	Video circuit normal/variable speed playback select signal. "H" during STILL, SLOW, FRAM, CUE/REV, FRSEARCH, REC REV, EDIT CUE, EDIT REV.
13	JOG VD	O	Logic status	False VD output inserted into video signal during variable speed playback mode.
14	RF SWP	O		RF SWP output pin.
15	REF V	I		REF V input pin.
16	FULL AUTO	I	Logic status	Fixed "H"
17	D FG	I		Drum FG input.
18	C FG	I		Capstan FG input.
19	END SENS	I	Logic status	END-side END sensor input.

Table 1 (1)

PIN NO	Signal name	I/O	Signal status	Functions												
20	CLOG	I	Logic status	Head clogging detect input.												
21	TOP SENS	I	Logic status	TOP-side TOP sensor input.												
22	CS	I	Logic status	Input signal to start data communication. Starting at fall-down edge.												
23	SLVE RESET	I	Logic status	RESET input. "L" RESET.												
24	X'TAL IN	I		To be used for system clock. X'tal should be connected.												
25	X'TAL OUT	O		To be used for system clock. X'tal should be connected.												
26	Vss			GND pin												
27	VA PB MODE	O	Logic status	Video, audio REC/PB select signal. "H" during PB.												
28	V MUTE	O	Logic status	Video, muting signal. "H" during muting.												
29	A MUTE	O	Logic status	Audio, muting signal. "H" during muting.												
30	VIDEO CSO	I		Input signal to start video data communication.												
31	T/E LED	O		Tape top/end detecting LED ON/OFF. Reel rotation detecting LED ON/OFF.												
				<table border="1"> <thead> <tr> <th>mode</th> <th>REC/PB</th> <th>CUE/REV</th> <th>FF/REW</th> </tr> </thead> <tbody> <tr> <td>T<sub>i</sub></td> <td>100</td> <td>14</td> <td>2</td> </tr> <tr> <td>T<sub>L</sub></td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> (unit in msec)	mode	REC/PB	CUE/REV	FF/REW	T <sub>i</sub>	100	14	2	T <sub>L</sub>	1	1	1
mode	REC/PB	CUE/REV	FF/REW													
T <sub>i</sub>	100	14	2													
T <sub>L</sub>	1	1	1													
32	CG WIND	O	"H" = MIX REC "L" = NOT	Selection signal whether character generator output will be recorded or will not be recorded.												
33	CAP ON	O	Logic status	Capstan motor ON/OFF signal. "H" level means capstan motor ON.												
34	ATF LOCK	I	Logic status	"L" when PB mode ATF phase servo is normally phase-locked.												
35	VTR Power	O	Logic status	DC-DC converter ON/OFF signal.												
36	CAM Power	O	Logic status													
			<table border="1"> <thead> <tr> <th>mode</th> <th>VTR Power</th> <th>CAM Power</th> </tr> </thead> <tbody> <tr> <td>VTR</td> <td>"H"</td> <td>"L"</td> </tr> <tr> <td>OFF</td> <td>"L"</td> <td>"L"</td> </tr> <tr> <td>CAM</td> <td>"H"</td> <td>"H"</td> </tr> </tbody> </table>		mode	VTR Power	CAM Power	VTR	"H"	"L"	OFF	"L"	"L"	CAM	"H"	"H"
mode	VTR Power	CAM Power														
VTR	"H"	"L"														
OFF	"L"	"L"														
CAM	"H"	"H"														
37	VIDEO CLK	I		Clock for video serial data communication.												
38	TS B	O		ATF LOCK sampling hold signal. "L" during sampling mode. "H" during hold mode.												
39	CAP BRK	O	Logic status	This is the signal that applies full voltage to capstan motor.												
40	CAP FWD/RVS	O	Logic status	Capstan motor rotating direction select signal. "H" during normal direction (FWD) rotation.												
41	LOAD	O	Logic status	Threading motor control signal.												
42	UNLOAD	O	Logic status													
			<table border="1"> <thead> <tr> <th>Operation Signal name</th> <th>LOAD</th> <th>UNLOAD</th> <th>BRAKE</th> </tr> </thead> <tbody> <tr> <td>LOAD</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>UNLOAD</td> <td>L</td> <td>H</td> <td>H</td> </tr> </tbody> </table>		Operation Signal name	LOAD	UNLOAD	BRAKE	LOAD	H	L	H	UNLOAD	L	H	H
Operation Signal name	LOAD	UNLOAD	BRAKE													
LOAD	H	L	H													
UNLOAD	L	H	H													
43	RP PB MODE	O	Logic status	REC/PB amplifier REC/PB select signal. "H" during PB.												
44	FE ON	O	Logic status	Flying erase oscillation ON/OFF signal. "L" during oscillation.												

Table 1 (2)

OP52  
OP51  
OP54  
OP47  
OP46  
OP45  
OP44  
OP43  
OP42  
OP41  
OP40  
OP60  
OP61  
OP62  
OP63  
OP64  
OP65  
OP66  
OP67

ment

ours,

pin.

P="L"

le.


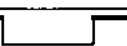
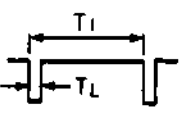

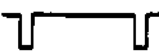



PIN NO	Signal name	I/O	Signal status	Functions												
20	CLOG	I	Logic status	Head clogging detect input.												
21	TOP SENS	I	Logic status	TOP-side TOP sensor input.												
22	CS	I	Logic status	Input signal to start data communication. Starting at fall-down edge.												
23	SLVE RESET	I	Logic status	RESET input. "L" RESET.												
24	X'TAL IN	I	12MHz 	To be used for system clock. X'tal should be connected.												
25	X'TAL OUT	O		To be used for system clock. X'tal should be connected.												
26	V <sub>SS</sub>			GND pin												
27	VA PB MODE	O	Logic status	Video, audio REC/PB select signal. "H" during PB.												
28	V MUTE	O	Logic status	Video, muting signal. "H" during muting.												
29	A MUTE	O	Logic status	Audio, muting signal. "H" during muting.												
30	VIDEO CSO	I		Input signal to start video data communication.												
31	T/E LED	O		Tape top/end detecting LED ON/OFF. Reel rotation detecting LED ON/OFF. <table border="1" data-bbox="905 703 1424 808"> <thead> <tr> <th>mode</th> <th>REC/PB</th> <th>CUE/REV</th> <th>FF/REW</th> </tr> </thead> <tbody> <tr> <td>T<sub>1</sub></td> <td>100</td> <td>14</td> <td>2</td> </tr> <tr> <td>T<sub>L</sub></td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> (unit in msec)	mode	REC/PB	CUE/REV	FF/REW	T <sub>1</sub>	100	14	2	T <sub>L</sub>	1	1	1
mode	REC/PB	CUE/REV	FF/REW													
T <sub>1</sub>	100	14	2													
T <sub>L</sub>	1	1	1													
32	CG WIND	O	"H" = MIX REC "L" = NOT	Selection signal whether character generator output will be recorded or will not be recorded.												
33	CAP ON	O	Logic status	Capstan motor ON/OFF signal. "H" level means capstan motor ON.												
34	ATF LOCK	I	Logic status	"L" when PB mode ATF phase servo is normally phase-locked.												
35	VTR Power	O	Logic status	DC-DC converter ON/OFF signal.												
36	CAM Power	O	Logic status	<table border="1" data-bbox="905 1113 1424 1239"> <thead> <tr> <th>mode</th> <th>VTR Power</th> <th>CAM Power</th> </tr> </thead> <tbody> <tr> <td>VTR</td> <td>"H"</td> <td>"L"</td> </tr> <tr> <td>OFF</td> <td>"L"</td> <td>"L"</td> </tr> <tr> <td>CAM</td> <td>"H"</td> <td>"H"</td> </tr> </tbody> </table>	mode	VTR Power	CAM Power	VTR	"H"	"L"	OFF	"L"	"L"	CAM	"H"	"H"
mode	VTR Power	CAM Power														
VTR	"H"	"L"														
OFF	"L"	"L"														
CAM	"H"	"H"														
37	VIDEO CLK	I		Clock for video serial data communication.												
38	TS B	O		ATF LOCK sampling hold signal. "L" during sampling mode. "H" during hold mode.												
39	CAP BRK	O	Logic status	This is the signal that applies full voltage to capstan motor.												
40	CAP FWD/RVS	O	Logic status	Capstan motor rotating direction select signal. "H" during normal direction (FWD) rotation.												
41	LOAD	O	Logic status	Threading motor control signal.												
42	UNLOAD	O	Logic status	<table border="1" data-bbox="905 1564 1424 1690"> <thead> <tr> <th>Operation Signal name</th> <th>LOAD</th> <th>UNLOAD</th> <th>BRAKE</th> </tr> </thead> <tbody> <tr> <td>LOAD</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>UNLOAD</td> <td>L</td> <td>H</td> <td>H</td> </tr> </tbody> </table>	Operation Signal name	LOAD	UNLOAD	BRAKE	LOAD	H	L	H	UNLOAD	L	H	H
Operation Signal name	LOAD	UNLOAD	BRAKE													
LOAD	H	L	H													
UNLOAD	L	H	H													
43	RP PB MODE	O	Logic status	REC/PB amplifier REC/PB select signal. "H" during PB.												
44	FE ON	O	Logic status	Flying erase oscillation ON/OFF signal. "L" during oscillation.												

Table 1 (2)

PIN NO	Signal name	I/O	Signal status	Functions															
45	SEL1	O	Logic status	ATF REF PILOT signal frequency control. <table border="1" data-bbox="2300 231 2819 325"> <thead> <tr> <th></th> <th>f<sub>1</sub></th> <th>f<sub>2</sub></th> <th>f<sub>3</sub></th> <th>f<sub>4</sub></th> </tr> </thead> <tbody> <tr> <td>SEL1</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> </tr> <tr> <td>SEL2</td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> </tr> </tbody> </table>		f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>	f <sub>4</sub>	SEL1	H	L	H	L	SEL2	H	H	L	L
	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>		f <sub>4</sub>														
SEL1	H	L	H		L														
SEL2	H	H	L	L															
46	SEL2	O	Logic status																
47	SEL 16K/47K	O	Logic status	ATF BPF select signal. "L" when detecting ATF error in f1 and f3 tracks. "H" when detecting ATF error in f2 and f4 tracks.															
48	HCHG	O	Logic status	Head select signal. "H" = CH-1 "L" = CH-1.															
49	REC PROOF SW	I	Logic status	"H" when cassette's erroneous erasure preventing switch is set in the erasure prevention side.															
50	MSW1	I	Logic status	Mechanism mode switch input (three bit structure, mechanical position detection)															
51	MSW2	I	Logic status																
52	MSW3	I	Logic status																
53	VIDEO SO	O	Logic status	Data line for the data to be sent to CXA1201.															
54	EDIT	I		Input signal for EDIT selection. "H": OFF. "L": ON															
55	DRUM BRK	O	Logic status	Slow mode drum FH compensation drum brake signal.															
56	SLOW GAIN	O	Logic status	ATF ERROR's gain select signal.															
57	VPP			Fixed to power supply voltage.															
58	V <sub>DD</sub>			Power supply pin.															
59	AV <sub>SS</sub>			A/D converter's GND pin.															
60	STILL ADJ	I		Input signal for STILL noise position adjustment.															
61	JAP/USA	I	Analog input	Destination select SW input. More than 2.5V JAPAN. Less than 2.5V USA.															
62	BATT LVL	I	Analog input	BATTERY LEVEL input. This is input at approx. 1/2.															
63	T REEL FG	I	Analog input	Take-up side REEL FG input. Used to detect reel rotation.															
64	S REEL FG	I	Analog input	Supply side REEL FG input. Used to detect reel rotation.															

Table 1 (3)

3-9. SYSTEM CONTROL – CAMERA BLOCK INTERFACE

Signal	I/O	Pin No.	Input/Output Level
AF ON	O	SS-86 board IC200 ⑤	"H" when auto focus in ON.
TELE IN	I	SS-86 board IC200 ③	"L" when zoom switch TELE is pressed.
WIDE IN	I	SS-86 board IC200 ④	"L" when zoom switch WIDE is pressed.
TALLY	O	SS-86 board IC200 ⑭	"L" when in CAMERA mode and REC mode.
CAM STB	O	FC-18 board IC190 ③	4V cycle "H" pulse. (  ) Strobe signal for serial data transmission.
CLK	O	FC-18 board IC190 ⑦	2V cycle "L" Pulse series. (  ) Serial data transmission clock.
DATA TO SLAVE	O	FC-18 board IC190 ⑥	2V cycle pulse series. (  ) Serial data transmission.
TELE OUT	O	SS-86 board IC200 ⑦	"H" during the zoom motor is rotating TELE direction.
WIDE OUT	O	SS-86 board IC200 ⑧	"H" during the zoom motor is rotating WIDE direction.
BACK LIGHT	O	SS-86 board IC200 ⑥	"H" during Back Light is lit.

3-11. SYSTEM CONTROL – SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	I/O	Pin No.	STOP	FF	REW	FR SEARCH		PB
						CUE	REVIEW	
ATF ERR	I	SS-86 board IC001 ②		* 1	* 1	* 2	* 2	* 2
SWP DLY * 3	I	SS-86 board IC001 ③						
D PWM	O	SS-86 board IC001 ⑤	L	* 4	* 4	* 4	* 4	* 4
C PWM	O	SS-86 board IC001 ⑥	L	* 5	* 5	* 5	* 5	* 5
D PG	I	SS-86 board IC001 ⑩	L	* 6	* 6	* 6	* 6	* 6
RF SWP	O	SS-86 board IC001 ⑭	H/L	* 7	* 7	* 7	* 7	* 7
REF V	I	SS-86 board IC001 ⑮	* 8	* 8	* 8	L	L	L
D FG	I	SS-86 board IC001 ⑰	H	* 9	* 9	* 9	* 9	* 9
C FG	I	SS-86 board IC001 ⑱	H/L	* 10	* 10	* 11	* 12	* 13
CAP ON	O	SS-86 board IC001 ⑳	L	H	H	H	H	H
ATF LOCK	I	SS-86 board IC001 ㉑		H	H	H	H	L
TS B	O	SS-86 board IC001 ㉒	H	H	H	H	H	* 15
CAP BRK	O	SS-86 board IC001 ㉓	L	L	L	L	L	L
CAP FWD/RVS	O	SS-86 board IC001 ㉔	H	H	L	H	L	H
SEL1	O	SS-86 board IC001 ㉕	L	L	L	* 18	* 19	* 15
SEL2	O	SS-86 board IC001 ㉖	L	L	L	* 18	* 19	* 15
SEL 16K/47K	O	SS-86 board IC001 ㉗	L	L	L	* 18	* 19	* 15
SLOW GAIN	O	SS-86 board IC001 ㉘	L	L	L	L	L	L

3-10. SYSTEM CONTROL – VIDEO, AUDIO BLOCK INTERFACE


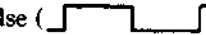
Signal	I/O	Pin No.	VTR mode										CAMERA mode						
			STOP	FF	REW	FR SEARCH		PB	PICTUER SEARCH		PB-PAUSE	FRAME	REC	REC. PAUSE	STAND-BY	EDIT CUE	EDIT REVIEW	REC	
						CUE	REVIEW		CUE	REVIEW									
SP/LP	O	SS-86 board IC001 ⑪	H	H	H	* 1	* 1	* 2	* 1	* 1	* 1	* 1	H	H	H	H	H	H	
JOG	O	SS-86 board IC001 ⑫	H	H	H	L	L	H	L	L	L	L	H	H	H	L	L	H	
JOG VD	O	SS-86 board IC001 ⑬	L	L	L	* 3	* 3	L	* 3	* 3	* 3	* 3	L	L	L	* 3	* 3	L	
VA SWP	O	SS-86 board IC001 ⑭	H/L	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	
REF V	O	SS-86 board IC001 ⑮	* 5	* 5	* 5	L	L	L	L	L	L	L	* 5	* 5	* 5	L	L	* 5	
CLOG	I	SS-86 board IC001 ⑯	H	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	H			* 6	* 6	H	
VA PB MODE	O	SS-86 board IC001 ⑰	L	L	L	H	H	H	H	H	H	H	L	L	L	H	H	L	
V MUTE	O	SS-86 board IC001 ⑱	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
A MUTE	O	SS-86 board IC001 ㉑	L	L	L	H	H	L	H	H	H	H	L	L	L	H	H	L	
CG WIND	O	SS-86 board IC001 ㉒	H	H	H	H	H	H	H	H	H	H	H	H	* 7	* 7	* 7	* 7	
CAM PWR	O	SS-86 board IC001 ㉓	L	L	L	L	L	L	L	L	L	L	L	L	H	H	H	H	
RP PB MODE	O	SS-86 board IC001 ㉔	H	H	H	H	H	H	H	H	H	H	L	H	H	H	H	L	
FE ON	O	SS-86 board IC001 ㉕	H	H	H	H	H	H	H	H	H	H	L	H	H	H	H	L	
TAPE2/TAPE1	O	FP-53board S301	"L" when using MP type tape.																
EDIT	O	PA-13 board S990	"L" when EDIT switch (PA-13 board S990) is turned ON.																
DATA TO SLAVE	O	FC-18 board IC190 ⑥	V cycle "L" pulse series (VTR mode)										"L" pulse series (CAMERA mode)						
CLK	O	FC-18 board IC190 ⑦	V cycle "L" pulse series (VTR mode)										"L" pulse series (CAMERA mode)						
CG STB	O	FC-18 board IC190 ②	L	L	L	L	L	L	L	L	L	L	L	L	L	* 8	* 8	* 8	* 8

- \* 1 Outputs identification results is PB mode immediately preceding. SP mode "H", LP mode "L".
- \* 2 Outputs identification results of playback tape recording mode (SP/LP). SP mode "H"; LP mode "L".
- \* 3 False VD signal (V cycle "H" pulse)
- \* 4 30Hz 50% duty pulse. Synchronized to drum rotation.
- \* 5 V cycle "L" pulse separated from line input video signal or camera video signal.
- \* 6 "H" at tape no signal portion or dropout portion. Input for head clogging detection.

- \* 7 V cycle pulse
- \* 8 2V cycle pulse series.

3-11. SYSTEM CONTROL - SERVO PERIPHERAL CIRCUIT INTERFACE

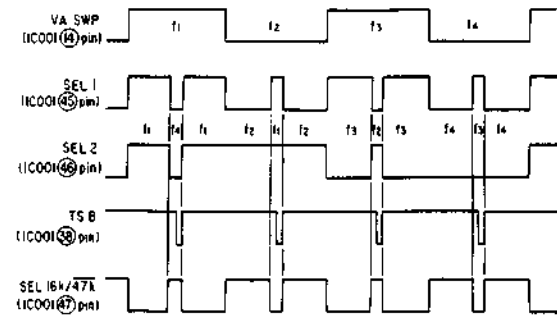
Signal	I/O	Pin No.	VTR MODE											CAMERA MODE				
			STOP	FF	REW	FR SEARCH		PB	PICTURE SEARCH		PB-PAUSE	FRAME	REC	REC. PAUSE	STAND-BY	EDIT CUE	EDIT REV	REC
						CUE	REVIEW		CUE	REVIEW								
ATF ERR	I	SS-86 board IC001 ②		* 1	* 1	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2		* 2	* 2	* 1	
SWP DLY * 3	I	SS-86 board IC001 ③																
D PWM	O	SS-86 board IC001 ⑤	L	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	
C PWM	O	SS-86 board IC001 ⑥	L	* 5	* 5	* 5	* 5	* 5	* 5	* 5	L	* 5	* 5	L	L	* 5	* 5	
D PG	I	SS-86 board IC001 ⑩	L	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	
RF SWP	O	SS-86 board IC001 ⑭	H/L	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	
REF V	I	SS-86 board IC001 ⑮	* 8	* 8	* 8	L	L	L	L	L	L	L	* 8	* 8	* 8	L	L	
D FG	I	SS-86 board IC001 ⑰	H	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	* 9	
C FG	I	SS-86 board IC001 ⑱	H/L	* 10	* 10	* 11	* 12	* 13	* 11	* 12	H/L	* 14	* 13	H/L	H/L	* 13	* 13	
CAP ON	O	SS-86 board IC001 ⑳	L	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
ATF LOCK	I	SS-86 board IC001 ㉑		H	H	H	H	L	H	H	H	H	H	H	H	L	L	
TS B	O	SS-86 board IC001 ㉒	H	H	H	H	H	* 15	H	H	H	H	H	H	H	* 15	* 16	
CAP BRK	O	SS-86 board IC001 ㉓	L	L	L	L	L	L	L	L	L	* 17	L	L	L	L	L	
CAP FWD/RVS	O	SS-86 board IC001 ㉔	H	H	L	H	L	H	H	L	H	H	H	H	H	H	L	
SEL1	O	SS-86 board IC001 ㉕	L	L	L	* 18	* 19	* 15	* 18	* 19	H	* 20	* 21	L	L	* 15	* 16	
SEL2	O	SS-86 board IC001 ㉖	L	L	L	* 18	* 19	* 15	* 18	* 19	H/L	* 20	* 21	H	H	* 15	* 16	
SEL 16K/47K	O	SS-86 board IC001 ㉗	L	L	L	* 18	* 19	* 15	* 18	* 19	L	* 20	L	L	L	* 15	* 16	
SLOW GAIN	O	SS-86 board IC001 ㉘	L	L	L	L	L	L	L	L	H	H	L	L	L	L	L	

- \* 1 Fixed voltage approx. 2V DC.
- \* 2 ATF error voltage
- \* 3 DC voltage set by RV002 is input.
- \* 4 53μsec cycle PWM wave. Duty ratio changes according to drum error signal.
- \* 5 53μsec cycle PWM wave. Duty ratio changes according to capstan error signal.
- \* 6 V cycle "H" pulse (  )
- \* 7 30Hz 50% duty pulse (  ). Synchronized to drum rotation.
- \* 8 V cycle "L" pulse separated from line input video signal or camera video signal.
- \* 9 720Hz pulse
- \* 10 Approx. 16500Hz pulse
- \* 11 Approx. 5900Hz pulse (SP mode)
- \* 12 Approx. 5600Hz pulse (SP mode)
- \* 13 Approx. 826Hz pulse (SP mode)
- \* 14 Pulse input during step-by-step
- \* 15 Refer to Timing Chart 1
- \* 16 Refer to Timing Chart 2
- \* 17 "H" pulse output during step-by-step
- \* 18 Refer to Timing Chart 3
- \* 19 Refer to Timing Chart 4
- \* 20 Pulse output during step-by-step
- \* 21 Refer to Timing Chart 5

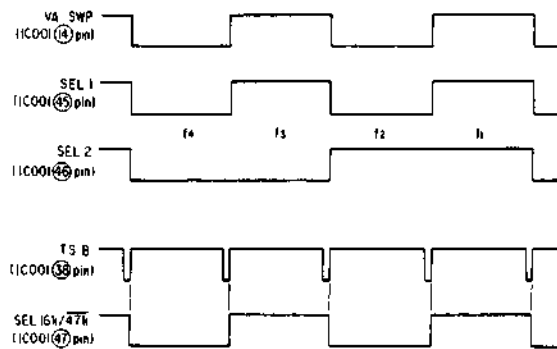
VTR mode				CAMERA mode								
FR SEARCH	REVIEW	PB	PICTUER SEARCH		PB-PAUSE	FRAME	REC	REC. PAUSE	STAND-BY	EDIT CUE	EDIT REVIEW	REC
			CUE	REVIEW								
* 1	* 1	* 2	* 1	* 1	* 1	* 1	H	H	H	H	H	H
L	L	H	L	L	L	L	H	H	H	L	L	H
* 3	* 3	L	* 3	* 3	* 3	* 3	L	L	L	* 3	* 3	L
* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4
L	L	L	L	L	L	L	* 5	* 5	* 5	L	L	* 5
* 6	* 6	* 6	* 6	* 6	* 6	* 6	H			* 6	* 6	H
H	H	H	H	H	H	H	L	L	L	H	H	L
L	L	L	L	L	L	L	L	L	L	L	L	L
H	H	H	H	H	H	H	L	L	L	H	H	L
H	H	H	H	H	H	H	H	H	* 7	* 7	* 7	* 7
L	L	L	L	L	L	L	L	L	H	H	H	H
H	H	H	H	H	H	H	L	H	H	H	H	L
H	H	H	H	H	H	H	L	H	H	H	H	L
S990) is turned ON.												
"L" pulse series (CAMERA mode)												
"L" pulse series (CAMERA mode)												
L	L	L	L	L	L	L	L	L	* 8	* 8	* 8	* 8

- \* 7 V cycle pulse
- \* 8 2V cycle pulse series.

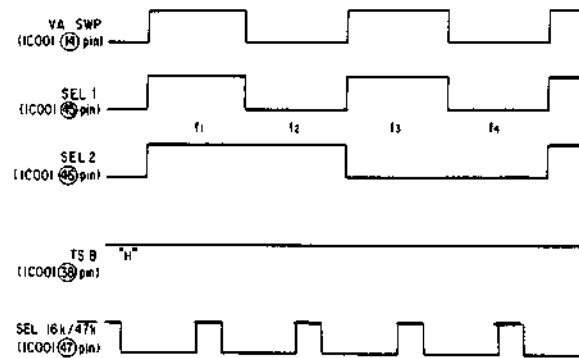
3-11-1. TIMING CHART 1 (PB, EDIT CUE)



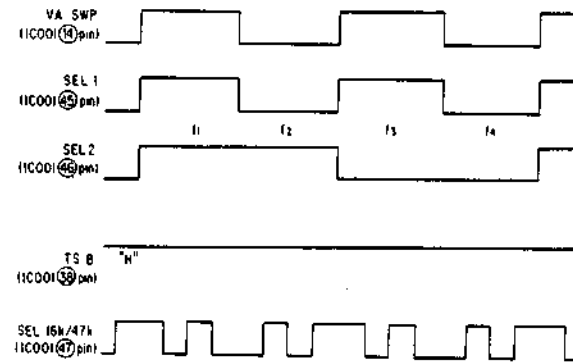
3-11-2. TIMING CHART 2 (EDIT REVIEW)



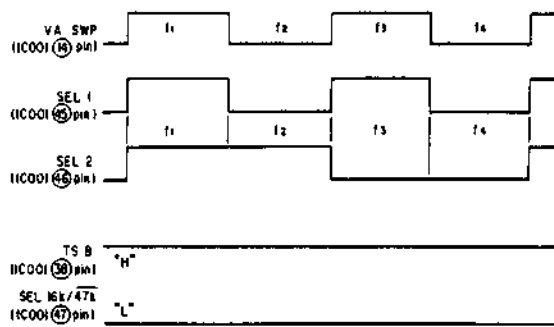
3-11-3. TIMING CHART 3 (CUE)







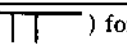
3-11-4. TIMING CHART 4 (REVIEW)



3-11-5. TIMING CHART 5 (REC)

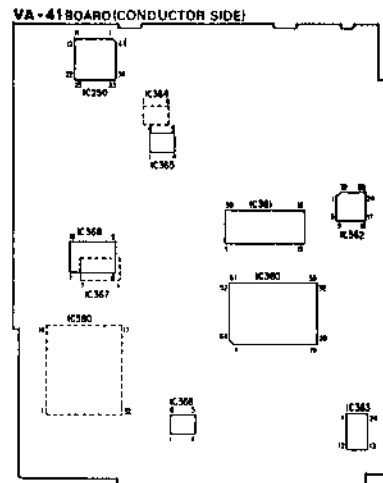
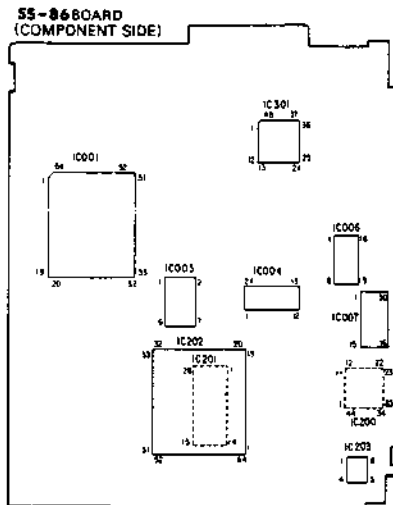
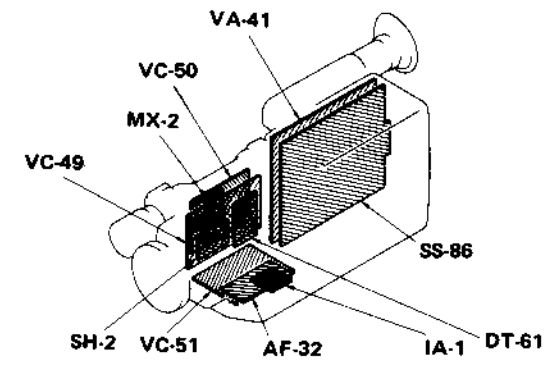


3-12. SYSTEM CONTROL – PERIPHERAL CIRCUIT INTERFACE

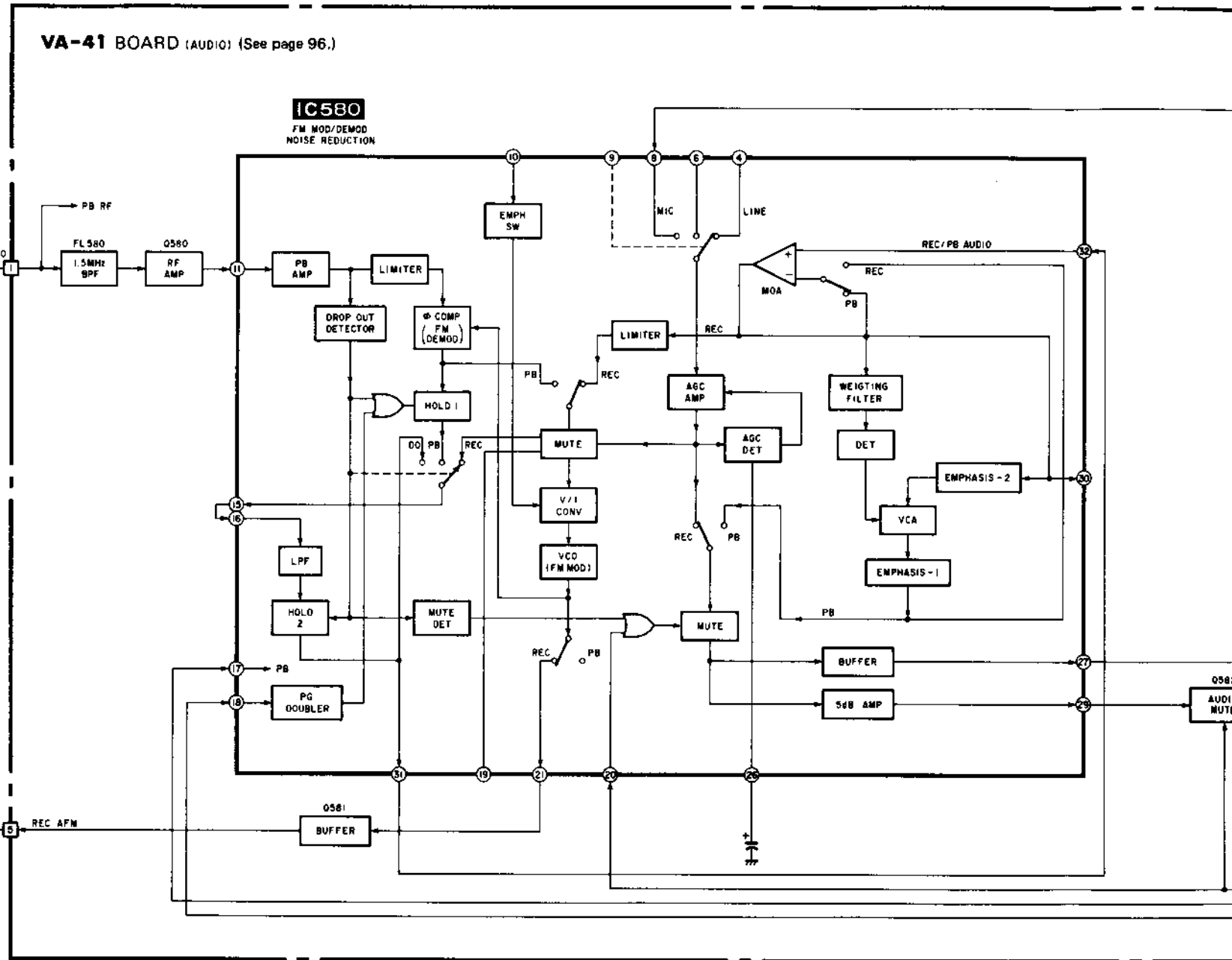
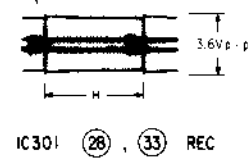
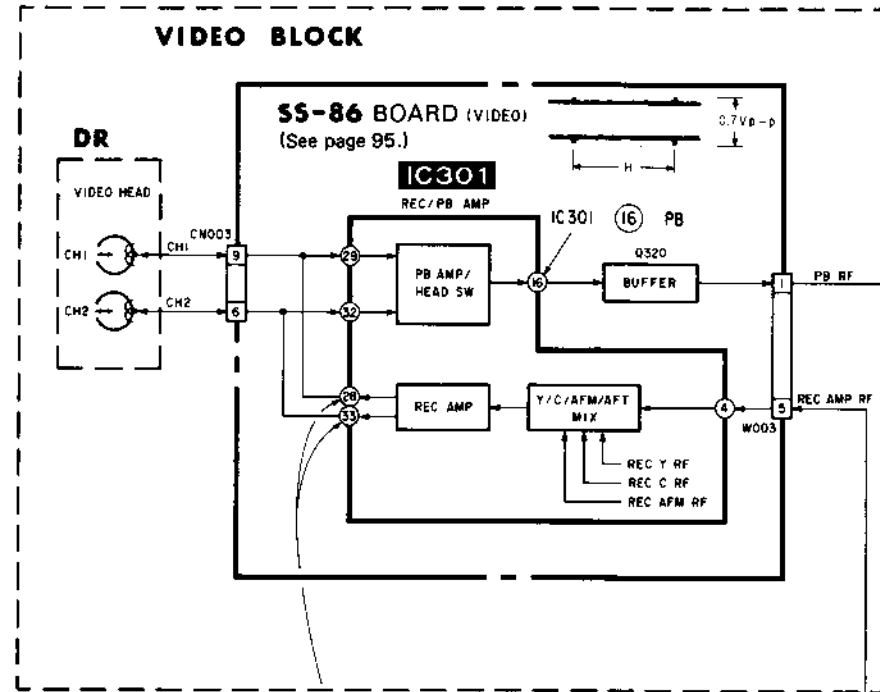
Signal	I/O	Pin No.	Input/Output Level																												
DEW	I	SS-86 board IC001①	Dew sensor input. Input voltage increases when there is dew.																												
VA REF	I	SS-86 board IC001④	Reference voltage input (5V DC) for A-D conversion of pin (1) (DEW), pin (2) (ATF ERR) and pin (3) (SWP DLY) input analog voltage (0-5V DC).																												
CLK	I	SS-86 board IC001⑦	Clock input from serial data transmission mode control (FC-18 board IC190). V cycle "L" pulse (  ) in VTR mode.																												
DATA TO MASTER	O	SS-86 board IC001⑧	Serial data output to mode control. V cycle "L" pulse (  ) in VTR mode.																												
DATA TO SLAVE	I	SS-86 board IC001⑨	Serial data input from mode control. V cycle "L" pulse (  ) in VTR mode.																												
END SENS	I	SS-86 board IC001⑱	TAPE END sensor (SS-86 board PH001) input. "L" pulse input at tape end. Normally "H".																												
TOP SENS	I	SS-86 board IC001⑳	TAPE TOP sensor (SS-86 board PH002) input. "L" pulse input at tape top. Normally "H".																												
CS	I	SS-86 board IC001㉒	Serial signal chip select signal input from mode control. V cycle pulse (  ).																												
SLAVE RESET	I	SS-86 board IC001㉓	Reset signal input from mode control. Goes "L" when power is turned ON/OFF and servo/mechanism control (SS-86 board IC001) is reset.																												
E/T LED	O	SS-86 board IC001㉔	Pulse output (  ) for lighting up T/E SENS LED (FP-53 board D302). REC/PB 100msec cycle. CUE/REVIEW 17msec cycle. FF/REW 3msec cycle. "L" when LED is lit up.																												
VTR POWER	O	SS-86 board IC001㉕	VTR power ON/OFF signal output. "H" during VTR mode and CAMERA mode. Operates DC-DC converter, and generates VTR 5V.																												
CAM POWER	O	SS-86 board IC001㉖	Camera power ON/OFF signal output. "H" during CAMERA mode. Operates DC-DC converter and generates voltages used for camera.																												
LOAD	O	SS-86 board IC001㉗	"H" during cassette loading.																												
UNLOAD	O	SS-86 board IC001㉘	"H" during cassette eject.																												
REC PROOF	I	SS-86 board IC001㉙	"H" when cassette which can not be recorded (erase prevention) is inserted.																												
M SW1	I	SS-86 board IC001㉚	Mode switch input for mechanism. Indicates mechanism position.																												
M SW2	I	SS-86 board IC001㉛																													
M SW3	I	SS-86 board IC001㉜																													
			<table border="1"> <thead> <tr> <th>Mechanism position</th> <th>READY</th> <th>REC/PB/CUE/REV/FF/REW</th> <th>GL</th> <th>STOP</th> <th>EJECT</th> <th>Mid-position</th> </tr> </thead> <tbody> <tr> <td>M SW1</td> <td>L</td> <td>H</td> <td>H</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>M SW2</td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> <td>L</td> <td>H</td> </tr> <tr> <td>M SW3</td> <td>H</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> <td>H</td> </tr> </tbody> </table>	Mechanism position	READY	REC/PB/CUE/REV/FF/REW	GL	STOP	EJECT	Mid-position	M SW1	L	H	H	H	L	H	M SW2	H	H	L	L	L	H	M SW3	H	L	L	H	H	H
Mechanism position	READY	REC/PB/CUE/REV/FF/REW	GL	STOP	EJECT	Mid-position																									
M SW1	L	H	H	H	L	H																									
M SW2	H	H	L	L	L	H																									
M SW3	H	L	L	H	H	H																									
V SO	O	SS-86 board IC001㉝	Video serial data output.																												
BATTERY LEVEL	I	SS-86 board IC001㉞	Main battery voltage level detection input.																												
T REEL FG	I	SS-86 board IC001㉟	T REEL FG (FP-53 board D304) input. Pulse corresponds to S reel rotation.																												
S REEL FG	I	SS-86 board IC001㊱	S REEL FG (FP-53 board D303) input. Pulse corresponds to S reel rotation.																												

3-13. AUDIO BLOCK DIAGRAM

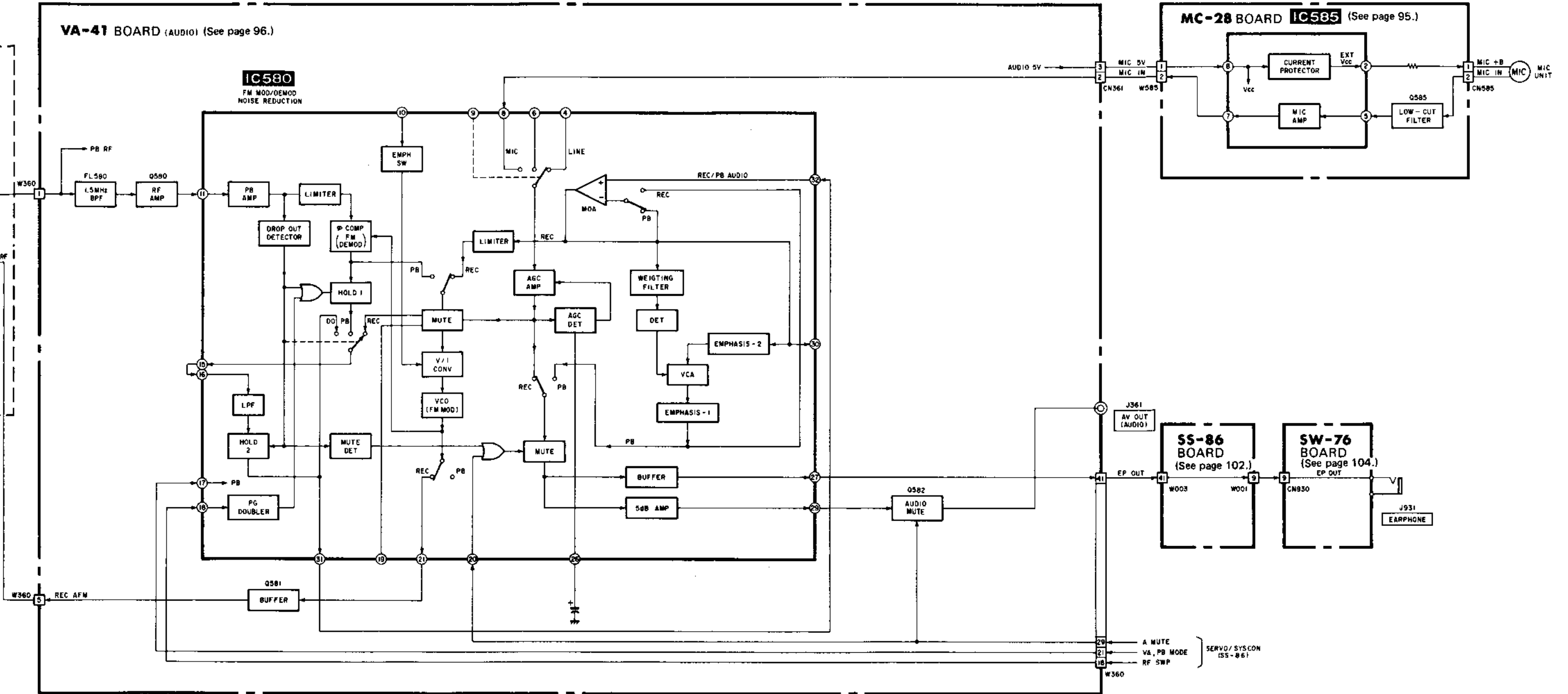
• ( ) near the board name indicates the schematic diagram page.

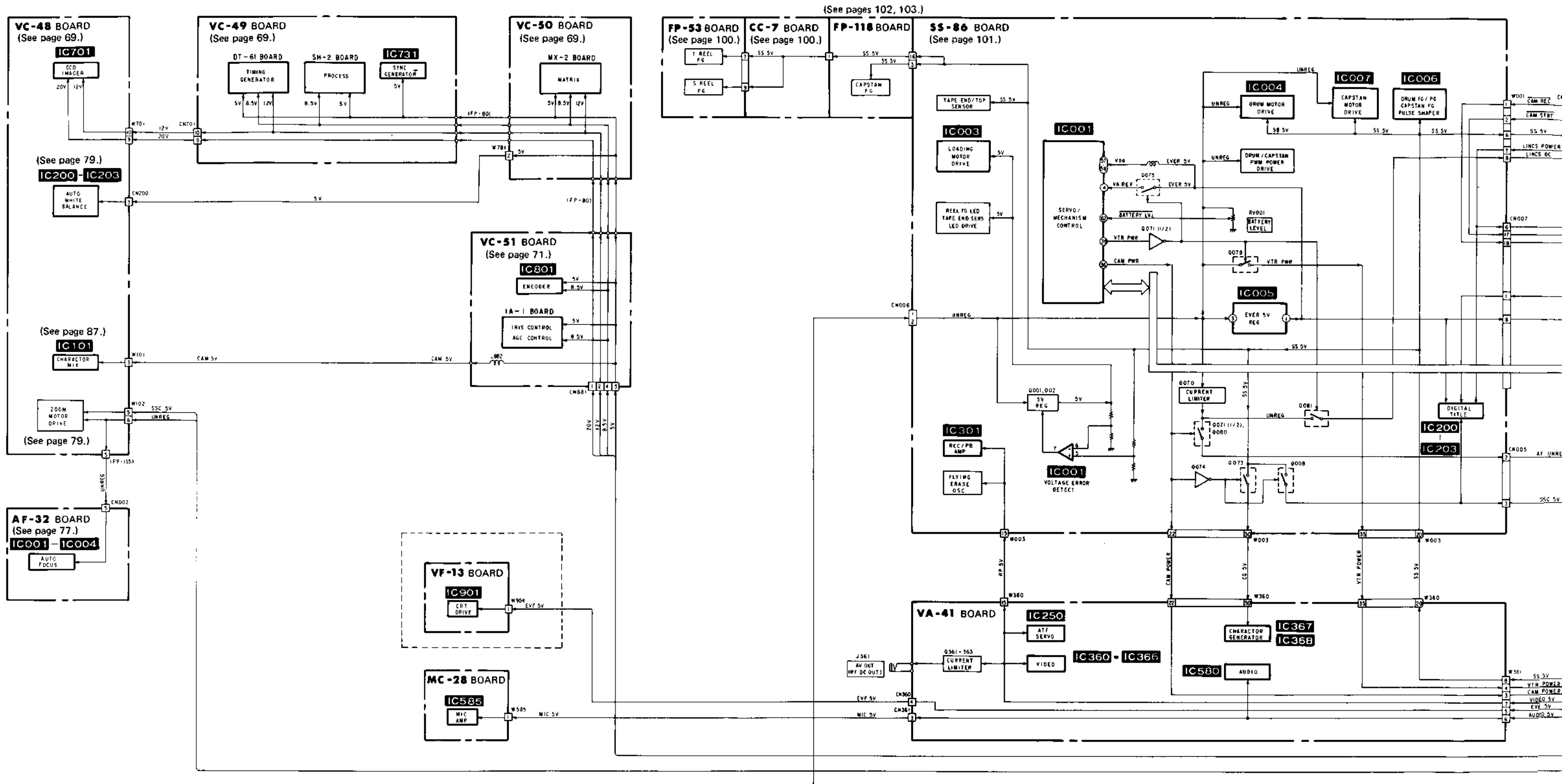


• Components on the rear side indicated by "---" line.



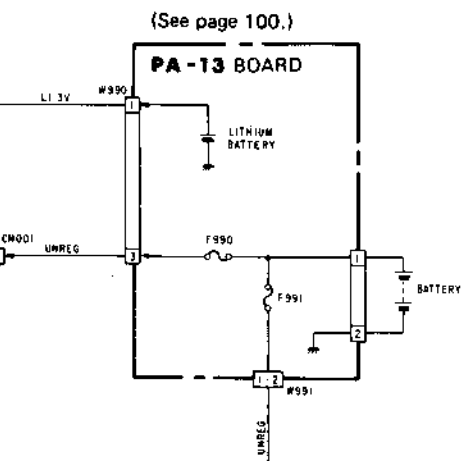
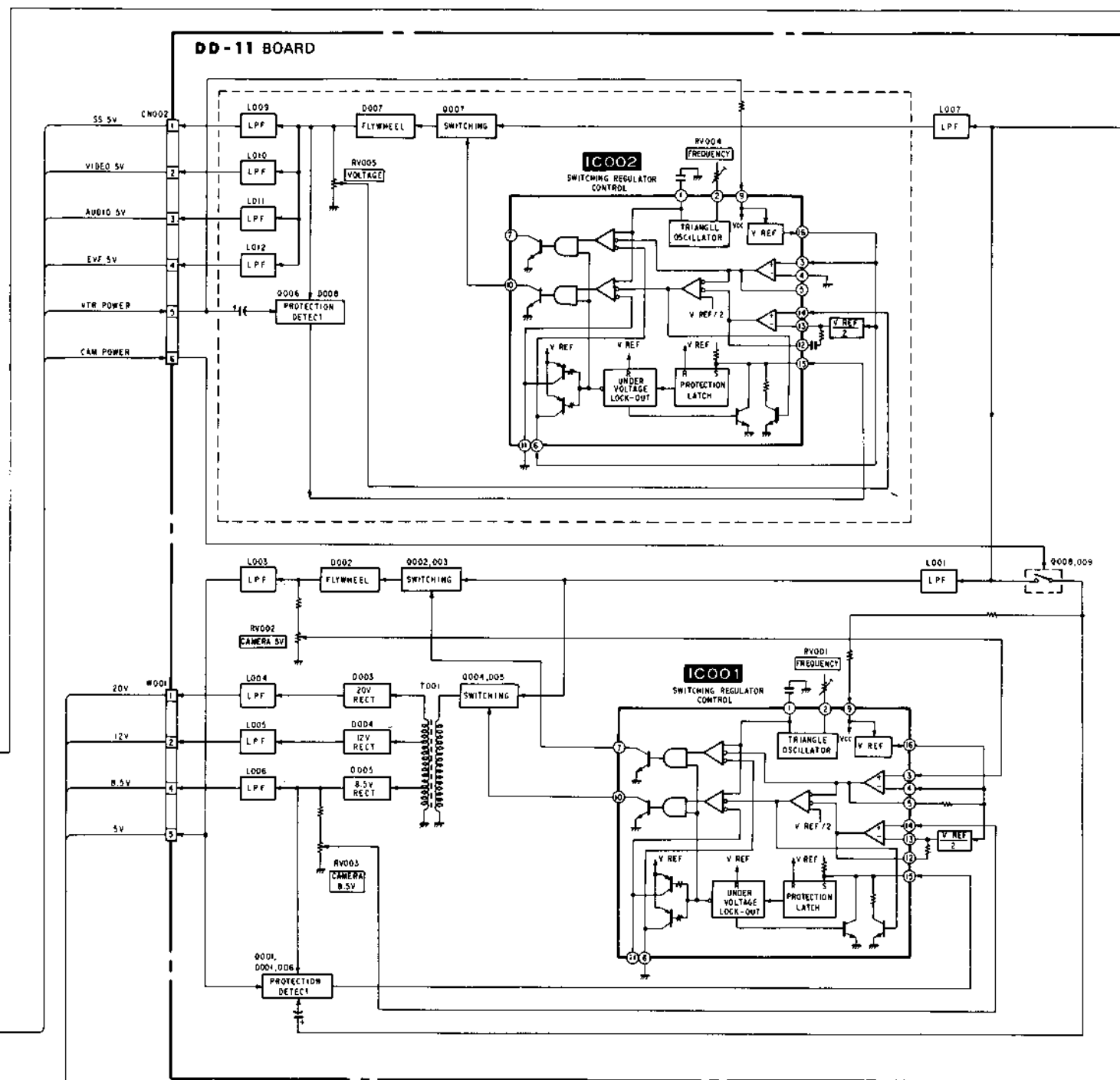
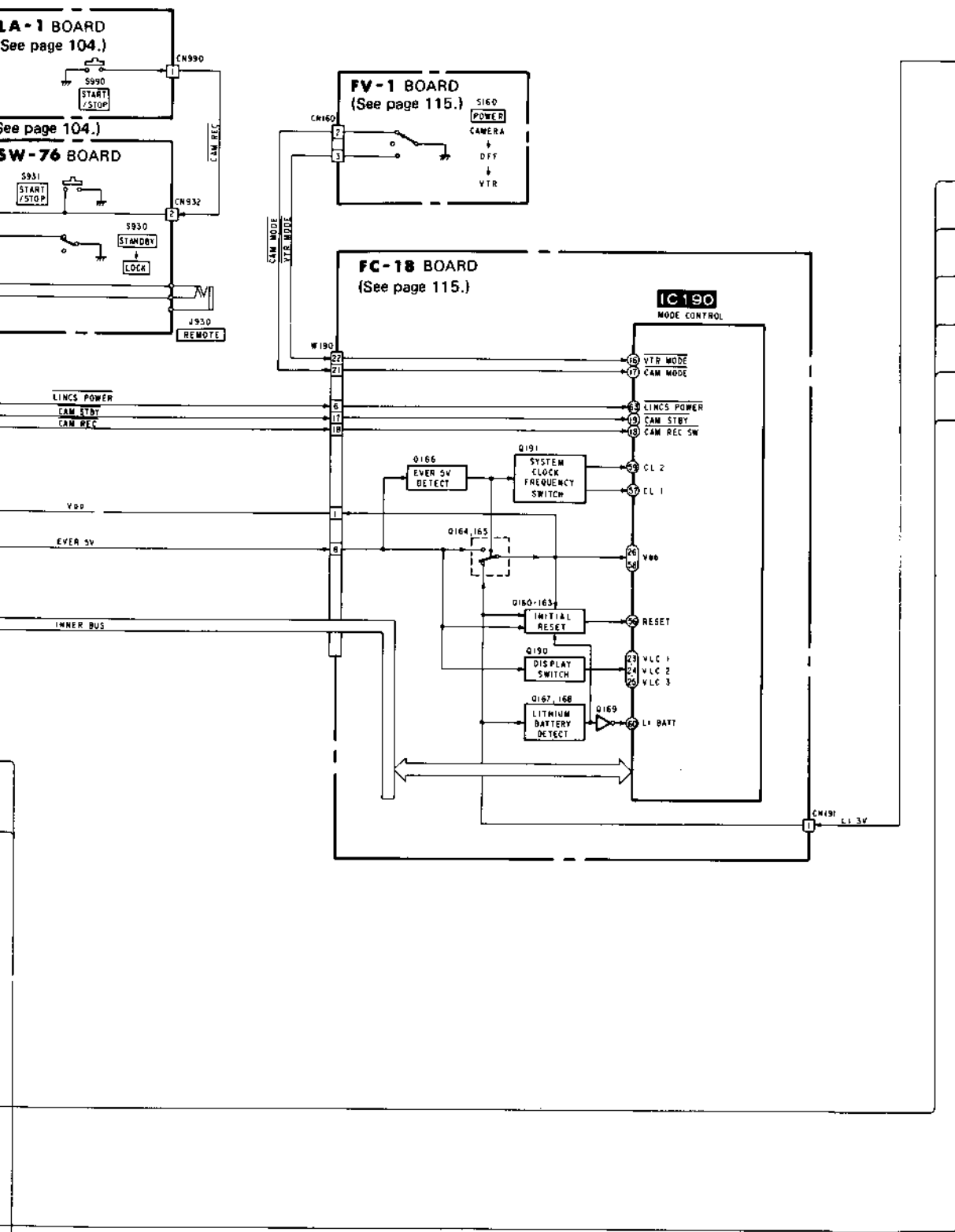
**VA-41 BOARD (AUDIO) (See page 96.)**

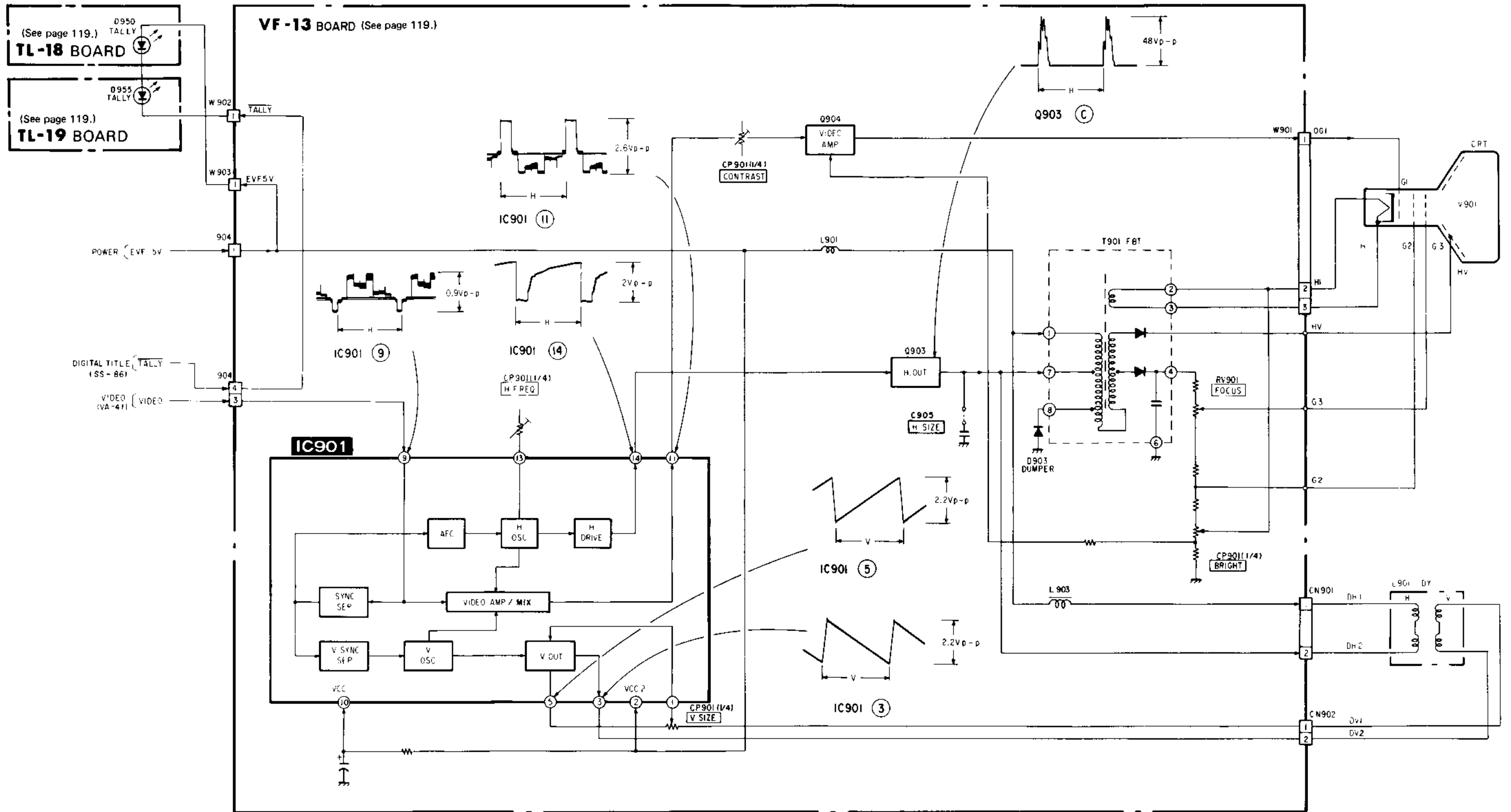












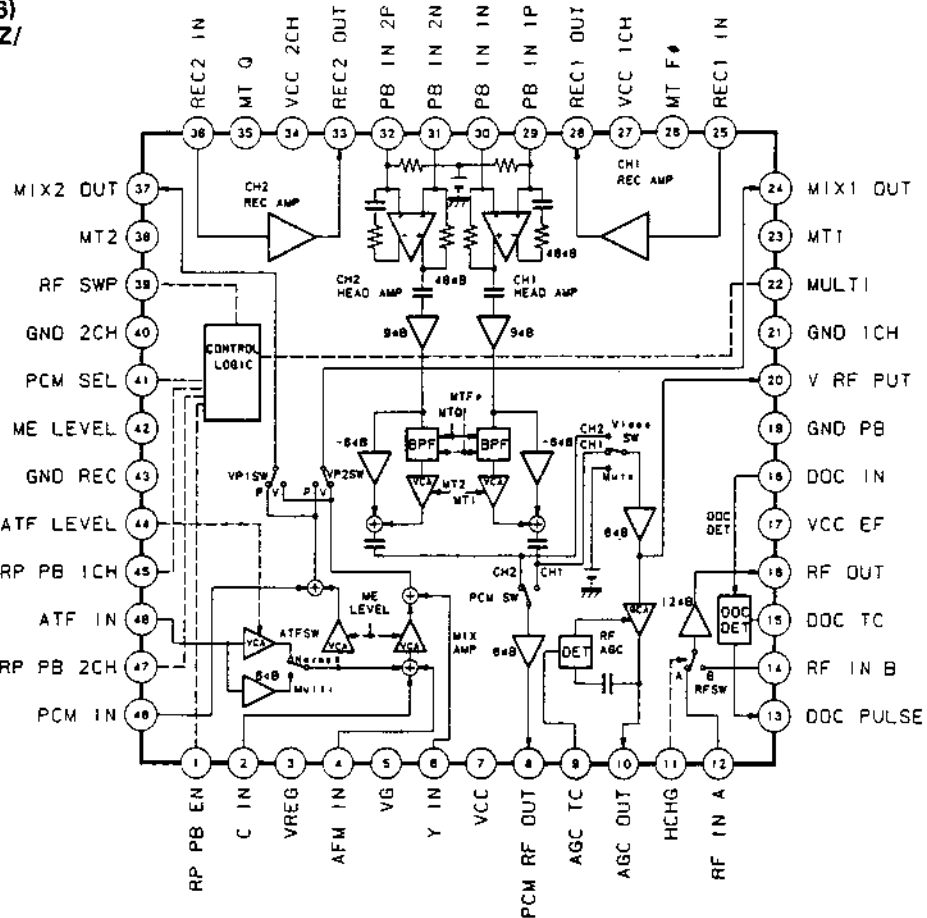


SECTION 4

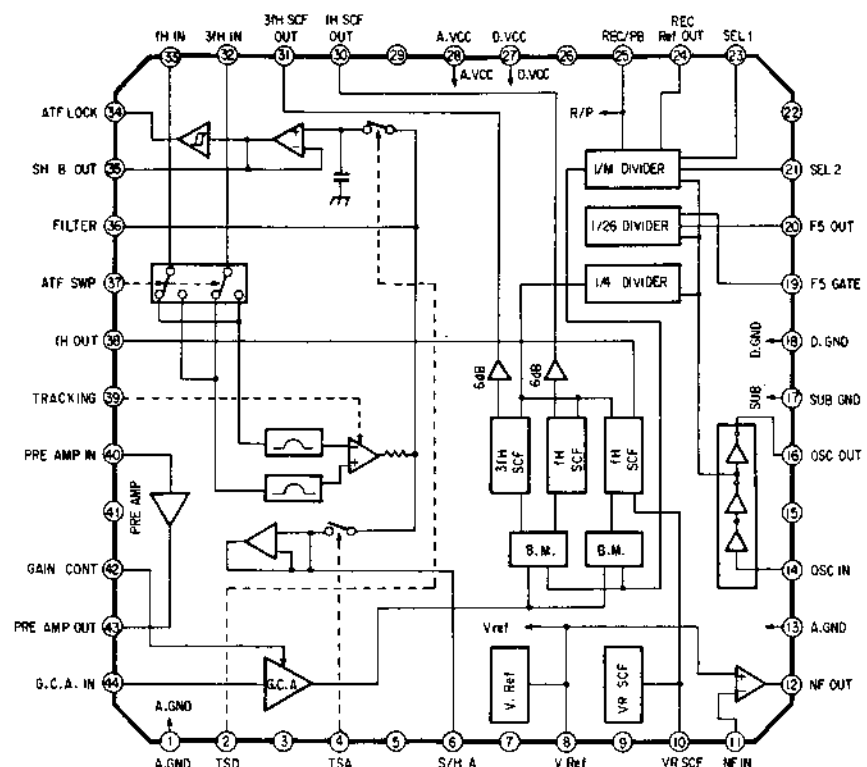
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

• VIDEO/AUDIO BLOCK IC BLOCK DIAGRAMS

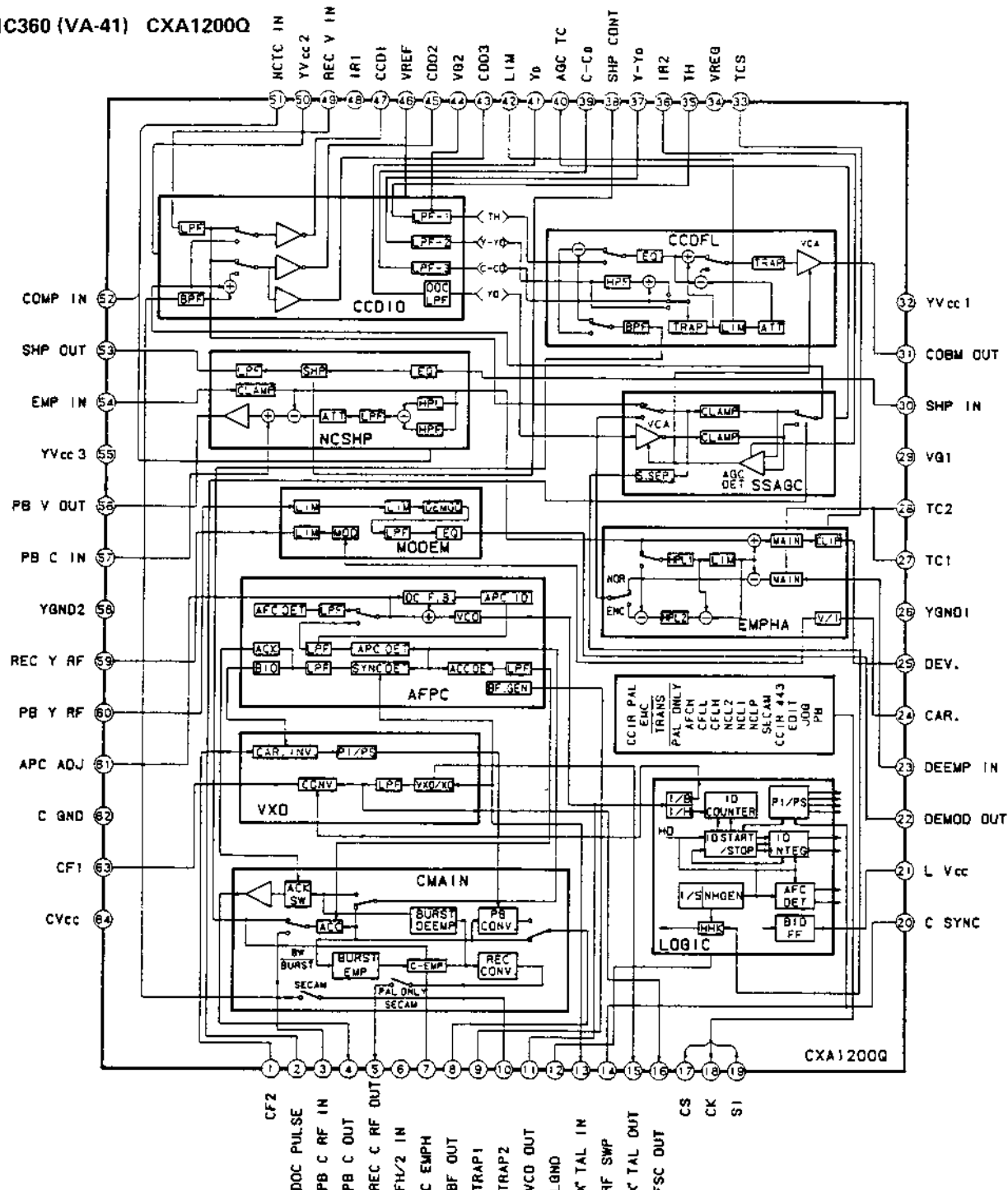
IC301 (SS-86)  
CXA1202Q-Z/  
CXA1202R



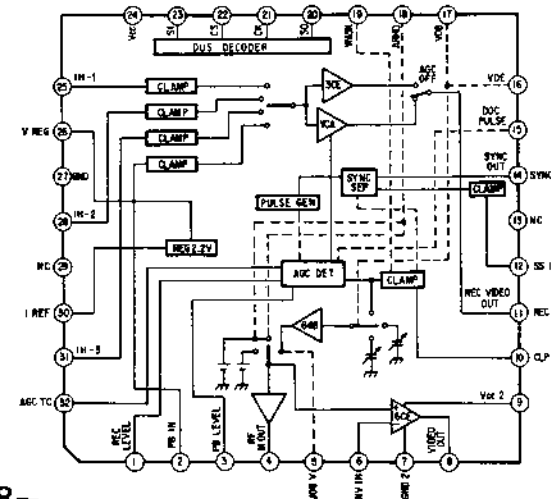
IC250 (VA-41)  
CXA1204Q



IC360 (VA-41) CXA1200Q



IC362 (VA-41)  
CXA1201Q



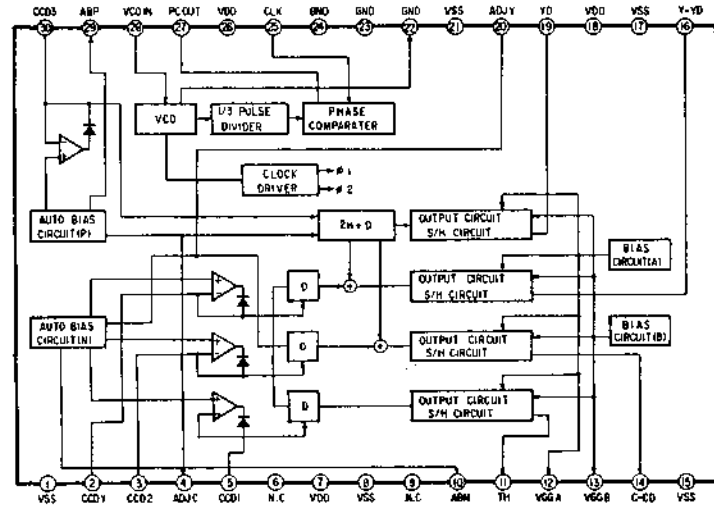
# 4-1. FRAME SCHEMATIC DIAGRAM

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

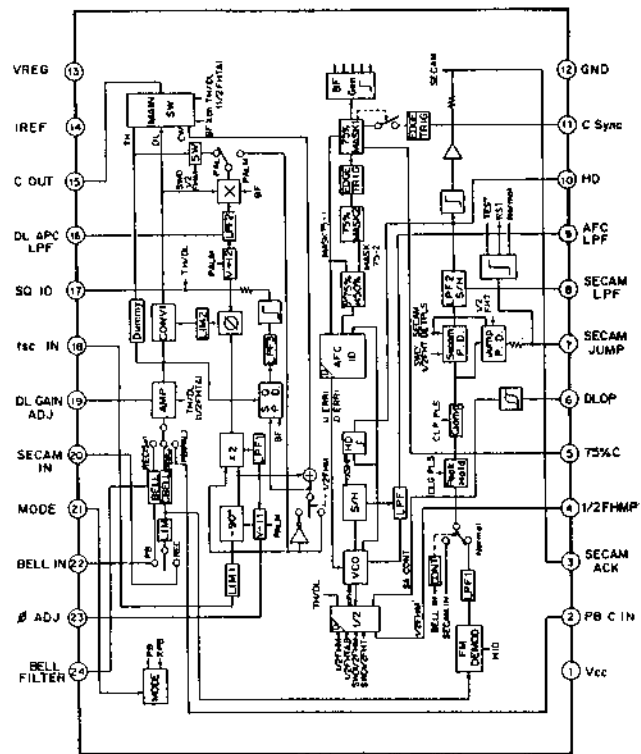
## Precautions for replacement of CCD imager block.

