

# Service Manual

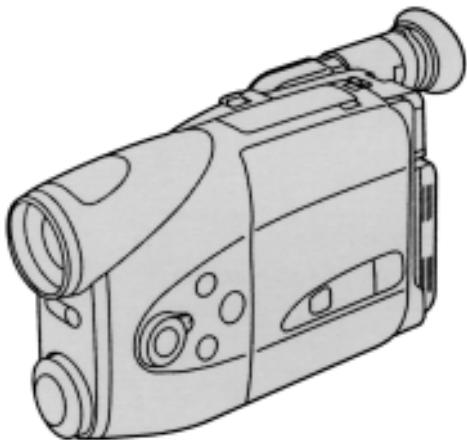
Panasonic **VHS-C**  
PAL

**HQ**

VHS-C Movie

**NV-R10E/B/A  
NV-R100EN**

**DL-MECHANISM**



**SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ**

**TECHNICAL INFORMATION\ТЕХНИЧЕСКАЯ ИНФОРМАЦИЯ**

**ADJUSTMENT PROCEDURES\МЕТОДИКА НАСТРОЙКИ**

**BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS\БЛОК-СХЕМЫ И ПРИНЦИПИАЛЬНЫЕ СХЕМЫ**

Overall block diagram\общая блок-схема

Sensor block diagram\блок-схема фотоэлектронного преобразователя

Process block diagram\блок-схема обработки видеосигнала

Lens drive block diagram\блок-схема привода линз

Power block diagram\блок-схема источника питания

System control & servo block diagram\блок-схема системы управления и сервопривода

Luminance/chrominance & head AMP block diagram\блок-схема каналов яркости/цветности и усилителя видеоголовок

E.V.F. schematic diagram\принципиальная схема видоискателя

Front operation schematic diagram\принципиальная схема фронтального переключателя режимов

Sensor schematic diagram\принципиальная схема фотоэлектронного преобразователя

Process schematic diagram\принципиальная схема обработки видеосигнала

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Audio schematic diagram\принципиальная схема аудиоусилителя

Camera operation unit schematic diagram\принципиальная схема модуля выбора режимов работы

Drive schematic diagram\принципиальная схема привода

MIC schematic diagram\принципиальная схема микрофона

AV jack schematic diagram\принципиальная схема аудио/видео разъема

Circuit board layout\размещение монтажных плат

**EXPLODED VIEWS & PARTS LIST\СБОРОЧНЫЕ ЧЕРТЕЖИ И СПИСКИ ЗАПАСНЫХ ЧАСТЕЙ**

Exploded views\сборочные чертежи

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Electrical replacement parts list\список электрических запасных частей

**Panasonic**

## SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	Source: Battery Pack; 4.8V DC AC Adaptor; 6.0V DC Consumption; 5.6W (Battery operation)	VIDEO	HEADS: 4 rotary heads, 1 flying erase head OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL		HEAD: 1 Stationary head (Normal-Mono) OUTPUT: PHONO CONNECTOR; -8dB, 47kΩ loaded
TAPE FORMAT	VHS-C Cassette Tape (Tape width 12.7 mm)	AUDIO	INPUT: MIC IN (M3); -70dB 4.7kΩ or more unbalanced
TAPE SPEED	SP mode: 23.39mm/s LP mode: 11.7mm/s (NV-R10B/A, R100EN) Record/Playback Time: SP: 45 min. with NV-EC45XG LP: 90 min. with NV-EC45XG (NV-R10B/A, R100EN) FF/REW Time: less than 5 min. with NV-EC45XG		WEIGHT Approx. 650g (without Battery Pack)
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)	DIMENSIONS	88(W) × 117.5(H) × 241.5(D) mm
	STANDARD ILLUMINATION: 1,400 lux	STANDARD ACCESSORIES	1 pc. AC Adaptor
	MINIMUM REQUIRED ILLUMINATION: 1.5 Lux (Low Light Mode)		1 pc. Battery Pack
	LENS: 10:1 Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.8 (4.6~46 mm), Filter Diameter 37 mm		1 pc. Cassette Adaptor
	IMAGE SENSOR: 1/4 inch CCD Image Sensor		1 pc. Shoulder Strap
	VIEWFINDER: 0.5 inch Electronic Viewfinder		1 pc. DC Input Cable
			1 pc. Battery for Cassette Adaptor Operation
			1 pc. AC Cable
			1 pc. 21 Pin Adaptor (NV-R10E/B)
			1 pc. AV Output Cable

Weight and dimensions shown are approximate.  
Specifications are subject to change without notice.

# Technical Information

## Service caution

### 1-1. Service Extension Cables

Use the following extension cables when  
checking or adjusting individual circuit boards

Ref	Part NO	PIN	PART NAME	CONNECTION	Q'TY
1	VFK0727	16	FLAT CABLE	FP6001(MAIN C.B.A.)~MECHA.	1
2	VFK0728	9	FLAT CABLE	FP4001(MAIN C.B.A.)~A/C HEAD	1
3	VFK0729	6	FLAT CABLE	FP6002(MAIN C.B.A.)~MECHA.	1
4	VFK0839	30	EXTENSION	B1001(MAIN C.B.A.)~B1601(EVF CBA)	1
5	VFK0896	23	FLAT CABLE	FP6005(MAIN C.B.A.)~FP2003(DRIVE C.B.A.)	1
6	VFK0913	18	FLAT CABLE	FP701(MAIN C.B.A.)~LENS UNIT	1
7	VFK0929	12	FLAT CABLE	B201(MAIN C.B.A.)~CCD UNIT	1

How To Use extension cables.

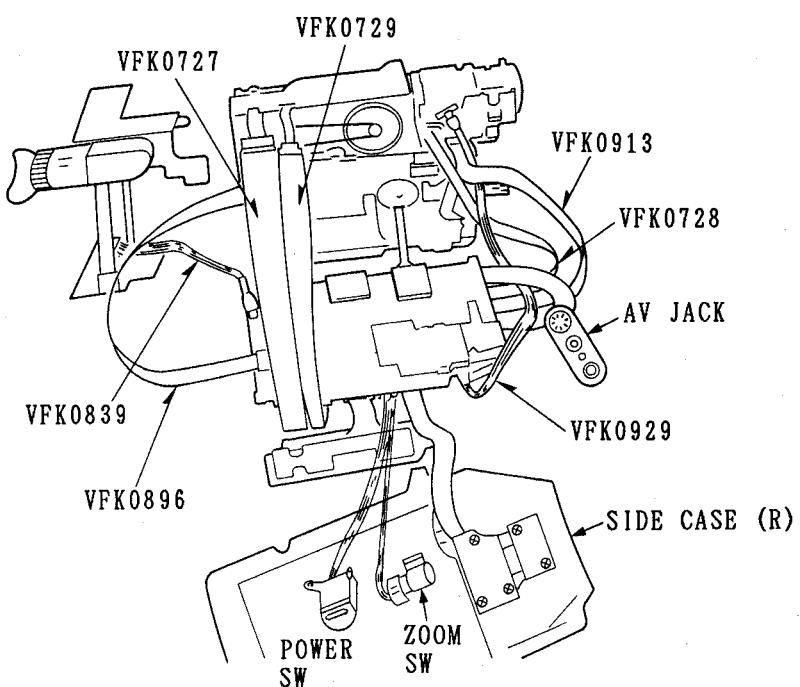


Fig. T1

## NOTE:

For easy servicing, remove the 3 parts from the SIDE CASE (L) as shown below.

- 1). Zoom SW.....(By removing 1 screw.)
- 2). Power SW.....(By removing 2 screws.)
- 3). AV JACK.....(By removing 2 screws.)

# The Built-in Lithium Battery

## 1. GENERAL DESCRIPTION

NV-R10/R100 series have a built-in rechargeable lithium battery.

It maintains the operation of the built-in clock (Date and Time) when the Movie Camera is turned off. When the Movie Camera is in operation, this battery is recharged automatically. However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. In this case, the Indication "BL" in the Viewfinder flashes and the date and time return to the initial Indication "1. 1. 1990".

## 2. HOW TO RECHARGE THE BUILT-IN LITHIUM BATTERY

If the Indication "BL" in the Viewfinder flashes for approx. 10 seconds when turning the Movie Camera on, the lithium battery needs to be recharged as follows:

- (1). Connect the Movie Camera to the AC Adaptor.
- (2). Turn out the [OPERATE] Switch. (Power on.)
- (3). Slide the [EJECT] Switch.  
(Even with no video cassette inserted, the Eject operation must be performed.)
- (4). Close the Cassette Compartment by pressing the [LOCK] Button and wait for approx. 4 hours.  
(After the lithium battery has been charged for approx. 4 hours, it can maintain the operation of the clock for approx. 3 months.)

## 3. HOW TO REPLACE THE LITHIUM BATTERY

### (PROCEDURES)

1. Remove the E.V.F. Unit following the dis-assemble procedure(Section 2) "5. Removal of EVF unit" Part (Page 2-3.)
2. Remove 4 gold screws and black screw separate EVF C.B.A. and EVF case.
3. Unsolder the Lithium battery "VL2020" and then replace the new one. (See Fig B1)

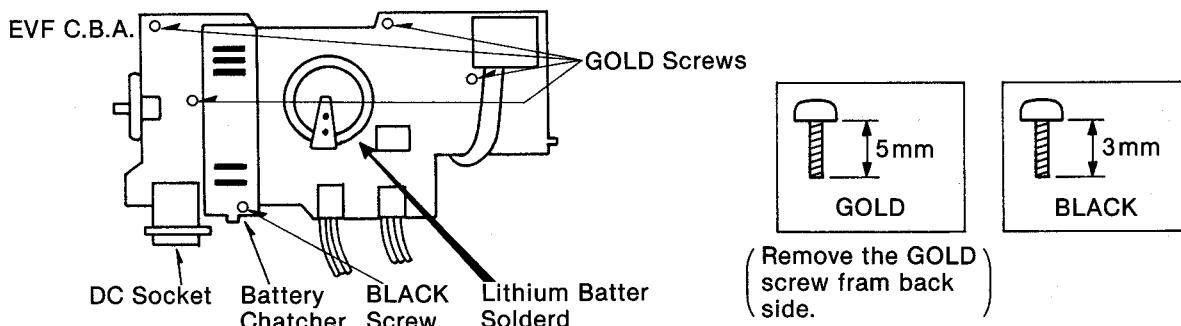


Fig. B1

### NOTE :

The lithium battery is a critical component(Type No.: VL2020 Manufactured by Panasonic.) It must never be subjected to excessive heat or discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacturer.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

### CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer.

Discard used batteries according to manufacturer's instructions.

### ADVARSEL!

Lithiumbatteri-Eksplorationsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri

af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

# SERVICE INFORMATION DISPLAY

## General Description

The NV-R10/R100 series has SERVICE INFORMATION DISPLAY function which facilitates quick troubleshooting. You can turn on the Service Information Display, by performing the following procedures. This causes the Service Information to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewed on the TV.

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
<u>OSD Line Output MODE</u>	• Checking the EVF information on the TV monitor.	DATE/TIME SET (TOP PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
<u>SERVICE MODE 1</u>	• Remaining Battery A/D Value • Safety Device • Capstan/Cylinder injections	DATE/TIME SHIFT (TOP PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 1 , Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 2</u>	• Reference Voltage A/D Value • Mechanism position • Serial key code.			DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 2 , Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 3</u>	• ERROR CODE Display			DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 3 , Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 4</u>	• PG SHIFTER ADJUSTMENT			DATE TIME

## ERROR CODE DISPLAY

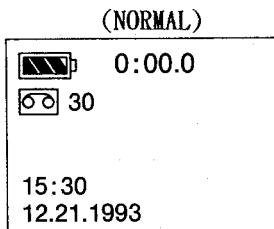
When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF, the CAMERA LED will flash for a short time, then the power will be turned off.

By turning on Service Mode 3, you can check to see what kind of undesirable condition occurred, even after the ERROR CODE has disappeared. You can check the Error Code if the AC Main Lead or the Battery has been disconnected. To clear the ERROR CODE, disconnect the AC Main Lead or the Battery. You can also check Error Code by looking at how the CAMERA LED flashes. The CAMERA LED flashing pattern will differ according to the Error Code. (See Fig. J)

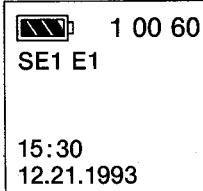
S E R V I C E   M O D E   1

① Remaining Battery Voltage (A/D Value)=This Value shows the voltage at IC6001 Pin 98 which detects the battery under cut.

D e s p l a y :  
(Example)



(SERVICE MODE 1)



For example      ⇒ S    E    1    E    1    ( Means you are in Service Mode 1 and the voltage at IC6001 Pin 98 is 3.35V. )

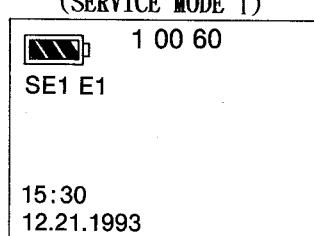
★ When the voltage at IC6001 pin98(the battery remaining voltage) and the voltage (approx. 3.35V) at IC6001 Pin 99(the reference voltage) became same level, battery under cut will be detected.

	L o w      D i d i t																
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
H i g h	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
D i g h	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
t	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

Remaining Battery Voltage (A/D value)      (Voltage at IC6001 Pin 98)

- ② The condition of the tape, safety device, capstan/cylinder information are shown in hexa decimal numbers.

Display :  
(Example)



1 O O 6 O  
\* TAPE END/BEGINNING DET. ⇒ NO CASSETTE  
\* CASSETTE HOLDER(SW)  
DOWN CONDITION

Display position ⇒ O - O O - O O (The position of linear time counter)

Part E (See Fig. E)

Part D (See Fig. D)

Part C (See Fig. C)

Part B (See Fig. B)

Part A (See Fig. A)

DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CONTENTS																
CASSETTE SW (CASS. DOWN:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
SAFETY TAB SW (TAB:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
S-VHS OPERATIONSW (ON:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-VHS DETECTION SW (S-VHS:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. A

DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CONTENTS																
LOADING LOCK (DET.:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CYLINDER LOCK (DET.:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
T-REEL LOCK (DET.:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-REEL LOCK (DET.:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. B

DISPLAY	0	4	8	C
CONTENTS				
NOT USED(ALWAYS "0")	0	0	0	0
NOT USED(ALWAYS "0")	0	0	0	0
BATTERY UNDER CUT(DET:1)	0	1	0	1
DEW SENSOR (DET:1)	0	0	1	1

Fig. C

DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CONTENTS																
UN-LOADING COMMAND (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
TAPE END DETECTION (DET.:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
TAPE BEGINNING DETECTION(DET.:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
POSITION CHATARING (DET.:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. D

DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CONTENTS																
CYLINDER ON (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CAPSTAN ON (OUTPUT:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
CAPSTAN REV. (OUTPUT:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
LOADING ON (OUTPUT:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. E

**S E R V I C E   M O D E   2**

- ① Reference voltage A/D Value = This value shows the voltage at IC6001 Pin 99 which is used as a reference voltage to detect the battery under cut.

Display :  
(Example)

(SERVICE MODE 1)  
  
 SE1 E1  
 15:30  
 12.21.1993

(SERVICE MODE 2)  
  
 SE2 A7  
 15:30  
 12.21.1993

For example      ⇒ S    E    2    A   7

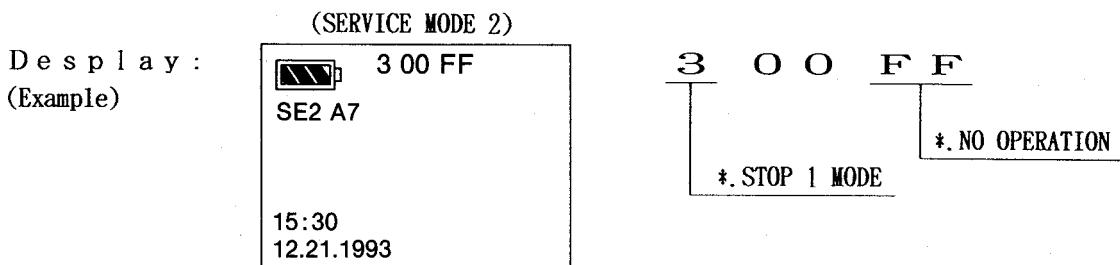
(It shows Service Mode 2 and the voltage at IC6001 pin 99 is 2.49V.)

(unit:V)

		L o w     D i g i t															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
H i g h	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
D i g h	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

Reference Voltage (A/D value)      (Voltage at IC6001 Pin 99)

- ② The contents of mechanism position, serial key code and mechanical process number are shown in hexa decimal number.



Display position  $\Rightarrow$  **O : O O . O O** (The position of linear time counter)

Part H (See Fig. H)

Part G (See NOTE A)

Part F (See Fig. F)

DISPLAY	MECHANISM POSITION
1	E J E C T
2	P R E • E J E C T
3	S T O P 1
4	P R E • S T O P
5	
6	( M I D )
7	
8	S T O P 2
9	
A	P L A Y

Fig. F (Mechanism Position)

DISPLAY	K	E	Y	C	O	D	E
0 0	S	T	O	P			
0 1	E	J	E	C	T		
0 2	R		E		W		
0 3	F				F		
0 6	P	A	U	S	E		
0 8	R	E	C	/R	E	C	PAUSE
0 A	P	L	A		Y		
F F	N	O	O	P	E	R	A

Fig. H (Key code)

#### NOTE A:

This part shows mechanism movement process.

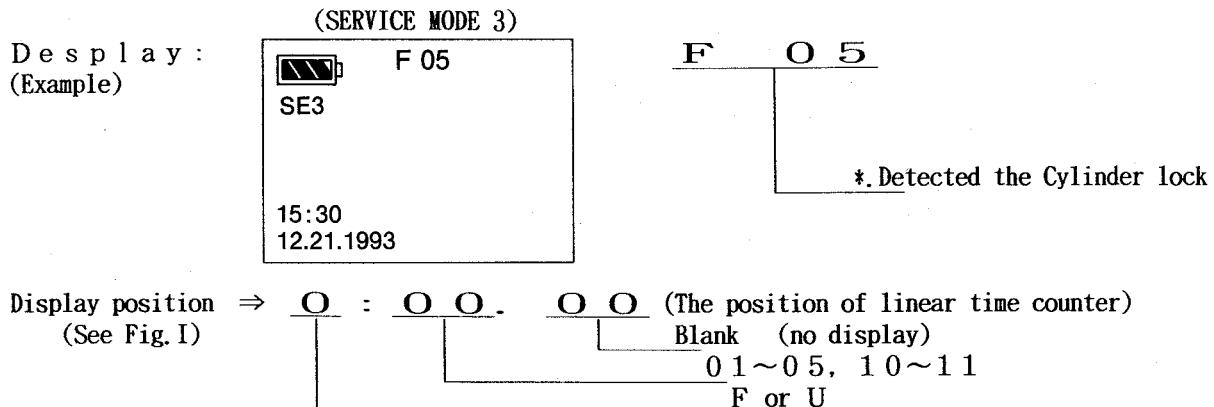
However it changes too fast to read it.

When servicing, use the Part F (Mechanism Position: See Fig. F) instead of Part G.  
instead of Part G.

### SERVICE MODE 3

- ① When undesirable conditions occur, the Error Code is stored in IC6001 automatically, using the Lithium battery.

When you turn on Service Mode 3, the Error Code is displayed on the E.V.F.  
Also, the CAMERA LED is flashed according to Error code.



Display position ⇒ C A M E R A   L E D   (See Fig. J)

D I S P L A Y	C O N D I T I O N	The Power off timing
F 0 1	T - R E E L   L O C K	After 1 minute flashing LED
F 0 2	S - R E E L   L O C K	After 1 minute indicating LED
F 0 3	U N L O A D I N G   L O C K	After 1 minute indicating LED
F 0 4	L O A D I N G   L O C K	After 1 minute indicating LED
F 0 5	C Y L I N D E R   L O C K	After 1 minute indicating LED
U 1 0	D E W   D E T E C T I O N	After 18 minute indicating LED
U 2 0	H E A D   C L O G G I N G	Not turning off

Figure I   Error Code

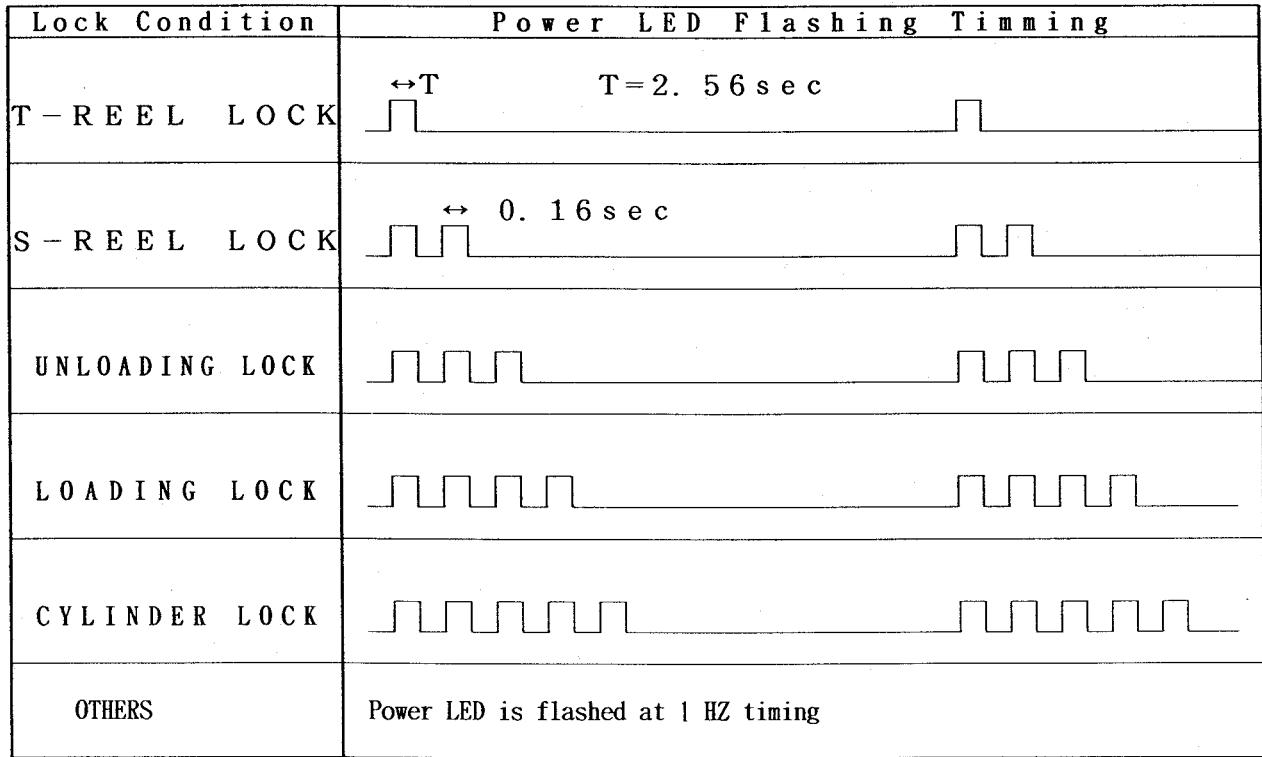
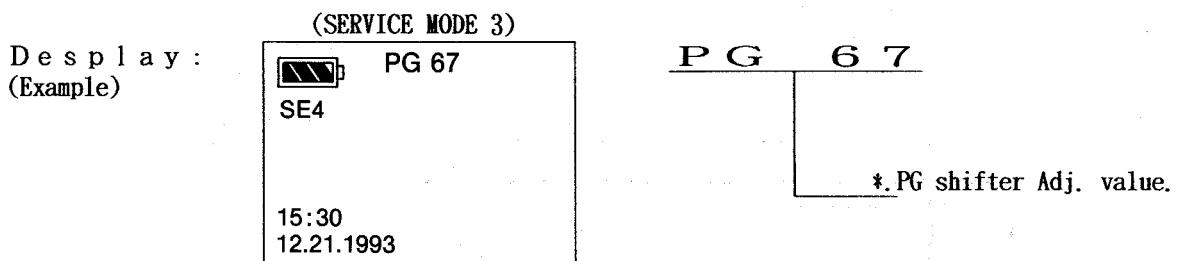


Fig. J   LED Flashing Timming

## SERVICE MODE 4

- ① Service Mode 4 is PG SHIFTER ADJUSTMENT mode for Servo section.  
For more detail, please refer to Adjustment Service Manual Order No. VMD9312M136.



### 3. How to Check Digital Circuit

#### 3-1. Checking Principle

The digital circuit can be checked if a ramp signal (sawtooth signal) is supplied to the input of A/D Converter (IC301-19). The output of A/D

Converter is described below.

In addition to the A/D Converter (IC301) output, all digital ICs input and output signals become specified pulses, which are listed in schematic diagram.

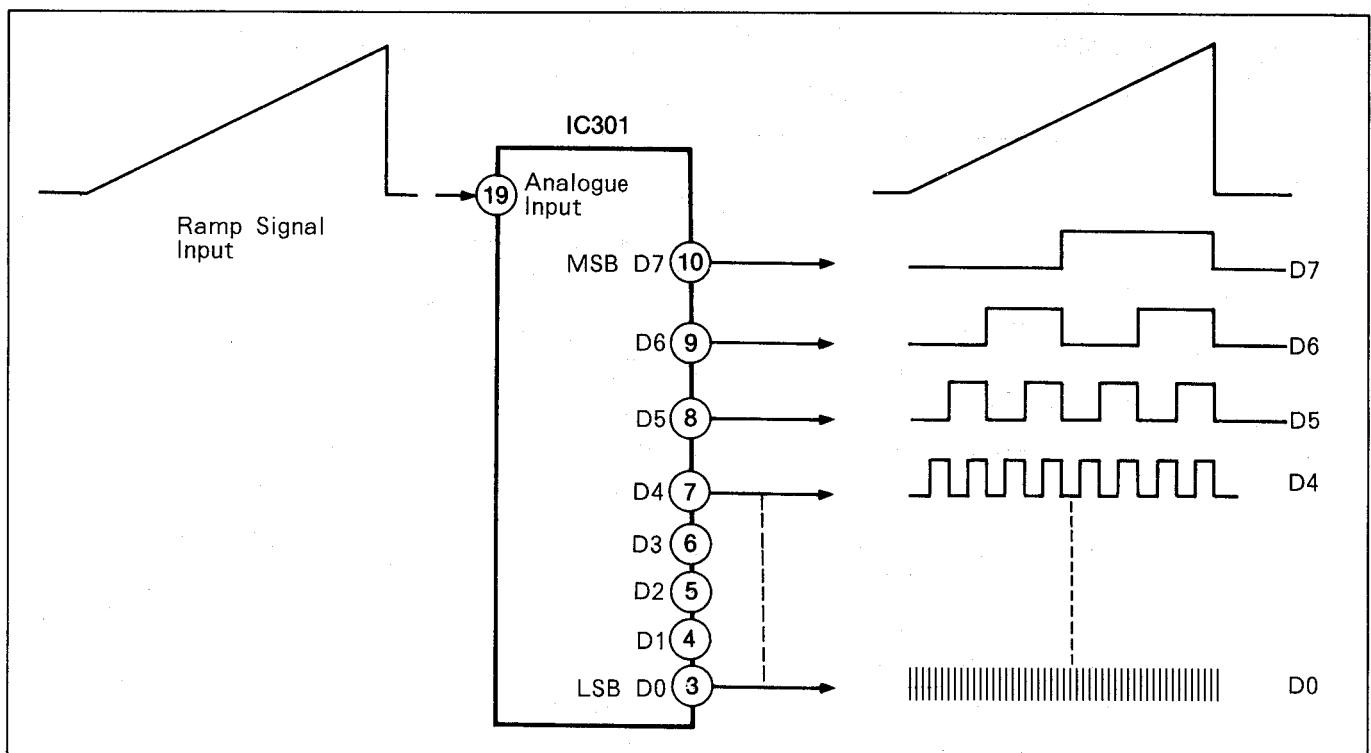
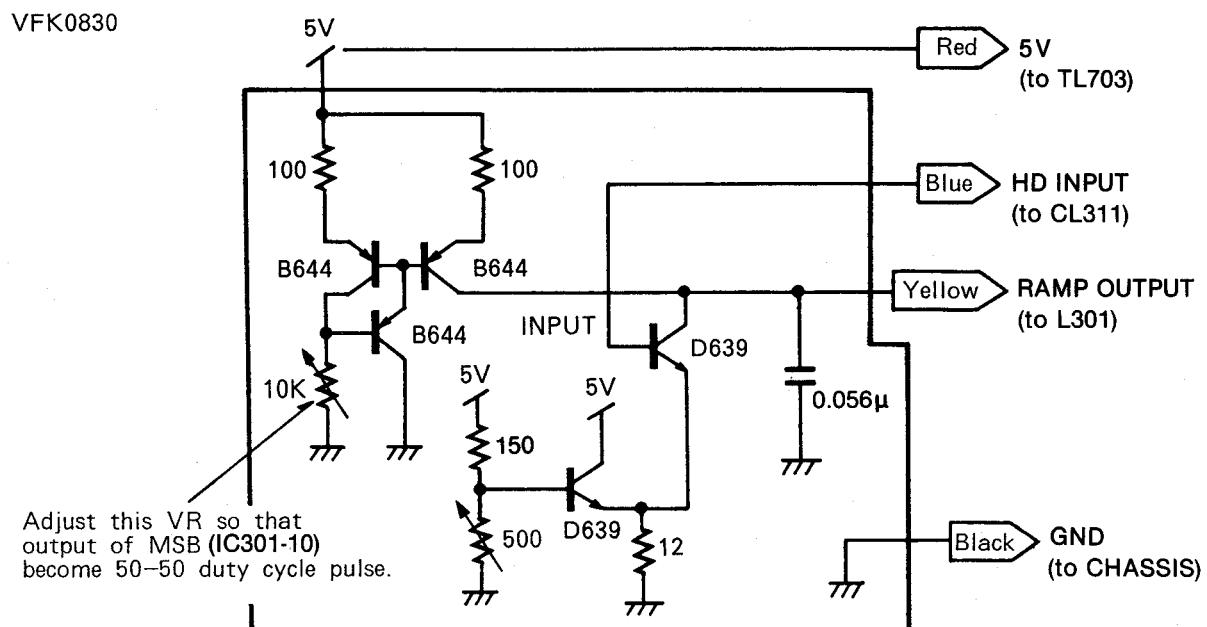


Fig. L1

### 3-2. How to Connect ramp generator.

In order to generate a ramp signal that synchronizes with the HD(horizontal drive) of the camera, the following ramp generator circuit has been designed.

Construct and connect it to process board as shown in Fig. L2, L3.



ITEMS	VALUE	PCS
<b>RESISTOR</b>		
ERDS2TJ120	12ohm	1
ERDS2TJ101	100ohm	2
ERDS2TJ151	150ohm	1
<b>VARIABLE RESISTOR</b>		
EVNDRAA00B14	10Kohm	1
EVNDRAA00B52	500ohm	1
<b>TRANSISTOR</b>		
2SB644	PNP	3
2SD639	NPN	2
<b>CAPACITOR</b>		
ECQB1H563JH	0.056μ	1

Fig. L2

## SECTION 2 ADJUSTMENT PROCEDURES

### 2-1. DISASSEMBLY PROCEDURES

#### 2-1-1. DISASSEMBLY FLOW CHART

The following flow chart describes the steps for removing cabinet parts and printed circuit boards to gain access to the items needing service. To reassemble the unit, follow the steps in reverse order.

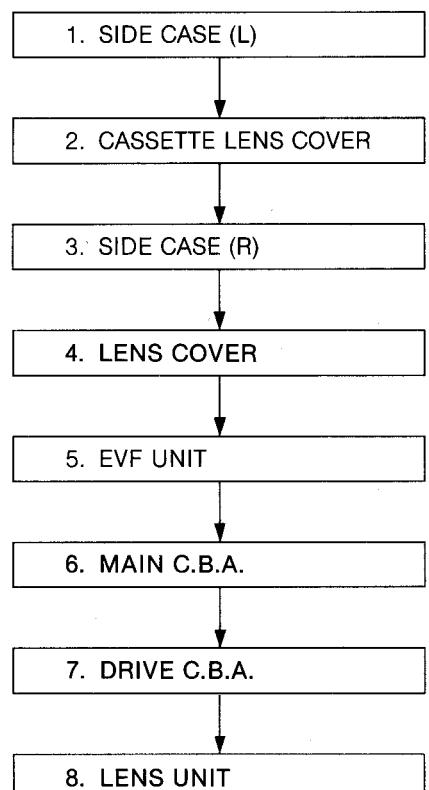


Fig. D1

#### 2-1-2. DETAILED DISASSEMBLY METHOD

##### 1. Removal of Side Case (L).

(See Fig. D2 ①.)

(1). Remove ..... Screw(B) and Screw(C).

(See Fig. D2 ②.)

(2). Remove ..... 2 Screws(E) and 2 Screws(G).

(See Fig. D2 ③.)

(3). Remove ..... 3 Screws(H).

(See Fig. D2 ④.)

(4). Remove ..... Screw(I).

(See next page.)

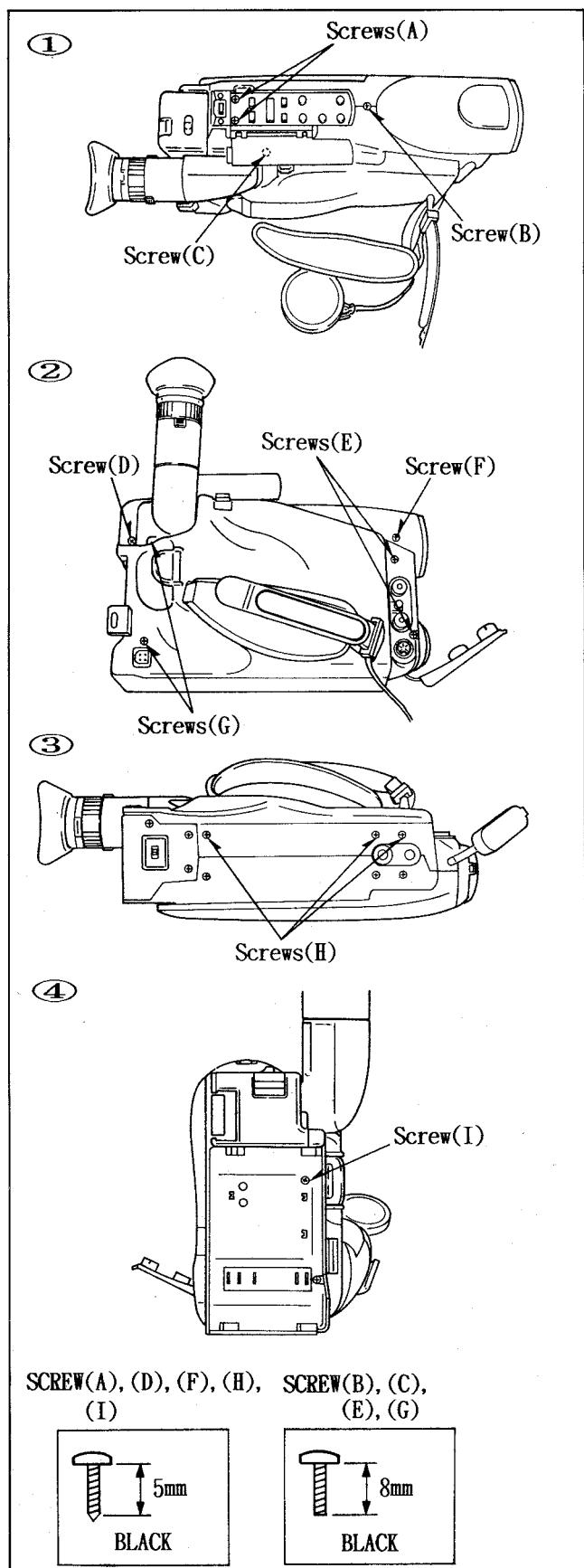


Fig. D2

(See Fig. D3.)

- <Be careful Connector (A) and (B)!!>--  
(5). Slightly open the side case (L).  
(6). Disconnect ....Connector(A) and Connector(B).

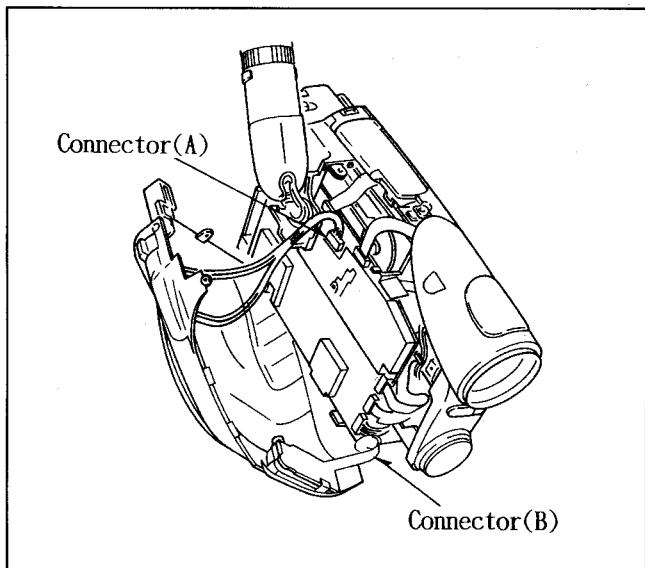


Fig. D3

Note:

- \*. Be careful that you do not break the Cables and Connectors.

## 2. Removal of cassette cover.

(See Fig. D4.)

- (1). Remove.... 2 Screws(J).

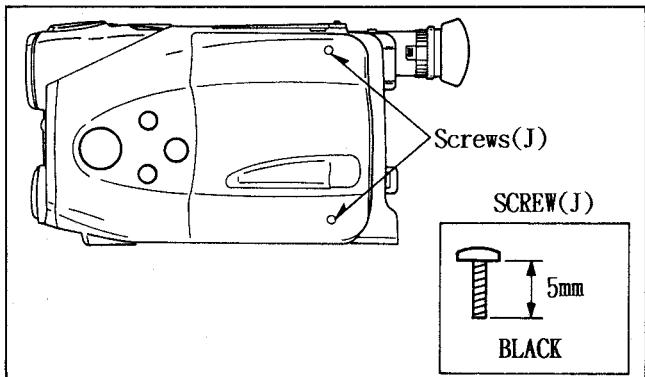


Fig. D4

## 3. Removal of side case (R)

NOTE:

- \*. To make easy disassemble, do (1) and (2).

(See Fig. D5 ①)

- (1). Removal.....Screw(K) and Screw(L).  
(2). Un-lock.....2 Locking portions(A).

(See Fig. D5 ②)

- (3). Removal.....Screw(M).

(See Fig. D5 ③)

- (4). Removal.....3 Screws(N).

(See Fig. D5 ①)

- (5). Disconnect...Connector(C) and Connector(D).  
(6). Un-lock.....Locking Tab(A).  
(7). Removal of VTR Operation panel.  
(8). Un-lock.....3 Locking Tabs(B).

NOTE:

- \*. Be careful that un-locking of Tab(A)and Tabs(B). These 4 Locking Tabs are hard attached.

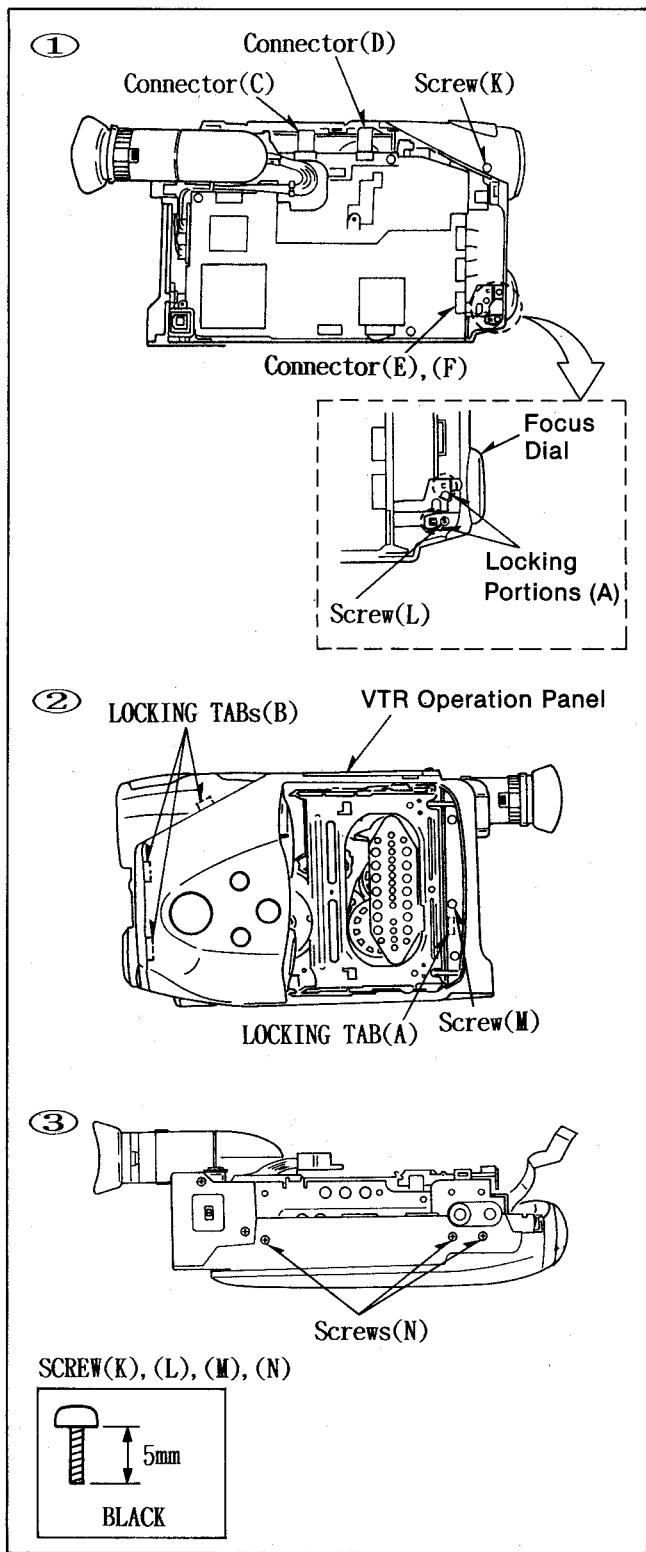


Fig. D5

#### 4. Removal of Lens cover Unit

(See Fig. D5 ①)

- (1). Disconnect.....Connector(C) and Connector(D).
- (2). Remove.....Screw(K) and Screw(L)
- (3). Un-lock.....Locking portion(A).

#### 5. Removal of EVF Unit

(See Fig. D6 ①)

- (1). Remove.....Screw(O) and Screw(P).

(See Fig. D2 ②)

- (2). Remove.....Screw(Q).

(See Fig. D6 ②)

- (3). Disconnect.....Connector(E).

(See Fig. D6 ②)

- (4). Locking Portion...Locking portion(B).

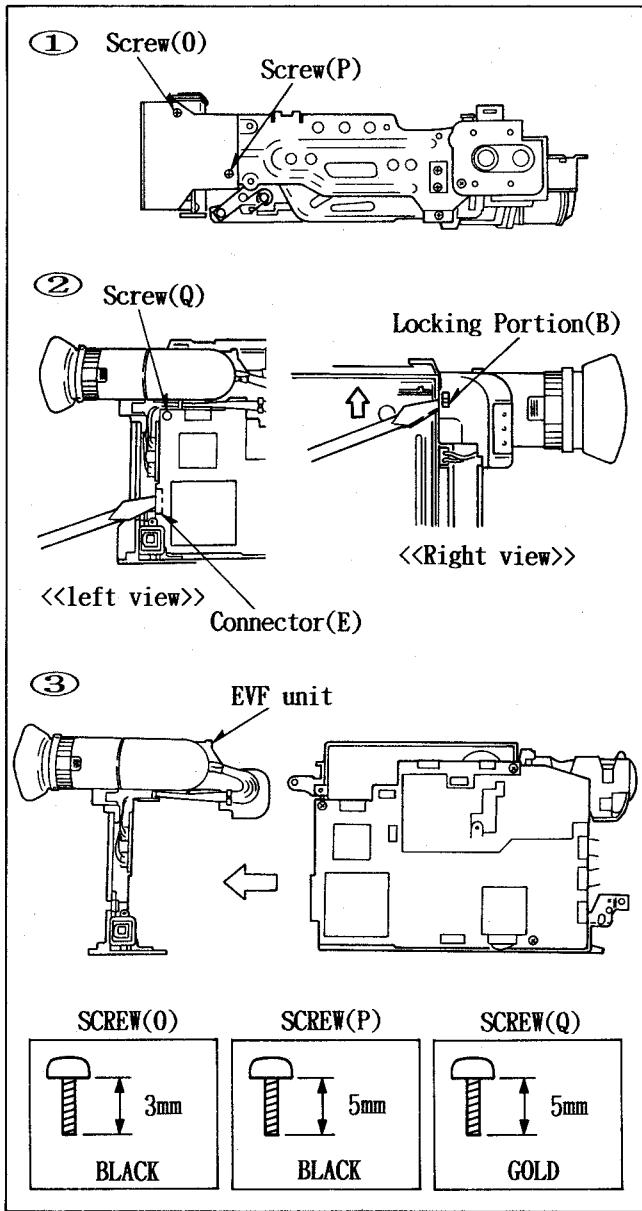


Fig. D6

#### 6. Removal of Main C. B. A.

(See Fig. D7 ①)

- (1). Remove.....2 Screws(R)

- (2). Connector....Connector(F), (G), (H), (I)and (J).

(See Fig. D7 ②)

- (3). Connector....Connector(K).

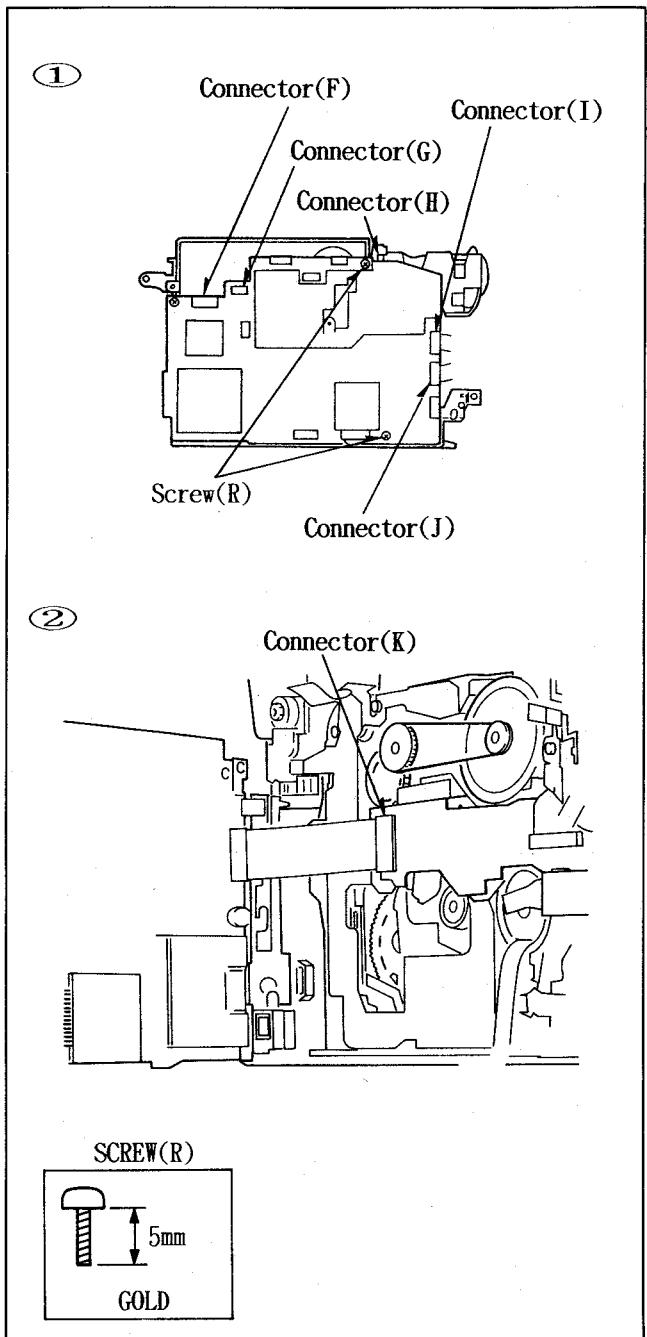


Fig. D7

## 7. Removal of Drive C.B.A.

(See Fig. D8)

- (1). Remove..... 2 Screws(S)
- (2). Connector.... Connector(L)and (M).

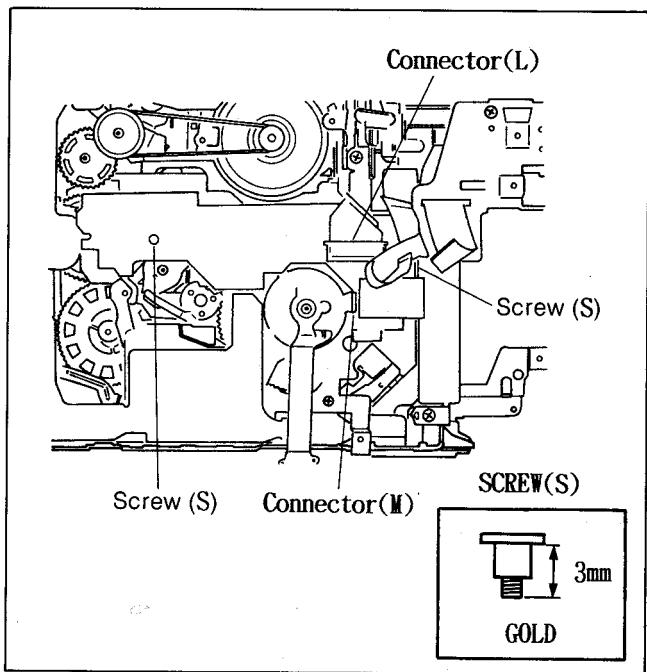


Fig. D8

## 8. Removal of lens Unit.

(See Fig. D9)

- (1). Remove..... Screw(T) and Screw(U).

Note:

Be careful that you do not break the Flexible cards.

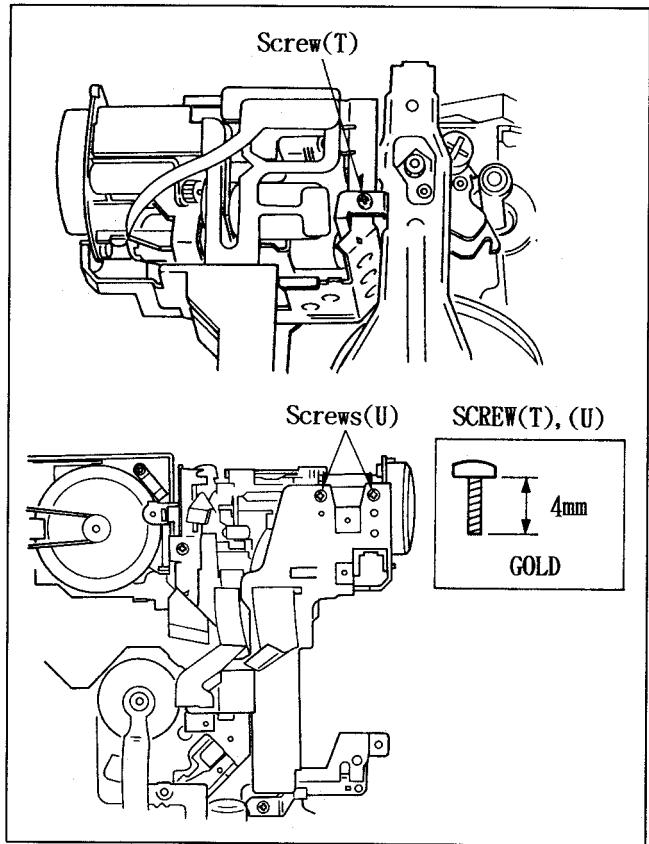


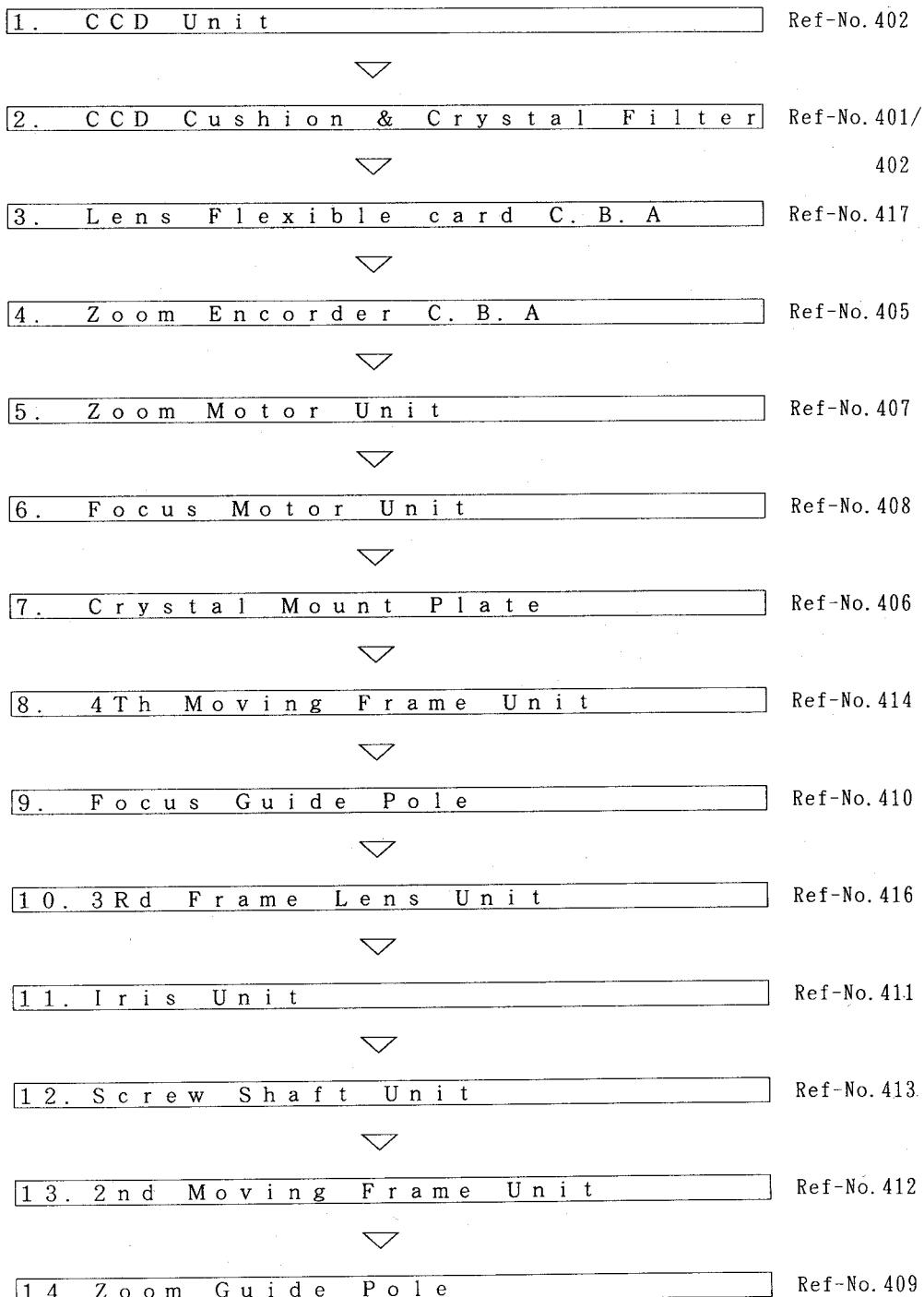
Fig. D9

## 2-2. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps

for removing the Lens Units and certain printed circuit boards in order to make access to the item needing service.

To reassemble the unit follow the steps in reverse order.



Note: Each Ref-numbers are equivalent to number on Fig L2 and Parts-List.

Fig. L1

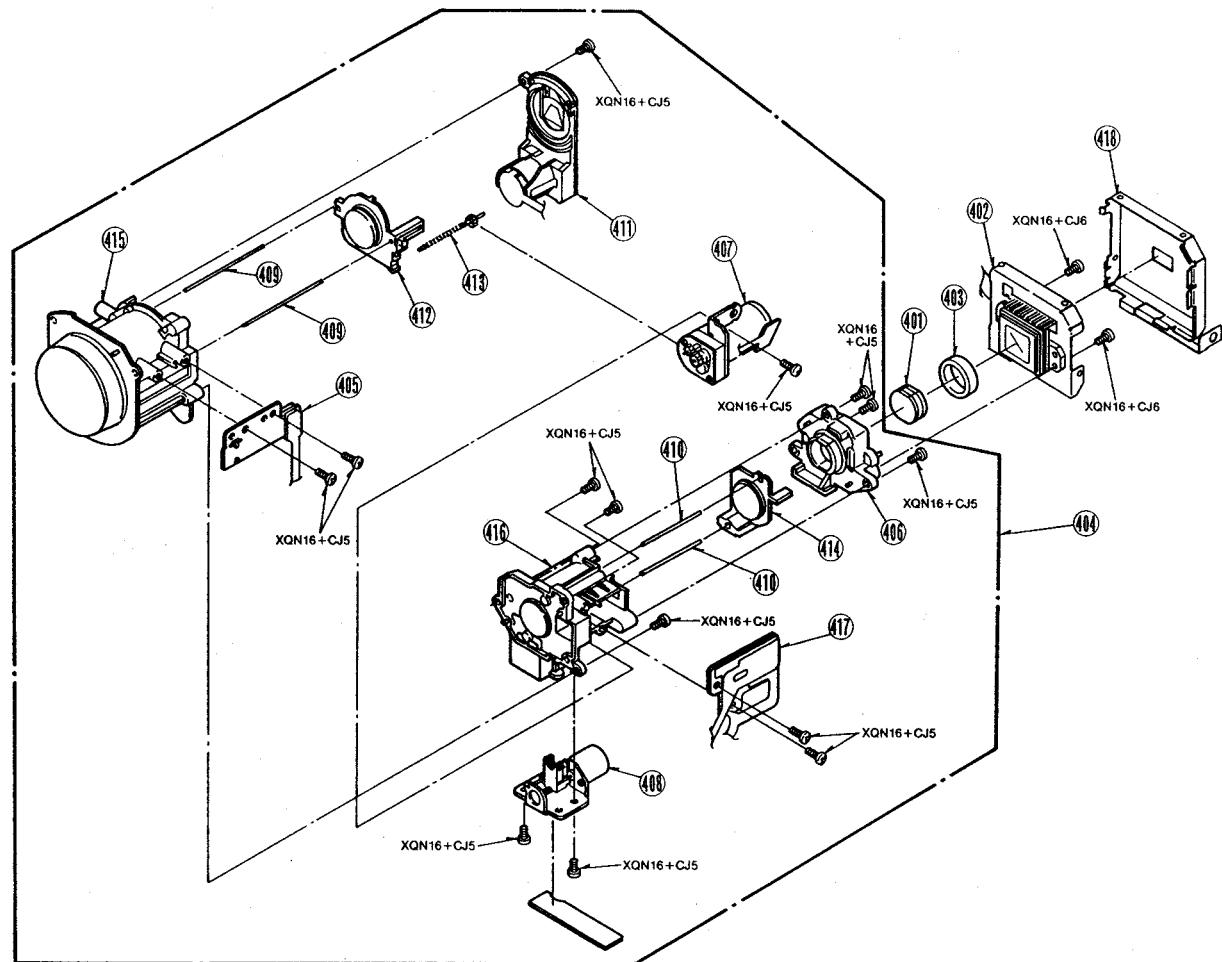


Fig. L2

## 2-3. DISASSEMBLY PROCEDURES OF MECHANISM

### 1. Removal of Cassette Holder Unit.

- (1) Unsolder following flexible connectors on the bottom side.
- (1) FLEXIBLE CONNECTOR TO SUPPLY PHOTO TR.
- (2) FLEXIBLE CONNECTOR TO TAKE UP PHOTO TR.
- (3) FLEXIBLE CONNECTOR TO LOADING MOTOR.
- (4) FLEXIBLE CONNECTOR TO SENSOR LED.

