

THOMSON

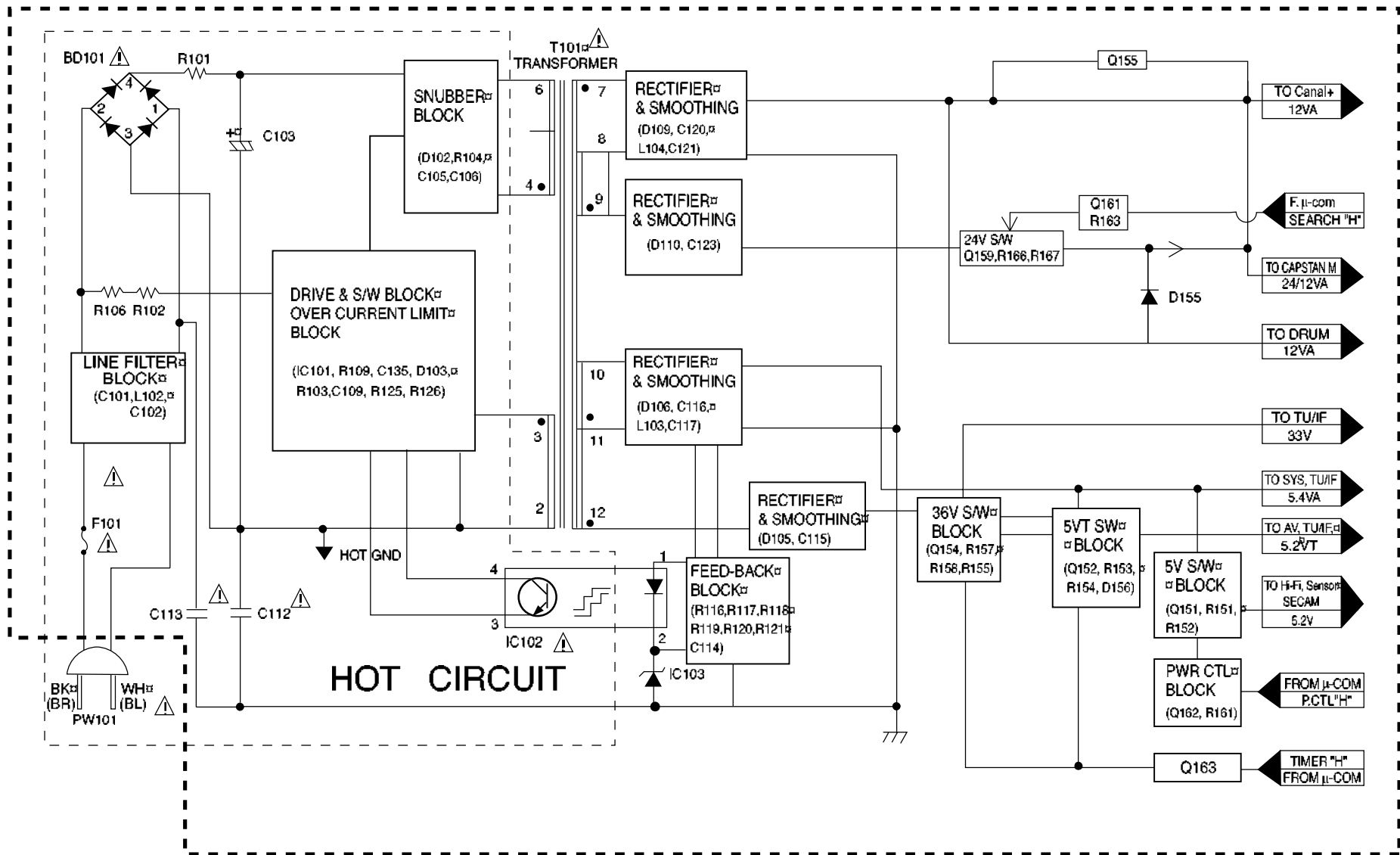
VPH-6400

MODEL

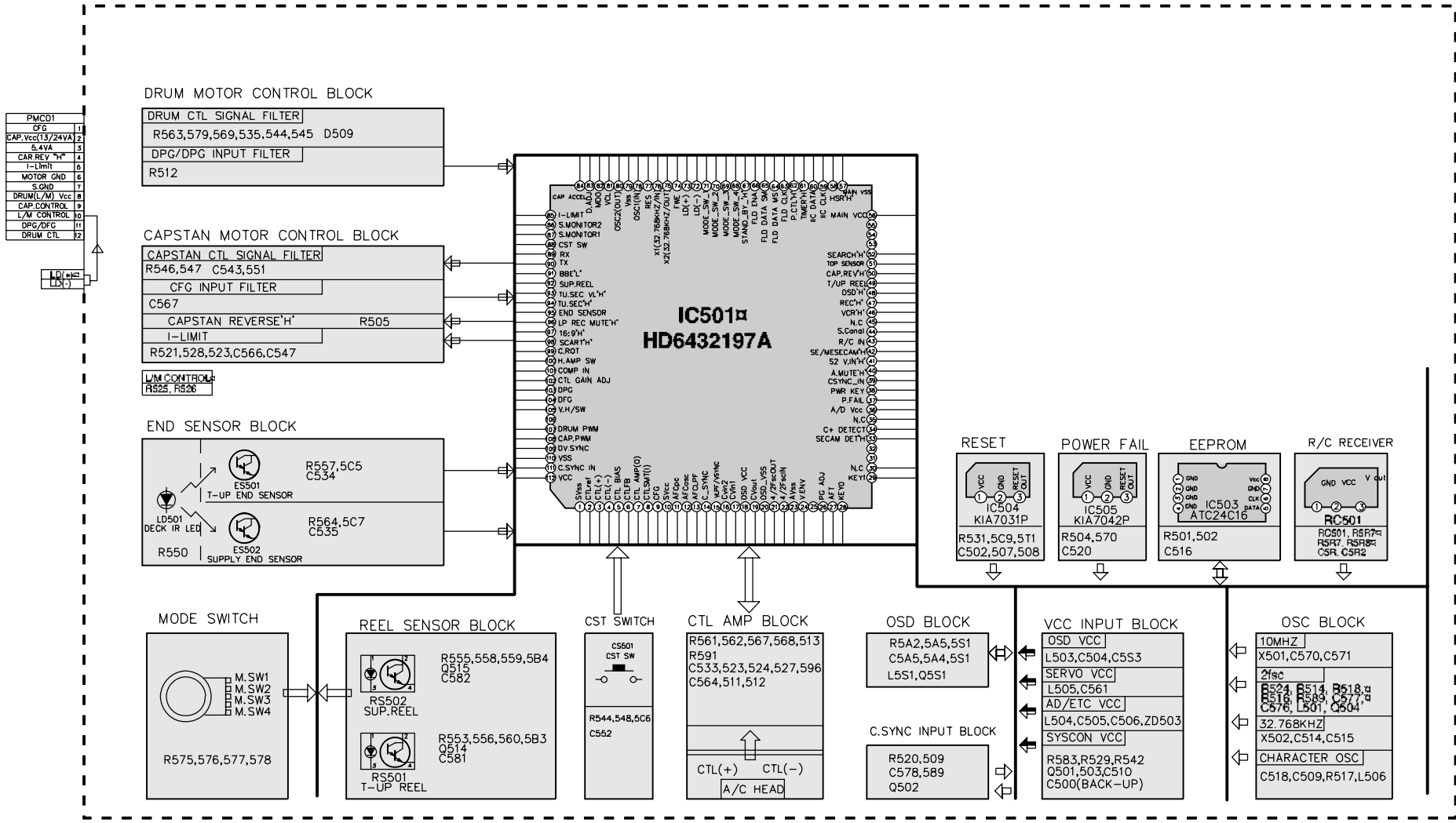
SERVICE MANUAL

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBIID - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES

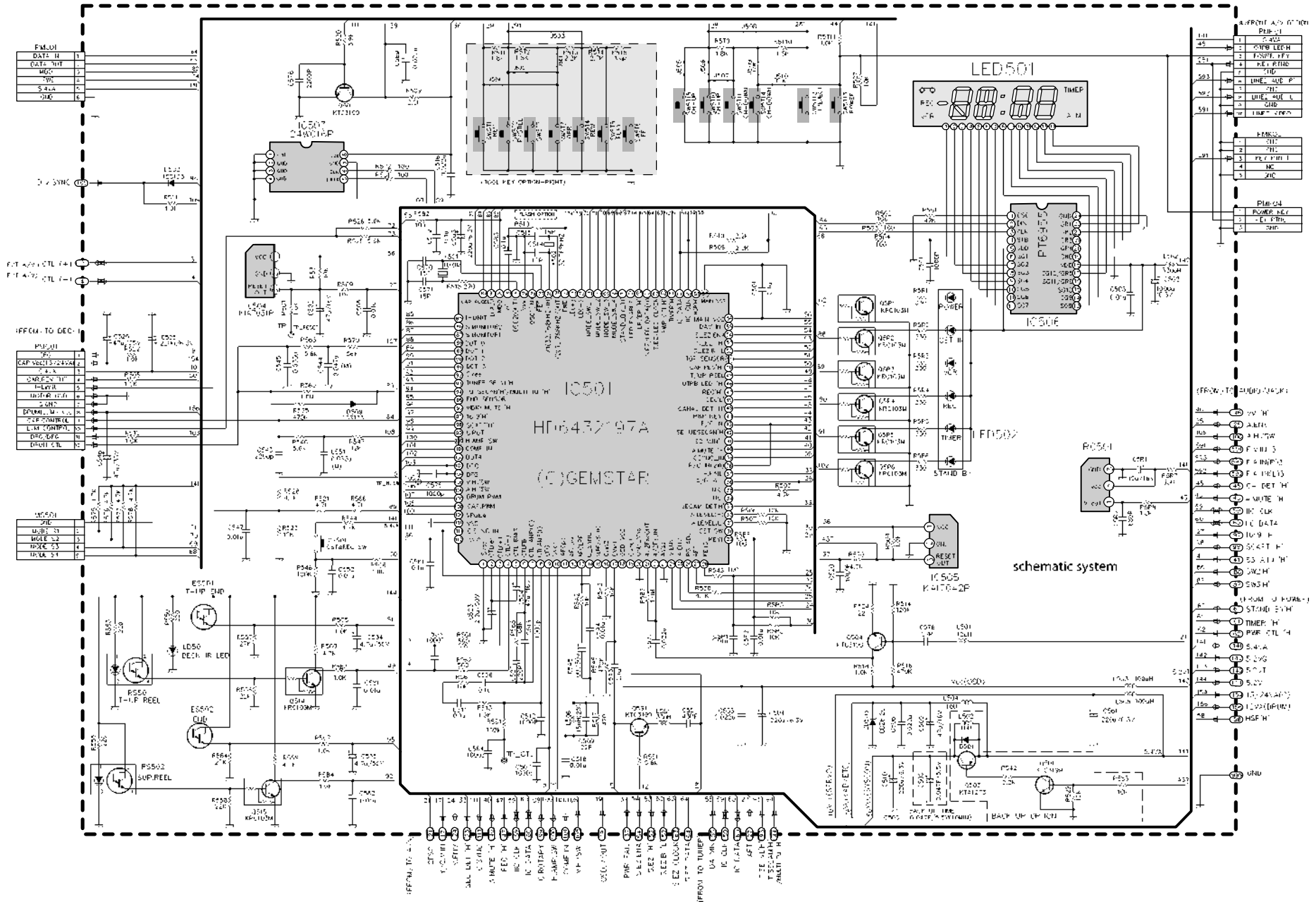
(SMPS)



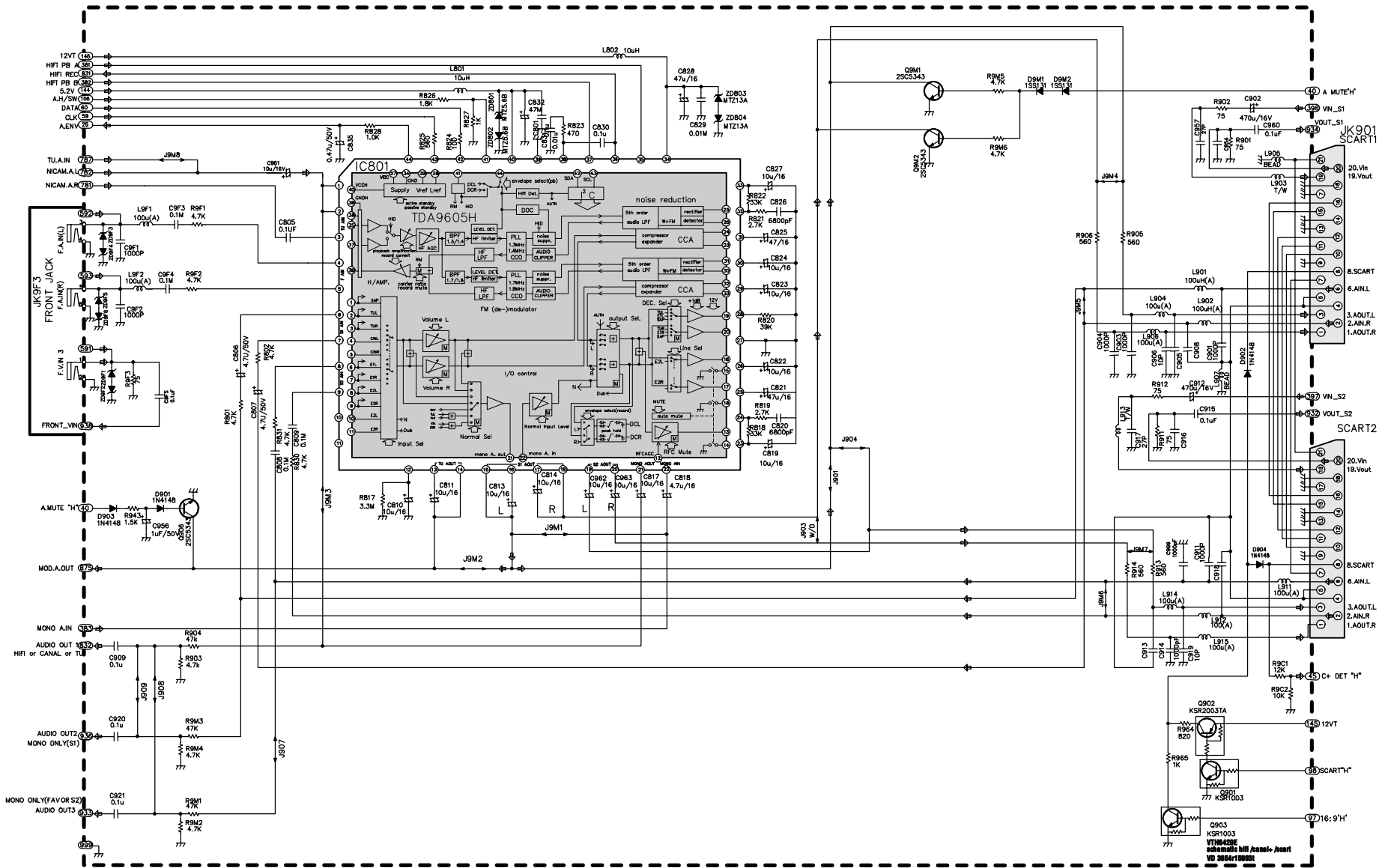
BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBIID - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES



MECHA DECK CONTROL / SERVO CONTROL - GESTION / ASSERVISSEMENTS - MECHANIKSTEUERUNG / SERVO - CONTROLLO MECCANICA / SERVO - SERVOMECANISMO / GESTION

