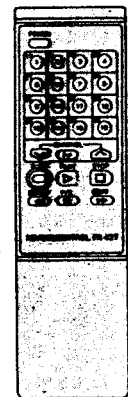
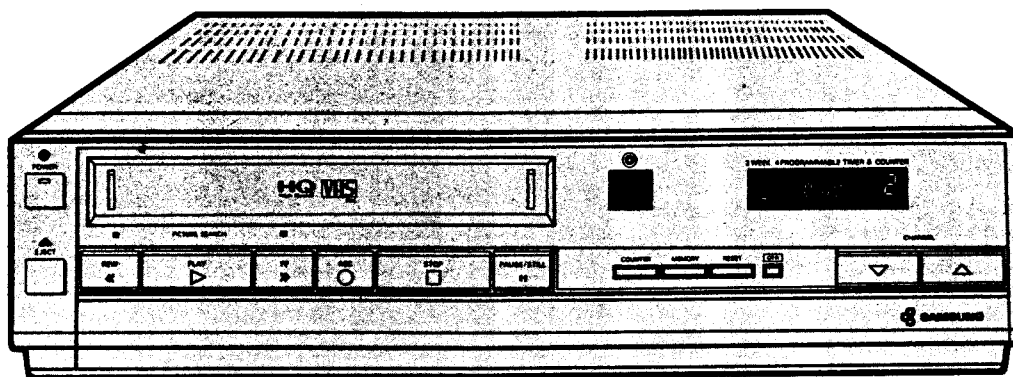


SERVICE MANUAL

SVX-301/VX-710/VB-710

SVM-P7-009-1E

VIDEO CASSETTE RECORDER



SPECIFICATIONS

Format: VHS PAL standard
Recording System: Rotary, azimuth two-head helical scanning system
Television System: PAL color and B/W signal
Tape Width: 12.65 mm (1/2 inch)
Tape Speed: 23.39 mm/sec
Record/Playback Time: 4 hours with E-240 Tape
FF/REW Time: Less than 6 min. with E-180
Heads: 1) Video: 2 Rotary heads
 2) Audio/Control: 1 stationary head (Mono)
 3) Full track erase: 1 stationary head

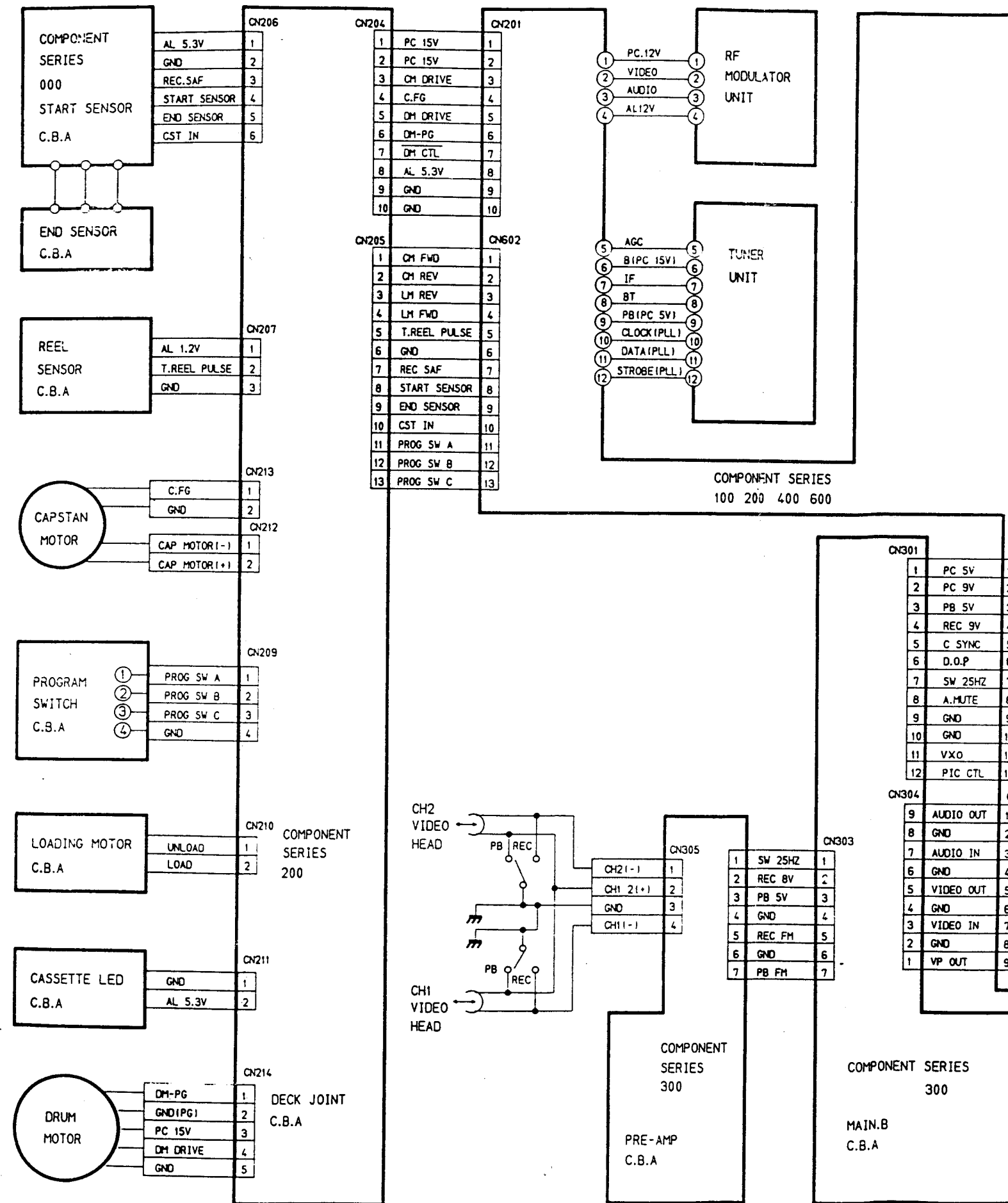
Video
Input: 0.5 to 2.0 Vp-p 75 ohm unbalanced
Output: 1.0 Vp-p 75 ohm unbalanced
Signal-to-Noise Ratio: Better than 40dB
Horizontal Resolution: More than 240 Lines

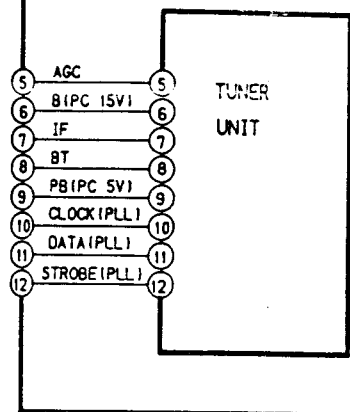
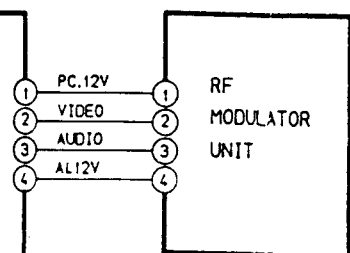
Audio
Input: -8dBm, 50Kohm unbalanced
Output: -3dBm 1Kohm unbalanced
Signal-to-Noise Ratio: Better than 40dB
Frequency Response: 100Hz-8.0 KHz (-3dB)
Receiving channels: VHF I, VHF III, UHF IV/V
RF Output: CCIR UHF channel 32 to 40 (adjustable), Preset to 36

Power Requirement: AC 220V, 50Hz
Operating Temperature: 5 to 40 DEG. C (41°F-104°F)
Operating Humidity: 10% - 75%

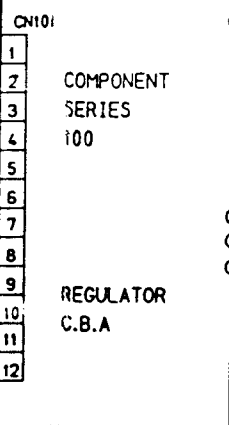
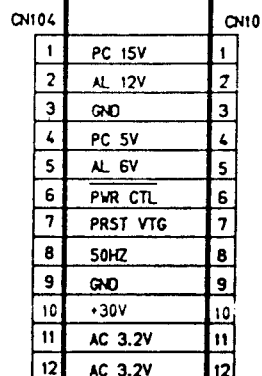
Power Consumption: Approx. 28 Watts (When the POWER button is OFF Approx. 7.0 watts)
Dimensions: 420 (W)×93 (H)×345 (D) mm
Weight: 14.55 lbs (6.6 kg)

8-1. Total Wiring Diagram

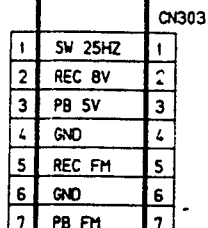
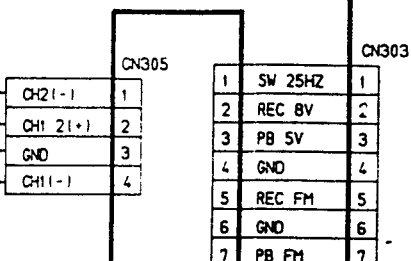
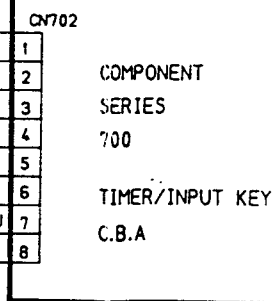
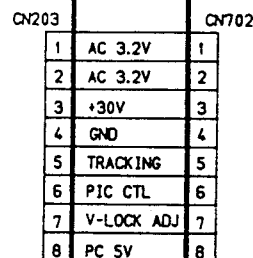
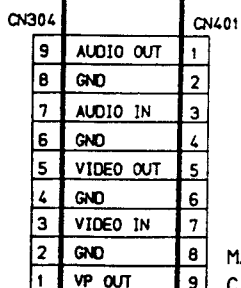
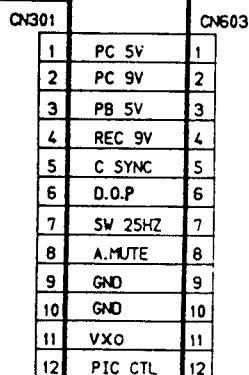
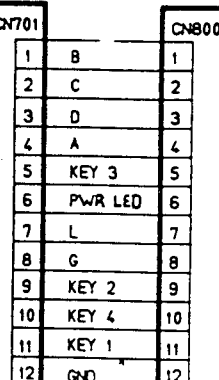
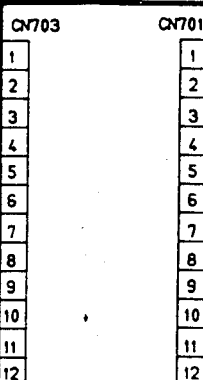
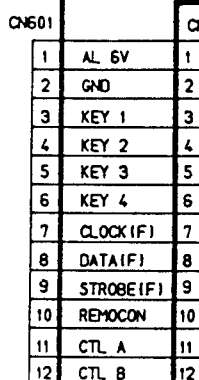
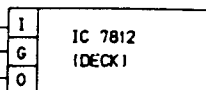




