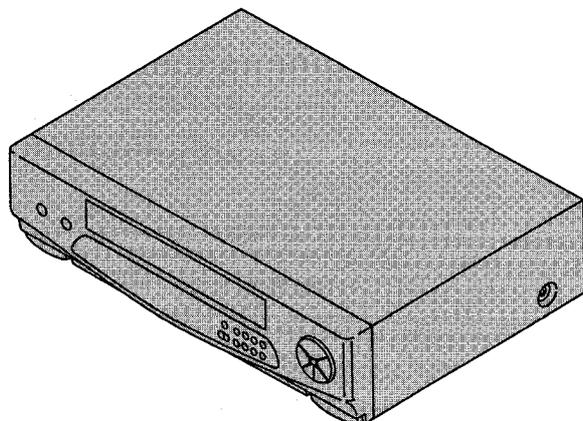


Service Manual

Video Cassette Recorder

Panasonic **VHS** **HQ**
PAL NTSC 4.43


NV-SD205EU

NV-SD207EE

K-MECHANISM
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PACKING PARTS SECTION \ УПАКОВОЧНЫЕ МАТЕРИАЛЫ
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Panasonic

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SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	SPECIFICATION
POWER	SOURCE: 220 – 240V, 50/60 Hz	RF OUT SYSTEM	UHF: CH38 +2-8 73 ± 3dB μ , 75 Ω unbalanced
	CONSUMPTION: 19 watts		
RECORDING SYSTEM	2 rotary heads, helical scanning system	VIDEO	HEADS: 2 rotary heads
	PAL		INPUT: VIDEO IN Connector (Phono type) 1.0 Vp-p, 75 Ω terminated
TV TUNER SYSTEM (NV-SD205EU)	CCIR STD (B.G.H) VHF: CHE2 – CHE12, 75 Ω unbalanced CATV: CHS01 – CHS05 CHM1 – CHM10 CHU1 – CHU10 UHF: CH21 – CH69, 75 Ω unbalanced		
	CHINA (D) VHF: CH1 – CH12, 75 Ω unbalanced CATV: CHZ1 – CHZ17 UHF: CH13 – CH56, 75 Ω unbalanced	AUDIO	HEAD: 1 Stationary head (Normal Audio)
	EAST EU (D.K.K1) VHF: CH1 – CH12, 75 Ω unbalanced CATV: 44 – 300MHz UHF: CH21 – CH69, 75 Ω unbalanced		INPUT: AUDIO IN Connector (Phono type) More than – 10 dBV (316 mV), More than 50k Ω
	HJONG KONG ,UK (I) UHF: CH21 – CH69, 75 Ω unbalanced		OUTPUT: AUDIO OUT Connector (Phono type) – 6 dBV (500 mV), Less than 1k Ω
		TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
TV TUNER SYSTEM (NV-SD207EE)	SECAM OIRT VHF: CH1 – CH12, 75 Ω unbalanced CATV: 44 – 470MHz UHF: CH21 – CH69, 75 Ω unbalanced	TAPE SPEED	SP: 23.39 mm/s Record/Playback Time: 4 hours with 240 min. type tape (NV-E240) FF/REW Time: 2 minutes 30 seconds with 180 min. type tape (NV-E180)
	CCIR STD (B.G.H) VHF: CHE2 – CHE12, 75 Ω unbalanced CATV: CHS01 – CHS41 UHF: CH21 – CH69, 75 Ω unbalanced	OPERATING CONDITION	Temperature: 41°F – 104°F (5°C – 40°C) Humidity: 35% – 80%
	PAL I CATV: 44 – 470MHz UHF: CH21 – CH69, 75 Ω unbalanced	DIMENSIONS	430 (W)X99.9 (H)X295 (D) mm
		WEIGHT	4.2 kg
		STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Remote Controller 1 pc. AC Cord

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

SECTION 1

GENERAL DESCRIPTIONS

1-1. SERVICE INFORMATION

<A> CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., stand the MAIN C.B.A. and connect Extension Cable (VFK1033) between the POWER C.B.A. connector (P1103) and the MAIN C.B.A. connector (P1001) as shown in Fig. S1. In this position, the following services are possible.

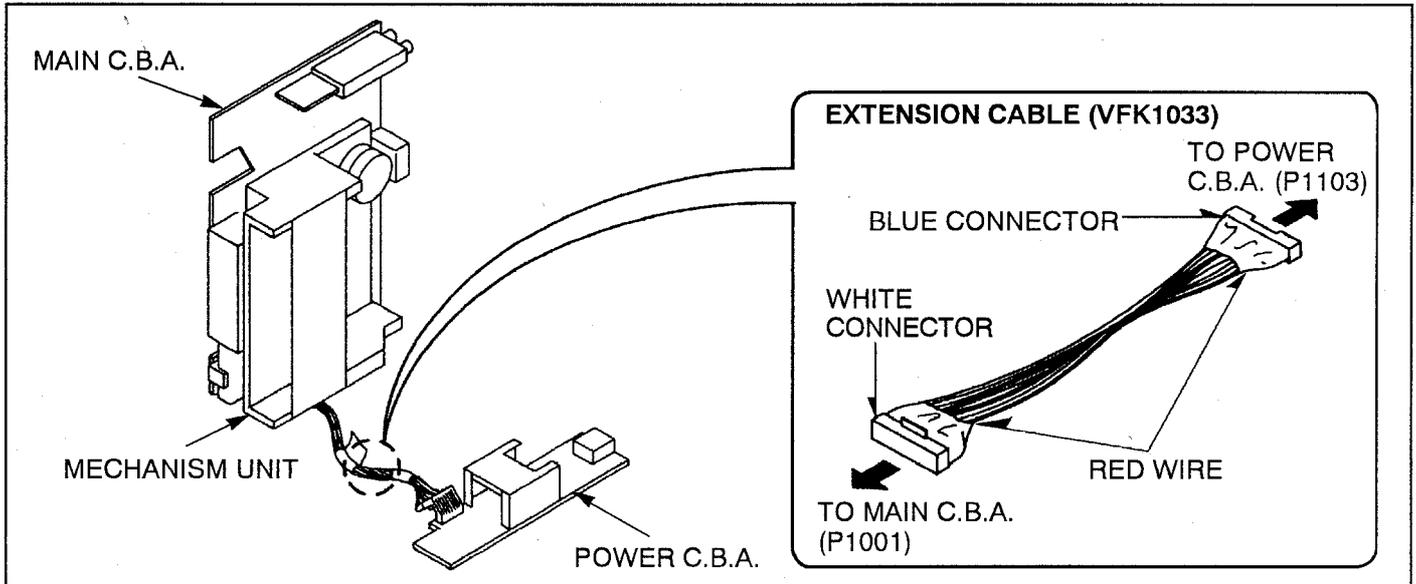


Fig.S1

 MECHANISM SERVICE POSITION

When servicing the K-Mechanism, take out the mechanism from the MAIN C.B.A. and connect Extension Cable (VFK0889) between the Loading motor connector and P2001 as shown in Fig.S2. In this position, the following services are possible.

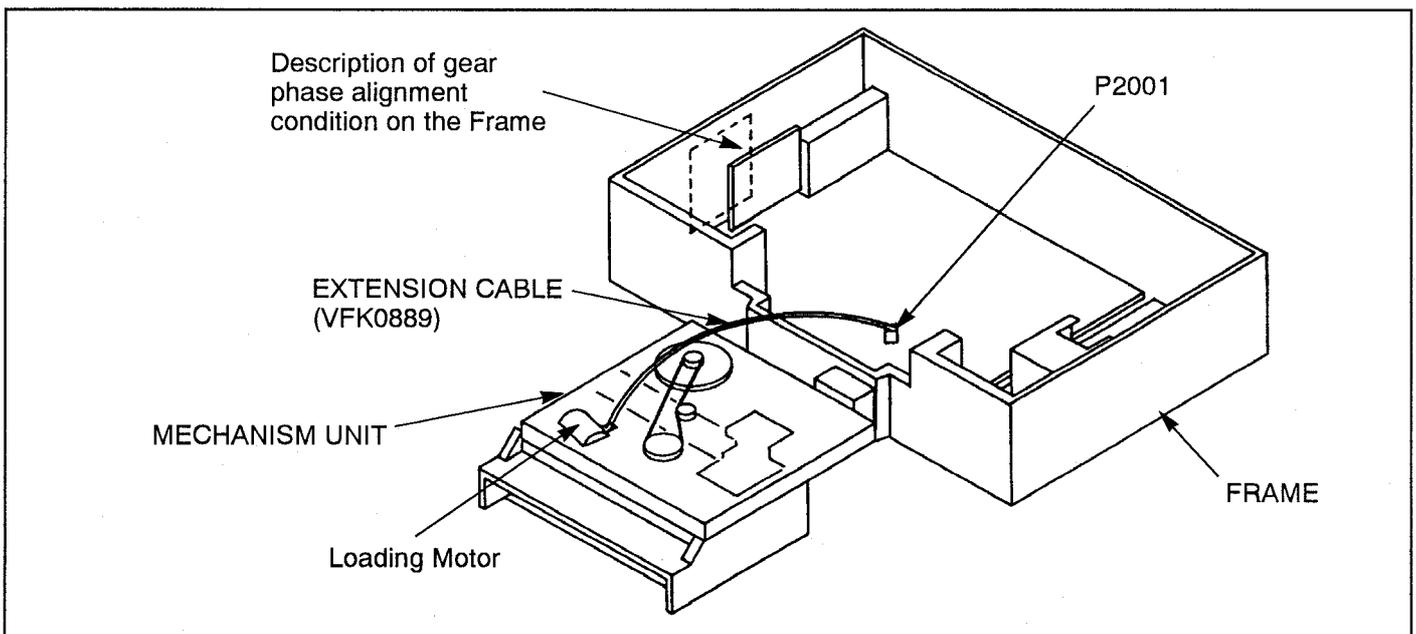


Fig.S2

<B-1> CHECKING OF GEAR PHASE ALIGNMENT CONDITION

Check gear phase Alignment Condition of Mechanism described on the left side of frame.

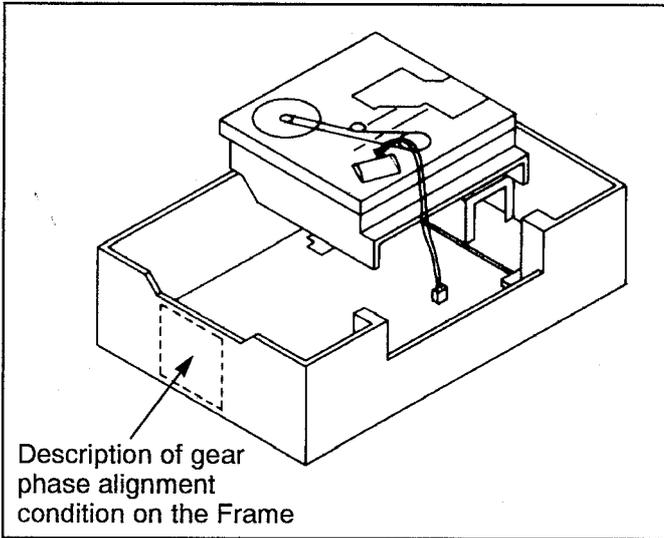


Fig.S3

<B-2> CHECKING OF LOADING/UNLOADING OPERATION

There are 3 methods for checking of loading/ unloading operation as follows.

(1) HAND OPERATION

- 1) Turn the Worm Gear or the Worm Wheel Gear (Remove the Loading Motor unit) manually.

(2) BATTERY OPERATION

- 1) Disconnect the Extension cable (VFK0889) from connection of loading motor unit.
- 2) Connect the Battery (Manganese-Type R6(AA) 3pcs. /+4.5V) to the Loading motor terminals.

(3) SERVICE INFORMATION DISPLAY OPERATION

- 1) Set the Service Information display mode. (Press the FF,REW and EJECT buttons simultaneously.)
- 2) Press the FF,REW and EJECT buttons 7 times to set the Service Mode 7.
- 3) In the above Service Information Display mode, the Loading Motor rotates for loading operation when the "PLAY" button is pressed. The Loading Motor rotates for unloading operation when the "STOP" button is pressed.

Remark:

Use the "SERVICE INFORMATION DISPLAY" mode for a final check of Mechanism movement.

<B-3> CHECKING OF REEL GEARS OPERATION

- 1) Move the mechanism to "PLAY" position by loading operation (Refer to <A>).
- 2) Turn the "Rotor Unit" to check the movement of reel gears.

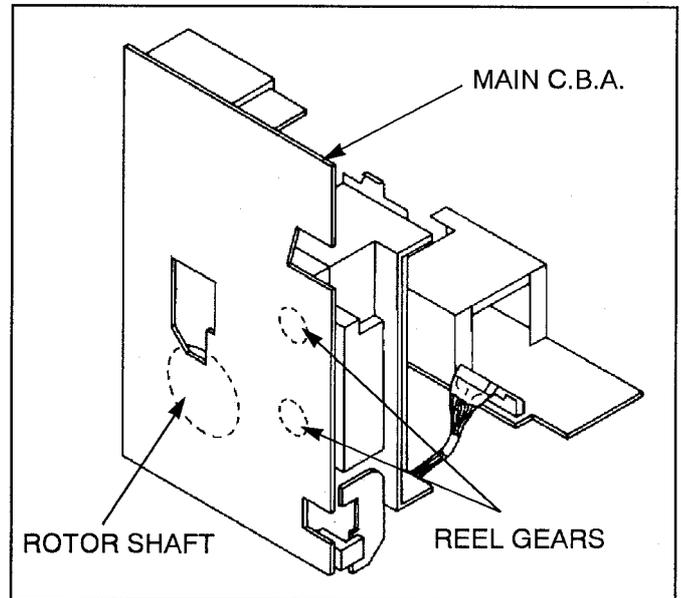


Fig.S4

<C> CYLINDER UNIT REPLACEMENT

Remove the 3 Screws of the CYLINDER UNIT with a magnetized screw driver in the MECHANISM SERVICE POSITION.

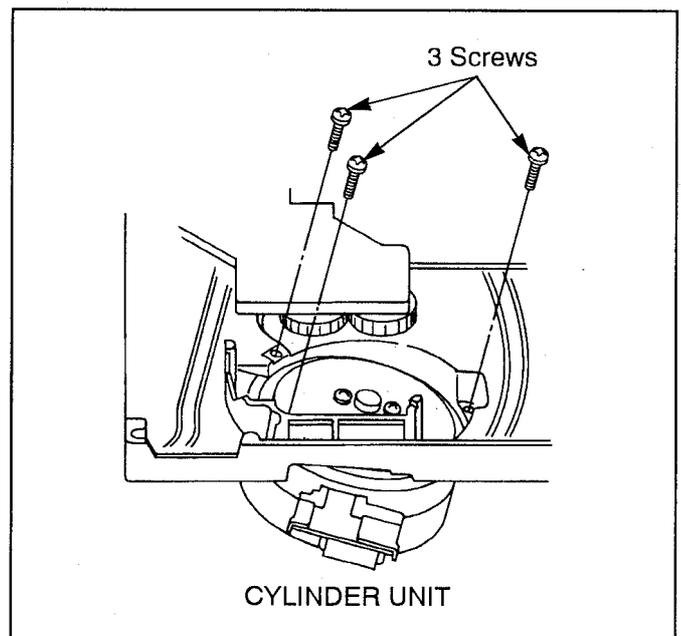


Fig.S5

<D> UPPER CYLINDER REPLACEMENT

<D-1> UPPER CYLINDER DISASSEMBLY

1. Remove 2 screws (A).
2. Remove the CYLINDER STATOR C.B.A.
3. Remove 2 screws (B).
4. Remove the CYLINDER ROTOR UNIT.
5. Loosen Hex screw (C) and remove the CYLINDER RETAINER. (Use Hex. key Wrench 1.5mm)
6. Remove the UPPER CYLINDER UNIT.

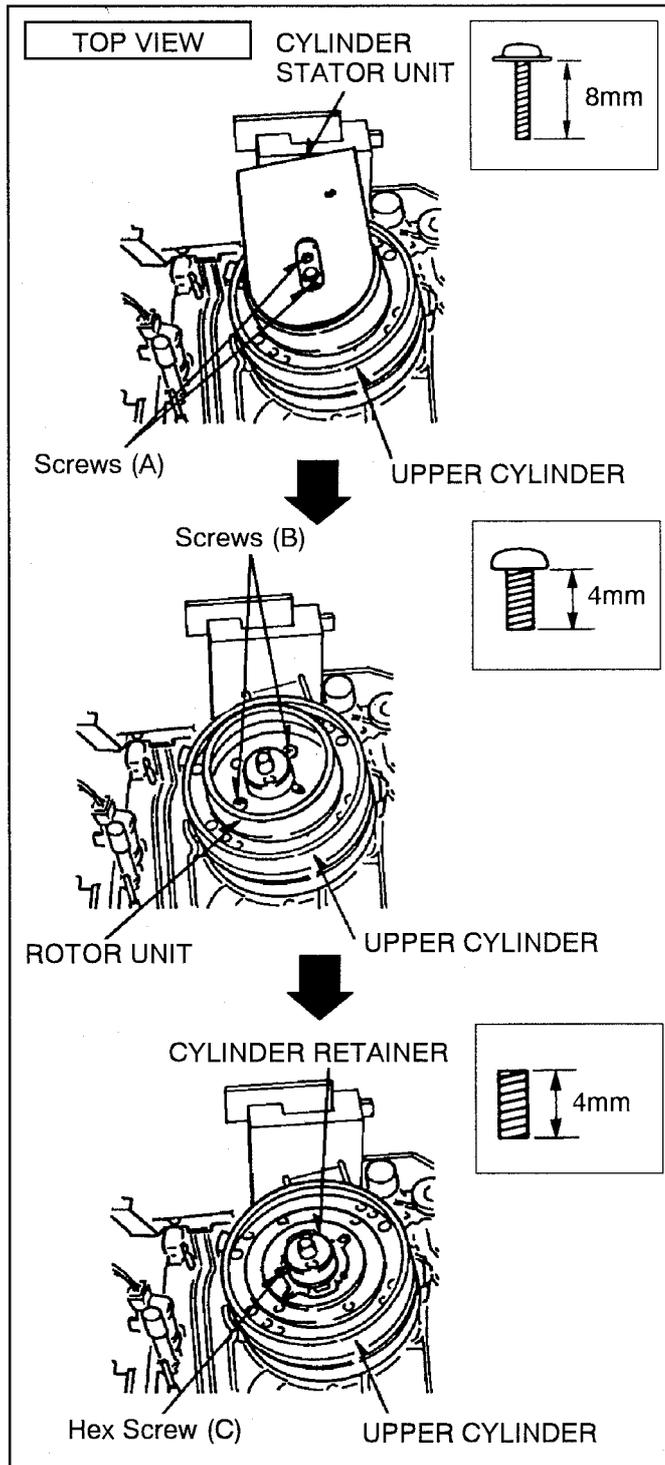


Fig.S6

<D-2> UPPER CYLINDER ASSEMBLY

When reassembling, perform the steps in the reverse order.

Notes:

- 1) Install the Cylinder Retainer so that the 2 holes on top of the Cylinder Retainer are at right angles with the P502 connection.
- 2) Tighten the Hex screw (C) while pressing down on top of the Cylinder Retainer. (Use Hex. key Wrench 1.5mm)

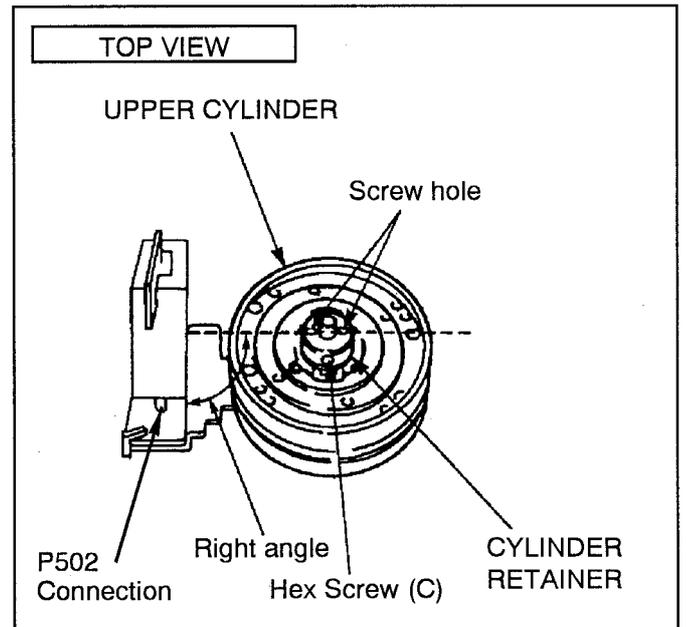


Fig.S7

- 3) Install the Cylinder Rotor Unit so that the inner hole of the Cylinder Rotor Unit fits to the small projection (D) on top of the Upper Cylinder.
- 4) Tighten 2 screws (B).

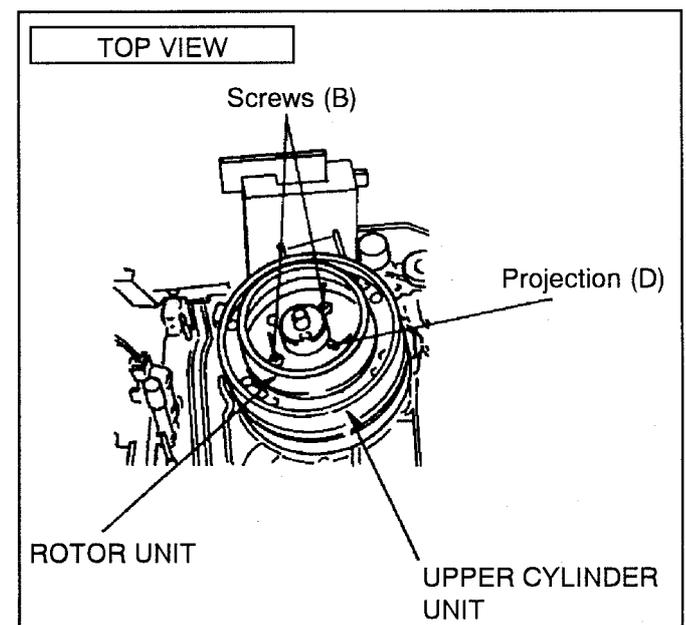


Fig.S8

- 5) Install the Cylinder Stator Unit .
- 6) Tighten 2 screws (A).

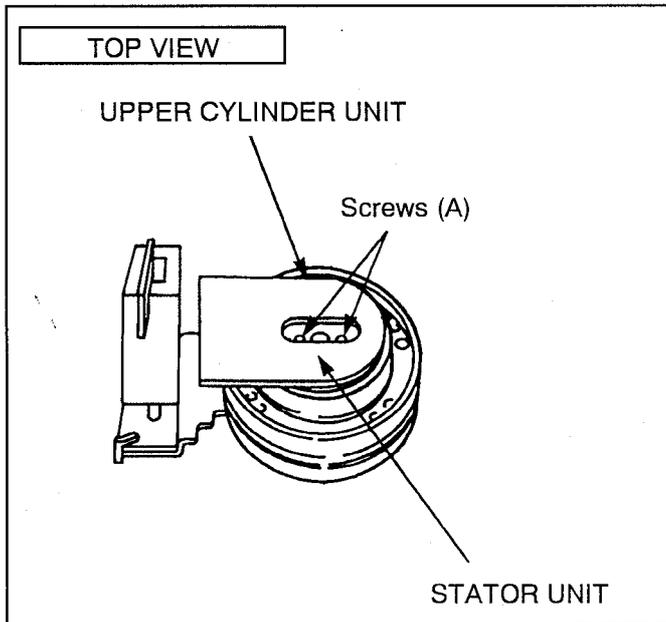


Fig.S9

- 7) Confirm the PG SHIFTER ADJUSTMENT with the alignment tape (PAL: VFJ8125H3F) and adjust it if necessary.

<E> CAPSTAN STATOR UNIT ASSEMBLY

When replacing the CAPSTAN STATOR UNIT, the STATOR CENTERING TOOL (VFK0851) must be used to center the CAPSTAN STATOR UNIT.

Method:

- 1) Place the CAPSTAN STATOR UNIT into position.
- 2) Loosely screw in the 3 Screws.
- 3) Insert the Stator Centering Tool (VFK0851) as show in Fig.S10.
- 4) Tighten the 3 Screws.
- 5) Remove the Stator Centering Tool.