- With a pair of IC701 (CCD imager) on the VC-48 complete board and IC002 (corrector ROM) on the DT-61 complete board, it is used a repair part of the CCD imager block. Since corrector ROM IC is manufactured to match the CCD imager, replacement of a single unit of the CCD imager corrector ROM cannot be allowed.
- When both a CCD imager and the corrector ROM, replace both the CCD imager and the corrector ROM, when a corrector ROM is not mounted on the service set, install a corrector ROM which is supplied anew.
- IC701 (CCD imager) is not mounted on the VC-48 complete board to be supplied as a repair part, and IC002 (corrector ROM) is not mounted on the DT-61 complete board to be supplied as a repair part. When the respective boards are replaced, remove the respective ICs from the old boards and install them to the new ones respectively.
- After the CCD imager block has been replaced, perform the entire adjustments of the camera section.
- CCD imager is structurally in case of being broken down by static electricity. For this reason, take care to handle it as well as MOS IC. Moreover, care should be taken for dust not to be stuck on the light receiving section and for strong light not to get into there.

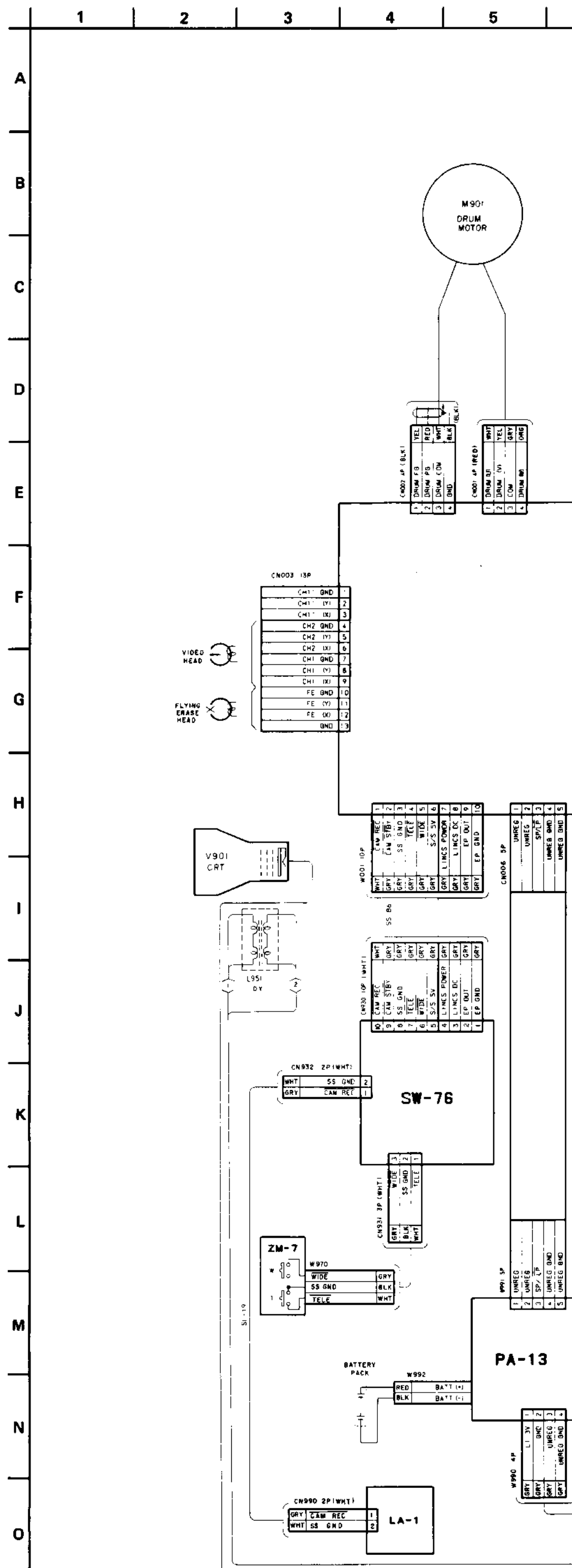
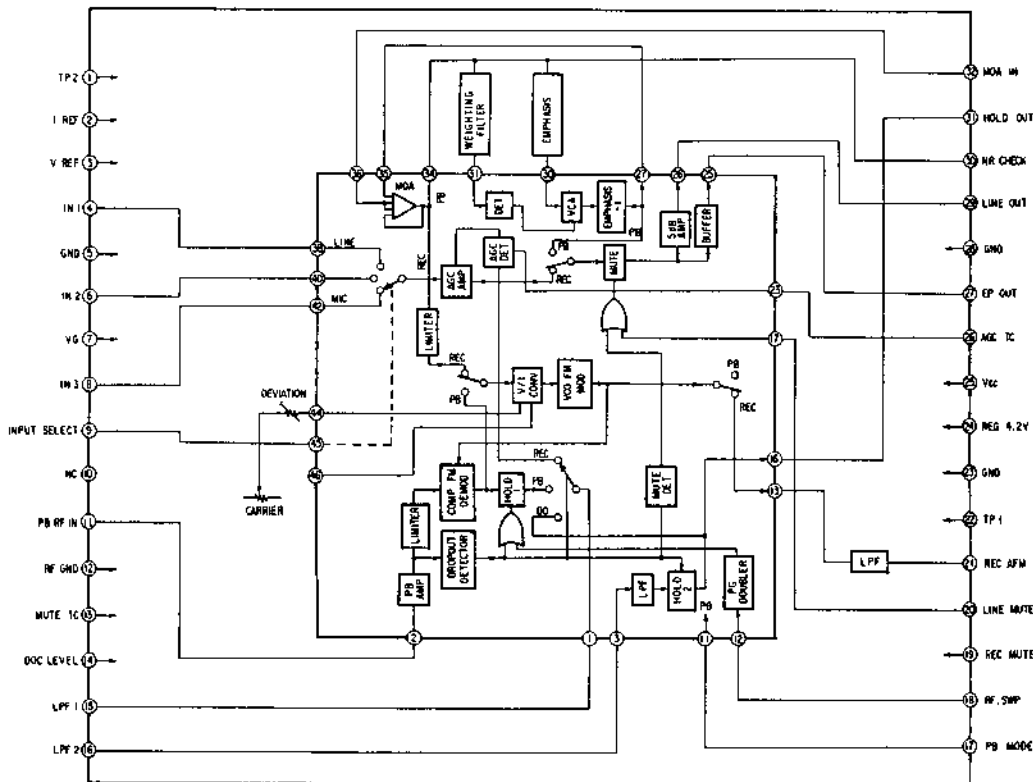
### IC361 (VA-41) CXL1502

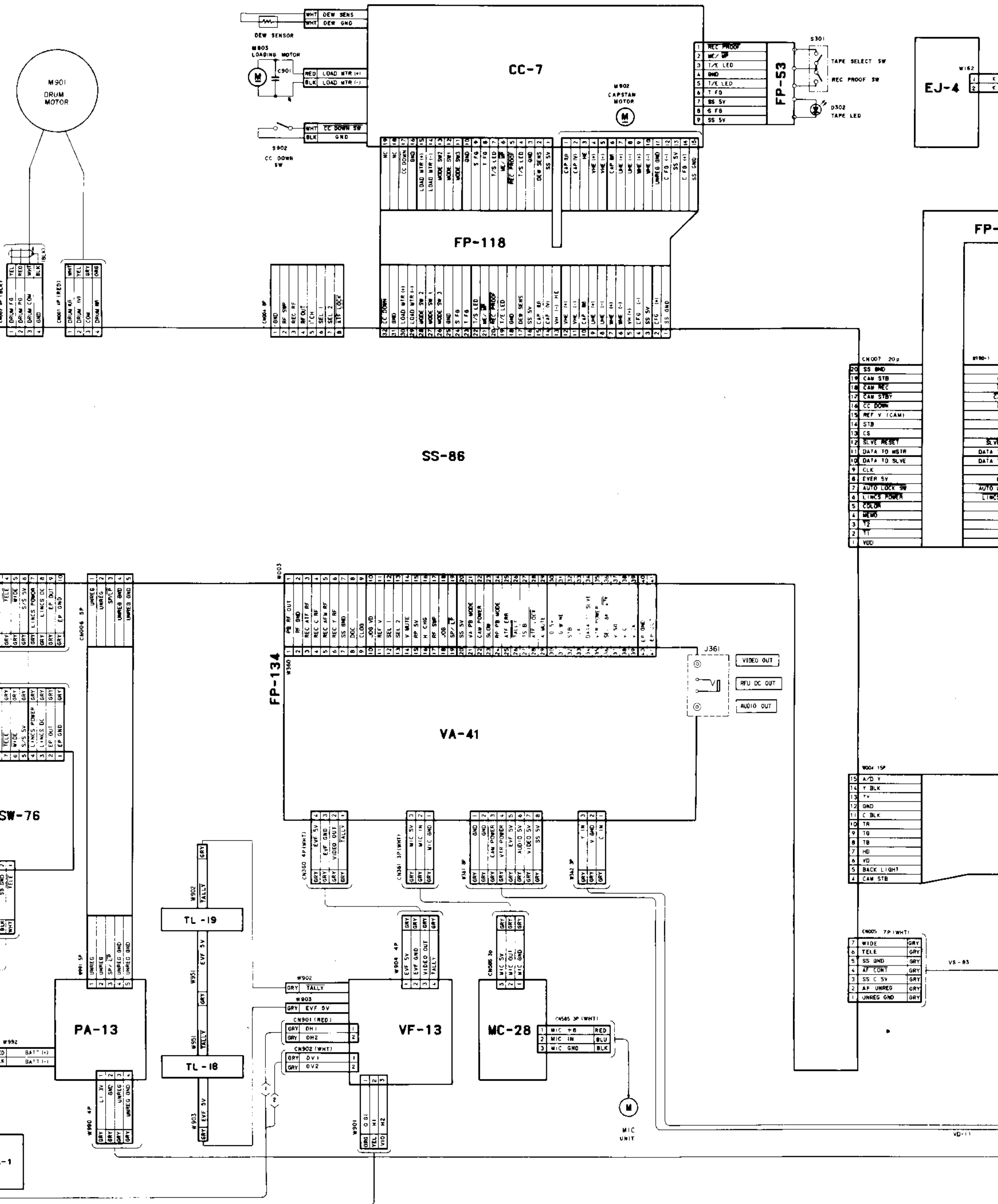


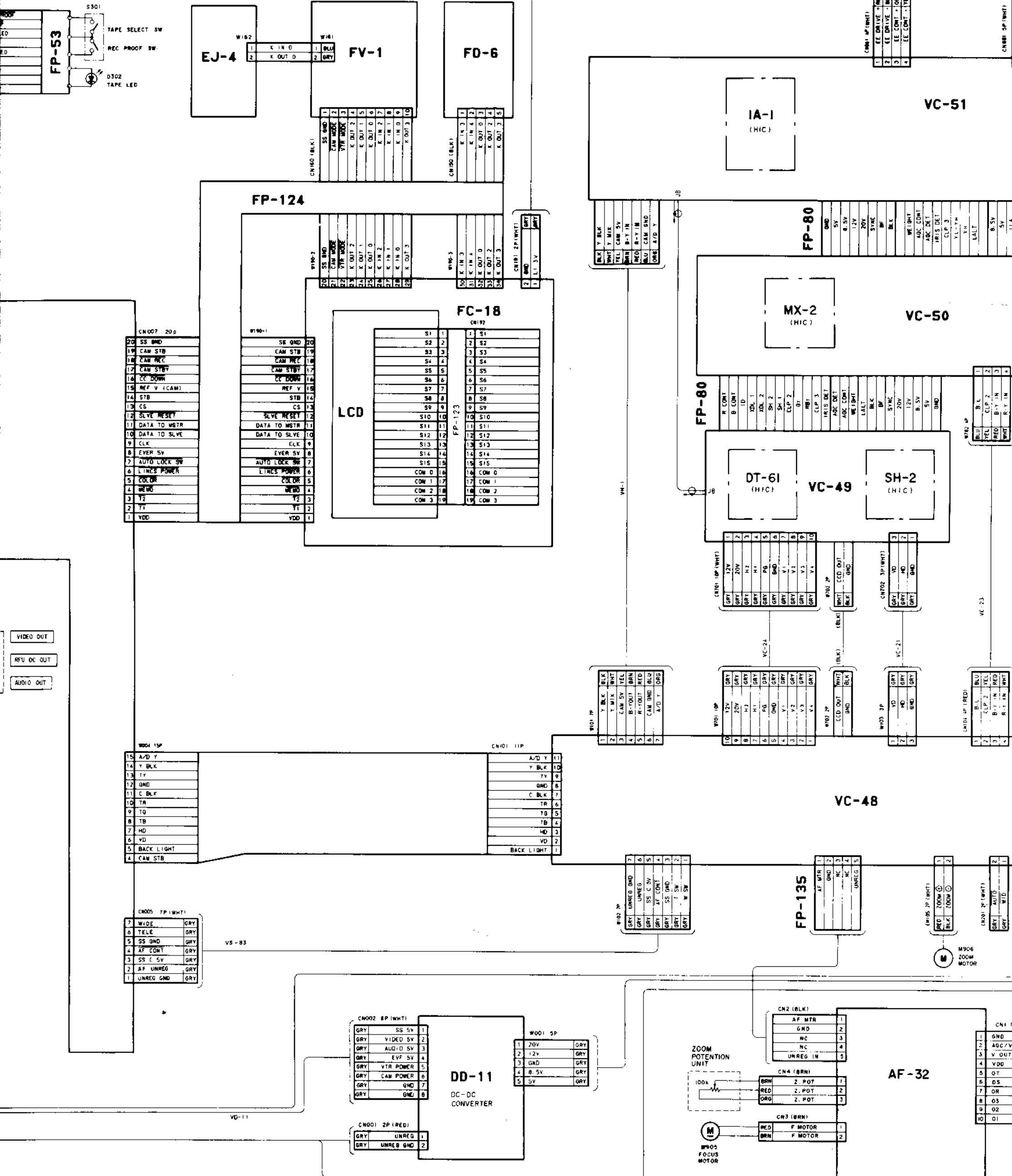
### IC363 (VA-41) CXA1203M



### IC580 (VA-41) SBX1505-01/21







CN007 20p

20	SS GND	20
19	CAM STB	19
18	CAM REC	18
17	CAM STBY	17
16	CC DOWN	16
15	REF V (CAM)	15
14	STB	14
13	CS	13
12	SLVE RESET	12
11	DATA TO MSTR	11
10	DATA TO SLVE	10
9	CLK	9
8	EVER SV	8
7	AUTO LOCK SW	7
6	LINES POWER	6
5	COLOR	5
4	MEMO	4
3	T2	3
2	T1	2
1	VDD	1

W160-1

20	SS GND	20
19	CAM STB	19
18	CAM REC	18
17	CAM STBY	17
16	CC DOWN	16
15	REF V	15
14	STB	14
13	CS	13
12	SLVE RESET	12
11	DATA TO MSTR	11
10	DATA TO SLVE	10
9	CLK	9
8	EVER SV	8
7	AUTO LOCK SW	7
6	LINES POWER	6
5	COLOR	5
4	MEMO	4
3	T2	3
2	T1	2
1	VDD	1

W161

1	K IN 0	1
2	K OUT 0	2

W162

1	BLU	1
2	GRY	2

W163

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W164

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W165

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W166

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W167

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W168

1	SS GND	1
2	CAM MODE	2
3	VTR MODE	3
4	K OUT 2	4
5	K OUT 1	5
6	K OUT 0	6
7	K IN 2	7
8	K IN 1	8
9	K IN 0	9
10	K OUT 3	10

W169

15	A/D Y	15
14	Y BLK	14
13	TY	13
12	GND	12
11	C BLK	11
10	TR	10
9	TQ	9
8	TB	8
7	TD	7
6	VD	6
5	BACK LIGHT	5
4	CAM STB	4

W170

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W171

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W172

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W173

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W174

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W175

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W176

1	Y BLK	1
2	Y MIX	2
3	CAM SV	3
4	B-Y OUT	4
5	R-Y OUT	5
6	CAM GND	6
7	A/D Y	7

W177

7	WIDE	GRY
6	TELE	GRY
5	SS GND	GRY
4	AF CONT	GRY
3	SS C SV	GRY
2	AF UNREG	GRY
1	UNREG GND	GRY

W178

1	SS SV	1
2	VIDED SV	2
3	AUD D SV	3
4	EVF SV	4
5	VTR POWER	5
6	CAM POWER	6
7	GND	7
8	GND	8

W179

1	20V	GRY
2	12V	GRY
3	GND	GRY
4	8.5V	GRY
5	5V	GRY

W180

1	UNREG	GRY
2	UNREG	GRY
3	SS C SV	GRY
4	AF CONT	GRY
5	SS GND	GRY
6	T SW	GRY
7	W SW	GRY

W181

1	AF MTR	1
2	GND	2
3	NC	3
4	NC	4
5	UNREG IN	5

W182

1	Z POT	1
2	Z POT	2
3	Z POT	3

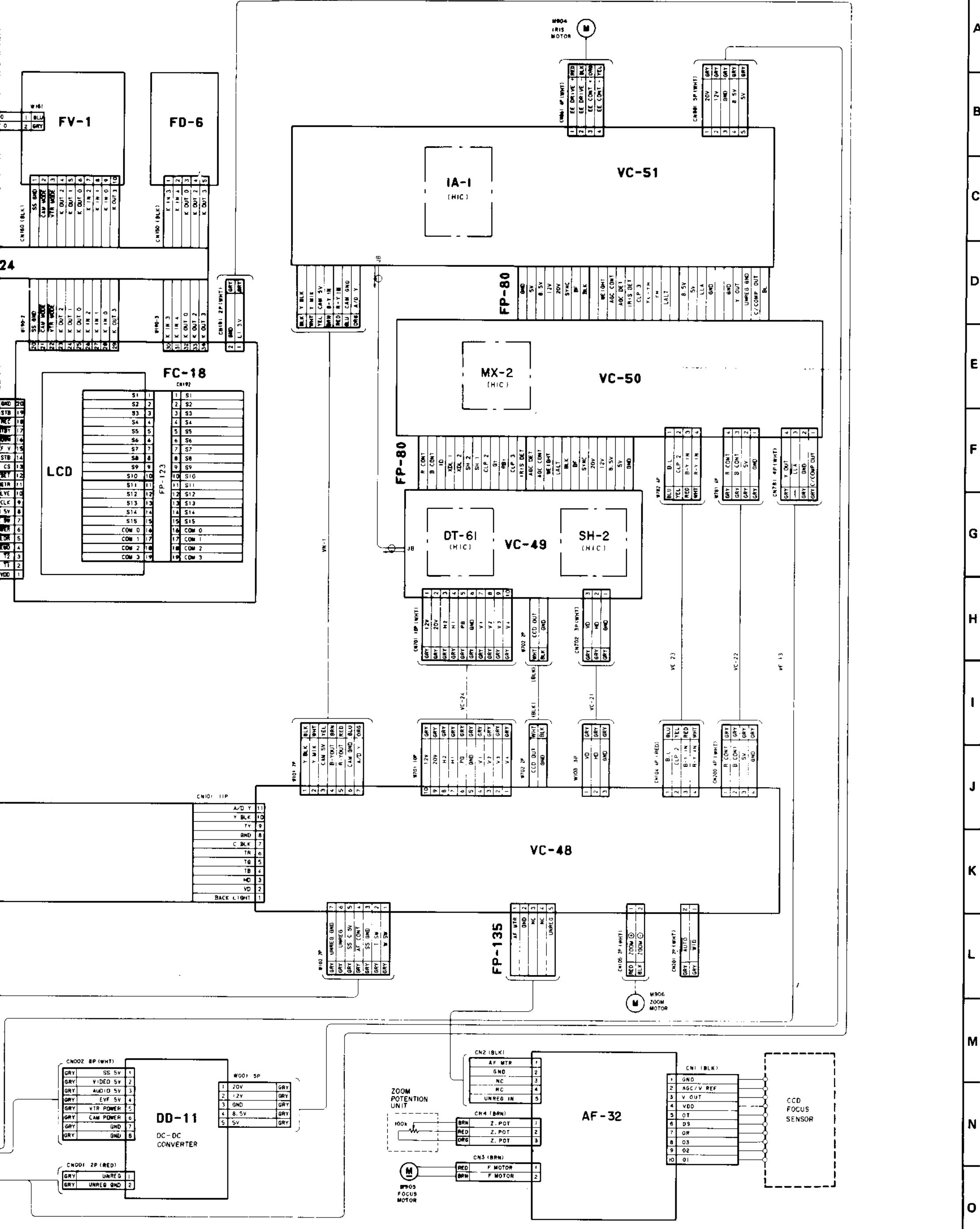
W183

1	F MOTOR	1
2	F MOTOR	2

W184

1	GND	1
2	AGC/V	2
3	V OUT	3
4	VDD	4
5	OT	5
6	DS	6
7	OR	7
8	OS	8
9	OZ	9
10	OI	10





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

4-2. VC-48 (CCD IMAGER), VC-49 (TIMING/SYNC GENERATOR), VC-50 (CAMERA MATRIX), VC-51 (CAMERA ENCODER) PRINTED WIRING BOARDS

- Ref. No. VC-48, VC-49, VC-50, VC-51 BOARDS: 1,000 series -

**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:**

- ○ : indicates a lead wire mounted on the component side.
- ● : indicates a lead wire mounted on the printed side.
- ⊗ : Through hole.
- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

**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 (Component Side) the parts face are indicated.

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

**For schematic diagram:**

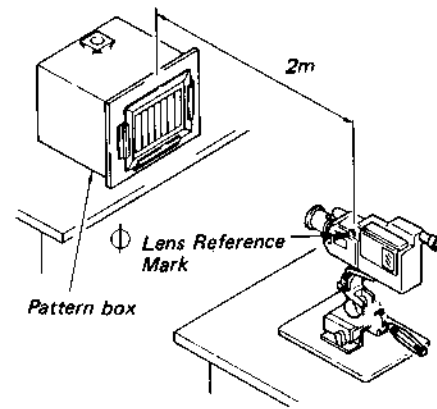
- Caution when replacing chip parts. New parts must be attached after removal of chip. Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/10W unless otherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF: μμF 50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- △ : internal component.
- □ : adjustment for repair.
- — : B+ Line

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

**Voltage and waveform measuring conditions:**

- (1) Sample object: Pattern box color bars.
- (2) Voltage values: Relative to ground. Measure with a DC digital multimeter with impedance 10M-ohm or more.

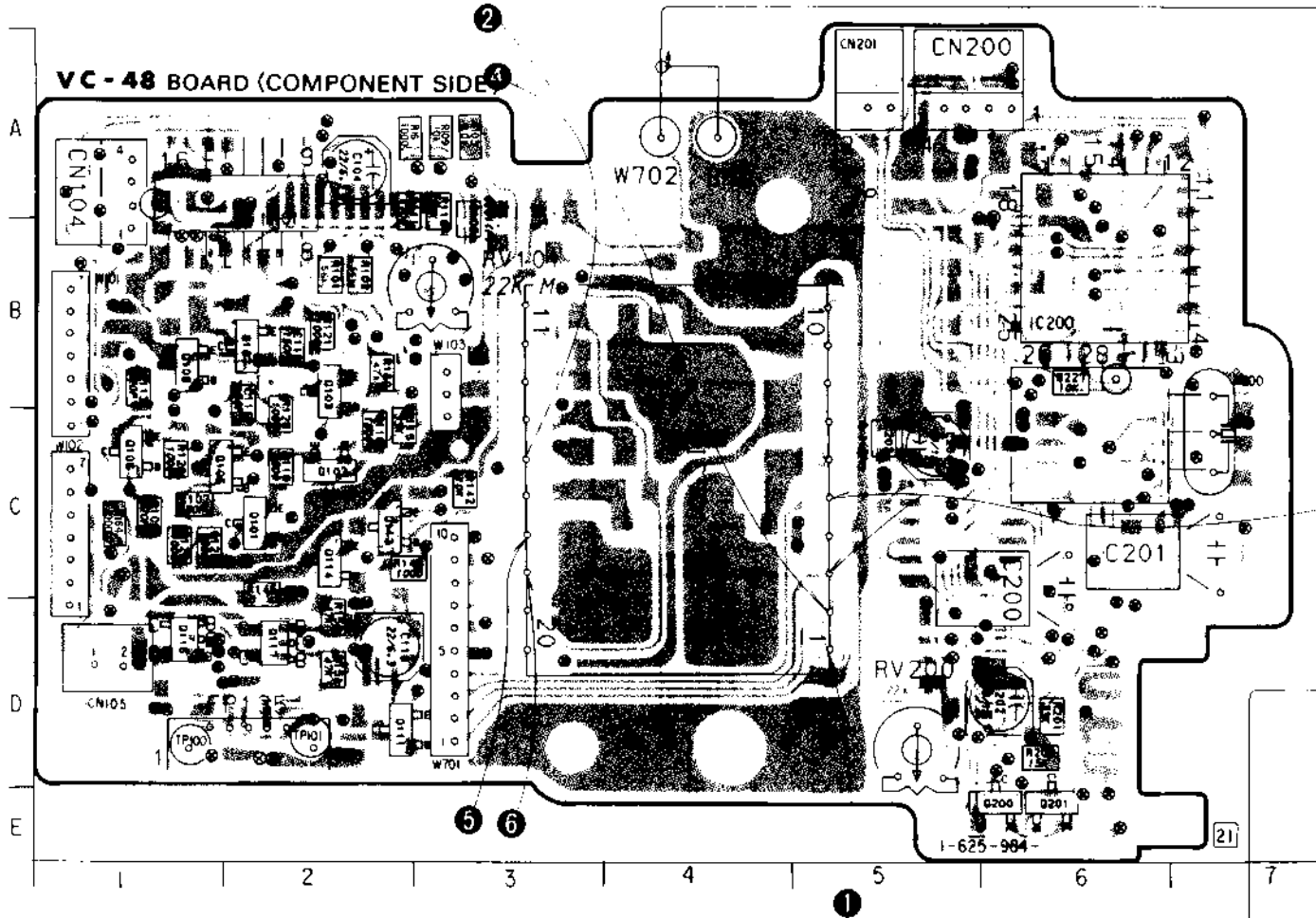
**1. Connection**



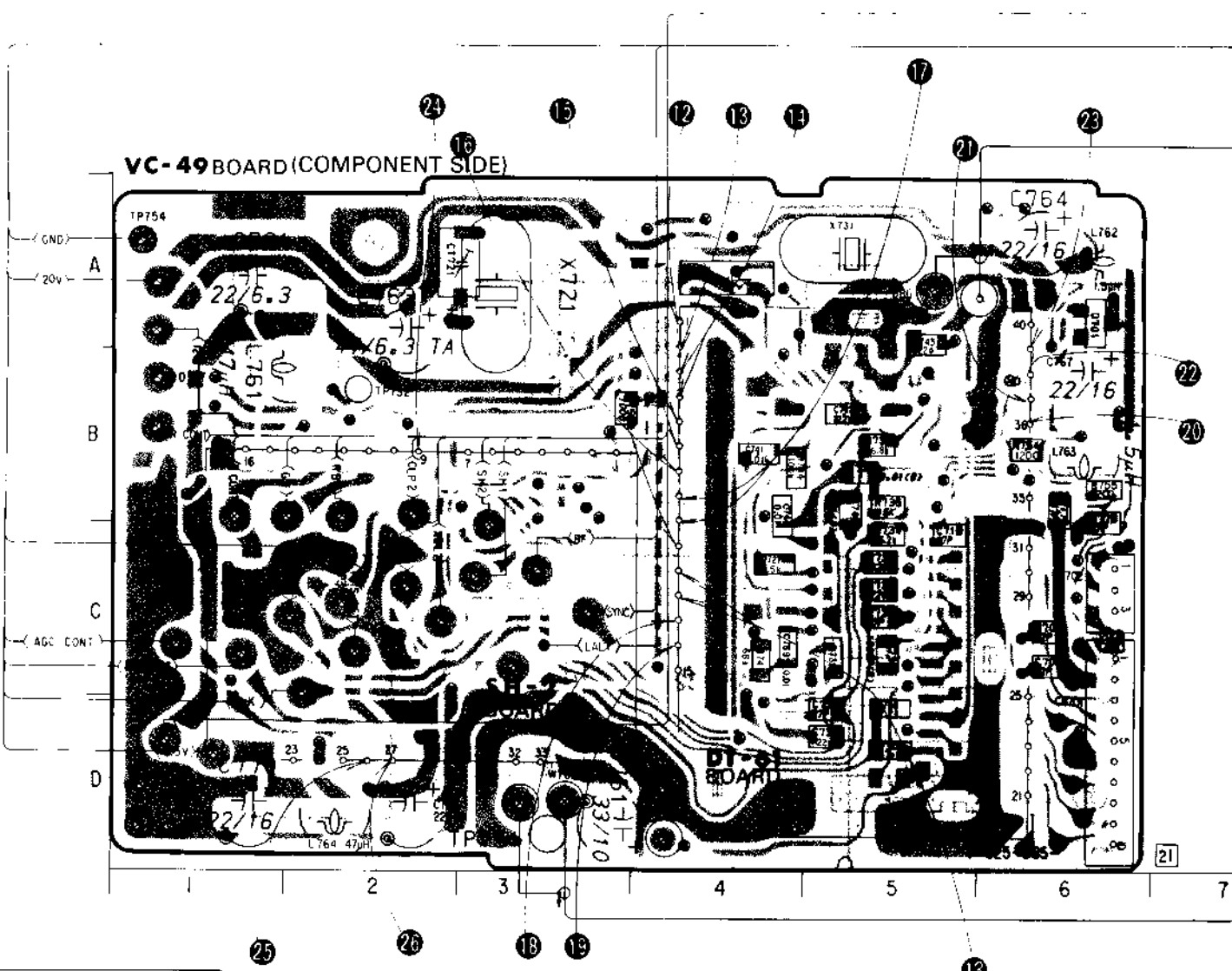
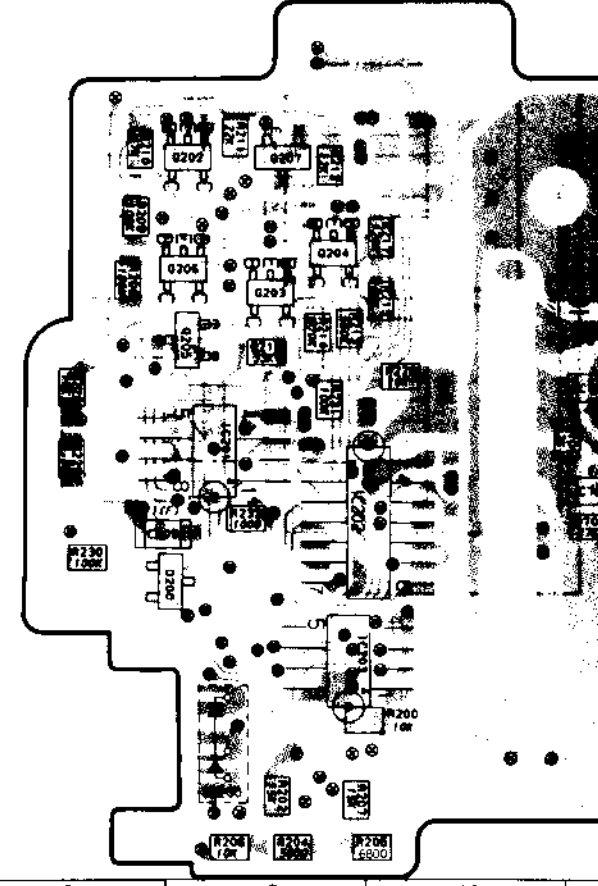
**2. Adjust the zooming the output waveform can be obtain.**



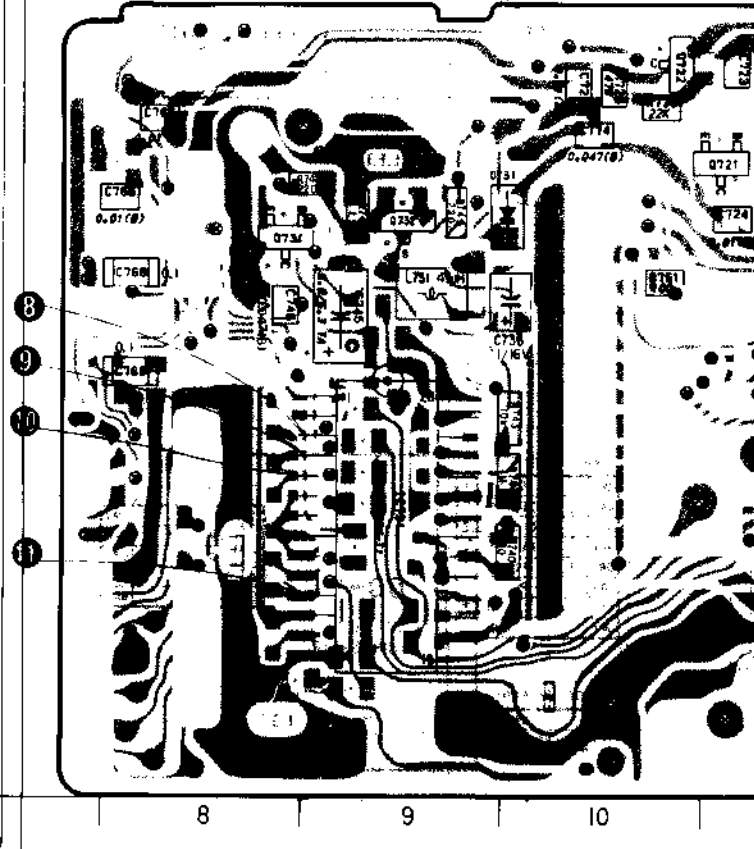
Fig. a Video output



VC-48 BOARD (CONDUCTOR SIDE)



VC-49 BOARD (CONDUCTOR SIDE)



2. Adjust the zooming of camera and the tripod so that the output waveform of Fig. a and the picture of Fig. b can be obtain.

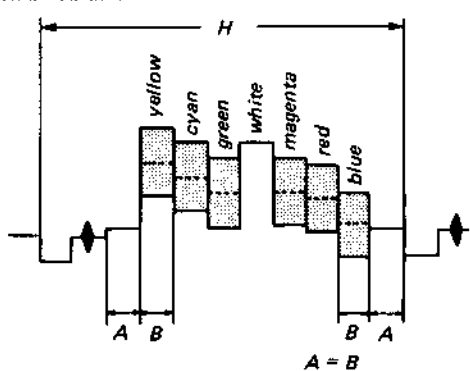


Fig. a Video output waveform J361 on VA-41 board

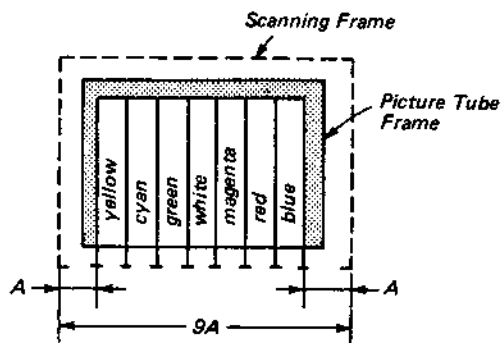
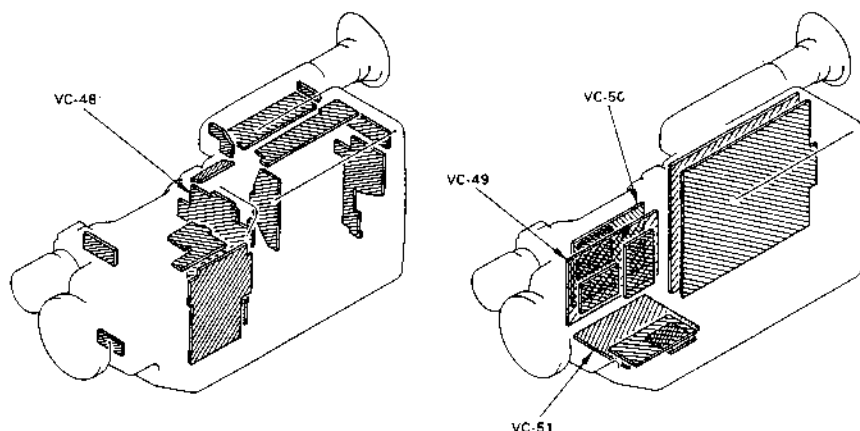


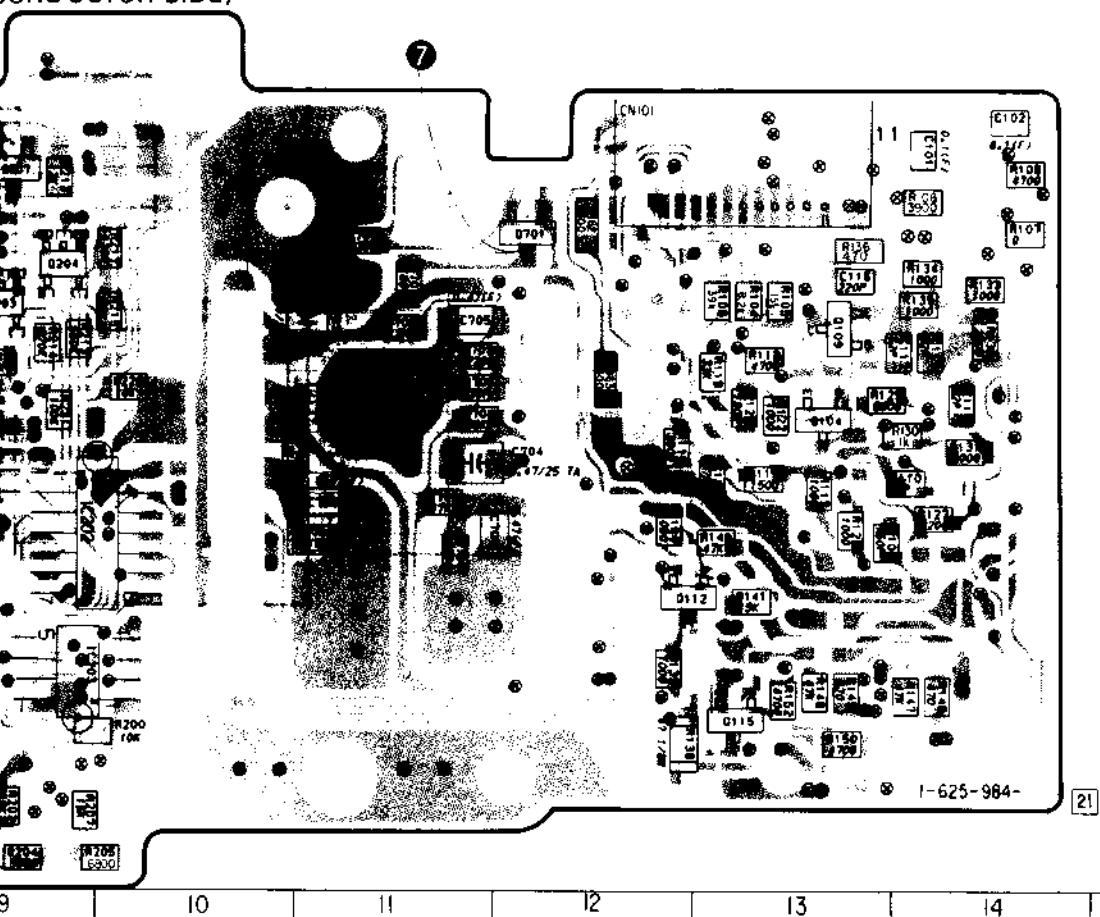
Fig. b Picture of TV monitor screen

• Digital transistor (VC-51: Q861) is transistor with resistor. Refer to the VC-51 board schematic diagram for digital transistor.

Be sure to always read "Note on replacing the CCD imager block" in page 60 when replacing the VC-48 complete board, DT-61 complete board, and CCD imager block (IC701 on the VC-48 board and IC002 on the DT-61 board).



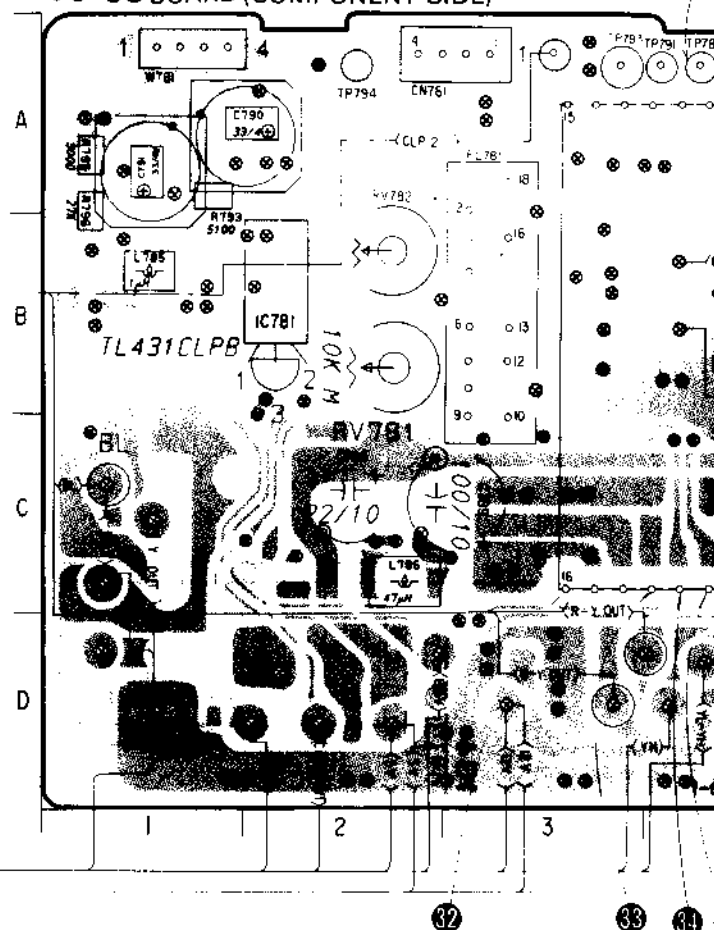
CONDUCTOR SIDE)



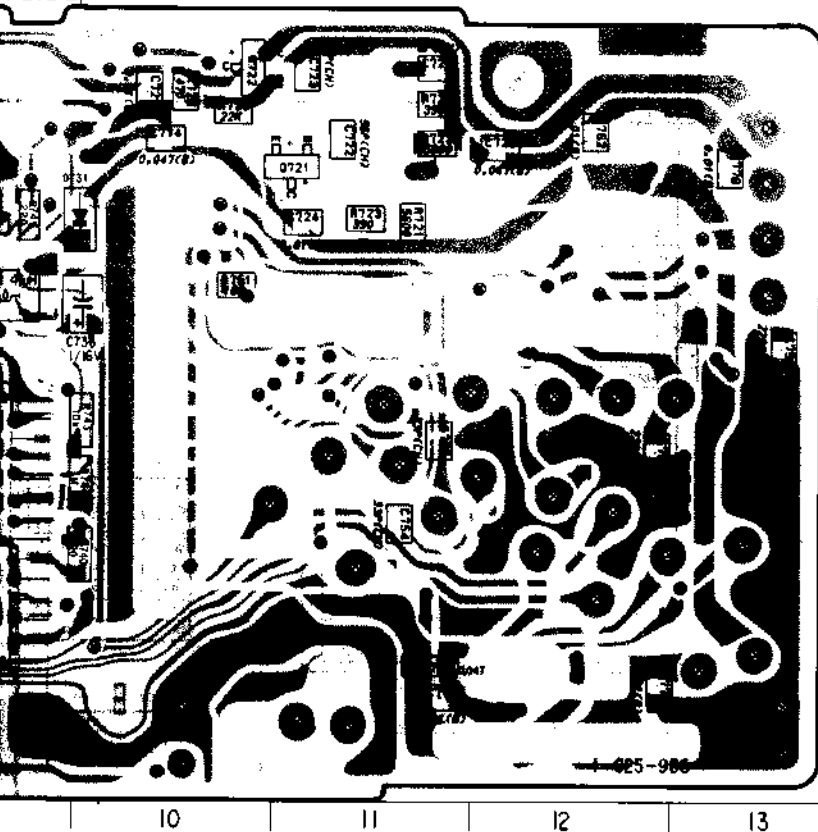
VC-48 BOARD

CN101	A-12
CN104	A-1
CN105	D-1
CN200	A-5
CN201	A-5
D200	C-9
IC101	B-2
IC200	B-6
IC201	C-9
IC202	C-9
IC203	D-9
IC701	C-4
Q101	C-2
Q102	C-2
Q103	B-2
Q104	C-13
Q105	C-1
Q106	C-1
Q107	B-2
Q108	B-1
Q109	B-13
Q111	D-2
Q112	C-12
Q113	C-2
Q114	C-2
Q115	D-13
Q116	D-1
Q117	D-2
Q200	E-6
Q201	E-6
Q202	A-9
Q203	B-9
Q204	B-9
Q205	B-9
Q206	B-9
Q207	A-9
Q701	B-12
RV101	B-3
RV200	D-5
TP100	D-1
TP101	D-2

VC-50 BOARD (COMPONENT SIDE)



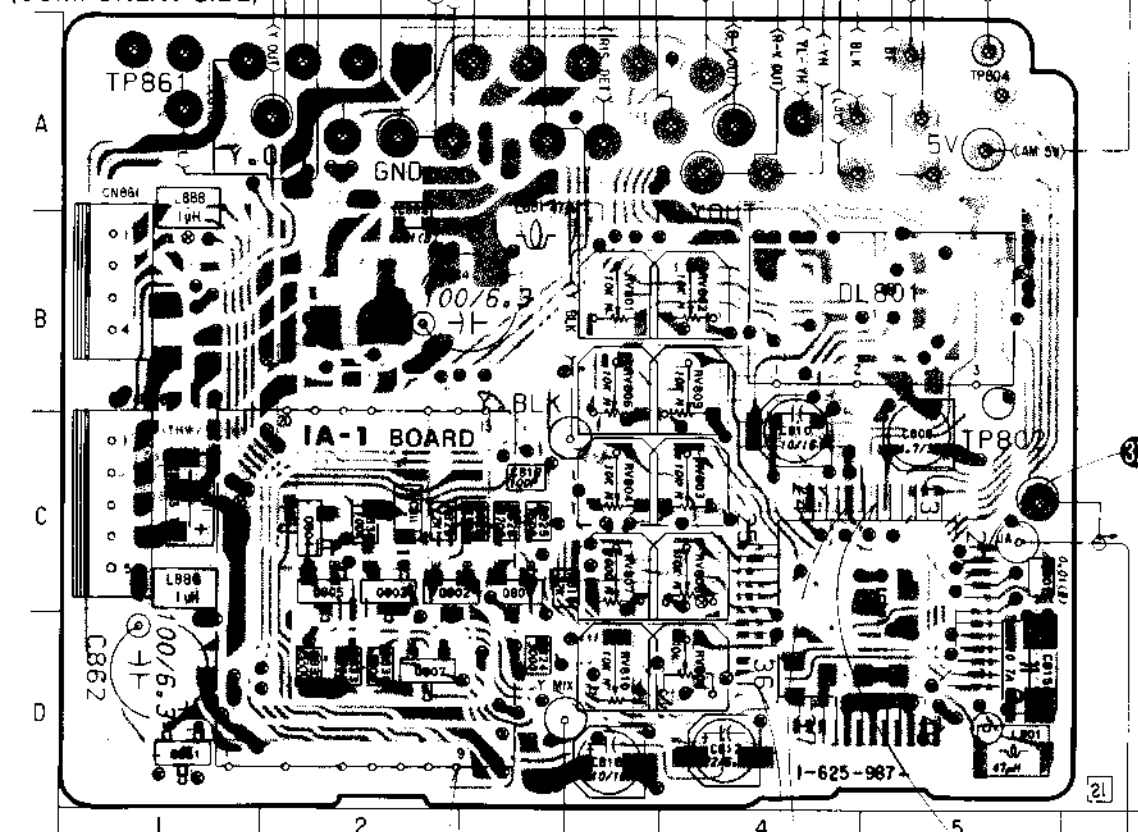
R SIDE)



VC-49 BOARD

CN701	D-6
CN702	C-6
CT721	A-2
CT731	A-4
D701	A-6
D731	B-10
IC731	C-9
Q721	A-11
Q722	A-10
Q731	B-8
Q732	B-9
TP751	D-3
TP752	B-2
TP753	D-1
TP754	A-1

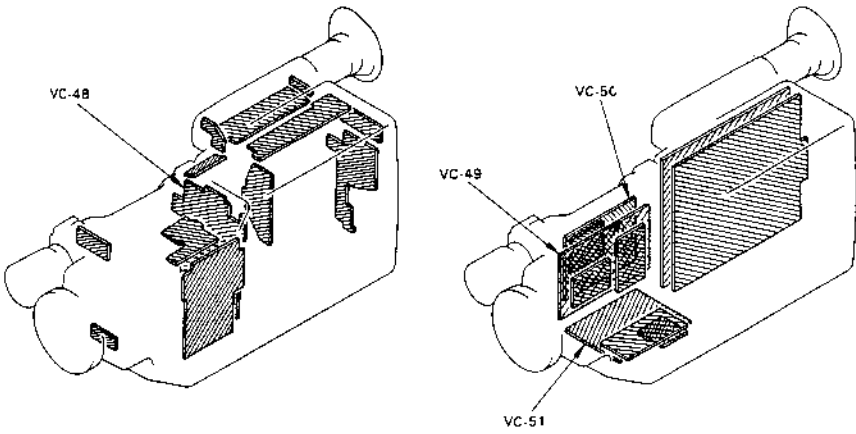
VC-51 BOARD (COMPONENT SIDE)



- Digital transistor (VC-51: Q861) is transistor with resistor. Refer to the VC-51 board schematic diagram for digital transistor.

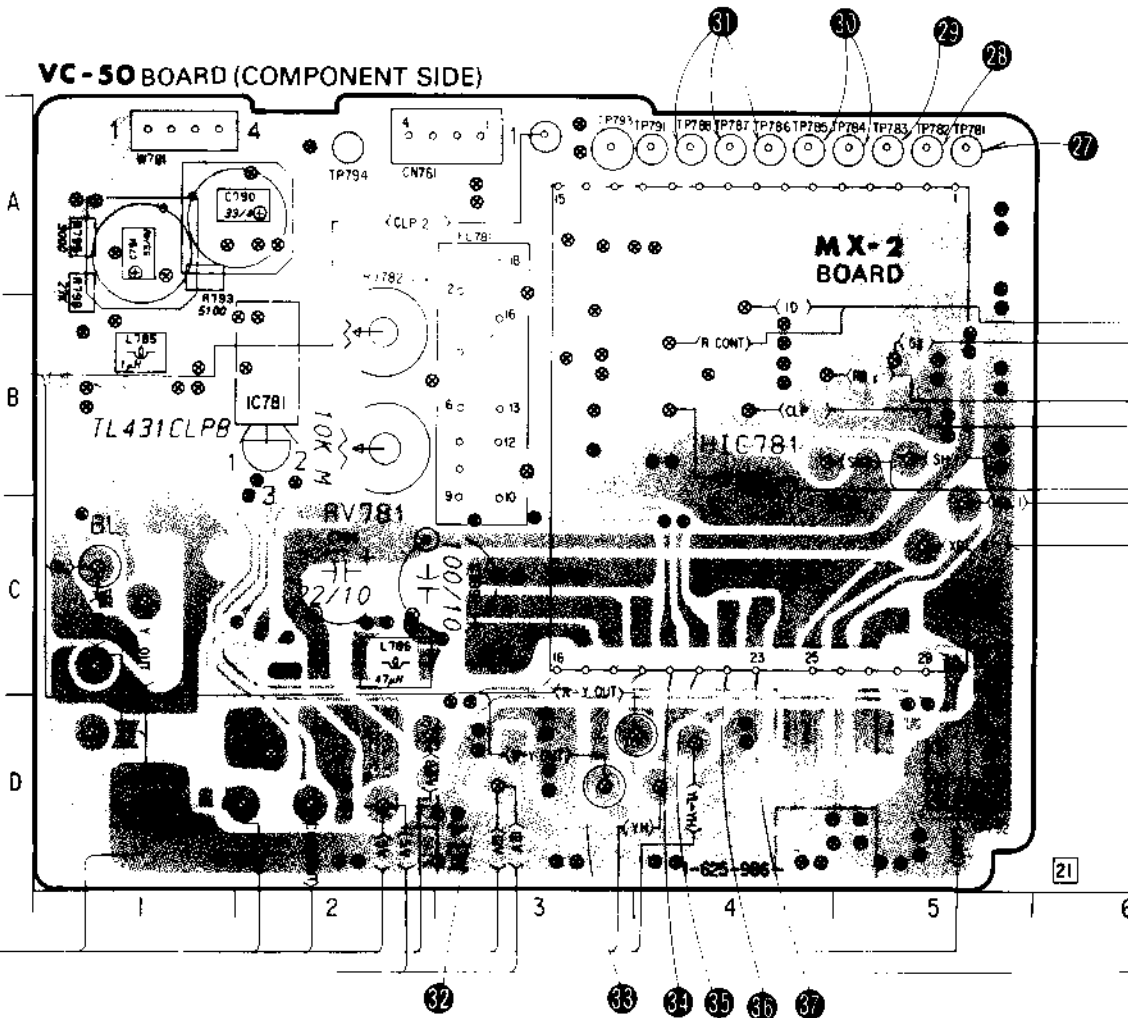
Tube

Be sure to always read "Note on replacing the CCD imager block" in page 60 when replacing the VC-48 complete board, DT-61 complete board, and CCD imager block (IC701 on the VC-48 board and IC002 on the DT-61 board).