COMPONENT SERIES
100 200 400 600



AC 220V
50HZ

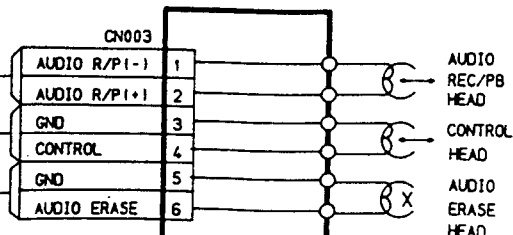
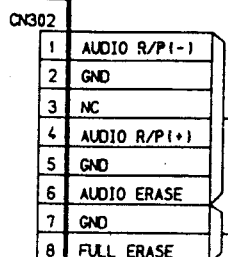
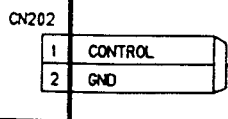


COMPONENT SERIES 300

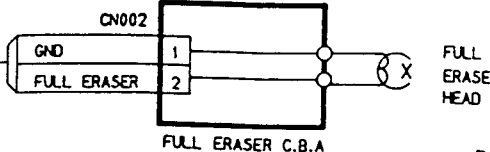
PRE-AMP C.B.A

COMPONENT SERIES 300

MAIN.B C.B.A



AUDIO/CONTROL C.B.A



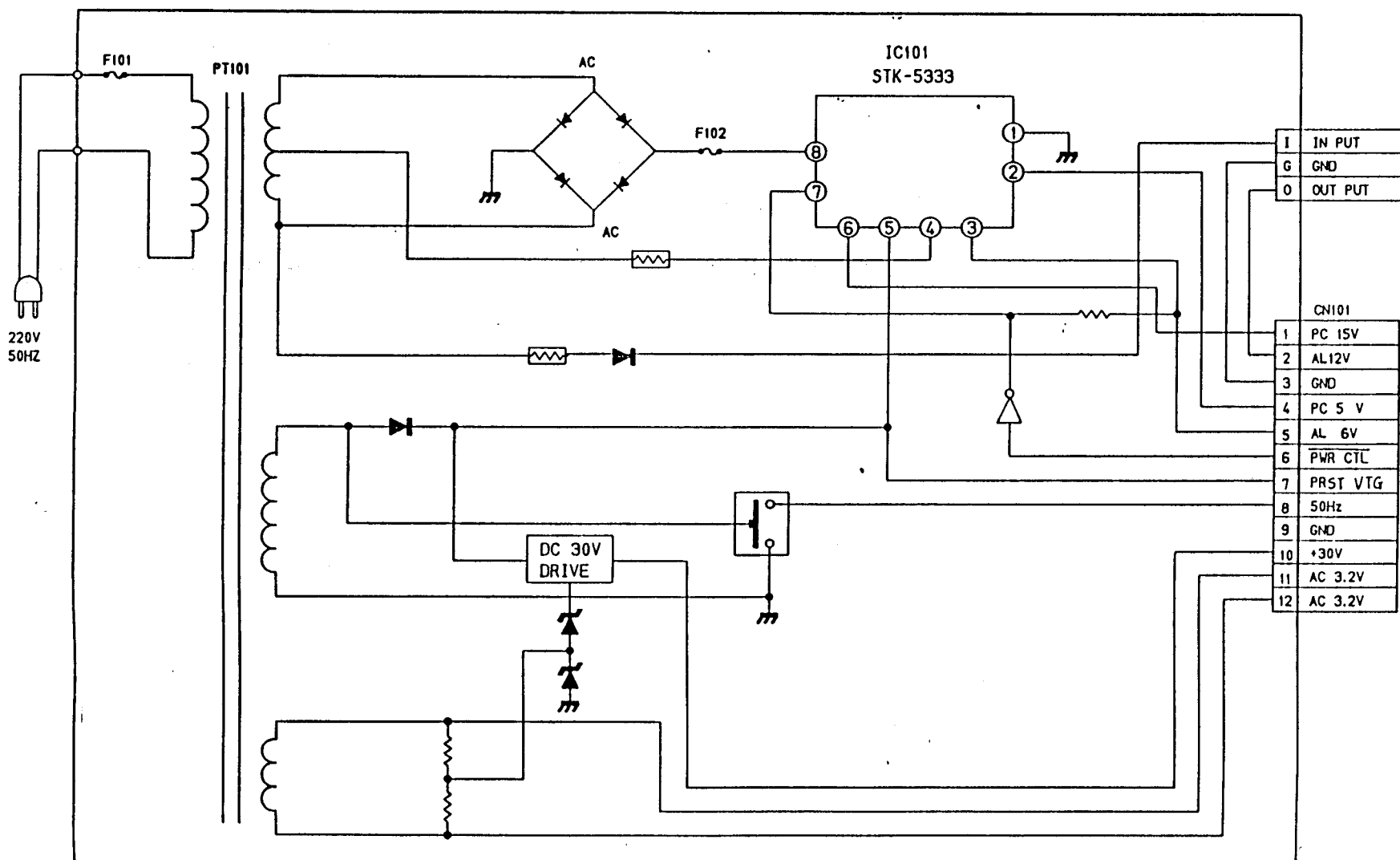
FULL ERASER C.B.A

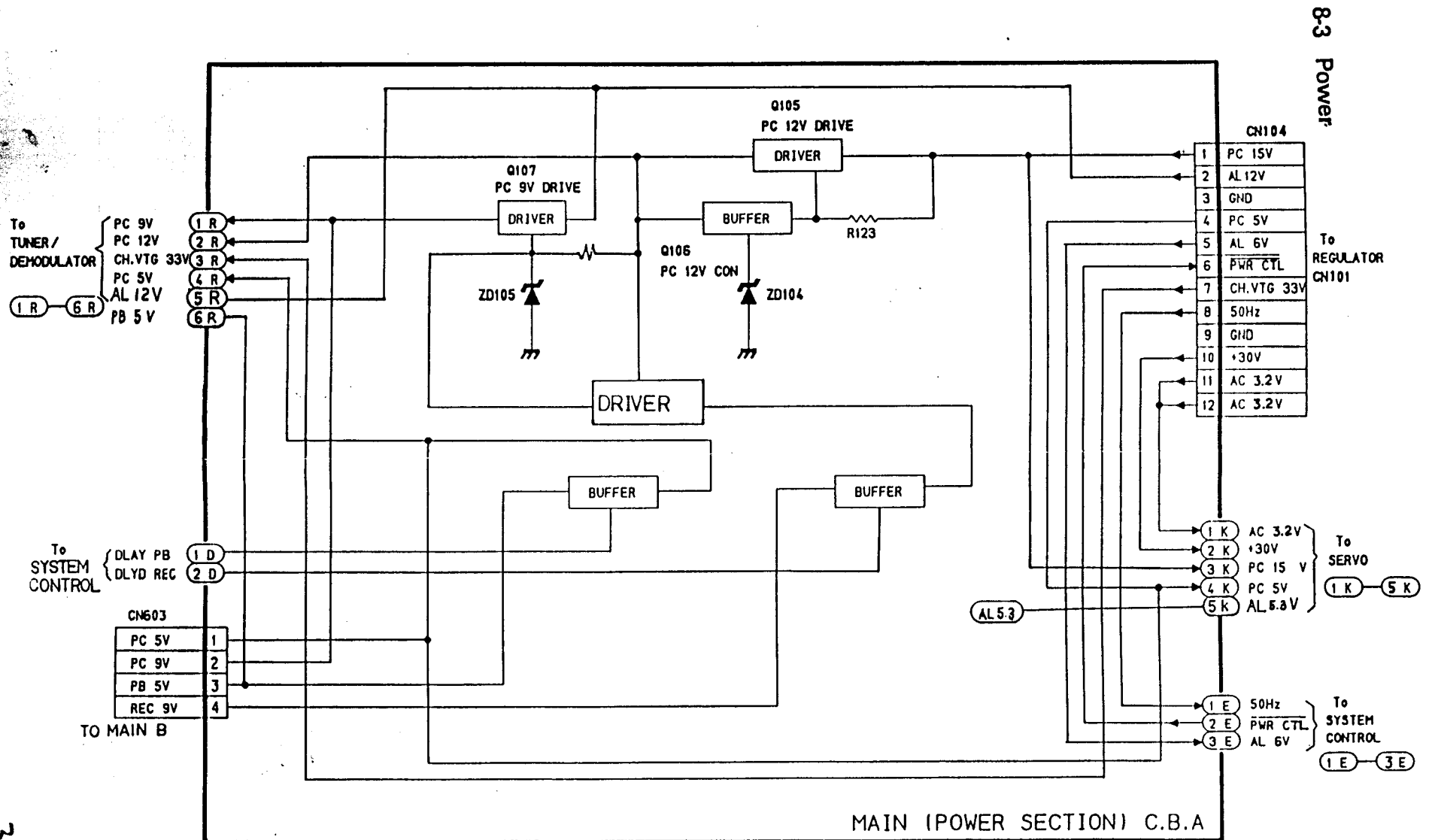
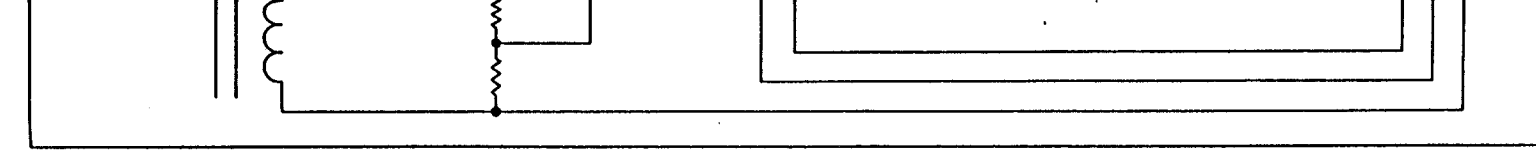
AUDIO REC/PB HEAD
CONTROL HEAD
AUDIO ERASE HEAD