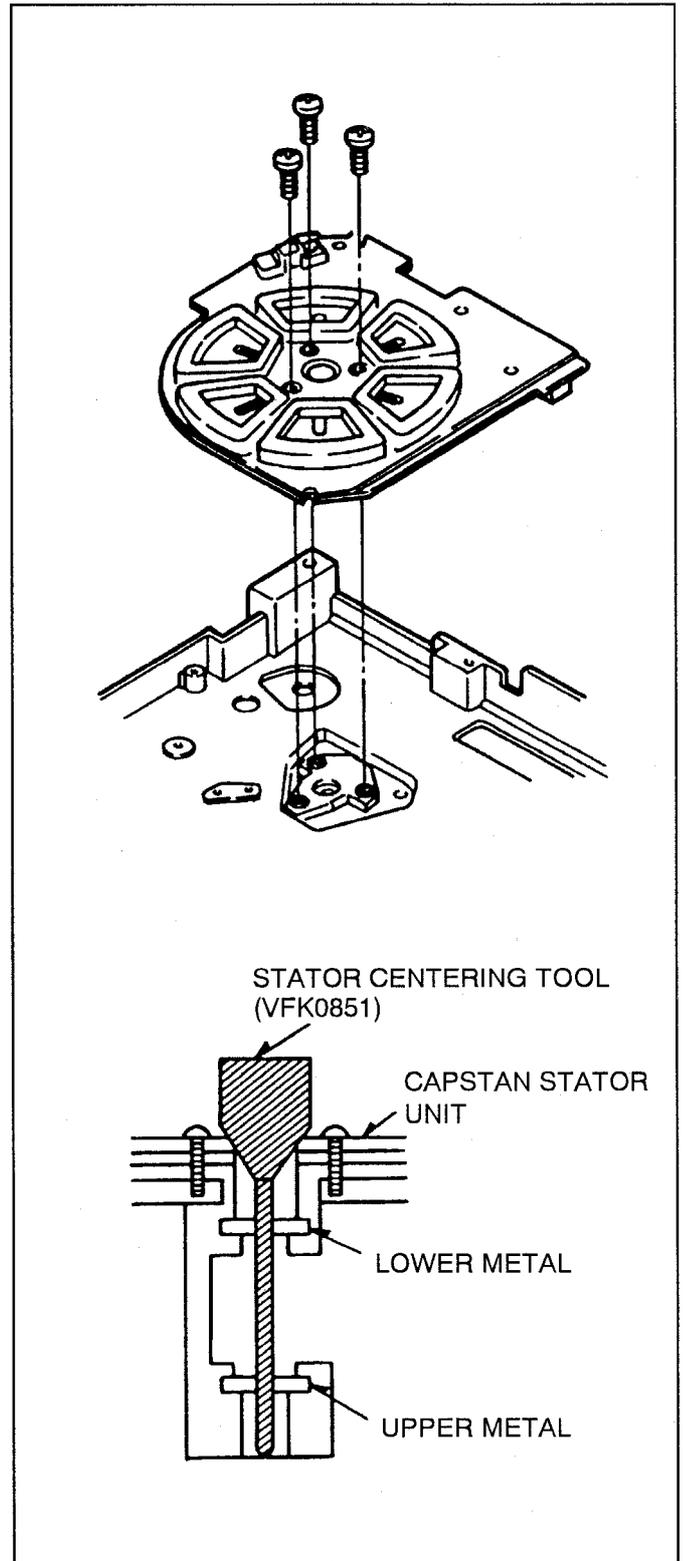


Fig.S10

<F> EJECT OPERATION

The main cam gear rotates in the direction of the arrow. The projection (B) of the carriage connection gear engages with the recession (A) of the main cam gear. The carriage connection gear rotates in the direction of the arrow to perform the Eject operation.

<NOTE>

If the Eject operation is performed without the cassette carriage installed while repairing or making the mechanical phase alignment, the main cam gear will not engage with the carriage connection gear and will not rotate.

To perform the Eject operation with the cassette carriage not installed, it is necessary to rotate the carriage connection gear by hand in the direction of the arrow.

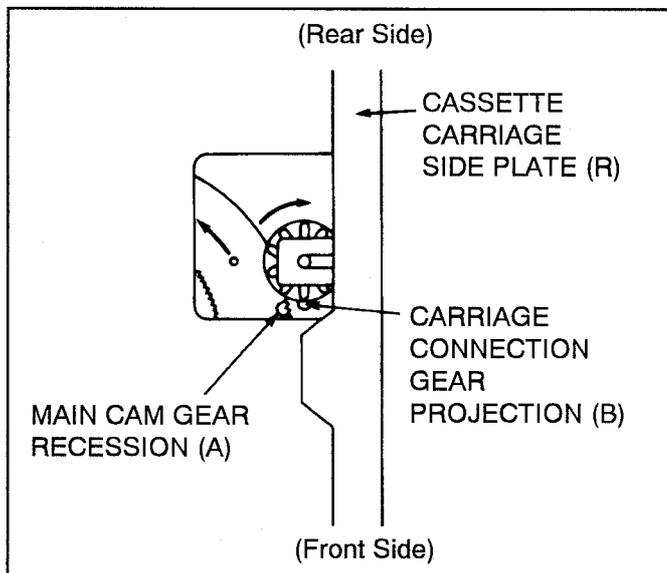


Fig. S11 Top View of Eject Operation

<G> TAKE-UP PHOTO SENSOR OPERATION

- 1) While servicing of the K-Mechanism, the unit will not operate properly if a strong light (ex, Fluorescent light) falls on the Take-up Photo Sensor.

In this case, cover the Take-up Photo sensor to prevent the light from falling on it.

- 2) While servicing of the K-mechanism with "Power On" and without cassette tape inserted, the Unit will not operate properly.

<H> POWER TRANSISTOR SERVICING

When removing the connector of the POWER Transistor, hold the Power Transistor by hand to prevent damage.

<I> CASSETTE TAPE REMOVAL

(1) HAND OPERATION

- 1) Take out the mechanism from MAIN C.B.A.
- 2) Turn the Worm Gear manually, moving the Loading post to the unloaded position.
- 3) Turn the Capstan Rotor Unit clockwise to Take up the Tape.
- 4) Turn the Worm Gear again to eject the cassette.

(2) BATTERY OPERATION

- 1) Connect the battery (Manganese-Type R6 (AA)3pcs./+4.5V) to P2001 as shown in Fig.S11.
- 2) After moving the LOADING POST to the unloaded position, disconnect the battery to stop the motor.
- 3) Turn the CAPSTAN to clockwise to take up the tape.
- 4) Reconnect the battery to eject the cassette.

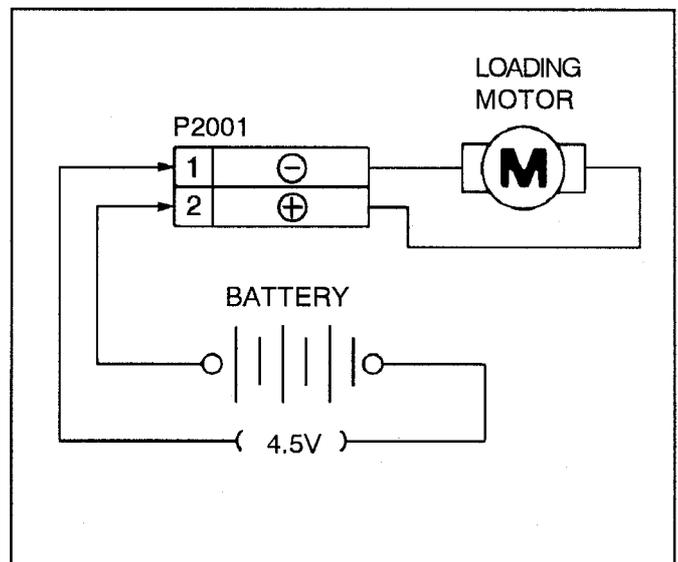


Fig. S12

If the cassette tape can not be removed by the above method, remove it by the following method.

- 1) Remove the Top Panel.
- 2) Remove the Front Panel Unit.
- 3) Lift up the Pinch Arm after removing spring.
- 4) Push the P5 Arm and remove the Tape from tape transportation (P3, P2, P5 and P1 Post).
- 5) Turn the Capstan Motor to take up the Tape.
- 6) Remove 1 screw from the Side Plate (R) Unit to disconnect the Rack Gear from the Carriage Connection Gear.
- 7) Take out the Cassette Tape from the Cassette Compartment.

<J> FLAT RIBBON CABLE INSTALLATION

When installing the Flat Ribbon Cable on the connector, install the cable with the cable contacts facing the connector contacts.

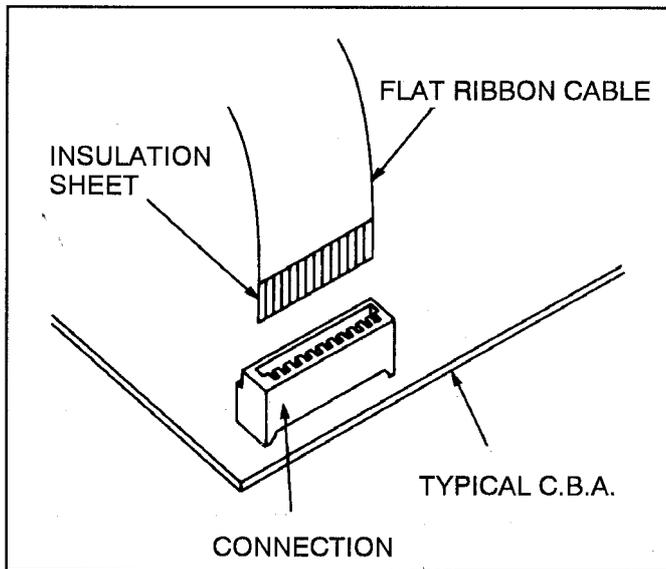


Fig. S13

<K> CHANNEL MEMORY IC INITIALIZATION

When replacing the channel memory IC7001 (Part No.:M6M80011AP), its IC should be initialized.

Method:

- 1) Press the CH UP/DOWN button so that the channel indicator indicates " 3 "
- 2) Connect a jumper wire twice to TL7004 and TL7005.
- 3) Channel indication changes from " 3 " to " 1 " .

Note:

- 1) It should be performed before tuning.
- 2) Do not turn off the power source during initialization or 1 second after.
- 3) Meaning of " INITIALIZATION " is to make dependency in different models and to distinguish between different features.

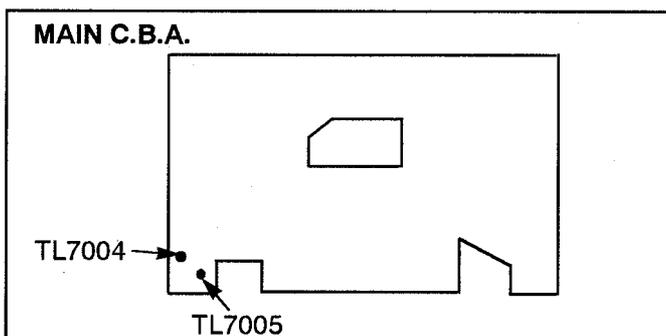


Fig. S14

1-2. SELF- TEST INDICATION DISPLAY

This VTR has a self- diagnosis and display function. If the VTR detects trouble during installation or during use, one of the following Fault indication Codes will automatically appear in the VTR display. Fault indication codes are displayed in the form of a single English letter followed by two numbers, as for example "H01".

Note: 1. The indication "U" is displayed on the FIP while power remains on.
 2. Otherwise, the indication "H" or "F" is displayed on the FIP, and the power is automatically turned off.
 When the power is turned on again, the Fault Indication Code will disappear and the unit will return to normal display mode (either clock or counter).

3. This Fault Indication Code will be stored in the Timer microprocessor even with the AC plug disconnected.
 The two- digit number portion of the stored Fault Indication Code can be redisplayed in the FIP's "second" display position (the last 2 digits on the light) by placing the unit in Service Mode Number 2 when turning on Service Information Display as for example "01" or "02" etc.
 If a second error occurs, only the most recent error will be displayed and stored.
4. To erase the stored Fault Indication Code data, press the FF, REW and EJECT buttons simultaneously for 5 seconds.

INDICATION	CAUSE	REMEDY/ CHECK
H01	After cylinder lock is detected, the cylinder does not start rotating again even after tape unloading.	Check the cylinder- motor drive circuit.
H02	Cassette tape is not wound up during tape unloading except Eject mode.	Check the capstan- motor drive circuit.
F03	Mechanism locks during mode transition except Eject mode.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment. 3.Check the Mode Switch.
F04	Mechanism locks during tape unloading.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment.
F05	Cassette tape is not wound up during tape unloading in Eject mode.	1.Check the capstan- motor drive circuit. 2.Check the Supply/ Take- up reel pulse.
F06	Mechanism locks after tape unloading in Eject mode.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment for Cassette Holder Unit.
F07	Rec power voltage does not appear in Rec mode.	Check the Rec power supply circuit.
F08	Rec power voltage appears except Rec mode.	Check the Rec power supply circuit.
F09	No serial clock transmission between IC2004, IC7005 and IC7701.	Check the serial clock circuit.

Fig. S15 Self- Test Indication Display

1-3. SERVICE INFORMATION DISPLAY

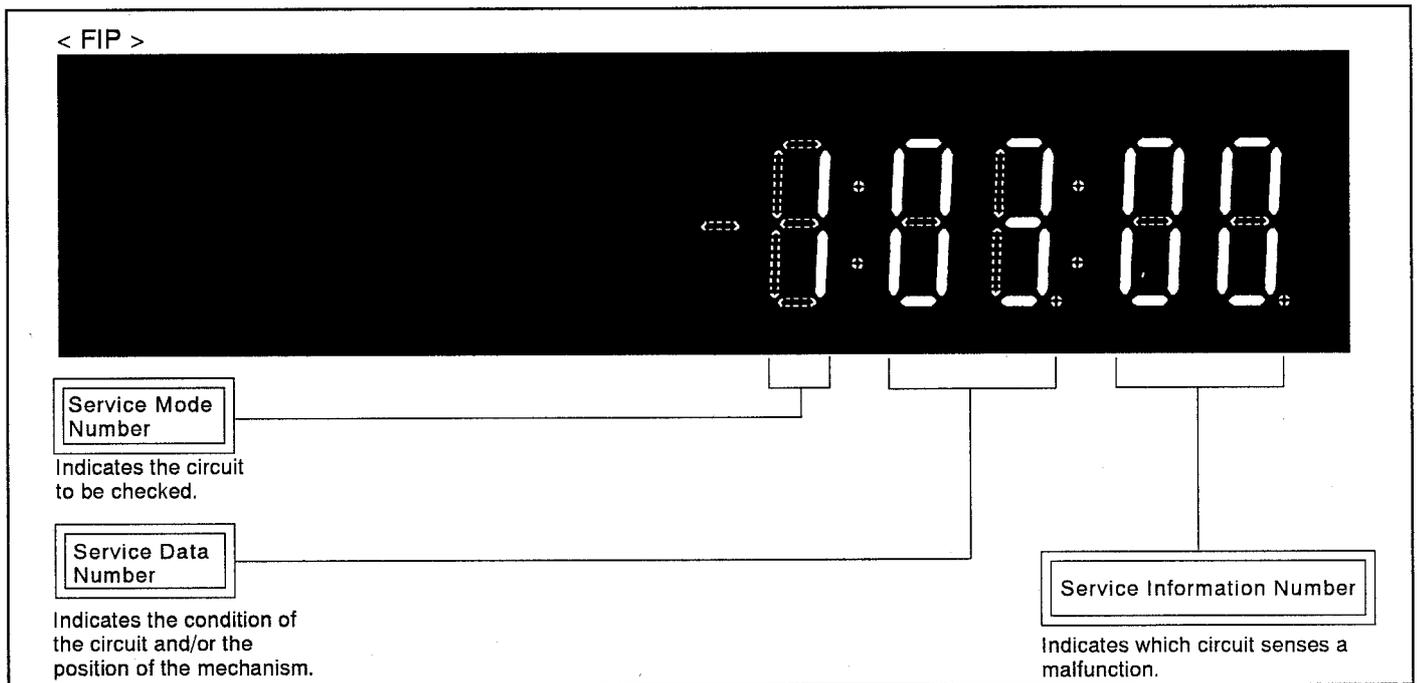


Fig. S16 Service Information Display

1-3-1. Purpose of Service Information Display

This information aids trouble shooting by indicating the source of the malfunction. The service mode number & service data number are used by the technician during repair while the service information can be used by the consumer to diagnose malfunctions allowing the technician to provide a more accurate repair cost estimate and reduce repair time.

1-3-2. Turning on Service Information Display

There are two ways to turn on the Service Information Display.

- (1) Press the FF, REW and EJECT buttons simultaneously.
- (2) Connecting a jumper wire between TL6010 and TL6011 (SERV) will display the service information indefinitely.

In the Service Information Display, there are five digits divided into 3 functions. The first digit indicates which of the 7 service modes that the unit is currently in.

- MODE 0 : Not Used
- MODE 1 : Checks tape protection circuit
- MODE 2 : Checks tape transport mechanism
- MODE 3 : Checks mode switching operation
- MODE 4 : Checks control buttons
- MODE 5 : Checks capstan motor
- MODE 6 : Checks cylinder motor
- MODE 7 : Checks loading/unloading operation
- MODE 8 : Not Used

(The mode 8 is displayed only when connecting a jumper wire between TL6010 and TL6011 (SERV).)

The second and third digits are service data which indicate the condition of the circuit or mechanism being checked.

The fourth and fifth digit is the service information display. It is to be used by the consumer to help determine the source of a malfunction. The service information display operates independently of the service modes and stores the fault indication in memory for as long as AC power is supplied.

1-3-3. Use of Service Modes

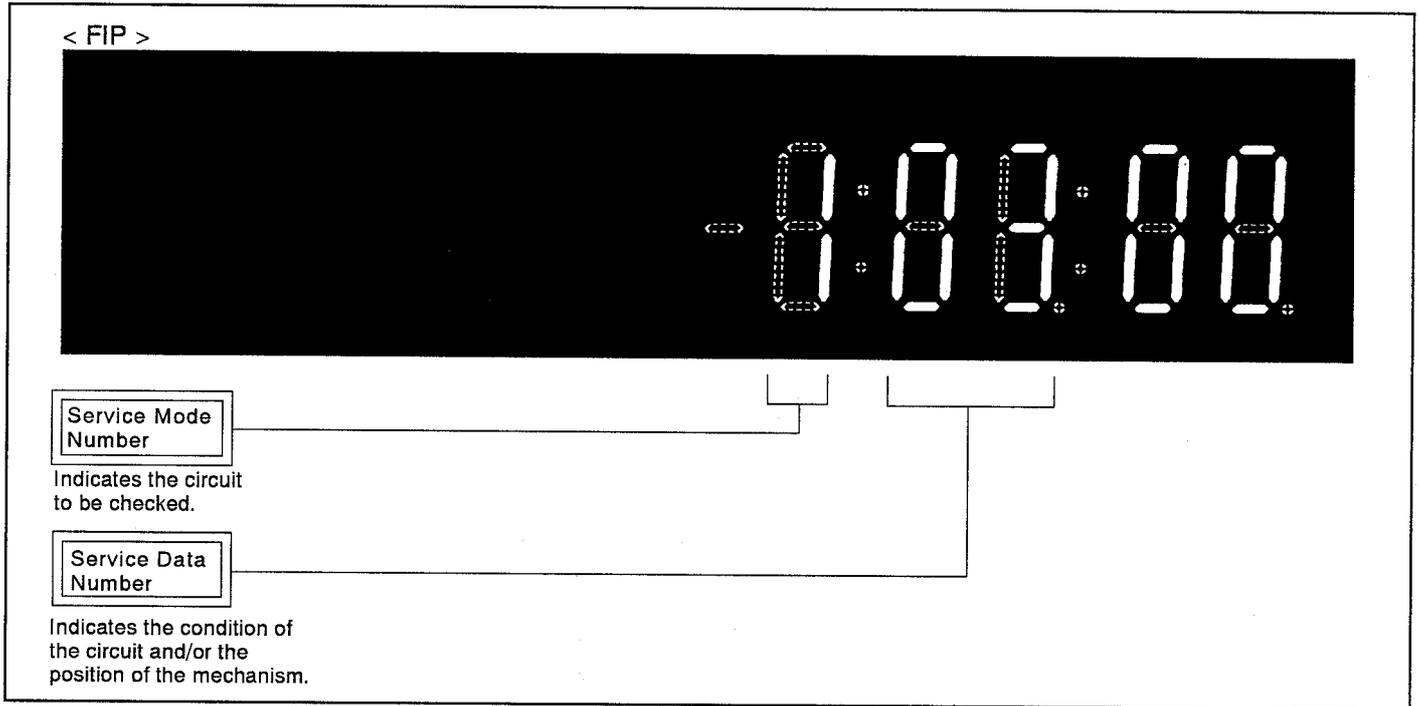


Fig.S17 Service Mode Number and Service Data Number on S.I.D.

(1) Turn on Service Information Display.

(2) To change Service Modes press the FF, REW and EJECT buttons simultaneously.

(3) Mode 0 : Not Used.

0

(4) Mode 1 : Check that the Sensor LED, Supply & Take-up Sensor circuits check the circuits by blocking the light from the Sensor LED to either or both Supply & Take-up Sensors. When the light is blocked to both sensors, "00" should be indicated on the service data number. When the light is blocked to the supply sensor, " 01 " should be indicated.

1

(5) Mode 2 : Checks the mode switch circuit while indicating mechanism position. Service Data Numbers indicate the position of the mode switch and there by the mechanism position.

2

(6) Mode 3 : Checks that mode switch circuit operations have been completed. Service Data Number should indicate "00" after each mechanism operation is completed.

3

(7) Mode 4 : Checks the operation circuit. Indicates if IC6001 receives the operating commands from the mode buttons and/or remote controller.

4

(8) Mode 5 : Checks the capstan motor circuit. Indicates if the IC6001 has received the command to rotate the capstan motor.

5

(9) Mode 6 : Check the cylinder motor circuit. IC6001 has received the command to rotate the cylinder motor.

6

(10) Mode 7 : Checks the Loading/ Unloading Operation. The Loading Motor rotates for loading operation when the " PLAY " button is pressed. The Loading Motor rotates for unloading operation when the " STOP " button is pressed. This mode can be displayed indefinitely until the POWER button is pressed.

7

(11) Mode 8 : Not Used.

8

<NOTE>

Refer to Fig. S20 for details of Service Data Number.

1-3-4. Service Information Number

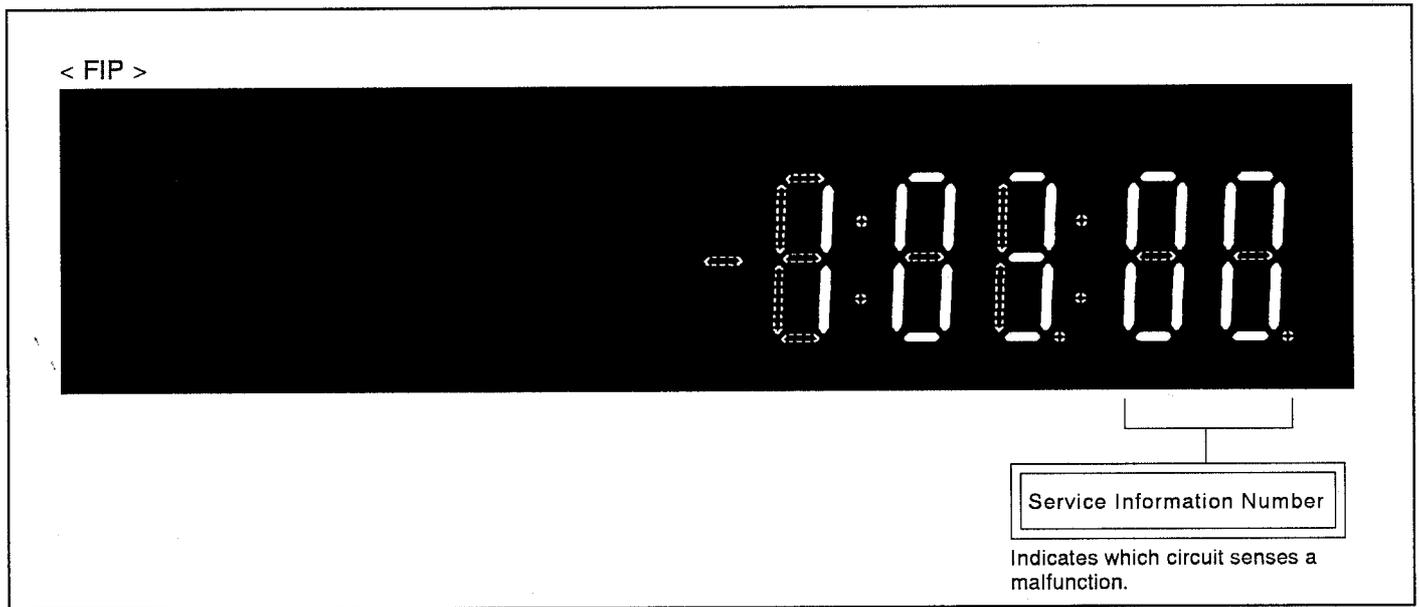


Fig. S18 Service Information Number on S. I. D.

Refer to Fig. S19 for details of Service Information Number.

Note:

The Service Information Number display is independent of the service mode display.

The Service Information Number will be stored as long as AC power is supplied. If a second error occurs, only the most recent error will be displayed.

Service Information Number	Malfunction
00	Normal (No problem)
01	Cylinder stop
02	Tape reel stop
03	Stop at position other than 04 or 06 (Faulty loading motor)
04	Stop during unloading
05	Faulty capstan rotation
06	Stop during Cassette-IN/EJECT operation
07	REC Power voltage error in REC Mode
08	REC Power voltage error except REC Mode
09	Main Serial communication error between system control and Timer

Fig. S19 Detail Service Information Numbers

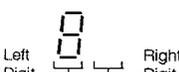
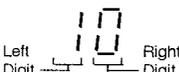
Service mode Number	Note for checking Service Data Numbers	Service Data Numbers	Indication	Remarks
1	_____	00	No light detected at either sensor.	Tape not required
		01	Tape Beginning. Light to Supply Photo Sensor is blocked.	
		02	Tape End. Light to Take-up Photo Sensor is blocked.	
		03	Light detected at both sensors.	
2	_____	00	EJECT	Tape Required *1: STOP3; The Pinch Roller is on the capstan motor shaft. *2: STOP; The Pinch Roller is off the capstan motor shaft. Refer to Fig.S22 to Check mechanism Position and timing.
		01	Cassette-down	
		02	REV	
		03	Loading/Unloading	
		04	PLAY/REC, STILL/PAUSE, CUE, FWD SLOW, STOP3*1	
		05	STOP *2	
		06	FF/REW	
		07	Intermediate position.	
3	Disregard service data displayed until mechanism operation is completed. Then the display should indicate "00".	00	Any display other than "00" indicates a fault in the mode switch circuit or system.	Tape Required
4	Display only when the operating button is pressed.	Refer to Fig.S21.		Tape not required
5	Left digit only, disregard Right digit display.		8, 9, u, A, -, n, L, and no display indicate that the Capstan motor "PLAY" command received by IC2004.	Tape required. If a symbol other than those listed is displayed, a malfunction in that circuit is indicated.
	Right digit only, disregard Left digit display.		1, 2, 3, 4, 5, 6, 7, indicate that the Capstan motor "CUE, FF, Forward slow" commands received by IC2004.	
	Right digit only, disregard Left digit display.		8, 9, u, A, -, n, L, and no display indicate that the Capstan motor "Reverse, Rew, Reverse Slow" commands received by IC2004.	
6	Left digit only, disregard Right digit display.		1, 3, 5, 7, 9, A, n and no display indicate that the cylinder motor "ON" command received by IC2004.	Tape required. If a symbol other than those listed is displayed, a malfunction in that circuit is indicated.

