

Service Manual

MODEL : DV-F46/26N
DV-F48/28N
DV-F54/34N
DV-F44/24N/X

Daewoo

Use FM Mechanical Manual

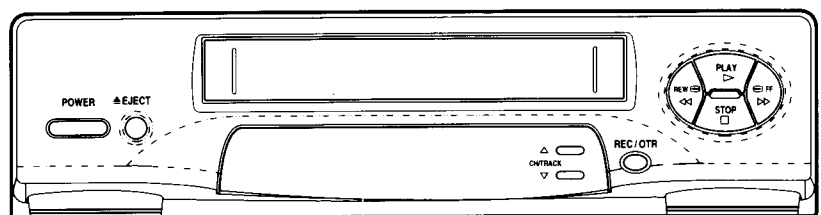


TABLE OF CONTENTS

SECTION 1. CONTROLS AND FUNCTIONS	2
SECTION 2. ELECTRICAL ADJUSTMENTS	
2-1. SERVO CIRCUIT ADJUSTMENT METHOD	5
2-2. VIDEO CIRCUIT ADJUSTMENT METHOD.....	6
2-3. AUDIO CIRCUIT ADJUSTMENT METHOD.....	12
SECTION 3. TROUBLE SHOOTING FLOW CHART	
3-1. POWER CIRCUIT	13
3-2. LOGIC CIRCUIT	15
3-3. SERVO/SYSCON CIRCUIT	18
3-4. AUDIO CIRCUIT	23
3-5. VIDEO CIRCUIT.....	25
SECTION 4. BLOCK DIAGRAM	
4-1. Y.C./HEAD AMP/AUDIO/INPUT SELECTOR BLOCK DIAGRAM.....	29
4-2. SYSCON/LOGIC BLOCK DIAGRAM	30
4-3. PIF/OSD BLOCK DIAGRAM.....	31
SECTION 5. CIRCUIT DIAGRAM	
5-1. CONNECTION DIAGRAM	32
5-2. POWER CIRCUIT (SMPS)	33
5-3. SYSCON CIRCUIT	35
5-4. LOGIC CIRCUIT	36
5-5. LOGIC CIRCUIT (DV-F54/F34N)	37
5-6. PIF & INPUT SELECTOR CIRCUIT	38
5-7. HEAD-AMP CIRCUIT	39
5-8. VIDEO CIRCUIT.....	40
5-9. AUDIO CIRCUIT	41
5-10. OSD CIRCUIT.....	42
SECTION 6. VOLTAGE CHART	
6-1. IC VOLTAGE.....	43
6-2. TR VOLTAGE.....	50
SECTION 7. COMPONENTS LOCATION GUIDE ON PCB (BOTTOM VIEW)	
7-1. PCB HEAD-AMP	51
7-2. PCB SHUTTLE (DV-F54/F34N)	51
7-3. PCB MAIN	52
7-4. PCB LOGIC	53
SECTION 8. DISASSEMBLY	
8-1. PACKING AS.....	55
8-2. SET TOTAL ASSEMBLY.....	56
8-3. SET TOTAL ASSEMBLY (DV-54/F34N).....	57
8-4. FRONT PANEL ASSEMBLY (DV-F54/F34N).....	58
8-5. SHUTTLE STATION ASSEMBLY (DV-F54/F34N).....	59
SECTION 9. ELECTRICAL PARTS LIST	
9-1. STANDARD PART NUMBER CODING	60
9-2. ELECTRICAL PARTS LIST	62

SPECIFICATIONS

SYSTEM

Video signal NTSC color
Channel coverage VHF Channel 2-13
UHF Channel 14-69
CATV Channel A1-A5,
A8, A-W, W+1-W+84
VHF output signal Channel 3 or 4 (selectable)

VIDEO

Input: Video line in Phono-type connector
1.0V (p-p)
75 ohms unbalanced, sync.
negative
Output: Video line out Phono-type connector
1.0V (p-p)
75 ohms unbalanced, sync.
negative
Signal to noise ratio More than 43dB (SP)
Horizontal resolution 230 lines

AUDIO

Input: Audio Line in Phono-type connector
more than 47K ohms,
-8 dBm, unbalanced
Output: Audio line out Phono-type connector
less than 1K ohms,
-6dBm (more than 47K ohms
load), unbalanced

Frequency response 100 Hz-10KHz (SP)
Signal to noise ratio More than 40 dB
Audio Distortion Less than 3% (SP)

TAPE TRANSPORT

Tape width 12.65mm (1/2")
Tape speed SP: 33.35 mm/sec
LP: 16.67 mm/sec
EP: 11.12 mm/sec
Maximum recording time 480 min, with T-160 tape (EP)
FF. REW time Approx 5 min (T-120)

GENERAL

Power requirements 120V, 60Hz AC only
Power consumption 17W

DIMENSIONS

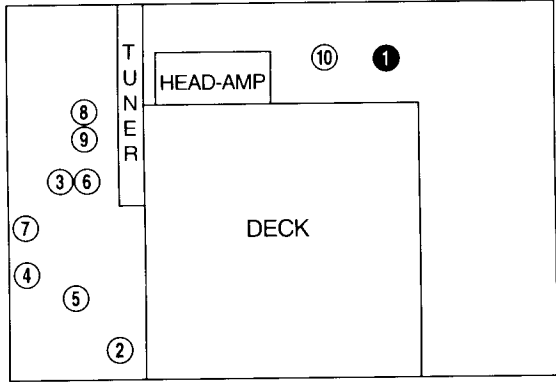
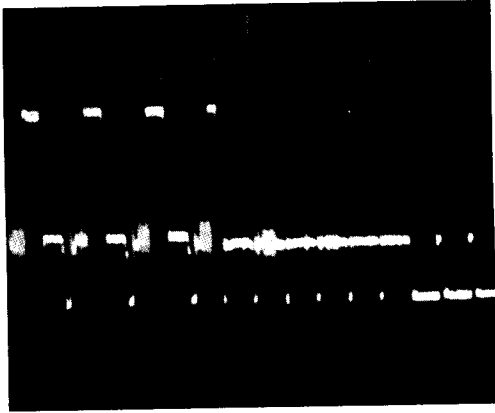
Set size (WxHxD) 360x90x312 mm
Carton size (WxHxD) 431x175x397 mm
Weight (gross) 5.4Kg (11.9 lbs)

SECTION 2. ELECTRICAL ADJUSTMENT

2-1. SERVO CIRCUIT ADJUSTMENT METHOD

1. PB Phase

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
PB	① R595	CH 1: PT01 ③ CH 2: VIDEO OUTPUT JACK	Oscilloscope	DN-1	

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 50us/div V-Axis: CH 1 → 1.0v/div CH2 → 0.5v/div</p> 

• Adjustment Procedure

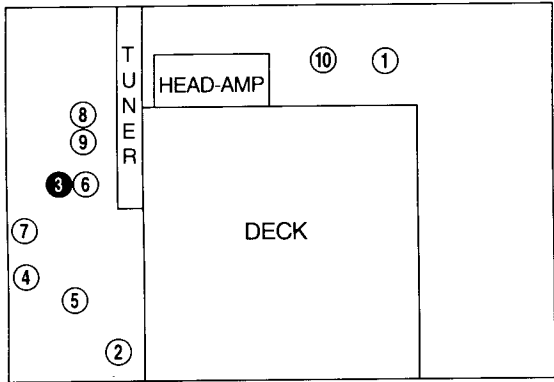
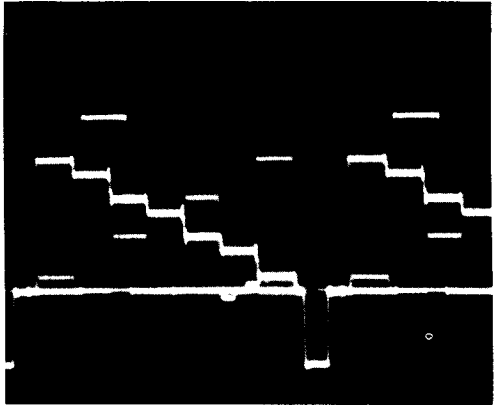
1. Set the oscilloscope to the CHOP mode. Connect the oscilloscope to check point and trigger the scope with CH1.
2. Adjust R595 to position the V-SYNC at $6.5 \pm 0.5H$ from the rising edge of sw pulse.

• Adjustment Inspection Standard: $6.5 \pm 0.5 H$

2-2. VIDEO CIRCUIT ADJUSTMENT METHOD

1. EE LEVER

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
LINE INPUT & STOP	③ R395	CH1: TJ313 CH2: TJ395	Signal Gen. Oscilloscope		Color Bar with 100% white

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 10us/div V-Axis: 0.1v/div</p> 

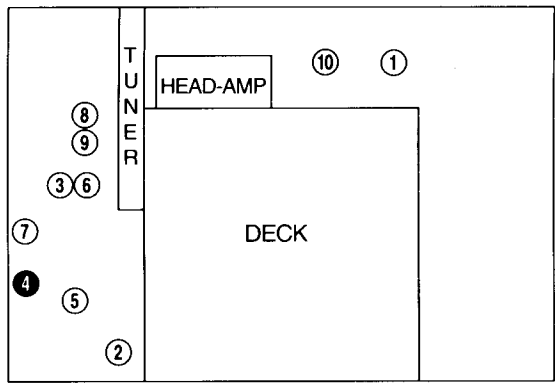
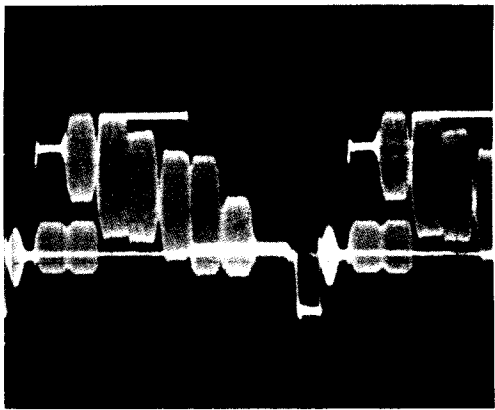
• Adjustment Procedure

1. Set the TV/LINE to LINE mode.
2. Supply the color bar signal with 100% white to video input jack.
3. Set the VCR to the stop mode.
4. Connect the oscilloscope to check point and trigger the scope with CH2.
5. Adjust R395 to obtain 0.5 ± 0.01 Vp-p between the sync tip and 100% white level.

• Adjustment Inspection Standard: 0.5 ± 0.01 Vp-p

2. PLAYBACK VIDEO OUTPUT LEVEL

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
PB	④ 396	CH 1: TJ313 CH 2: VIDEO OUTPUT JACK	Oscilloscope	DN-1	

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 50us/div V-Axis: 0.5v/div</p> 

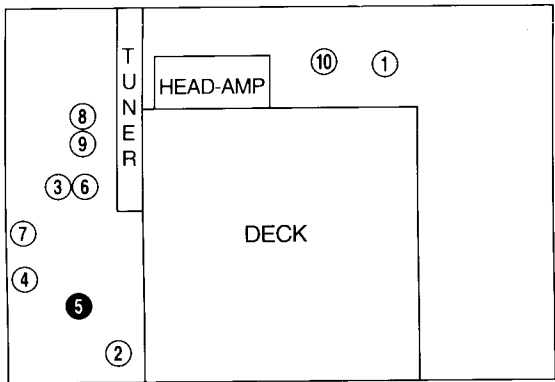
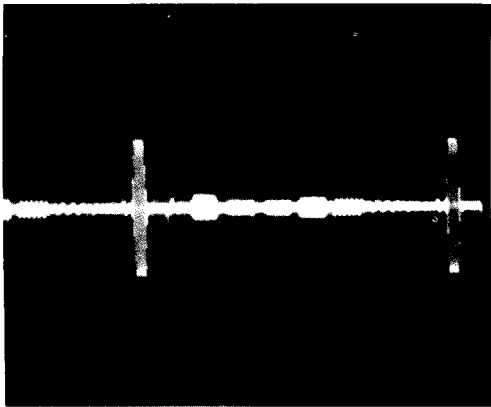
• Adjustment Procedure

1. Playback the color bar test tape (Dn-1).
2. Connect the oscilloscope to check point and trigger the scope with CH1.
3. Adjust R396 to obtain 2.0 ± 0.2 Vp-p between the sync tip and 100% white level.

- **Adjustment Inspection Standard:** 2.0 ± 0.2 Vp-p

3. COMB PHASE

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
LINE INPUT & STOP	⑤ R494	CH1: TJ313 CH2: TJ494	Signal Gen. Oscilloscope		Multiburst

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 10us/div V-Axis: 20mv/div</p> 

• Adjustment Procedure

1. Set the TV/LINE to LINE mode.
2. Supply the multiburst signal to video input jack.
3. Set the VCR to the stop mode.
4. Connect the oscilloscope to check point and trigger the scope with CH1.
5. Adjust R494 until the 3.58 MHz component of multiburst signal becomes minimum.

• Adjustment Inspection Standard: Minimum

3. SYNC TIP FREQ.

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
STOP	⑦ R391	+ : TJ391 - : GND	Freq. Counter		Without signal

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p>	<p>H-Axis: _____</p> <p>V-Axis: _____</p>

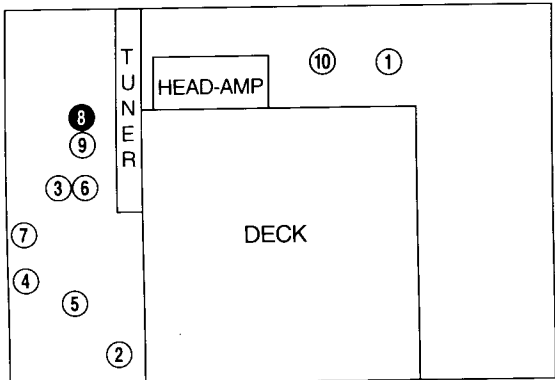
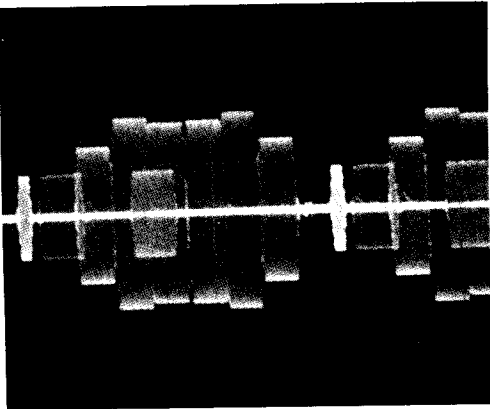
• **Adjustment Procedure**

1. Set the TV/LINE to LINE mode.
2. Set the VCR to the STOP mode.
3. Connect the frequency counter to check point.
4. Adjust R391 to obtain 3.33 ± 0.1 MHz.

• **Adjustment Inspection Standard:** 3.33 ± 0.1 MHz

5. COLOR REC CURRENT

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
LINE INPUT & STOP	⑧ R491	CH1: TJ313 CH2: TJ399	Signal Gen. Oscilloscope		Color Bar

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 10us/div V-Axis: 20mv/div</p> 

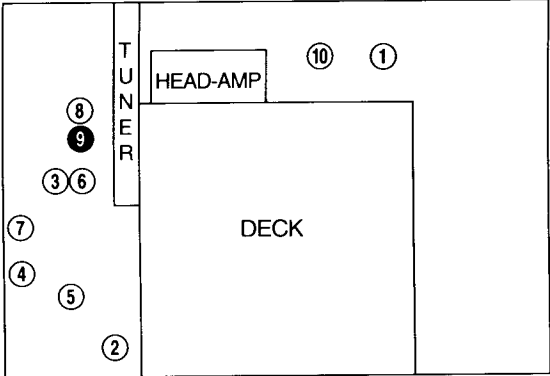
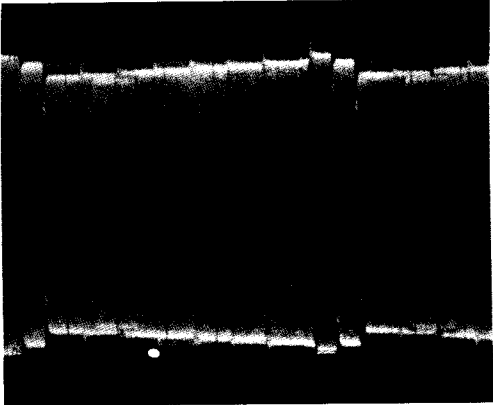
• Adjustment Procedure

1. Set the TV/LINE to LINE mode.
2. Supply the color bar signal to video input jack.
3. Set the VCR to the stop mode.
4. Connect the oscilloscope to check point and trigger the scope with CH1.
5. Adjust R399 until Y recording current becomes minimum.
6. Adjust R491 to obtain 80 ± 5 mV.

- Adjustment Inspection Standard: 80 ± 5 mV

6. Y REC CURRENT

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
LINE INPUT & STOP	⑨ R399	CH1: TJ313 CH2: TJ399	Signal Gen. Oscilloscope		Color Bar

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p> 	<p>H-Axis: 10us/div V-Axis: 50mv/div</p> 

• Adjustment Procedure

1. Set the TV/LINE to LINE mode.
2. Supply the color bar signal to video input jack.
3. Set the VCR to the stop mode.
4. Connect the oscilloscope to check point and trigger the scope with CH1.
5. Adjust R399 to obtain 300 ± 10 mV (at the position of SYNC)

• Adjustment Inspection Standard: 300 ± 10 mV (at the position of SYNC)

2-3. AUDIO CIRCUIT ADJUSTMENT METHOD

1. Audio REC Bias

Mode	Adjustment Parts	Check Point	Test Equipments	Test Tape	Input Signal
REC	⑩ R292	+ : TP1 - : TP2 (A/C HEAD PCB)	Audio level meter	Blank tape	Without signal

Location of Adjustment Parts	Observation Waveform
<p>MAIN PCB</p>	<p>H-Axis: V-Axis:</p>

• Adjustment Procedure

1. Set the TV/LINE to LINE mode.
2. Connect the audio level meter to both TP201 and TP202.
3. After inserting a blank tape, record in SP mode.
4. Adjust R292 to obtain $3.0 \pm 0.1 \text{mVrms}$.

• Adjustment Inspection Standard:

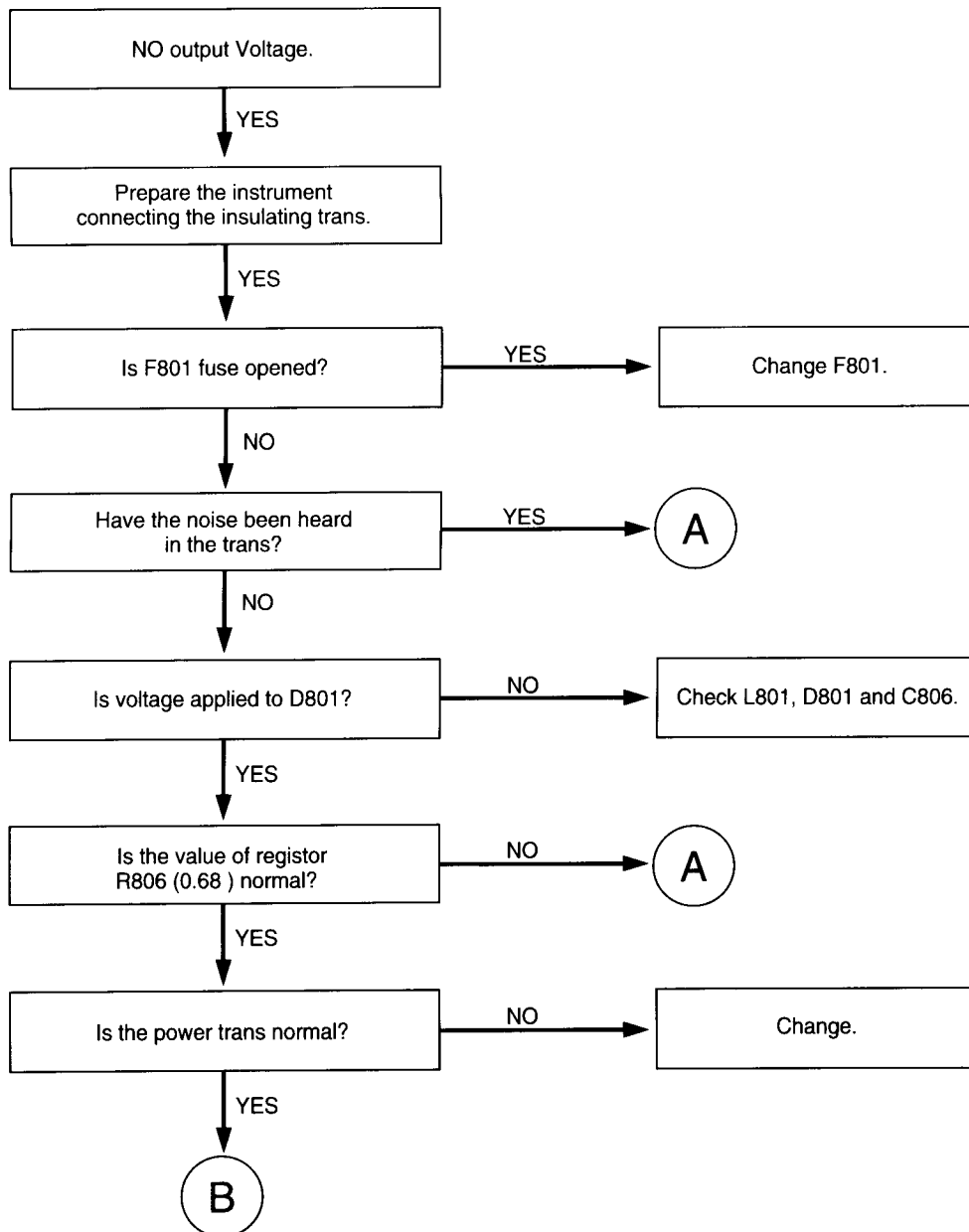
In confirmation of recording playback frequency characteristics, compared with 1KHz Recording-playback output level, 10KHz Recording-playback output level is higher than the standard, increase the record bias and if lower, decrease it.

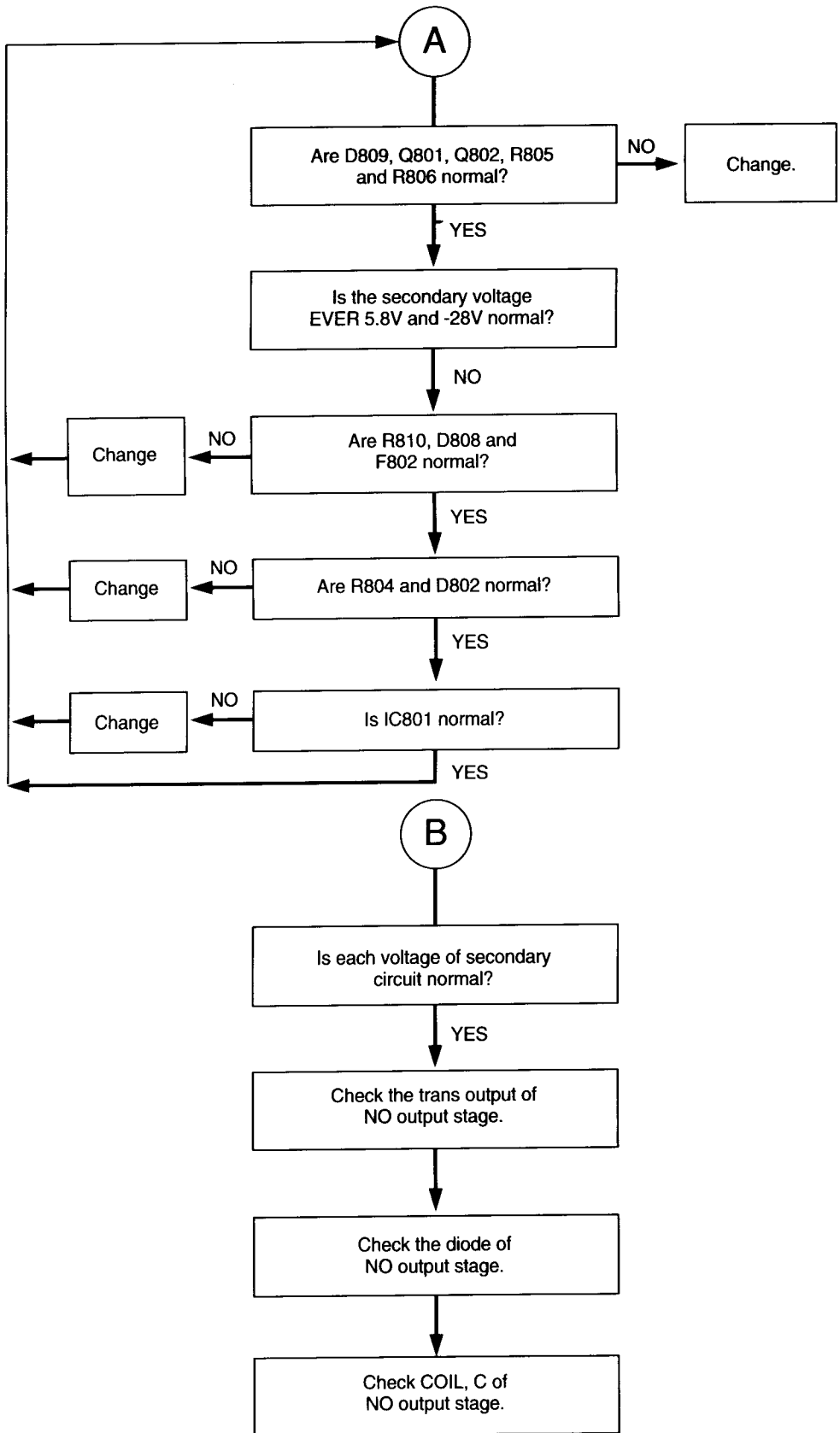
SECTION 3. TROUBLE SHOOTING FLOW CHART

3-1. POWER CIRCUIT

- When change the parts which are out of order, first, remove the power plug from the socket and then discharge the voltage across between both terminals of C807. (Use an external scores of $K\Omega$ resistance)
- When check the primary circuit by using the oscilloscopes insulate the oscilloscope surely (Use the insulating transformer) and must connect GND into the primary GND (But there is no connection when check the secondary circuit).
- When change IC801, check FUSE and Cement resistance surely.

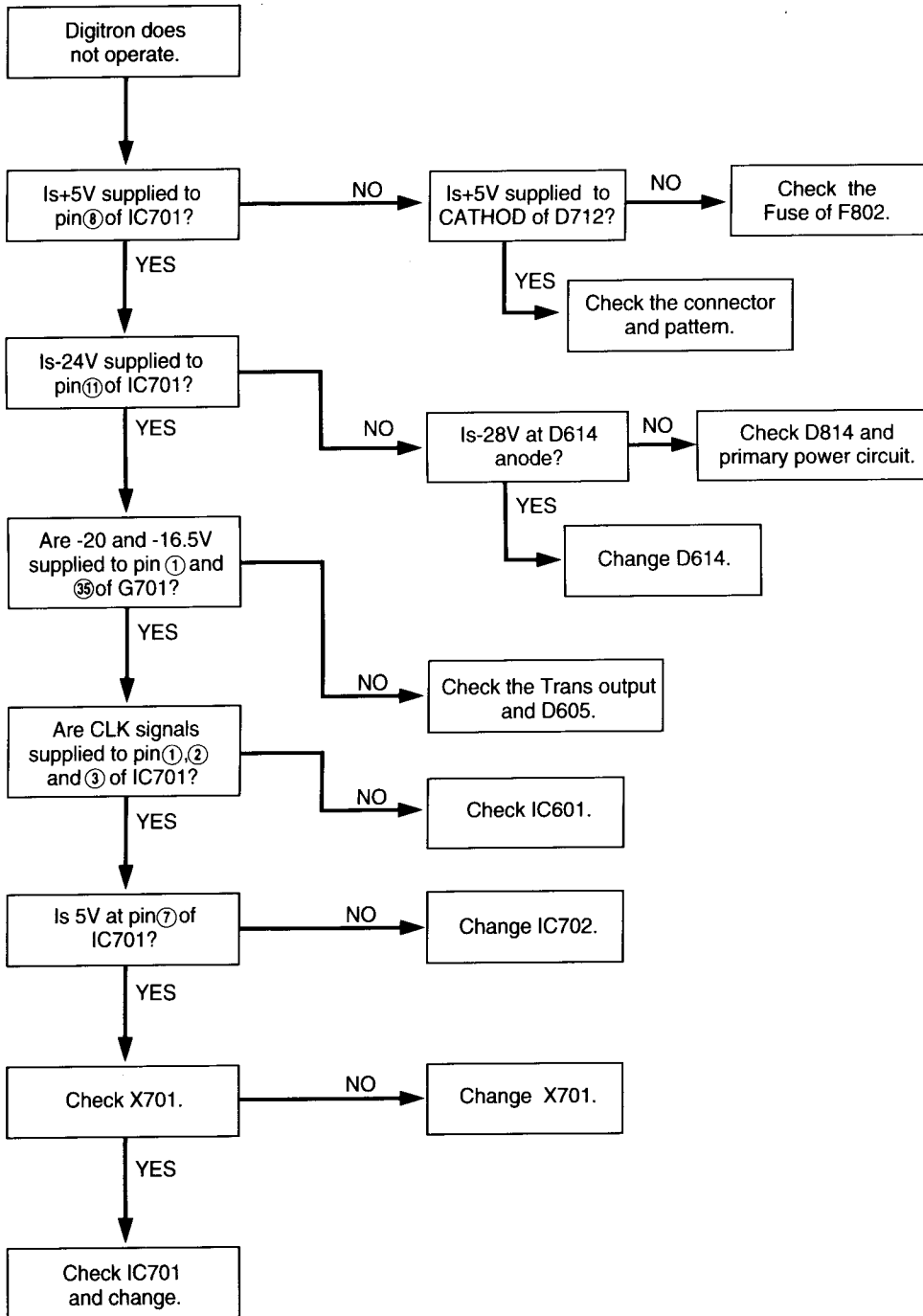
A. CHECKING THE PRIMARY CIRCUIT.



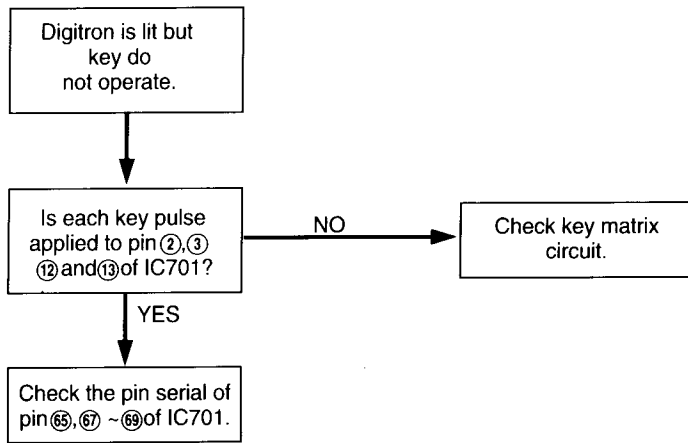


3-2. LOGIC CIRCUIT

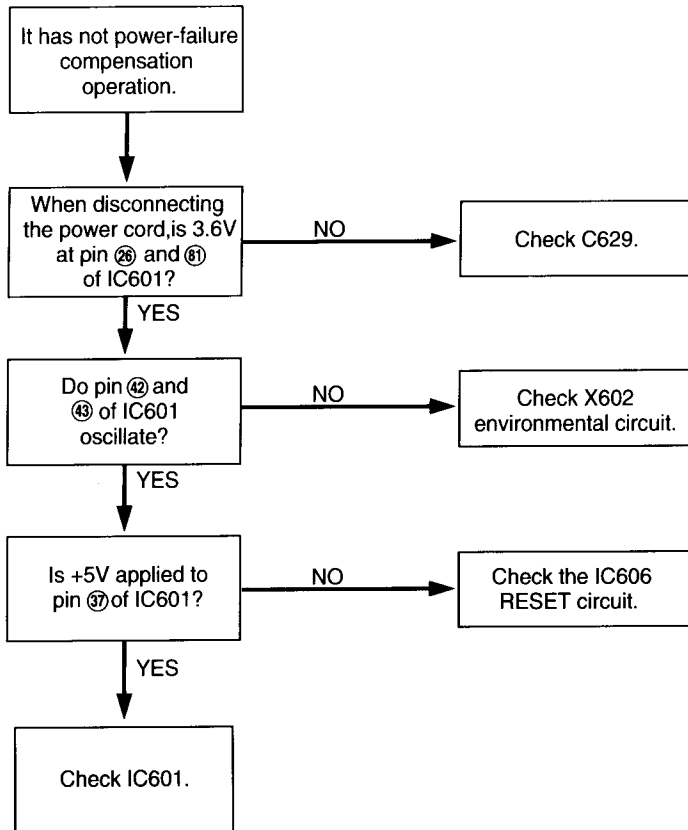
A.