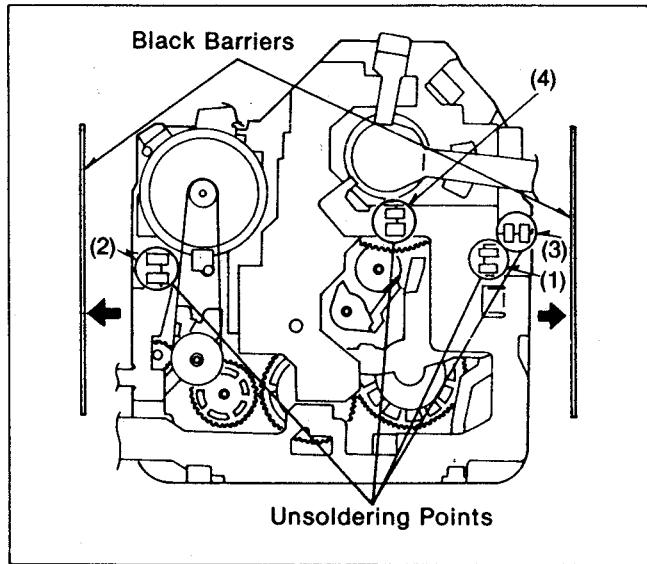


Fig. M1

- (2) Remove 4 red screws indicated below.

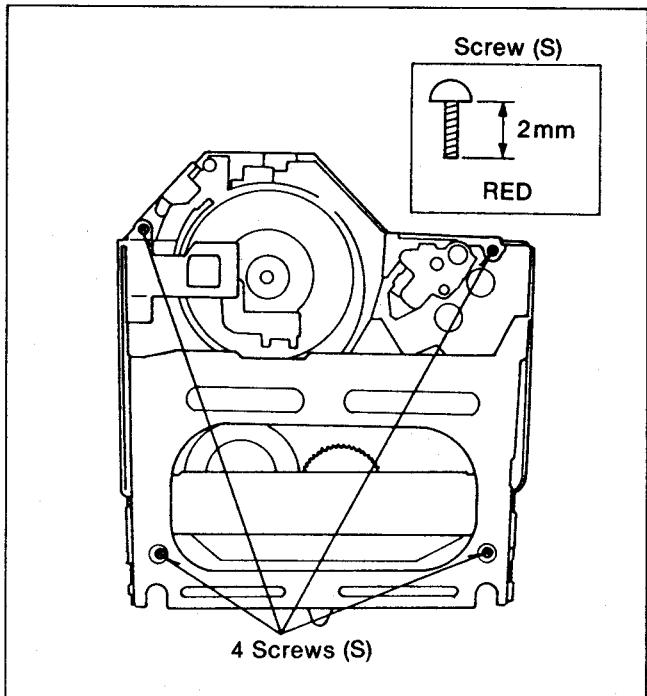


Fig. M2

- (3) Release Eject Lock Lever and take out Cassette Holder Unit.

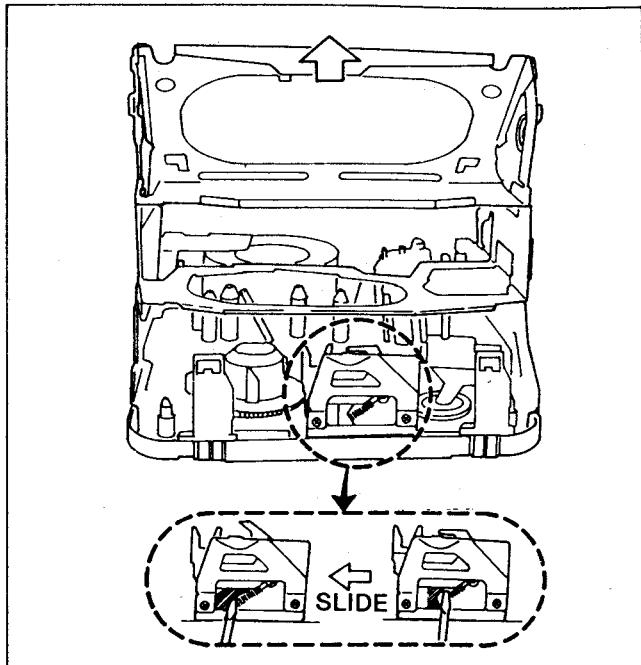


Fig. M3

### 2. REMOVAL OF DD CYLINDER UNIT.

Note: \*

Upper Cylinder Unit is not replaceable on its own. The DD Cylinder is only available as a unit.

- (1) Remove RT (Rotary Transformer) Connector using a screw driver.
- (2) Remove 3 screws to take out DD Cylinder Unit.

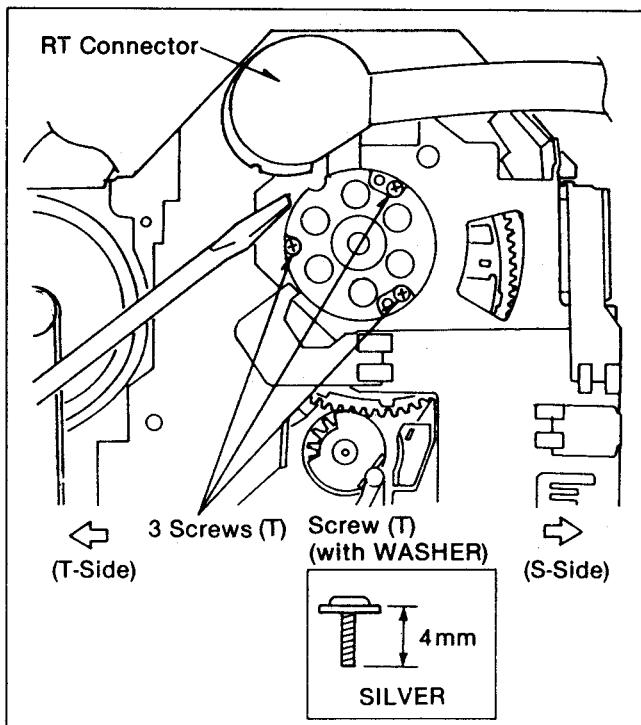


Fig. M4

3. REMOVAL OF S-RAIL UNIT,  
LOADING MOTOR UNIT &  
TENSION REGULATOR UNIT.

- (1) Move tape loading Posts(S1, T1 and T2) half way in the tape loading direction by applying 1.5DC to Loading Motor.

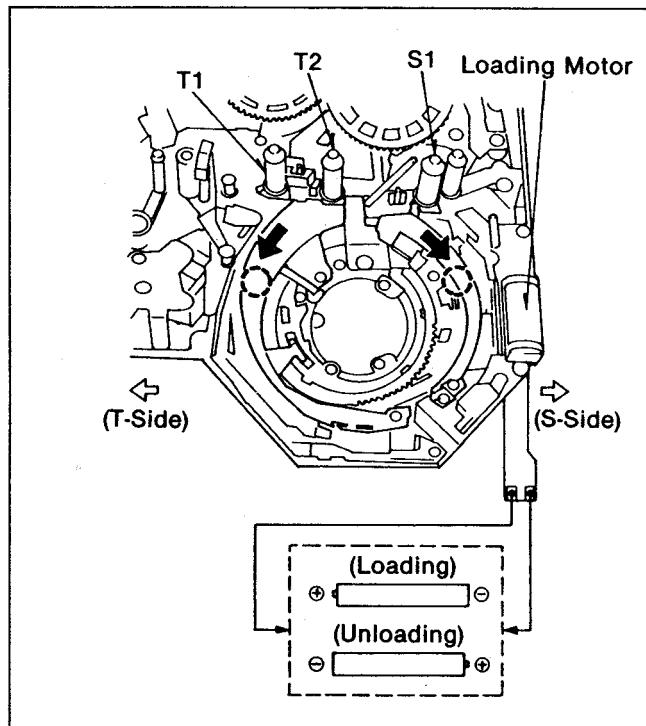


Fig. M5

- (2) Remove 2 screws and take out S-Rail Unit.

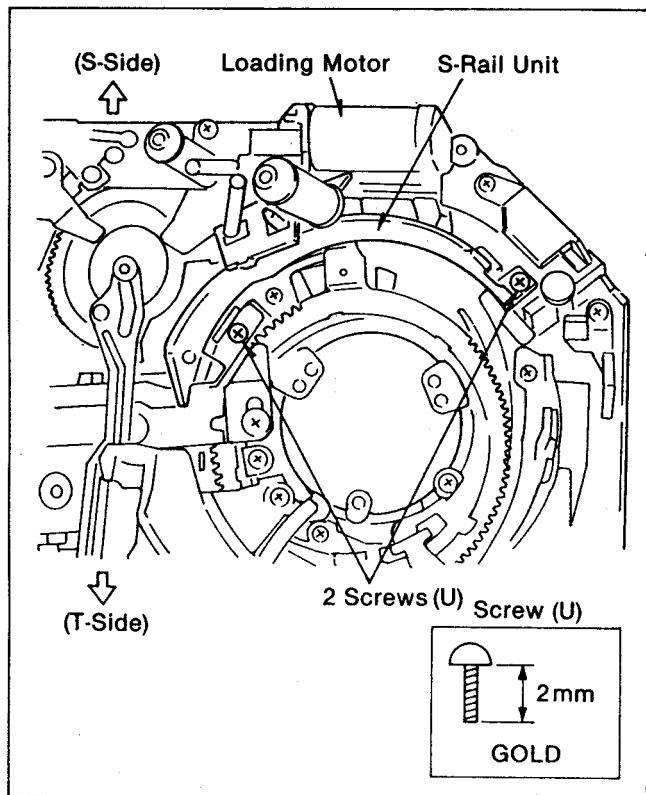


Fig. M6

- (3) Remove 2 screws (Slightly move Loading Posts in the unloading direction.) and take out Loading Motor Unit.  
 (4) Unhook the spring (\* Remember the original hooking position for reinstallation later), remove a washer and take out Tension Regulator Unit.  
 Don't lose a spacer underneath.

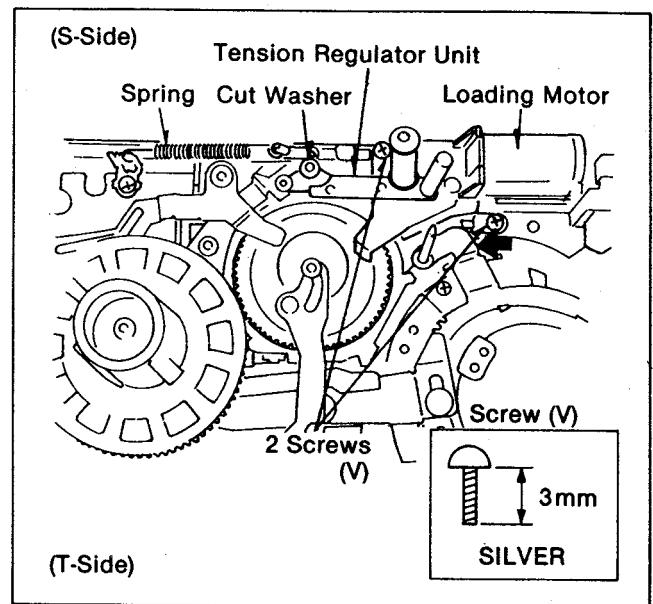


Fig. M7

4. REMOVAL OF SUPPLY REEL TABLE,  
EJECT LEVER UNIT AND PAD ARM.

- (1) Remove a washer and take out Supply Reel Table. Don't lose a spacer underneath.

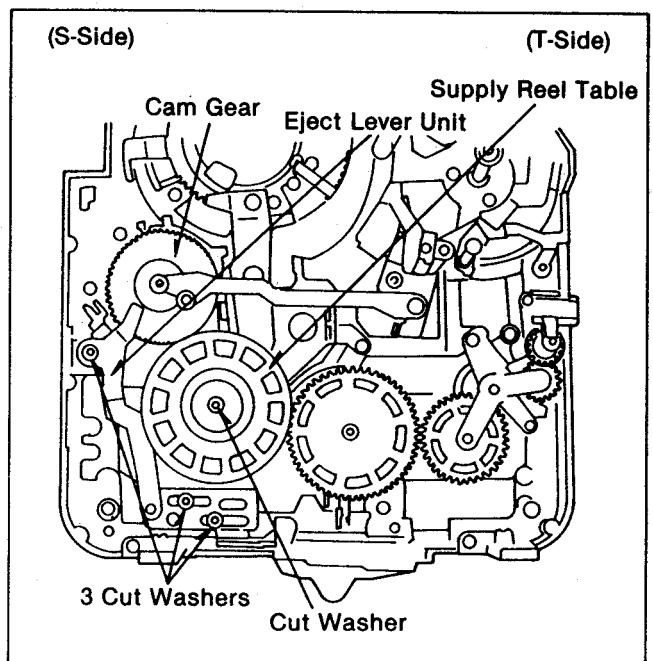


Fig. M8

- (2) Remove 3 washers, 2 screws on Eject Lock Base to make clearance (\* Eject Lock Base is soldered on the flexible P.C. Board.) to take out Eject Lock Lever.

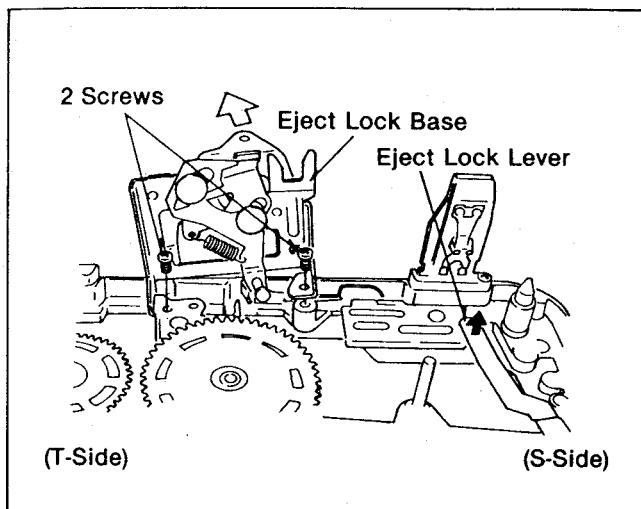


Fig. M9

- (4) Remove a washer and take out Pad Arm.

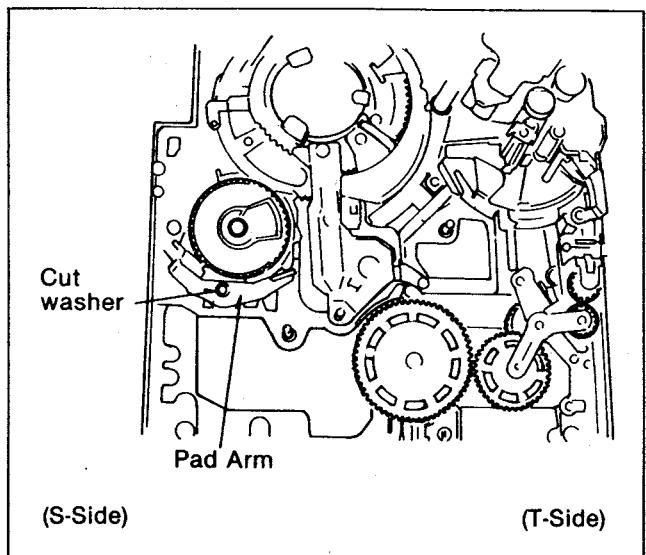


Fig. M11

- (3) Remove 2 washers, pull Pinch Drive Arm to the left (S-side) and take it out.

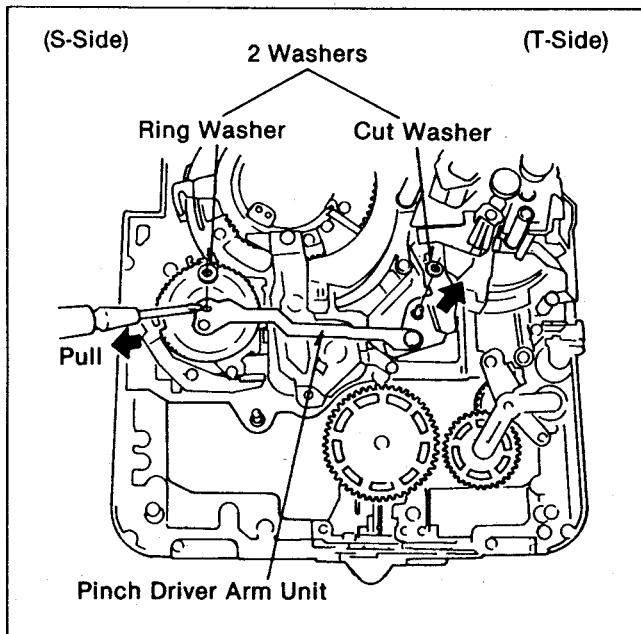


Fig. M10

## 5. REMOVAL OF T-RAIL UNIT, SWING ARM UNIT, LOADING UNIT AND MODE SW UNIT

- (1) Remove 2 screws and take out T-Rail Unit.  
(\* Flexible Connector of Sensor LED has to be unsoldered on the bottom side.)

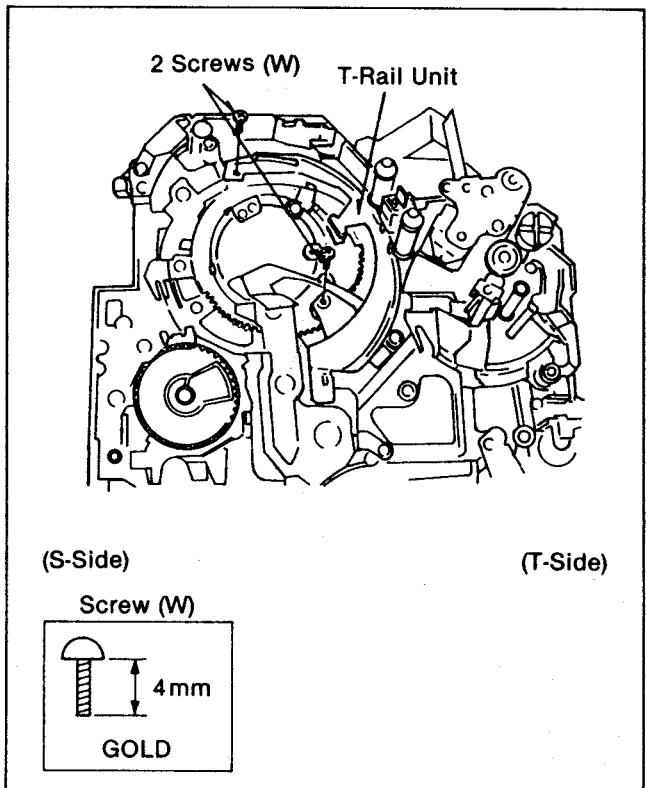


Fig. M12

### Caution:

Do not touch inside cam Gear and keep the cam Gear away from grease and dusts.

- (2) Remove 2 screws, take out Holder Angle and Swing Arm Unit.

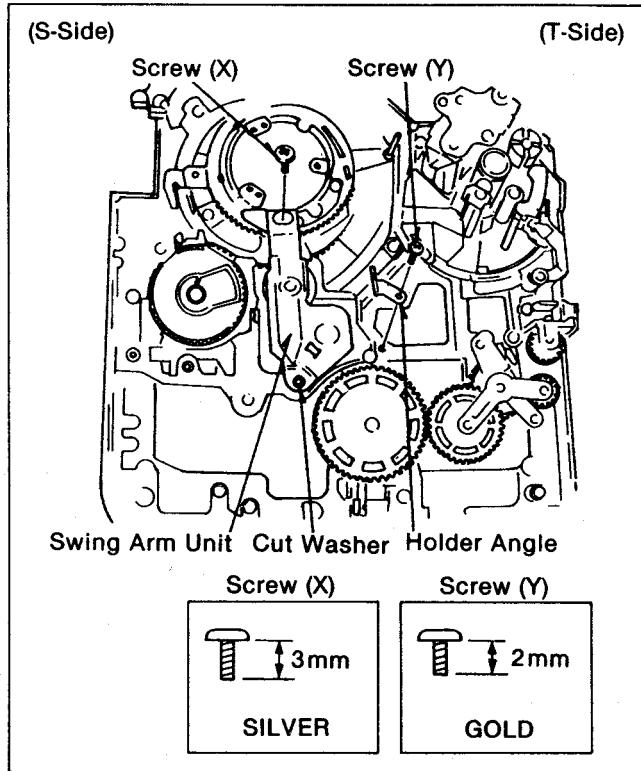


Fig. M13

- (3) Remove 5 screws.

- (4) Loosen Screw (a) to make a clearance and take out Loading Unit.

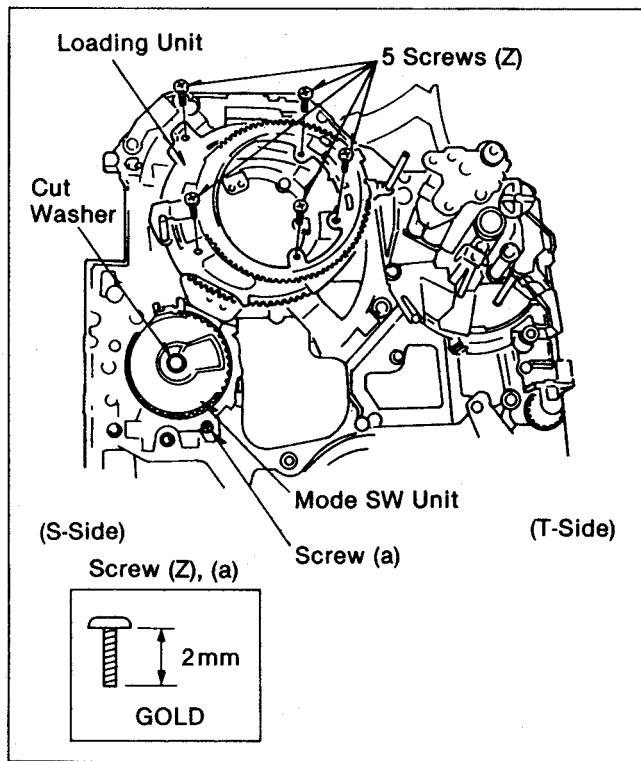


Fig. M14

- (5) Remove screw (a) and cut washer to take out mode SW unit. (\*Mode SW Base is soldered on the flexible P.C. Board).

## 2-4. ASSEMBLY AND PHASE ADJUSTMENT PROCEDURES OF MECHANISM

1. ASSEMBLY AND PHASE ADJUSTMENT OF LOADING UNIT.

- (1) Install Loading Unit and tighten 5 screws.  
 (2) Adjust mechanical phase so that phase marks (See-through holes) meet on both supply and take up sides as shown below.

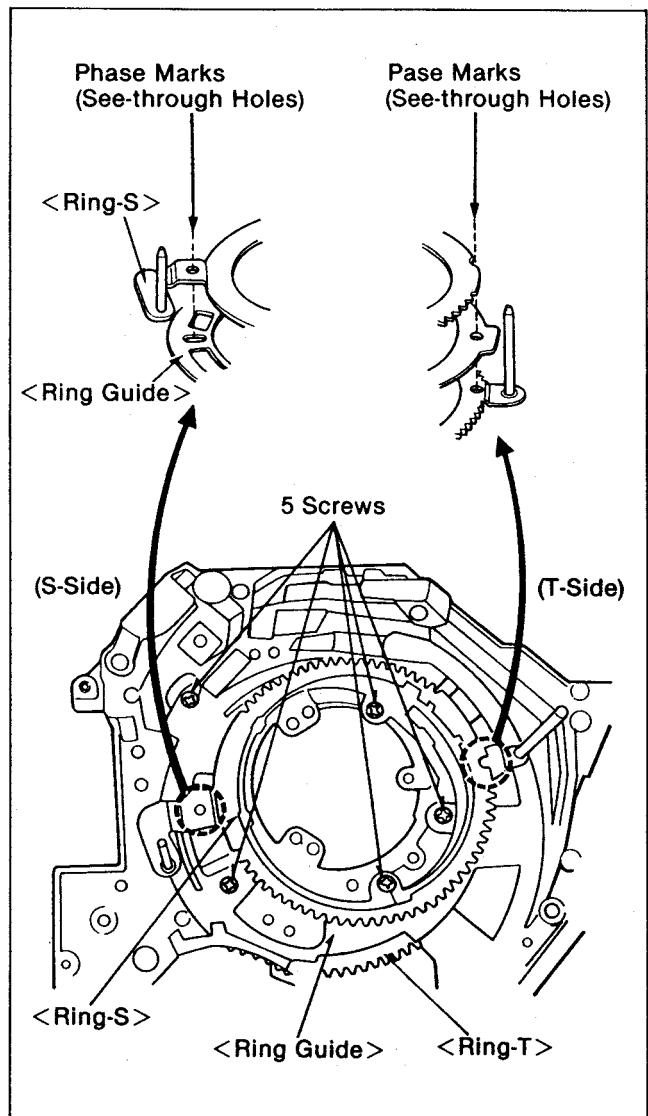


Fig. M15

2. ASSEMBLY AND PHASE ADJUSTMENT OF CAM GEAR.

- (1) Install Cam Gear so that uneven cog portion meets the phase mark on the chassis and put the washer.

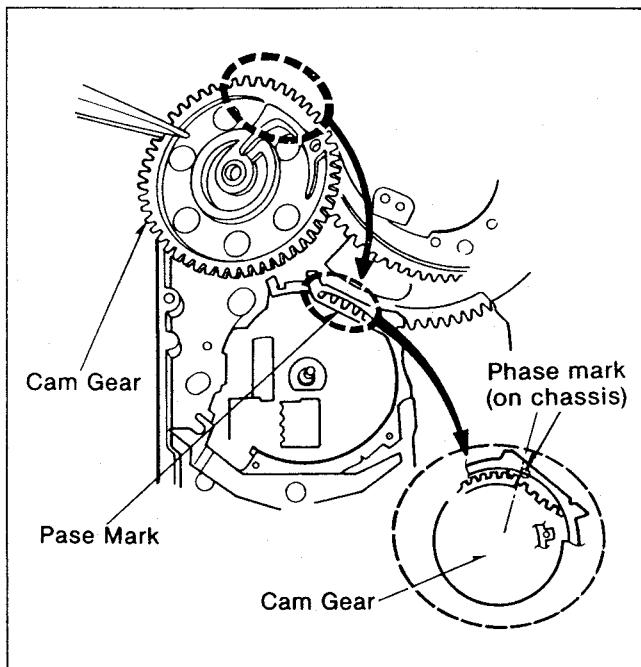


Fig. M16

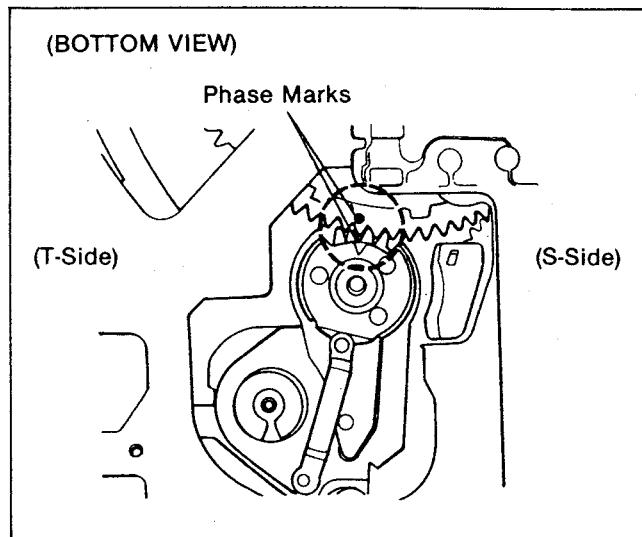


Fig. M18

### 3. ASSEMBLY OF PENDULUM ARM UNIT

- (1) Install Swing Arm Unit and tighten 2 screws with the holder angle.
- (2) Confirm that the phase mark on Loading Ring-T can be seen through the square cutout of Swing Arm Unit. The phase mark of Swing Arm Unit (V-cutout) aligns with the phase mark on Loading Ring-S Unit on the bottom side. These phase marks should be in the correct positions, if the previous phase adjustments have been done correctly.

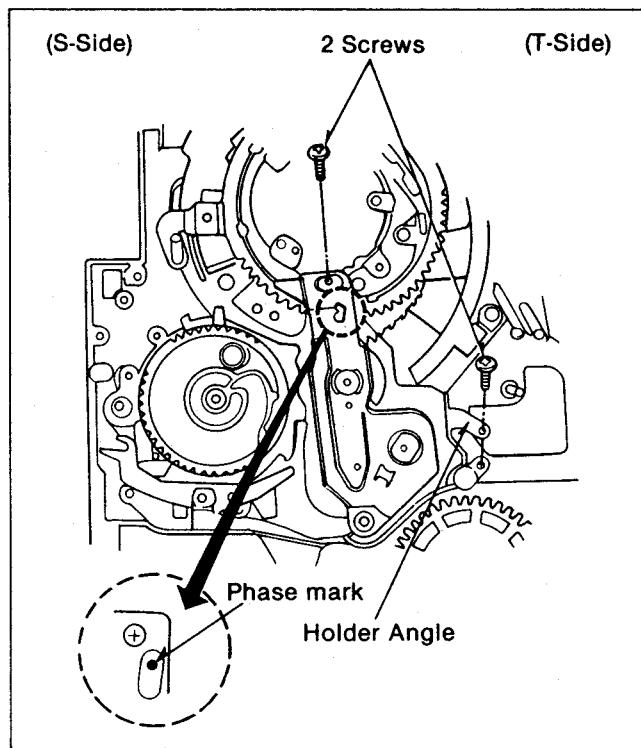


Fig. M17

### 4. ASSEMBLY OF LOADING UNIT PINCH DRIVE ARM UNIT AND CONFIRMATION OF MECHANICAL MOVEMENT

- (1) Install Loading Motor Unit and tighten one screw. (one more screw has to be tightened after installing Pinch Drive Arm Unit)

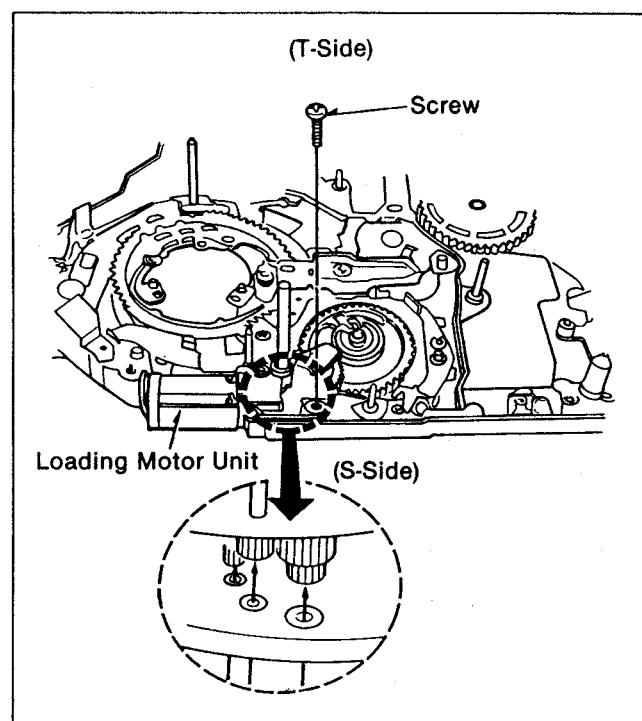


Fig. M19

- (2) Install Pinch Drive Arm Unit and put on washer (A).

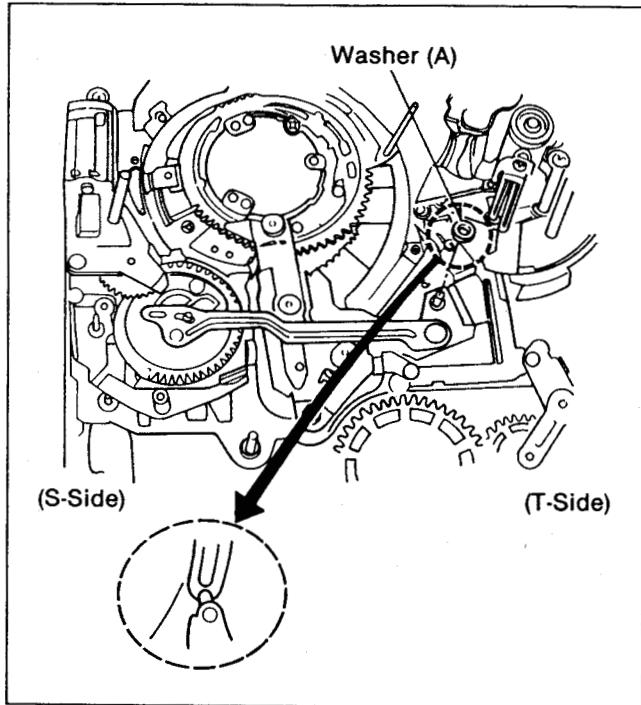


Fig. M20

- (3) Move Pinch Roller to the unloading position by finger and put on washer (B).

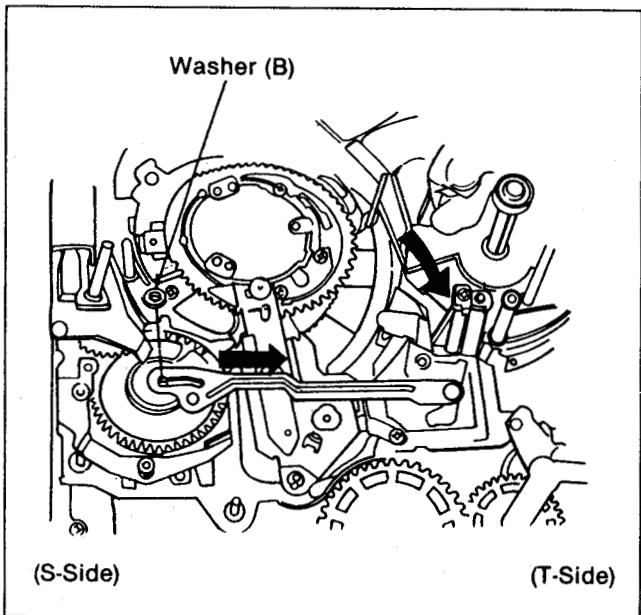


Fig. M21

- (4) Slightly move Loading Ring-S in the unloading direction by applying 1.5VDC to Loading Motor and tighten the screw.

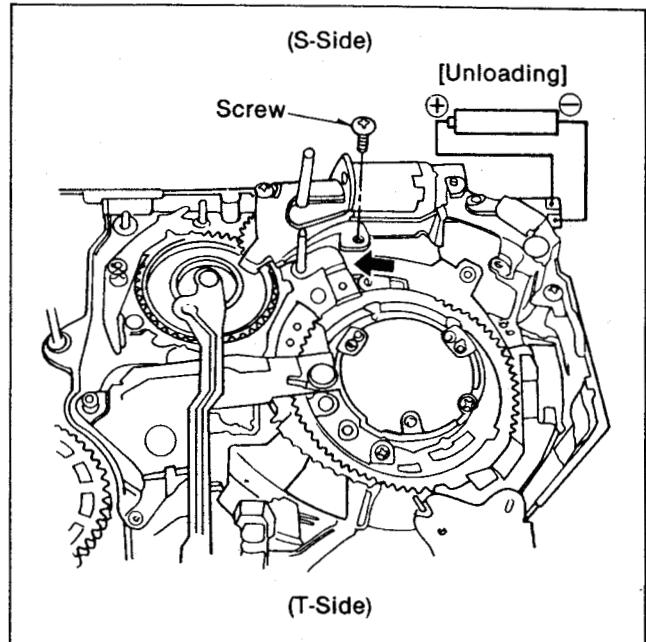


Fig. M22

- (5) Confirmation of Mechanical Movement and phase.  
In this condition, check that the mechanism smoothly moves in both loading and unloading directions by changing the polarity of the battery.

After that, move the mechanism back to the phase adjustment position and confirm all phase marks come to the correct position.

## 5. ASSEMBLY OF S-RAIL UNIT AND T-RAIL UNIT

- (1) Install S-Rail Unit passing Link Post of Ring-S through the linking hole of the S-Rail Unit, and tighten 2 screws.

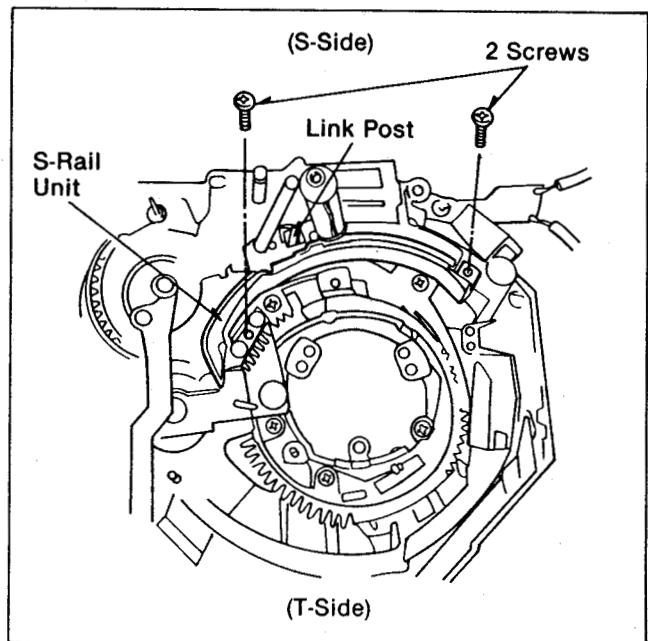


Fig. M23

- (2) Install T-Rail Unit the same way and tighten 2 screws.
- (3) Solder the flexible connector of Sensor LED on the bottom side.

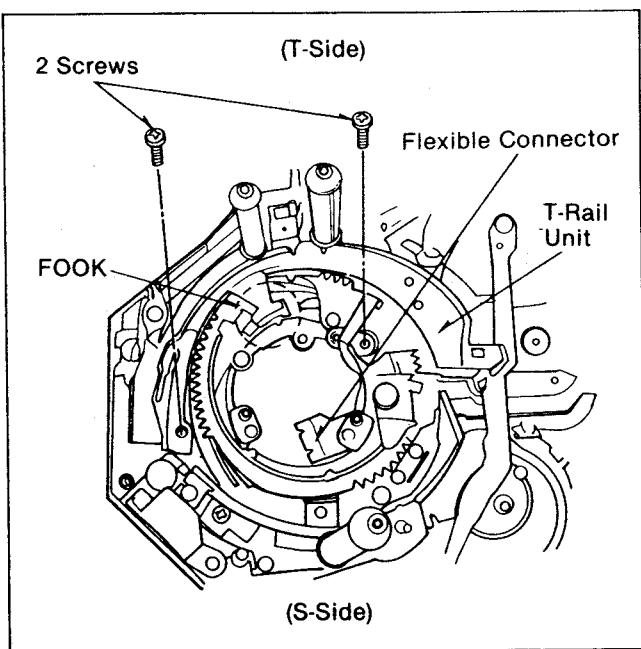


Fig. M24

## 7. ASSEMBLY OF TENSION REGULATOR UNIT.

- (1) Install Tension Regulator Unit so that the guide arm fits in outer inside of Cam Gear.
- (2) Put on washer and hook Tension Spring in the original position.

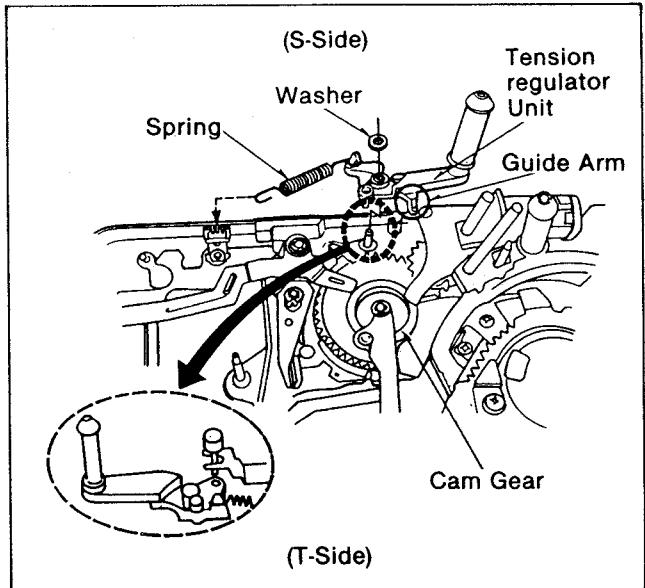


Fig. M26

## 6. ASSEMBLY OF EJECT LEVER UNIT

- (1) Install Eject Lever Unit and link the arm with Eject Lock Base.
- (2) Fix Eject Lock Base with 2 screws and Eject Lever Unit with 3 washers.

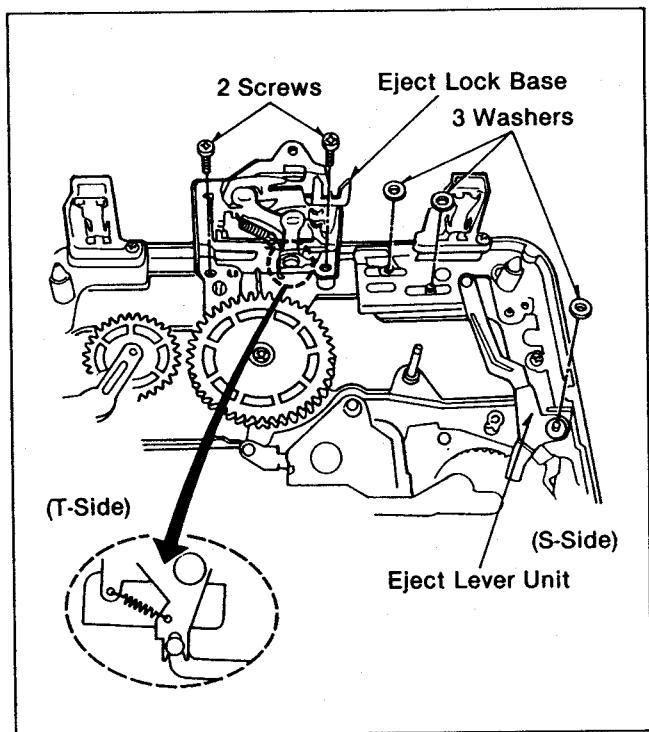


Fig. M25

## 8. ASSEMBLY OF SUPPLY REEL TABLE

- (1) Install Supply Reel Table and put on the washer.

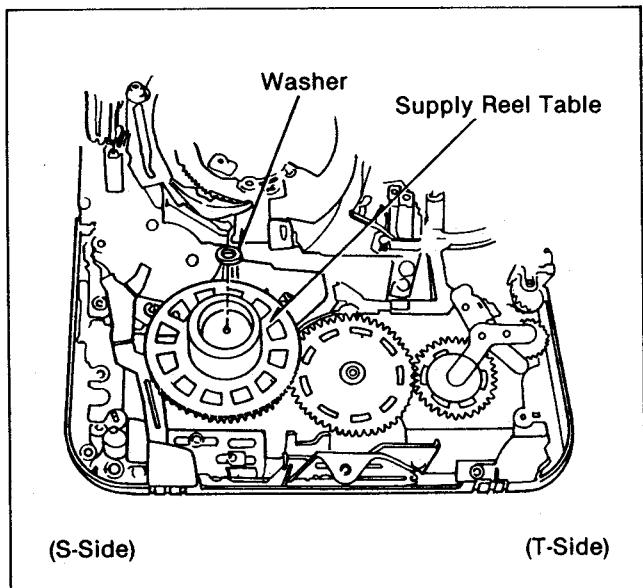


Fig. M27

## 9. ASSEMBLY OF DD CYLINDER UNIT

- (1) Install DD Cylinder unit so that the fixating pins fit into the fixing holes, and tighten 3 screws from the bottom side.

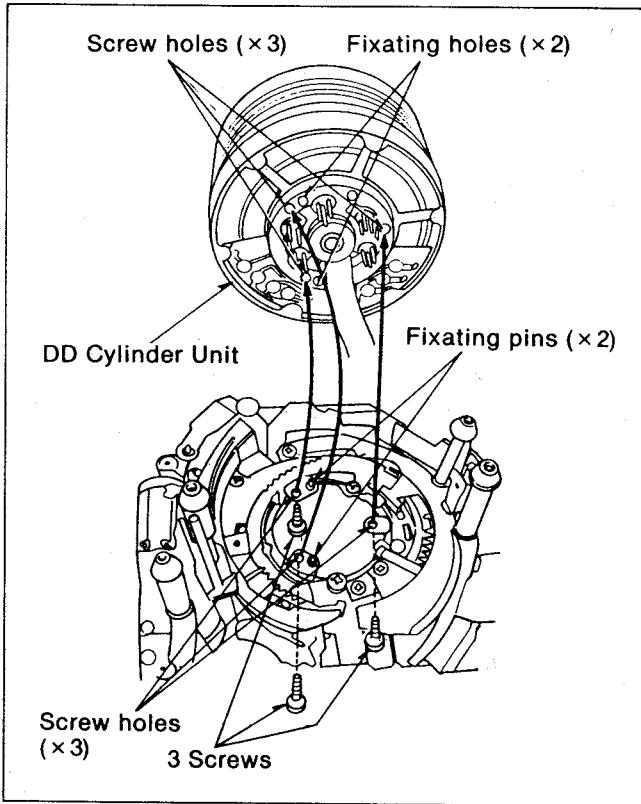


Fig. M28

## 11. ASSEMBLY OF CASSETTE HOLDER UNIT.

- (1) Install Cassette Holder Unit and tighten 4 red screws.
- (2) Solder flexible connectors of Supply Photo Sensor, Take up Photo Sensor and Loading Motor Unit on the bottom side.

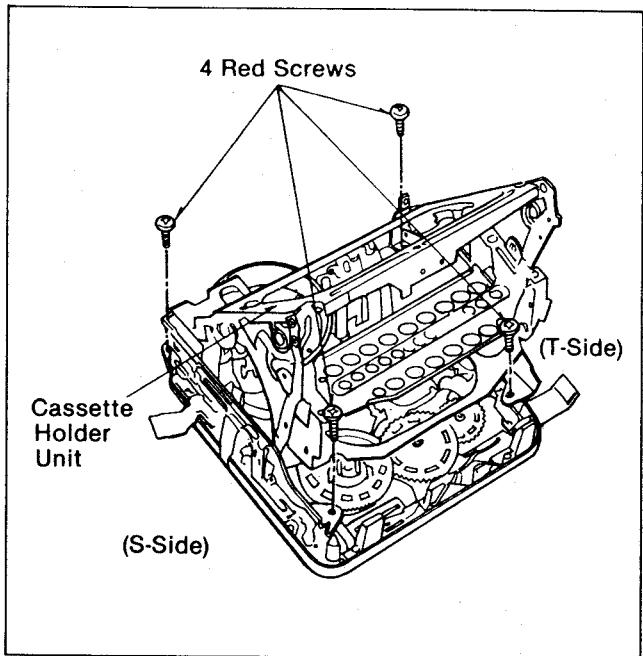


Fig. M30

## 10. ASSEMBLY OF RT CONNECTOR

- (1) Hold RT Connector aligning the phase mark of RT Connector (as indicated) to the phase mark on the chassis.
- (2) Carefully Install the RT Connector passing lead pins of DD Cylinder Unit through each corresponding hole of the RT Connector.

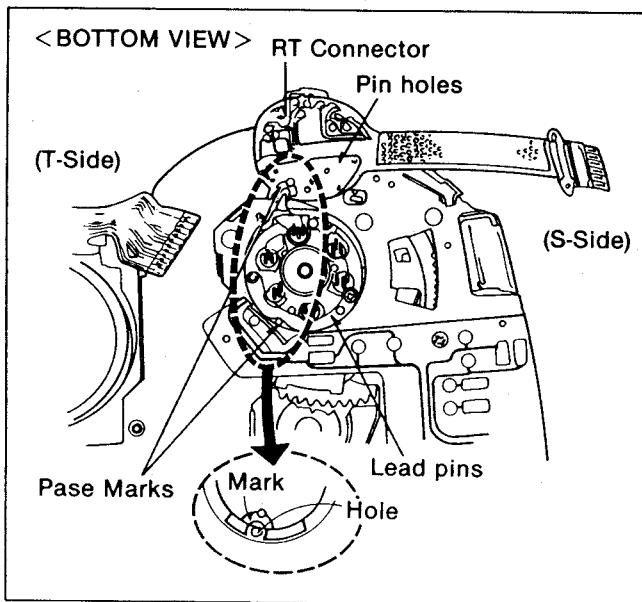


Fig. M29

## 2-5. INTERCHANGEABILITY ADJUSTMENT

### 1. BACK TENSION ADJUSTMENT

\* Equipment Required

Tension Meter

VHS-C Cassette Tape

Specification 18+3/-1.5g(16.5g~21g)

- (1) Play back (remove the cassette tape cover) tape.
- (2) Set Tension Meter at the measuring point and read the value.
- (3) If the value is out of specification, change the hooking position of Tension Spring.
- (4) Install Cassette Holder Unit.

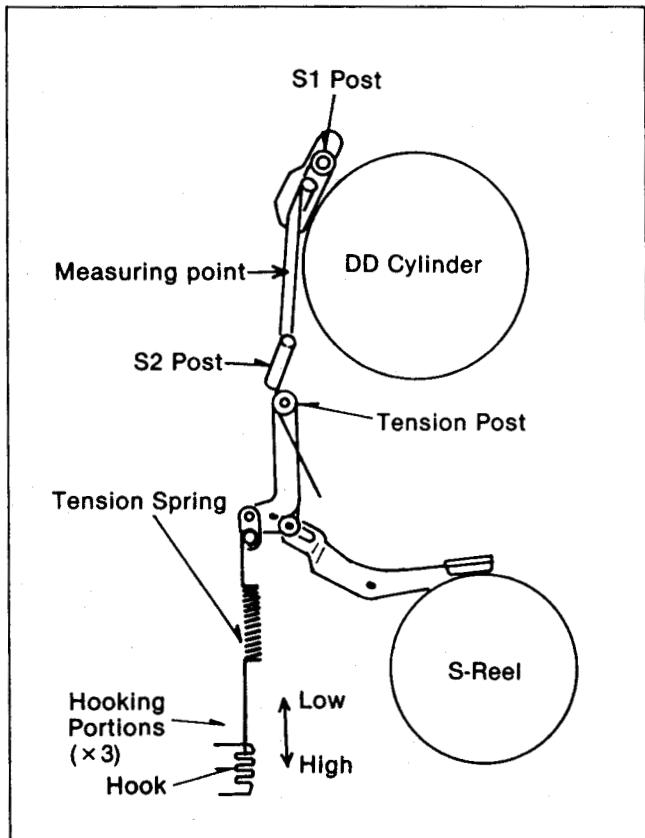


Fig. M31

### 2. HEIGHT ADJUSTMENT OF TAPE GUIDE POSTS AND A/C HEAD (PRELIMINARY ADJUSTMENT)

#### Confirmation of Tape Travel

- (1) Playback a cassette tape (remove the cassette tape cover) and check that the tape travels without curling at upper and lower guides on posts S1, T1, T2 and T3.

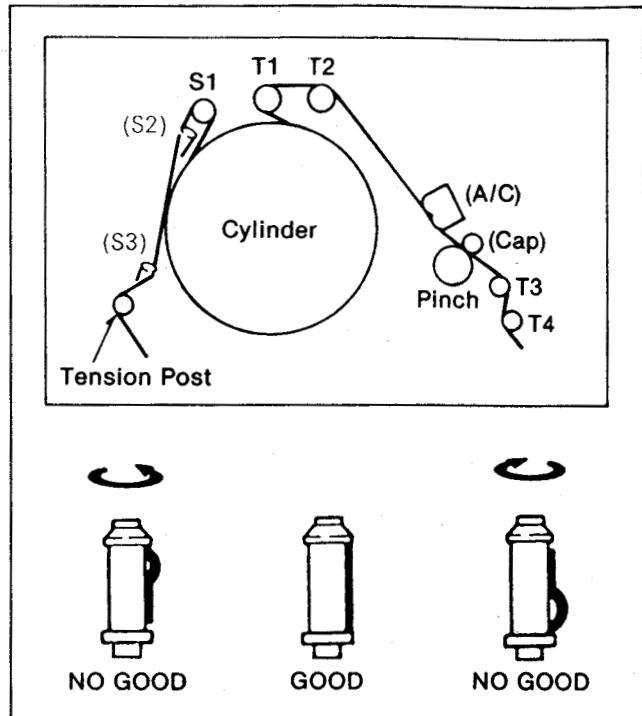


Fig. M32

- (2) If curling is apparent, adjust the height of posts by turning the top of post with a Hex Wrench.
- (3) Looking at the lower edge of the Control Head with the tape in motion, ensure that lower edge of Control Head. If it doesn't turn the A/C Head height Adjustment Nut slightly in the direction necessary to correct it.

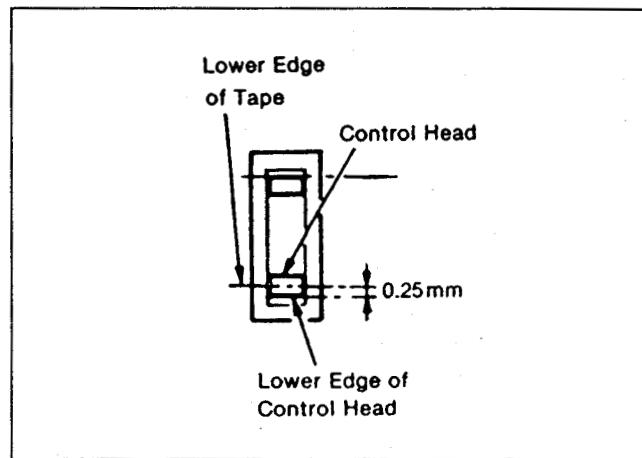


Fig. M33

### 3. TAPE INTERCHANEABILITY ADJUSTMENT

#### NOTE:

To perform these adjustments, make sure that the tracking control is set in the fixed position by Pressing both tracking Up/Down switches at the same time.

- \* Equipment Required
- Dual Trace Oscilloscope
- Alignment tape (VFM8180HUPF)

#### [ AZIMUTH ADJUSTMENT OF A/C HEAD ]

- (1) Connect the oscilloscope to Audio Line Output.
- (2) Play back the Monoscope portion (6KHZ,MONO) of the Alignment tape.
- (3) Adjust the Azimuth Adjustment screw on the A/C Head Unit so that output level is at a maximum.

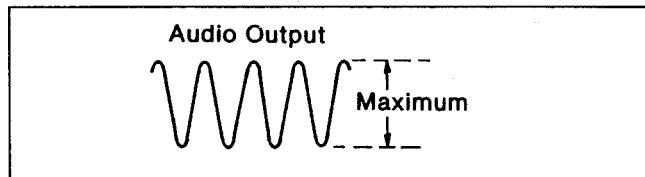


Fig. M34

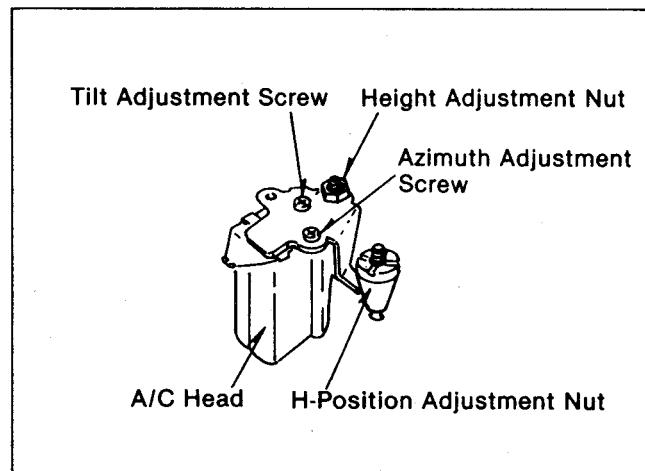


Fig. M35

#### [ CONFIRMATION/ADJUSTMENT OF ENVELOPE ]

- (1) Connect the oscilloscope to CL3004. (refer to Fig. M40)
- (2) Play back the Monoscope portion of the Alignment Tape and adjust the height of S1 and T1 posts watching the scope display so that the RF envelope becomes as flat as possible.
- (3) When the RF envelope has a Gap at the beginning of the track, adjust height of S1 post.

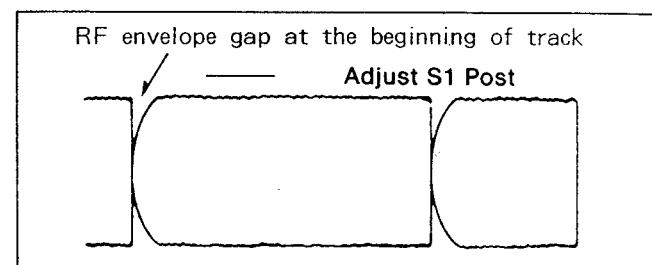


Fig. M36

- (4) When the RF envelope has a gap at the end of the track, adjust height of T1 post.