Fig. S20 Detail Service Data Number

SERVICE DATA NUMBERS	MODE BUTTONS	SERVICE DATA NUMBERS	MODE BUTTONS
3n	POWER	-9	PAL/MESECAM
3n	OPERATE	00	PLAY
00	STOP	2-	PRESET
00	SET	34	^ / +
0-	STILL ADV	35	v / -
01	EJECT	36	VTR/TV
01	PROG	49	INDEX ◀◀
02	REW	40	INDEX ▶▶
03	FF	54	RESET
03	NEXT	56	DISPLAY
5	ZERO STOP	81	TRACKING / V-LOCK +
06	PAUSE / STILL	82	TRACKING / V-LOCK -
08	REC	84	TIMER REC
08	SHIFT		

Fig. S21 Service Data Display for Service mode 4

1-3-5. Timing Chart from Mode SW to System control IC2004

System control IC2004 senses the mechanism position through the Mode SW.

Fig. S22 shows the timing for Service Mode Number 2.

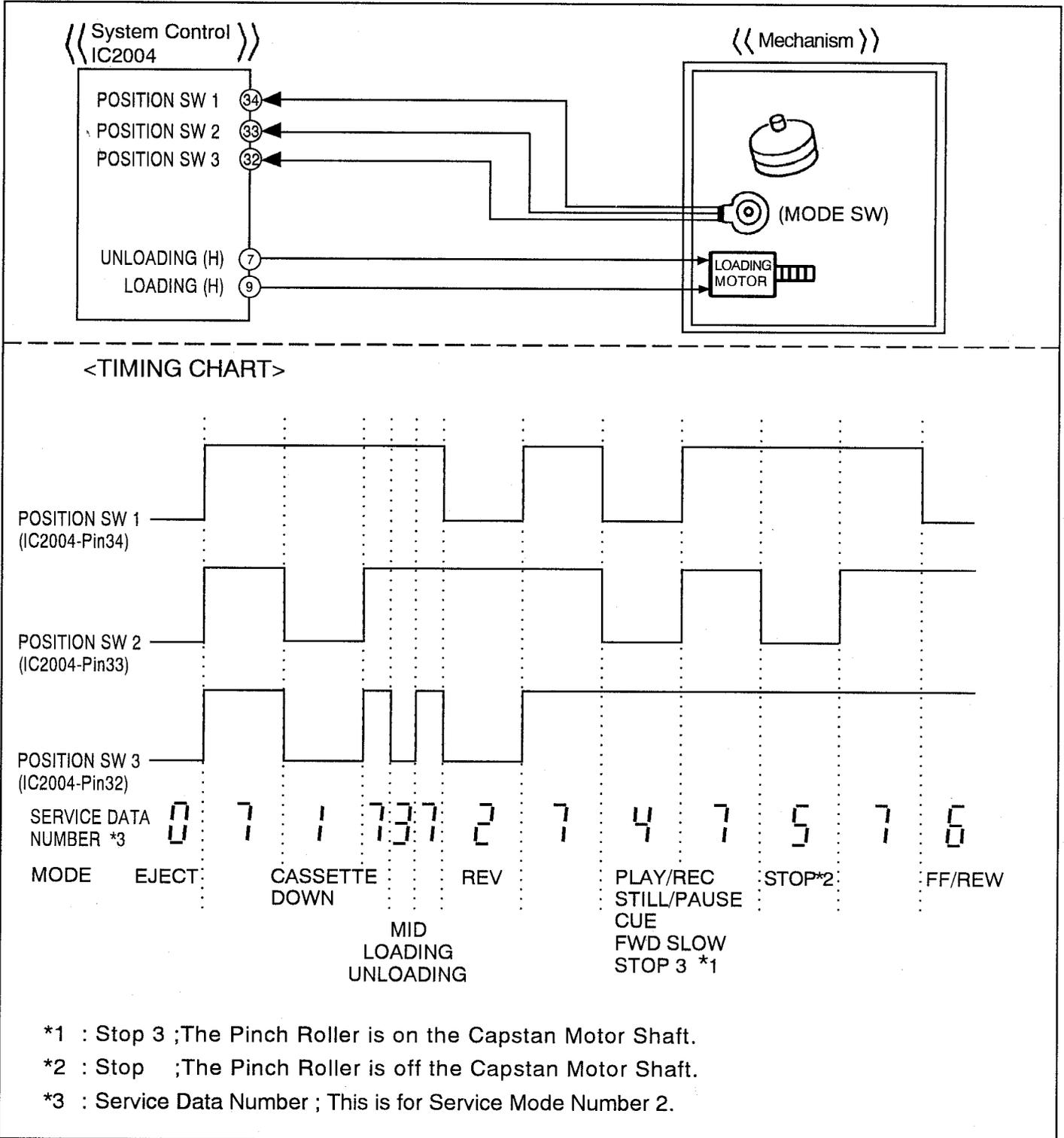


Fig. S22 Timing Chart of Mode SW

1-3-6. Input/Output Chart for IC2004

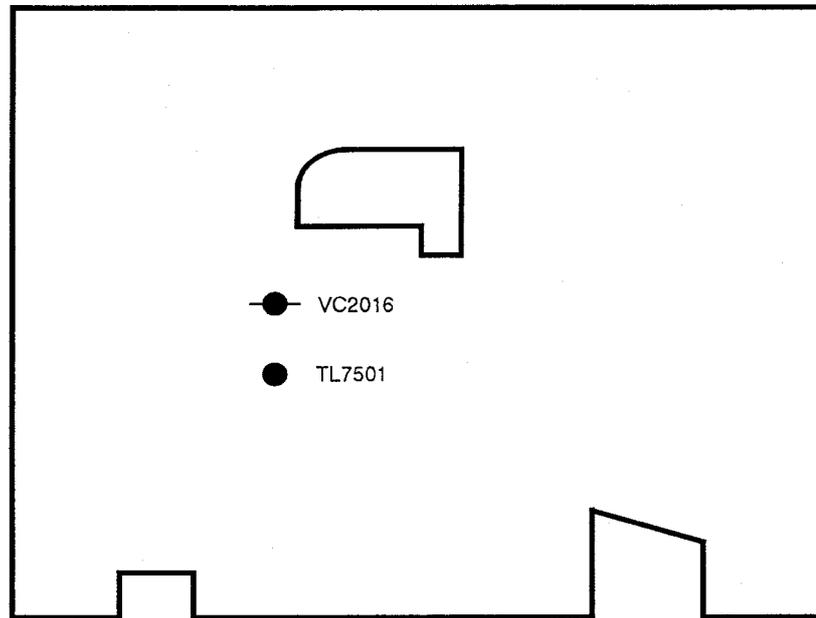
Pin Number	Input/Output	Port Name	Function
1	O	VOLTAGE CHANGE (H)	When increasing the drive torque of loading motor to perform the FF/REW mode, this port is high.
5	I	TAKE-UP REEL	Take-up Reel Pulse Input. (For detecting tape remaining and reel (Cap.) lock.)
6	I	SUPPLY REEL PULSE	Supply Reel Pulse Input. (For detecting tape remaining.)
7	O	UNLOADING (H)	When loading, this port is high.
9	O	LOADING (H)	When unloading, this port is high.
10	O	ARTIFICIAL V/H/N	Artificial Vertical Sync Signal is supplied to video circuit to stabilize the picture in the special playback modes.
11	I	IR REMOCON	Remocon pulse reception port. (Active low)
12	O	HEAD SW	This signal is supplied to the Head Amp circuit to switch the video head, R and L.
13	O	CAP R/S/F	Capstan Rotation Direction Output. Reverse : High Stop : Middle Forward : Low
14	O	CURRENT LIMIT	Capstan torque limiter Output.
15	O	ROTARY SW	Normally this signal is supplied to the chrominance circuit to perform the phase rotation.
19	O	EE/VV/TRICK (L)	When the VCR goes to the special playback (CUE, REV, SLOW, STILL) mode, this port is low.
22	O	D. REC (H)	When the VCR goes to the recording mode after a delay from the video recording command, this port is high.
23	O	VIDEO EE (L)	When the VCR goes to the EE mode, this port is low.
27	O	FF/REW & POWER OFF (L)	When the VCR goes to the FF/REW mode and Power off mode, this port is low.

Pin Number	Input/Output	Port Name	Function																																				
28	O	LM LIMIT (H)	Loading motor Torque limiter Output.																																				
32	I	POSITION SW 3	<table border="1"> <thead> <tr> <th>P.SW 3</th> <th>P.SW 2</th> <th>P.SW 1</th> <th>Position (Mode) Name</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>EJECT</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>CASSETTE DOWN</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> <td>REV</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>MID (LOADING / UNLOADING)</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> <td>PLAY/REC, STILL/PAUSE, CUE, STOP3 *1</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> <td>STOP</td> </tr> <tr> <td>1</td> <td>1</td> <td>0</td> <td>FF/REW</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> <td>INTERMEDIATE</td> </tr> </tbody> </table> <p>(*1) The Pinch Roller is on the capstan motor shaft.</p>	P.SW 3	P.SW 2	P.SW 1	Position (Mode) Name	0	0	0	EJECT	0	0	1	CASSETTE DOWN	0	1	0	REV	0	1	1	MID (LOADING / UNLOADING)	1	0	0	PLAY/REC, STILL/PAUSE, CUE, STOP3 *1	1	0	1	STOP	1	1	0	FF/REW	1	1	1	INTERMEDIATE
P.SW 3	P.SW 2	P.SW 1		Position (Mode) Name																																			
0	0	0		EJECT																																			
0	0	1		CASSETTE DOWN																																			
0	1	0		REV																																			
0	1	1		MID (LOADING / UNLOADING)																																			
1	0	0		PLAY/REC, STILL/PAUSE, CUE, STOP3 *1																																			
1	0	1		STOP																																			
1	1	0		FF/REW																																			
1	1	1	INTERMEDIATE																																				
33	I	POSITION SW 2																																					
34	I	POSITION SW 1																																					
37	I	RESET (L)	When resetting the IC2004, this port is low.																																				
38	I	OSC	Main oscillator input.																																				
39	O	OSC	Main oscillator output.																																				
42	I	OSC	Sub oscillator input.																																				
43	O	OSC	Sub oscillator output.																																				
44	I	SHORT DOWN	When the VCR goes to the recording mode, this port checks the oscillation of full erase head.																																				
45	O	AUDIO MUTE (H)	When the VCR goes to Power off and special playback (CUE,REV,SLOW,STILL) mode, this port is high.																																				
46	O	NTSC (L)	When the VCR goes to NTSC mode, This port is low.																																				
47	O	POWER OFF (H)	Power ON/OFF Control is low when the power switch is turned on.																																				
48	O	SENSOR LED ON (L)	<p>When turning on the Sensor LED, this port is low.</p> <p>1) STOP Mode : No lit.</p> <p>2) FF, REW, CUE, REV Modes : DC is lit.</p> <p>3) EJECT Mode : Pulse blinking.</p>																																				

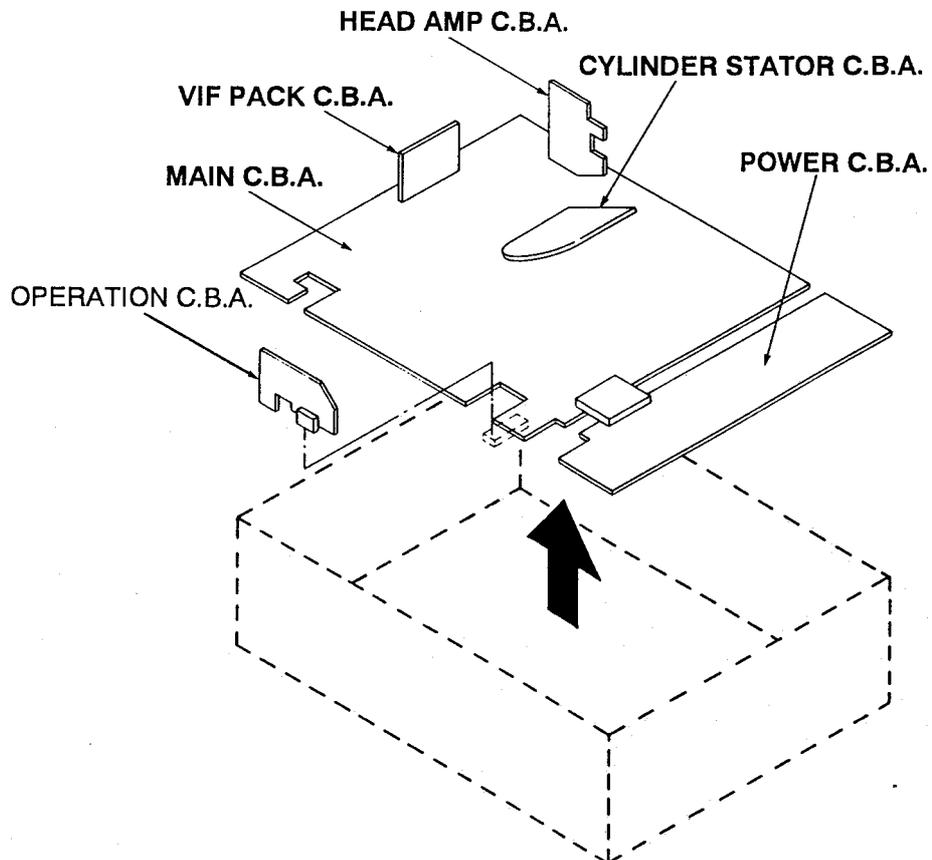
Pin Number	Input/Output	Port Name	Function
49	O	TV (H)/VTR (L)	TV/VTR switch output TV : High VTR : Low
50	O	SEARCH (H)	When the VCR goes to search mode in turning, this port is high.
57	I	NTSC REC (L)	When the VCR goes to NTSC recording mode, this port is low.
59	O	TUNER V MUTE (H)	When the VCR goes to turning mode, this port is high.
61	O	IN SEL	Input select signal.
62	I	POWER FAIL. OUT	This port goes to low after high signal appears at pin 84 and then this port is high.
63	O	PAL I (H)	When the VCR goes to PAL I mode, this port is high.
64	O	MESECAM (H)	When the VCR goes to MESECAM mode, this port is high.
83	I	SAFETY TAB	When inserting the cassette tape with safety tab, this port is low. When there is no safety tab, this port is high to prevent recording.
84	I	POWER FAIL. IN	Power failure detecting input.
87	I	NORMAL/ SERVICE/TEST	Service Mode Setting Normal Mode : High Service Mode : Middle Test Mode : Low
90	I	TAKE-UP PHOTO	Take-up Side Photo Sensor Input. (For detecting tape beginning.)
91	I	SUPPLY PHOTO	Supply Side Photo Sensor Input. (For detecting tape end.)
98	O	TIMER TALK	Peripheral IC control signal. (Data output)
99	I	TIMER LISTEN	Peripheral IC control signal. (Data input)
100	O	TIMER CLOCK	Peripheral IC control signal. (Clock output)

LOCATION OF TEST POINTS & CONTROLS

MAIN C.B.A.



CIRCUIT BOARD LAYOUT



2-3. ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete adjustment procedures required for electric circuits of VCR.

2-3-1. TEST EQUIPMENT

To perform electrical adjustments following equipment is required.

1. Universal Counter.
2. VHS Alignment Tape. (VFJ8125H3F)
3. Plastic Tip Driver.
4. Monitor

2-3-2. HOW TO READ ADJUSTMENT PROCEDURES

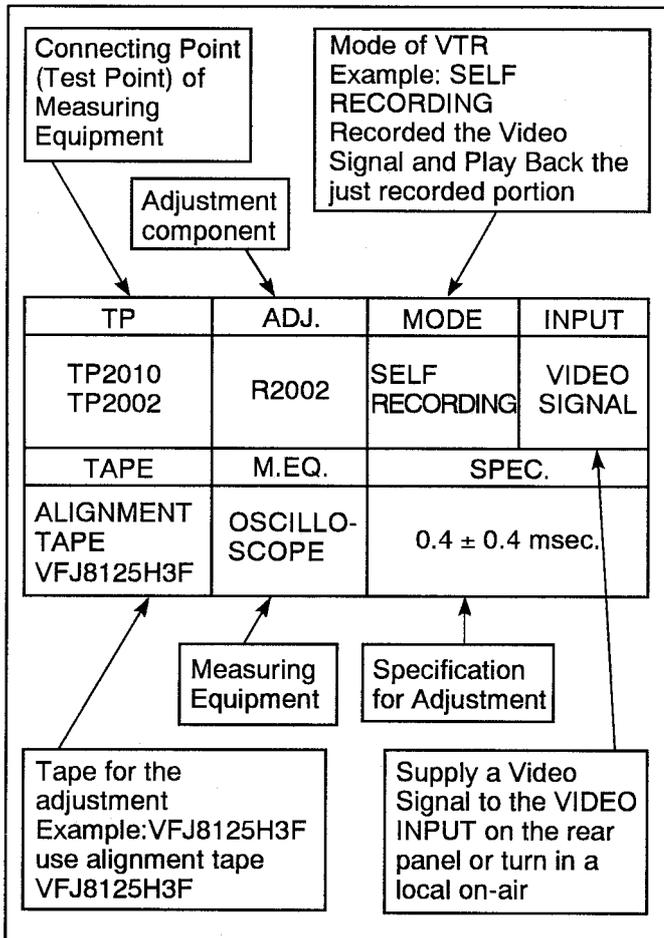


Fig.E1

SERVO SECTION

2-3-3. PG SHIFTER ADJUSTMENT

PROCEDURES	DISPLAY
1. To set Service Mode 2, press FF, REW and EJECT buttons simultaneously three times.	2 00 00
2. Press EJECT button for more than three seconds. Digit of minute is put out light.	2 00 00
3. Indicate 1 in the digit of minute by pressing the channel up/down buttons. When the channel up button is pressed, 1 will be indicated in the digit of minute.	2 0 1 00
4. Insert VHS Alignment Tape (VFJ8125H3F).	2 0 1 00
5. This adjustment is automatically started after VCR goes PLAY mode. (During the adjustment, the picture can be observed on the monitor.)	2 0 1 00
6. When this adjustment is terminated, the following operation will be activated. Adjustment completed : The tape will be ejected. Adjustment incompleted : Indicates " F20 " Check the Servo/System Control circuit and Cylinder unit.	
7. To release Service Mode 2, press FF, REW and EJECT buttons simultaneously sixth times or turn off the power.	

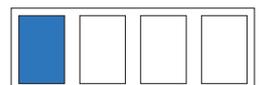
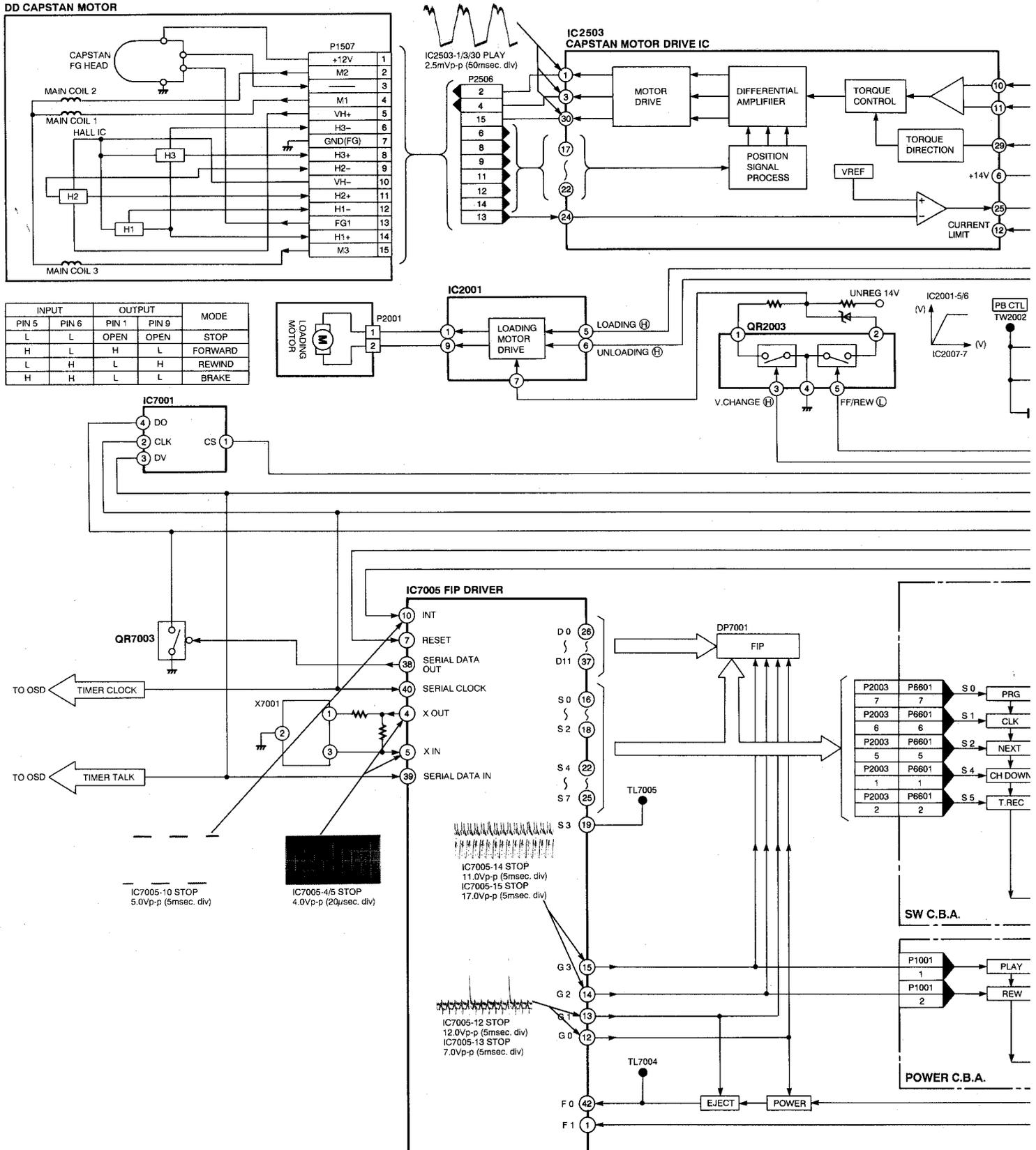
TIMER SECTION

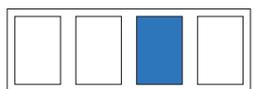
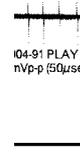
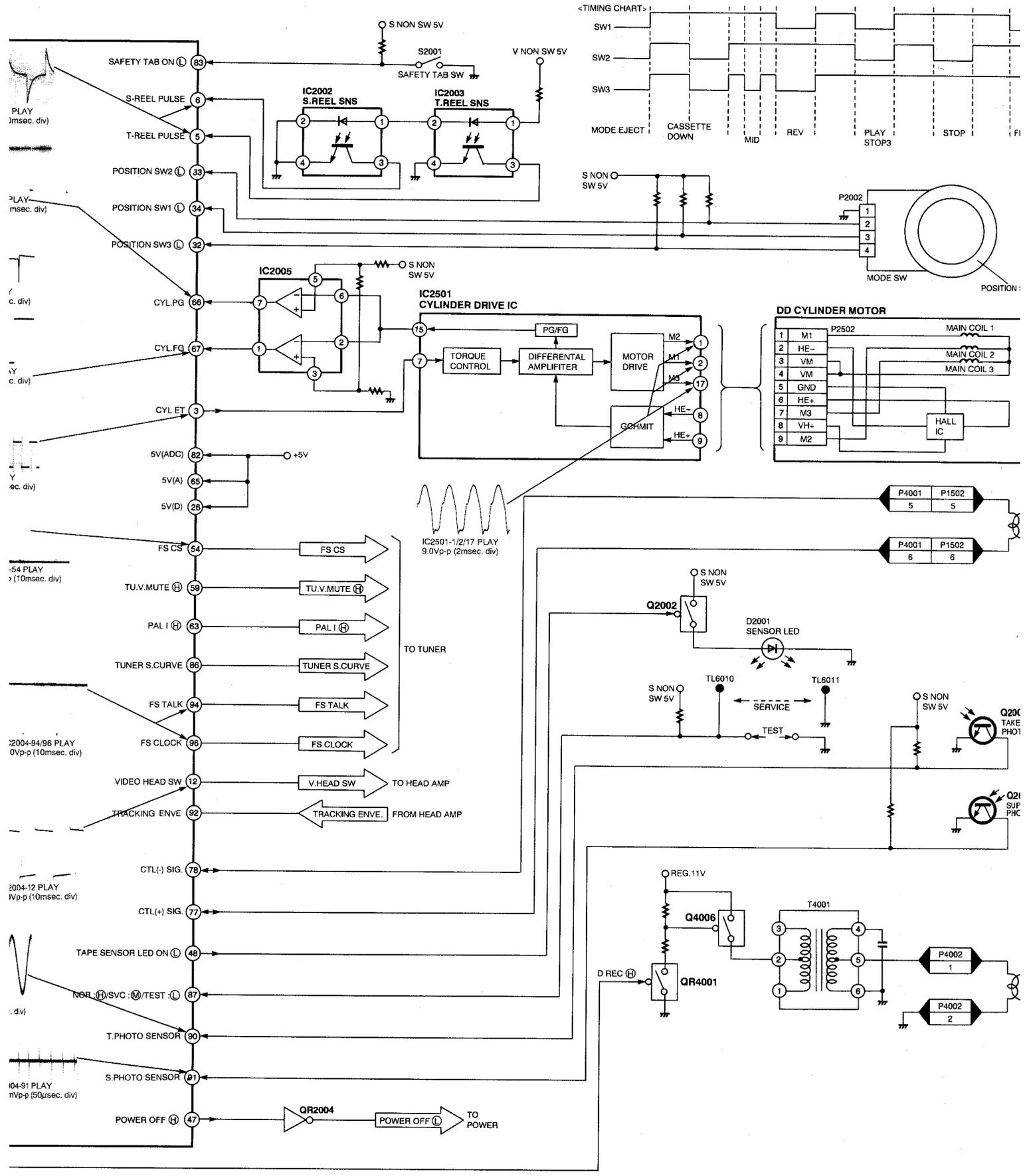
2-3-4. TIMER REFERENCE CLOCK ADJUSTMENT

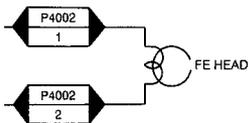
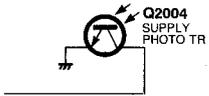
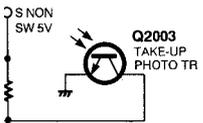
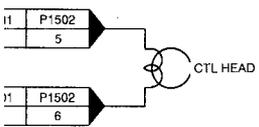
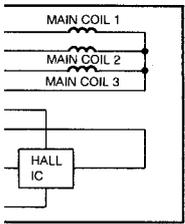
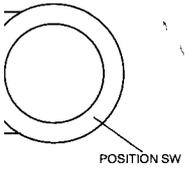
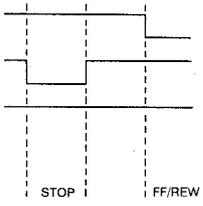
TP	ADJ.	MODE	INPUT
TL7501	VC2016	STOP	
TAPE	M.EQ.	SPEC.	
	UNIVERSAL COUNTER	8000.0 ± 0.016 (μsec)	

1. Connect the universal counter to TL7501.
2. Adjust VC2016 so the reading of universal counter is 8000.0 ± 0.016 (μsec).