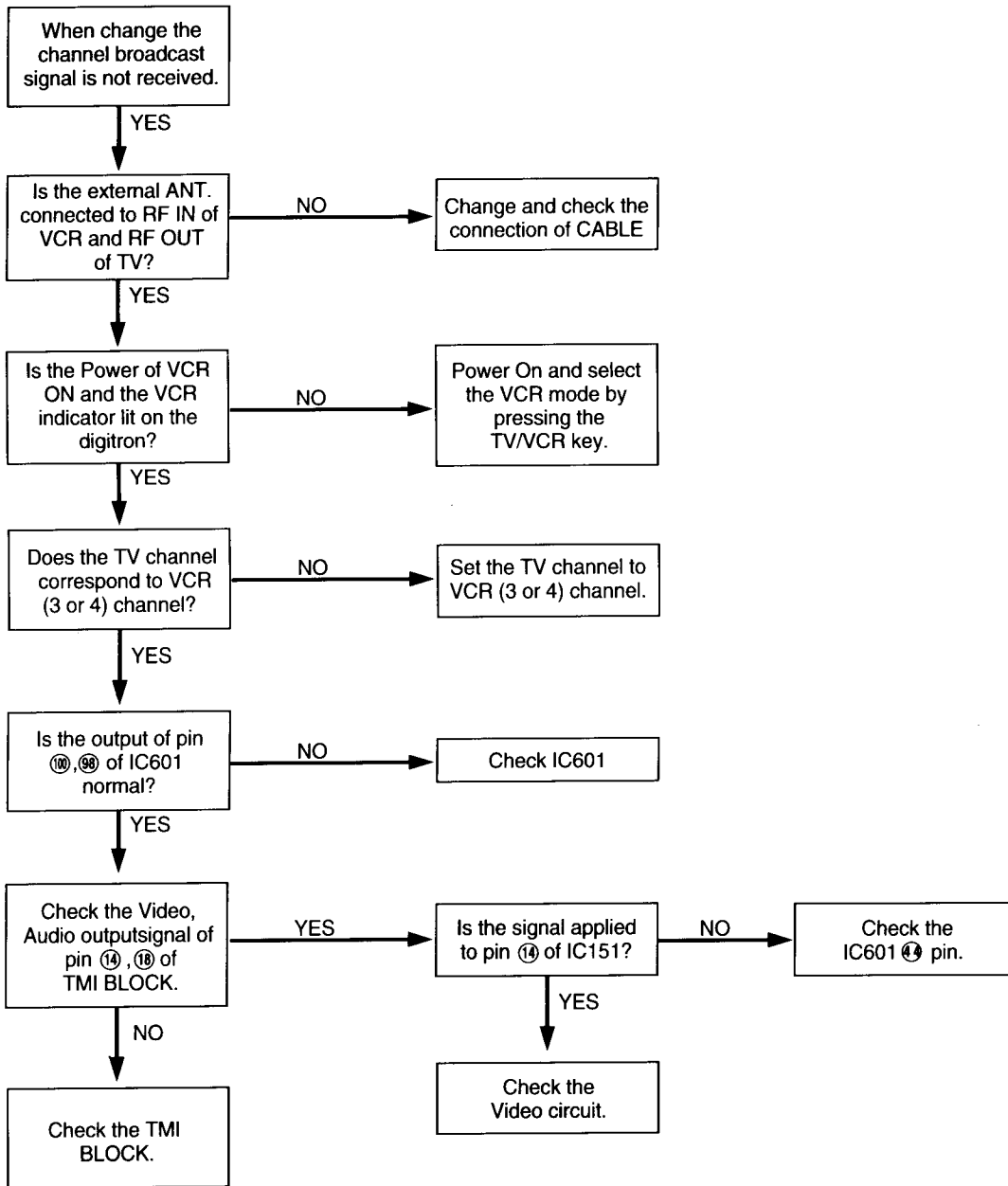
B.



C.

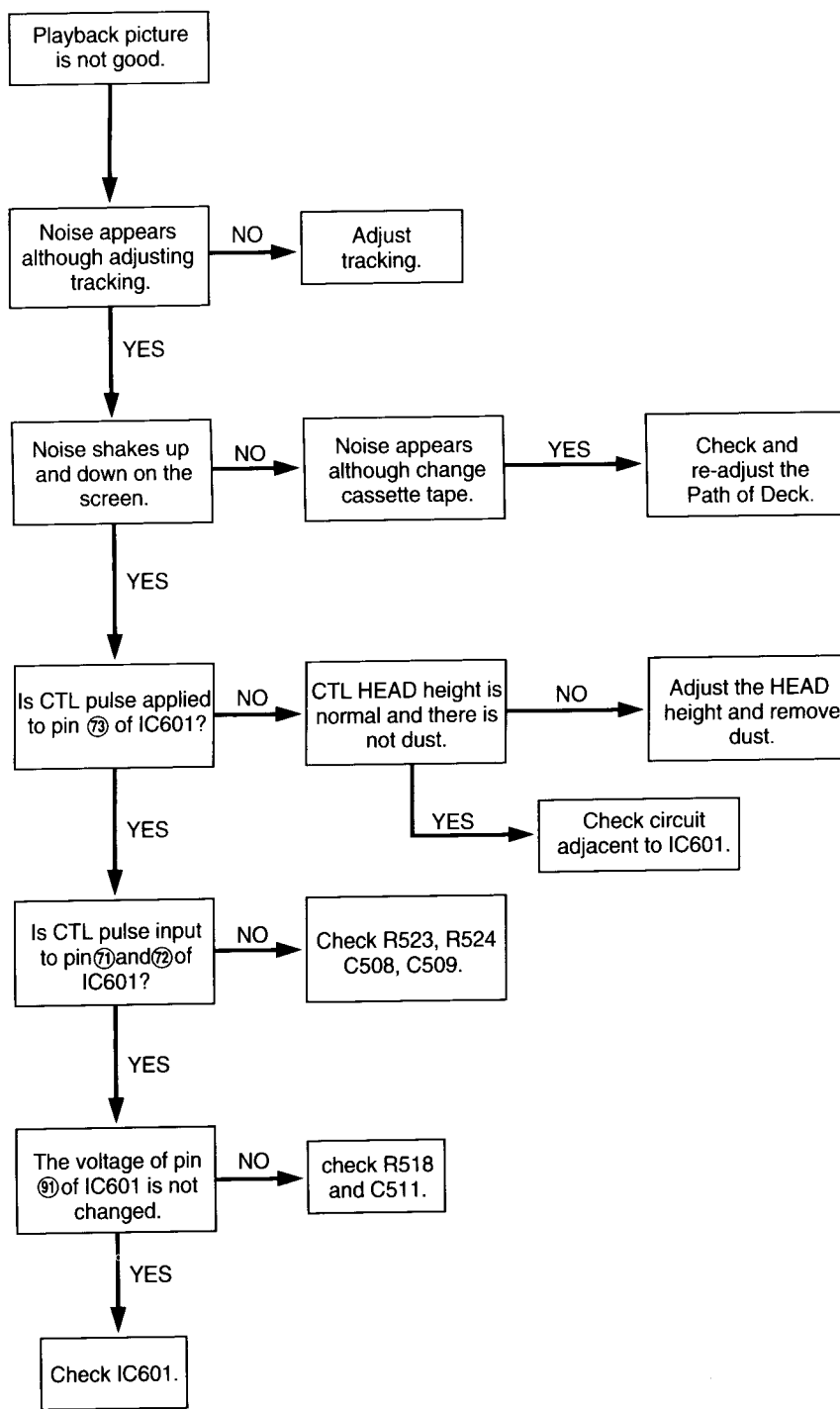


D.

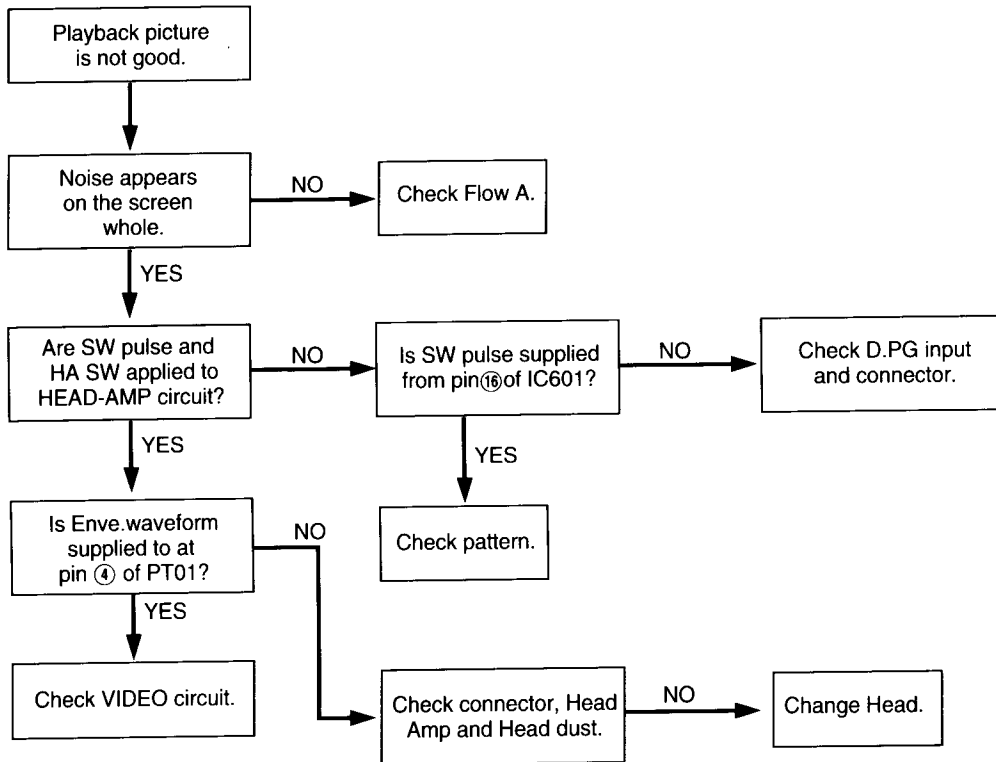


3-3. SERVO/SYSCON CIRCUIT

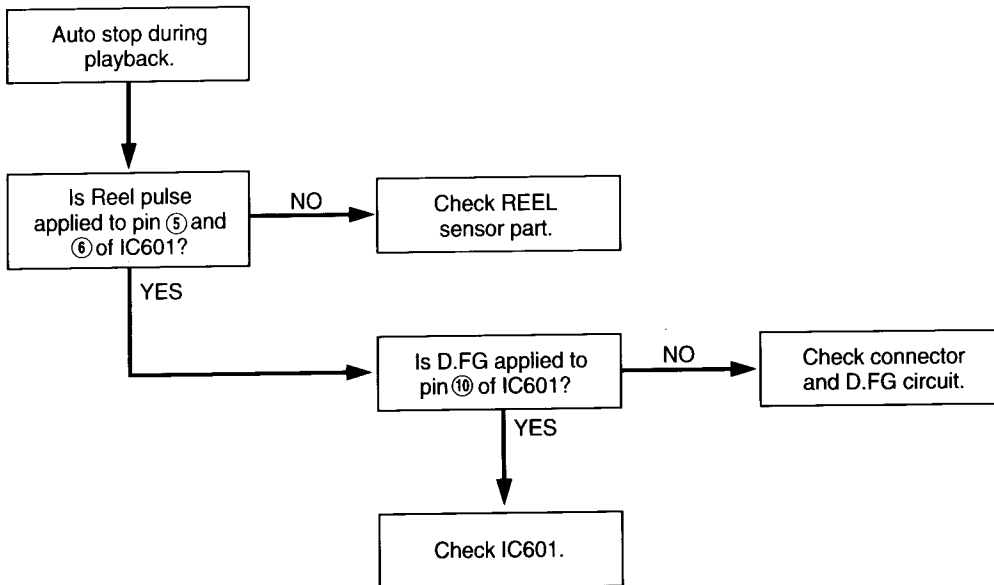
A.



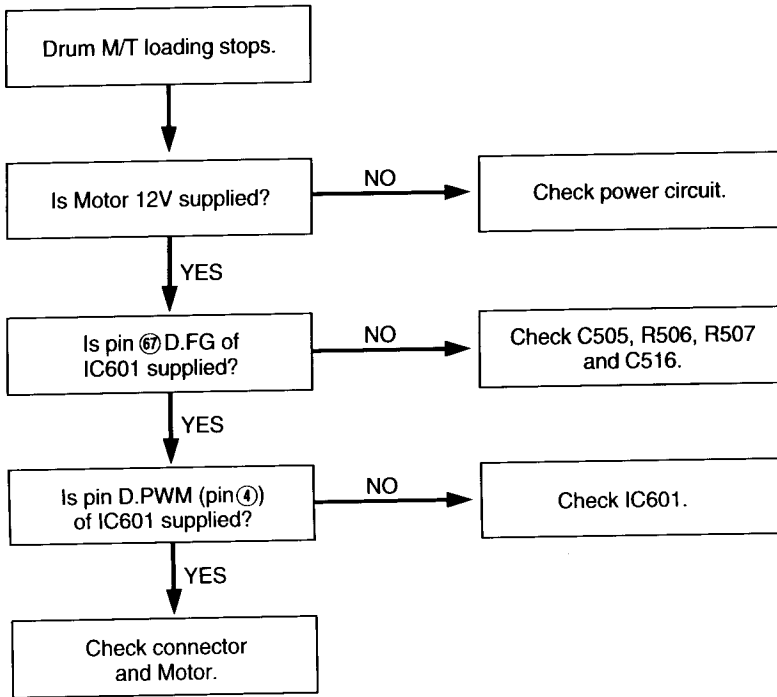
B.



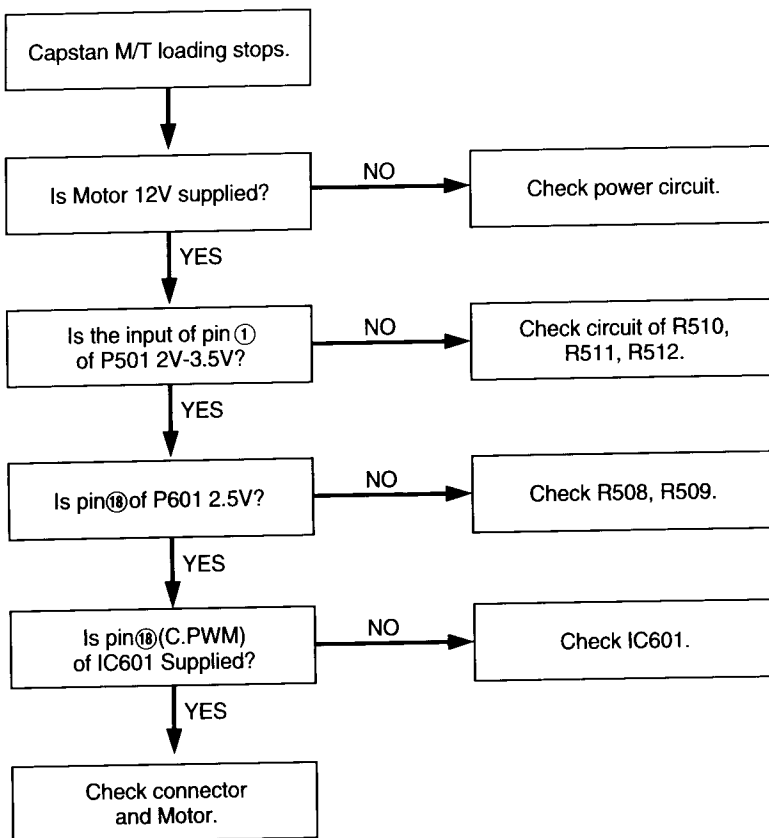
C.



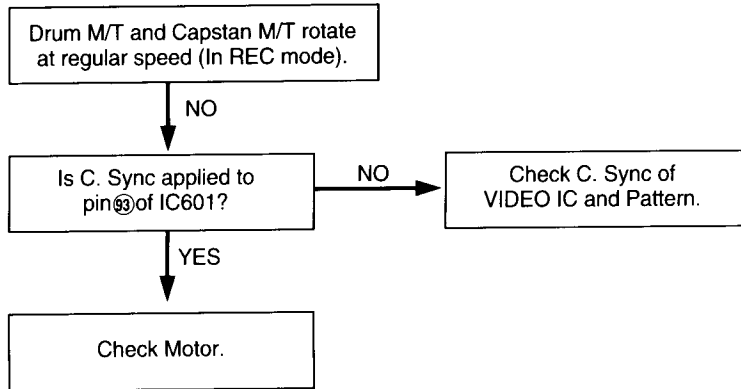
D.



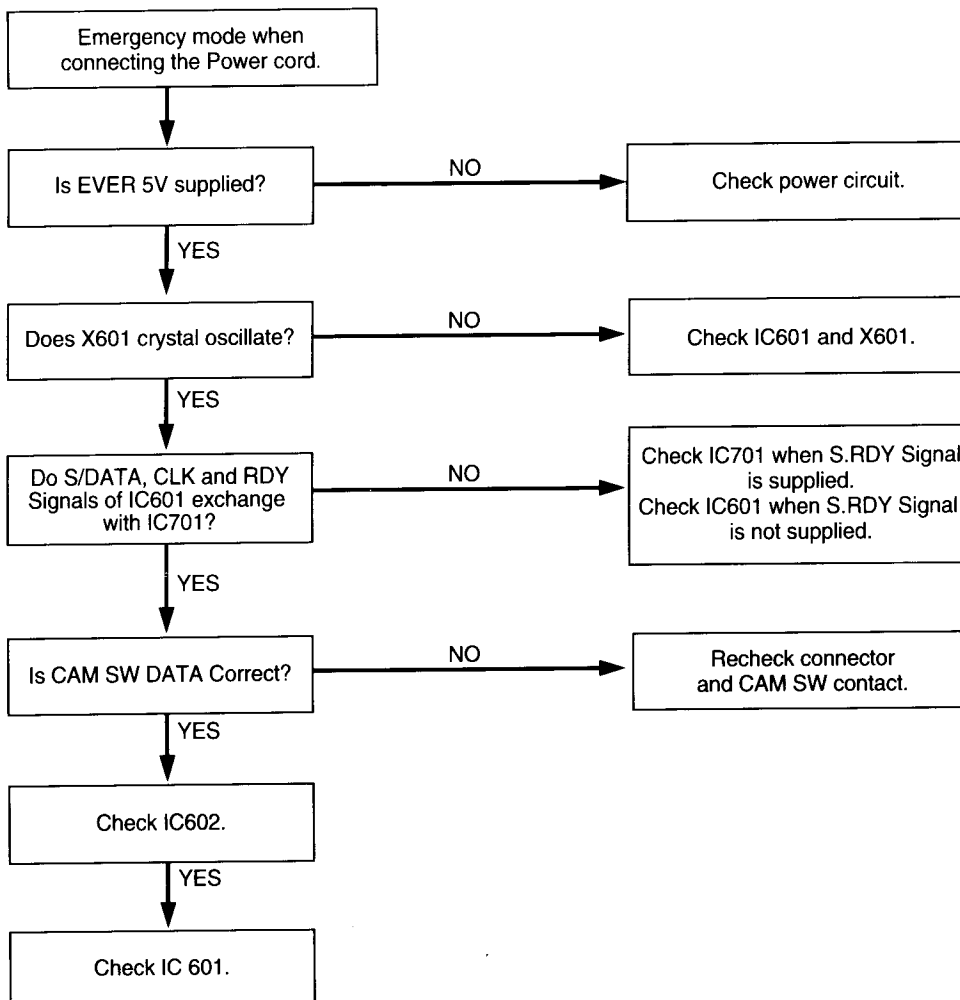
E.



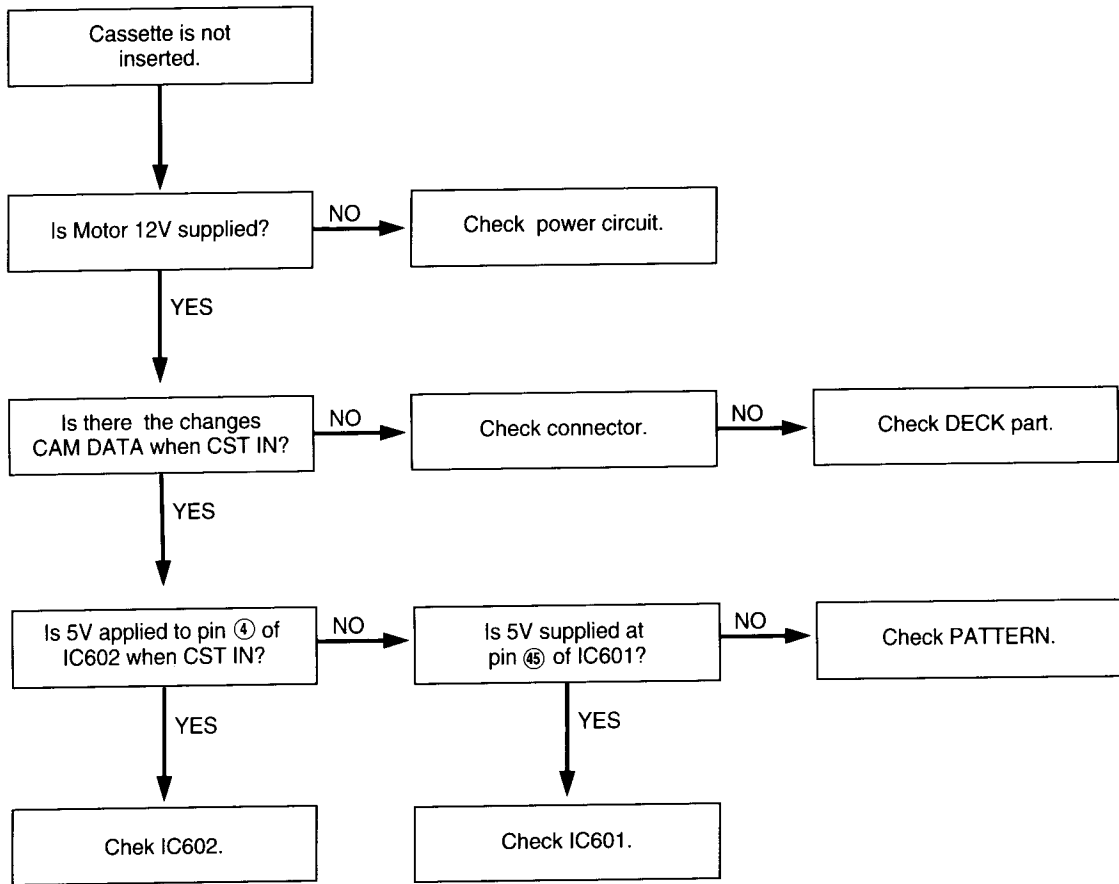
F.



G.

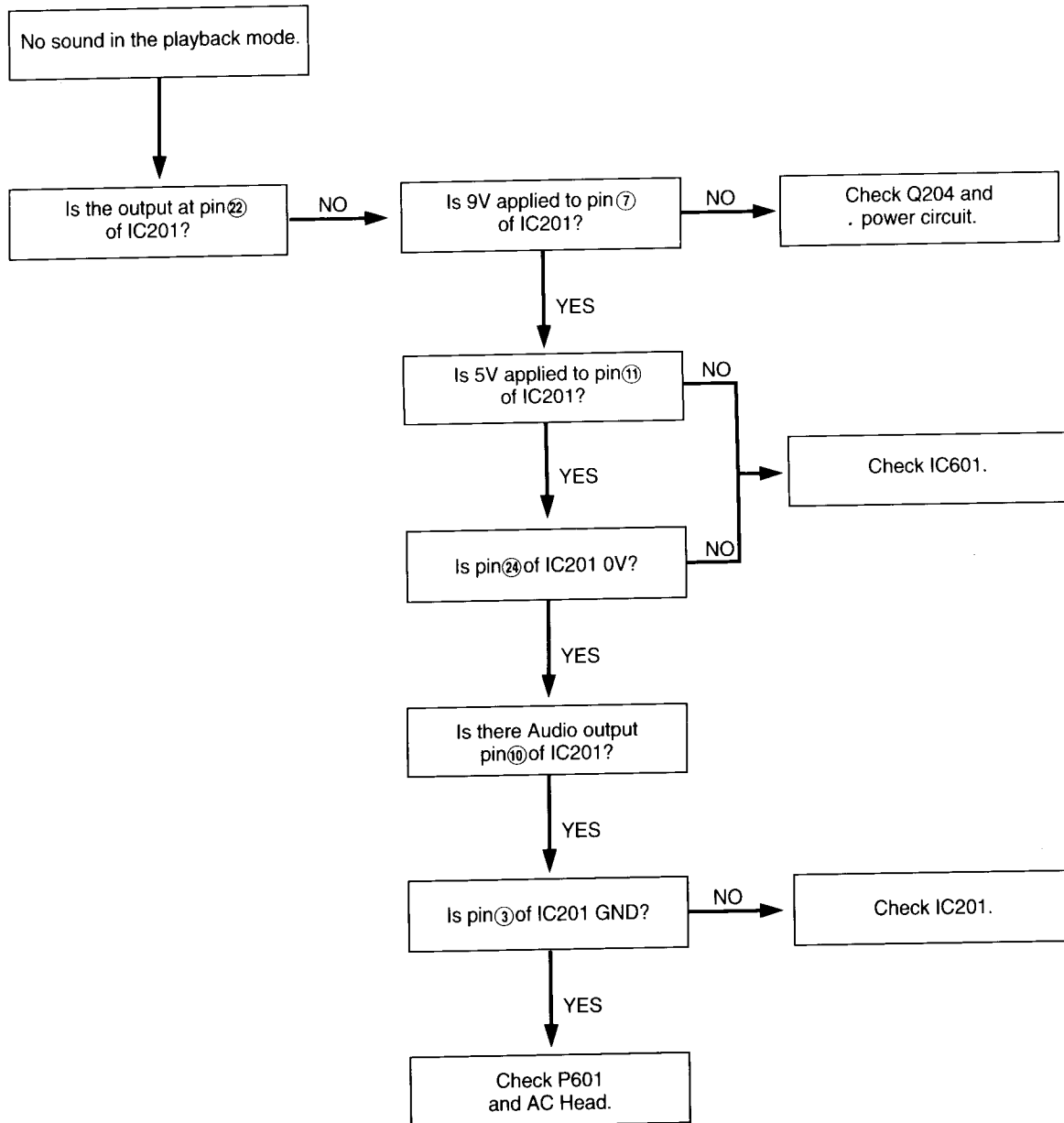


H.