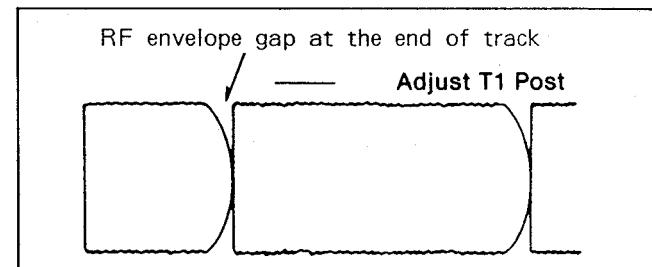


Fig. M37

- (5) When S2 and T1 Posts are adjusted properly, there is no gap of the RF Envelope at the beginning or end of the track as shown below.

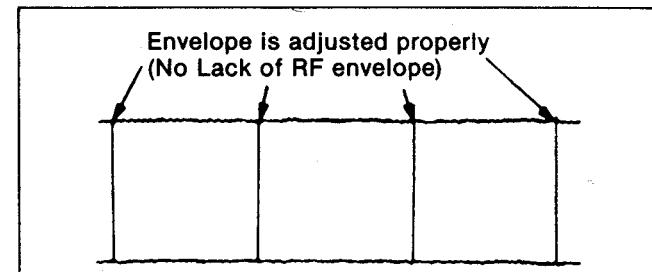


Fig. M38

#### [HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD]

- (1) Set the tracking control to the fixed position by pressing both tracking control UP/DOWN switches at the same time, and connect the Oscilloscope to TP8001.
- (2) Playback the monoscope portion of the alignment tape.
- (3) Adjustment horizontal position by turning H-Position Adjustment Nut so that the envelope level is at a maximum.

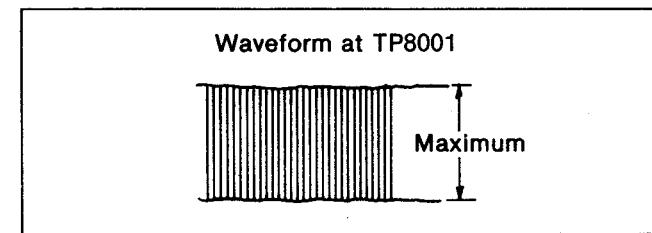
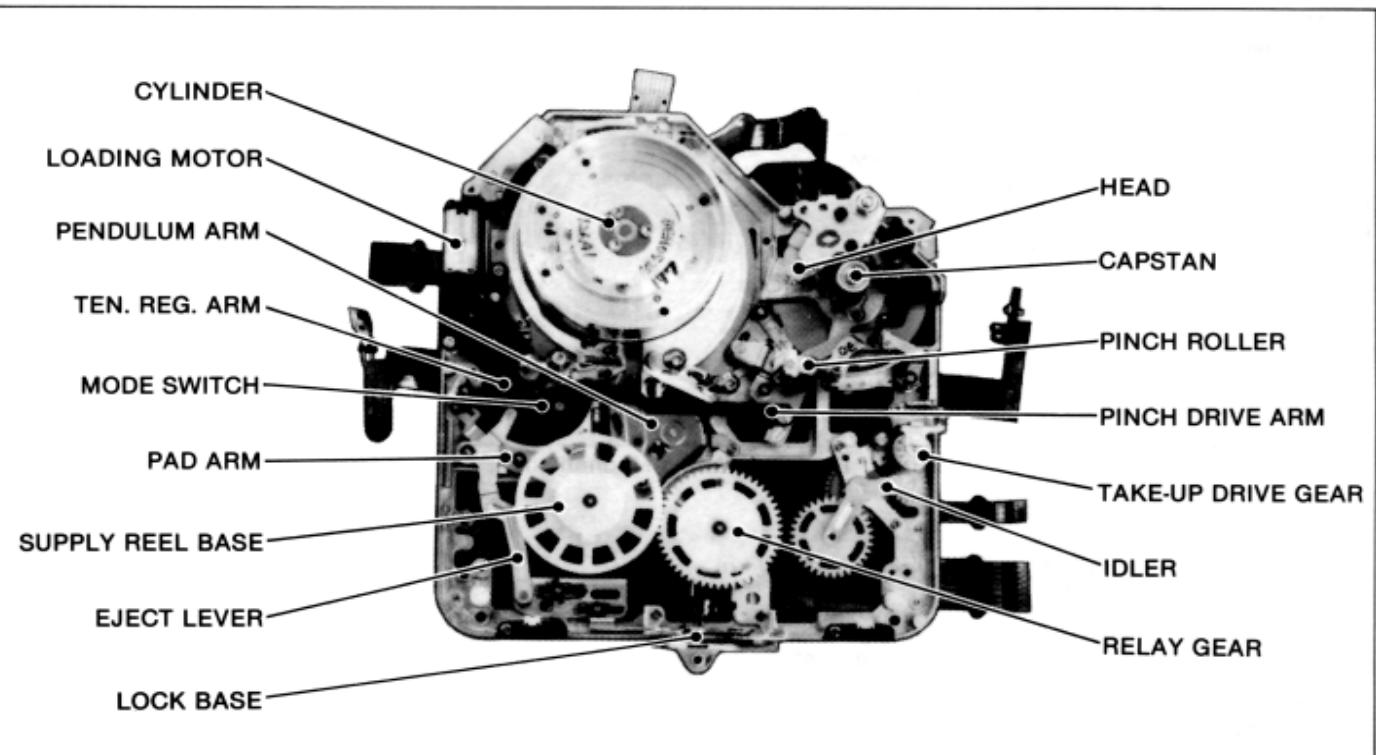
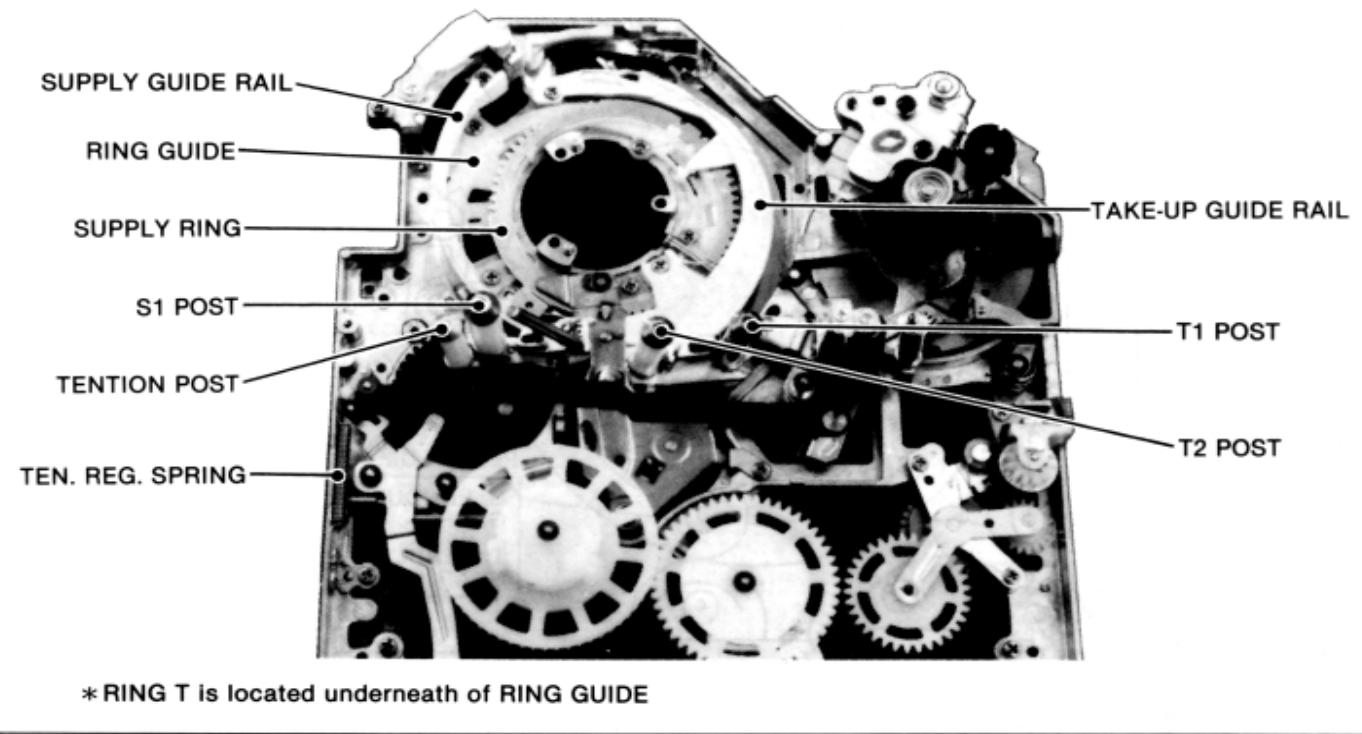


Fig. M39

## □ Movement of Mechanism

### 1. Name of Mechanism



## 2. Movement to Mechanism

### 1. Loading operation

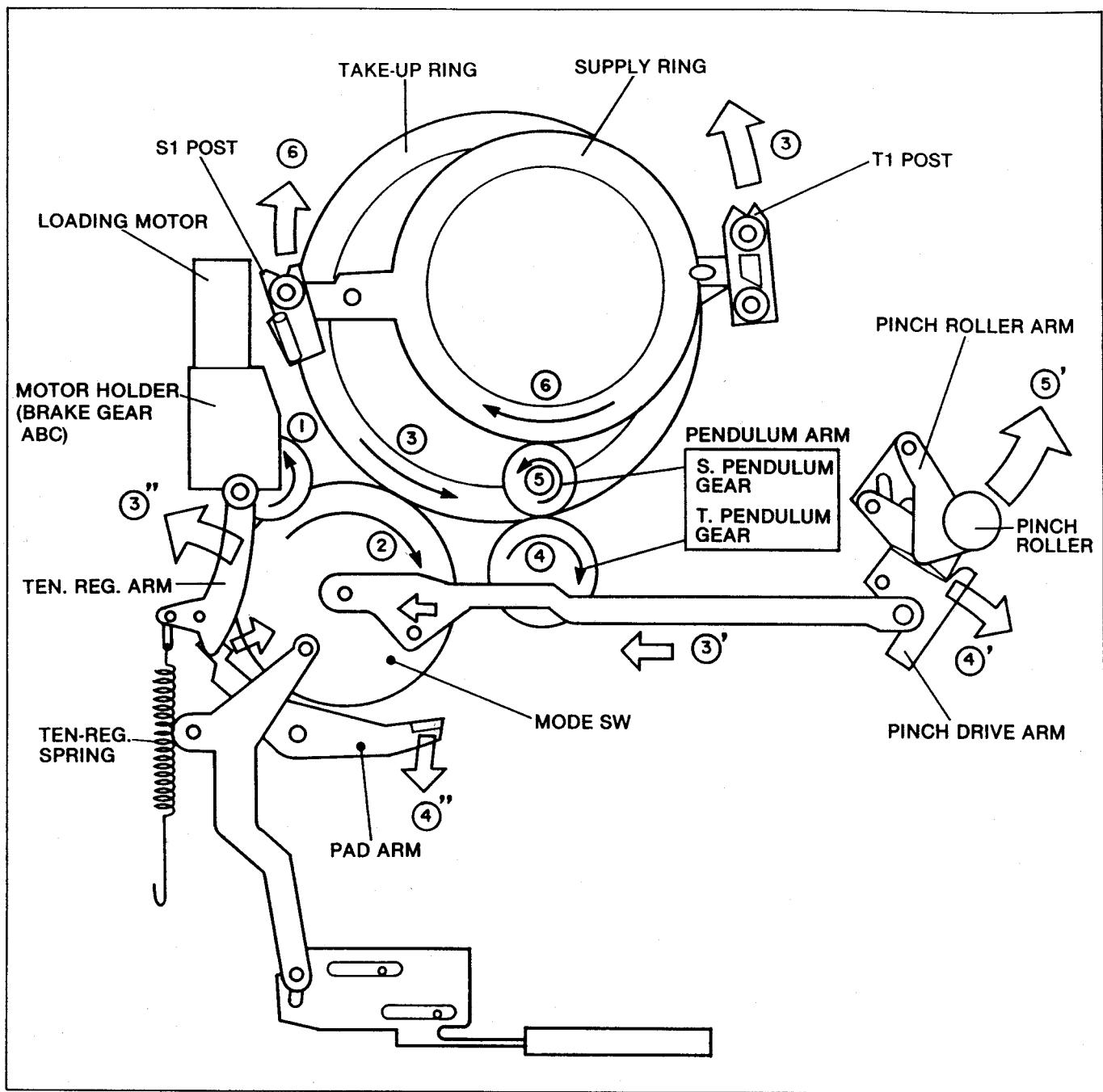


Fig. 1 Loading Mechanism

Motive power of loading motor is transferred in the direction of the arrow.

Drive of loading post.

Head Contact Pinch Roller with capstan shaft.

(Play Position)

Head Contact Pad Arm with S.Reel table.  
(Play Position)

## 2. Eject operation

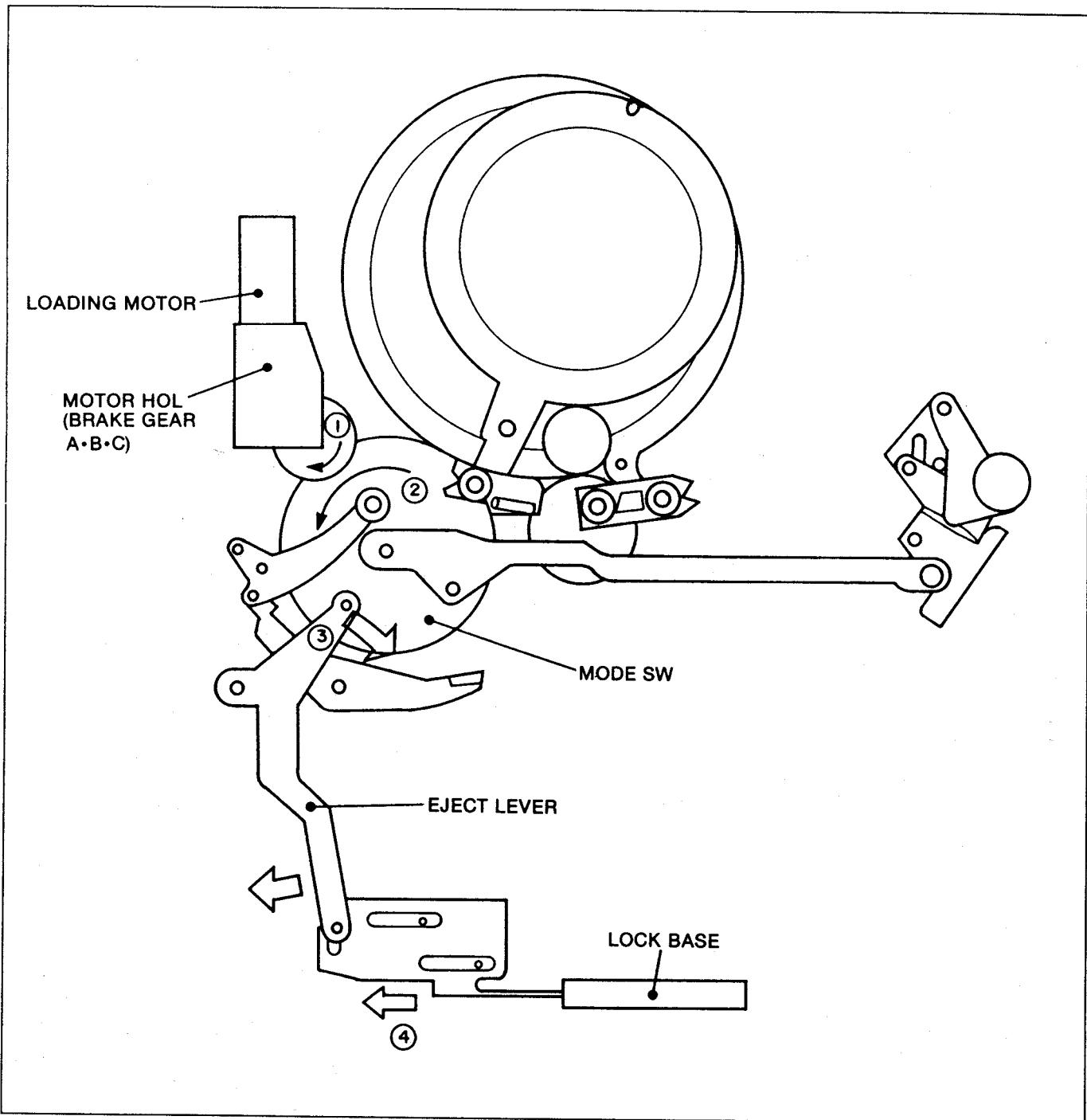


Fig. 2 Loading mechanism

Motive power of loading motor is transferred in numerical order.

After cassette up operation, the gears are moved in the opposite direction of the arrows, to turn back stop1 position.

### 3. Movement of Reel table

#### 1. FF operation

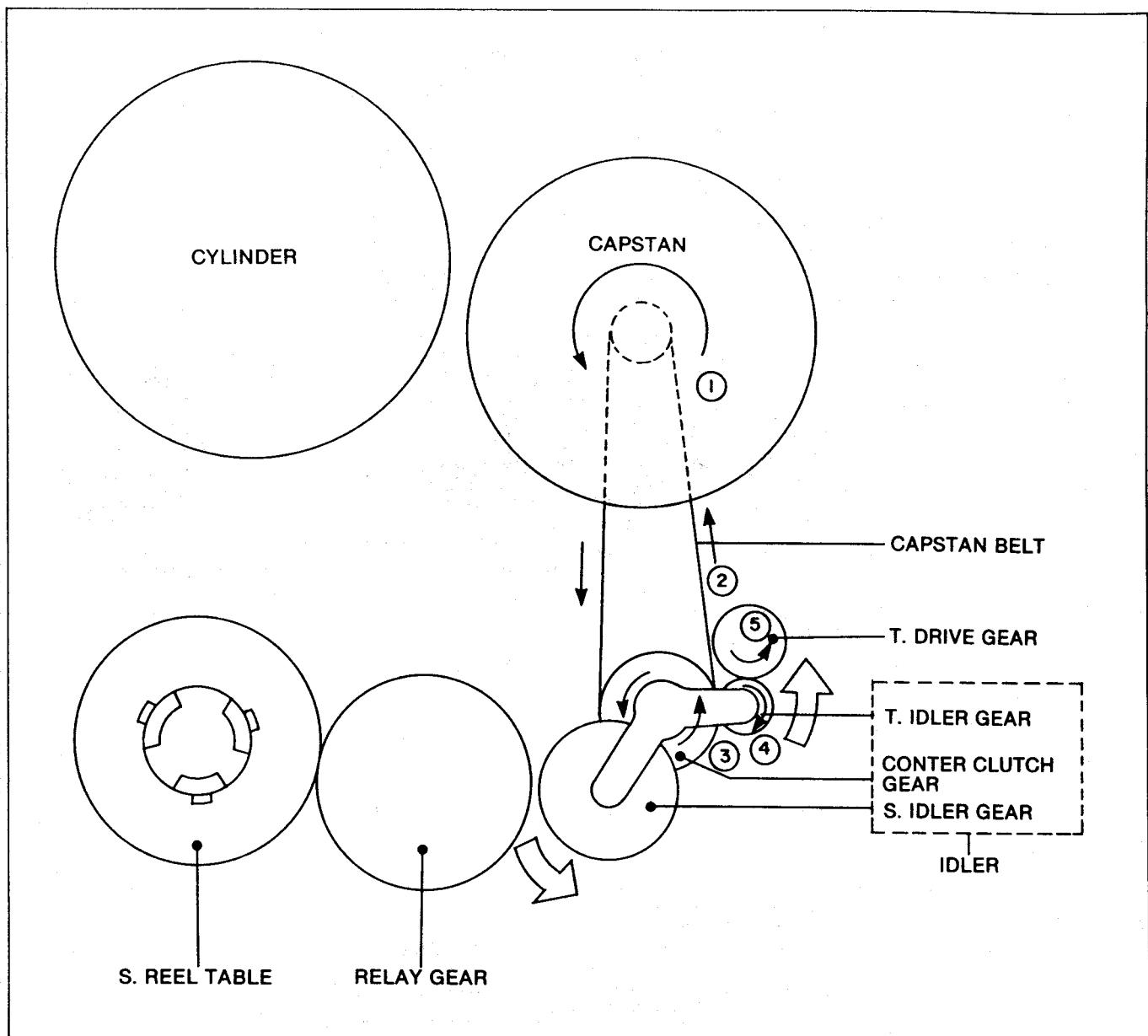


Fig. 3 Take-Up side of Reel Drive

Motive Power of Capstan motor is transferred to idler (Center clutch Gear) through the capstan belt.

At this time, Position of idler is decided by rotation of capstan motor.

After that, Motive power is transferred in numerical order.

Finally, Take-up Reel is rotated by T.Drive Gear.  
Pad Arm is moved by Ten. Reg. Arm, and then (the Ten.Reg.Arm is moved into contact) with lower side of S.Reel table in order to apply back tension to tape.

2. REW operation

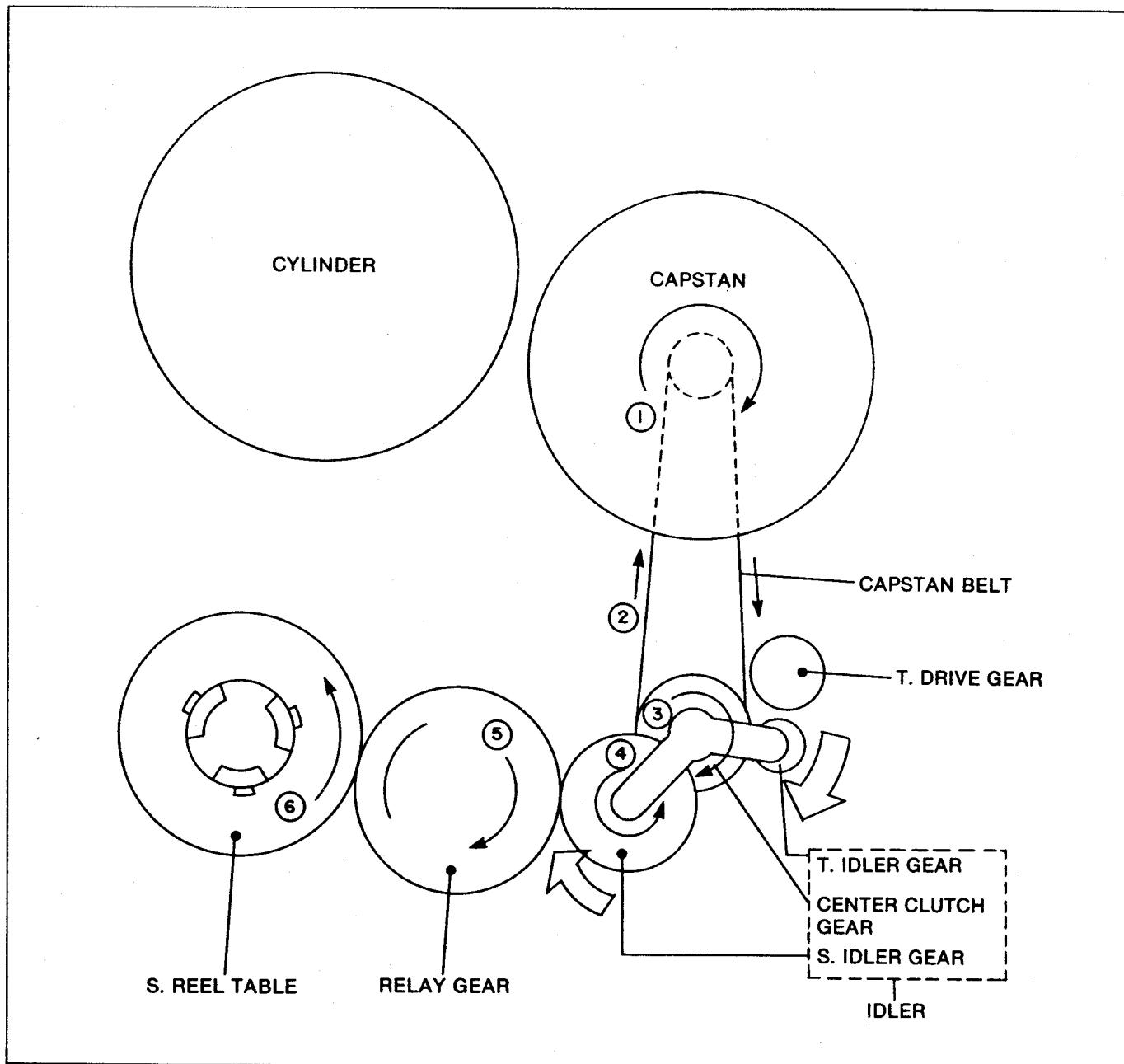


Fig. 4 Supply side of Reel drive

Motive power is transmitted in numerical order.  
 At this time, idler is in contact with the Relay Gear by capstan rotation.  
 Back tension is generated by contact Drive Gear T with REW Torque spring(Including the idler unit).

## ② Alignment of Mechanism

Following mechanical phase Position is important for mechanical alignment.

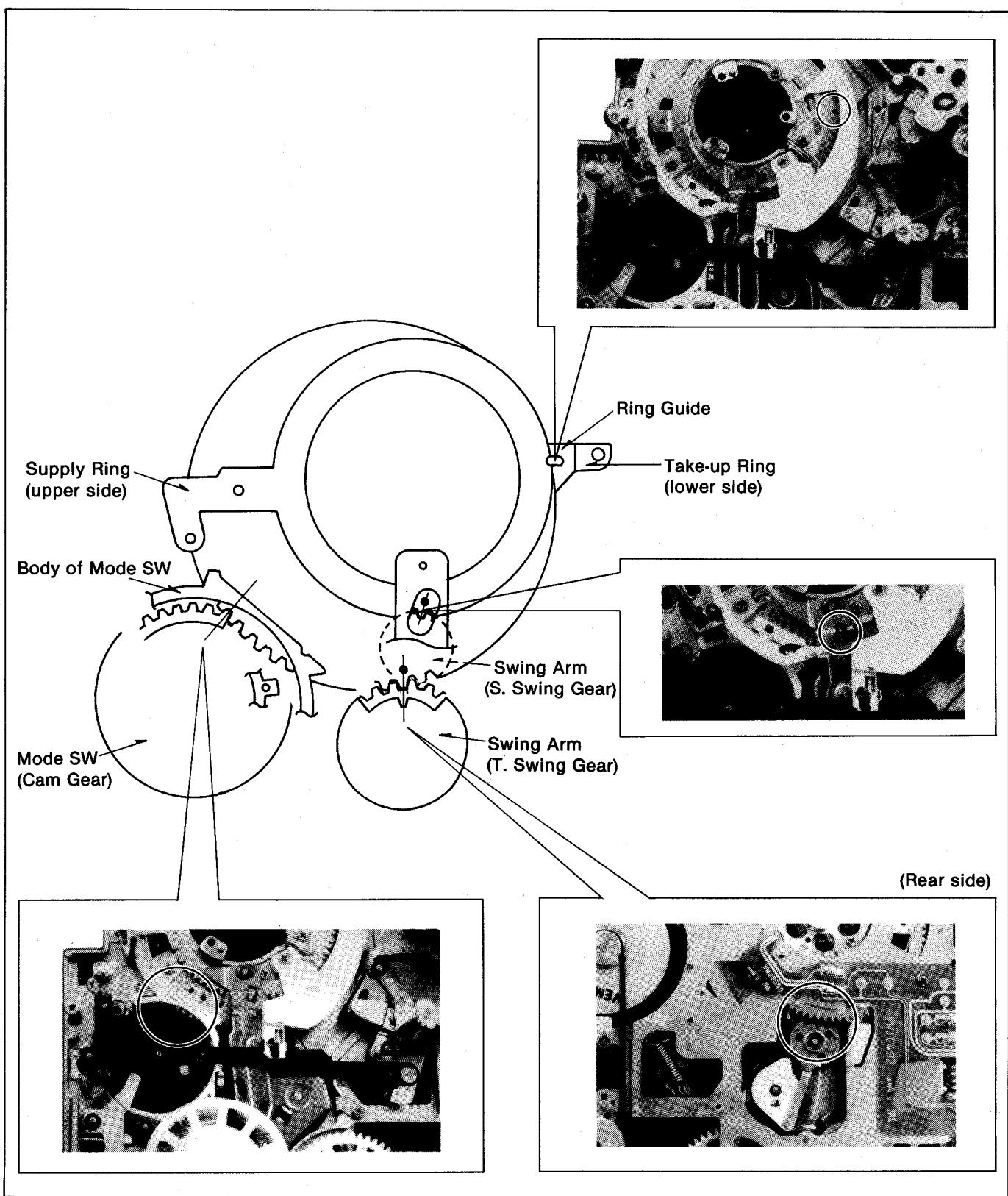
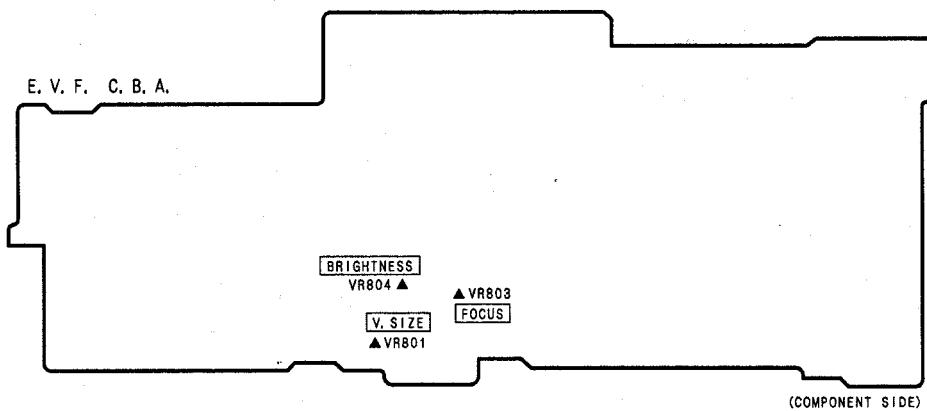
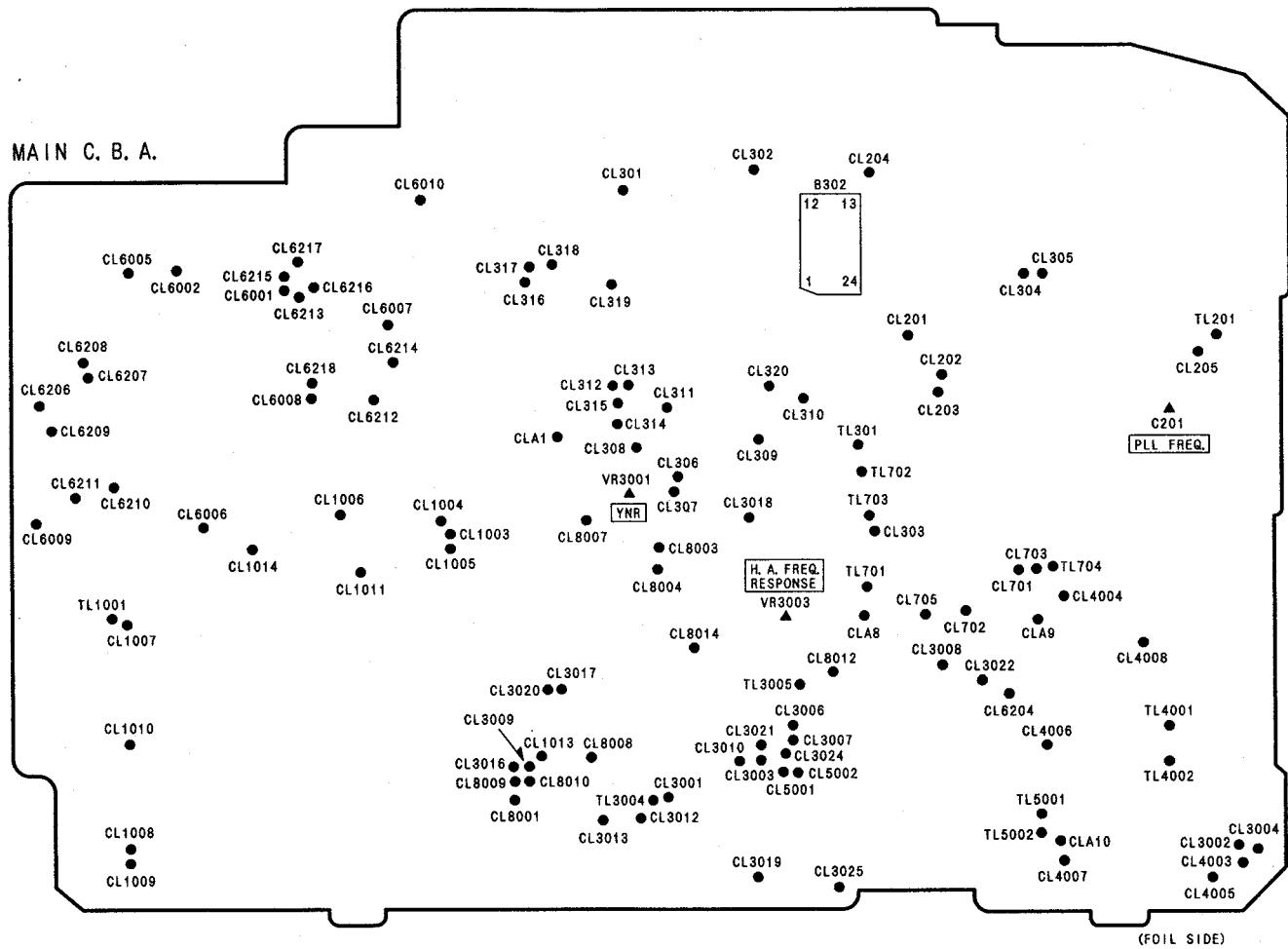


Fig. 5 Mechanism Phase

**Note :** Adjustment procedure supplement for camera unit is separate volume from now.  
Please refer to following manual for detail of adjustment procedure of camera.  
Order number for adjustment procedure (camera) supplement : VMD9312M136.  
(It will be supplied a few weeks later.)

## **LOCATION OF TEST POINTS & CONTROLS**



## 2-6. ELECTRICAL ADJUSTMENT PROCEDURES

### 2-6-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION

#### TEST EQUIPMENT AND TOOLS

The following equipments are required for adjustment of the VTR section of VHS-Movie.

1. DVM (Digital Volt Meter)  
Voltage Range : 0.01-50V
2. Dual Trace Oscilloscope.  
Voltage Range : 0.06-50V/div  
Frequency Range: 0-50MHz  
Probe : 10:1 or 1:1  
Frequency Range: 0-10MHz
3. Video Sweep Generator  
Frequency Range: 0-10MHz
4. Colour Monitor TV
5. Plastic Tip Driver
6. VHS-C Movie Alignment Tape (VFM8180HUPF)
7. VHS-C Blank Tape

#### PREPARATION

1. Remove the casing panels.  
(Please refer to disassembly method)
2. Connect the extension cables is necessary.

VFK0727	(Main C. B. A FP6001~MECH-CHASSIS)
VFK0728	(Main C. B. A FP4001~AC HEAD)
VFK0729	(Main C. B. A FP6002~MECH-CHASSIS)
VFK0929	(Main C. B. A B2011 ~CCD)
VFK0839	(Main C. B. A B1001 ~E. V. F C. B. A B1601)
VFK0896	(Main C. B. A FP6005~DRIVE C. B. A FP2003)
VFK0913	(Main C. B. A FP701 ~LENS UNIT)

NOTE: Please remove the S/S POWER SW, AV-JACK and Zoom SW from side case (L) unit.

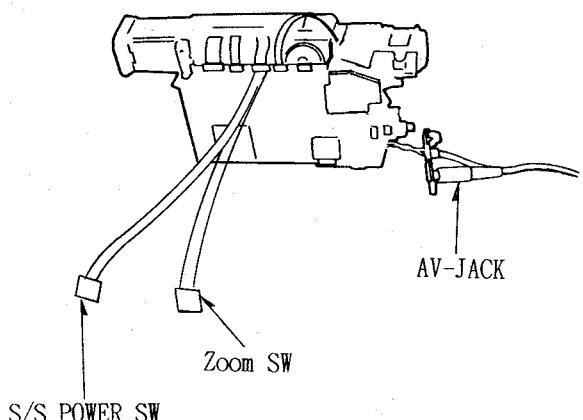
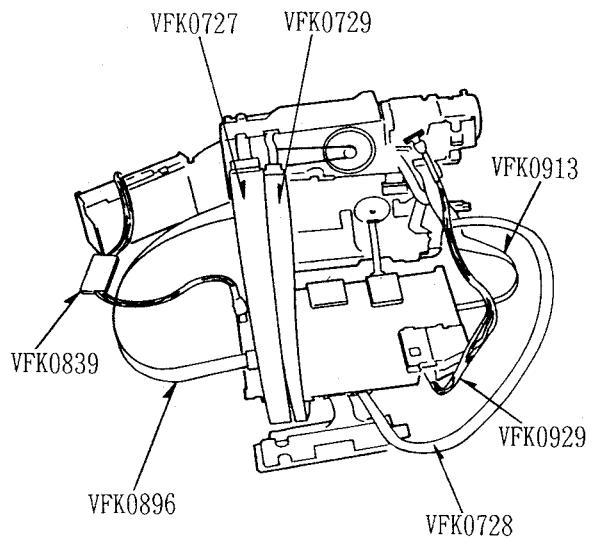
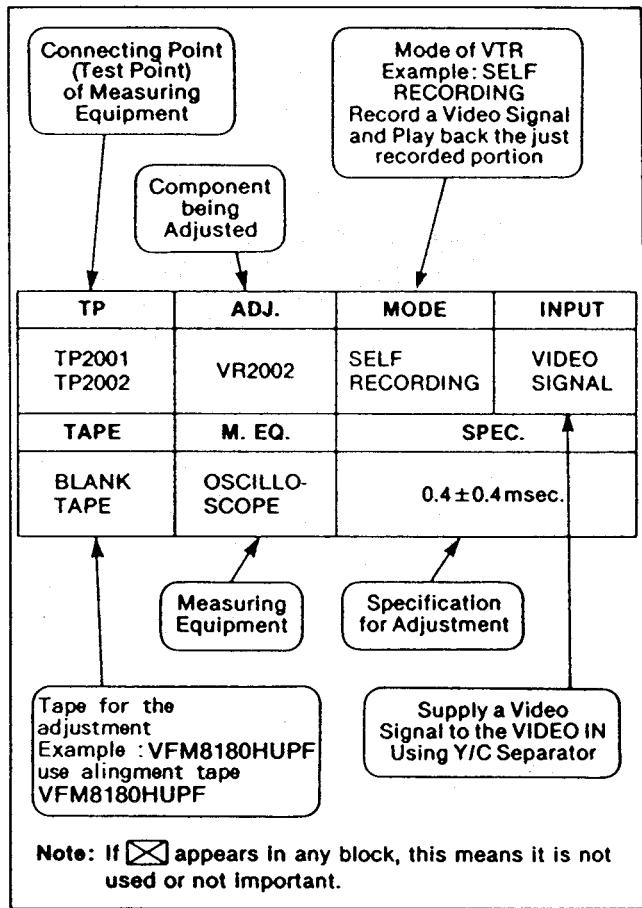


Fig. V1

## HOW TO READ THE ADJUSTMENT PROCEDURES



Note: Triggering the Oscilloscope

To trigger the Oscilloscope, the following test point is used.

H. Rate : Video Output

V. Rate : B6004-6 (Head switching Signal)

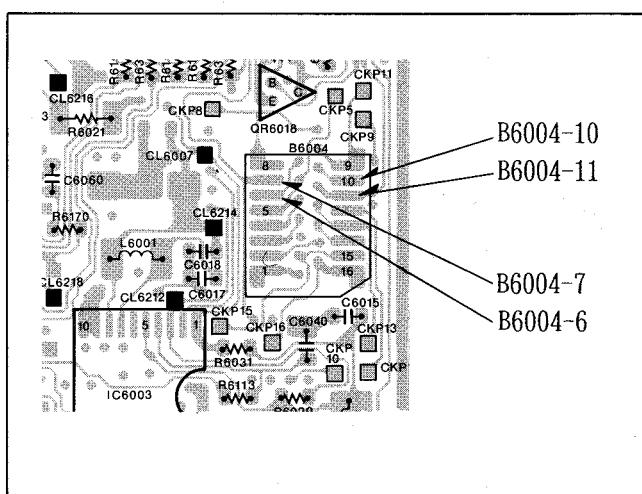


Fig. V2

## 1. LUMINANCE & CHROMINANCE SECTION

### [1]. YNR ADJUSTMENT

Purpose:

Improve the overall S/N Ratio especially in the Low Frequency Component.

Symptom of Misadjustment:

The S/N ratio is low.

T P	A D J.	M O D E	I N P U T
TL3004	VR3001	PLAYBACK	
TAPE	M. EQ.	S P E C.	
ALIGNMENT TAPE VFM8180HUPF	OSCILLOSCOPE	SIGNAL IS MINIMIZED (LESS THAN 50mV)	

1. Playback the alignment tape.
2. Connect the oscilloscope to TL3004.
3. Adjust VR3001 so that signal is minimized.

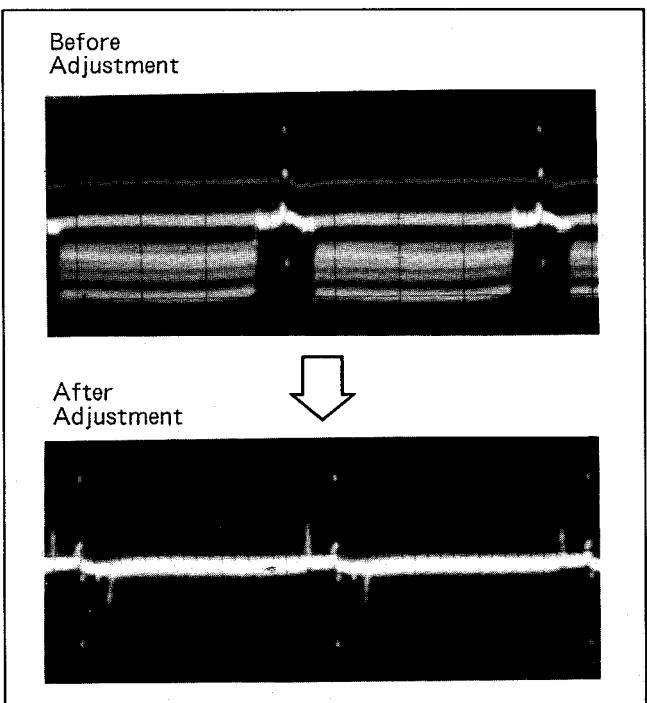


Fig. V3

## (2). HEAD AMP FREQUENCY RESPONCE ADJUSTMENT

Purpose:

To improve Video Frequency Response Level.

### Symptom of Misadjustment:

Video Frequency Response deteriorates.

Picture becomes noisy.

T P	A D J .	MODE	I N P U T
VIDEO OUT	VR3003	REC & PLAYBACK	VIDEO SWEEP SIGNAL
T A P E	M . E Q	S P E C	
VHS-C	OSCILLOSCOPE	2MHz/0.1MHz	= 1/1
BLANK TAPE	VIDEO SWEEP	(0±1dB (100%))	

**NOTE:-**

Connect the jumper wire between B6004-7 and B6004-11

After that video signal can be input through

B6004-10.

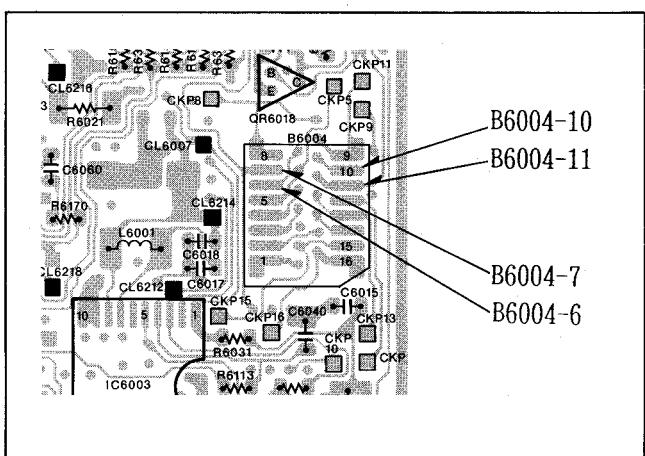


Fig V4

1. Set the sweep generator output as shown below.

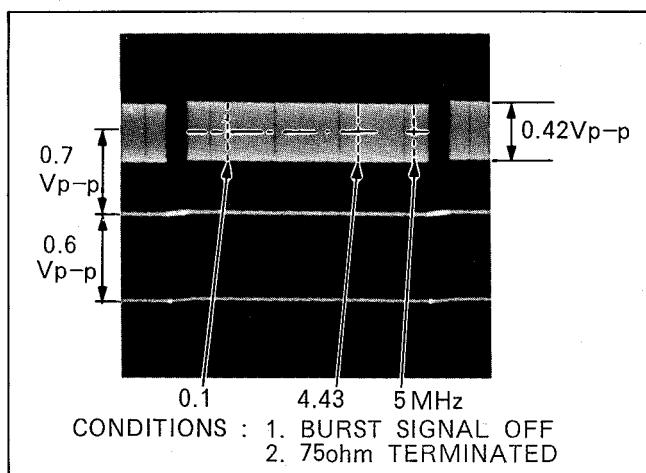


Fig. V5

2. Supply sweep signal to B6004-10.
  3. Record the signal for few minutes.
  4. Playback the recorded signal.
  5. Adjust VR3003 so that level at the 2 MHz is within spec as shown below.

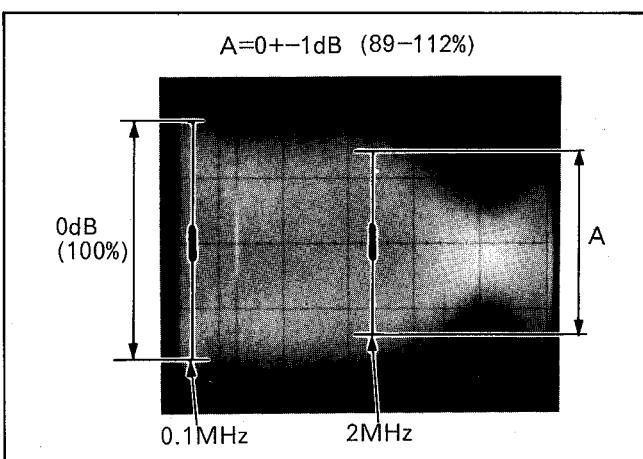


Fig. V6

## **2-6-2. ELECTRICAL ADJUSTMENT FOR E.V.F. SECTION**

The following adjustment are for Electric Viewfinder.

Note:

- (A). Connect the Viewfinder to unit.
  - (B). The camera unit circuit must be completely aligned before viewfinder adjustment are made.

## (1). CENTREING ADJUSTMENT

1. Aim the camera at the registration chart.
  2. Adjust the deflection yoke centreing magnets turning them so that the picture on E.V.F unit is centred.

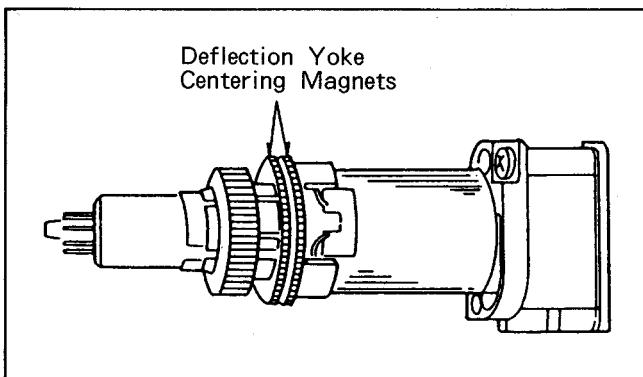


Fig. E1

## [2]. FOCUS ADJUSTMENT

T P	A D J.	LENS CAP	CHART
	VR803	REC	BALL CHART
M. EQ	S P E C		
VIEWFINDER	BEST RESOLUTION		

NOTE: VR803 is located on E. V. F. C. B. A

- (1). Aim the camera at the Ball Chart.
- (2). Adjust the VR803 for best resolution in Viewfinder.

### NOTE:

After performing this adjustment, confirm position of "A" part on the VR803.

"A" part must be outside of 100 degree.

When "A" part is inside of 100 degree, must be re-adjust it..

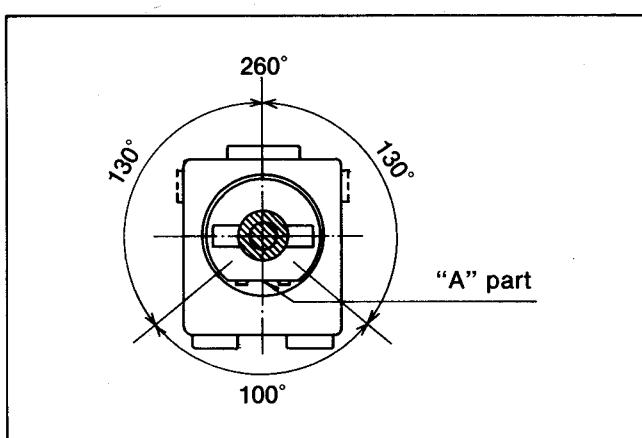


Fig E2

## [3]. VERTICAL SIZE ADJUSTMENT

T P	A D J.	LENS CAP	CHART
	VR801	NO	GRAY SCALE CHART
M. EQ	S P E C		
VIEWFINDER	VERTICAL SIZE IS FIXED		

NOTE: VR801 is located on E. V. F. C. B. A

- (1). Aim the camera at the Gray Scale Chart.
- (2). Adjust the VR801 for best vertical size.  
(Picture does not roll as shown below.)

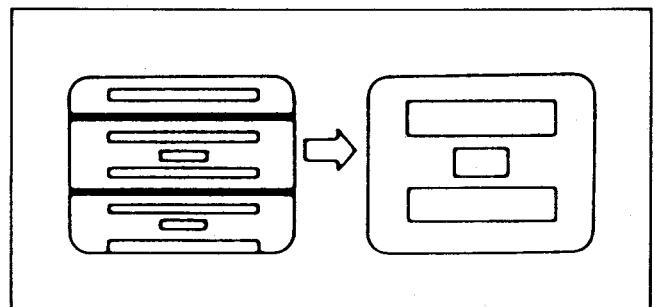


Fig. E3

## [4]. BRIGHTNESS ADJUSTMENT

T P	A D J.	LENS CAP	CHART
	VR804	NO	GRAY SCALE CHART
M. EQ	S P E C		
VIEWFINDER	NATURAL GRADATION		

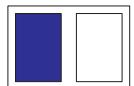
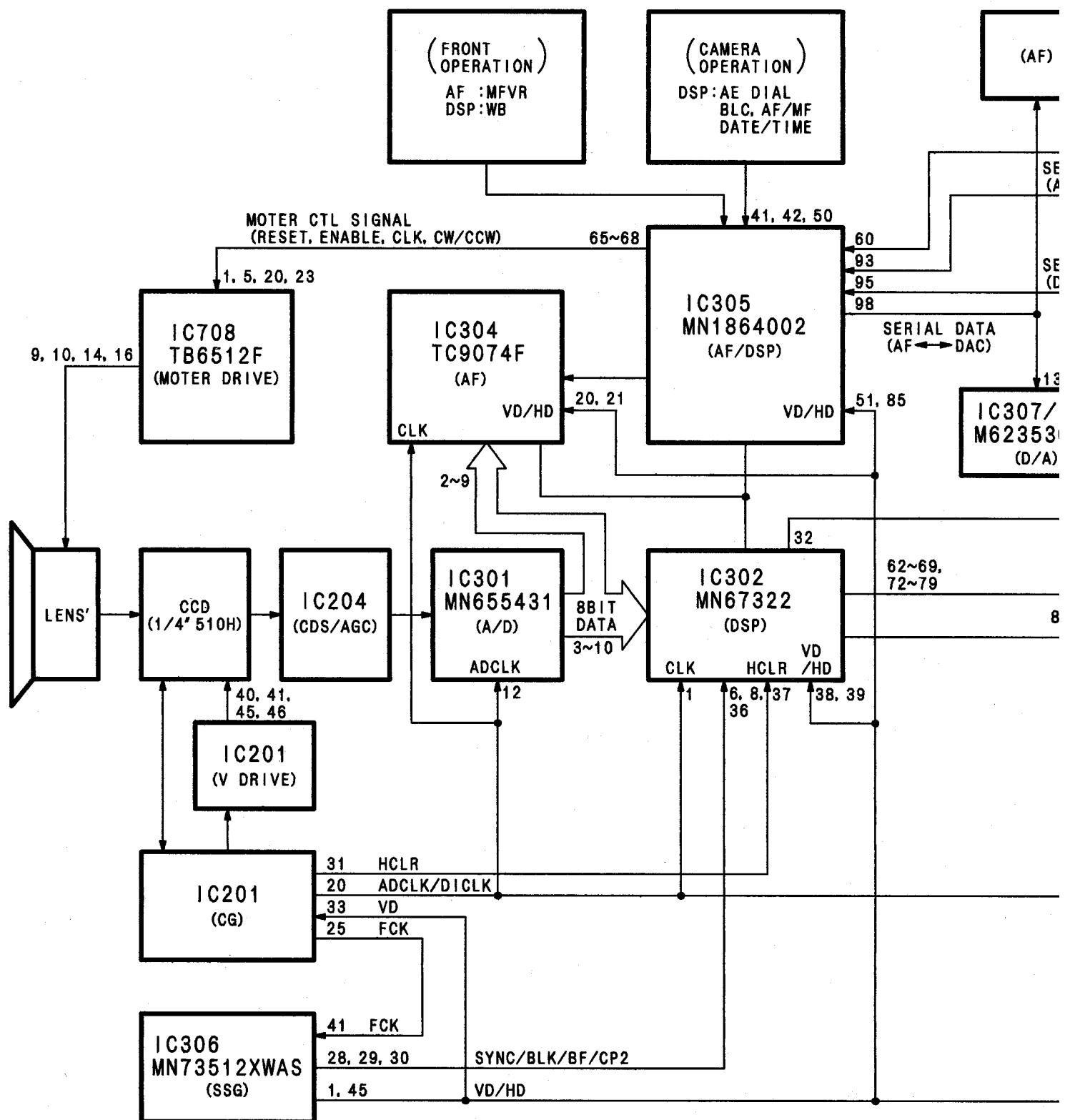
NOTE: VR804 is located on E. V. F. C. B. A

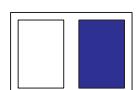
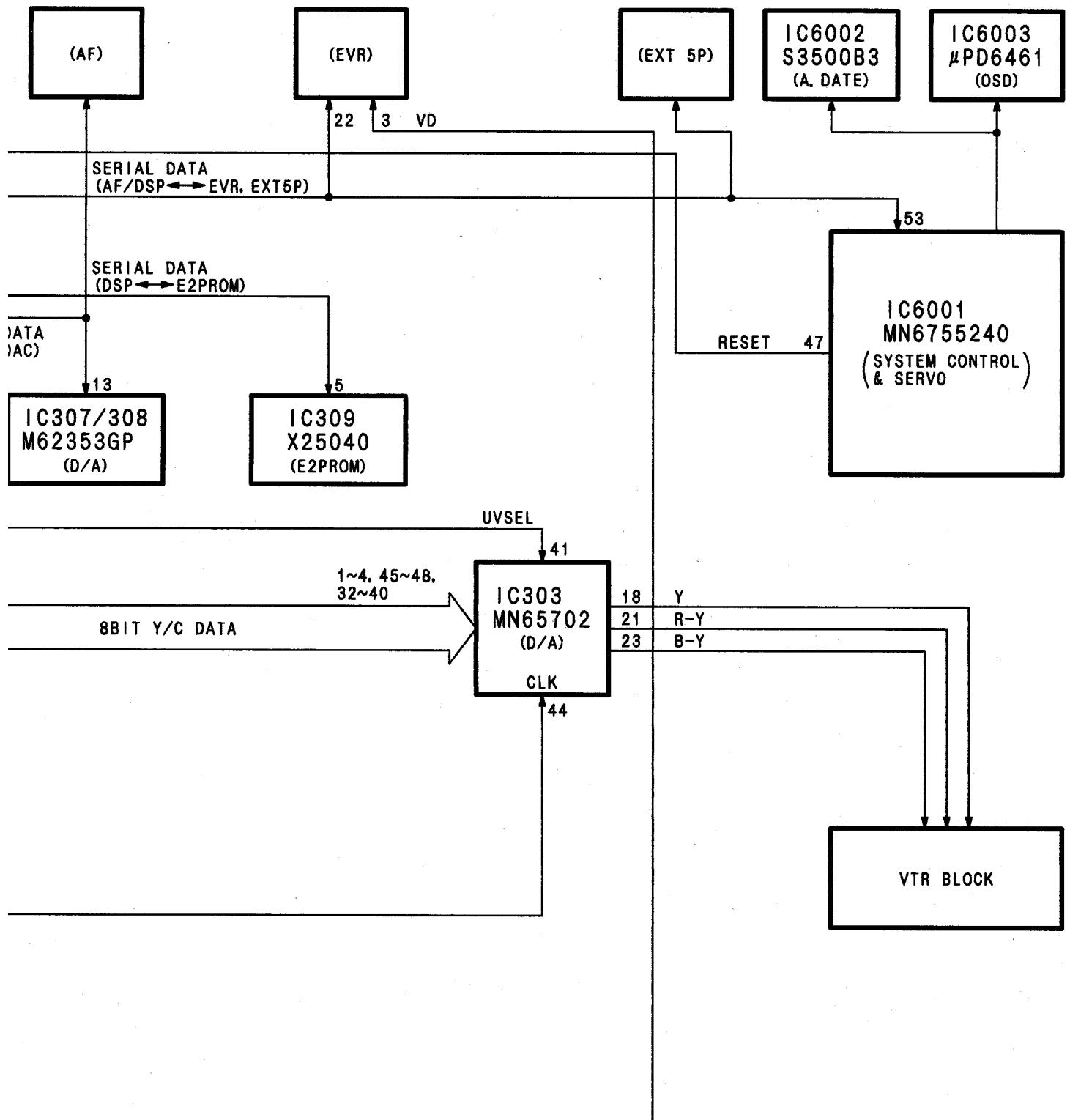
- (1). Aim the camera at the Gray Scale Chart.
- (2). Adjust the VR804 so that the brightness in the viewfinder is the same as monitor TV screen.

NOTE: Following Adjustments required EVR fixture.  
So, adjustment procedure described on Service manual VMD9312M136.