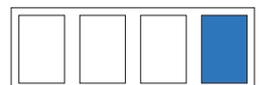
3-2. SYSTEM CONTROL & SERVO SECTION BLOCK DIAGRAM



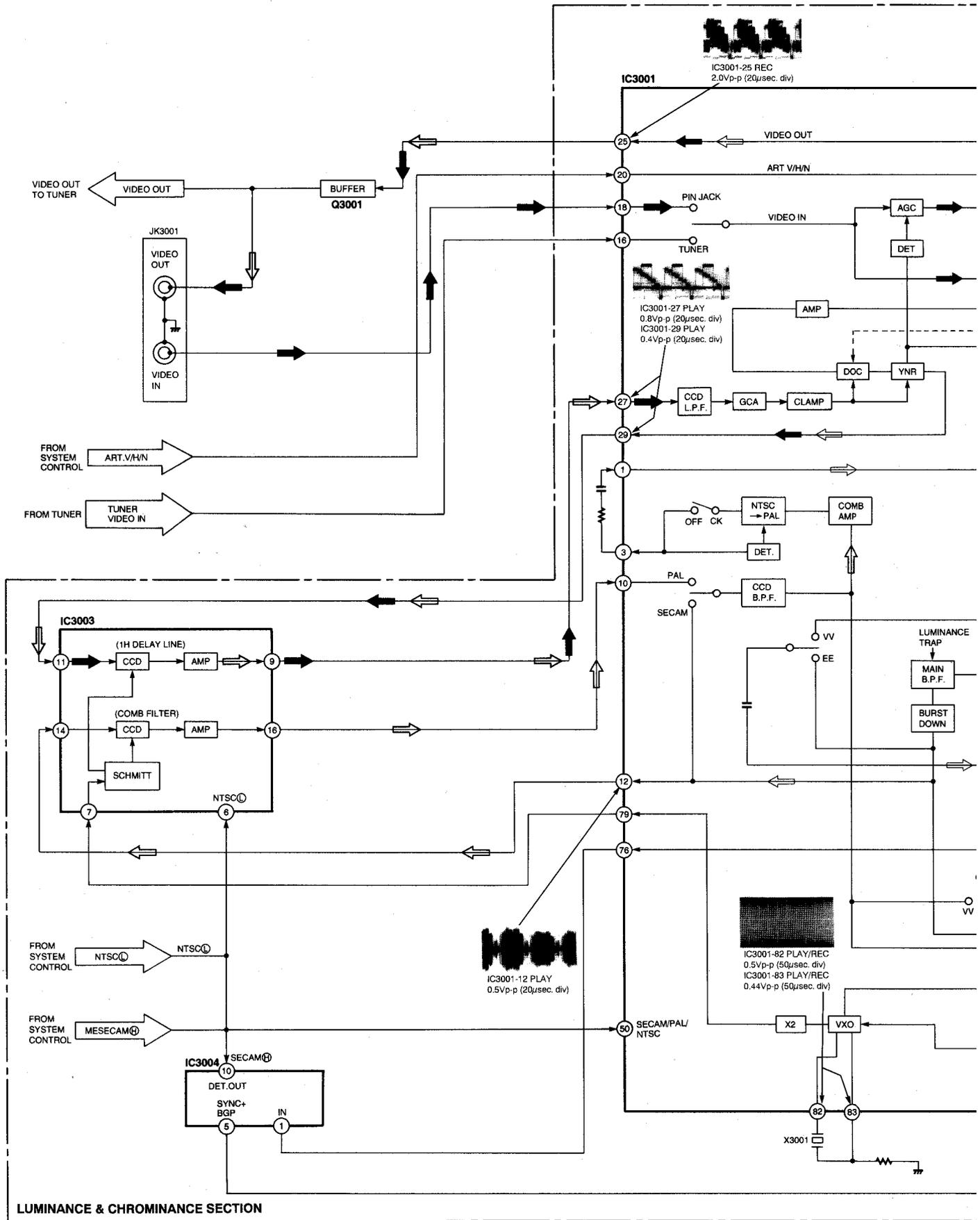




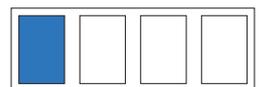
SYMBOL		TRUTH VALUE TABLE																							
INVERTER 		<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>H</td> <td>L</td> </tr> <tr> <td>OUT</td> <td>(b)</td> <td>L</td> <td>H</td> </tr> </table>				IN	(a)	H	L	OUT	(b)	L	H												
IN	(a)	H	L																						
OUT	(b)	L	H																						
COMPARTOR 		<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>(a)>(b)</td> <td>(a)<(b)</td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>H</td> <td>L</td> </tr> </table>				IN	(a)	(a)>(b)	(a)<(b)	OUT	(c)	H	L												
IN	(a)	(a)>(b)	(a)<(b)																						
OUT	(c)	H	L																						
AND CIRCUIT 		<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																				
OR CIRCUIT 		<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		
IN	(a)	L	L	H	H																				
	(b)	L	H	L	H																				
OUT	(c)	L	H	H	H																				
THREE STATES BUFFER 		<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>H</td> <td>L</td> <td>H or L</td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>H</td> <td>L</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	※																					
TR. SW (NPN TYPE) 		<table border="1"> <tr> <td>BASE</td> <td>H</td> <td>L</td> </tr> <tr> <td>TR. SW</td> <td>ON</td> <td>OFF</td> </tr> </table>				BASE	H	L	TR. SW	ON	OFF														
BASE	H	L																							
TR. SW	ON	OFF																							
TR. SW (PNP TYPE) 		<table border="1"> <tr> <td>BASE</td> <td>H</td> <td>L</td> </tr> <tr> <td>TR. SW</td> <td>OFF</td> <td>ON</td> </tr> </table>				BASE	H	L	TR. SW	OFF	ON														
BASE	H	L																							
TR. SW	OFF	ON																							
R-S TYPE FLIP-FLOP 		<table border="1"> <tr> <td>IN</td> <td>(a)</td> <td>L</td> <td>L</td> <td></td> </tr> <tr> <td></td> <td>(b)</td> <td>L</td> <td></td> <td>L</td> </tr> <tr> <td>OUT</td> <td>(c)</td> <td>※</td> <td>L</td> <td>H</td> </tr> <tr> <td></td> <td>(d)</td> <td>◆</td> <td>H</td> <td>L</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																					



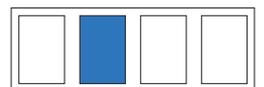
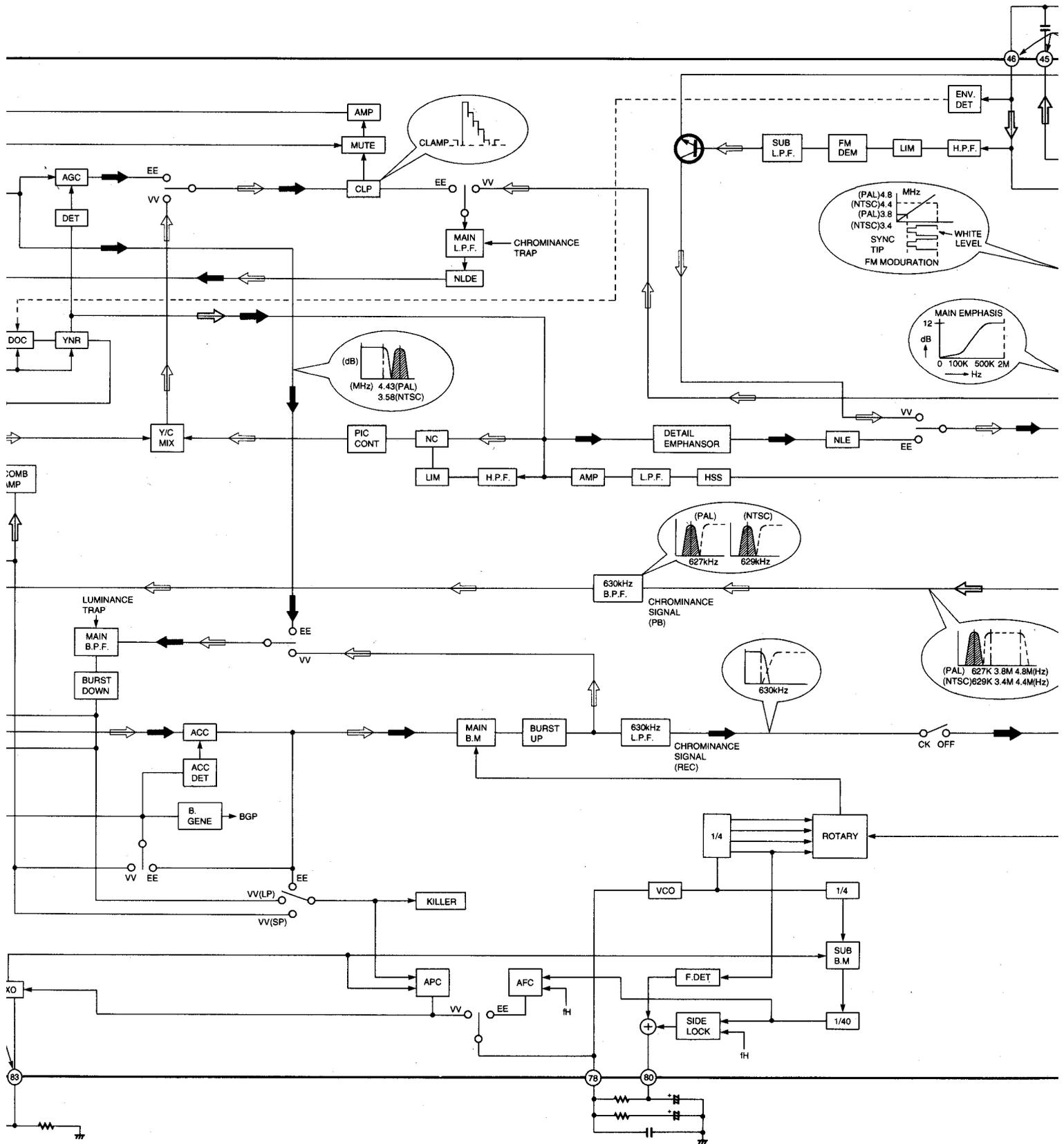
3-3. LUMINANCE & CHROMINANCE SECTION BLOCK DIAGRAM



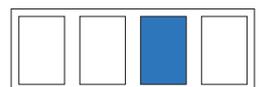
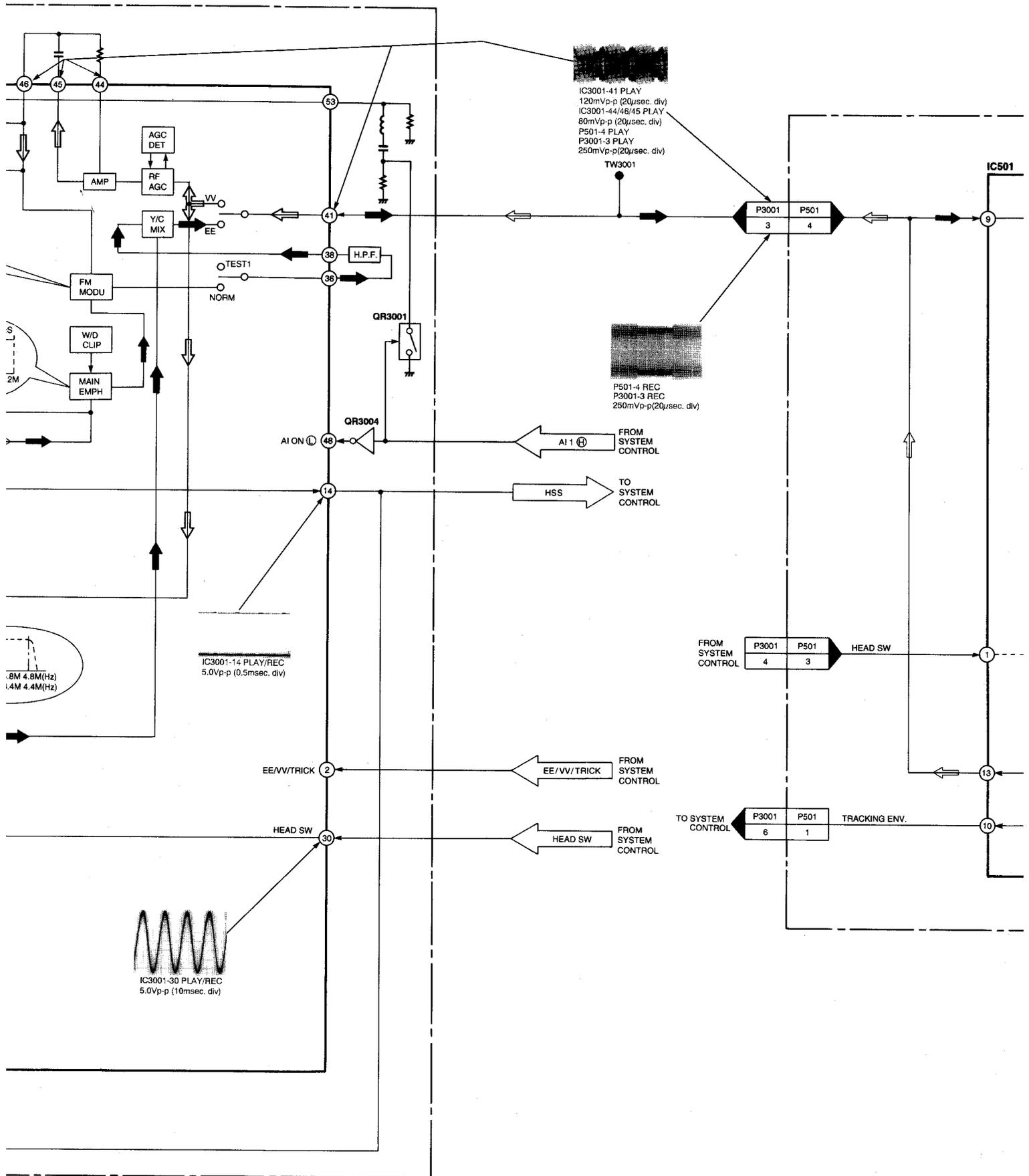
LUMINANCE & CHROMINANCE SECTION

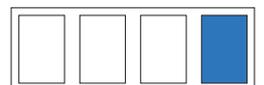
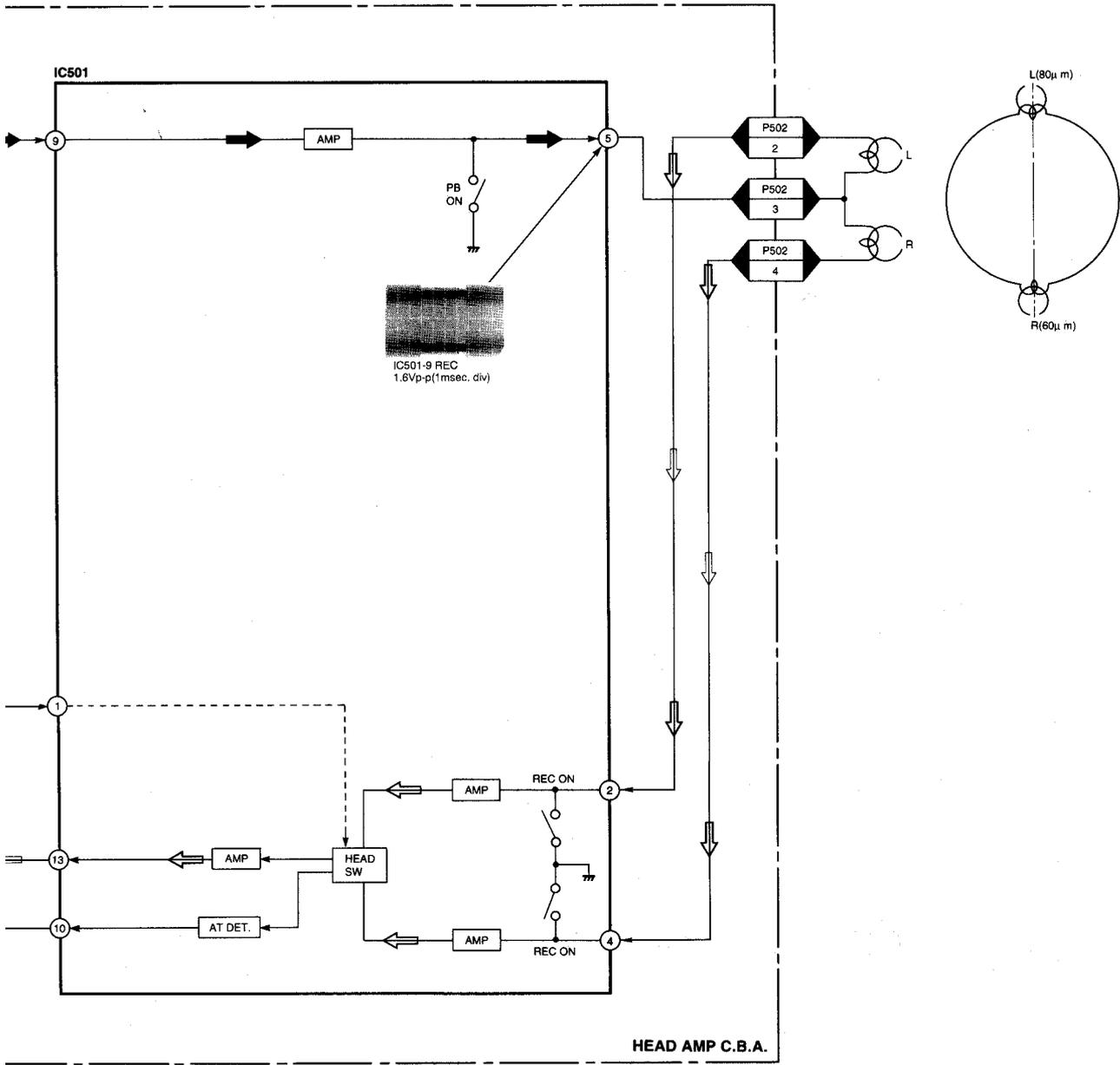


← VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE



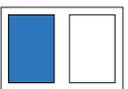
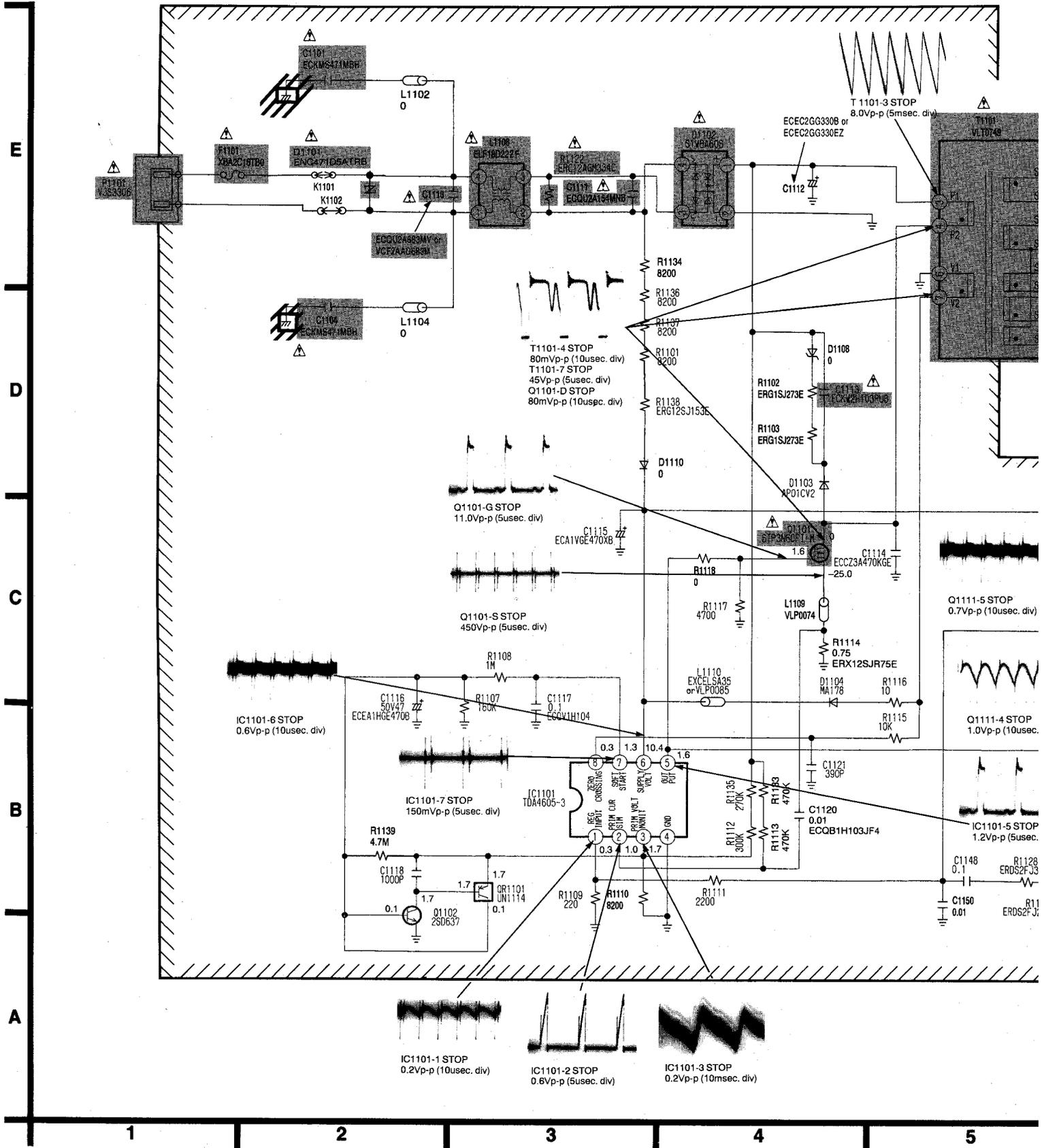
← VIDEO MAIN SIGNAL PATH IN REC MODE

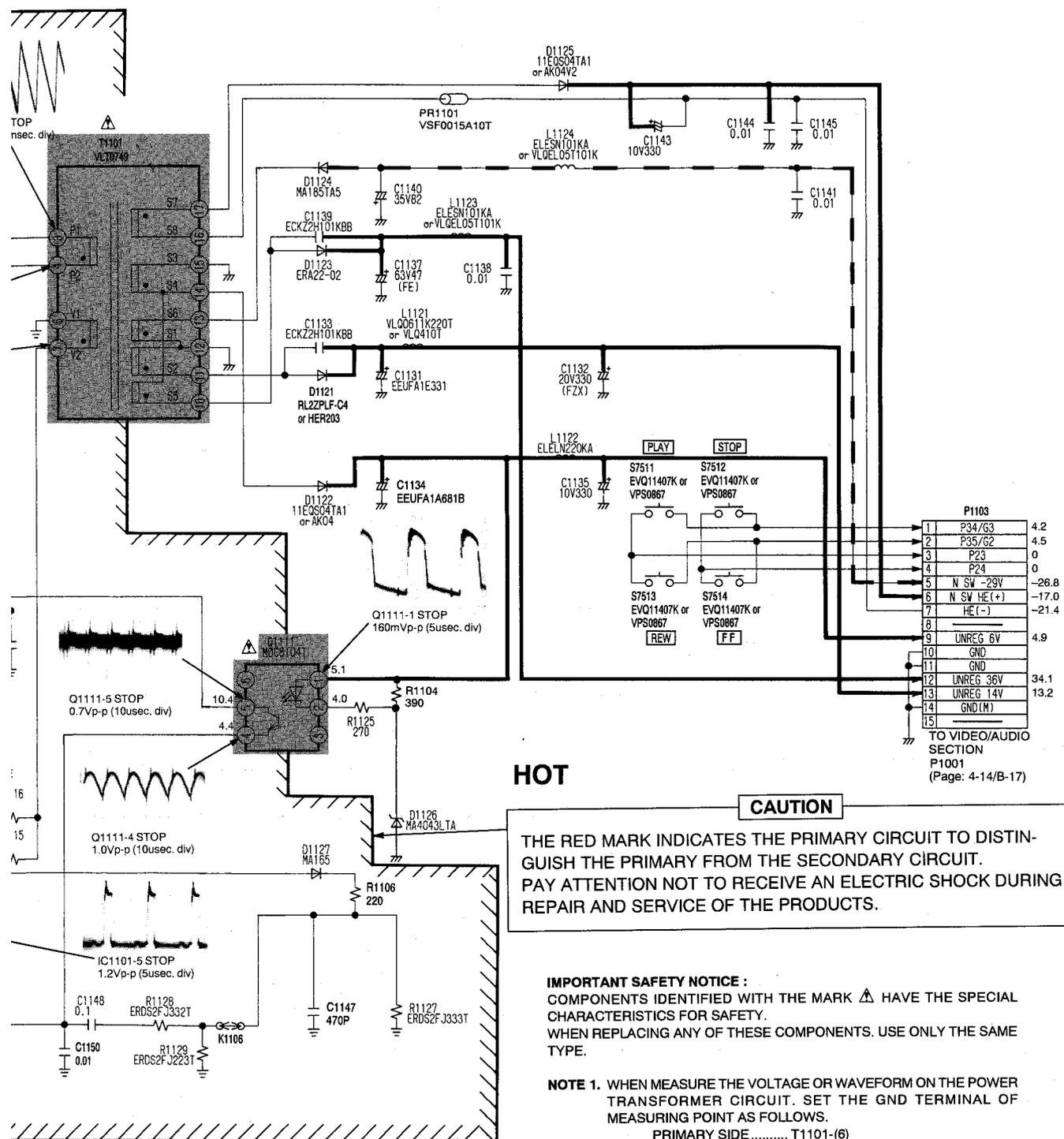




SECTION 4 SCHEMATIC DIAGRAMS

4-1. POWER SCHEMATIC DIAGRAM





P1103		
1	P34/G3	4.2
2	P35/G2	4.5
3	P23	0
4	P24	0
5	N SW -29V	-26.8
6	N SW HE(+)	-17.0
7	HE (-)	-21.4
8		
9	UNREG 6V	4.9
10	GND	
11	GND	
12	UNREG 36V	34.1
13	UNREG 14V	13.2
14	GND(M)	
15		