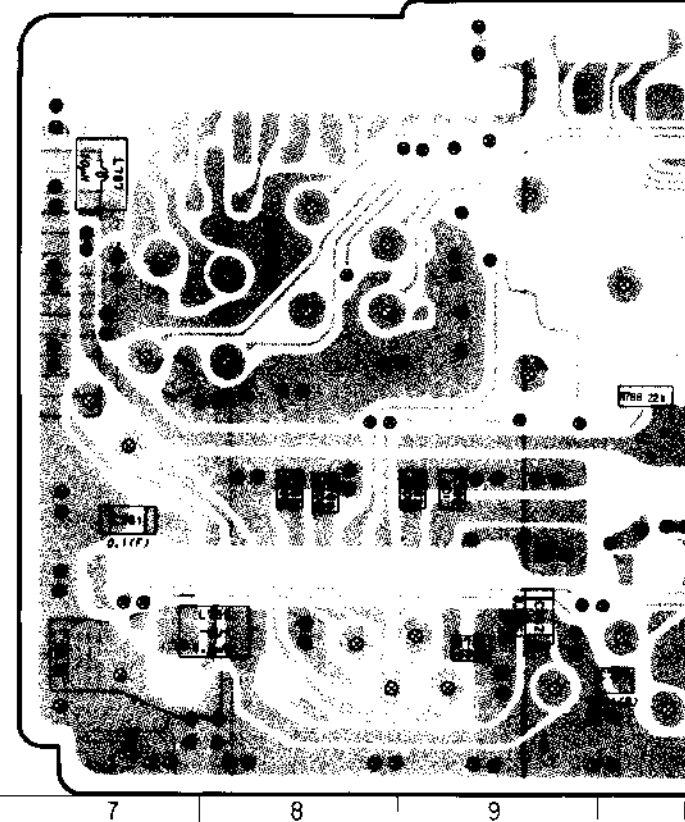


ARD  
A-12  
A-1  
D-1  
A-5  
A-5  
C-9  
B-2  
B-6  
C-9  
C-9  
D-9  
C-4  
C-2  
B-2  
C-13  
C-1  
B-2  
B-1  
B-13  
D-2  
C-12  
C-2  
D-13  
D-1  
D-2  
E-6  
E-6  
A-9  
B-9  
B-9  
B-9  
A-9  
B-12  
B-3  
D-5  
D-1  
D-2

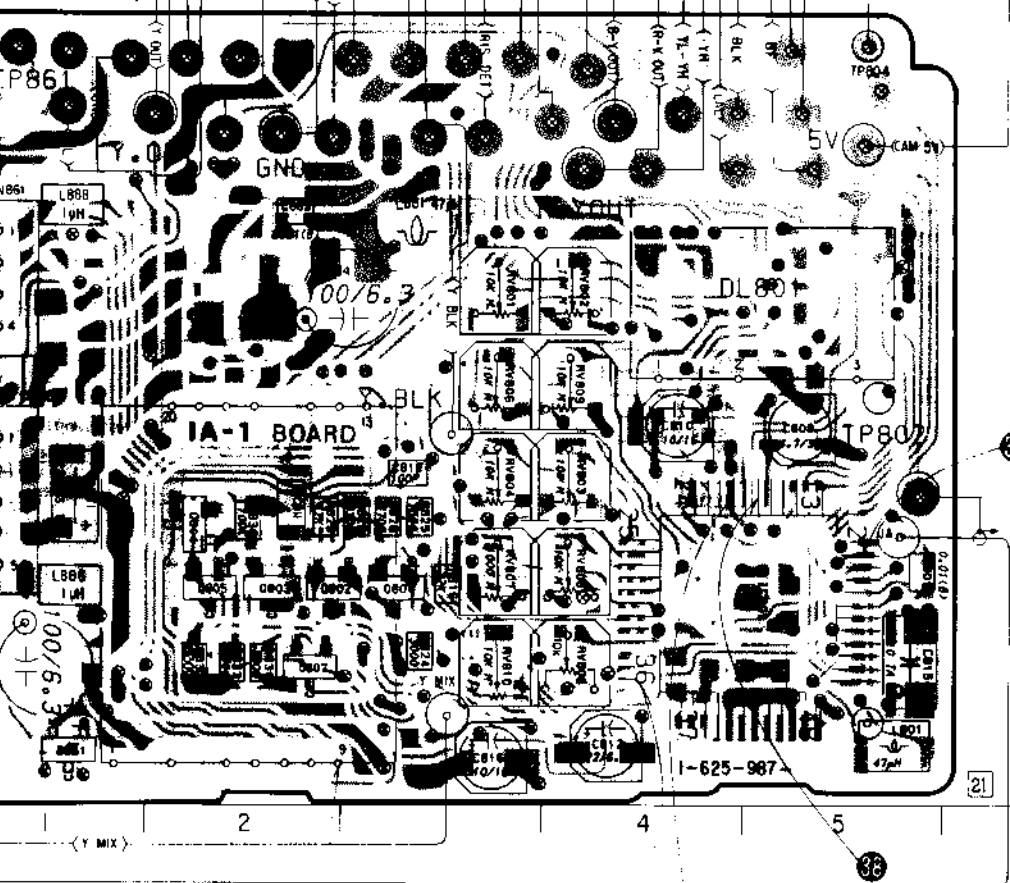
VC-50 BOARD (COMPONENT SIDE)



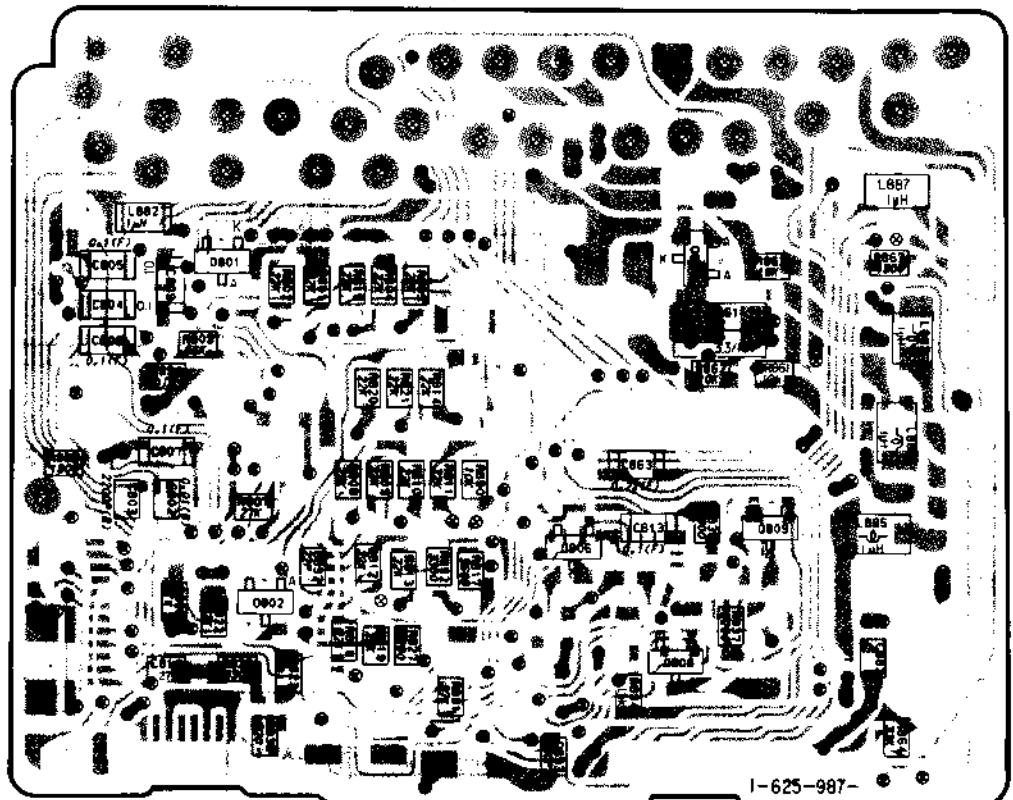
VC-50 BOARD (CONDUCTOR SIDE)



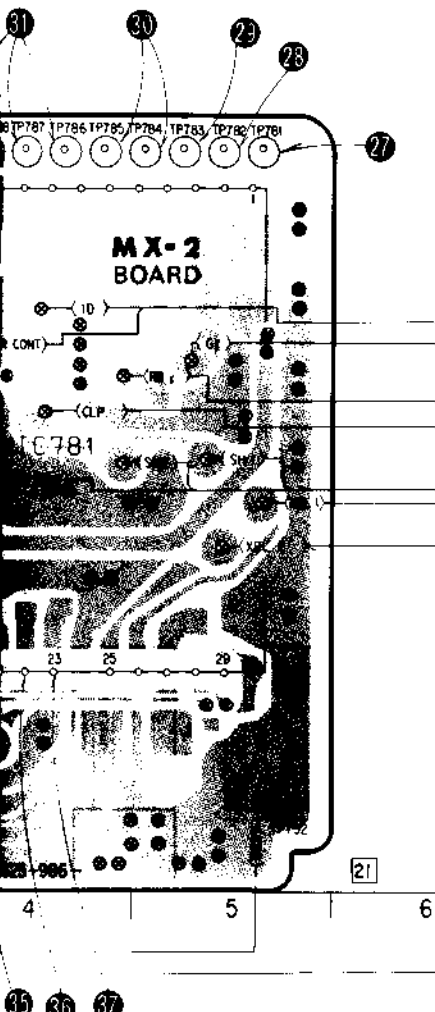
BOARD (COMPONENT SIDE)



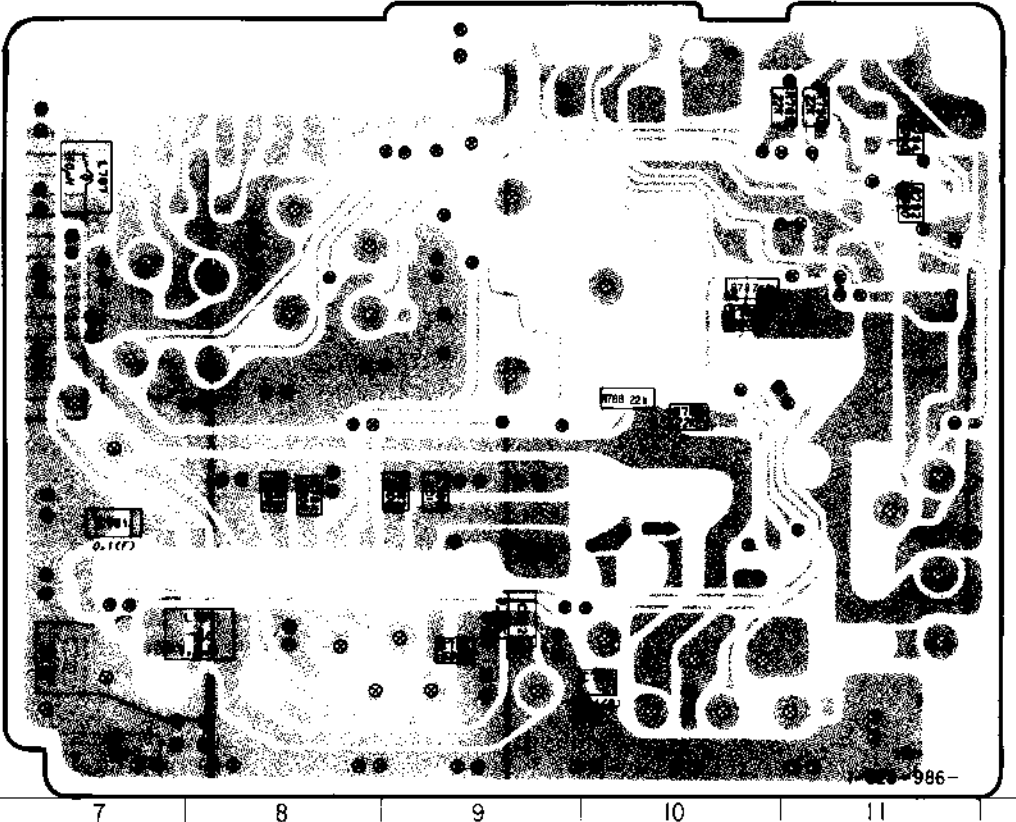
VC-51 BOARD (CONDUCTOR SIDE)



VC-51 BOARD  
CN861 B-1  
CN881 C-1  
D801 B-7  
D802 C-8  
D861 B-1  
IC801 C-5  
Q801 C-3  
Q802 C-2  
Q803 C-2  
Q804 C-2  
Q805 C-2  
Q806 C-9  
Q807 D-2  
Q808 D-1  
Q809 C-1  
Q861 D-1

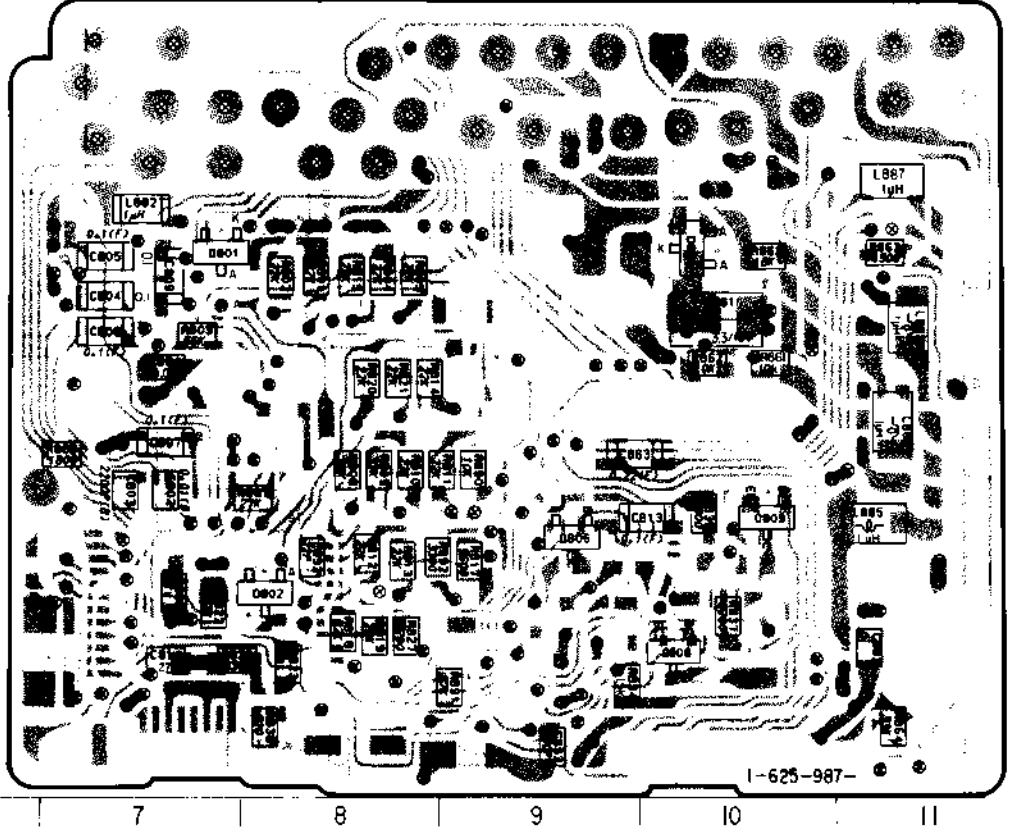


**VC-50 BOARD (CONDUCTOR SIDE)**

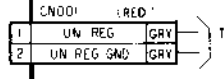
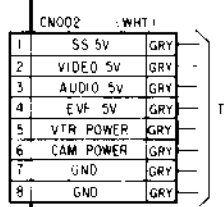
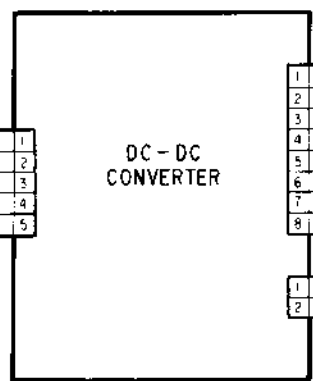
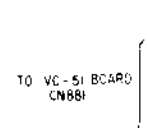
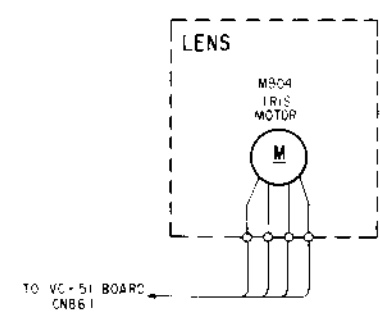


- VC-50 BOARD**
- CN781 A-3
  - IC781 B-2
  - RV781 B-2
  - RV782 B-2
  - TP781 A-5
  - TP782 A-5
  - TP783 A-5
  - TP784 A-5
  - TP785 A-4
  - TP786 A-4
  - TP787 A-4
  - TP788 A-4
  - TP791 A-4
  - TP792 D-5
  - TP793 A-3
  - TP794 A-2

**VC-51 BOARD (CONDUCTOR SIDE)**



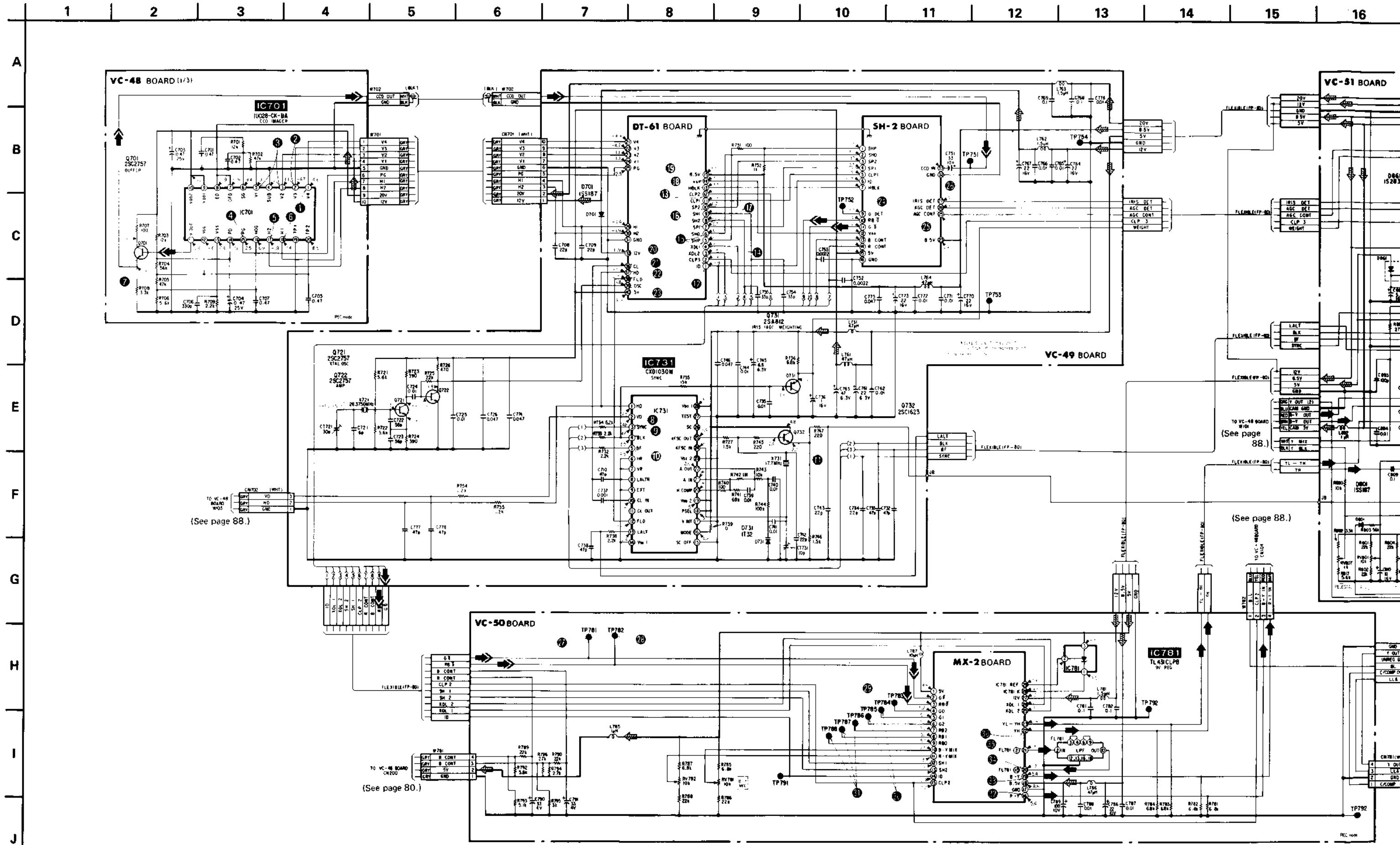
- VC-51 BOARD**
- CN861 B-1
  - CN881 C-1
  - D801 B-7
  - D802 C-8
  - D861 B-10
  - IC801 C-5
  - Q801 C-3
  - Q802 C-2
  - Q803 C-2
  - Q804 C-2
  - Q805 C-2
  - Q806 C-9
  - Q807 D-2
  - Q808 D-10
  - Q809 C-10
  - Q861 D-1
  - RV801 B-3
  - RV802 B-4
  - RV803 C-4
  - RV804 C-3
  - RV805 C-4
  - RV806 B-3
  - RV807 C-3
  - RV808 D-4
  - RV809 B-4
  - RV810 D-3
  - TP802 C-5
  - TP804 A-5
  - TP861 A-1

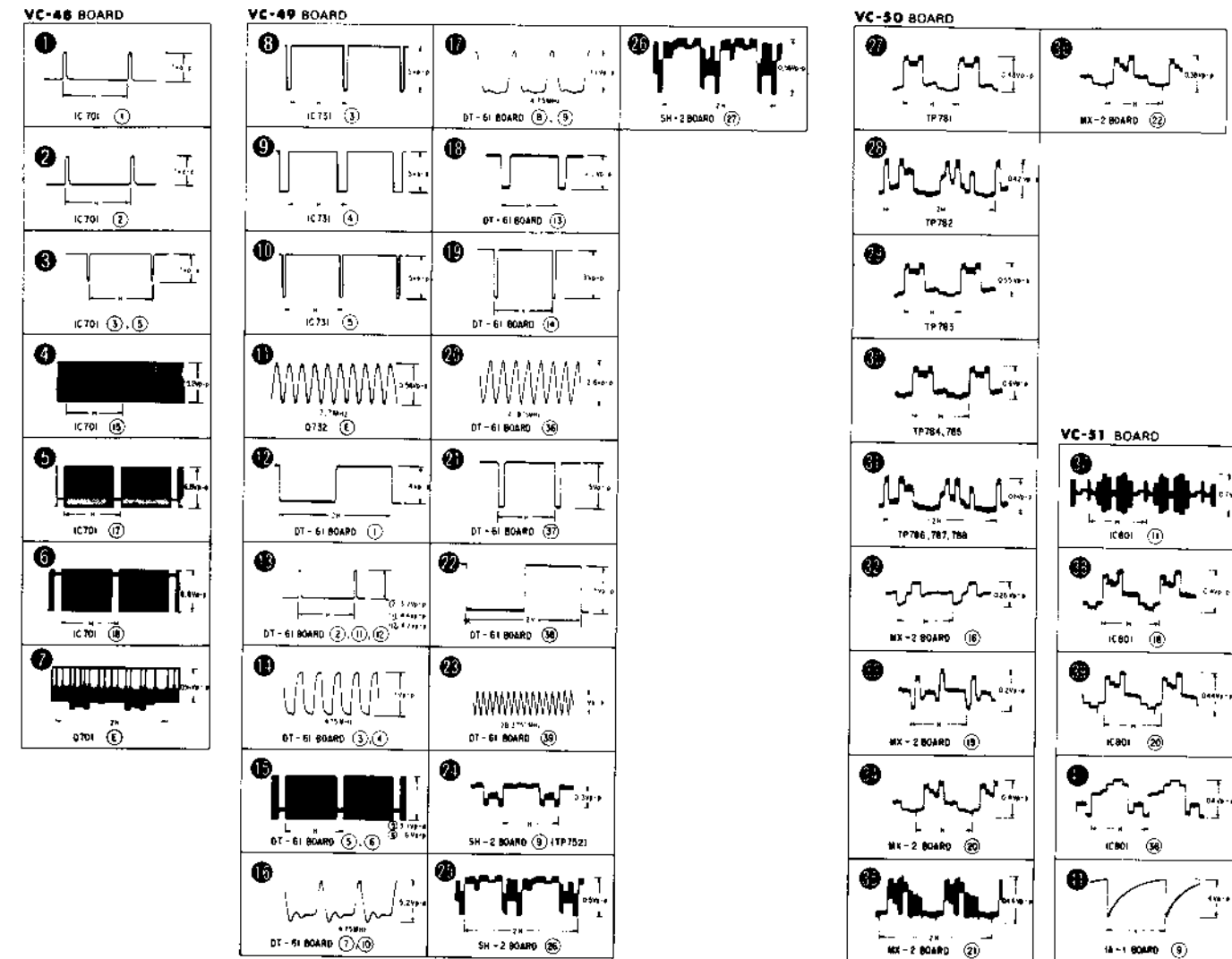
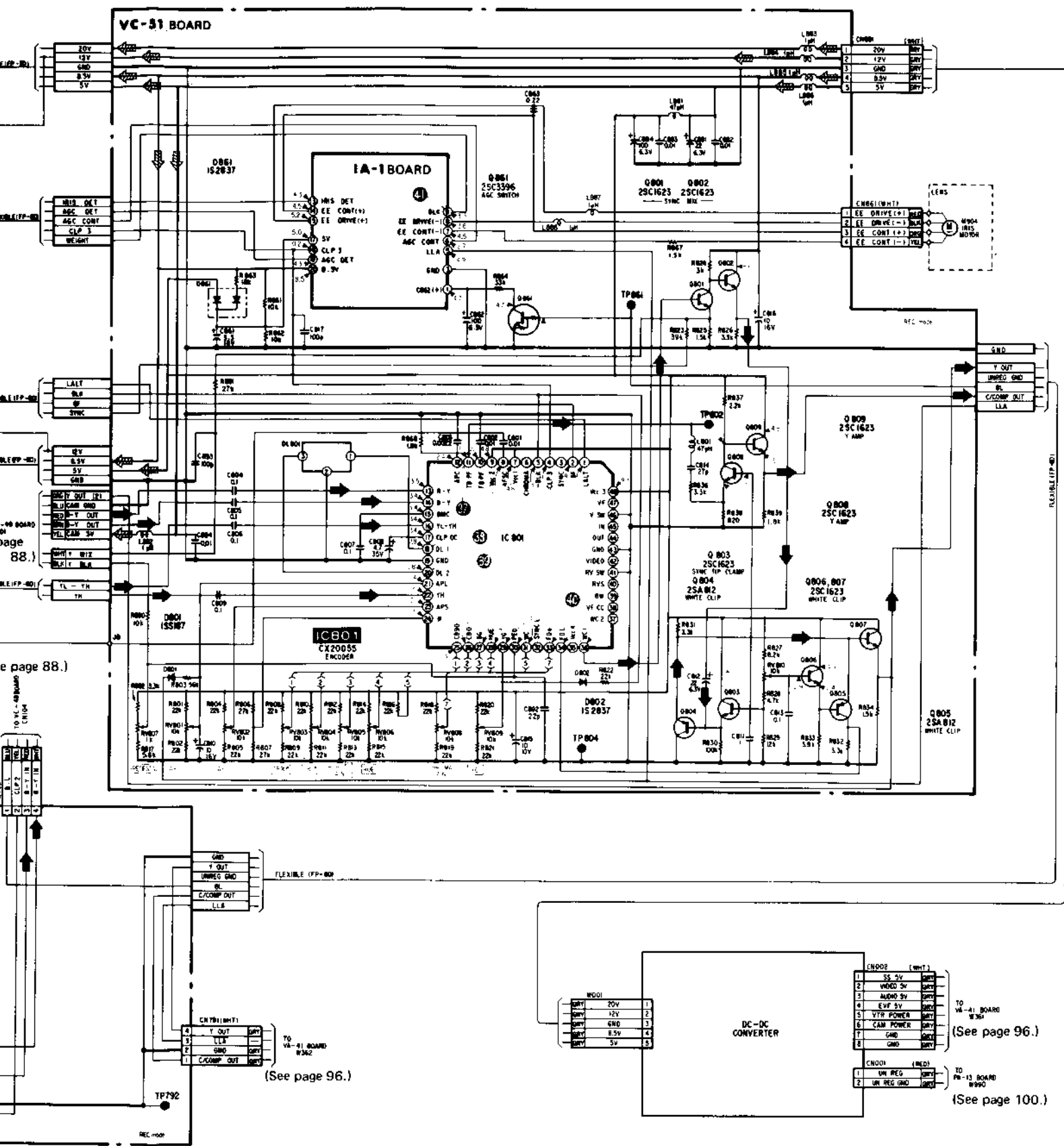




VC-48 (CCD IMAGER), VC-49 (TIMING/SYNC GENERATOR), VC-50 (CAMERA MATRIX), VC-51 (CAMERA ENCODER) SCHEMATIC DIAGRAM

- Ref. No. VC-48, VC-49, VC-50, VC-51 BOARDS: 1,000 series -





- Signal path
- : REC Y Signal
- - - : REC CHROMA Signal
- · · : REC Y CHROMA Signal
- ⇨ : Flowing direction of B line.

Be sure to always read "Note on replacing the CCD imager block" in page 60 when replacing the VC-48 complete board, DT-61 complete board, and CCD imager block (IC701 on the VC-48 board and IC002 on the DT-61 board).

4.3. AF-32 (AUTO FOCUS CONTROL), VC-48 (ZOOM MOTOR CONTROL, AUTO WHITE BALANCE) PRINTED WIRING BOARDS  
 - Ref. No. AF-32, VC-48 BOARDS: 2,000 series -

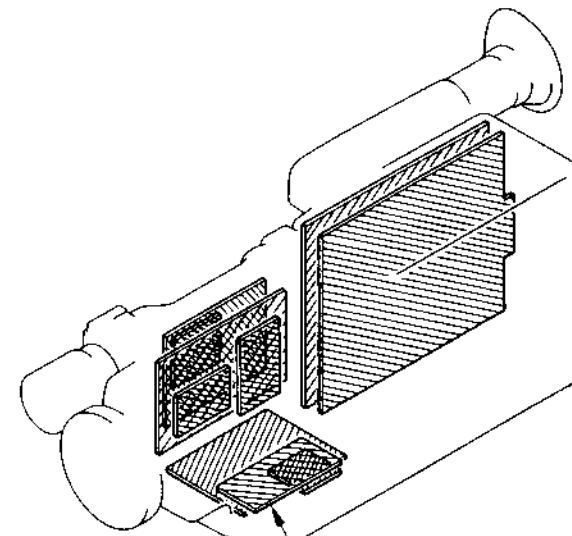
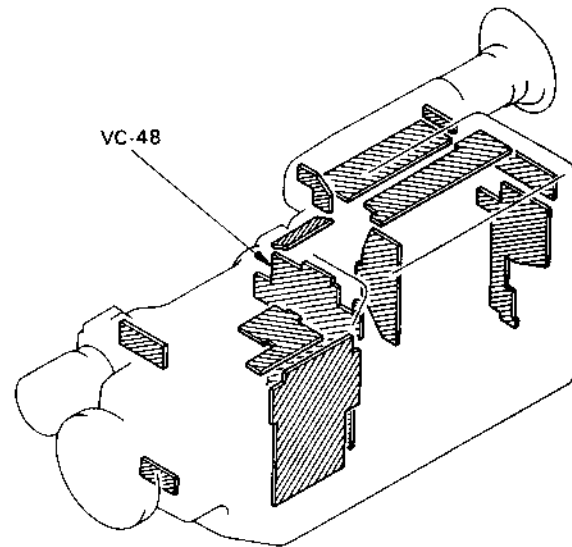
Note:

- X : Through hole.
- : Pattern on the rear side.

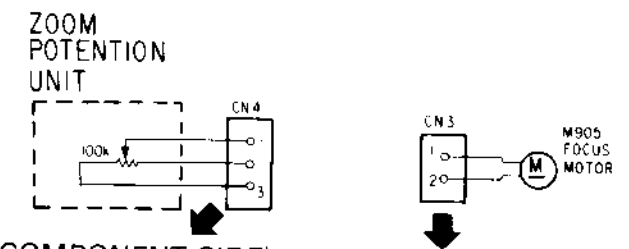
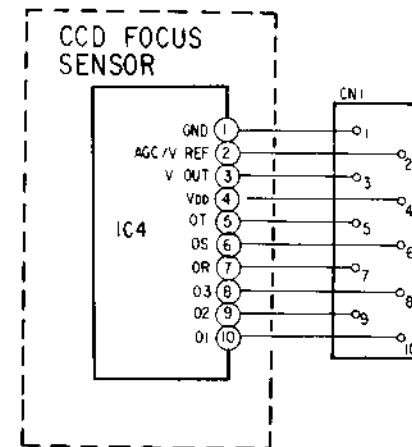
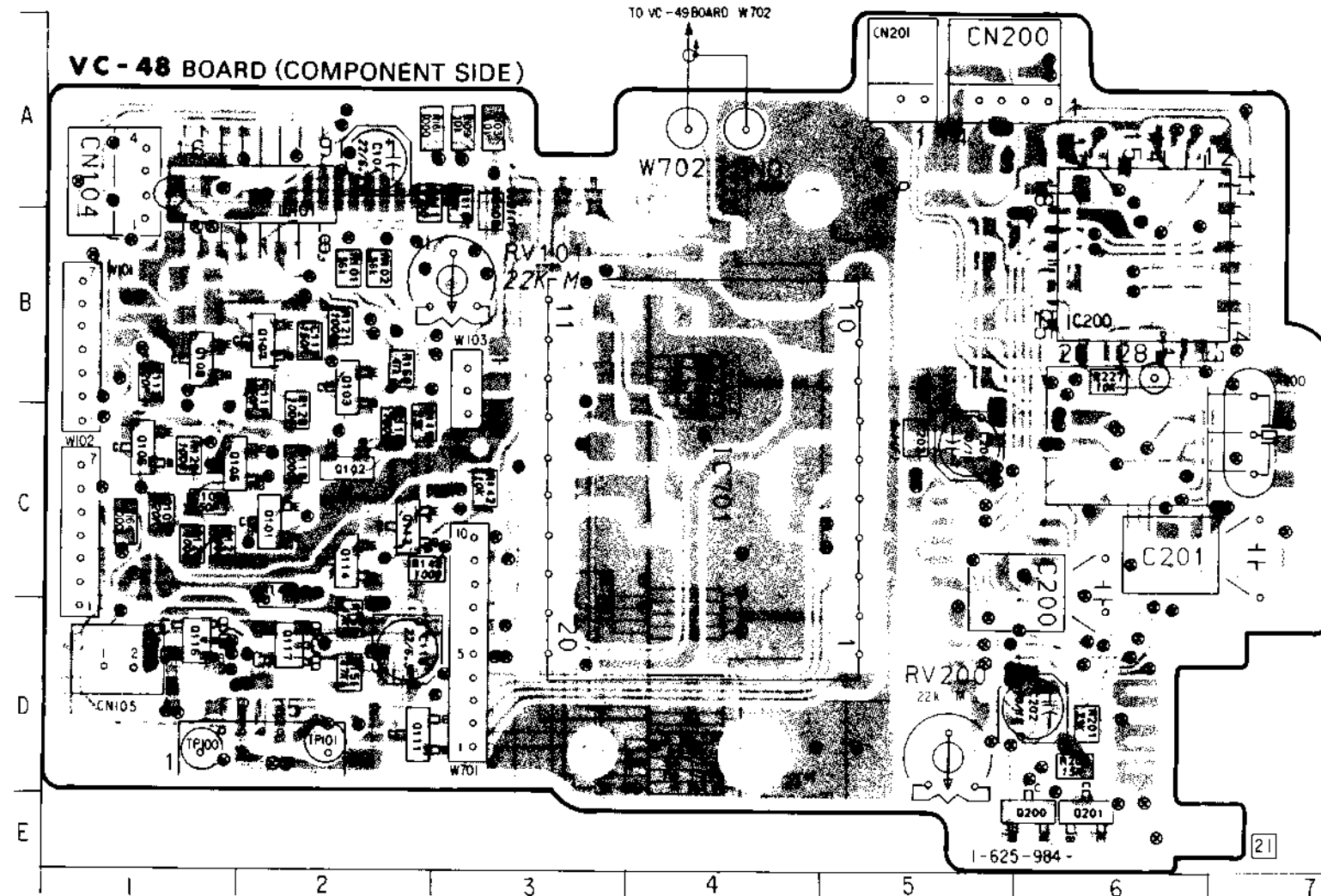
Caution:

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 (Component Side) the parts face are indicated.

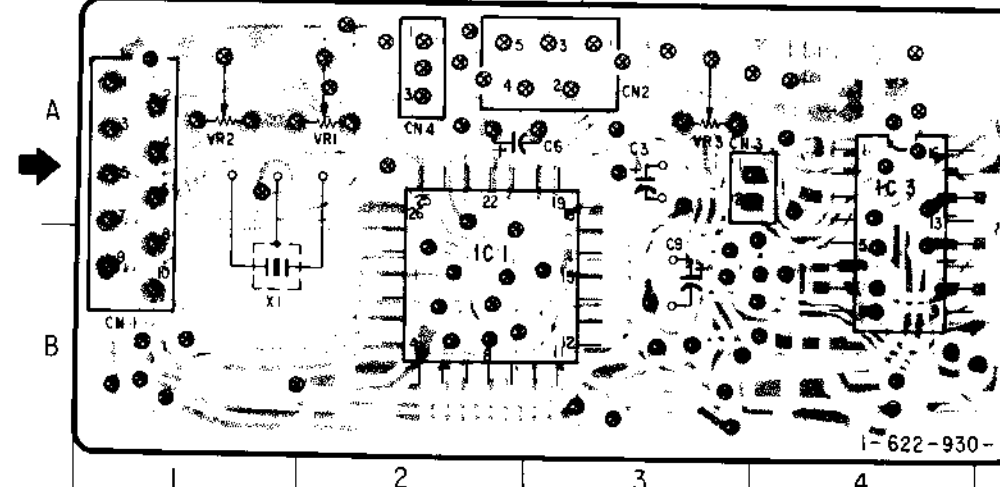
- Digital transistor (VC-48: Q115, Q200, Q201, Q202, Q203, Q204, Q205, Q206, Q207) is transistor with resistor. Refer to the VC-48 board schematic diagram for digital transistor.



AF-32

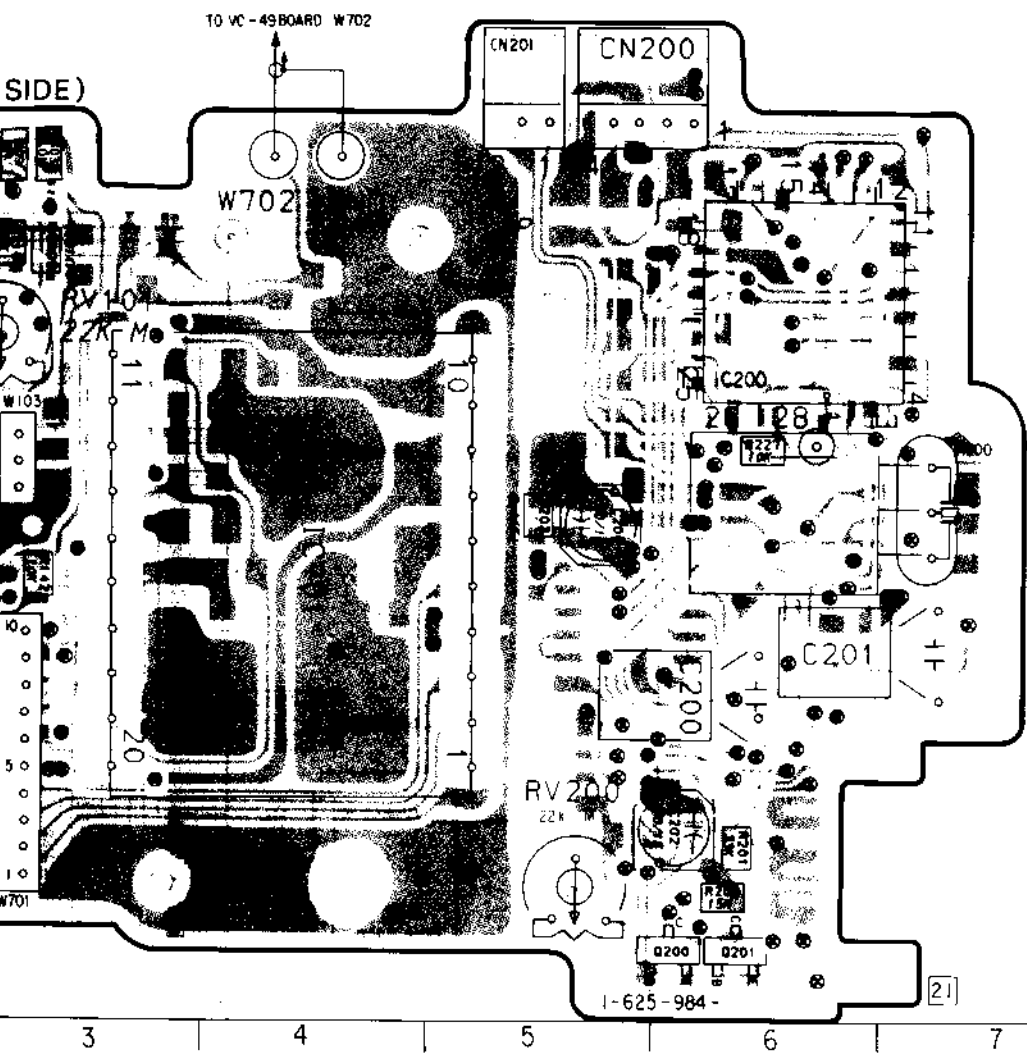


AF-32 BOARD (COMPONENT SIDE)

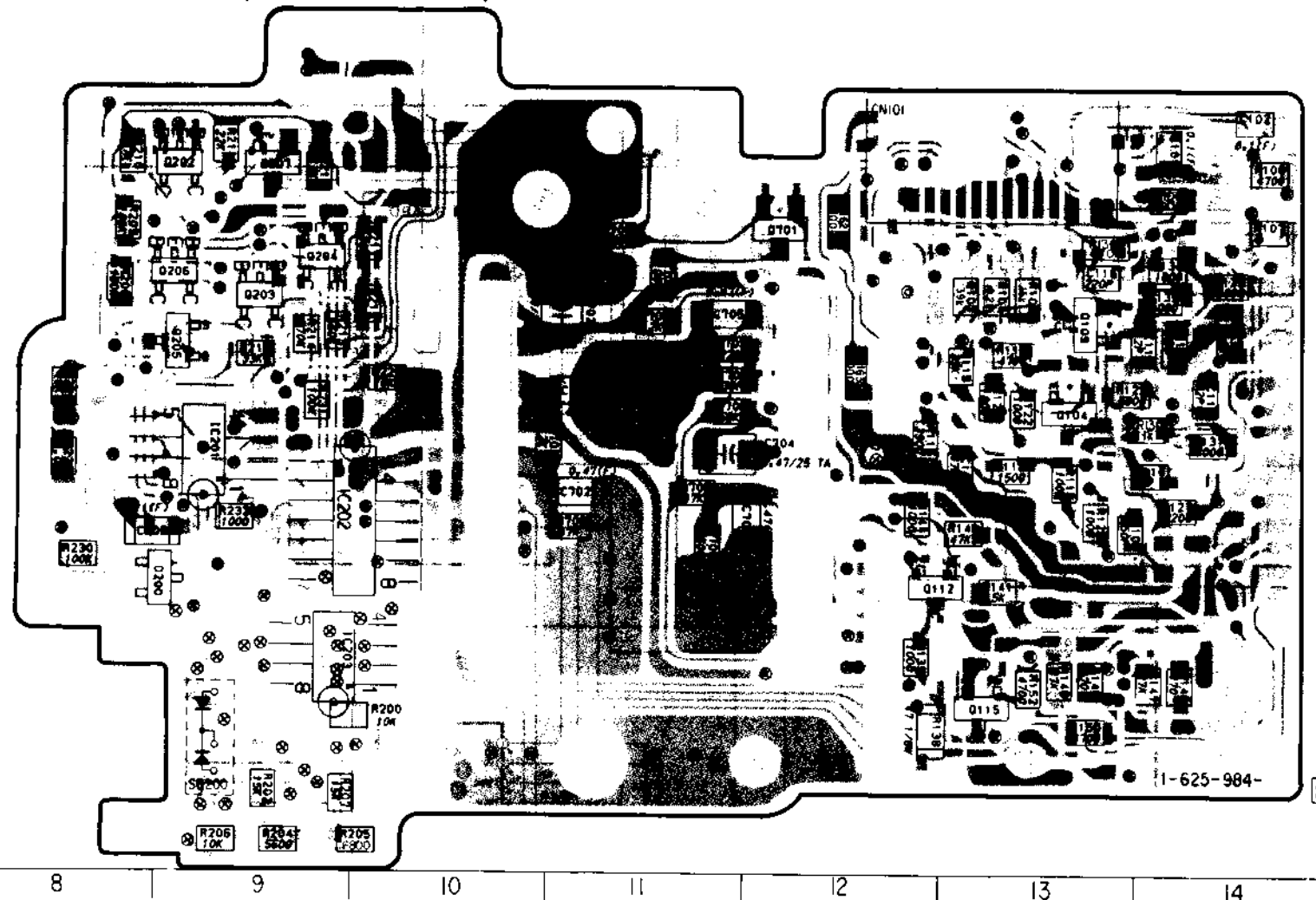


AF-32



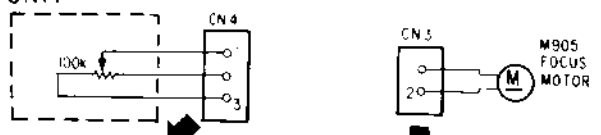


VC-48 BOARD(CONDUCTOR SIDE)

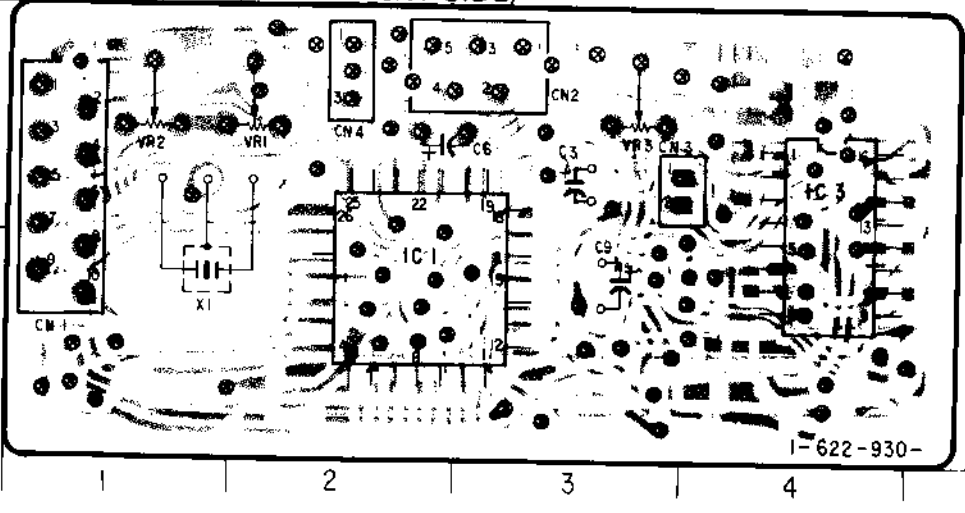


- CN101 A-12
- CN104 A-1
- CN105 D-1
- CN200 A-5
- CN201 A-5
- D200 C-9
- IC101 B-2
- IC200 B-6
- IC201 C-9
- IC202 C-9
- IC203 C-9
- IC701 C-4
- Q101 C-2
- Q102 C-2
- Q103 B-2
- Q104 C-13
- Q105 C-1
- Q106 C-1
- Q107 B-2
- Q108 B-1
- Q109 B-13
- Q111 D-2
- Q112 C-12
- Q113 C-2
- Q114 C-2
- Q115 D-13
- Q116 D-1
- Q117 D-2
- Q200 E-6
- Q201 E-6
- Q202 A-9
- Q203 B-9
- Q204 B-9
- Q205 B-9
- Q206 B-9
- Q207 A-9
- Q701 B-12
- RV101 B-3
- RV200 D-5
- TP100 D-1
- TP101 D-2

ZOOM  
POTENTIUM  
UNIT



AF-32 BOARD (COMPONENT SIDE)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A

B

C

D

E

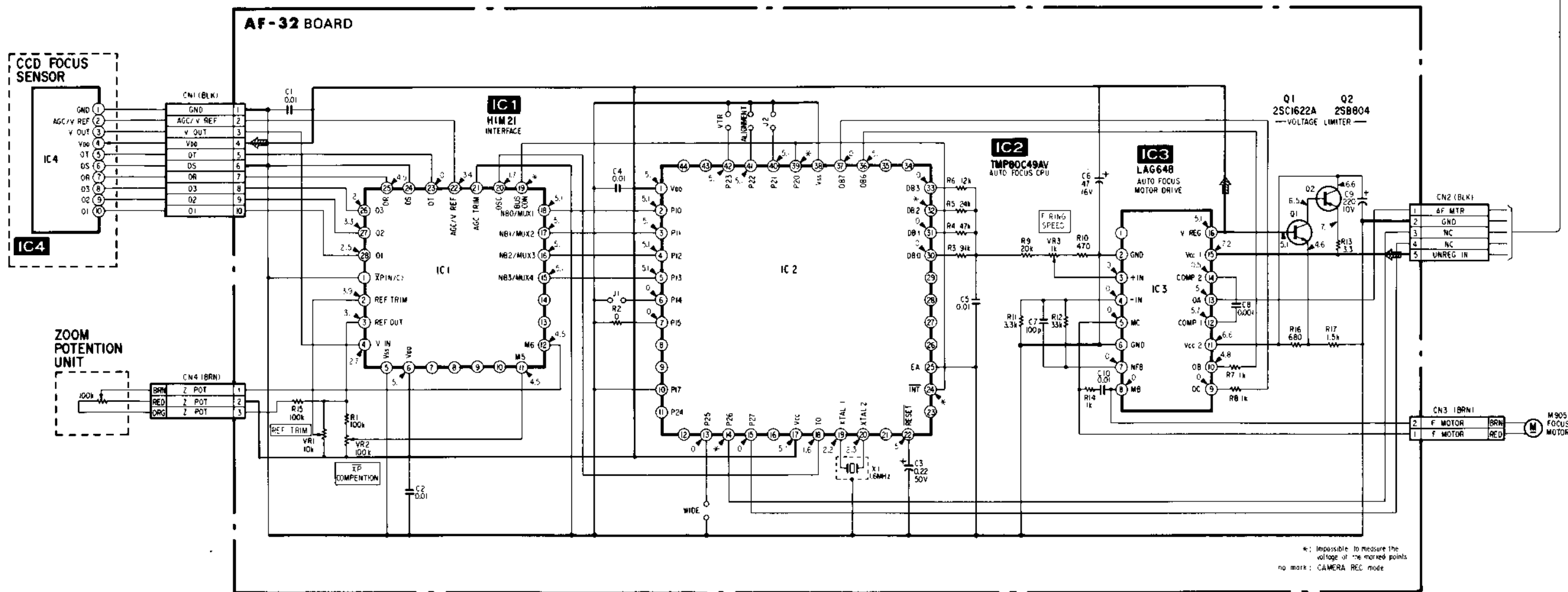
F

G

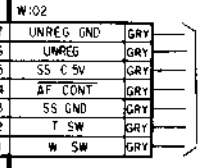
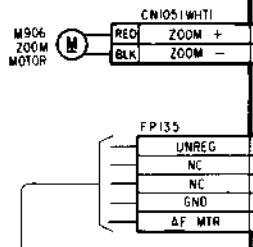
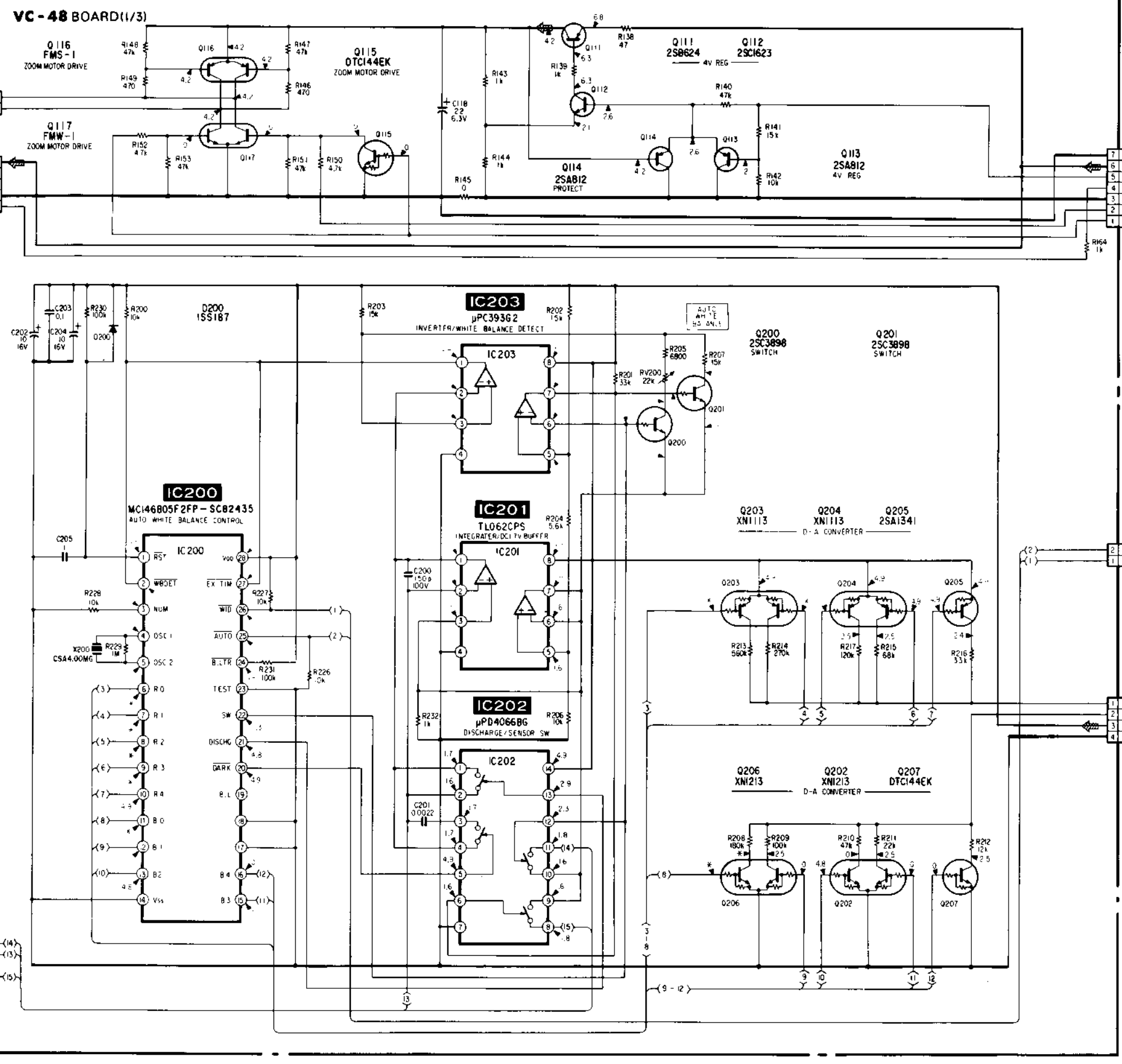
H

I

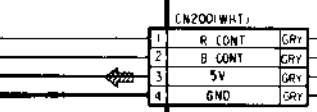
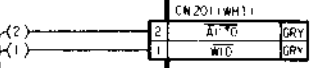
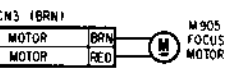
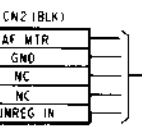
J



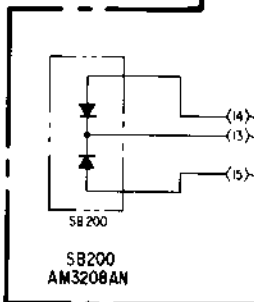
A  
B  
C  
D  
E  
F  
G  
H  
I  
J



TO SS-86 BOARD  
 CN005  
 (See page 103.)



TO VC-50 BOARD  
 W781  
 (See page 69.)



4-4. SS-86 (DIGITAL TITLER), VC-48 (TITLE MIX) PRINTED WIRING BOARDS

- Ref. No. SS-86, VC-48 BOARDS: 3,000 series -

DIGITAL TITLER DIGITAL TITLER

Note:

- ⊗ : Through hole.
- ⊕ : Pattern of the rear side.

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 (Component Side) the parts face are indicated.

- Digital transistor (SS-86: Q203, Q204, Q205, Q206) is transistor with resistor.  
 Refer to the SS-86 board schematic diagram for digital transistor.