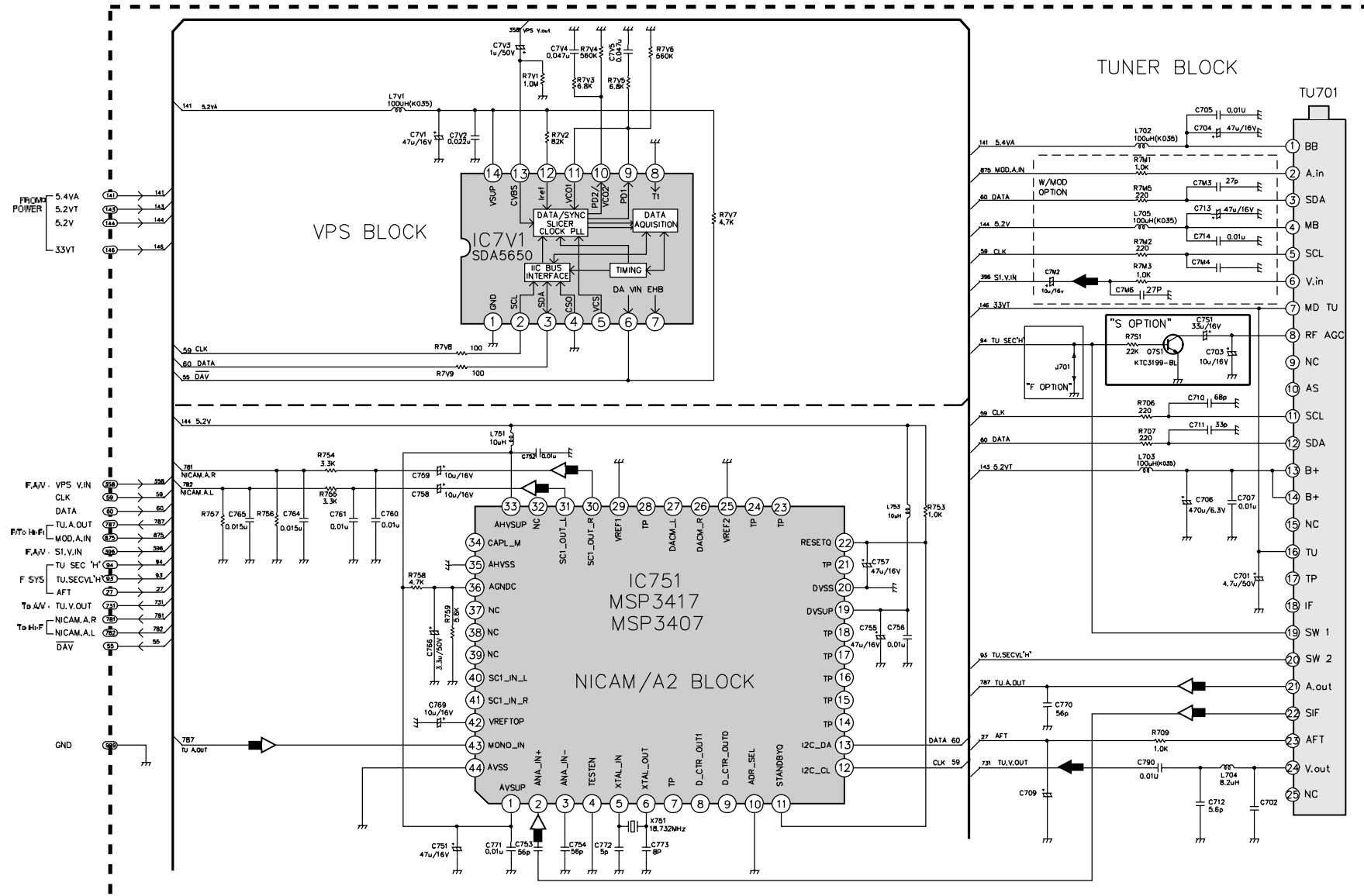


**SCART INTERFACE SCHEMATIC DIAGRAM - SCHEMA DE L'INTERFACE PERITELEVISION - SCHALTBILD EUROPA NORMBUCHSE
 SCHEMA DELLA PRESA PERITEL - ESQUEMA INTERFAZ EUROTOMA**



TUNER / IF SECTION - INTERFACE TUNER / FI - TUNER / ZF - TUNER / IF - INTERFAZ TUNER / IF

SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA

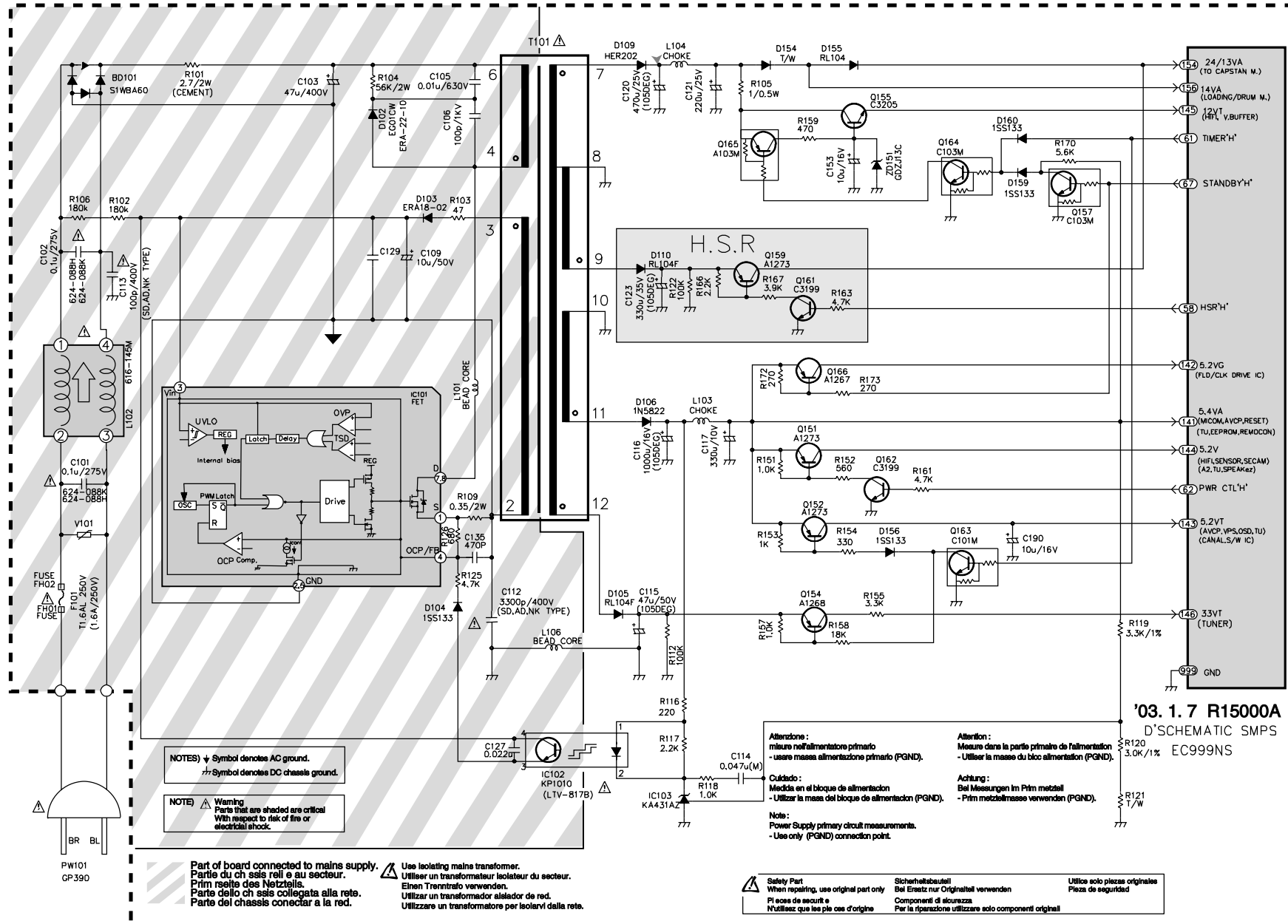


- ➔ EE MODE(VIDEO)
- ➔ TU MODE (AUDIO)

03.1.7 R15004A
D'SCHEMATIC TU.F/NICAM/VPS

POWER SUPPLY - ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓN

SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



MEASUREMENTS - MESURES - MESSUNGEN - MISURE - MEDIDAS

POWER SUPPLY

Transistor	EE Mode			PB Mode			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q151	4.55	5.3	5.24	5.34	4.54	5.24	5.3	4.55	5.24
Q152	5.31	4.52	5.22	5.31	4.52	5.22	5.3	4.51	5.22
Q154	32.99	32.34	32.97	33.53	32.89	33.5	33.76	33.12	33.72
Q155	12.73	13.4	14.05	12.68	13.35	13.77	12.76	13.42	13.98
Q157	0.03	0.84	4.38	0.03	0.84	4.38	-0.03	0.84	4.38
Q159	29.84	29.78	13.21	29.79	29.8	12.48	30.14	30.13	12.73
Q161	0.03	0	29.82	0.03	0	29.8	-0.03	0	30.11
Q162	0.02	0.69	0	-0.02	0.69	0	-0.02	0.69	0
Q163	0.03	5.18	0.03	0.03	5.18	0.03	-0.03	5.18	0.03
Q164	-0.03	4.38	-0.01	-0.03	4.38	-0.01	-0.03	4.38	0
Q165	14.06	-0.01	14.04	13.74	-0.01	13.71	13.95	-0.01	13.95
Q166	4.4	5.3	5.11	5.3	4.41	5.13	5.3	4.4	5.1

AUDIO / VIDEO

Transistor	EE Mode			PB			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q301	0	0.01	5.15	0	0	5.15	0	0.75	1.69
Q302	5.18	5.18	-0.42	5.18	4.52	5.12	5.14	5.13	-24.71
Q303	0.01	-0.42	0	0	0.69	0.01	-18.22	-24.85	0.01
Q304	0.01	-0.4	0	0	0.71	0	-18.22	-24.7	0
Q305	2.01	1.29	0	2.53	1.83	0	2.5	1.81	0
Q306	5.14	5.19	5.19	5.19	5.16	5.19	1.9	2.14	4.89
Q307	2.69	1.98	0	2.69	1.98	0	2.64	1.93	0
Q308	2.66	1.98	0	2.63	1.96	0	2.6	1.93	0
Q309	3.09	2.41	0	3.05	2.37	0	3.01	2.33	0

SERVO / CONTROL

Transistor	EE Mode			PB			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q501	0	0.67	0.01	0	0.67	0.01	0	0.67	0.01
Q502	0	0.71	0.01	0	0.22	2.33	0	0.23	2.29
Q503	5.3	4.61	5.28	5.3	4.61	5.28	5.3	4.61	5.28
Q504	0	0.14	2.69	0.05	0.63	2.65	0.05	0.67	2.67
Q5S1	0.43	0	1.61	2.22	0	2.53	1.92	0	2.5
Q514	0	5.09	0.01	0			0		

SCART INTERFACE

Transistor	EE Mode			PB			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q901	0	5.26	0.01	0	5.25	0.01	0	5.25	0.01
Q902	12.73	0.01	12.73	12.66	0.01	12.66	12.72	0.01	12.71
Q903	0	0	12.72	0	0	12.64	0	0	12.71
Q906	0	0.12	1.93	0	0.07	2.37	0	0.13	2.4

Transistor	EE Mode			PB			REC		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q515	0	0	5.16	0					

IF / TUNER

Transistor	EE Mode			PB			REC		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q7S1	0	0	1.32	0	0		0	0	0.98

MEASUREMENTS - MESURES - MESSUNGEN - MISURE - MEDIDAS

(TUNER / IF)

MODE PIN NO.	EE	PB	REC
IC7V1			
1	0	0	0
2	5.01	4.94	4.79
3	5.01	4.94	4.78
4	0	0	0
5	5.28	5.28	0.39
6	5.28	5.28	
7	0	0	2.66
8	0	0	0
9	0.01	0.01	2.31
10	0	0	2.36
11	0.01	0	2.31
12	1.56	1.56	1.56
13	0.99	0.99	1.39
14	5.28	5.29	5.28

MODE PIN NO.	EE	PB	REC
IC801			
1	2.84	2.91	2.7
2	2.92	2.91	2.81
3	2.91	2.9	2.81
4	2.82	2.81	2.68
5	2.8	2.86	2.67
6	2.8	2.86	2.66
7	2.79	2.85	2.65
8	2.78	2.85	2.65
9	2.79	2.84	2.66
10	2.79	2.84	2.66
11	2.77	2.83	2.65
12	2.76	2.82	2.64
13	2.71	2.75	2.59
14	2.49	2.51	2.33
15	2.48	2.51	2.32
16	2.64	2.67	2.49
17	2.64	2.68	2.5
18	1.48	2.57	2.32
19	2.63	2.67	2.5
20	2.6	2.63	2.5
21	2.57	2.59	2.47
22	2.66	2.86	2.55
23	2.63	2.64	2.51
24	2.5	2.5	2.39
25	2.52	2.53	2.4
26	2.36	2.37	2.27
27	0.01	0	0
28	2.51	2.47	2.41
29	2.6	2.57	2.46
30			
31	2.34	2.41	1.38
32	0.03	0.02	-0.07
33	0.03	0.04	-0.06
34	12.6	12.5	12.57
35	3.35	3.31	2.89
36	3.29	3.3	2.9
37	3.29	3.3	2.9
38	3.55	3.56	3.42
39	0	0	0.01
40	5.2	5.2	5.21
41	2.27	2.29	2.5
42	4.96	4.98	4.91
43	5.05	5.06	4.97
44	2.8	2.79	2.69

MOD PIN NO.	EE	PB	REC
IC751			
1	5.14	5.15	5.15
2	1.51	1.51	1.51
3	1.51	1.51	1.51
4	0	0	0
5	2.47	2.48	2.48
6	2.47	2.48	2.48
7	0.54	0.5	0.46
8	0	0	0.45
9	0	0	0.45
10	0	0	0
11	5.16	5.16	5.16
12	4.91	4.86	4.79
13	4.9	4.8	4.79
14	2.58	0.51	0.57
15	2.58	0.5	0
16	2.41	0.51	0.57
17	0.53	0.53	0
18	0.54	0.51	0.58
19	5.13	5.14	5.14
20	0	0	0
21	0.53	0.51	0
22	5.16	5.16	5.16
23	0	0.02	0
24	0	0.02	0
25	0	0	0
26	0	0.05	0
27	0.05	0.05	0
28	0	0	0
29	0	0	2.8
30	2.8	2.8	2.8
31	2.79	2.79	2.79
32	0	0.02	0
33	5.16	5.14	5.15
34	4.2	4.2	4.21
35	0	0	0
36	2.8	2.8	2.8
37			0
38			0
39			0
40	2.84	2.84	2.79
41	2.85	2.83	2.79
42	2.59	2.59	2.59
43	2.31	2.31	2.3
44	3.3		0

MEASUREMENTS - MESURES - MESSUNGEN - MISURE - MEDIDAS

(CONTROL / SERVO)

MODE PIN NO.	EE	PB	REC
IC 501			
1	0	0	0
2	2.39	2.57	2.57
3	2.57	2.57	3.04
4	2.57	2.57	2.1
5	2.57	2.57	2.57
6	2.56	2.57	2.57
7	2.58	2.59	2.58
8	2.55	2.55	2.55
9	4.62	2.31	2.31
10	4.85	5.16	5.016
11	1.89	1.91	1.9
12	1.89	1.9	1.89
13	2.61	2.5	2.49
14	0.4	0.4	0.4
15	0.08	0.1	0.56
16	1.99	1.91	1.98
17	2.39	2.34	2.31
18	5.14	5.14	5.11
19	2.41	2.37	2.33
20	0	0	0
21	2.47	2.47	0
22	2.46	2.46	0
23	0	0	0
24	0.51	2.47	0.01
25	2.81	2.88	2.8
26	5.27	2.28	5.28
27	2.46	2.5	2.54
28	5.27	5.28	5.28
29	5.22	5.27	5.27
30	0	5.01	0.05
31	0.17		1.9
32	0.12		
33	0.18	0.18	0.18
34	0.31	0.3	0.43
35	5.27	5.28	5.28
36	5.28	5.29	5.28
37	4.93	4.94	4.94
38	4.88	4.88	4.87
39	2.29	2.29	2.28
40	0	0	0
41	0	0	0
42	0	0	0
43	4.88	4.88	4.87
44	5.24	5.25	5.24
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0.01	5.28	
50	5.25	0	0
51	4.48	0.04	0.02
52	5.28	5.29	5.29
53	0	0	0
54	5.25	5.26	5.27

MODE PIN NO.	EE	PB	REC
55	5.27	5.29	0.08
56	5.27	5.28	5.28
57	0	0	0
58	0	0	0
59	4.91	4.92	4.79
60	4.91	4.91	4.79
61	5.17	5.18	5.18
62	5.17	5.19	5.18
63	2.84	2.83	2.86
64	5.14	5.14	5.15
65	0.01	0.01	0.02
66	5.1	5.11	5.11
67	0.83	0.83	0.89
68	0.01	5.3	5.3
69	0.01	5.3	5.3
70	5.29	5.3	5.3
71	5.29	0	0.01
72	0.03	0.03	0.04
73	5.24	5.23	5.22
74	0	0	0
75	1.49	1.5	1.5
76	1.3	1.4	1.21
77	5.27	5.27	5.27
78	2.55	2.53	2.54
79	0	0	0
80	5.29	2.58	2.58
81	3.25	3.25	3.25
82	5.28	5.28	5.28
83	0	2.7	2.69
84	0	2.77	2.77
85	0	3.55	3.55
86	2.65	2.68	2.86
87	0	3.3	3.21
88	0	0	0
89	0	0	0
90	0	0	0
91	0	0	0
92	0.95	5.16	
93	0	0	0
94	0	0	0
95	0.29	0.1	0.07
96	0	0	0
97	0	0	0
98	5.26	5.26	5.25
99	0	2.7	0
100	0.01	0	0
101	0.7	0.13	0.57
102	0	0	0
103	0.12	1.39	1.39
104	0.12	1.39	1.39
105	0	2.7	0
106	0	2.64	5.12
107	0	2.75	2.74
108	0	2.78	2.77
109	0.05	0.05	0.05

MODE PIN NO.	EE	PB	REC
110	0	0	0
111	4.2	0.4	0.4
112	5.29	5.28	5.27
IC 503			
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	5.01	4.95	4.79
6	5.01	4.95	4.8
7	0	0	0
8	5.29	5.29	5.28
IC 504			
1	5.28	5.28	5.28
2	0	0	0
3	5.28	5.28	5.28
IC 505			
1	5.28	5.28	5.28
2	0	0	0
3	4.87	4.87	4.87
IC 506			
1	2.22	2.12	2.14
2	5.16	5.15	2.15
3	2.85	2.86	2.85
4	5.11	5.11	5.11
5	4.58	4.38	4.44
6	1.78	2.15	1.41
7	2.11	2.14	2.58
8	2.64	2.62	2.6
9	1.95	2.04	1.51
10	1.52	1.62	1.52
11	1.96	2.27	1.41
12	1.96	1.79	1.95
13	0.61	0.59	0.64
14	1.41	1.38	1.43
15	0.53	0.48	0.53
16	0.53	0.48	0.54
17	1.14	1.13	1.13
18	4.49	4.41	4.47
19	0	0	0
20	1.13	1.15	1.2
21	1.14	1.13	1.21
22	1.12	1.13	1.2
23	1.24	1.25	1.35
24	0	0	0