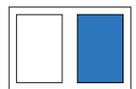
TO VIDEO/AUDIO SECTION P1001 (Page: 4-14/B-17)

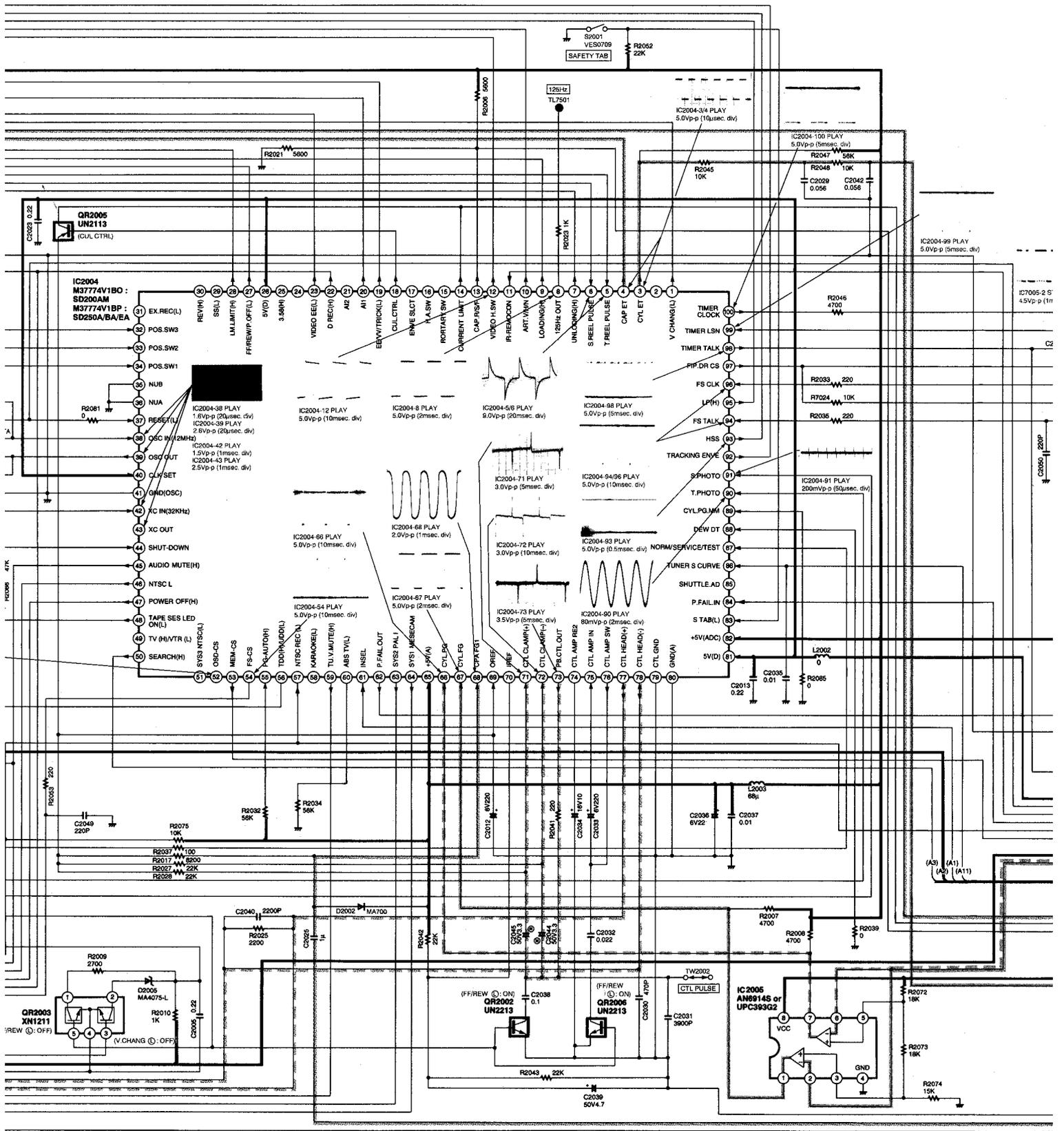
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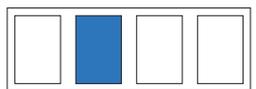
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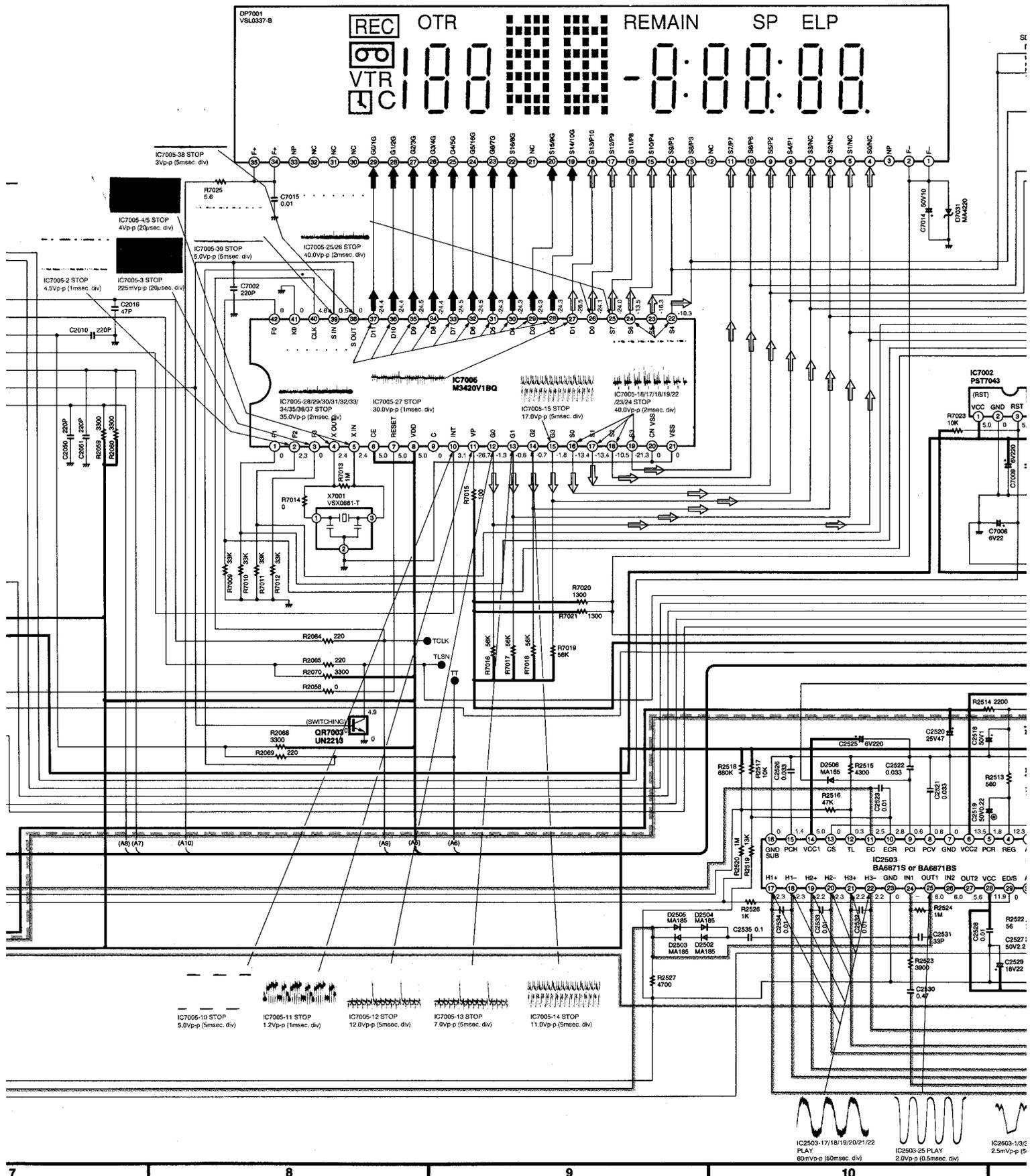
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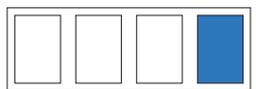
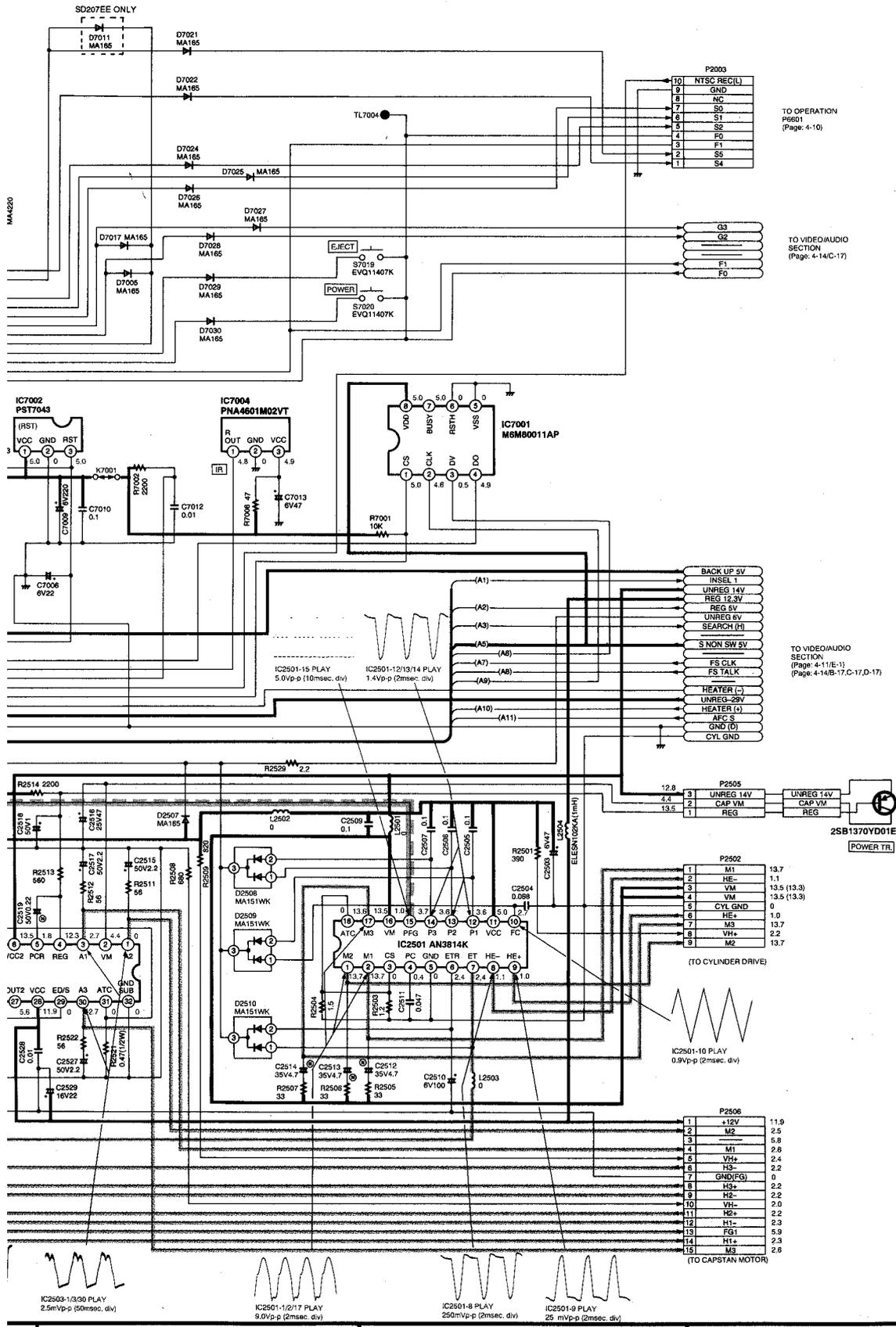
IS SCHEMATIC
 PARTS LIST. NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.





← SERMENT CONTROL SIGNAL PATH

← GRID CONTROL SIGNAL PATH



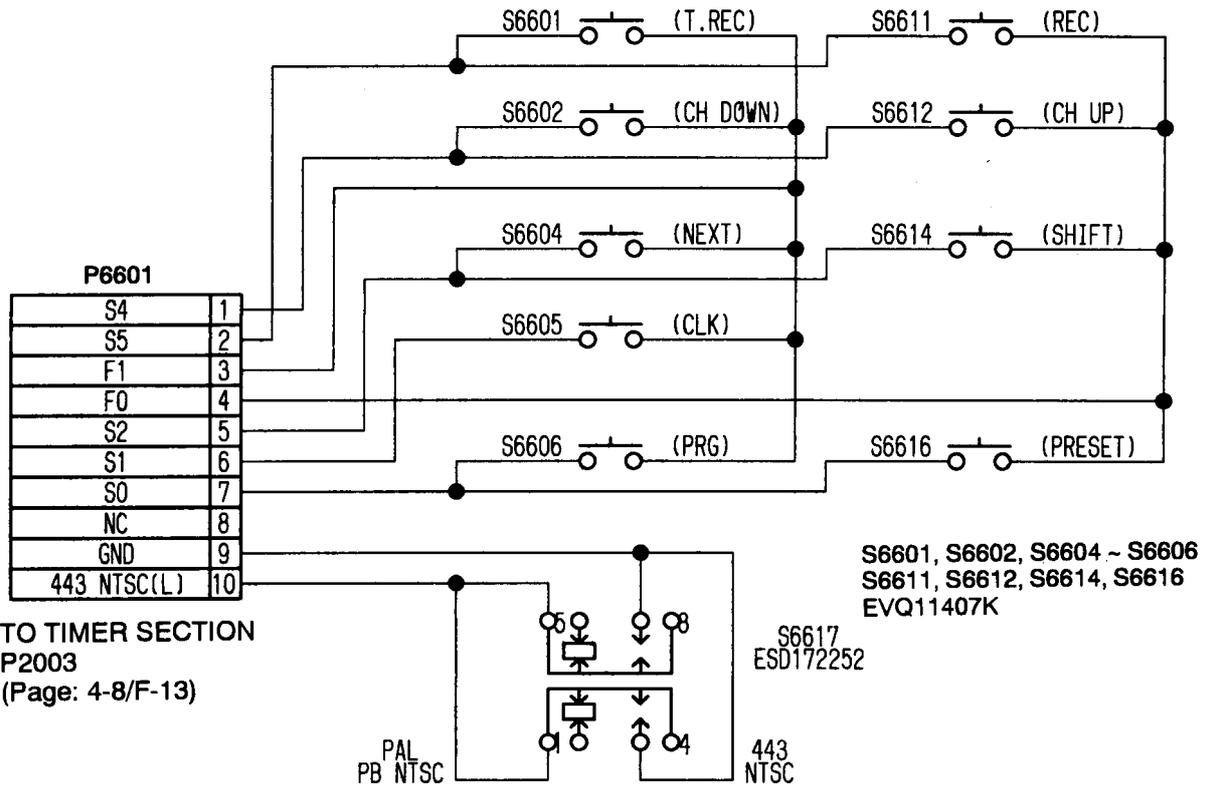
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO. MODE	IC2005								IC2002											
	1	2	3	4	5	6	7	8	1	2	3	4								
STOP	3.6	1.3	1.4	0	3.2	1.3	4.9	5.0	1.1	0	0	0								
PLAY	3.4	1.1	1.4	0	3.2	1.0	4.9	5.0	1.1	0	5.0	0								
REC	3.2	1.3	1.4	0	3.2	1.3	4.9	5.0	1.1	0	0	0								
F.F.	3.6	1.0	1.4	0	3.2	1.2	4.9	5.0	1.1	0	2.1	0								
REW	3.0	1.0	1.4	0	3.2	1.2	4.9	5.0	1.1	0	3.0	0								
REF. NO. MODE	IC2003																			
STOP	2.2	1.1	0	0																
PLAY	2.2	1.1	5.0	0																
REC	2.2	1.1	0	0																
F.F.	2.2	1.1	4.6	0																
REW	2.2	1.1	2.5	0																
REF. NO. MODE	IC2004																			
STOP	5.0	0	2.4	2.4	5.0	5.0	0	2.6	0	0	4.9	5.0	2.4	0	0	0	0	2.4	5.0	0
PLAY	5.0	0	2.4	2.4	5.0	5.0	0	1.1	0	0	4.9	4.2	0	1.1	0	0	0	4.4	2.3	0
REC	5.0	0	2.4	2.4	5.0	5.0	0	2.6	0	0	4.9	5.0	0	5.0	0	0	0	4.4	5.0	0
F.F.	0	0	2.4	2.1	1.8	3.0	0	2.6	0	0	4.9	4.0	0	5.0	0	0	0	4.4	5.0	0
REW	0	0	2.4	2.1	3.4	3.0	0	2.6	0	0	4.9	5.0	4.9	5.0	0	0	0	4.4	5.0	0
REF. NO. MODE	IC2004																			
STOP	0	0	0	0	0	5.0	5.0	0	5.0	0	0	5.0	0	0	0	0	5.0	2.3	2.2	5.0
PLAY	0	0	5.0	0	0	5.0	5.0	0	0.9	0	0	5.0	0	0	0	0	5.0	—	—	5.0
REC	0	5.0	0	0	0	5.0	5.0	0	5.0	0	5.0	5.0	0	0	0	0	5.0	—	—	5.0
F.F.	0	0	0	0	0	5.0	0	0	5.0	0	0	5.0	5.0	0	0	0	5.0	—	—	5.0
REW	0	0	0	0	0	5.0	0	0	5.0	5.0	0	5.0	5.0	0	0	0	5.0	—	—	5.0
REF. NO. MODE	IC2004																			
STOP	0	2.1	1.2	3.2	5.0	5.0	0	5.0	0	0	0	4.8	5.0	0.1	4.9	0	4.9	0	0	4.9
PLAY	0	0	1.2	0	0	5.0	0	0	0	0	0	4.4	5.0	0.1	4.9	0	4.9	0	5.0	4.9
REC	0	1.9	1.2	4.5	0	5.0	0	0	0	0	0	5.0	5.0	0.1	4.9	0	4.9	0	5.0	4.9
F.F.	0	1.0	1.2	0	5.0	5.0	0	0	0	0	0	3.8	5.0	0	4.9	0	4.9	0	0	4.9
REW	0	1.0	1.2	0	5.0	5.0	0	0	0	0	0	4.2	5.0	0	4.9	0	4.9	0	0	4.9
REF. NO. MODE	IC2004																			
STOP	0	5.0	0	5.0	4.9	4.9	3.6	2.4	2.4	2.4	2.5	2.3	2.4	2.4	2.4	0	0	0	0	0.6
PLAY	5.0	5.0	0	0	4.9	4.9	3.6	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.4	0	0	0	0	0
REC	5.0	5.0	0	0	4.9	4.9	3.6	2.4	2.4	2.4	2.5	2.3	2.4	2.4	2.4	0	3.5	2.7	0	0
F.F.	0	5.0	0	5.0	4.9	4.9	3.6	2.4	2.4	2.4	1.2	3.7	2.4	2.4	2.4	0	0	0	0	0
REW	0	5.0	0	5.0	4.9	4.9	3.6	2.4	2.4	2.4	1.2	3.7	2.4	2.4	2.4	0	0	0	0	0
REF. NO. MODE	IC2004																			
STOP	5.0	5.0	5.0	5.0	0	2.5	0.5	0	0	4.4	4.9	2.2	0.7	5.0	0	5.0	3.2	0.4	4.9	4.7
PLAY	5.0	5.0	5.0	5.0	0	2.3	5.0	0	0	4.1	4.9	2.4	0.3	5.0	0	5.0	3.2	0.7	4.9	4.7
REC	5.0	5.0	0	5.0	0	2.5	5.0	0	0	4.0	4.9	2.2	0.3	5.0	0	5.0	3.2	0.7	4.9	4.6
F.F.	5.0	5.0	5.0	5.0	0	2.5	5.0	0	0	4.4	4.9	2.1	0.7	5.0	0	5.0	3.2	1.8	4.9	4.3
REW	5.0	5.0	5.0	5.0	0	2.5	5.0	0	0	4.4	4.9	2.7	0.7	5.0	0	5.0	3.2	1.8	4.9	4.5

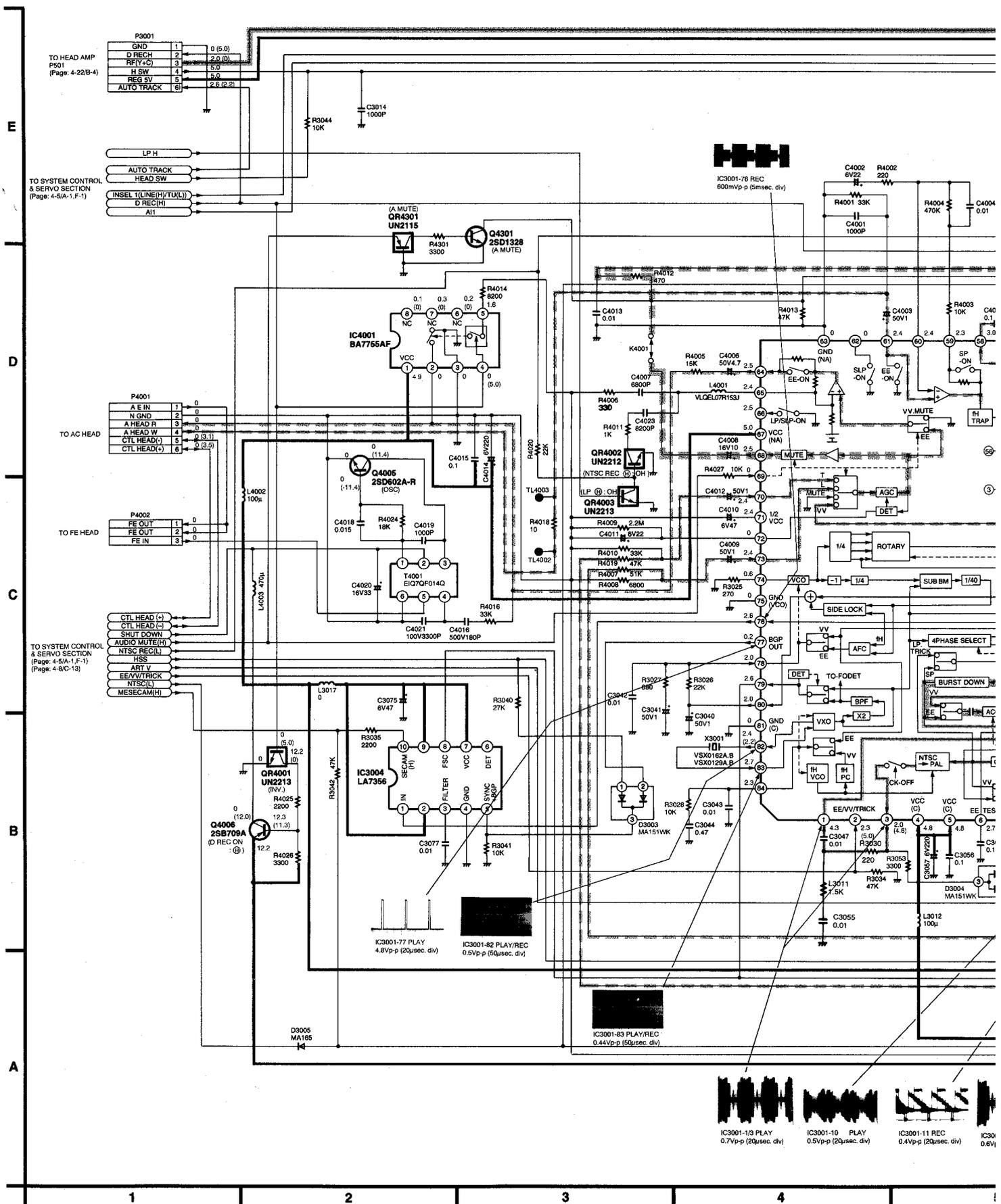
SYSTEM CONTROL & SERVO TRANSISTORS DC VOLTAGE CHART (SP MODE)

REF. NO. MODE	QR2002			QR2003					QR2005			QR2006		
	E	C	B	1	2	3	4	5	E	C	B	E	C	B
STOP	0	0	5.0	0	0	5.0	0	5.0	2.4	0	2.4	0	0	5.0
PLAY	0	0	5.0	0	0	5.0	0	5.0	2.4	5.0	4.4	0	0	5.0
REC	0	0	5.0	0	0	5.0	0	5.0	2.4	5.0	4.4	0	0	5.0
F.F.	0	1.2	0	13.3	7.2	0	0	0	2.4	5.0	4.4	0	0.4	0
REW	0	1.3	0	13.3	7.2	0	0	0	2.4	5.0	4.4	0	1.6	0