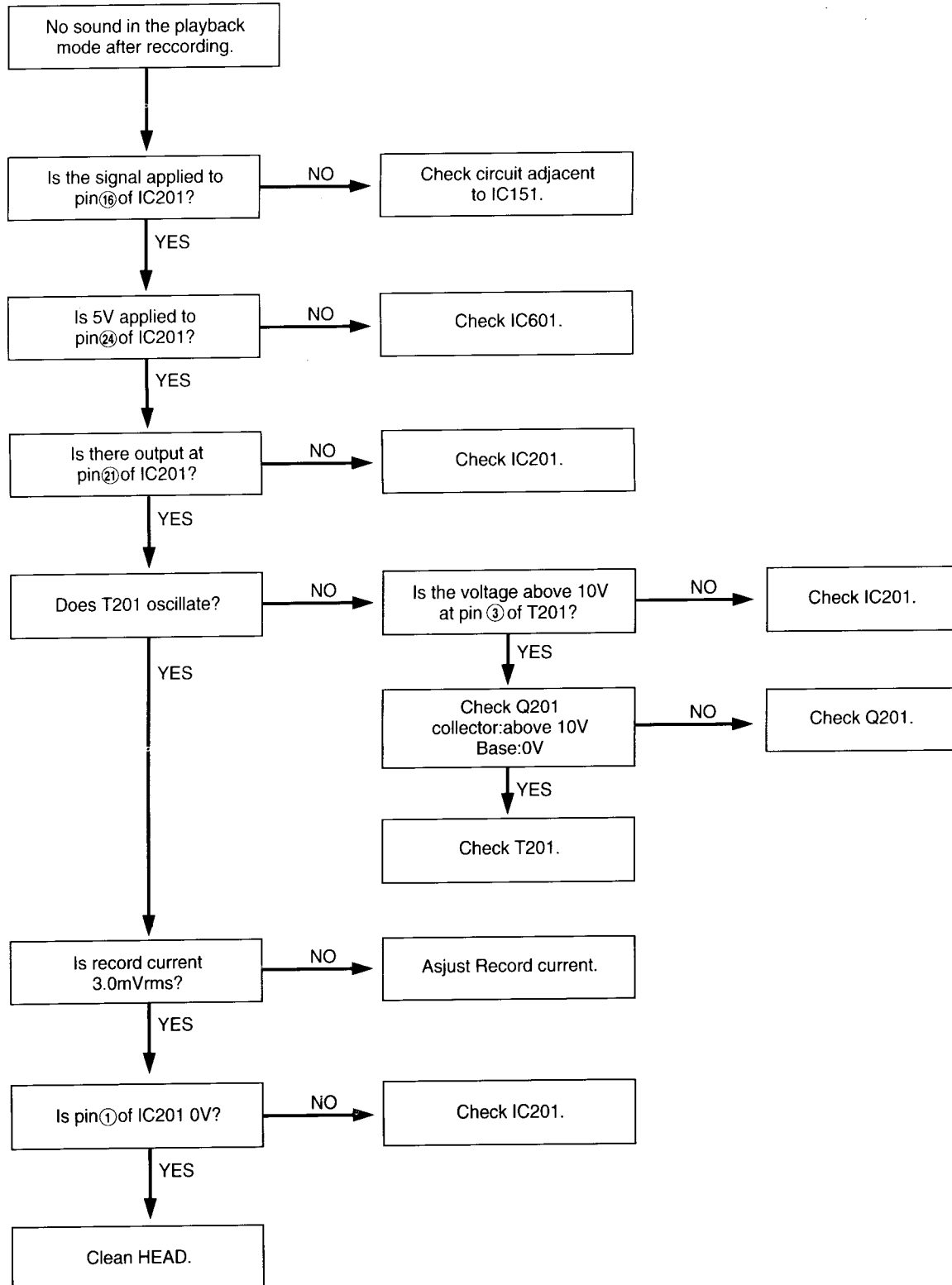


3-4. AUDIO CIRCUIT

A

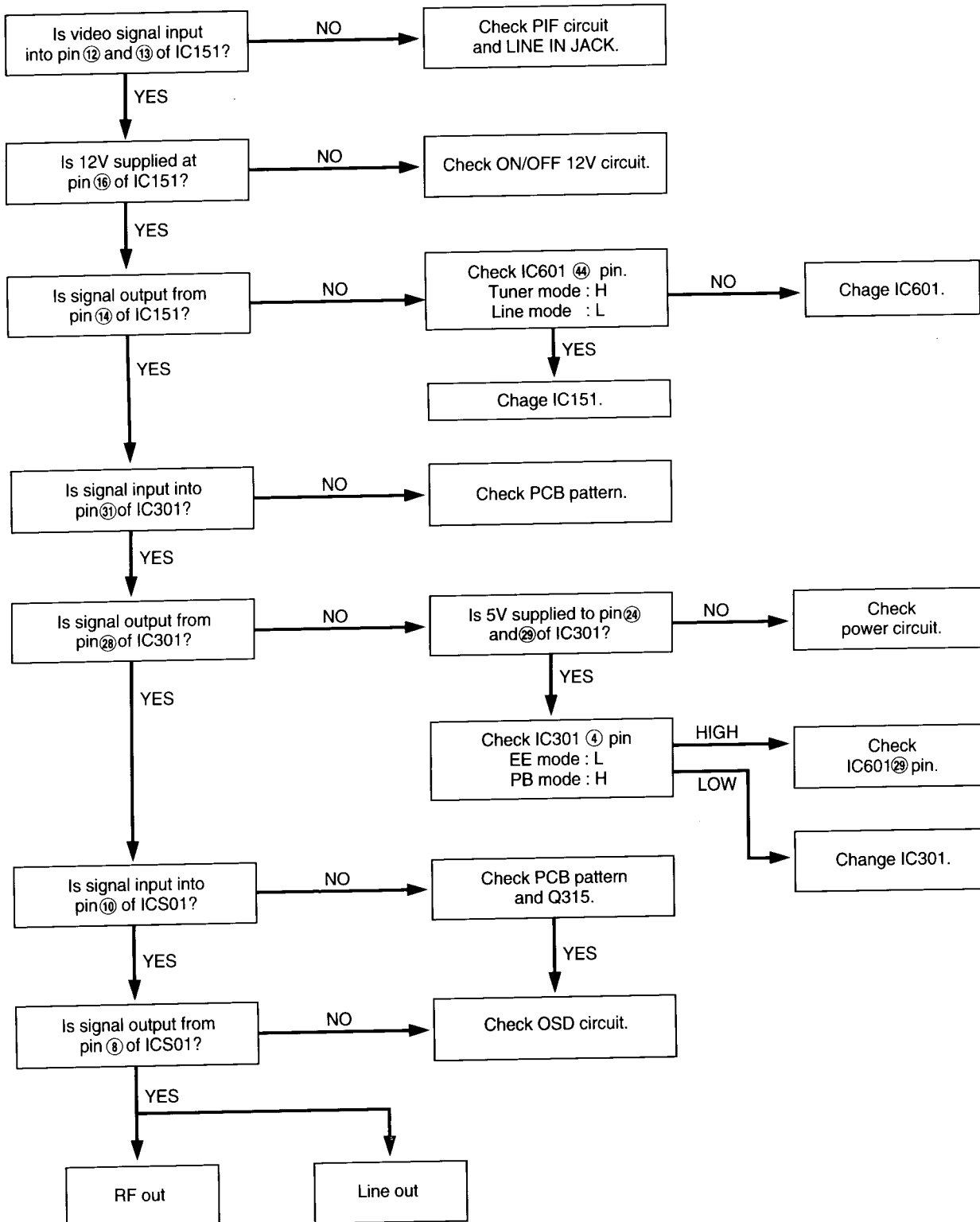


B

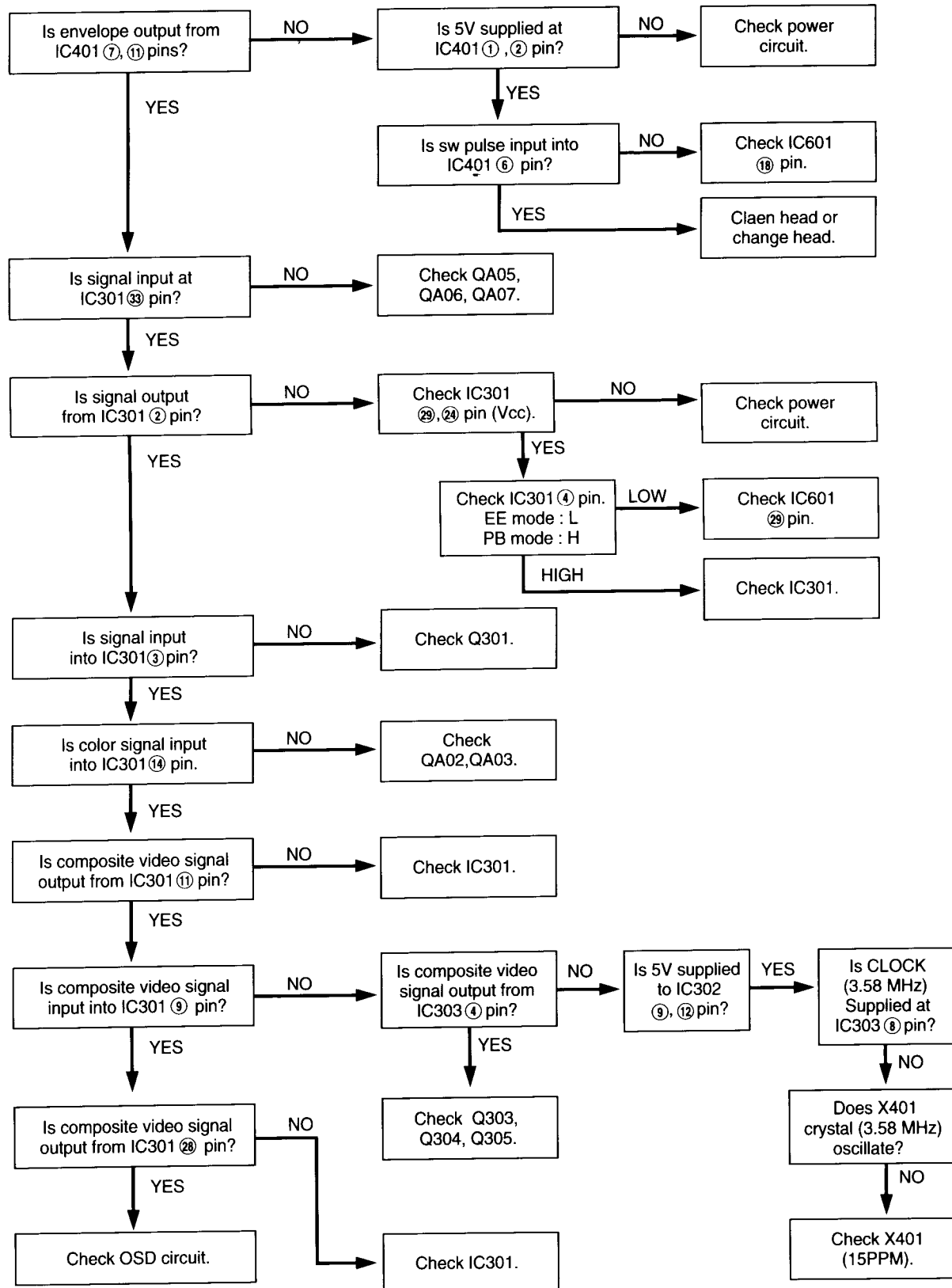


3-5. VIDEO CIRCUIT

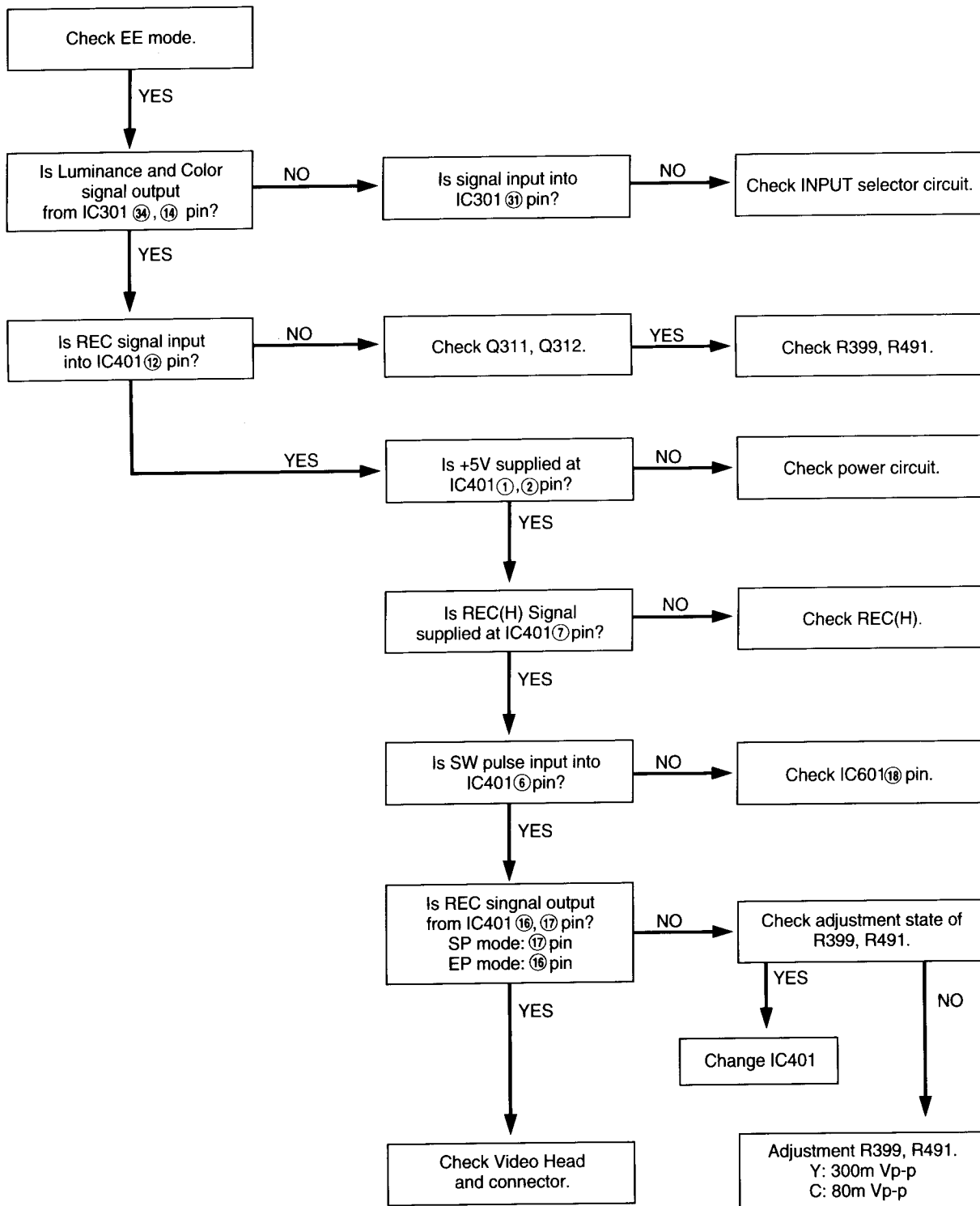
A.EE MODE Picture N.G



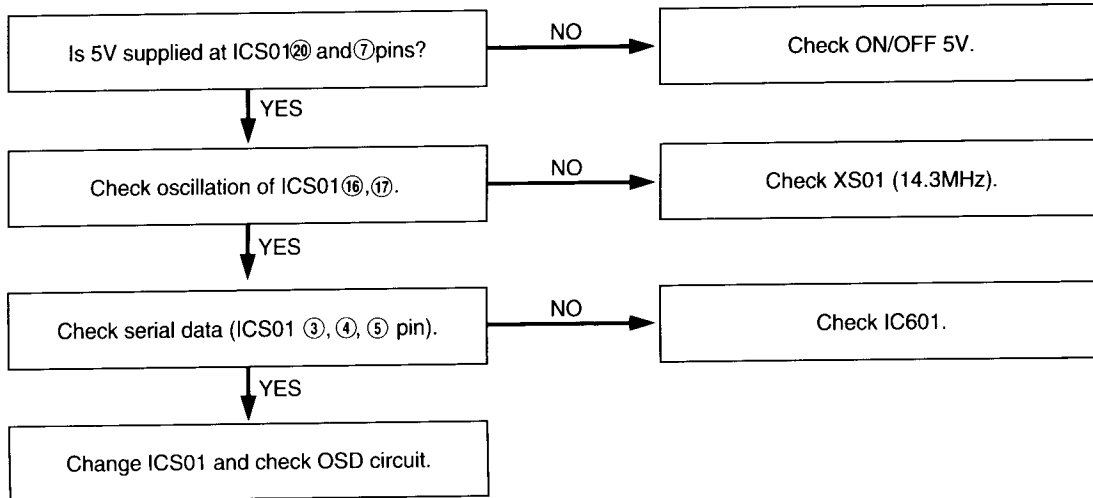
B. PB VIDEO SIGNAL N.G



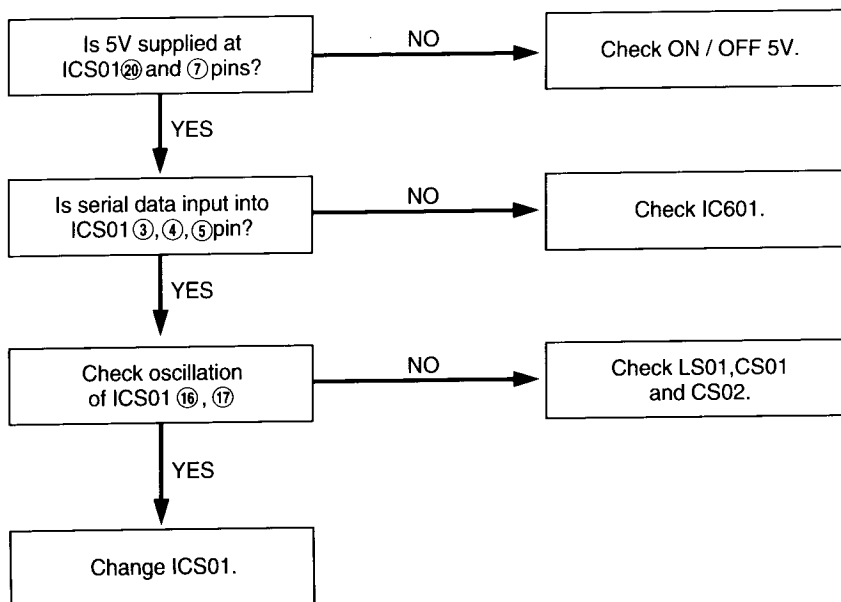
C. REC VIDEO SIGNAL N.G



D . OSD Character N.G

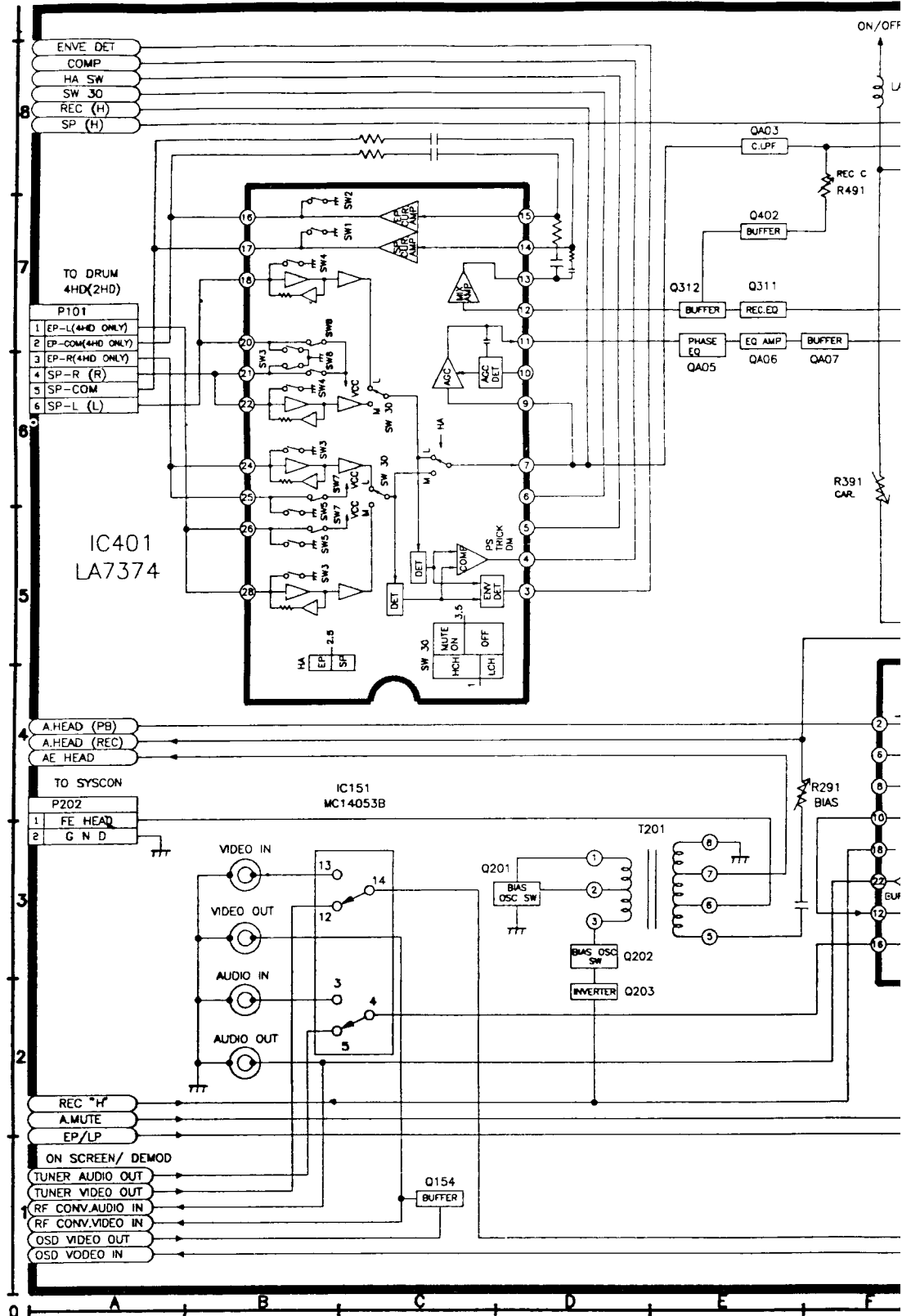


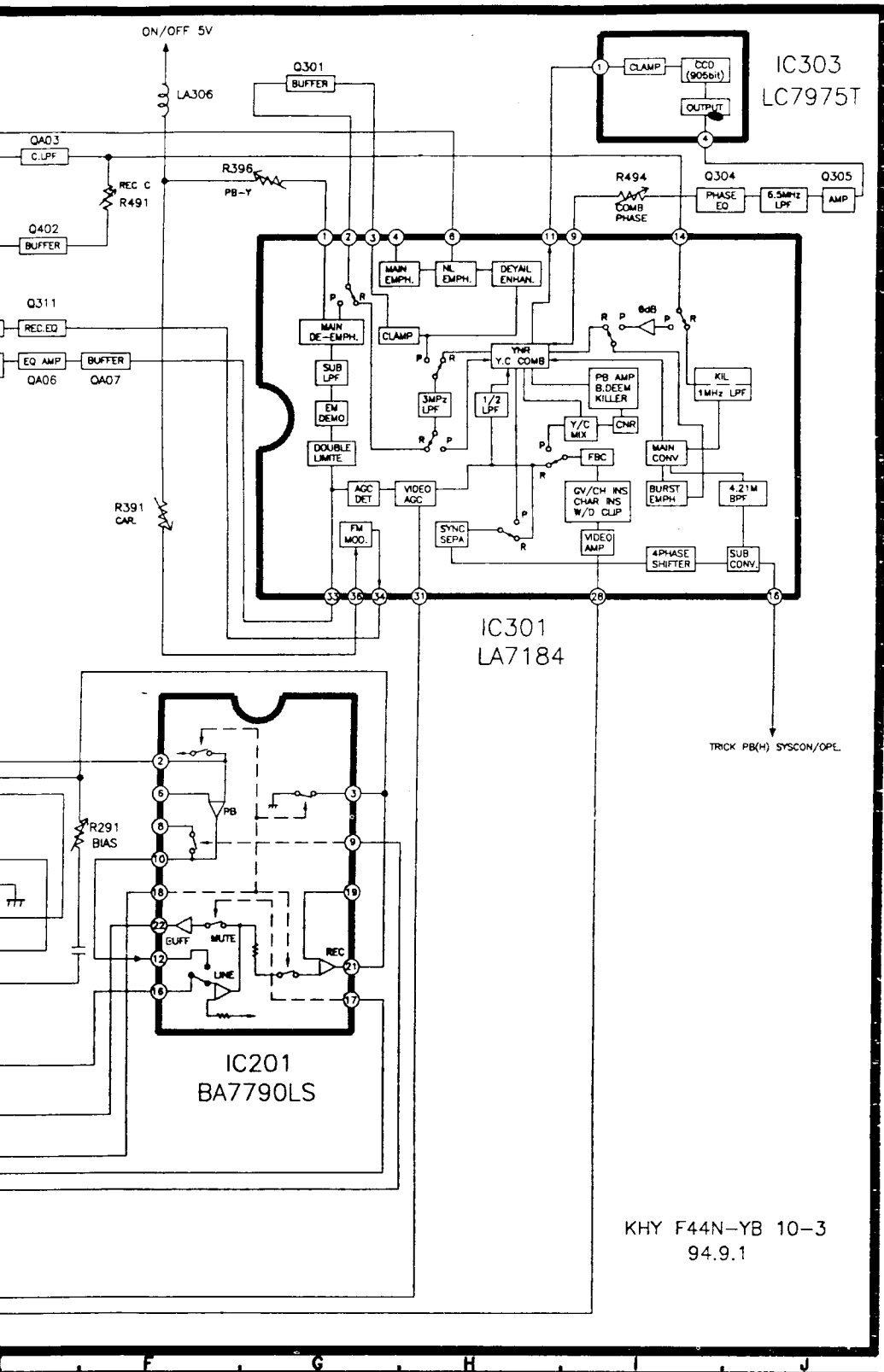
E . OSD Character N.G



SECTION 4. BLOCK DIAGRAM

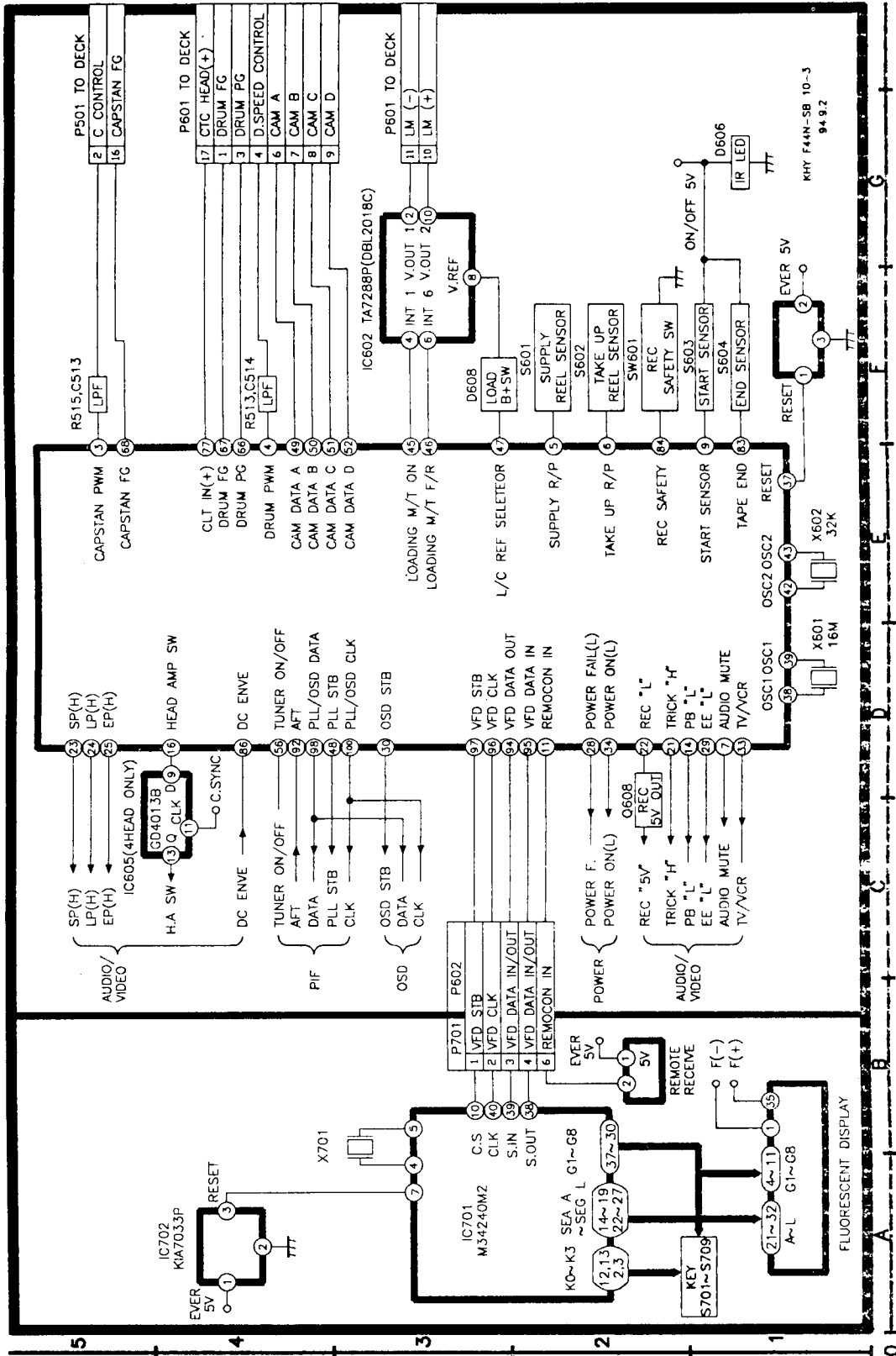
4-1. Y.C./HEAD AMP/AUDIO/INPUT SELECTOR BLOCK DIAGRAM



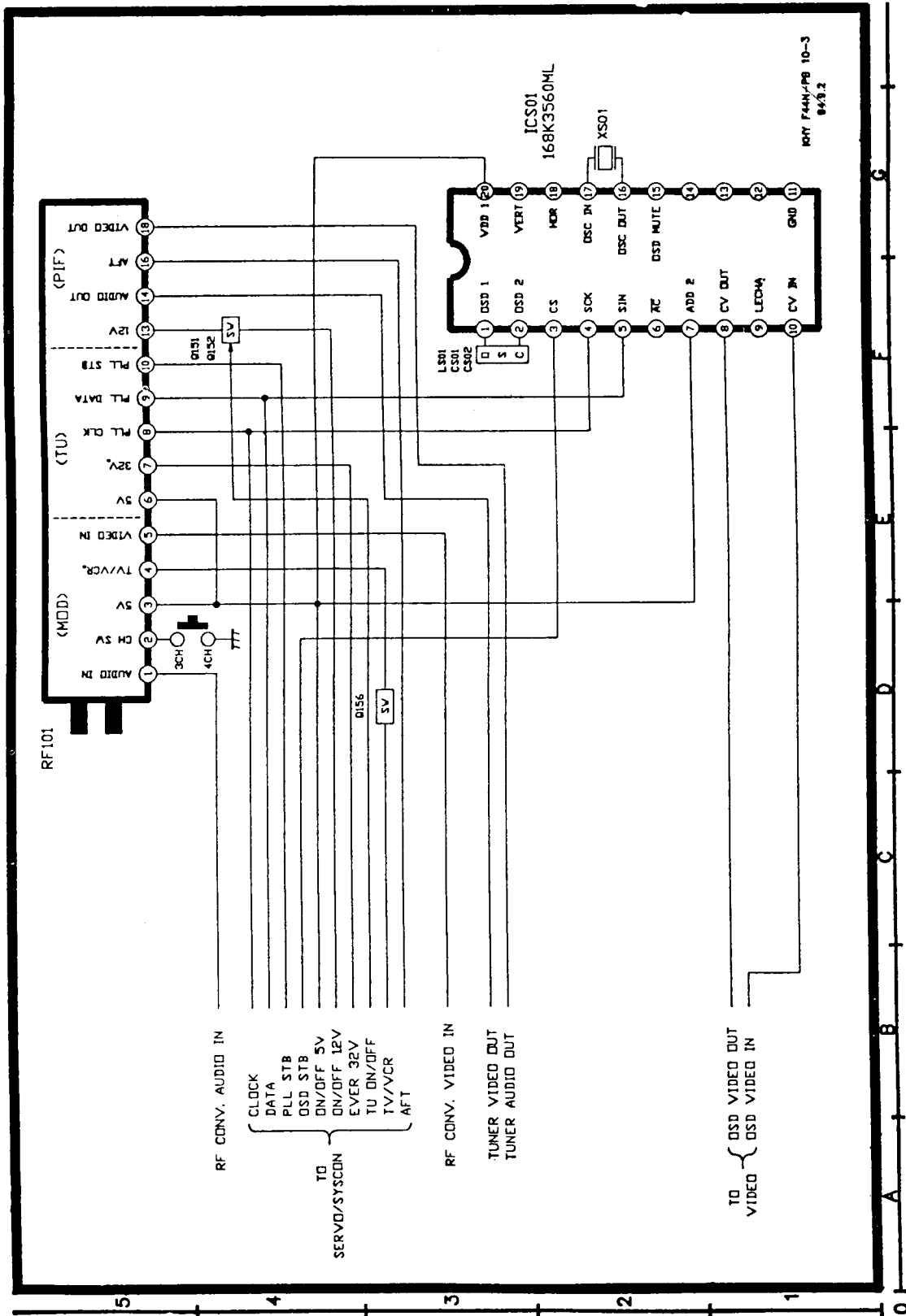


KHY F44N-YB 10-3
94.9.1

4-2. SYSCON/LOGIC BLOCK DIAGRAM



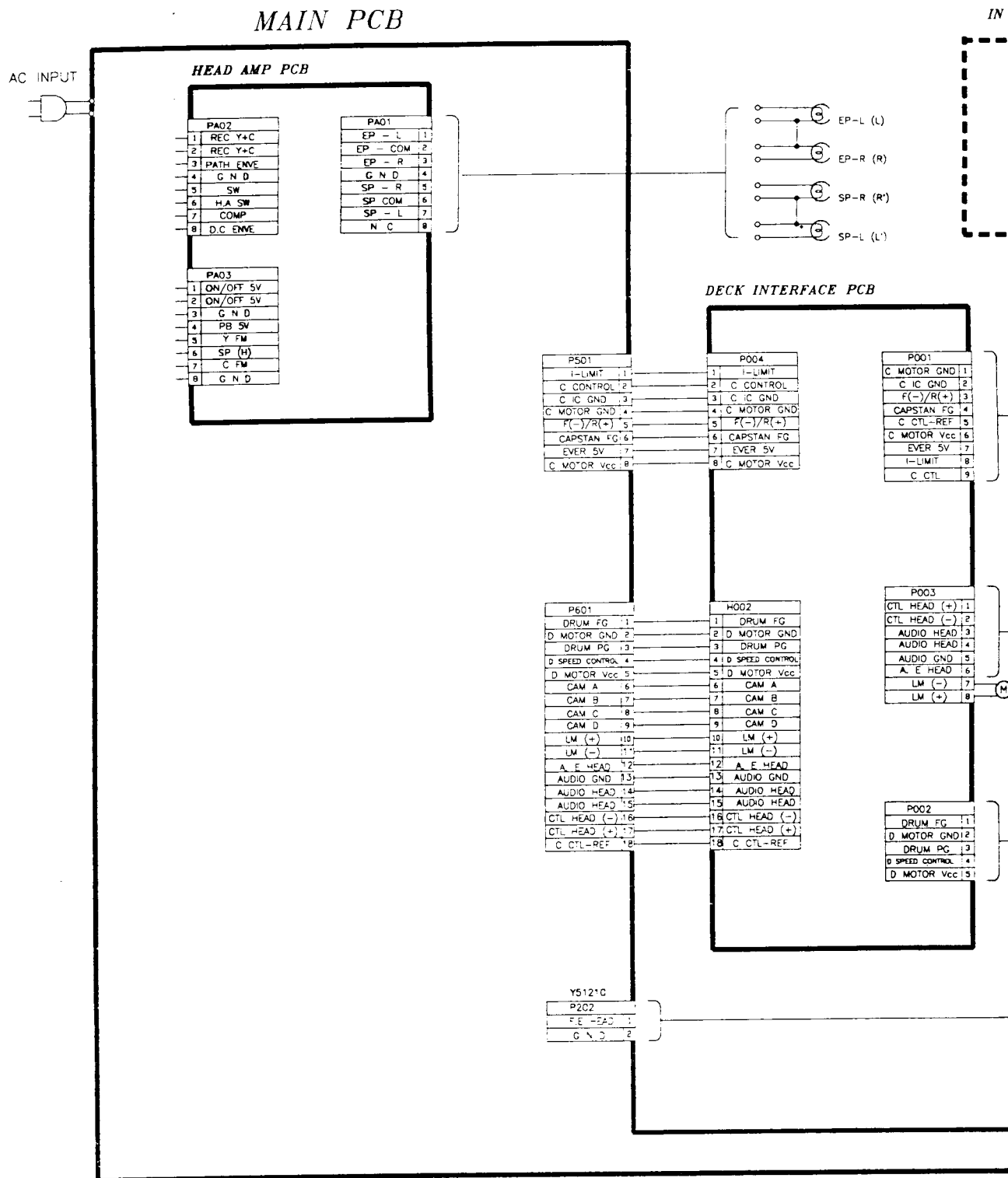
4-3. PIF/OSD BLOCK DIAGRAM



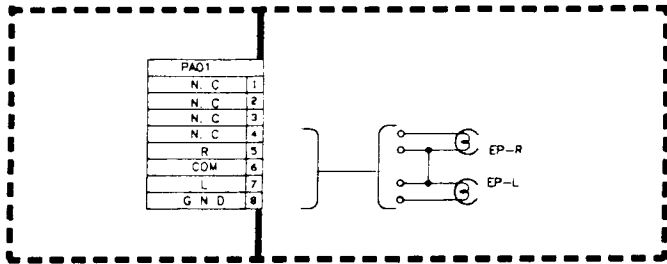
1047 F444/PB 10-3
84/6.2

SECTION 5. CIRCUIT DIAGRAM

5-1. CONNECTION DIAGRAM CIRCUIT

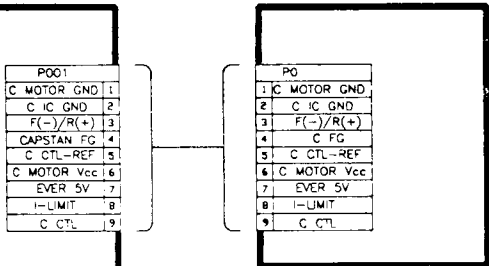


IN CASE OF 2 HD MODEL

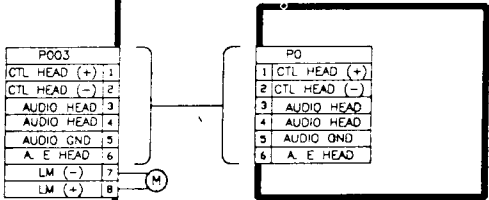


CB

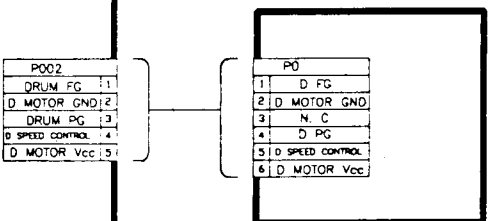
CAPSTAN MOTOR PCB



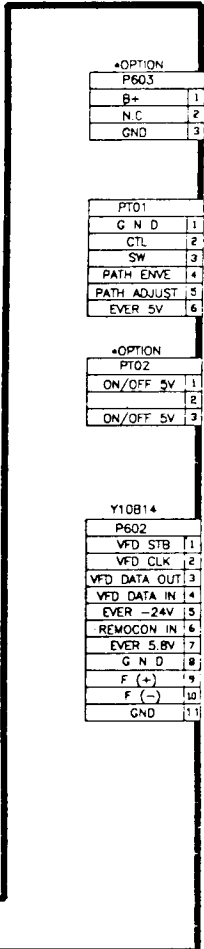
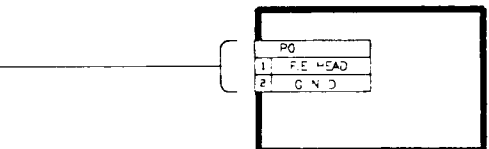
A/C HEAD PCB