FULL ERASE HEAD

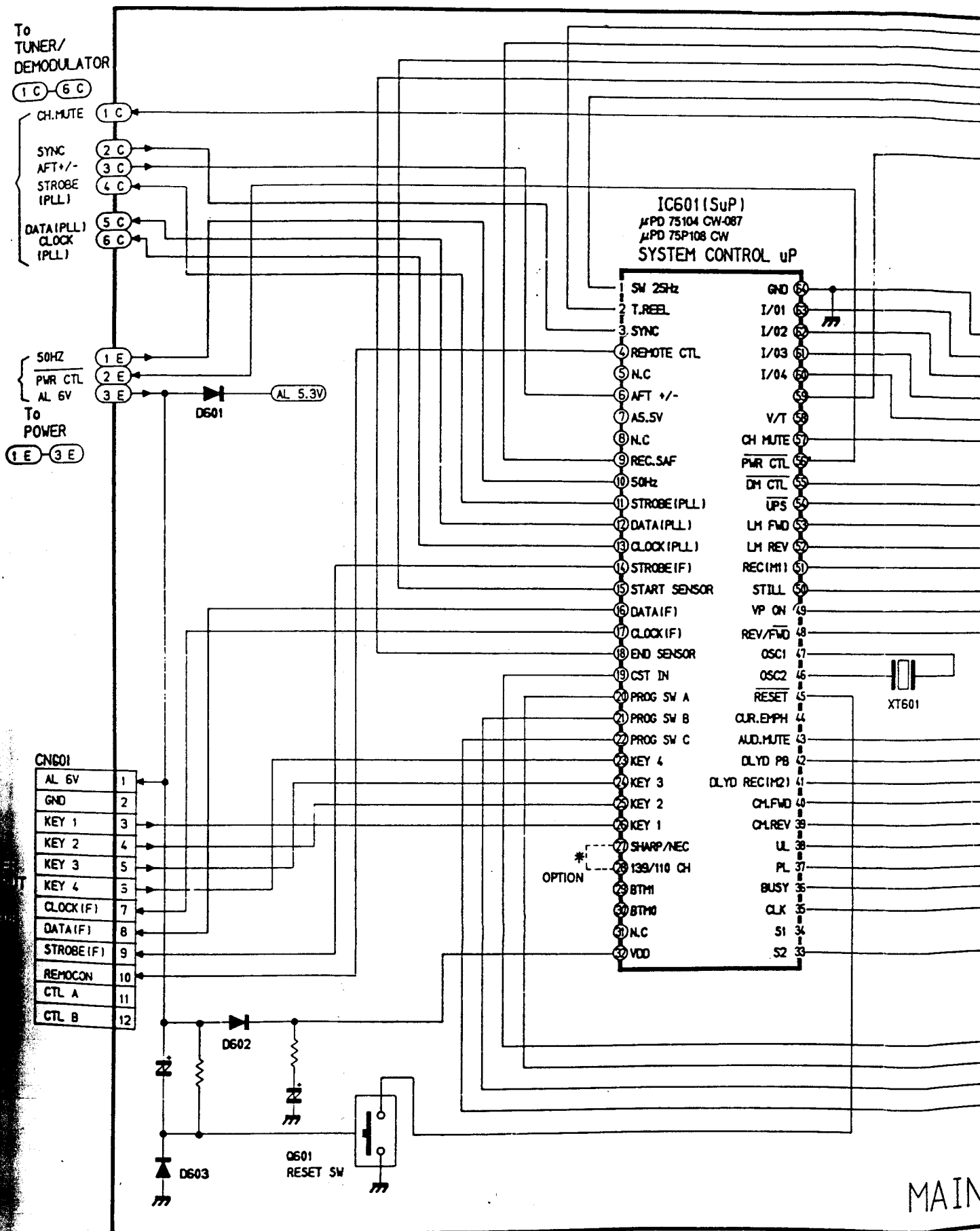
8-2 Regulator

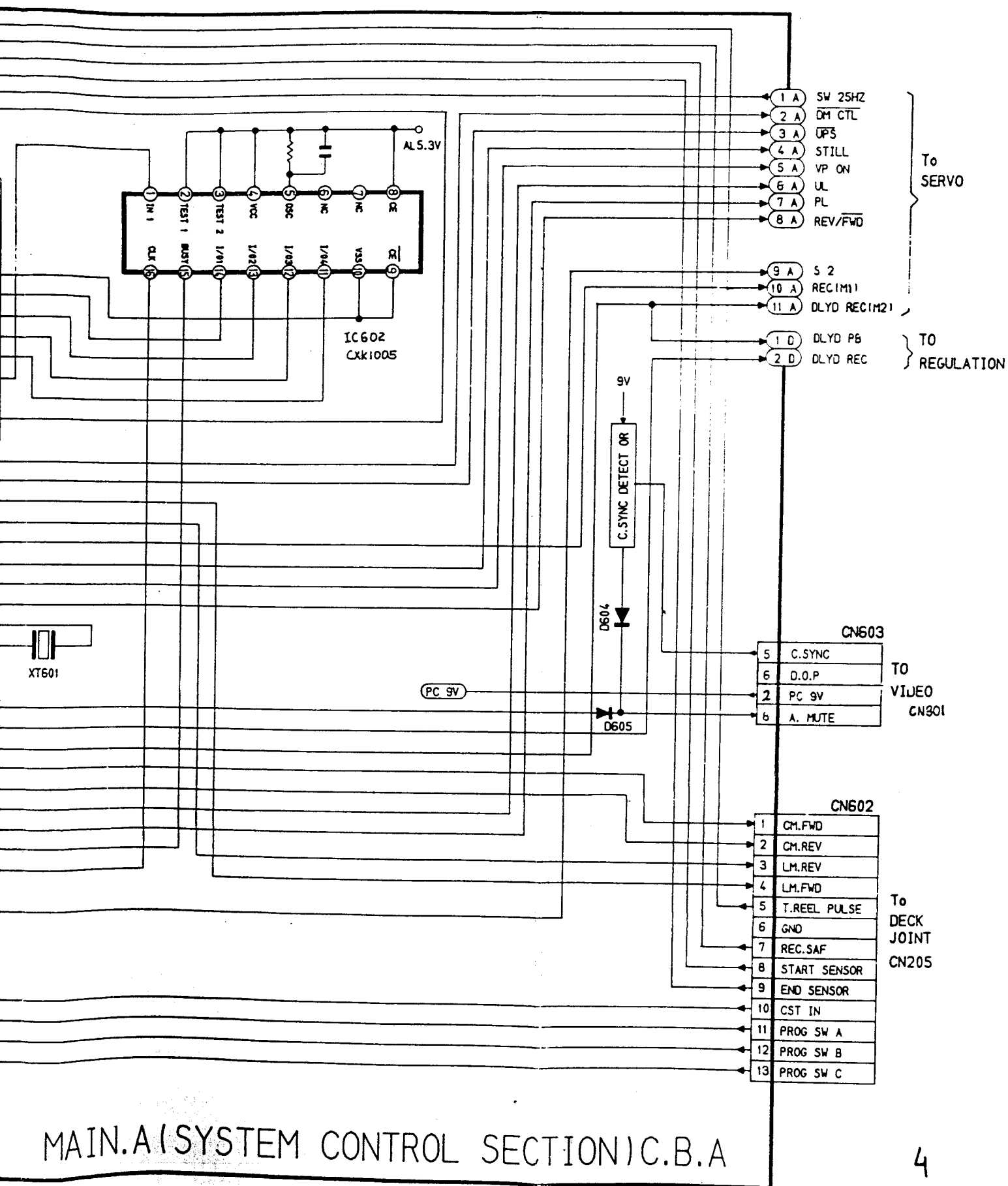
TO MAIN A
CN104



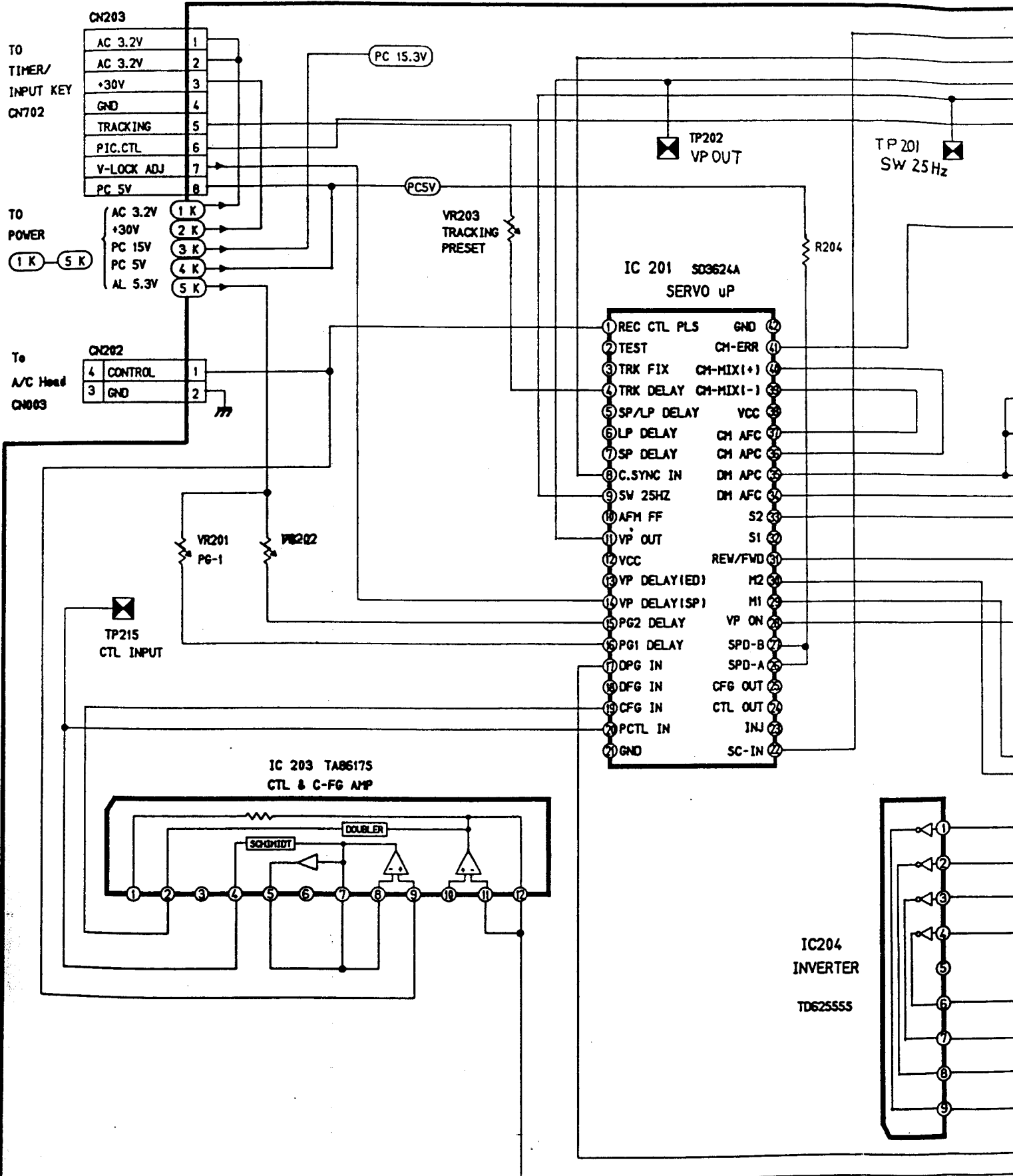


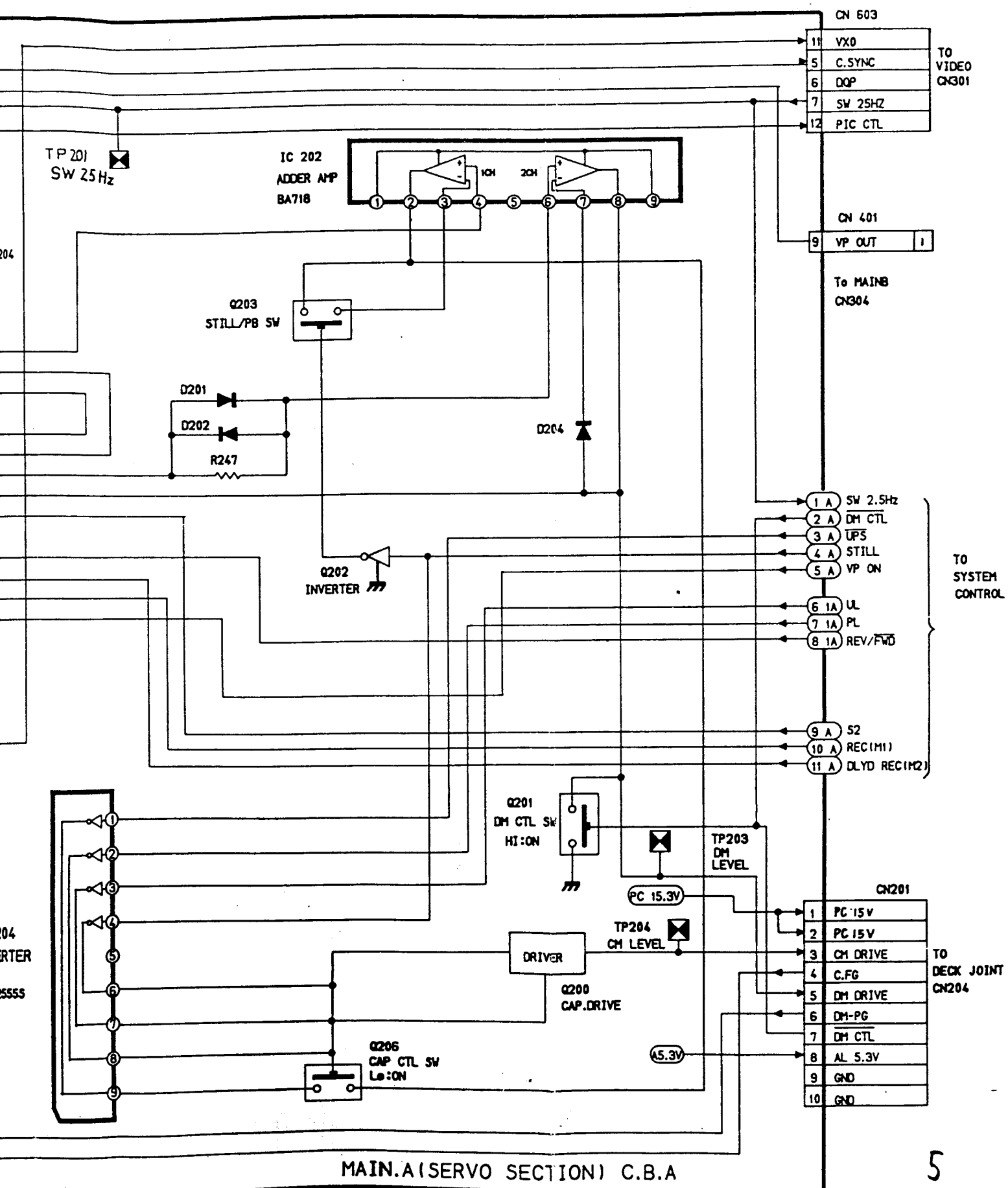