MEASUREMENTS - MESURES - MESSUNGEN - MISURE - MEDIDAS

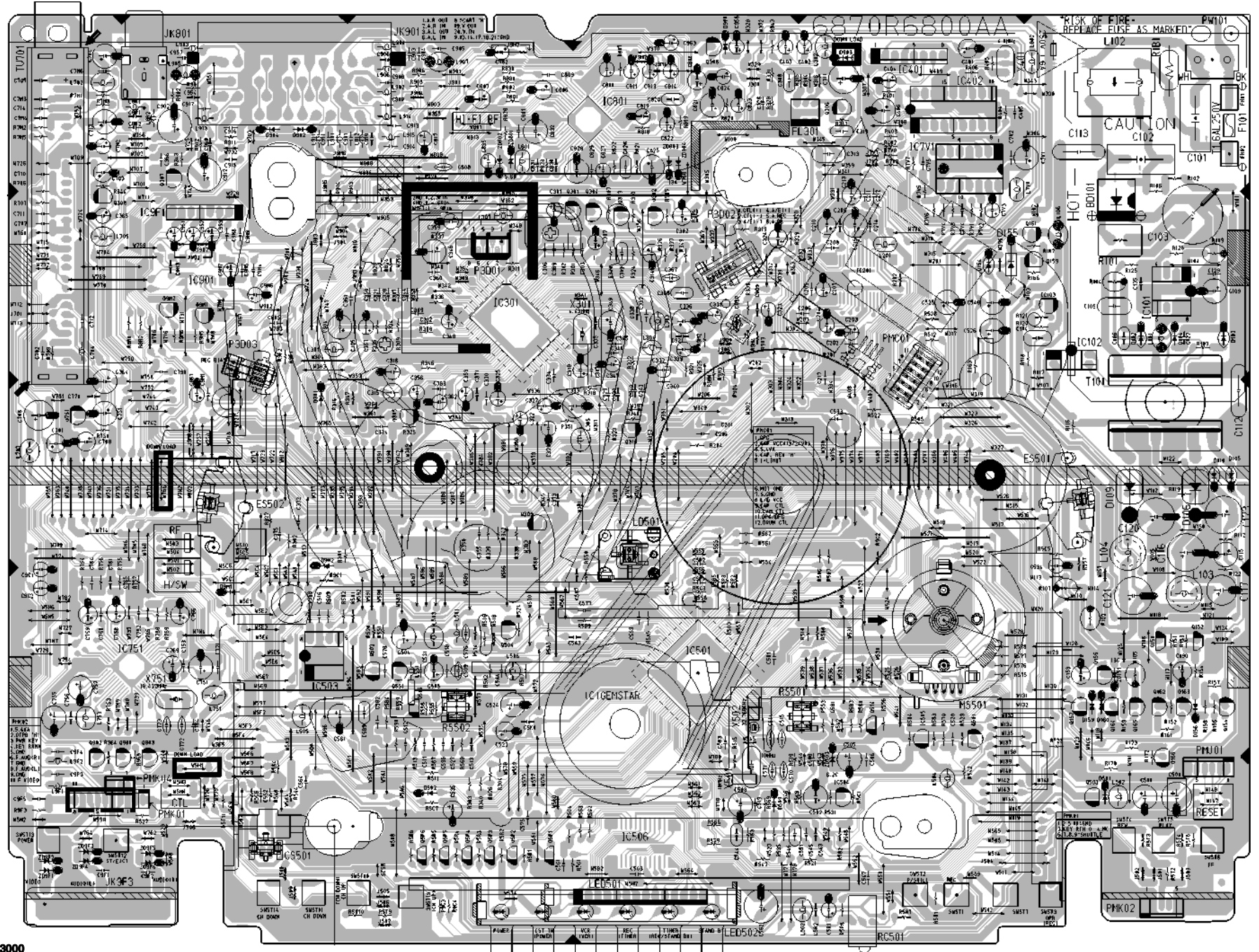
(SCHEMATIC AVCP / SECAM / S_EZ)

MODE PIN NO.	EE	PB	REC
IC 103			
R	2.45	2.45	2.44
A	-0.03	-0.03	0
K	4.05	4.06	4.07
IC 201			
1	2.52	2.52	2.52
2	2.4	2.41	2.41
3	0	3.35	3.37
4	0	2.59	0
5	0	0	0
6	2.8	3.72	0
7	0	0	0
8	0	0	0
9	3.04	3.02	3.04
10	2.53	2.51	0
11	2.1	2.08	2.19
12	3.32	1.96	3.25
13	4.01	4.01	4.01
14	2.55	2.54	2.56
15	3.06	1.94	3.06
16	6.2	3.2	3.22
17	2.34	4.25	0.22
18	0.13	3.44	0.13
19	2.23	2.21	2.22
20	2.08	2.22	2.06
21	2.27	2.4	2.28
22	1.42	1.43	0
23	5.05	5.02	5.06
24	5.05	5.02	5.06
25	2.31	2.07	2.37
26	2.3	2.02	2.38
27	2.09	2.08	2.11
28	0.18	0.19	0.18
29	0.48	0.26	0.41
30	2.08	2.07	2.11
IC 401			
1	0	0.01	0
2	5.21	5.2	5.21
3	2.19	2.2	2.19
4	0	0	0
5	2.91	2.91	2.91
6	0	0	0
7	2.92	2.92	2.92
8	0	0	0
IC 402			
1	0	0	0
2	2.86	2.86	2.85
3	5.15	5.16	0
4	5.29	5.29	5.29
5	4.94	4.94	4.94
6	5.29	5.29	5.29
7	5.29	5.2	5.29
8	2.57	2.57	2.57
9	0	0	0
10	5.29	5.29	5.29

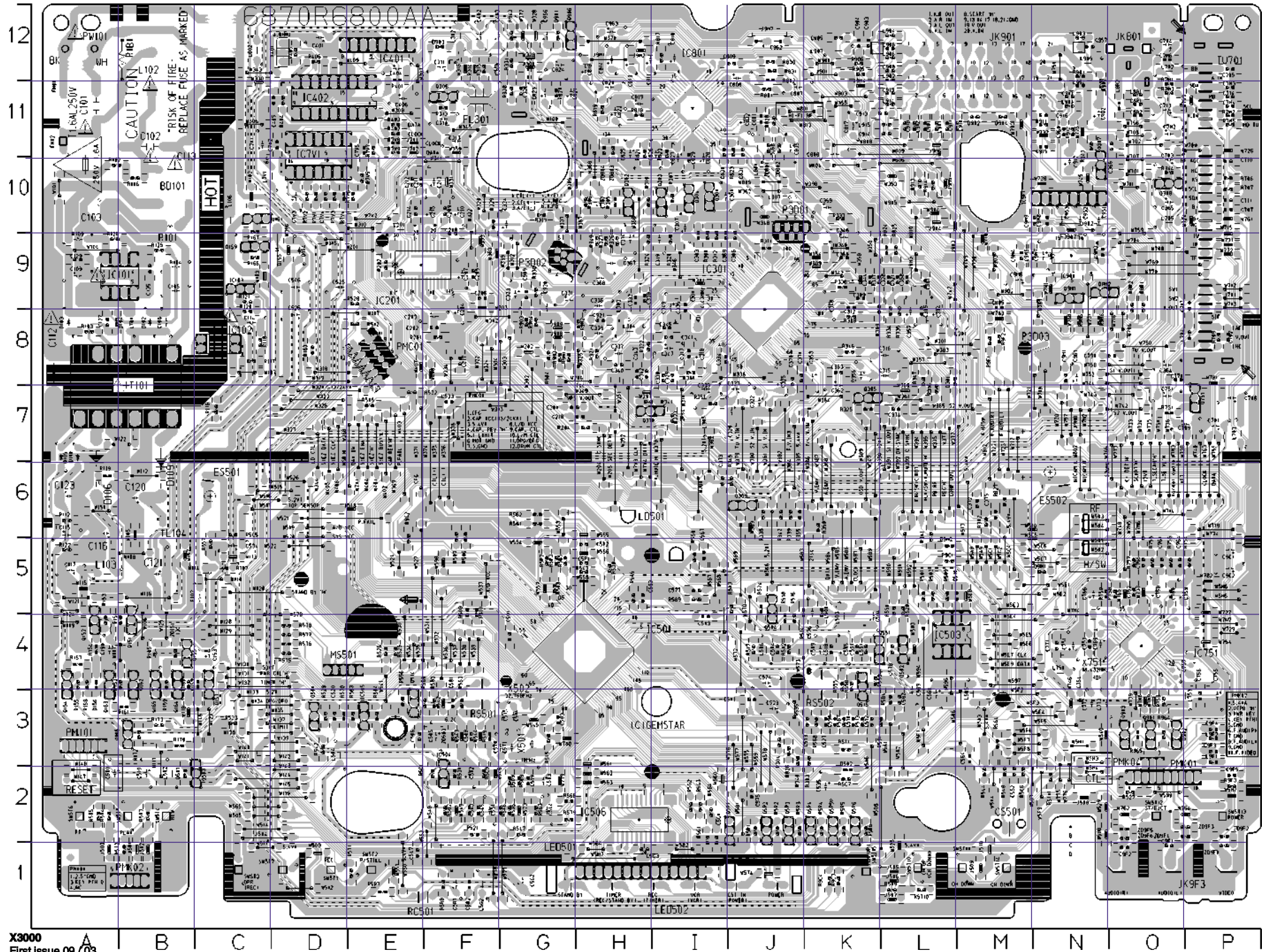
MODE PIN NO.	EE	PB	REC
11	2.41	2.41	2.42
12	2.1	2.1	2.08
13	0	5.29	5.29
14	5.26	5.26	5.25
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
IC 301			
1	5.15	5.14	1.7
2	0.02	0.03	0.75
3	2.29	2.29	0
4		1.46	0.5
5	2.28	2.26	2.47
6	2.29	2.28	2.29
7	2.28	2.28	2.27
8	2.27	2.27	2.27
9	2.26	2.26	3.05
10	2.29	2.29	2.28
11	2.37	2.39	2.28
12	0	0.02	0.11
13	2.26	2.3	2.28
14		0.02	
15	2.26	2.26	2.29
16	5.17	0.16	5.05
17	2.26	2.26	2.27
18	5.17	5.17	5.14
19	4.24	4.25	3.07
20	0	0	0
21	3.36	1.96	3.25
22	3.07	3.06	3.06
23	3.06	3.03	3.05
24	5.16	5.16	5.13
25	0.13	3.44	5.13
26	1.44	1.82	0
27	2.07	2.1	1.42
28	4.23	4.21	4.18
29	2.83	2.83	2.9
30	0	0	0
31	4.7	4.7	4.69
32	4.7	4.7	4.69
33	2.85	2.06	2.07
34	0.33	0.31	0.31
35	2.17	2.16	2.16
36	3.35	3.35	3.35
37	2.09	2.11	2.09
38	1.99	2.03	2.02
39	9.45	9.43	9.39
40	0	0	0
41	0	0	0
42	5.17	5.16	5.14
43	2.4	2.42	2.39
44	2.34	4.42	0.08
45	2.33	2.46	2.46
46	2.69	2.67	2.68

MODE PIN NO.	EE	PB	REC
47	4.17	4.17	4.17
48	2.35	2.37	2.33
49	3.18	3.18	3.18
50	1.97	1.97	1.97
51	0	0	0
52	1.97	1.97	1.97
53	2.34	2.35	2.35
54	1.97	1.99	1.99
55	5.24	5.24	5.24
56	2.25	2.31	2.29
57	2.02	2.14	1.99
58	2.37		2.4
59	2.94	2.95	2.93
60	1.42	1.55	1.38
61	1.72	1.85	2.05
62	0.09	0.11	0.11
63	1.75	1.84	
64	0	0	0.
65	1.85	1.85	1.81
66	0	0	0
67	0.	0.44	0.4
68	4.79	4.91	4.81
69	4.75	4.81	4.79
70	5.27	2.69	2.69
71	0.01	0	0.01
72	5.13	5.11	5.09
73		1.98	2.21
74	2.55	2.63	2.53
75	2.46	2.63	2.45
76	2.47	0.77	2.45
77	1.59	1.59	1.49
78	2.7	3.39	2.69
79	2.02	1.91	2.52
80	1.06	1.06	4.72
81	1.11	1.12	1.11
82	0	0	0
83	5.13	1.47	1.51
84	0.46	2.43	1.75
85	0	0	1.36
86		0	2.03
87	0	0.72	0.7
88	0.71	0.72	0.7
89	0.71	0.72	0.7
90	0.71	0.72	0.7
91	5.17	5.16	5.11
92	0	0	0
93	1.95	1.93	0.73
94	1.95	1.93	0.72
95	1.95	1.93	0.72
96	1.95	1.93	4.33
97	0	0	0
98	2.29	2.29	2.4
99	0	2.29	2.4
100	2.29	2.29	2.53

Main P.C.B. components side - Circuit imprimé de la platine principale côté composants - Hauptleiterplatte Bestückungsseite
Plastra principale lato componenti - Platina principal lado componentes
Component side - Côté composants - Bestückungsseite Lato componenti - Lado componentes

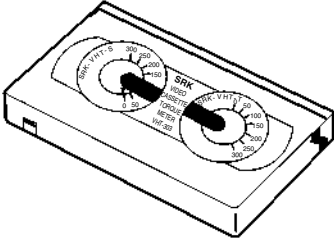
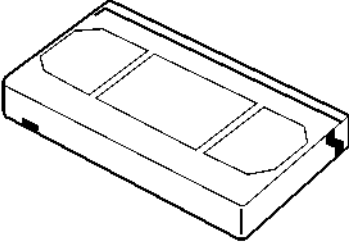
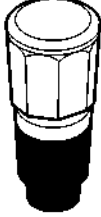
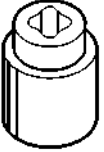
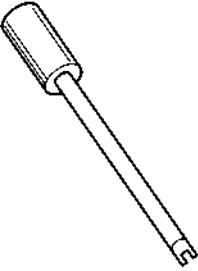
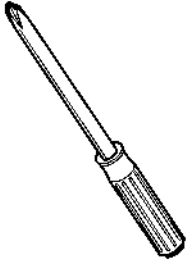


Solder side - côté cuivre - Lötseite - Lato soldature - Lado del cobre



DECK MECHANISM ADJUSTMENT

• Tools and Fixfures for Service

<p>1. Cassette Torque meter SRK-VHT-303(Not SVC part) Parts No: D00-D006</p> 	<p>2. Alignment tape Parts No NTSC: DTN-001 PAL:DTN-002</p> 	<p>3. Torque gauge 600g.Cm ATG Parts No:D00-D002</p> 
<p>4. Torque gauge adaptor Parts No:D09-R001</p> 	<p>5. Post height adjusting driver Parts No:DTL-0005</p> 	<p>6. + Type driver (ø 5)</p> 

DECK MECHANISM ADJUSTMENT

1. Mechanism Alignment Position Check

Purpose: To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

- 1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
- 2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
- 3) IF not, rotate the Shaft of the Loading Motor to either Clockwise or Counterclockwise until the Alignment is as below Fig. C-2.
- 4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
- 5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
- 6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM

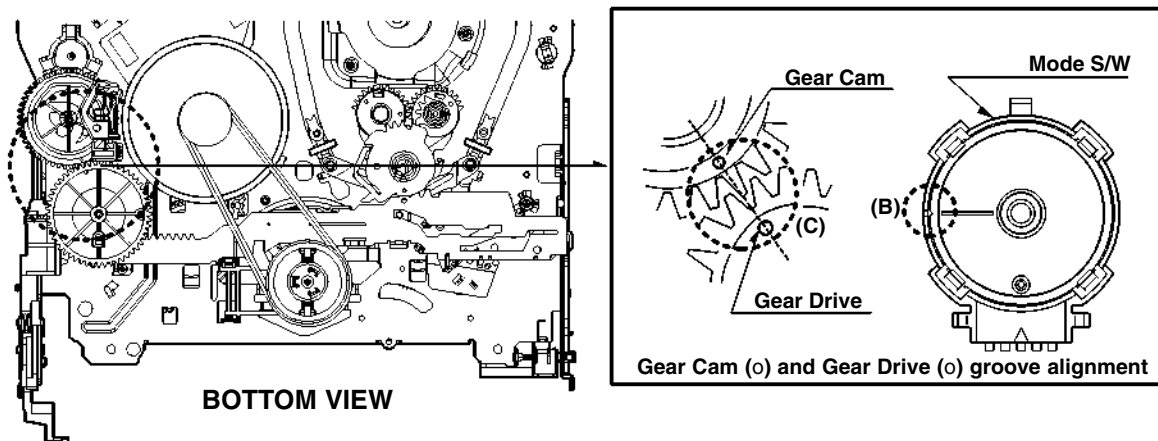


Fig. C-1

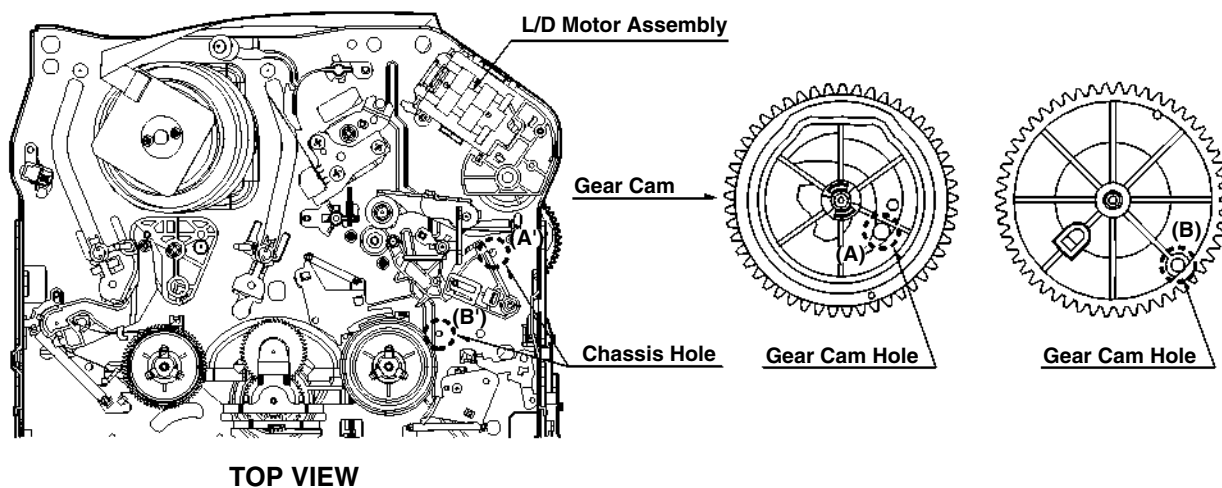


Fig. C-2

DECK MECHANISM ADJUSTMENT

2. Preparation for Adjustment (To set the Deck Mechanism to the Loading state without inserting a Cassette Tape).

- 1) Unplug the Power Cord from the AC Outlet.
- 2) Disassemble the Top Cover and Plate Assembly Top.
- 3) Plug the Power Cord into the AC Outlet.
- 4) Turn the Power S/W on and push the Lever Stopper of the Holder Assembly CST to the back for Loading the

Cassette without Tape.