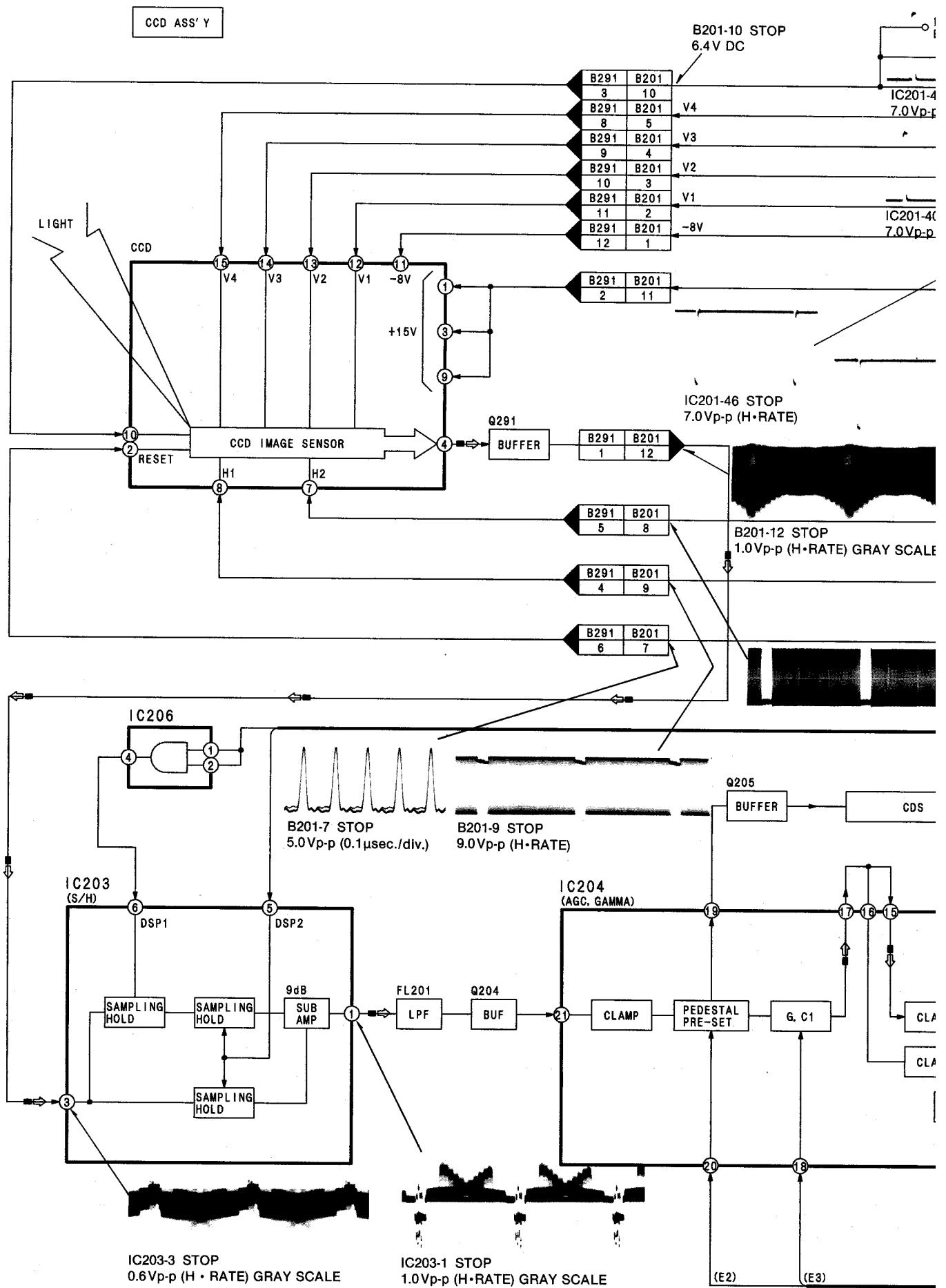
- 1:Croma Recording Current Adjustment
- 2:Luminance Recording Current Adjustment
- 3:PG shifter Adjustment

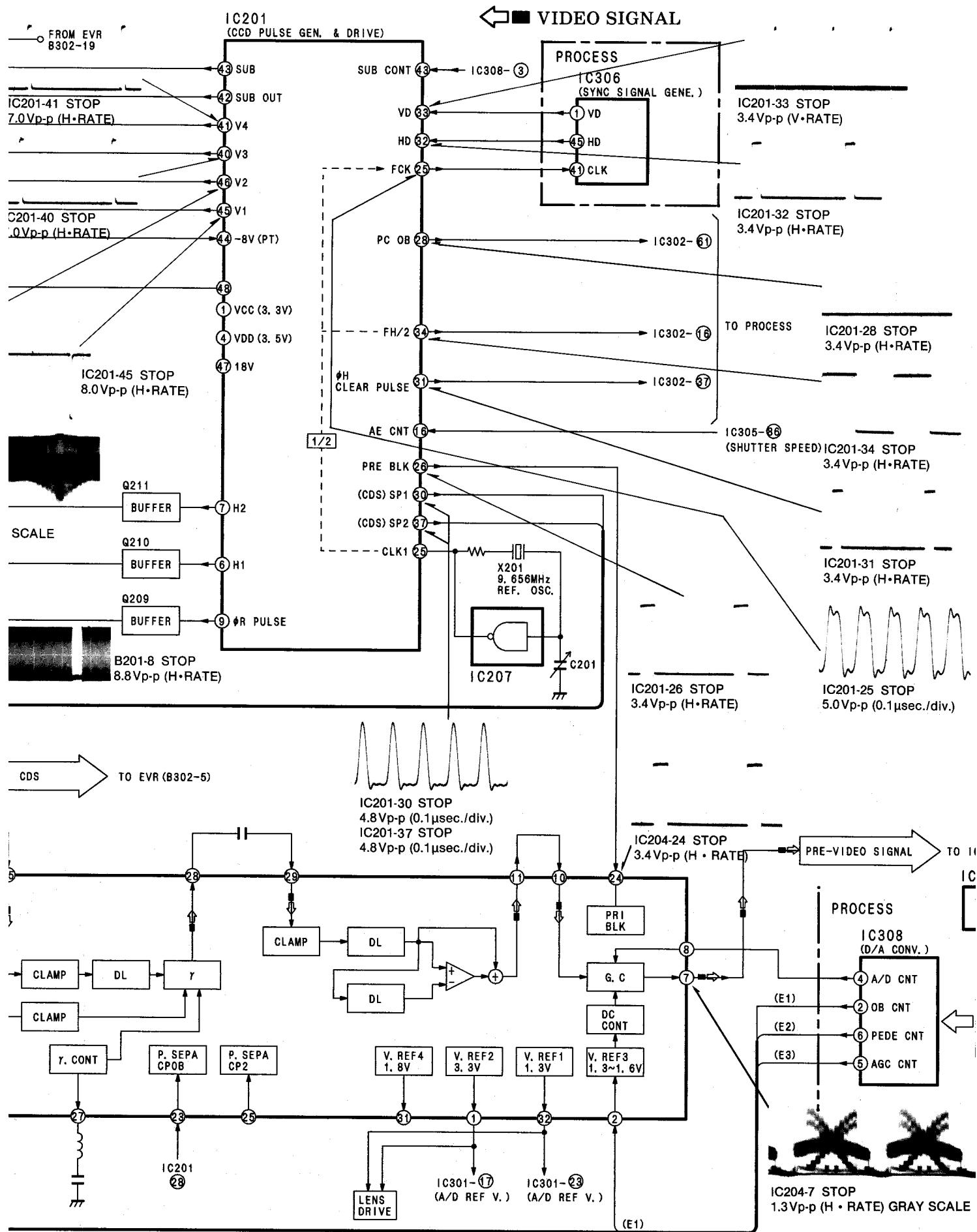
### 3-2. OVERALL BLOCK DIAGRAM

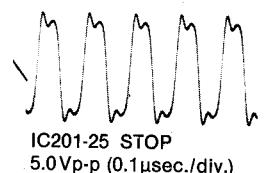




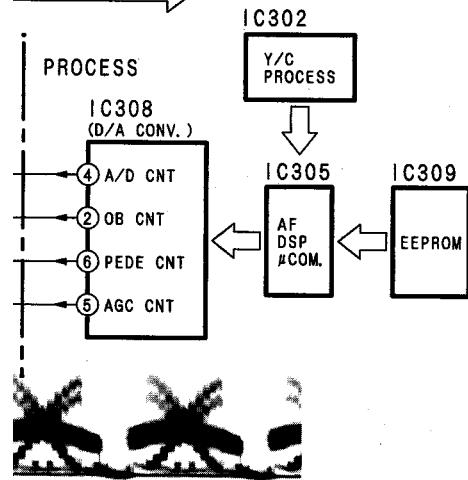
### **3-3. SENSOR BLOCK DIAGRAM**





OP  
RATE)OP  
RATE)IC201-28 STOP  
3.4Vp-p (H·RATE)D) IC201-34 STOP  
3.4Vp-p (H·RATE)IC201-31 STOP  
3.4Vp-p (H·RATE)

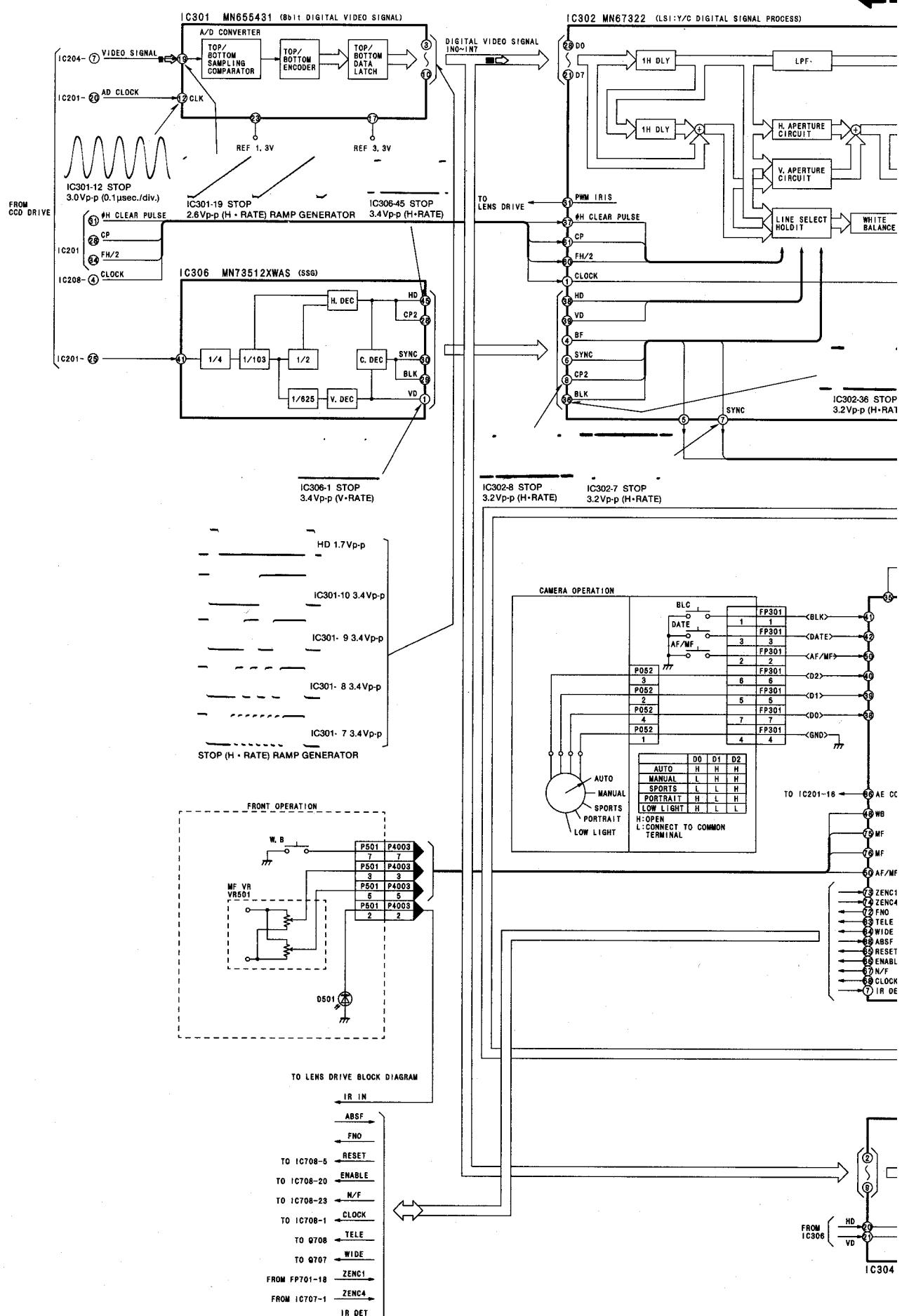
RE-VIDEO SIGNAL → TO IC301-⑯

STOP  
(H · RATE) GRAY SCALE

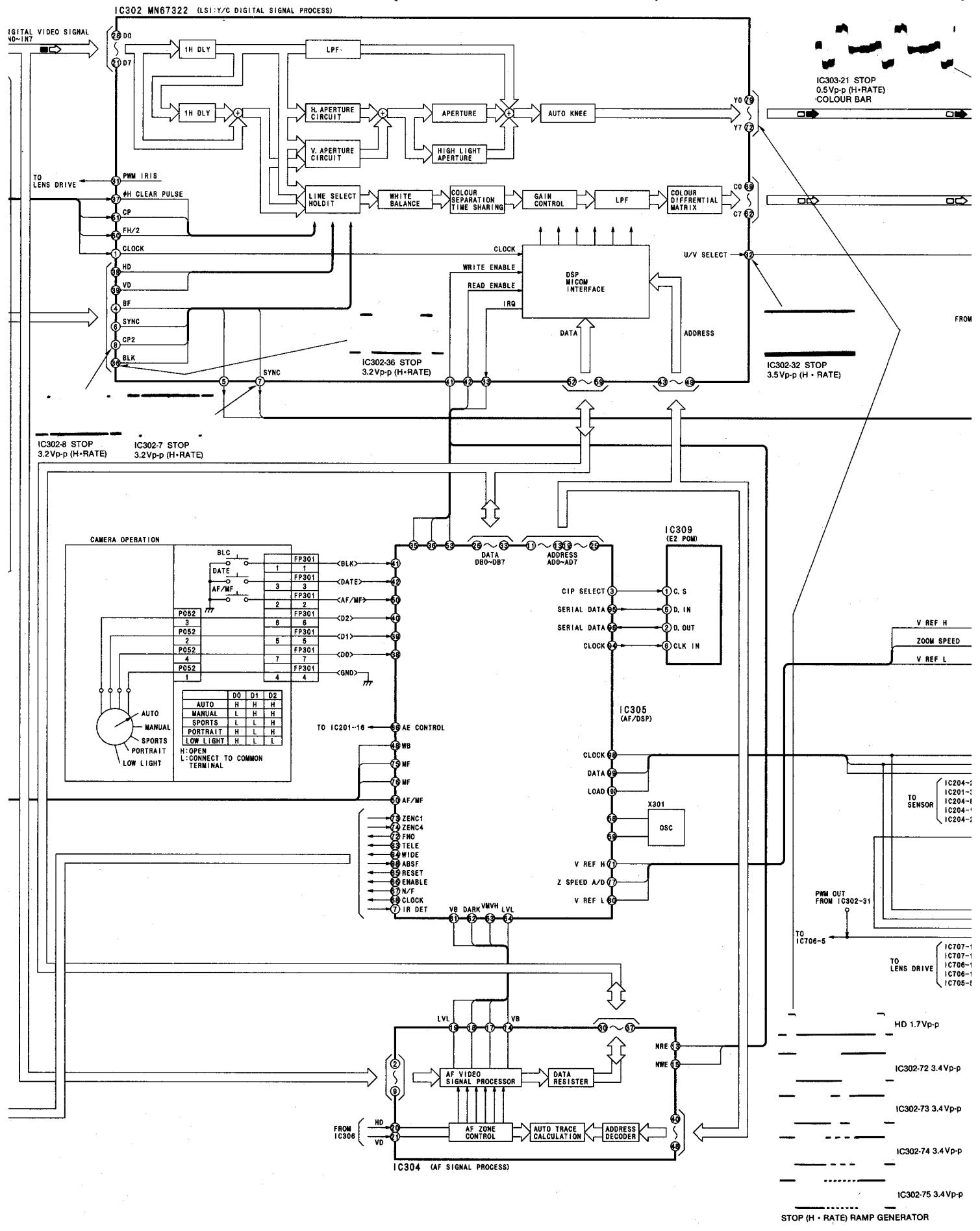
SYMBOL	TRUTH VALUE TABLE																												
<b>INVERTER</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>H</td> <td>L</td> <td></td> </tr> <tr> <td>OUT</td> <td>(b)</td> <td>L</td> <td>H</td> <td></td> </tr> </table>					IN	(a)	H	L		OUT	(b)	L	H															
IN	(a)	H	L																										
OUT	(b)	L	H																										
<b>COMPARTOR</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>(b)</td> <td>(a)&gt;(b)</td> <td>(a)&lt;(b)</td> <td></td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td></td> <td>H</td> <td>L</td> <td></td> </tr> </table>					IN	(a)	(b)	(a)>(b)	(a)<(b)		OUT	(c)		H	L													
IN	(a)	(b)	(a)>(b)	(a)<(b)																									
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<b>AND CIRCUIT</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>L</td> <td>L</td> <td>L</td> <td>H</td> </tr> </table>					IN	(a)	L	L	H	H		(b)	L	H	L	H	OUT	(c)	L	L	L	H						
IN	(a)	L	L	H	H																								
	(b)	L	H	L	H																								
OUT	(c)	L	L	L	H																								
<b>OR CIRCUIT</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>L</td> <td>H</td> <td>H</td> <td>H</td> </tr> </table>					IN	(a)	L	L	H	H		(b)	L	H	L	H	OUT	(c)	L	H	H	H						
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	(b)	L	H	L	H																								
OUT	(c)	L	H	H	H																								
<b>THREE STATES BUFFER</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>H</td> <td>L</td> <td>H or L</td> <td></td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td>L</td> <td>H</td> <td></td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>H</td> <td>L</td> <td>*</td> <td></td> </tr> </table> <p>* High Impedance</p>					IN	(a)	H	L	H or L			(b)	L	L	H		OUT	(c)	H	L	*							
IN	(a)	H	L	H or L																									
	(b)	L	L	H																									
OUT	(c)	H	L	*																									
<b>TR. SW (NPN TYPE)</b> 	<table border="1"> <tr> <td>BASE</td> <td>H</td> <td>L</td> <td></td> <td></td> </tr> <tr> <td>TR. SW</td> <td>ON</td> <td>OFF</td> <td></td> <td></td> </tr> </table>					BASE	H	L			TR. SW	ON	OFF																
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<b>TR. SW (PNP TYPE)</b> 	<table border="1"> <tr> <td>BASE</td> <td>H</td> <td>L</td> <td></td> <td></td> </tr> <tr> <td>TR. SW</td> <td>OFF</td> <td>ON</td> <td></td> <td></td> </tr> </table>					BASE	H	L			TR. SW	OFF	ON																
BASE	H	L																											
TR. SW	OFF	ON																											
<b>R-S TYPE FLIP-FLOP</b> 	<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>L</td> <td>L</td> <td>↑</td> <td></td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td>↑</td> <td>L</td> <td></td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>*</td> <td>L</td> <td>H</td> <td></td> </tr> <tr> <td></td> <td>(d)</td> <td>◆</td> <td>H</td> <td>L</td> <td></td> </tr> </table> <p>* Initial condition is maintained. ◆ Initial condition is reversed.</p>					IN	(a)	L	L	↑			(b)	L	↑	L		OUT	(c)	*	L	H			(d)	◆	H	L	
IN	(a)	L	L	↑																									
	(b)	L	↑	L																									
OUT	(c)	*	L	H																									
	(d)	◆	H	L																									



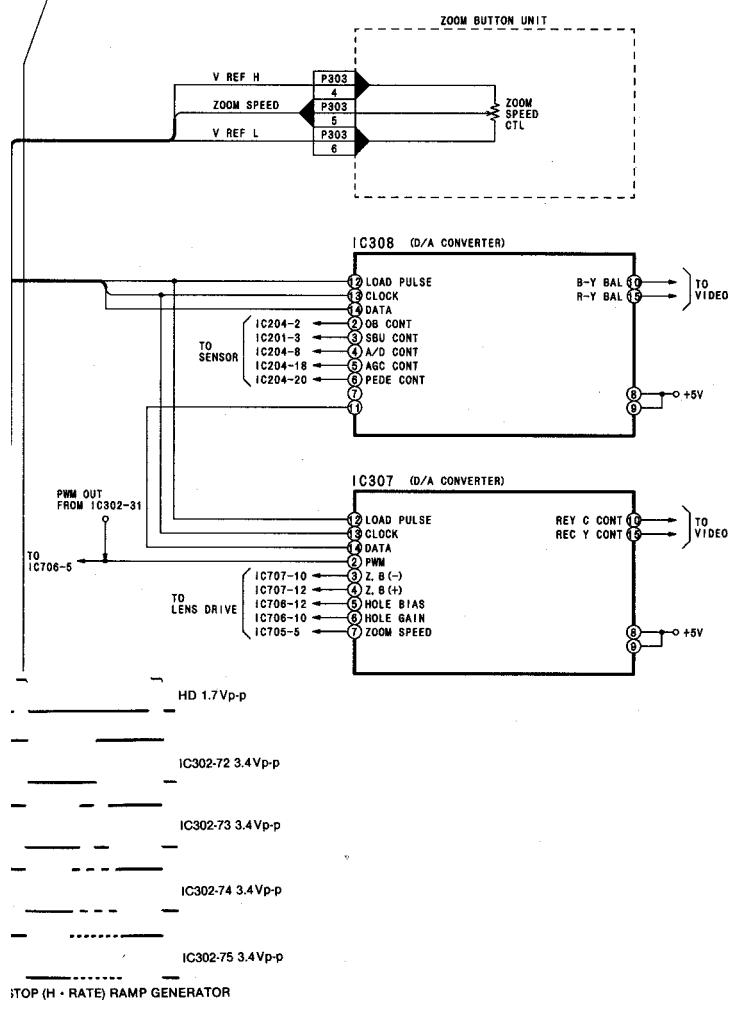
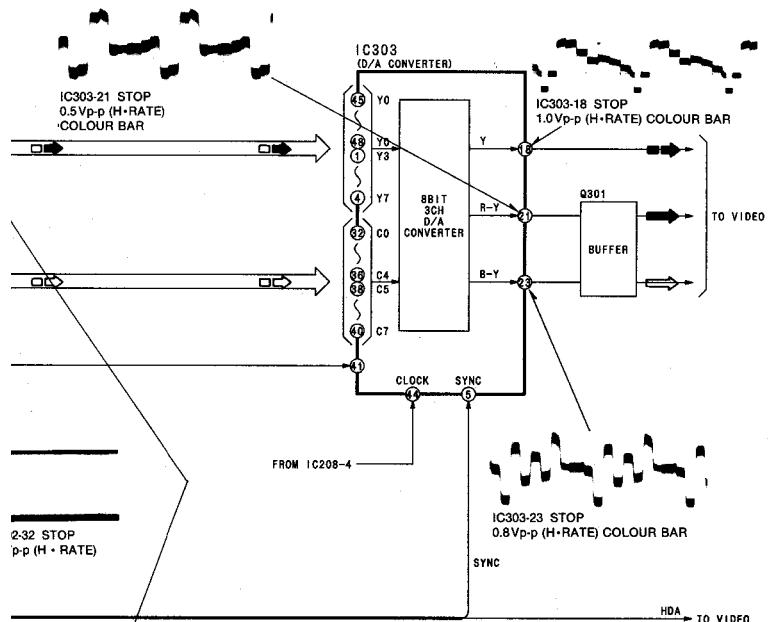
### 3-4. PROCESS BLOCK DIAGRAM



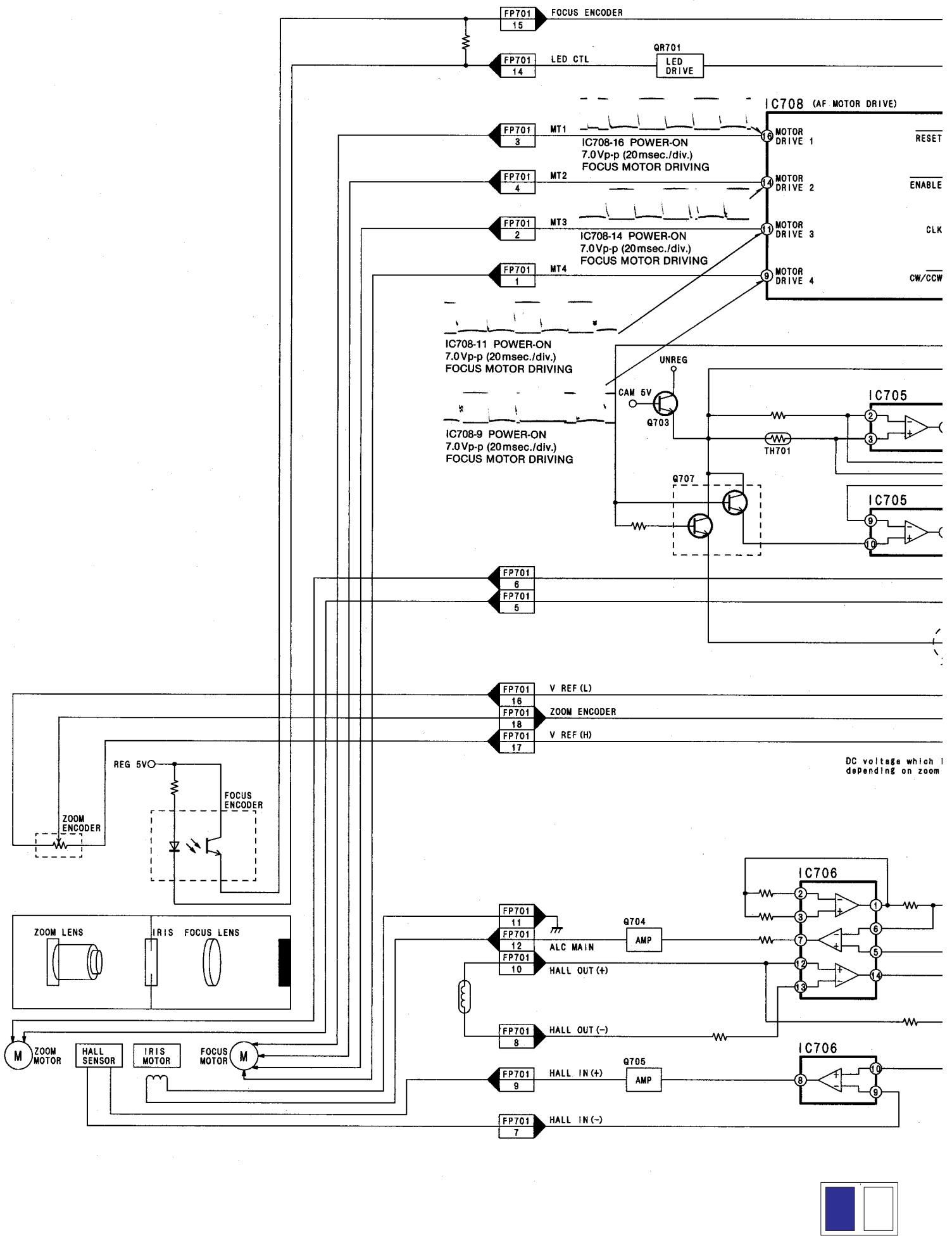
←■ VIDEO SIGNAL      ←□ DIGITAL Y SIGNAL  
 ←■ Y SIGNAL      ← R-Y SIGNAL

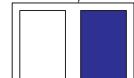
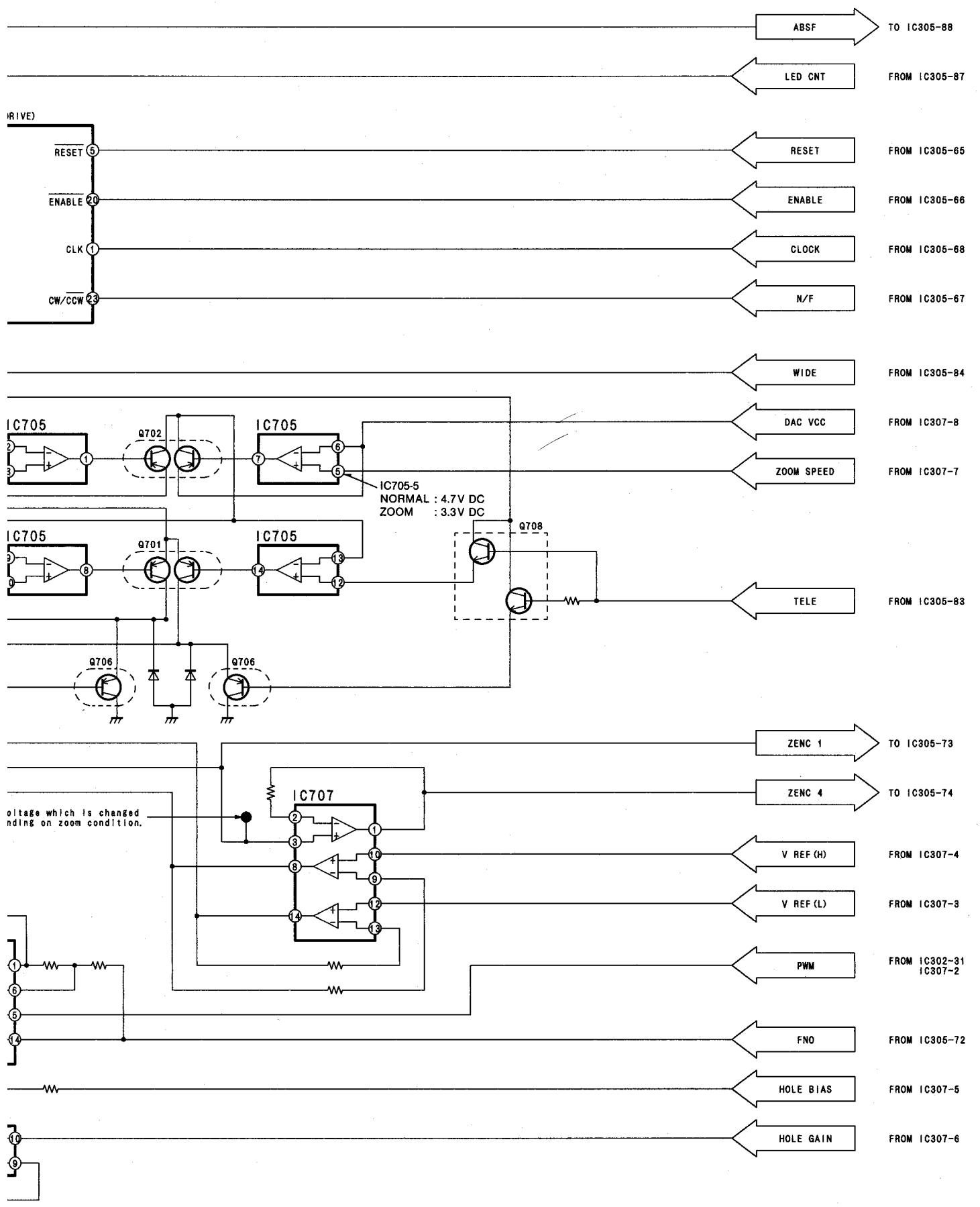


AL Y SIGNAL      DIGITAL C SIGNAL  
 SIGNAL      B-Y SIGNAL

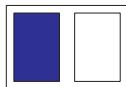
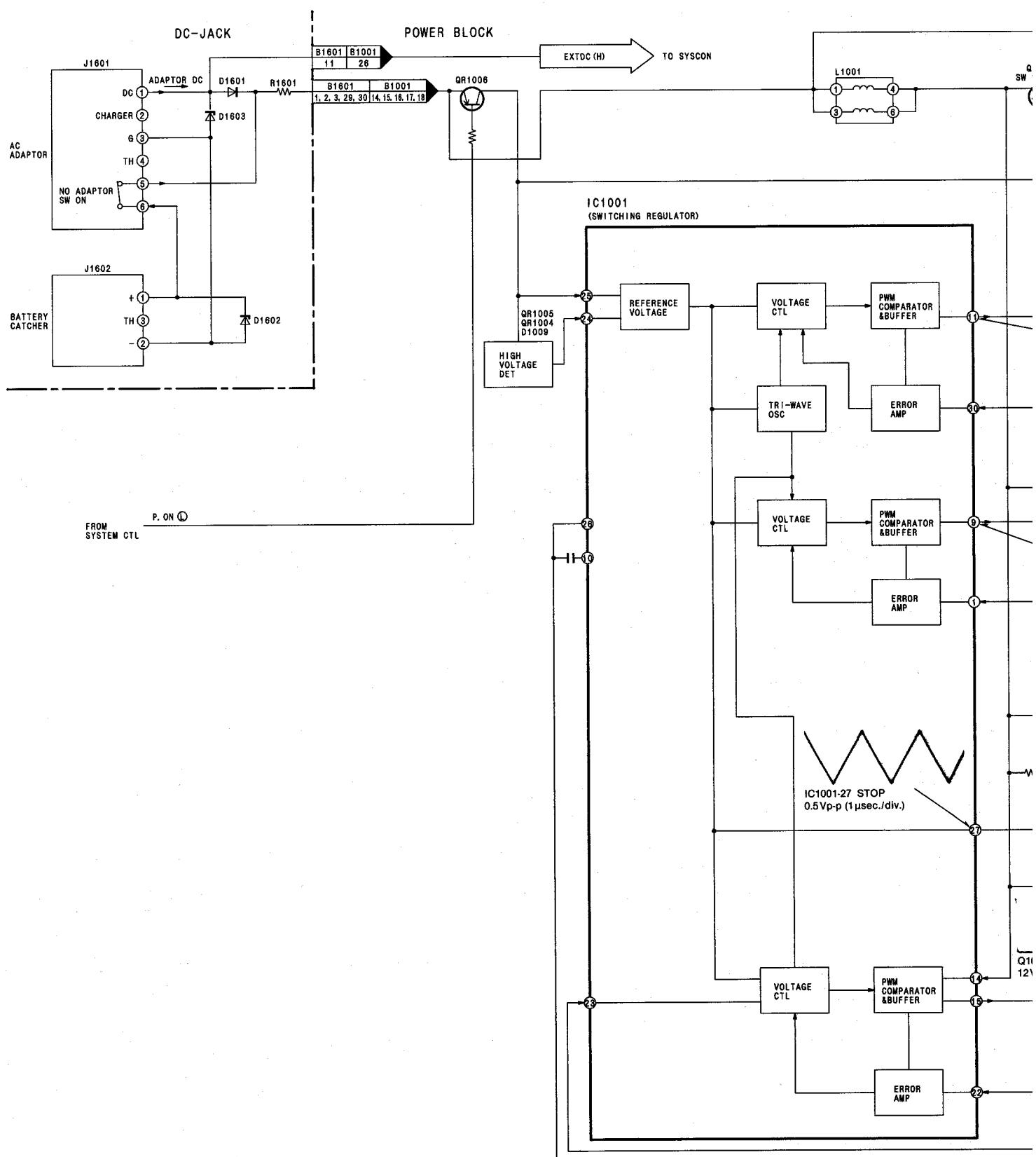


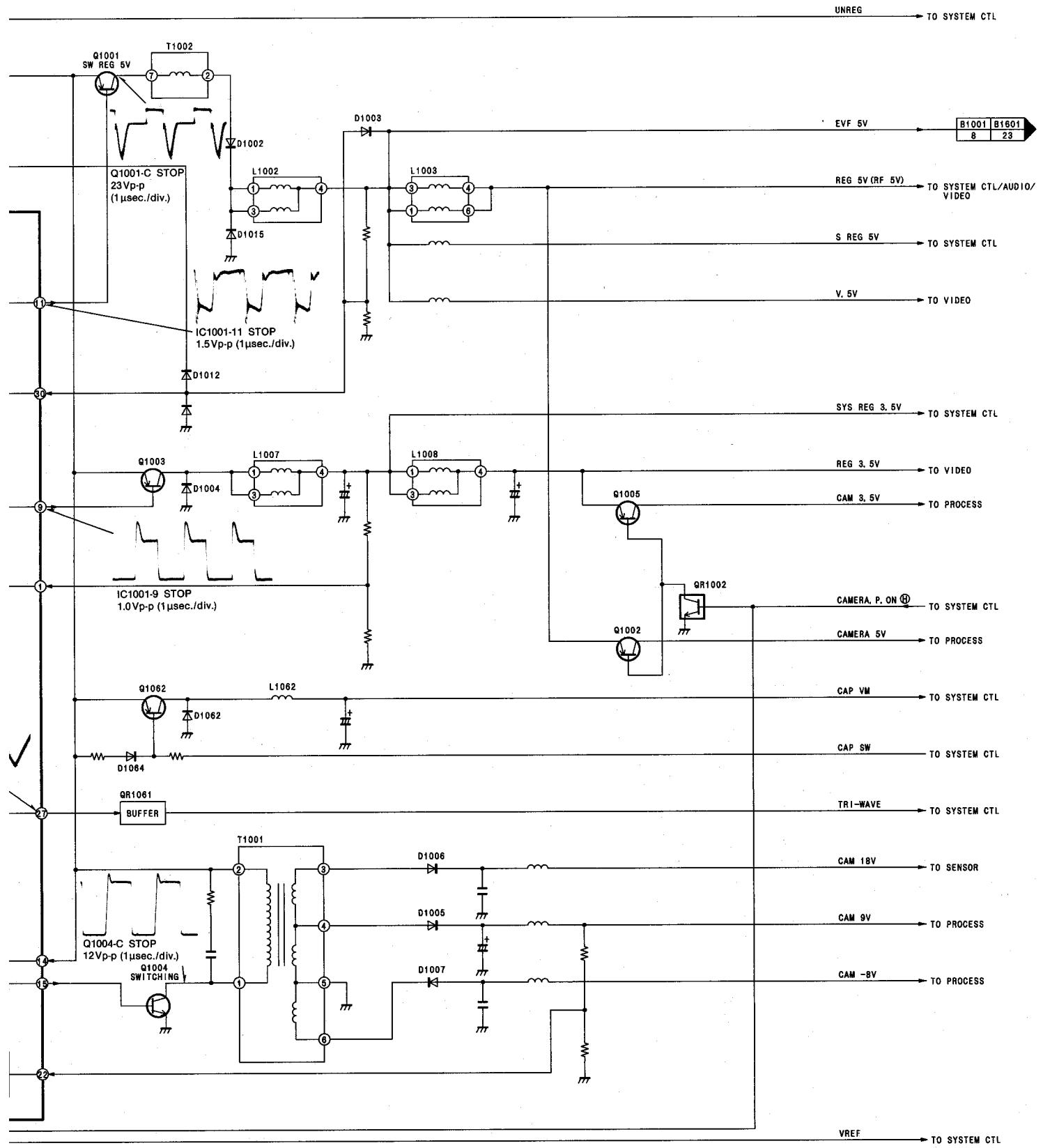
### 3-5. LENS DRIVE BLOCK DIAGRAM



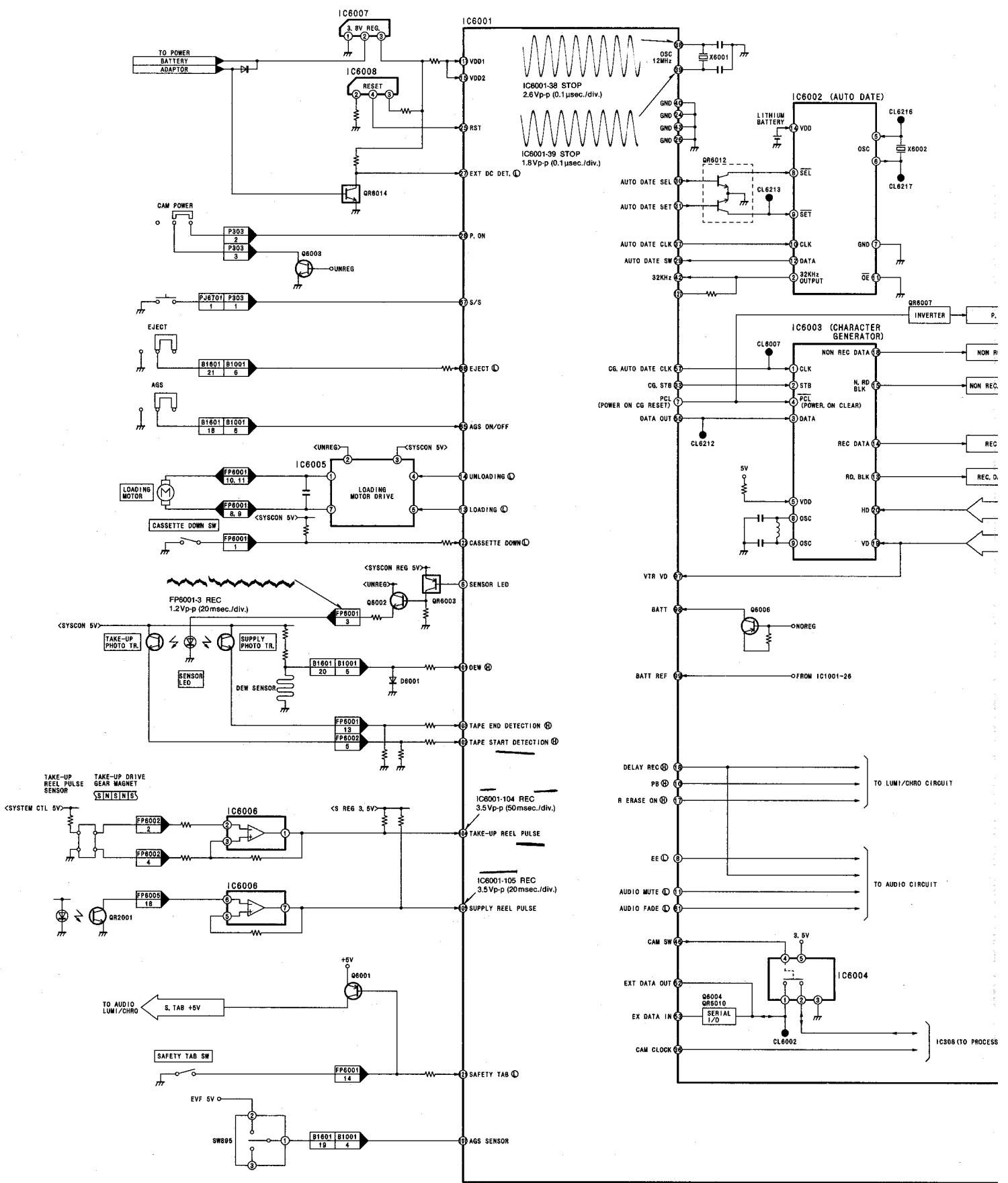


### 3-6. POWER BLOCK DIAGRAM



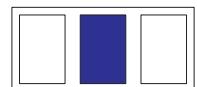
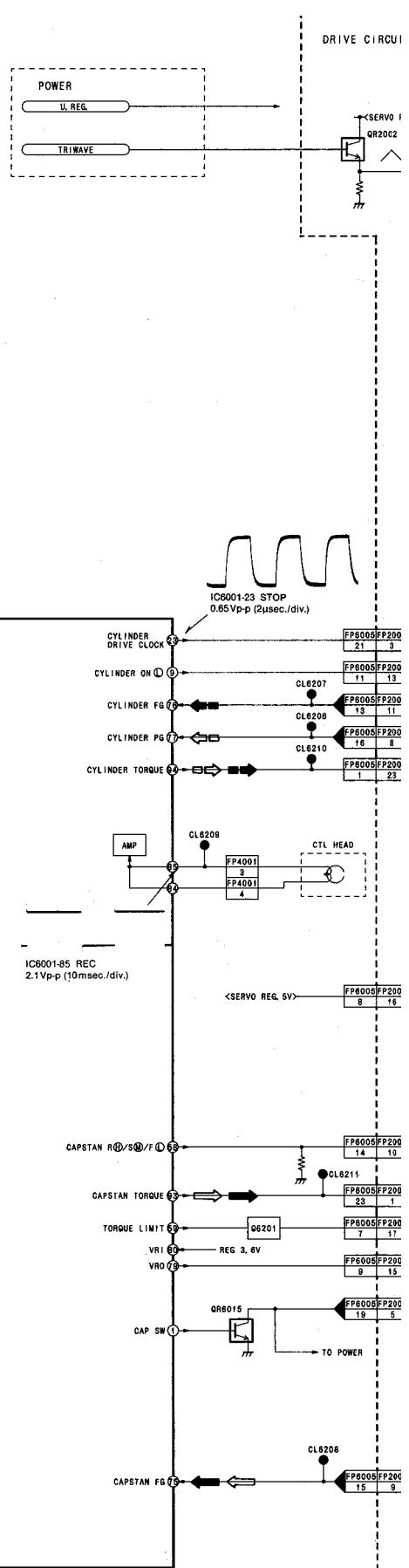
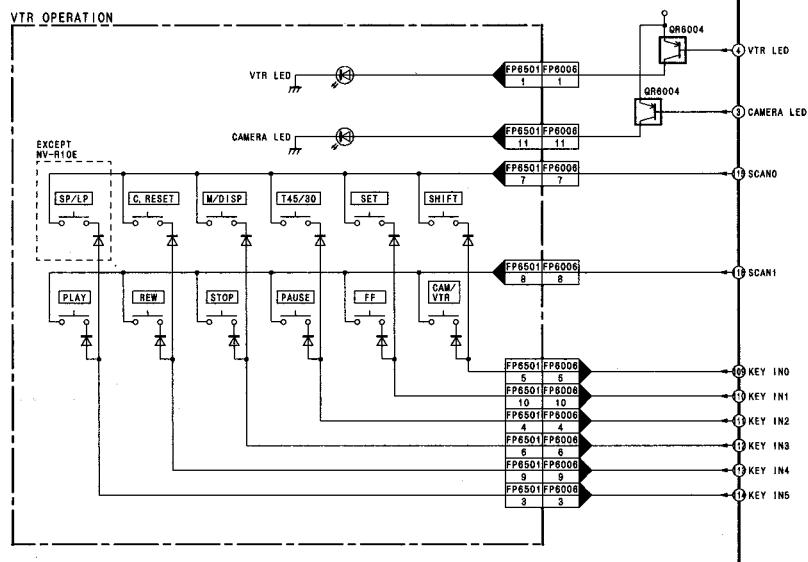
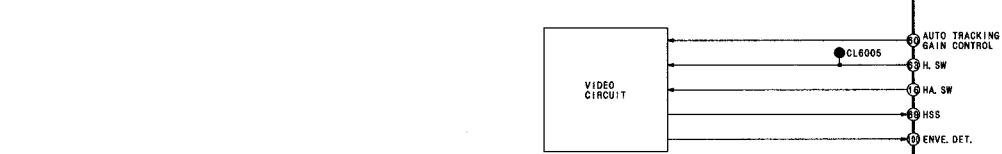
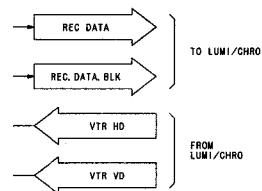
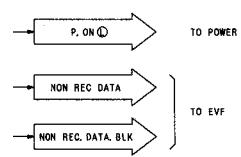


### 3-7. SYSTEM CONTROL & SERVO BLOCK DIAGRAM



◀ CAPSTAN SERVO SPEED LOOP

◀ CAPSTAN SERVO PHASE LOOP

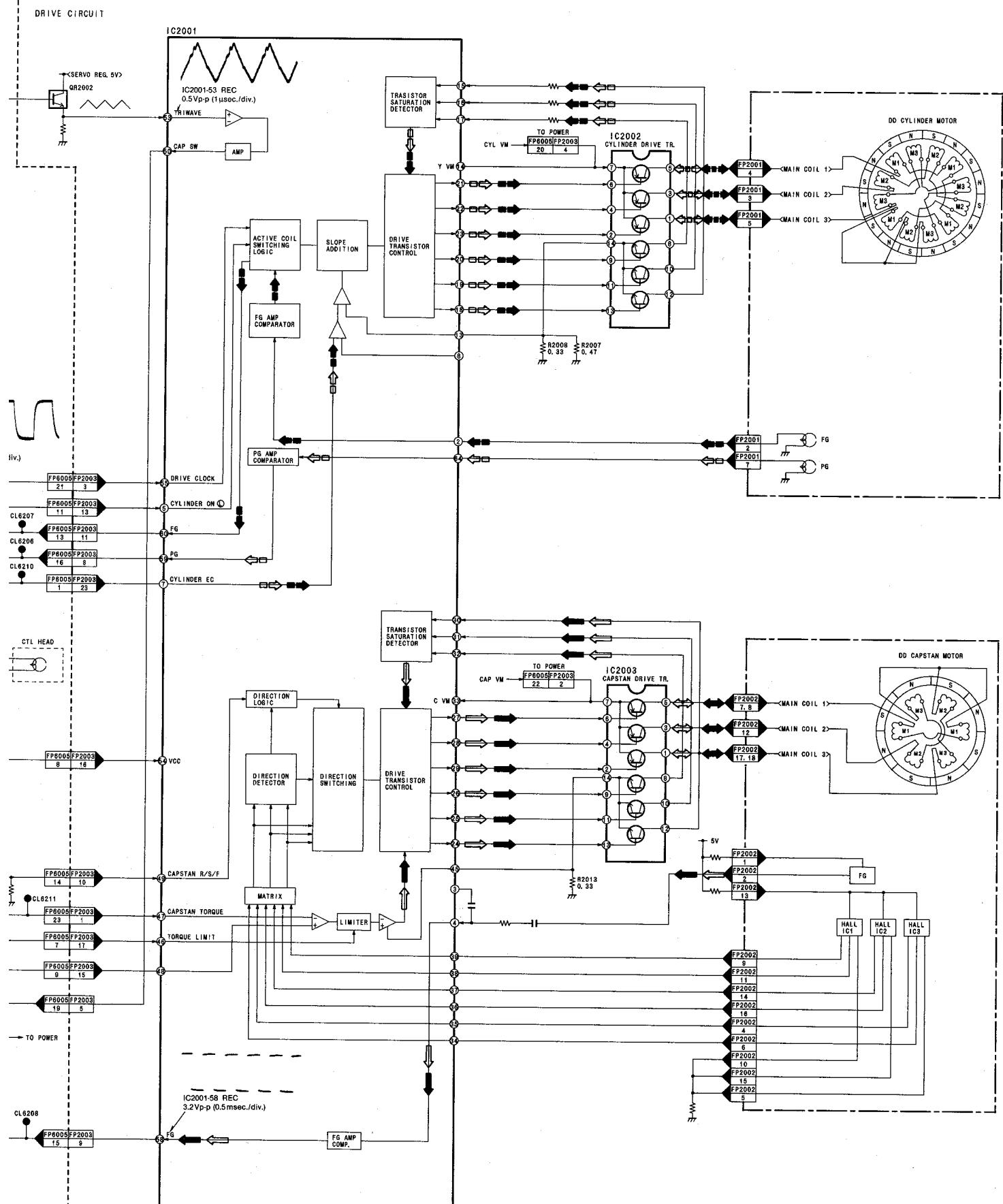


# SYSTEM CTL & SERVO Section

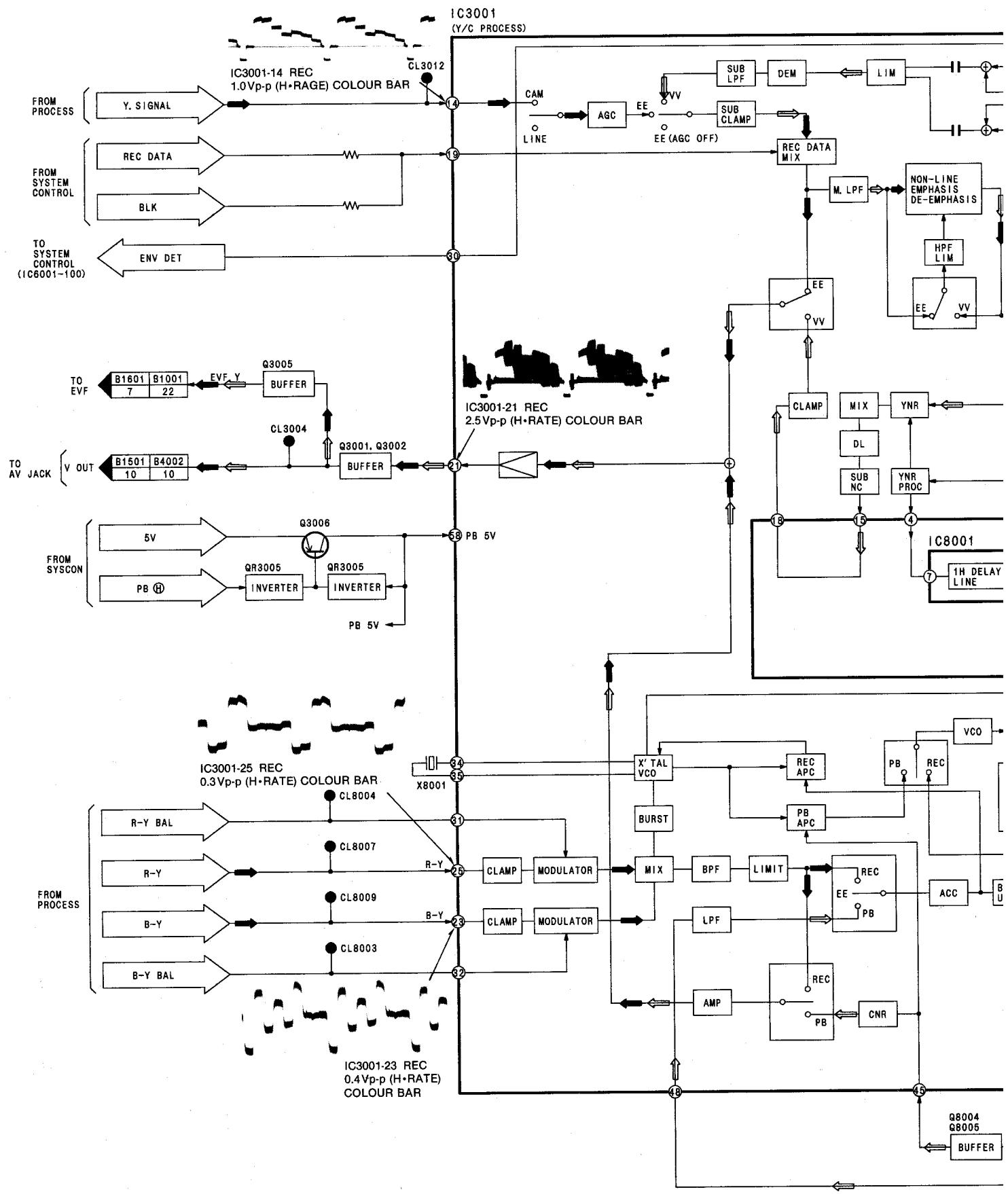
E LOOP

← → CYLINDER SERVO SPEED LOOP

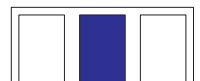
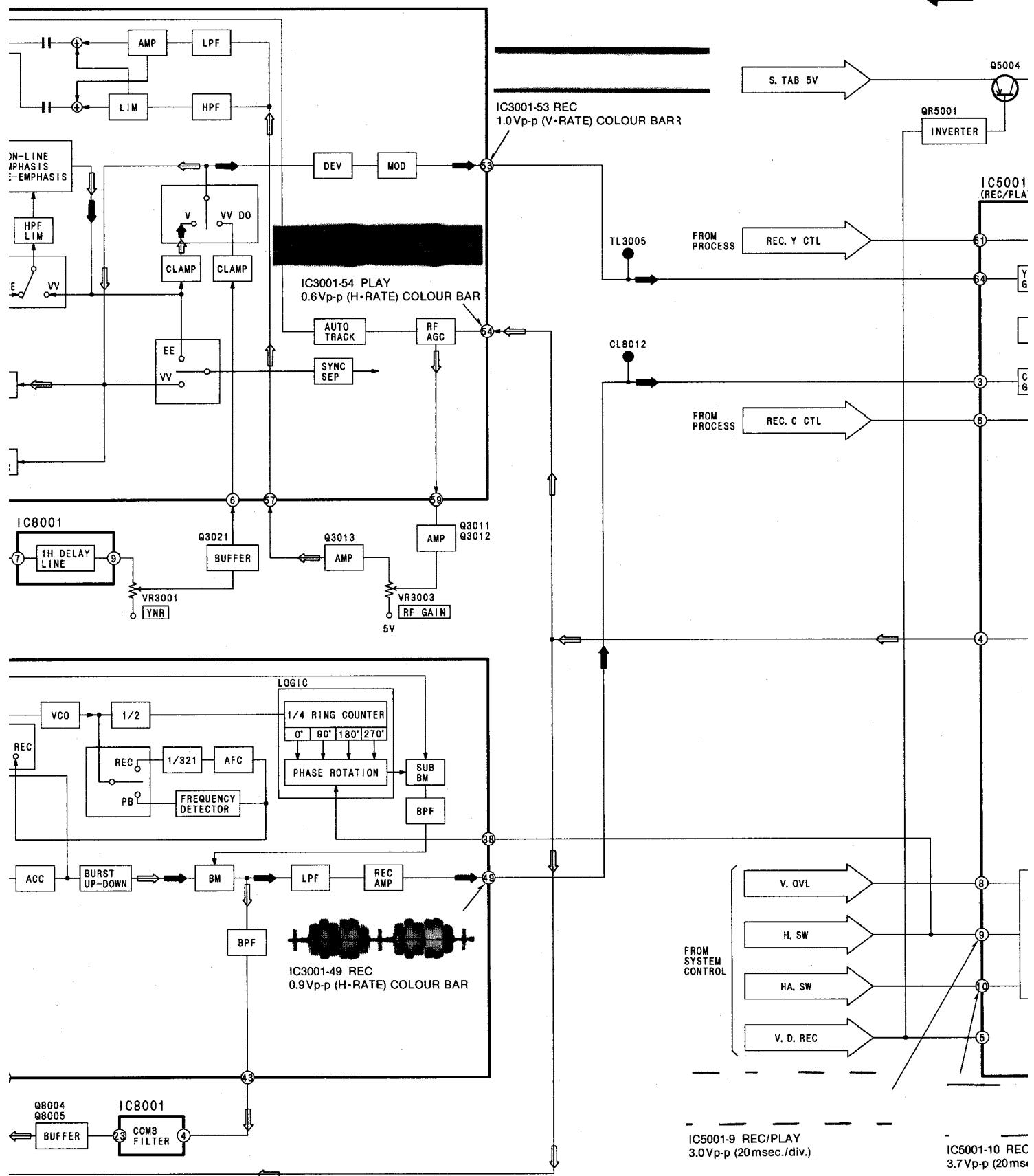
← → CYLINDER SERVO PHASE LOOP