8-4. System Control

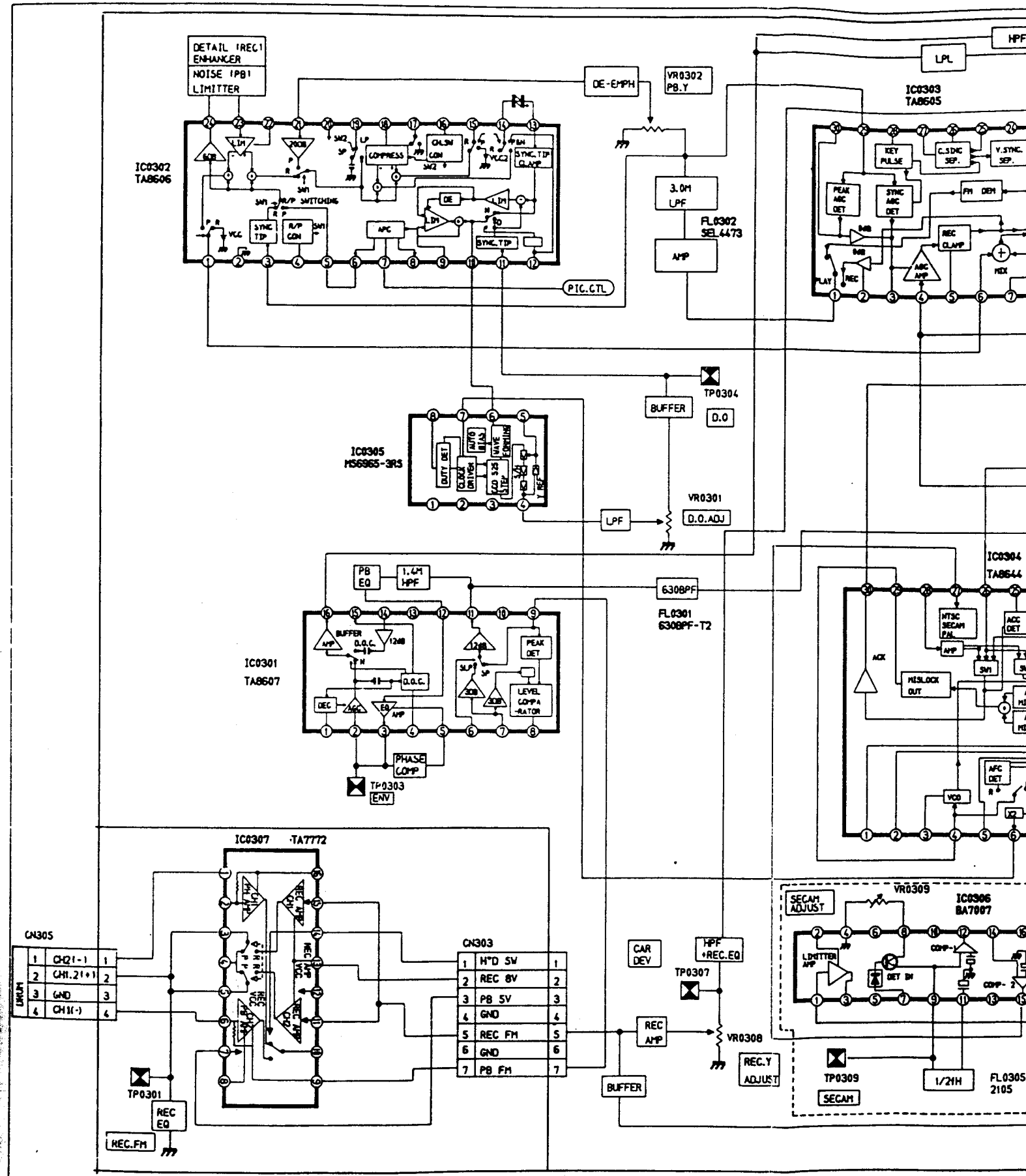


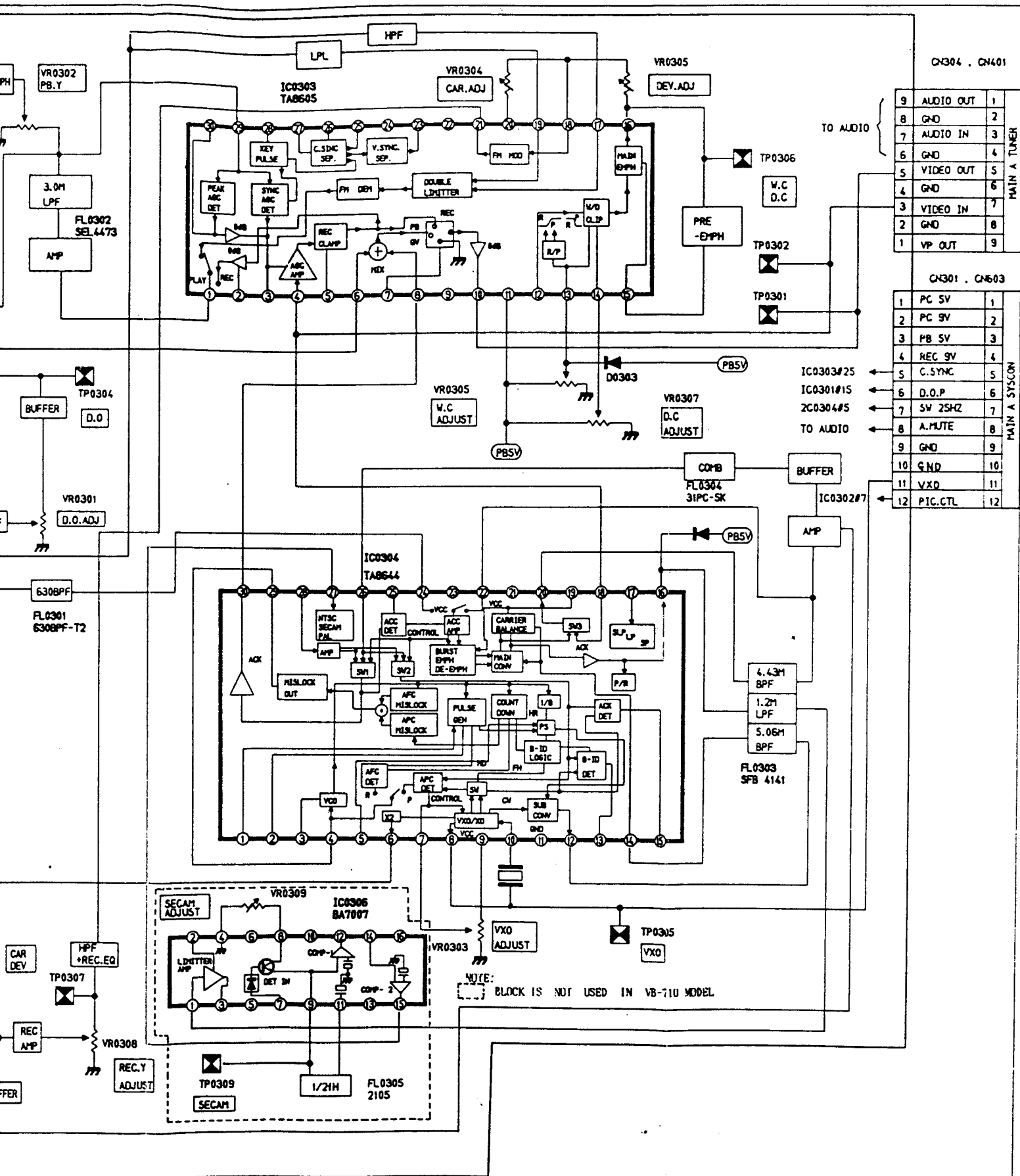


8-5. Servo



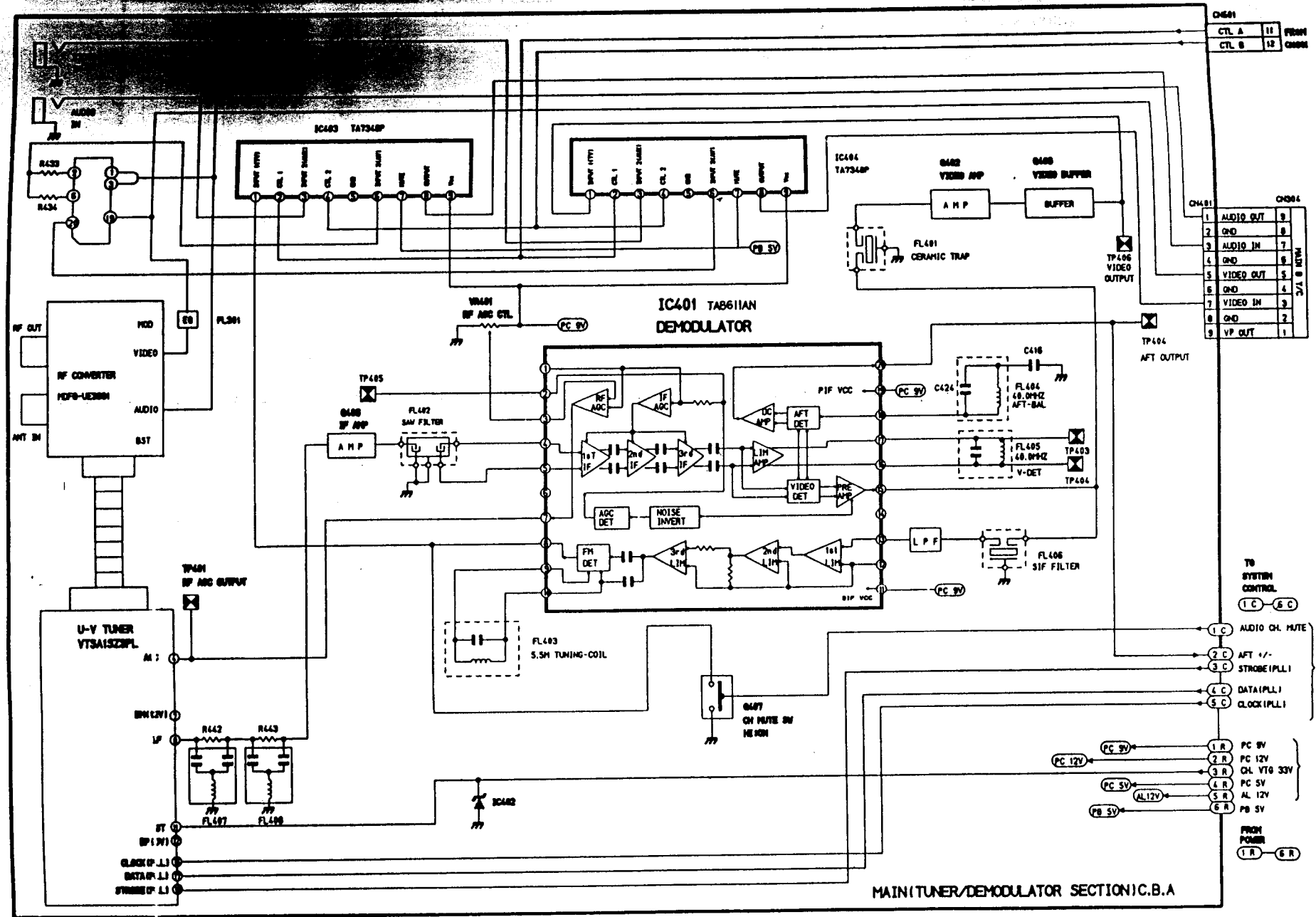






8-7-1. Tuner/Demodulator(SVX-301/VX-710)

8-7



CH401	CTL A	11	FROM
CH401	CTL B	12	CH401

CH401	CH404
1	AUDIO OUT
2	QND
3	AUDIO IN
4	QND
5	VIDEO OUT
6	QND
7	VIDEO IN
8	QND
9	VP OUT

TO SYSTEM CONTROL
(1 C - 5 C)