Cover the Holes of the End Sensors at the both sides of the Bracket Side(L) and Bracket Assembly Door to prevent a light leak.

Then The Deck Mechanism drives to the Stop Mode. In this case, The Deck Mechanism can accept inputs of each mode, however the Rewind and Review Operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

3. Checking Torque

Purpose: To insure smooth Transport of the Tape during each Mode of Operation.
If the Tape Transport is abnormal, then check the Torque as indicated by the chart below.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Checking Method		
<ul style="list-style-type: none"> • Torque Gauge(600g/cm ATG) • Torque Gauge Adaptor • Cassette Torque Meter SRK-VHT-303 	<ul style="list-style-type: none"> • Play (FF) or Review (REW) Mode 	<ul style="list-style-type: none"> • Perform each Deck Mechanism Mode without inserting a Cassette Tape(Refer to above No.2 Preparation for Adjustment). • Read the Measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2). • Attach the Torque Gauge Adaptor to the Torque Gauge and then read the Value of it(Fig. C-3-1). 		
Item	Mode	Test Equipment	Measurement Reel	Measurement Values
Fast Forward Torque	Fast Forward	Cassette Torque Gauge	Take-Up Reel	More than 400g/cm
Rewind Torque	Rewind	Cassette Torque Gauge	Supply Reel	More than 400g/cm
Play Take-Up Torque	Play	Cassette Torque Meter	Take-Up Reel	40~100g/cm
Review Torque	Review	Cassette Torque Meter	Supply Reel	120~210g/cm

NOTE:

The Values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

- Cassette Torque Meter (SRK-VHT-303)

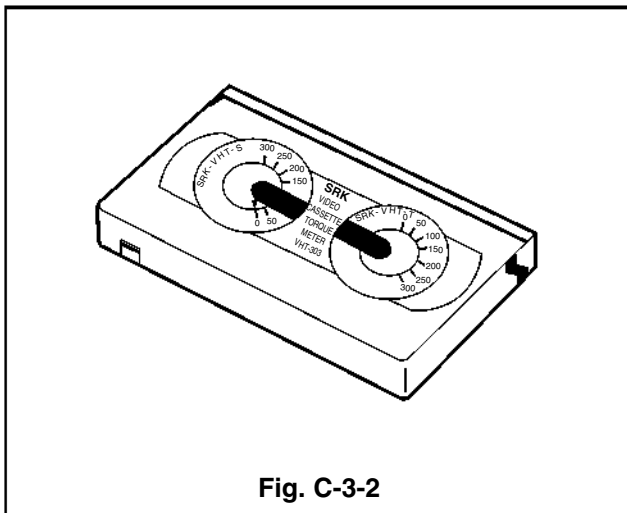


Fig. C-3-2

NOTE:

The Torque reading to measure occurs when the Tape abruptly changes direction from Fast Forward of Rewind Mode, when quick bracking is applied to both Reels.

- Torque Gauge (600g.cm ATG)

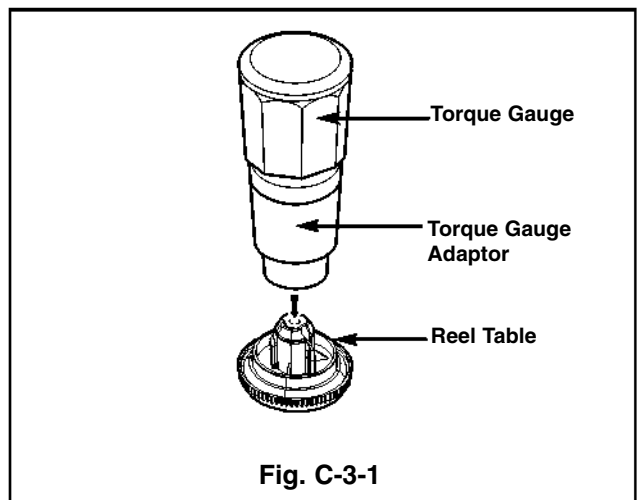


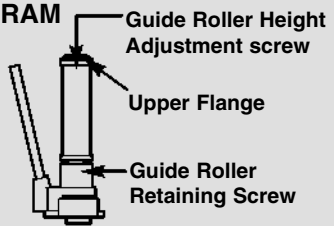
Fig. C-3-1

DECK MECHANISM ADJUSTMENT




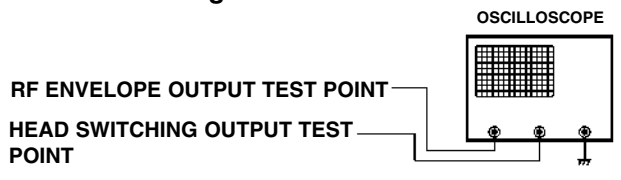
4. Guide Roller Height Adjustment

Purpose: To regulate the Height of the Tape so that the Bottom of the Tape runs along the Tape Guide Line on the Lower Drum.

4-1. Preliminary Adjustment

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
<ul style="list-style-type: none"> Post Height Adjusting Driver 	<ul style="list-style-type: none"> Play or Review Mode 	<ul style="list-style-type: none"> Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers.
Adjustment Procedure <ol style="list-style-type: none"> 1) Confirm if the Tape runs along the Tape Guide Line of the Lower Drum. 2) If the Tape runs the Bottom of the Guide Line, turn the Guide Roller Height Adjustment Screw to Clockwise direction. 3) If it runs the Top, turn to Counterclockwise direction. 4) Adjust the Height of the Guide Roller to be guided to the Guide Line of the Lower Drum from the Starting and Ending Point of the Drum. 		ADJUSTMENT DIAGRAM  <p>Fig. C-4-1</p>

4-2. Precise Adjustment

Test Equipment/Fixture	Test Equipment Connection Points	Test Conditions VCR(VCP) State	Adjustment Point
<ul style="list-style-type: none"> Oscilloscope Alignment Tape Post Height Adjusting Driver 	<ul style="list-style-type: none"> CH-1:PB RF Envelope CH-2:NTSC: SW 30Hz PAL: SW 25Hz Head Switching Output Point RF Envelope Output Point 	<ul style="list-style-type: none"> Play an Alignment Tape 	<ul style="list-style-type: none"> Guide Roller Height Adjustment Screws
Adjustment Procedure <ol style="list-style-type: none"> 1) Play an Alignment Tape after connecting the Probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point. 2) Tracking Control(in PB Mode) : Center Position(When this Adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum). 3) Height Adjustment Screw : Flatten the RF Waveform. (Fig. C-4-2) 4) Turn(Move) the Tracking Control(in PB Mode) Clockwise and Counterclockwise.(Fig. C-4-3) 5) Check that any Drop of RF Output is uniform at the Start and End of the Waveform. 		Waveform Diagrams <p>P2 POST ADJUSTMENT</p>  <p>P3 POST ADJUSTMENT</p>  <p>Turn the Roller Guide Height Adjustment Screw slightly to flatten the waveform.</p> <p>Fig. C-4-2</p> <p>Tracking control at center</p>  <p>Turn(Move) the tracking control to both directions</p> <p>Fig. C-4-3</p>	
NOTE <p>If the adjustment is excessive or insufficient the tape will jam or fold.</p>		Connection Diagram 	

DECK MECHANISM ADJUSTMENT

5. Audio/Control (A/C) Head Adjustment

Purpose: To insure that the Tape passes accurately over the Audio and Control Tracks in exact Alignment in both the Record and Playback Modes.

5-1. Preliminary Adjustment (Height and Tilt Adjustment)

Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
<ul style="list-style-type: none"> • Blank Tape • Screw Driver(+) Type 5mm 	<ul style="list-style-type: none"> • Play the blank tape 	<ul style="list-style-type: none"> • Tilt Adjustment Screw(C) • Height Adjustment Screw(B) • Azimuth Adjustment Screw(A)

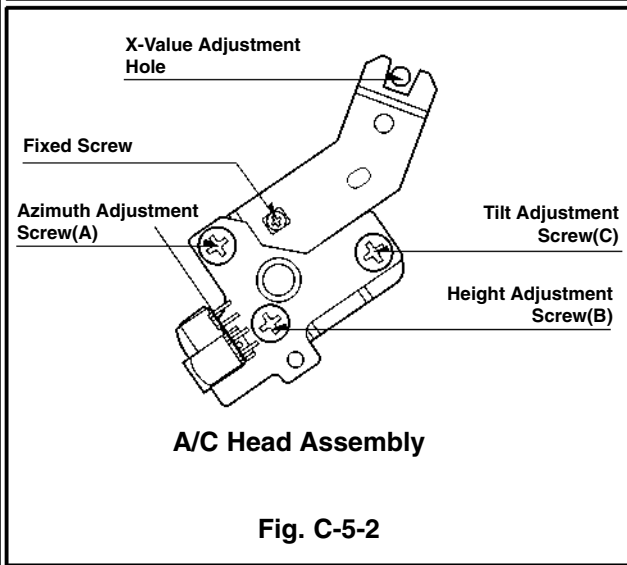
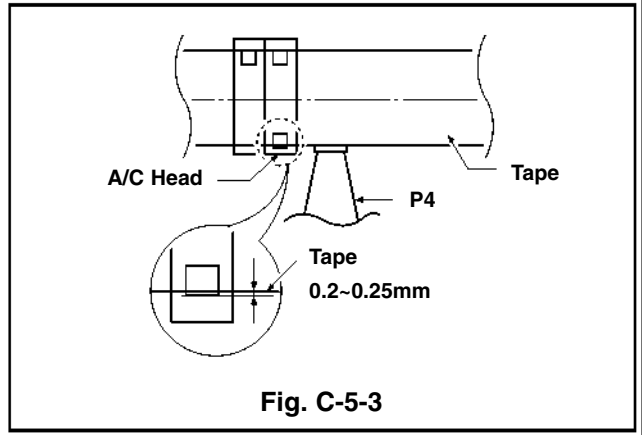
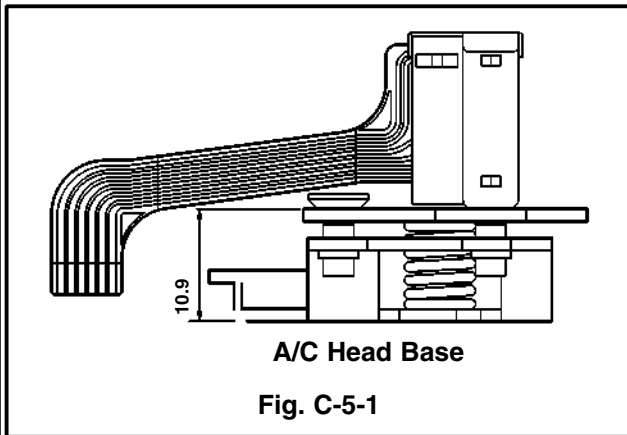
Adjustment Procedure/Diagrams

- 1) Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
- 2) Play a Blank Tape and observe if the Tape passes accurately over the A/C Head without Tape Curling or Folding.
- 3) If Folding or Curling is occurred then adjust the Tilt Adjustment Screw(C) while the Tape is running to resemble Fig. C-5-3.

- 4) Reconfirm the Tape Path after Playback about 4~5 seconds.

NOTE

Ideal A/C head height occurs, when the tape runs between 0.2~0.25mm above the bottom edge of the A/C head core.



DECK MECHANISM ADJUSTMENT

5-2. Confirm that the Tape passes smoothly between the Take-up Guide and Pinch Roller(using a Mirror or the naked eye).

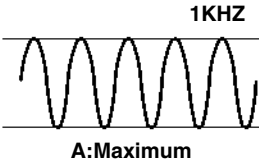
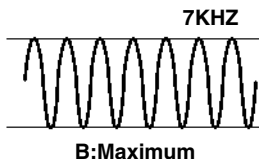
- 1) After completing Step 5-1.(Preliminary Adjustment), check that the Tape passes around the Take-up Guide and Pinch Roller without Folding or Curling at the Top or Bottom.
 - (1) If Folding or Curling is observed at the Bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the Clockwise direction.
 - (2) If Folding or Curling is observed at the Top of it then

slowly turn the Tilt Adjustment Screw(C) in the Counterclockwise direction.

NOTE:

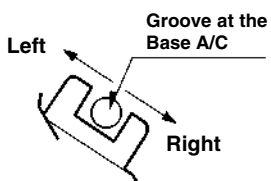
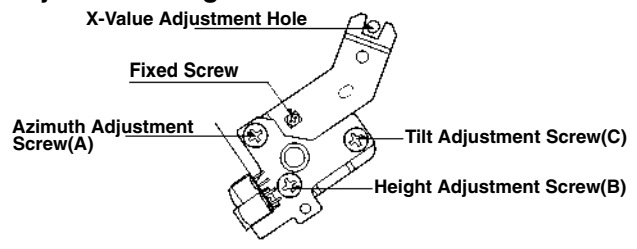
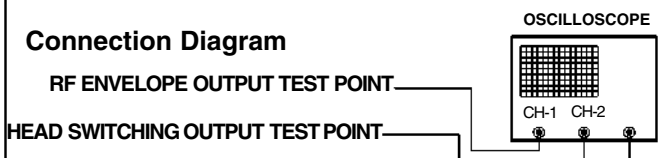
Check the RF Envelope after adjusting the A/C Head, if the RF Waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF Waveform.