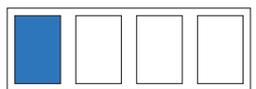
4-4. OPERATION SCHEMATIC DIAGRAM

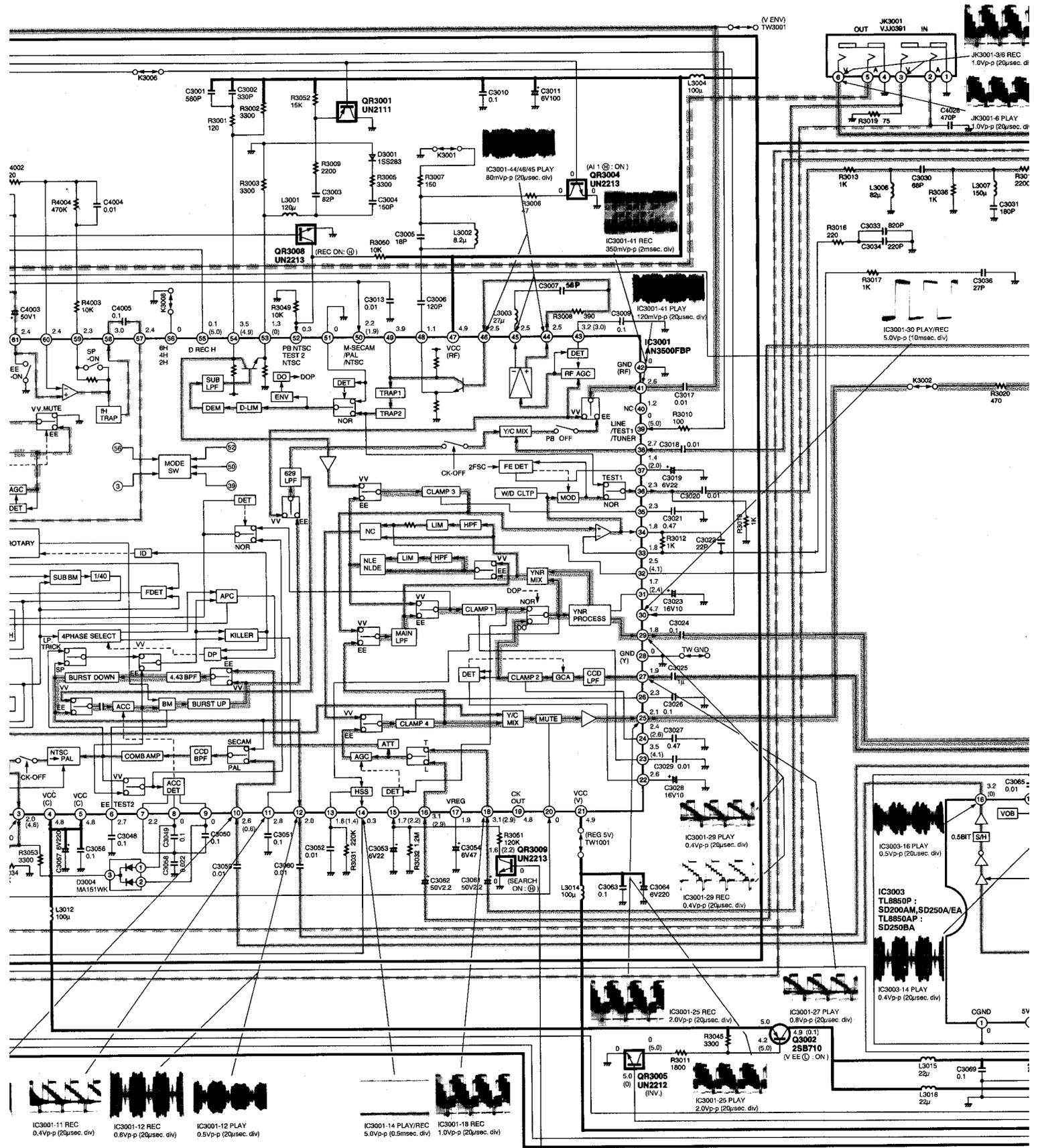


4-6. VIDEO / AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM



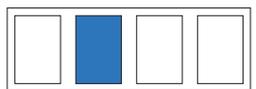
IC3001-13 PLAY 0.7Vp-p (20µsec. div) IC3001-10 PLAY 0.5Vp-p (20µsec. div) IC3001-11 REC 0.4Vp-p (20µsec. div) IC3001-83 PLAY/REC 0.4Vp-p (15µsec. div)

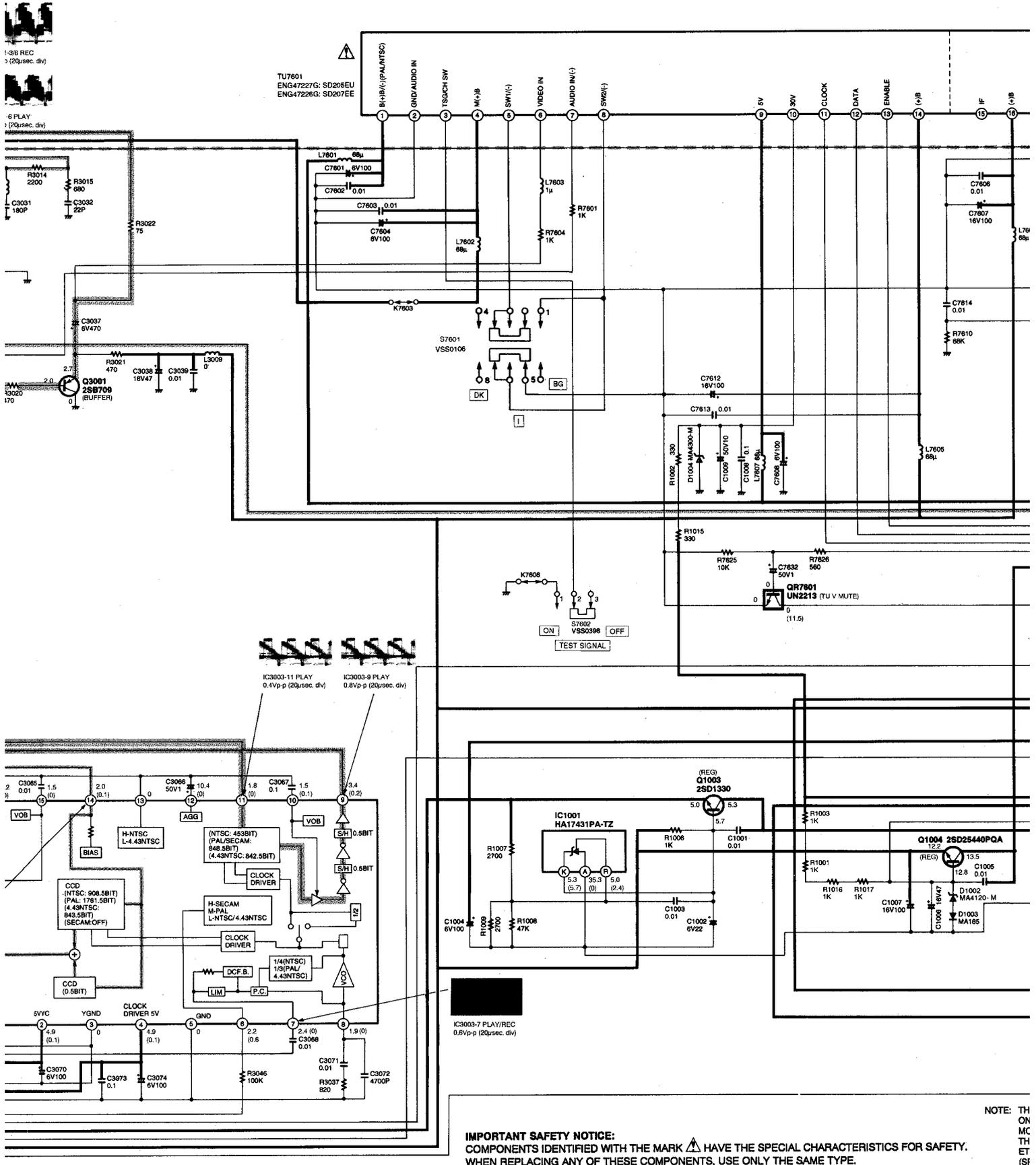




IC3001-11 REC 0.4Vp-p (20µsec. div) IC3001-12 REC 0.6Vp-p (20µsec. div) IC3001-12 PLAY 0.5Vp-p (20µsec. div) IC3001-14 PLAY/REC 5.0Vp-p (0.5msec. div) IC3001-18 REC 1.0Vp-p (20µsec. div)

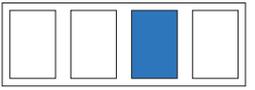
IC3001-25 REC 2.0Vp-p (20µsec. div) IC3001-27 PLAY 0.8Vp-p (20µsec. div) IC3001-25 PLAY 2.0Vp-p (20µsec. div) IC3003-16 PLAY 0.5Vp-p (20µsec. div) IC3003-14 PLAY 0.4Vp-p (20µsec. div) IC3003-36 REC 1.0Vp-p (20µsec. div) IC3001-6 PLAY 1.0Vp-p (20µsec. div) IC3001-30 PLAY/REC 5.0Vp-p (10msec. div)



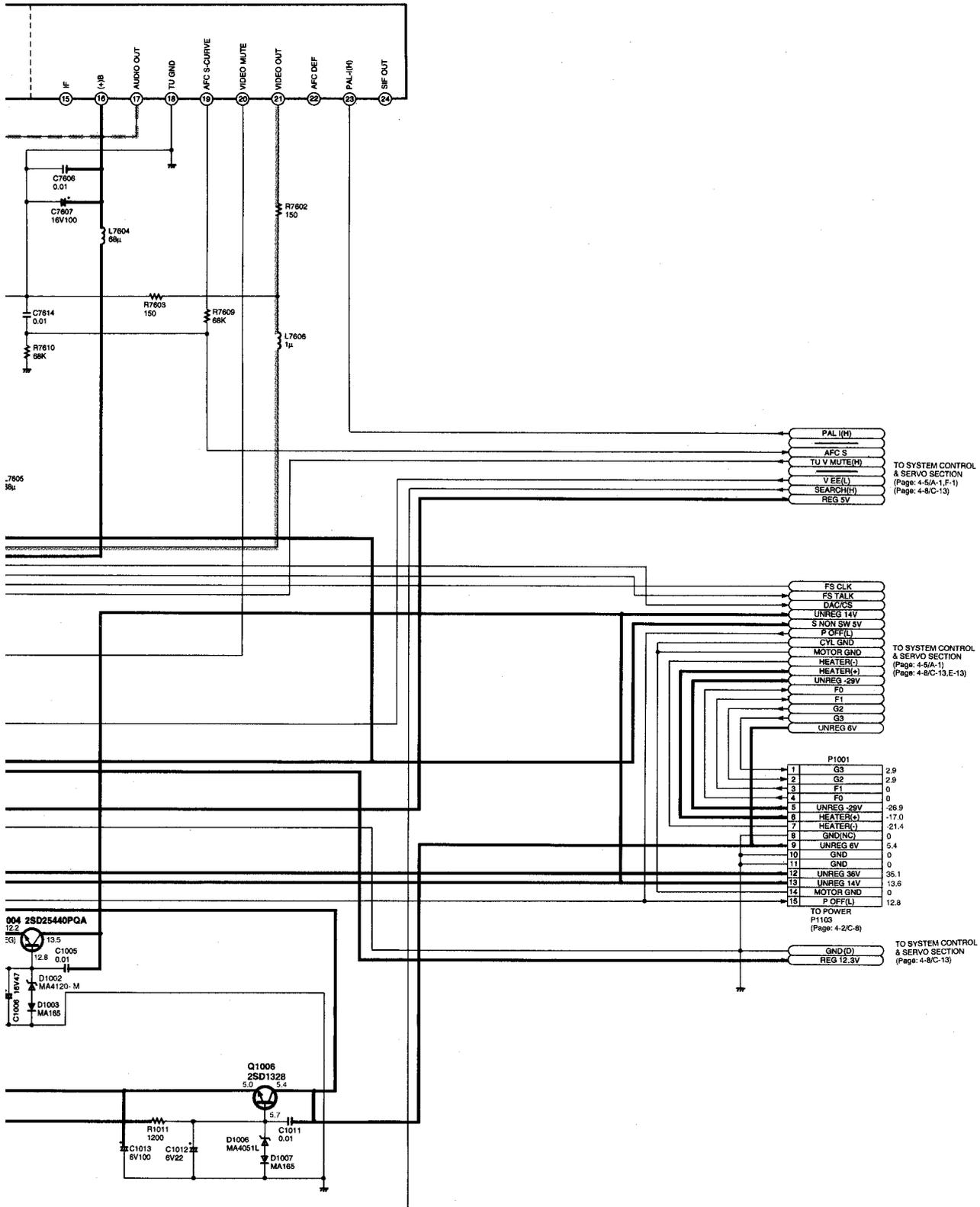


IMPORTANT SAFETY NOTICE:
 COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
 WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: TH
 ON
 MC
 TH
 ET
 (SF)



SIGNAL PATH IN PLAYBACK MODE



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

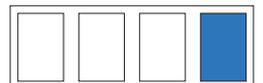
SAFETY.

14

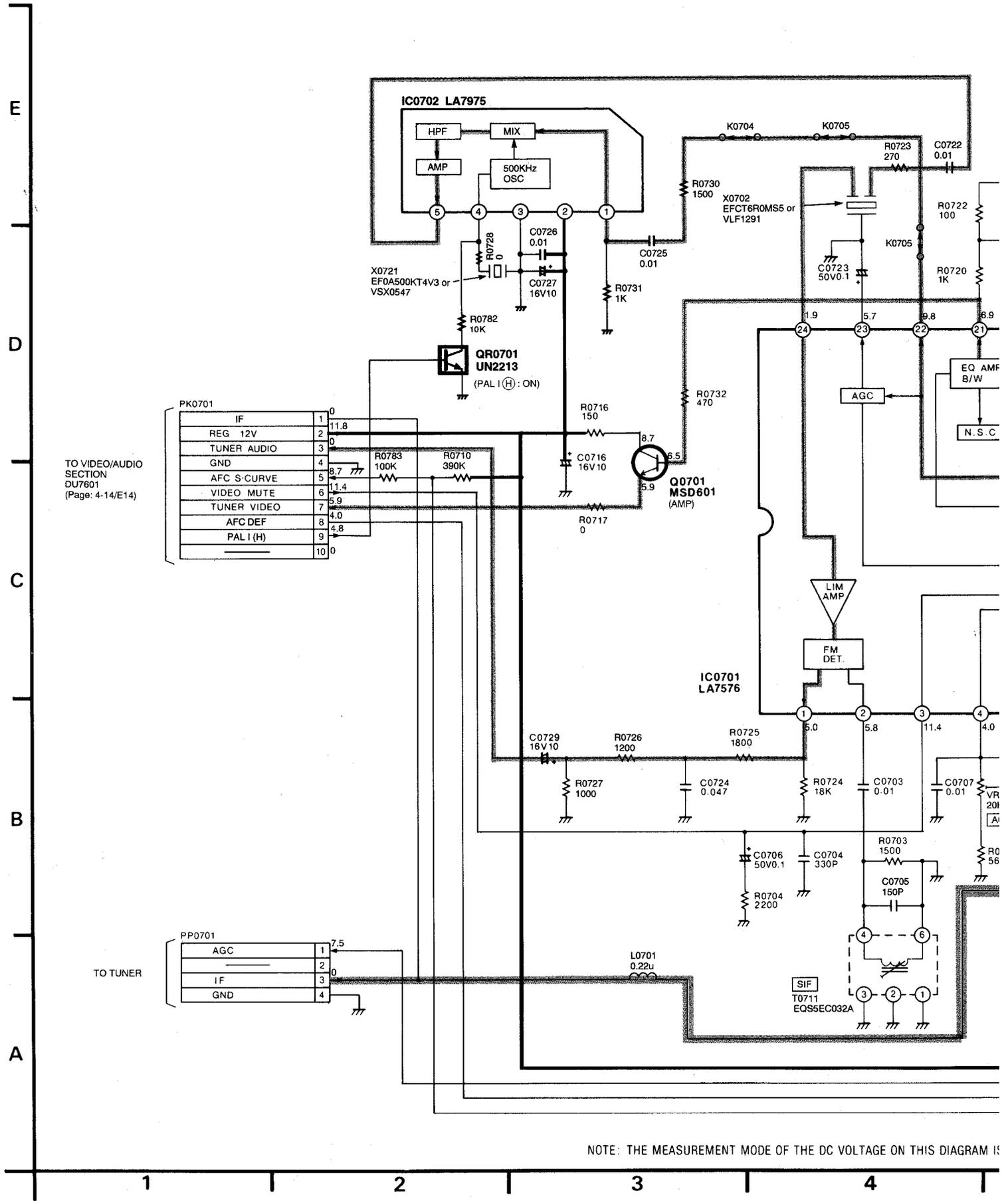
15

16

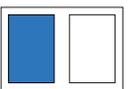
17



4-9. VIF PACK SCHEMATIC DIAGRAM

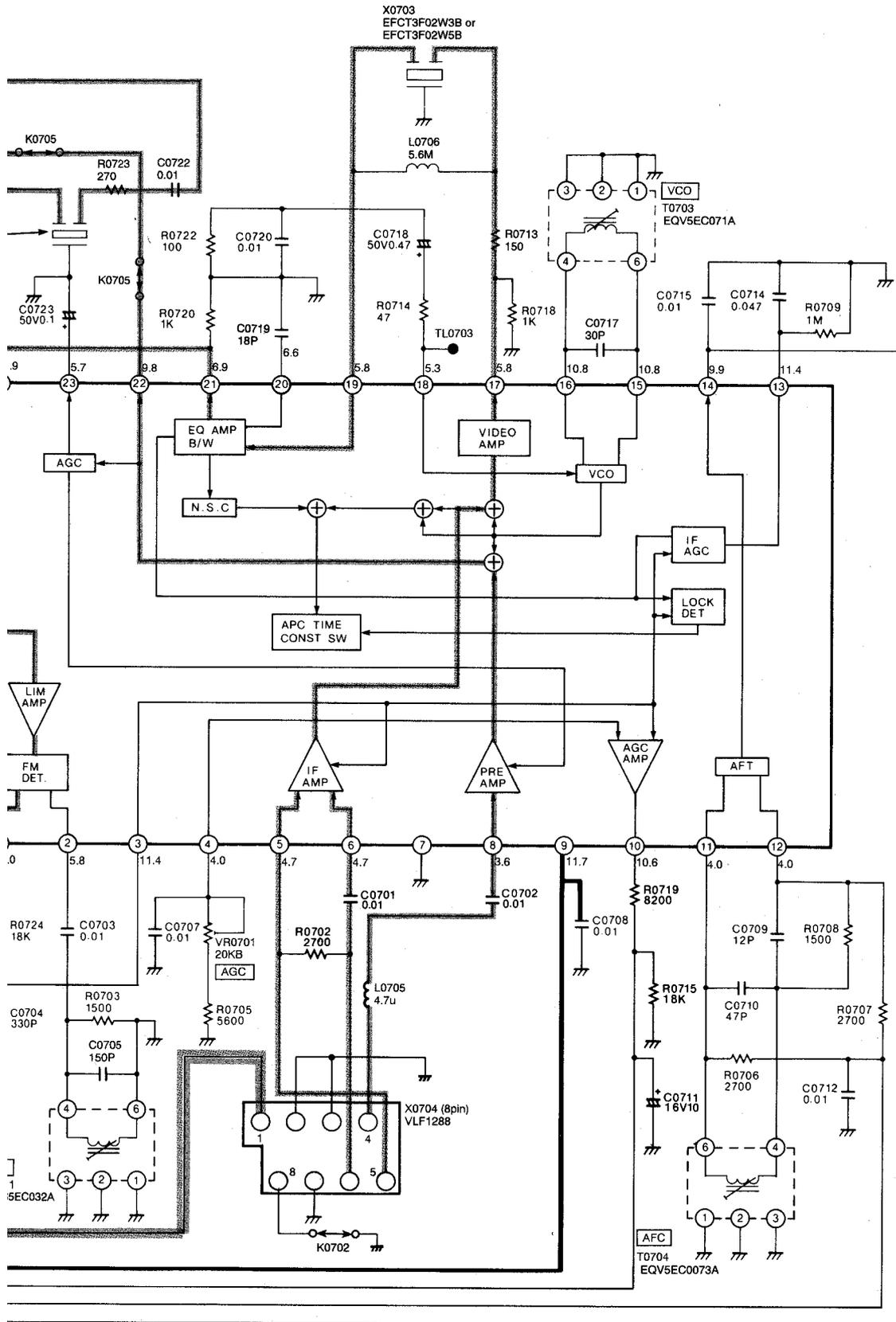


NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS



VIDEO SIGNAL PATH

AUDIO SIGNAL PATH



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

DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

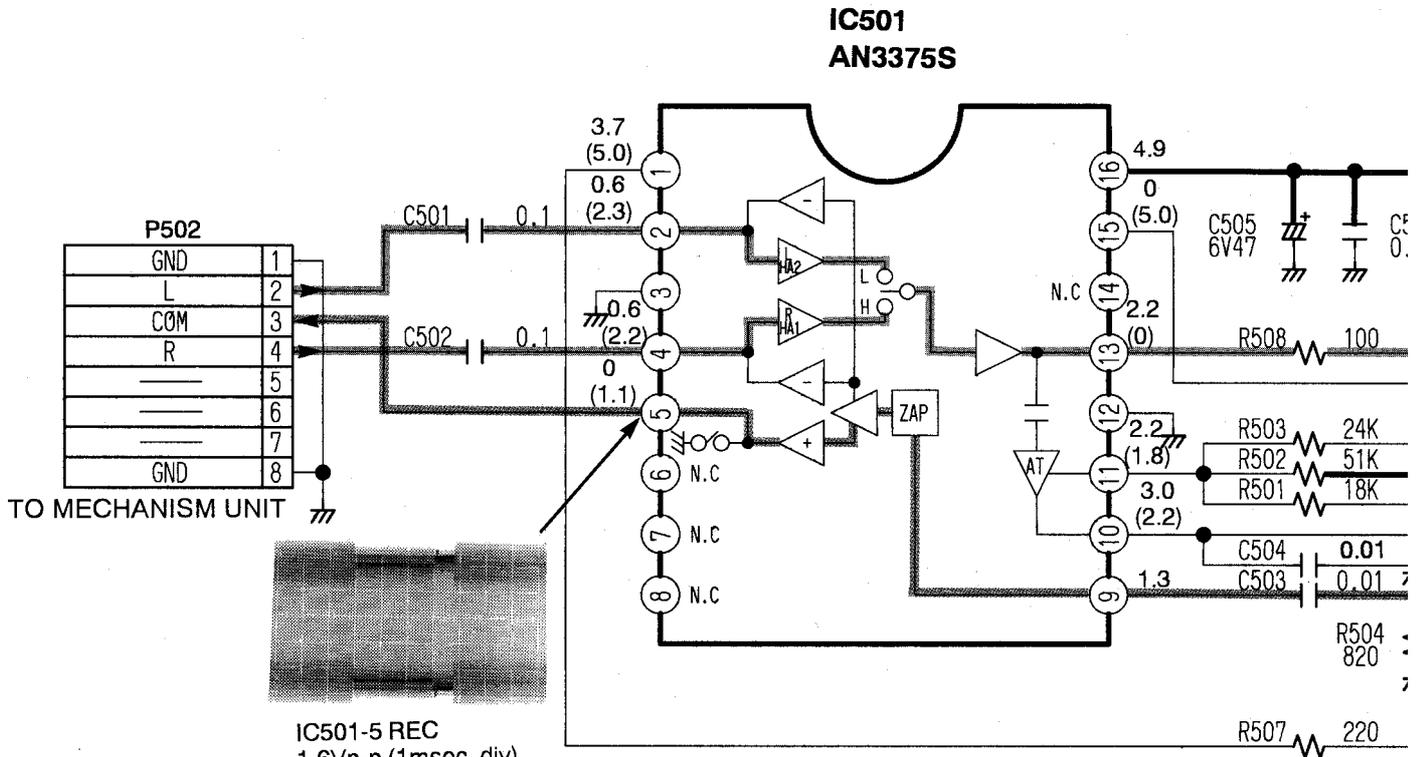
4 | 5 | 6 | 7



4-10. HEAD AMP SCHEMATIC DIAGRAM

———— VIDEO MAIN SIGNAL PATH IN REC MODE

----- VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE



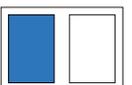
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP. MODE)
 THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP. MODE)

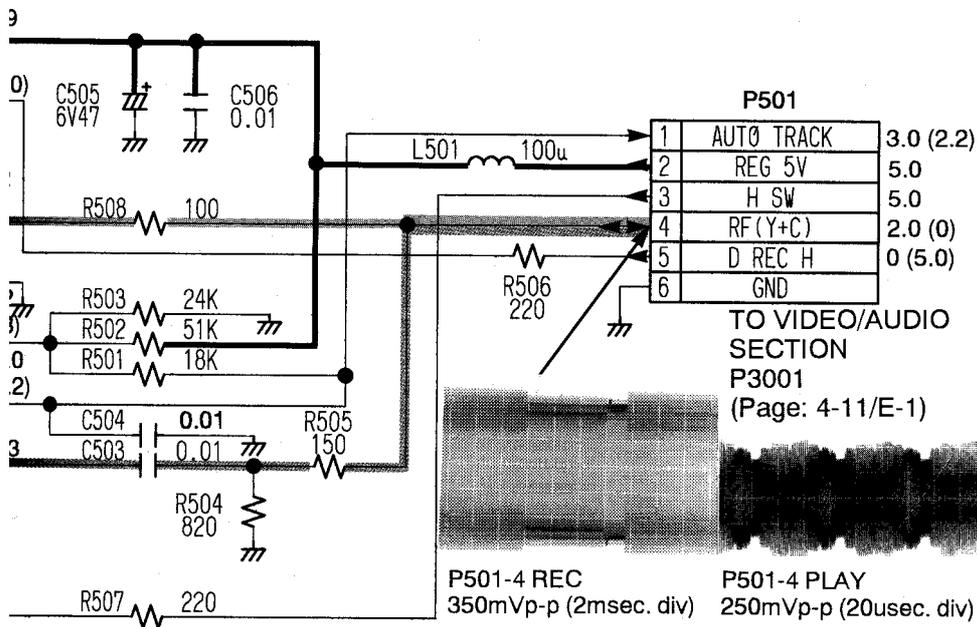
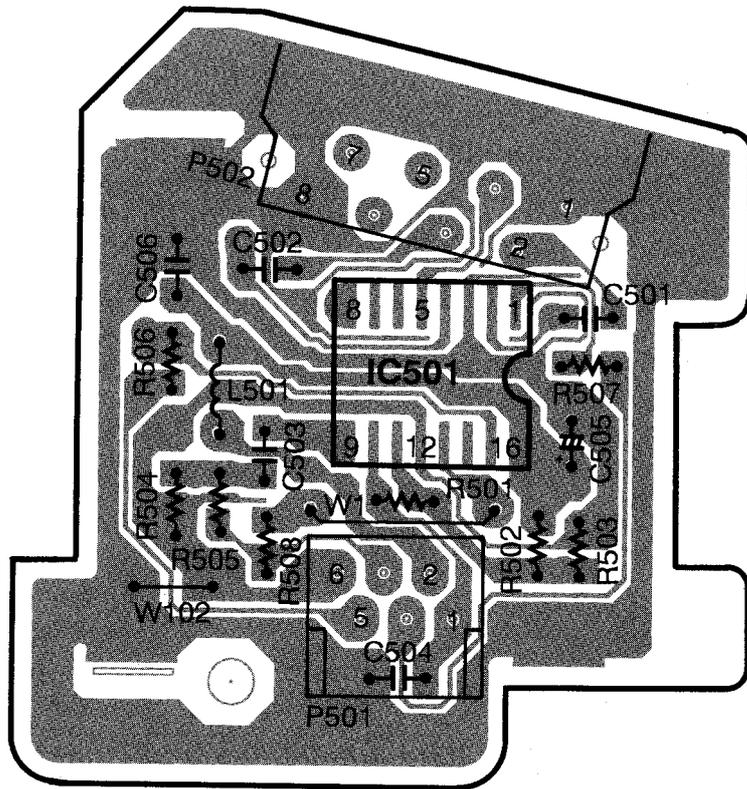
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS DIAGRAM WHEN YOU ORDER A PART, PLEASE REFER TO THE PART LIST FOR THE CORRECT PART NUMBER.