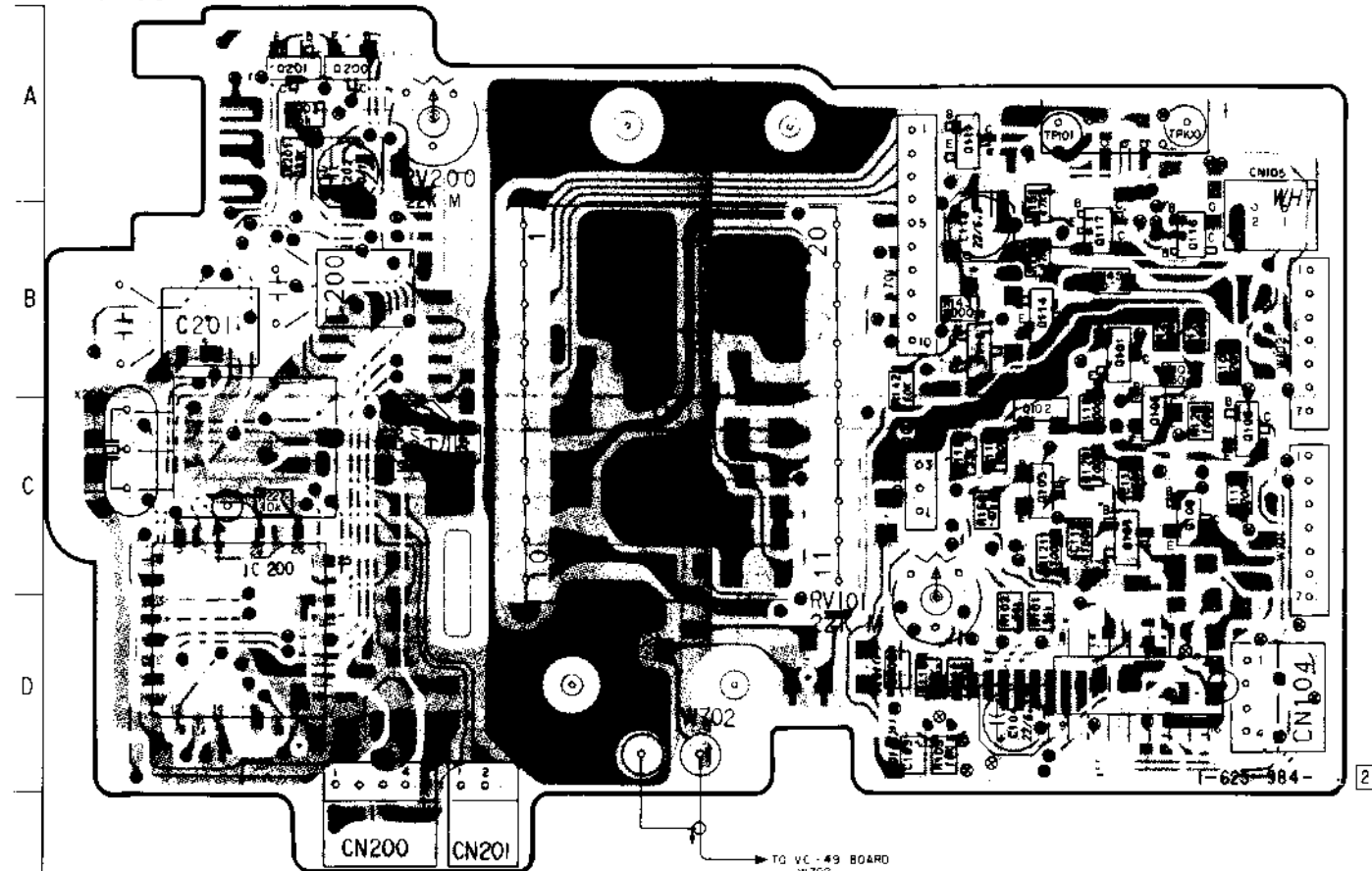
CN101 F-5  
 CN104 D-7  
 CN105 A-7  
 CN200 E-2  
 CN201 E-3

D200 I-1  
 IC101 D-6  
 IC200 D-1  
 IC201 H-1  
 IC202 H-2  
 IC203 I-2  
 IC701 C-4

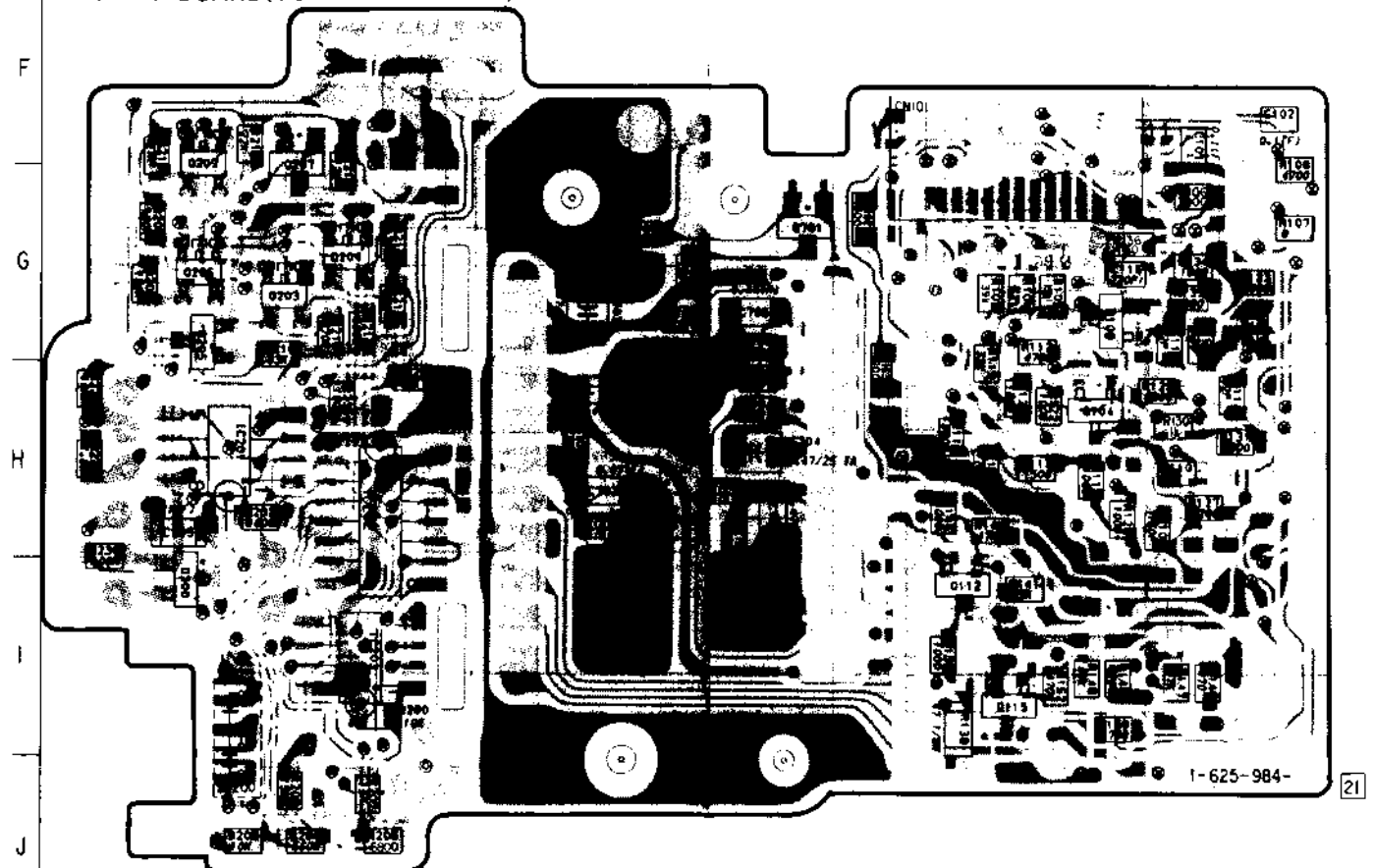
Q101 B-6  
 Q102 C-6  
 Q103 C-6  
 Q104 H-6  
 Q105 C-6  
 Q106 C-7  
 Q107 C-6  
 Q108 C-6  
 Q109 G-6  
 Q111 A-5  
 Q112 I-5  
 Q113 B-5  
 Q114 B-6  
 Q115 I-5  
 Q116 B-6  
 Q117 B-6  
 Q200 A-2  
 Q201 A-2  
 Q202 F-1  
 Q203 G-2  
 Q204 G-2  
 Q205 G-1  
 Q206 G-1  
 Q207 G-2  
 Q701 G-4

RV101 D-5  
 RV200 A-2  
 TP100 A-6  
 TP101 A-6

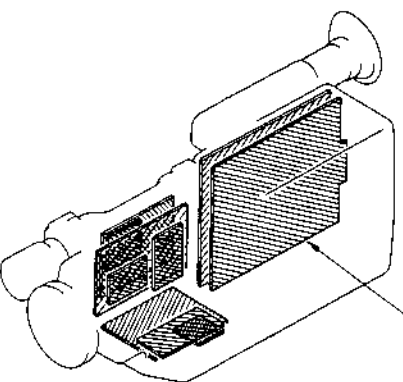
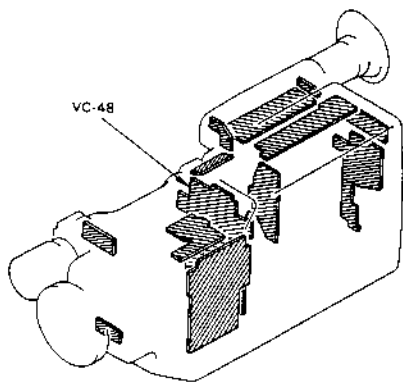
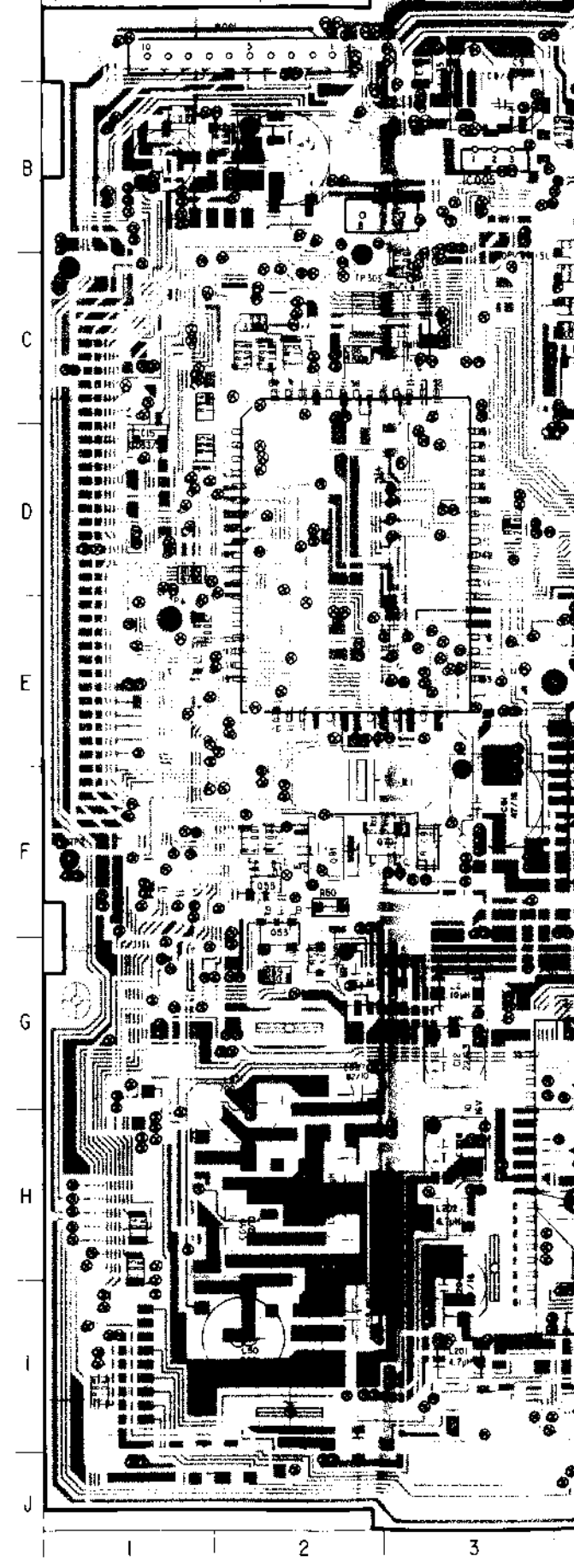
VC-48 BOARD (COMPONENT SIDE)

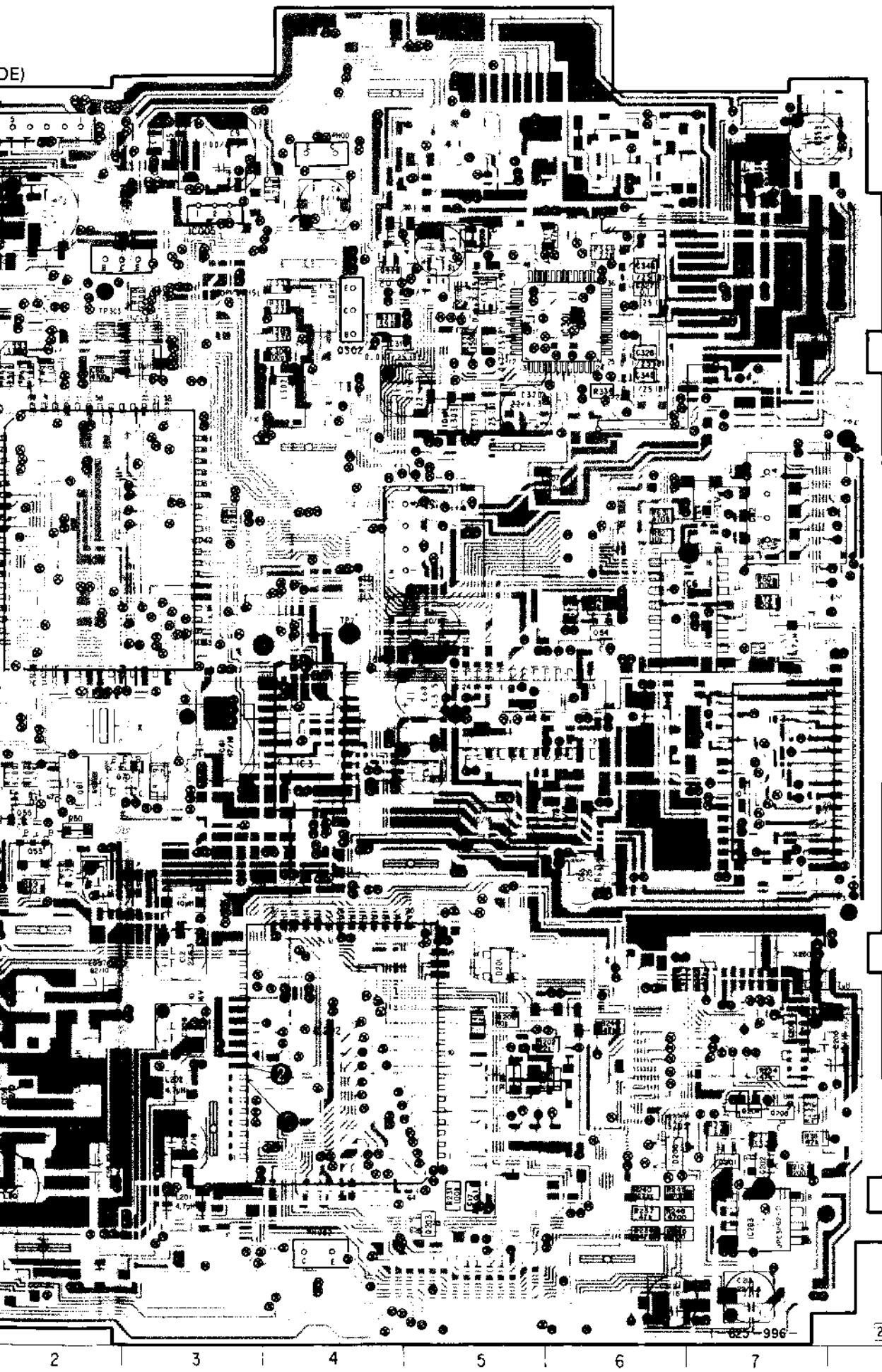


VC-48 BOARD (CONDUCTOR SIDE)

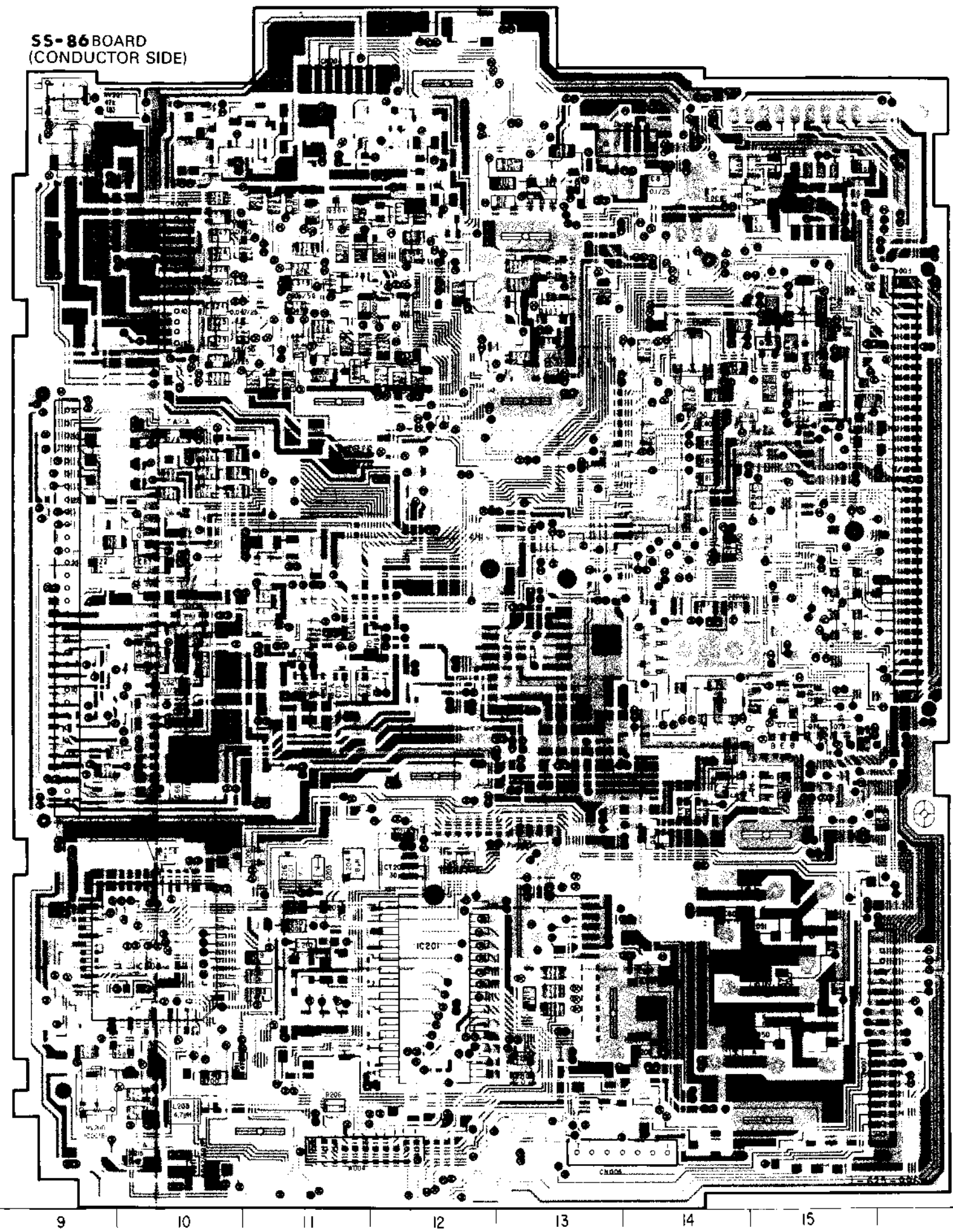


SS-86 BOARD (COMPONENT SIDE)





SS-86 BOARD  
(CONDUCTOR SIDE)



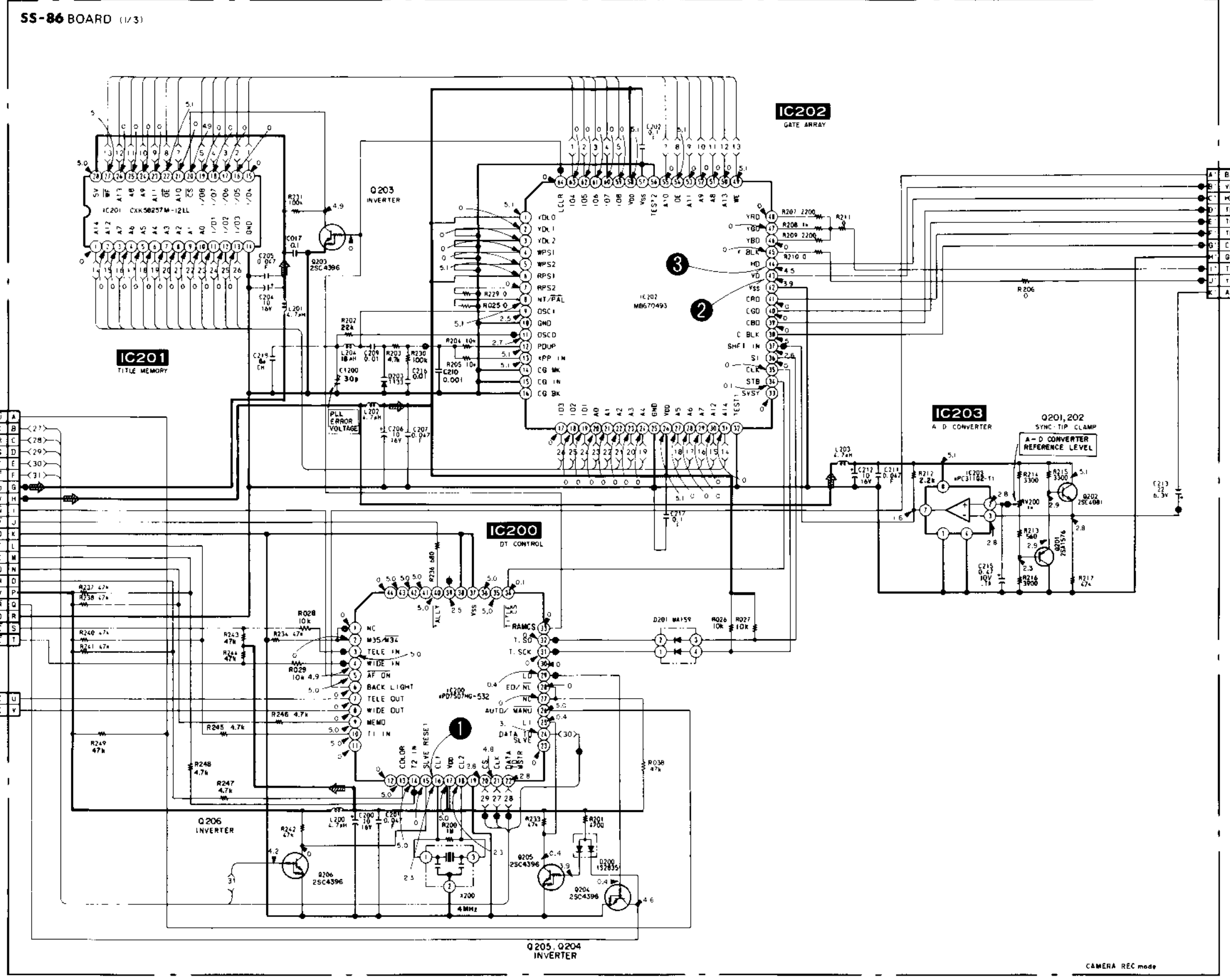
- CN001 D-5
- CN002 D-7
- CN003 C-10
- CN004 A-11
- CN005 J-13
- CN006 B-14
- CN007 I-16
  
- CT200 G-12
  
- D003 E-15
- D004 E-15
- D050 I-15
- D051 H-15
- D200 I-6
- D201 G-5
- D203 G-11
  
- IC001 D-2
- IC002 B-15
- IC003 F-4
- IC004 F-5
- IC005 B-3
- IC006 E-7
- IC007 F-7
- IC200 H-10
- IC201 H-12
- IC202 H-4
- IC203 I-7
- IC301 C-6
  
- Q001 B-2
- Q002 B-15
- Q005 B-13
- Q006 G-15
- Q007 E-10
- Q008 G-14
- Q051 I-15
- Q052 H-15
- Q053 F-2
- Q054 E-6
- Q055 F-2
- Q070 F-2
- Q071 F-15
- Q073 F-15
- Q074 F-15
- Q075 C-15
- Q076 F-14
- Q078 F-14
- Q079 F-15
- Q080 F-14
- Q081 F-2
- Q201 I-7
- Q202 I-7
- Q203 I-5
- Q204 H-7
- Q205 H-7
- Q206 G-11
- Q302 C-4
- Q303 C-13
- Q304 B-11
- Q305 B-5
- Q307 C-11
- Q317 C-11
- Q318 C-11
- Q319 D-15
- Q320 B-4
  
- RV001 C-14
- RV002 D-15
- RV003 C-15
- RV200 I-5
- RV301 A-9
- RV302 B-9
  
- TP001 C-1
- TP002 F-1
- TP003 G-8
- TP004 D-8
- TP006 E-1
- TP007 E-4
- TP303 C-2



**DIGITAL TITLER DIGITAL TITLER**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A  
B  
C  
D  
E  
F  
G  
H  
I  
J



AUTO/ MANU	A
CLK	B
DATA TO MSTR	C
CS	D
DATA TO SLVE	E
SLVE RESET	F
VDD	G
SS C 5V	H
AF ON	I
TALLY	J
SS GND	K
T1 IMPOSE	L
T2 IMPOSE	M
MEMO	N
COLOR	P
EVER SV	Q
LINES POWER	R
UNREQ GND	S
TELE	T
WIDE	U
TELE	V
WIDE	Y

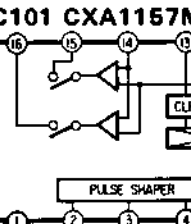
TO SS-86 BOARD (1/3)  
 (SYSTEM CONTROL)  
 (See page 103.)

TO SS-86 BOARD (1/3)  
 (SYSTEM CONTROL)  
 (See page 103.)

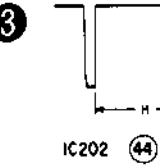
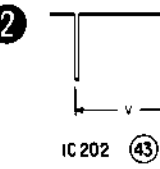
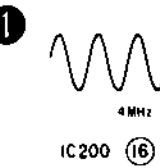
A	BACK LIGHT
B	VD
C	MD
D	TG
E	TR
F	C BLK
G	GND
H	TY
I	T BLK
J	A/D Y

TO SS-86 BOARD (1/3)  
 (SYSTEM CONTROL)  
 (See page 103.)

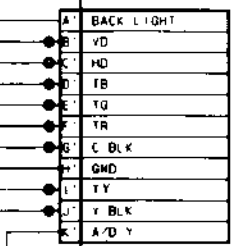
TO SS-86 BOARD (1/3)  
 WOOD  
 (See page 104.)



SS-86 BOARD

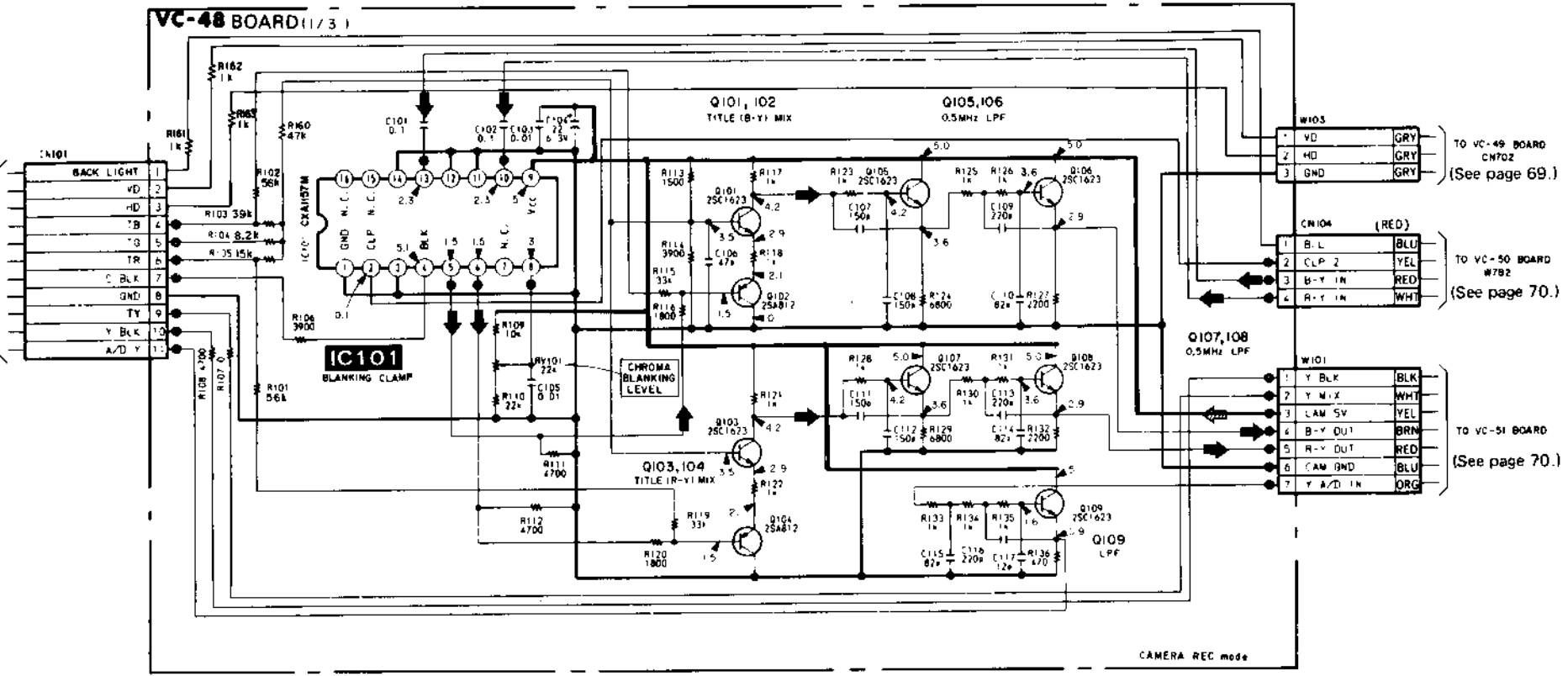


A  
B  
C  
D  
E  
F  
G  
H  
I  
J

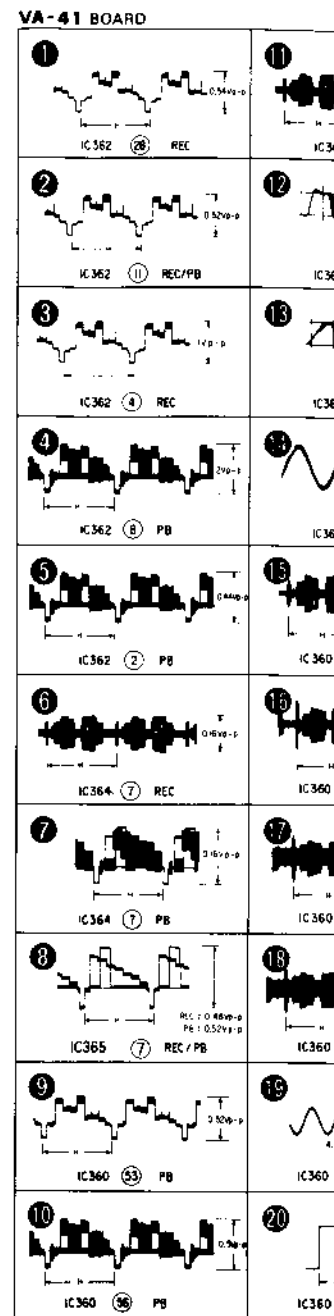
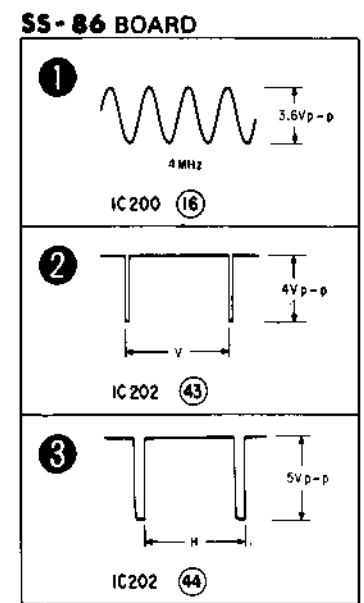
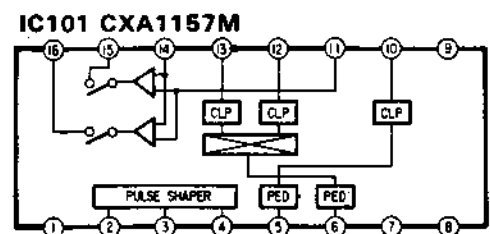


TO SS-86 BOARD (1/3) SYSTEM CONTROL (See page 103.)

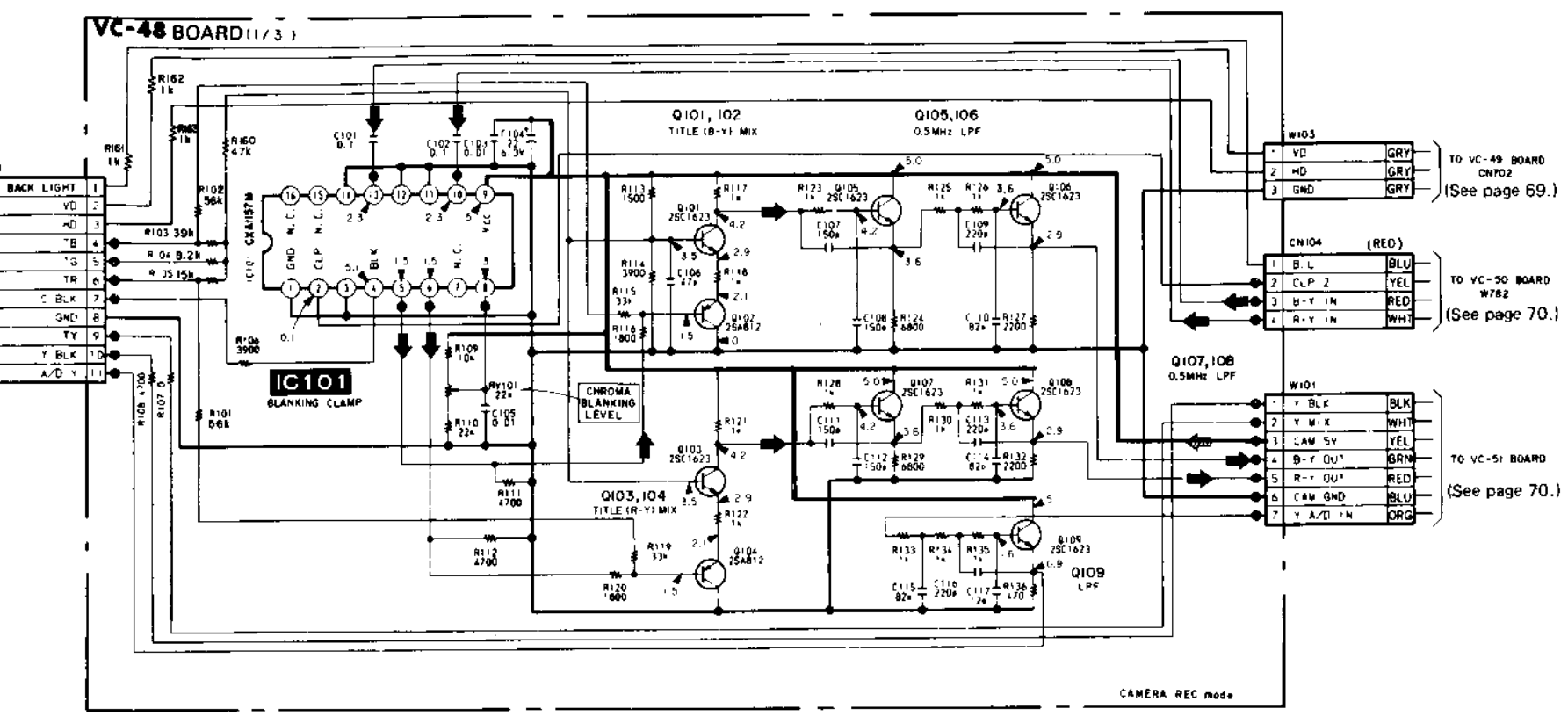
TO SS-86 BOARD (1/3) W004 (See page 104.)



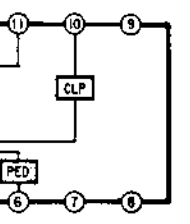
➔ : REC CHROMA Signal



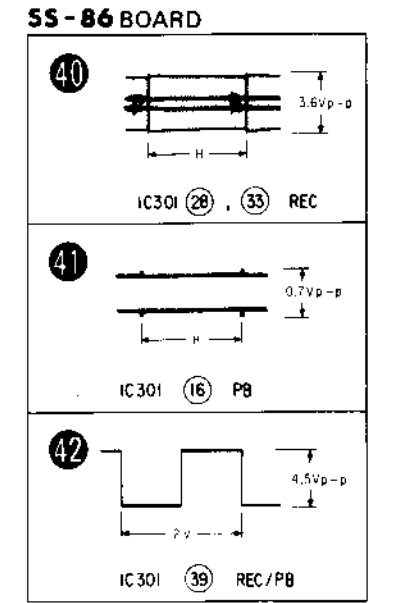
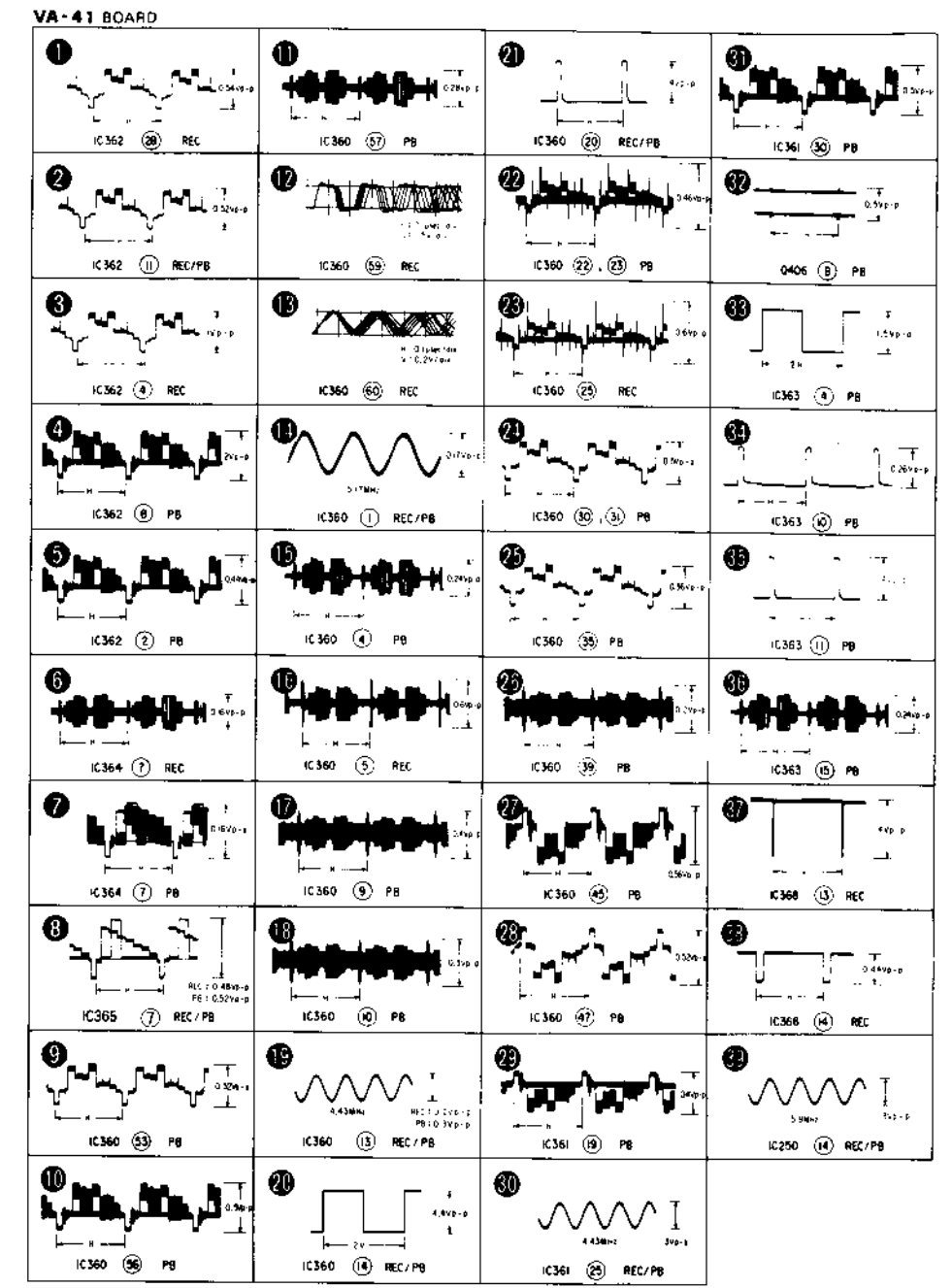
18 19 20 21 22 23 24 25 26 27



➔ : REC CHROMA Signal

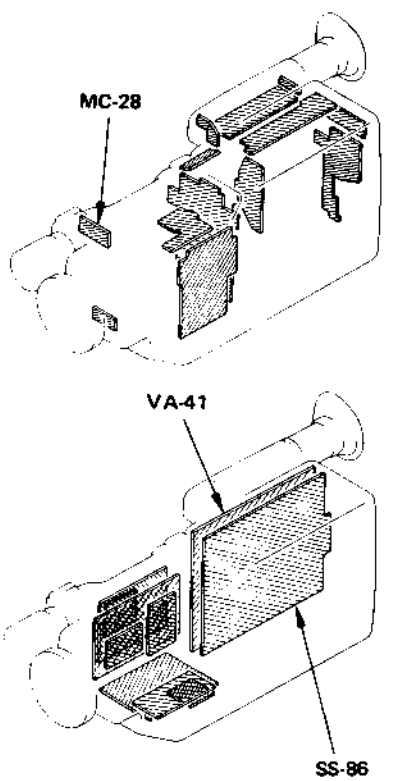
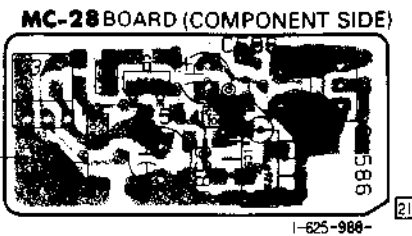
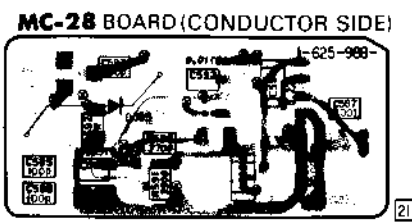


A  
B  
C  
D  
E  
F  
G  
H  
I  
J





4-5. SS-86 (REC/PB AMP),  
VA-41 (VIDEO/AUDIO SIGNAL  
PROCESS),  
MC-28 (MIC AMP)  
PRINTED WIRING BOARDS  
- Ref. No. SS-86, VA-41, MC-28  
BOARDS: 4,000 series -



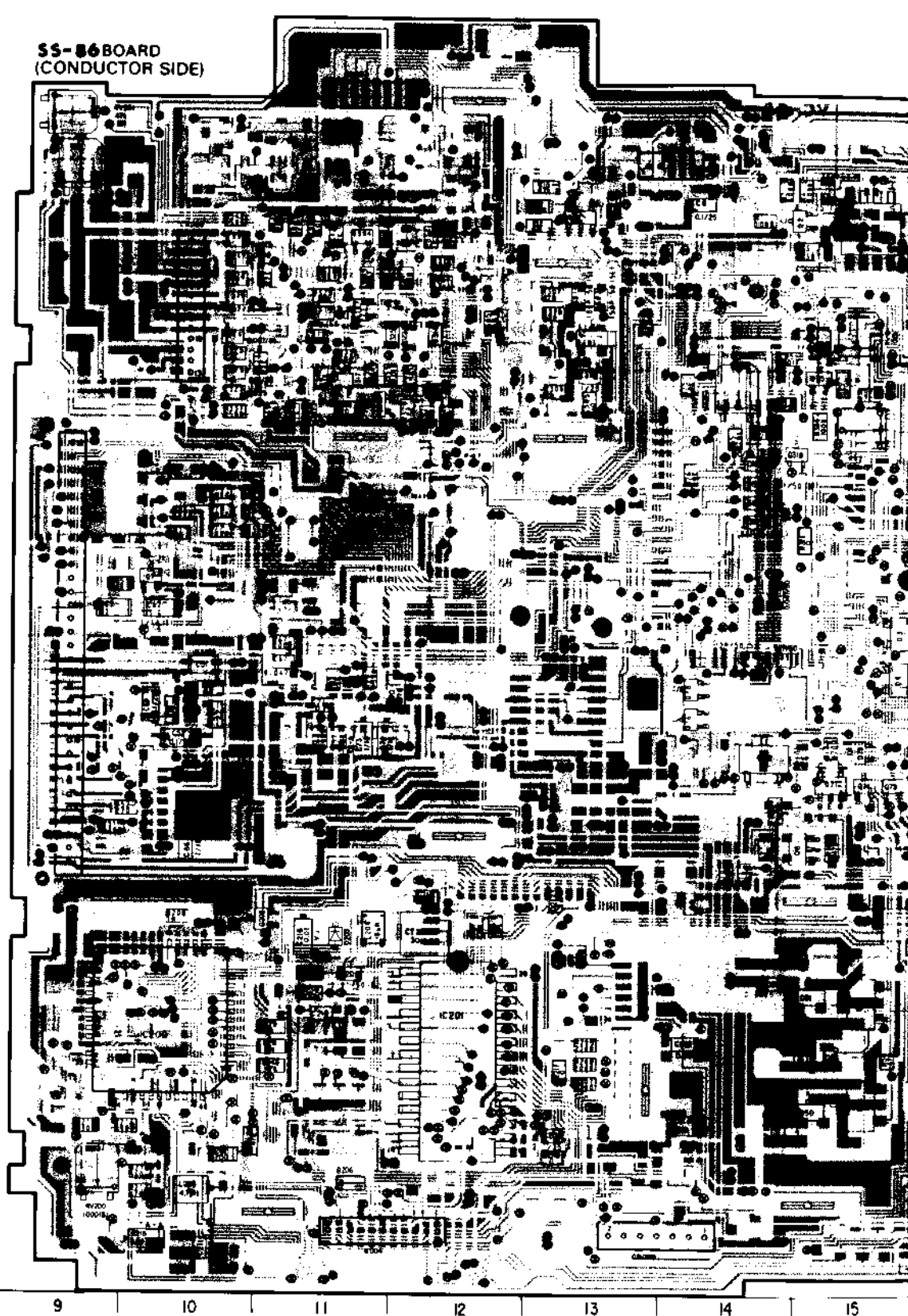
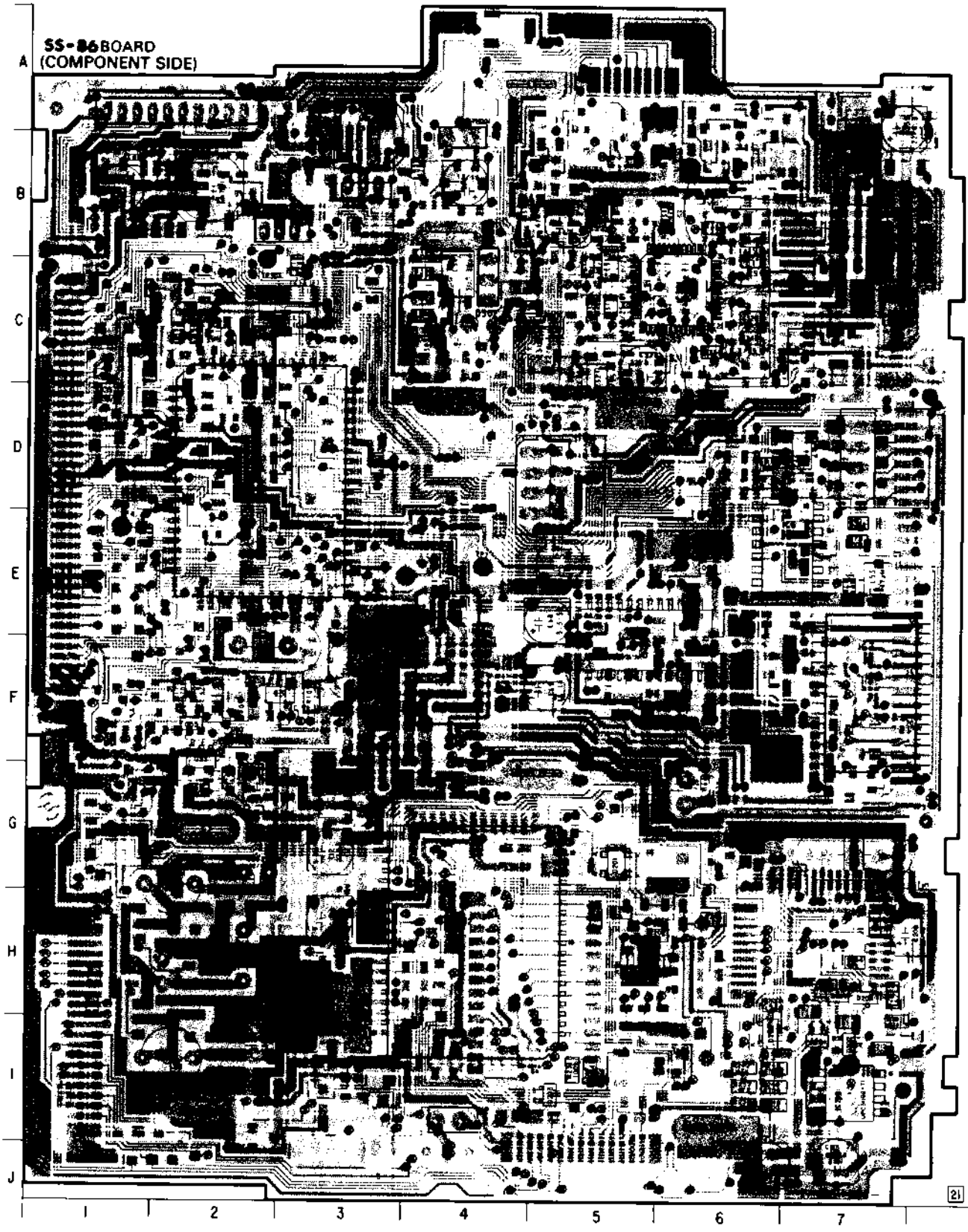
Q001	B-2
Q002	B-15
Q005	B-13
Q006	G-15
Q007	E-10
Q008	G-14
Q051	I-15
Q052	H-15
Q053	F-2
Q054	E-6
Q055	F-2
Q070	F-2
Q071	F-15
Q073	F-15
Q074	F-15
Q075	C-15
Q076	F-14
Q078	F-14
Q079	F-15
Q080	F-14
Q081	F-2
Q201	I-7
Q202	I-7
Q203	I-5
Q204	H-7
Q205	H-7
Q206	G-11
Q302	C-4
Q303	C-13
Q304	B-11
Q305	B-5
Q307	C-11
Q317	C-11
Q318	C-11
Q319	D-15
Q320	B-4
RV001	C-14
RV002	D-15
RV003	C-15
RV200	I-9
RV301	A-9
RV302	B-9
TP001	C-1
TP002	F-1
TP003	G-8
TP004	D-8
TP006	E-1
TP007	E-4
TP303	C-2

CN001	D-5	IC001	D-2
CN002	D-7	IC002	B-15
CN003	C-10	IC003	F-4
CN004	A-11	IC004	F-5
CN005	J-13	IC005	B-3
CN006	B-14	IC006	E-7
CN007	I-16	IC007	F-7
		IC200	H-10
CT200	G-12	IC201	H-12
		IC202	H-4
D003	E-15	IC203	I-7
D004	E-15	IC301	C-6
D050	I-15		
D051	H-15		
D200	I-6		
D201	G-5		
D203	G-11		

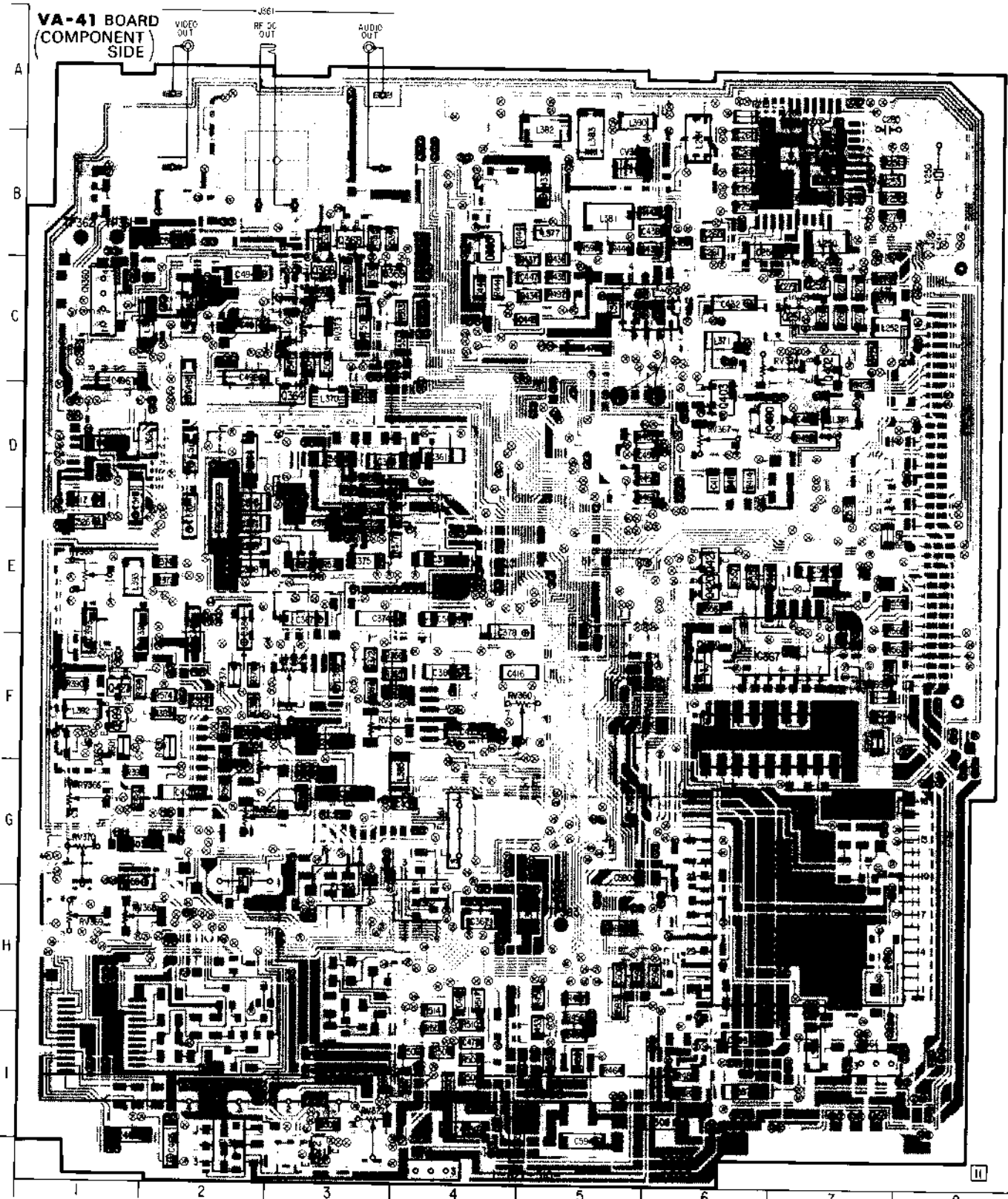
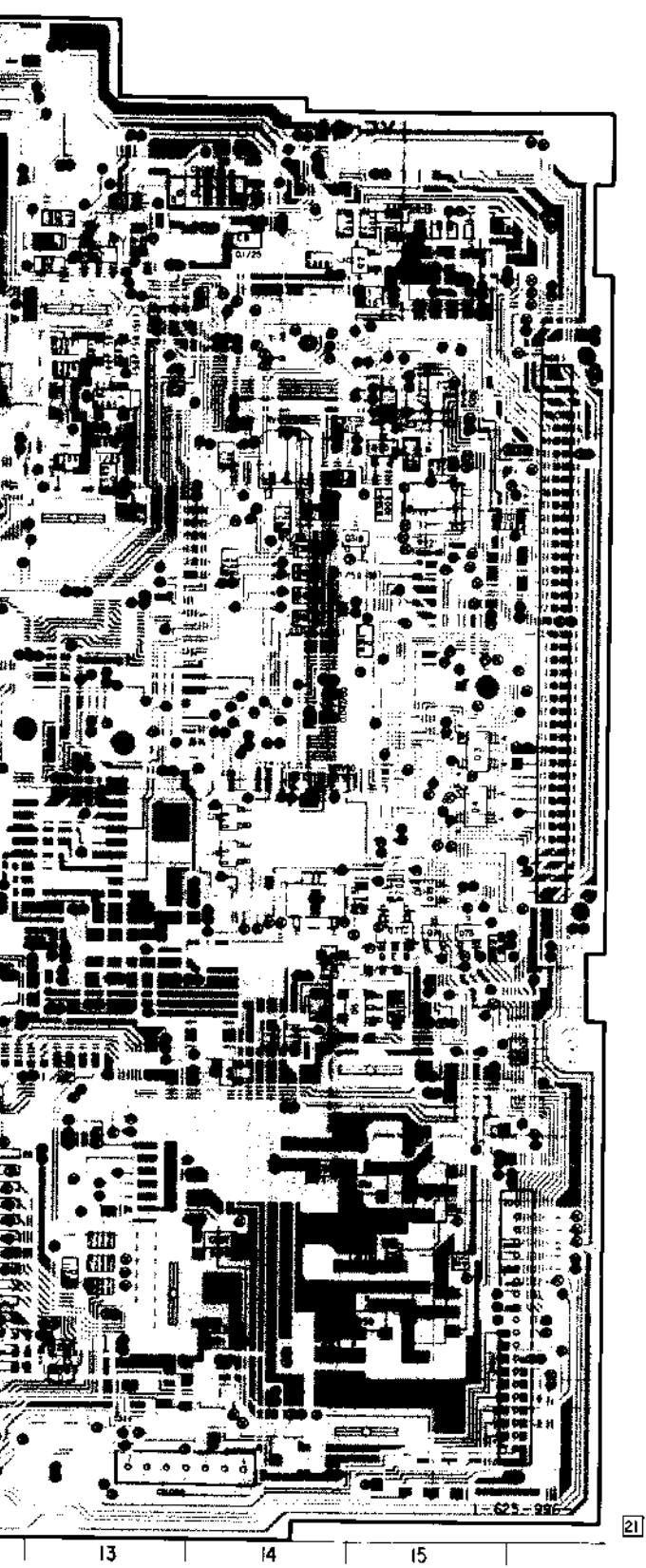
**Note:**  
 • ⊗ : Through hole.  
 • ⊞ : Pattern of the rear side.

**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 (Component Side) the parts face are indicated.

• Digital transistor (SS-86: Q304, Q305, Q307, Q319, VA-41: Q254, Q378, Q382, Q395, Q396, Q397, Q398, Q405, Q407, Q413, Q416, Q417, Q418, Q420, Q424) is transistor with resistor. Refer to the SS-86, VA-41 boards schematic diagram for digital transistor.



FOR T  
SEE P

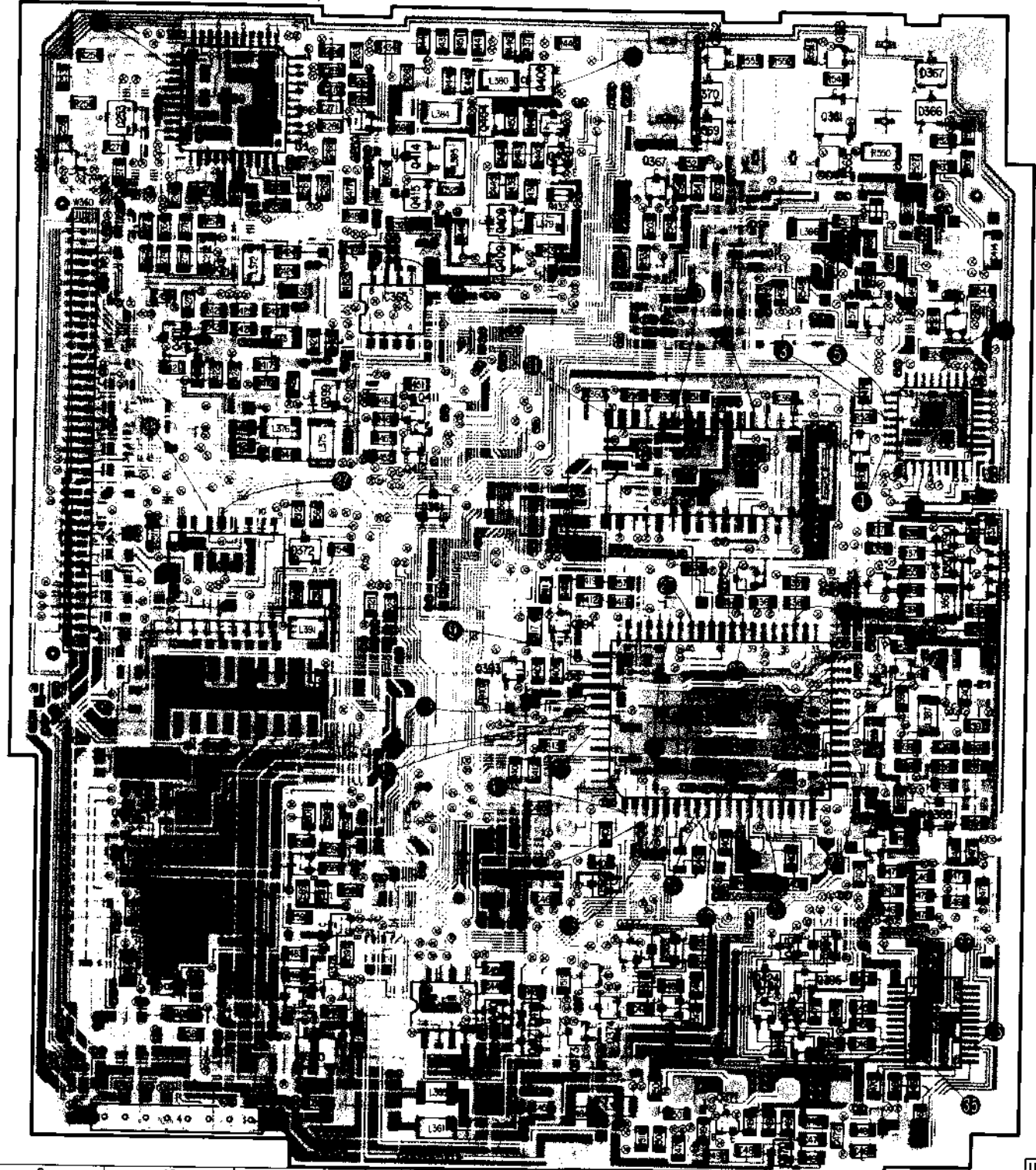
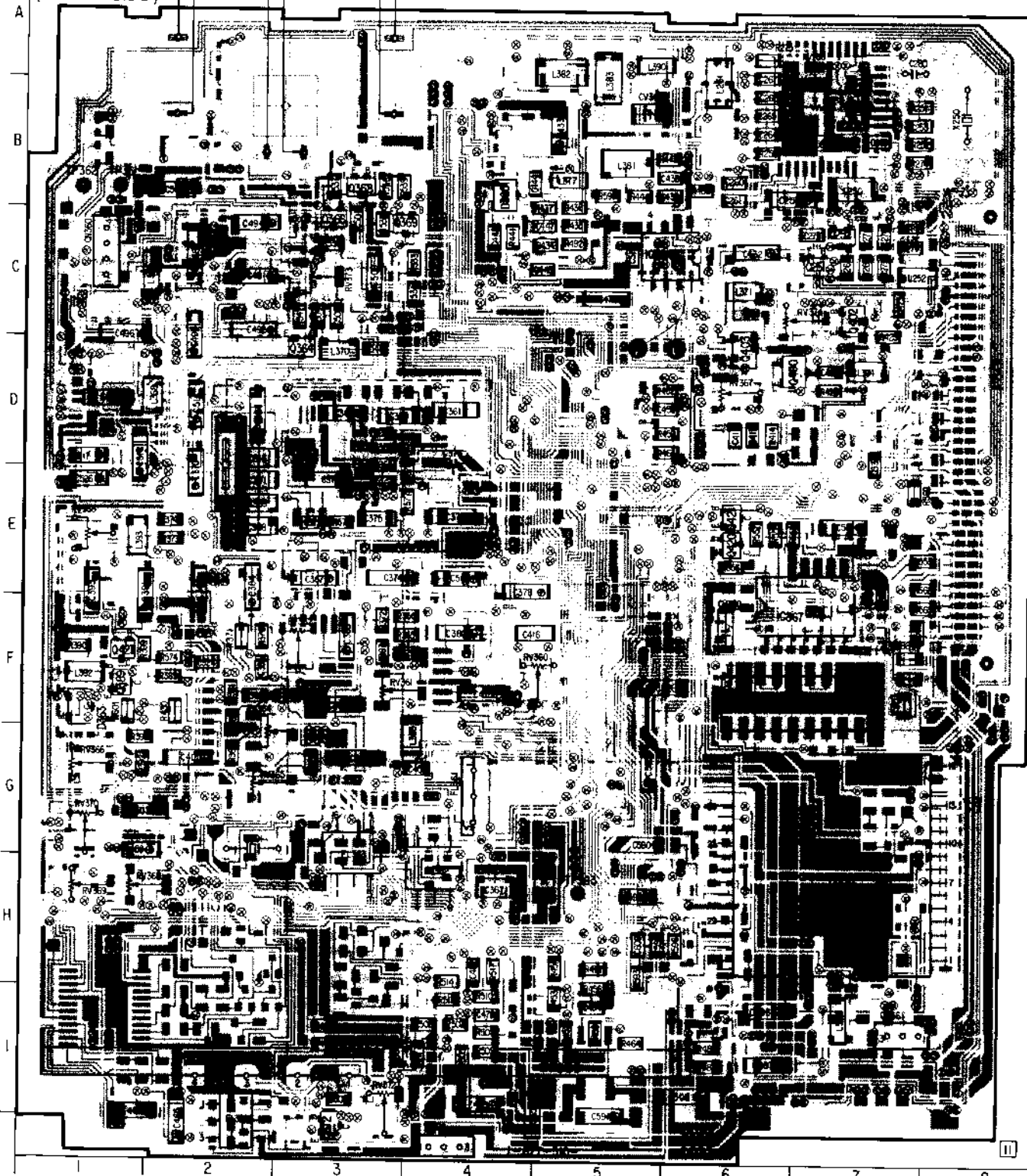




FOR TABLE OF WAVEFORMS,  
SEE PAGE 89.