### **3-8. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM**

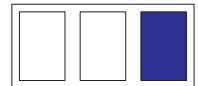
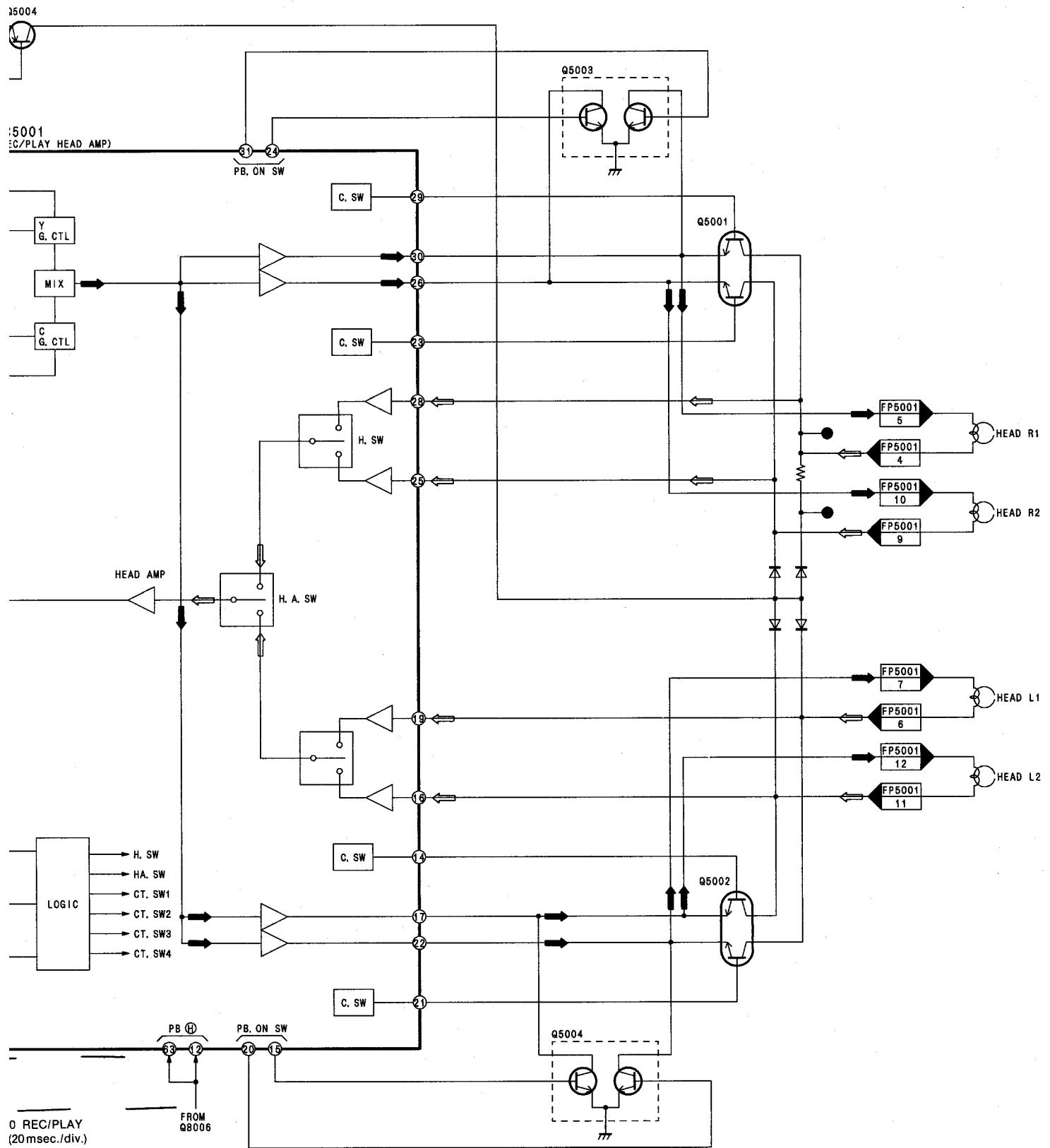


MA ←

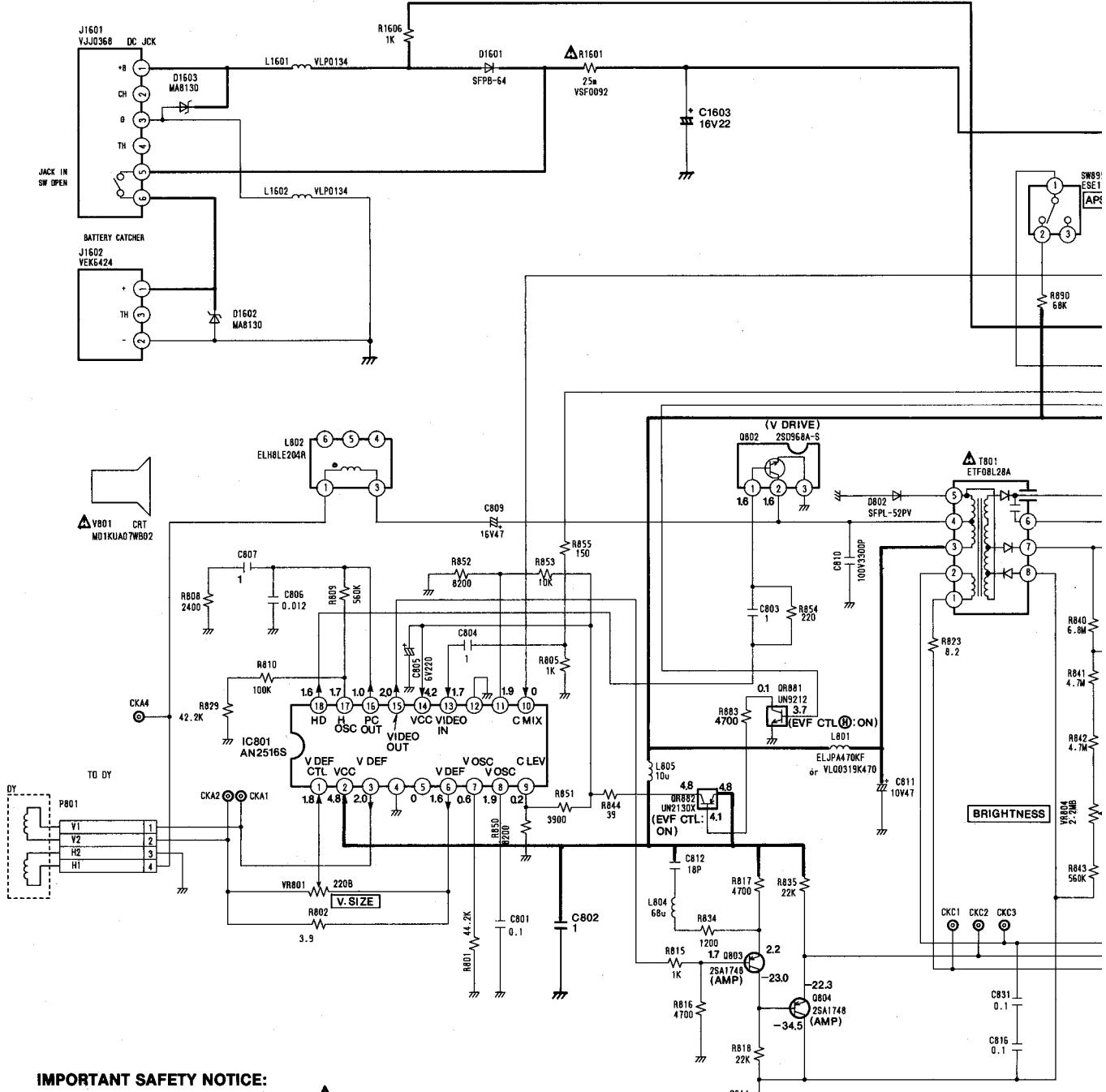


MAIN SIGNAL PATH IN REC MODE

>Main Signal Path in Playback Mode



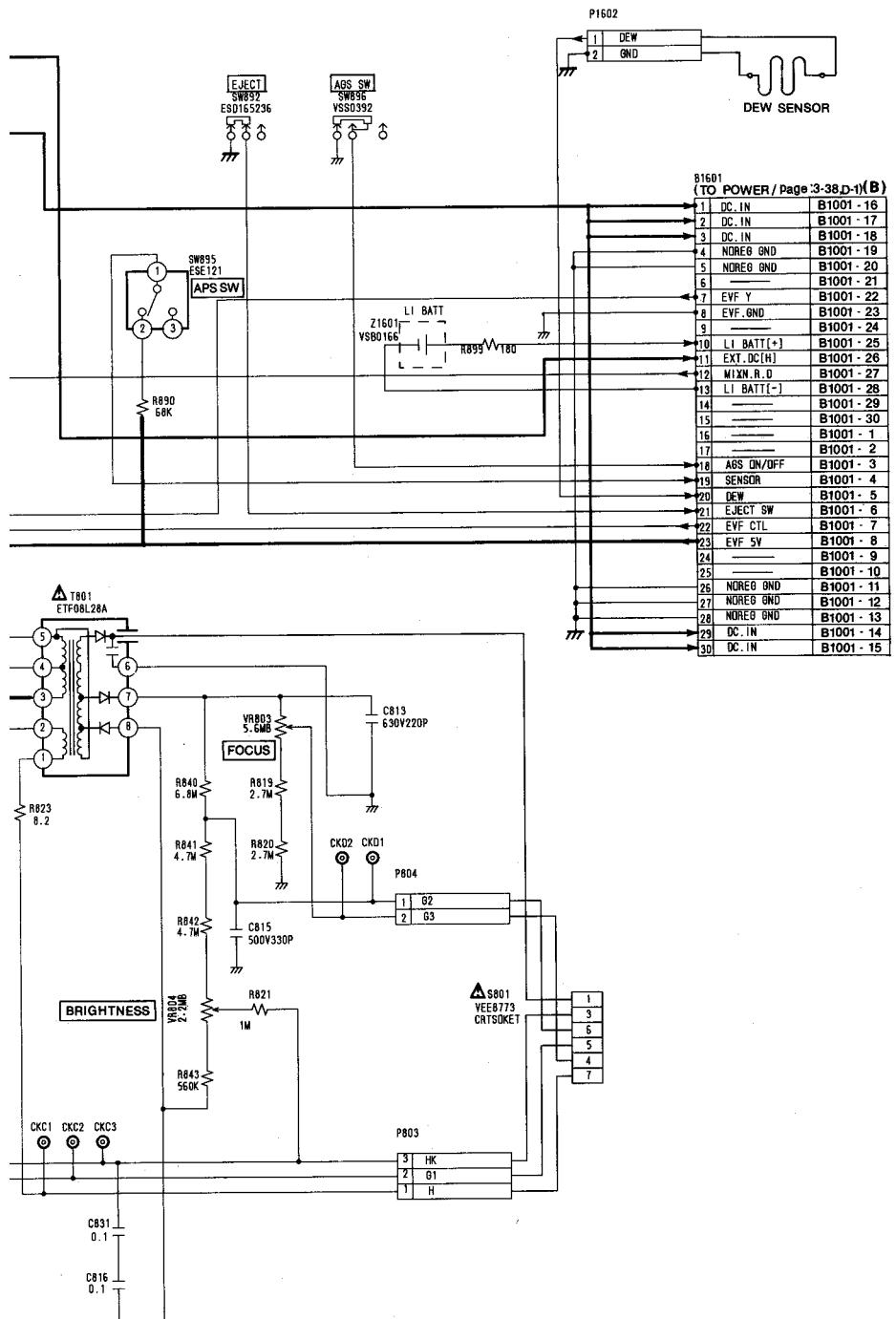
### **3-9. E.V.F. SCHEMATIC DIAGRAM**



**IMPORTANT SAFETY NOTICE:**

COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

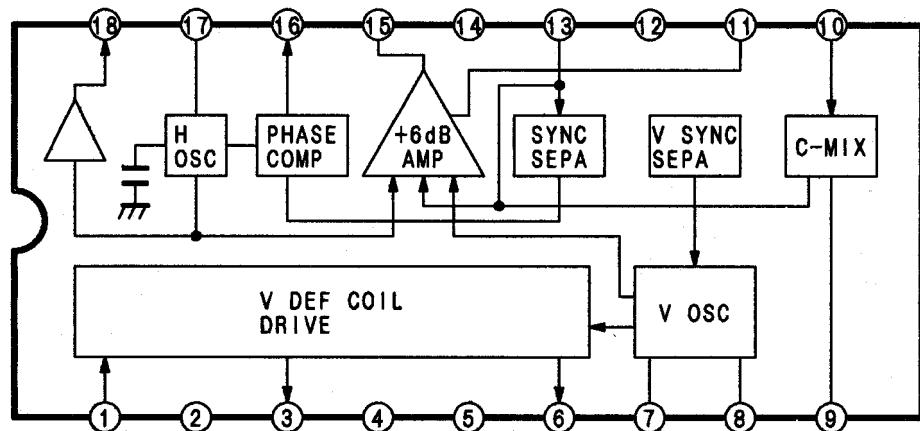


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

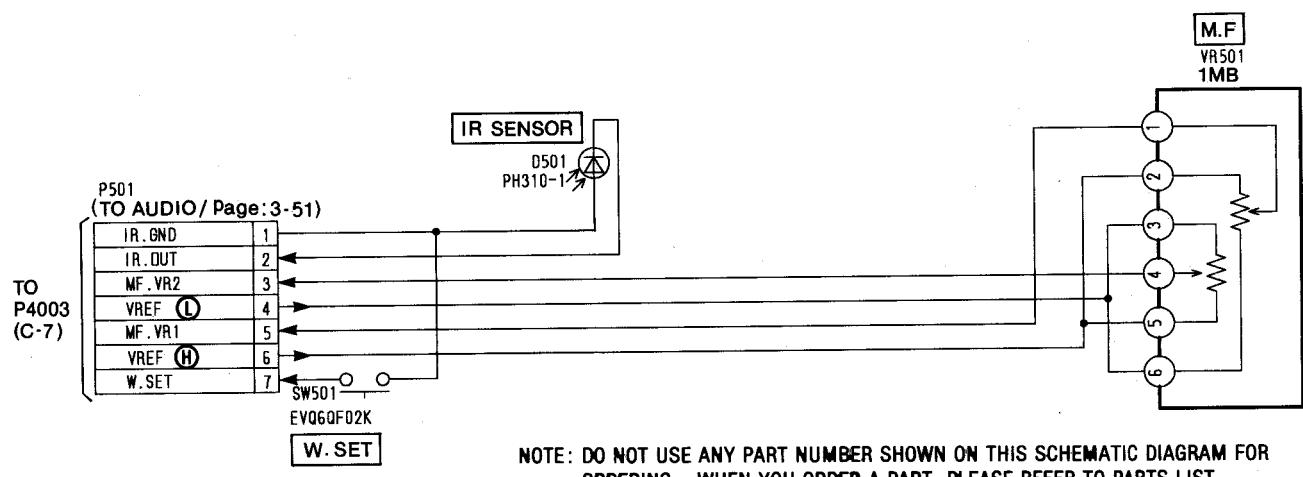


## IC BLOCK

IC801 (AN2516S)



### 3-11. FRONT OPERATION SCHEMATIC DIAGRAM



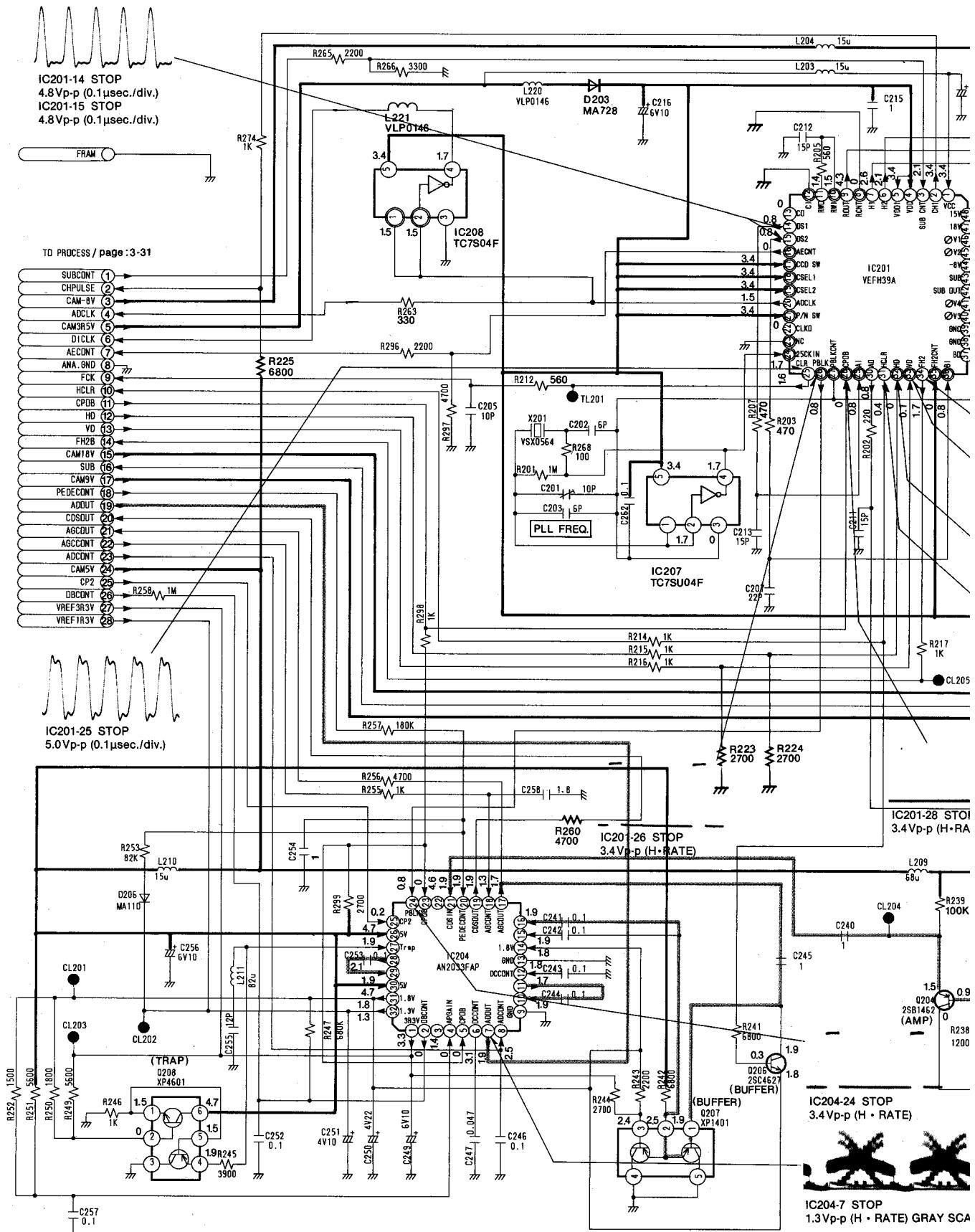
1

2

3

## **FRONT OPE. & SENSOR Section**

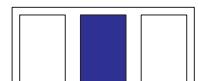
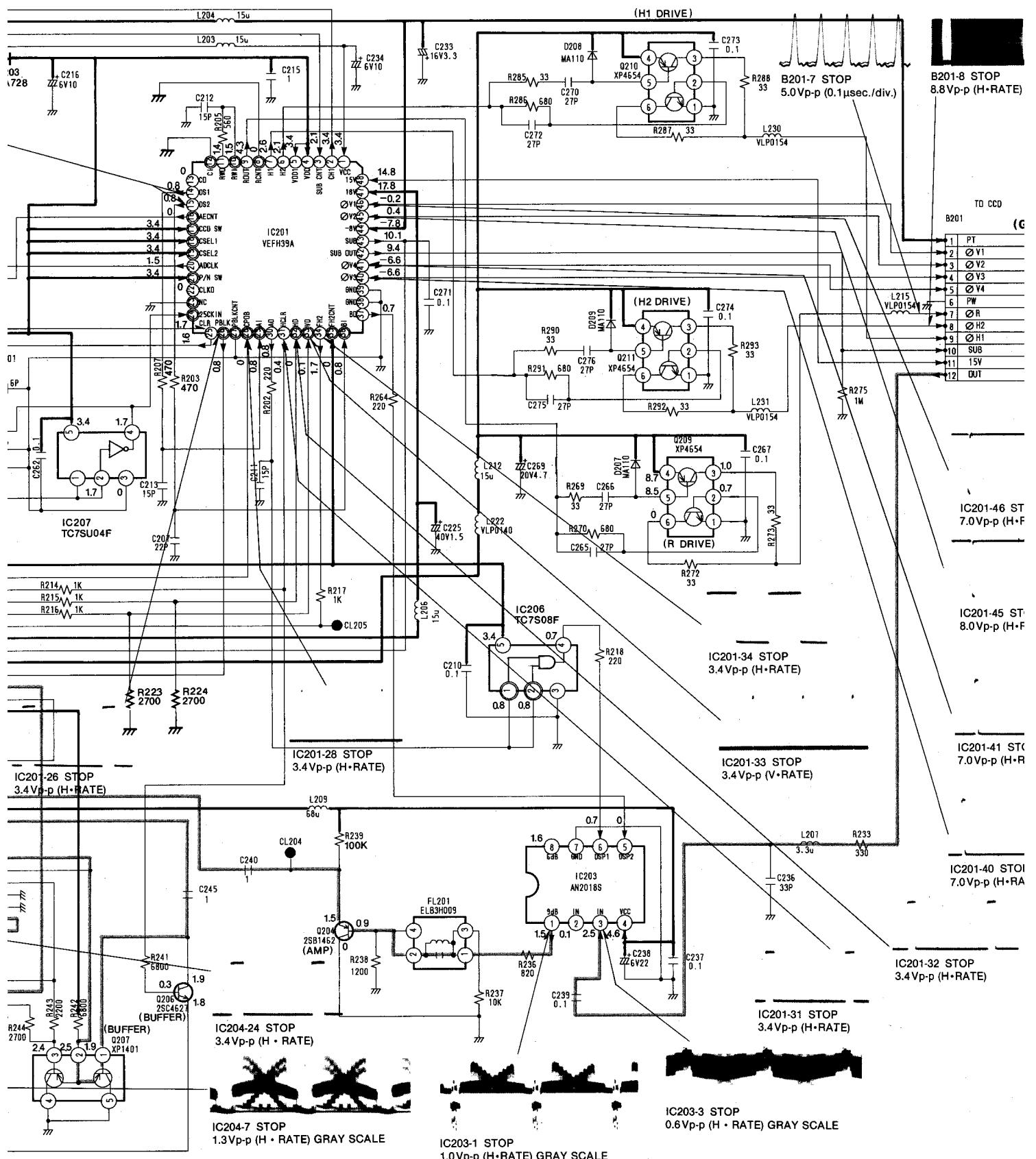
### **3-13. SENSOR SCHEMATIC DIAGRAM**



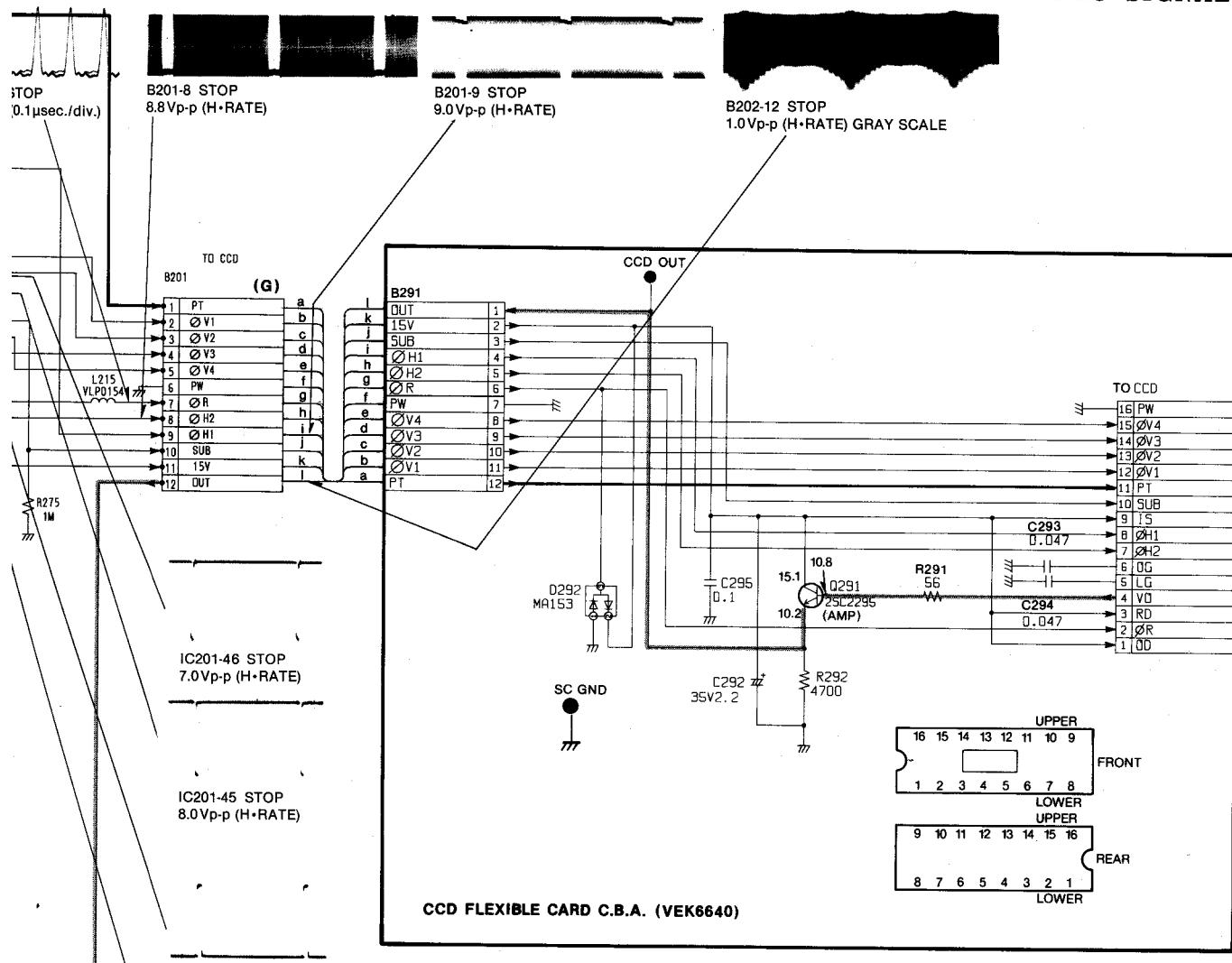
**NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.**

**NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIA  
WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE C**





## VIDEO SIGNAL

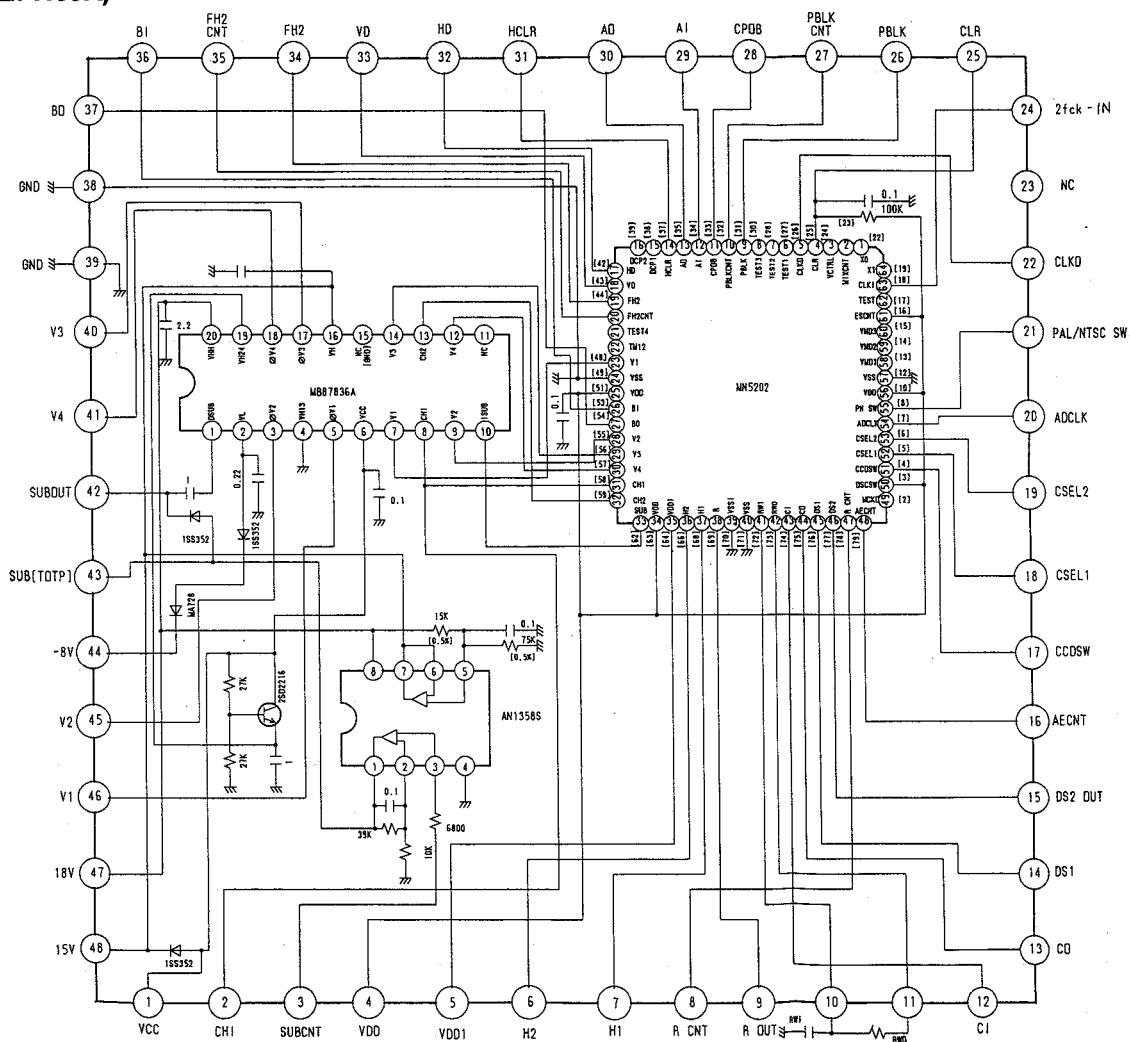


7 8 9 10

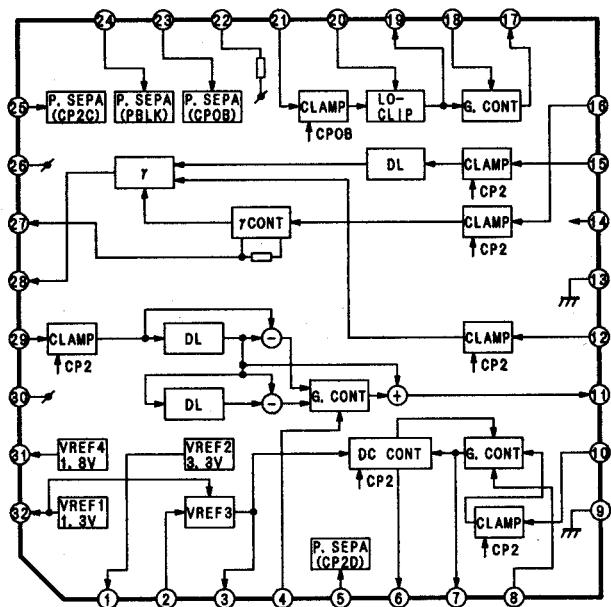


## IC BLOCK

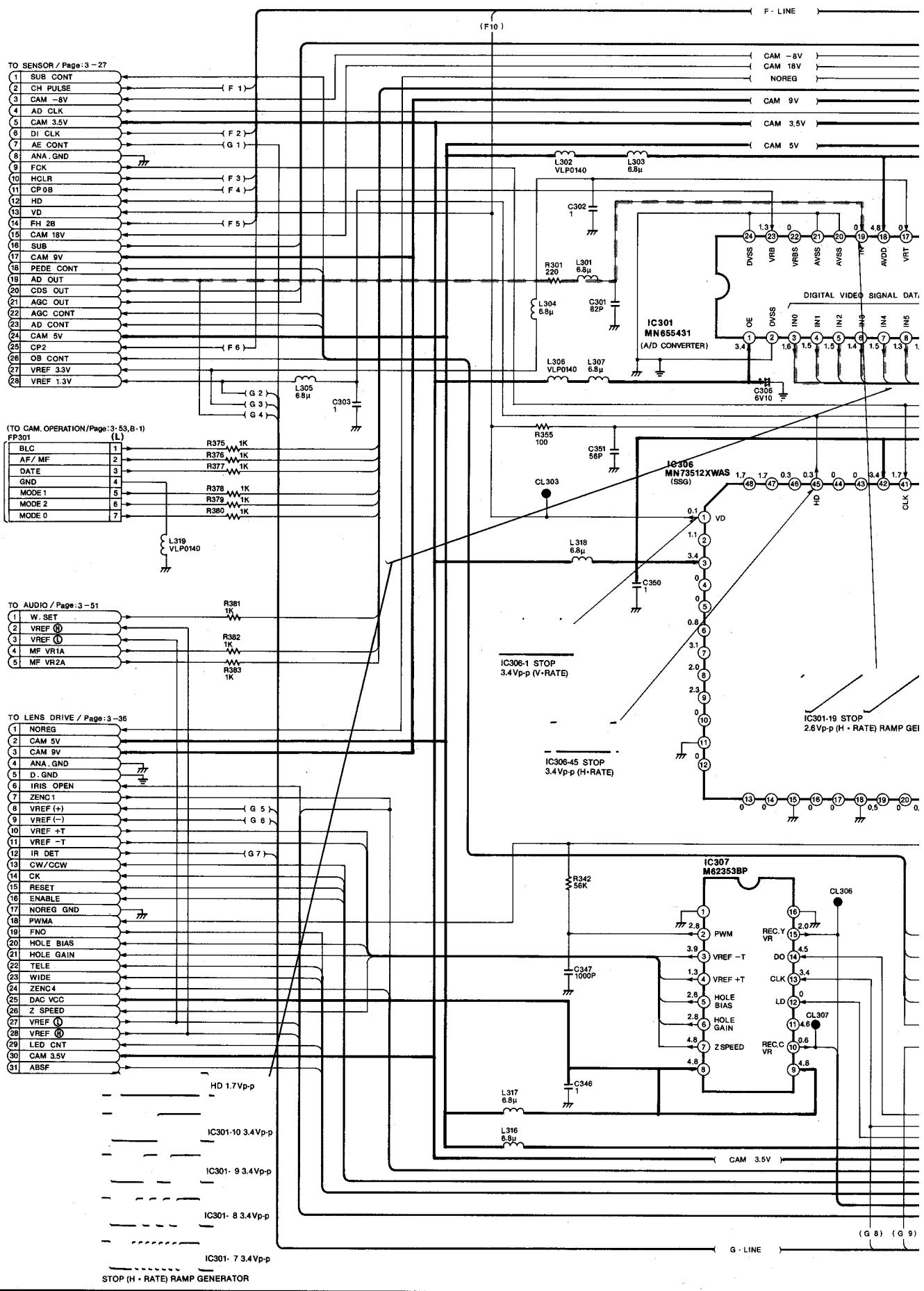
IC201 (VEFH39A)

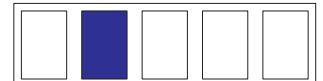
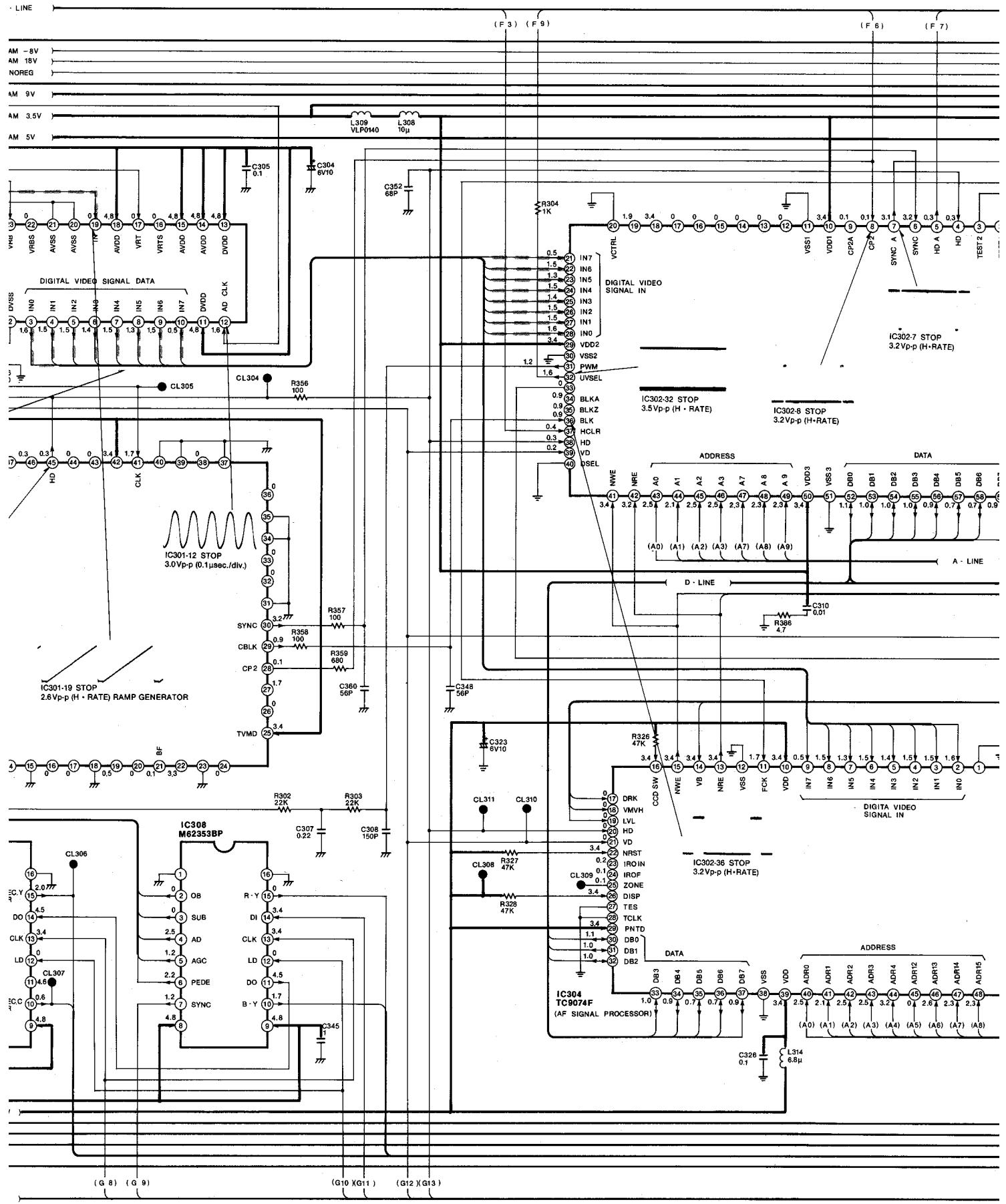


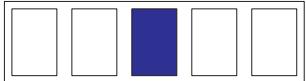
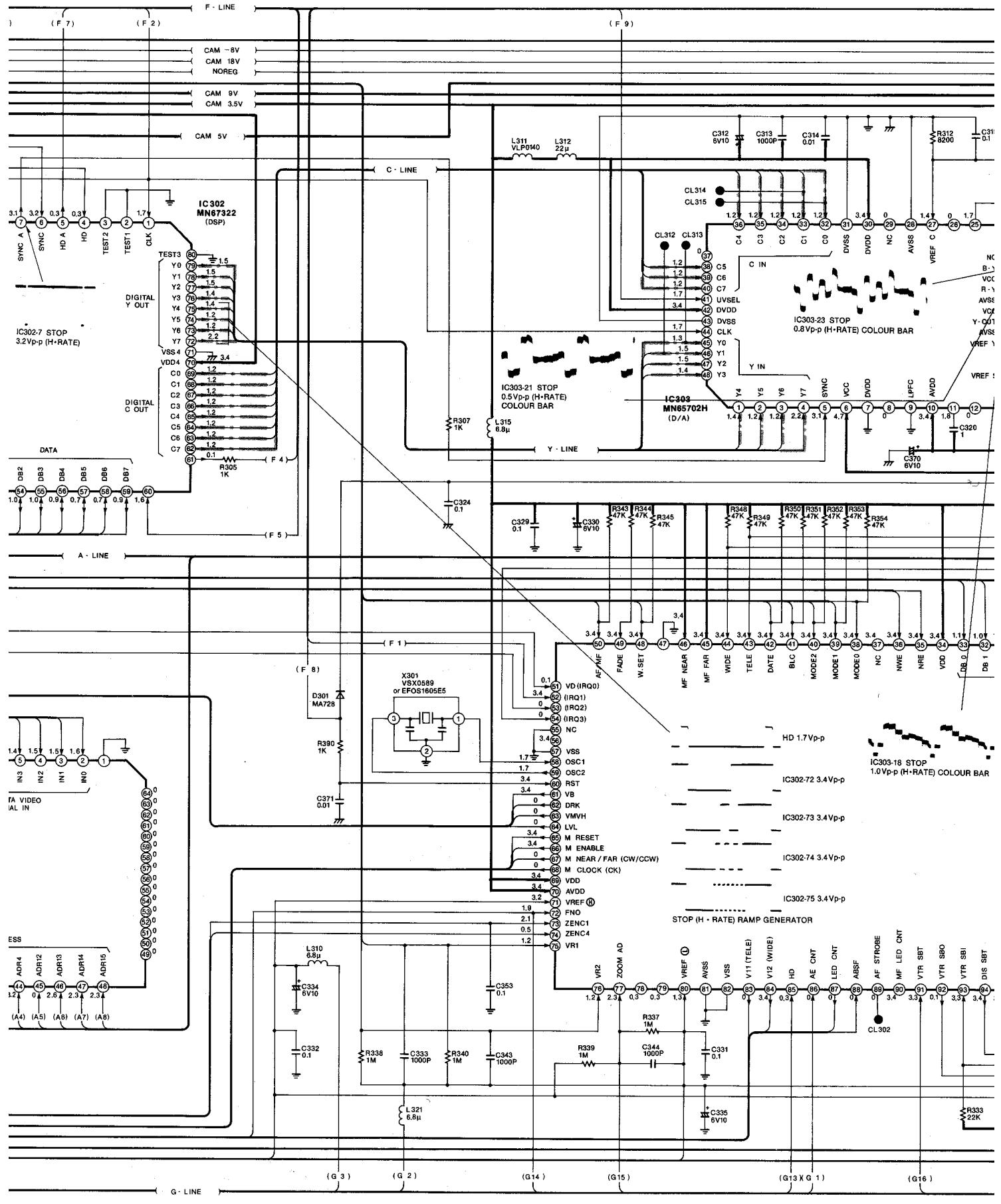
**IC204 (AN2033FAP)**



### **3-14. PROCESS SCHEMATIC DIAGRAM**



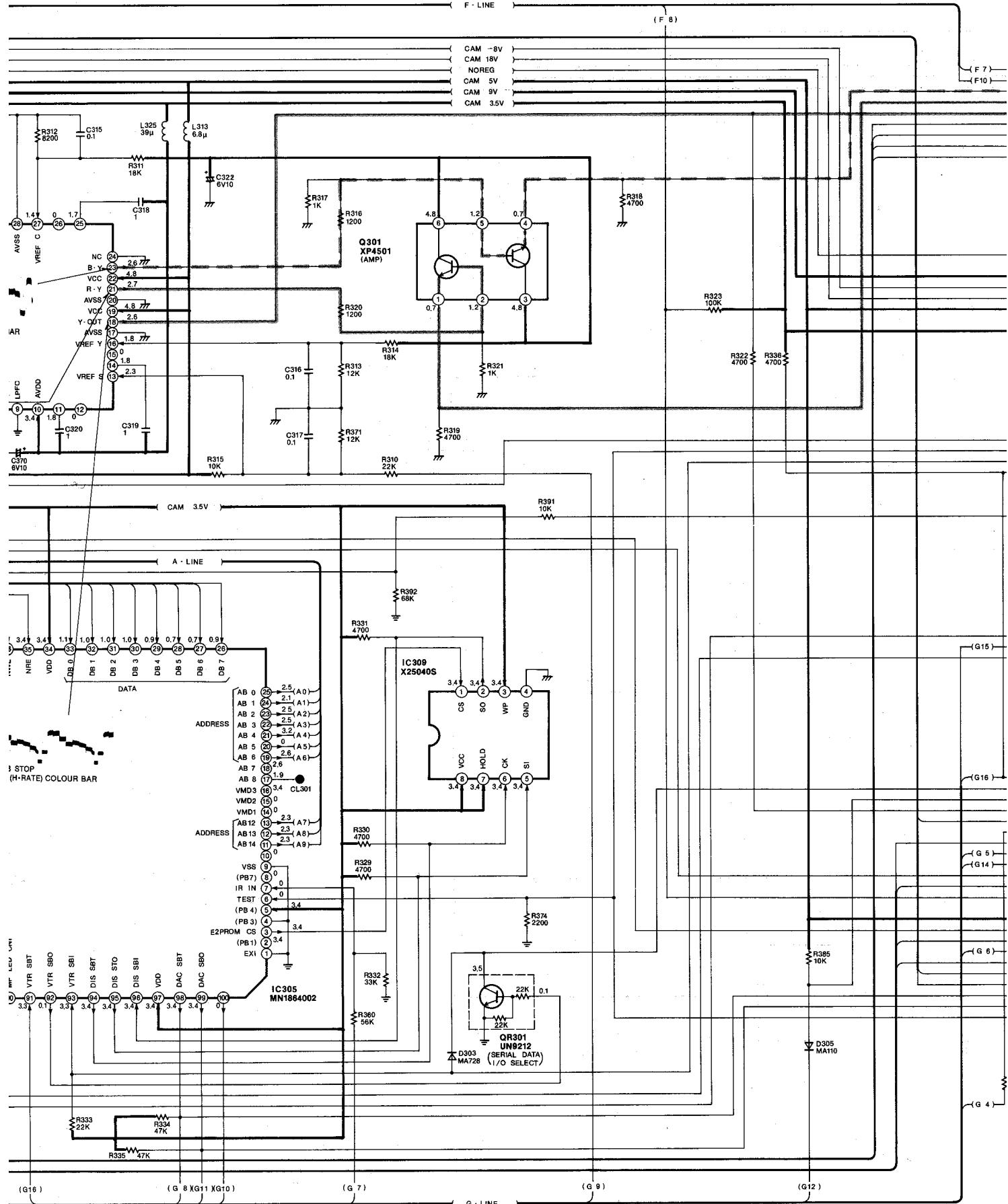




## VIDEO SIGNAL

## DIGITAL Y SIGNAL

## DIGITAL C SIGNAL



16

17

18

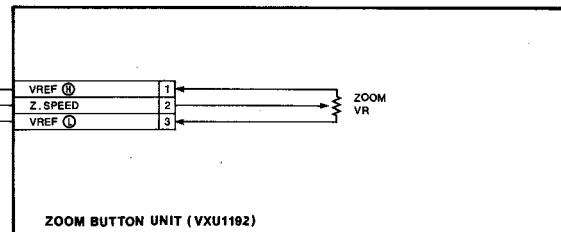
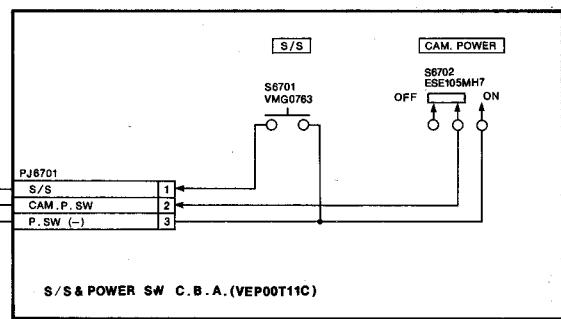
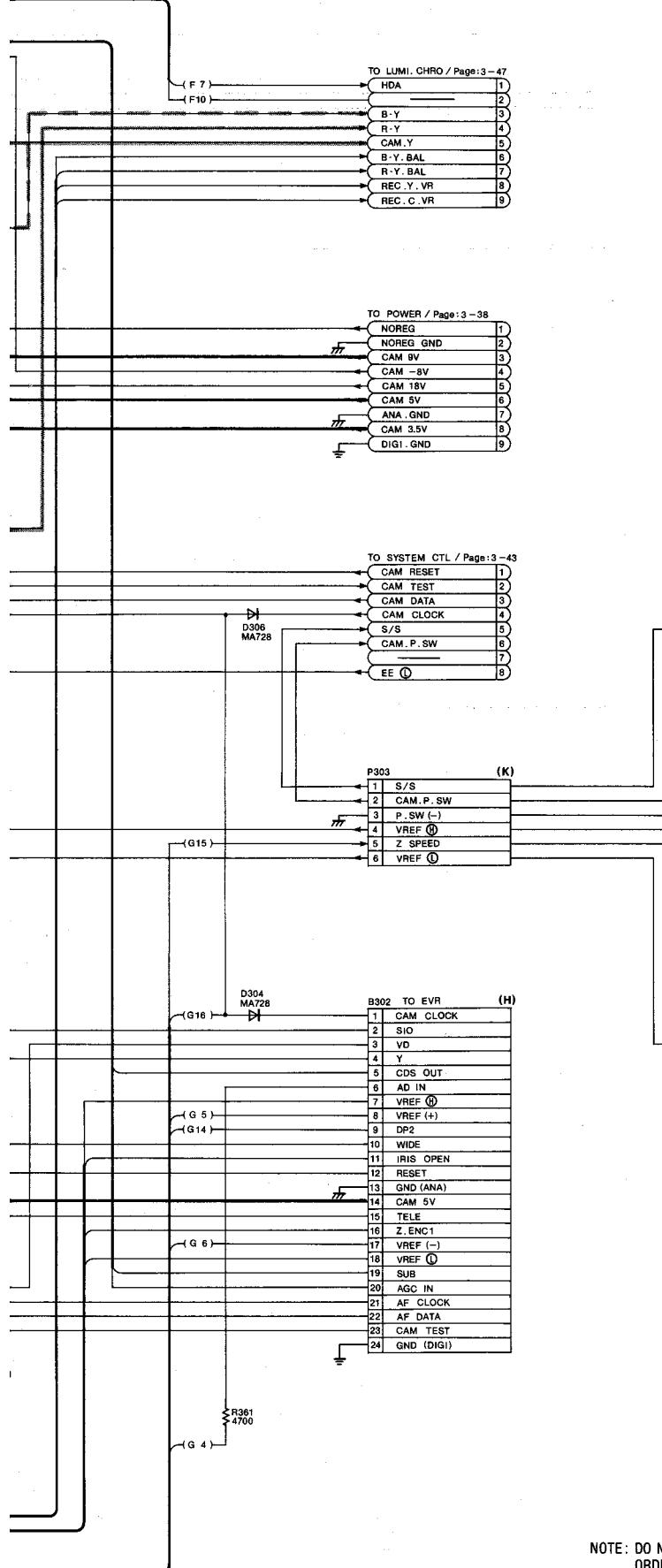
19

20

21

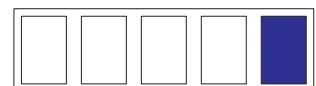


**GITAL C SIGNAL**      **Y SIGNAL**      **R-Y SIGNAL**      **B-Y SIGNAL**

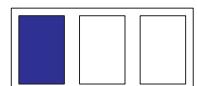
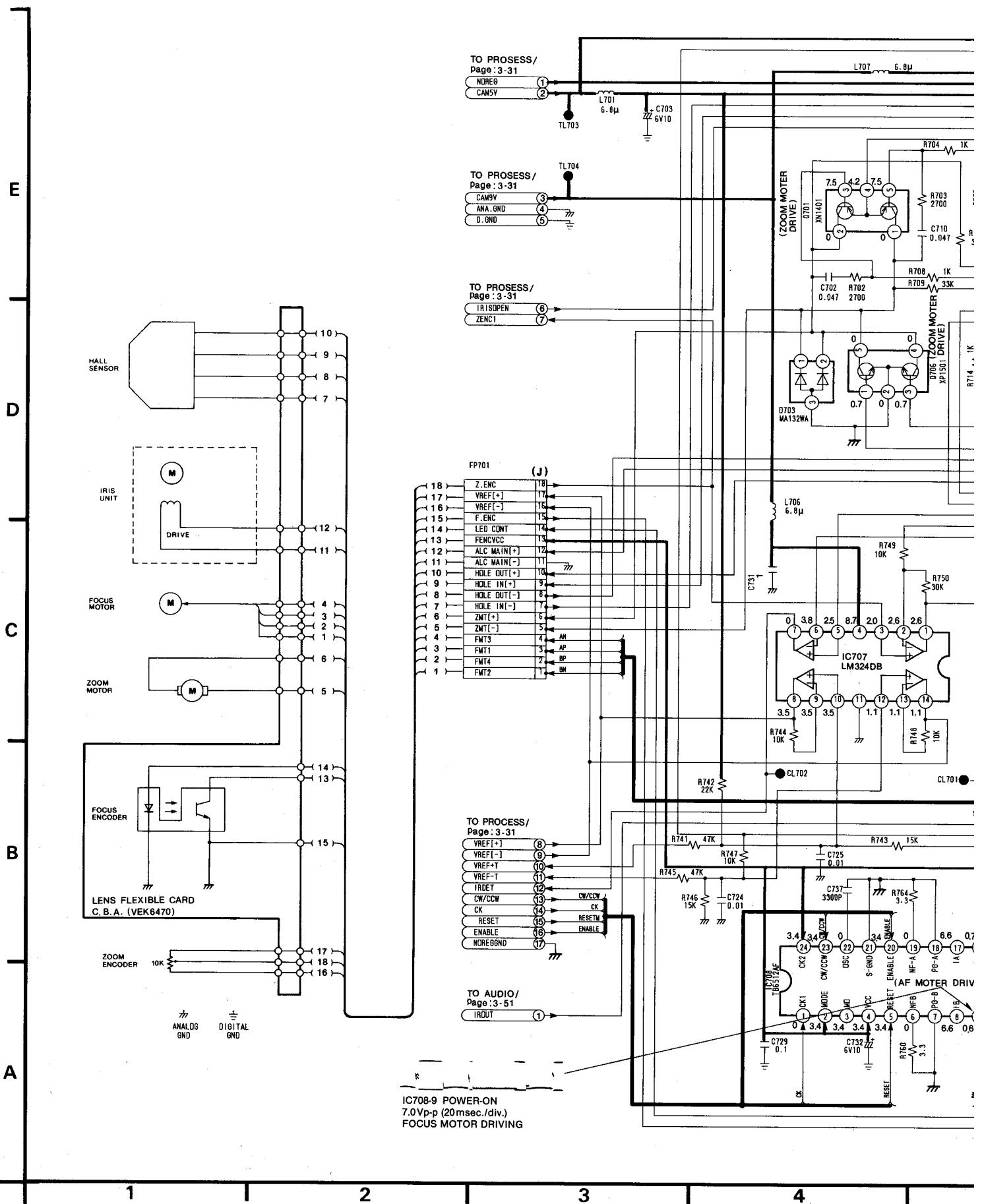


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

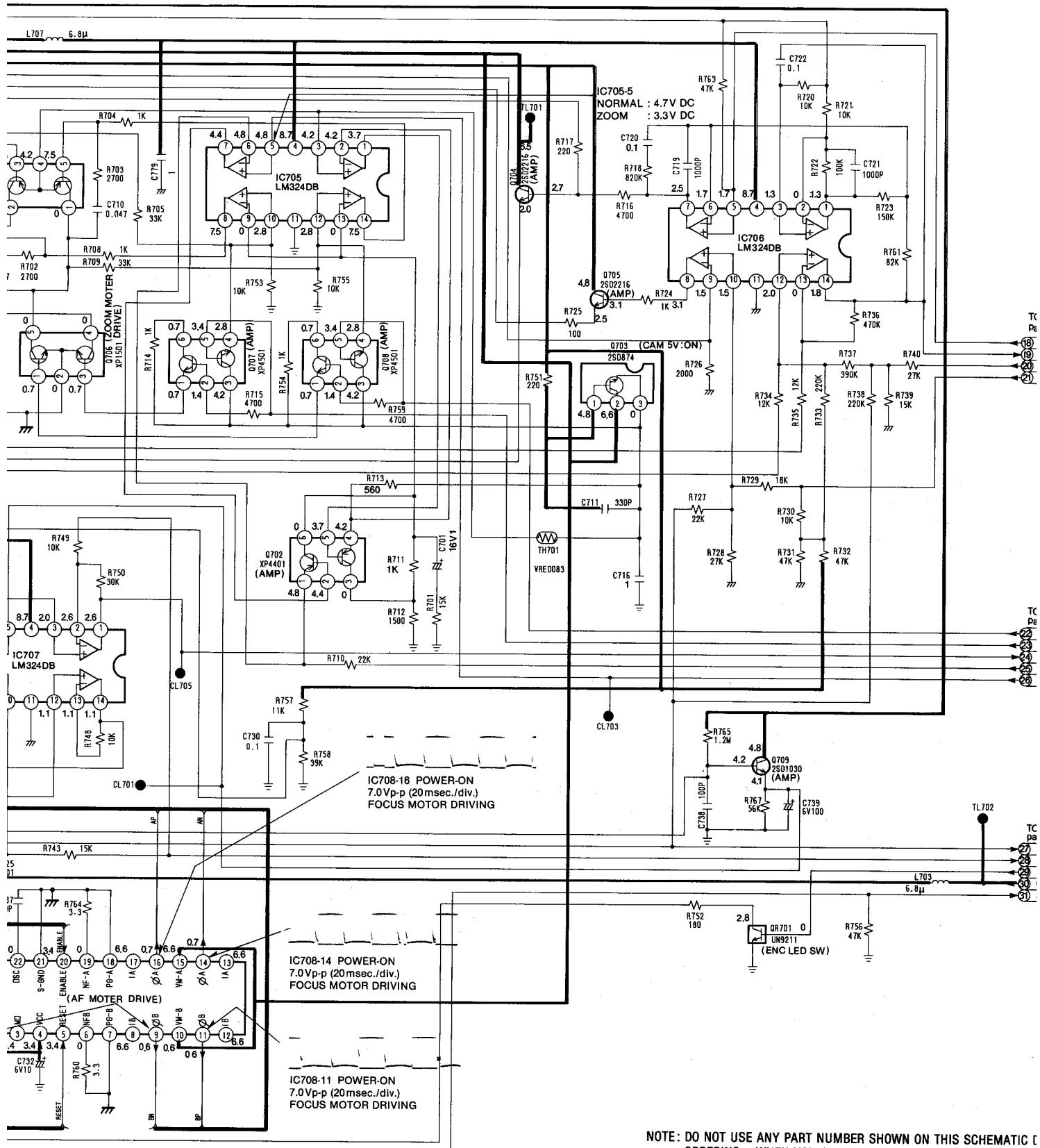
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.