1

2

3





ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.
ORDER A PART, PLEASE REFER TO PARTS LIST.

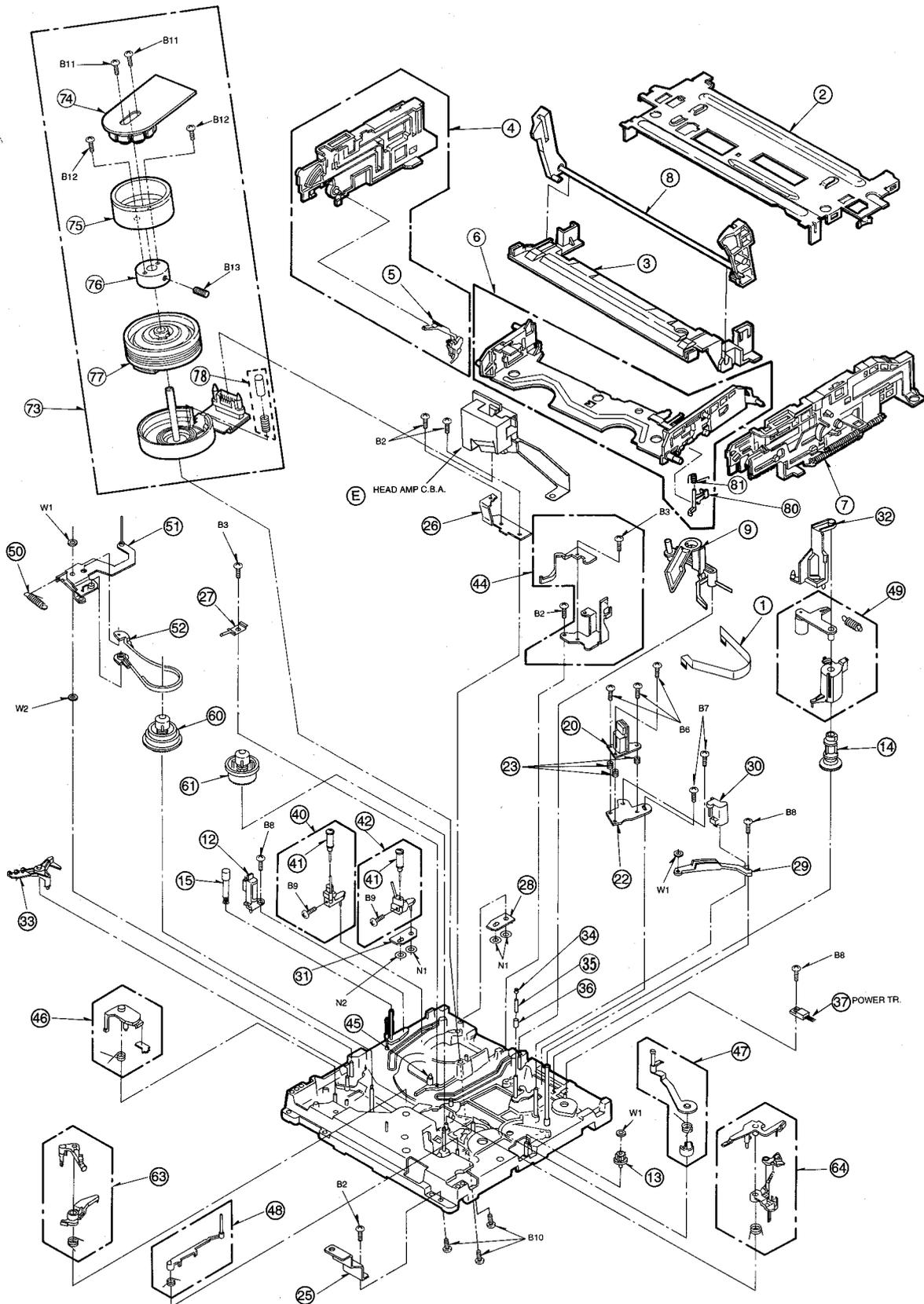
3

4



SECTION 5 EXPLODED VIEWS & PARTS LIST

5-1. EXPLODED VIEW MECHANICAL REPLACEMENT PARTS LIST 1. CHASSIS PARTS SECTION (1)



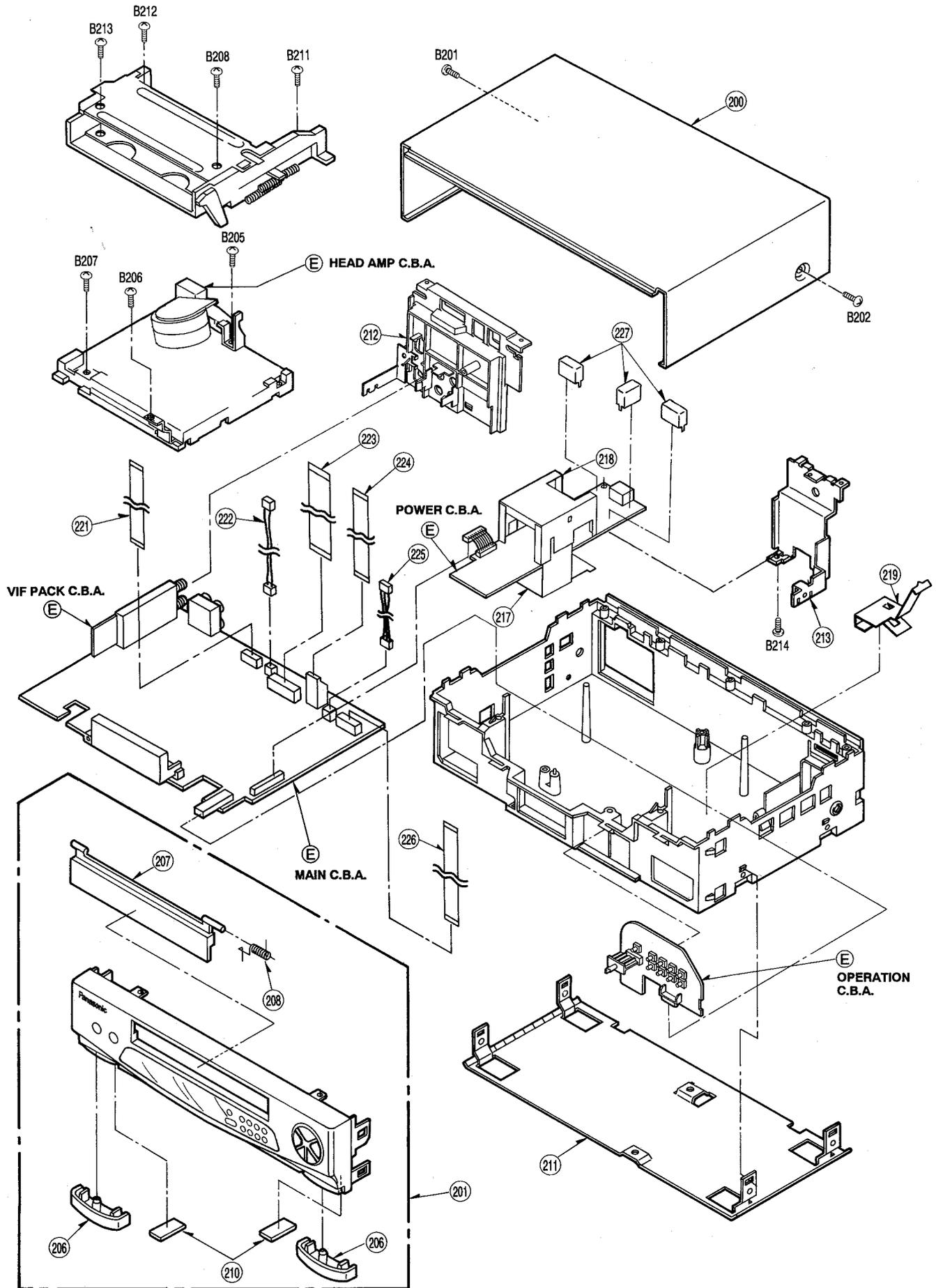
Note:1.* Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE
 Components identified with the mark (<!) have the special characteristics for safety. When replacing any of these components, use only the same type.

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 2. IMPORTANT SAFETY NOTICE
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Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1(1)	VWJ0758	FLAT CARD CABLE (6P)	1	P4001-P1502
2(1)	VMA8644	TOP PLATE	1	
3(1)	VMA8787	CASSETTE GUIDE	1	
4(1)	VXA4660	SIDE PLATE (L) UNIT	1	
5(1)	WML2902	OPENER LEVER UNIT	1	
6(1)	VXA4661	CASSETTE HOLDER PLATE UNIT	1	
7(1)	VXA4806	SIDE PLATE (R) UNIT	1	
8(1)	VXP1339	MAIN SHAFT UNIT	1	
9(1)	WML2908	CLEANER ARM UNIT	1	
12(1)	VBS0052	FE HEAD	1	
13(1)	VDG0871	CARRIAGE CONNECTION GEAR	1	
14(1)	VDG0886	PINCH CAM GEAR	1	
15(1)	VXP1402	IMPEDANCE ROLLER UNIT	1	
20(1)	VED0217	A/C HEAD (1) UNIT	1	
22(1)	VMA8624	A/C HEAD BASE	1	
23(1)	VMB2515	A/C HEAD SPRING	3	
25(1)	VMA8761	MOUNT ANGLE	1	
26(1)	VMA9158	HEAD AMP MOUNT ANGLE (L)	1	
27(1)	VMO0917	EARTH SPRING	1	
28(1)	VMA8874	INCLIND BASE HOLDER (S)	1	
29(1)	VMD2078	P5 STOPPER BASE	1	
30(1)	VXA4927	P5 POST STOPPER	1	
31(1)	VMA8873	INCLIND BASE HOLDER (T)	1	
32(1)	VMD2101	OPENER PIECE	1	
33(1)	WML2776	TENSION SPRING ARM	1	
34(1)	VMX1544	P4 UPPER LIMITER	1	
35(1)	VMX2175	P4 SLEEVE	1	
36(1)	VMX2176	P4 LOWER LIMITER	1	
37(1)	2SB1370YD01E	POWER TRANSISTOR	1	
40(1)	VXA5245KIT	INCLINED BASE (S) UNIT	1	
41(1)	VXP1415	ROLLER POST	2	
42(1)	VXA5247KIT	INCLINED BASE (T) UNIT	1	
44(1)	VXA4974	HEAD AMP MOUNT ANGLE (R) U.	1	
45(1)	VMS5383	CASSETTE POSITION FIXTURE	1	
46(1)	VXL2310	REVIEW ARM UNIT	1	
47(1)	VXL2306	P5 ARM UNIT	1	
48(1)	VXL2394	TAKE UP TENSION REGULATOR ARM UNIT	1	
49(1)	VXL2246	PINCH ARM UNIT	1	
50(1)	VMB2434	TENSION SPRING	1	
51(1)	VXL2309	TENSION ARM (1) UNIT	1	
52(1)	VXZ0310	TENSION BAND UNIT	1	
60(1)	VXR0236	SUPPLY REEL TABLE UNIT	1	
61(1)	VXR0237	TAKE UP REEL TABLE UNIT	1	
63(1)	VXZ0312	SUPPLY BRAKE ARM UNIT	1	
64(1)	VXZ0313	TAKE UP BRAKE ARM UNIT	1	
73(1)	VEG1216	CYLINDER UNIT	1	
74(1)	VEK7236	STATOR UNIT	1	<!
75(1)	VXP1500	ROTOR UNIT	1	
76(1)	VDB1256	CYLINDER RETAINER	1	
77(1)	VEHO712	UPPER CYLINDER UNIT	1	
78(1)	VXS0135	EARTH BRUSH UNIT	1	
80(1)	WML2680	RELEASE LEVER	1	
81(1)	VMB2013	RELEASE SPRING	1	
B2(1)	XTV26+6F	SCREW	4	
B3(1)	XTV26+4F	SCREW	2	
B6(1)	VHDO762	SCREW	3	
B7(1)	XTV26+6FZ	SCREW	2	
B8(1)	XTV26+8F	SCREW	3	
B9(1)	XQN2+AJ4	SCREW	2	
B10(1)	VHDO342	SCREW	3	
B11(1)	VHDO844	SCREW	2	
B12(1)	VHDO435	SCREW	2	
B13(1)	XXE3W4FP	SCREW	1	
N1(1)	VHNO192	NUT	3	
N2(1)	VHNO193	NUT	1	
W1(1)	VMX2208	WASHER	3	
W2(1)	XWGV26D5G	WASHER	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
100(2)	VEK5927	STATOR UNIT	1	
101(2)	VBK0061	FG HEAD	1	
103(2)	VMA8930	ROTOR STOPPER	1	
104(2)	VMX1927	OIL SEAL	2	
105(2)	VXD0140	HOUSING UNIT	1	
106(2)	VXP1519	ROTOR UNIT	1	
107(2)	VXQ0297	THRUST SCREW UNIT	1	
108(2)	VDG0913	MAIN CAM GEAR	1	
109(2)	VDG0956	SUPPLY REEL GEAR	1	
110(2)	VDG0957	TAKE UP REEL GEAR	1	
111(2)	VDG0868	WORM WHEEL GEAR	1	
112(2)	VDG0885	SUB CAM GEAR	1	
113(2)	VDV0235	TIMING BELT	1	
120(2)	VDG0866	WORM GEAR	1	
121(2)	VEM0427	LOADING MOTOR (1) UNIT	1	
123(2)	VMD1942	MOTOR BRACKET	1	
126(2)	WML2725	IDLER CONTROL LEVER	1	
127(2)	VSS0365	MODE SW	1	
128(2)	VMA8965	SS BRAKE BASE	1	
129(2)	VXA4799	TENSION ROLLER UNIT	1	
140(2)	VXL2378	IDLER ARM UNIT	1	
141(2)	VXL2372	DIRECT LEVER UNIT	1	
142(2)	VXL2299	SUPPLY LOADING ARM UNIT	1	
143(2)	VXL2300	TAKE UP LOADING ARM UNIT	1	
144(2)	VXL2307	MAIN LEVER UNIT	1	
145(2)	VXP1409	CENTRE CLUTCH	1	
B102(2)	XTV26+8F	SCREW	2	
B103(2)	XTV26+6F	SCREW	3	
B104(2)	VHDO753	SCREW	3	
B105(2)	VHDO754	SCREW	1	
B106(2)	XSB26+4FZ	SCREW	1	
W101(2)	VMX2208	WASHER	4	

3. CASING PARTS SECTION



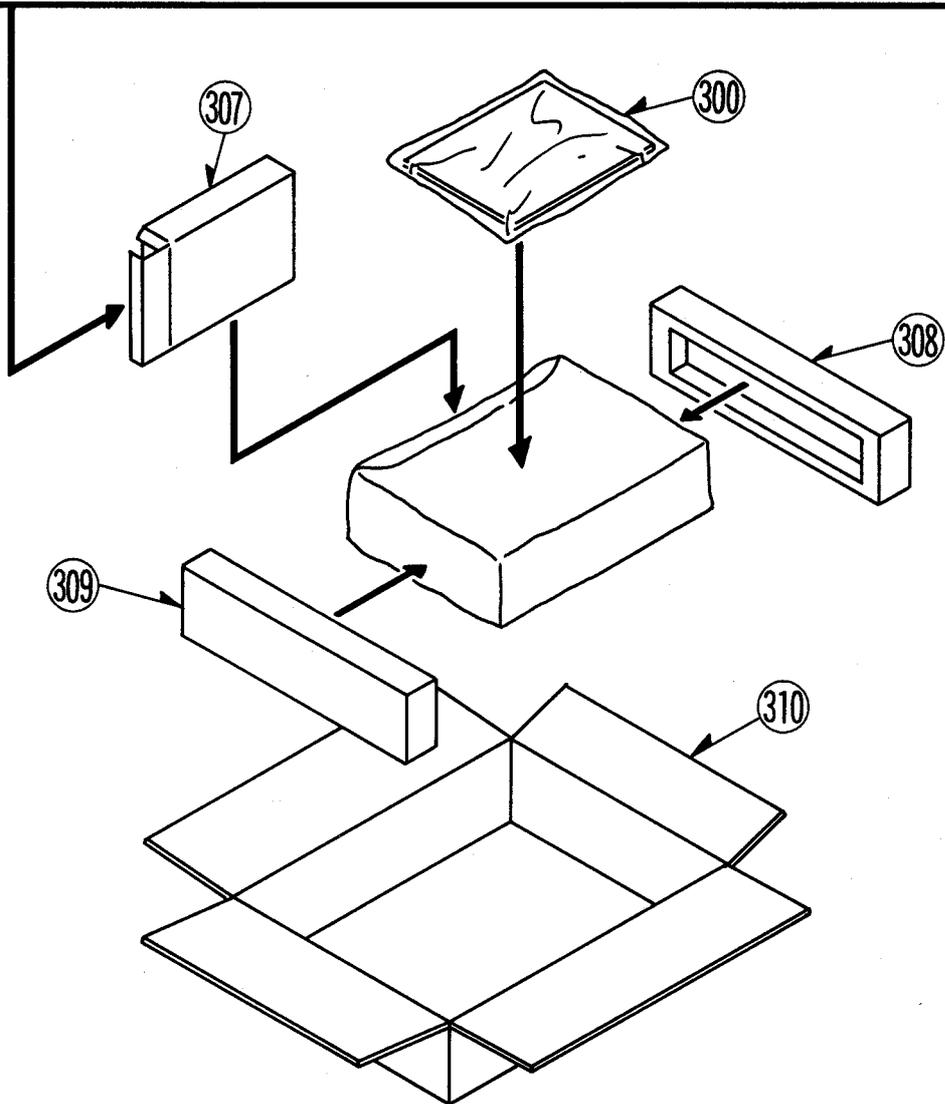
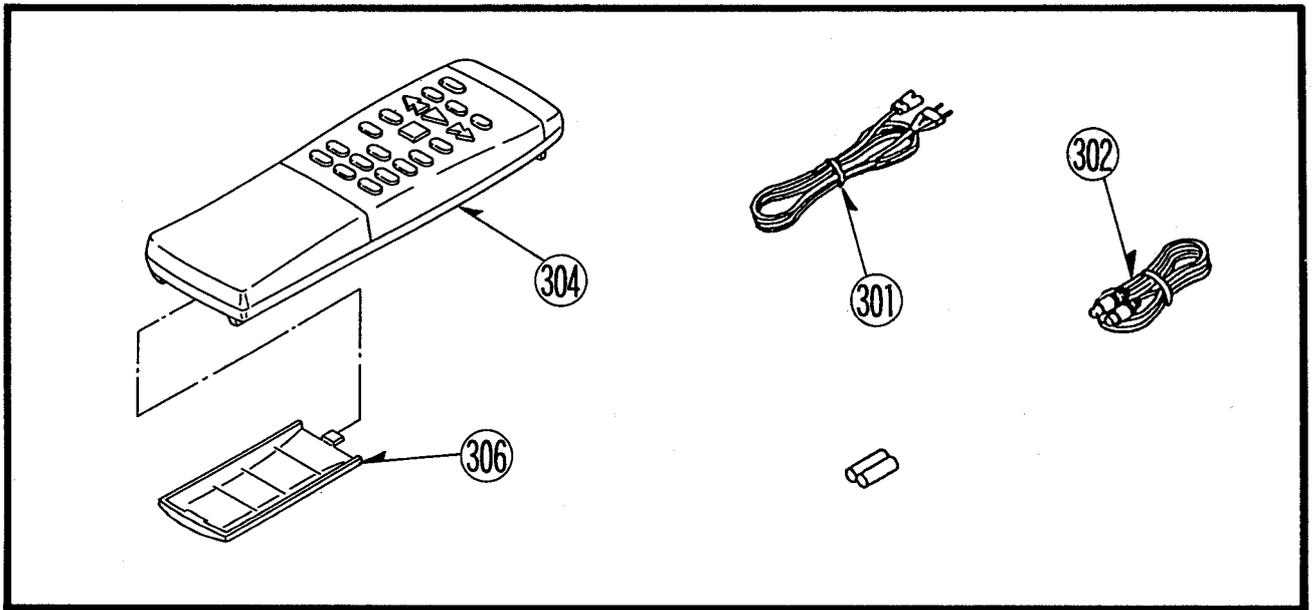
Note:1.* Be sure to make your orders of replacement parts according to this list.
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Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
200(3)	VGM1272	TOP PANEL	1	
201(3)	VYP6050	FRONT PANEL UNIT	1	NV-SD205EU
201(3)	VYP6049	FRONT PANEL UNIT	1	NV-SD207EE
206(3)	VKA0192	LEG	1	
207(3)	VKF2491	BLINDER PANEL	1	
208(3)	UMB2521	BLINDER SPRING	1	
210(3)	VKA0122	FOOT	2	
211(3)	VKU0409	BOTTOM PLATE	1	
212(3)	VXA5537	JACK BOARD	1	
213(3)	VMP4593	POWER PLATE	1	
217(3)	VMZ2378	BARRIER	1	<!>
218(3)	VSC4205	POWER SHIELD COVER	1	
219(3)	VMC1065	EARTH SPRING	1	
221(3)	VWJ0957	FLAT CARD CABLE (6P)	1	P3001-P501
222(3)	VEE9675	WIRE CABLE (2P)	1	P4002-FE HEAD
223(3)	VWJ0904	FLAT CARD CABLE (15P)	1	P2506-P1507
224(3)	VWJ0758	FLAT CARD CABLE (6P)	1	P4001-P1502
225(3)	VEE9223	WIRE CABLE (3P)	1	P2505-POWER TR.
226(3)	VWJ0958	FLAT CARD CABLE (9P)	1	P2502-CYLINDER
227(3)	VMZ2212	CAPACITOR COVER	3	<!>
B201-B202	VHD0378	SCREW	2	
B205-B207	VHD0168	SCREW	3	
B208	XTV26+10F	SCREW	1	
B211-B213	XTV26+8FR	SCREW	3	
B214	VHD0418	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
300(4)	VQT6275	OPERATING INSTRUCTIONS (ENGLISH, RUSSIAN)	1	<!> NV-SD205EU
300(4)	VQT6277	OPERATING INSTRUCTIONS (ENGLISH, POLISH CZECH, HUNGARIAN)	1	<!> NV-SD207EE
301(4)	VJA0664	AC CORD	1	<!>
302(4)	VJA0376	DIN RF CABLE	1	
304(4)	EUR571116	REMOTE CONTROLLER	1	
306(4)	UR57EC490	BATTERY COVER	1	[SUPPLIED FROM MAV]
307(4)	VPK1726	ACCESSORY BOX	1	
308(4)	VPN4139	CUSHION (R)	1	
309(4)	VPN4140	CUSHION (L)	1	
310(4)	VPG8175	PACKING CASE	1	NV-SD205EU
310(4)	VPG8177	PACKING CASE	1	NV-SD207EE
		SERVICE FIXTURES & TOOLS		
	VFJ8125H3F	VHS ALIGNMENT TAPE (PAL)	1	
	VFK0335	RETAINING RING REMOVER (3mm/4mm)	1	
	VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
	VFK0326	HEX WRENCH SET	1	
	VFK0132	BACK TENSION METER	1	
	VFK27	HEAD CLEANING STICK	1	
	VFK1024	MORLYTONE GREASE	1	
	VFK0341	UPPER CYLINDER REMOVER	1	
	VFK0680	WHITE GREASE	1	
	VFK0851	STATOR CENTERING TOOL	1	
	VFK0330	FINE ADJUSTMENT GEAR DRIVER	1	