VA-41 BOARD  
(COMPONENT SIDE)

VA-41 BOARD (CONDUCTOR SIDE)



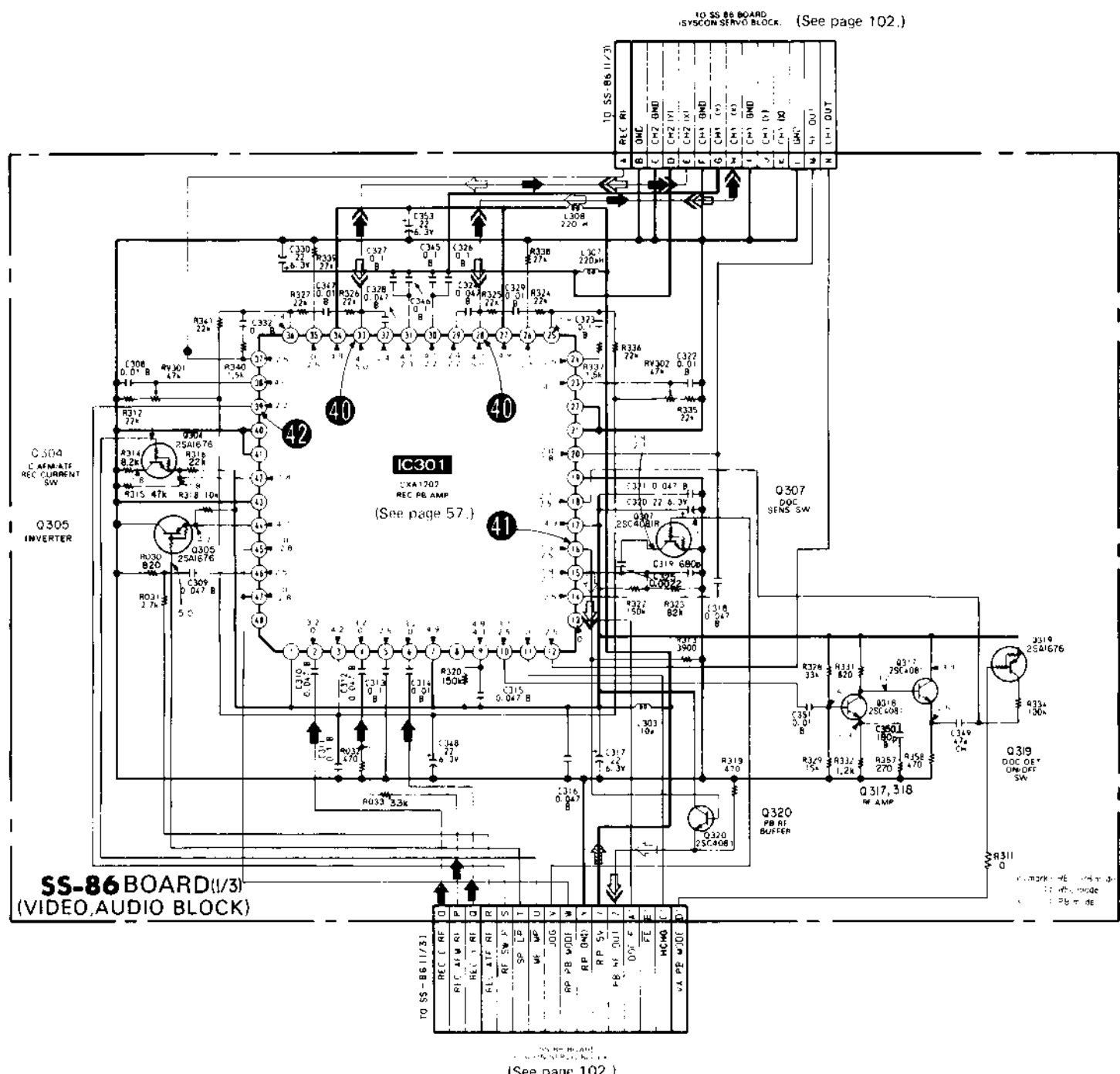
IC250	A-10
IC360	F-14
IC361	D-14
IC362	D-16
IC363	H-16
IC364	B-5
IC365	C-12
IC366	H-12
IC367	E-7
IC368	E-10
IC580	G-7
Q250	A-11
Q251	B-7
Q252	B-7
Q253	A-10
Q254	B-9
Q361	A-15
Q362	A-14
Q363	A-15
Q364	C-3
Q365	C-16
Q366	B-3
Q367	B-14
Q368	B-3
Q369	B-3
Q370	I-15
Q371	I-14
Q372	I-3
Q373	H-13
Q374	H-13
Q375	H-14
Q376	H-13
Q377	H-14
Q378	H-11
Q379	H-11
Q380	I-11
Q382	E-14
Q383	E-15
Q385	E-16
Q386	E-16
Q387	E-16
Q388	G-16
Q389	F-1
Q390	E-16
Q391	G-15
Q392	G-13
Q393	F-13
Q394	E-13
Q395	H-15
Q396	H-15
Q397	H-15
Q398	H-15
Q399	D-11
Q400	C-6
Q401	C-10
Q402	C-7
Q403	C-6
Q404	A-12
Q405	A-13
Q406	A-13
Q407	B-13
Q408	B-12
Q409	B-12
Q410	H-12
Q411	D-12
Q412	D-12
Q413	H-15
Q414	B-12
Q415	B-12
Q416	D-15
Q417	H-13
Q418	H-13
Q420	E-6
Q421	D-6
Q424	H-15
Q425	F-16
Q426	C-15
Q427	E-1
Q580	G-10
Q581	G-11
Q582	H-11
RV250	A-7
RV360	F-5
RV361	F-3
RV362	E-3
RV363	E-1
RV364	F-2
RV365	G-2
RV366	F-1
RV367	C-6
RV368	G-1
RV369	G-1
RV370	G-1
RV372	I-3
RV374	C-6
TP361	B-1
TP362	B-1
TP363	G-5

D361	D-12
D362	H-14
D363	F-1
D364	H-15
D365	B-4
D366	A-16
D367	A-16
D368	B-15
D369	A-14
D370	A-14
D372	E-11
CN360	B-1
CN361	H-7
CV360	E-6
CV361	A-5

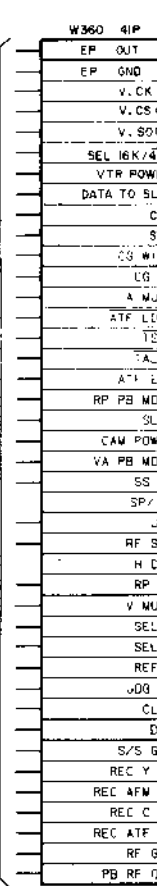
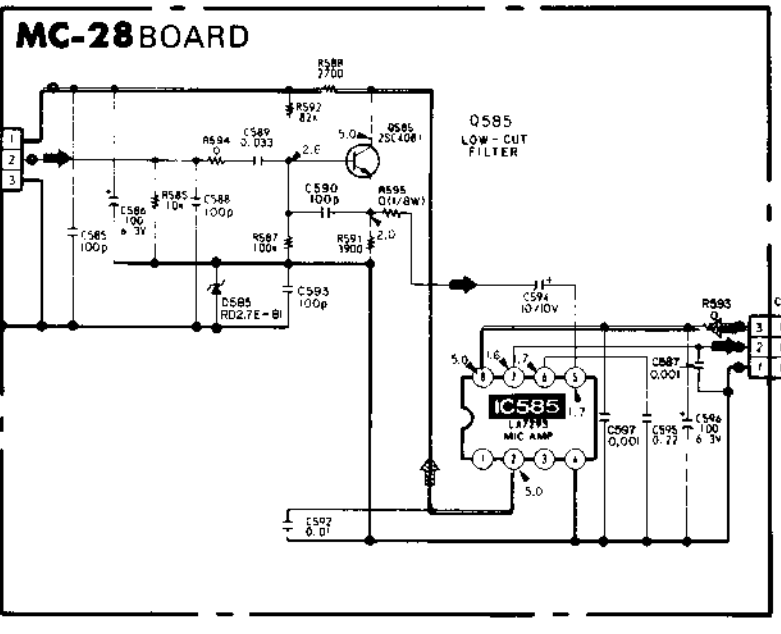
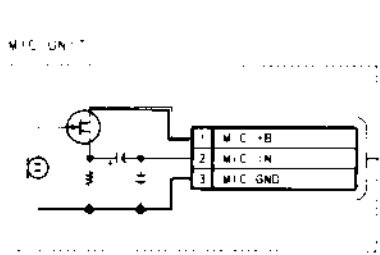
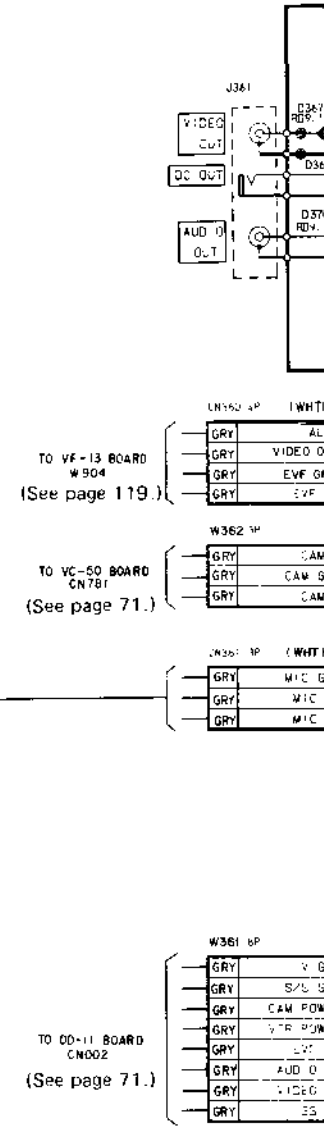
**SS-86 (REC/PB AMP), VA-41 (VIDEO/AUDIO SIGNAL PROCESS), MC-28 (MIC AMP) SCHEMATIC DIAGRAM**

- Ref. No. SS-86, VA-41 BOARDS: 4,000 seris -

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

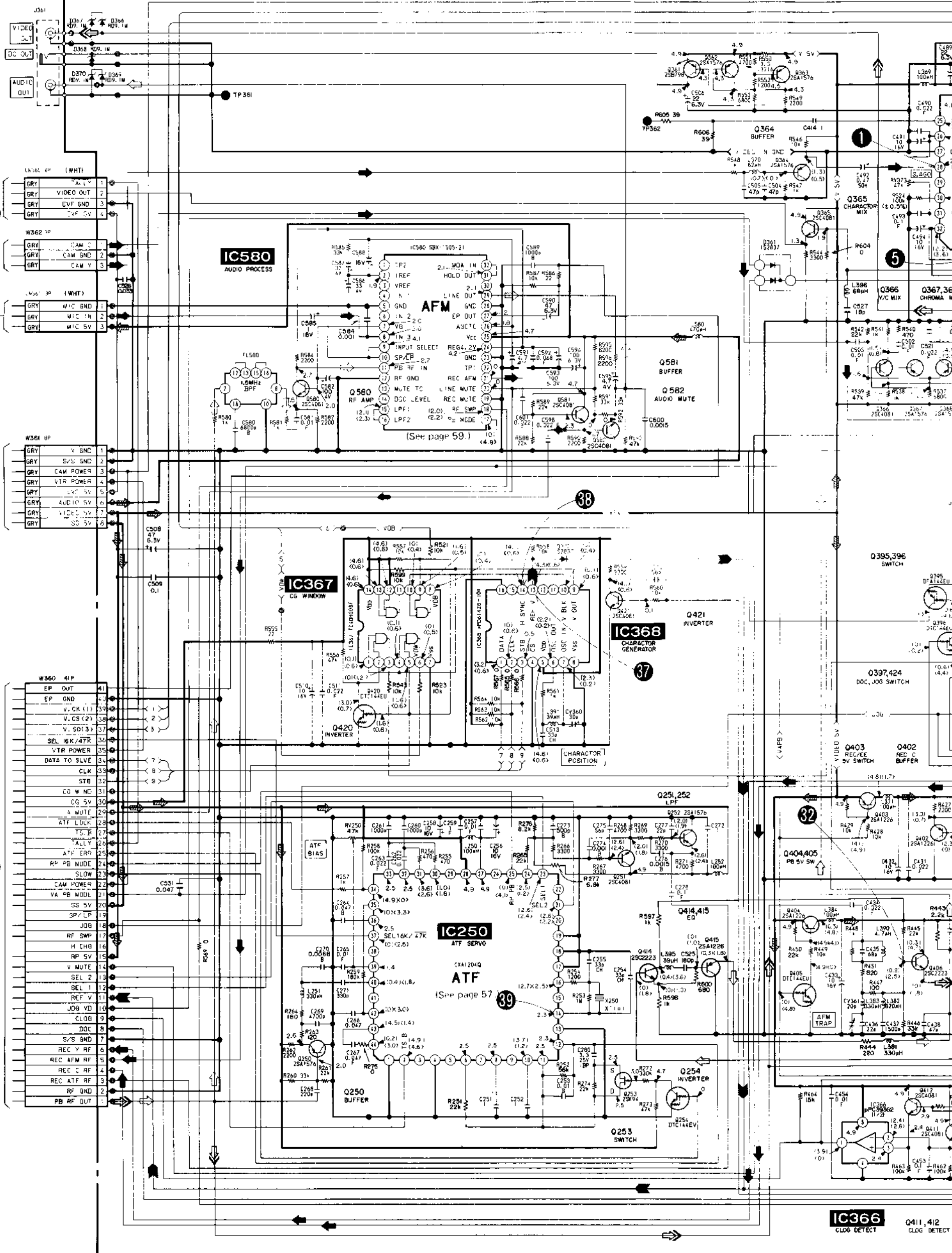


- Signal path
- ➡ : REC Y Signal
- ➡ : PB Y Signal
- ➡ : REC CHROMA Signal
- ➡ : PB CHROMA Signal
- ➡ : REC Y/CHROMA Signal
- ➡ : PB Y/CHROMA Signal
- ➡ : REC AUDIO Signal
- ➡ : PB AUDIO Signal
- ➡ : Ref. signal



VA-41 BOARD

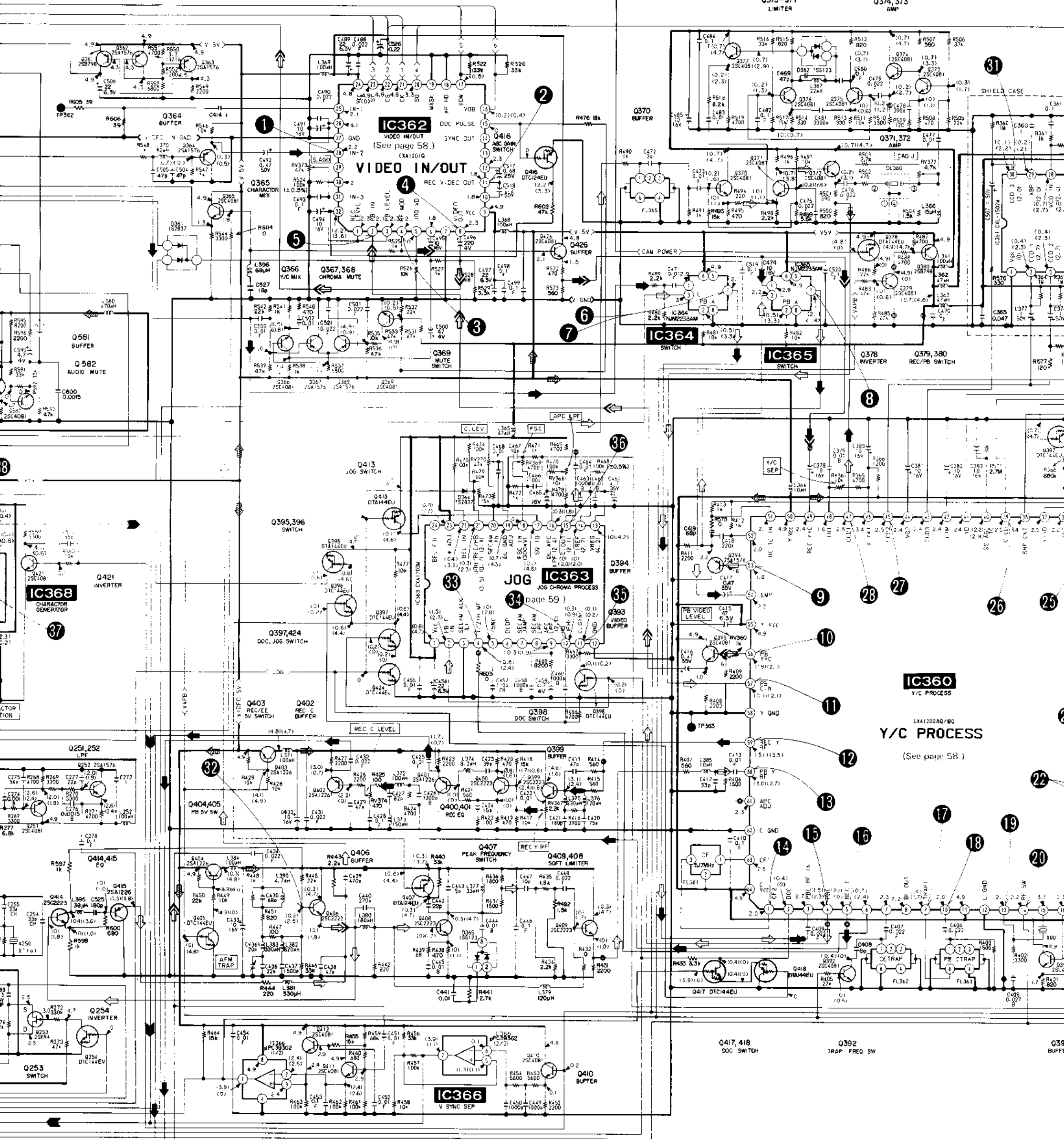
Q361-363  
CURRENT LIMITER



Q361-363  
CURRENT LIMITER

Q375-377  
LIMITER

Q374, 373  
AMP



Q364  
BUFFER

Q365  
CHARACTOR MIX

Q366  
Y/C MIX

Q367, 368  
CHROMA MUTE

Q369  
MUTE SWITCH

IC368  
CHARACTOR GENERATOR

Q251, 252  
LPE

Q414, 415  
EQ

Q254  
INVERTER

Q253  
SWITCH

IC366  
V SYNC SEP

Q411, 412  
LOG DETECT

IC362  
VIDEO IN/OUT  
(See page 58.)  
CX12010

Q416  
ACC GAIN SWITCH

Q426  
BUFFER

Q413  
JOG SWITCH

Q421  
INVERTER

Q397, 424  
DOC, JOG SWITCH

Q403  
REC/EE 5V SWITCH

Q404, 405  
PB 5V SW

Q406  
BUFFER

Q407  
PEAK FREQUENCY SWITCH

Q408, 408  
SOFT LIMITER

Q410  
BUFFER

IC366  
V SYNC SEP

Q411, 412  
LOG DETECT

IC363  
JOG CHROMA PROCESS  
(See page 59.)

Q394  
BUFFER

Q398  
DOC SWITCH

Q399  
BUFFER

Q400, 401  
REC EQ

Q409, 408  
SOFT LIMITER

Q410  
BUFFER

IC366  
V SYNC SEP

Q411, 412  
LOG DETECT

IC364  
SWITCH

IC365  
SWITCH

Q378  
INVERTER

Q379, 380  
REC/PB SWITCH

Q394  
BUFFER

Q398  
DOC SWITCH

Q399  
BUFFER

Q400, 401  
REC EQ

Q409, 408  
SOFT LIMITER

Q410  
BUFFER

IC366  
V SYNC SEP

Q411, 412  
LOG DETECT

Q417, 418  
DOC SWITCH

Q392  
TRAP FREQ SW

Q399  
BUFFER

IC360  
Y/C PROCESS  
(See page 58.)

Q370  
BUFFER

Q371, 372  
AMP

Q373, 374  
AMP

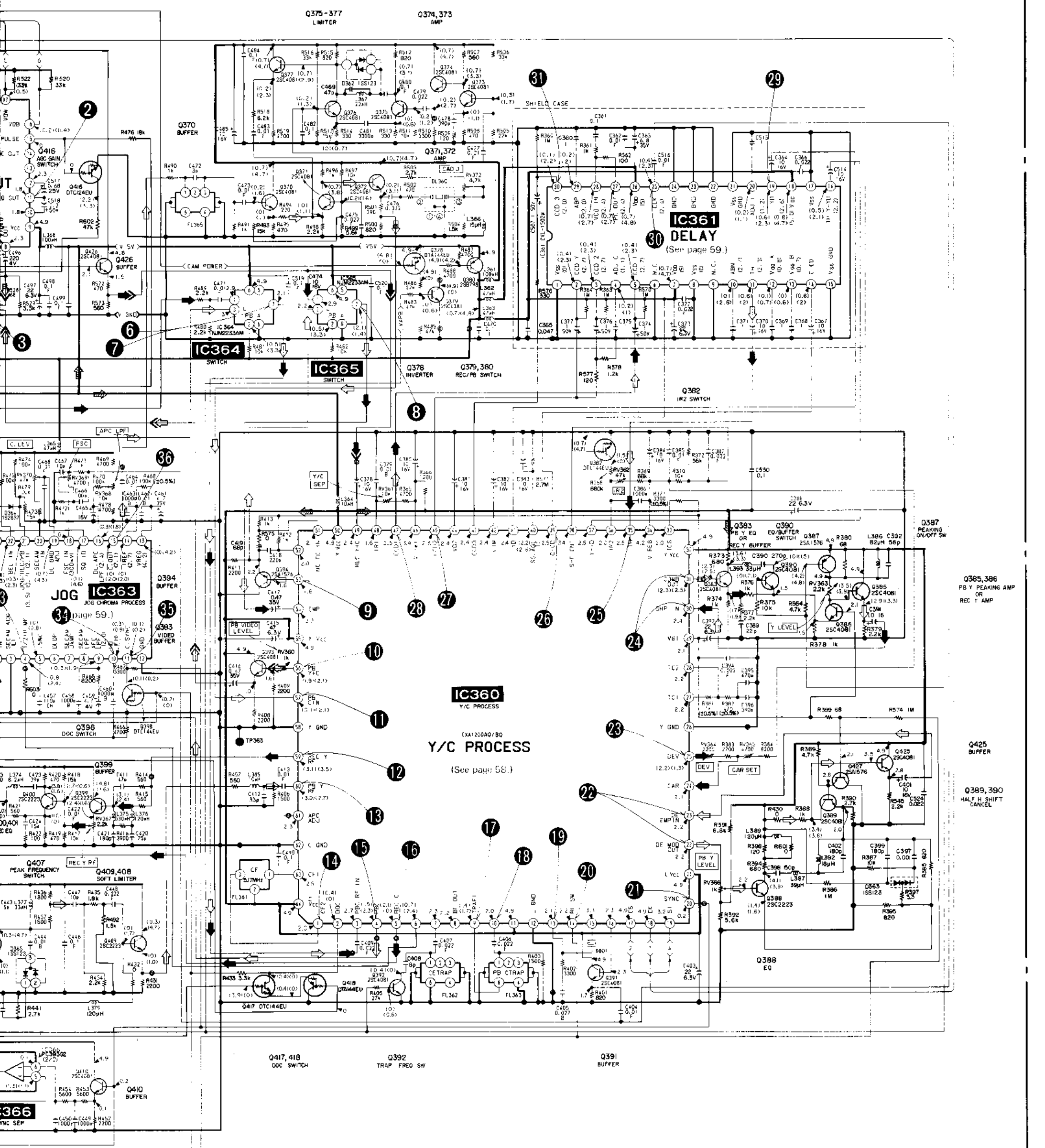
Q375, 376, 377  
LIMITER

Q378  
INVERTER

Q379, 380  
REC/PB SWITCH

Q392  
TRAP FREQ SW

Q399  
BUFFER



FOR TABLE OF WAVEFORMS, SEE PAGE 89  
AND IC BLOCK DIAGRAMS, SEE PAGE 57.

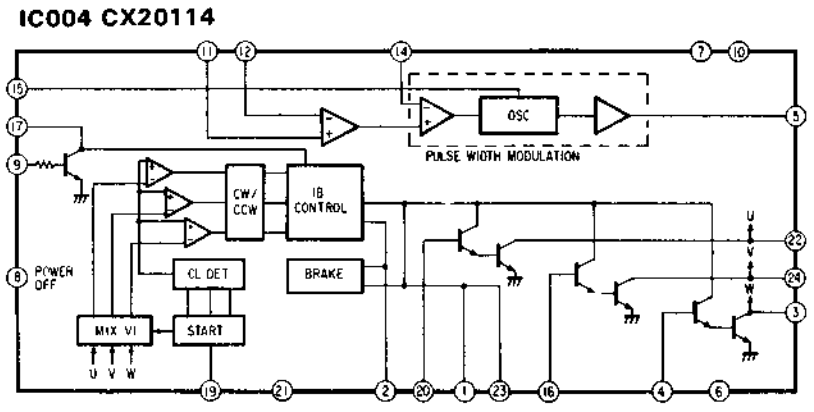


4-6. SS-86 (SYSTEM CONTROL, SERVO), SW-76 (START/STOP, STANDBY SWITCH, INPUT/OUTPUT JACK), ZM-7 (ZOOM SWITCH), LA-1 (START/STOP SWITCH), PA-13 (POWER),  
 - Ref. No. SS-86, SW-76, LA-1, ZM-7 BOARDS: 5,000 series, PA-13, FP-53, CC-7 BOARDS: 6,000 series -

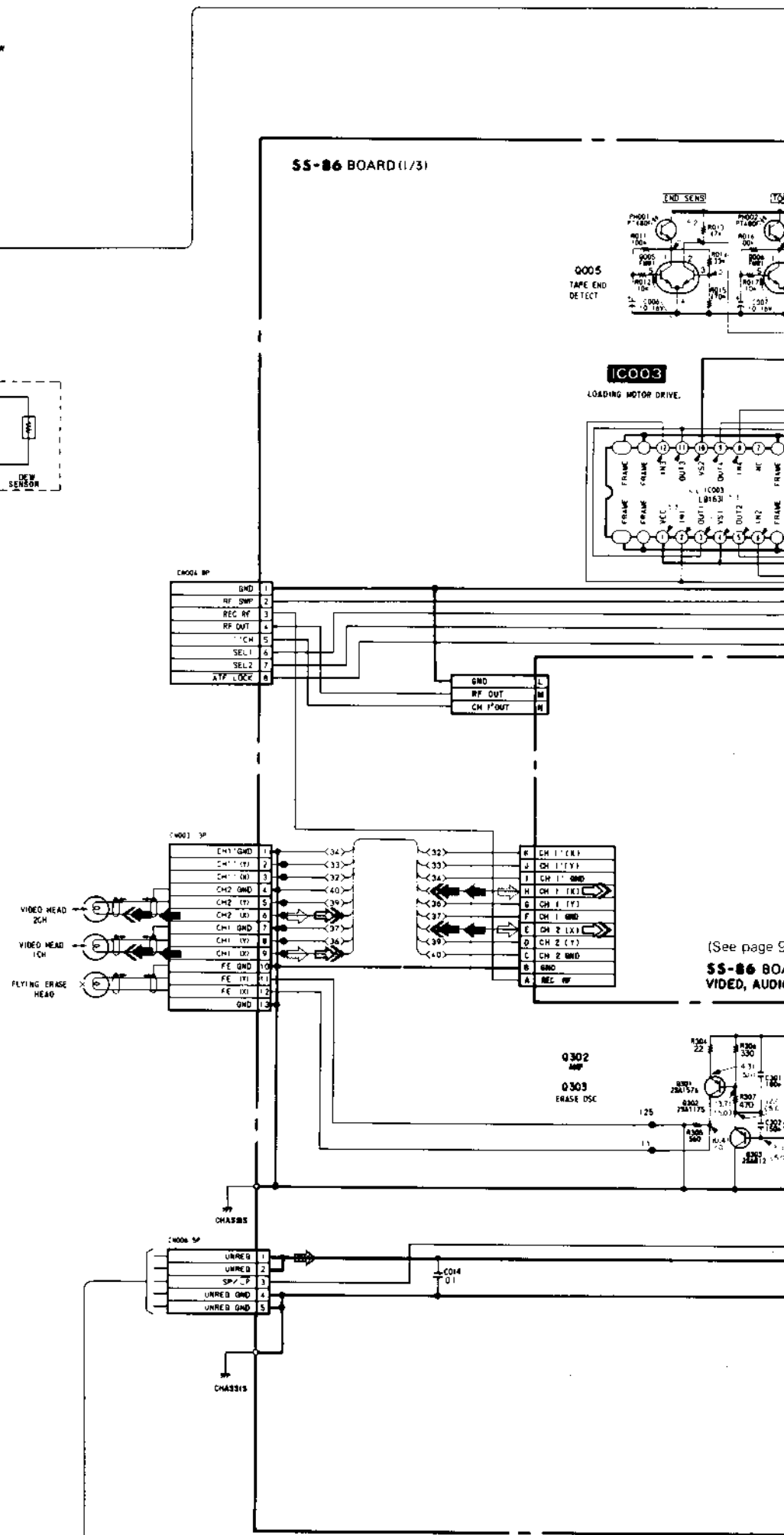
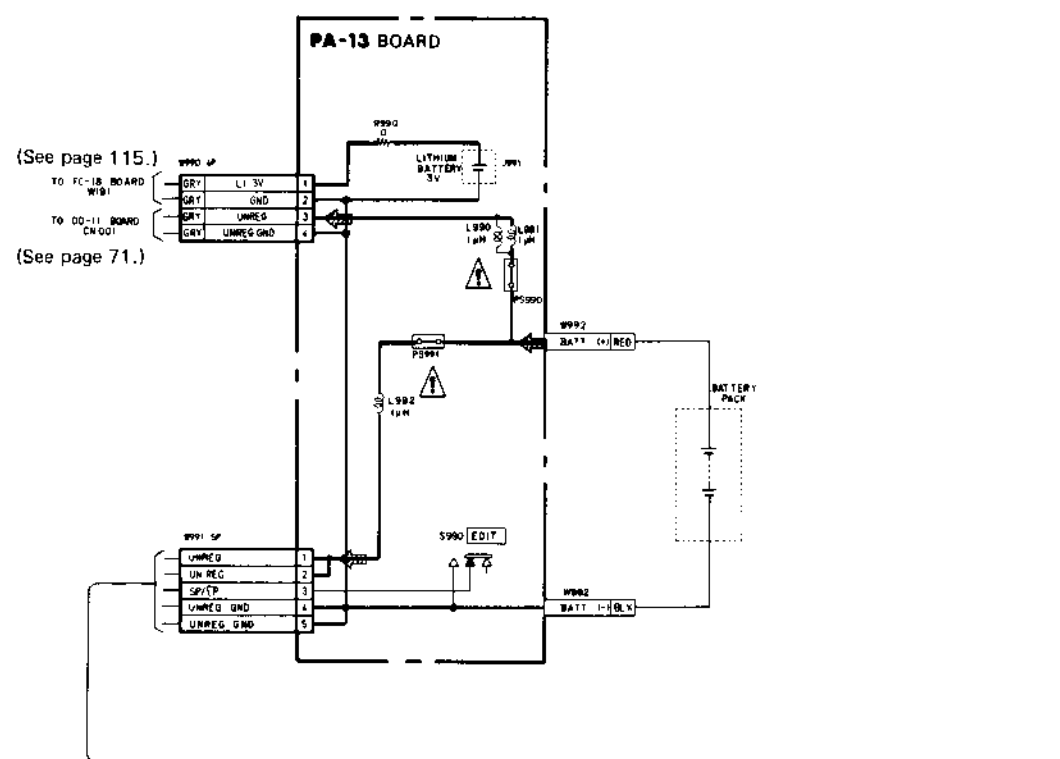
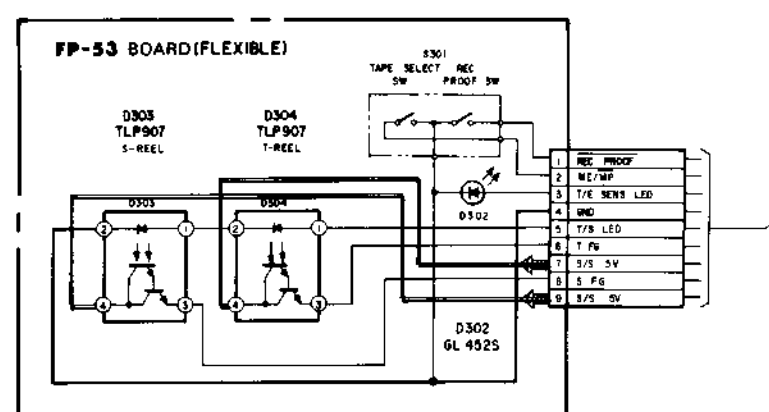
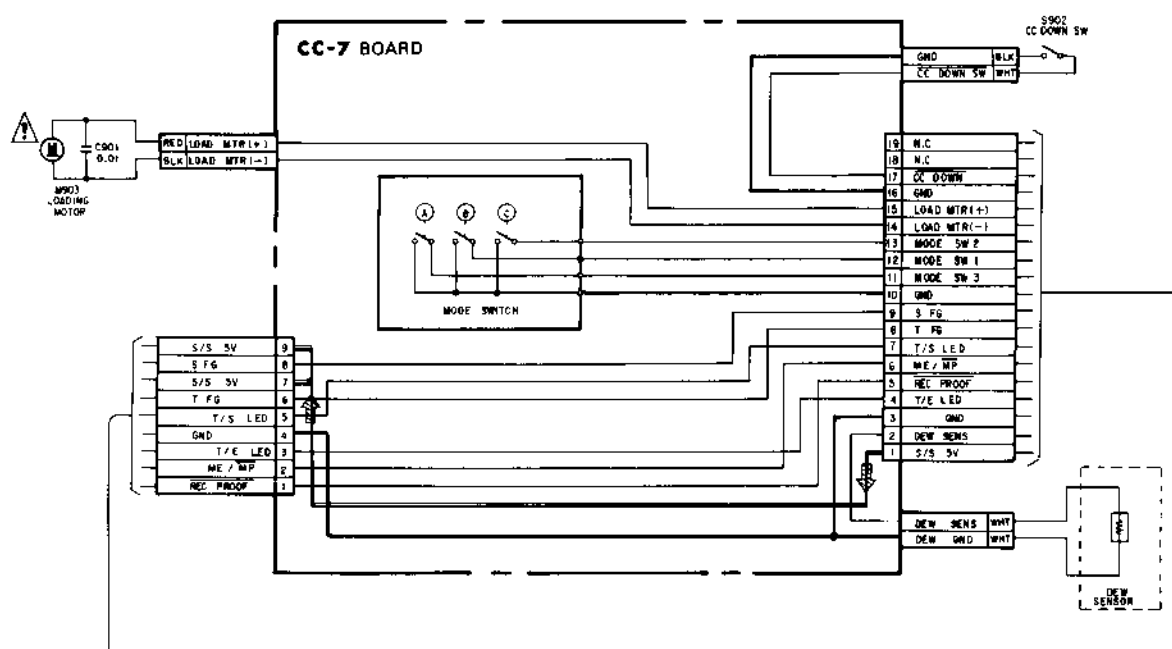
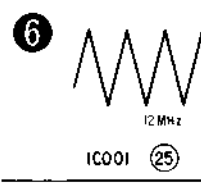
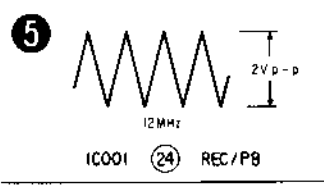
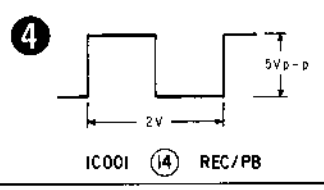
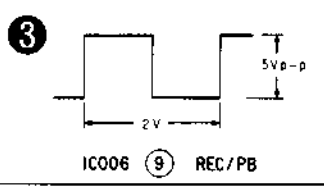
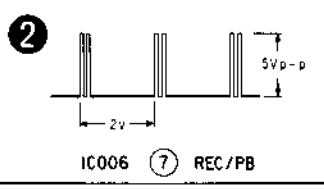
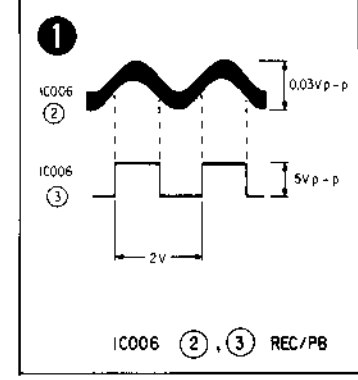
- Signal path
- ➔ : REC Y Signal
  - ➔ : REC CHROMA Signal
  - ➔ : REC Y/CHROMA Signal
  - ➔ : PB Y/CHROMA Signal
  - ➔ : REC AUDIO Signal
  - ➔ : PB AUDIO Signal

Signal path

	REC	REC/PB	PB
Drum speed servo	➔	➔	
Drum phase servo	➔	➔	
Drum servo (speed and phase)	➔	➔	➔
Capstan speed servo	➔	➔	
Capstan phase servo	➔	➔	➔
Capstan servo (speed and phase)	➔	➔	➔
Ref. signal	➔	➔	➔



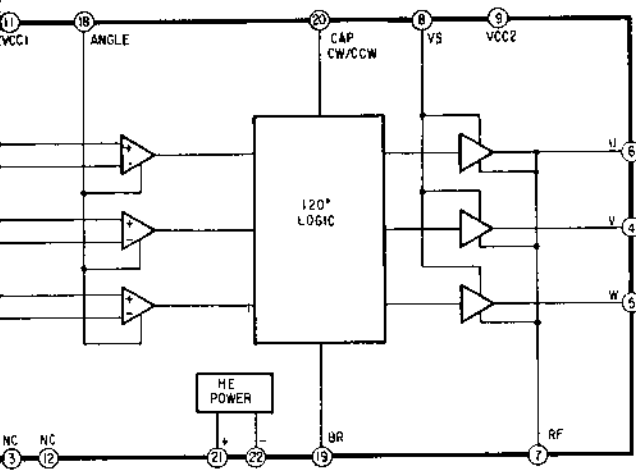
SS-86 BOARD







SCHEMATIC DIAGRAM



Note on Printed Wiring Board:

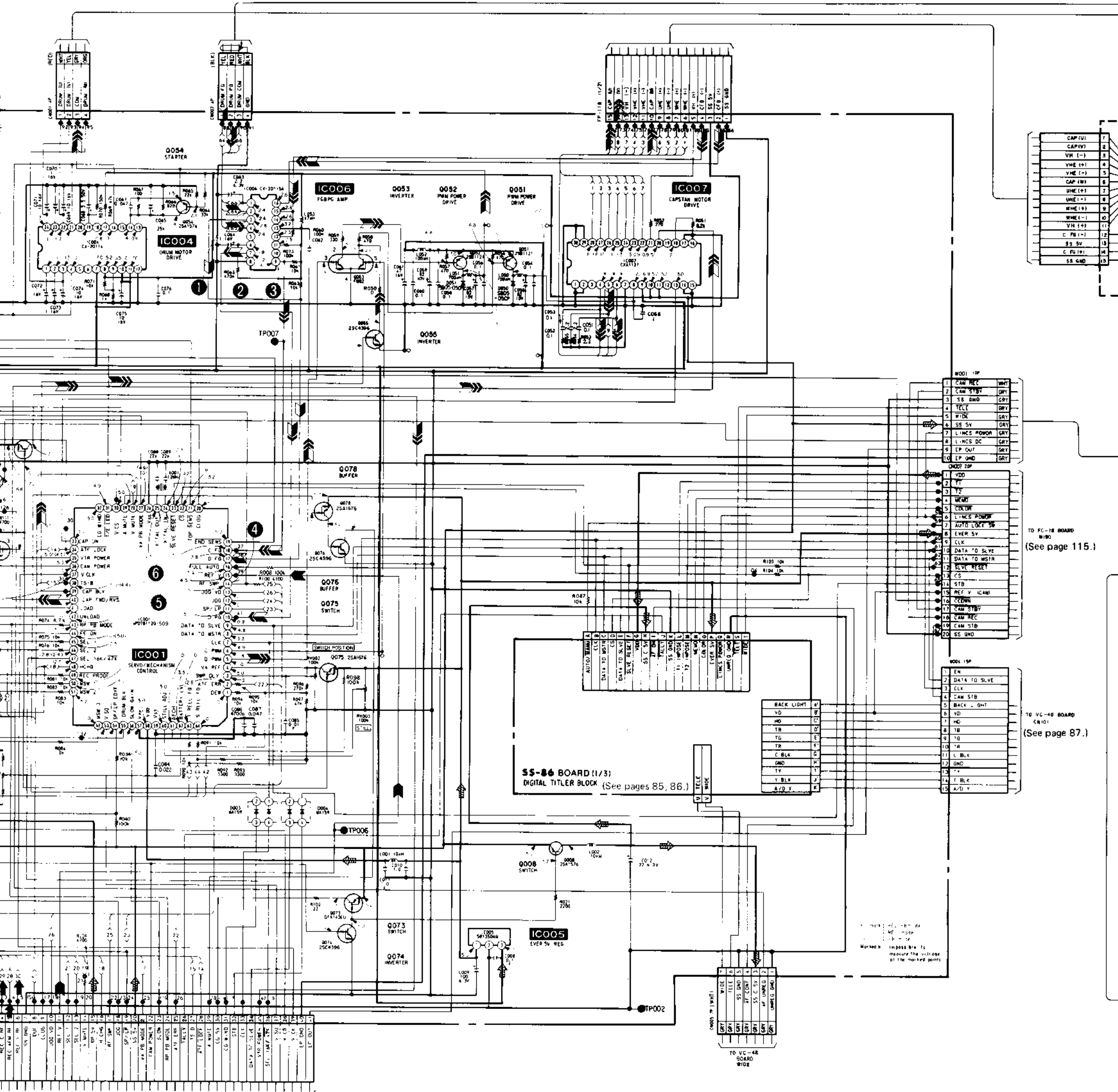
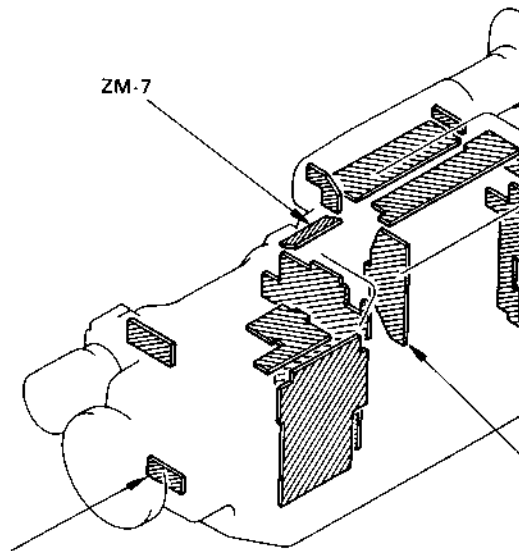
- ⊗ : Through hole.
- ⊙ : Pattern of the rear side.

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 (Component Side) the parts face are indicated.

- Digital transistor (SS-86: Q007, Q055, Q071, Q073, Q074, Q075, Q076, Q078, Q079) is transistor with resistor.  
 Refer to the SS-86 board schematic diagram for digital transistor.

LA-1



CAP (U)	1
CAP (V)	2
VH (-)	3
VHE (+)	4
VH (-)	5
CAP (W)	6
VHE (+)	7
VH (-)	8
VHE (+)	9
VH (-)	10
C.F. (-)	11
SS SV	12
C.F. (+)	13
SS GND	14

W001 10P	1	CAM REC	WHT
	2	CAM STBY	GRY
	3	SS GND	GRY
	4	TELE	GRY
	5	WIDE	GRY
	6	SS SV	GRY
	7	LINES POWER	GRY
	8	LINES DC	GRY
	9	EP OUT	GRY
	10	EP GND	GRY

Q007 20P	1	VDD	
	2	V1	
	3	V2	
	4	WEIGHT	
	5	COLOR	
	6	LINES POWER	
	7	AUTO LOCK SW	
	8	EVER SV	
	9	CLK	
	10	DATA TO SLVE	
	11	DATA TO MSTR	
	12	SLVE RESET	
	13	CS	
	14	STB	
	15	REF V ICAM1	
	16	CCORN	
	17	CAM STBY	
	18	CAM REC	
	19	CAM STB	
	20	SS GND	

W004 15P	1	EN	
	2	DATA TO SLVE	
	3	CLK	
	4	CAM STB	
	5	BACK LIGHT	
	6	VD	
	7	HD	
	8	IB	
	9	TD	
	10	TR	
	11	L BLK	
	12	GND	
	13	TY	
	14	F BLK	
	15	A/D Y	

TO FC-18 BOARD W110 (See page 115.)

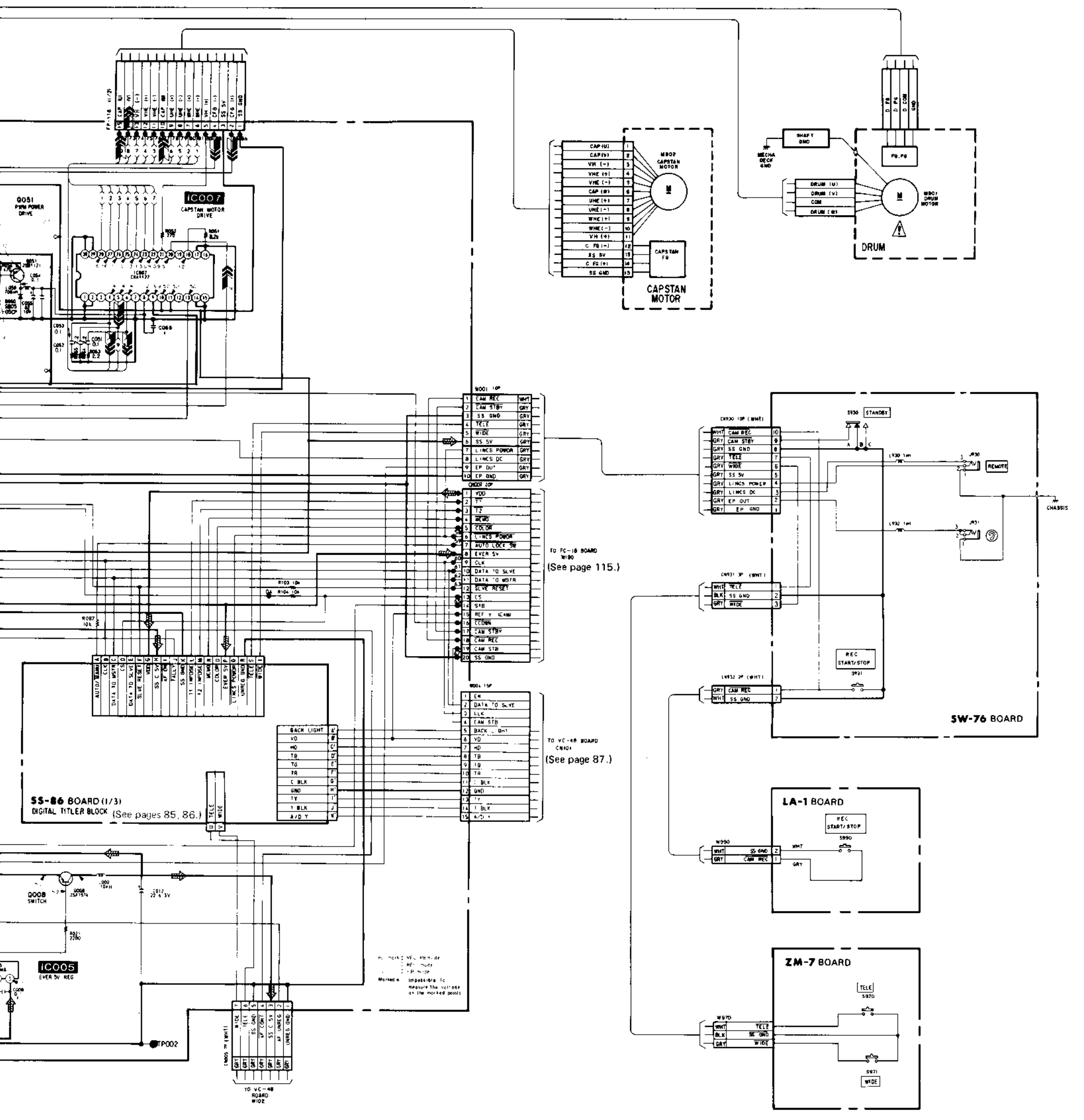
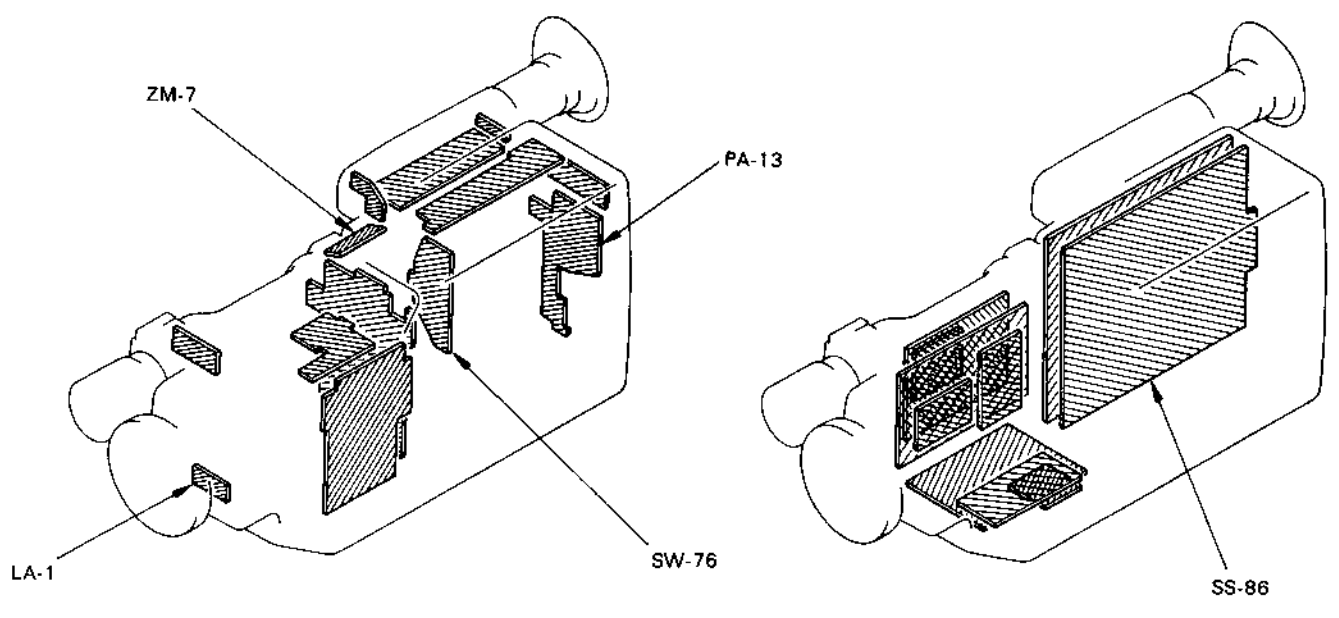
TO VC-48 BOARD CN101 (See page 87.)

TO VA-41 BOARD w360 (See page 96.)

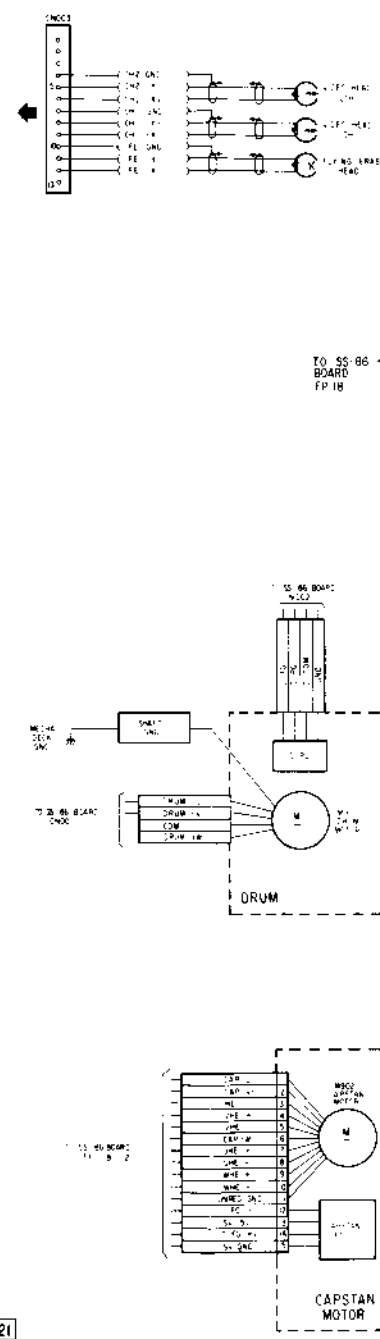
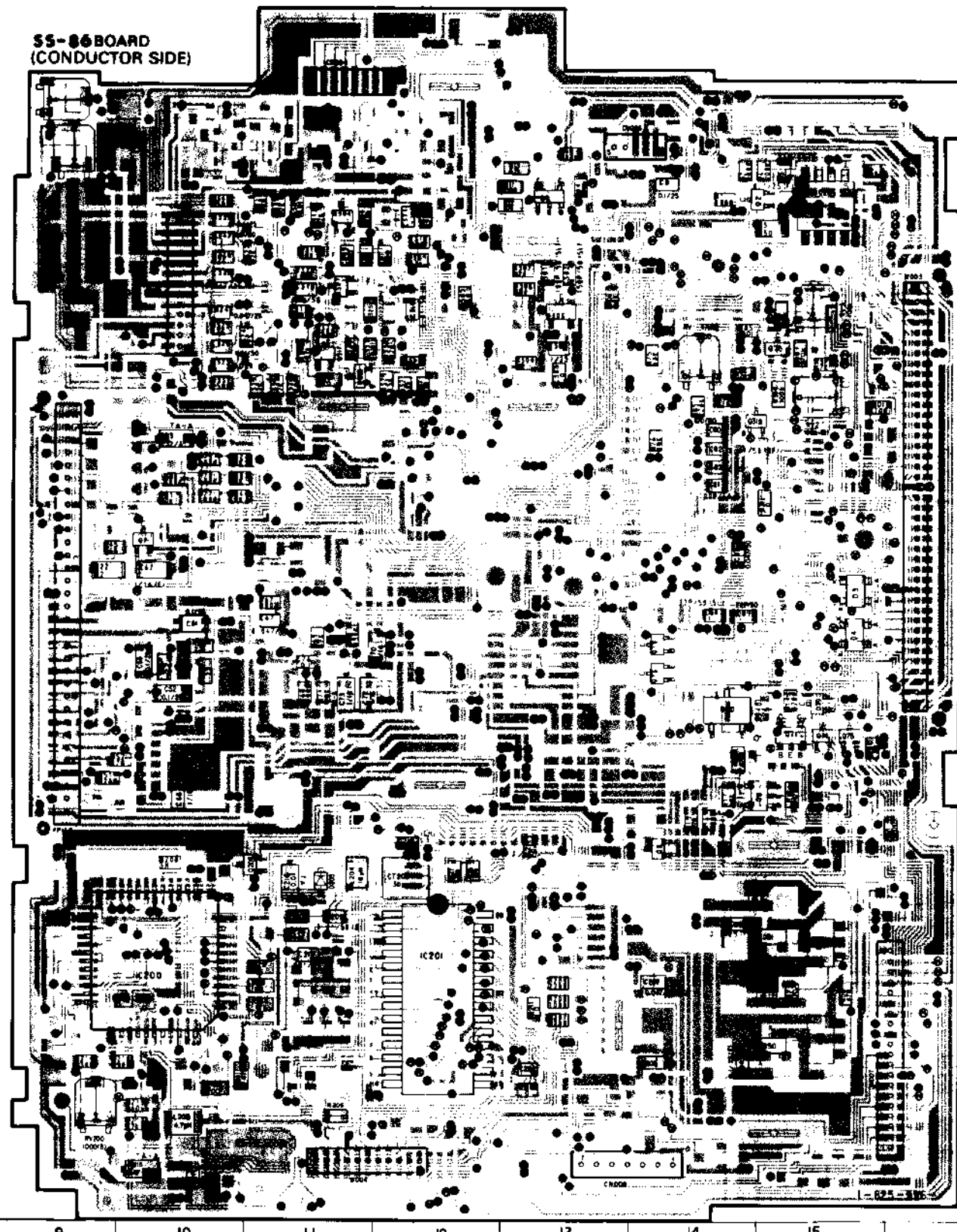
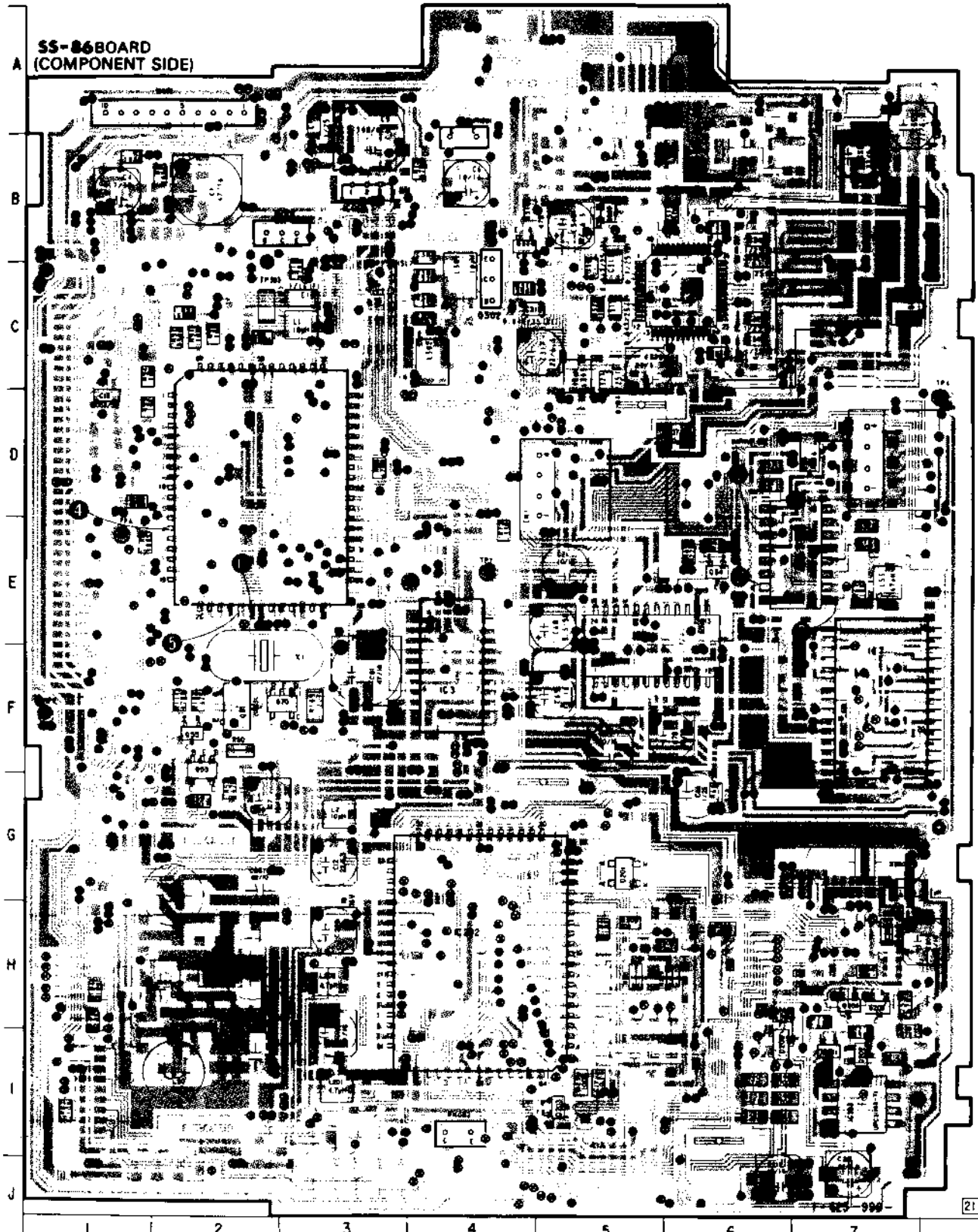
**Printed Wiring Board:**  
 Through hole.  
 Pattern of the rear side.

**Pattern:**  
 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 (Component Side) the parts face are indicated.

**Transistor:**  
 Digital transistor (SS-86: Q007, Q055, Q071, Q073, Q074, Q075, Q076, Q078, Q079) is transistor with 10 pins.  
 Refer to the SS-86 board schematic diagram for digital transistor.