### 3-15. LENS DRIVE SCHEMATIC DIAGRAM



## LENS DRIVE & POWER Section

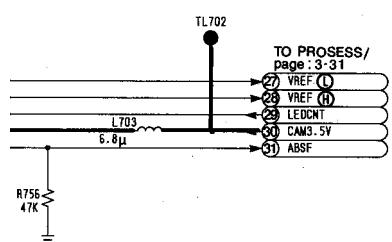
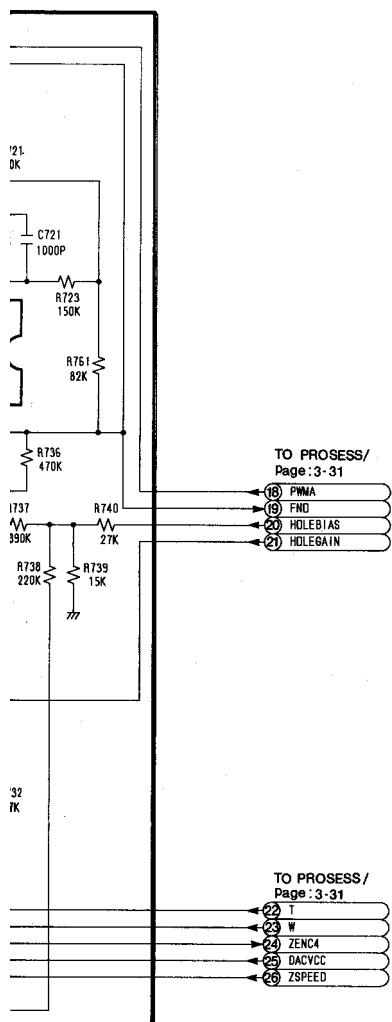


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PART

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.



ection

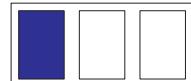
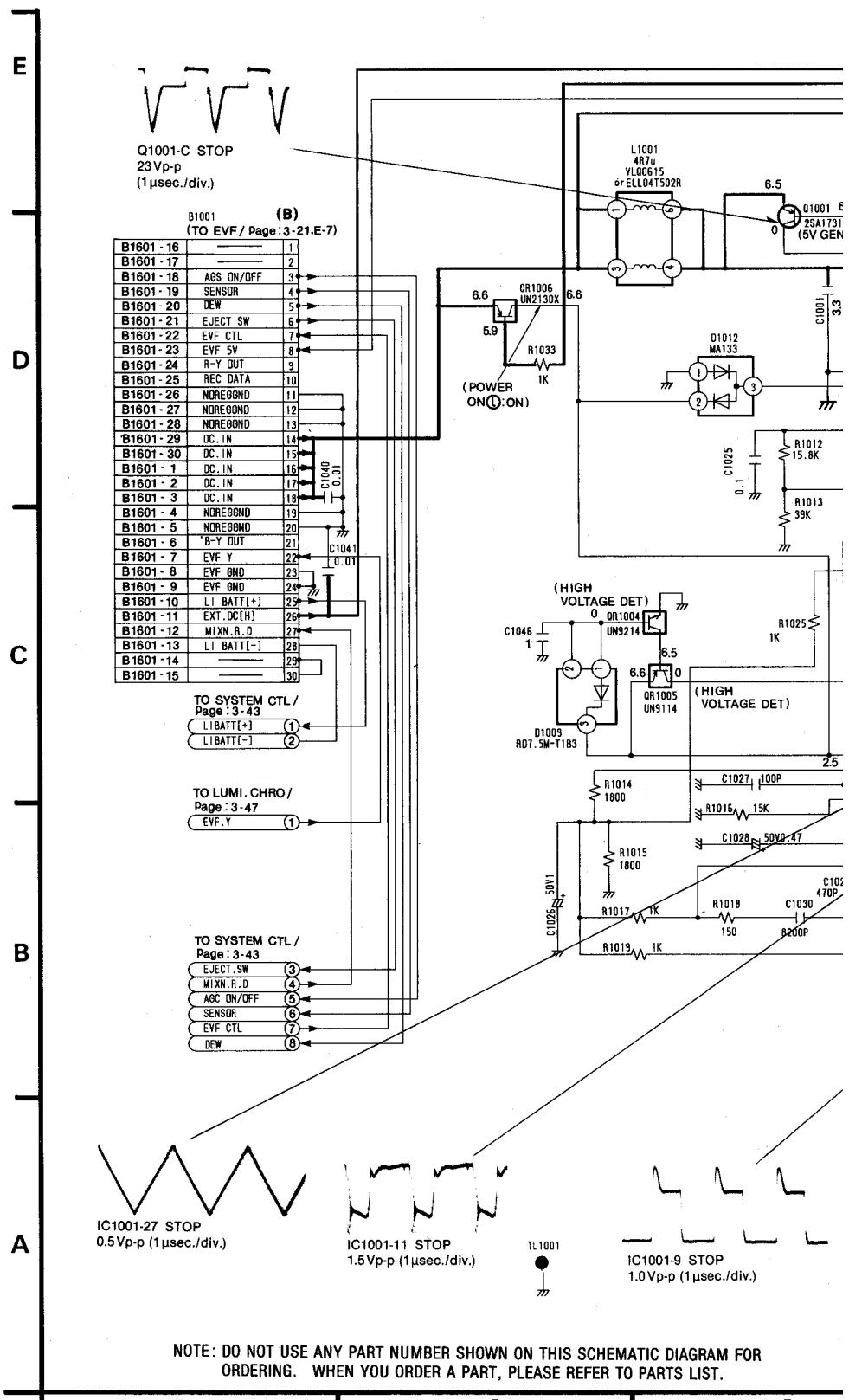


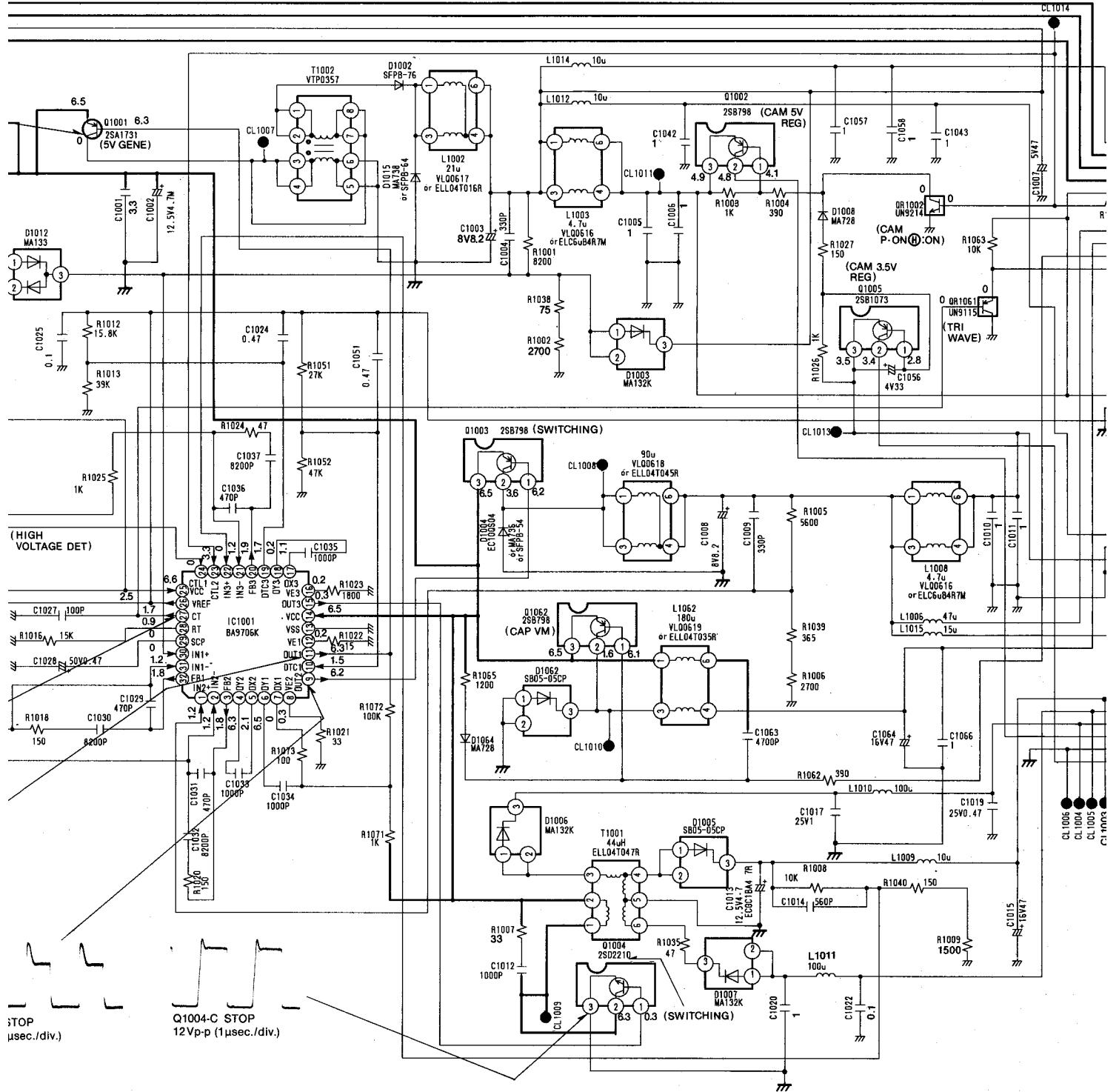
IBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR  
DER A PART, PLEASE REFER TO PARTS LIST.

THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE  
E LOGARITHMIC GRAY SCALE CHART.

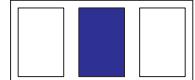


### 3-16. POWER SCHEMATIC DIAGRAM



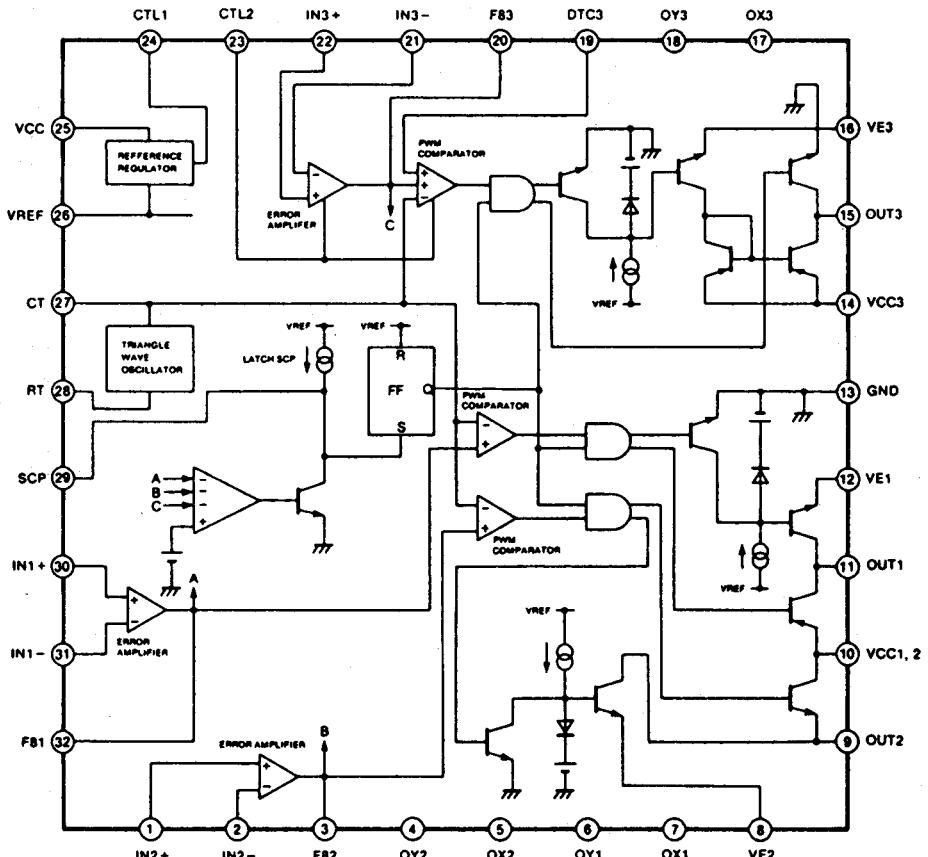
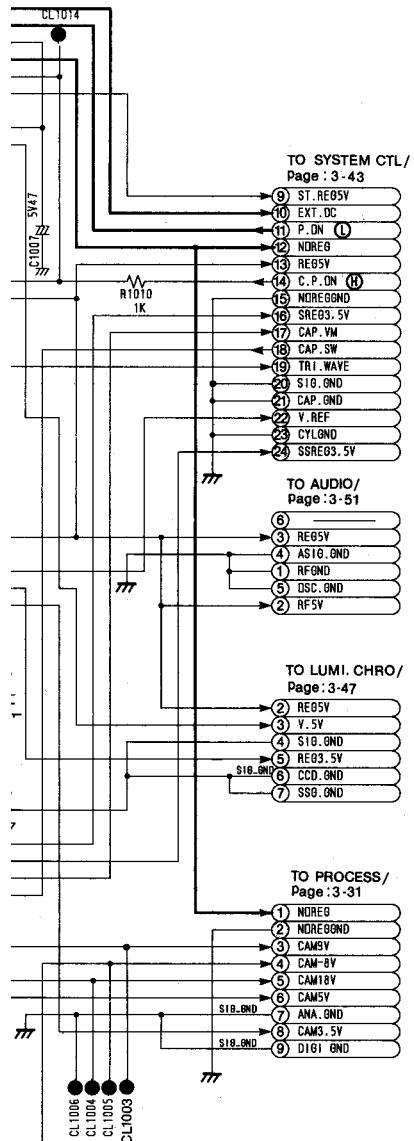


RAM FOR  
JST.



# IC BLOCK

## IC1001 (BA9706K)



E DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.



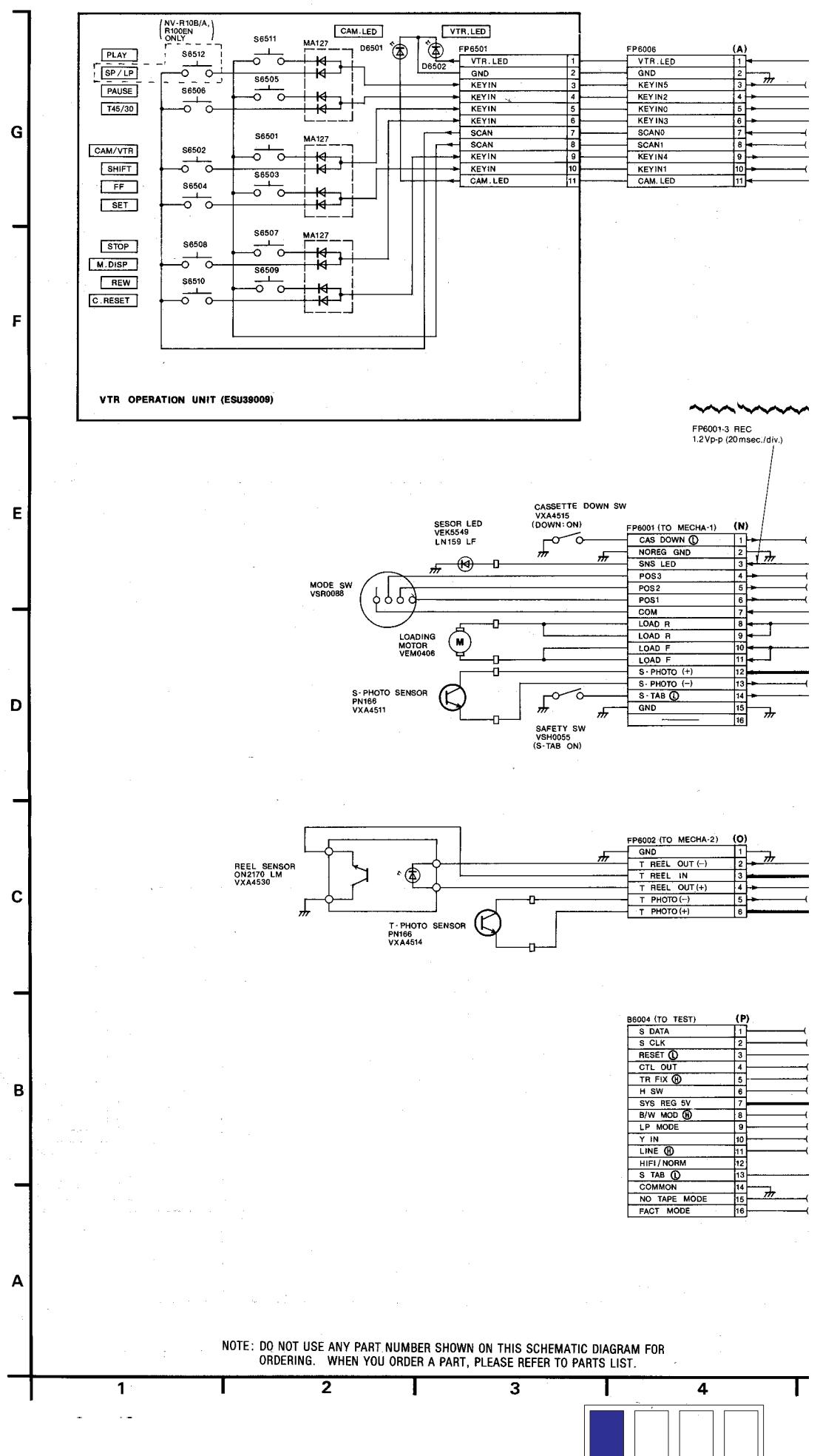
## SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.		IC6001																					
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
STOP		0	3.6	3.7	0	0	3.7	3.6	0	3.7	0	0	0	0	0	3.7	0	0	0	0	0.4		
PLAY		0	0	3.7	0	0	3.7	3.7	3.7	0	3.7	3.7	0	0	0	3.7	2.7	0	0	0	0		
F.F		0	3.6	3.7	0	0	3.3	3.7	0	0	0	0	0	0	0	3.7	2.7	0	0	0	0.5		
REF. NO.		IC6001																					
MODE		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
STOP		1.6	0	1.8	0	3.7	0	0	0	0	0	0	0	3.1	3.7	2.6	2.3	3.7	1.5	1.9	0		
PLAY		1.1	0	1.9	0	0	0	0	0	0	0	0	0	3.1	3.2	2.7	2.7	3.7	3.4	1.9	0		
F.F		1.6	0	1.8	0	3.7	0	0	0	0	0	0	0	3.2	3.7	2.5	2.5	3.7	1.5	1.9	0		
REF. NO.		IC6001																					
MODE		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60		
STOP		3.7	0	0	0	3.7	1.0	3.7	0	0	0	0	3.1	3.1	3.0	3.3	3.4	2.2	1.7	3.7	1.0		
PLAY		0	0.8	0	0	0	0.9	0.9	0.3	0.2	2.8	2.8	3.1	3.2	0	3.2	3.5	3.4	0	3.7	0		
F.F		3.7	0	0	0	3.7	1.3	3.7	0	0	3.7	3.7	3.1	0.3	3.0	3.3	3.4	0.2	3.7	1.0			
REF. NO.		IC6001																					
MODE		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
STOP		0	0	3.7	0	3.4	0	3.4	0	1.2	0	0.3	0	0.9	0	0	0	0	0	1.8	1.8		
PLAY		0	0	1.7	0	0	0	3.4	3.4	2.0	0	1.2	0	0	1.2	1.7	1.7	0	0	1.8	1.8		
F.F		0	0	2.2	0	3.4	0	3.4	0	0	0	1.0	0	0	1.7	1.7	0	0	1.8	1.8			
REF. NO.		IC6001																					
MODE		81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100		
STOP		1.6	2.0	3.7	0	0	0	1.8	1.8	0	2.0	1.8	0.1	3.2	3.7	0	3.4	3.3	2.4	0			
PLAY		1.8	0	0	0	0	0	1.8	1.8	0	2.0	1.8	3.7	1.6	2.1	3.7	0	3.4	3.3	2.5	3.8		
F.F		0	2.0	3.7	0	0	0	1.8	1.8	0	2.0	1.8	3.7	1.5	2.1	3.7	0	3.4	3.3	2.4	0		
REF. NO.		IC6001																					
MODE		101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120		
STOP		0	0	0	0	0	3.7	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0	3.7		
PLAY		0	0	0	3.4	3.4	3.7	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0		
F.F		0	0	0	2.0	2.0	3.7	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0		
REF. NO.		IC6001																					
MODE		121	122	123	124	125	126	127	128														
STOP		0.1	0	3.7	3.7	3.7	0	0	0														
PLAY		0.2	0	3.7	3.7	3.7	0	0	0														
F.F		0.1	0	3.7	3.7	3.7	0	0	0														
REF. NO.		IC6002																					
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14								
STOP		0	0	0	0	0	0	0	1.6	1.6	3.7	0	0	0	0	0	0	0	0	0			
PLAY		0	0	0	0	0.4	0	0	0.8	0	0	0	0	0	0	0	0	0	0	1.6			
F.F		0	0	0	0	0	0.7	0	1.6	1.6	3.7	0	0	0	0	0	0	0	0	1.6			
REF. NO.		IC6003																					
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
STOP		3.3	3.0	3.3	3.6	3.4	0	1.4	1.4	0	0	0	0	0	0	0	0	0	0	3.4	3.2		
PLAY		3.4	0	3.0	3.6	3.4	0	0.8	1.4	0	0	0	0	0	0	0	0	0	0	3.4	3.2		
F.F		3.4	3.0	3.3	0	3.4	0	1.4	1.4	0	0	0	0	0	0	0	0	0	0	3.4	4.2		
REF. NO.		IC6004																					
MODE		1	2	3	4	5										1	2	3	4	5	6	7	8
STOP		3.2	3.3	0	1.2	3.5										0	6.6	4.9	0	0	3.0	0	0
PLAY		1.7	0.1	0	0	3.5										0.1	6.7	4.9	0	0	3.0	0	0
F.F		3.1	3.3	0	1.2	3.5										0	6.5	4.9	0	0	3.0	0.1	0
REF. NO.		IC6005																					
MODE		1	2	3	4	5										1	2	3	4	5			
STOP		0	0	0	3.7	3.7										3.2	3.2	0	0.3	3.5			
PLAY		0	0	0	3.7	3.7										3.3	0.1	0	0	3.5			
F.F		0	0	0	3.7	3.7										3.2	3.2	0	0.4	3.5			
REF. NO.		IC6006																					
MODE		1	2	3	4	5										1	2	3	4	5			
STOP		0	0.7	0.6	0	1.7	2.9	0	3.5							0	6.6	3.7					
PLAY		0	0	0	0	1.7	0	3.4	3.5							0	6.7	3.7					
F.F		1.6	0.6	0	0	0	2.9	0	3.5							0	6.5	3.7					
REF. NO.		IC6007																					
MODE		1	2	3	4	5										1	2	3	4	5			
STOP		0	0	0	3.7	3.7										3.2	3.2	0	0.3	3.5			
PLAY		0	0	0	3.7	3.7										3.3	0.1	0	0	3.5			
F.F		0	0</																				

## SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

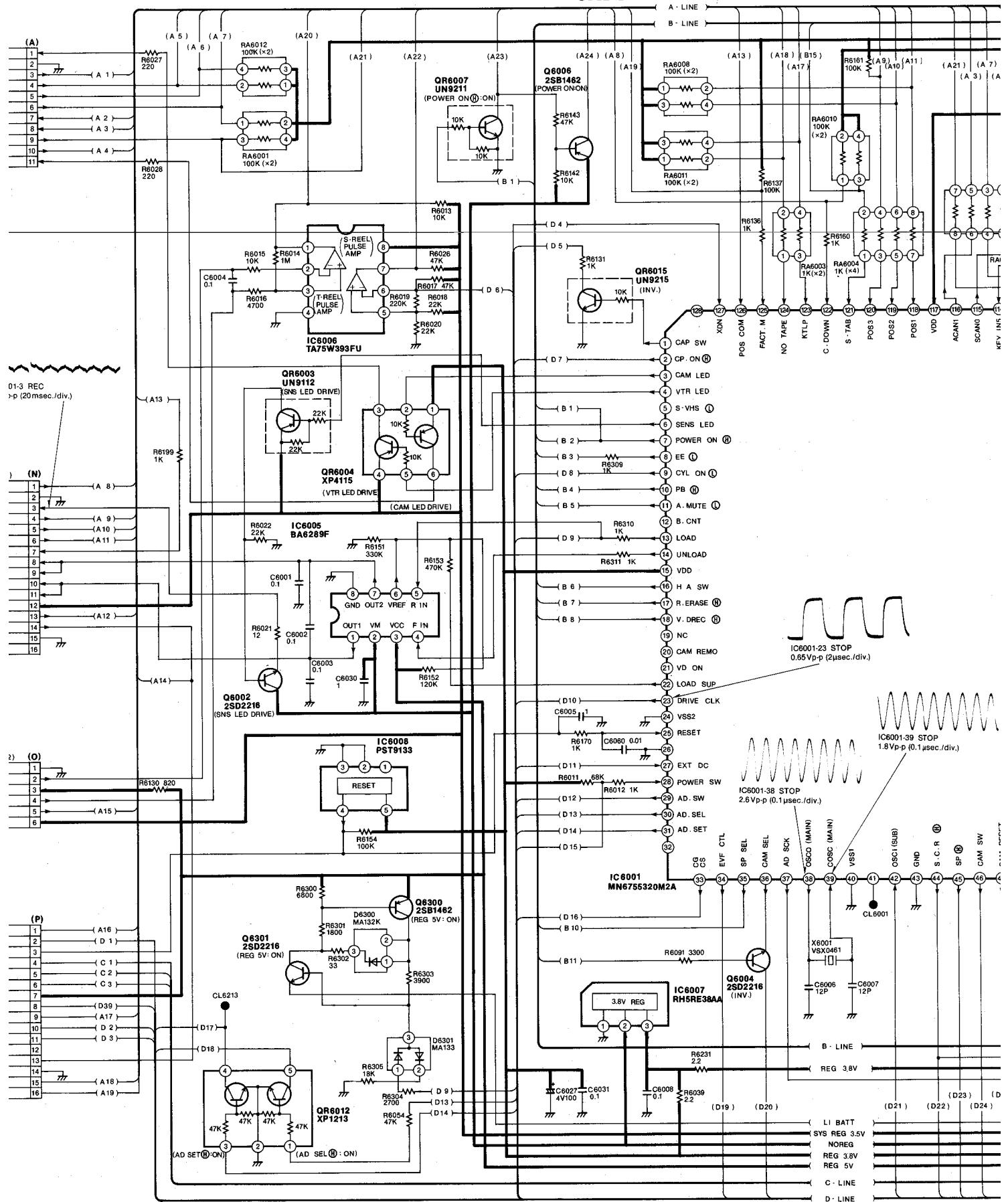
REF. NO.	Q6002			Q6004			Q6005						Q6006			6007			
	MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	0.1	6.6	0	0	3.5	0	0	2.8	0.1	4.7	0	4.5	6.7	6.6	6.1	0	0	0.6	
PLAY	0.1	6.6	0	3.7	1.3	0.2	0	2.7	0.2	4.7	0.1	4.5	6.7	6.6	6.1	0	0	0.6	
F.F	0.2	6.4	0.3	0	3.5	0	0	2.7	0.1	4.6	0	4.6	6.5	6.5	5.9	0	0	0.6	
REF. NO.	Q6201			Q6300			Q6301												
	MODE	E	C	B	E	C	B	E	C	B									
STOP	3.7	3.7	3.1	4.9	0	4.2	3.3	4.1	0										
PLAY	3.7	3.7	3.1	4.9	0	4.2	3.3	4.1	0										
F.F	3.7	3.7	3.1	4.8	0	4.2	3.0	4.8	0										
REF. NO.	QR6001			QR6003			QR6004						QR6006			QR6007			
	MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	4.9	4.9	4.2	3.5	0	3.7	3.7	3.7	3.4	3.5	0	0	0	0	0	1.3	0	0	3.7
PLAY	4.9	4.9	4.2	3.5	0	3.7	3.7	3.7	3.4	3.5	0	0	0	0	0	1.3	0	0	3.7
F.F	4.9	4.9	4.2	3.5	0.2	3.3	3.7	3.7	3.4	3.5	0	0	0	0	0	1.3	0	0	3.7
REF. NO.	QR6008			QR6010			QR6012						QR6014						
	MODE	E	C	B	1	2	3	4	5		1	2	3	4	5		E	C	B
STOP	0	3.4	0	0	0	3.0	0.1	0		0	0	0	1.6	1.6		0	0	5.5	
PLAY	0	3.5	0	3.1	0	3.0	0.2	0		0	0	0	1.6	1.5		0	0	5.5	
F.F	0	3.4	0	3.1	0	3.0	0.1	0		0	0	0	1.6	1.6		0	0	0	
REF. NO.	QR6015			QR6016			QR6018												
	MODE	E	C	B	1	2	3	4	5		E	C	B						
STOP	0	6.6	0	0	0	0	0	0		0	1.2	0.6							
PLAY	0	5.8	0	0	0	3.7	0	3.4		0	0.2	0.6							
F.F	0	5.2	0	0	0	3.7	0	3.7		0	0	0.6							

### 3-17. SYSTEM CONTROL & SERVO SCHEMATIC DIAGR



## DIAGRAM

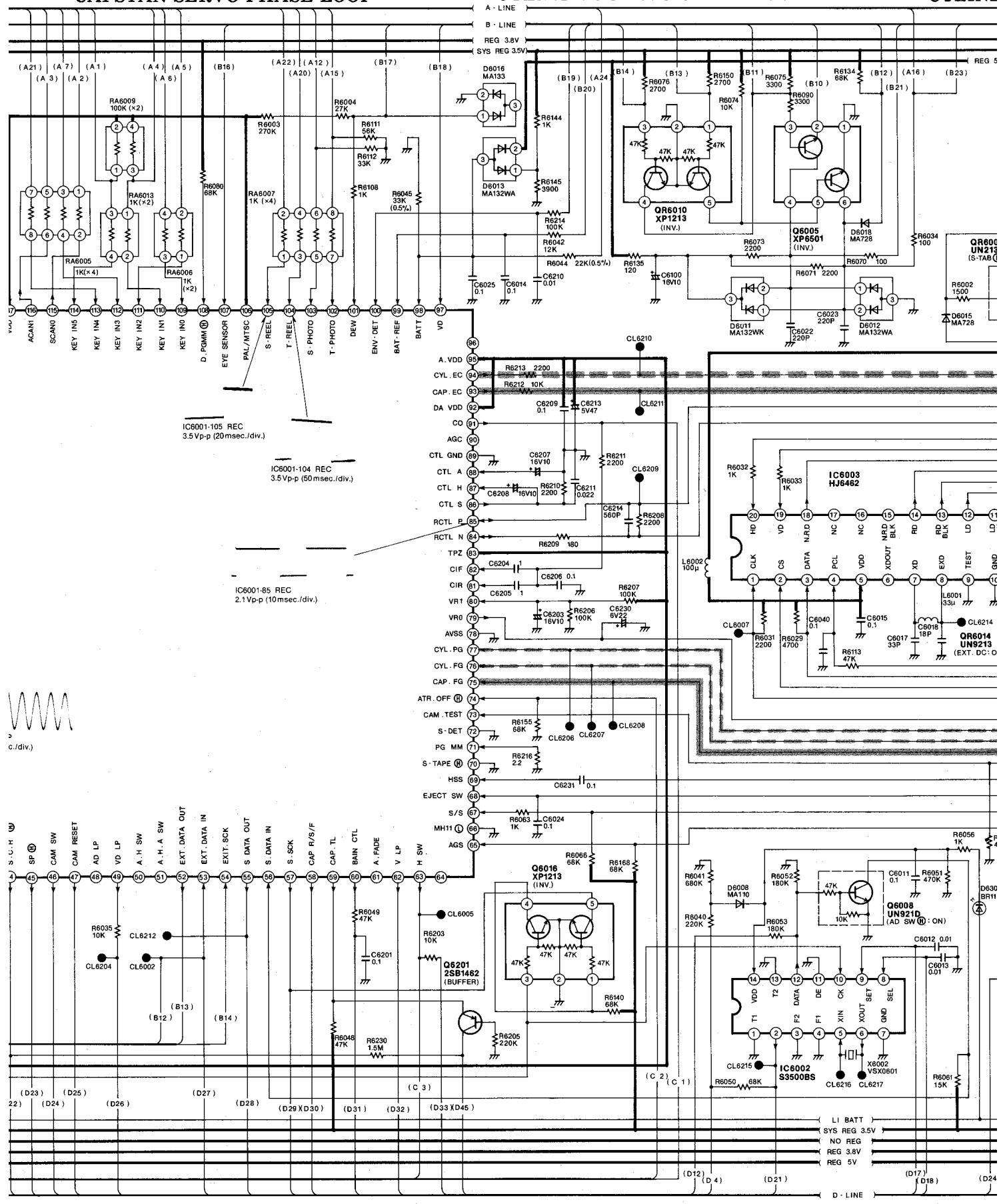
## CAPSTAN SERVO SPEED LOOP



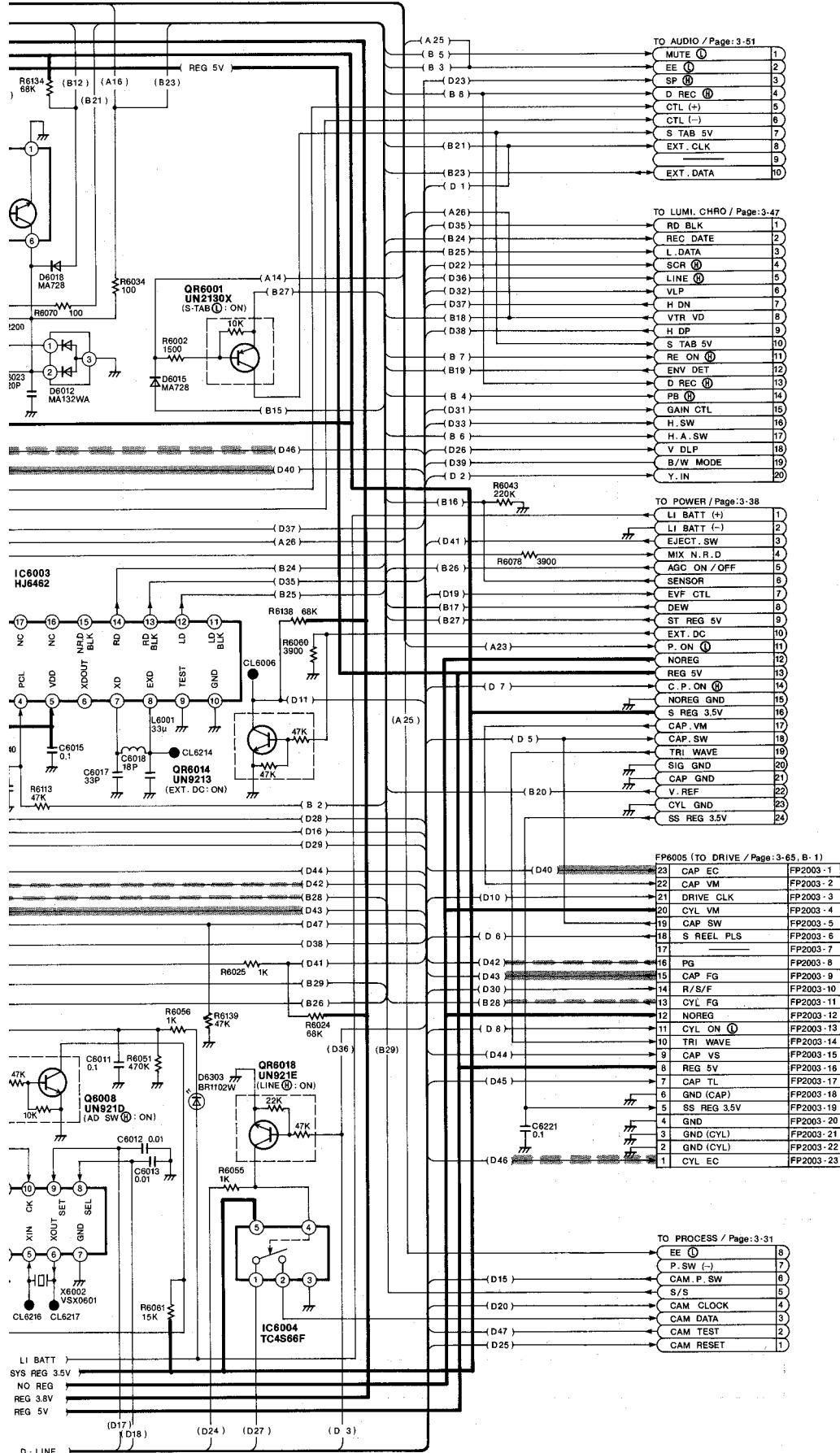
## CAPSTAN SERVO PHASE LOOP

## **CYLINDER SERVO SPEED LOOP**

• CYLINI



# CYLINDER SERVO PHASE LOOP

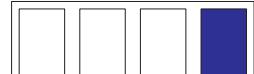


15

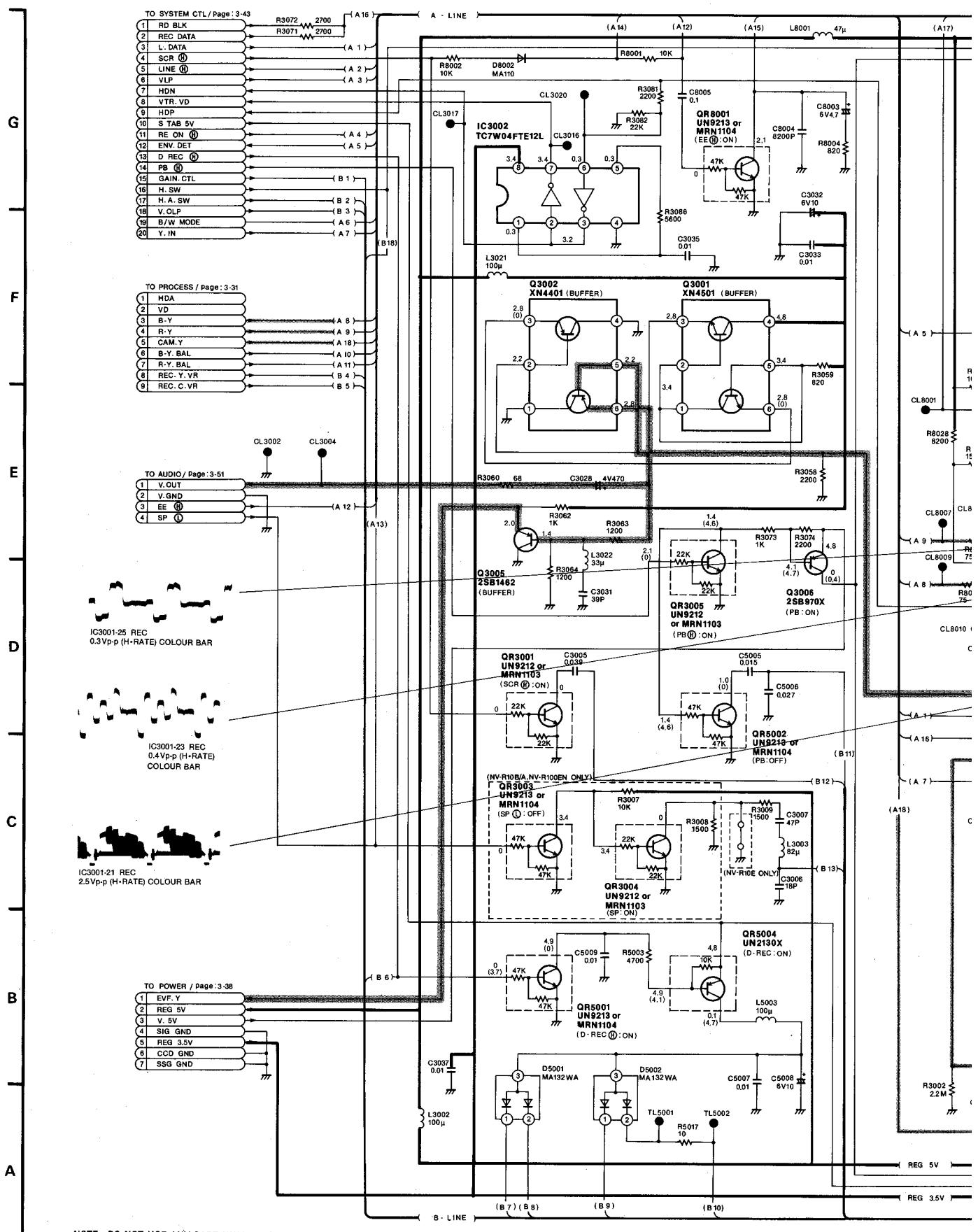
16

17

18



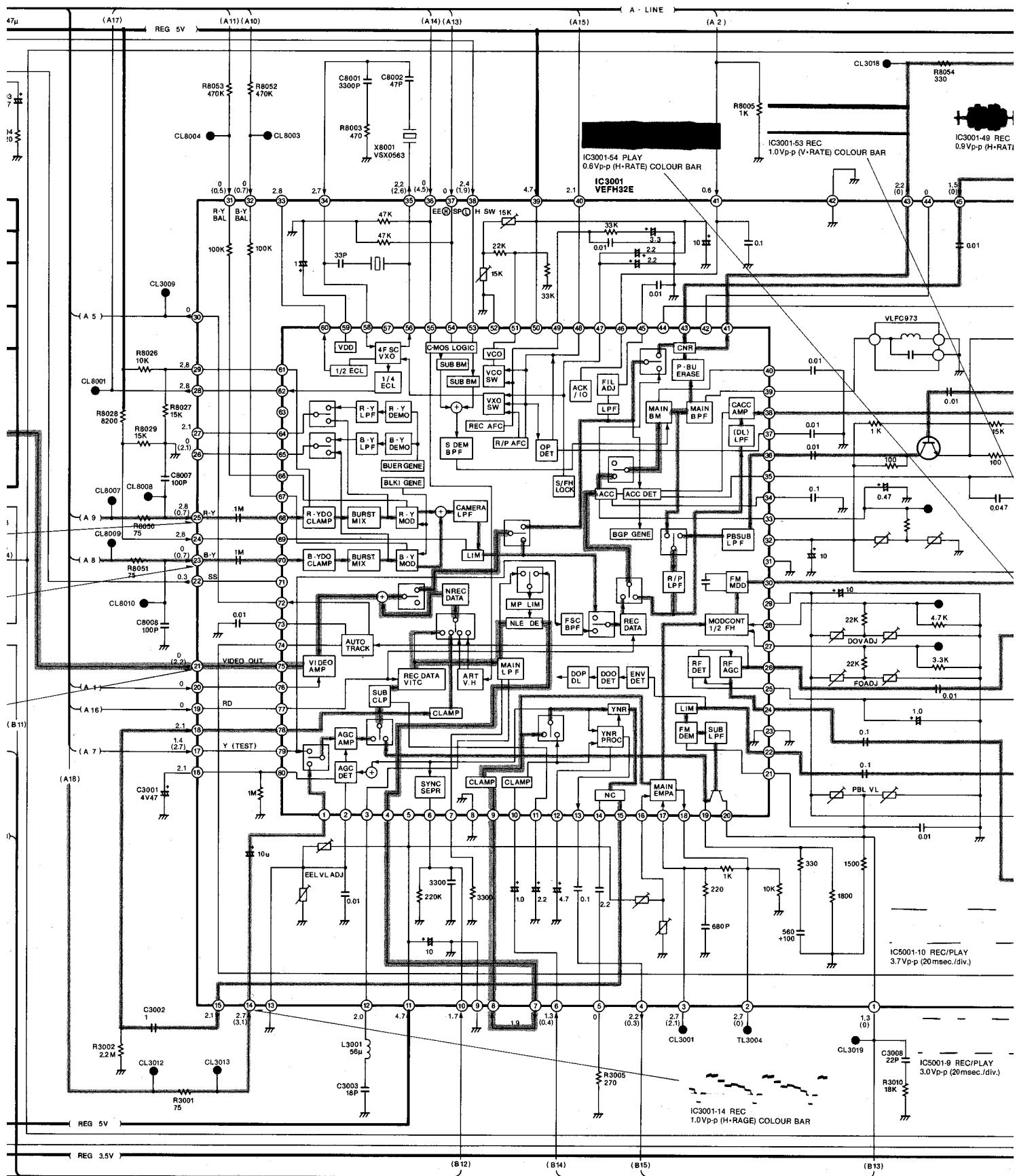
### **3-18. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGR**



**NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.**

**NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( WITH AIM THE CAMERA AT THE COLOUR CHART. (SP MODE)**

# IC DIAGRAM

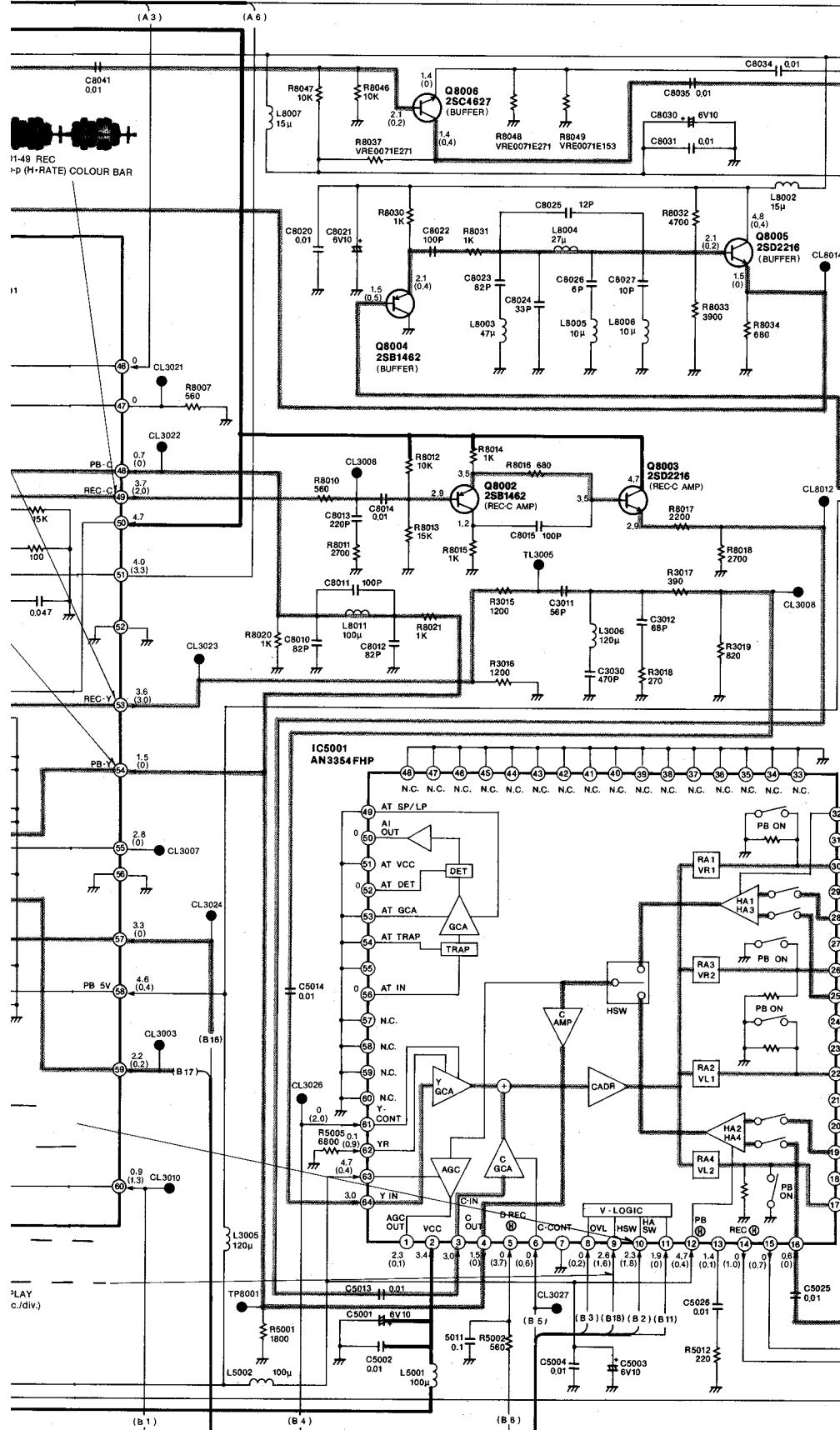


/OLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE  
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE  
JR CHART. (SP MODE)

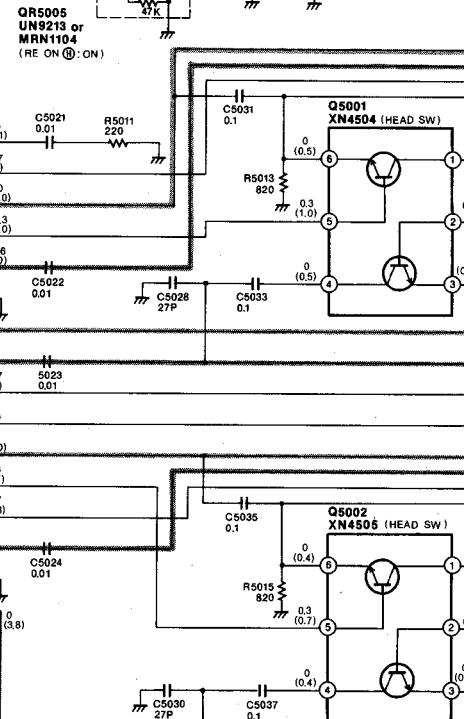
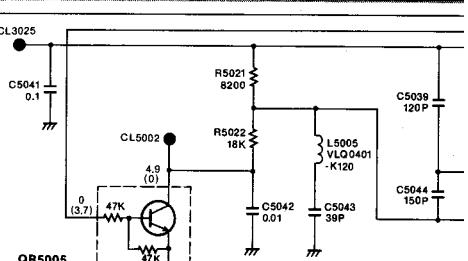
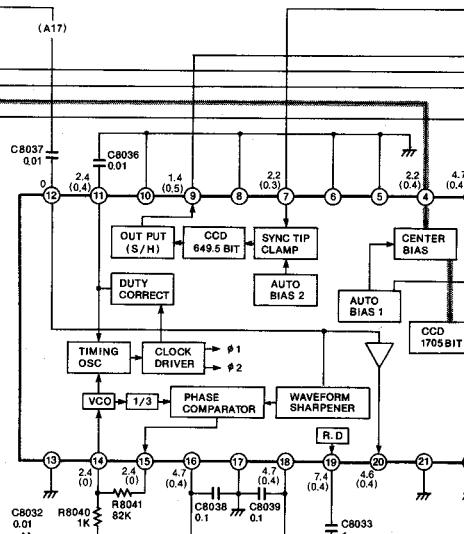
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE  
WITH PAL COLOUR SIGNAL.