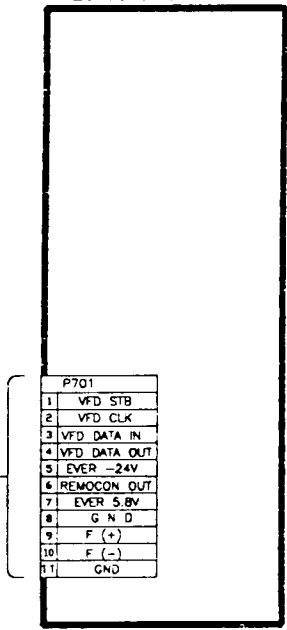
DRUM MOTOR PCB



FE HEAD PCB

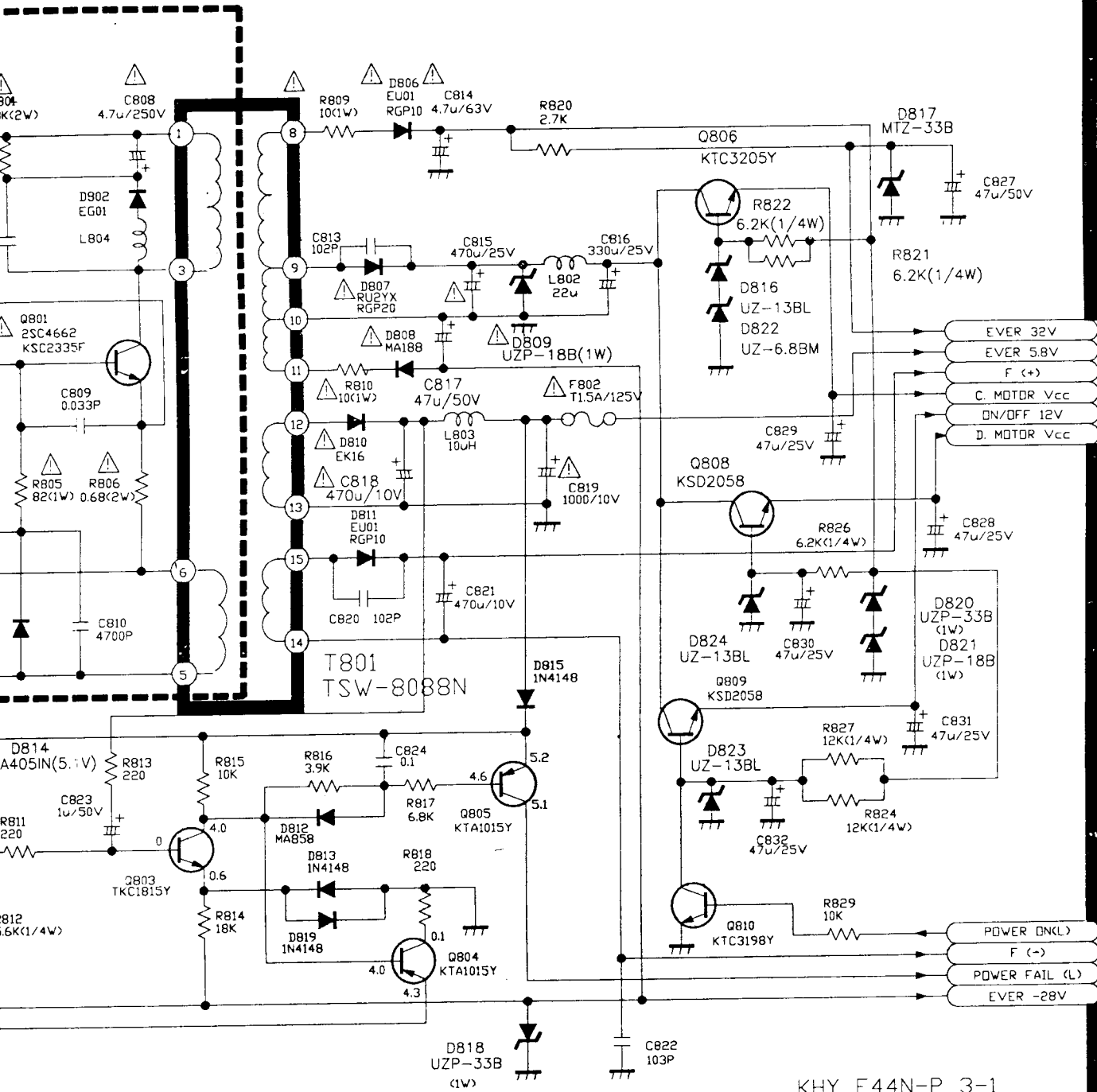


LOGIC PCB



KHY F44N-CD 6-4
94.10.5

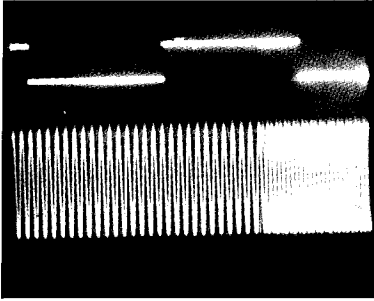
TRANSFORMER WHEN SERVICING



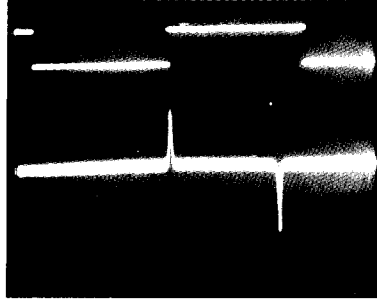
KHY F44N-P 3-1

94.12.06

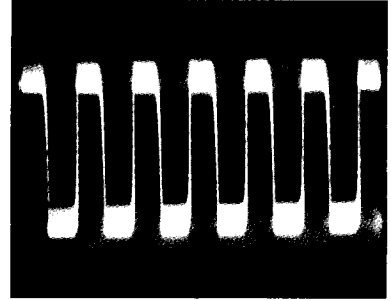
SERVO-LOGIC CIRCUIT WAVEFORM



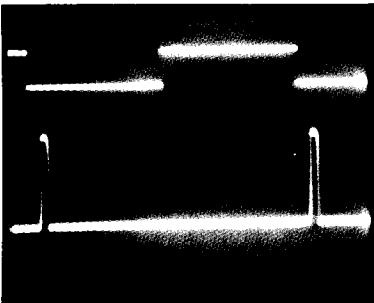
⑬ DRUM PG
(1V/5ms)



⑭ DRUM FG
(200mV/1ms)



⑮ CTL AMP OUT
(1V/5ms)

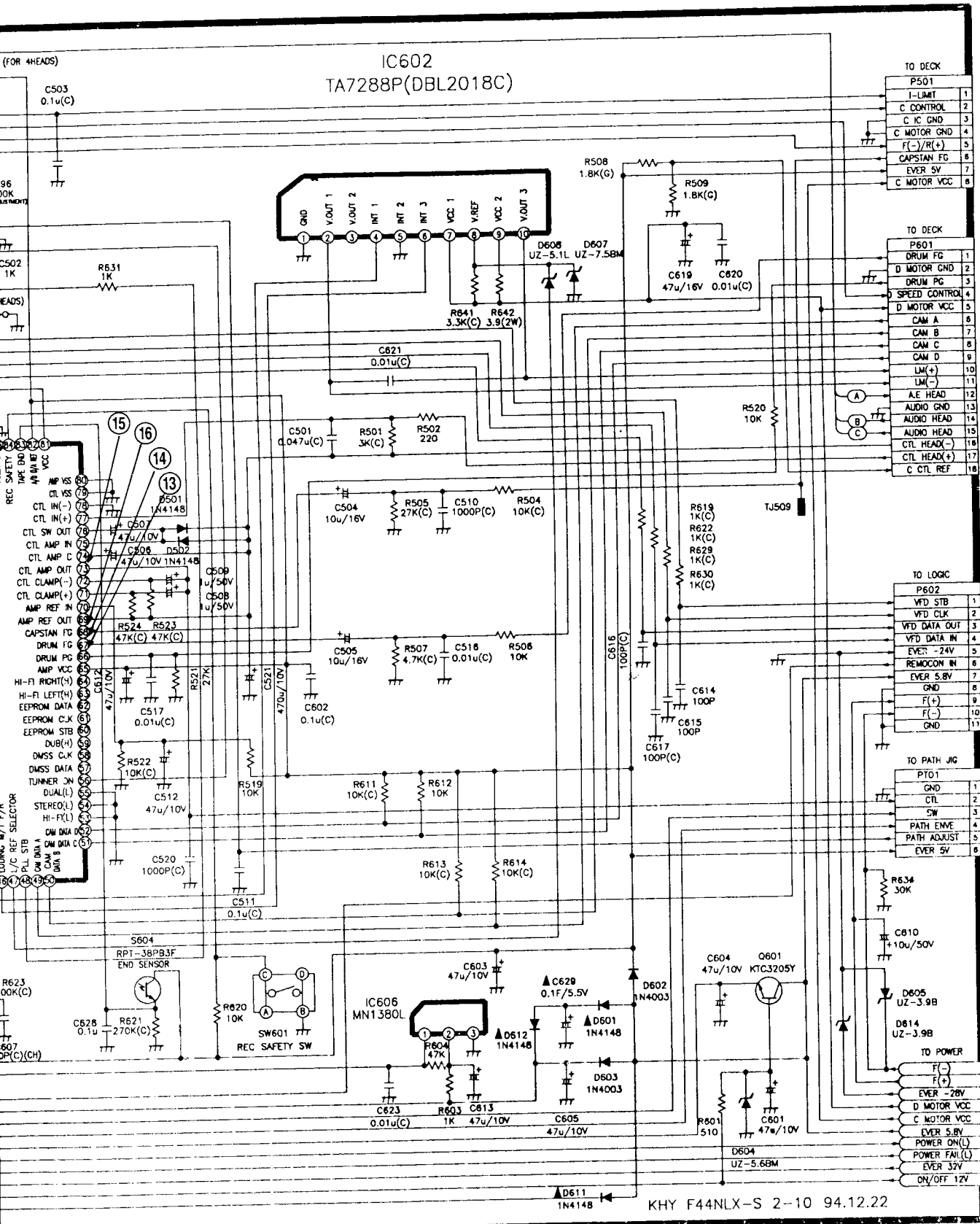


⑯ CAPSTAN FG
(1V/5ms)

FM mecha CAM DATA

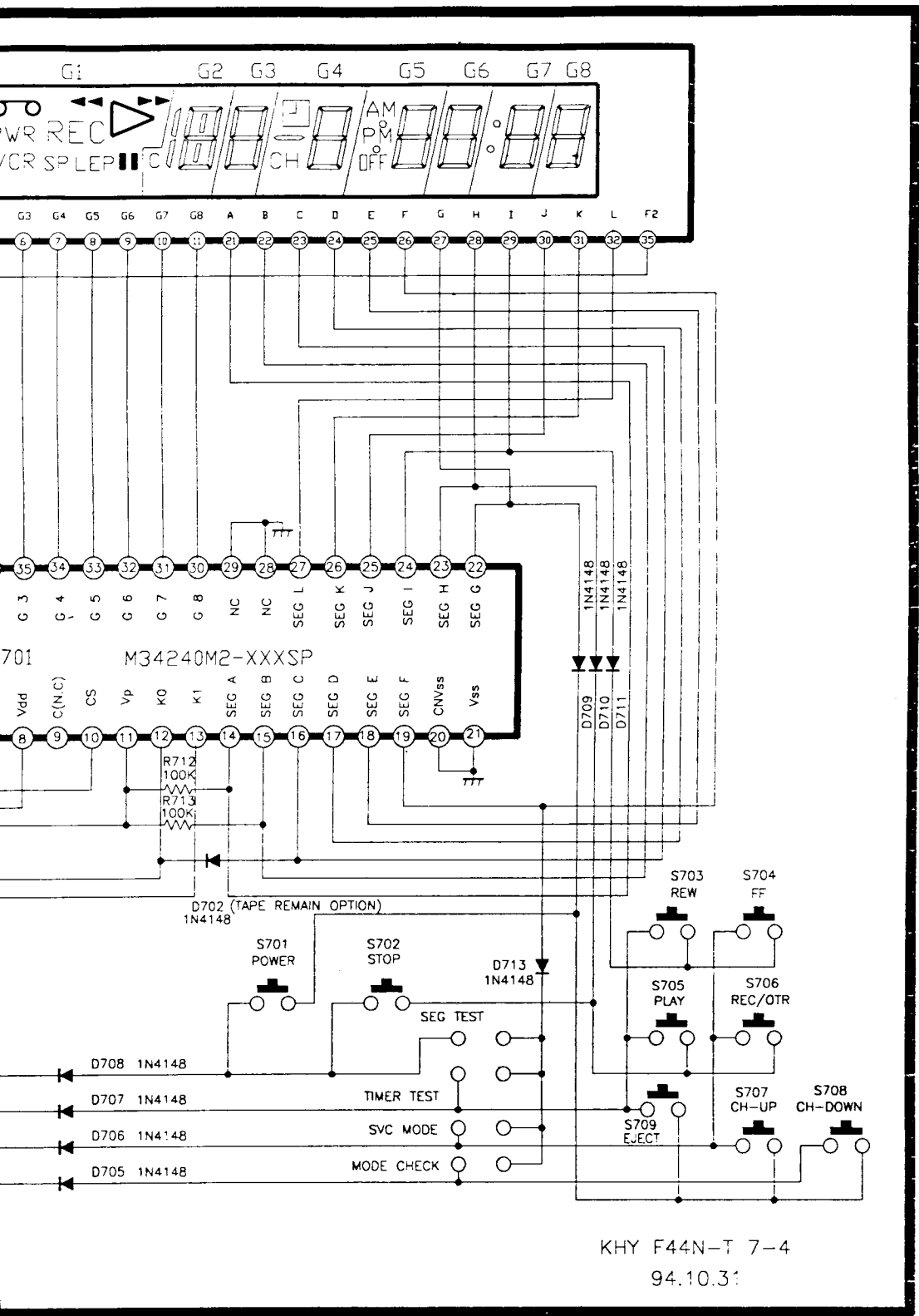
Mode \ CAM	CAM A	CAM B	CAM C	CAM D
Eject	H	H	H	L
High-REW	H	H	L	L
STAND	H	H	L	H
IDLE	H	L	L	H
REV	H	L	H	H
SLOW	L	L	L	H
STOP/PLAY	L	H	H	H
FF/REW	L	L	H	H
FLOAT	H	H	H	H

▲ USE DV-F44N/X, F24N/X

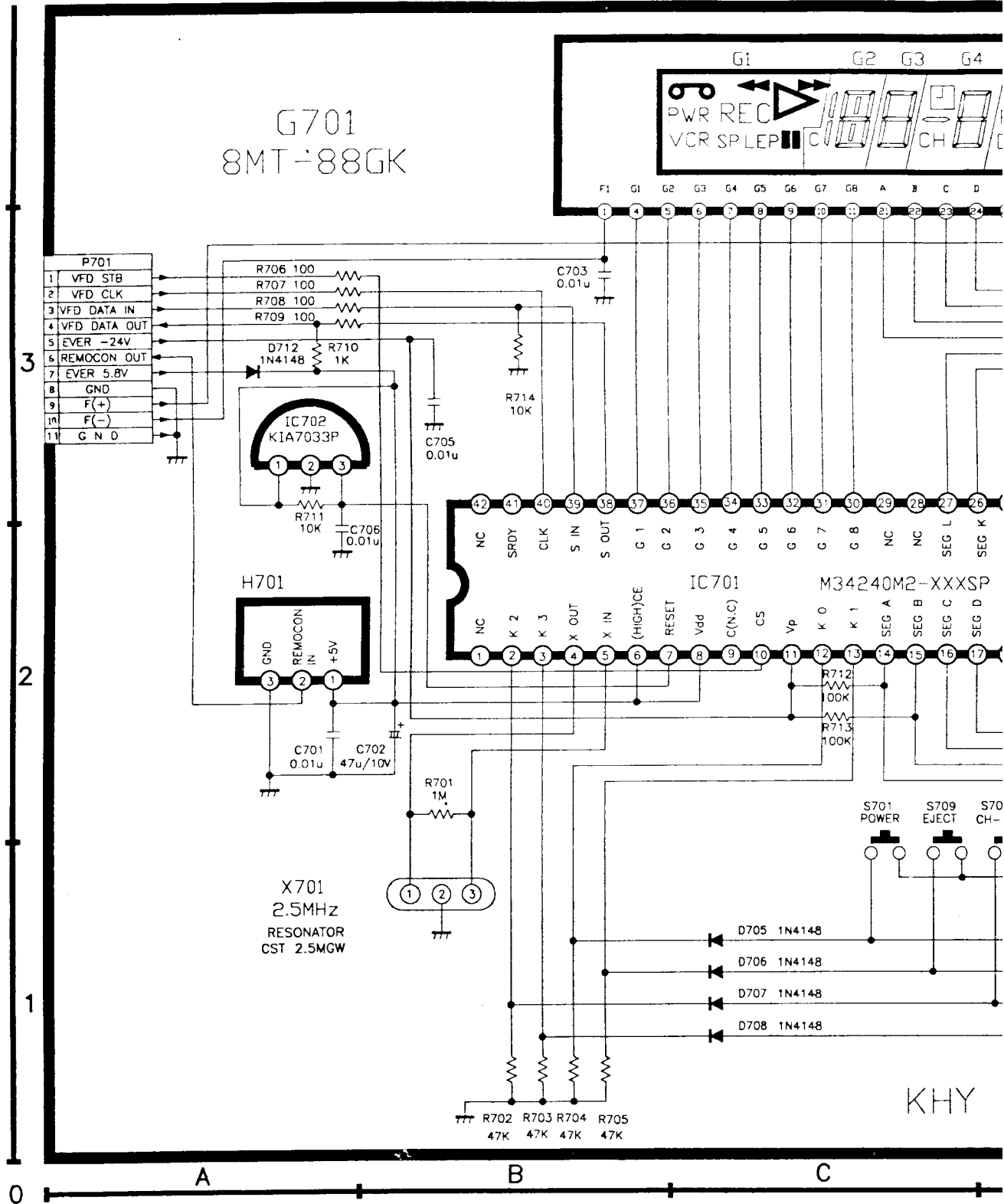


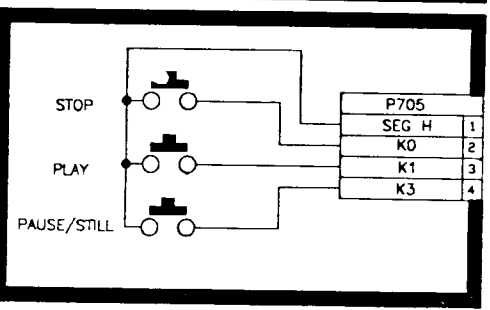
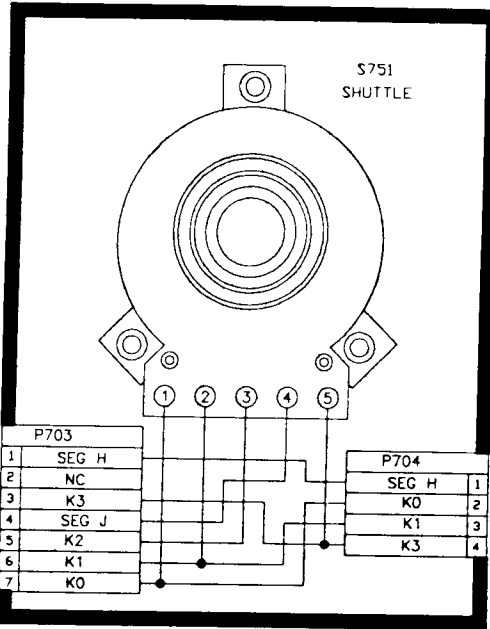
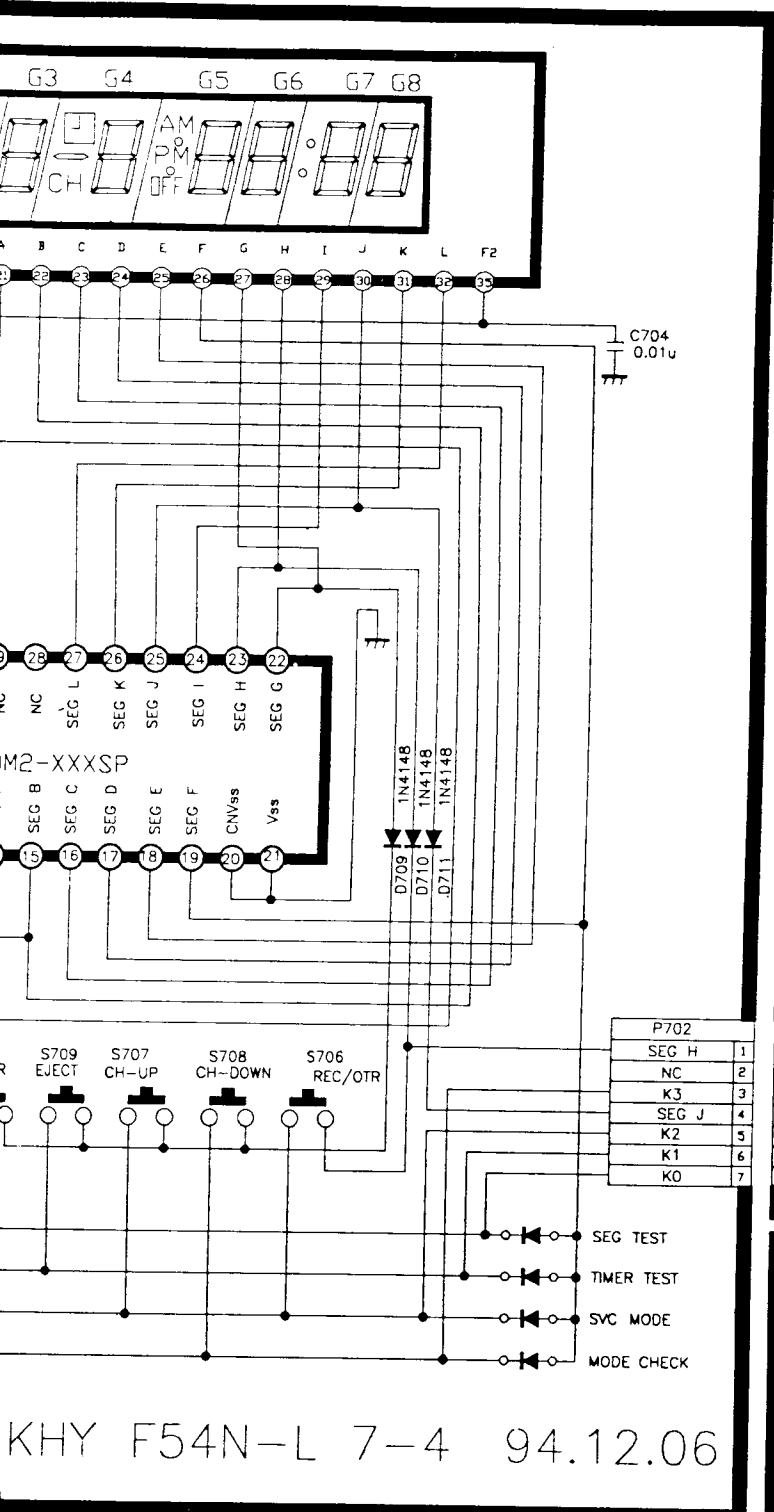
KHY F44NLX-S 2-10 94.12.22

D | E | F | G



5-5. LOGIC CIRCUIT (DV-F54/F34N)