5-3. Precise Adjustment (Azimuth adjustment)

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
<ul style="list-style-type: none"> • Oscilloscope • Alignment Tape(SP) • Screw Driver(+) Type 5mm 	<ul style="list-style-type: none"> • Audio output jack 	<ul style="list-style-type: none"> • Play an Alignment Tape 1KHz, 7KHz Sections 	<ul style="list-style-type: none"> • Azimuth Adjustment Screw(A) • Height Adjustment Screw(B)
Adjustment Procedure <ol style="list-style-type: none"> 1) Connect the Probe of the Oscilloscope to Audio Output Jack. 2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for Maximum Output of the 1Khz and 7Khz segments, while maintaining the flattest Envelope differential between the two Frequencies. 			
		 <p>1KHZ A:Maximum</p>	 <p>7KHZ B:Maximum</p>
Fig. C-5-4			

6. X-Value Adjustment

Purpose: To obtain compatibility with other VCR(VCP) Models.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
<ul style="list-style-type: none"> • Oscilloscope • Alignment tape(SP only) • Screw Driver(+) Type 5mm 	<ul style="list-style-type: none"> • CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point 	<ul style="list-style-type: none"> • Play an Alignment Tape 	
Adjustment Procedure <ol style="list-style-type: none"> 1) Release the Automatic Tracking to run long enough for Tracking to complete it's Cycle. 2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the Diagram to find the center of the peak that allows for the maximum Waveform Envelope. This method should allow the 31um Head to be centrally located over the 58um Tape Track. 3) Tighten the Base Assembly A/C Head mounting Screw. 		Adjustment Diagram 	
		Connection Diagram 	

DECK MECHANISM ADJUSTMENT

7. Adjustment after Replacing Drum Assembly (Video Heads)

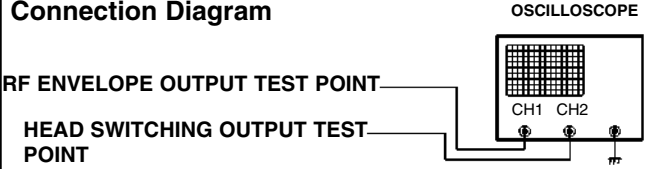
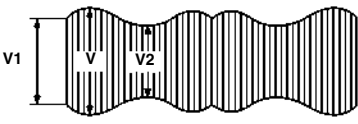
Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.			
Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Points
<ul style="list-style-type: none"> Oscilloscope Alignment tapes Blank Tape Post Height Adjusting Driver Screw Driver(+) Type 5mm 	<ul style="list-style-type: none"> CH-1: PB RF Envelope CH-2: NTSC: SW 30Hz PAL: SW 25Hz Head Switching Output Test Point RF Envelope Output Test Point 	<ul style="list-style-type: none"> Play the blank tape Play an alignment tape 	<ul style="list-style-type: none"> Guide Roller Precise Adjustment Switching Point Tracking Preset X-Value
Checking/Adjustment Procedure Play a blank tape and check for tape curling or creasing around the roller guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".		Connection Diagram  Waveform $V1/V \text{ MAX } \pm 0.7$ $V2/V \text{ MAX } \pm 0.8$ RF ENVELOPE OUTPUT 	

Fig. C-7

8. Check the Tape Travel after Reassembling Deck Assembly.

8-1. Check Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

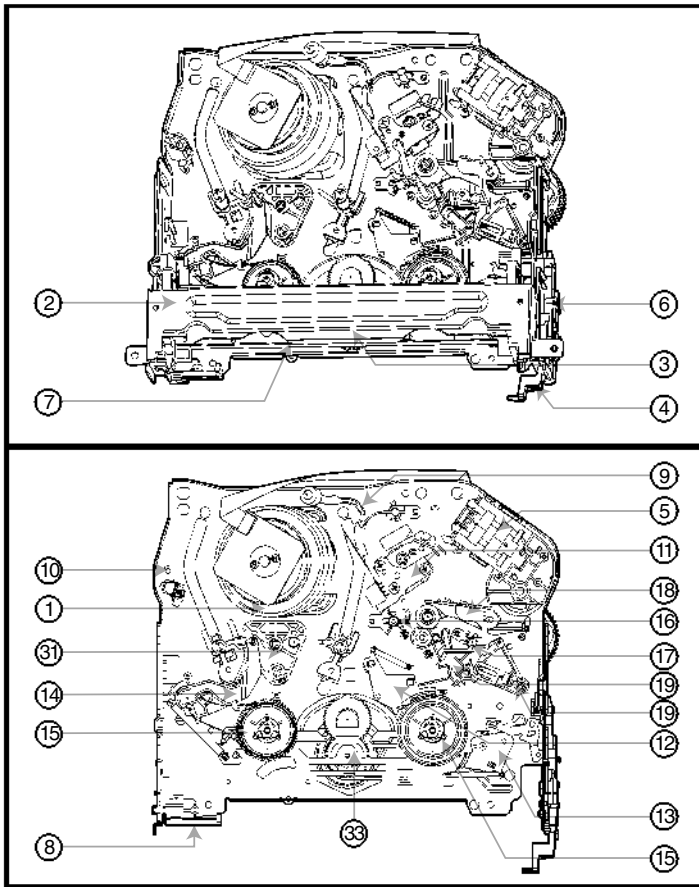
Test Equipment/ Fixture	Specification	Test Equipment Connection Points	Test Conditions (Mechanism Condition)
<ul style="list-style-type: none"> Oscilloscope Alignment tapes(with 6H 3kHz Color Bar Signal) Stop Watch 	<ul style="list-style-type: none"> RF Locking Time: Less than 5 sec. Audio Locking Time: Less than 10sec 	<ul style="list-style-type: none"> CH-1: PB RF Envelope CH-2: Audio Output RF Envelope Output Point Audio Output Jack 	<ul style="list-style-type: none"> Play an alignment tape (with 6H 3kHz Color Bar Signal)
Checking Procedure Play an alignment tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.		NOTES: 1) CUE is fast forward mode (FF) 2) REV is the rewind mode (REW) 3) Referenced to the Play mode	

8-2. Check for tape curling or jamming

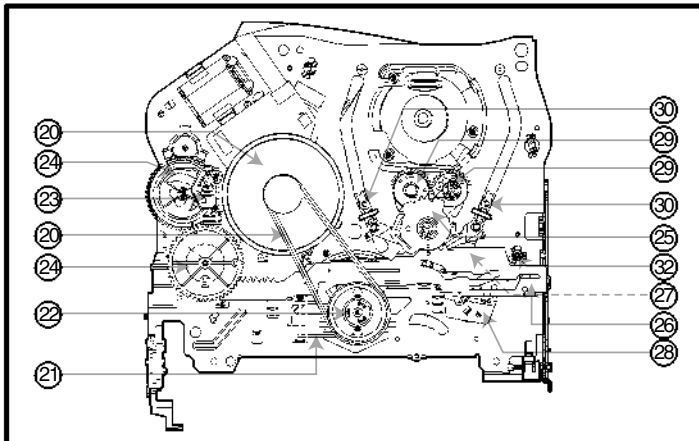
Test Equipment/ Fixture	Specification	Test Conditions (Mechanism Condition)
<ul style="list-style-type: none"> T-160 Tape T-120 Tape 	<ul style="list-style-type: none"> Be sure there is no tape jamming or curling at the beginning, middle or end of the tape. 	<ul style="list-style-type: none"> Run the CUE, REV play mode at the beginning and the end of the tape.
Checking Procedure 1) Confirm that the tape runs smoothly around the roller guides, drum and A/C head assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the beginning, middle and end sections of the cassette. 2) Confirm that the tape passes over the A/C head assembly as indicated by proper audio reproduction and proper tape counter performance.		

DECK MECHANISM PARTS LOCATIONS

• Top View



• Bottom View



NOTE : When reassembly perform the procedure in the reverse order.

- 1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (**Pefer to ADJUSTMENT Page 2**)
- 2) When disassembling, the Parts for Starting No. Should be removed first.

Pracedure Starting No.	Part	Fixing Type	Fig-ure	Vi-ew
1	Drum Assembly	3 Screw	A-1	T
2	Plate Top	2 Hook	A-2	T
2	3 Holder Assembly CST	Chassis Hole	A-2	T
2	4 Opener Door	Chassis Hole	A-2	T
5	Bracket Assembly L/D Motor	3 Hook	A-2	T
2,3,4	6 Gear Assembly Rack F/L	1 Hook, Chassis Hole	A-2	T
2,3,4,6	7 Arm Assembly F/L	Chassis Hole	A-2	T
8	Lever Assembly S/W	1 Hook	A-2	T
9	Arm Assembly Cleaner	Chassis Embossing	A-3	T
10	Head F/E	Chassis Embossing	A-3	T
11	Base Assembly A/C Head	1 Screw	A-3	T
2,3	12 Brake Assembly RS	1 Hook	A-4	T
2,3	13 Brake Assembly T	1 Hook	A-4	T
2,3	14 Arm Assembly Tension	2 Hook	A-4	T
2,3,12,13, 14	15 Reel S/Reel T		A-4	T
16	Base Assembly P4	Chassis Embossing	A-5	T
17	Opener Lid	Chassis Embossing	A-5	T
17	18 Arm Assembly Pinch	Shaft	A-5	T
17	19 Lever T/Up / Arm T/Up	1 Hook	A-5	T
17,18	20 Belt Capstan/Motor Capstan	3 Screw	A-6	B
21	Lever F/R	Locking Tab	A-6	B
20, 21	22 Clutch Assembly D35	Washer	A-6	B
23	Break Assembly Capstan	Locking Tab	A-6	B
24	Gear Drive/Gear Cam	Washer/Hook	A-7	B
25	Gear Sector	1 Hook	A-7	B
20,21,23, 24,25	26 Plate Slider	Shaft Guide	A-7	B
20,21,23, 24,25,26	27 Lever Tension	1 Hook	A-7	B
2,3,14,20, 21,25,23, 24,26	28 Lever Spring	Locking Tab	A7	B
25	29 Gear Assembly P2/Gear Assembly P3	Boss	A-8	B
2,3, 14,25, 29	30 Base Assembly P2/Base Assembly P3	Chassis Slot	A-8	B
2,3,14,25, 29	31 Base Loading	1 Screw	A-9	T
2,3,14	32 Base Tension	Chassis Embossing	A-9	B
2,3,20,21, 22	33 Arm Assembly Idler	Locking Tab	A-9	T

R: Top, B:Bottom

DECK MECHANISM DISASSEMBLY

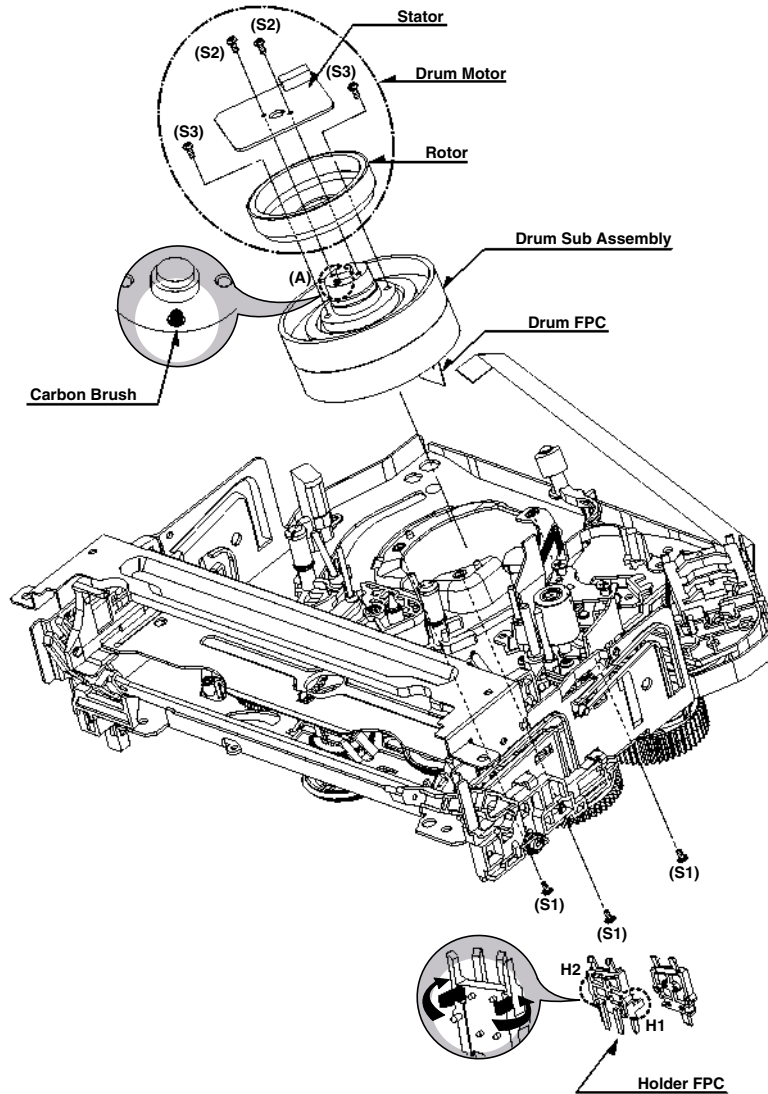


Fig. A-1

1. Drum Assembly (Fig. A-1-1)

- 1) Unplug the Drum FPC Connector.
- 2) Remove three Screws(S1) on bottom side and separate the Drum assembly.
- 3) Unhook (H1), (H2) and separate the Holder FPC and Cap FPC.

1-1. Drum Motor

- 1) Remove two Screws(S2) and disassemble the Stator of the Drum Motor.
- 2) Remove two Screws(S3) and separate the Rotor of the Drum Motor from the Drum Sub assembly.

NOTE

When reassembling, confirm (A) portion of the Drum Sub assembly whether the Carbon Brush is in there or not.

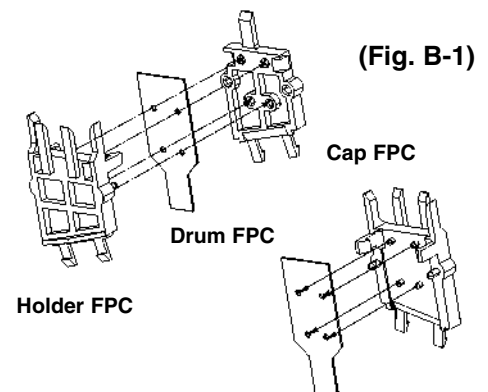


Figure in the opposite direction

DECK MECHANISM DISASSEMBLY

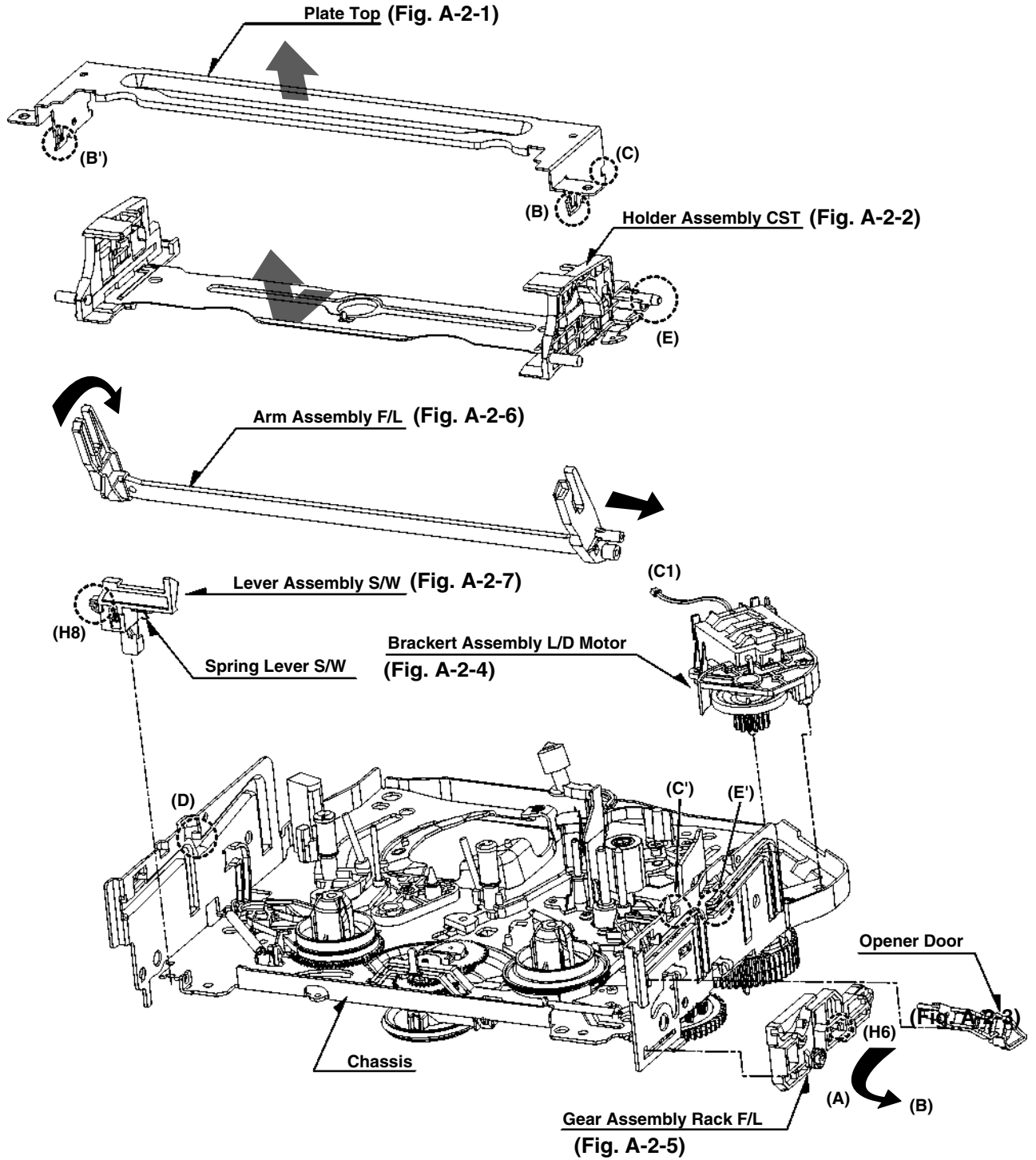


Fig. A-2

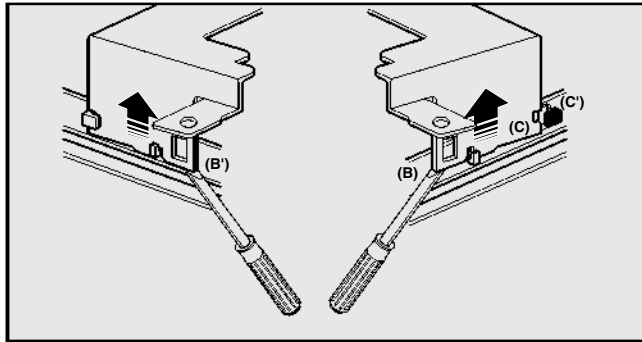
DECK MECHANISM DISASSEMBLY

2. Plate Top (Fig. A-2-1)

- 1) Pull the (B) portion of the Plate Top back in direction of arrow and separate the right side of it.
- 2) pull the (B') portion of the Plate Top back in direction of arrow and separate the left side of it.
(Used tools : (-) type Drive, anything tool with sharp point or flat point.)