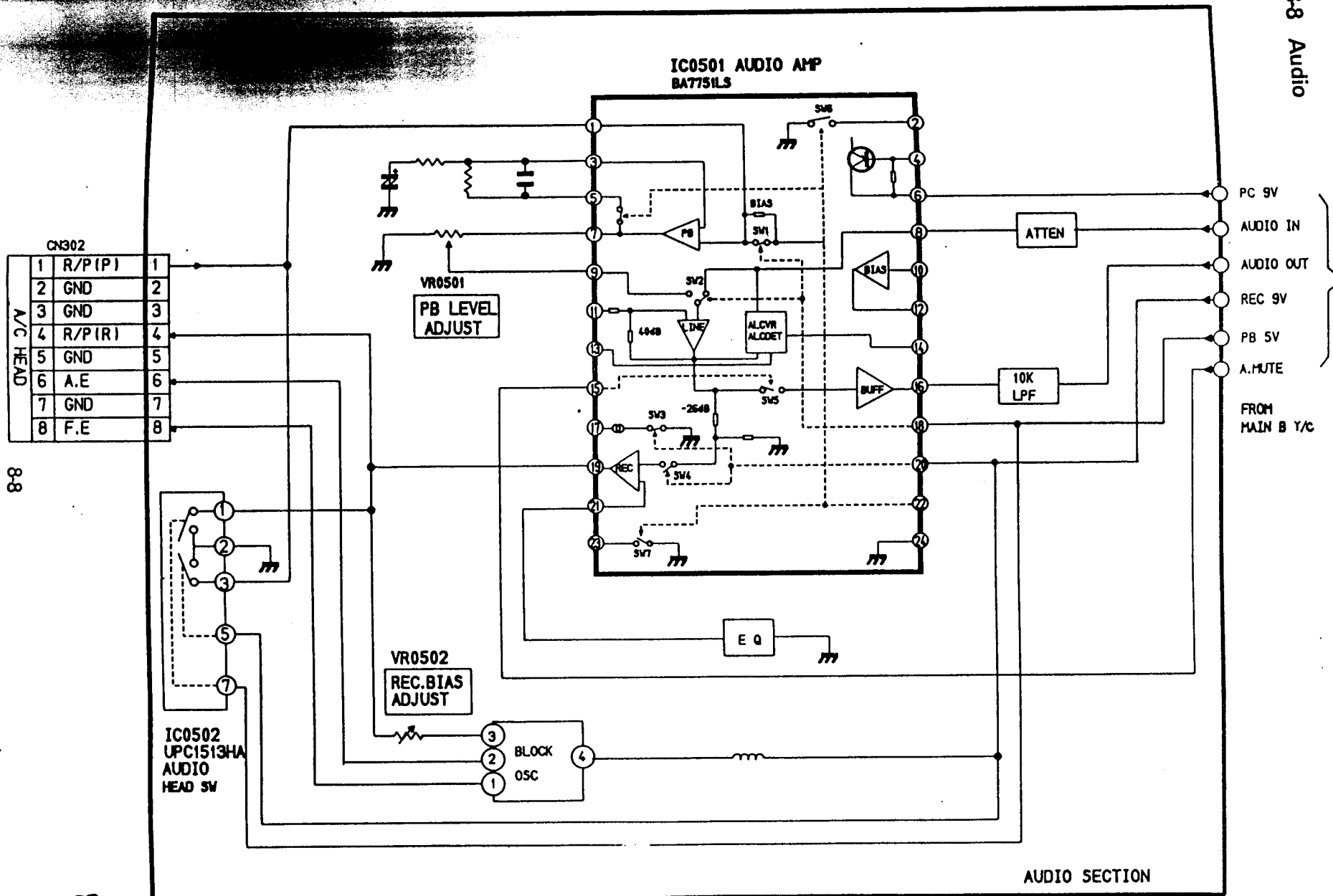
- 1 C AUDIO CH. MUTE
- 2 C AFT +/-
- 3 C STROBE (PLL)
- 4 C DATA (PLL)
- 5 C CLOCK (PLL)

- 1 R PC 9V
- 2 R PC 12V
- 3 R CH VT0 33V
- 4 R PC 5V
- 5 R AL 12V
- 6 R PB 5V

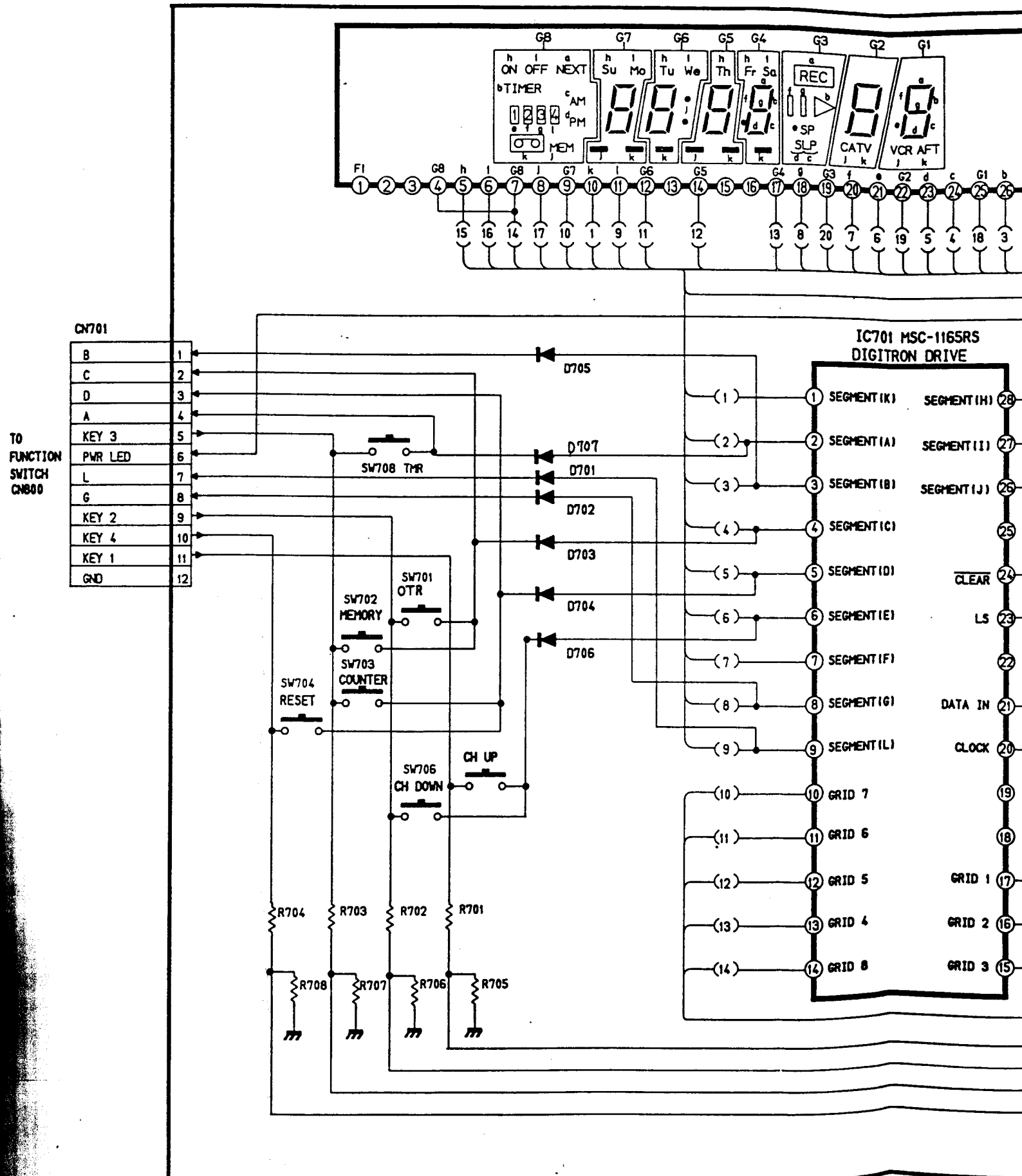
FROM POWER
(1 R - 6 R)

MAIN(TUNER/DEMOMULATOR SECTION)C.B.A

8-7-2. Tuner/Demodulator (VB-710)