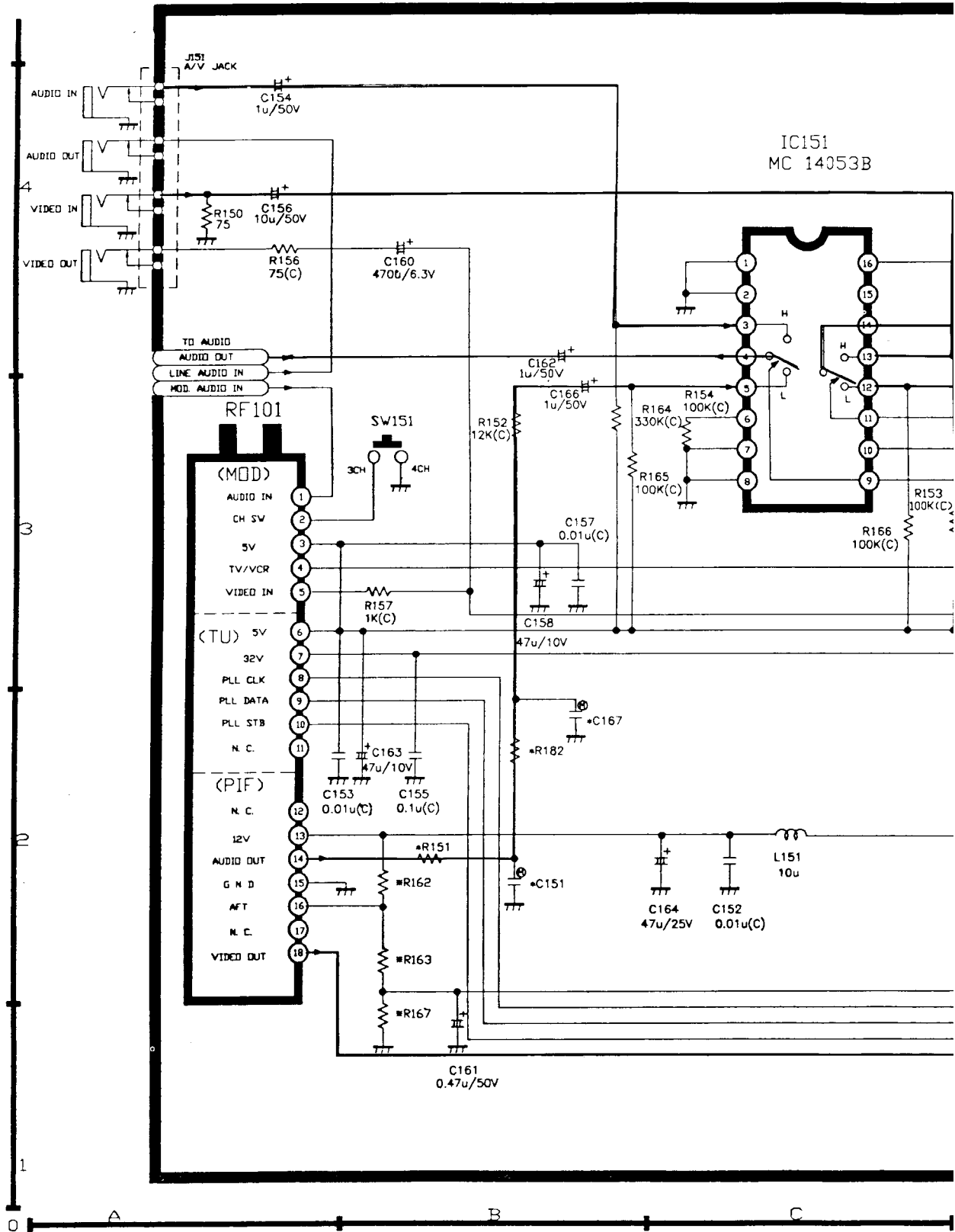




KHY F54N-L 7-4 94.12.06

D E

5-6. PIF & INPUT SELECTOR CIRCUIT

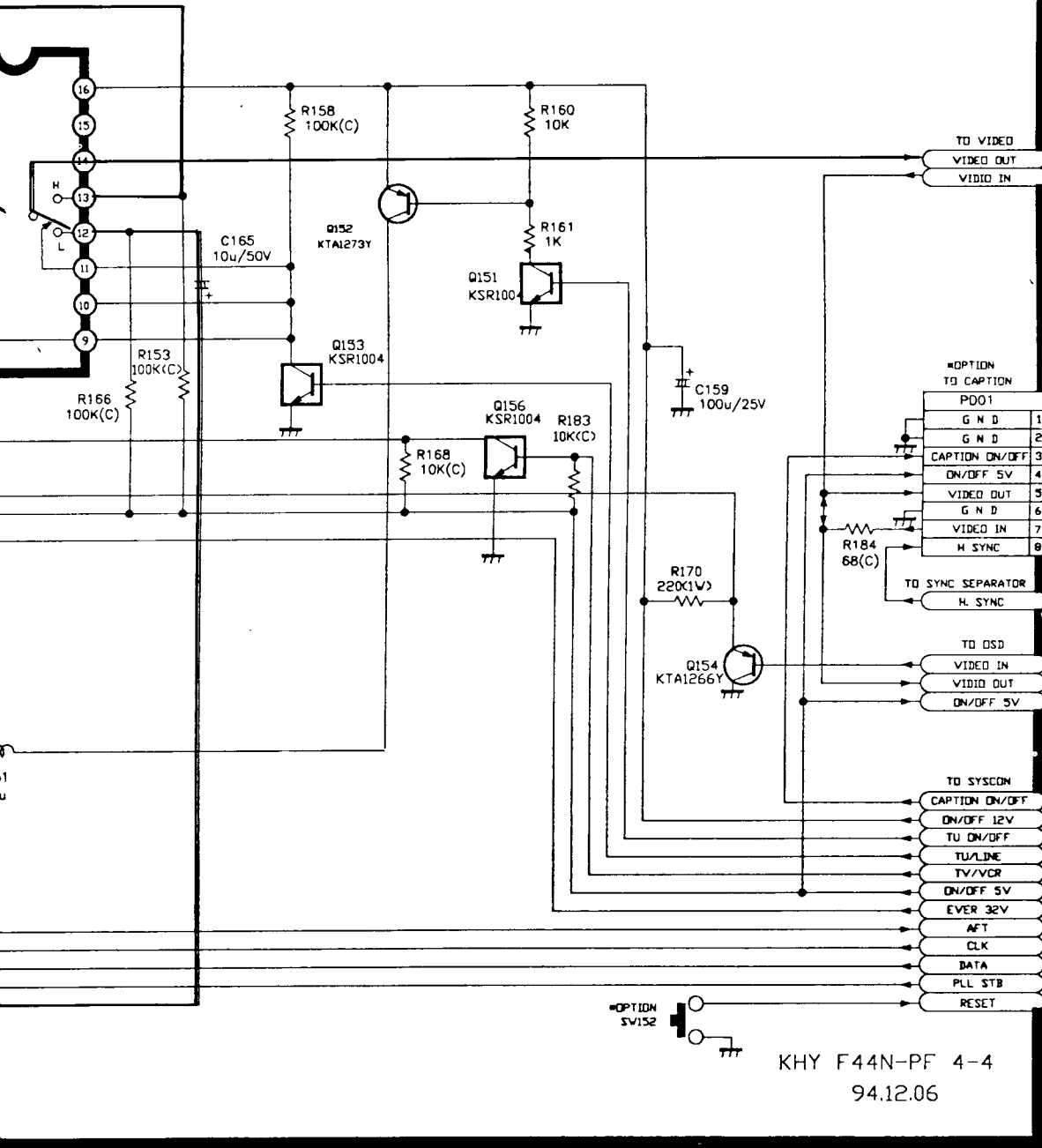


REC AUDIO SIGNAL
 REC VIDEO SIGNAL

TUNER OPTION

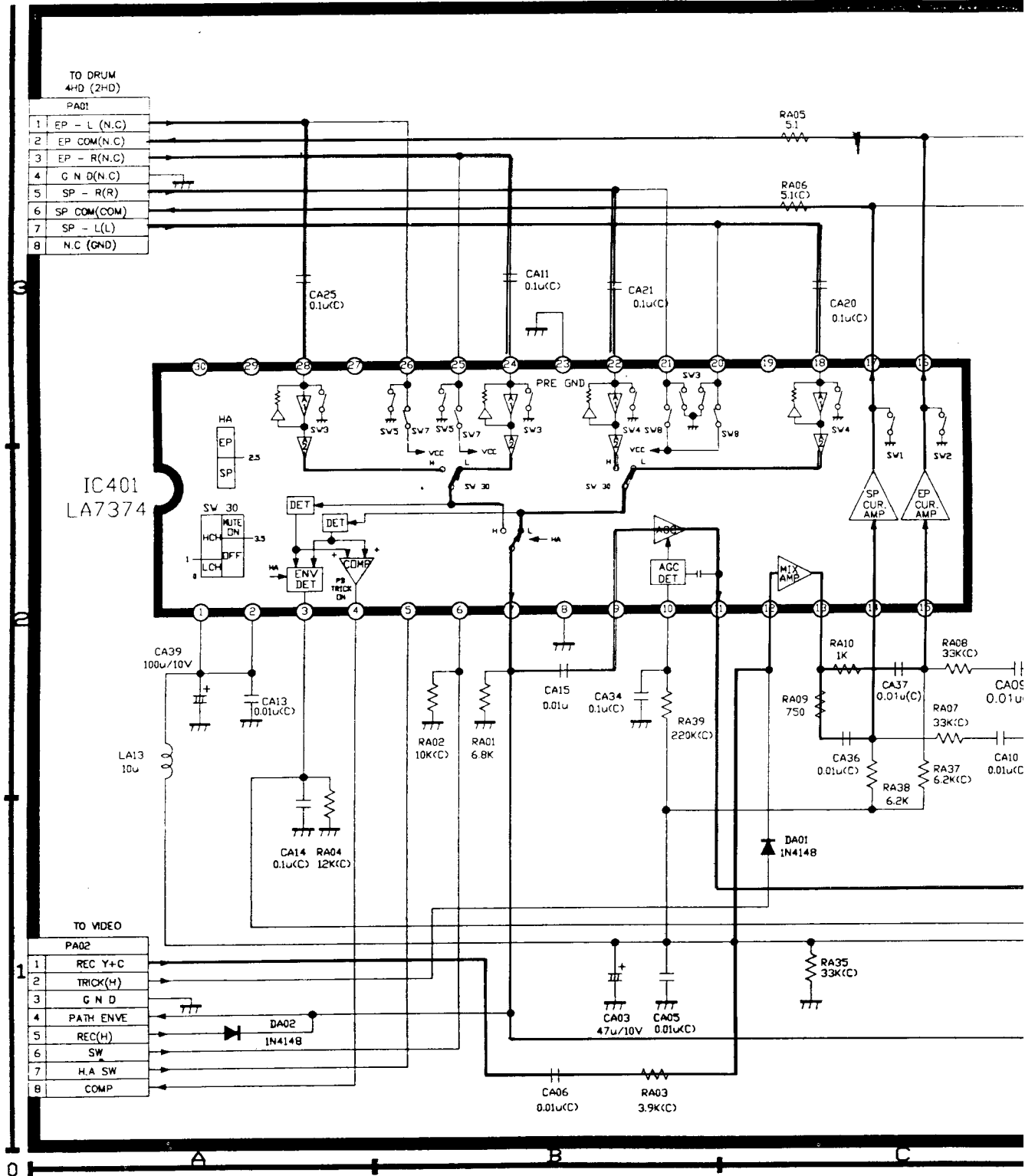
RF101	LDC	R162	R163	R167	R151	C151	R182	C167
TMVH1-102A		39K	24K	15K	1.2K	0.015u	0	-
115-V-A025AR		100K	56K	39K	2.7K	0.012u	1.2K	0.012u

C151
14053B

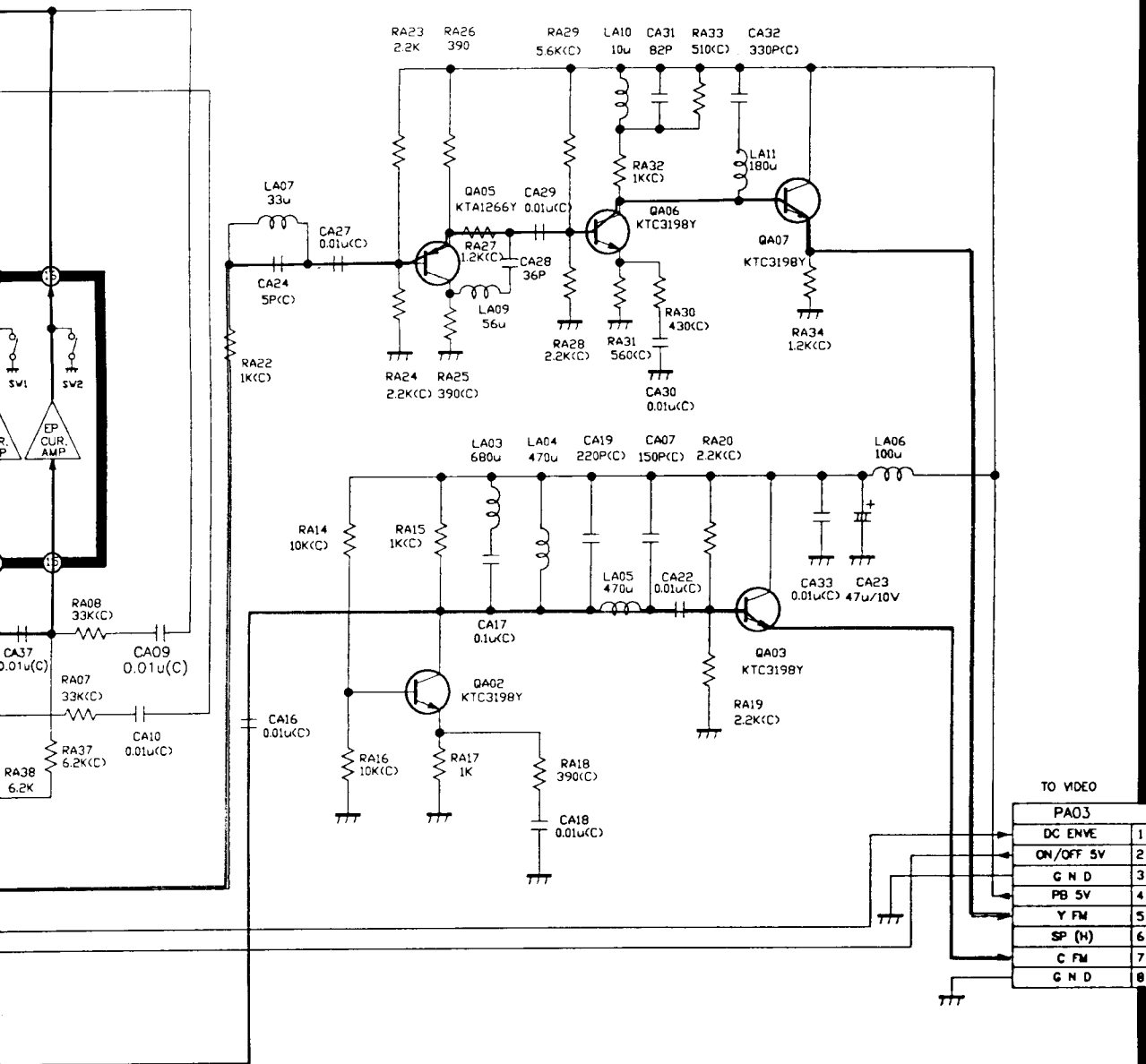


KHY F44N-PF 4-4
94.12.06

5-7. HEAD-AMP CIRCUIT

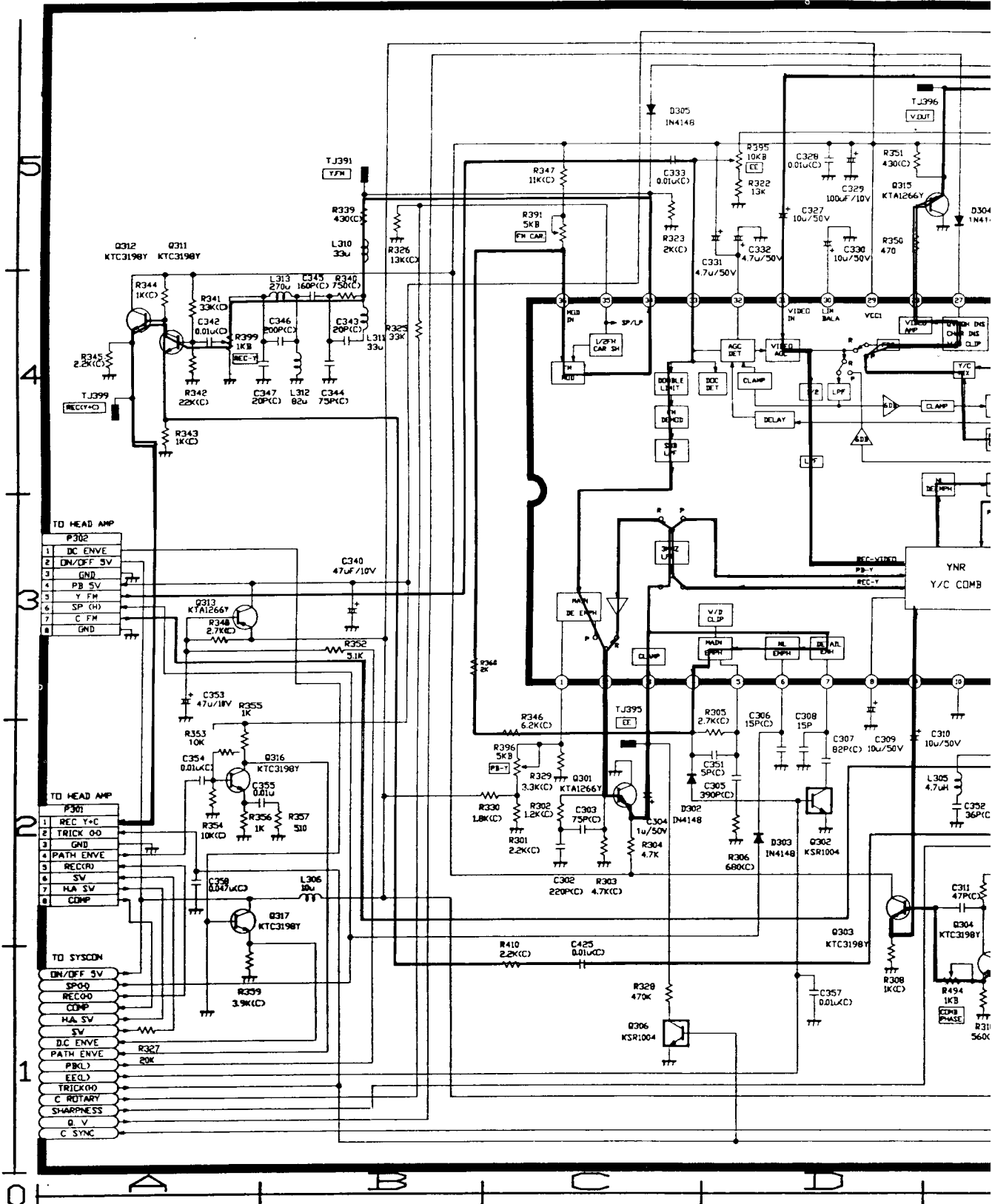


——— PLAYBACK Y SKTNAL
 ——— PLAYBACK C SIGNAL
 ——— VIDEO RECORD SIGNAL

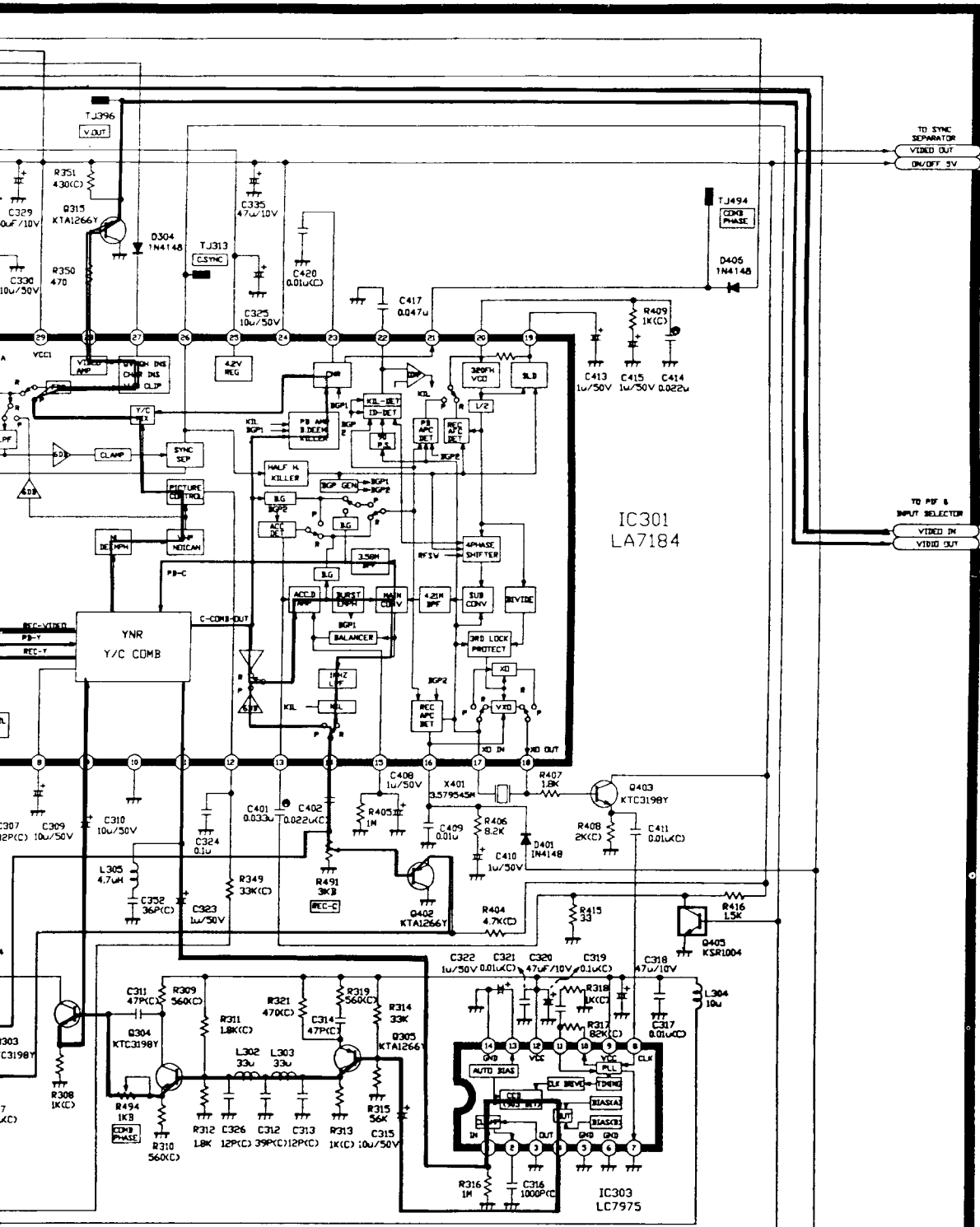


KHY F44N-HA 5-2
 94.12.06

5-8. VIDEO CIRCUIT

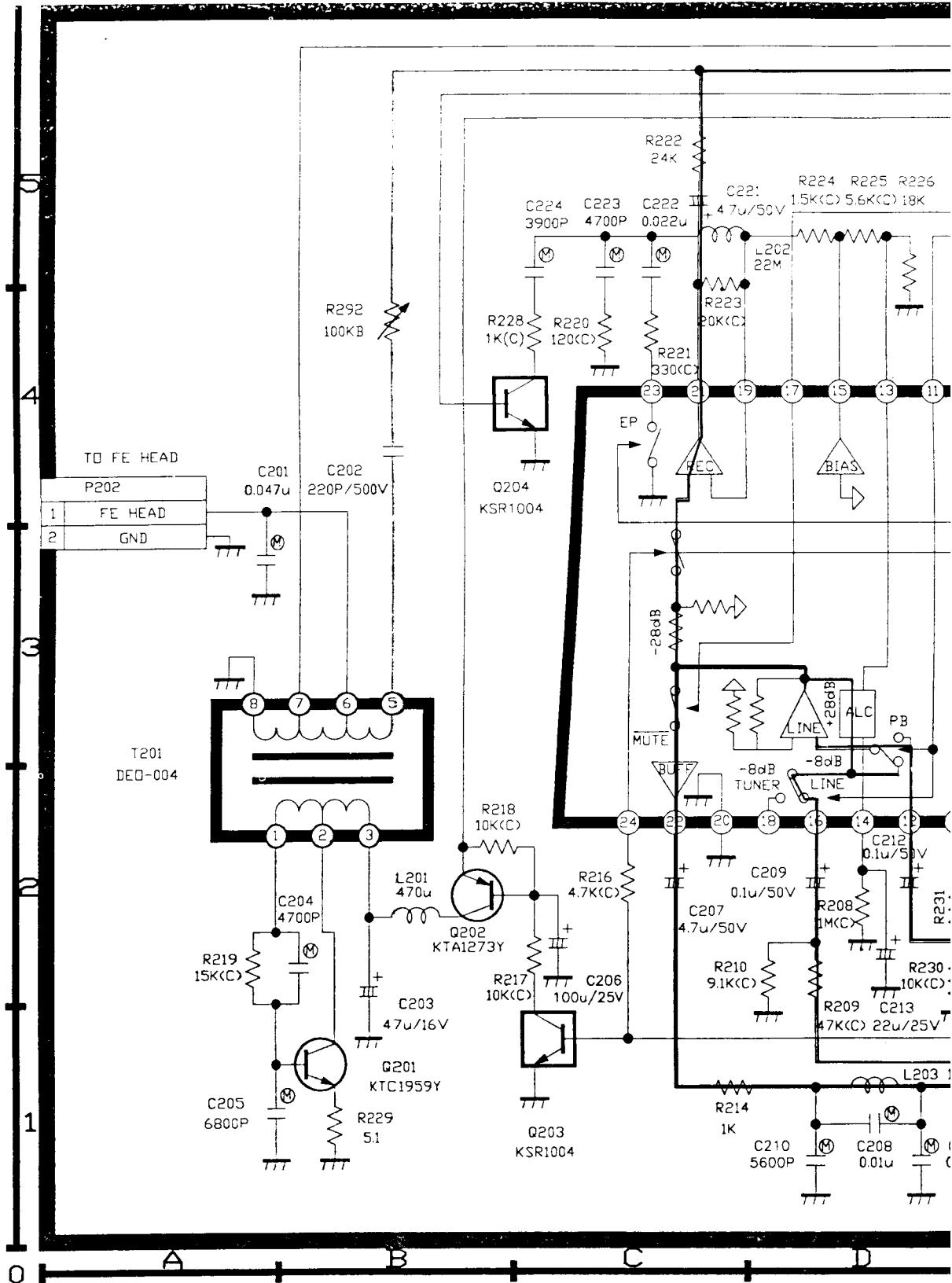


REC Y SIGNAL PB Y SIGNAL
 REC C SIGNAL PB C SIGNAL

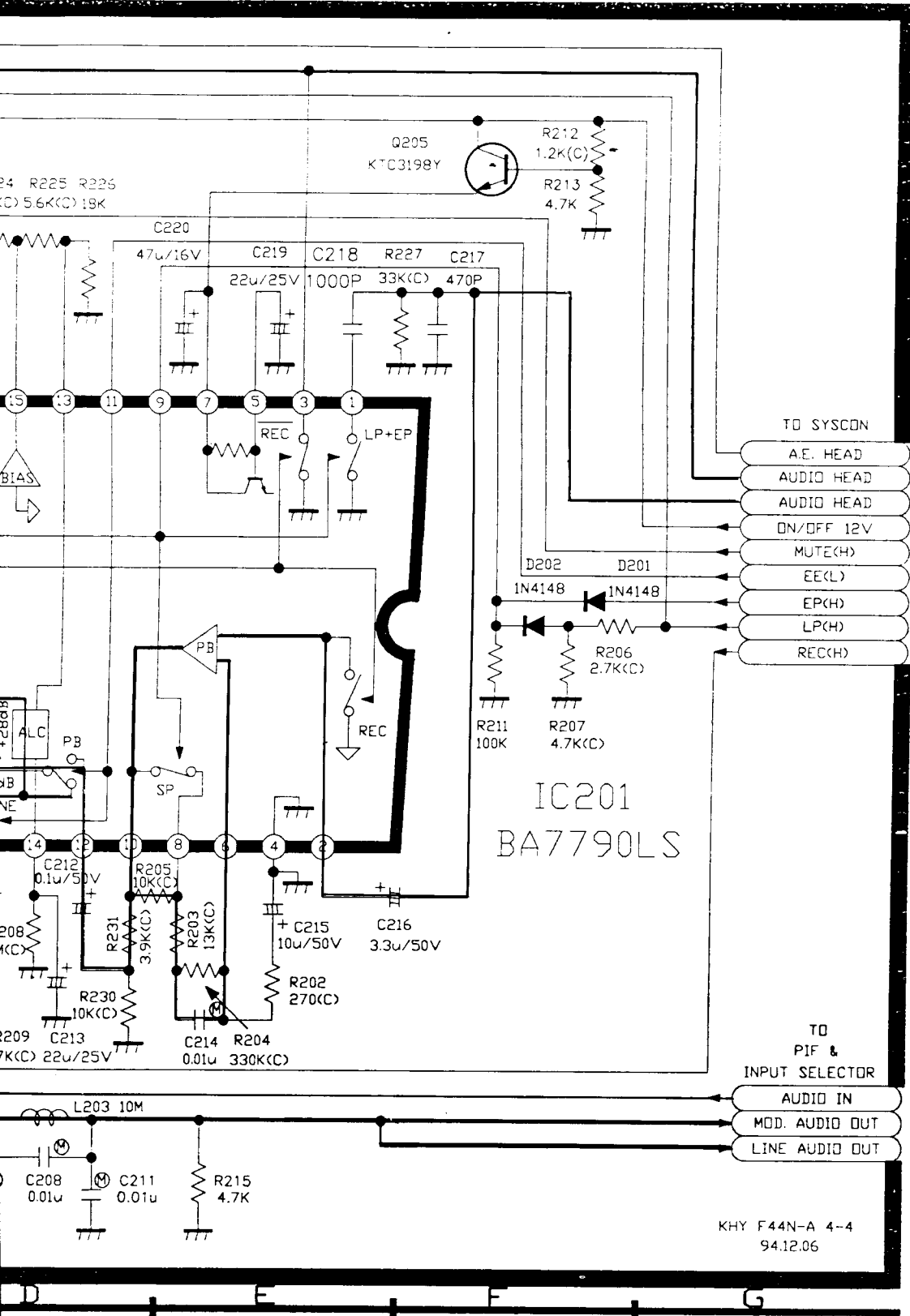


KHY F44N-V 1-12
94.12.06

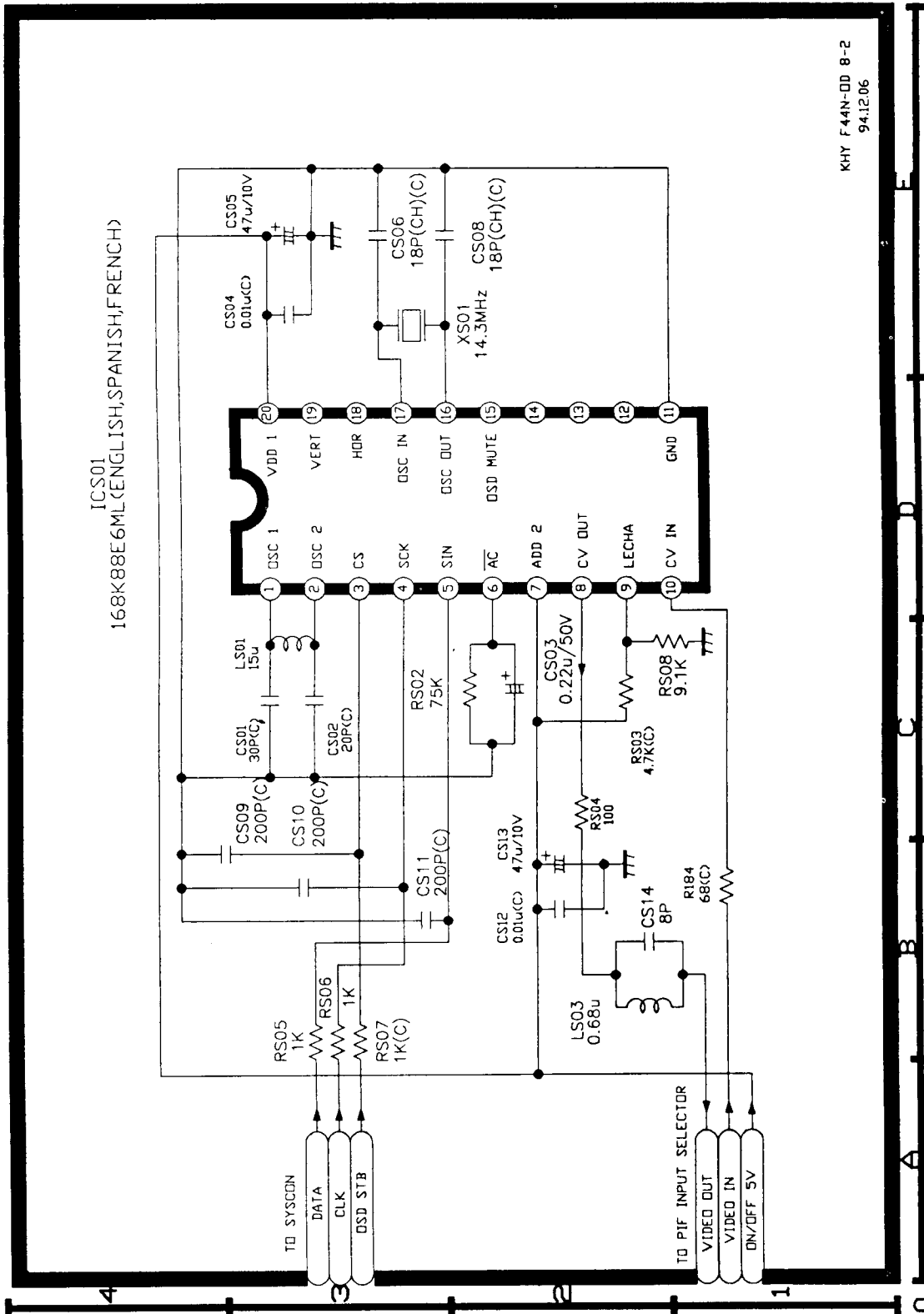
5-9. AUDIO CIRCUIT



REC AUDIO SIGNAL
 PB AUDIO SIGNAL



5-10. OSD CIRCUIT



SECTION 6. VOLTAGE CHART

6-1. IC VOLTAGE (SP MODE)

1. IC151 (MC14053B)

PIN NO \ MODE	TV	LINE
1	0	0
2	0	0
3	4.8	4.8
4	4.9	4.9
5	4.9	4.9
6	0	0
7	0	0
8	0	0

PIN NO \ MODE	TV	LINE
9	0	12.0
10	0	12.0
11	0	12.0
12	4.9	4.9
13	4.9	4.9
14	4.9	4.9
15	0	0
16	12.0	12.0

2. ICS01 (168K88E6ML)

PIN NO \ MODE	TV	LINE
1	2.3	2.3
2	2.3	2.3
3	4.9	4.9
4	0.2	0.2
5	0.1	0.1
6	4.1	4.1
7	4.9	4.9
8	2.6	2.6
9	3.0	3.0
10	2.6	2.6