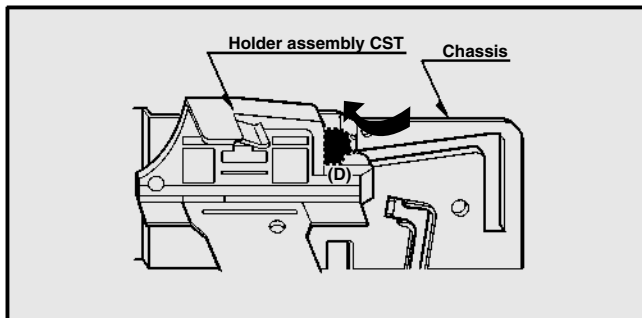
NOTE

- 1) When reassembling, push the Plate Top after alignment the two position(C), (C') as Fig.



3. Holder Assembly CST (Fig.A-2-2)

- 1) Move the Holder assembly CST in direction of arrow and separate the left side of it first through the (D) position of the Chassis.



- 2) Disassemble the right side of the Holder assembly CST from each guided hole of the Chassis.

NOTE

When reassembling, insert the (E) part of the Holder assembly CST in the (E') hole of the Chassis first and assemble the left side of it.

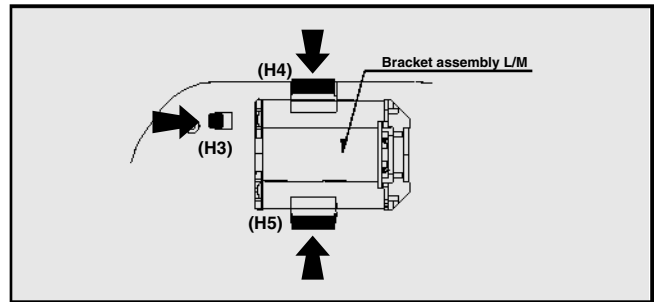
4. Opener Door (Figure. A-2-3)

- 1) Turn the Opener Door clockwise and remove it through the guide hole of the chassis.

5. Bracket assembly L/D Motor(Fig. A-2-4)

- 1) Unplug the Connector(C1).

- 2) Unhook three Hooks(H3,H4,H5) on bottom side of the Chassis, lift up the Bracket assembly L/M and disassemble the Bracket assembly L/D Motor.

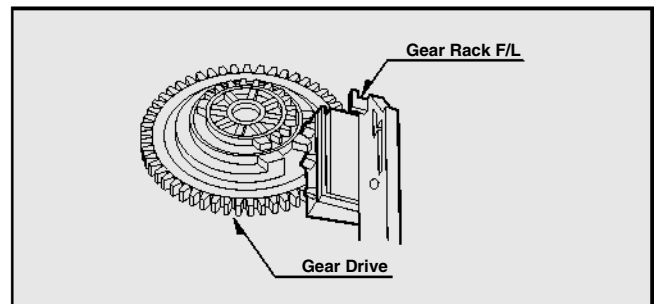


6. Gear Assembly Rack F/L (Fig. A-2-5)

- 1) Move the Gear Assembly Rack F/L in direction of arrow(A) and unhook the Hook(H6) pulling back in front.
- 2) Separate the Rear Rack F/L in direction of arrow(B).

NOTE

When reassembling, align the Gear part of the Gear Assembly Rack F/L with the Gear Drive as below Fig.

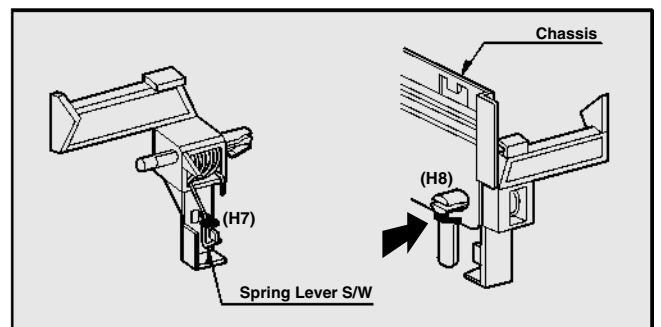


7. Arm assembly F/L (Fig. A-2-6)

- 1) Move the Arm assembly F/L in direction of arrow and separate the left side of it first.
- 2) Disassemble the Arm assembly F/L from each guided Hole of the Chassis.

8. Lever assembly S/W(Fig. A-2-7)

- 1) Hook the Spring Lever S/W on the Hook(H7) first as below Fig.
- 2) Unhook the Hook(H8) in the left side of the Chassis and move the Lever assembly S/W.



DECK MECHANISM DISASSEMBLY

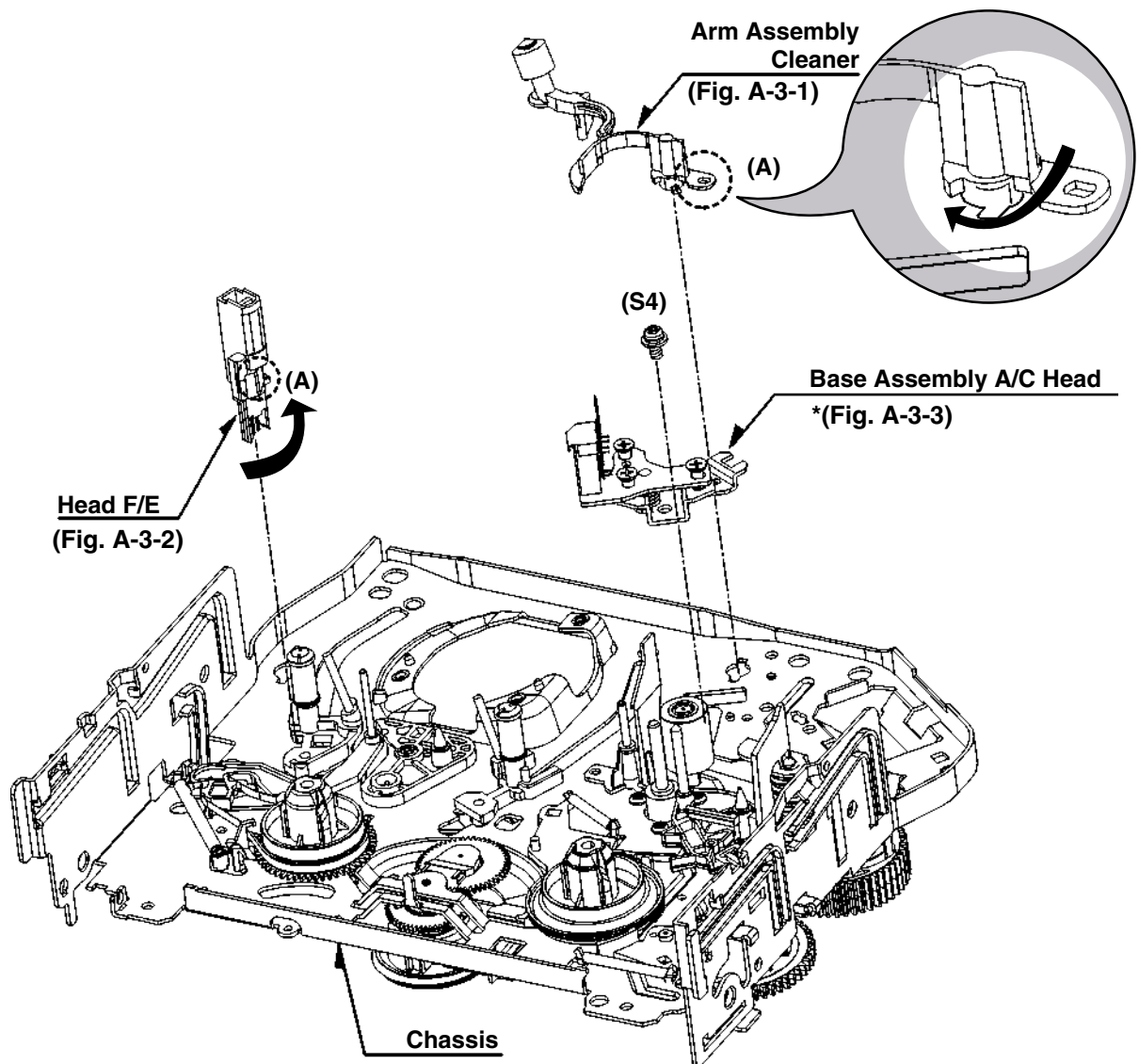


Fig. A-3

9. Arm assembly Cleaner (Fig. A-3-1)

- 1) Breakaway the (A) portion as Fig. A-3-1 from the Embossing of the Chassis, turn the Arm assembly Cleaner to clockwise direction and lift it up.

10. Head F/E (Fig. A-3-2)

- 1) Breakaway the (A) portion of the Head F/E from the Embossing of the Chassis, turn it to counterclockwise direction and lift it up.

11. Base assembly A/C Head (Fig. A-3-3)

- 1) Remove the Screw(S4) and lift the Base assembly A/C Head up.

DECK MECHANISM DISASSEMBLY

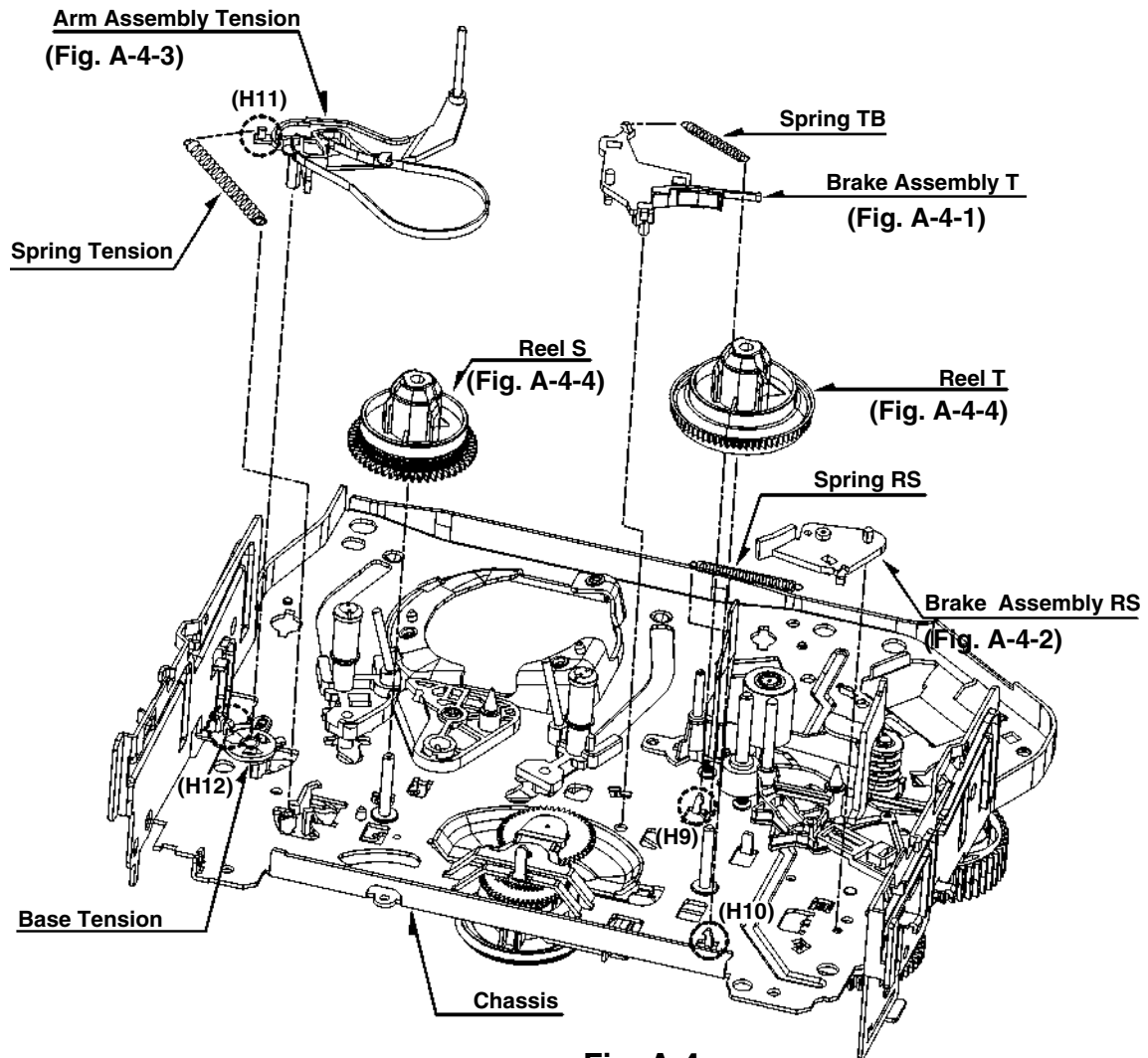


Fig. A-4

12. Brake assembly T (Fig. A-4-1)

- 1) Unhook the Spring TB from the Hook(H9) of the Chassis.
- 2) Lift the Brake assembly T up.

13. Brake assembly RS (Fig. A-4-2)

- 1) Unhook the Spring RS from the Hook(H10) of the Chassis..
- 2) Lift the Brake assembly T up.




14. Arm assembly Tension (Fig. A-4-3)

- 1) Unhook the Spring Tension from the Hook(H11) of the Arm assembly tension.
- 2) Unhook the Hook(H12) of the Base Tension and lift the Arm assembly Tension up.

NOTE

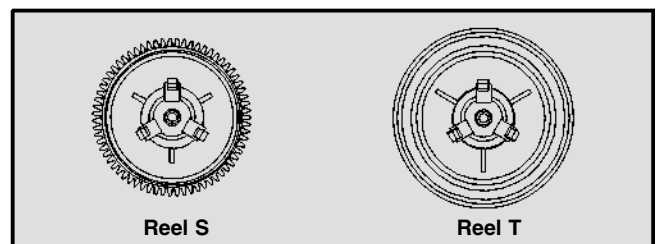
Difference for Springs

(Difference for Springs)

	Spring TB
	Spring RS Color (Black)
	Spring Tension

15. Reel S / Reel T (Fig. A-4-4)

- 1) Difference for Reel S / Reel T



DECK MECHANISM DISASSEMBLY

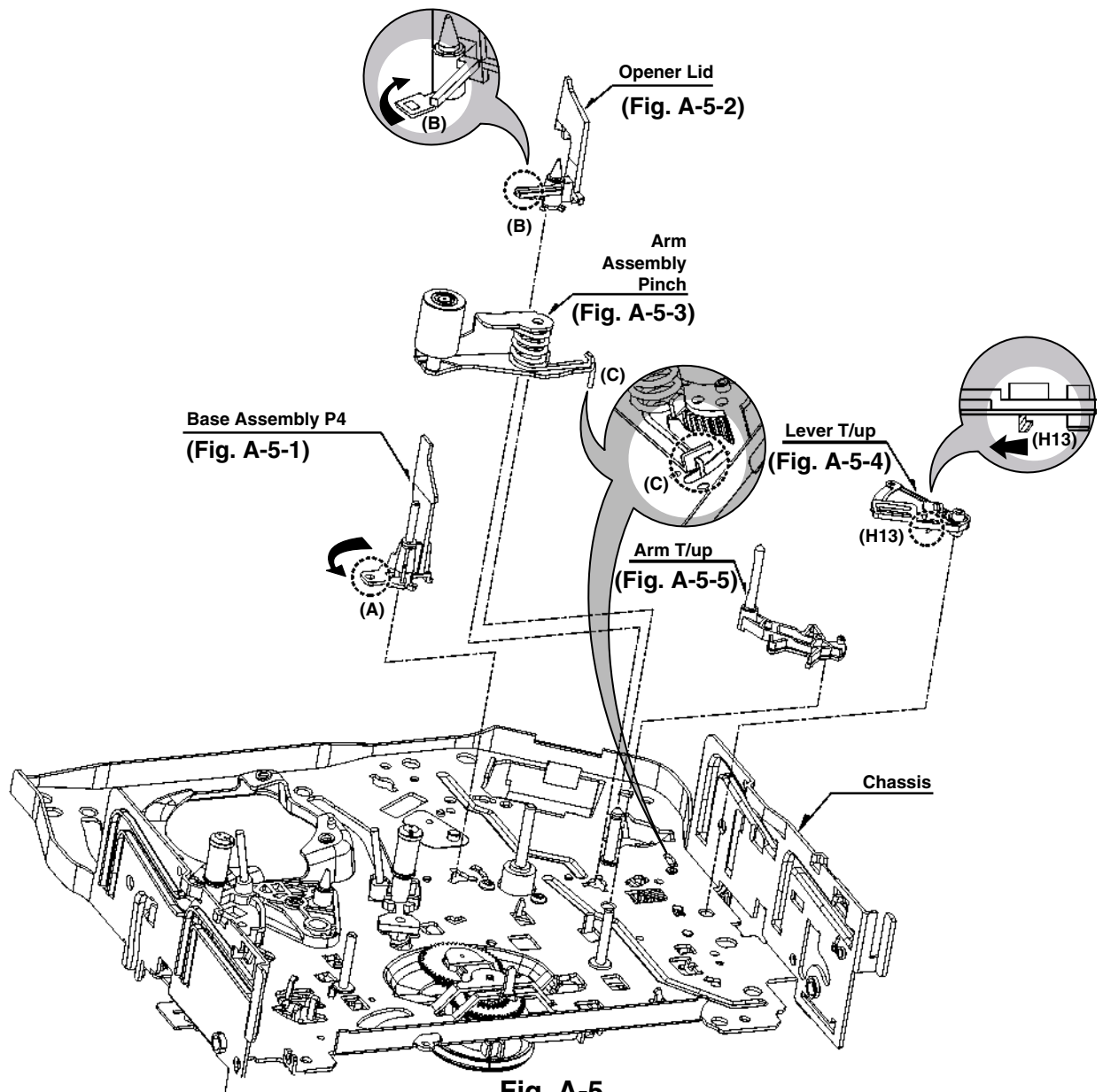


Fig. A-5

16. Base assembly P4 (Fig. A-5-1)

- 1) Breakaway the (A) portion of the Base assembly P4 from the Embossing of the Chassis.
- 2) Turn the Base assembly P4 to counterclockwise direction and lift it up.