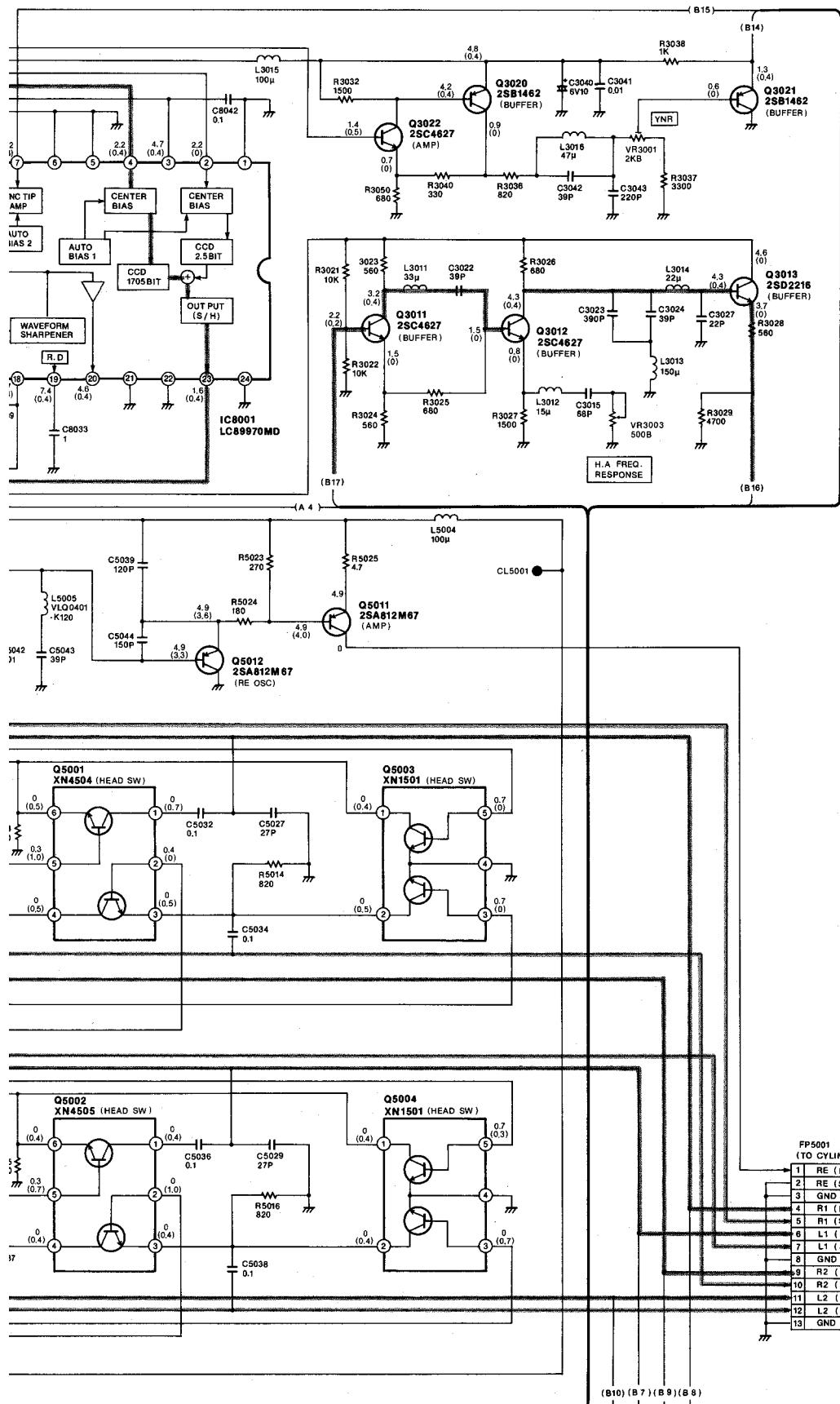
# MAIN SIGNAL PATH IN REC MODE



# MAIN SIGNAL PATH IN I

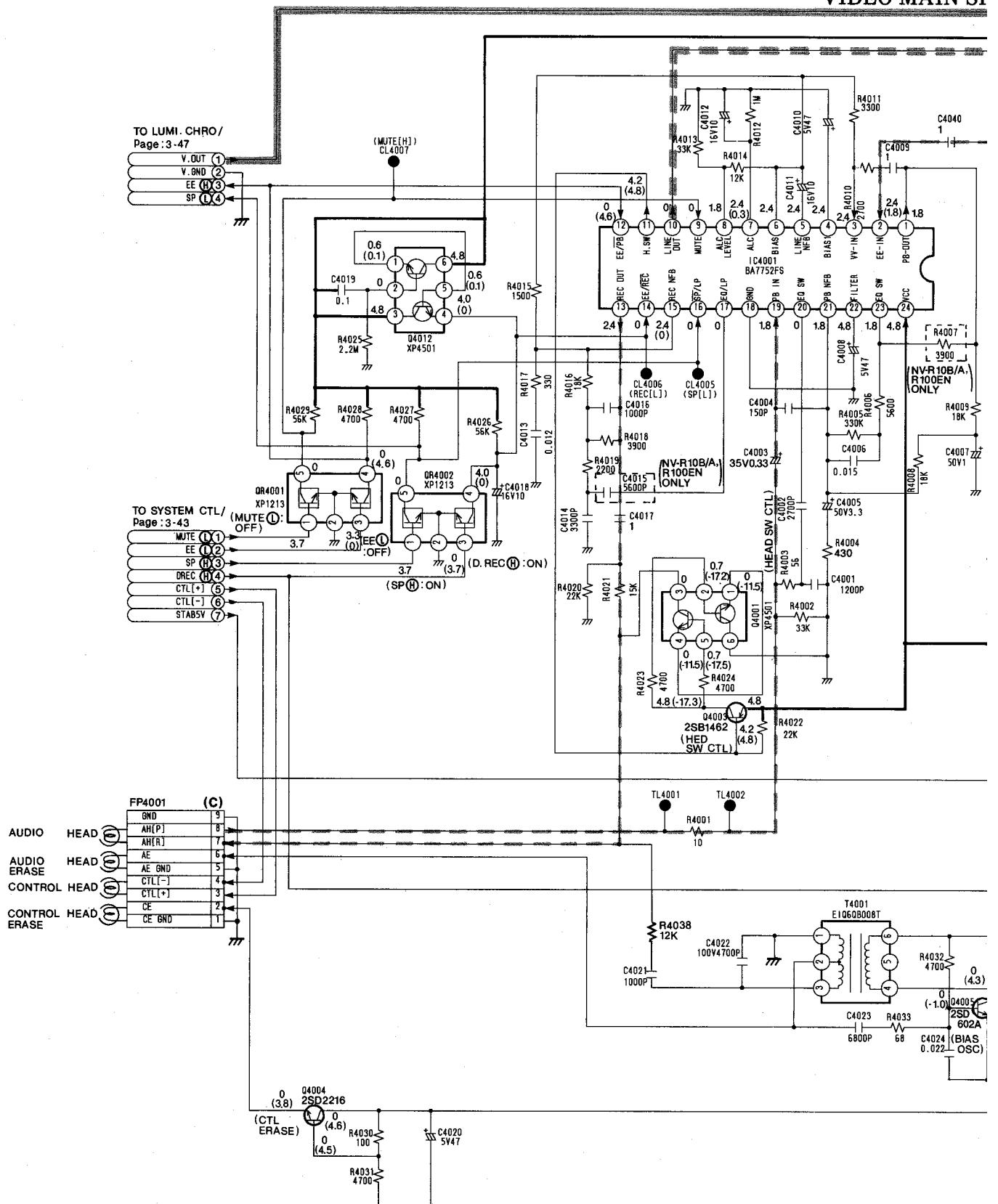


## L PATH IN PLAYBACK MODE



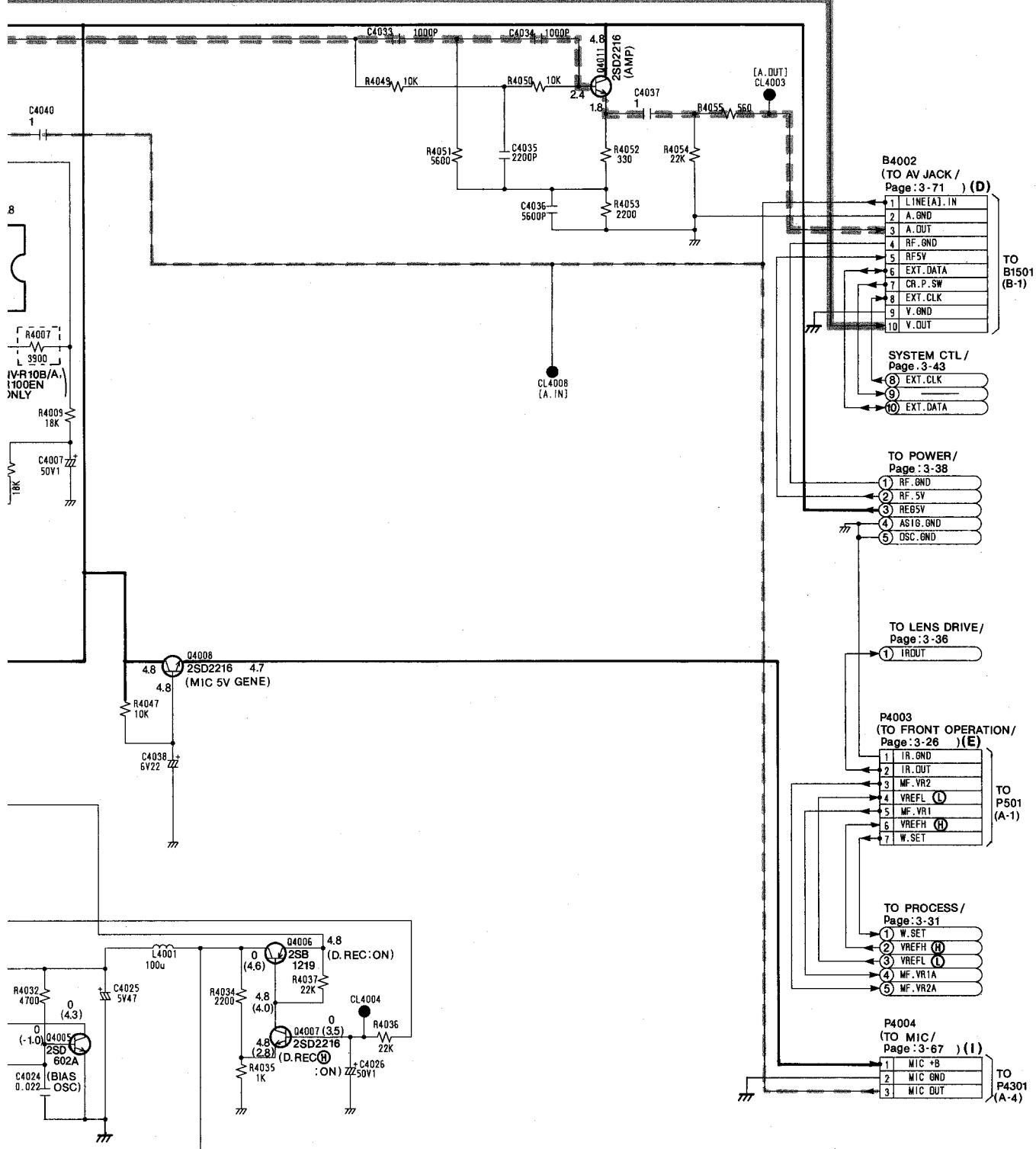
## 3-19. AUDIO SCHEMATIC DIAGRAM

AUDIO MAIN SI  
VIDEO MAIN SI

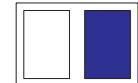


**AIN SIGNAL PATH IN REC MODE**  
**AIN SIGNAL PATH IN REC MODE**

**AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE**  
**VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE**

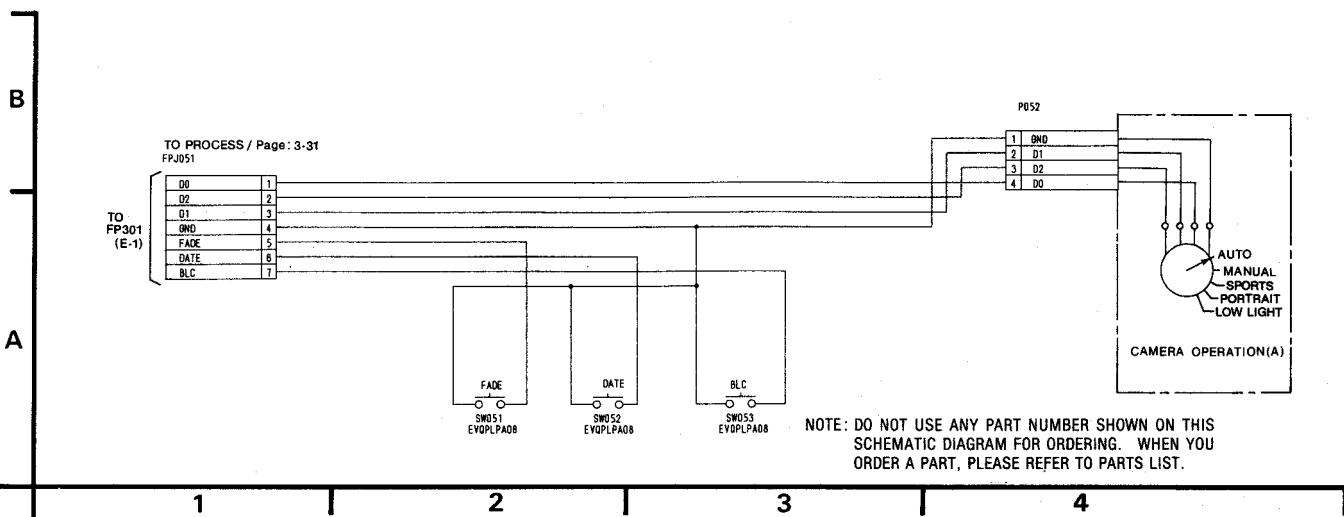


NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE (SP MODE)  
 THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE



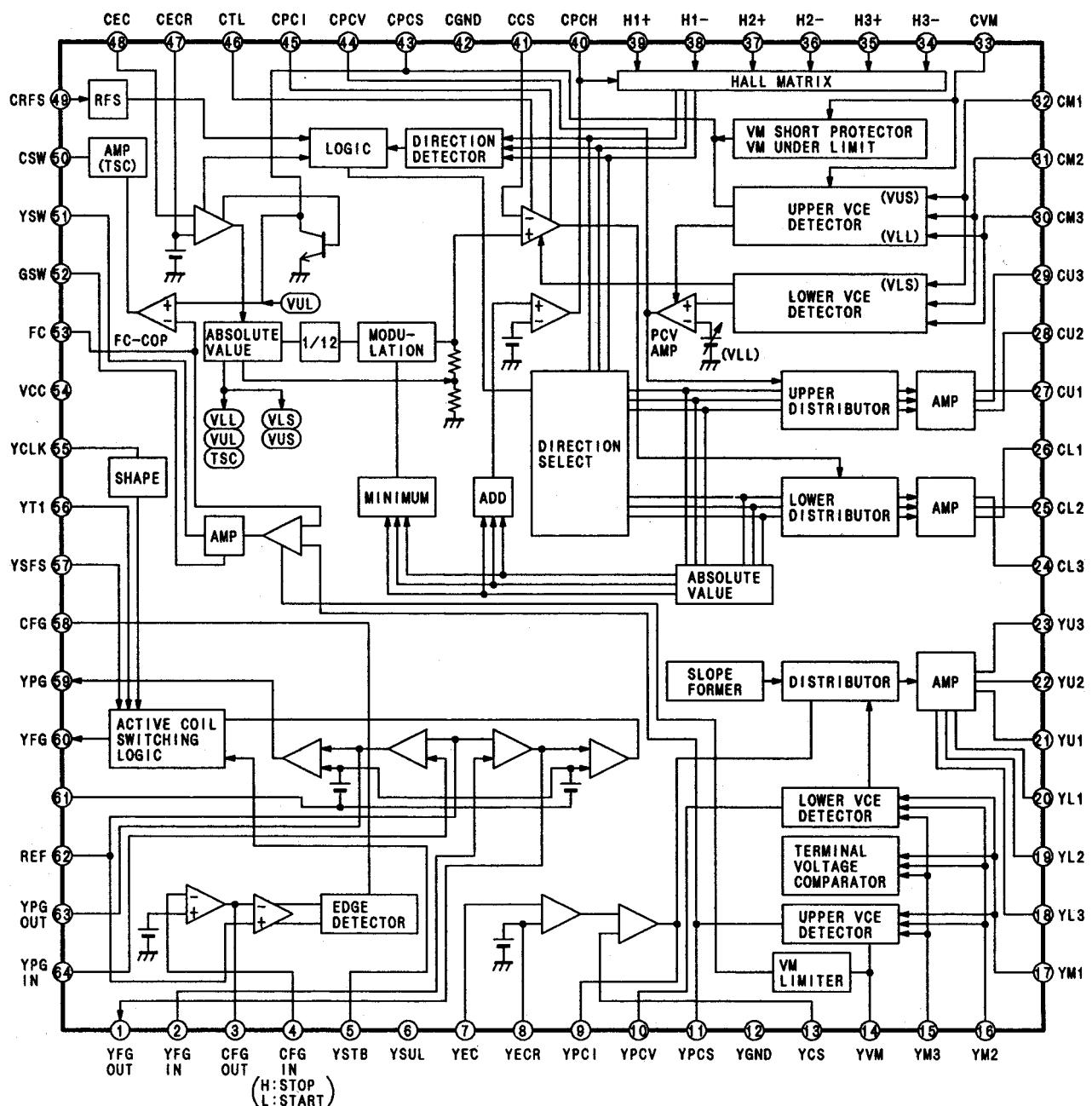
## 3-20. CAMERA OPERATION UNIT SCHEMATIC DIAGRAM

AUDIO & CAM. OPE. Section



# IC BLOCK

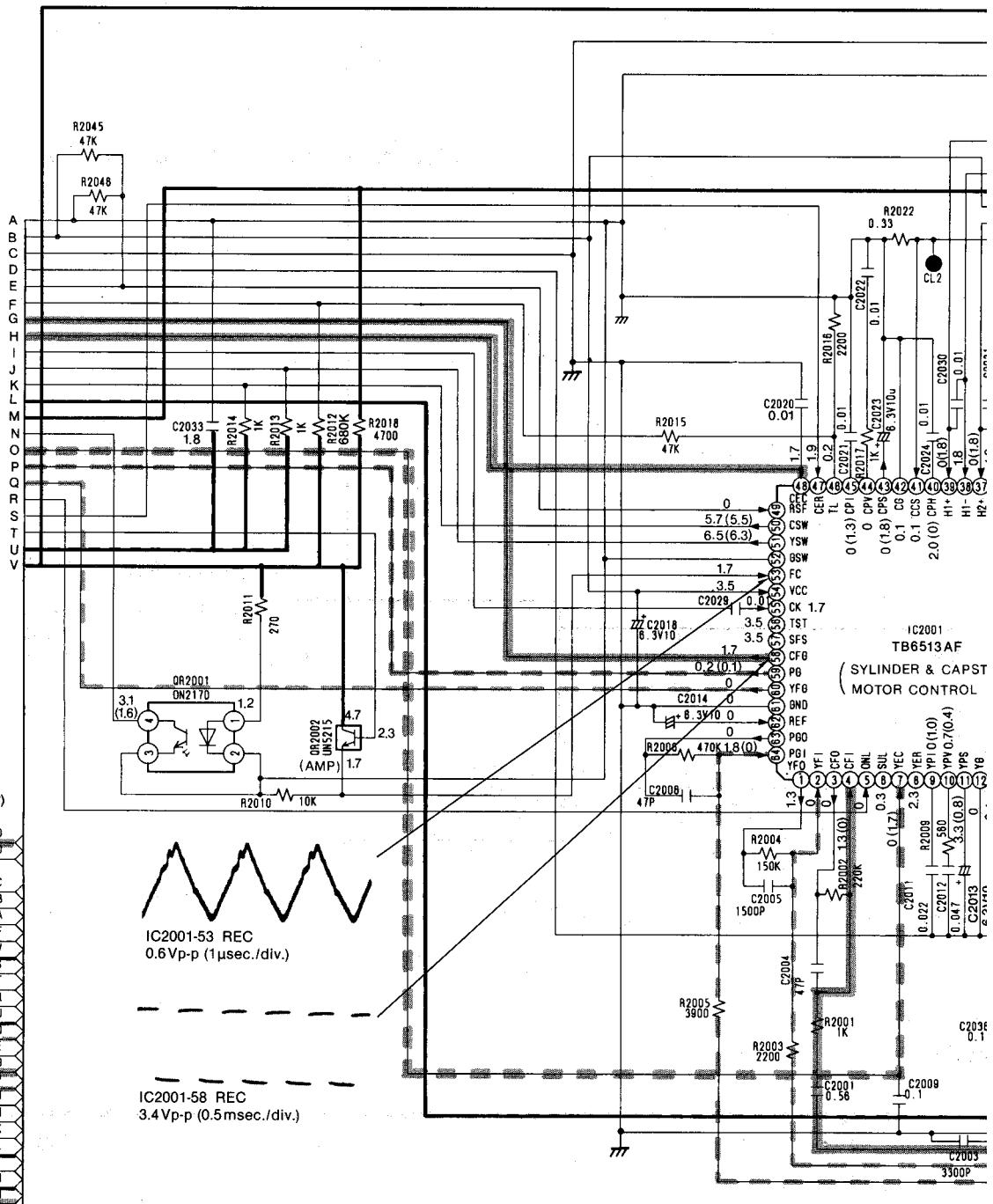
IC2001 (TB6513AF)



### 3-23. DRIVE SCHEMATIC DIAGRAM

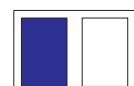
CAPSTAN

CAPSTAN



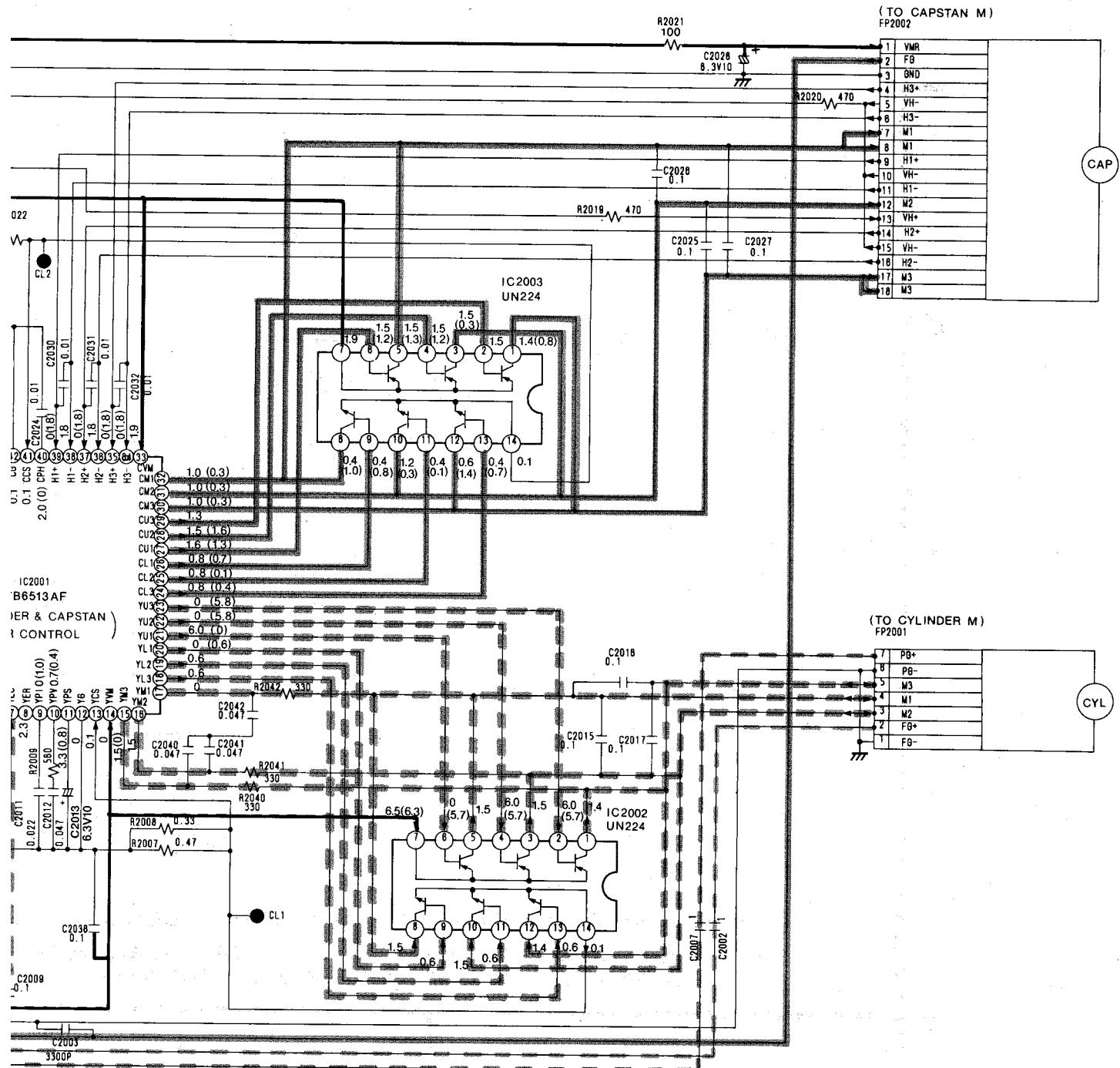
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEAS  
THE MEAS

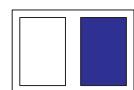


PSTAN SERVO SPEED LOOP  
PSTAN SERVO PHASE LOOP

CYLINDER SERVO SPEED LOOP  
CYLINDER SERVO PHASE LOOP



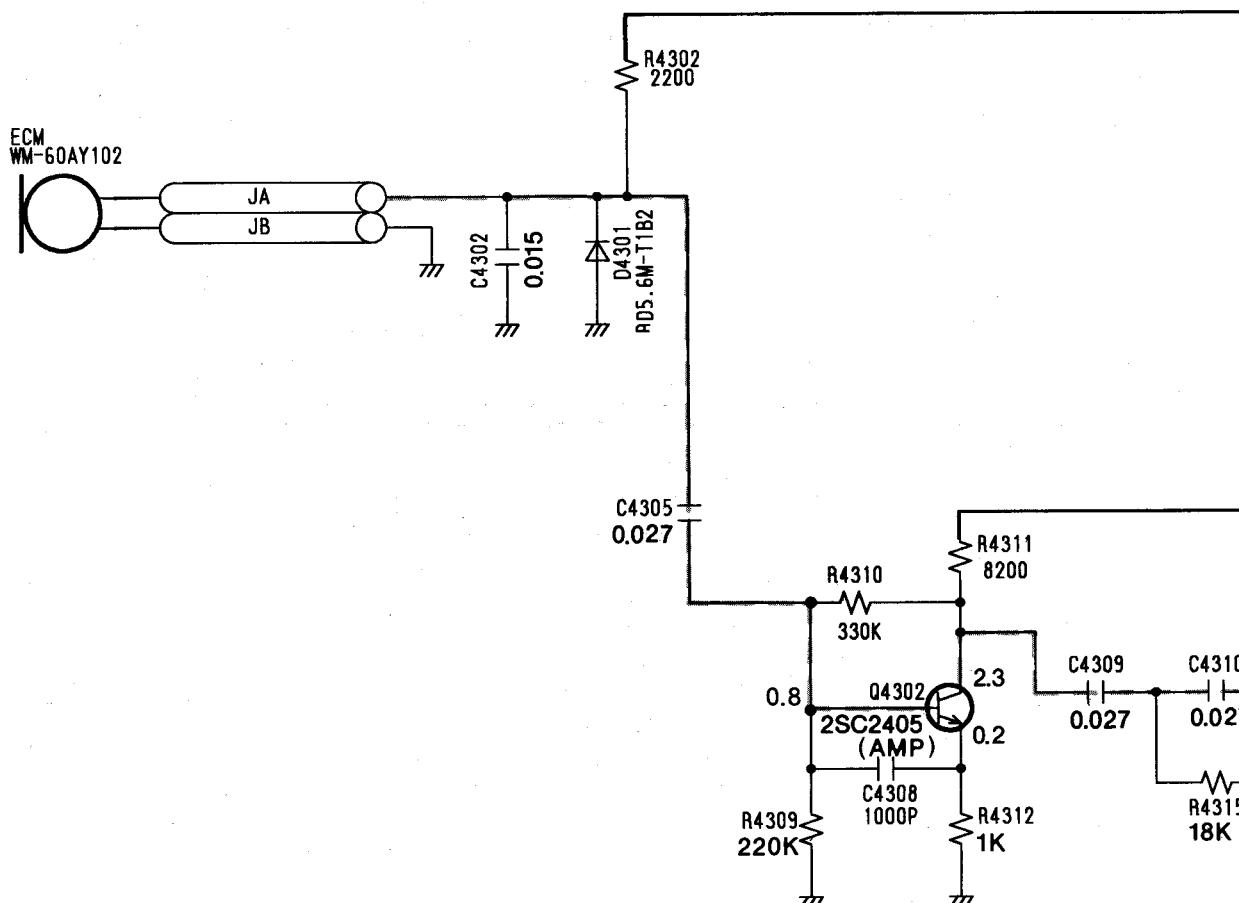
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE (SP MODE)  
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE



## 3-24. MIC SCHEMATIC DIAGRAM

B

A

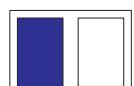


NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MODE

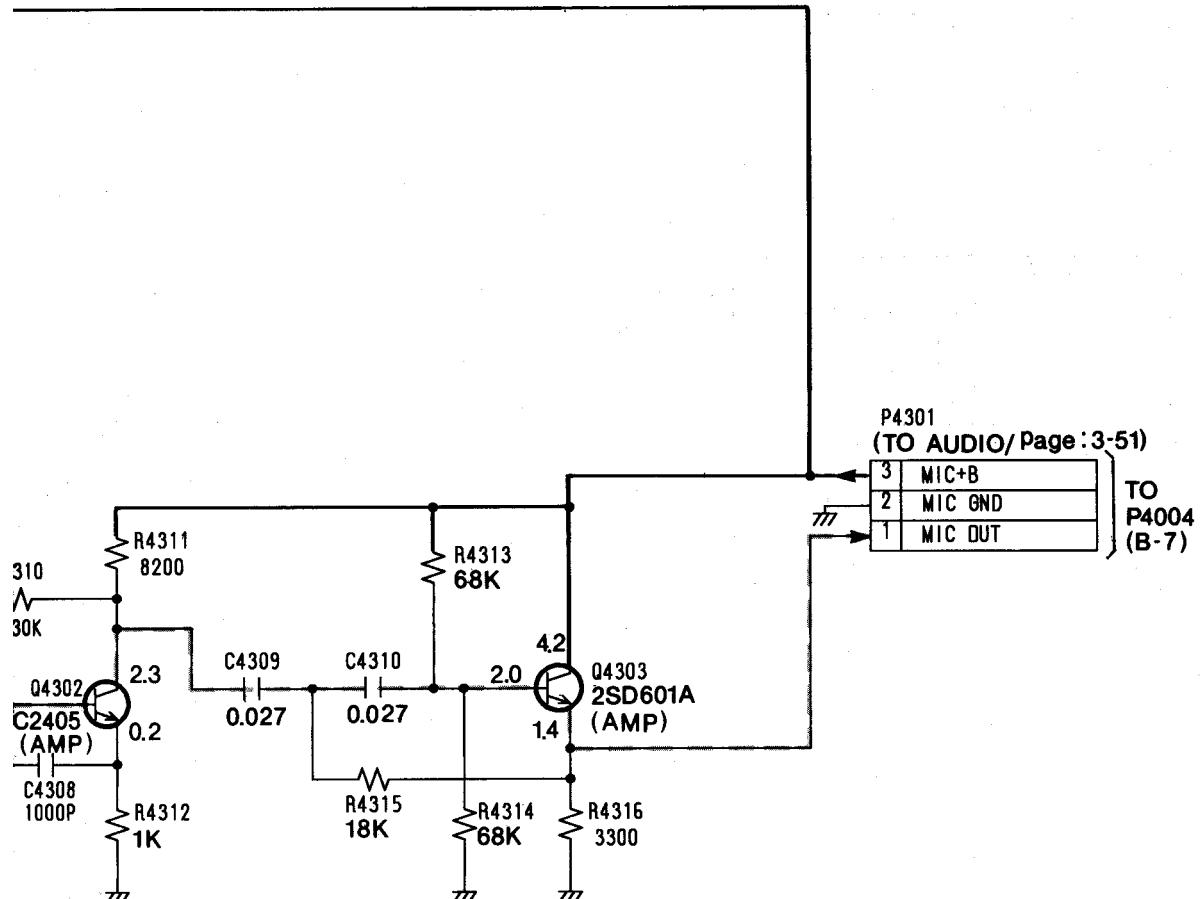
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

1

2

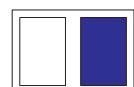


## MAIN SIGNAL PATH IN REC MODE



M IS RECORD MODE

**DIAGRAM FOR  
TS LIST.**



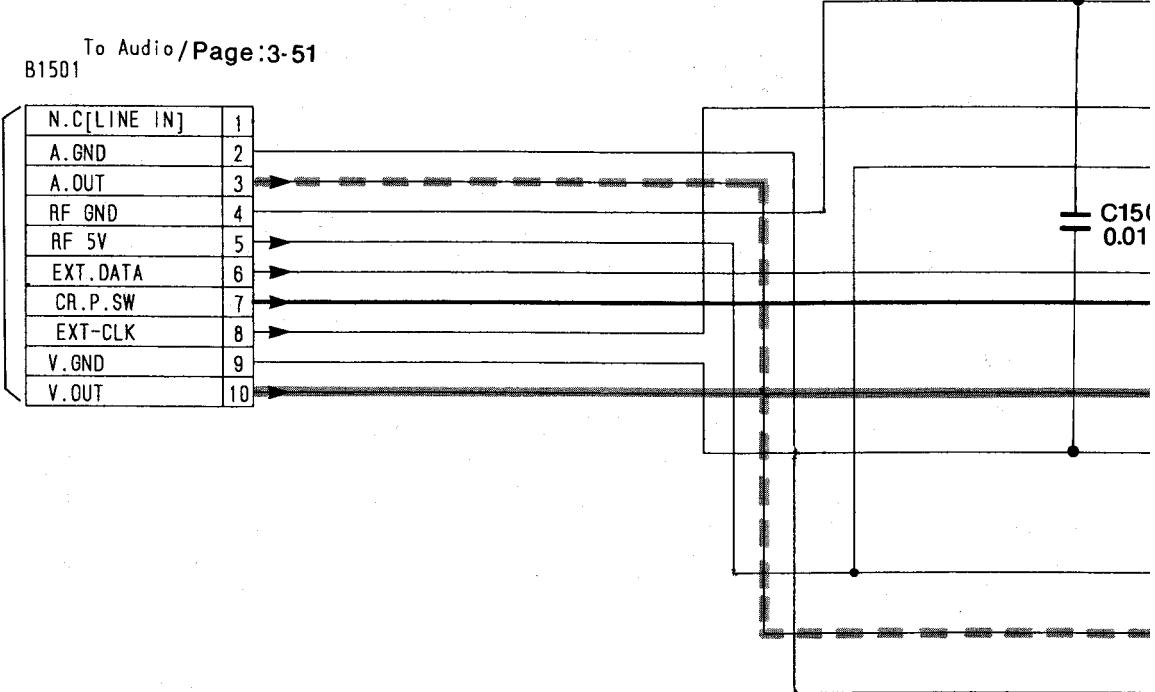
### 3-26. AV JACK SCHEMATIC DIAGRAM

B

TO  
B4002  
(E -7)

To Audio / Page : 3-51  
B1501

N.C[LINE IN]	1
A.GND	2
A.OUT	3
RF GND	4
RF 5V	5
EXT. DATA	6
CR.P.SW	7
EXT-CLK	8
V.GND	9
V.OUT	10

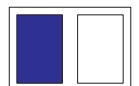


A

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS  
SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU  
ORDER A PART, PLEASE REFER TO PARTS LIST.

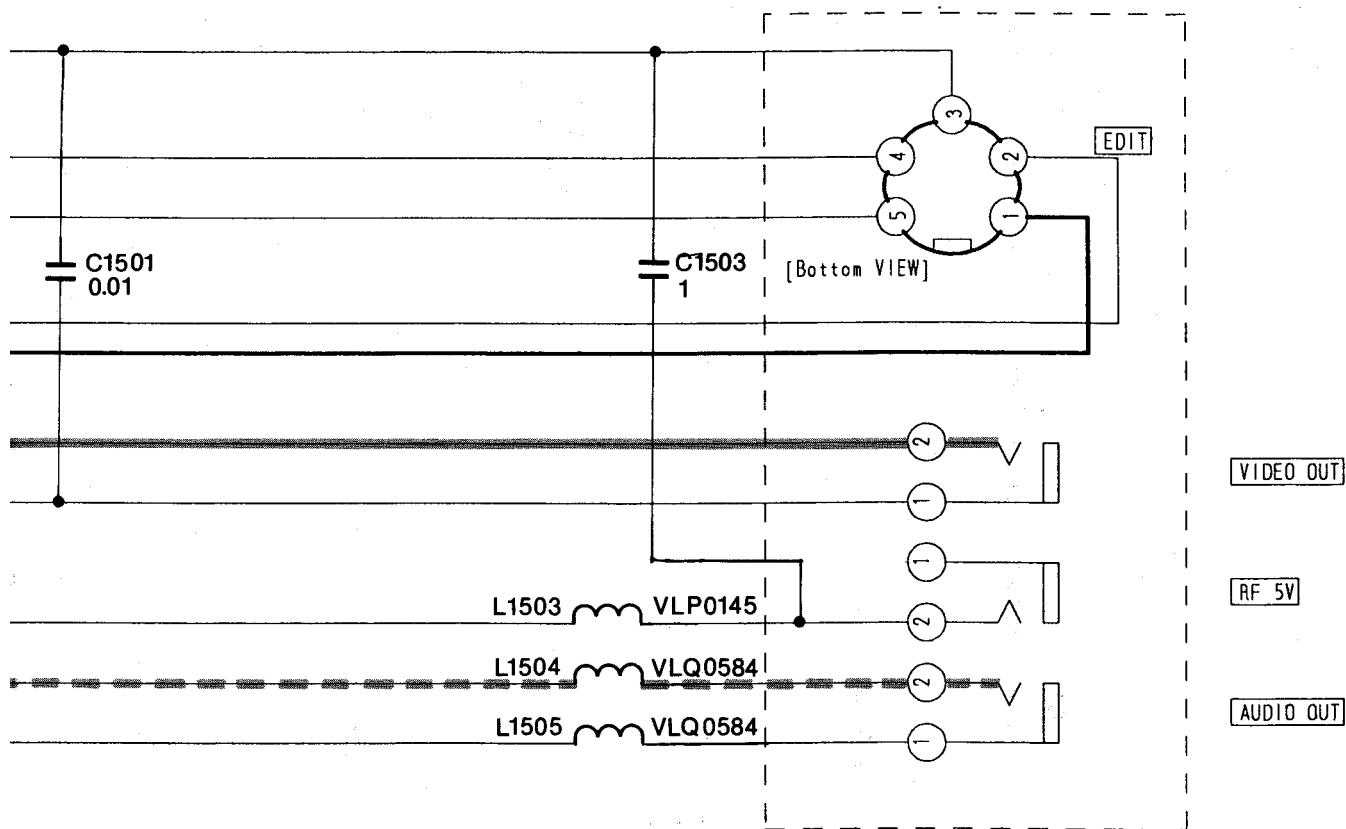
1

2



——— VIDEO MAIN SIGNAL PATH IN REC MODE  
 ——— VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE  
 - - - - - AUDIO MAIN SIGNAL PATH IN REC MODE  
 - - - - - AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

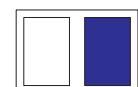
J1501  
VEJ1378 AV JACK



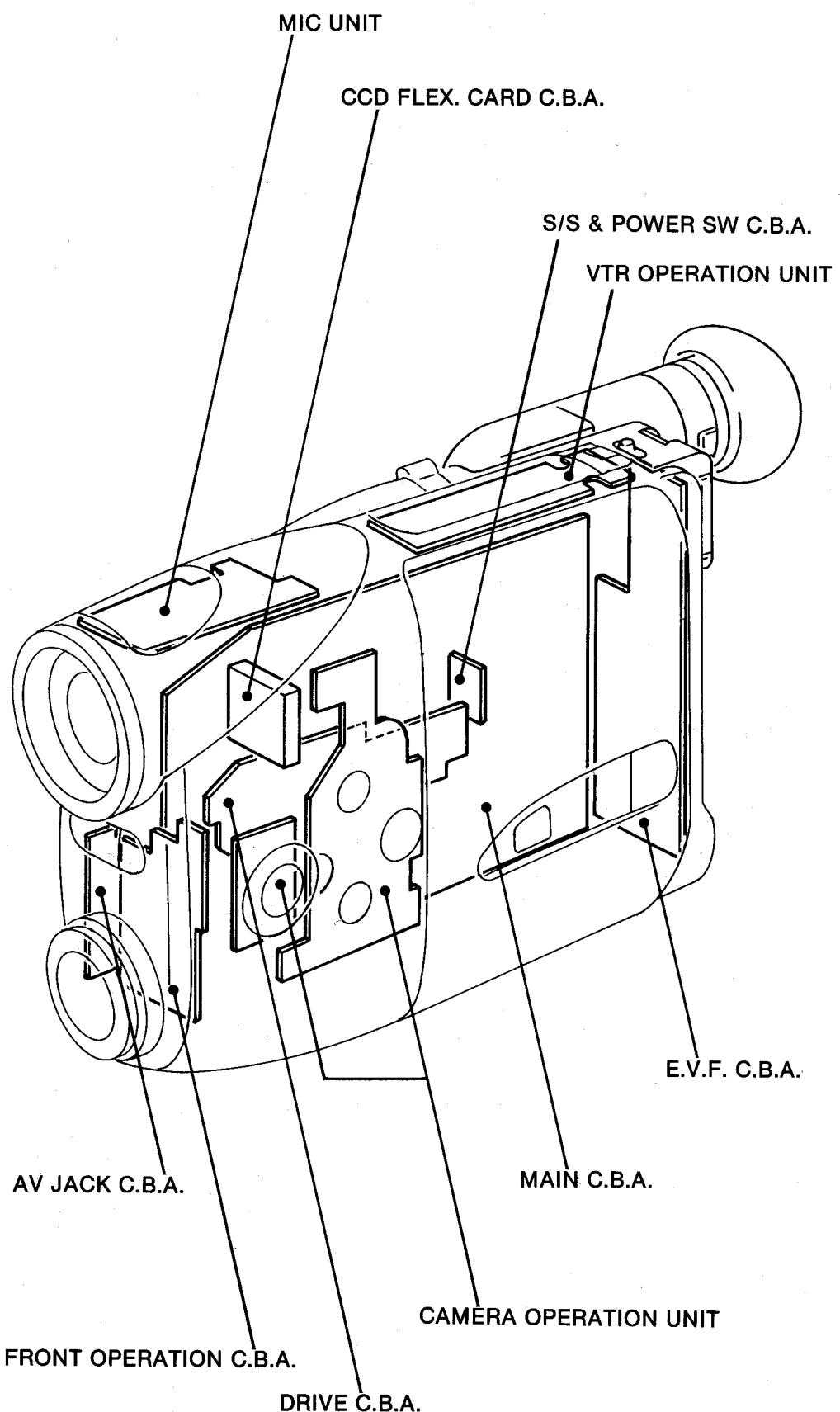
3

4

5



### 3-28. CIRCUIT BOARD LAYOUT

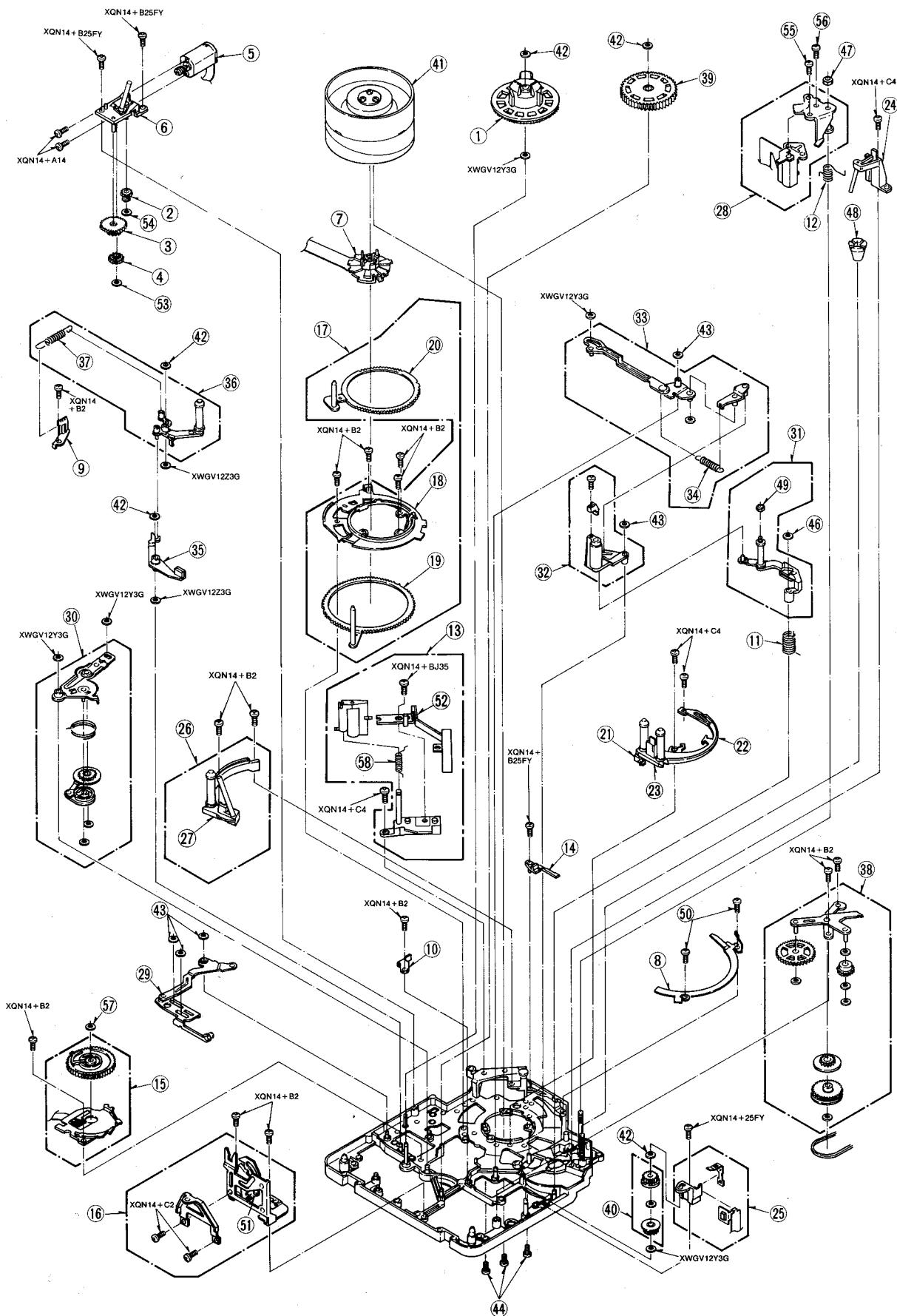


## **SECTION 4**

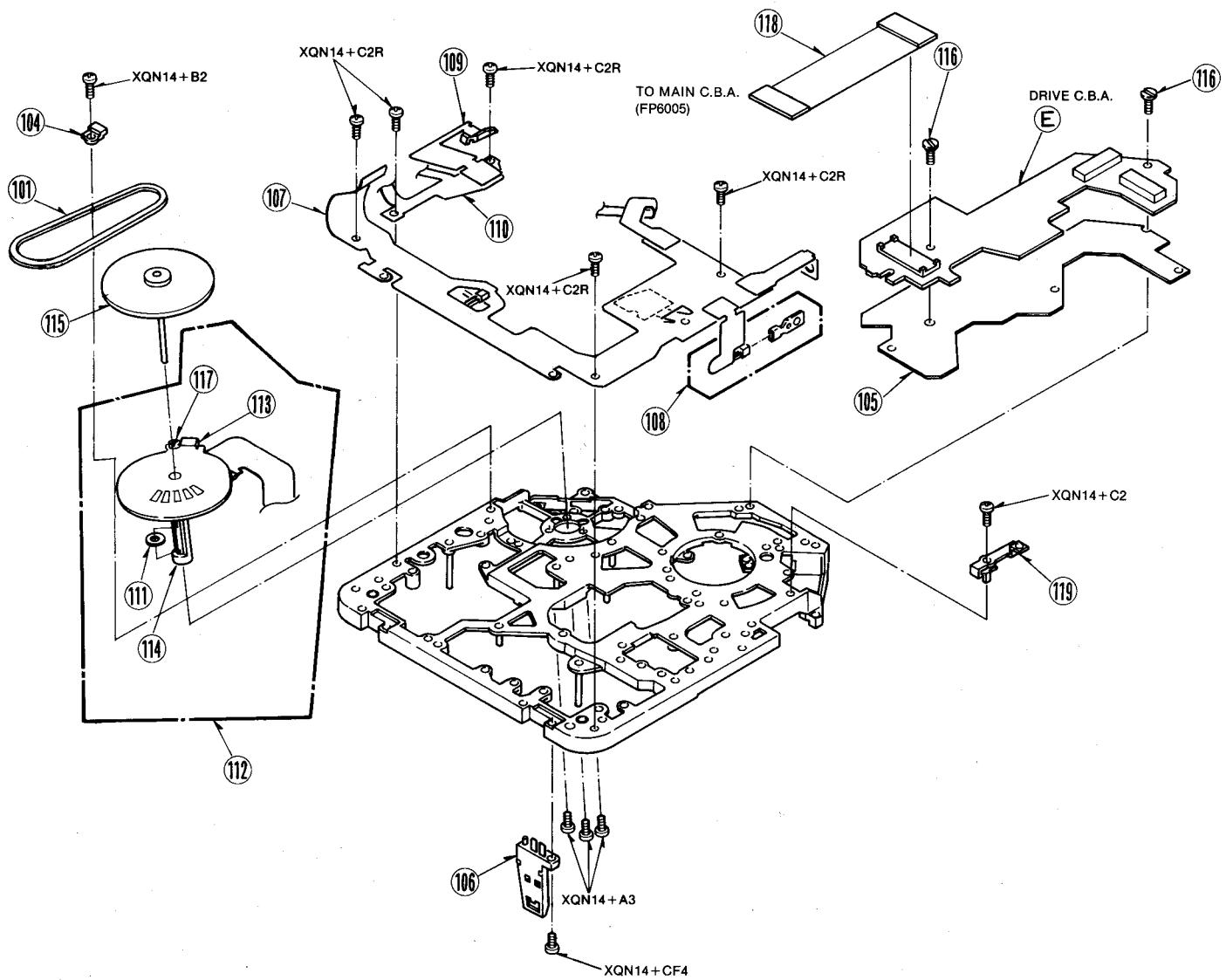
# **EXPLODED VIEWS & PARTS LIST**

## **4-1. EXPLODED VIEWS**

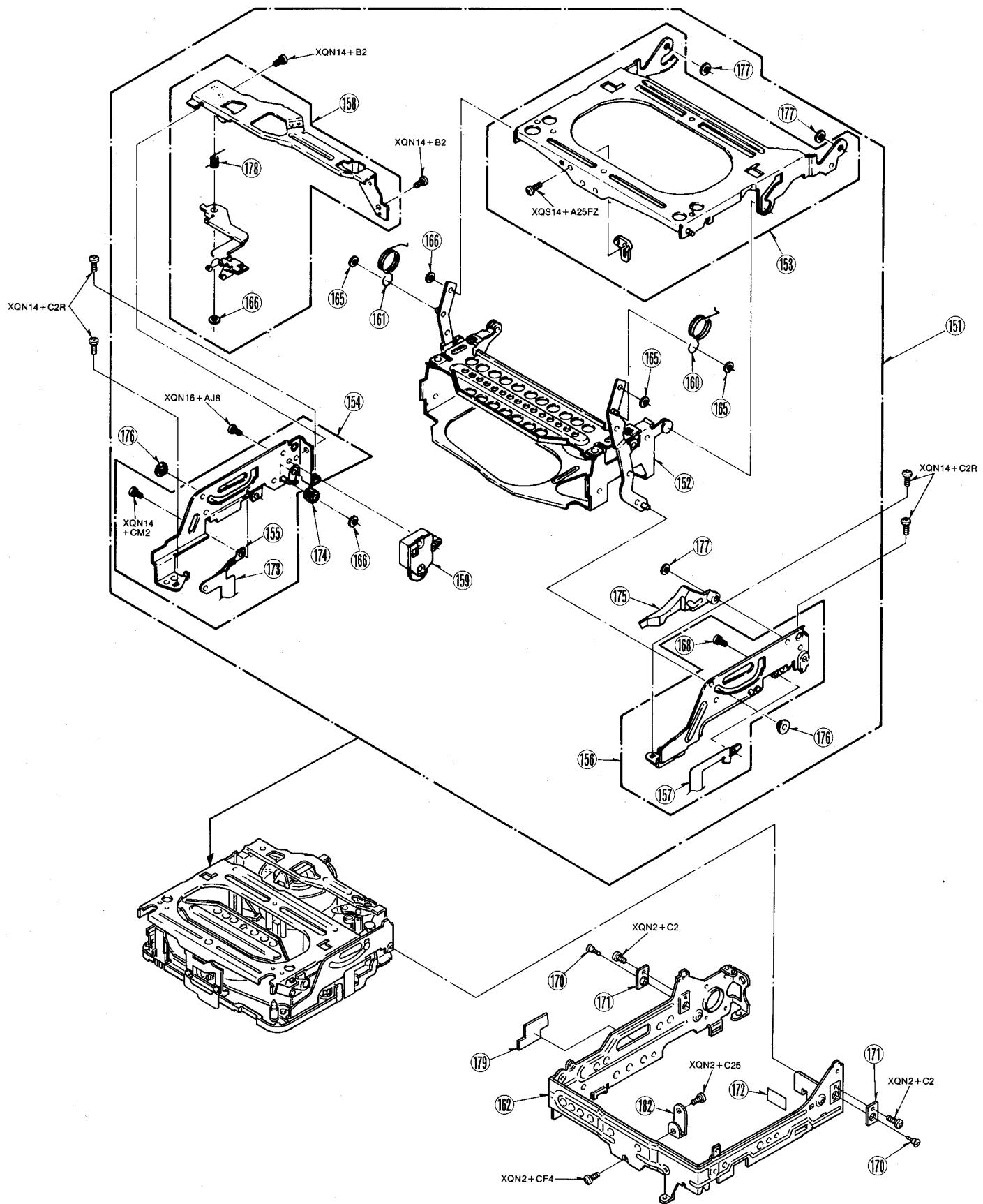
## ① VTR MECHANISM SECTION (1)



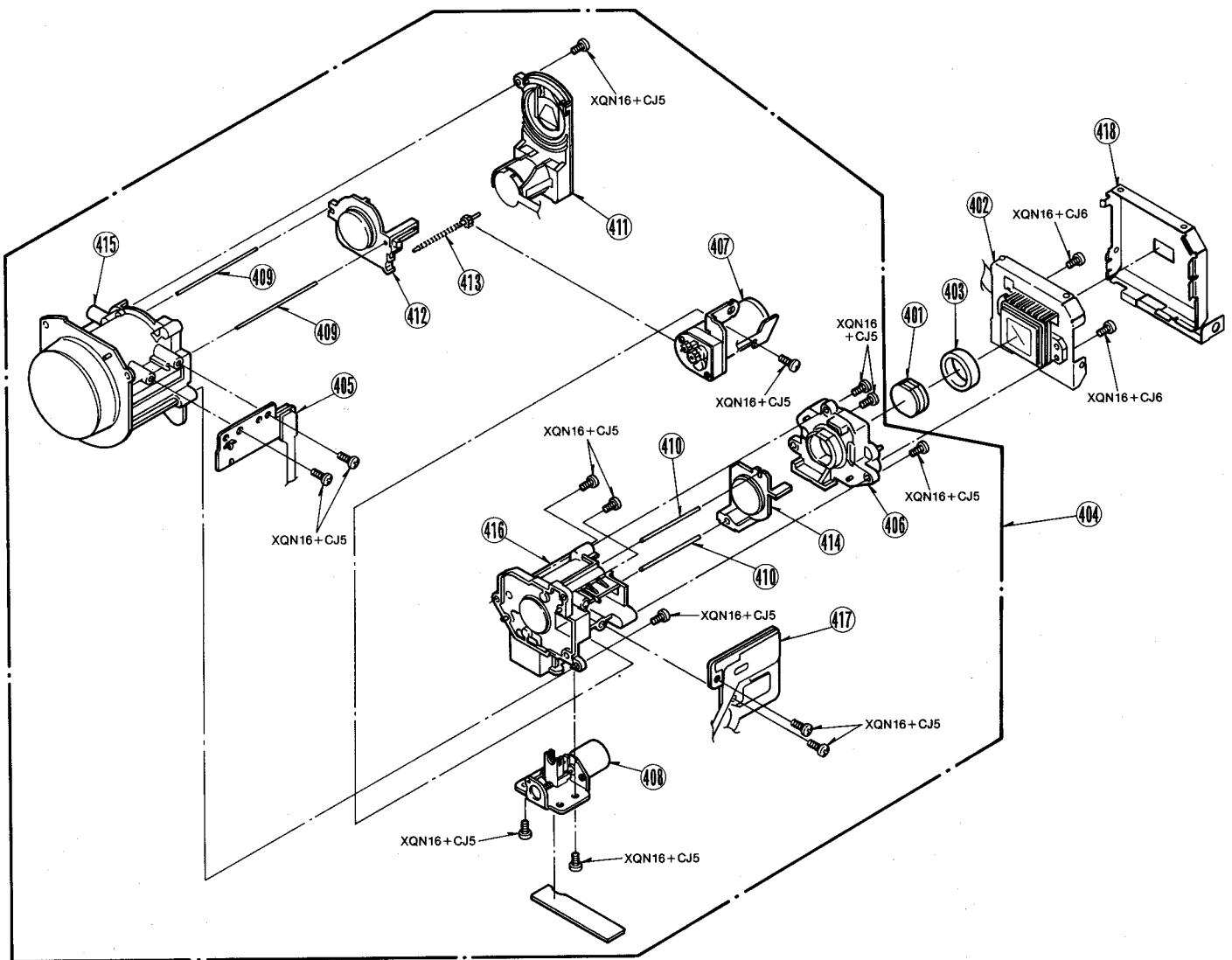
## ② VTR MECHANISM SECTION (2)



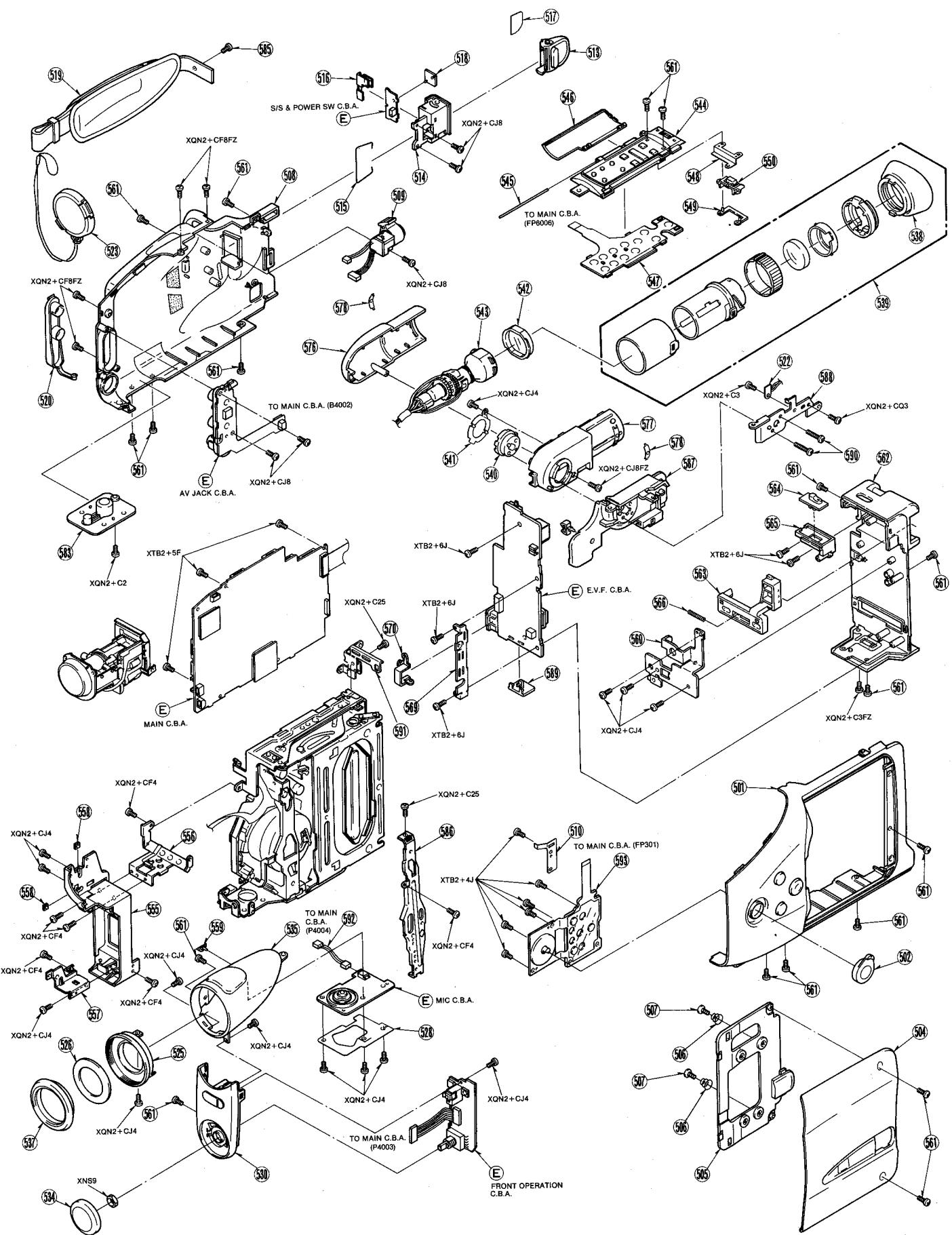
### ③ VTR MECHANISM SECTION (3)