PIN NO \ MODE	TV	LINE
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	2.3	2.3
17	2.3	2.3
18	0.3	0.3
19	0.3	0.3
20	4.9	4.9

3. IC701 (M34240M2-XXXSP)

PIN NO	MODE	REC
1		0
2		0
3		0
4		2.5
5		2.3
6		5.0
7		5.0
8		5.0
9		0
10		0.5
11		-23.6
12		0.5
13		0
14		-20.1
15		-20.1
16		-20.1
17		-20
18		-23.2
19		-23.2
20		0
21		0

PIN NO	MODE	REC
22		-7.5
23		-19.9
24		-20.1
25		-23.2
26		-23.3
27		-23.3
28		0
29		0
30		-23.3
31		-23.3
32		-23.3
33		-23.3
34		-23.3
35		-23.3
36		-23.3
37		-23.3
38		1.1
39		0
40		0
41		0
42		0

4. IC201 (BA7790LS)

PIN NO	MODE	REC	PB
1		0	0
2		3.4	3.4
3		-1.5	0
4		0	0
5		8.9	8.9
6		3.5	3.5
7		9.0	9.0
8		3.5	3.5
9		0	0
10		3.5	3.5
11		0	4.9
12		4.0	4.0

PIN NO	MODE	REC	PB
13		3.2	3.2
14		0	0
15		4.1	4.1
16		4.1	4.1
17		0	0
18		4.1	4.1
19		4.1	4.1
20		0	0
21		4.1	4.1
22		4.1	4.1
23		0	0
24		4.9	0.6

5. IC303 (LC7975)

PIN NO	MODE	REC/PB
1		1.9
2		2.5
3		0
4		2.0
5		0
6		0
7		0

PIN NO	MODE	REC/PB
8		2.3
9		4.9
10		1.9
11		1.9
12		4.9
13		0.9
14		0

6. IC301 (LA7184)

PIN NO \ MODE	REC	PB
1	1.3	2.5
2	2.2	2.5
3	2.6	2.3
4	2.5	4.4
5	2.5	4.4
6	4.4	4.4
7	2.2	2.2
8	3.2	3.2
9	2.1	2.1
10	0	0
11	2.4	2.4
12	2.4	2.4
13	2.0	2.0
14	3.0	3.0
15	2.4	2.4
16	2.2	2.2
17	3.7	3.7
18	2.3	2.3

PIN NO \ MODE	REC	PB
19	3.2	3.2
20	3.2	3.2
21	1.7	4.0
22	1.9	1.9
23	1.6	1.6
24	4.8	4.8
25	4.1	4.1
26	0.5	0.5
27	0.2	0.2
28	1.6	1.6
29	4.8	4.8
30	2.4	2.4
31	3.1	3.1
32	1.4	1.4
33	3.3	3.3
34	2.8	3.5
35	0.8	0.8
36	2.3	2.3

7. ICA01 (LA7374)

PIN NO	MODE	REC	PB
1		4.9	4.9
2		4.9	4.9
3		0	4.4
4		0	0
5		0	0
6		0.8	0.8
7		4.3	1.4
8		0	0
9		3.5	3.5
10		0	0.8
11		3.9	2.4
12		1.7	1.7
13		1.7	0
14		1.6	1.6
15		1.6	1.6

PIN NO	MODE	REC	PB
16		0	0
17		3.9	0
18		0	0.6
19		0	0
20		4.1	0
21		4.1	0
22		0	0.6
23		0	0
24		0	0
25		0	0
26		0	0
27		0	0
28		0	0
29		0	0
30		0	0

8. IC602 (TA7288P, DBL2018C)

PIN NO	MODE	REC/PB
1		0
2		0.5
3		0.5
4		0
5		0

PIN NO	MODE	REC/PB
6		0
7		12.6
8		7.6
9		12.6
10		0.5

9. IC606 (MN1380L)

PIN NO	MODE	REC/PB
1		5.0
2		5.0
3		0

10. IC605 (4013B)

PIN NO	MODE	REC/PB
1		4.9
2		0
3		0
4		0
5		0
6		0
7		0

PIN NO	MODE	REC/PB
8		0
9		0
10		0
11		0.5
12		4.9
13		0
14		4.9

11. IC601

NO	NAME	ASSIGNMENT	ACTIVE
1	CTL/TEST	CONTROL PULSE TEST PORT	PULSE
2	VS/SHARP	E.E. : VS TUNING, PLAYBACK : SHARPNESS	PULSE
3	CAP PWM	CAPSTAN CONTROL PWM OUTPUT	PULSE
4	DRUM PWM	DRUM CONTROL PWM OUTPUT	PULSE
5	S/REEL	SUPLY REEL PULSE INPUT	PULSE
6	T/REEL	TAKE-UP REEL PULSE INPUT	PULSE
7	A/PIF MUTE	AUDIO/PIF MUTE	HIGH
8	N.C		
9	TAPE START	TAPE START SENSOR DATA INPUT	LOW
10	N.C		
11	REMOCON	REMOCON DATA INPUT PORT	PULSE
12	CAP. I. LIM	CAPSTAN I.CONTROL	LOW
13	CAP F/R	CAPSTAN FWD/RVS	L/H
14	PB (L)	PLAY LOW	LOW
15	C.ROTARY	COLOR ROTARY	PULSE
16	H.A/SWP	HEAD AMP SWITCHING	PULSE
17	ENVE/COMP	ENVELOPE COMPARE	PULSE
18	V.SWP	VIDEO SWITCHING	PULSE
19	Q-Vsync	Q-Vsync	PULSE/L

NO	NAME	ASSIGNMENT	ACTIVE
20	N.C		
21	TRICK/H	TRICK/HIGH	HIGH
22	REC (L)	REC : LOW	LOW
23	SP (H)	SP : HIGH	HIGH
24	SP (H)	SP : HIGH	HIGH
25	N.C		
26	Vcc	Vcc	
27	N.C		
28	POWER FAIL	POWER FAIL PORT	LOW
29	EE (L)	E.E : LOW	LOW
30	OSD STB	OSD STROBE	LOW
31	NTSC (H)	NTSC : HIGH	HIGH
32	N.C		
33	TV/VCR	TV/VCR : PORT	H/L
34	POWER/ON	POWER ON/OFF CONTROL PORT	L/H
35	NUMA	GND	
36	NUMB	GND	
37	RESET	RESET INPUT PORT	LOW
38	Xin	16MHZ OSC IN	
39	Xout	16MHZ OSC OUT	
40	CLK/SEL	RESET : 32KHZ OSCILLATION	LOW
41	Vss	GND	
42	Xcin	32.768KHZ OSC IN	

NO	NAME	ASSIGNMENT	ACTIVE
43	Xcout	32.768KHz OSC OUT	
44	TV/LINE	TV/LINE : PORT	H/L
45	LM/ON	LOADING MOTOR ON	HIGH.
46	LM F/R	LOADING MOTOR FWD/RVS	L/H
47	CST/DOWN	CASSETTE DOWN OUT	LOW
48	REC SAFETY	REC SAFETY SW DATA INPUT	LOW
49	CAM A	CAM A DATA INPUT	LOW
50	CAM B	CAM B DATA INPUT	LOW
51	CAM C	CAM C DATA INPUT	LOW
52	CAM D	CAM D DATA INPT	LOW
53	VL	BAND LOW : HIGH OUT	HIGH
54	VH	BAND HIGH : HIGH OUT	HIGH
55	VU	BAND UHF : HIGH OUT	HIGH
56	AFT DEFEAT	PAL TUNING : AFT DEFEAT ON OUTPUT	HIGH
57	N.C		
58	VPS DATA	VPS CONTROL : SERIAL DATA	SERIAL
59	VPS CLK	VPS CONTROL : SERIAL CLOCK	SERIAL
60	EEPROM STB	EEPROM STORBE	HIGH
61	EEPROM CLK	EEPROM SERIAL CLOCK	SERIAL
62	EEPROM DATA	EEPROM SERIAL DATA	SERIAL
63	AV CLOCK	AV CONTROL SERIAL CLOCK	SERIAL
64	AV DATA	AV CONTROL SERIAL DATA	SERIAL
65	AMP Vcc	AMP Vcc	
66	DRUM/PG	DRUM PG INPUT	PULSE
67	DRUM/FG	DRUM FG INPUT	PULSE
68	CAP/FG	CAPSTAN FG INPUT	PULSE
69	Vref OUT	AMP REFERENCE Vcc	
70	Vref In	AMP REFERENCE Vcc	
71	CLAMPF	REFERENCE TO CTL CIRCUIT	

NO	NAME	ASSIGNMENT	ACTIVE
72	CLAMPR	REFERENCE TO CTL CIRCUIT	
73	CTLAMPout	REFERENCE TO CTL CIRCUIT	
74	AMPC	REFERENCE TO CTL CIRCUIT	
75	CTLAMPin	REFERENCE TO CTL CIRCUIT	
76	CTL+SWout	REFERENCE TO CTL CIRCUIT	
77	CTL +	REFERENCE TO CTL CIRCUIT	
78	CTL-	REFERENCE TO CTL CIRCUIT	
79	GND	GND	
80	GND	GND	
81	Vcc	Vcc	
82	A/D Reference	REFERENCE Vcc	
83	TAPE END	TAPE END SENSOR DATA INPUT	LOW
84	CANAL + (L)	CANAL : LOW INPUT	LOW
85	PIF/ON	VPS STANBY PIF ON	HIGH
86	V.ENVE	VIDEO DC ENVE	A/D
87	N.C		
88	DRUM/SEL	SYSTEM DRUM SELECT	A/D
89	BRKADJ	SLOW BREAK ADJUST	A/D
90	PGADJ	PG DLAY ADJUST	A/D
91	PATH	PATCH ADJUST	A/D
92	AFT	AFT INPUT PORT	A/D
93	C.SYNC	C.SYNC INPUT PORT	PULSE
94	VFD DATA OUT	VFD SERIAL DATA OUT	SERIAL
95	VFD DATA IN	VFD SERIAL DATA IN	SERIAL
96	VFD CLOCK	VFD SERIAL CLOCK OUT	SERIAL
97	VFD STB	VFD STROBE	LOW
98	OSD DATA OUT	OSD SERIAL DATA OUT	SERIAL
99	N.C		
100	OSD CLK	OSD SERIAL CLOCK	SERIAL

6-2. TR VOLTAGE (SP MODE)

1. PIF & INPUT SELECTOR

* TV mode, () Line mode

Tr No.	Port	Emitter	Collector	Base
Q151		0 (0)	0.1 (12.1)	5.0 (0)
Q152		12.1 (12.1)	12.1 (0.6)	11.3 (12.1)
Q153		0 (0)	0 (12.4)	5.0 (0)
Q154		0	0	2.7
Q156		0	4.9	0.1

2. AUDIO

* PB mode, () REC mode

Tr No.	Port	Emitter	Collector	Base
Q201		0 (0.3)	0.3 (11.4)	0.3 (0.1)
Q202		12.1 (12.1)	0.3 (11.9)	12.1 (11.3)
Q203		0 (0)	12.1 (0)	0.6 (4.9)
Q204		0	0	0
Q205		8.9	12.1	9.6

3. VIDEO

* PB mode, () REC mode

Tr No.	Port	Emitter	Collector	Base
Q301		3.2 (2.8)	0 (0)	2.6 (2.2)
Q302		0 (0)	0 (0.2)	4.9 (0)
Q303		0.5	4.8	1.1
Q304		1.1	3.8	1.8
Q305		4.0	1.8	3.3
Q306		0	2.2	0
Q311		1.2	3.7	1.8
Q312		3.0	4.8	3.7
Q313		5.0 (5.0)	4.7 (0)	4.2 (4.9)
Q315		2.4	0	1.7
Q316		1.6 (0)	3.0 (0)	2.3 (0)
Q317		3.8 (0)	5.0 (5.0)	4.5 (0)
Q402		1.6 (0.6)	0 (0)	0.9 (0)
Q403		1.7	4.9	2.3
Q405		0	0.1	0.5

4. VIDEO HEAD-AMP

* PB mode, () REC mode

Tr No.	Port	Emitter	Collector	Base
QA02		1.6 (0)	4.6 (0)	2.3 (0)
QA03		1.7 (0)	4.6 (0)	2.3 (0)
QA05		3.7 (0)	1.6 (0)	2.4 (0)
QA06		0.7 (0)	3.5 (0)	1.3 (0)
QA07		2.8 (0)	4.7 (0)	3.5 (0)

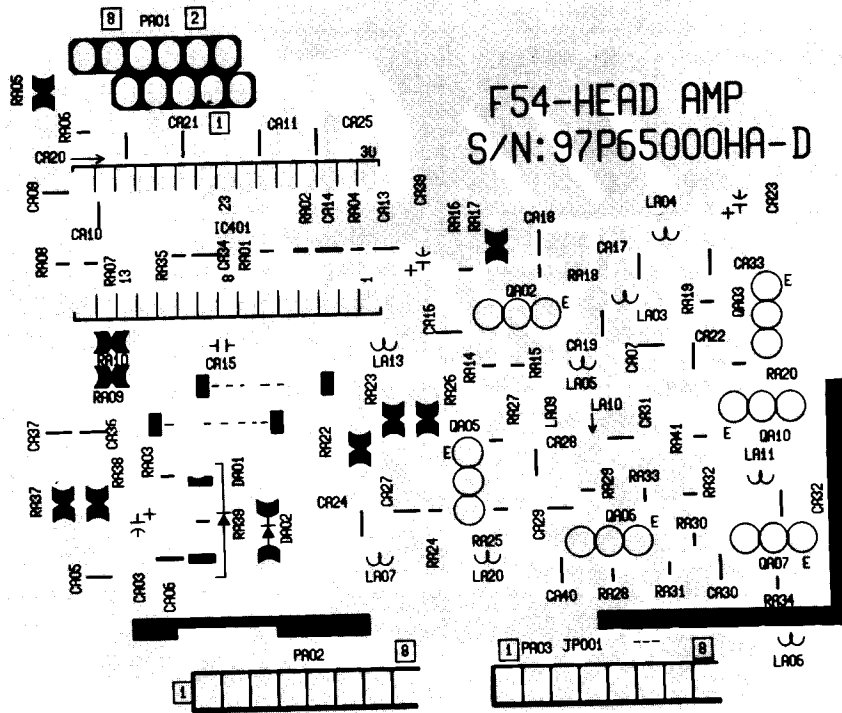
3. SERVO/SYSCON

* PB mode, () REC mode

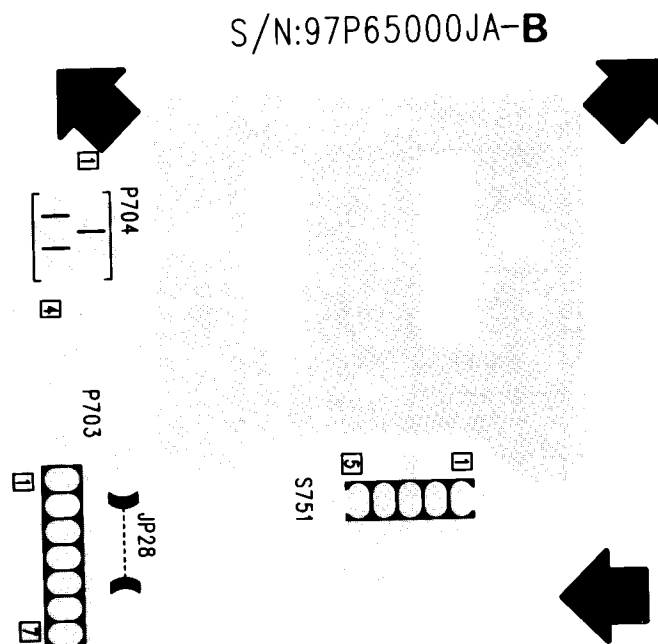
Tr No.	Port	Emitter	Collector	Base
Q601		5.0	5.7	5.7
Q608		5.0 (5.0)	0.6 (5.0)	5.0 (4.3)

SECTION 7. COMPONENTS LOCATION GUIDE ON PCB (BOTTOM VIEW)

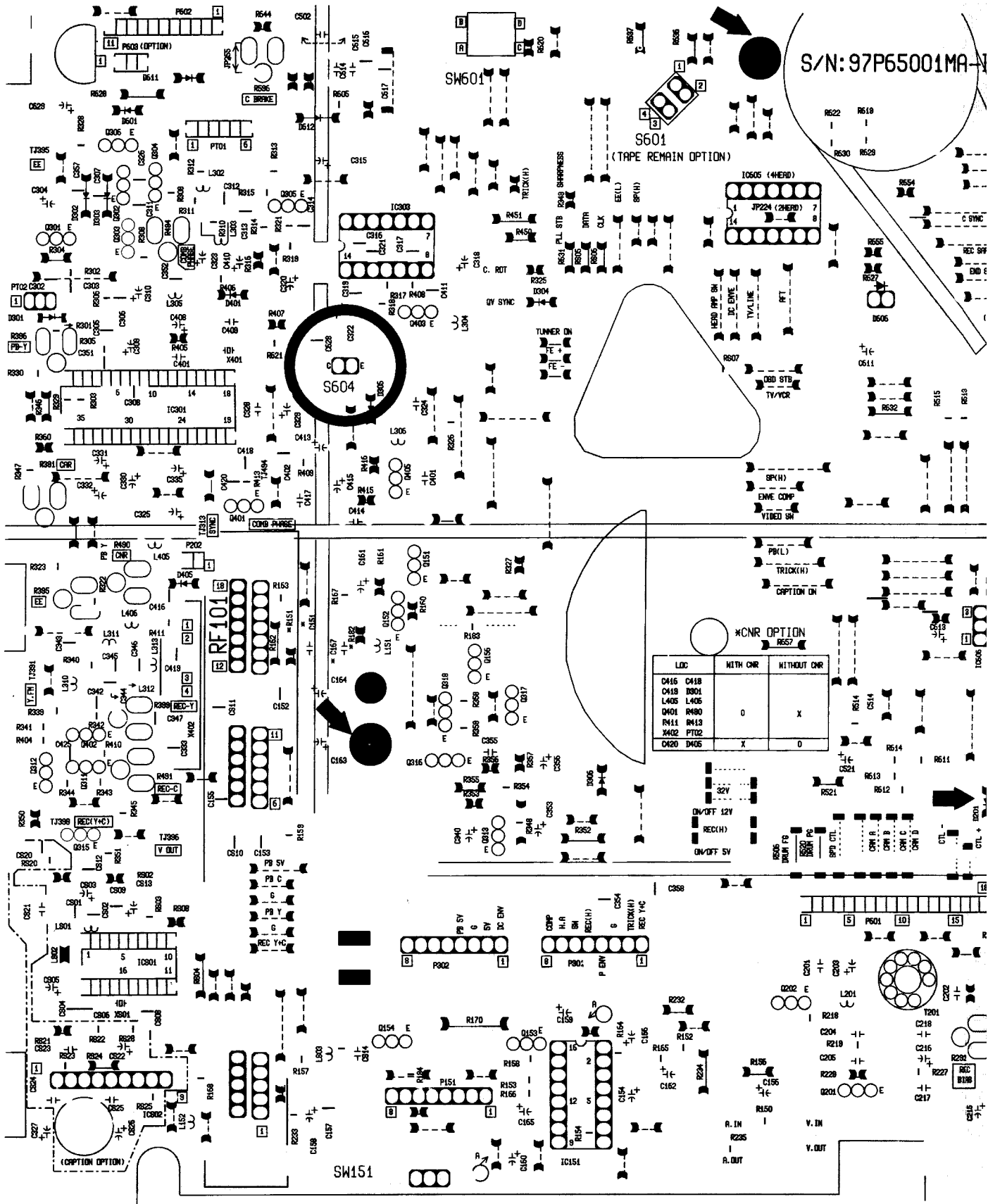
7-1. PCB HEAD-AMP



7-2. PCB SHUTTLE (DV-F54/F34N)

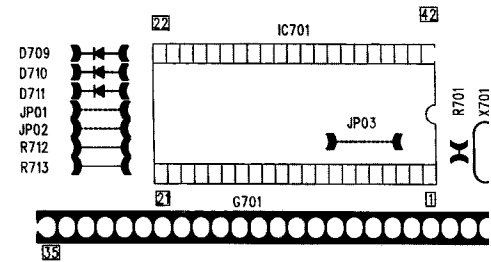
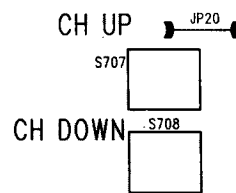
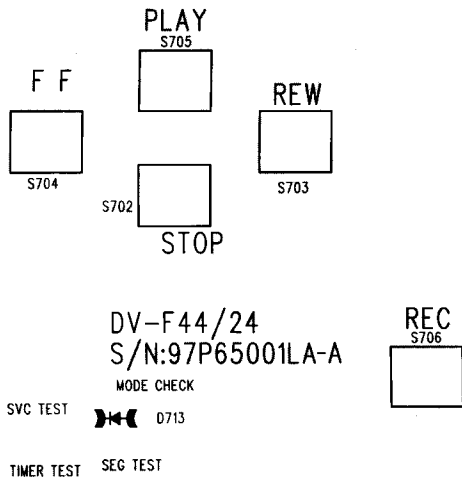


7-3. PCB MAIN



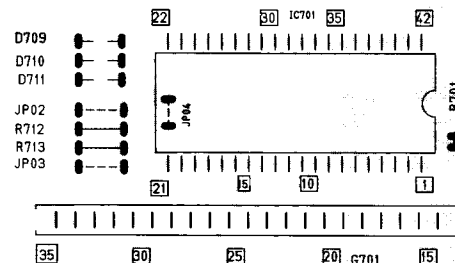
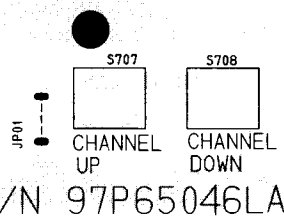
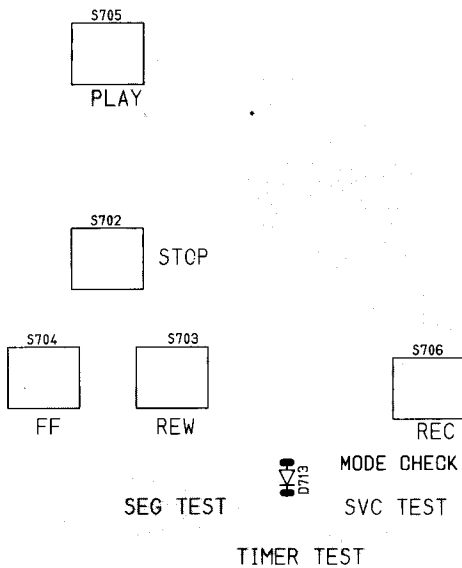
7-4. PCB LOGIC

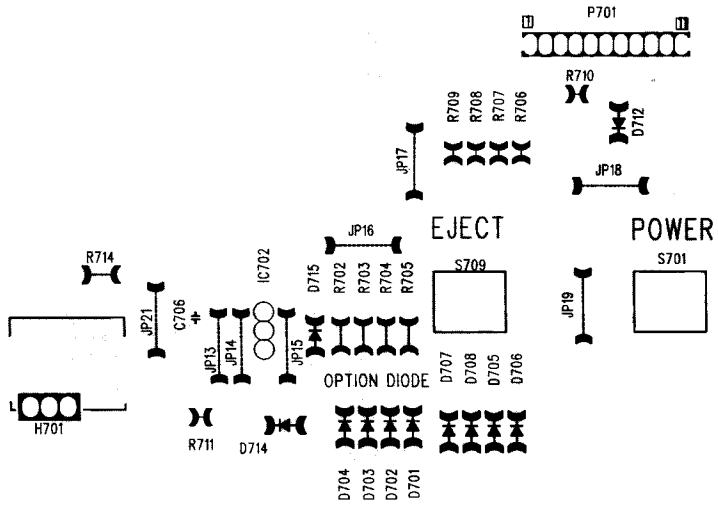
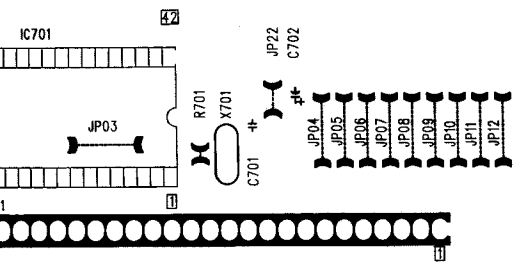
1) DV-F44/F24N



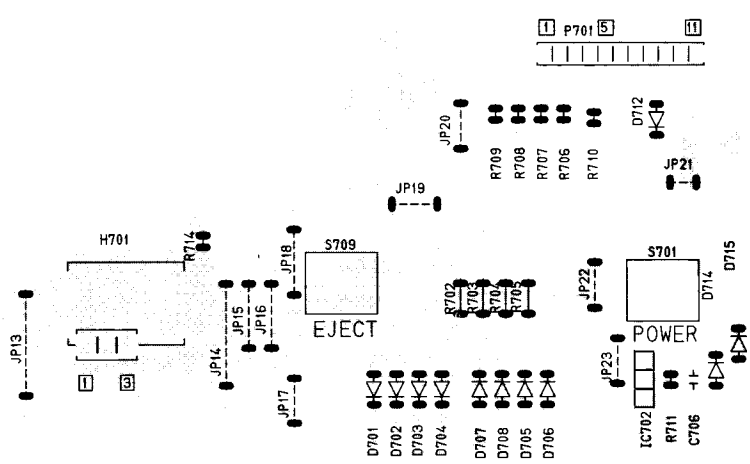
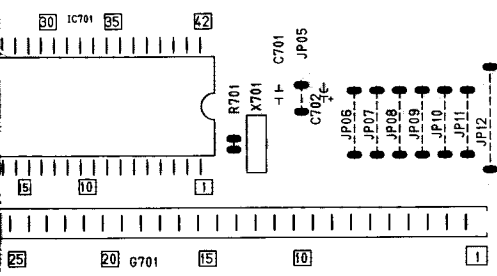
S/N:97P65001LA

2) DV-F46/F26N

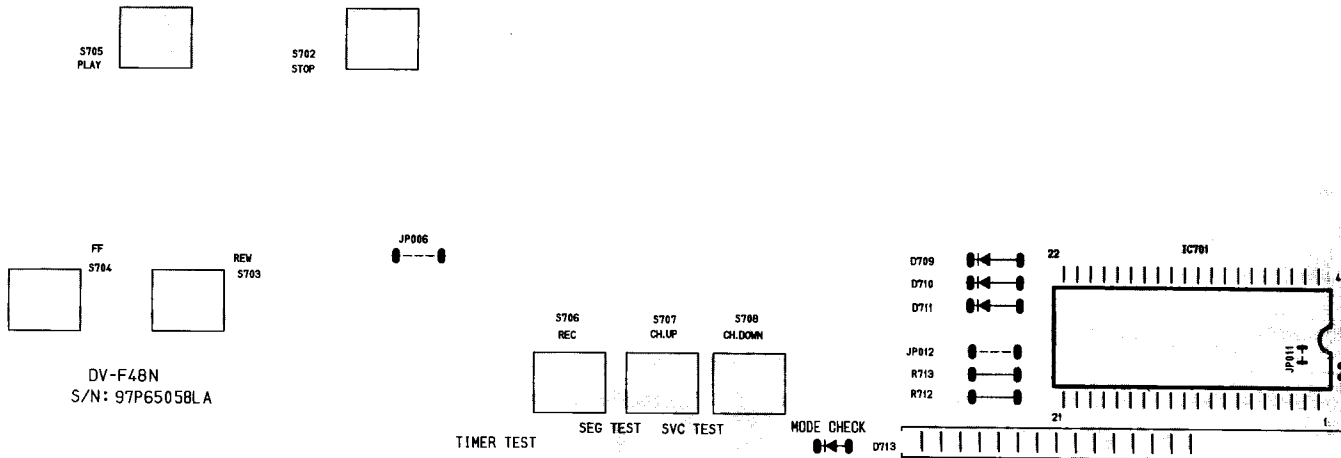




:97P65001LA-A

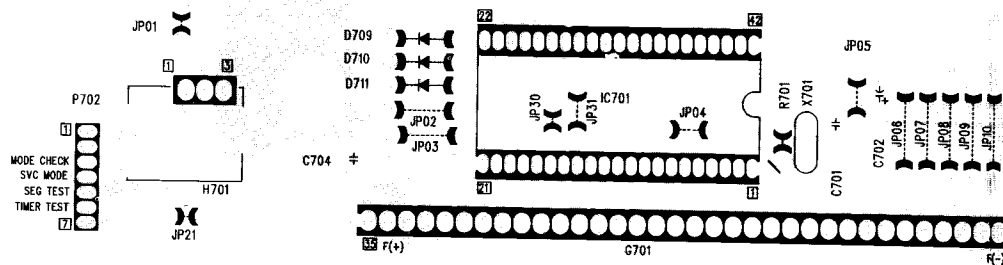


3) DV-F48/F28N

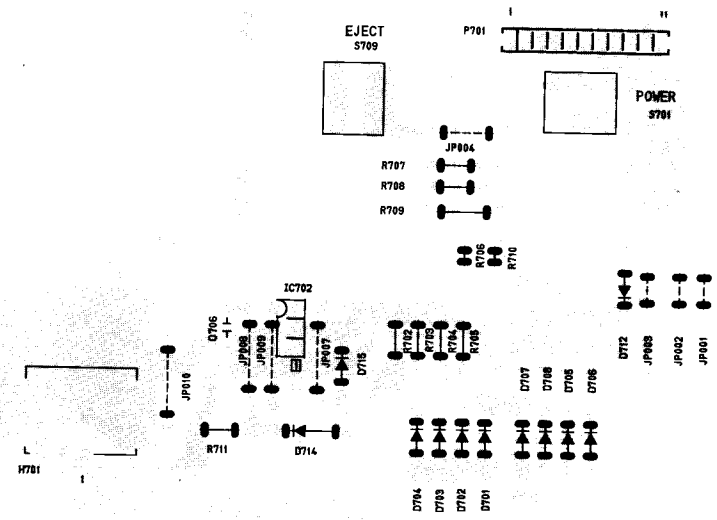
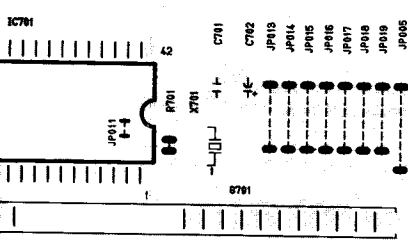


4) DV-F54/F34N

F54--LB
L-11-94062

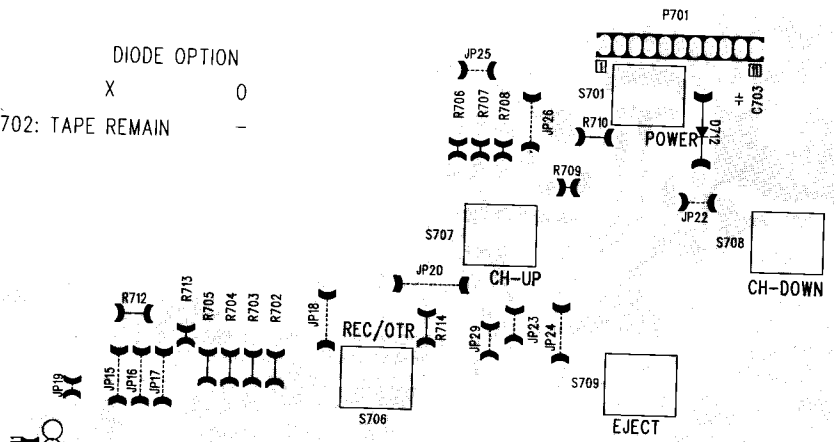
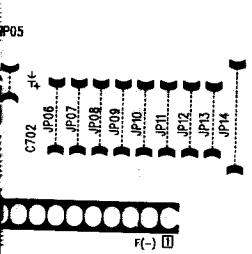