17. Opener Lid (Fig. A-5-2)

- 1) Breakaway the (B) portion of the Opener Lid from the Embossing of the Chassis.
- 2) Turn the Opener Lid to clockwise direction and lift it up.

18. Arm assembly Pinch (Fig. A-5-3)

- 1) Lift the Arm assembly Pinch up.

19. Lever T/up (Fig. A-5-4)/ Arm T/up (Fig. A-5-5)

- 1) Unhook the Hook(H13) of the bottom Chassis and lift the Lever T/up up.
- 2) Lift the Arm T/up up.

NOTE

When reassembling, confirm the (C) portion assembly Pinch is inserted to the Chassis Hole correctly as Fig.

down.

Place the Mechanism face down, or up side

DECK MECHANISM DISASSEMBLY

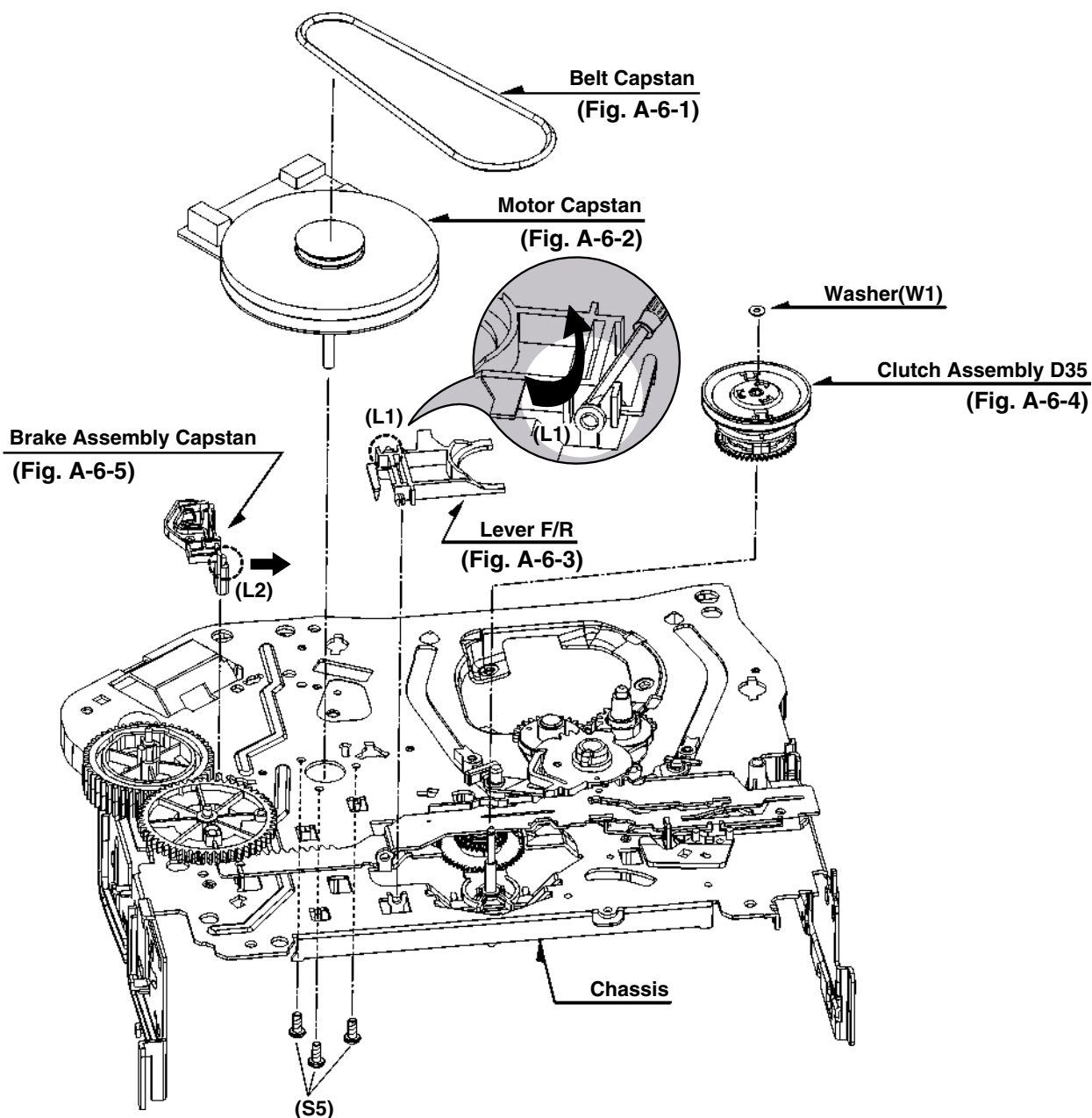


Fig. A-6

20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

- 1) Remove the Belt Capstan.
- 2) Remove the three Screws(S5) on bottom Chassis and lift the Motor Capstan up.

21. Lever F/R (Fig. A-6-3)

- 1) Unlock the Locking Tab(L1) as Fig. A-6-3 and lift the Lever F/R up.

22. Clutch assembly D35 (Fig. A-6-4)

- 1) Remove the Washer(W1) and lift the Clutch assembly D35 up.

23. Brake assembly Capstan (Fig. A-6-5)

- 1) Pull the Locking Tab(L2) back in direction of arrow and lift it up.

DECK MECHANISM DISASSEMBLY

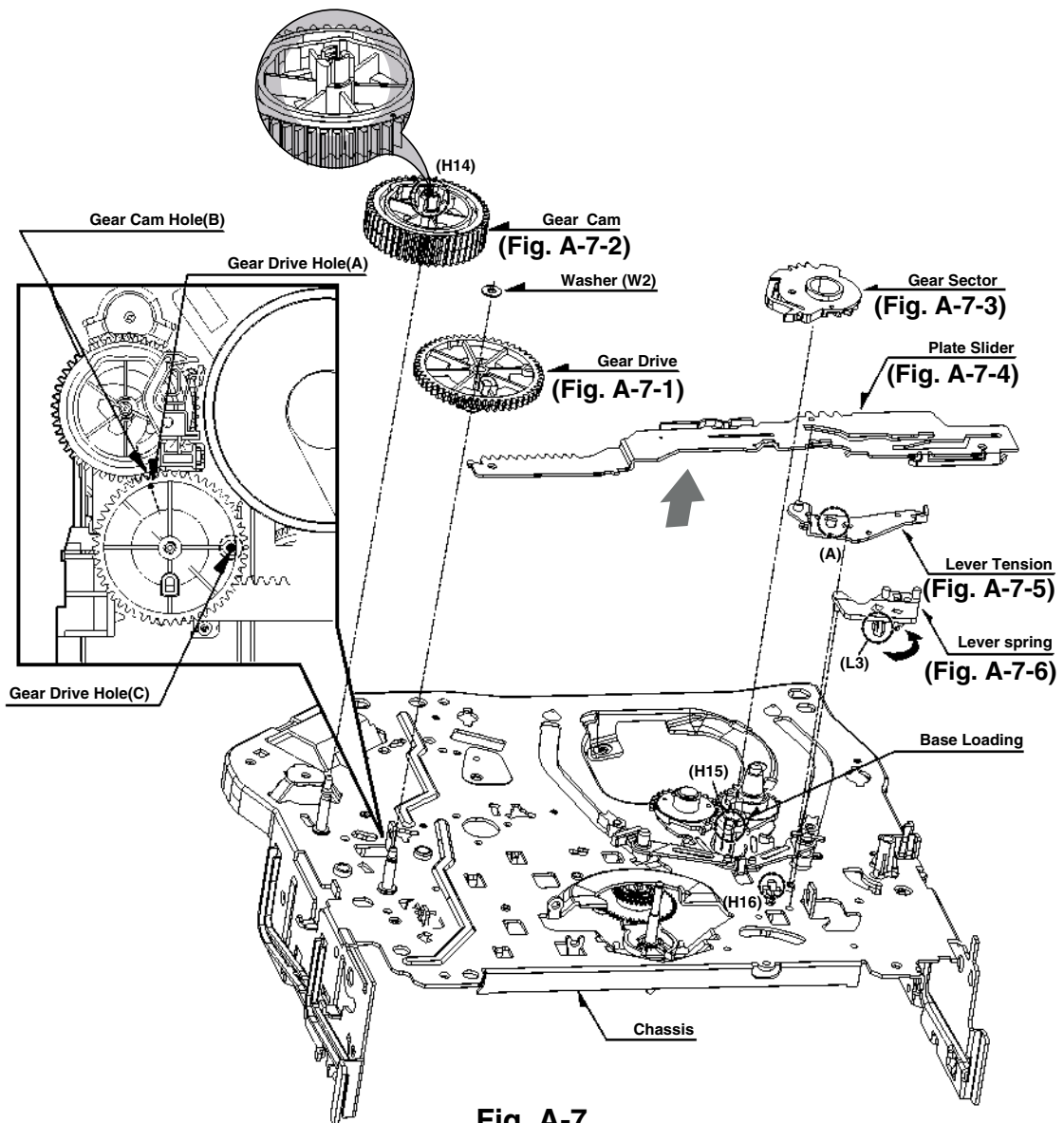


Fig. A-7

24. Gear Drive (Fig. A-7-1)/ Gear Cam (Fig. A-7-2)

- 1) Remove the Washer(W2) and lift the Gear Drive up.
- 2) Unhook the Hook(H14) of the Gear Cam and lift the Gear Cam up.

NOTE

When reassembling, align the Gear Drive Hole(A) and the Gear Cam Hole(B) in a straight line after the Gear Drive Hole(C) is aligned with the Chassis Hole as Fig.

25. Gear Sector (Fig. A-7-3)

- 1) Unhook the Hook(H15) of the Base Loading on bottom Chassis and lift the Gear Sector up.

26. Plate Slider (Fig. A-7-4)

- 1) Just lift the Plate Slider up.

27. Lever Tension (Fig. A-7-5)

- 1) Unhook the (A) portion of the Lever Tension from the Hook(H16) of the Chassis.
- 2) Turn the Lever Tension to counterclockwise direction and lift it up.

28. Lever Spring (Fig. A-7-6)

- 1) Unlock the Locking Tab(L3) of the bottom Chassis and lift the Lever Spring up.

DECK MECHANISM DISASSEMBLY

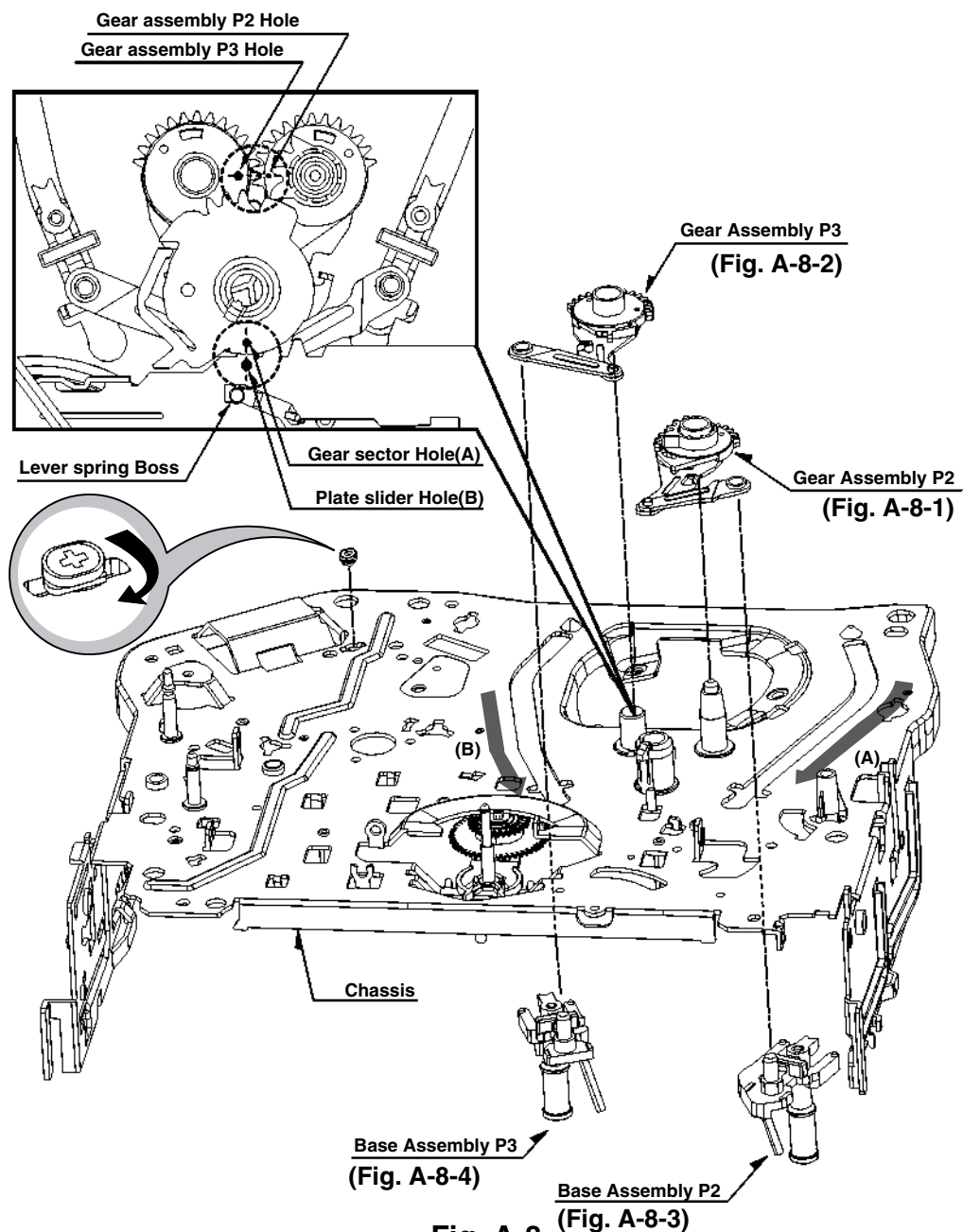


Fig. A-8

29. Gear assembly P2 (Fig. A-8-1)/ Gear assembly P3 (Fig. A-8-2)

- 1) Just lift the Gear assembly P2 up.
- 2) Just lift the Gear assembly P3 up.

NOTE

When reassembling, align the two Holes of the Gear assembly P2 and P3 in a straight line after confirmation whether the Gear Sector Hole(A) and the Plate Slider Hole(B) are aligned or not as Fig.

30. Base assembly P2 (Fig. A-8-3)/ Base assembly P3 (Fig. A-8-4)

- 1) Move the Base assembly P2 in direction of arrow(A) along the Guided Hole of the Chassis and disassemble it on bottom side.
- 2) Move the Base assembly P3 in direction of arrow(B) along the Guided Hole of the Chassis and disassemble it on bottom side.

Place the Mechanism face down, or return to original position.

DECK MECHANISM DISASSEMBLY

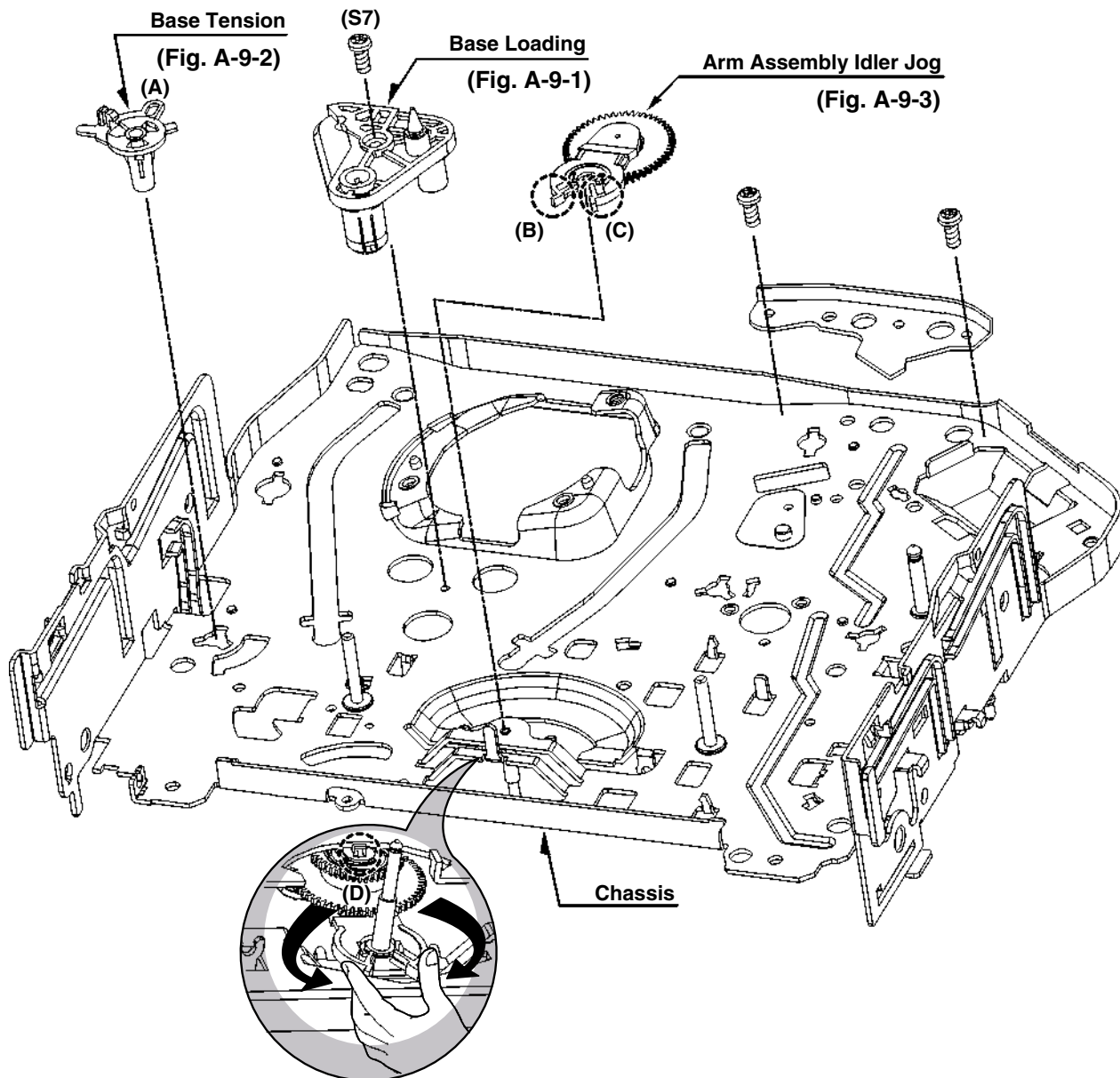


Fig. A-9

31. Base Loading (Fig. A-9-1)

- 1) Remove the Screw(S7).
- 2) Lift the Base Loading up.