4. PACKING PARTS SECTION



5-2. 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 (<1>) 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 MICRO-FARADS (uf), P=uuF.
 4. The P.C. Board units marked with '■' 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
	VEPO6996F	MAIN C.B.A. (Page : 5-7)	1	(RTL)NV-SD205EU INCLUDING THE TV DEMODULATOR PACK C.B.A. (VEPO7801L).
	VEPO7801L	TV DEMODULATOR PACK C.B.A. (Page : 5-7)	1	(RTL)NV-SD205EU INCLUDED IN MAIN C.B.A. (VEPO6996F).
	VEPO6996M	MAIN C.B.A. (Page : 5-11)	1	(RTL)NV-SD207EE INCLUDING THE TV DEMODULATOR PACK C.B.A. (VEPO7801L).
	VEPO7801L	TV DEMODULATOR PACK C.B.A. (Page : 5-11)	1	(RTL)NV-SD207EE INCLUDED IN MAIN C.B.A. (VEPO6996M).
	VEPO5217A	HEAD AMP C.B.A. (Page : 5-14)	1	(RTL)
	VEPO7795A	SWITCH C.B.A. (Page : 5-15)	1	(RTL)
	VEPO1621E	POWER C.B.A. (Page : 5-15)	1	(RTL)
	-----	CYLINDER STATOR C.B.A. (Page : 5-15)	1	C.B.A. IS INCLUDED IN CYLINDER STATOR UNIT (VEK7236).
	-----	RT CONNECTION C.B.A. (Page : 5-16)	1	C.B.A. IS INCLUDED IN CYLINDER UNIT.
	-----	MOTOR C.B.A. (Page : 5-16)	1	C.B.A. IS INCLUDED IN LOADING MOTOR (1) UNIT (VEM0427).
	ENG47227G	TUNER	1	<1>NV-SD205EU
	ENG47226G	TUNER	1	<1>NV-SD207EE
F1101	XBA2C16TBO	FUSE	1	<1>
	■ VEPO6996F	MAIN C.B.A. (Page : 5-7)	1	(RTL)NV-SD205EU
CO701-03	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	3	
CO704	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
CO705	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
CO706	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	1	
CO707,08	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
CO709	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
CO710	ECUX1H470JFV	C. CAPACITOR CH 50V 47P	1	
CO711	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
CO712	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO714	ECQB1H473JF	P. CAPACITOR 50V 0.047U	1	
CO715	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO716	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
CO717	ECUX1H300JFV	C. CAPACITOR CH 50V 30P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
CO718	ECEA1HKA0R7	E. CAPACITOR 50V 0.47U	1	
CO719	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
CO720	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO722	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO723	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	1	
CO724	ECQB1H473JF	P. CAPACITOR 50V 0.047U	1	
CO725	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO726	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO727	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
CO728	ECUX1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
CO729	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C1001	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1002	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C1003	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1004	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C1005	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1006	ECA1CM470	E. CAPACITOR 16V 47U	1	
C1007	ECA1CM101	E. CAPACITOR 16V 10U	1	
C1008	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C1009	ECEA1HKA100	E. CAPACITOR 50V 10U	1	
C1011	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1012	ECEAOJKA220	E. CAPACITOR 6.3V 22U	1	
C1013	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C2003	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C2005	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2012	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2013	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2014	ECUM1H120JCV	C. CAPACITOR CH 50V 12P	1	
C2015	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C2017	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2019	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2021	ERJ6GMY1103	M. RESISTOR CH 1/10W 10K	1	
C2022	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2023	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2024	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
C2025	ECUM1C106ZFN	C. CAPACITOR CH 16V 1U	1	
C2026,27	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	2	
C2029	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1	
C2030	ECUM1H471JCV	C. CAPACITOR CH 50V 470P	1	
C2031	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
C2032	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C2033	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2034	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C2035	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2036	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C2037	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2038	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2039	ECEA1HKA0R7	E. CAPACITOR 50V 4.7U	1	
C2040	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2041	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2042	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1	
C2044,45	ECEA1HKN3R3	E. CAPACITOR 50V 3.3U	2	
C2048	ECUM1H200JCV	C. CAPACITOR CH 50V 20P	1	
C2049-51	ECUM1H221JCV	C. CAPACITOR CH 50V 220P	3	
C2503	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1	
C2504	ECQV1H683JM	P. CAPACITOR 50V 0.068U	1	
C2505-07	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3	
C2509	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2510	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C2511	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1	
C2512-14	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	3	
C2515	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2516	ECEA1EKA470	E. CAPACITOR 25V 47U	1	
C2517	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2518	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C2519	ECEA1HKNR22	E. CAPACITOR 50V 0.22	1	
C2520	ECEA1EKA470	E. CAPACITOR 25V 47U	1	
C2521,22	ECUM1E333KBN	C. CAPACITOR CH 25V 0.33U	2	
C2523	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2525	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2526	ECUM1E333KBN	C. CAPACITOR CH 25V 0.33U	1	
C2527	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2528	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2529	ECEA1CKA220	E. CAPACITOR 16V 22U	1	
C2530	ECUM1C474ZFN	C. CAPACITOR CH 16V 0.47U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
K0704_05	ERJ3GEYOR00	M.RESISTOR CH 1/16W	0	2	QR4002	MUN2212	TRANSISTOR-RESISTOR	1	
K2001	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	1	QR4003	MUN2213	TRANSISTOR-RESISTOR	1	
K3001_02	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	2	QR4301	UN2115	TRANSISTOR-RESISTOR	1	
K3006	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	1	QR7003	MUN2213	TRANSISTOR-RESISTOR	1	
K4001	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	1	QR7601	MUN2213	TRANSISTOR-RESISTOR	1	
K7001	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	1					
K7608	ERJ6GMZOR00	M.RESISTOR CH 1/10W	0	1					
L0701	VLQ0163JR22	COIL 0.22UH	1		R0702	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
L0705	VLQ0163K4R7	COIL 4.7UH	1		R0703	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
L0706	VLQEL0575R6K	COIL 5.6UH	1		R0704	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
L2003	VLQ0599J680	COIL 68UH	1		R0705	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
L2504	ELESE102KA	COIL 1000UH	1		R0706_07	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
L3001	VLQ0599J121	COIL 120UH	1		R0708	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
L3002	ELESEBR2KA	COIL 8.2UH	1		R0709	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
L3003	ELESE270KA	COIL 27UH	1		R0710	ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
L3004	ELESE101KA	COIL 100UH	1		R0713	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
L3006	ELESE820JA	COIL 82UH	1		R0714	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
L3007	VLQ0599J151	COIL 150UH	1		R0715	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
L3012	ELESE101KA	COIL 100UH	1		R0716	VRE0040E151	M.RESISTOR CH 1/10W 150	1	
L3014	ELESE101KA	COIL 100UH	1		R0717	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0	1	
L3015_16	VLQ0599J220	COIL 22UH	2		R0718	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
LA001	VLQEL07F153J	COIL	1		R0719	ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
LA002	ELESE101KA	COIL 100UH	1		R0720	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
LA003	ELESE471KA	COIL 470UH	1		R0722	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
L7601_02	VLQ0599J680	COIL 68UH	2		R0723	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
L7603	VLQ0599J1R0	COIL 1UH	1		R0724	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
L7604_05	VLQ0599J680	COIL 68UH	2		R0725	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
L7606	VLQ0599J1R0	COIL 1UH	1		R0726	ERJ3GEYJ22	M.RESISTOR CH 1/16W 1.2K	1	
L7607	ELESN680KA	COIL 68UH	1		R0727	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
					R0730	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
					R0731	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
					R0732	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
					R0782	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
P1001	VJS3631A015A	CONNECTOR (FEMALE) 15P	1		R0783	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
P2001	VJS3640A002	CONNECTOR (FEMALE) 2P	1		R1001	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
P2002	VJS3821	CONNECTOR (FEMALE)	1		R1002	ERG2SJ331	M.RESISTOR 2W 330	1	
P2003	VJP3630E010G	CONNECTOR (MALE) 10P	1		R1003	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
P2502	VJS3537A009G	CONNECTOR (FEMALE) 9P	1		R1006	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
P2505	VJP3502	CONNECTOR (MALE)	1		R1007	ERJ6GMJ272	M.RESISTOR CH 1/10W 2.7K	1	
P2506	VJS3537A015G	CONNECTOR (FEMALE) 15P	1		R1008	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1	
P3001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1		R1009	ERJ6GMJ272	M.RESISTOR CH 1/10W 2.7K	1	
P4001	VJS3675A006G	CONNECTOR (FEMALE) 6P	1		R1011	ERJ6GMJ122	M.RESISTOR CH 1/10W 1.2K	1	
P4002	TJS118601T	CONNECTOR	1		R1015	ERG2SJ331	M.RESISTOR 2W 330	1	
					R1016_17	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2	
					R2001	ERJ6GMJ512	M.RESISTOR CH 1/10W 5.1K	1	
PK0701	VJR0816A010W	CONNECTOR 10P	1		R2002	ERJ6GMJ913	M.RESISTOR CH 1/10W 91K	1	
					R2003	ERX1SJ1R8	M.RESISTOR 1W 1.8	1	
					R2005	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
PP0701	VJP3589A004B	CONNECTOR (MALE) 4P	1		R2006	ERJ6GMJ562	M.RESISTOR CH 1/10W 5.6K	1	
					R2007_08	ERJ6GMJ472	M.RESISTOR CH 1/10W 4.7K	2	
					R2009	ERJ6GMJ272	M.RESISTOR CH 1/10W 2.7K	1	
Q0701	MSD601-S	TRANSISTOR	1		R2010	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
Q1003	2SD1996	TRANSISTOR	1		R2011	ERJ8GEYJ271	M.RESISTOR CH 1/8W 270	1	
Q1004	2SD25440FQA	TRANSISTOR	1		R2012_13	ERJ6GMJ272	M.RESISTOR CH 1/10W 2.7K	2	
Q1006	MSD1328	TRANSISTOR	1		R2014-16	ERJ6GMJ333	M.RESISTOR CH 1/10W 33K	3	
Q2002	MSB709	TRANSISTOR	1		R2017	ERJ6GMJ822	M.RESISTOR CH 1/10W 8.2K	1	
Q2003_04	PN205LT-NCVT	PHOTO TR.	2		R2018_19	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	2	
Q3001	MSB709	TRANSISTOR	1		R2020	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
Q3002	MSB710	TRANSISTOR	1		R2021	ERJ6GMJ562	M.RESISTOR CH 1/10W 5.6K	1	
Q4005	2SD602A-R	TRANSISTOR	1		R2023	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
Q4006	2SB709A	TRANSISTOR	1		R2024	ERJ6GMJ683	M.RESISTOR CH 1/10W 68K	1	
Q4301	MSD1328	TRANSISTOR	1		R2025	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1	
					R2026	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	1	
					R2027_28	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	2	
QR0701	MRN1404	TRANSISTOR-RESISTOR	1		R2029	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
QR2002	MUN2213	TRANSISTOR-RESISTOR	1		R2032	ERJ6GMJ563	M.RESISTOR CH 1/10W 56K	1	
QR2003	XN1211	TRANSISTOR-RESISTOR	1		R2033	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1	
QR2004	MUN2211	TRANSISTOR-RESISTOR	1		R2034	ERJ6GMJ563	M.RESISTOR CH 1/10W 56K	1	
QR2005	MUN2113	TRANSISTOR-RESISTOR	1		R2035	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1	
QR2006	MUN2213	TRANSISTOR-RESISTOR	1		R2037	ERJ6GMJ101	M.RESISTOR CH 1/10W 100	1	
QR3001	MUN2111	TRANSISTOR-RESISTOR	1		R2038	ERJ6GMJ683	M.RESISTOR CH 1/10W 68K	1	
QR3004	MUN2213	TRANSISTOR-RESISTOR	1		R2039	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	1	
QR3005	MUN2212	TRANSISTOR-RESISTOR	1		R2040	ERJ6GMJ105	M.RESISTOR CH 1/10W 1M	1	
QR3008_09	MUN2213	TRANSISTOR-RESISTOR	2		R2041	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1	
QR4001	MUN2213	TRANSISTOR-RESISTOR	1		R2042_43	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2044	ERJ6GMJ183	M.RESISTOR CH 1/10W 18K	1		R3035	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2045	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1		R3036	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
R2046	ERJ6GMJ472	M.RESISTOR CH 1/10W 4.7K	1		R3037	ERJ6GMJ821	M.RESISTOR CH 1/10W 820	1	
R2047	ERJ6GMJ563	M.RESISTOR CH 1/10W 56K	1		R3040	ERJ6GMJ273	M.RESISTOR CH 1/10W 27K	1	
R2048	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1		R3041	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2049	ERJ6GMJ683	M.RESISTOR CH 1/10W 68K	1		R3042	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1	
R2052	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	1		R3044	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2053	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1		R3045	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2054, 55	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2		R3046	ERJ6GMJ104	M.RESISTOR CH 1/10W 1M	1	
R2056	ERJ6GMJ201	M.RESISTOR CH 1/10W 200	1		R3050	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2057	ERJ6GMJ273	M.RESISTOR CH 1/10W 27K	1		R3051	ERJ6GMJ124	M.RESISTOR CH 1/10W 120K	1	
R2058	ERJ6GM20R00	M.RESISTOR CH 1/10W 0	1		R3052	ERJ6GMJ153	M.RESISTOR CH 1/10W 15K	1	
R2059, 60	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	2		R3053	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2061, 62	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2		R4001	ERJ6GMJ333	M.RESISTOR CH 1/10W 33K	1	
R2063	ERJ6GMJ681	M.RESISTOR CH 1/10W 680	1		R4002	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1	
R2064, 65	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	2		R4003	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2066	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1		R4004	ERJ6GMJ474	M.RESISTOR CH 1/10W 470K	1	
R2068	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1		R4005	ERJ6GMJ153	M.RESISTOR CH 1/10W 15K	1	
R2069	ERJ6GMJ221	M.RESISTOR CH 1/10W 220	1		R4006	ERJ6GMJ331	M.RESISTOR CH 1/10W 330	1	
R2070	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1		R4007	ERJ6GMJ513	M.RESISTOR CH 1/10W 51K	1	
R2071	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1		R4008	ERJ6GMJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2072, 73	ERJ6GMJ183	M.RESISTOR CH 1/10W 18K	2		R4009	ERJ6GMJ225	M.RESISTOR CH 1/10W 2.2M	1	
R2074	ERJ6GMJ153	M.RESISTOR CH 1/10W 15K	1		R4010	ERJ6GMJ333	M.RESISTOR CH 1/10W 33K	1	
R2075	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1		R4011	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
R2081	ERJ6GM20R00	M.RESISTOR CH 1/10W 0	1		R4012	ERJ6GMJ471	M.RESISTOR CH 1/10W 470	1	
R2085	ERJ6GM20R00	M.RESISTOR CH 1/10W 0	1		R4013	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1	
R2086, 87	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2		R4014	ERJ6GMJ822	M.RESISTOR CH 1/10W 8.2K	1	
R2501	ERDS2TJ391	C.RESISTOR 1/4W 390	1		R4016	ERJ6GMJ333	M.RESISTOR CH 1/10W 33K	1	
R2503	ERDS2FJ1R2	C.RESISTOR 1/4W 1.2	1		R4018	ERJ6GMJ100	M.RESISTOR CH 1/10W 10	1	
R2504	ERDS2FJ1R5	C.RESISTOR 1/4W 1.5	1		R4019	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1	
R2505-07	ERDS2TJ330	C.RESISTOR 1/4W 33	3		R4020	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	1	
R2508	ERJ6GMJ681	M.RESISTOR CH 1/10W 680	1		R4024	ERJ6GMJ183	M.RESISTOR CH 1/10W 18K	1	
R2509	ERJ6GMJ821	M.RESISTOR CH 1/10W 820	1		R4025	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2511, 12	ERDS2TJ560	C.RESISTOR 1/4W 56	2		R4026	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2513	ERDS1TJ561	C.RESISTOR 1/2W 560	1		R4027	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2514	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1		R4301	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2515	ERJ6GMJ432	M.RESISTOR CH 1/10W 4.3K	1		R7001	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R2516	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1		R7002	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2517	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1		R7008	ERDS2TJ470	C.RESISTOR 1/4W 47	1	
R2518	ERJ6GMJ684	M.RESISTOR CH 1/10W 680K	1		R7009-12	ERJ6GMJ333	M.RESISTOR CH 1/10W 33K	4	
R2519	ERJ6GMJ133	M.RESISTOR CH 1/10W 13K	1		R7013	ERJ6GMJ105	M.RESISTOR CH 1/10W 1M	1	
R2520	ERJ6GMJ105	M.RESISTOR CH 1/10W 1M	1		R7014	ERJ6GM20R00	M.RESISTOR CH 1/10W 0	1	
R2521	ERX12SJR47	M.RESISTOR 1/2W 0.47	1		R7015	ERJ6GMJ101	M.RESISTOR CH 1/10W 100	1	
R2522	ERDS2TJ560	C.RESISTOR 1/4W 56	1		R7016-19	ERJ6GMJ563	M.RESISTOR CH 1/10W 56K	4	
R2523	ERJ6GMJ392	M.RESISTOR CH 1/10W 3.9K	1		R7020, 21	ERJ6GMJ132	M.RESISTOR CH 1/10W 1.3K	2	
R2524	ERJ6GMJ105	M.RESISTOR CH 1/10W 1M	1		R7023, 24	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	2	
R2526	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1		R7025	ERDS2TJ5R6	C.RESISTOR 1/4W 5.6	1	
R2527	ERJ6GMJ472	M.RESISTOR CH 1/10W 4.7K	1		R7601	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
R2529	ERDS2TJ2R2	C.RESISTOR 1/4W 2.2	1		R7602, 03	ERJ6GMJ151	M.RESISTOR CH 1/10W 150	2	
R3001	ERJ6GMJG121	M.RESISTOR CH 1/10W 120	1		R7604	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	1	
R3002, 03	ERJ6GMJG332	M.RESISTOR CH 1/10W 3.3K	2		R7609, 10	ERJ6GMJ683	M.RESISTOR CH 1/10W 68K	2	
R3005	ERJ6GMJ332	M.RESISTOR CH 1/10W 3.3K	1		R7625	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1	
R3006	ERJ6GMJ470	M.RESISTOR CH 1/10W 47	1		R7626	ERJ6GMJ561	M.RESISTOR CH 1/10W 560	1	
R3007	ERJ6GMJ151	M.RESISTOR CH 1/10W 150	1						
R3008	ERJ6GMJ391	M.RESISTOR CH 1/10W 390	1						
R3009	ERJ6GMJ222	M.RESISTOR CH 1/10W 2.2K	1		S2001	VES0709	S.TAB SWITCH	1	
R3010	ERJ6GMJ1101	M.RESISTOR CH 1/10W 100	1		S7019, 20	EVQ11407K	SWITCH	2	
R3011	ERJ6GMJ182	M.RESISTOR CH 1/10W 1.8K	1		S7601	VSS0106	SWITCH	1	
R3012, 13	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2		S7602	VSS0398	SWITCH	1	
R3014	ERJ6GMJG222	M.RESISTOR CH 1/10W 2.2K	1						
R3015	ERJ6GMJG681	M.RESISTOR CH 1/10W 680	1						
R3016	ERJ6GMJG221	M.RESISTOR CH 1/10W 220	1		T0703	EQV5EC071A	COIL	1	
R3017, 18	ERJ6GMJ102	M.RESISTOR CH 1/10W 1K	2		T0704	EQV5EC073A	COIL	1	
R3019	ERJ6GMJ750	M.RESISTOR CH 1/10W 75	1		T0711	EQS5EC032A	COIL	1	
R3020	ERJ6GMJ471	M.RESISTOR CH 1/10W 470	1		T4001	EIQ7QF014Q	TRANSFORMER	1	
R3021	ERDS2TJ471	C.RESISTOR 1/4W 470	1						
R3022	ERJ6GMJ750	M.RESISTOR CH 1/10W 75	1		TU7601	ENG47227G	TUNER	1	<1>
R3025	ERJ6GMJG271	M.RESISTOR CH 1/10W 270	1						
R3026	ERJ6GMJ223	M.RESISTOR CH 1/10W 22K	1						
R3027	ERJ6GMJ681	M.RESISTOR CH 1/10W 680	1						
R3028	ERJ6GMJ103	M.RESISTOR CH 1/10W 10K	1		VC2016	ECRHA020D54	V.CAPACITOR	1	
R3030	ERJ6GM20R00	M.RESISTOR CH 1/10W 0	1						
R3031	ERJ6GMJ224	M.RESISTOR CH 1/10W 220K	1						
R3032	ERJ6GMJ125	M.RESISTOR CH 1/10W 1.5M	1		VRO701	EVNCBAA00B24	V.RESISTOR	1	
R3034	ERJ6GMJ473	M.RESISTOR CH 1/10W 47K	1						

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
X0702	EFCS6ROMS5	CRYSTAL OSCILLATOR	1	
X0703	EFCT3F02W5B	CRYSTAL OSCILLATOR	1	
X0704	VLF1288	CRYSTAL OSCILLATOR	1	
X0721	EF0A500KT4V3	CRYSTAL OSCILLATOR	1	
X2002	VSX0659	CRYSTAL OSCILLATOR	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X7001	VSX0661	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0424	FTP HOLDER	1	
	WMD2328	REEL GUIDE	1	
	WMP4471	TV DEMODULATOR ANGLE	1	FOR TV DEMODU. C. B.A.
	WMD2330	SENSOR LED HOLDER	1	
	WMD2329	PHOTO TR. HOLDER	2	
	VEPO6996M	MAIN C. B.A.		(RTL)NV-SD207EE
C0701-03	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	3	
C0704	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C0705	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C0706	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	1	
C0707,08	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	2	
C0709	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
C0710	ECUX1H470JFV	C. CAPACITOR CH 50V 47P	1	
C0711	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C0712	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C0714	ECQB1H473JF	P. CAPACITOR 50V 0.047U	1	
C0715	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C0716	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C0717	ECUX1H300JFV	C. CAPACITOR CH 50V 30P	1	
C0718	ECEA1HKA0R7	E. CAPACITOR 50V 0.47U	1	
C0719	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C0720	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C0722	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C0723	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	1	
C0724	ECQB1H473JF	P. CAPACITOR 50V 0.047U	1	
C0725	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C0726	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C0727	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C0728	ECUX1H1032FV	C. CAPACITOR CH 50V 0.01U	1	
C0729	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C1001	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C1002	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C1003	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C1004	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C1005	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C1006	ECA1CM470	E. CAPACITOR 16V 47U	1	
C1007	ECA1CM101	E. CAPACITOR 16V 10U	1	
C1008	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C1009	ECEA1HKA100	E. CAPACITOR 50V 10U	1	
C1011	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C1012	ECEAOJKA220	E. CAPACITOR 6.3V 22U	1	
C1013	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C2003	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C2005	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2012	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2013	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2014	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C2015	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C2017	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C2019	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2021	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
C2022	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C2023	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C2024	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
C2025	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C2026, 27	ECUM1H5632FN	C. CAPACITOR CH 50V 0.056U	2	
C2029	ECUM1H5632FN	C. CAPACITOR CH 50V 0.056U	1	
C2030	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C2031	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2032	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C2033	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2034	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C2035	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2036	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C2037	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2038	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C2039	ECEA1HKA4R7	E. CAPACITOR 50V 4.7U	1	
C2040	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2041	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2042	ECUM1H5632FN	C. CAPACITOR CH 50V 0.056U	1	
C2044,45	ECEA1HKN3R3	E. CAPACITOR 50V 3.3U	2	
C2048	ECUM1H200JCN	C. CAPACITOR CH 50V 20P	1	
C2049-51	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	3	
C2503	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1	
C2504	ECQV1H683JM	P. CAPACITOR 50V 0.068U	1	
C2505-07	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3	
C2509	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C2510	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C2511	ECUM1H4732FN	C. CAPACITOR CH 50V 0.047U	1	
C2512-14	ECEA1VK04R7	E. CAPACITOR 35V 4.7U	3	
C2515	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2516	ECEA1EKA470	E. CAPACITOR 25V 47U	1	
C2517	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2518	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C2519	ECEA1HKNR22	E. CAPACITOR 50V 0.22	1	
C2520	ECEA1EKA470	E. CAPACITOR 25V 47U	1	
C2521,22	ECUM1E333KBN	C. CAPACITOR CH 25V 0.33U	2	
C2523	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2525	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1	
C2526	ECUM1E333KBN	C. CAPACITOR CH 25V 0.33U	1	
C2527	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C2528	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C2529	ECEA1CKA220	E. CAPACITOR 16V 22U	1	
C2530	ECUM1C474ZFN	C. CAPACITOR CH 16V 0.47U	1	
C2531	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C2532-34	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	3	
C2535	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C3001	ECUM1H561JCN	C. CAPACITOR CH 50V 560P	1	
C3002	ECUM1H331JCN	C. CAPACITOR CH 50V 330P	1	
C3003	ECUM1H820JCN	C. CAPACITOR CH 50V 82P	1	
C3004	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1	
C3005	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C3006	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1	
C3007	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3009	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3010	ECUM1H1042FN	C. CAPACITOR CH 50V 0.1U	1	
C3011	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1	
C3013	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1H102JCN	C. CAPACITOR CH 50V 1000P	1	
C3017,18	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	2	
C3019	ECEAOJKA220	E. CAPACITOR 6.3V 220U	1	
C3020	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C3021	ECUM1C474KBM	C. CAPACITOR CH 16V 0.47U	1	
C3022	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C3023	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C3024	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3025	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1	
C3026	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3027	ECUM1C474KBM	C. CAPACITOR CH 16V 0.47U	1	
C3028	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C3029	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C3030	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
C3031	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
C3032	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C3033	ECUM1H821JCN	C. CAPACITOR CH 50V 820P	1	
C3034	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3036	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	1	
C3037	ECAOJM471	E. CAPACITOR 6.3V 470U	1	
C3038	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C3039	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	
C3040,41	ECEA1HKA010	E. CAPACITOR 50V 1U	2	
C3042,43	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	2	
C3044	ECUM1C474KBM	C. CAPACITOR CH 16V 0.47U	1	
C3047	ECUM1H1032FN	C. CAPACITOR CH 50V 0.01U	1	