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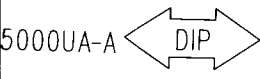


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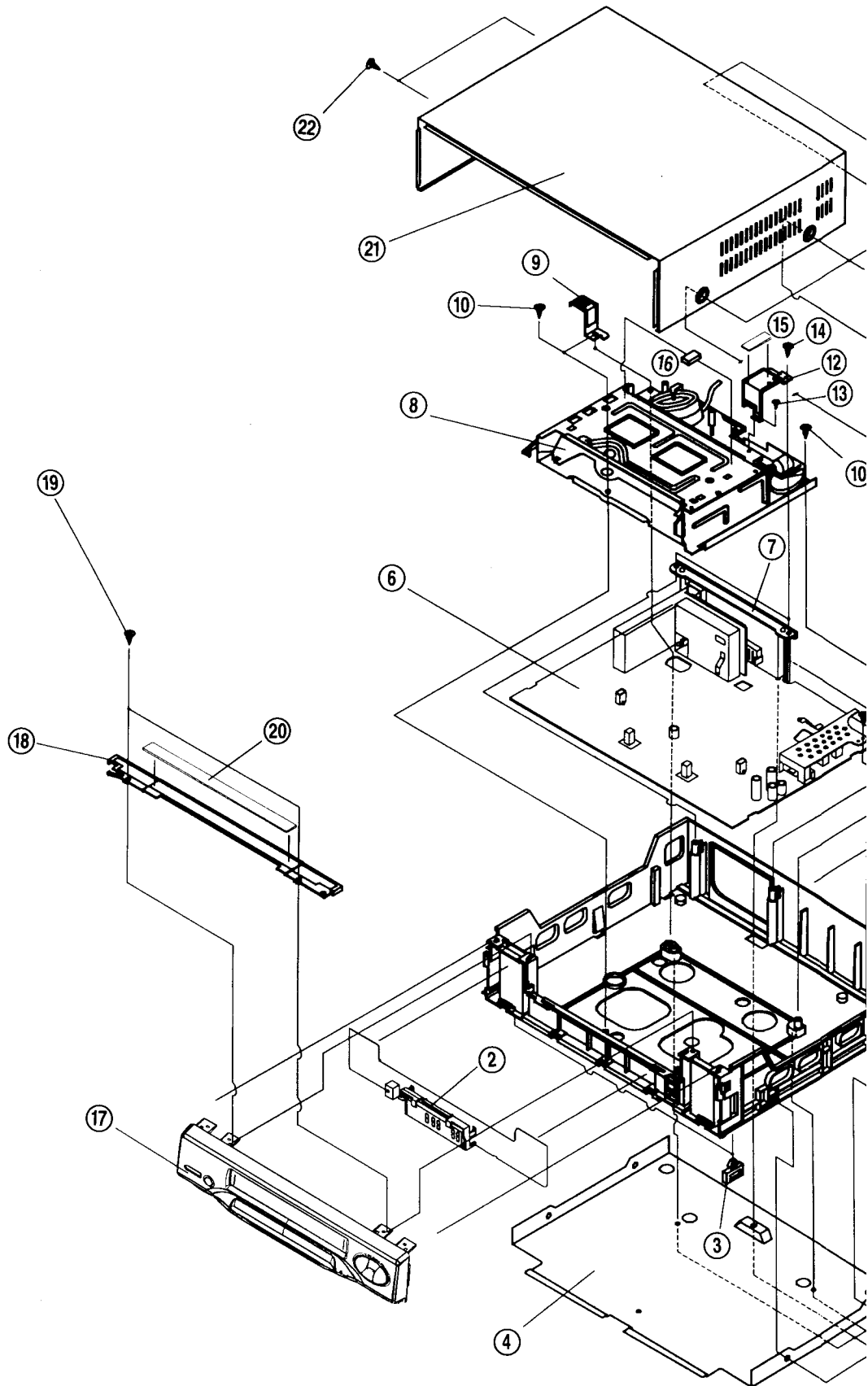
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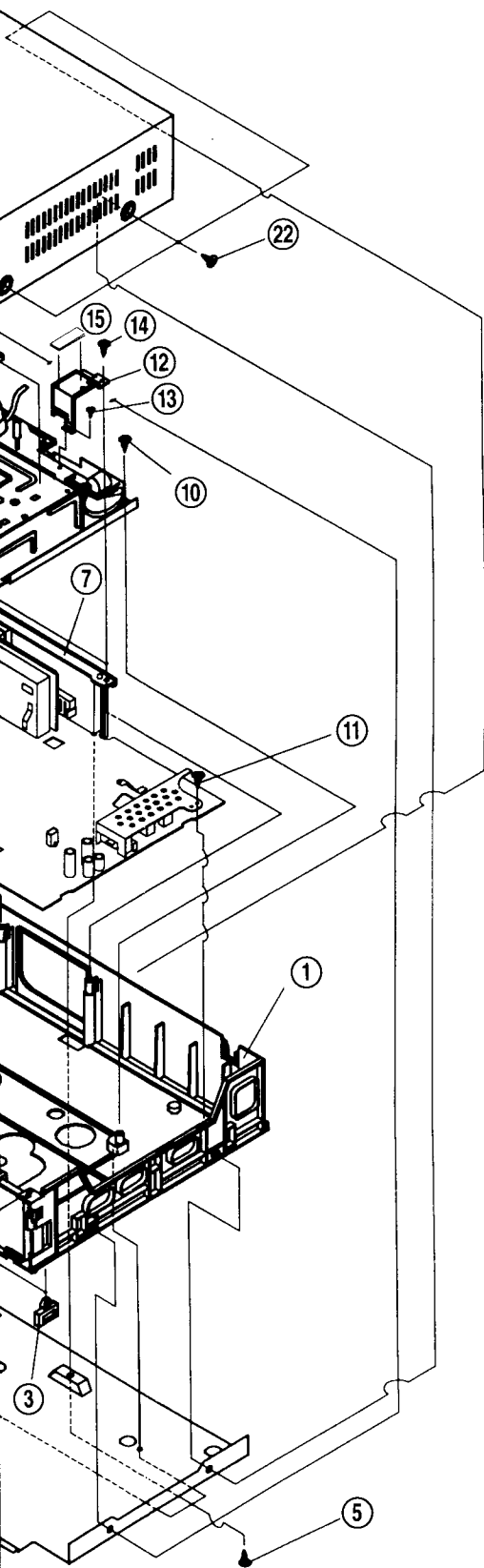


DV-F54 LOGIC PCB
S/N:97P65000LA-A



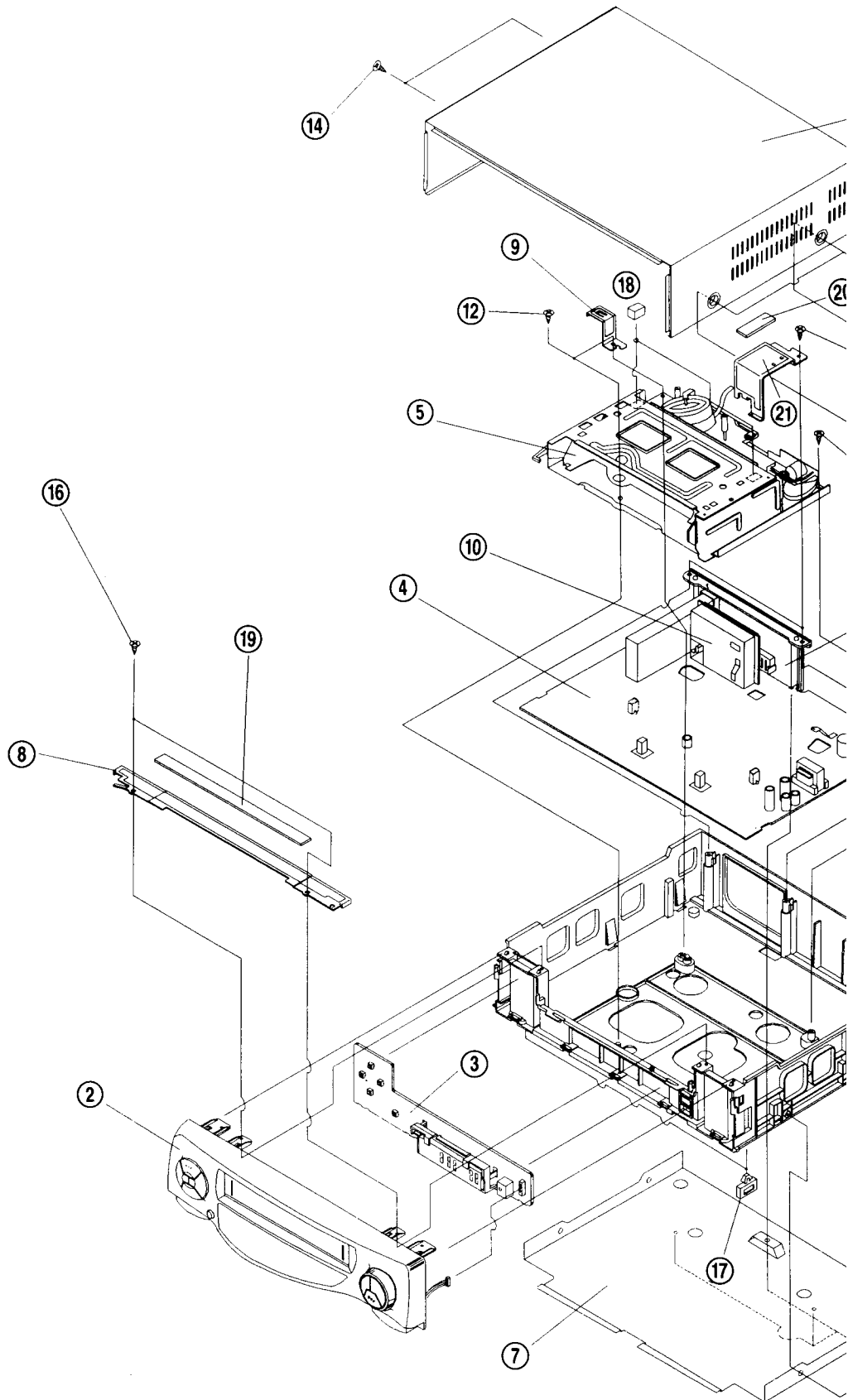
8-2. SET TOTAL ASSEMBLY

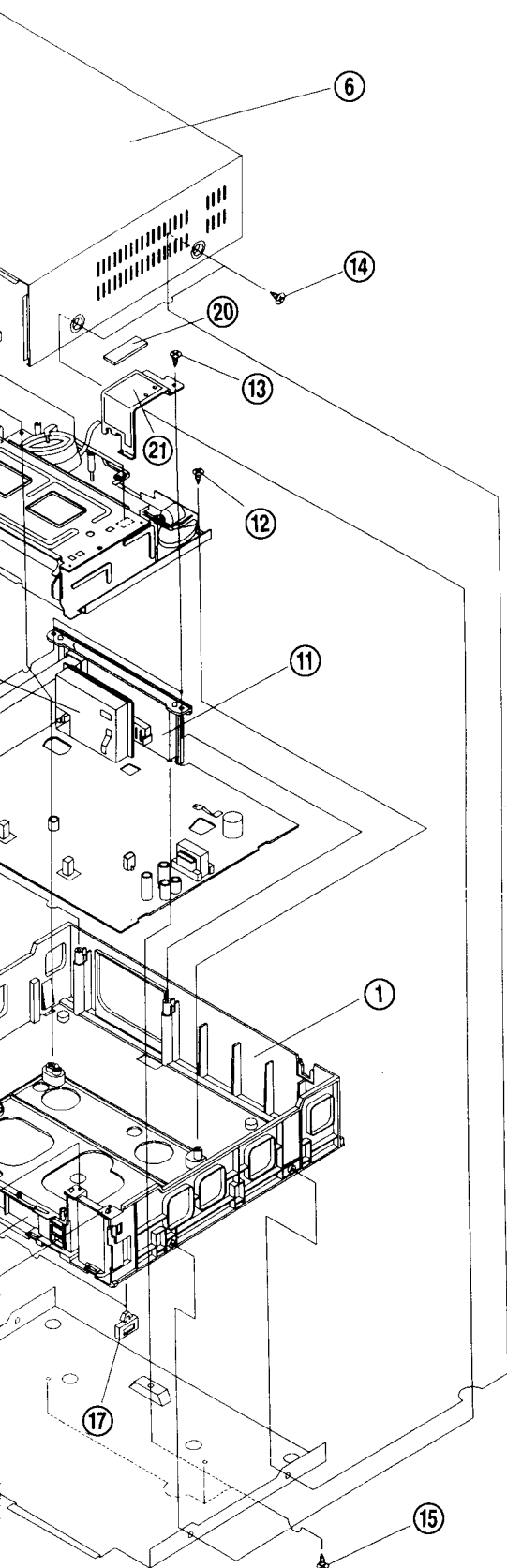




No.	Part Code	Part Name	Q'ty	Description	Remark
1	97P0608400	CHASSIS MAIN	1	ABS (V0)	
2		PCB LOGIC AS	1		
3	97P0800600	LEG	2	SBR 80 BLK	
4	97P0455810	COVER BOTTOM	1	SECC T0.4	
5	7174301011	SCREW TAPPTITE	3	TT2 RND 3x10 MFZN	C/BOTTOM FIX
6		PCB MAIN AS	1		
7	97P0709100	BOARD ANT	1	HI-PS	
8		DECK TOTAL AS	1		
9	97P2442100	BRKT TMI AS	1		
10	7173401211	SCREW TAPPTITE	3	TT2 BIN 4x12 MFZN	DECK AS FIX
11	7173401211	SCREW TAPPTITE	1	TT2 BIN 4x12 MFZN	SMPS FIX
12	97P2441400	BRKT DECK	1	SECC T1.6	
13	7274300611	SCREW TAPPTITE	1	TT3 RND 3x6 MFZN	B/D FIX
14	7173401211	SCREW TAPPTITE	2	TT2 BIN 4x12 MFZN	BOARD ANT FIX
15	97P4213600	CUSHION B/D	1	EVA	
16	97P4213100	CUSHION F/L	2	EVA	
17		PANEL FRONT AS	1		
18	97P2440200	BRKT F/L	1	SECC T1.6	
19	7173401211	SCREW TAPPTITE	2	TT2 BIN 4x12 MFZN	BRKT F/L FIX
20	97P4213500	CUSHION BRKT	1	EVA	BLK
21	97P0455710	COVER TOP	1	SECC T0.6+PVC T0.15	
22	7173401012	SCREW TAPPTITE	5	TT2 BIN 4x10 MFZN	COVER TOP FIX

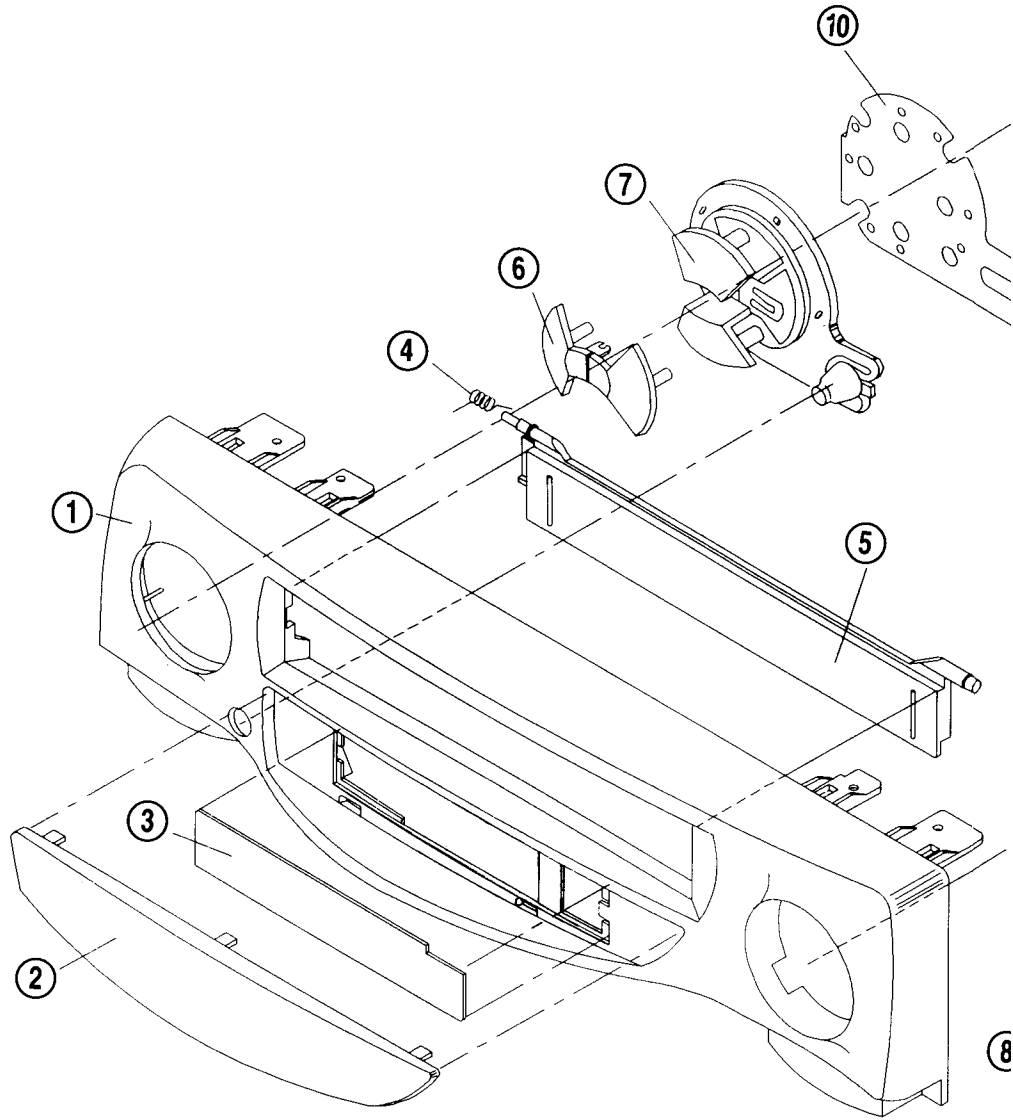
8-3. SET TOTAL ASSEMBLY (DV-F54/F34N)

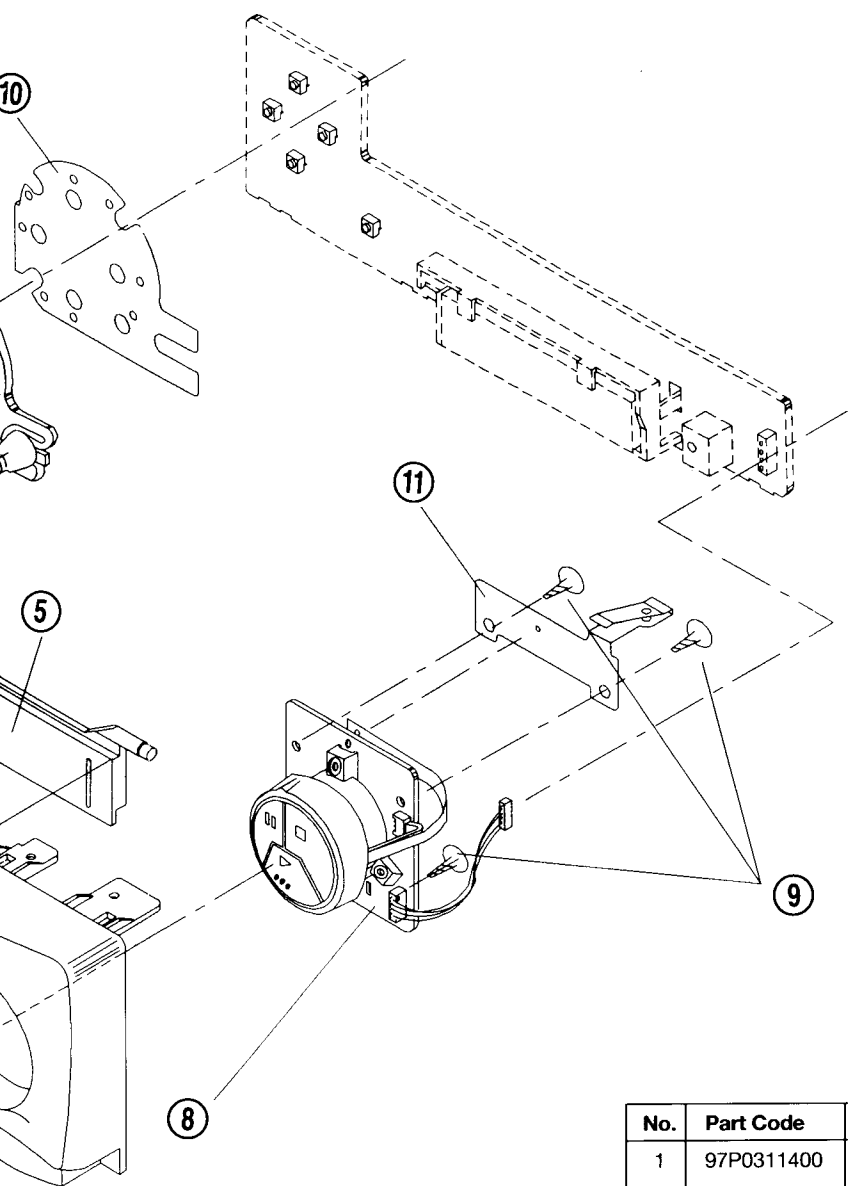




No.	Part Code	Part Name	Q'ty	Description	Remark
1	97P0608400	CHASSIS MAIN	1	ABS (HB)	
2	97PC146300	PANEL FRONT AS	1		
3		PCB LOGIC AS	1		
4		PCB MAIN AS	1		
5	97PB0348D-	DECK TOTAL AS	1		
6	97P0455700	COVER TOP	1	SECC T0.6+PVC T0.15	
7	97P0455800	COVER BOTTOM	1	SECC T0.4	
8	97P2440200	BRKT F/L	1	SECC T1.6	
9	97P2440300	BRKT EARTH TMI	1	SECC T0.8	
10		PCB HEAD AMP AS	1		
11	97P0709100	BOARD ANT	1	HI-PS (HB)	
12	7173401211	SCREW TAPPTITE	3	TT2 BIN 4x12 MFZN	DECK AS FIX
13	7173401211	SCREW TAPPTITE	2	TT2 BIN 4x12 MFZN	BOARD ANT FIX
14	7173401012	SCREW TAPTITE	5	TT2 BIN 4x10 BK MFZN	COVER TOP FIX
15	7174301011	SCREW TAPPTITE	3	TT2 RND 3x10 MFZN	C/BOTTOM FIX
16	7173401211	SCREW TAPPTITE	2	TT2 BIN 4x12 MFZN	BRKT F/L FIX
17	97P0800600	LEG	2	SBR 80 BLK	
18	97P4213100	CUSHION F/L	2	EVA	
19	97P4213500	CUSHION BRKT	1	EVA BLK	
20	97P4213600	CUSHION B/D	1	EVA BLK	
21	97P2441400	BRKT DECK	1	SECC	

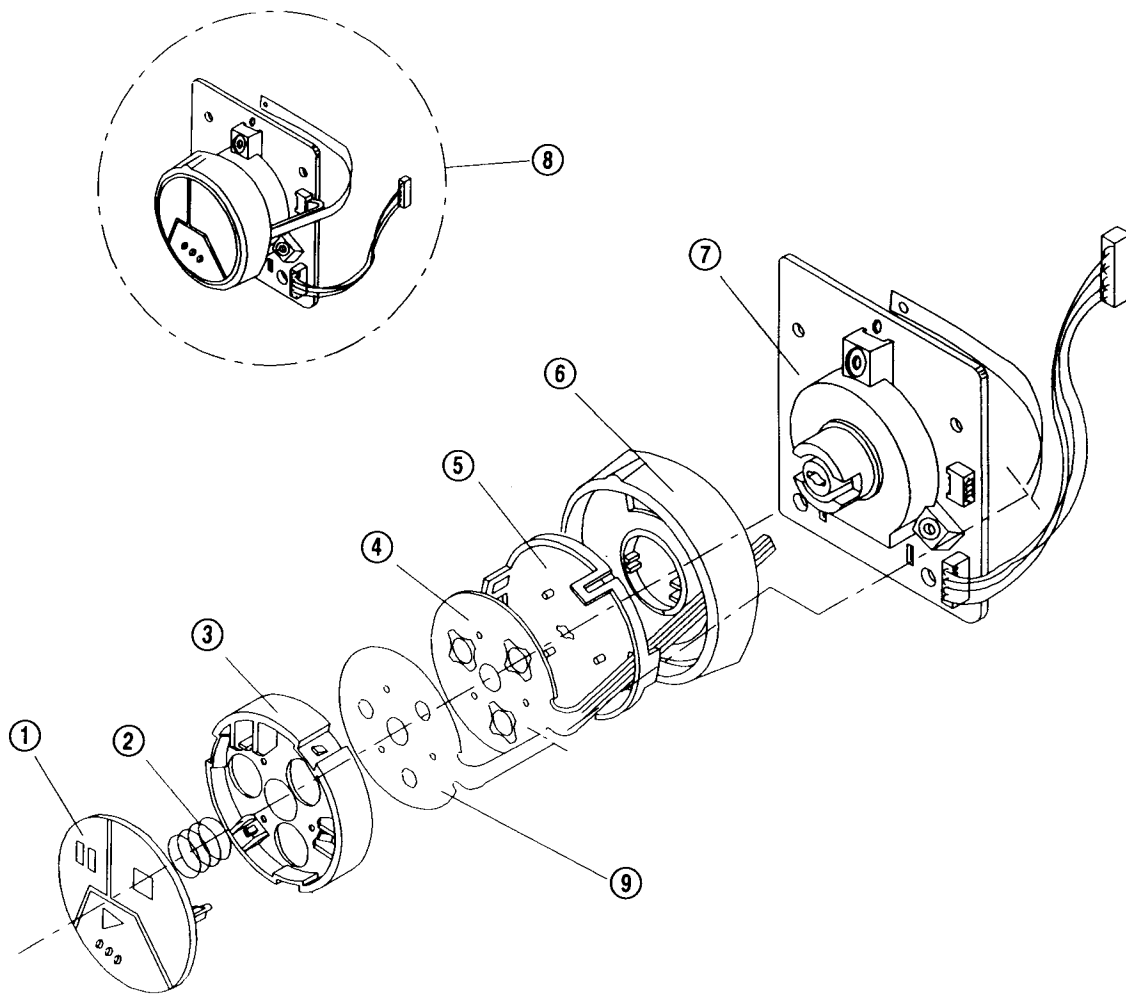
8-4. FRONT PANEL ASSEMBLY (DV-F54/F34N)





No.	Part Code	Part Name	Q'ty	Description	Remark
1	97P0311400	PANEL FRONT	1	ABS	
2	97P1613200	WINDOW FRONT	1	PMMA	
3	97P4706500	FILTER DIGITRON	1	PVC 0.5	
4	97P3033600	SPRING F/L DOOR	1	SWPB	
5	97P1815300	DOOR F/L	1	ABS	
6	97P1665400	KNOB FUNCTION	1	ABS	
7	97P2333000	HOLDER K/F	1	ABS	
8		SHUTTLE STATION AS	1		
9	7174301011	SCREW TAPPTITE	3	TT2 RND 3x10 MFZN	
10	97P0961000	PLATE EARTH-R	1	PRESS T0.15	
11	97P0961100	PLATE EARTH-L	1	PRESS T0.15	

8-5. SHUTTLE STATION ASSEMBLY (DV-F54/F34N)



No.	Part Code	Part Name	Q'ty	Description	Remark
1	97P1335600	KNOB S/FUNCTION	1	ABS	
2	97P3036300	SPRING KNOB	1	SUS 304 WPB	
3	97P2507900	GUIDE K/STATION	1	ABS	
4	97PB392900	PLATE DOME AS	1		
5	97P2333100	HOLDER K/STATION	1	ABS	
6	97P1335500	KNOB SHUTTLE	1	ABS	
7		SWITCH SHUTTLE	1		
8		SHUTTLE STATION AS	1		
9	97P0956800	EARTH PLATE	1		

9-2. ELECTRICAL PARTS LIST

* USE 4 HEAD ONLY △ USE 2 HEAD ONLY ▲ USE DV-F44N/X, F24N/X

9-2-1. PCB MAIN AS

REF.	PART CODE	PART NAME	PART DESCRIPTION	REF.	PART CODE	PART NAME	PART DESCRIPTION
CS01	HCLK300JCA	C CHIP CERA	SL 50V 30PF J 2012	C210	CMXM2A562J	C MYLAR	100V 5600PF J (TAPPING)
CS02	HCLK200JCA	C CHIP CERA	SL 50V 20PF J 2012	C211	CMXM2A103J	C MYLAR	100V 0.01MF J (TAPPING)
CS03	CEXE1H228A	C ELECTRO	50V RS 0.22MF (5X11) TP	C212	CEXE1H108A	C ELECTRO	50V RS 0.1MF (5X11) TP
CS04	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012	C213	CEXE1E220A	C ELECTRO	RS 25V 22MF 5X11
CS05	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11	C214	CMXM2A103J	C MYLAR	100V 0.01MF J (TAPPING)
CS06	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	C215	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
CS08	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	C216	CEXE1H339A	C ELECTRO	50V RS 3.3MF (5X11) TP
CS09	HCLK201JCA	C CHIP CERA	SL 50V 200PF J 2012	C217	CXSL1H471J	C CERA	50V SL 470PF J (TAPPING)
CS10	HCLK201JCA	C CHIP CERA	SL 50V 200PF J 2012	C218	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
CS11	HCLK201JCA	C CHIP CERA	SL 50V 200PF J 2012	C219	CEXE1E220A	C ELECTRO	RS 25V 22MF 5X11
CS12	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012	C220	CEXF1C470A	C ELECTRO	16V RSM 47MF (6.3X7) TP
CS13	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11	C221	CEXE1H479A	C ELECTRO	50V RS 4.7MF (5X11) TP
CS14	CXSL1H809D	C DERA	SL 50V 8PF D	C222	CMXM2A223J	C MYLAR	100V 0.022MF J (TAPPING)
C151	CMXM2A153J	C MYLAR	100V 0.015MF J (TAPPING)	C223	CMXM2A472J	C MYLAR	100V 4700PF J (TAPPING)
C152	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012	C224	CMXM2A392J	C MYLAR	100V 3900PF J (TAPPING)
C153	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012	C302	HCLK201JCA	C CHIP CERA	SL 50V 200PF J 2012
C154	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP	C303	HCQK750JCA	C CHIP CERA	CH 50V 75PF J 2012
C155	HCFK104ZCA	C DHP CERA	Y5V 50V 0.1MF Z 2012	C304	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C156	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP	C305	HCLK391JCA	C CHIP CERA	SL 50V 390PF J 2012
C157	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012	C306	HCLK150JCA	C CHIP CERA	SL 50V 15PF J 2012
C158	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11	C307	HCLK121JCA	C CHIP CERA	SL 50V 120PF J 2012
C159	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	C308	HCLK150JCA	C CHIP CERA	SL 50V 15PF J 2012
C160	CEXF1A471A	C ELECTRO	RSS 10V 470MF 8X11.5	C309	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
C161	CEXE1H478A	C ELECTRO	50V RS 0.47MF (5X11) TP	C310	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
C162	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP	C311	HCLK470JCA	C CHIP CERA	SL 50V 47PF J 2012
C163	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11	C312	HCLK390JCA	C CHIP CERA	SL 50V 39PF J 2012
C164	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11	C313	HCLK120JCA	C CHIP CERA	SL 50V 12PF J 2012
C165	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP	C314	HCLK470JCA	C CHIP CERA	SL 50V 47PF J 2012
C166	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP	C315	CEXF1H100A	C ELECTRO	50V RSM 10MF (5X8.5) TP
C201	C MXM2A473J	C MYLAR	100V 0.047MF J (TAPPING)	C316	HCBK102KCA	C CHIP CERA	X7R 50V 1000PF K 2012
C202	CCXB2H221K	C CERA	500V B 220PF K (TRPPING)	C317	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C203	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11	C318	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C204	CMXM2A472J	C MYLAR	100V 4700PF J (TAPPING)	C319	HCBH104KCA	C CHIP CERA	X7R 25V 0.1MF K 2012
C205	CMXM2A682J	C MYLAR	100V 6800PF J (TAPPING)	C320	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11
C206	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11	C321	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C207	CEXE1H479A	C ELECTRO	50V RS 4.7MF (5X11) TP	C322	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C208	CMXM2A103J	C MYLAR	100V 0.01MF J (TAPPING)	C323	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C209	CEXE1H108A	C ELECTRO	50V RS 0.1MF (5X11) TP	C324	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)