32. Base Tension (Fig. A-9-2)

- 1) Breakaway the (A) portion of the Base Tension from the Embossing of the Chassis.
- 2) Turn the Base Tension to counterclockwise direction and lift it up.

33. Arm assembly Idler (Fig. A-9-3)

- 1) Make narrower the two parts, (A) and (B), as Fig. A-9-3.
- 2) Lift the Arm assembly Idler up.

NOTE

When disassembling, be careful not to be caught the (D) part by the Chassis as Fig.

MAINTENANCE/INSPECTION PROCEDURE

1 Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.

Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement
Color beats	Dirt on full-erase head	o
Poor S/N, no color	Dirt on video head	o
Vertical or Horizontal jitter	Dirt on video head Dirt on tape transport system	o
Low volume, Sound distorted	Dirt on Audio/control head	o
Tape does not run. Tape is slack	Dirt on pinch roller	o
In Review and Unloading (off mode), the Tape is rolled up loosely.	Clutch Assembly D33K Torque reduced	o
	Cleaning Drum and transport system	Fig. C-9-3

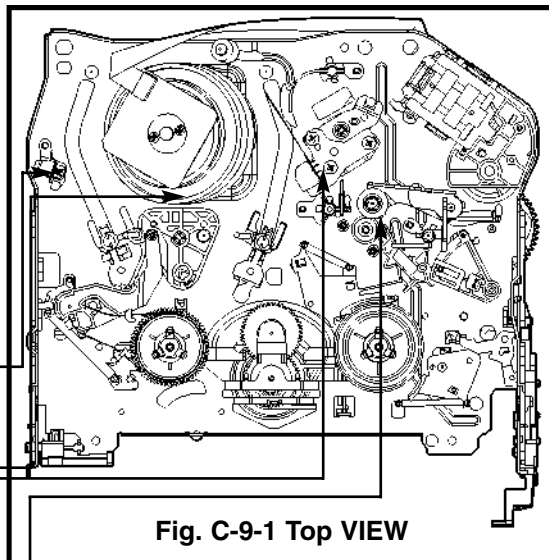


Fig. C-9-1 Top VIEW

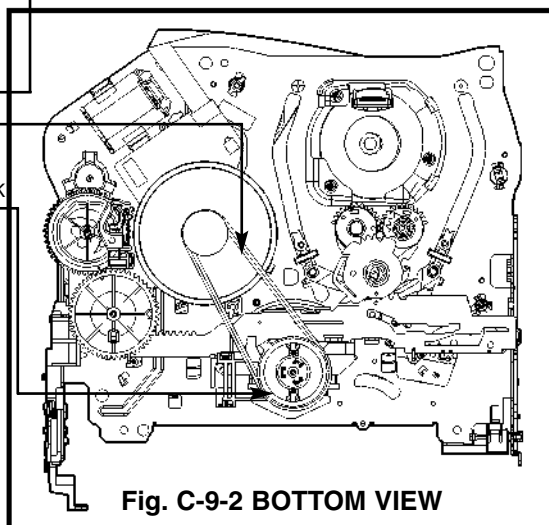


Fig. C-9-2 BOTTOM VIEW

NOTE

If locations marked with o do not operate normally after cleaning, check for wear and replace. See the EXPLODED VIEWS at the end of this manual as well as the above illustrations See the Greasing (Page 4-22) for the sections to be lubricated and greased.

* No. (1)~(13) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.

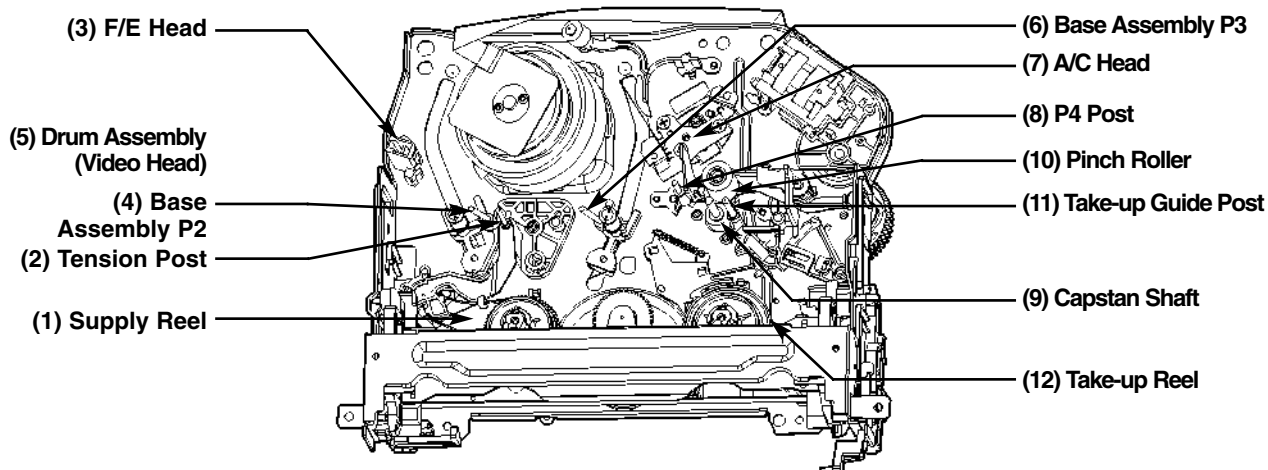


Fig. C-9-3 Tape Transport System

MAINTENANCE/INSPECTION PROCEDURE

2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.

But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1

When inspection is necessary Average hours used per day	About 1 year	About 18 months	About 3 years
One hour	[Bar spanning all three columns]		
Two hours	[Bar spanning first two columns]		
Three hours	[Bar spanning first column]		

4. Supplies Required for Inspection and Maintenance

- (1) Grease : Kanto G-311G (Blue) or equivalent
- (2) Isopropyl Alcohol or equivalent
- (3) Cleaning Patches
- (4) Grease : Kanto G-381(Yellow)

5) Maintenance Procedure

5-1) Cleaning

(1) Cleaning video head

First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.

(Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)

Thoroughly dry the head. Then run the test tape. If Iso-propyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.

- (2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

NOTES:

- ① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
- ② Make sure that during cleaning you do not touch the tape transport system with the tip of a screw driver and no that force is that would cause deforming or damage applied to the system.

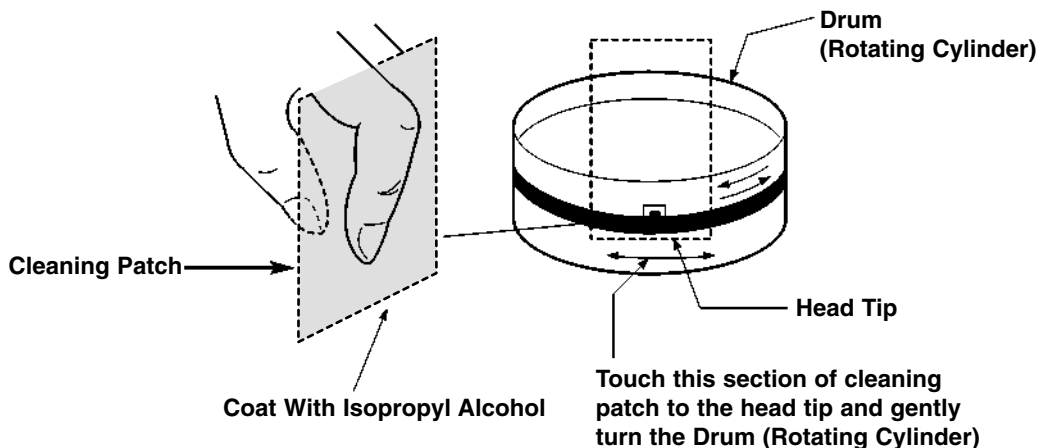


Fig. C-9-4

MAINTENANCE/INSPECTION PROCEDURE

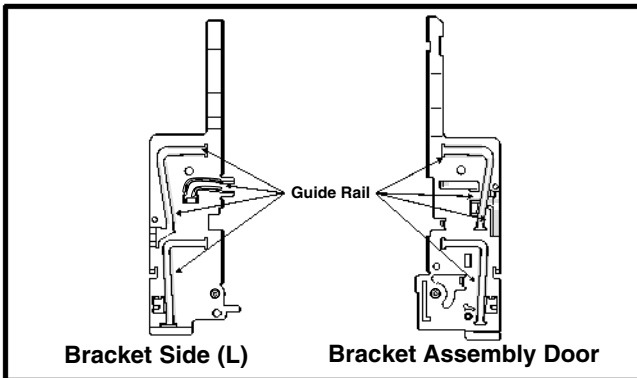
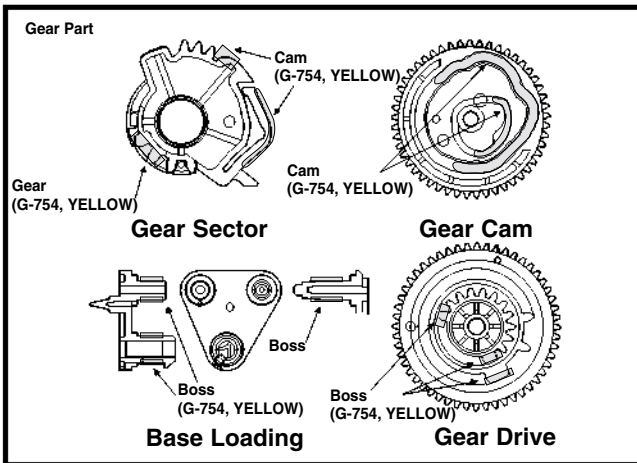
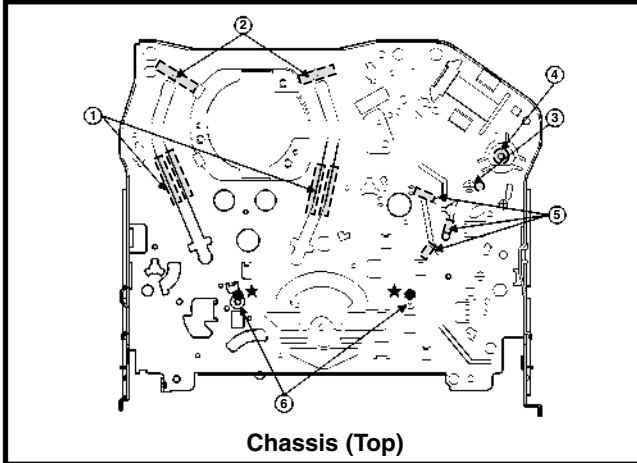
5-2) Greasing

(1) Greasing guidelines

Apply grease, with a cleaning patch. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe any excess and clean with cleaning patch wetted in Isopropyl Alcohol.

NOTE: Greasing Points

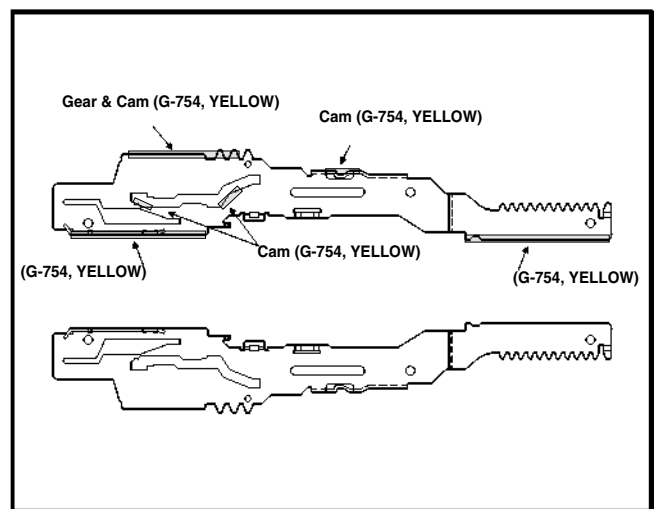
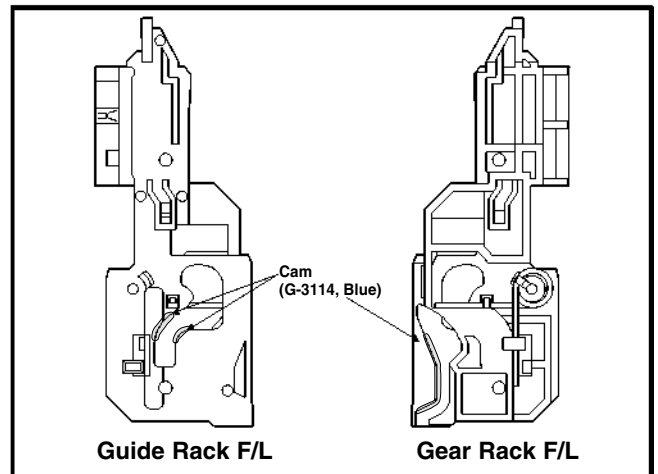
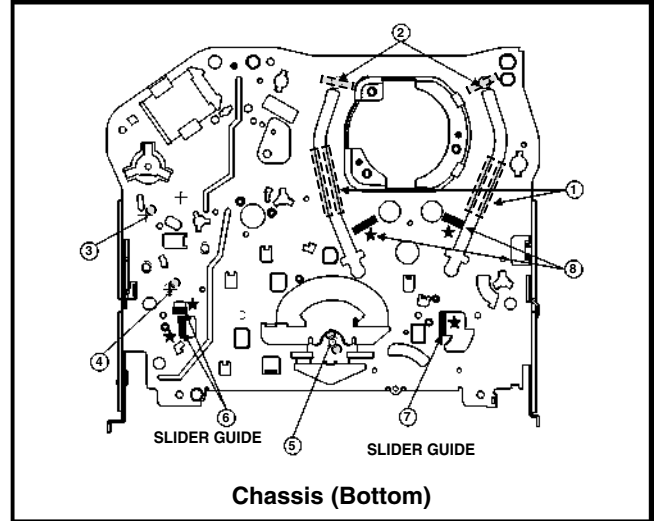
- | | |
|-----------------------------------|---|
| 1) Loading Path Inside & Top side | 6) Shaft |
| 2) Base Tension Boss inside Hole | 7) Arm Assembly F/L of Buming Inside Hole |
| 3) Arm Assembly F/L "U" Groove | 8) Reel S, T Shaft (G381:Yellow) |
| 4) Arm Take-up Rubbing Section | 9) Brake T Groove |
| 5) L/D Motor Gear Wheel Part | |



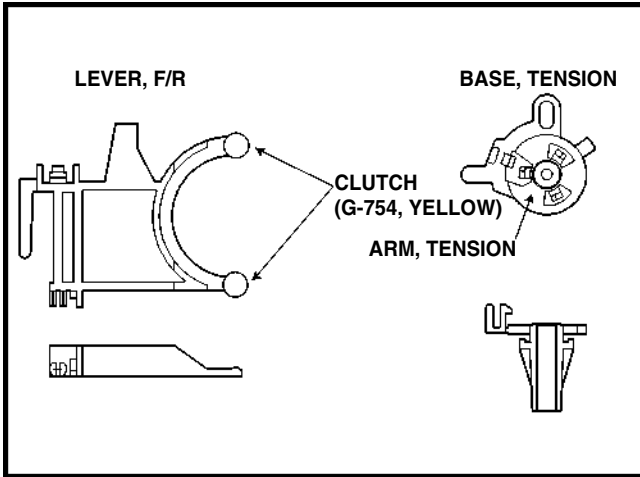
(2) Periodic greasing

Grease specified locations every 5,000 hours.

- | | |
|-----------------------------------|------------------------------|
| 1) Loading Path Inside & Top side | 5) Lever Tension Groove |
| 2) Shaft | 6) Clutch Assembly D33 Shaft |
| 3) Gear Rack F/L Moving Section | 7) Brake "S" Rubbing Section |
| 4) Shaft | |



GEAR , F/R



GEAR AY, P2 & P3