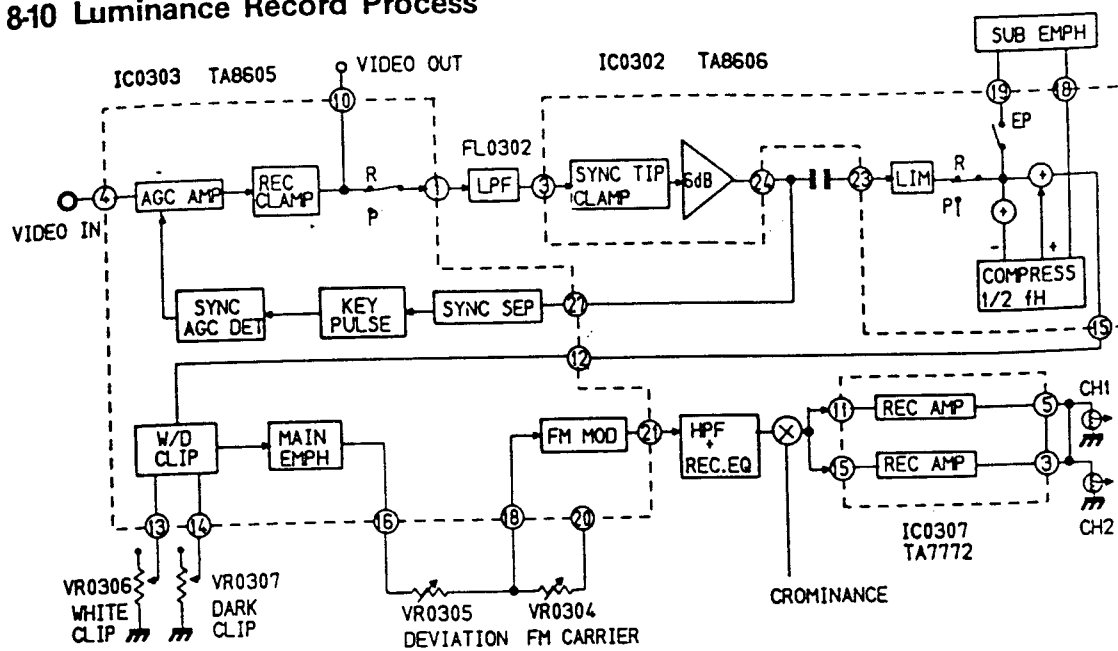
8-9 Timer/Input Key



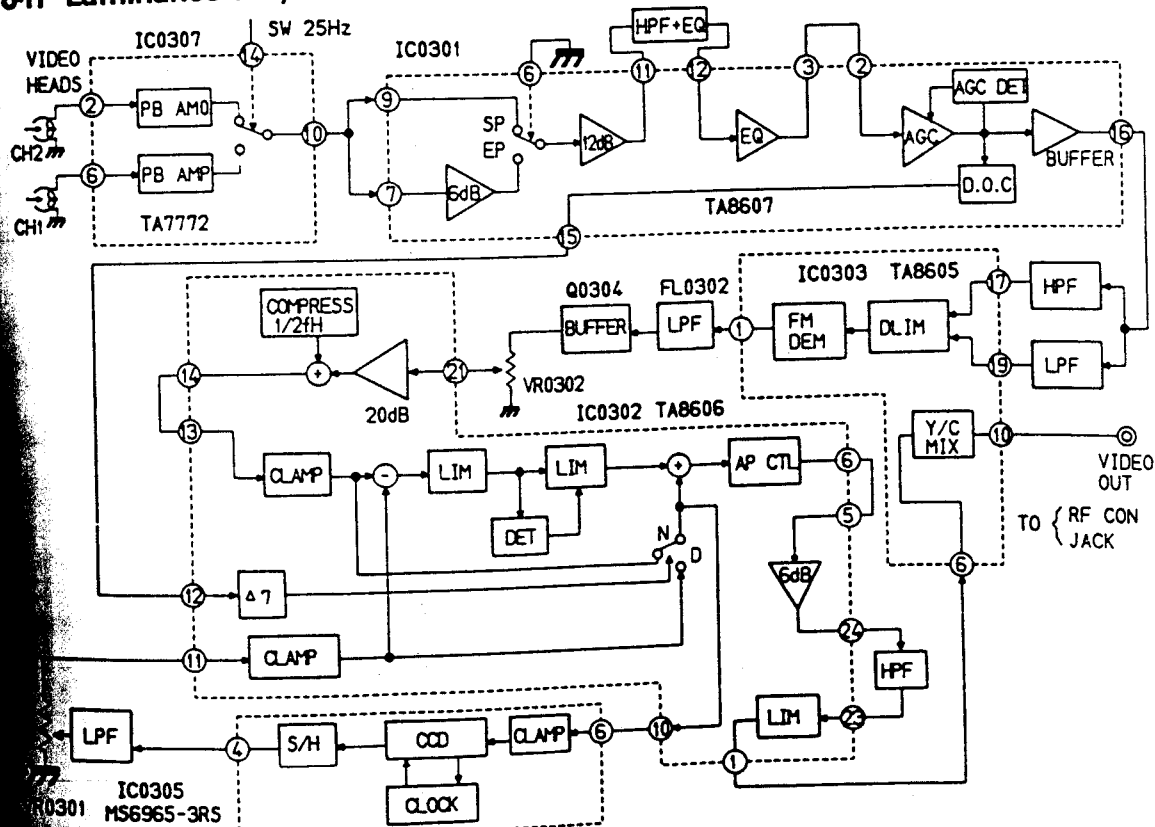
8. BLOCK DIAGRAM

- 8-1. Total Wiring Diagram**
- 8-2. Regulator**
- 8-3. Power**
- 8-4. System Control**
- 8-5. Servo**
- 8-6. Luminance/Chrominance**
- 8-7-1. Tuner/Demodulator (SVX-301/VX-710)**
- 8-7-2. Tuner/Demodulator (VB-710)**
- 8-8. Audio**
- 8-9. Timer/Input Key**
- 8-10. Luminance/Record Process**
- 8-11. Luminance Playback Process**
- 8-12. Chrominance Record Process**
- 8-13. Chrominance Playback Process**
- 8-14. Audio Record Process**
- 8-15. Audio Playback Process**
- 8-16. Drum Speed Control**
- 8-17. Drum Phase Control**
- 8-18. Capstan Speed Control**
- 8-19. Capstan Phase Control**