REF.	PART CODE	PART NAME	PART DESCRIPTION
C325	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
C326	HCLK120JCA	C CHIP CERA	SL 50V 12PF J 2012
C327	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
C328	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C329	CEXE1A101A	C ELECTRO	RS 10V 100MF 6.3X11
C330	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP
C331	CEXE1H479A	C ELECTRO	50V RS 4.7MF (5X11) TP
C332	CEXE1H479A	C ELECTRO	50V RS 4.7MF (5X11) TP
C333	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C335	CEXE1A470A	C ELECTRO	RS 10V 47MF 5X11
C340	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C342	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C343	HCLK200JCA	C CHIP CERA	SL 50V 20PF J 2012 -
C344	HCQK750JCA	C CHIP CERA	CH 50V 75PF J 2012
C345	HCLK161JCA	C CHIP CERA	SL 50V 160PF J 2012
C346	HCLK201JCA	C CHIP CERA	SL 50V 200PF J 2012
C347	HCLK200JCA	C CHIP CERA	SL 50V 20PF J 2012
C351	HCLK509CCA	C CHIP CERA	SL 50V 5PF C 2012
C352	HCLK360JCA	C CHIP CERA	SL 50V 36PF J 2012
C353	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C354	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C355	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C357	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C358	HCBK473KCA	C CHIP CERA	X7R 50V 0.047MF K 2012
C401	CMXM2A333J	C MYLAR	100V 0.033MF J (TAPPING)
C402	HCFK223ZCA	C CHIP CERA	Y5V 50V 0.022MF Z 2012
C408	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C409	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C410	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C411	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C413	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C414	CMXM2A223J	C MYLAR	100V 0.022MF J (TAPPING)
C415	CEXE1H109A	C ELECTRO	50V RS 1MF (5X11) TP
C417	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)
C420	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C425	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C501	HCBK 472KCA	C CHIP CERA	X7R 50V 4700PF K 2012
C502	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
C503	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
C504	CEXF1H100A	C ELECTRO	50V RSM 10MF (5X8.5) TP
C505	CEXE1H100A	C ELECTRO	RS 50V 10MF (5X11) TP

REF.	PART CODE	PART NAME	PART DESCRIPTION
C506	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C507	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C508	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP
C509	CEXF1H109A	C ELECTRO	50V RSM 1MF (4X7) TP
C510	HCBK102KCA	C CHIP CERA	X7R 50V 1000PF K 2012
C511	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
C512	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C513	CMXM2A223J	C MYLAR	100V 0.022MF J (TAPPING)
C514	CMXM2A223J	C MYLAR	100V 0.022MF J (TAPPING)
C515	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C516	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C517	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C521	CEXF1A471V	C ELECTRO	RSS 10V 47MF 8X11.5
C601	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C602	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
C603	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C604	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C605	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C606	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012
C607	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012
C608	HCQK220JCA	C CHIP CERA	50V CH 22PF J 2012
C609	HCQK240JCA	C CHIP CERA	50V CH 24PF J 2012
C610	CEXF1H100A	C ELECTRO	50V RSM 10MF (5X8.5) TP
C611	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C612	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C613	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3X7
C614	CXSL1H101J	C CERA	SL 50V 100PF J
C615	CXSL1H101J	C CERA	SL 50V 100PF J
C616	HCLK101JCA	C CHIP CERA	SL 50V 100PF J 2012
C617	HCLK101JCA	C CHIP CERA	SL 50V 100PF J 2012
C619	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
C620	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C621	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C623	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
C624	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C626	HCLK101JCA	C CHIP CERA	SL 50V 100PF J 2012
C627	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
C628	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
▲ C629	CEXF0J222V	C ELECTRO	6.3V 2200MF
C801	CH1BEF103Z	C CERA AC	U/C/V 2.5KV 0.01MF
C802	CH1BEB221K	C CERA AC	U/C/V 2.5KV SCB2G221K10BS

REF.	PART CODE	PART NAME	PART DESCRIPTION
C803	CH1BEB221K	C CERA AC	U/C/V 2.5KV SCB2G221K10BS
C804	CH1BEE332M	C CERA AC	U/C/V 2.5KV SCE2G332M16BS
C805	CH1BEE332M	C CERA AC	U/C/V 2.5KV SCE2G332M16BS
C806	CEXF2E101V	C ELECTRO	RSS 250V 100MF 18X35.5
C807	CBXB3D221K	C CERA	HIKB 2KV 220PF K DF=0.5%
C808	CEXF2E479F	C ELECTRO	RX 250V 4.7MF 10X12.5
C809	CCXF1H333Z	C CERA	50V F 0.033MF Z (TAPPING)
C810	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
C811	CCXB1H332K	C CERA	50V B 3300PF K (TAPPING)
C812	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)
C813	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C814	CEXF1J100F	C ELECTRO	RX 63V 10MF
C815	CEXF1E471F	C ELECTRO	RX 25V 470MF 10X25
C816	CEXF1E331F	C ELECTRO	RX 25V 330MF 10X20
C817	CEXF1H470F	C ELECTRO	50V 47MF RX 6.3X15
C818	CEXF1A471F	C ELECTRO	RX 10V 4700MF 8X20
C819	CEXF1A102V	C ELECTRO	RSS 10V 1000MF 10X16
C820	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C821	CEXF1A471F	C ELECTRO	RX 10V 470MF 8X20
C822	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C823	CEXF1H109F	C ELECTRO	RX 50V 1MF 5X11
C824	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)
C827	CEXE1H470A	C ELECTRO	RS 50V 47MF 8X11.5
C828	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
C829	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
C830	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
C831	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
C832	CEXE1E470A	C ELECTRO	RS 25V 47MF 6.3X11
D201	DZN4148---	DIODE	1N4148 AUTO 52MM
D202	DZN4148---	DIODE	1N4148 AUTO 52MM
D302	DZN4148---	DIODE	1N4148 AUTO 52MM
D303	DZN4148---	DIODE	1N4148 AUTO 52MM
D304	DZN4148---	DIODE	1N4148 AUTO 52MM
D305	DZN4148---	DIODE	1N4148 AUTO 52MM
D401	DZN4148---	DIODE	1N4148 AUTO 52MM
D405	DZN4148---	DIODE	1N4148 AUTO 52MM
▲ D601	DZN4148---	DIODE	1N4148 AUTO 52MM
D602	DZN4003---	DIODE	IN4003
D603	DZN4003---	DIODE	IN4003
D604	DZZ5R6BM--	DIODE ZENER	DZ 5.6BM (AUTO)
D605	DZZ3R9B---	DIODE ZENER	DZ 3R9B (3R9) (AUTO)

REF.	PART CODE	PART NAME	PART DESCRIPTION
D606	DS1R481T--	LED IR	SIR-48IT
D606A	97P2334200	HOLDER LED	POM
		SENSOR	
D607	DZZ7R5BM--	DIODE ZENER	UZ-7.5BM
D608	DZA105R1L-	DIODE ZENER	MA 1051L (5R1)
▲ D611	DZN4148---	DIODE	1N4148
▲ D612	DZN4148---	DIODE	1N4148
D614	DZZ3R9B---	DIODE ZENER	DZ 3R9B (3R9) (AUTO)
D801	DS1WBA60--	DIODE BRIDGE	S1WBA60
D802	DZEG01C---	DIODE	EG01C
D803	DZN4148---	DIODE	1N4148 AUTO 52MM
D804	DZN4148---	DIODE	1N4148 AUTO 52MM
D805	DZN4148---	DIODE	1N4148 AUTO 52MM
D806	DZEU01Z---	DIODE	EU01Z
D807	DZRU2YX---	DIODE	RU2YX
D808	DZMA188---	DIODE	MA188
D809	DZZP18BM--	DIODE ZENER	UZP-18B 1W
D810	DZEK16----	DIODE	EK16
D811	DZEU01Z---	DIODE	EU01Z
D812	DZMA858---	DIODE	MA858
D813	DZN4148---	DIODE	1N4148 AUTO 52MM
D814	DZA4051H--	DIODE	MA4051H
D815	DZN4148---	DIODE	1N4148 AUTO 52MM
D816	DZZ13BL---	DIODE ZENER	UZ-13BL
D817	DZTZ33B---	DIODE ZENER	MTZ-33B
D818	DZZP33BM--	DIODE ZENER	UZP-33B 1W
D819	DZN4148---	DIODE	1N4148 AUTO 52MM
D820	DZZP33BM--	DIODE ZENER	UZP-33B 1W
D821	DZZP18BM--	DIODE ZENER	UZP-18B 1W
D822	DZZ6R8BM--	DIODE ZENER	UZ-6.8BM AUTO
D823	DZZ13BL---	DIODE ZENER	UZ-13BL
D824	DZZ13BL---	DIODE ZENER	UZ-13BL
F801	5F1GB1521L	FUSE GLASS TUBE	UL/CSA TL 1.5A 125V MF51
F801A	97P460170P	CLIP FUSE	PFC5000-0702
F801B	97P460170P	CLIP FUSE	PFC5000-0702
F802	5F1GB1521L	FUSE GLASS TUBE	UL/CSA TL 1.5A 125V MF51
F802A	97P460170P	CLIP FUSE	PFC5000-0702
F802B	97P460170P	CLIP FUSE	PFC5000-0702
ICS01	168K88E6ML	IC OSD	168K88E6ML
IC151	173F14053B	IC CMOS	MC14053B (TRIPLE 2CH MUX)
IC201	1BA7790LSK	IC AUDIO	BA7790LS

REF.	PART CODE	PART NAME	PART DESCRIPTION
IC301	1LA7184---	IC VIDEO	LA7184 (VIDEO 1 CHIP)
IC303	1LC7975---	IC VIDEO	LC7975 (1HCCD)
IC601	168KF4EATS	IC MICOM	168KF4EATS
IC602	1DBL2018C-	IC DRIVER	DBL2018-C
* IC605	173F14013B	IC CMOS	MC14013B (DUAL D-F/F)
IC606	1MN1380L--	IC COMPARATOR (RESET)	MN1380-L (RESET IC)
IC801	183ZON3131	IC PHOTO COUPLER	ON3131R
J151	97P6307500	JACK PIN	DSPM-8907-04
LS01	5CPX150J--	COIL PEAKING	15UH J RADIAL
LS02	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
LS03	5CPX688M--	COIL PEAKING	0.68UH 5MM M RADIAL
L151	5CPX100J--	COIL PEAKING	PL 10UH J (TAPPING)
L152	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
L201	5CPX471J--	COIL PEAKING	470UH J RADIAL
L202	56Z223J402	COIL PEAKING	PC-6S-223J
L203	5CPX103J--	COIL PEAKING	10MH 5MM J RADIAL
L302	5CPX330J--	COIL PEAKING	33UH J RADIAL
L303	5CPX330J--	COIL PEAKING	33UH J RADIAL
L304	5CPX100J--	COIL PEAKING	PL 10UH J (TAPPING)
L305	5CPX479K--	COIL PEAKING	4.7UH K RADIAL
L306	5CPX100J--	COIL PEAKING	PL 10UH J (TAPPING)
L310	5CPX330J--	COIL PEAKING	33UH J RADIAL
L311	5CPX330J--	COIL PEAKING	33UH J RADIAL
L312	5CPX820J--	COIL PEAKING	82UH J RADIAL
L313	5CPX271J--	COIL PEAKING	270UH J RADIAL
L801	5PLFSQ2014	FILTER LINE	SQ-2014 40MH
L802	58C0000087	COIL BEAD	BFS3550A0F
L803	56C220K675	COIL CHOKE	22UH K RADIAL
L804	56C220K675	COIL CHOKE	22UH K RADIAL
PT01	97P6269000	CONN WAFER	00-8283-0612-00000
P202	97P8851210	CONN AS (Y51210)	2.0 2P 100MM
P501	97P6291736	CONN WAFER	TKC-M08P-B1
P601	97P6291741	CONN WAFER	TKC-M18P-B1
P602	97P8810B14	CONN AS (Y10B14)	2.0 11P 140M
▲ P603	97P6268700	CONN WAFER	00-8283-0312-00000
P801	4859242220	CONN WAFER	YFW800-02
Q151	TZSR1004--	TR	KSR1004 (AUTO)
Q152	TZTA1273Y-	TR	KTA1273Y (966Y)
Q153	TZSR1004--	TR	KSR1004 (AUTO)
Q154	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)

REF.	PART CODE	PART NAME	PART DESCRIPTION
Q156	TZSR1004--	TR	KSR1004 (AUTO)
Q201	TZTC3202Y-	TR	KTC3202Y (AUTO) (1959Y)
Q202	TZTA1273Y-	TR	KTA1273Y (966Y)
Q203	TZSR1004--	TR	KSR1004 (AUTO)
Q204	TZSR1004--	TR	KSR1004 (AUTO)
Q205	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q301	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q302	TZSR1004--	TR	KSR1004 (AUTO)
Q303	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q304	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q305	TZTA1266Y-	TR	KTA1266Y-(AUTO) (1015Y)
Q306	TZSR1004--	TR	KSR1004 (AUTO)
Q311	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q312	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q313	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q315	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q316	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q317	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q402	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q403	TZTC3198Y-	TR	KTC3198Y- (1815Y) (AUTO)
Q405	TZSR1004--	TR	KSR1004 (AUTO)
Q601	TZTC3205Y-	TR	KTC3205Y (2236Y)
Q608	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q801	TZSC4662--	TR	2SC4662
Q801A	97P4406900	RADIATOR TR	SPCC T0.8
Q801B	7173400811	SCREW TAPPTITE	TT2 BIN 4X8 MFZN
Q802	TZSD1458--	TR	2SD1458
Q803	TZTC3198Y-	TR	KTC3198-(1815Y) (AUTO)
Q804	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q805	TZTA1266Y-	TR	KTA1266Y- (AUTO) (1015Y)
Q806	TZTC3205Y-	TR	KTC3205Y (2236)
Q808	TKSD2058Y-	TR	KSD2058-Y
Q809	TKSD2058Y-	TR	KSD2058-Y
Q810	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
RF101	97P7605000	TUNER 3 IN 1	TMVH 1-102A
RS02	RD-AZ753J-	R CARBON FILM	1/6 75K OHM J
RS03	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
RS04	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
RS05	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RS06	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RS07	HRFT102JCA	R CHIP	1/10 1K OHM J 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
RS08	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J
R150	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R151	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R152	HRFT123JCA	R CHIP	1/10 12K OHM J 2012
R153	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R154	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R156	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
R157	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R158	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R160	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R161	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R162	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R163	HRFT243JCA	R CHIP	1/10 24K OHM J 2012
R164	HRFT334JCA	R CHIP	1/10 330K OHM J 2012
R165	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R166	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R167	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R168	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R170	RS01Y221J-	R M-OXIDE FILM	1W 220 OHM J
R182	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
R183	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R184	HRFT680JCA	R CHIP	1/10 68 OHM J 2012
R202	HRFT271JCA	R CHIP	1/10 270 OHM J 2012
R203	HRFT133JCA	R CHIP	1/10 13K OHM J 2012
R204	HRFT334JCA	R CHIP	1/10 330K OHM J 2012
R205	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R206	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012
R207	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R208	HRFT105JCA	R CHIP	1/10 1M OHM J 2012
R209	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
R210	HRFT912JCA	R CHIP	1/10 9.1K OHM J 2012
R211	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R212	HRFT122JCA	R CHIP	1/10 1.2K OHM 2012
R213	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R214	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R215	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J 2012
R216	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R217	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R218	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R219	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R220	HRFT121JCA	R CHIP	1/10 120 OHM J 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
R221	HRFT331JCA	R CHIP	1/10 330 OHM J 2012
R222	RD-AZ243J-	R CARBON FILM	1/6 24K OHM J
R223	HRFT203JCA	R CHIP	1/10 20K OHM J 2012
R224	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012
R225	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R226	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J
R227	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
R228	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R229	RD-AZ519J-	R CARBON FILM	1/6 5.1 OHM J
R230	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R231	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012
R232	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
R234	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
R292	RV5426104E	R SEMI FIXED	H100K-5x3-6Y-PC-GS
R301	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R302	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012
R303	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R304	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R305	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012
R306	HRFT681JCA	R CHIP	1/10 680 OHM J 2012
R308	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R309	HRFT561JCA	R CHIP	1/10 560 OHM J 2012
R310	HRFT561JCA	R CHIP	1/10 560 OHM J 2012
R311	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R312	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012
R313	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R314	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
R315	HRFT563JCA	R CHIP	1/10 56K OHM J 2012
R316	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J
R317	HRFT823JCA	R CHIP	1/10 82K OHM J 2012
R318	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R319	HRFT561JCA	R CHIP	1/10 560 OHM J 2012
R321	HRFT471JCA	R CHIP	1/10 470 OHM J 2012
R322	HRFT133JCA	R CHIP	1/10 13K OHM J 2012
R323	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R325	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J
R326	HRFT133JCA	R CHIP	1/10 13K OHM J 2012
R327	RD-AZ203J-	R CARBON FILM	1/6 20K OHM J
R328	HRFT474JCA	R CHIP	1/10 470K OHM J 2012
R329	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012
R330	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
R339	HRFT431JCA	R CHIP	1/10 430 OHM J 2012
R340	HRFT751JCA	R CHIP	1/10 750 OHM J 2012
R341	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
R342	HRFT223JCA	R CHIP	1/10 22K OHM J 2012
R343	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R344	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R345	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R346	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J
R347	HRFT113JCA	R CHIP	1/10 11K OHM J 2012
R348	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012
R349	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
R350	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
R351	HRFT431JCA	R CHIP	1/10 430 OHM J 2012
R352	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R353	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R354	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R355	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R356	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R357	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J
R359	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012
R360	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J
R391	RV5426502E	R SEMI FIXED	RH 0638C-5K OHM
R395	RV5426103E	R SEMI FIXED	H10K-5X3-6Y-PC-GS
R396	RV5426502E	R SEMI FIXED	RH 0638C-5K OHM
R399	RV5426102E	R SEMI FIXED	H1K-5X3-6Y-PC-GS
R404	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R405	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J
R406	HRFT822JCA	R CHIP	1/10 8.2K OHM J 2012
R407	RD-AZ182J-	R CARBON FILM	1/6 1.8K OHM J
R408	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R409	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R410	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R415	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J
R416	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J
R491	RV5426302E	R SEMI FIXED	RH 0638C-3K OHM
R494	RV5426102E	R SEMI FIXED	H1K-5X3-6Y-PC-GS
R501	HRFT302JCA	R CHIP	1/10 3K OHM J 2012
R502	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R504	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R505	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
R506	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J

REF.	PART CODE	PART NAME	PART DESCRIPTION
R507	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R508	RD-AZ182G-	R CARBON FILM	1/6 1.8K OHM G
R509	RD-AZ182G-	R CARBON FILM	1/6 1.8K OHM G
R510	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R511	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012
R512	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R513	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R514	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R515	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R516	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R517	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R518	RD-AZ474J-	R CARBON FILM	1/6 470K OHM J
R519	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R520	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R521	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J
R522	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R523	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
R524	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
R595	RV5426104E	R SEMI FIXED	H100K-5X3-6Y-PC-GS
R601	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J
R603	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
R604	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
▲R605	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R606	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R608	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R611	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R612	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R613	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R614	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R619	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R620	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R621	HRFT274JCA	R CHIP	1/10 270 OHM J 2012
R622	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R623	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R624	RD-4Z106J-	R CARBON FILM	1/4 10M OHM J
R625	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J
R626	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R627	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
▲R628	RD-4Z510J-	R CARBON FLM	1/4 51 OHM J
R629	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R630	HRFT102JCA	R CHIP	1/10 1K OHM J 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
R631	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R632	RD-AZ302J-	R CARBON FILM	1/6 3K OHM J
R634	RD-AZ303J-	R CARBON FILM	1/6 30K OHM J
R636	RD-AZ201J-	R CARBON FILM	1/6 200 OHM J
R637	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J
R638	HRFT201JCA	R CHIP	1/10 200 OHM J 2012
R639	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
* R640	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R641	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012
R642	RS02Y399J-	R M-OXIDE FILM	2W 3.9 OHM J
R644	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R646	HRFT274JCA	R CHIP	1/10 270K OHM J 2012
R652	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R653	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R654	RD-AZ519J-	R CARBON FILM	1/6 5.1 OHM J
R655	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
R656	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R657	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R801	RD-2Z335J-	R CARBON FILM	1/2 3.3M OHM J
R802	RS01Y124J-	R M-OXIDE FILM	1W 120K OHM J
R803	RD-2Z154J-	R CARBON FILM	1/2 150K OHM J
R804	RS02Y333J-	R M-OXIDE FILM	2W 33K OHM J
R805	RS01Y820J-	R M-OXIDE FILM	1W 82 OHM J
R806	RS02Y688J-	R M-OXIDE FILM	2W 0.68 OHM J
R807	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J
R808	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J
R809	RS01Y100J-	R M-OXIDE FILM	1W 10 OHM J
R810	RS01Y100J-	R M-OXIDE FILM	1W 10 OHM J
R811	HRFT221JCA	R CHIP	1/10 220 OHM J 2012
R812	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J
R813	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R814	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J
R815	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R816	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J

REF.	PART CODE	PART NAME	PART DESCRIPTION
R817	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R818	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R819	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
R820	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J
R821	RD-4Z622J-	R CARBON FILM	1/4 6.2K OHM J
R822	RD-4Z622J-	R CARBON FILM	1/4 6.2K OHM J
R824	RD-4Z123J-	R CARBON FILM	1/4 12K OHM J
R826	RD-4Z622J-	R CARBON FILM	1/4 6.2K OHM J
R827	RD-4Z123J-	R CARBON FILM	1/4 12K OHM J
R829	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R830	RD-AZ519J-	R CARBON FILM	1/6 5.1 OHM J
SW151	5S30102102	SW SLIDE	HSW938-01-010
▲ SW152	5S50101035	SW TACT	KPT-1112 1C-1P
SW601	5SN0101001	SW DETECT REC	MPU10252MLB0
S601	97P0S01300	SENSOR REEL	RPI-244
S601A	97P2332500	HOLDER REEL	P0M
		SENSOR	
S602	97P0S01300	SENSOR REEL	RPI-244
S602A	97P2332500	HOLDER REEL	P0M
		SENSOR	
S603	TRPT38PB3F	TR PHOTO	RPT-38PB3F
S603A	97P2332600	HOLDER TAPE	P0M
		SENSOR	
S604	TRPT38PB3F	TR PHOTO	RPT-38PB3F
S604A	97P2332600	HOLDER TAPE	P0M
		SENSOR	
T201	5604020001	COIL BIAS OSC	DEO-004
T801	57M1282164	TRANS SMPS	TSW-8088N
XS01	5XE14R318E	CRYSTAL QUARTZ	HC-49/U 14.318180MHZ 30PPM
X401	5XE3R5795B	CRYSTAL QUARTZ	HC-49/U 3.5795MHZ 15PPM
X601	5XE16R00ZC	CRYSTAL QUARTZ	HC-49/U 16.00000MHZ 20PP
X602	5XZR03276G	CRYSTAL QUARTZ	SO-26 32.768000KHZ 10PPM

ADD DV-F54N/F34N ONLY DELETE DV-F54N/F34N ONLY

9-2-2. PCB LOGIC AS

REF.	PART CODE	PART NAME	PART DESCRIPTION
C701	CCXF1H103Z	C CERA	50V F0.01MF Z (TAPPING)
C702	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3x7
<input type="radio"/> C703	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
<input type="radio"/> C704	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
<input type="radio"/> C705	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
C706	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
<input type="checkbox"/> D702	DZN4148--	DIODE	1N4148 AUTO 52MM
D705	DZN4148--	DIODE	1N4148 AUTO 52MM
D706	DZN4148--	DIODE	1N4148 AUTO 52MM
D707	DZN4148--	DIODE	1N4148 AUTO 52MM
D708	DZN4148--	DIODE	1N4148 AUTO 52MM
D709	DZN4148--	DIODE	1N4148 AUTO 52MM
D710	DZN4148--	DIODE	1N4148 AUTO 52MM
D711	DZN4148--	DIODE	1N4148 AUTO 52MM
D712	DZN4148--	DIODE	1N4148 AUTO 52MM
<input type="checkbox"/> D713	DZN4148--	DIODE	1N4148 AUTO 52MM
<input type="checkbox"/> D714	DZN4148--	DIODE	1N4148 AUTO 52MM
<input type="checkbox"/> D715	DZN4148--	DIODE	1N4148 AUTO 52MM
GH01	97P2332700	HOLDER DIGITRON	DV-F44N, F24N, F54N, F34N
GH01	97P2331900	HOLDER DIGITRON	DV-F46N, F26N, F48N, F28N
G701	D8MT88GK--	DIGITRON (V.F.D)	8MT-88GK
A	DCM1312G--	DIGITRON (V.F.D)	CM1312G
H701	1DHR38----	IC UNIT R/RECEIVER	DHR38 (FO=38KHZ) PREAMP
IC701	1M34240MZ	IC DRIVER	M34240MZ-011SP
IC702	1K1A7033P-	IC	KIA7033P
P701	97P6271900	CONN WAFER (ANGLE)	00-8283-1111-00000

REF.	PART CODE	PART NAME	PART DESCRIPTION
<input type="radio"/> P702	97P6269100	CONN WAFER	00-8283-0712-00000
R701	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J
R702	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R703	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R704	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R705	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R706	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R707	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R708	RD-AZ101J-	R CARBON FILM	1/3 100 OHM J
R709	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R710	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R711	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R712	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R713	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R714	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
S701	5S50101Z90	SW TACT	SKHV10910A
<input type="checkbox"/> S702	5S50101Z90	SW TACT	SKHV10910A
<input type="checkbox"/> S703	5S50101Z90	SW TACT	SKHV10910A
<input type="checkbox"/> S704	5S50101Z90	SW TACT	SKHV10910A
<input type="checkbox"/> S705	5S50101Z90	SW TACT	SKHV10910A
S706	5S50101Z90	SW TACT	SKHV10910A
S707	5S50101Z90	SW TACT	SKHV10910A
S708	5S50101Z90	SW TACT	SKHV10910A
S709	5S50101Z90	SW TACT	SKHV10910A
X701	5PCST2R50M	RESONATOR CERA	CST 2.50MGW

9-2-3. PCB HEAD-AMP AS

REF.	PART CODE	PART NAME	PART DESCRIPTION
CA03	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3x7
CA05	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA06	HCFK103ZCA	C CHIP CERA	Y5V 0V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA07	HCLK151JCA	C CHIP CERA	SL 50V 150PF J 2012
CA09	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA10	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA11	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
CA13	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA14	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
CA15	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)
CA16	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA17	HCBH104KCA	C CHIP CERA	X7R 25V 0.1MF K 2012

REF.	PART CODE	PART NAME	PART DESCRIPTION
CA18	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA19	HCLK221JCA	C CHIP CERA	SL 50V 220PF J 2012
CA20	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
CA21	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
CA22	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA23	CEXF1A470A	C ELECTRO	RSM 10V 47MF 6.3x7
CA24	HCLK509CCA	C CHIP CERA	SL 50V 5PF C 2012
CA25	HCFK104ZCA	C CHIP CERA	Y5V 50V 0.1MF Z 2012
CA27	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
CA28	HCLK360JCA	C CHIP CERA	SL 50V 36PF J 2012
CA29	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA30	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA31	HCLK820JCA	C CHIP CERA	SL 50V 82PF J 2012
CA32	HCLK331JCA	C CHIP CERA	SL 50V 330PF J 2012
CA33	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA34	HCBH104KCA	C CHIP CERA	X7R 25V 0.1MF K 2012
CA36	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA37	HCFK103ZCA	C CHIP CERA	Y5V 50V 0.01MF Z 2012
A	HCBK103KCA	C CHIP CERA	X7R 50V 0.01MF K 2012
CA39	CEXF1A101A	C ELECTRO	RSM 10V 100MF 6.3x7
DA01	DZN4148---	DIODE	1N4148 AUTO 52MM
DA02	DZN4148---	DIODE	1N4148 AUTO 52MM
IC401	1LA7374---	IC VIDEO	LA7374
LA03	5CPX681J--	COIL PEAKING	680UH 5MM J RADIAL
LA04	5CPX471J--	COIL PEAKING	470UH J RADIAL
LA05	5CPX471J--	COIL PEAKING	470UH J RADIAL
LA06	5CPX101J--	COIL PEAKING	PL 100UH J (TAPPING)
LA07	5CPX330J--	COIL PEAKING	33UH J RADIAL
LA09	5CPX560J--	COIL PEAKING	56UH J RADIAL
LA10	5CPX100J--	COIL PEAKING	PL 10UH J (TAPPING)
LA11	5CPX181J--	COIL PEAKING	180UH J RADIAL
LA13	5CPX100J--	COIL PEAKING	PL 10UH J (TAPPING)
* PA01	97P6289620	CONN HOUSING	00-8370-071-000-800
△ PA01	97P6289590	CONN HOUSING	00-8370-041-000-800
PA02	4859241920	CONN WAFER	YEAW025-08

REF.	PART CODE	PART NAME	PART DESCRIPTION
PA03	4859241920	CONN WAFER	YEAW025-08
QA02	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
QA03	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
QA05	TZTA1266Y-	TR	KTA1266Y-(AUTO) (1015Y)
QA06	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
QA07	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
RA01	HRFT682JCA	R CHIP	1/10 6.8K OHM J2012
RA02	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
RA03	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012
RA04	HRFT123JCA	R CHIP	1/10 12K OHM J 2012
RA05	RD-AZ519J-	R CARBON FILM	1/6 5.1 OHM J
RA06	HRFT519JCA	R CHIP	1/10 5.1 OHM J 2012
RA07	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
RA08	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
RA09	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J
RA10	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RA14	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
RA15	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
RA16	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
RA17	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RA18	HRFT391JCA	R CHIP	1/10 390 OHM J 2012
RA19	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
RA20	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
RA22	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
RA23	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
RA24	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
RA25	HRFT391JCA	R CHIP	1/10 390 OHM J 2012
RA26	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J
RA27	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012
RA28	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
RA29	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
RA30	HRFT431JCA	R CHIP	1/10 430 OHM J 2012
RA31	HRFT561JCA	R CHIP	1/10 560 OHM J 2012
RA32	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
RA33	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
RA34	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012
RA35	HRFT333JCA	R CHIP	1/10 33K OHM J 2012
RA37	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J
RA38	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J
RA39	HRFT224JCA	R CHIP	1/10 220K OHM J 2012

9-2-4. PCB SHUTTLE AS (DV-F54/F34N ONLY)

REF.	PART CODE	PART NAME	PART DESCRIPTION
P703	97P8810714	CONN AS (Y10714)	2.0 7P 140MM
P704	97P6291825	CONN HOUSING	00-8370-047-000-800

REF.	PART CODE	PART NAME	PART DESCRIPTION
S751	5S10000002	SW JOG SHUTTLE	SRGPJJ-A3