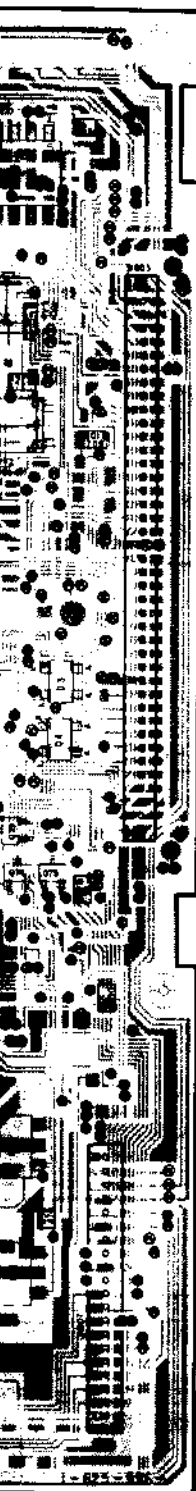
SS-86 (SYSTEM CONTROL, SERVO), SW-76 (START/STOP, STANDBY SWITCH, INPUT/OUTPUT JACK), ZM-7 (ZOOM SWITCH), LA-1 (START/STOP SWITCH), PA-13 (POWER), CC-7 (MODE SWITCH), FP-53 (TAPE SELECT/CASSETTE IN SWITCH) PRINTED  
 - Ref. No. SS-86, SW-76, LA-1, ZM-7 BOARDS: 5,000 series, PA-13, FP-53, CC-7 BOARDS: 6,000 series -



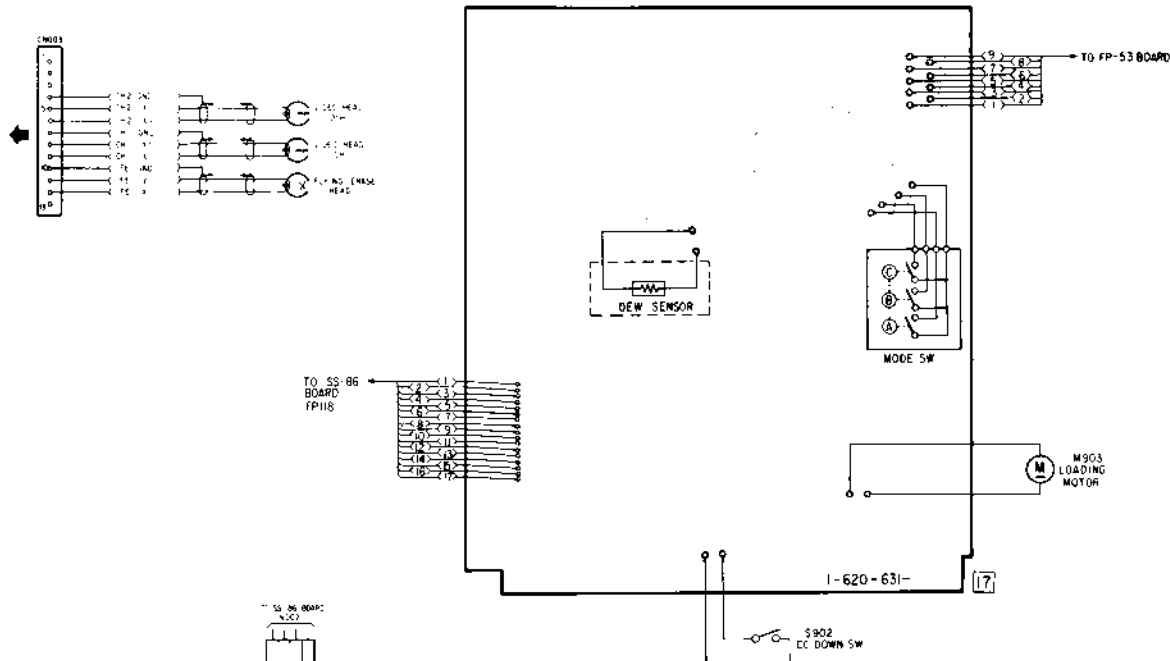
SS-86 BOARD		CT200 G-12	IC001 D-2	IC200 H-10
CN001 D-5		D003 E-15	IC002 B-15	IC201 H-12
CN002 D-7		D004 E-15	IC003 F-4	IC202 H-4
CN003 C-10		D050 I-15	IC004 F-5	IC203 I-7
CN004 A-11		D051 H-15	IC005 B-3	IC301 C-6
CN005 J-13		D200 I-6	IC006 E-7	
CN006 B-14		D201 G-5	IC007 F-7	
CN007 I-16		D203 G-11		

Q001 B-2	Q070 F-2	Q201 I-7	Q307 C-11	RV001 C-14	TP001 C-1
Q002 B-15	Q071 F-15	Q202 I-7	Q317 C-11	RV002 D-15	TP002 F-1
Q005 B-13	Q073 F-15	Q203 I-5	Q318 C-11	RV003 C-15	TP003 G-8
Q006 G-15	Q074 F-15	Q204 H-7	Q319 D-15	RV200 I-9	TP004 D-8
Q007 E-10	Q075 C-15	Q205 H-7	Q320 B-4	RV301 A-9	TP006 E-1
Q008 G-14	Q076 F-14	Q206 G-11		RV302 B-9	TP007 E-4
Q051 I-15	Q078 F-14	Q301 D-4			TP303 C-2
Q052 H-15	Q079 F-15	Q302 C-4			
Q053 F-2	Q080 F-14	Q303 C-13			
Q054 E-6	Q081 F-2	Q304 B-11			
Q055 F-2		Q305 B-5			

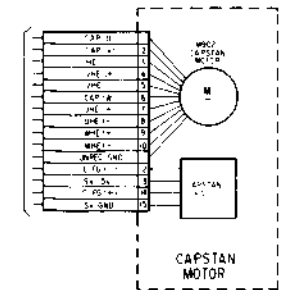
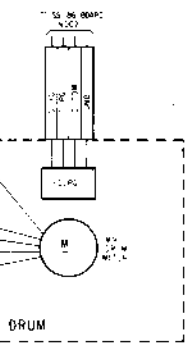
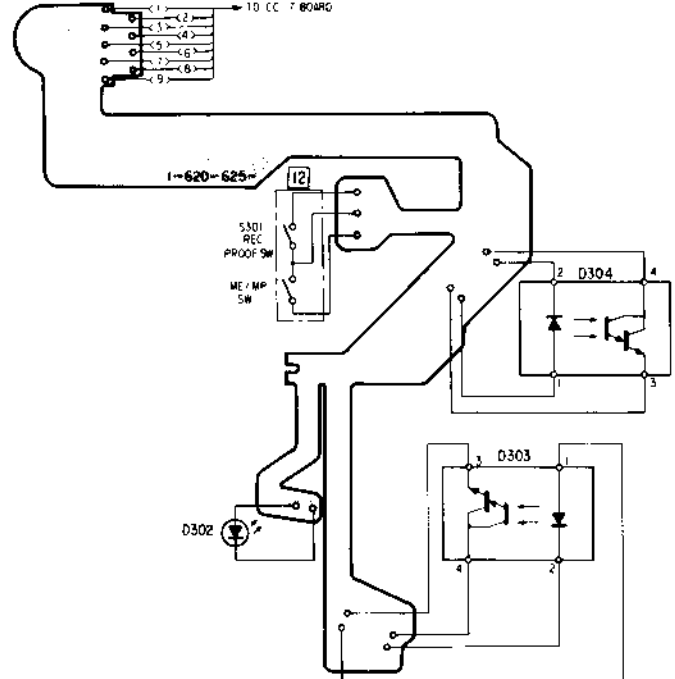
(TAPE SELECT/CASSETTE IN SWITCH) PRINTED WIRING BOARDS



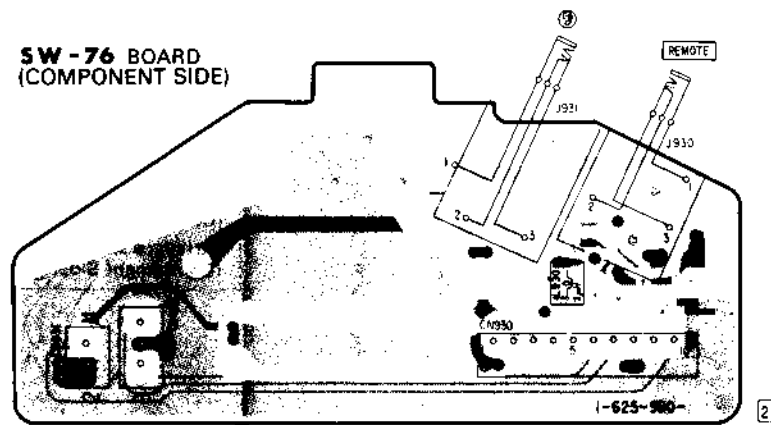
CC-7 BOARD



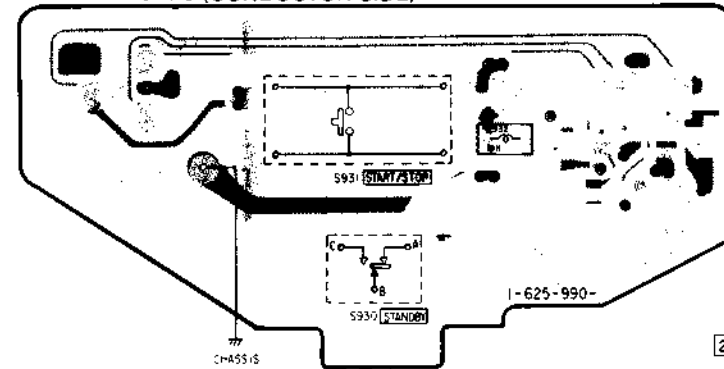
FP-53 BOARD (FLEXIBLE)



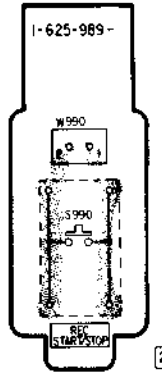
SW-76 BOARD (COMPONENT SIDE)



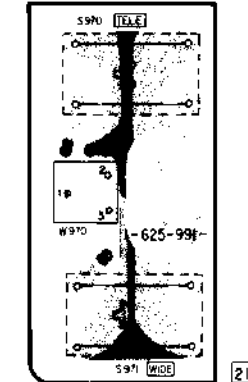
SW-76 BOARD (CONDUCTOR SIDE)



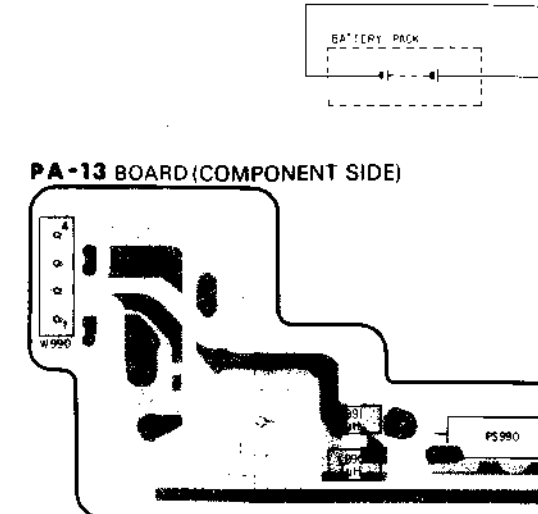
LA-1 BOARD



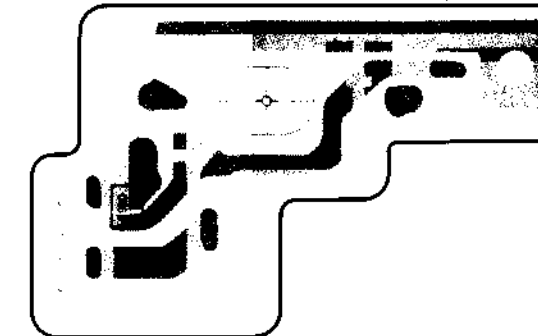
ZM-7 BOARD



PA-13 BOARD (COMPONENT SIDE)

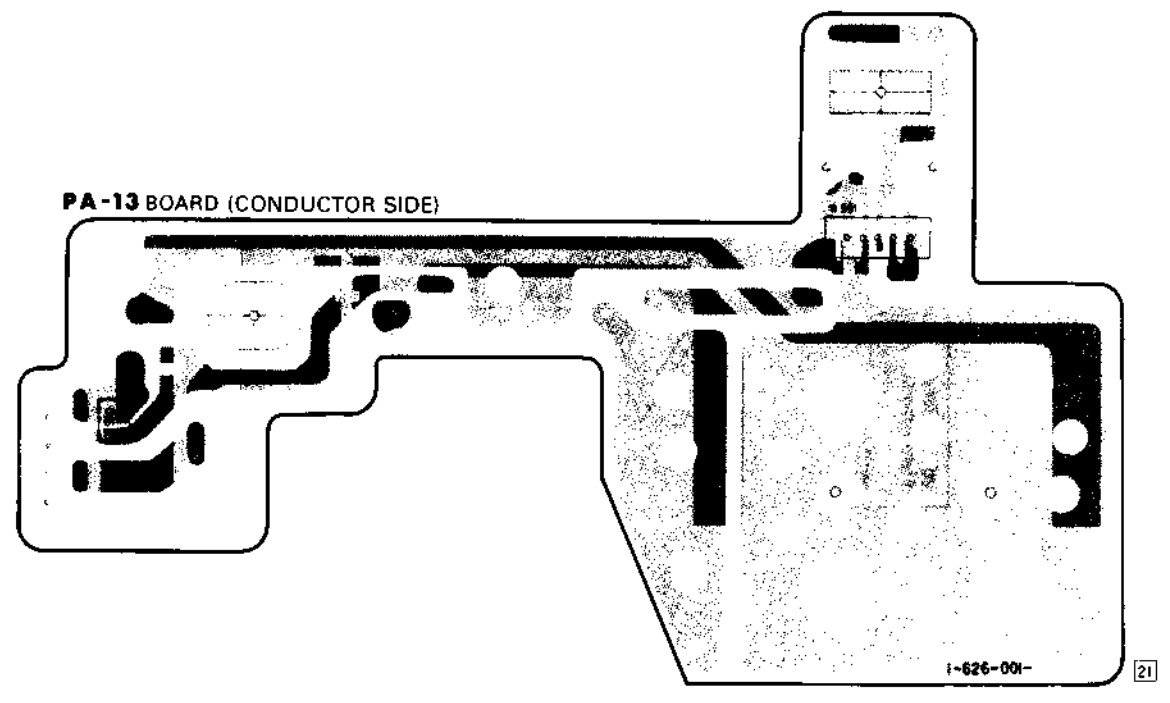
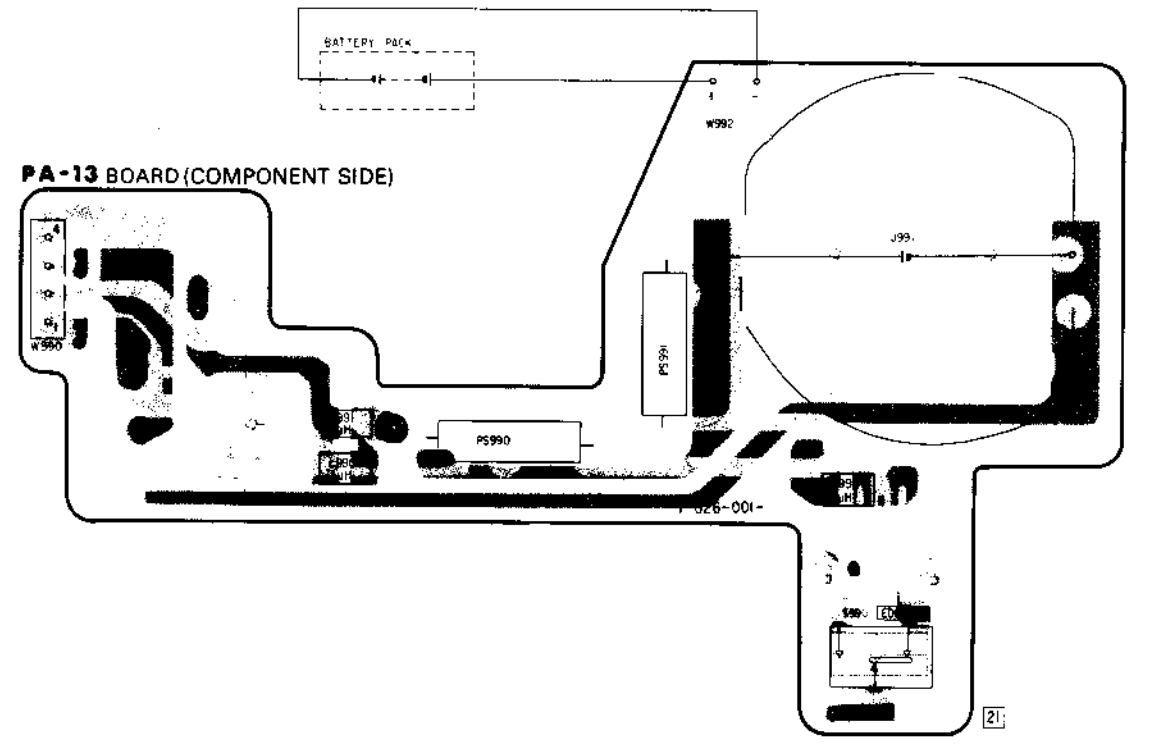
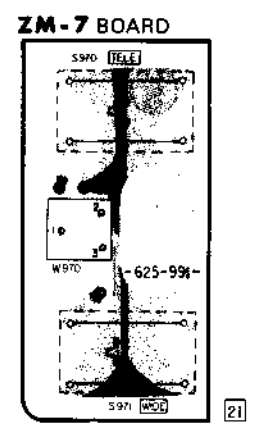
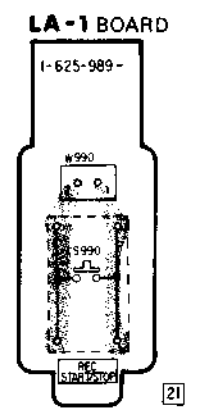
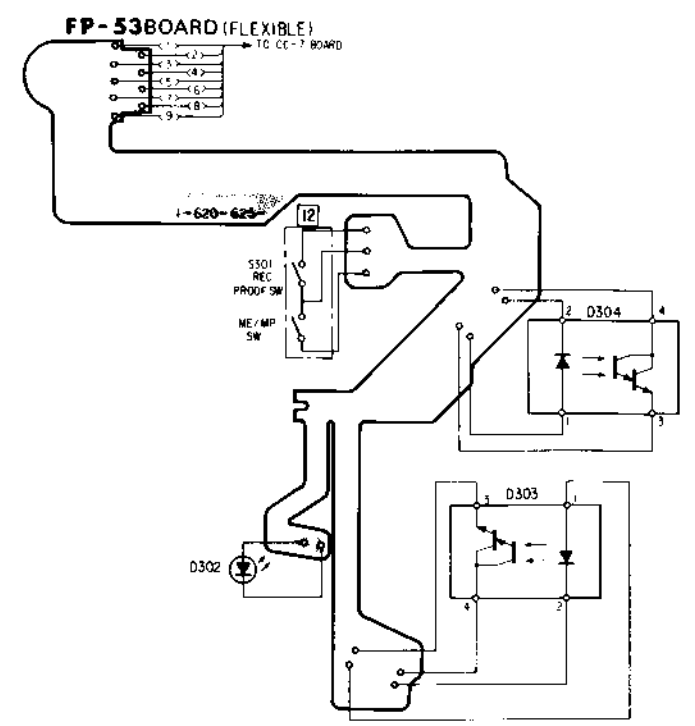
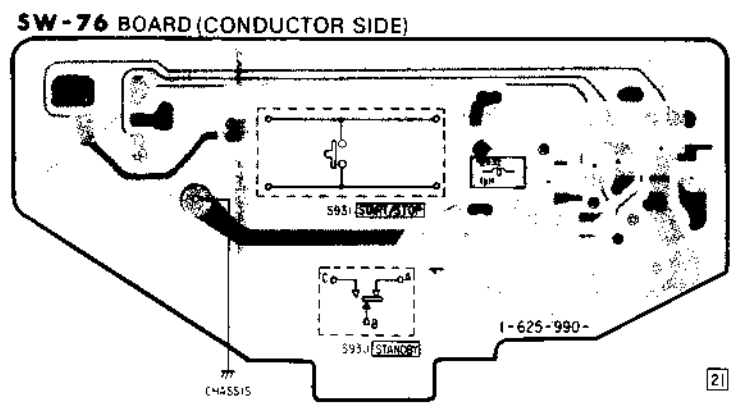
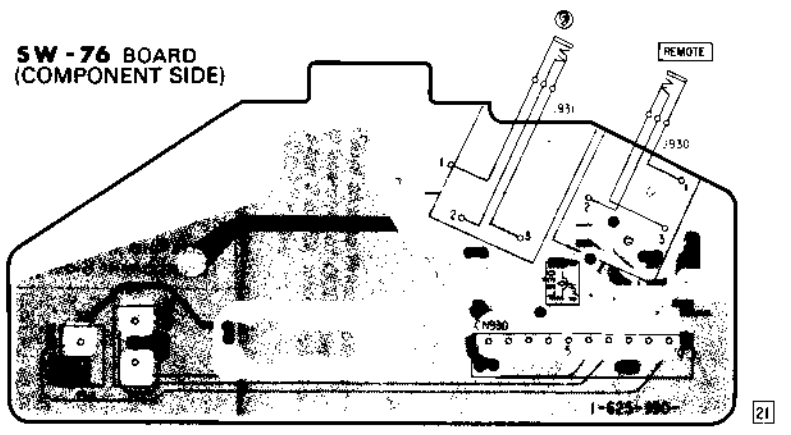
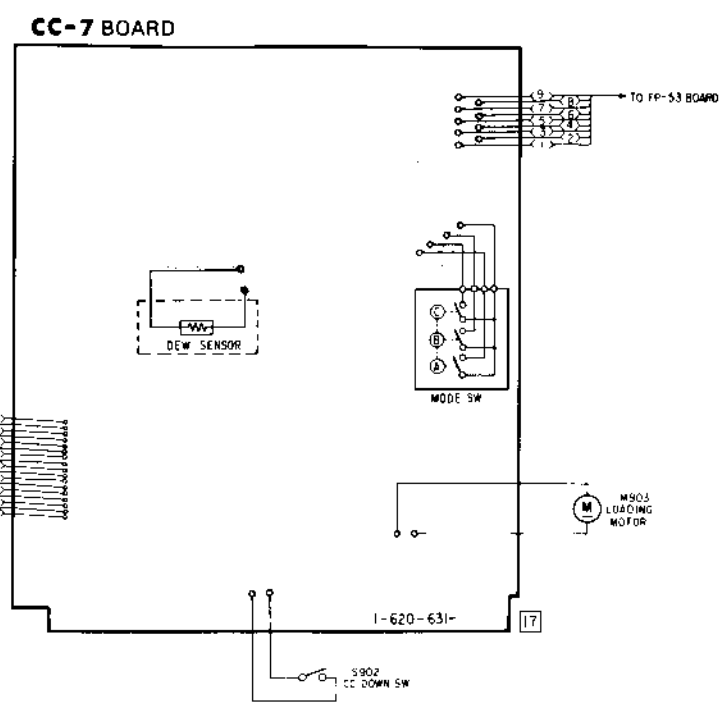


PA-13 BOARD (CONDUCTOR SIDE)





- TP001 C-1
- TP002 F-1
- TP003 G-8
- TP004 D-8
- TP006 E-1
- TP007 E-4
- TP303 C-2

IG BOARDS



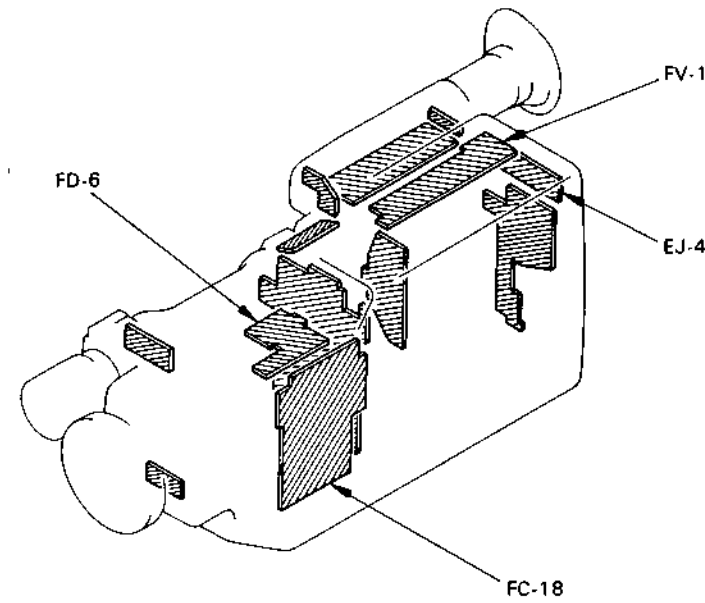
4-7. FC-18 (MODE CONTROL),  
 FV-1 (POWER SWITCH, VTR FUNCTION SWITCH),  
 FD-6 (CAMERA DATA FUNCTION SWITCH),  
 EJ-4 (EJECT SWITCH) PRINTED WIRING BOARDS  
 - Ref. No. FC-18, FV-1, FD-6, EJ-4 BOARDS: 7,000 series -

Note:

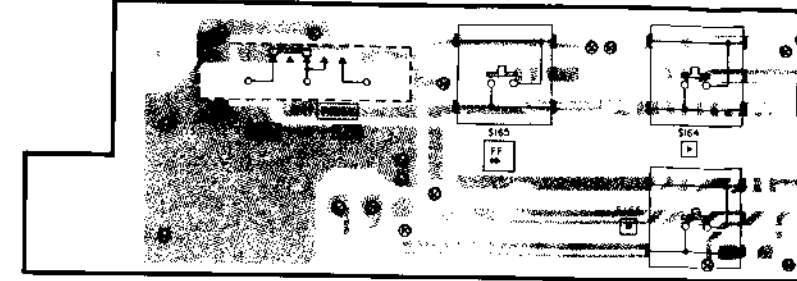
-  : Through hole.
-  : Pattern of the rear side
- Digital transistor (FC-18: Q169, Q190) is transistor with resistor.  
 Refer to FC-18 board schematic diagram.

Caution:

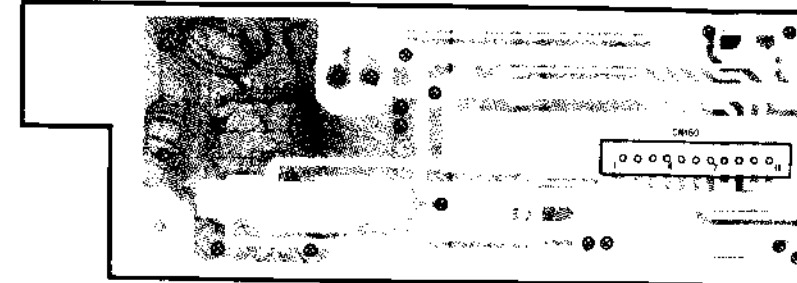
Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.  
 Parts face side: Parts on the parts face side seen from (Component Side) the parts face are indicated.



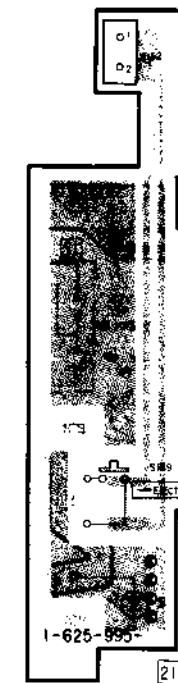
FV - 1 BOARD (COMPONENT SIDE)



FV - 1 BOARD (CONDUCTOR SIDE)



EJ - 4 BOARD (COMPONENT SIDE)

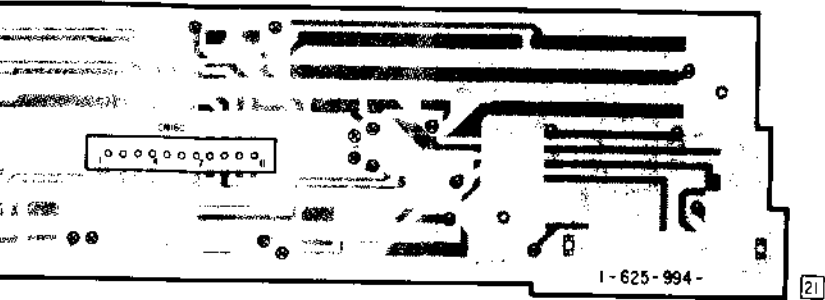
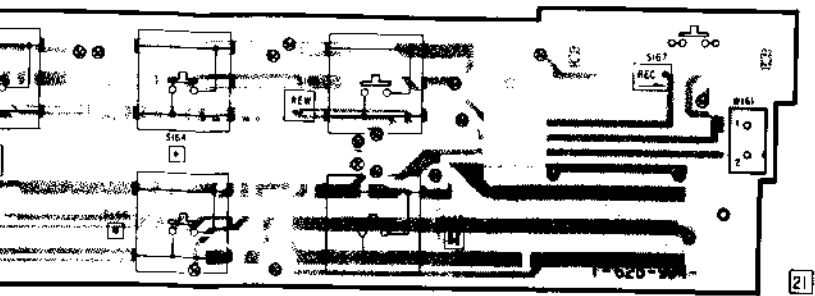


FD - 6 BO

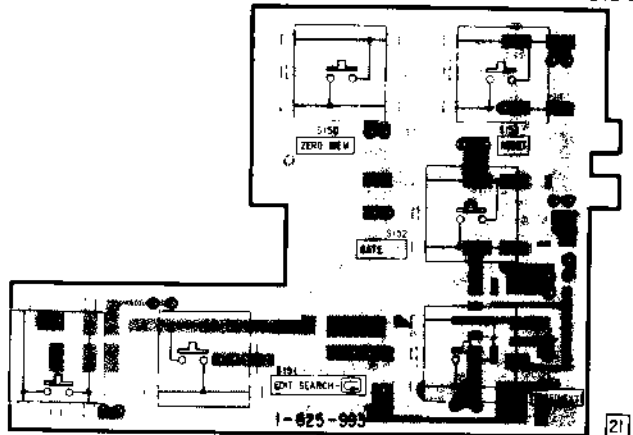




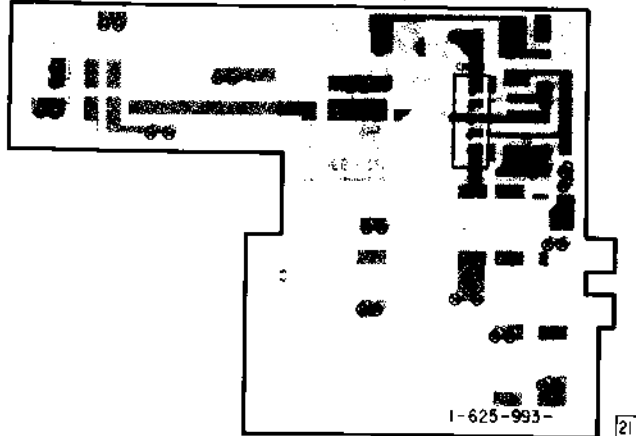
# MODE CONTROL MODE CONTROL



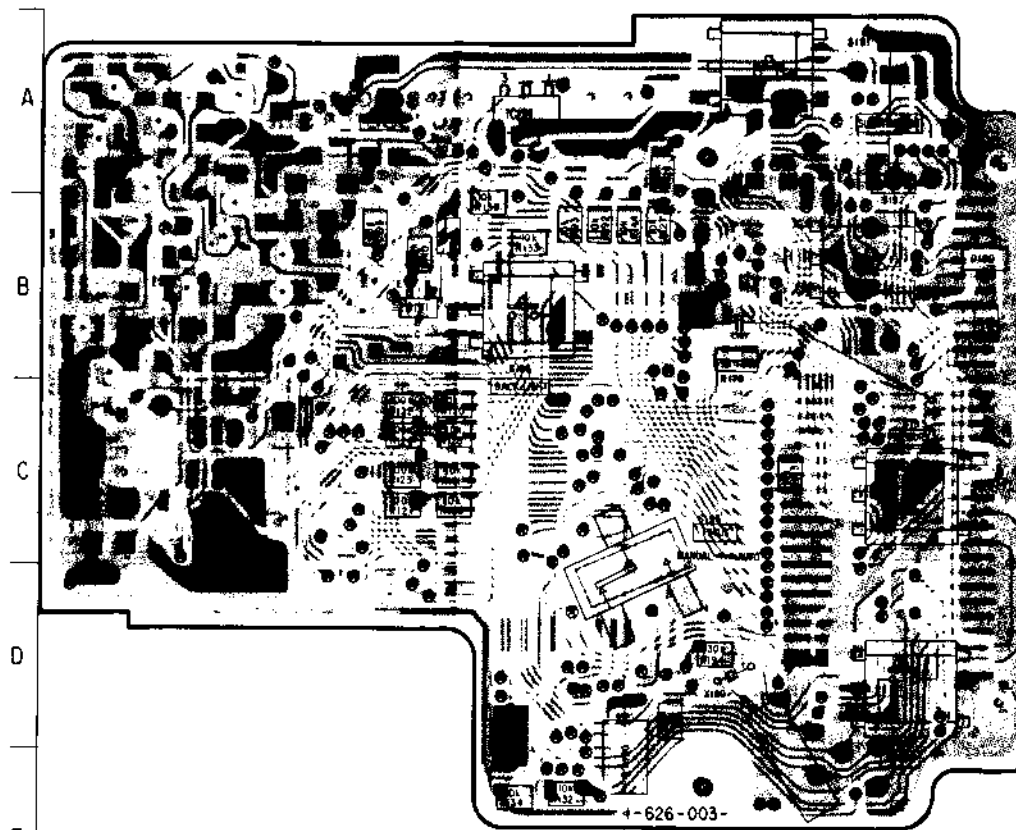
FD-6 BOARD (COMPONENT SIDE)



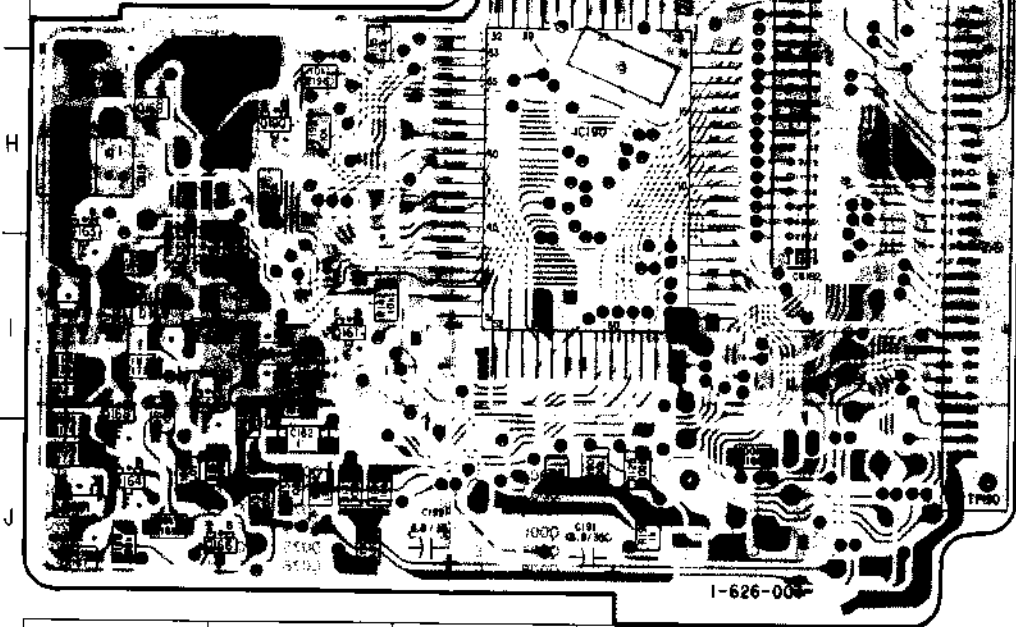
FD-6 BOARD (CONDUCTOR SIDE)



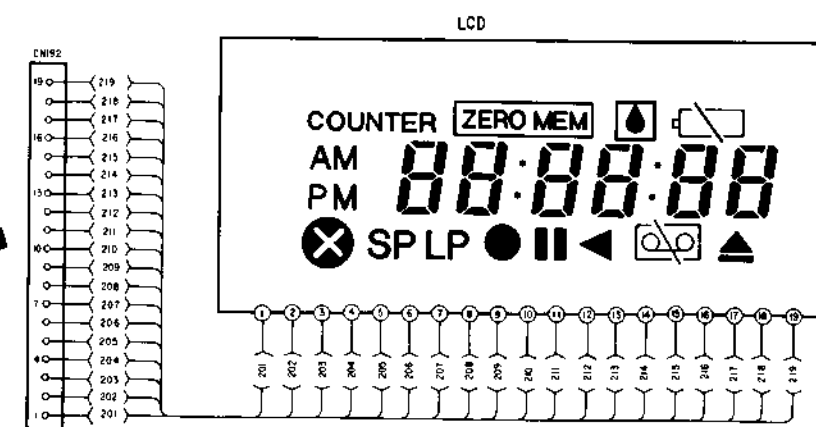
FC-18 BOARD (COMPONENT SIDE)



FC-18 BOARD (CONDUCTOR SIDE)



CN191	H-1
CN192	H-5
D160	I-2
D161	J-1
D190	B-6
IC190	H-3
IC191	A-3
Q160	I-2
Q161	I-2
Q163	H-1
Q164	J-1
Q165	I-1
Q166	J-2
Q167	I-1
Q168	I-1
Q169	H-2
Q190	H-2
Q191	B-3
TP190	J-6
TP191	G-6

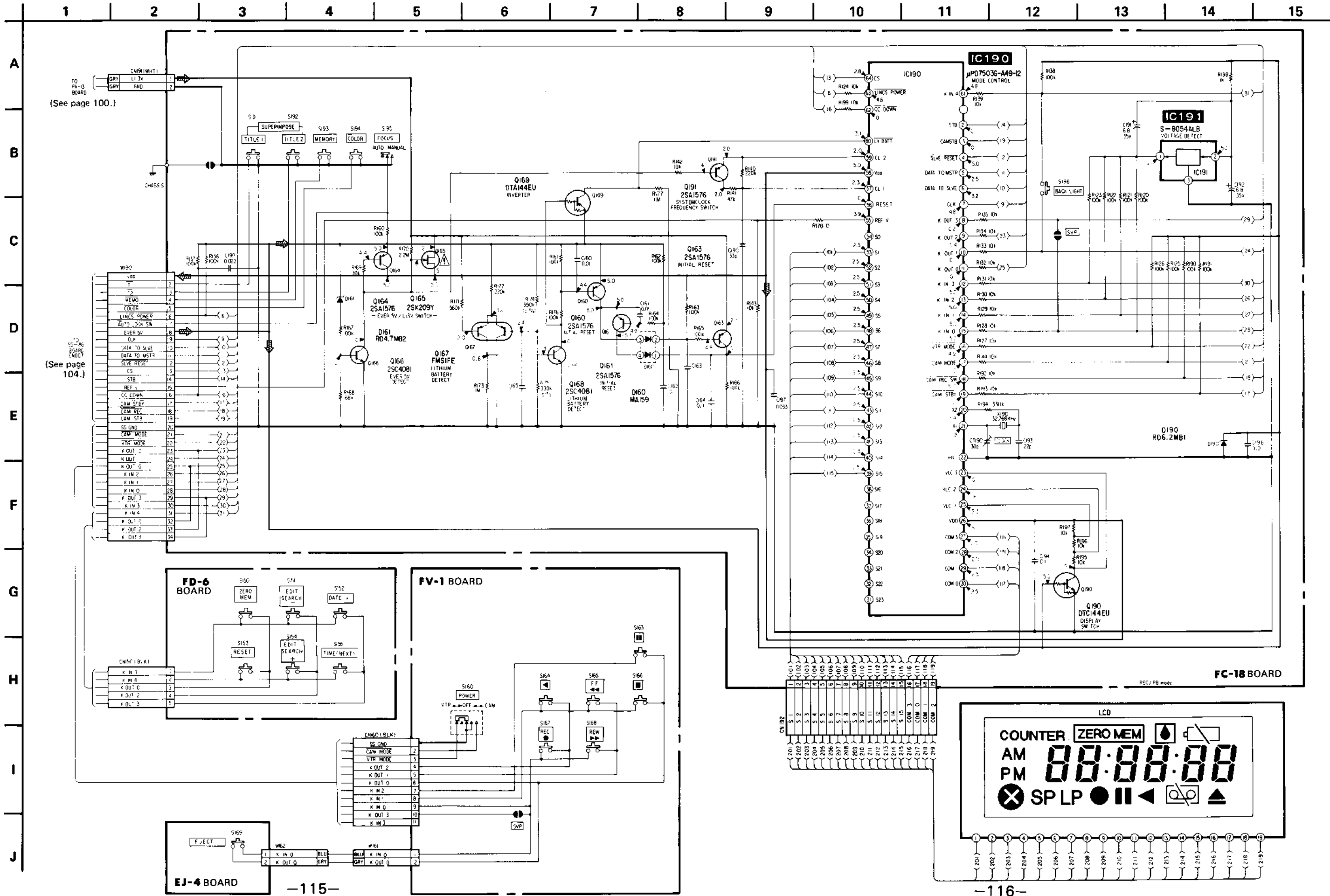




# MODE CONTROL    MODE CONTROL

FC-18 (MODE CONTROL), FV-1 (POWER SWITCH, VTR FUNCTION SWITCH), FD-6 (CAMERA DATA FUNCTION SWITCH), EJ-4 (EJECT SWITCH) SCHEMATIC DIAGRAM

- Ref. No. FC-18, FV-1, FD-6, EJ-4 BOARDS: 7,000 series -

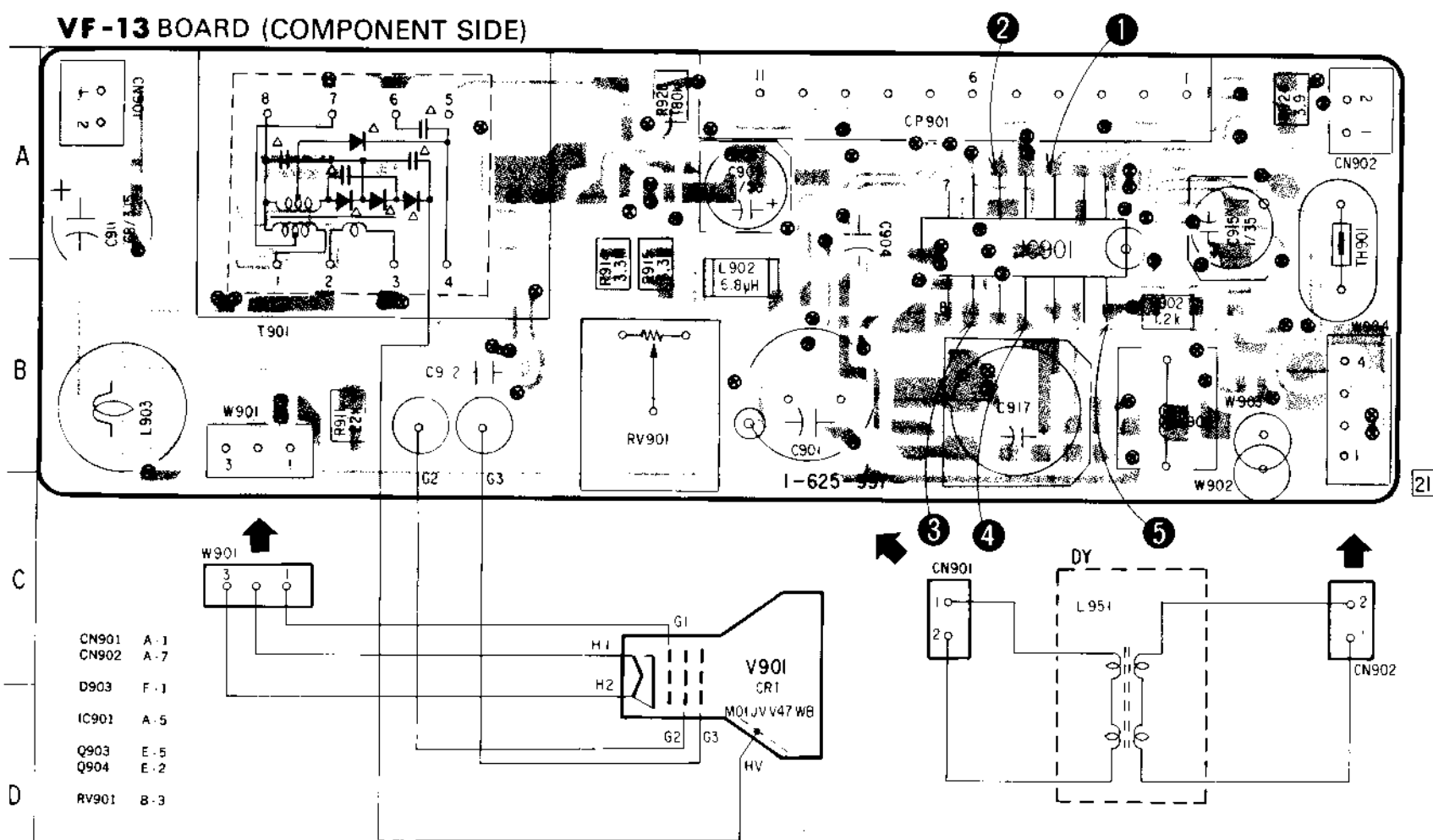


# VIEWFINDER VIEWFINDER

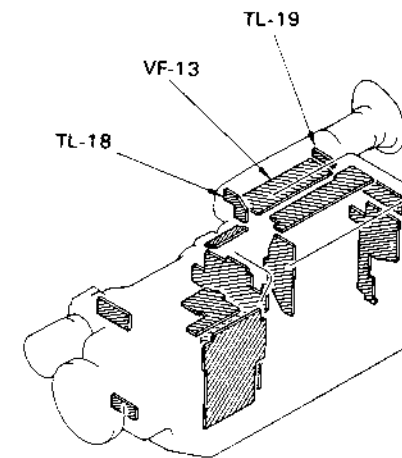
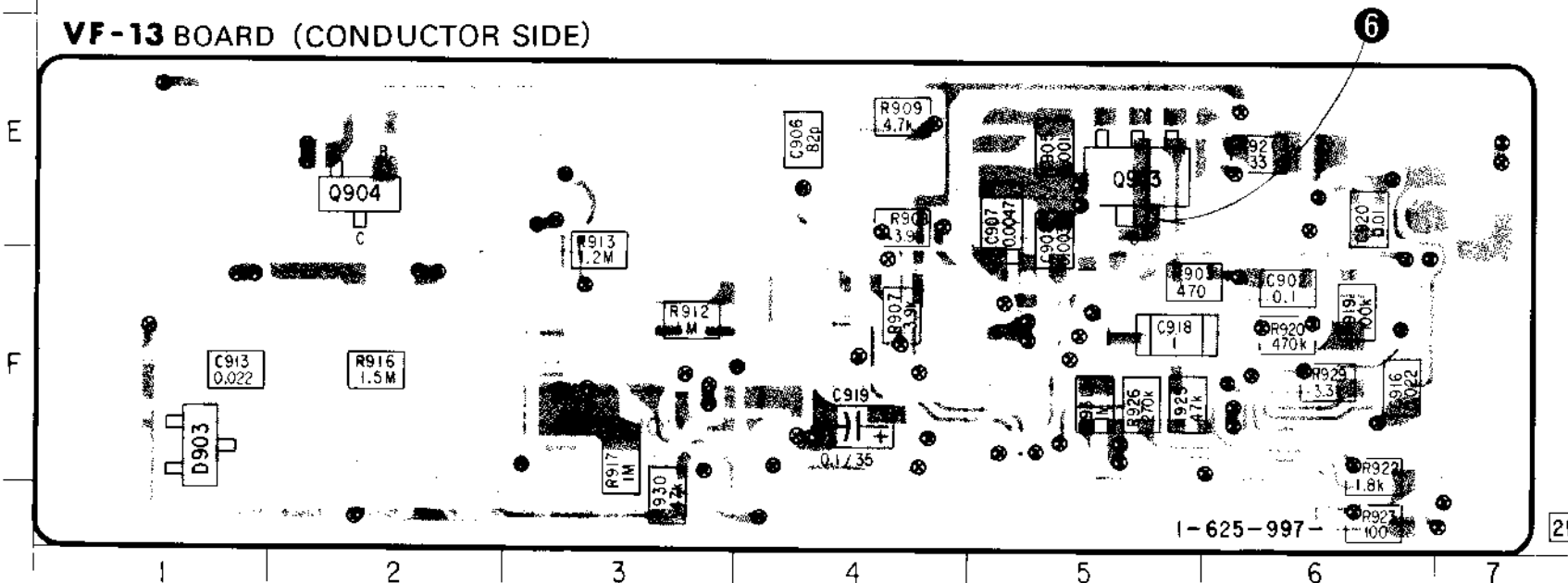
## 4-8. VF-13 (VIEW FINDER), TL-18 (LED), TL-19 (LED) PRINTED WIRING BOARDS

— Ref. No. VF-13, TL-18, TL-19 BOARDS: 8,000 series —

### VF-13 BOARD (COMPONENT SIDE)



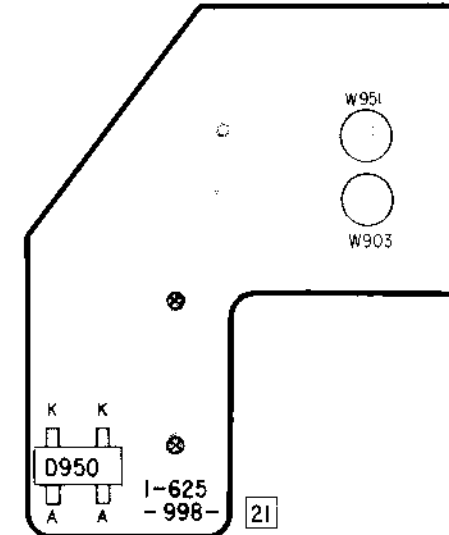
### VF-13 BOARD (CONDUCTOR SIDE)



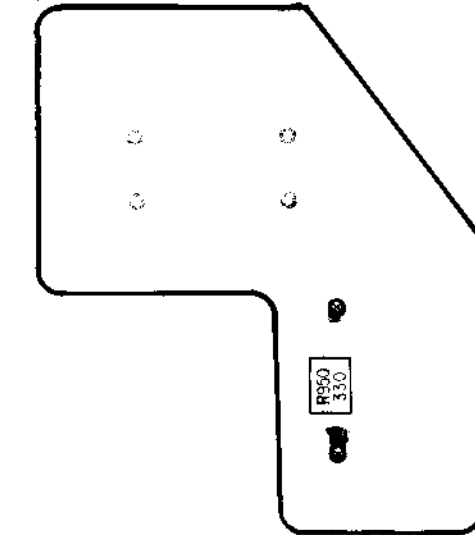
**Note:**  
 • ⊗ : Through hole.  
 • ⊙ : Pattern of the rear side.

**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 (Component Side) the parts face are indicated.

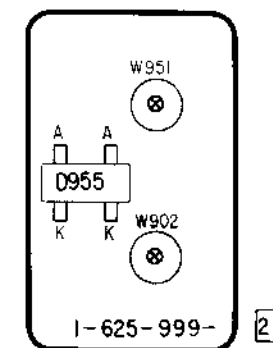
### TL-18 BOARD (COMPONENT SIDE)



### TL-18 BOARD (CONDUCTOR SIDE)



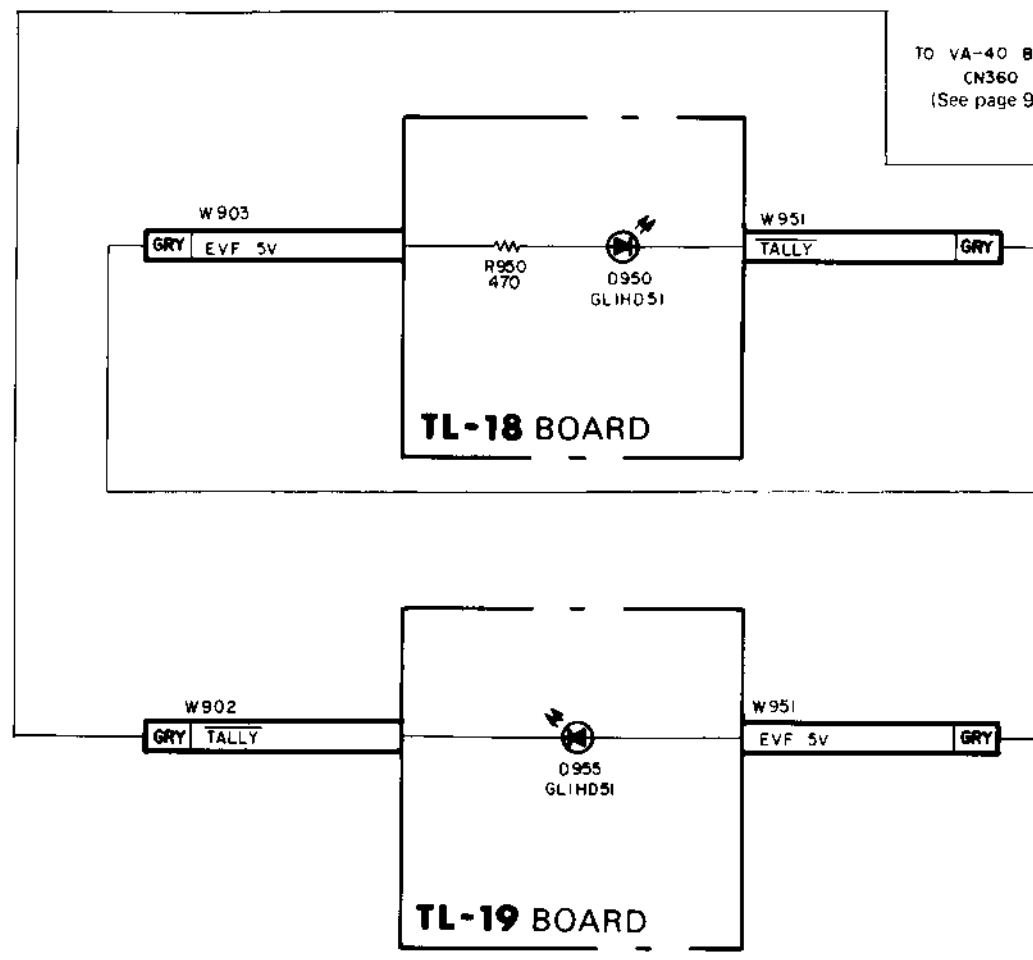
### TL-19 BOARD (COMPONENT SIDE)



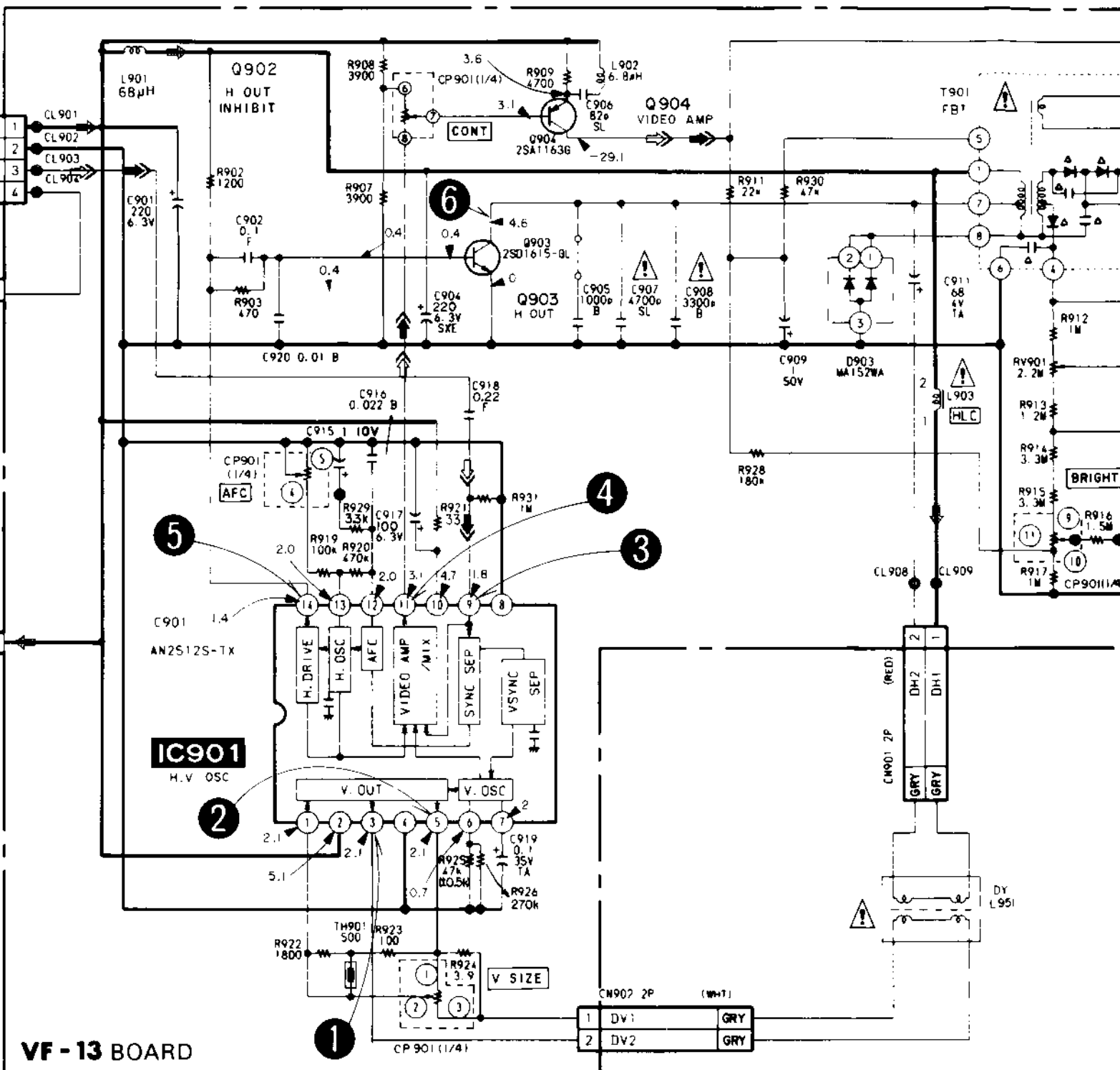
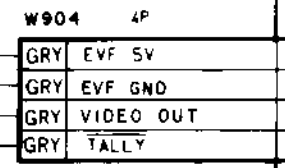
**VIEWFINDER VIEWFINDER**

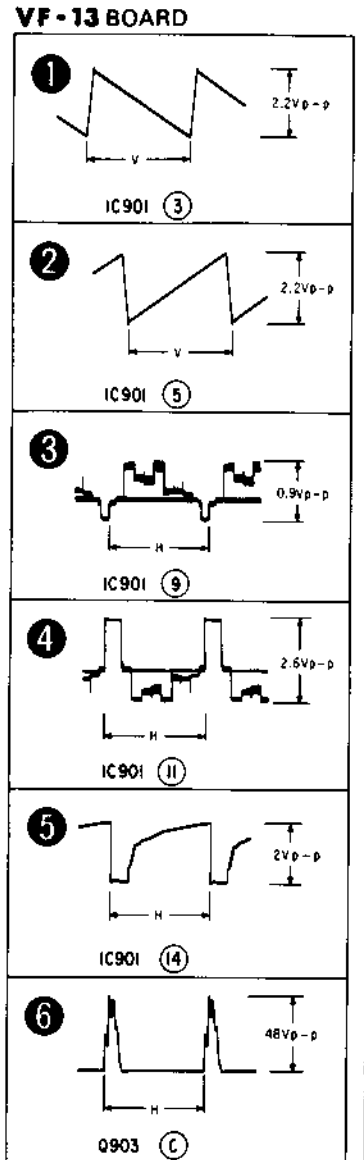
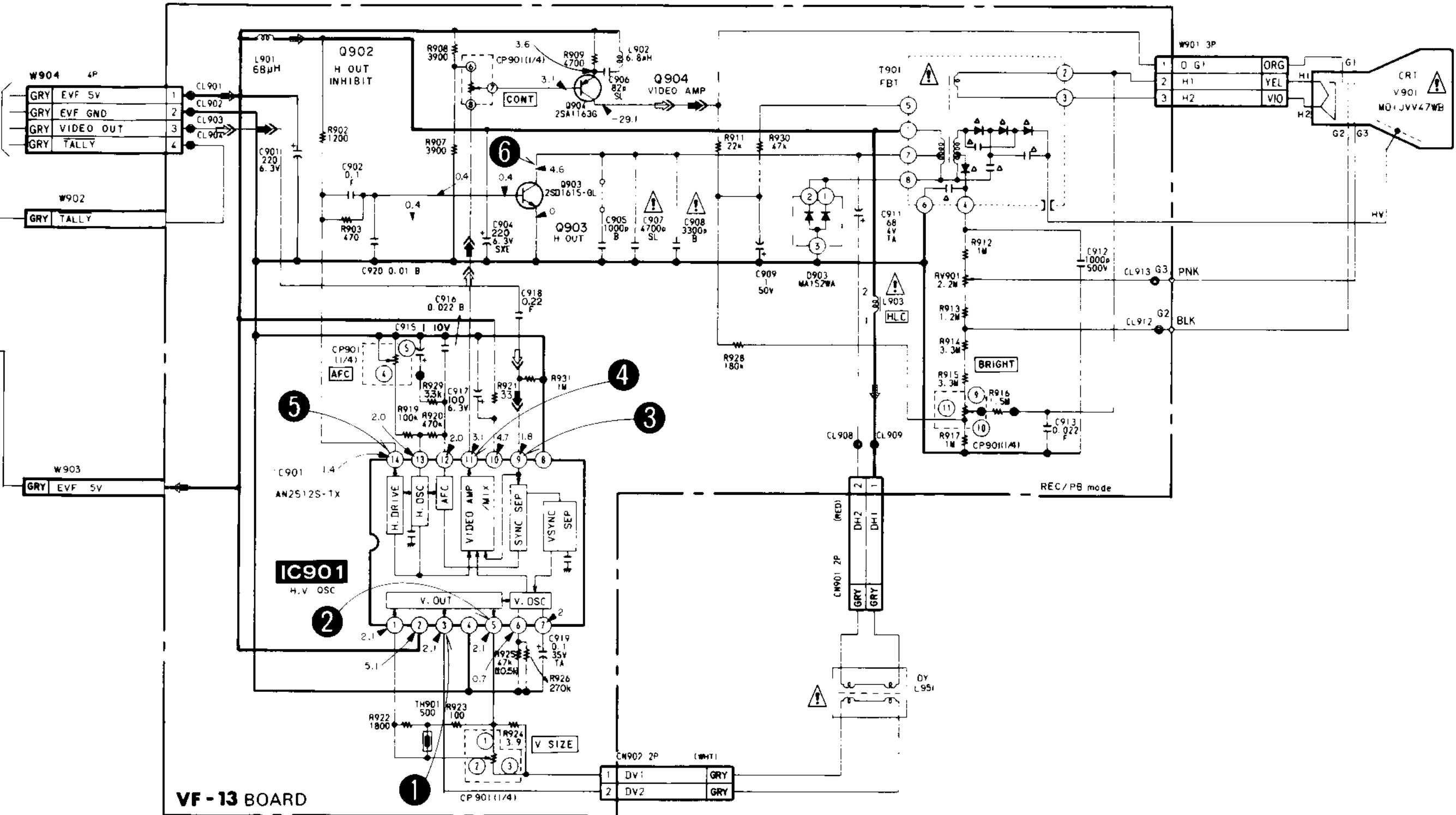
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A  
B  
C  
D  
E  
F  
G  
H  
I  
J



TO VA-40 BOARD  
CN360  
(See page 96.)