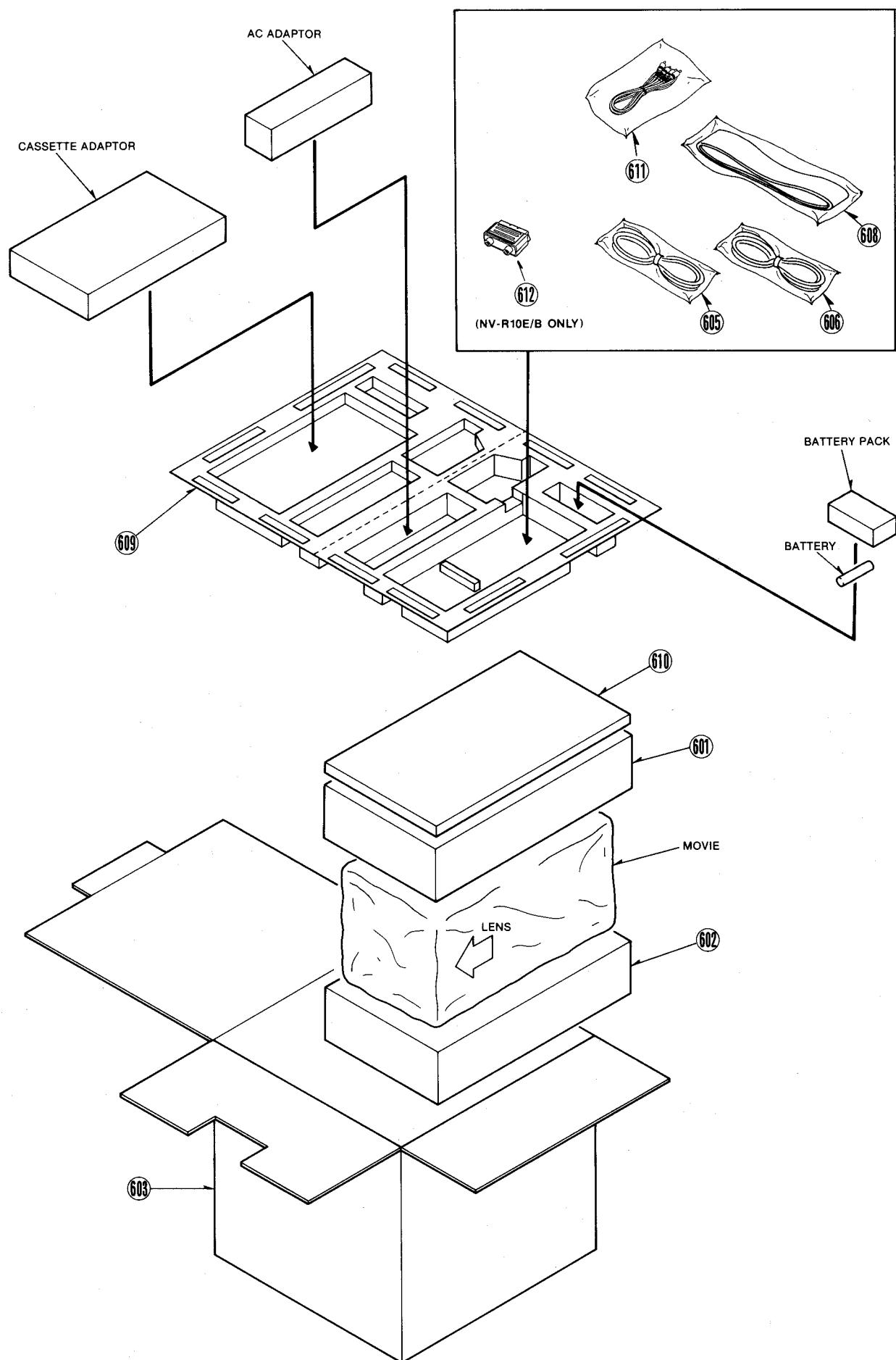
## ④ CAMERA LENS SECTION



## ⑤ FRAME & CASING PARTS SECTION



## ⑥ PACKING PARTS & ACCESSORIES SECTION



## 4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.\* Be sure to make your orders of replacement parts according to this list.  
 2. **IMPORTANT SAFETY NOTICE**  
 Components identified with the mark < !> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1(1)	VDR0226	REEL BASE (S)	1	
2(1)	VDG0821	BRAKE GEAR (A)	1	
3(1)	VDG0822	BRAKE GEAR (B)	1	
4(1)	VDG0823	BRAKE GEAR (C)	1	
5(1)	VEN0417	LOADING MOTOR (1) U.	1	
6(1)	VXA4527	MOTOR HOLDER U.	1	
7(1)	VEP03867A	R/T CONNECTOR U.	1	
8(1)	VMA8502	T-RING SLIDER	1	
9(1)	VMA8505	TEN-REG. SPRING HOOK	1	
10(1)	VMA8532	PENDULUM ARM HOLDER	1	
11(1)	VMB2362	T3 ARM SPRING	1	
12(1)	VMB2365	AC HEAD SPRING	1	
13(1)	VXA5108	S-GUIDE STAND U.	1	
14(1)	VMD1851	T-BOAT GUIDE	1	
15(1)	VSR0096	MODE SWITCH U.	1	
16(1)	VXA4515	LOCK BASE U.	1	
17(1)	VXA4517	LOADING RING U.	1	
18(1)	VMD1824	RING GUIDE	1	
19(1)	VXA4518	T-RING U.	1	
20(1)	VXA4519	S-RING U.	1	
21(1)	VER5549	LED U.	1	
22(1)	VMD1828	T-RAIL	1	
23(1)	VXA4776	T-BOAT U.	1	
24(1)	VXA4528	T4 POST U.	1	
25(1)	VXA4997	T-REEL SENSOR U.	1	
26(1)	VXA4532	S-RAIL U.	1	
27(1)	VXA4525	S-BOAT U.	1	
28(1)	VXA5201	AC HEAD U.	1	
29(1)	VXL2130	EJECT LEVER U.	1	
30(1)	VXL2133	SWING ARM U.	1	
31(1)	VXL2135	T3 ARM U.	1	
32(1)	VXL2139	PINCH ARM U.	1	
33(1)	VXL2140	PINCH DRIVE ARM U.	1	
34(1)	VMB2363	PINCH PRESSURE SPRING	1	
35(1)	VXL2144	PAW ARM U.	1	
36(1)	VXL2145	TEN-REG. ARM U.	1	
37(1)	VMB2364	TEN-REG. SPRING	1	
38(1)	VXL2147	IDLER U.	1	
39(1)	VXP1308	RELAY GEAR U.	1	
40(1)	VXP1313	T-DRIVE GEAR U.	1	
41(1)	VEG1040	CYLINDER U.	1	NV-R10E
41(1)	VEG1042	CYLINDER U.	1	NV-R10B/A,NV-R100EN
42(1)	VMX2027	WASHER	5	
43(1)	VMX2026	WASHER	5	
44(1)	VHD0682	SCREW	3	
46(1)	VMX2026	WASHER	1	
47(1)	VHN0047	NUT	1	
48(1)	VHN0175	ADJUST NUT	1	
49(1)	VHN0172	T3 POST NUT	1	
50(1)	VHD0711	SCREW	3	
51(1)	VMB2369	LOCK SPRING	1	
52(1)	VKS0120	EARTH BRUSH U.	1	
53(1)	VMX2027	WASHER	1	
54(1)	VMX2051	WASHER	1	
55(1)	VHD0700	SCREW	1	
56(1)	VHD0699	SCREW	1	
57(1)	VMX2026	WASHER	1	
58(1)	VMB2661	S-GUIDE SPRING	1	
101(2)	VDV0232	CAPSTAN BELT	1	
104(2)	VMD1846	CAPSTAN STOPPER	1	
105(2)	VM21871	BARRIER	1	
106(2)	VSH0055	REC SAFETY SW U.	1	
107(2)	WJU0719	MECH. FLEXIBLE CARD	1	
108(2)	VXA4511	PHOTO (L) U.	1	
109(2)	VXA4514	PHOTO (R) U.	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
110(2)	VXA4997	T-REEL SENSOR U.	1	
111(2)	VDB1129	LOWER BEARING	1	
112(2)	VEK5516	STATOR U.	1	
113(2)	VBK0059	MR HEAD	1	
114(2)	VXD0134	HOUSING U.	1	
115(2)	VXP1303	ROTOR U.	1	
116(2)	VHD0681	SCREW	2	
117(2)	VHD0593	SCREW	1	
118(2)	WJU0738	DRIVE FLEX. CARD	1	
119(2)	VMP4011	H.A. EARTH PLATE	1	
151(3)	VXA5202	GARAGE U.	1	
152(3)	VXA4506	HOLDER U.	1	
153(3)	VXA4863	GARAGE (1) U.	1	
154(3)	VXA4510	STAND (L) U.	1	
155(3)	VXA4511	PHOTO (L) U.	1	
156(3)	VXA4513	STAND (R) U.	1	
157(3)	VXA4514	PHOTO (R) U.	1	
158(3)	VXL2222	TAPE GUIDE U.	1	
159(3)	VXP1472	DUMPER	1	
160(3)	VMB2367	UP SPRING (R)	1	
161(3)	VMB2368	UP SPRING (L)	1	
162(3)	VMP4070	VTR FRAME (A)	1	
165(3)	VMX1042	WASHER	3	
166(3)	VMX1061	WASHER	3	
168(3)	VHD0776	SCREW	1	
169(3)	VHD0729	SCREW	1	
170(3)	VHD0713	SCREW	2	
171(3)	VQQ3137	INSULATION PIECE (A)	2	
172(3)	VQQ3353	FRAME BARRIER	1	
173(3)	WJU0548	PHOTO FLEX. CARD	1	
174(3)	VIDG0827	DUMPER RELAY GEAR	1	
175(3)	VML2580	TAPE OPEN LEVER	1	
176(3)	VDP1406	ARM HOLDER	2	
177(3)	VMX1042	WASHER	3	
178(3)	VMB2498	TAPE GUIDE SPRING	1	
179(3)	VQQ3327	FRAME SPACER	1	
182(3)	VQQ3444	INSULATION PIECE	1	
401(4)	VDI0414	CRYSTAL FILTER	1	
402(4)	VEK6640	CCD UNIT	1	
403(4)	VMX2239	CCD CUSHION	1	
404(4)	VWX0149	LENS U.	1	
405(4)	EVAMMBOJO2B14	ZOOM ENCODER U.	1	
406(4)	VDW0224	CRYSTAL MOUNT PLATE	1	
407(4)	VEM0450	ZOOM MOTOR U.	1	
408(4)	VEM0451	FOCUS MOTOR U.	1	
409(4)	VMS5384	Z GUIDE POLE	2	
410(4)	VMS5385	F GUIDE POLE	2	
411(4)	VXL2369	IRIS U.	1	
412(4)	VXP1412	2ND. MOVING FRAME U.	1	
413(4)	VXP1413	SCREW SHAFT U.	1	
414(4)	VXP1414	4TH. MOVING FRAME U.	1	
415(4)	VQQ0356	MAIN FRAME U.	1	
416(4)	VQQ0357	3RD. MOVING FRAME U.	1	
417(4)	VEK6470	LENS FLEX. U.	1	
418(4)	VSC3849	CCD SHIELD CASE	1	
501(5)	VYK5472	SIDE CASE (R)(1) U.	1	
502(5)	VXU1184	MODE SELECT LEVER U.	1	
504(5)	VYK5473	CASSETTE COVER (1) U.	1	NV-R10E/B/A
504(5)	VYK5512	CASSETTE COVER (1) U.	1	NV-R100EN
505(5)	VGU6312	CASSETTE LOCK BUTTON	1	
506(5)	VMB2604	CASSETTE COIL SPRING	2	
507(5)	VHD0794	SCREW	2	
508(5)	VYK5464	SIDE CASE (L)(1)U.	1	
509(5)	VXU1192	ZOOM BUTTON U.	1	
510(5)	VMO0969	CASSETTE HOLD SPRING	1	
513(5)	VXU1162	S/S BUTTON (1) U.	1	
514(5)	VQQ3404	S/S BUTTON HOLDER	1	
515(5)	VMB2594	S/S BUTTON COVER SPRING	1	
516(5)	VQQ3201	S/S BUTTON SPACER	1	
517(5)	VQQ3214	S/S BUTTON SHEET	1	
518(5)	VMO0763	RUBBER SW	1	
519(5)	VYC0598	GRIP BELT U.	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
520(5)	VKF2009	AV JACK COVER	1	
522(5)	VEK7029	DEW SENSOR	1	
523(5)	VYK5133	HOOD CAP HINGE U.	1	
525(5)	VDW0241	LENS PIECE	1	
526(5)	VGH3242	LENS NAME PLATE	1	
528(5)	VMZ2178	MIC BARRIER	1	
530(5)	VYK5474	FRONT CASE (1) U.	1	
534(5)	VGU6493	FOCUS KNOB	1	
535(5)	VYK5476	LENS COVER (1) U.	1	
537(5)	VDW0240	LENS HOOD	1	
538(5)	VMG0631	EYE CAP	1	
539(5)	VYK5508	SLIDE CASE U.	1	
540(5)	VGQ3122	ROTARY PIECE	1	
541(5)	VMC0977	ROTATION LOCK SPRING	1	
542(5)	VKW1806	PROTECTION PANEL	1	
543(5)	MO1KUAD7WB02	CRT U.	1	
544(5)	VXU1191	TOP OPERATION PANEL (1) U.	1	NV-R10E
544(5)	VXU1204	TOP OPERATION PANEL (1) U.	1	NV-R10B/A,R100EN
545(5)	VMS5382	SHAFT	1	
546(5)	VKF2139	TOP DOOR	1	
547(5)	ESU39009	PANEL SW	1	
548(5)	VSC3918	EARTH ANGLE	1	
549(5)	VGL0563	PANEL LIGHT	1	
550(5)	VGU6344	CAM/VTR SELECT BUTTON	1	
555(5)	VMD2098	LENS FRAME	1	
556(5)	VMP4072	SUPPORT ANGLE	1	
557(5)	VMP4284	FRONT ANGLE	1	
558(5)	VHN0057	CASE FIX. ANGLE	2	
559(5)	VKF2135	MIC CAP	1	
560(5)	VMP4239	REAR CASE FIX. ANGLE	1	
561(5)	VHD0729	SCREW	16	
562(5)	VKM3680	REAR CASE	1	
563(5)	VGQ3380	BATTERY LOCK	1	
564(5)	VGU6494	EJECT KNOB	1	
565(5)	VGQ3381	EJECT KNOB HOLDER	1	
566(5)	VMB2683	BATTERY LOCK SPRING	1	
569(5)	VMP4062	CASE (R) FIX. ANGLE	1	
570(5)	VMP4075	DC JACK HOLD ANGLE	1	
576(5)	VKM3682	EVF CASE (L)	1	
577(5)	VKM3681	EVF CASE (R)	1	
578(5)	VMC0978	SLIDE SPRING	2	
583(5)	VYQ0998	TRIPOD FRAME	1	
585(5)	VHD0794	SCREW	1	
586(5)	VMP4286	VTR FRAME (B)	1	
587(5)	VGQ3383	EVF FIXING PIECE	1	
588(5)	VMP4238	EVF FIXING PLATE	1	
589(5)	VGU6495	POWER SAVE KNOB	1	
590(5)	VHD0689	SCREW	2	
591(5)	VMP4237	VTR FRAME (C)	1	
592(5)	VEE8440	MIC CONNECTOR CABLE	1	
593(5)	VEK6638	CAMERA OPERATION UNIT	1	
601(6)	VPN3811	CUSHION (UPPER)	1	
602(6)	VPN3812	CUSHION (LOWER)	1	
603(6)	VPG7258	PACKING	1	NV-R10E
603(6)	VPG7259	PACKING	1	NV-R10B
603(6)	VPG7262	PACKING	1	NV-R10A
603(6)	VPG7260	PACKING	1	NV-R100EN
605(6)	VJA0664	AC CORD	1	<!>NV-R10E,R100EN
605(6)	VJA0754	AV CORD	1	<!>NV-R10A
605(6)	VJA0733	AC CORD	1	<!>NV-R10B
606(6)	VJA0769	DC OUTPUT CABLE	1	
608(6)	VFC1620	SHOLDER STRAP	1	
609(6)	VPN3619	ACCESSORIES BOX	1	
610(6)	VQT5512	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH/ SPANISH)	1	<!>NV-R10E
610(6)	VQT5513	OPERATING INSTRUCTIONS (ITALIAN/DUTCH/SWEDISH/ DANISH)	1	<!>NV-R10E
610(6)	VQT5508	OPERATING INSTRUCTIONS (ENGLISH)	1	<!>NV-R10B
610(6)	VQT5509	OPERATING INSTRUCTIONS (ENGLISH)	1	<!>NV-R10A
610(6)	VQT5510	OPERATING INSTRUCTIONS	1	<!>NV-R100EN

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
		(ENGLISH/CHINESE/HINDI/ ARABIC)		
611(6)	VFA0039	AV CORD	1	NV-R10A
612(6)	VFA0152	21 PIN ADAPTOR	1	NV-R10E/B
		***** JIG & TOOLS *****		
		----- ELECTRICAL -----		
	VFM818OHUFF	VHS-C ALIGNMENT TAPE	1	PAL
	VFK0374	COLOUR TEMP. CONV. FILTER	1	(C12) OR VFK0713
	VER0375	COLOUR TEMP. CONV. FILTER	1	(C2) OR VFK0716
	VFK0644	EVF FIXTURE	1	
	VFK0701ROM22	ROM	1	
	VFK0766A	EVF CONNECTION CABLE 5P	1	
	VFK0734W	MEASURENT CABLE 24P	1	
	VFK0727	FLAT CABLE 16P	1	
	VFK0728	FLAT CABLE 9P	1	
	VFK0729	FLAT CABLE 6P	1	
	VFK0929	EXTENSION CABLE 12P	1	
	VFK0839	EXTENSION CABLE 30P	1	
	VFK0885	EXTENSION CABLE 3P	1	
	VFK0896	FLAT CABLE 23P	1	
	VFK0913	FLAT CABLE 18P	1	
		----- MECHANICAL -----		
	VFK0743	H-POSITION ADJUSTMENT	1	
	VFK0824	ASTERISK TYPE RENCH	1	
	VFK0335	RETAINING RING REMOVER	1	
	VFK0329	POST ADJ. SCREW DRIVER	1	
	VFK0326	HEX WRENCH SET	1	
	VFK27	HEAD CLEANING STICK	1	
	MOR265	MORITONE GREASE	1	

### 4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components use only the same type.  
 3. Unless otherwise specified,  
 All resistors are in OHMS , K-1.000 OHMS. All capacitors are in MICROFARADS( $\mu$ F),  $\mu$ uF  
 4. The P.C. Board units marked width "■" show below the main assembled parts.  
 5. The marking( RTL ) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	VEP23184A	CAMERA MAIN C.B.A.	1	(RTL) NV-R10E ONLY
	VEP23184C	CAMERA MAIN C.B.A.	1	(RTL) NV-R10A/B NV-R100EN ONLY
	VEPO2418A	DRIVE C.B.A.	1	(RTL)
	VEP28076A	EVF C.B.A.	1	(RTL)
	VEP22132A	CCD FLEX. CARD C.B.A.	1	(RTL)
	VEK6690	LENS FLEX. CARD C.B.A.	1	(RTL)
	VEK6635	MIC UNIT	1	(RTL)
	VEPOOT97A	FRONT OPERATION C.B.A.	1	(RTL)
	VEPO4457A	AV JACK C.B.A.	1	(RTL)
	VEPOOT11C	S/S C.B.A.	1	(RTL)
	■ VEP23184A	CAMERA MAIN C.B.A.		(RTL)
	■ (VEP23184C)	(CAMERA MAIN C.B.A.)		VEP23184A NV-R10E ONLY, VEP23184C NV-R10A/B NV-R100EN ONLY.
B201	WJP3359D012	CONNECTOR (MALE)	12P	1
B302	WJP2962A024	CONNECTOR (MALE)	24P	1
B1001	WJS2961C030	CONNECTOR (FEMALE)	30P	1
B4002	WJP3295D010	CONNECTOR (MALE)	10P	1
B6004	WJP3358C016	CONNECTOR (MALE)	16P	1
C201	ECRJA010A11	V. CAPACITOR	10P	1
C202,03	ECUX1H060CCV	C. CAPACITOR CH 50V	6P	2
C205	ECUX1H100CCV	C. CAPACITOR CH 50V	10P	1
C207	ECUX1H120JCV	C. CAPACITOR CH 50V	22P	1
C210	ECUX1C104ZFV	C. CAPACITOR CH 16V	0.1U	1
C211-13	ECUX1H150JCV	C. CAPACITOR CH 50V	15P	3
C215	ECUM1C1052FN	C. CAPACITOR CH 16V	1U	1
C216	ECSTOJY106Z	T. CAPACITOR 6.3V	10U	1
C225	ECST1GX155Z	T. CAPACITOR 1.5U	1	
C233	ECST1CY335Z	T. CAPACITOR 16V 3.3U	1	
C234	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C236	ECUX1H330JCV	C. CAPACITOR CH 50V	33P	1
C237	ECUX1C104ZFV	C. CAPACITOR CH 16V	0.1U	1
C238	ECSTOJX226Z	T. CAPACITOR 6.3V 22U	1	
C239	ECUX1C104ZFV	C. CAPACITOR CH 16V	0.1U	1
C240	ECUM1C1052FN	C. CAPACITOR CH 16V	1U	1
C241-44	ECUX1C104ZFV	C. CAPACITOR CH 16V	0.1U	4
C245	ECUM1C1052FN	C. CAPACITOR CH 16V	1U	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C246	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C247	ECUM1H4732FV	C. CAPACITOR CH 50V 0.047U	1	
C249	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C250	ECSTOJY226Z	T. CAPACITOR 4V 22U	1	
C251	ECSTOJY106Z	T. CAPACITOR 4V 10U	1	
C252,53	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	2	
C254	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C255	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
C256	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C257	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C258	ECUM1C1852FN	C. CAPACITOR CH 16V 1.8U	1	
C262	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C265,66	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	2	
C267	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C269	ECST1DX475Z	T. CAPACITOR 20V 4.7U	1	
C270	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C271	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C272	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C273,74	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	2	
C275,76	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	2	
C301	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	
C302,03	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	2	
C304	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C305	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C306	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C307	ECUM1C2242FN	C. CAPACITOR CH 16V 0.22U	1	
C308	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C310	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C312	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C313	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C314	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C315-17	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	3	
C318-20	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	3	
C322,23	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	2	
C324	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C326	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C329	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C330	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C331,32	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	2	
C333	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C334,35	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	2	
C343,44	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	2	
C345,46	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	2	
C347	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C348	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C350	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C351	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C352	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1	
C353	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C360	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C370	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C371	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C701	ECST1CY105Z	T. CAPACITOR 16V 1U	1	
C702	ECUM1H4732FV	C. CAPACITOR CH 50V 0.047U	1	
C703	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C710	ECUM1H4732FV	C. CAPACITOR CH 50V 0.047U	1	
C711	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C716	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C719	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C720	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C721	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C722	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C724,25	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	2	
C729	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C730	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C731	ECUM1C105MBM	C. CAPACITOR CH 16V 1U	1	
C732	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1	
C737	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1	
C738	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C739	ECEVOJA101	E. CAPACITOR 6.3V 100U	1	
C779	ECUM1C1052FM	C. CAPACITOR CH 16V 1U	1	
C1001	ECUM1C3352FM	C. CAPACITOR CH 16V 3.3U	1	
C1002	ECCG1BA4R7	C. CAPACITOR 12V 47U	1	
C1003	ECCGOKB8R2	C. CAPACITOR 8V 8.2	1	
C1004	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	

Ref. No.		Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1005		ECUM1C105MBM	C. CAPACITOR CH 16V 1U	1		C4015	ECUX1H562KBV	C. CAPACITOR CH 50V 5600P	1	NV-R10A/B NV-R100EN
C1006		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1						ONLY
C1007		ECEV05A470	E. CAPACITOR 4V 47U	1		C4016	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C1008		ECCGOKB8R2	C. CAPACITOR 8V 8.2	1		C4017	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C1009		ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1		C4018	ECEV1CA100	E. CAPACITOR 16V 10U	1	
C1010		ECUM1C105MBM	C. CAPACITOR CH 16V 1U	1		C4019	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C1011		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C4020	ECEV05A470	E. CAPACITOR 4V 47U	1	
C1012		ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1		C4021	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C1013		ECCC1BA4R7	C. CAPACITOR 12V 47U	1		C4022	ECUM2A472JCV	C. CAPACITOR 100V 4700P	1	
C1014		ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1		C4023	ECUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	
C1015		ECEV1CA470P	E. CAPACITOR 16V 47U	1		C4024	ECUM1C223KBV	C. CAPACITOR CH 16V 0.022U	1	
C1017		ECUM1E1052FM	C. CAPACITOR CH 25V 1U	1		C4025	ECEV05A470	E. CAPACITOR 4V 47U	1	
C1019		ECUM1E474ZFM	C. CAPACITOR CH 25V 0.47U	1		C4026	ECEV1HA010	E. CAPACITOR 50V 1U	1	
C1020		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C4033, 34	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	2	
C1022		ECUM1H1042FZ	C. CAPACITOR CH 50V 0.1U	1		C4035	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C1024		ECUM1C474ZFN	C. CAPACITOR CH 16V 0.47U	1		C4036	ECUX1H562KBV	C. CAPACITOR CH 50V 5600P	1	
C1025		ECUM1C104KBN	C. CAPACITOR CH 16V 0.1U	1		C4037	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C1026		ECEV1HA010	E. CAPACITOR 50V 1U	1		C4038	ECEV0JA220	E. CAPACITOR 6.3V 22U	1	
C1027		ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C4040	ECUM1C1052FZ	C. CAPACITOR CH 16V 1U	1	
C1028		ECEV1HAR47	E. CAPACITOR 50V 0.47U	1		C5001	ECSTOJY1062	T. CAPACITOR 6.3V 10U	1	
C1029		ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C5002	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C1030		ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1		C5003	ECSTOJY1062	T. CAPACITOR 6.3V 10U	1	
C1031		ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C5004	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C1032		ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1		C5005	ECUM1H153KBN	C. CAPACITOR CH 50V 0.015U	1	
C1033-35		ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	3		C5006	ECUM1H273KBN	C. CAPACITOR CH 50V 0.027U	1	
C1036		ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C5007	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C1037		ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1		C5008	ECSTOJY1062	T. CAPACITOR 6.3V 10U	1	
C1040, 41		ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C5009	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C1042		ECUM1C105MBM	C. CAPACITOR CH 16V 1U	1		C5011	ECUM1C104KBN	C. CAPACITOR CH 16V 0.1U	1	
C1043		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C5013, 14	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	2	
C1051		ECUM1C474ZFN	C. CAPACITOR CH 16V 0.47U	1		C5021-26	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	6	
C1056		ECEVOGA330	E. CAPACITOR 4V 33U	1		C5027-30	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	4	
C1057		ECUM1C105MBM	C. CAPACITOR CH 16V 1U	1		C5031-38	ECUM1E104ZFN	C. CAPACITOR CH 25V 0.1U	8	
C1058		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C5039	ECUX1H121JCV	C. CAPACITOR CH 50V 12P	1	
C1063		ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		C5041	ECUM1H1042FZ	C. CAPACITOR CH 50V 0.1U	1	
C1064		ECEV1CV470S	E. CAPACITOR 16V 47U	1		C5042	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C1066		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C5043	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C3001		ECEVOGA470	E. CAPACITOR 4V 47U	1		C5044	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C3002		ECUM1C1052FM	C. CAPACITOR CH 16V 1U	1		C6001-04	ECUX1C1042FZ	C. CAPACITOR CH 16V 0.1U	4	
C3003		ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1		C6005	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C3005		ECUM1E393KBN	C. CAPACITOR CH 25V 0.039U	1		C6006, 07	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	2	
C3006		ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1		C6008	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3007		ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1		C6011	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3008		ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1		C6012, 13	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	2	
C3011		ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1		C6014, 15	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	2	
C3012		ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1		C6017	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C3015		ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1		C6018	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C3022		ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1		C6022, 23	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	2	
C3023		ECUX1H391JCV	C. CAPACITOR CH 50V 390P	1		C6024, 25	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	2	
C3024		ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1		C6027	ECEVOGA101	E. CAPACITOR 4V 100U	1	
C3027		ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1		C6030	ECUM1C105ZFM	C. CAPACITOR CH 16V 1U	1	
C3028		ECEVOGA471	E. CAPACITOR 4V 470U	1		C6031	ECUM1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3030		ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C6040	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3031		ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1		C6060	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C3032		ECSTOJY1062	T. CAPACITOR 6.3V 10U	1		C6100	ECEV1CA100	E. CAPACITOR 16V 10U	1	
C3033, 34		ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	2		C6201	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3035		ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C6203	ECEV1CA101	E. CAPACITOR 16V 10U	1	
C3037		ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1		C6204, 05	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	2	
C3040		ECSTOJY1062	T. CAPACITOR 6.3V 10U	1		C6206	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3041		ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1		C6207, 08	ECEV1CA100	E. CAPACITOR 16V 10U	2	
C3042		ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1		C6209	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C3043		ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1		C6210	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C4001		ECUX1H222KBV	C. CAPACITOR CH 50V 1200P	1		C6211	ECUX1H223ZFV	C. CAPACITOR CH 50V 0.022U	1	
C4002		ECUX1H272KBV	C. CAPACITOR CH 50V 2700P	1		C6213	ECEVO5A470	E. CAPACITOR 4V 47U	1	
C4003		ECST1VV3342	T. CAPACITOR 35V 0.33U	1		C6214	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
C4004		ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1		C6221	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C4005		ECEV1HA3R3	E. CAPACITOR 50V 3.3U	1		C6230	ECEV0JA220	E. CAPACITOR 6.3V 22U	1	
C4006		ECUX1C153KBV	C. CAPACITOR CH 16V 0.015U	1		C6231	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C4007		ECEV1HA010	E. CAPACITOR 50V 1U	1		C8001	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1	
C4008		ECEV05A470	E. CAPACITOR 4V 47U	1		C8002	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C4009		ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		C8003	ECSTOJY475Z	T. CAPACITOR 6.3V 4.7U	1	
C4010		ECEV05A470	E. CAPACITOR 4V 47U	1		C8004	ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1	
C4011, 12		ECEV1CA100	E. CAPACITOR 16V 10U	2		C8005	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1	
C4013		ECUX1C123KBV	C. CAPACITOR CH 16V 0.012U	1		C8007, 08	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2	
C4014		ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1		C8010	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8011	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		IC705-07	LM324DB	IC	3	
C8012	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1		IC708	TB6512AF	IC	1	
C8020	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1		IC1001	BA9706K	IC	1	
C8021	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1		IC3001	VEFH32E	IC	1	
C8022	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		IC3002	TC7W04F	IC	1	
C8023	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1		IC4001	BA7752FS	IC	1	
C8024	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1		IC5001	AN3354FHP	IC	1	
C8025	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	1		IC6001	MN6755320M2A	IC	1	
C8026	ECUK1H060CCV	C. CAPACITOR CH 50V 6P	1		IC6002	S3500B3	IC	1	
C8027	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1		IC6003	HJ6462	IC	1	
C8030	ECSTOJY106Z	T. CAPACITOR 6.3V 10U	1		IC6004	TC4S66F	IC	1	
C8031	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1		IC6005	BA6289F	IC	1	
C8032	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		IC6006	TA75W393FU	IC	1	
C8033	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		IC6007	RH5RE38AA	IC	1	
C8034-37	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	4		IC6008	PST9133	IC	1	
C8038, 39	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	2		IC8001	LC89970MDTER	IC	1	
C8041	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1						
C8042	ECUX1C1042FV	C. CAPACITOR CH 16V 0.1U	1						
					L203, 04	VLQ0426J150	COIL	150UH	2
D206-09	1SS355	DIODE	4		L206	VLQ0426J150	COIL	150UH	1
D301	MA728	DIODE	1		L207	VLQ0426J3R3	COIL	3.3UH	1
D303, 04	MA728	DIODE	2		L209	VLQ0426J680	COIL	68UH	1
D305	1SS355	DIODE	1		L210	VLQ0426J150	COIL	150UH	1
D306	MA728	DIODE	1		L211	VLQ0426J820	COIL	82UH	1
D703	MA132WA	DIODE	1		L212	VLQ0426J150	COIL	150UH	1
D1002	SFPB-76V	DIODE	1		L215	VLP0154	COIL	1	
D1004	EC10QS04	DIODE	1		L220, 21	VLP0146	COIL	2	
D1005	SB05-05CP	DIODE	1		L222	VLP0140	COIL	1	
D1006, 07	MA132K	DIODE	2		L230, 31	VLP0154	COIL	2	
D1008	MA728	DIODE	1		L301	VLQ0464	COIL	1	
D1012	MA133	DIODE	1		L302	VLP0140	COIL	1	
D1015	MA738	DIODE	1		L303-05	VLQ0464	COIL	3	
D1062	SB05-05CP	DIODE	1		L306	VLP0140	COIL	1	
D1064	MA728	DIODE	1		L307	VLQ0464	COIL	1	
D5001, 02	MA132WA	DIODE	2		L308	VLQ0426J100	COIL	10UH	1
D6008	MA110	DIODE	1		L309	VLP0140	COIL	1	
D6011	MA132WK	DIODE	1		L310	VLQ0464	COIL	1	
D6012, 13	MA132WA	DIODE	2		L311	VLP0140	COIL	1	
D6015	MA728	DIODE	1		L312	VLQ0426J220	COIL	22UH	1
D6016	MA133	DIODE	1		L313-18	VLQ0464	COIL	6	
D6018	MA728	DIODE	1		L319	VLP0140	COIL	1	
D6300	MA132K	DIODE	1		L321	VLQ0464	COIL	1	
D6301	MA133	DIODE	1		L325	VLQ0426J390	COIL	39UH	1
D6303	BR1102W	DIODE	1		L701	VLQ0464	COIL	6.8UH	1
D8002	MA110	DIODE	1		L703	VLQ0464	COIL	6.8UH	1
FL201	ELB3H009	FILTER	1		L706, 07	VLQ0464	COIL	6.8UH	2
FP301	VJS2907D007	CONNECTOR (FEMALE) 7P	1		L1001	VLQ0615	COIL	4.7UH	1
FP701	VJS3319D018	CONNECTOR (FEMALE) 18P	1		L1002	VLQ0617	COIL	21UH	1
FP4001	VJS2958D009	CONNECTOR (FEMALE) 9P	1		L1003	VLQ0616	COIL	4.7UH	1
FP5001	VJS2959B013	CONNECTOR (FEMALE) 13P	1		L1006	VLQ0319K470	COIL	47UH	1
FP6001	VJS2959B016	CONNECTOR (FEMALE) 16P	1		L1007	VLQ0618	COIL	90UH	1
FP6002	VJS2959B006	CONNECTOR (FEMALE) 6P	1		L1008	VLQ0616	COIL	4.7UH	1
FP6005	VJS3442D023	CONNECTOR (FEMALE) 23P	1		L1009	VLQ0319K100	COIL	10UH	1
FP6006	VJS2959D011	CONNECTOR (FEMALE) 11P	1		L1010, 11	VLQ0319K101	COIL	100UH	2
IC201	VEFH39A	IC	1		L1012	VLQ0319K100	COIL	10UH	1
IC203	AN2018S	IC	1		L1014	VLQ0319K100	COIL	10UH	1
IC204	AN2033FAP	IC	1		L1015	VLQ0319F150	COIL	15UH	1
IC206	TC7S08F	IC	1		L1062	VLQ0619	COIL	180UH	1
IC207	TC7SU04F	IC	1		L3001	VLQ0426J560	COIL	56UH	1
IC208	TC7S04F	IC	1		L3002	VLQ0319K101	COIL	100UH	1
IC301	MN655431SH	IC	1		L3003	VLQ0163J820	COIL	82UH	1
IC302	MN67322	IC	1		L3005	VLQ0319K121	COIL	120UH	1
IC303	MN65702H	IC	1		L3006	VLQ0163J121	COIL	120UH	1
IC304	TC9074F	IC	1		L3011	VLQ0426J330	COIL	33UH	1
IC305	MN1864002M2B	IC	1		L3012	VLQ0426J150	COIL	150UH	1
IC306	MN73512XWAS	IC	1		L3013	VLQ0163J151	COIL	150UH	1
IC307, 08	M62353GP	IC	2		L3014	VLQ0163J220	COIL	22UH	1
IC309	XZ5040S-3C70	IC	1		L3015	VLQ0319K101	COIL	100UH	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L6002	VLQ0319K101	COIL	100UH	1
L8001	VLQ0319K470	COIL	47UH	1
L8002	VLQ0319P150	COIL	15UH	1
L8003	VLQ0426J470	COIL	47UH	1
L8004	VLQ0426J270	COIL	27UH	1
L8005, .06	VLQ0426J100	COIL	10UH	2
L8007	VLQ0319P150	COIL	15UH	1
L8011	VLQ0163J101	COIL	100UH	1
P303	VJP3125D006	CONNECTOR (MALE)	6P	1
P4003	VJP3125B007	CONNECTOR (MALE)	7P	1
P4004	VJP3172B003	CONNECTOR (MALE)	3P	1
Q204	2SB1462	TRANSISTOR		1
Q206	2SC4627	TRANSISTOR		1
Q207	XP1401	TRANSISTOR-RESISTOR		1
Q208	XP4601	TRANSISTOR-RESISTOR		1
Q209-.11	XP4654	TRANSISTOR-TRANSISTOR		3
Q301	XP4501	TRANSISTOR-RESISTOR		1
Q701	XN1401	TRANSISTOR-TRANSISTOR		1
Q702	XP4401	TRANSISTOR-RESISTOR		1
Q703	2SD874	TRANSISTOR		1
Q704,.05	2SD2216	TRANSISTOR		2
Q706	XP1501	TRANSISTOR-RESISTOR		1
Q707,.08	XP4501	TRANSISTOR-RESISTOR		2
Q709	2SD1030	TRANSISTOR		1
Q1001	2SA1731	TRANSISTOR		1
Q1002,.03	2SB798	TRANSISTOR		2
Q1004	2SD2210	TRANSISTOR		1
Q1005	2SB1073	TRANSISTOR		1
Q1062	2SB798	TRANSISTOR		1
Q3001	XN4501	TRANSISTOR-RESISTOR		1
Q3002	XN4401	TRANSISTOR-RESISTOR		1
Q3005	2SB1462	TRANSISTOR		1
Q3006	2SB970X	TRANSISTOR		1
Q3011,.12	2SC4627	TRANSISTOR		2
Q3013	2SD2216	TRANSISTOR		1
Q3020,.21	2SB1462	TRANSISTOR		2
Q3022	2SC4627	TRANSISTOR		1
Q4001	XP4501	TRANSISTOR-RESISTOR		1
Q4003	2SB1462	TRANSISTOR		1
Q4004	2SD2216	TRANSISTOR		1
Q4005	2SD602A	TRANSISTOR		1
Q4006	2SB1219	TRANSISTOR		1
Q4007,.08	2SD2216	TRANSISTOR		2
Q4011	2SD2216	TRANSISTOR		1
Q4012	XP4501	TRANSISTOR-RESISTOR		1
Q5001,.02	XN4504	TRANSISTOR-TRANSISTOR		2
Q5003,.04	XN1501	TRANSISTOR-TRANSISTOR		2
Q5011,.12	2SA812	TRANSISTOR		2
Q6002	2SD2216	TRANSISTOR		1
Q6004	2SD2216	TRANSISTOR		1
Q6005	XP6501	TRANSISTOR-RESISTOR		1
Q6006	2SB1462	TRANSISTOR		1
Q6201	2SB1462	TRANSISTOR		1
Q6300	2SB1462	TRANSISTOR		1
Q6301	2SD2216	TRANSISTOR		1
Q8004	2SB1462	TRANSISTOR		1
Q8005	2SD2216	TRANSISTOR		1
Q8006	2SC4627	TRANSISTOR		1
QR301	UN9212	TRANSISTOR-RESISTOR		1
QR701	UN9211	TRANSISTOR-RESISTOR		1
QR1002	UN9214	TRANSISTOR-RESISTOR		1
QR1006	UN2130X	TRANSISTOR-RESISTOR		1
QR1061	UN9115	TRANSISTOR-RESISTOR		1
QR3001	UN9212	TRANSISTOR-RESISTOR		1
QR3003	UN9213	TRANSISTOR-RESISTOR		1 NV-R10B/A NV-R100EN ONLY
QR3004	UN9212	TRANSISTOR-RESISTOR		1 NV-R10B/A NV-R100EN ONLY
QR3005	UN9212	TRANSISTOR-RESISTOR		1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR4001_02	XP1213	TRANSISTOR-RESISTOR	2	
QR5001_02	UN9213	TRANSISTOR-RESISTOR	2	
QR5004	UN2130X	TRANSISTOR-RESISTOR	1	
QR5005	UN9213	TRANSISTOR-RESISTOR	1	
QR5001	UN2130X	TRANSISTOR-RESISTOR	1	
QR6003	UN9112	TRANSISTOR-RESISTOR	1	
QR6004	XP4115	TRANSISTOR-RESISTOR	1	
QR6007	UN9211	TRANSISTOR-RESISTOR	1	
QR6008	UN9210	TRANSISTOR-RESISTOR	1	
QR6010	XP1213	TRANSISTOR-RESISTOR	1	
QR6012	XP1213	TRANSISTOR-RESISTOR	1	
QR6014	UN9213	TRANSISTOR-RESISTOR	1	
QR6015	UN9215	TRANSISTOR-RESISTOR	1	
QR6016	XP1213	TRANSISTOR-RESISTOR	1	
QR6018	UN921E	TRANSISTOR-RESISTOR	1	
QR8001	UN9213	TRANSISTOR-RESISTOR	1	
R201	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R202	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R203	ERJ3GEYJ471	M. RESISTOR 1/16W 470	1	
R205	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R207	ERJ3GEYJ471	M. RESISTOR 1/16W 470	1	
R212	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R214-17	ERJ3GEYJ102	M. RESISTOR 1/16W 1K	4	
R218	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R223_24	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	2	
R225	ERJ3GEYJ682	M. RESISTOR 1/16W 6.8K	1	
R233	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R236	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R237	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R238	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R239	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R241, 42	ERJ3GEYJ682	M. RESISTOR 1/16W 6.8K	2	
R243	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R244	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R245	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R246	ERJ3GEYJ102	M. RESISTOR 1/16W 1K	1	
R247	ERJ3GEYJ684	M. RESISTOR CH 1/16W 680K	1	
R249	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R250	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R251	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R252	ERJ3GEYJ152	M. RESISTOR 1/16W 1.5K	1	
R253	ERJ3GEYJ823	M. RESISTOR CH 1/16W 82K	1	
R255	ERJ3GEYJ102	M. RESISTOR 1/16W 1K	1	
R256	ERJ3GEYJ472	M. RESISTOR 1/16W 4.7K	1	
R257	ERJ3GEYJ184	M. RESISTOR CH 1/16W 180K	1	
R258	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R260	ERJ3GEYJ472	M. RESISTOR 1/16W 4.7K	1	
R263	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R264	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R265	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R266	ERJ3GEYJ332	M. RESISTOR 1/16W 3.3K	1	
R267	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R268	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R269	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R270	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R271	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R272, 73	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	2	
R274	ERJ3GEYJ102	M. RESISTOR 1/16W 1K	1	
R275	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R280	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R282	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R284	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R285	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R286	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R287, 88	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	2	
R289	ERJ3GEYOROO	M. RESISTOR CH 1/16W 0.00	1	
R290	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R291	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R292, 93	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	2	
R295	ERJ3GEYJ390	M. RESISTOR CH 1/16W 39	1	
R296	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R297	ERJ3GEYJ472	M. RESISTOR 1/16W 4.7K	1	
R298	ERJ3GEYJ102	M. RESISTOR 1/16W 1K	1	

Ref. No.		Part No.	Part Name & Description	Pcs	Remarks	Ref. No.		Part No.	Part Name & Description	Pcs	Remarks
R299		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1		R744		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R301		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1		R745		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R302,03		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2		R746		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R304,05		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2		R747,48		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R307		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R749		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R310		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R750		ERJ3GEYJ303	M.RESISTOR CH 1/16W 30K	1	
R311		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1		R751		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R312,13		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2		R752		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R314		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1		R753		VRE0071E103	RESISTOR	1	
R315		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R754		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R316		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1		R755		VRE0071E103	RESISTOR	1	
R317		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R756		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R318,19		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2		R757		ERJ3GEYJ113	M.RESISTOR CH 1/16W 11K	1	
R320		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1		R758		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R321		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R759		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R322		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R760		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R323		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1		R761		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R326-28		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3		R763		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R329-31		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	3		R764		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	1	
R332		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1		R765		ERJ3GEYJ125	M.RESISTOR CH 1/16W 1.2M	1	
R333		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R767		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R334,35		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2		R1001		VRE0067G822	M.RESISTOR	8.2K	
R336		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R1002		VRE0067G272	M.RESISTOR	2.7K	
R337-40		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	4		R1003		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R342		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1		R1004		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R343-45		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3		R1005		VRE0067G562	M.RESISTOR	5.6K	
R348-54		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	7		R1006		VRE0067G272	M.RESISTOR	2.7K	
R355-58		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4		R1007		ERJ3GEYJ330	M.RESISTOR CH 1/8W	33	
R359		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1		R1008		VRE0067G103	M.RESISTOR	10K	
R360		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1		R1009		VRE0067G152	M.RESISTOR	1.5K	
R361		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R1010		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R371		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1		R1012		VRE0067G20CT	M.RESISTOR	39K	
R374		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R1013		VRE0067G393	M.RESISTOR	1.8K	
R375-83		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	9		R1014,15		VRE0067G182	M.RESISTOR	2	
R385		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R1016		VRE0034E153	M.RESISTOR CH 1/10W 15K	1	
R386		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1		R1017		ERJ3GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R390		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R391		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R1019		ERJ3GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R392		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1		R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R701		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1		R1021		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R702,03		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2		R1022		ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R704		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R1023		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R705		VRE0071E333	M.RESISTOR	33K	1	R1024		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R708		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R1025		ERJ3GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R709		VRE0071E333	M.RESISTOR	33K	1	R1026		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R710		VRE0071E223	M.RESISTOR	22K	1	R1027		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R711		VRE0071E102	M.RESISTOR	1K	1	R1033		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R712		VRE0071E152	M.RESISTOR	1.5K	1	R1035		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R713		VRE0071E561	M.RESISTOR	560	1	R1038		VRE0034E750	M.RESISTOR CH 1/10W 75	1	
R714		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R1039		VRE0034E55A	RESISTOR	1	
R715,16		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2		R1040		VRE0034E151	M.RESISTOR CH 1/10W 150	1	
R717		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1		R1051		VRE0071E273	M.RESISTOR	27K	
R718		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2W	1		R1052		VRE0071E473	M.RESISTOR	47K	
R719		ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1		R1062		ERJ3GEYJ391	M.RESISTOR CH 1/10W 390	1	
R720,21		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2		R1063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R722		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1		R1065		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R723		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1		R1071		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R724		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R1072		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R725		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1		R1073		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R726		ERJ3GEYJ202	M.RESISTOR CH 1/16W 2K	1		R1080		ERJ3GEYOR00	M.RESISTOR CH 1/8W 0	1	
R727		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R3001		ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	1	
R728		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1		R3002		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R729		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1		R3003,04		ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	2	
R730		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R3005		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R731,32		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2		R3007		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	NV-R10A/B NV-R100EN ONLY
R733		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1		R3008		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	NV-R10A/B NV-R100EN ONLY
R734,35		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2		R3009		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	NV-R10E ONLY
R736		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1		R3010		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R737		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1		R3015,16		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R738		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1		R3017		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R739		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1		R3018		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R740		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1		R3019		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R741		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1							
R742		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1							
R743		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1							

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3021,22	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2		R5021	ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R3023, 24	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	2		R5022	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3025, 26	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2		R5023	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3027	ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1		R5024	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R3028	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1		R5025	ERJ6GEYJ4R7	M.RESISTOR CH 1/10W 4.7	1	
R3029	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R6002	ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R3032	ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1		R6003	ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R3035	ERJ3GEYOR0	M.RESISTOR CH 1/16W 0.00	1		R6004	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3036	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1		R6011	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R3037	ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1		R6012	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3038	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R6013	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3040	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1		R6014	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3050	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1		R6015	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3051	ERJ3GEYOR0	M.RESISTOR CH 1/16W 0.00	1		R6016	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3057	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1		R6017	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3058	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6018	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3059	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1		R6019	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3060	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1		R6020	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3062	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R6021	ERJ8GEYJ120	M.RESISTOR 1/8W 12	1	
R3063, 64	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2		R6022	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3071, 72	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2		R6024	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R3073	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R6025	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3074	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6026	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3081	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6027, 28	ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	2	
R3082	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R6029	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3086	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1		R6030	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
R3090, 91	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	2		R6031	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4001	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1		R6032, 33	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R4002	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1		R6034	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4003	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1		R6035	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4004	VRE0071E431	M.RESISTOR 2.7K	1		R6039	ERJ8GEYJ2R	M.RESISTOR 1/8W 2.2	1	
R4005	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1		R6040	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4006	VRE0071E562	M.RESISTOR 3.3K	1		R6041	ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R4007	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	NV-R10A/B NV-R100EN	R6042	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
		ONLY			R6043	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4008, 09	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2		R6044	VRE0034E223	M.RESISTOR CH 1/10W 22K	1	
R4010	VRE0071E272	RESISTOR	1		R6045	VRE0034E333	M.RESISTOR CH 1/10W 33K	1	
R4011	VRE0071E332	RESISTOR	1		R6048, 49	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R4012	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1		R6050	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4013	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1		R6051	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R4014	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1		R6052, 53	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R4015	ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1		R6054	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4016	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1		R6055, 56	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R4017	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1		R6059	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
R4018	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1		R6060	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4019	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6061	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4020	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R6063	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R4021	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1		R6066	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4022	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R6070	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4023, 24	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2		R6071	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4025	ERJ6GEYJ225	M.RESISTOR CH 1/10W 2.2M	1		R6073	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4026	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1		R6074	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4027, 28	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2		R6075	ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	1	
R4029	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1		R6076	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4030	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1		R6078	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4031, 32	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2		R6079	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
R4033	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1		R6080	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4034	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6090, 91	ERJ3GEYJ332	M.RESISTOR 1/16W 3.3K	2	
R4035	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R6108	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R4036, 37	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2		R6111	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4038	ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1		R6112	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4047	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R6113	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4049, 50	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2		R6120, 21	ERJ6GEYOR00	M.RESISTOR CH 1/10W 0	2	
R4051	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1		R6130	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R4052	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1		R6131	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R4053	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R6134	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4054	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1		R6135	ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R4055	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1		R6136	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R5001	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1		R6137	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R5002	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1		R6138	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R5003	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R6139	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R5005	ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1		R6140	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R5011, 12	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2		R6142	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5013-16	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	4		R6143	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R5017	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1		R6144	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6145	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6150	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6151	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R6152	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R6153	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R6154	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6155	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6160	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6161	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6168	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6170	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6199	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R6203	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6205	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6206, 07	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R6208	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6209	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6210, 11	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R6212	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6213	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6214	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6215	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
R6216	ERJ8GEYJ2R2	M.RESISTOR 1/8W 2.2	1	
R6230	ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R6231	ERJ8GEYJ2R2	M.RESISTOR 1/8W 2.2	1	
R6300	ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R6301	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R6302	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6303	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6304	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6305	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R6309-11	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	3	
R8001, 02	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R8003	ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R8004	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R8005	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8006	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
R8007	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R8010	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R8017	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8018	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8020, 21	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R8026	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8027	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8028	ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R8029	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8030, 31	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2	
R8032	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R8033	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R8034	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8037	VRE0071E271	M.RESISTOR 270	1	
R8040	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8041	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R8043, 44	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0	2	
R8046, 47	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R8048	VRE0071E271	M.RESISTOR 270	1	
R8049	VRE0071E153	M.RESISTOR 15K	1	
R8050, 51	ERJ3GEYJ750	M.RESISTOR CH 1/16W 75	2	
R8052, 53	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R8054	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R8056	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0.00	1	
RA6001	EXBV4V104J	RESISTOR-RESISTOR	1	
RA6003	EXBV4V102J	RESISTOR-RESISTOR	1	
RA6004, 05	EXBV8V102J	RESISTOR-RESISTOR	2	
RA6006	EXBV4V102J	RESISTOR-RESISTOR	1	
RA6007	EXBV8V102J	RESISTOR-RESISTOR	1	
RA6008-12	EXBV4V104J	RESISTOR-RESISTOR	5	
RA6013	EXBV4V102J	RESISTOR-RESISTOR	1	
T1001	ELLO4T047R	TRANSFORMER	1	
T1002	VTP0357	TRANSFORMER	1	
T4001	EI/Q6QBOOBST	TRANSFORMER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
TH701	VRE0083	CONNECTOR	1	
VR3001	EVM7JSX10B23	V.RESISTOR	1	
VR3003	EVM7JSX10B52	V.RESISTOR	1	
X201	VSX0564	CRYSTAL OSCILLATOR	1	
X301	EF051605E5	CRYSTAL OSCILLATOR	1	
X6001	VSX0461	CRYSTAL OSCILLATOR	1	
X6002	VSX0601	CRYSTAL OSCILLATOR	1	
X8001	VSX0563	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
VSC3871	H.A SHIELD COVER (BOTTOM)		1	
VSC3872	H.A SHIELD COVER (TOP)		1	
VSC4028	CAMERA SHIELD COVER (TOP)		1	
VSC4029	CAMERA SHIELD COVER (BOTT.)		1	
VSC3855	POWER SHIELD COVER (TOP)		1	
VSC3906	POWER SHIELD COVER (BOTTOM)		1	
■ VEP02418A	DRIVE C.B.A.		(RTL)	
C2001	ECUM1C564K0M	C.CAPACITOR CH 16V 0.56U	1	
C2002	ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2003	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C2004	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C2005	ECUK1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C2006	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C2007	ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2009	ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C2011	ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	1	
C2012	ECUM1C473K0V	C.CAPACITOR CH 16V 0.047U	1	
C2013	ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C2014	ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C2015-17	ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	3	
C2018	ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C2020-22	ECUX1H1103KBV	C.CAPACITOR CH 50V 0.01U	3	
C2023	ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C2024	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2025-27	ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	3	
C2028	ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C2029-32	ECUX1H1032FV	C.CAPACITOR CH 50V 0.01U	4	
C2033	ECUM1C1852FN	C.CAPACITOR CH 16V 1.8U	1	
C2036	ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	1	
C2040-42	ECUM1C473K0V	C.CAPACITOR CH 16V 0.047U	3	
FP2001	VJS2848D007	CONNECTOR (FEMALE) 7P	1	
FP2002	VJS2958B018	CONNECTOR (FEMALE) 18P	1	
FP2003	VJS3442D023	CONNECTOR (FEMALE) 23P	1	
IC2001	TB6513AF	IC	1	
IC2002,03	UN224	IC	2	
QR2001	ON2170	TRANSISTOR-RESISTOR	1	
QR2002	UN5215	TRANSISTOR-RESISTOR	1	
R2001	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2002	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R2003	ERJ3GEVJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2004	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2005	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2006	ERJ3GEVJ474	M.RESISTOR CH 1/16W 470K	1	
R2007	ERJ8GEYJR47	M.RESISTOR 1/8W 0.47	1	
R2008	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R2009	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1		R801	ERJ6ENF4422	M.RESISTOR	1	
R2010	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1		R802	ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R2011	ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1		R805	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2012	ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1		R808	VRE0071E242	M.RESISTOR 2.4K	1	
R2013, 14	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	2		R809	ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R2015	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1		R810	ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2016	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1		R815	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R2017	ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1		R816, 17	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R2018	ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1		R818	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2019, 20	ERJ3GEYJ471	M.RESISTOR 1/16W 470	2		R819, 20	ERJ6GEYJ275	M.RESISTOR CH 1/10W 2.7M	2	
R2021	ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1		R821	ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R2022	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1		R823	ERJ3GEYJ8R2	M.RESISTOR CH 1/16W 8.2	1	
R2040-42	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	3		R829	ERJ6ENF4222	M.RESISTOR	1	
R2045, 46	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2		R833	ERJ3GEYJ1392	M.RESISTOR CH 1/16W 3.9K	1	
		MISCELLANEOUS			R834	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
	VMD1842	REEL SENSOR STATOR	1		R835	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
	■ VEP28076A	EVF C.B.A.	(RTL)		R840	ERJ8GEYJ685	M.RESISTOR CH 1/8W 6.8M	1	
B1601	WJP3126B030	CONNECTOR (MALE) 30P	1		R841, 42	ERJ6GEYJ475	M.RESISTOR CH 1/10W 4.7M	2	
C801	ECQB1C104JH	W.CAPACITOR 16V 0.1U	1		R843	ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
C803, 04	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2		R844	ERJ6GEYJ390	M.RESISTOR CH 1/10W 39	1	
C805	ECEAOJKE221	E.CAPACITOR 6.3V 220U	1		R850	ERJ6ENF6201	M.RESISTOR 8.2K	1	
C806	ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1		R851	ERJ6ENF3901	M.RESISTOR 3.9K	1	
C807	ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1		R852	ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
C809	ECEV1CA470F	E.CAPACITOR 16V 47U	1		R853	ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
C810	ECUM2A332JUM	C.CAPACITOR CH 3300P	1		R854	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
C811	ECST1AD4762	T.CAPACITOR 10V 47U	1		R855	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
C812	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1		R883	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
C813	ECUM2J221KBM	C.CAPACITOR CH 220P	1		R890	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
C814	ECEV1HA010	E.CAPACITOR 50V 1U	1		R899	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
C815	ECUM2H331KBM	C.CAPACITOR 500V 330P	1		R1601	VSO092	FUSE	1 < ! >	
C816	ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	1		R1606	ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
C831	ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	1						
C1603	ECEV1CA220	E.CAPACITOR CH 10V 22U	1						
D803	MA142A	DIODE	1						
D1601	SFPB-64	DIODE	1						
D1602, 03	MA8130M	DIODE	2						
IC801	AN2516S	IC	1						
J1601	VJJ036B	JACK	1						
J1602	VEK6424	JACK	1						
L801	ELJPA470KB	COIL	1						
L802	ELHBLE203R	COIL	1						
L804	ELJPA680KB	COIL 68UH	1						
L805	ELJPA100KB	COIL	1						
L1601, 02	VLPO134	COIL	2						
P801	WJP3499D004	CONNECTOR (MALE) 4P	1		■ VEP22132A	CCD FLEX. CARD C.B.A.	(RTL)		
P803	WJP3125D003	CONNECTOR (MALE) 3P	1						
P804	WJP1242T	CONNECTOR (MALE) 2P	1						
P1602	WJP3125D002	CONNECTOR (MALE) 2P	1						
Q802	2SD968A-S	TRANSISTOR	1						
Q803, 04	2SA1748	TRANSISTOR	2						
QR881	UN9212	TRANSISTOR-RESISTOR	1						
QR882	UN2130X	TRANSISTOR-RESISTOR	1						
R291	ERJ6GEYJ560	M.RESISTOR CH 1/16W 56	1						
R292	ERJ6GEYJ472	M.RESISTOR CH 1/16W 4.7K	1						

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
					C1503	ECUM1C105ZEN	C.CAPACITOR CH 16V 1U	1	
W291	ERJ6GEYOR00	M.RESISTOR CH 1/10W 0	1		L1503	VLP0145	COIL	1	
		MISCELLANEOUS			L1504,05	VLQ0584	FILTER	2	
	WJB22132	FLEX. CARD	1				MISCELLANEOUS		
	VEK6690	LENS FLEX. CARD C.B.A.		(RTL)		VEJ1378	AV JACK PLATE	1	
		MISCELLANEOUS				VMP4063	EARTH PLATE	1	
	ON1004-R	PHOTO SENSOR	1			VEP00T11C	S/S C.B.A.	(RTL)	
	VEK6635	MIC UNIT		(RTL)	PJ6701	VJP3007E003	CONNECTOR (MALE)	3P	1
C4302	ECUM1E153KBN	C.CAPACITOR CH 25V 0.015U	1		S6702	ESE105MH7	CAPACITOR	1	
C4305	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1				MISCELLANEOUS		
C4308	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1			VEE8737	WIRE CABLE	1	(FOR S/S ZOOM SW)
C4309,10	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	2						
D4301	RD5.6M	DIODE	1						
P4301	VJP3331B003	CONNECTOR (MALE)	3P	1					
Q4302	2SC2405	TRANSISTOR	1						
Q4303	2SD601A	TRANSISTOR	1						
R4302	ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1						
R4309	ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1						
R4310	ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1						
R4311	ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1						
R4312	ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1						
R4313,14	ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	2						
R4315	ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1						
R4316	ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1						
	VEP00T97A	FRONT OPERATION C.B.A.		(RTL)					
D501	PH310-1	DIODE	1						
P052	VJP3130B007	CONNECTOR (MALE)	7P	1					
SW501	EVQ6QF02K	SWITCH	1						
VR501	EVJ4YOFB4B15	V.RESISTOR	1						
	VEE8740	MISCELLANEOUS							
	VEE8740	WIRE CABLE	1						
	VEP04457A	AV JACK C.B.A.		(RTL)					
B1501	VJS3294C010	CONNECTOR (FEMALE)	10P	1					
C1502	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1						