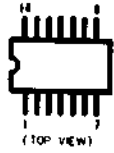


VF-13 BOARD

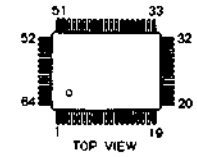
• Signal path  
 ➡ : REC Y/CHROMA Signal  
 ⇨ : PB Y/CHROMA Signal

4-10. SEMICONDUCTORS

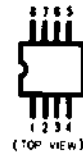
AN2512S  
TC40H008F  
μPD4066BG



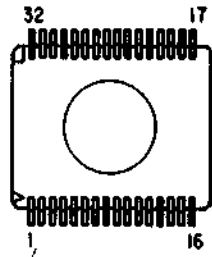
CXA1200AQ  
CXA1200BQ  
MB670493  
μPD7503G-A49  
μPD78112GF-509-3BE



LA7293  
MC34182M  
NJM2233AM  
μPC358G2  
μPC393G2



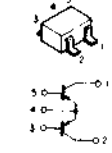
SBX1505-21



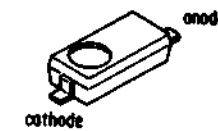
2SA1175



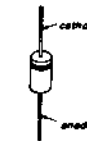
FMS1  
FMS1FE  
XN1113



1T33C-01

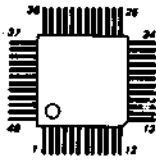


RD2.7EB2

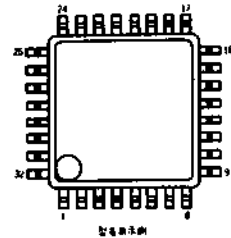


NOTE:  
• The me  
number  
supplie  
• The co  
part a  
number

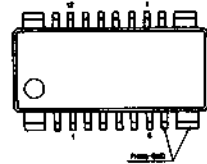
CX20055  
CXA1202R



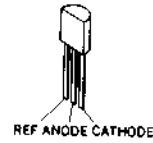
CXA1201Q



LB1631M



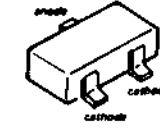
TL431CLPB



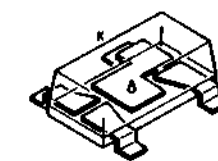
2SA1341



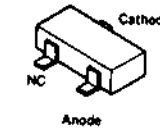
1S2835  
MA152WA



GL1HD51

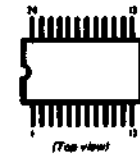


SB05-05-CP

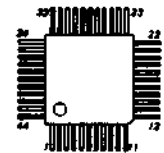


5-1. R

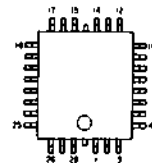
CX20114  
CXA1203N



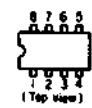
CXA1204Q  
μPD7507HG-532-22



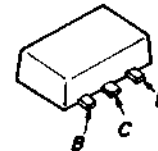
MC146805F2FPSC82534



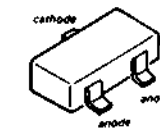
μPC311G2



2SB798  
2SB904-AW  
2SB1121  
2SD1615



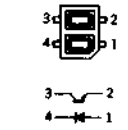
1S2837



GL452S



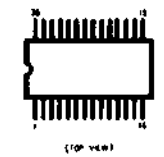
TLP907-0



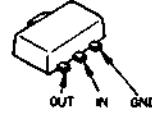
CX20115A  
CXA1157M  
μPD6142G-101



CXD1030M  
CXK68257M-10LL



S-8054ALB-LM-S

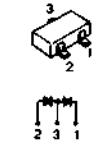


2SA812-M6  
2SA1163  
2SA1226-4  
2SA1576R  
2SA1676  
2SA1677  
2SB624-BV4  
2SC1622A  
2SC1623-L6  
2SC1623-L7  
2SC2223-F13  
2SC2757-T34  
2SC3398  
2SC3898  
2SC4081  
2SC4396  
DTA124EU  
DTA143EU  
DTA144EU  
DTC124EU  
DTC144EK  
DTC144EU

2SB926-T



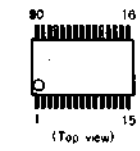
1SS123



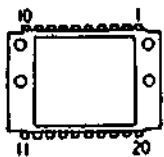
MA159



CXA1127MTP-1  
CXL1502M-T1



IU021CK-AA

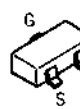


S-81350AG

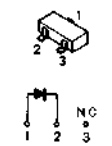


1. Vcc  
2. Vbe  
3. Vce

2SK84-X2



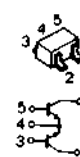
1SS187



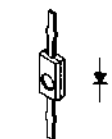
RD2.4M-B  
RD4.7M-B2  
RD6.2M-B1  
RD9.1M-B1



FMG2  
FMW1  
XN1213



1T32-2



No.	Pa
1	X-
2	X-
3	X-
4	3-
5	X-
6	X-
7	3-
8	3-
9	*3-

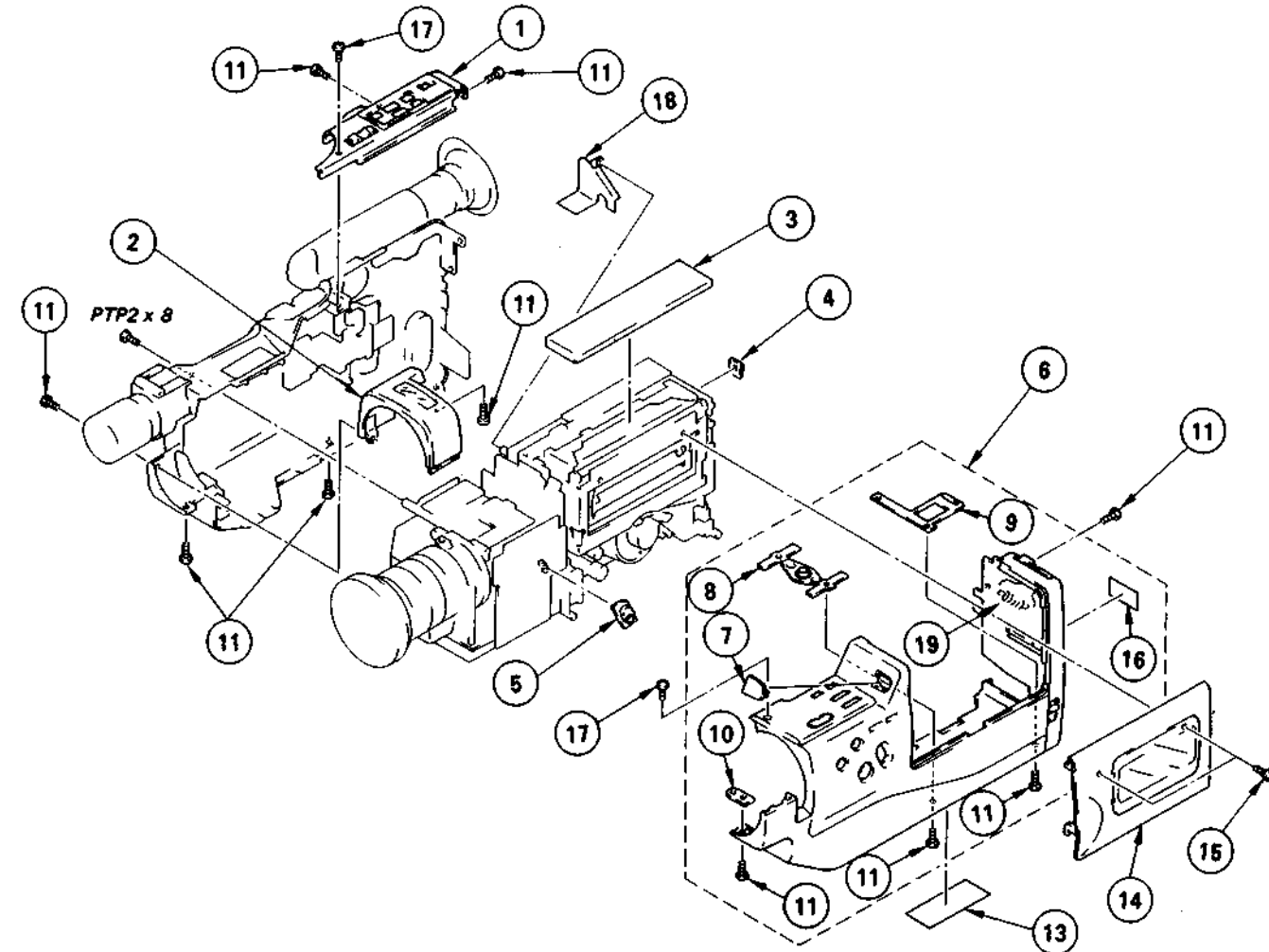
## SECTION 5 EXPLODED VIEWS

**NOTE:**

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.

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

### 5-1. RIGHT CABINET ASSEMBLY

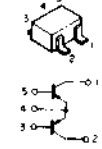


No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	X-3724-575-1	PANEL ASSY, VTR		10	3-724-522-01	JOINT (LOWER), LR	
2	X-3724-512-1	COVER ASSY, CAMERA		11	3-719-381-01	SCREW (M2X4)	
3	X-3724-568-1	LID ASSY, LS		13	*3-726-549-01	LABEL, MODEL NUMBER (AEP MODEL)	
4	3-724-593-01	KEY TOP			*3-726-564-01	LABEL, MODEL NUMBER (UK/E/AUS MODEL)	
5	X-3724-511-1	KNOB ASSY, FOCUS		14	X-3724-576-1	LID ASSY, CASSETTE	
6	X-3724-573-1	CABINET (RIGHT) (CASSETTE SIDE) ASSY	7-11, 16, 19	15	3-713-791-01	SCREW (M1.7X5), TAPPING, P2	
7	3-724-504-01	CAP, W/B		16	*3-719-683-01	LABEL, BATTERY FITTING	
8	3-724-507-01	SCREW, TRIPOD		17	3-713-786-41	SCREW (M2X8)	
9	*3-724-509-01	PLATE (LOWER), STRAP		18	*3-725-119-01	RETAINER, FPC	
				19	3-669-440-00	SPRING, TENSION	

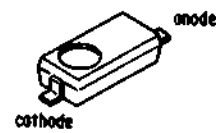
2SA1175



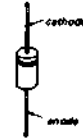
FMS1  
FMS1FE  
XN1113



1T33C-01



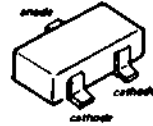
RD2.7EB2



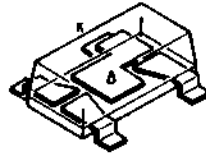
2SA1341



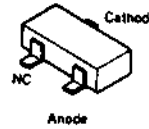
1S2835  
MA152WA



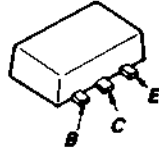
GL1HD51



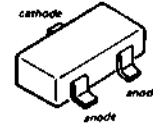
SB05-05-CP



2SB798  
2SB804-AW  
2SB1121  
2SD1615



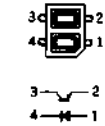
1S2837



GL452S



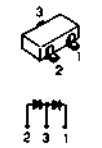
TLP907-0



2SB926-T



1SS123



MA159

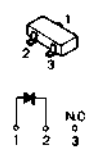


1. CATHODE  
2. CATHODE  
3. ANODE  
4. ANODE

2SK94-X2



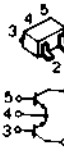
1SS187



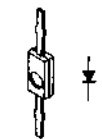
RD2.4M-B  
RD4.7M-B2  
RD6.2M-B1  
RD9.1M-B1



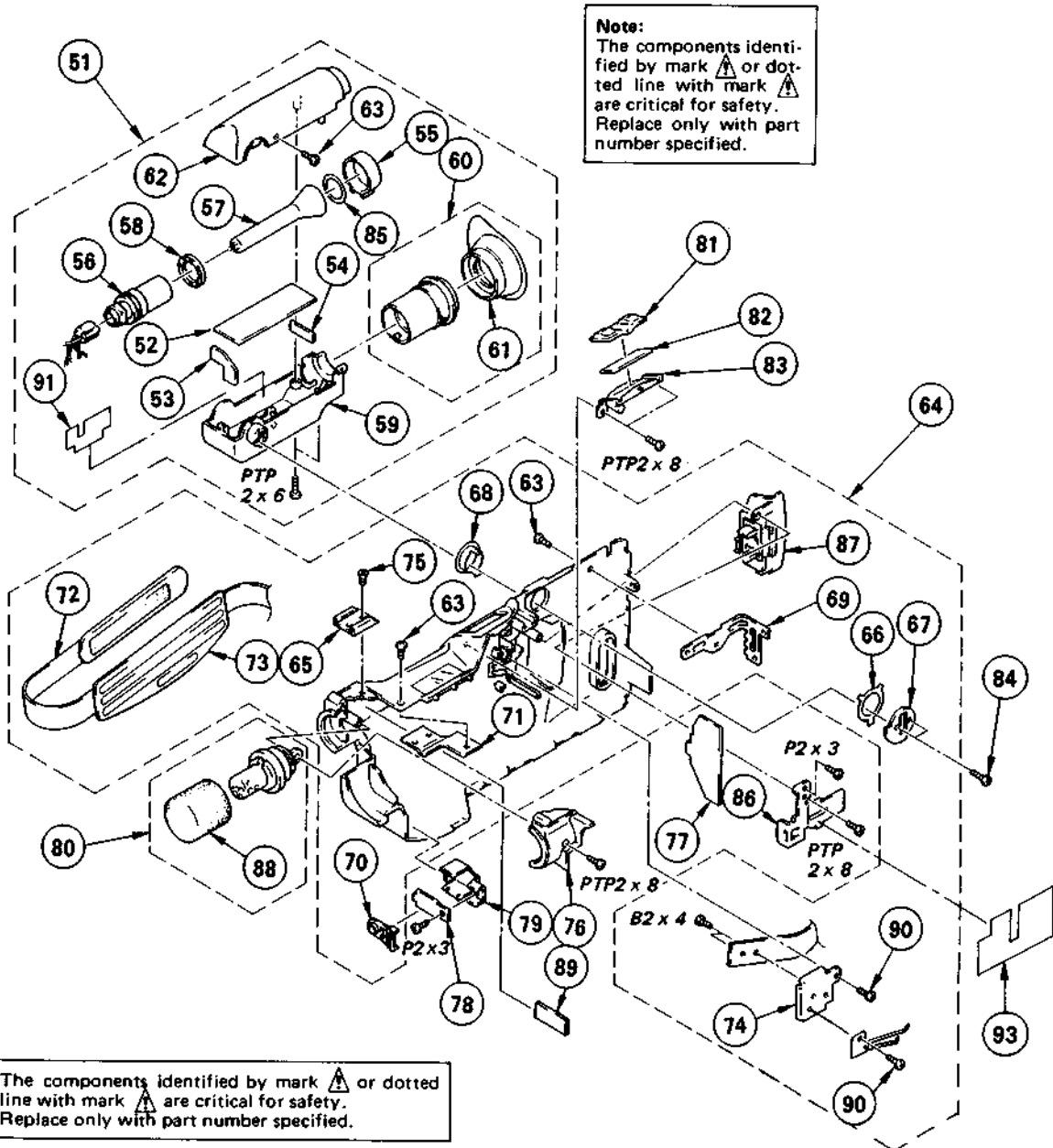
FMG2  
FMW1  
XN1213



1T32-2



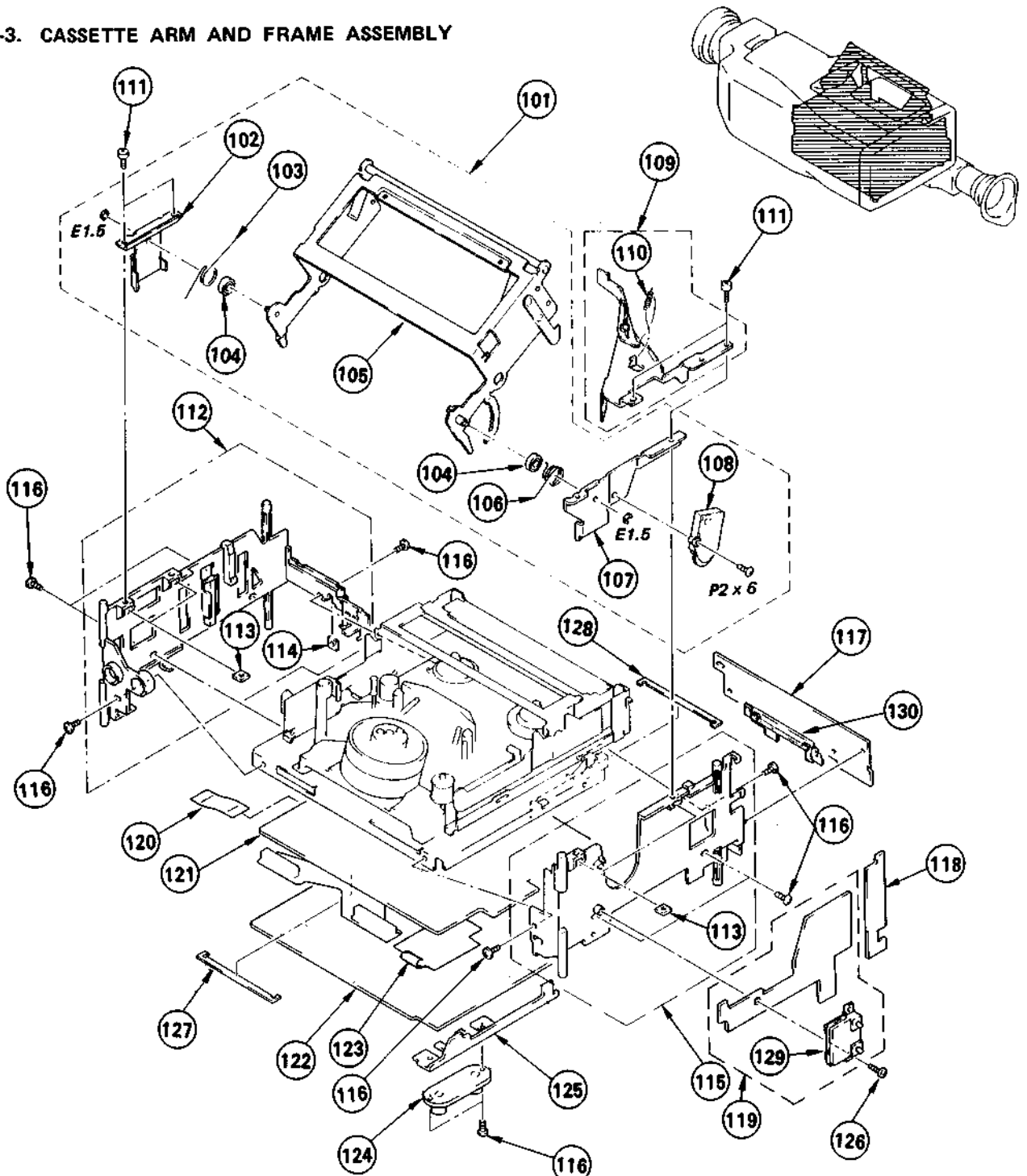
5-2. LEFT CABINET ASSEMBLY



No.	Part No.	Description	Remark
51	A-7019-099-A	EVF BLOCK ASSY	52-63, 85, 91
52	*A-7061-236-A	VF-13 BOARD, COMPLETE	
53	*A-7070-645-A	TL-18 BOARD, COMPLETE	
54	*A-7070-646-A	TL-19 BOARD, COMPLETE	
55	X-3724-509-2	HOLDER ASSY, CRT	
56	⚠ 1-451-310-21	DEFLECTION YOKE (B/W) (L951)	
57	⚠ 1-546-065-11	CATHODE-RAY TUBE, B/W (M01JV47WB)(V901)	
58	3-724-549-02	LOCK, CRT	
59	A-7080-486-A	CABINET (LOWER) ASSY, EVF	
60	A-7090-807-A	HOLDER BLOCK ASSY, FINDER	61
61	3-724-544-02	EYE CUP	
62	X-3724-508-1	CABINET (UPPER) ASSY, EVF	
63	3-719-381-01	SCREW (M2X4)	
64	A-7080-538-A	CABINET (L) BLOCK ASSY	63, 65-75, 87, 90, 92
65	3-724-511-01	SHOE, ACCESSORY	
66	3-724-512-01	SPRING	
67	3-724-513-01	PLATE, LOCK	
68	3-724-514-01	SLEEVE, EVF	
69	3-724-525-01	BRACKET (UPPER), STRAP	
70	3-724-564-01	BUTTON, LA	
71	*3-724-566-01	RETAINER, SHOE	

No.	Part No.	Description	Remark
72	3-724-582-01	BELT, GRIP	
73	3-724-591-01	PAD, GRIP	
74	3-725-128-01	BRACKET, BELT	
75	3-713-787-01	SCREW (M2X4)	
76	3-724-542-01	HOUSING, MICROPHONE	
77	*1-625-990-21	SW-76 BOARD	
78	*1-625-989-21	LA-1 BOARD	
79	*3-724-575-01	BRACKET, LA	
80	1-542-101-11	MICROPHONE	88
81	3-724-526-01	BUTTON, ZOOM	
82	*1-625-991-21	ZM-7 BOARD	
83	3-724-527-01	BASE, ZOOM BUTTON	
84	3-713-792-01	SCREW (M2X10)	
85	3-724-570-01	RING, CRT FIXED	
86	*3-724-569-01	SHEET METAL, SP	
87	X-3724-564-1	BASE ASSY, SP	
88	X-2356-712-1	WIND SCREEN ASSY	
89	*A-7061-233-A	MC-28 BOARD, COMPLETE	
90	3-669-480-21	+ PTPNH 2	
91	*3-725-156-01	INSULATOR (B), EVF	
93	*3-725-153-01	SHEET, INSULATING, SHEET METAL	

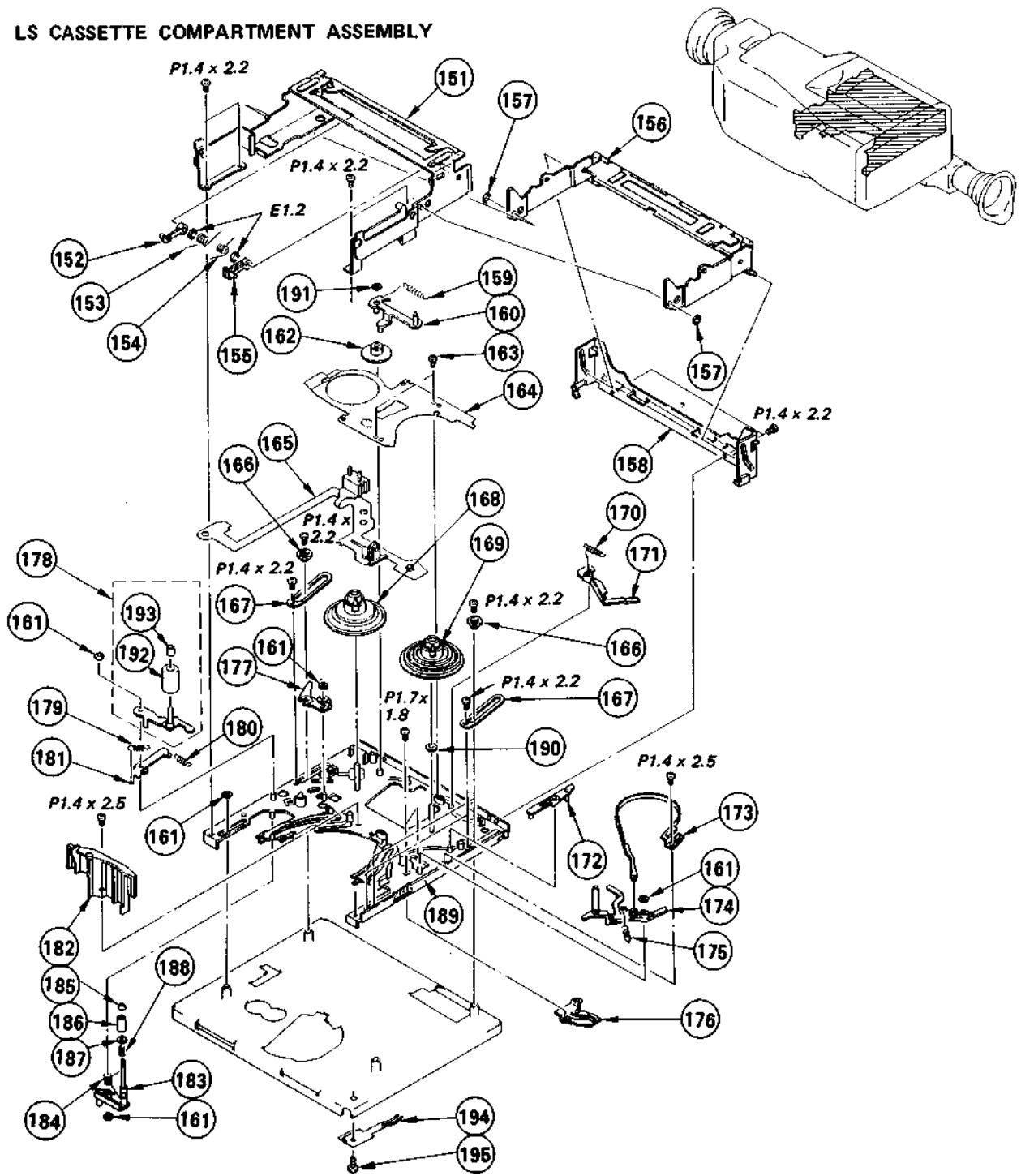
### 5-3. CASSETTE ARM AND FRAME ASSEMBLY



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
101	A-7040-141-A	ARM BLOCK ASSY (3), CASSETTE	102-108	116	3-719-695-01	SCREW (M1.7X3.5), SPECIAL HEAD	
102	*3-719-606-01	PLATE (T2) (M), SIDE		117	*1-625-994-11	FV-1 BOARD	
103	3-695-582-01	SPRING, TORSION		118	*A-7070-639-A	EJ-4 BOARD, COMPLETE	
104	3-695-512-02	COLLAR, CASSETTE ARM		119	*A-7070-703-A	PA-13 BOARD, COMPLETE	129
105	X-3712-034-4	ARM ASSY (2), CASSETTE		120	1-559-927-21	CABLE, FLAT (1.0MM PITCH) 11P	
106	3-695-581-01	SPRING, TORSION		121	*A-7061-232-A	SS-86 BOARD, COMPLETE	128
107	3-695-641-01	PLATE (S2), SIDE		122	*A-7061-231-A	VA-41 BOARD, COMPLETE	
108	3-681-528-11	DAMPER		123	*3-726-558-01	PLATE, SHIELD, VA-SS	
109	A-7040-140-8	GUARD BLOCK ASSY, TAPE	110	124	1-537-142-11	TERMINAL BOARD (AV OUT) (J361)	
110	3-695-718-01	SPRING, TENSION		125	*X-3724-577-1	REINFORCEMENT (B) ASSY, VA	
111	3-719-697-01	SCREW (M1.7X5), SPECIAL HEAD		126	3-719-601-01	SCREW (B2X5), TAPPING	
112	*X-3724-503-1	FRAME (F) ASSY, MD	113, 114	127	*3-725-135-01	REINFORCEMENT, SS-MD	
113	3-716-418-01	NUT, FRAME PLATE		128	*3-725-136-01	REINFORCEMENT, VA-SS	
114	3-718-233-01	NUT, PLATE		129	1-535-658-11	TERMINAL BOARD	
115	*X-3724-504-1	FRAME (R) ASSY, MD	113	130	3-724-537-01	HOLDER, FV PC BOARD	

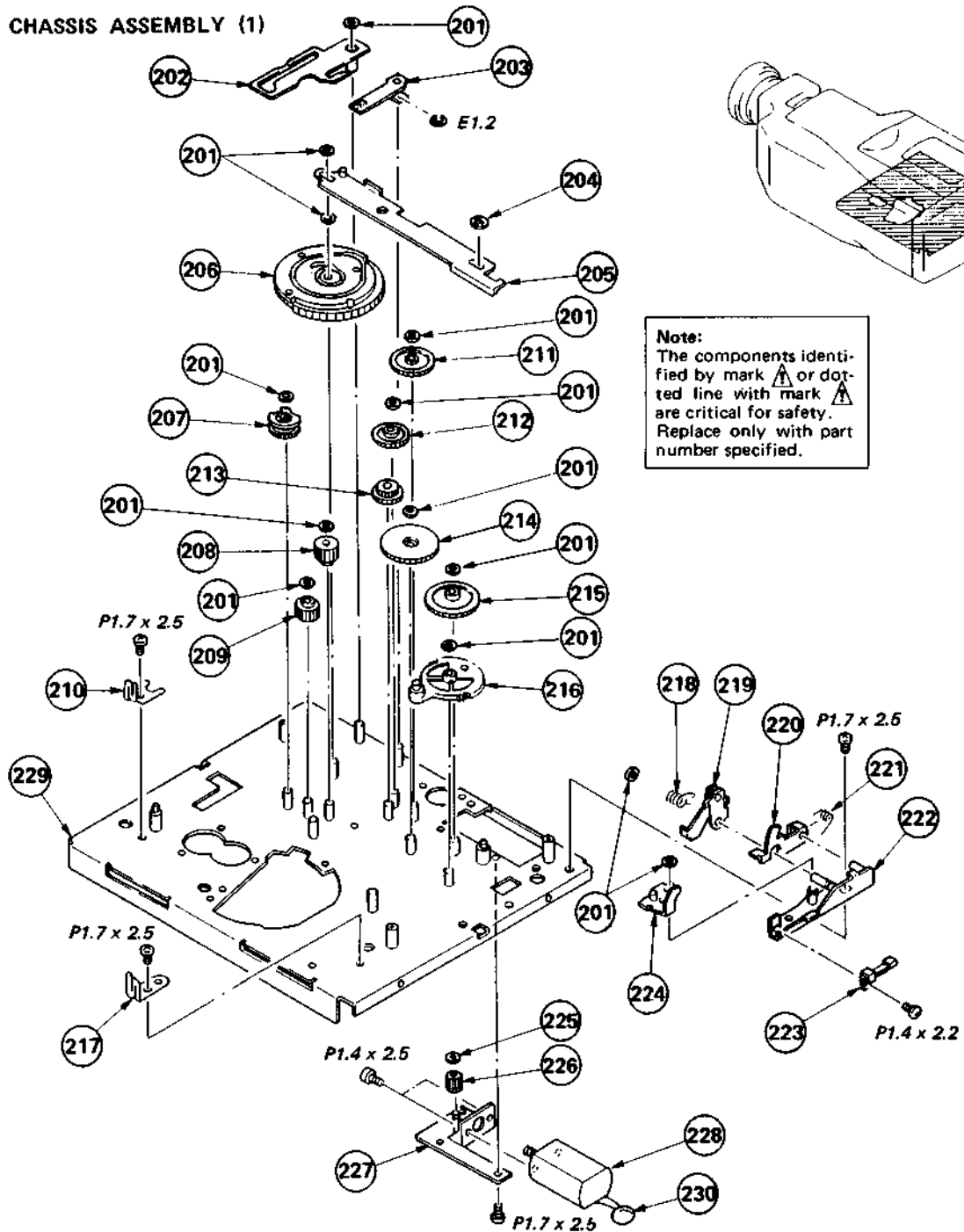


5-4. LS CASSETTE COMPARTMENT ASSEMBLY



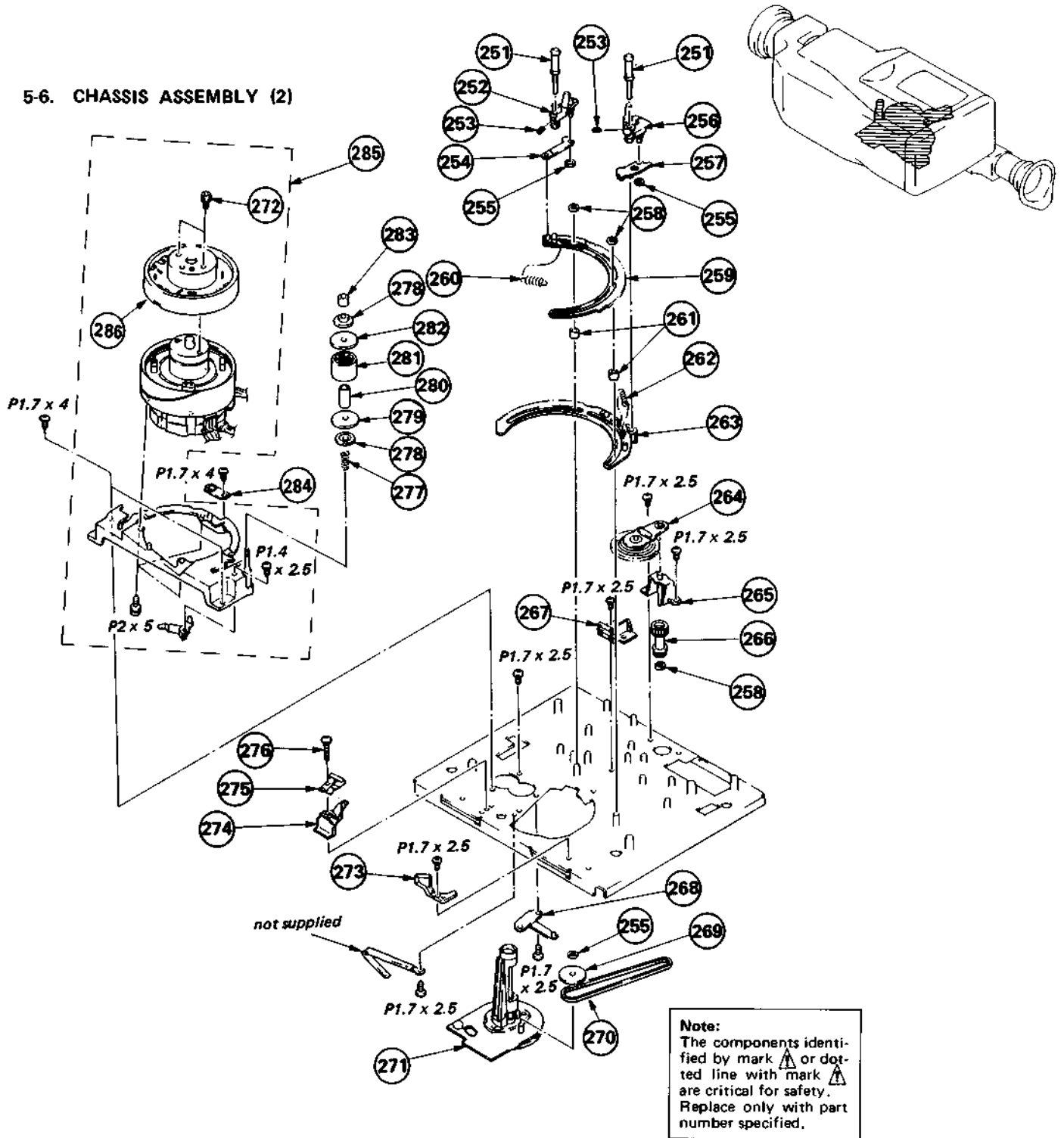
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
151	X-3695-447-6	COMPARTMENT ASSY, CASSETTE, LS		174	X-3712-019-1	ARM ASSY (2), TG1	
152	3-695-595-01	RETAINER (T), CASSETTE		175	3-695-591-01	SPRING, TENSION	
153	3-695-605-01	SPRING, TORSION		176	3-695-733-01	PLATE, CAM, LS	
154	3-695-604-01	SPRING, TORSION		177	X-3712-022-1	ARM (B) ASSY (2), PINCH	
155	3-695-594-01	RETAINER (S), CASSETTE		178	X-3712-032-2	ARM (C) ASSY (2), PINCH	1 92, 193
156	X-3695-448-3	ARM ASSY, BLIND		179	3-695-622-01	SPRING, TENSION	
157	3-669-465-00	WASHER (1.5), STOPPER		180	3-695-719-01	SPRING, TENSION	
158	3-695-646-01	ARM, LS		181	X-3695-415-1	PINCH LEVER ASSY	
159	3-695-718-01	SPRING, TENSION		182	3-695-624-01	BASE, PROTECT	
160	X-3712-037-1	LEVER (A) ASSY (2)		183	X-3712-027-1	ARM ASSY (2), TG7	
161	3-315-384-31	WASHER, STOPPER		184	3-695-541-01	SPRING	
162	X-3712-025-1	GEAR ASSY, TS		185	3-712-158-01	FLANGE, UPPER, TG7	
163	3-699-402-01	SCREW (M1.3X5.5), TAPPING		186	3-712-160-01	SLEEVE (2), TG7	
164	3-712-165-01	PLATE (2), STOPPER		187	3-712-159-01	FLANGE, LOWER, TG7	
165	A-7060-693-A	FP-53 BOARD, COMPLETE		188	3-712-157-01	SPRING, COMPRESSION	
166	3-695-698-01	GUIDE, LS		189	X-3713-962-1	CHASSIS ASSY (2), LS	
167	3-695-697-01	SPRING, LEAF, LS		190	3-701-444-01	WASHER, 6	
168	X-3695-436-1	TABLE ASSY, REEL, TAKE-UP		191	3-321-393-01	WASHER, STOPPER	
169	X-3712-038-1	TABLE ASSY (2), REEL, SUPPLY	190	192	X-3695-416-1	PINCH ROLLER ASSY	
170	3-542-475-00	SPRING, TENSION		193	3-695-569-01	SLEEVE (P), PINCH INNER	
171	3-712-151-01	BRAKE (2), SOFT		194	*3-725-151-01	PLATE, GROUND, RP	
172	3-695-735-04	ARM, TG1 RELEASE		195	3-719-695-21	SCREW (M1.7X3.5), SPECIAL HEAD	
173							
174							
175							
176							
177							
178							
179							
180							
181							
182							
183							
184							
185							
186							
187							
188							
189							
190							
191							
192							
193							
194							
195							

### 5-5. CHASSIS ASSEMBLY (1)



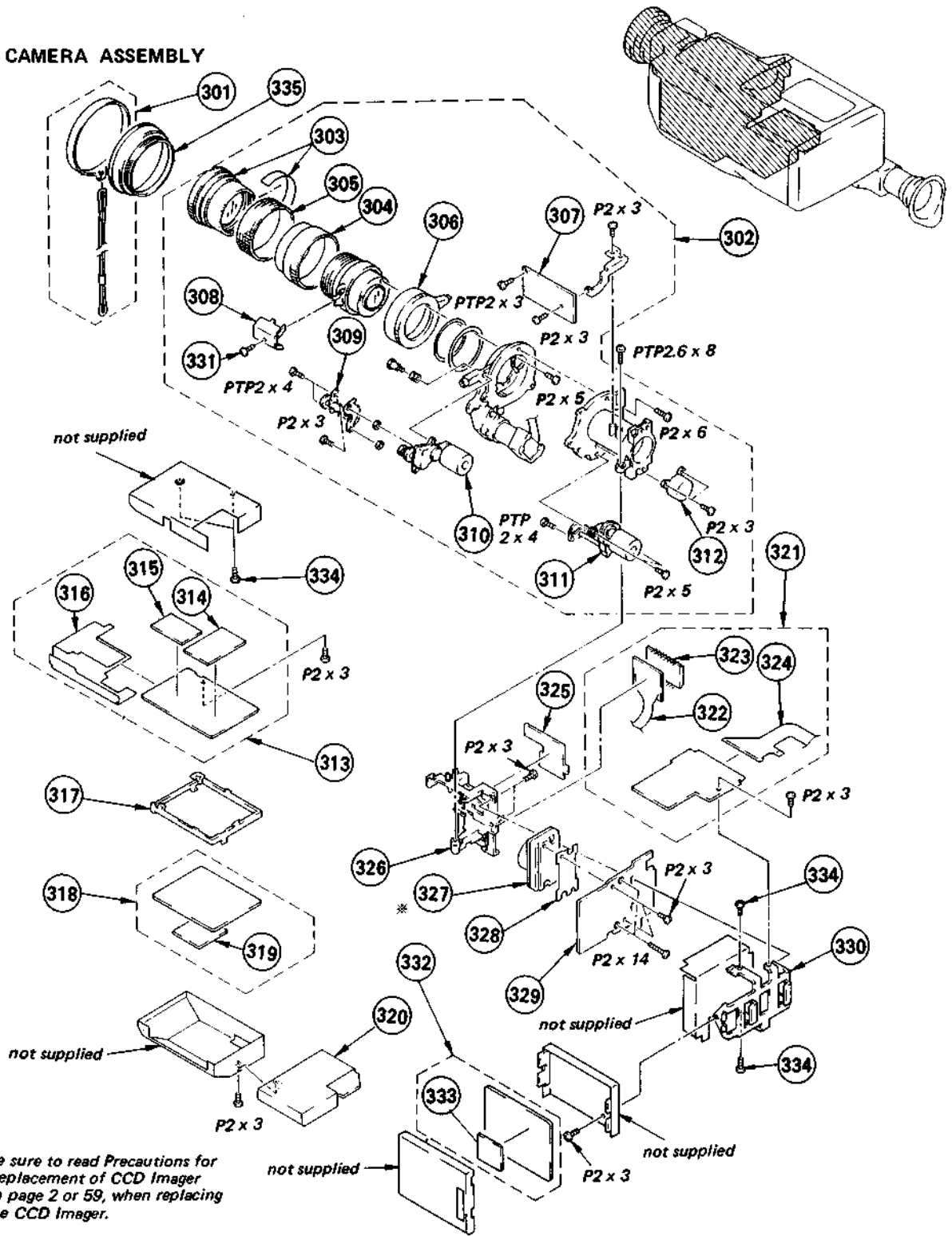
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
201	3-315-384-31	WASHER, STOPPER		216	X-3695-417-1	GEAR (C) ASSY, LS	
202	X-3712-023-1	ARM (A) ASSY (2), PINCH		217	3-695-705-01	SPRING (S)	
203	3-695-589-01	LEVER (B), REEL LOCK		218	3-713-937-01	SPRING (A) (2)	
204	3-669-465-00	WASHER (1.5), STOPPER		219	X-3695-418-1	ARM ASSY, LOCK	
205	X-3695-439-4	SLIDER ASSY, M		220	3-695-574-01	ARM, RETURN PREVENTION	
206	X-3712-031-1	CAM ASSY (2)		221	3-695-579-01	SPRING (B), TORSION	
207	3-712-156-01	GEAR (M) (2), THREADING		222	X-3712-018-1	BASE ASSY (2), LOCK	
208	3-695-537-01	GEAR (T), THREADING		223	1-553-226-00	SWITCH, LEAF (CASSETTE DOWN) (S902)	
209	3-695-536-01	GEAR (S), THREADING		224	X-3695-438-1	ARM ASSY, EJECT	
210	3-695-706-01	SPRING (T)		225	3-321-393-01	WASHER, STOPPER	
211	3-695-559-01	GEAR (B), THREADING		226	3-712-150-01	WHEEL, WORM	
212	3-695-724-01	GEAR (D), THREADING		227	X-3712-017-1	HOLDER ASSY, MOTOR	
213	3-712-162-02	GEAR (C) (2), THREADING		228	Δ.1-541-508-11	MOTOR, DC (LA14-323F) (LOADING) (M903)	
214	3-695-714-01	GEAR (A), LS		229	X-3712-036-1	CHASSIS ASSY (2), MECHANICAL	
215	3-695-563-04	GEAR (B), LS		230	1-161-032-00	CAP, CERAMIC 0.01MF (C901)	

5-6. CHASSIS ASSEMBLY (2)



Nb.	Part No.	Description	Remark	No.	Part No.	Description	Remark
251	X-3712-029-1	ROLLER ASSY (2), GUIDE		269	X-3695-413-1	GEAR ASSY, CHANGE	
252	X-3712-030-1	BASE ASSY (2), TG5		270	3-695-637-01	BELT, RELAY	
253	3-695-770-01	SCREW, GR LOCK		271	8-835-309-01	MOTOR, DC BHF-3301C (CAPSTAN) (M902)	
254	3-695-545-01	JOINT, T		272	3-686-403-01	SCREW (2X5), BOLT WASHER	
255	3-321-393-01	WASHER, STOPPER		273	3-695-627-01	STOPPER, SLIDER, S	
256	X-3712-028-1	BASE ASSY (2), TG4		274	3-695-628-01	STOPPER, SLIDER, T	
257	X-3695-429-1	JOINT ASSY, S		275	3-695-677-01	SPRING (T), LEAF	
258	3-315-384-31	WASHER, STOPPER		276	3-695-519-01	SCREW, FITTING, LEAF SPRING(T)	
259	X-3695-414-1	SLIDER (T) ASSY, THREADING		277	3-695-532-01	SPRING, COMPRESSION	
260	3-695-773-01	SPRING, TENSION		278	3-695-727-01	RETAINER, FLANGE, UPPER	
261	3-695-544-01	ROLLER, GUIDE		279	3-695-794-01	FLANGE, LOWER, TG2	
262	3-695-772-01	SPRING, TENSION		280	3-695-530-01	SLEEVE, TG2	
263	X-3695-428-1	SLIDER (S) ASSY, THREADING		281	3-712-164-01	ROLLER (2), TG2	
264	X-3712-024-1	ARM ASSY (2), GEAR		282	3-695-528-01	FLANGE, TG2	
265	X-3712-020-1	BASE ASSY (2), MIDWAY PULLEY		283	3-695-529-01	NUT, TG2	
266	X-3712-021-1	PULLEY ASSY (2), MIDWAY		284	1-807-238-11	SENSOR, DEW CONDENSATION	
267	3-712-163-01	SUPPORT (2), SLIDER		285	Δ A-7048-081-A	DRUM ASSY (DGR-19A-R)	272, 286
268	1-535-574-11	TERMINAL, SHAFT GROUND		286	A-7049-107-A	DRUM ASSY, UPPER (DGR-19-R)	

5-7. CAMERA ASSEMBLY



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
301	A-7090-806-A	CAP ASSY, HOOD		318	*A-7061-228-A	VC-50 BOARD, COMPLETE	319
302	1-547-264-11	LENS, ZOOM (VCL-1206YK)	303-312, 331	319	A-7060-835-A	MX-2 BOARD, COMPLETE (HIC)	
303	A-7030-088-A	FOCUS SERVICE KIT		320	A-7090-800-A	DDC ASSY	
304	3-707-492-01	RING, F SCALE		321	*A-7061-085-A	FC-18 BOARD, COMPLETE	322-324
305	3-707-368-01	RUBBER, FOCUS		322	1-626-232-11	FP-123 FLEXIBLE BOARD (19P)	
306	3-707-427-01	RING ASSY, ZOOM		323	1-808-385-11	L.C.D	
307	*A-7060-961-A	AF-32 BOARD, COMPLETE		324	1-626-233-11	FP-124 FLEXIBLE BOARD (34P)	
308	3-719-687-01	COVER, GEAR		325	*A-7070-637-A	FD-6 BOARD, COMPLETE	
309	3-707-370-01	GEAR ASSY, AF DRIVE		326	*3-724-545-01	FRAME, CAMERA	
310	1-541-536-11	MOTOR, DC (GM-1673) (FOCUS) (M905)		327	8-750-010-33	IUD18CK-AA (CCD IMAGER)	
311	1-541-537-11	MOTOR, DC (GM-1674) (ZOOM) (M906)		328	*3-690-235-01	SHEET, INSULATING, CCD	
312	3-707-369-01	METER ASSY, EE (IRIS) (M904)		329	*A-7061-226-A	VC-48 BOARD, COMPLETE	
313	*A-7061-227-A	VC-49 BOARD, COMPLETE	314-316	330	*3-724-577-01	JOINT	
314	A-7068-056-A	DT-61 BOARD, COMPLETE (HIC)		331	3-719-845-01	SCREW (B2X4), TAPPING, P3	
315	*A-7068-088-A	SH-2 BOARD, COMPLETE (HIC)		332	*A-7061-229-A	VC-51 BOARD, COMPLETE	333
316	1-623-012-11	FP-80 FLEXIBLE BOARD		333	*A-7060-888-A	IA-1 BOARD, COMPLETE (HIC)	
317	*3-724-536-01	HOLDER (A), VC PC BOARD		334	3-719-601-01	SCREW (B2X5), TAPPING	
				335	3-724-589-01	HOOD, LENS	

# SECTION 6 ELECTRICAL PARTS LIST

**FP-53**

**AF-32**

**FC-18**

**NOTE:**

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

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.
- **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.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- **SEMICONDUCTORS**  
In each case, U:  $\mu$ , for example:  
UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,  
UPB...:  $\mu$ PB..., UPC...:  $\mu$ PC...,  
UPD...:  $\mu$ PD...
- **CAPACITORS**  
MF:  $\mu$ F, PF:  $\mu$ F
- **COILS**  
MMH: mH, UH:  $\mu$ H

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
	A-7060-693-A	FP-53 BOARD, COMPLETE *****				<u>VARIABLE RESISTOR</u>	
	3-713-904-01	HOLDER (2), LED		VRO01	1-237-485-11	RES, ADJ, METAL FILM 220K	
		<u>DIODE</u>		VRO02	1-230-287-00	RES, ADJ, METAL GLAZE 10K	
D302	8-719-940-81	DIODE GL452S		VRO03	1-237-529-11	RES, ADJ, METAL FILM 1K	
D303	8-719-801-55	TLP907-0				<u>CRYSTAL</u>	
D304	8-719-801-55	TLP907-0		X001	1-567-470-11	VIBRATOR, CERAMIC	
		<u>SWITCH</u>		*****			
S301	1-570-869-11	SWITCH, PUSH (2 KEY)		*A-7061-085-A	FC-18 BOARD, COMPLETE *****		
*****					1-626-232-11	FP-123 FLEXIBLE BOARD	
*A-7060-961-A	AF-32 BOARD, COMPLETE *****			1-808-385-11	L.C.D		
		<u>CAPACITOR</u>		3-725-194-01	SPACER		
C001	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	3-725-196-01	PROTECTOR, DDS		
C002	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V		<u>CAPACITOR</u>		
C003	1-124-464-11	ELECT 0.22MF	20% 50V	C160	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C004	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C161	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C005	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C162	1-162-638-11	CERAMIC CHIP 1MF	16V
C006	1-124-234-00	ELECT 22MF	20% 16V	C163	1-162-638-11	CERAMIC CHIP 1MF	16V
C007	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C164	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C008	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V	C165	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C009	1-124-120-11	ELECT 220MF	20% 16V	C190	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C010	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C191	1-124-246-00	ELECT 6.8MF	20% 35V
		<u>TRANSISTOR</u>		C192	1-124-246-00	ELECT 6.8MF	20% 35V
Q001	8-729-103-16	TRANSISTOR 2SC1622A		C193	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
Q002	8-729-104-26	TRANSISTOR 2SB804-AW		C194	1-163-038-00	CERAMIC CHIP 0.1MF	25V
		<u>RESISTOR</u>		C195	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
R001	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C196	1-163-021-00	CERAMIC CHIP 0.01MF	50V
R002	1-216-295-00	METAL GLAZE 0 5%	1/10W	C197	1-161-057-00	CERAMIC 0.033MF	10% 25V
R003	1-216-096-00	METAL GLAZE 91K 5%	1/10W		<u>CONNECTOR</u>		
R004	1-216-089-00	METAL GLAZE 47K 5%	1/10W	CN191	*1-566-181-11	PIN, CONNECTOR (PC BOARD) 2P	
R005	1-216-082-00	METAL GLAZE 24K 5%	1/10W	CN192	1-566-535-11	CONNECTOR, FPC (ZIF) 19P	
R006	1-216-075-00	METAL GLAZE 12K 5%	1/10W		<u>TRIMMER</u>		
R007	1-216-049-00	METAL GLAZE 1K 5%	1/10W	CT190	1-141-331-11	CAP, VAR, TRIMMER (CHIP) 30P	
R008	1-216-049-00	METAL GLAZE 1K 5%	1/10W		<u>DIODE</u>		
R009	1-216-080-00	METAL GLAZE 20K 5%	1/10W	D160	8-719-404-12	DIODE MA159	
R010	1-216-041-00	METAL GLAZE 470 5%	1/10W	D161	8-719-105-73	DIODE RD4.7M-B2	
R011	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	D190	8-719-105-99	DIODE RD6.2M-B1	
R012	1-216-085-00	METAL GLAZE 33K 5%	1/10W		<u>IC</u>		
R013	1-216-304-11	METAL GLAZE 3.3 5%	1/10W	IC190	8-759-142-12	IC UPD7503G-A49	
R014	1-216-049-00	METAL GLAZE 1K 5%	1/10W	IC191	8-759-937-56	IC S-8054ALB-LM-S	
R015	1-216-097-00	METAL GLAZE 100K 5%	1/10W		<u>TRANSISTOR</u>		
R016	1-216-045-00	METAL GLAZE 680 5%	1/10W	Q160	8-729-905-23	TRANSISTOR 2SA1576R	
R017	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	Q161	8-729-905-23	TRANSISTOR 2SA1576R	

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
Q163	8-729-905-23	TRANSISTOR 2SA1576R		R177	1-216-121-00	METAL GLAZE 1M 5%	1/10W
Q164	8-729-905-23	TRANSISTOR 2SA1576R		R178	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q165	8-729-109-42	TRANSISTOR 2SK94-X2		R190	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q166	8-729-905-35	TRANSISTOR 2SC4081R		R191	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q167	8-729-903-97	TRANSISTOR FMS1FE		R192	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q168	8-729-905-35	TRANSISTOR 2SC4081R		R193	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q169	8-729-905-18	TRANSISTOR DTC144EU		R194	1-216-109-00	METAL GLAZE 330K 5%	1/10W
Q190	8-729-810-24	TRANSISTOR 2SC4396		R195	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q191	8-729-905-23	TRANSISTOR 2SA1576R		R196	1-216-073-00	METAL GLAZE 10K 5%	1/10W
		<b>RESISTOR</b>		R197	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R120	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R198	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R121	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R199	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R122	1-216-097-00	METAL GLAZE 100K 5%	1/10W			<b>SWITCH</b>	
R123	1-216-097-00	METAL GLAZE 100K 5%	1/10W	S191	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (T 1)	
R124	1-216-073-00	METAL GLAZE 10K 5%	1/10W	S192	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (T 2)	
R125	1-216-097-00	METAL GLAZE 100K 5%	1/10W	S193	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (MEMO)	
R126	1-216-097-00	METAL GLAZE 100K 5%	1/10W	S194	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (COLOR)	
R127	1-216-073-00	METAL GLAZE 10K 5%	1/10W	S195	1-570-870-21	SWITCH, SLIDE	
R128	1-216-073-00	METAL GLAZE 10K 5%	1/10W	S196	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE)	
R129	1-216-073-00	METAL GLAZE 10K 5%	1/10W			<b>TERMINAL</b>	
R130	1-216-073-00	METAL GLAZE 10K 5%	1/10W	TP190	*1-535-622-11	PIN, TERMINAL	
R131	1-216-073-00	METAL GLAZE 10K 5%	1/10W	TP191	*1-535-622-11	PIN, TERMINAL	
R132	1-216-073-00	METAL GLAZE 10K 5%	1/10W			<b>FLEXIBLE BOARD</b>	
R133	1-216-073-00	METAL GLAZE 10K 5%	1/10W	W190	1-626-233-11	FP-124 FLEXIBLE BOARD	
R134	1-216-073-00	METAL GLAZE 10K 5%	1/10W			<b>CRYSTAL</b>	
R135	1-216-073-00	METAL GLAZE 10K 5%	1/10W	X190	1-527-997-21	VIBRATOR, CRYSTAL (32.768KHZ)	
R136	1-216-097-00	METAL GLAZE 100K 5%	1/10W			*****	
R137	1-216-097-00	METAL GLAZE 100K 5%	1/10W			*A-7061-226-A	VC-48 BOARD, COMPLETE
R138	1-216-097-00	METAL GLAZE 100K 5%	1/10W				*****
R139	1-216-073-00	METAL GLAZE 10K 5%	1/10W			1-626-230-11	FP-135 FLEXIBLE BOARD
R140	1-216-105-00	METAL GLAZE 220K 5%	1/10W			3-724-530-01	HOLDER, WB SENSOR
R141	1-216-089-00	METAL GLAZE 47K 5%	1/10W				<b>CAPACITOR</b>
R142	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C101	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R143	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C102	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R144	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C103	1-163-021-00	CERAMIC CHIP 0.01MF	50V
R160	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C104	1-124-778-00	ELECT 22MF	20% 6.3V
R161	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C105	1-163-021-00	CERAMIC CHIP 0.01MF	50V
R162	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C106	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
R163	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C107	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R164	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C108	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R165	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C109	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R166	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C110	1-163-115-00	CERAMIC CHIP 82PF	5% 50V
R167	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C111	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R168	1-216-093-00	METAL GLAZE 68K 5%	1/10W	C112	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R169	1-216-748-11	METAL GLAZE 39K 5%	1/10W	C113	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R170	1-216-129-00	METAL GLAZE 2.2M 5%	1/10W				
R171	1-216-115-00	METAL GLAZE 560K 5%	1/10W				
R172	1-216-105-00	METAL GLAZE 220K 5%	1/10W				
R173	1-216-121-00	METAL GLAZE 1M 5%	1/10W				
R174	1-216-121-00	METAL GLAZE 1M 5%	1/10W				
R175	1-216-121-00	METAL GLAZE 1M 5%	1/10W				
R176	1-216-097-00	METAL GLAZE 100K 5%	1/10W				

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

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
C114	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	Q202	8-729-403-07	TRANSISTOR XN1213	
C115	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	Q203	8-729-403-06	TRANSISTOR XN1113	
C116	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	Q204	8-729-403-06	TRANSISTOR XN1113	
C117	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	Q205	8-729-805-69	TRANSISTOR 2SA1341	
C118	1-124-778-00	ELECT 22MF	20% 6.3V	Q206	8-729-403-07	TRANSISTOR XN1213	
C200	1-109-539-00	MICA 150PF	5% 100V	Q207	8-729-901-01	TRANSISTOR DTC144EK	
C201	1-130-475-00	MYLAR 0.0022MF	5% 50V	Q701	8-729-175-73	TRANSISTOR 2SC2757T34	
C203	1-163-038-00	CERAMIC CHIP 0.1MF	25V	<u>RESISTOR</u>			
C205	1-162-638-11	CERAMIC CHIP 1MF	16V	R101	1-216-091-00	METAL GLAZE 56K 1%	1/10W
C701	1-162-637-11	CERAMIC CHIP 0.47MF	16V	R102	1-216-091-00	METAL GLAZE 56K 1%	1/10W
C702	1-162-637-11	CERAMIC CHIP 0.47MF	16V	R103	1-216-748-11	METAL GLAZE 39K 5%	1/10W
C703	1-135-145-11	TANTAL. CHIP 0.47MF	20% 25V	R104	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
C704	1-135-145-11	TANTAL. CHIP 0.47MF	20% 25V	R105	1-216-077-00	METAL GLAZE 15K 5%	1/10W
C705	1-162-637-11	CERAMIC CHIP 0.47MF	16V	R106	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
C706	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	R107	1-216-295-00	METAL GLAZE 0 5%	1/10W
C707	1-162-637-11	CERAMIC CHIP 0.47MF	16V	R108	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<u>CONNECTOR</u>				R109	1-216-073-00	METAL GLAZE 10K 5%	1/10W
CN101	1-566-527-11	CONNECTOR, FPC (ZIF) 11P		R110	1-216-081-00	METAL GLAZE 22K 5%	1/10W
CN104	*1-566-183-11	PIN, CONNECTOR (PC BOARD) 4P		R111	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
CN105	*1-564-012-00	PIN, CONNECTOR 2P		R112	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
CN200	*1-566-183-11	PIN, CONNECTOR (PC BOARD) 4P		R113	1-218-152-11	METAL GLAZE 1.5K 1%	1/10W
CN201	*1-566-181-11	PIN, CONNECTOR (PC BOARD) 2P		R114	1-218-155-11	METAL GLAZE 3.9K 1%	1/10W
<u>DIODE</u>				R115	1-216-747-11	METAL GLAZE 33K 1%	1/10W
D200	8-719-801-45	DIODE 1SS187		R116	1-216-326-11	METAL GLAZE 1.8K 1%	1/10W
<u>IC</u>				R117	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC101	8-752-032-48	IC CXA1157M		R118	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC200	8-759-030-02	IC MC146805F2FPSC82534		R119	1-216-747-11	METAL GLAZE 33K 1%	1/10W
IC201	8-759-030-16	IC MC34182M		R120	1-216-326-11	METAL GLAZE 1.8K 1%	1/10W
IC202	8-759-106-23	IC UPD4066BG		R121	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC203	8-759-100-93	IC UPC393G2		R122	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC701	8-750-010-33	IC 1UD21CK-AA		R123	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<u>TRANSISTOR</u>				R124	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
Q101	8-729-100-66	TRANSISTOR 2SC1623L6		R125	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q102	8-729-100-76	TRANSISTOR 2SA812M6		R126	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q103	8-729-100-66	TRANSISTOR 2SC1623L6		R127	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q104	8-729-100-76	TRANSISTOR 2SA812M6		R128	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q105	8-729-100-66	TRANSISTOR 2SC1623L6		R129	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
Q106	8-729-100-66	TRANSISTOR 2SC1623L6		R130	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q107	8-729-100-66	TRANSISTOR 2SC1623L6		R131	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q108	8-729-100-66	TRANSISTOR 2SC1623L6		R132	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q109	8-729-100-66	TRANSISTOR 2SC1623L6		R133	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q110	8-729-162-44	TRANSISTOR 2SB624BY4		R134	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q111	8-729-100-66	TRANSISTOR 2SC1623L6		R135	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q112	8-729-100-66	TRANSISTOR 2SC1623L6		R136	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q113	8-729-100-76	TRANSISTOR 2SA812M6		R138	1-216-166-00	METAL GLAZE 47 5%	1/10W
Q114	8-729-100-76	TRANSISTOR 2SA812M6		R139	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q115	8-729-901-01	TRANSISTOR DTC144EK		R140	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q116	8-729-902-96	TRANSISTOR FMS1		R141	1-216-077-00	METAL GLAZE 15K 5%	1/10W
Q117	8-729-903-10	TRANSISTOR FMW1		R142	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q200	8-729-805-39	TRANSISTOR 2SC3898		R143	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q201	8-729-805-39	TRANSISTOR 2SC3898		R144	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R145	1-216-295-00	METAL GLAZE 0 5%	1/10W

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

# VC-48

# VC-49

Ref.No	Part No.	Description	Remark
R146	1-216-041-00	METAL GLAZE 470 5%	1/10W
R147	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R148	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R149	1-216-041-00	METAL GLAZE 470 5%	1/10W
R150	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R151	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R152	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R153	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R160	1-216-336-11	METAL GLAZE 47K 1%	1/10W
R161	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R162	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R163	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R164	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R200	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R201	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R202	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R203	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R204	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R205	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R206	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R207	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R208	1-216-103-00	METAL GLAZE 180K 5%	1/10W
R209	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R210	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R211	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R212	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R213	1-216-115-00	METAL GLAZE 560K 5%	1/10W
R214	1-216-107-00	METAL GLAZE 270K 5%	1/10W
R215	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R216	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R217	1-216-099-00	METAL GLAZE 120K 5%	1/10W
R226	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R227	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R228	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R229	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R230	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R231	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R232	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R701	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R702	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R703	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R704	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R705	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R706	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R707	1-216-025-00	METAL GLAZE 100 5%	1/10W
R708	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R709	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
<u>VARIABLE RESISTOR</u>			
RV101	1-230-524-11	RES, ADJ, METAL GLAZE 22K	
RV200	1-230-524-11	RES, ADJ, METAL GLAZE 22K	

Ref.No	Part No.	Description	Remark
<u>BALANCE SENSOR</u>			
SB200	1-807-684-11	SENSOR, WHITE BALANCE	
<u>CRYSTAL</u>			
X200	1-567-152-00	OSCILLATOR, CERAMIC 4MHz	
*****			
*A-7061-227-A	VC-49 BOARD, COMPLETE		
*****			
A-7068-056-A	DT-61 BOARD, COMPLETE (HIC)		
*A-7068-088-A	SH-2 BOARD, COMPLETE (HIC)		
1-623-012-11	FP-80 FLEXIBLE BOARD		
<u>CAPACITOR</u>			
C708	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C709	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C710	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C721	1-163-089-00	CERAMIC CHIP 6PF	0.5PF 50V
C722	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C723	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C724	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C725	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C726	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C732	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C733	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C734	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C735	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C736	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C737	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V
C738	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C739	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C740	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C741	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C742	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C743	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C744	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C745	1-135-100-21	TANTAL. CHIP 6.8MF	20% 6.3V
C746	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C751	1-124-229-00	ELECT 33MF	20% 10V
C752	1-163-013-00	CERAMIC CHIP 0.0022MF	10% 50V
C753	1-163-013-00	CERAMIC CHIP 0.0022MF	10% 50V
C754	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C755	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C761	1-126-153-11	ELECT 22MF	20% 6.3V
C762	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C763	1-131-387-00	TANTALUM 47MF	10% 6.3V
C764	1-124-234-00	ELECT 22MF	20% 16V
C765	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C766	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V

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



Ref.No	Part No.	Description	Remark
C767	1-124-234-00	ELECT 22MF	20% 16V
C768	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C769	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C770	1-124-234-00	ELECT 22MF	20% 16V
C771	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C772	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C773	1-124-234-00	ELECT 22MF	20% 16V
C774	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C775	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C776	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C777	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C778	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
<u>CONNECTOR</u>			
CN701	*1-566-203-11	PIN, CONNECTOR (PC BOARD) 10P	
CN702	*1-566-196-11	PIN, CONNECTOR (PC BOARD) 3P	
<u>TRIMMER</u>			
CT721	1-141-331-11	CAP, VAR, TRIMMER (CHIP) 30P	
CT731	1-141-347-11	CAP, VAR, TRIMMER (CHIP) 10P	
<u>DIODE</u>			
D701	8-719-801-45	DIODE 1SS187	
D731	8-713-200-00	DIODE 1T32-L2	
<u>IC</u>			
IC731	8-752-321-16	IC CXD1030M	
<u>COIL</u>			
L731	1-410-389-11	INDUCTOR CHIP 47UH	
L761	1-408-978-21	INDUCTOR 47UH	
L762	1-408-960-21	INDUCTOR 1.5UH	
L763	1-408-960-21	INDUCTOR 1.5UH	
L764	1-408-978-21	INDUCTOR 47UH	
<u>TRANSISTOR</u>			
Q721	8-729-175-73	TRANSISTOR 2SC2757T34	
Q722	8-729-175-73	TRANSISTOR 2SC2757T34	
Q731	8-729-100-76	TRANSISTOR 2SA812M6	
Q732	8-729-100-66	TRANSISTOR 2SC1623L6	
<u>RESISTOR</u>			
R721	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R722	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R723	1-216-039-00	METAL GLAZE 390 5%	1/10W
R724	1-216-039-00	METAL GLAZE 390 5%	1/10W
R725	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R726	1-216-041-00	METAL GLAZE 470 5%	1/10W
R727	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R732	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R733	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R734	1-216-068-00	METAL GLAZE 6.2K 5%	1/10W
R735	1-216-077-00	METAL GLAZE 15K 5%	1/10W

Ref.No	Part No.	Description	Remark
R736	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R737	1-249-422-11	CARBON(SMALL) 2.7K 5%	1/32W
R738	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R739	1-216-295-00	METAL GLAZE 0 5%	1/10W
R740	1-216-025-00	METAL GLAZE 100 5%	1/10W
R741	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R742	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R743	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R744	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R745	1-216-033-00	METAL GLAZE 220 5%	1/10W
R746	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R747	1-216-033-00	METAL GLAZE 220 5%	1/10W
R751	1-216-025-00	METAL GLAZE 100 5%	1/10W
R752	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R754	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R755	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W

CRYSTAL

X721	1-567-732-12	VIBRATOR, CRYSTAL (28.3750MHz)	
X731	1-567-733-11	VIBRATOR, CRYSTAL (17.7MHz)	

\*\*\*\*\*

\*A-7061-228-A VC-50 BOARD, COMPLETE  
\*\*\*\*\*

A-7060-835-A MX-2 BOARD, COMPLETE (HIC)

CAPACITOR

C781	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C782	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C786	1-124-234-00	ELECT 22MF	20% 10V
C787	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C788	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C789	1-124-584-00	ELECT 100MF	20% 10V
C790	1-126-207-11	ELECT 33MF	20% 4V
C791	1-126-207-11	ELECT 33MF	20% 4V

CONNECTOR

CN781	*1-566-197-11	PIN, CONNECTOR (PC BOARD) 4P	
-------	---------------	------------------------------	--

FILTER

FL781	1-235-442-11	FILTER, LOW PASS (YH)	
-------	--------------	-----------------------	--

IC

IC781	8-759-914-44	IC TL431CLPB	
-------	--------------	--------------	--

COIL

L781	1-408-767-21	INDUCTOR CHIP 1.5UH	
L785	1-410-369-11	INDUCTOR CHIP 1UH	
L786	1-408-785-21	INDUCTOR CHIP 47UH	
L787	1-408-777-00	INDUCTOR CHIP 10UH	

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

**VC-50****VC-51**

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
<u>RESISTOR</u>							
R781	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	C882	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
R782	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	C883	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
R783	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	C884	1-124-225-00	ELECT 100MF	20% 6.3V
R784	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	C892	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
R785	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	C893	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R786	1-216-081-00	METAL GLAZE 22K 5%	1/10W	C894	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
R787	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	<u>CONNECTOR</u>			
R788	1-216-081-00	METAL GLAZE 22K 5%	1/10W	CN861	1-564-003-00	PIN, CONNECTOR 4P	
R789	1-216-081-00	METAL GLAZE 22K 5%	1/10W	CN881	*1-564-004-00	PIN, CONNECTOR 5P	
R790	1-216-081-00	METAL GLAZE 22K 5%	1/10W	<u>DIODE</u>			
R792	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	D801	8-719-801-45	DIODE 1S5187	
R793	1-216-066-00	METAL GLAZE 5.1K 5%	1/10W	D802	8-719-100-05	DIODE 1S2837	
R794	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W	D861	8-719-100-05	DIODE 1S2837	
R795	1-216-060-00	METAL GLAZE 3K 5%	1/10W	<u>DELAY LINE</u>			
R796	1-216-083-00	METAL GLAZE 27K 5%	1/10W	DL801	1-415-448-21	DELAY LINE	
<u>VARIABLE RESISTOR</u>							
RV781	1-230-523-11	RES, ADJ, METAL GLAZE 10K					
RV782	1-230-523-11	RES, ADJ, METAL GLAZE 10K					
<u>TERMINAL</u>							
TP792	*1-535-622-11	PIN, TERMINAL					
*****							
	*A-7061-229-A	VC-51 BOARD, COMPLETE					
		*****					
	*A-7060-888-A	[A-1] BOARD, COMPLETE (HIC)					
<u>CAPACITOR</u>							
C801	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	L801	1-408-785-21	INDUCTOR CHIP 47UH	
C802	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	L881	1-408-978-21	INDUCTOR 47UH	
C803	1-163-013-00	CERAMIC CHIP 0.0022MF	10% 50V	L882	1-410-369-11	INDUCTOR CHIP 1UH	
C804	1-163-077-00	CERAMIC CHIP 0.1MF	50V	L883	1-410-369-11	INDUCTOR CHIP 1UH	
C805	1-163-077-00	CERAMIC CHIP 0.1MF	50V	L884	1-410-369-11	INDUCTOR CHIP 1UH	
C806	1-163-077-00	CERAMIC CHIP 0.1MF	50V	L885	1-410-369-11	INDUCTOR CHIP 1UH	
C807	1-163-077-00	CERAMIC CHIP 0.1MF	50V	L886	1-410-369-11	INDUCTOR CHIP 1UH	
C808	1-126-198-11	ELECT 4.7MF	20% 35V	L887	1-410-369-11	INDUCTOR CHIP 1UH	
C809	1-163-077-00	CERAMIC CHIP 0.1MF	50V	L888	1-410-369-11	INDUCTOR CHIP 1UH	
C810	1-124-779-00	ELECT 10MF	20% 16V	<u>TRANSISTOR</u>			
C811	1-162-638-11	CERAMIC CHIP 1MF	16V	Q801	8-729-100-66	TRANSISTOR 2SC1623L6	
C812	1-124-778-00	ELECT 22MF	20% 6.3V	Q802	8-729-100-66	TRANSISTOR 2SC1623L6	
C813	1-163-077-00	CERAMIC CHIP 0.1MF	50V	Q803	8-729-100-66	TRANSISTOR 2SC1623L6	
C814	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	Q804	8-729-100-76	TRANSISTOR 2SA812M6	
C815	1-135-093-21	TANTAL. CHIP 10MF	20% 10V	Q805	8-729-100-76	TRANSISTOR 2SA812M6	
C816	1-124-779-00	ELECT 10MF	20% 16V	Q806	8-729-100-66	TRANSISTOR 2SC1623L6	
C817	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	Q807	8-729-100-66	TRANSISTOR 2SC1623L6	
C861	1-135-092-21	TANTAL. CHIP 3.3MF	20% 16V	Q808	8-729-100-66	TRANSISTOR 2SC1623L6	
C862	1-124-225-00	ELECT 100MF	20% 6.3V	Q809	8-729-100-66	TRANSISTOR 2SC1623L6	
C863	1-163-081-00	CERAMIC CHIP 0.22MF	25V	Q861	8-729-805-43	TRANSISTOR 2SC3396	
C881	1-135-101-21	TANTAL. CHIP 22MF	20% 6.3V	<u>RESISTOR</u>			
				R801	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R802	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R803	1-216-091-00	METAL GLAZE 56K 5%	1/10W
				R804	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R805	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R806	1-216-083-00	METAL GLAZE 27K 5%	1/10W

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

Ref.No	Part No.	Description	Remark
R807	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R808	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R809	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R810	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R811	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R812	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R813	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R814	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R815	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R816	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R817	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R818	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R819	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R820	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R821	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R822	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R823	1-216-748-11	METAL GLAZE 39K 5%	1/10W
R824	1-216-060-00	METAL GLAZE 3K 5%	1/10W
R825	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R826	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R827	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R828	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R829	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R830	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R831	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R832	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R833	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R834	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R836	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R837	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R838	1-216-047-00	METAL GLAZE 820 5%	1/10W
R839	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R861	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R862	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R863	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R864	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R867	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R868	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R890	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R891	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R892	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W

VARIABLE RESISTOR

RV801	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV802	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV803	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV804	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV805	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV806	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV807	1-230-867-11	RES, ADJ, METAL GRAZE 1K
RV808	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV809	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV810	1-230-870-11	RES, ADJ, METAL GRAZE 10K

Ref.No	Part No.	Description	Remark
<u>TERMINAL</u>			
TP804	*1-535-622-11	PIN, TERMINAL	
TP861	*1-535-622-11	PIN, TERMINAL	
*****			
*A-7061-232-A SS-86 BOARD, COMPLETE			
*****			
*3-718-223-01 HOLDER, TE			
*3-725-136-01 REINFORCEMENT, VA-SS			
<u>CAPACITOR</u>			
C001	1-126-204-11	ELECT 47MF	20% 16V
C002	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C003	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C004	1-126-198-11	ELECT 4.7MF	20% 35V
C006	1-124-779-00	ELECT 10MF	20% 16V
C007	1-124-779-00	ELECT 10MF	20% 16V
C008	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C009	1-126-206-11	ELECT 100MF	20% 6.3V
C010	1-162-638-11	CERAMIC CHIP 1MF	16V
C011	1-162-638-11	CERAMIC CHIP 1MF	16V
C012	1-124-778-00	ELECT 22MF	20% 6.3V
C013	1-161-057-00	CERAMIC 0.033MF	10% 50V
C014	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C017	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C051	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
C052	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
C053	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
C054	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C055	1-124-577-11	ELECT 82MF	20% 10V
C056	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C057	1-124-577-11	ELECT 82MF	20% 10V
C058	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C059	1-124-577-11	ELECT 82MF	20% 10V
C060	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C061	1-126-204-11	ELECT 47MF	20% 16V
C062	1-162-638-11	CERAMIC CHIP 1MF	16V
C063	1-135-099-00	TANTAL. CHIP 2.2MF	20% 6.3V
C064	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C065	1-127-506-00	ELECT(SOLID) 1MF	20% 25V
C066	1-162-638-11	CERAMIC CHIP 1MF	16V
C067	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C068	1-126-196-11	ELECT 3.3MF	20% 50V
C069	1-124-779-00	ELECT 10MF	20% 16V
C070	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C071	1-124-779-00	ELECT 10MF	20% 16V
C072	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C073	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C074	1-124-779-00	ELECT 10MF	20% 16V
C075	1-124-779-00	ELECT 10MF	20% 16V
C076	1-163-038-00	CERAMIC CHIP 0.1MF	25V

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

# SS-86

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
C080	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C329	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C081	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C330	1-124-778-00	ELECT 22MF	20% 6.3V
C082	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C332	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C083	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C345	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C084	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C346	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C085	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C347	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C086	1-136-017-00	CERAMIC CHIP 0.0047MF	50V	C348	1-124-778-00	ELECT 22MF	20% 6.3V
C087	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C349	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C088	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C350	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
C089	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C351	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C200	1-124-779-00	ELECT 10MF	20% 16V	C353	1-124-778-00	ELECT 22MF	20% 6.3V
C201	1-163-035-00	CERAMIC CHIP 0.047MF	50V	<u>CONNECTOR</u>			
C202	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CNO01	*1-564-014-00	PIN, CONNECTOR 4P	
C204	1-124-779-00	ELECT 10MF	20% 16V	CNO02	*1-564-014-00	PIN, CONNECTOR 4P	
C205	1-163-035-00	CERAMIC CHIP 0.047MF	50V	CNO03	1-566-529-11	CONNECTOR, FPC (ZIF) 13P	
C206	1-124-779-00	ELECT 10MF	20% 16V	CNO04	*1-566-540-11	CONNECTOR, FPC (NON ZIF) 8P	
C207	1-163-035-00	CERAMIC CHIP 0.047MF	50V	CNO05	*1-565-532-11	PIN, CONNECTOR (PC BOARD) 7P	
C209	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	CNO06	*1-566-537-11	CONNECTOR, FPC (NON ZIF) 5P	
C210	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V	CNO07	1-566-536-11	CONNECTOR, FPC (ZIF) 20P	
C211	1-163-035-00	CERAMIC CHIP 0.047MF	50V	<u>TRIMMER</u>			
C212	1-124-779-00	ELECT 10MF	20% 16V	CT200	1-141-331-11	CAP, VAR, TRIMMER (CHIP)	
C213	1-124-778-00	ELECT 22MF	20% 6.3V	<u>DIODE</u>			
C215	1-135-145-11	TANTAL. CHIP 0.47MF	20% 25V	D003	8-719-404-12	DIODE MA159	
C216	1-163-059-00	CERAMIC CHIP 0.01MF	10% 50V	D004	8-719-404-12	DIODE MA159	
C217	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D050	8-719-938-75	DIODE SB05-05CP	
C218	1-163-089-00	CERAMIC CHIP 6PF	0.5PF 50V	D051	8-719-938-75	DIODE SB05-05CP	
C301	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	D200	8-719-100-03	DIODE 1S2835	
C302	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	D201	8-719-404-12	DIODE MA159	
C303	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	D203	8-713-300-88	DIODE 1T33C-01	
C304	1-163-038-00	CERAMIC CHIP 0.1MF	25V	<u>IC</u>			
C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC001	8-759-141-79	IC UPD78112GF-509-3BE	
C306	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	IC002	8-759-100-94	IC UPC358G2	
C308	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	IC003	8-759-804-72	IC LB1631M	
C309	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	IC004	8-759-202-45	IC CX20114	
C310	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	IC005	8-759-940-79	IC S-81350AG	
C311	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC006	8-759-107-68	IC CX20115A	
C312	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	IC007	8-759-805-06	IC CXA1127M	
C313	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	IC200	8-759-141-56	IC UPD7507HG-532-22	
C314	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	IC201	8-752-326-28	IC CXK58257M-10LL	
C315	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	IC202	8-759-972-39	IC MB670493	
C316	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	IC203	8-759-101-12	IC UPC311G2	
C317	1-124-778-00	ELECT 22MF	20% 6.3V	IC301	8-752-033-84	IC CXA1202R	
C318	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	<u>COIL</u>			
C319	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	L001	1-410-381-11	INDUCTOR CHIP 10UH	
C320	1-124-778-00	ELECT 22MF	20% 6.3V	L002	1-410-381-11	INDUCTOR CHIP 10UH	
C321	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	L050	1-421-983-11	COIL, CHOKE 700UH	
C322	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	L051	1-421-983-11	COIL, CHOKE 700UH	
C323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C324	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V				
C325	1-163-013-00	CERAMIC CHIP 0.0022MF	10% 50V				
C326	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C327	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C328	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V				

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

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
L052	1-410-627-11	COIL, CHOKE 100UH		Q319	8-729-810-10	TRANSISTOR 2SA1676	
L053	1-410-389-11	INDUCTOR CHIP 4.7UH		Q320	8-729-905-35	TRANSISTOR 2SC4081R	
L200	1-410-377-11	INDUCTOR CHIP 4.7UH		<u>RESISTOR</u>			
L201	1-410-377-11	INDUCTOR CHIP 4.7UH		R001	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L202	1-410-377-11	INDUCTOR CHIP 4.7UH		R002	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L203	1-410-377-11	INDUCTOR CHIP 4.7UH		R003	1-216-186-00	METAL GLAZE 330 5%	1/8W
L204	1-410-384-11	INDUCTOR CHIP 18UH		R004	1-216-097-00	METAL GLAZE 100K 5%	1/10W
L301	1-408-777-00	INDUCTOR CHIP 10UH		R005	1-216-097-00	METAL GLAZE 100K 5%	1/10W
L302	1-408-793-21	INDUCTOR CHIP 220UH		R006	1-216-097-00	METAL GLAZE 100K 5%	1/10W
L303	1-412-029-11	INDUCTOR CHIP 10UH		R007	1-216-097-00	METAL GLAZE 100K 5%	1/10W
L307	1-412-033-11	INDUCTOR CHIP 220UH		R008	1-216-097-00	METAL GLAZE 100K 5%	1/10W
L308	1-412-033-11	INDUCTOR CHIP 220UH		R010	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<u>TRANSISTOR</u>				R011	1-216-097-00	METAL GLAZE 100K 5%	1/10W
PH001	8-729-905-07	PT480FI		R012	1-216-073-00	METAL GLAZE 10K 5%	1/10W
PH002	8-729-905-07	PT480FI		R013	1-216-089-00	METAL GLAZE 47K 5%	1/10W
<u>TRANSISTOR</u>				R014	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q001	8-729-808-18	TRANSISTOR 2SB926-T		R015	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q002	8-729-905-35	TRANSISTOR 2SC4081R		R016	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q005	8-729-903-10	TRANSISTOR FMM1		R017	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q006	8-729-903-10	TRANSISTOR FMM1		R018	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q007	8-729-905-45	TRANSISTOR DTA143EU		R019	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q008	8-729-905-23	TRANSISTOR 2SA1576R		R020	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q051	8-729-805-25	TRANSISTOR 2SB1121		R021	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q052	8-729-805-25	TRANSISTOR 2SB1121		R022	1-216-172-00	METAL GLAZE 82 5%	1/8W
Q053	8-729-904-07	TRANSISTOR FMG2		R025	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q054	8-729-905-23	TRANSISTOR 2SA1576R		R026	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q055	8-729-810-19	TRANSISTOR 2SC4396		R027	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q070	8-729-903-97	TRANSISTOR FMS1FE		R028	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q071	8-729-904-07	TRANSISTOR FMG2		R029	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q073	8-729-905-45	TRANSISTOR DTA143EU		R030	1-216-047-00	METAL GLAZE 820 5%	1/10W
Q074	8-729-810-19	TRANSISTOR 2SC4396		R031	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
Q075	8-729-810-10	TRANSISTOR 2SA1676		R032	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q076	8-729-810-19	TRANSISTOR 2SC4396		R033	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q078	8-729-810-10	TRANSISTOR 2SA1676		R034	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q079	8-729-810-13	TRANSISTOR 2SA1677		R038	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q080	8-729-805-25	TRANSISTOR 2SB1121		R040	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q081	8-729-805-25	TRANSISTOR 2SB1121		R045	1-216-043-00	METAL GLAZE 560 5%	1/10W
Q201	8-729-905-23	TRANSISTOR 2SA1576R		R050	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q202	8-729-905-35	TRANSISTOR 2SC4081R		R051	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
Q203	8-729-810-19	TRANSISTOR 2SC4396		R052	1-216-035-00	METAL GLAZE 270 5%	1/10W
Q204	8-729-810-19	TRANSISTOR 2SC4396		R053	1-216-298-00	METAL GLAZE 2.2 5%	1/10W
Q205	8-729-810-19	TRANSISTOR 2SC4396		R054	1-216-298-00	METAL GLAZE 2.2 5%	1/10W
Q206	8-729-810-19	TRANSISTOR 2SC4396		R055	1-216-298-00	METAL GLAZE 2.2 5%	1/10W
Q302	8-729-117-54	TRANSISTOR 2SA1175		R056	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q303	8-729-100-76	TRANSISTOR 2SA812M6		R057	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q304	8-729-810-10	TRANSISTOR 2SA1676		R058	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q305	8-729-810-10	TRANSISTOR 2SA1676		R059	1-216-037-00	METAL GLAZE 330 5%	1/10W
Q307	8-729-810-19	TRANSISTOR 2SC4396		R060	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q317	8-729-905-35	TRANSISTOR 2SC4081R		R061	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q318	8-729-905-35	TRANSISTOR 2SC4081R		R062	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R063	1-216-113-00	METAL GLAZE 470K 5%	1/10W
				R064	1-216-085-00	METAL GLAZE 33K 5%	1/10W

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

# SS-86

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
R065	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R211	1-216-295-00	METAL GLAZE 0 5%	1/10W
R066	1-216-047-00	METAL GLAZE 820 5%	1/10W	R212	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R067	1-216-025-00	METAL GLAZE 100 5%	1/10W	R213	1-216-043-00	METAL GLAZE 560 5%	1/10W
R068	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R214	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R069	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R215	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R070	1-216-101-00	METAL GLAZE 150K 5%	1/10W	R216	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R071	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R217	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R072	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R229	1-216-295-00	METAL GLAZE 0 5%	1/10W
R073	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R230	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R074	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R231	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R075	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R233	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R076	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R234	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R077	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R236	1-216-045-00	METAL GLAZE 680 5%	1/10W
R078	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R237	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R079	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R238	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R080	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R240	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R081	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R241	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R082	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R242	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R083	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R243	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R084	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R244	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R085	1-216-105-00	METAL GLAZE 220K 5%	1/10W	R245	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R086	1-216-105-00	METAL GLAZE 220K 5%	1/10W	R246	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R087	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R247	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R090	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R248	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R091	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R249	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R092	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R304	1-216-009-00	METAL GLAZE 22 5%	1/10W
R093	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R305	1-216-043-00	METAL GLAZE 560 5%	1/10W
R094	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R306	1-216-037-00	METAL GLAZE 330 5%	1/10W
R095	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R307	1-216-041-00	METAL GLAZE 470 5%	1/10W
R096	1-216-107-00	METAL GLAZE 270K 5%	1/10W	R308	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R097	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R309	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R098	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R311	1-216-295-00	METAL GLAZE 0 5%	1/10W
R100	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R312	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R101	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R313	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R102	1-216-009-00	METAL GLAZE 22 5%	1/10W	R314	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R103	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R315	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R104	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R316	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R108	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R318	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R109	1-216-136-00	METAL GLAZE 2.7 5%	1/8W	R319	1-216-041-00	METAL GLAZE 470 5%	1/10W
R110	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R320	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R111	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R322	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R112	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R323	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R200	1-216-121-00	METAL GLAZE 1M 5%	1/10W	R324	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R201	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R325	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R202	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R326	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R203	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R327	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R204	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R328	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R205	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R329	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R206	1-216-295-00	METAL GLAZE 0 5%	1/10W	R331	1-216-047-00	METAL GLAZE 820 5%	1/10W
R207	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R332	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R208	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R334	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R209	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R335	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R210	1-216-295-00	METAL GLAZE 0 5%	1/10W	R336	1-216-081-00	METAL GLAZE 22K 5%	1/10W

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

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
R337	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	C272	1-162-638-11	CERAMIC CHIP 1MF	16V
R338	1-216-083-00	METAL GLAZE 27K 5%	1/10W	C273	1-163-135-00	CERAMIC CHIP 560PF	5% 50V
R339	1-216-083-00	METAL GLAZE 27K 5%	1/10W	C274	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V
R340	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	C275	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
R341	1-216-081-00	METAL GLAZE 22K 5%	1/10W	C276	1-163-145-00	CERAMIC CHIP 0.0015MF	10% 50V
R357	1-216-035-00	METAL GLAZE 270 5%	1/10W	C277	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
R358	1-216-041-00	METAL GLAZE 470 5%	1/10W	C278	1-163-038-00	CERAMIC CHIP 0.1MF	25V
<u>VARIABLE RESISTOR</u>				C280	1-124-279-11	ELECT 3.3MF	20% 25V
RV001	1-230-873-11	RES, ADJ, METAL GRAZE 47K		C360	1-162-638-11	CERAMIC CHIP 1MF	16V
RV002	1-230-874-11	RES, ADJ, METAL GRAZE 100K		C361	1-126-187-21	ELECT 0.1MF	20% 50V
RV003	1-230-874-11	RES, ADJ, METAL GRAZE 100K		C362	1-163-021-00	CERAMIC CHIP 0.01MF	50V
RV200	1-230-867-11	RES, ADJ, METAL GRAZE 1K		C363	1-126-199-21	ELECT 6.8MF	20% 35V
RV301	1-230-873-11	RES, ADJ, METAL GRAZE 47K		C364	1-124-779-00	ELECT 10MF	20% 16V
RV302	1-230-873-11	RES, ADJ, METAL GRAZE 47K		C365	1-163-035-00	CERAMIC CHIP 0.047MF	50V
<u>TERMINAL PIN</u>				C366	1-163-033-00	CERAMIC CHIP 0.022MF	50V
TP001	*1-535-622-11	PIN, TERMINAL		C367	1-124-779-00	ELECT 10MF	20% 16V
TP002	*1-535-622-11	PIN, TERMINAL		C368	1-162-638-11	CERAMIC CHIP 1MF	16V
TP003	*1-535-622-11	PIN, TERMINAL		C369	1-162-638-11	CERAMIC CHIP 1MF	16V
TP004	*1-535-622-11	PIN, TERMINAL		C370	1-124-779-00	ELECT 10MF	20% 16V
<u>CRYSTAL</u>				C371	1-162-638-11	CERAMIC CHIP 1MF	16V
X001	1-567-885-11	VIBRATOR, CRYSTAL 12MHZ		C372	1-163-033-00	CERAMIC CHIP 0.022MF	50V
X200	1-567-152-00	OSCILLATOR, CERAMIC		C373	1-124-778-00	ELECT 22MF	20% 6.3V
*****				C374	1-126-193-11	ELECT 1MF	20% 50V
*A-7061-231-A VA-41 BOARD, COMPLETE				C375	1-162-638-11	CERAMIC CHIP 1MF	16V
*****				C376	1-126-193-11	ELECT 1MF	20% 50V
<u>CAPACITOR</u>				C377	1-126-193-11	ELECT 1MF	20% 50V
C251	1-162-638-11	CERAMIC CHIP 1MF	16V	C378	1-124-779-00	ELECT 10MF	20% 16V
C252	1-162-638-11	CERAMIC CHIP 1MF	16V	C379	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C253	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C380	1-124-779-00	ELECT 10MF	20% 16V
C254	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C381	1-124-779-00	ELECT 10MF	20% 16V
C255	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C382	1-124-779-00	ELECT 10MF	20% 16V
C256	1-124-779-00	ELECT 10MF	20% 16V	C383	1-124-779-00	ELECT 10MF	20% 16V
C257	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C384	1-124-779-00	ELECT 10MF	20% 16V
C258	1-124-779-00	ELECT 10MF	20% 16V	C385	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C259	1-162-638-11	CERAMIC CHIP 1MF	16V	C386	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C260	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V	C387	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C261	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V	C388	1-124-778-00	ELECT 22MF	20% 6.3V
C262	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C389	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C263	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C390	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
C264	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C391	1-124-779-00	ELECT 10MF	20% 16V
C265	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C392	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C266	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C393	1-124-778-00	ELECT 22MF	20% 6.3V
C267	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C394	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C268	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C395	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C269	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C396	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C270	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C397	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C271	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C398	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
				C399	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
				C401	1-124-779-00	ELECT 10MF	20% 16V
				C402	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
				C403	1-124-778-00	ELECT 22MF	20% 6.3V
				C404	1-163-021-00	CERAMIC CHIP 0.01MF	50V
				C405	1-163-986-00	CERAMIC CHIP 0.027MF	10% 25V

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

# VA-41

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
C406	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C459	1-135-151-21	TANTAL. CHIP 4.7MF	20% 4V
C407	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C460	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V
C408	1-163-091-00	CERAMIC CHIP 8PF	0.25PF 50V	C461	1-126-198-11	ELECT 4.7MF	20% 35V
C409	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C462	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C410	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C463	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V
C411	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C464	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C412	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C465	1-135-091-00	TANTAL. CHIP 1MF	20% 16V
C413	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C466	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C414	1-162-638-11	CERAMIC CHIP 1MF	16V	C467	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C415	1-126-205-11	ELECT 47MF	20% 6.3V	C468	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C416	1-135-145-11	TANTAL. CHIP 0.47MF	20% 35V	C469	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C417	1-135-145-11	TANTAL. CHIP 0.47MF	20% 35V	C470	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C418	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C471	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C419	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C472	1-163-086-00	CERAMIC CHIP 3PF	0.25PF 50V
C420	1-163-114-00	CERAMIC CHIP 75PF	5% 50V	C473	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C421	1-163-123-00	CERAMIC CHIP 180PF	5% 50V	C474	1-124-779-00	ELECT 10MF	20% 16V
C422	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C475	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C423	1-163-107-00	CERAMIC CHIP 39PF	5% 50V	C476	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C424	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C477	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C425	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C478	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C426	1-163-015-00	CERAMIC CHIP 0.0033MF	10% 50V	C479	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C427	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	C480	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C428	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C481	1-163-015-00	CERAMIC CHIP 0.0033MF	10% 50V
C429	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C482	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C430	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C483	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C431	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C484	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C432	1-124-779-00	ELECT 10MF	20% 16V	C485	1-124-779-00	ELECT 10MF	20% 16V
C433	1-124-779-00	ELECT 10MF	20% 16V	C488	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C434	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C489	1-124-778-00	ELECT 22MF	20% 6.3V
C435	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C490	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C436	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C491	1-124-779-00	ELECT 10MF	20% 16V
C437	1-163-145-00	CERAMIC CHIP 0.0015MF	10% 50V	C492	1-126-191-11	ELECT 0.47MF	20% 50V
C438	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C493	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C439	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C494	1-124-779-00	ELECT 10MF	20% 16V
C440	1-163-127-00	CERAMIC CHIP 270PF	5% 50V	C495	1-124-779-00	ELECT 10MF	20% 16V
C441	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C496	1-126-246-11	ELECT 220MF	20% 4V
C442	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C497	1-124-778-00	ELECT 22MF	20% 6.3V
C443	1-163-088-00	CERAMIC CHIP 5PF	0.25PF 50V	C498	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C444	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C499	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C445	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V	C500	1-126-208-11	ELECT 47MF	20% 4V
C446	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C501	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C447	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C502	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C448	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C503	1-163-021-00	CERAMIC CHIP 0.01MF	50V
C449	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C504	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C450	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C505	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C451	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C506	1-124-778-00	ELECT 22MF	20% 6.3V
C452	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C507	1-126-193-11	ELECT 1MF	20% 50V
C453	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C508	1-126-205-11	ELECT 47MF	20% 6.3V
C454	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C509	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C455	1-163-021-00	CERAMIC CHIP 0.01MF	50V	C510	1-124-779-00	ELECT 10MF	20% 16V
C456	1-124-778-00	ELECT 22MF	20% 6.3V	C511	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C457	1-163-118-00	CERAMIC CHIP 110PF	5% 50V	C512	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C458	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V	C513	1-163-105-00	CERAMIC CHIP 33PF	5% 50V

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



Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
C514	1-124-779-00	ELECT 10MF	20% 16V	D372	8-719-100-05	DIODE 1S2837	
C515	1-162-638-11	CERAMIC CHIP 1MF	16V			<u>DELAY LINE</u>	
C516	1-163-021-00	CERAMIC CHIP 0.01MF	50V				
C517	1-135-146-21	TANTAL. CHIP 0.68MF	20% 25V	DL360	1-415-593-11	DELAY LINE, ULTRASONIC GLASS	
C518	1-126-195-11	ELECT 2.2MF	20% 50V			<u>FILTER</u>	
C519	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL361	1-577-162-11	FILTER, CERAMIC (5.17MHz)	
C520	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL362	1-236-186-11	FILTER, BAND PASS	
C521	1-163-033-00	CERAMIC CHIP 0.022MF	50V	FL363	1-409-446-11	FILTER, TRAP	
C524	1-163-033-00	CERAMIC CHIP 0.022MF	50V	FL365	1-236-188-11	FILTER, BAND PASS	
C525	1-163-123-00	CERAMIC CHIP 180PF	5% 50V	FL580	1-236-145-11	FILTER, BAND PASS	
C526	1-163-081-00	CERAMIC CHIP 0.22MF	25V			<u>IC</u>	
C527	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	IC250	8-759-209-53	IC CXA1204Q	
C528	1-163-034-00	CERAMIC CHIP 0.033MF	50V	IC360	8-752-034-39	IC CXA1200AQ	
C530	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC360	8-752-034-40	IC CXA1200BQ	
C531	1-163-035-00	CERAMIC CHIP 0.047MF	50V	IC361	8-752-327-03	IC CXL1502M	
C580	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	IC362	8-752-033-40	IC CXA1201Q	
C581	1-163-021-00	CERAMIC CHIP 0.01MF	50V	IC363	8-752-033-74	IC CXA1203N	
C582	1-126-209-11	ELECT 100MF	20% 4V	IC364	8-759-710-09	IC NJM2233AM	
C584	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	IC365	8-759-710-09	IC NJM2233AM	
C585	1-135-091-00	TANTAL. CHIP 1MF	20% 16V	IC366	8-759-100-93	IC UPC39362	
C586	1-126-207-11	ELECT 33MF	20% 4V	IC367	8-759-204-51	IC TC40H008F	
C587	1-126-207-11	ELECT 33MF	20% 4V	IC368	8-759-112-72	IC UPD61426-101	
C588	1-135-091-00	TANTAL. CHIP 1MF	20% 16V	IC580	8-741-150-51	IC SBX1505-21	
C589	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V			<u>COIL</u>	
C590	1-126-205-11	ELECT 47MF	20% 6.3V	L250	1-408-789-21	INDUCTOR CHIP 100UH	
C591	1-135-151-21	TANTAL. CHIP 4.7MF	20% 4V	L251	1-408-795-21	INDUCTOR CHIP 330UH	
C592	1-163-036-00	CERAMIC CHIP 0.068MF	50V	L252	1-410-393-11	INDUCTOR CHIP 100UH	
C593	1-126-206-11	ELECT 100MF	20% 6.3V	L361	1-410-393-11	INDUCTOR CHIP 100UH	
C594	1-126-206-11	ELECT 100MF	20% 6.3V	L362	1-412-031-11	INDUCTOR CHIP 47UH	
C595	1-135-151-21	TANTAL. CHIP 4.7MF	20% 4V	L363	1-412-031-11	INDUCTOR CHIP 47UH	
C598	1-163-033-00	CERAMIC CHIP 0.022MF	50V	L364	1-412-029-11	INDUCTOR CHIP 10UH	
C600	1-163-145-00	CERAMIC CHIP 0.0015MF	10% 50V	L365	1-410-389-11	INDUCTOR CHIP 47UH	
C601	1-163-033-00	CERAMIC CHIP 0.022MF	50V	L366	1-410-383-11	INDUCTOR CHIP 15UH	
		<u>CONNECTOR</u>		L367	1-410-385-11	INDUCTOR CHIP 22UH	
CN360	*1-565-543-11	PIN, CONNECTOR (PC BOARD) 4P		L368	1-410-393-11	INDUCTOR CHIP 100UH	
CN361	*1-565-542-11	PIN, CONNECTOR (PC BOARD) 3P		L369	1-410-393-11	INDUCTOR CHIP 100UH	
		<u>TRIMMER</u>		L370	1-410-392-11	INDUCTOR CHIP 82UH	
CV360	1-141-331-11	CAP, VAR, TRIMMER (CHIP) 30P		L371	1-410-393-11	INDUCTOR CHIP 100UH	
CV361	1-141-311-11	CAP, VAR, TRIMMER (CHIP) 20P		L372	1-410-393-11	INDUCTOR CHIP 100UH	
		<u>DIODE</u>		L373	1-410-656-11	INDUCTOR CHIP 150UH	
D361	8-719-100-05	DIODE 1S2837		L374	1-410-380-21	INDUCTOR CHIP 8.2UH	
D362	8-719-101-23	DIODE 1S5123		L375	1-408-795-21	INDUCTOR CHIP 330UH	
D363	8-719-101-23	DIODE 1S5123		L376	1-410-655-11	INDUCTOR CHIP 120UH	
D364	8-719-100-05	DIODE 1S2837		L377	1-410-387-11	INDUCTOR CHIP 33UH	
D365	8-719-101-23	DIODE 1S5123		L379	1-410-655-11	INDUCTOR CHIP 120UH	
D366	8-719-106-43	DIODE RD9.1M-B1		L380	1-410-657-21	INDUCTOR CHIP 180UH	
D367	8-719-106-43	DIODE RD9.1M-B1		L381	1-408-795-21	INDUCTOR CHIP 330UH	
D368	8-719-106-43	DIODE RD9.1M-B1		L382	1-410-167-41	INDUCTOR CHIP 820UH	
D369	8-719-106-43	DIODE RD9.1M-B1		L383	1-408-795-21	INDUCTOR CHIP 330UH	
D370	8-719-106-43	DIODE RD9.1M-B1					

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

# VA-41

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
L384	1-410-393-11	INDUCTOR CHIP 100UH		Q397	8-729-905-18	TRANSISTOR DTC144EU	
L385	1-410-381-11	INDUCTOR CHIP 10UH		Q398	8-729-905-18	TRANSISTOR DTC144EU	
L386	1-410-392-11	INDUCTOR CHIP 82UH		Q399	8-729-102-07	TRANSISTOR 2SC2223F13	
L387	1-410-388-21	INDUCTOR CHIP 39UH		Q400	8-729-102-07	TRANSISTOR 2SC2223F13	
L389	1-410-655-11	INDUCTOR CHIP 120UH		Q401	8-729-122-63	TRANSISTOR 2SA1226E4	
L390	1-410-377-11	INDUCTOR CHIP 4.7UH		Q402	8-729-122-63	TRANSISTOR 2SA1226E4	
L391	1-410-388-21	INDUCTOR CHIP 39UH		Q403	8-729-122-63	TRANSISTOR 2SA1226E4	
L392	1-410-384-11	INDUCTOR CHIP 18UH		Q404	8-729-122-63	TRANSISTOR 2SA1226E4	
L393	1-410-387-11	INDUCTOR CHIP 33UH		Q405	8-729-905-18	TRANSISTOR DTC144EU	
L395	1-410-388-21	INDUCTOR CHIP 39UH		Q406	8-729-102-07	TRANSISTOR 2SC2223F13	
L396	1-410-391-11	INDUCTOR CHIP 68UH		Q407	8-729-905-57	TRANSISTOR DTA124EU	
L580	1-408-797-11	INDUCTOR CHIP 470UH		Q408	8-729-102-07	TRANSISTOR 2SC2223F13	
<u>TRANSISTOR</u>				Q409	8-729-102-07	TRANSISTOR 2SC2223F13	
Q250	8-729-905-23	TRANSISTOR 2SA1576R		Q410	8-729-905-35	TRANSISTOR 2SC4081R	
Q251	8-729-905-35	TRANSISTOR 2SC4081R		Q411	8-729-905-35	TRANSISTOR 2SC4081R	
Q252	8-729-905-23	TRANSISTOR 2SA1576R		Q412	8-729-905-35	TRANSISTOR 2SC4081R	
Q253	8-729-109-42	TRANSISTOR 2SK94X2		Q413	8-729-905-12	TRANSISTOR DTA144EU	
Q254	8-729-905-18	TRANSISTOR DTC144EU		Q414	8-729-102-07	TRANSISTOR 2SC2223F13	
Q361	8-729-101-07	TRANSISTOR 2SB798		Q415	8-729-122-63	TRANSISTOR 2SA1226E4	
Q362	8-729-905-23	TRANSISTOR 2SA1576R		Q416	8-729-905-61	TRANSISTOR DTC124EU	
Q363	8-729-905-23	TRANSISTOR 2SA1576R		Q417	8-729-905-18	TRANSISTOR DTC144EU	
Q364	8-729-905-23	TRANSISTOR 2SA1576R		Q418	8-729-905-12	TRANSISTOR DTA144EU	
Q365	8-729-905-35	TRANSISTOR 2SC4081R		Q420	8-729-905-18	TRANSISTOR DTC144EU	
Q366	8-729-905-35	TRANSISTOR 2SC4081R		Q421	8-729-905-35	TRANSISTOR 2SC4081R	
Q367	8-729-905-23	TRANSISTOR 2SA1576R		Q424	8-729-905-18	TRANSISTOR DTC144EU	
Q368	8-729-905-23	TRANSISTOR 2SA1576R		Q425	8-729-905-35	TRANSISTOR 2SC4081R	
Q369	8-729-905-35	TRANSISTOR 2SC4081R		Q426	8-729-905-35	TRANSISTOR 2SC4081R	
Q370	8-729-905-35	TRANSISTOR 2SC4081R		Q427	8-729-905-23	TRANSISTOR 2SA1576R	
Q371	8-729-905-35	TRANSISTOR 2SC4081R		Q580	8-729-905-35	TRANSISTOR 2SC4081R	
Q372	8-729-905-35	TRANSISTOR 2SC4081R		Q581	8-729-905-35	TRANSISTOR 2SC4081R	
Q373	8-729-905-35	TRANSISTOR 2SC4081R		Q582	8-729-905-35	TRANSISTOR 2SC4081R	
Q374	8-729-905-35	TRANSISTOR 2SC4081R		<u>RESISTOR</u>			
Q375	8-729-905-35	TRANSISTOR 2SC4081R		R251	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q376	8-729-905-35	TRANSISTOR 2SC4081R		R252	1-216-091-00	METAL GLAZE 56K 5%	1/10W
Q377	8-729-905-35	TRANSISTOR 2SC4081R		R253	1-216-121-00	METAL GLAZE 1M 5%	1/10W
Q378	8-729-905-12	TRANSISTOR DTA144EU		R254	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
Q379	8-729-905-35	TRANSISTOR 2SC4081R		R255	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q380	8-729-101-07	TRANSISTOR 2SB798		R256	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q382	8-729-905-18	TRANSISTOR DTC144EU		R257	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q383	8-729-905-35	TRANSISTOR 2SC4081R		R258	1-216-097-00	METAL GLAZE 100K 5%	1/10W
Q385	8-729-905-35	TRANSISTOR 2SC4081R		R259	1-216-103-00	METAL GLAZE 180K 5%	1/10W
Q386	8-729-905-35	TRANSISTOR 2SC4081R		R260	1-216-085-00	METAL GLAZE 33K 5%	1/10W
Q387	8-729-905-23	TRANSISTOR 2SA1576R		R261	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q388	8-729-102-07	TRANSISTOR 2SC2223F13		R262	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q389	8-729-905-35	TRANSISTOR 2SC4081R		R263	1-216-027-00	METAL GLAZE 120 5%	1/10W
Q390	8-729-905-35	TRANSISTOR 2SC4081R		R264	1-216-031-00	METAL GLAZE 180 5%	1/10W
Q391	8-729-905-35	TRANSISTOR 2SC4081R		R265	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q392	8-729-905-35	TRANSISTOR 2SC4081R		R266	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q393	8-729-905-35	TRANSISTOR 2SC4081R		R267	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q394	8-729-905-23	TRANSISTOR 2SA1576R		R268	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q395	8-729-905-12	TRANSISTOR DTA144EU		R269	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q396	8-729-905-18	TRANSISTOR DTC144EU		R270	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W

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

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
R271	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R412	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R272	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R413	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R273	1-216-089-00	METAL GLAZE	4.7K 5% 1/10W	R414	1-216-043-00	METAL GLAZE	560 5% 1/10W
R274	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R415	1-216-043-00	METAL GLAZE	560 5% 1/10W
R275	1-216-295-00	METAL GLAZE	0 5% 1/10W	R416	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R276	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R417	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R277	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R418	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R360	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R419	1-216-041-00	METAL GLAZE	470 5% 1/10W
R361	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R420	1-216-041-00	METAL GLAZE	470 5% 1/10W
R362	1-216-025-00	METAL GLAZE	100 5% 1/10W	R421	1-216-043-00	METAL GLAZE	560 5% 1/10W
R363	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R422	1-216-025-00	METAL GLAZE	100 5% 1/10W
R364	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R423	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R365	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R424	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R366	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R425	1-216-025-00	METAL GLAZE	100 5% 1/10W
R368	1-216-117-00	METAL GLAZE	680K 5% 1/10W	R426	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R369	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R427	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R370	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R428	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R371	1-216-663-11	METAL CHIP	3.3K 0.50% 1/10W	R429	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R372	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R430	1-216-295-00	METAL GLAZE	0 5% 1/10W
R373	1-216-045-00	METAL GLAZE	680 5% 1/10W	R431	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R374	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R432	1-216-295-00	METAL GLAZE	0 5% 1/10W
R375	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R433	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R376	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R434	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R377	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R435	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R378	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R436	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R379	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R437	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R380	1-216-021-00	METAL GLAZE	68 5% 1/10W	R438	1-216-041-00	METAL GLAZE	470 5% 1/10W
R381	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R439	1-216-021-00	METAL GLAZE	68 5% 1/10W
R382	1-216-643-11	METAL CHIP	470 0.50% 1/10W	R440	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R383	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R441	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R384	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R442	1-216-047-00	METAL GLAZE	820 5% 1/10W
R385	1-216-047-00	METAL GLAZE	820 5% 1/10W	R443	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R386	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R444	1-216-033-00	METAL GLAZE	220 5% 1/10W
R387	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R445	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R388	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R446	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R389	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R447	1-216-025-00	METAL GLAZE	100 5% 1/10W
R390	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R448	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R391	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R449	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R392	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R450	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R394	1-216-045-00	METAL GLAZE	680 5% 1/10W	R451	1-216-047-00	METAL GLAZE	820 5% 1/10W
R395	1-216-047-00	METAL GLAZE	820 5% 1/10W	R452	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R397	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R453	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R398	1-216-027-00	METAL GLAZE	120 5% 1/10W	R454	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R399	1-216-021-00	METAL GLAZE	68 5% 1/10W	R455	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R401	1-216-047-00	METAL GLAZE	820 5% 1/10W	R456	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R402	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R457	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R403	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R458	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R405	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R459	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R406	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R460	1-216-045-00	METAL GLAZE	680 5% 1/10W
R407	1-216-043-00	METAL GLAZE	560 5% 1/10W	R461	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R408	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R462	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R409	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R463	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R411	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R464	1-216-077-00	METAL GLAZE	15K 5% 1/10W

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

# VA-41

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
R465	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R519	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R466	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R520	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R467	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R521	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R468	1-216-699-11	METAL CHIP	100K 0.50% 1/10W	R522	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R469	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R523	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R470	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R524	1-216-699-11	METAL CHIP	100K 0.50% 1/10W
R471	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R525	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R472	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R526	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R473	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R527	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R474	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R528	1-216-021-00	METAL GLAZE	68 5% 1/10W
R475	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R529	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R476	1-216-079-00	METAL GLAZE	16K 5% 1/10W	R531	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R477	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R532	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R478	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R533	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R479	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R535	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R480	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R536	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R481	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R537	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R482	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R538	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R483	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R539	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R485	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R540	1-216-041-00	METAL GLAZE	470 5% 1/10W
R486	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R541	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R487	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R542	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R488	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R543	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R489	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R544	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R490	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R545	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R491	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R546	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R492	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R547	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R493	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R548	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R494	1-216-033-00	METAL GLAZE	220 5% 1/10W	R549	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R495	1-216-041-00	METAL GLAZE	470 5% 1/10W	R550	1-216-138-00	METAL GLAZE	3.3 5% 1/8W
R496	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R551	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R497	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R552	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R498	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R553	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R499	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R554	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R500	1-216-047-00	METAL GLAZE	820 5% 1/10W	R555	1-216-009-00	METAL GLAZE	22 5% 1/10W
R501	1-216-039-00	METAL GLAZE	390 5% 1/10W	R556	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R502	1-216-041-00	METAL GLAZE	470 5% 1/10W	R557	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R503	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R558	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R504	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R559	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R505	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R560	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R506	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R561	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R507	1-216-043-00	METAL GLAZE	560 5% 1/10W	R562	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R508	1-216-041-00	METAL GLAZE	470 5% 1/10W	R563	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R509	1-216-027-00	METAL GLAZE	120 5% 1/10W	R564	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R510	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R565	1-216-295-00	METAL GLAZE	0 5% 1/10W
R511	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R566	1-216-295-00	METAL GLAZE	0 5% 1/10W
R512	1-216-047-00	METAL GLAZE	820 5% 1/10W	R567	1-216-295-00	METAL GLAZE	0 5% 1/10W
R513	1-216-037-00	METAL GLAZE	330 5% 1/10W	R569	1-216-295-00	METAL GLAZE	0 5% 1/10W
R514	1-216-037-00	METAL GLAZE	330 5% 1/10W	R570	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R515	1-216-047-00	METAL GLAZE	820 5% 1/10W	R571	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R516	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R572	1-216-041-00	METAL GLAZE	470 5% 1/10W
R517	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R573	1-216-043-00	METAL GLAZE	560 5% 1/10W
R518	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R574	1-216-121-00	METAL GLAZE	1M 5% 1/10W

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

**VA-41****EJ-4****FV-1****MC-28**

Ref.No	Part No.	Description	Remark
R575	1-216-295-00	METAL GLAZE 0 5%	1/10W
R576	1-216-037-00	METAL GLAZE 330 5%	1/10W
R577	1-216-027-00	METAL GLAZE 120 5%	1/10W
R578	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R580	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R581	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R582	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R584	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R585	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R586	1-216-009-00	METAL GLAZE 22 5%	1/10W
R587	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R588	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R589	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R590	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R591	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R592	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R593	1-216-089-00	METAL GLAZE 4.7K 5%	1/10W
R595	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R596	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R597	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R598	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R599	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R600	1-216-045-00	METAL GLAZE 680 5%	1/10W
R601	1-216-295-00	METAL GLAZE 0 5%	1/10W
R602	1-216-089-00	METAL GLAZE 4.7K 5%	1/10W
R603	1-216-295-00	METAL GLAZE 0 5%	1/10W
R604	1-216-295-00	METAL GLAZE 0 5%	1/10W
R605	1-216-015-00	METAL GLAZE 39 5%	1/10W
R606	1-216-015-00	METAL GLAZE 39 5%	1/10W

**VARIABLE RESISTOR**

RV250	1-230-873-11	RES, ADJ, METAL GLAZE 4.7K
RV360	1-230-867-11	RES, ADJ, METAL GLAZE 1K
RV361	1-230-870-11	RES, ADJ, METAL GLAZE 10K
RV362	1-230-873-11	RES, ADJ, METAL GRAZE 4.7K
RV363	1-230-868-11	RES, ADJ, METAL GRAZE 2.2K
RV364	1-230-868-11	RES, ADJ, METAL GRAZE 2.2K
RV365	1-230-869-11	RES, ADJ, METAL GRAZE 4.7K
RV366	1-230-867-11	RES, ADJ, METAL GRAZE 1K
RV367	1-230-868-11	RES, ADJ, METAL GRAZE 2.2K
RV368	1-230-870-11	RES, ADJ, METAL GRAZE 10K
RV369	1-230-869-11	RES, ADJ, METAL GRAZE 4.7K
RV370	1-230-873-11	RES, ADJ, METAL GRAZE 4.7K
RV372	1-230-869-11	RES, ADJ, METAL GRAZE 4.7K
RV373	1-230-873-11	RES, ADJ, METAL GRAZE 4.7K
RV374	1-230-866-11	RES, ADJ, METAL GRAZE 4.70

**TERMINAL PIN**

TP364	*1-535-622-11	PIN, TERMINAL
TP365	*1-535-622-11	PIN, TERMINAL

**CRYSTAL**

X250	1-567-827-11	VIBRATOR, CRYSTAL
------	--------------	-------------------

Ref.No	Part No.	Description	Remark
*A-7070-637-A FD-6 BOARD, COMPLETE *****			
<b>CONNECTOR</b>			
CN150	*1-566-537-11	CONNECTOR, FPC (NON ZIF) 5P	
<b>SWITCH</b>			
S150	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (ZERO MEMO)	
S151	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (EDIT REV)	
S152	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (DATE)	
S153	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (COUNTER RESET)	
S154	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (EDIT CUE)	
S155	1-570-910-21	SWITCH, TACTIL (REFLOW TYPE) (TIME)	
*****			
*A-7070-639-A EJ-4 BOARD, COMPLETE *****			
<b>SWITCH</b>			
S169	1-571-102-11	SWITCH, SLIDE (EJECT)	
*****			
*1-625-994-11 FV-1 BOARD *****			
<b>CONNECTOR</b>			
CN160	1-566-527-11	CONNECTOR, FPC (ZIF) 11P	
<b>SWITCH</b>			
S160	1-571-101-11	SWITCH, SLIDE (POWER)	
S163	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (PAUSE)	
S164	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (PB)	
S165	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (FF)	
S166	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (STOP)	
S168	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE) (REW)	
*****			
*A-7061-233-A MC-28 BOARD, COMPLETE *****			
<b>CAPACITOR</b>			
C585	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C586	1-124-225-00	ELECT 100MF 20% 6.3V	
C587	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V	
C588	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C589	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	

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

**MC-28****VF-13**

Ref.No	Part No.	Description	Remark
C590	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C592	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V
C593	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C594	1-126-157-11	ELECT 10MF	20% 10V
C595	1-163-081-00	CERAMIC CHIP 0.22MF	25V
C596	1-124-225-00	ELECT 100MF	20% 6.3V
C597	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V

CONNECTOR

CN585	*1-566-196-11	PIN, CONNECTOR (PC BOARD) 3P
CN586	*1-566-196-11	PIN, CONNECTOR (PC BOARD) 3P

DIODE

D585	8-719-100-13	DIODE RD2.7E82
------	--------------	----------------

IC

IC585	8-759-820-51	IC LA7293
-------	--------------	-----------

TRANSISTOR

Q585	8-729-905-35	TRANSISTOR 2SC4081R
------	--------------	---------------------

RESISTOR

R585	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R587	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R588	1-216-059-00	METAL GLAZE 2.7K	5%	1/10W
R591	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R592	1-216-095-00	METAL GLAZE 82K	5%	1/10W
R593	1-216-295-00	METAL GLAZE 0	5%	1/10W
R594	1-216-295-00	METAL GLAZE 0	5%	1/10W
R595	1-216-296-00	METAL GLAZE 0	5%	1/8W

\*\*\*\*\*

\*A-7061-236-A VF-13 BOARD, COMPLETE  
\*\*\*\*\*

1-526-978-21 SOCKET ASSY, CRT  
3-713-535-01 CUSHION, CRT  
\*3-725-155-01 INSULATOR, FB

CAPACITOR

C901	1-126-369-11	ELECT 220MF	20%	6.3V
C902	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C904	1-127-486-00	ELECT(SOLID) 47MF	20%	6.3V
C905	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V
C906	1-163-115-00	CERAMIC CHIP 82PF	5%	50V
C907	△ 1-162-625-11	CERAMIC CHIP 0.0047MF	5%	50V
C908	△ 1-163-015-00	CERAMIC CHIP 0.0033MF	10%	50V
C909	1-126-193-11	ELECT 1MF	20%	50V
C911	1-131-388-00	TANTALUM 68MF	10%	3.15V
C912	1-102-038-00	CERAMIC 0.001MF	99%	500V
C913	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C915	1-126-193-11	ELECT 1MF	20%	50V

Ref.No	Part No.	Description	Remark
C916	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
C917	1-135-098-21	TANTAL. CHIP 47MF	20% 6.3V
C918	1-162-638-11	CERAMIC CHIP 1MF	16V
C919	1-135-070-00	TANTAL. CHIP 0.1MF	10% 35V
C920	1-163-021-00	CERAMIC CHIP 0.01MF	10% 50V

CONNECTOR

CN901	*1-566-195-21	PIN, CONNECTOR (PC BOARD) 2P
CN902	*1-566-195-11	PIN, CONNECTOR (PC BOARD) 2P

COMPOSITION CIRCUIT BLOCK

CP901	1-238-119-11	RES, ADJ
-------	--------------	----------

DIODE

D903	8-719-400-20	DIODE MA152WA
------	--------------	---------------

IC

IC901	8-759-420-01	IC AN25125
-------	--------------	------------

COIL

L901	1-408-421-00	INDUCTOR 100UH
L902	1-410-379-21	INDUCTOR CHIP 6.8UH
L903	△ 1-459-858-11	COIL, FERRITE (HLC)

TRANSISTOR

Q903	8-729-106-64	TRANSISTOR 2SD1615
Q904	8-729-216-32	TRANSISTOR 2SA1163

RESISTOR

R902	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W
R903	1-216-041-00	METAL GLAZE 470	5%	1/10W
R907	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R908	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R909	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R911	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R912	1-216-121-00	METAL GLAZE 1M	5%	1/10W
R913	1-216-123-11	METAL GLAZE 1.2M	5%	1/10W
R914	1-216-133-00	METAL GLAZE 3.3M	5%	1/10W
R915	1-216-133-00	METAL GLAZE 3.3M	5%	1/10W
R916	1-216-125-00	METAL GLAZE 1.5M	5%	1/10W
R917	1-216-121-00	METAL GLAZE 1M	5%	1/10W
R919	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R920	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R921	1-216-013-00	METAL GLAZE 33	5%	1/10W
R922	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R923	1-216-025-00	METAL GLAZE 100	5%	1/10W
R924	1-216-306-11	METAL GLAZE 3.9	5%	1/10W
R925	1-216-336-11	METAL GLAZE 47K	1%	1/10W
R926	1-216-107-00	METAL GLAZE 270K	5%	1/10W
R928	1-216-870-11	METAL GLAZE 180K	1%	1/10W
R929	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R930	1-216-089-00	METAL GLAZE 47K	5%	1/10W

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

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

**VF-13**

**TL-18**

**TL-19**

**PA-13**

**ZM-7**

**LA-1**

**SW-76**

Ref.No	Part No.	Description	Remark
R931	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
		<u>VARIABLE RESISTOR</u>	
RV901	1-230-203-00	RES, ADJ, METAL GLAZE 2.2M	
		<u>TRANSFORMER</u>	
T901	1-439-428-11	TRANSFORMER ASSY, FLYBACK	
		<u>THERMISTOR</u>	
TH901	1-807-938-11	THERMISTOR	
*****			
	*A-7070-645-A	TL-18 BOARD, COMPLETE	*****
		<u>DIODE</u>	
D950	8-719-941-34	DIODE GL1HD51	
		<u>RESISTOR</u>	
R950	1-216-037-00	METAL GLAZE 330 5% 1/10W	
*****			
	*A-7070-646-A	TL-19 BOARD, COMPLETE	*****
		<u>DIODE</u>	
D955	8-719-941-34	DIODE GL1HD51	
*****			
	*A-7070-703-A	PA-13 BOARD, COMPLETE	*****
		<u>JACK</u>	
J991	1-550-104-32	HOLDER, BATTERY	
		<u>COIL</u>	
L990	1-412-026-11	INDUCTOR CHIP 1UH	
L991	1-412-026-11	INDUCTOR CHIP 1UH	
L992	1-412-026-11	INDUCTOR CHIP 1UH	
		<u>IC LINK</u>	
PS990	1-532-841-21	LINK, IC	
PS991	1-532-841-21	LINK, IC	
		<u>RESISTOR</u>	
R990	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		<u>SWITCH</u>	
S990	1-570-870-21	SWITCH, SLIDE (EDIT)	



Ref.No	Part No.	Description	Remark
		<u>CONNECTOR</u>	
W991	1-559-927-41	CABLE, FLAT (1.0MM PITCH) 5P	
W992	1-535-658-11	TERMINAL BOARD	
*****			
	*1-625-991-21	ZM-7 BOARD	*****
		<u>SWITCH</u>	
S970	1-571-315-11	SWITCH, KEY BOARD (TETE)	
S971	1-571-315-11	SWITCH, KEY BOARD (WIDE)	
*****			
	*1-625-989-21	LA-1 BOARD	*****
		<u>SWITCH</u>	
S990	1-571-315-11	SWITCH, KEY BOARD (REC)	
*****			
	*1-625-990-21	SW-76 BOARD	*****
		<u>CONNECTOR</u>	
CN930	*1-566-189-11	PIN, CONNECTOR (PC BOARD) 10P	
CN931	*1-566-196-11	PIN, CONNECTOR (PC BOARD) 3P	
CN932	*1-566-195-11	PIN, CONNECTOR (PC BOARD) 2P	
		<u>JACK</u>	
J930	1-565-276-11	JACK, ULTRA SMALL 1P (REMOTE)	
J931	1-507-921-00	JACK (EARPHONE)	
		<u>COIL</u>	
L930	1-410-369-11	INDUCTOR CHIP 1UH	
L932	1-410-369-11	INDUCTOR CHIP 1UH	
		<u>SWITCH</u>	
S930	1-553-977-00	SWITCH, SLIDE (STANDBY)	
S931	1-570-689-11	SWITCH, KEY BOARD (REC)	
*****			
		<u>MISCELLANEOUS</u>	*****
A-7090-800-A		DDC ASSY	
1-535-574-11		TERMINAL, SHAFT GROUND	
1-542-101-11		MICROPHONE (C-2020)	
1-547-264-11		LENS, ZOOM (VCL-1206YK)	
1-559-927-21		CABLE, FLAT (1.0MM PITCH) 11P	
1-562-879-11		CONNECTOR, CARD EDGE 19P	
1-562-880-11		CONNECTOR, CARD EDGE 15P	

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

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

# CCD-F330E

Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
	1-626-231-11	FP-118 FLEXIBLE BOARD				HARDWARE LIST	
	1-907-238-11	SENSOR, DEW CONDENSATION				*****	
C901	1-161-032-00	CAP, CERAMIC 0.01MF				SCREW	
J361	1-537-142-11	TERMINAL BOARD (AV OUT)					
L951	1-451-310-21	DEFLECTION YOKE (B/W)					
M901	1-7048-081-A	DRUM ASSY (DGU-19A-R)				7-621-255-45	SCREW +P 2X6
M902	8-835-309-01	MOTOR, DC BHF-3301C (CAPSTAN)				7-621-255-85	SCREW +P 2X14
M903	1-541-508-11	MOTOR, DC (LA14-323F) (LOADING MOTER)				7-621-772-08	SCREW +B 2X3
M904	3-707-369-01	METER ASSY, EE (TRIS)				7-621-772-10	SCREW +B 2X4
M905	1-541-536-11	MOTOR, DC (GM-1673) (FOCUS)				7-627-850-17	SCREW, PRECISION +P 1.4X2.5
M906	1-541-537-11	MOTOR, DC (GM-1674) (ZOOM)				7-627-552-07	SCREW, PRECISION +P 1.7X2.5
S902	1-553-226-00	SWITCH, LEAF (CC DOWN)				7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3
V901	1-546-065-11	CATHODE-RAY TUBE, B/W (M01JV47WB)				7-627-852-18	SCREW, PRECISION +P 1.7X4 TYPE3
						7-627-852-38	SCREW, PRECISION +P1.7X1.8 TYPE3
						7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT
						7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT
						7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
						STOP RING	
						7-624-101-01	STOP RING 1.2 (E TYPE)
						7-624-102-04	STOP RING 1.5, TYPE -E
*****							
ACCESSORIES AND PACKING MATERIALS							
*****							
	Part No.	Description	Remark				
	*3-340-514-01	BAG, PROTECTION					
	*3-725-107-01	CUSHION (UPPER)					
	*3-725-108-01	CUSHION (LOWER)					
	3-769-893-41	MANUAL, INSTRUCTION					
	3-769-893-51	MANUAL, INSTRUCTION (AEP/E MODEL)					
	3-769-893-61	MANUAL, INSTRUCTION (AEP MODEL)					
	3-769-893-71	MANUAL, INSTRUCTION (E MODEL)					
ACCESSORIES AND PACKING MATERIALS (KIT)							
	1-571-164-11	SWITCH, ANTENNA CHANGE (CABLE) (UK/E/AUS MODEL)					
	1-571-164-41	SWITCH, ANTENNA CHANGE(CABLE)(AEP MODEL)					
	3-712-673-01	SCREWDRIVER					
	3-712-595-21	BELT, SHOULDER					
	*3-725-168-31	CARTON, OUTER					
	*3-725-169-31	SLEEVE, ACC KIT					
	*3-725-170-01	CUSHION (UPPER), ACC					
	*3-725-171-01	CUSHION (LOWER), ACC					
	** AC-V30	AC POWER ADAPTOR					
	*** NP-55	RECHARGABLE BATTERY					
	*** RFU-89EA	RF MODULATOR					
	** MARK PARTS IS AVAILABLE FOR REPAIR SERVICE						
	*** MARK PARTS IS AVAILABLE AS A OPTIONAL ACCESSORIES						
*****							

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

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