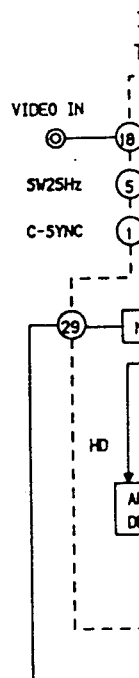
8-10 Luminance Record Process



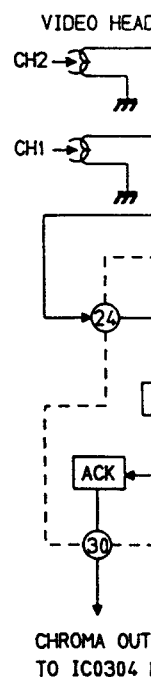
8.11 Luminance Playback Process



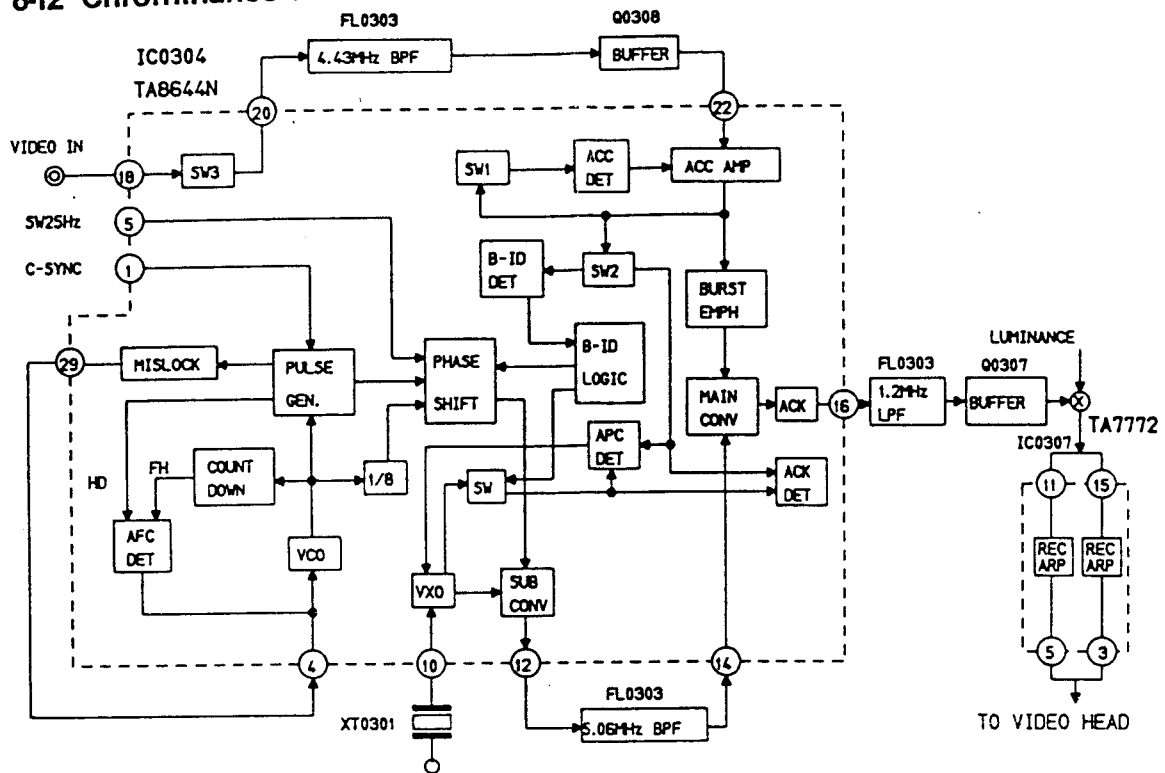
8-12 Chro



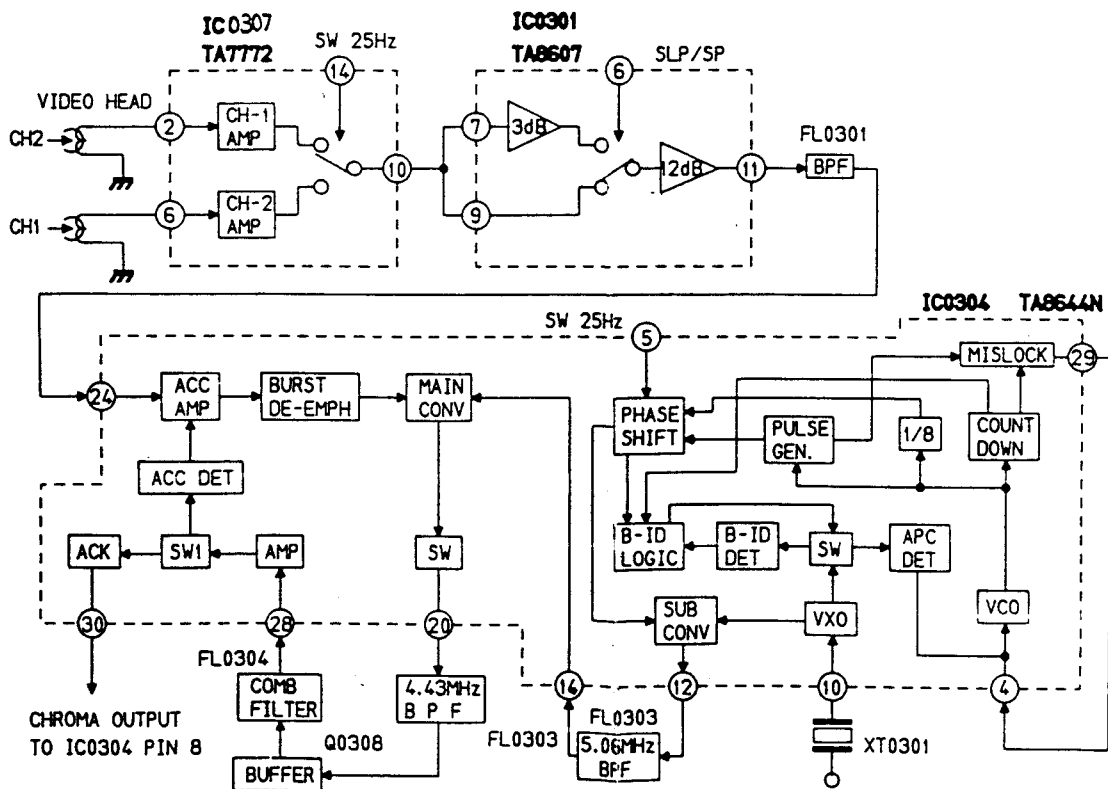
8-13 Chromin



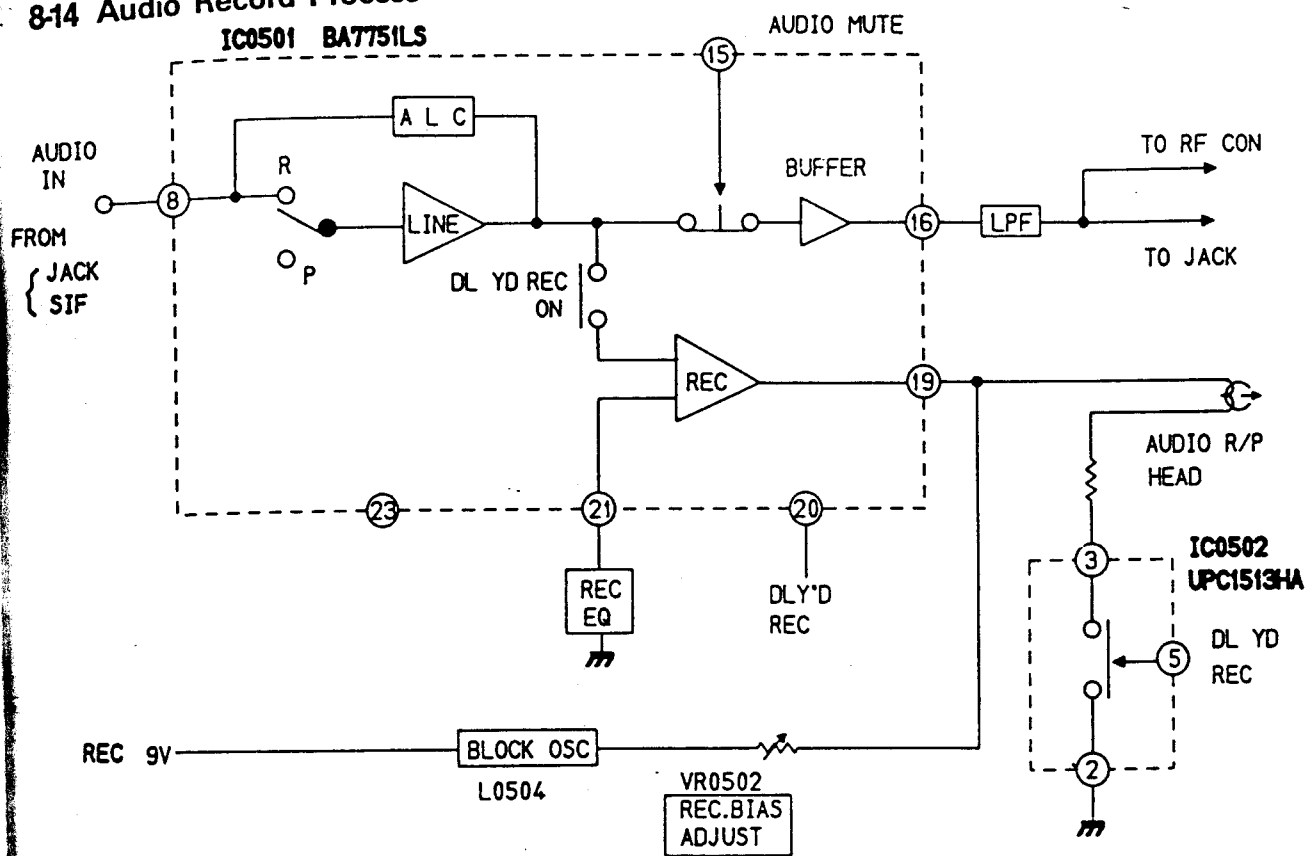
8-12 Chrominance Record Process



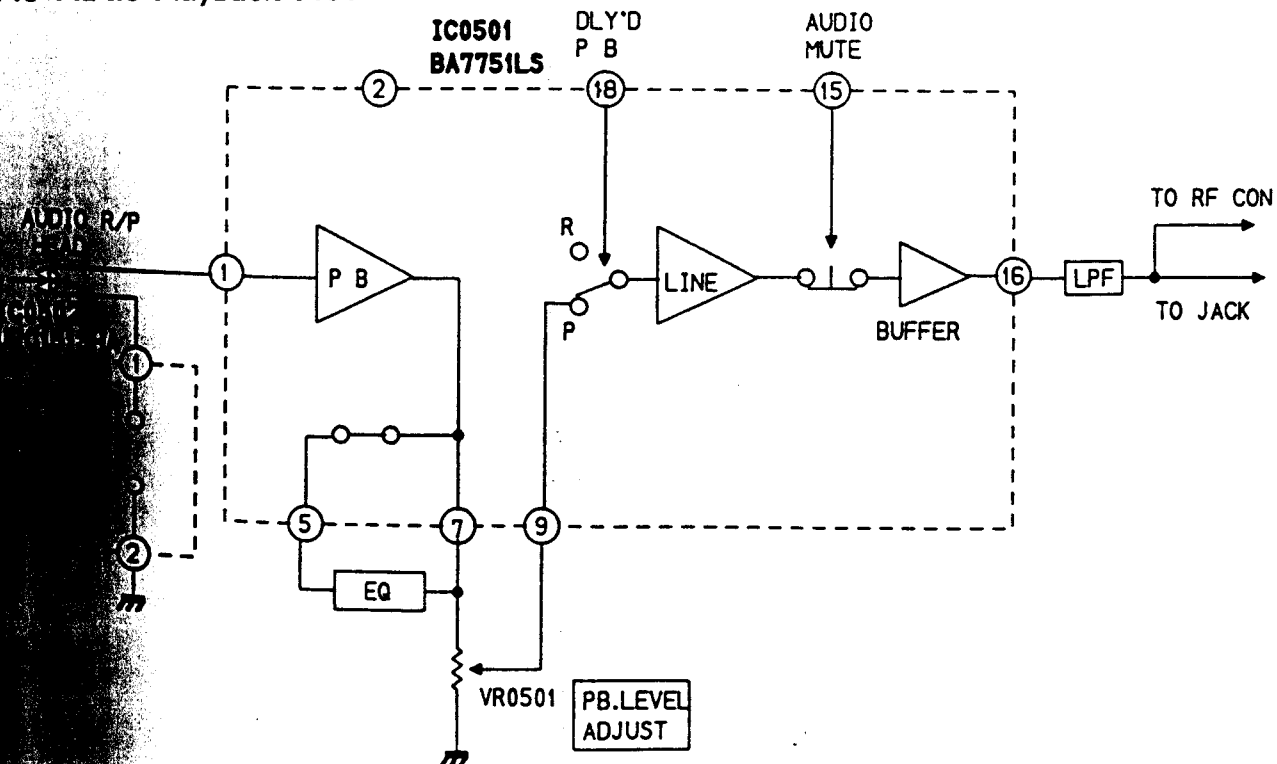
8-13 Chrominance Playback Process



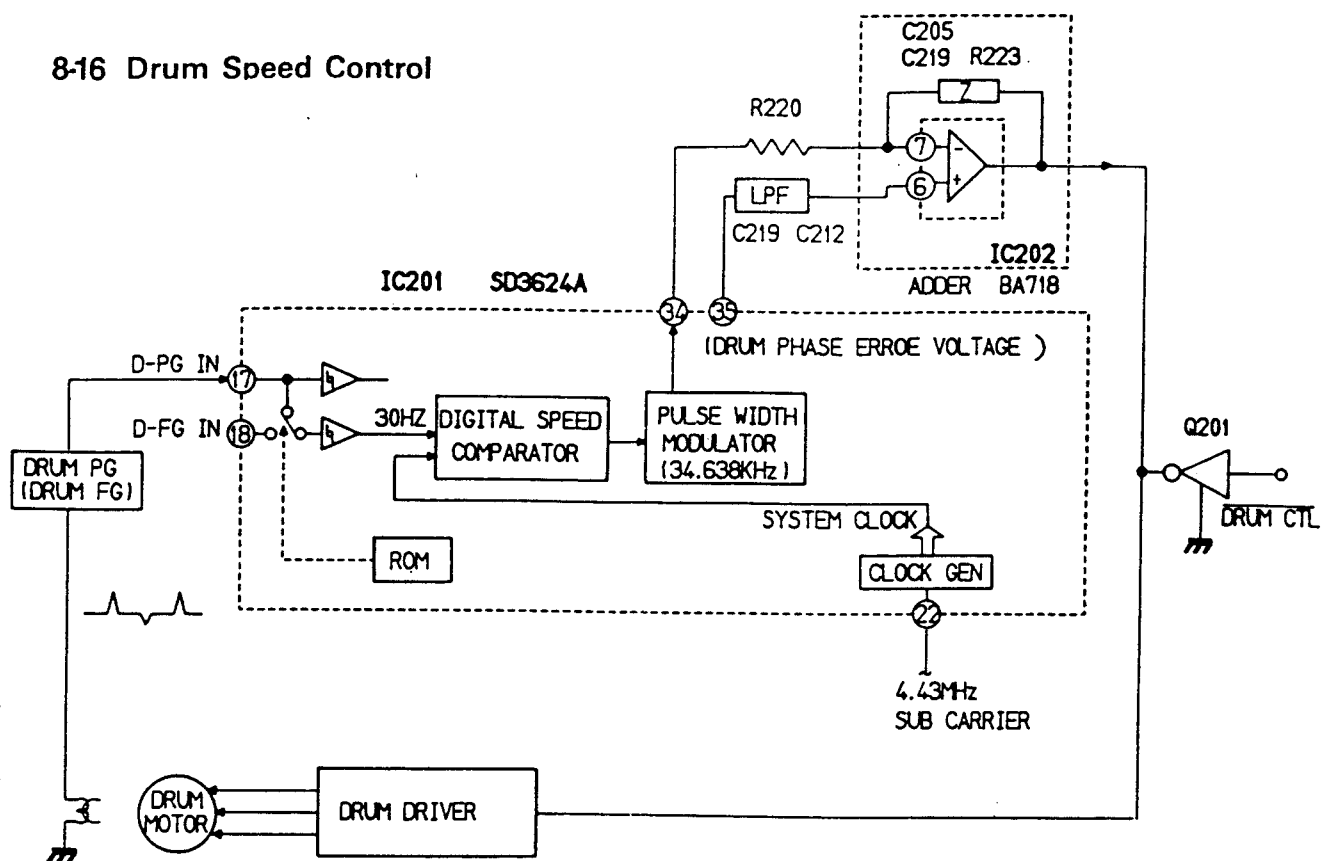
8-14 Audio Record Process



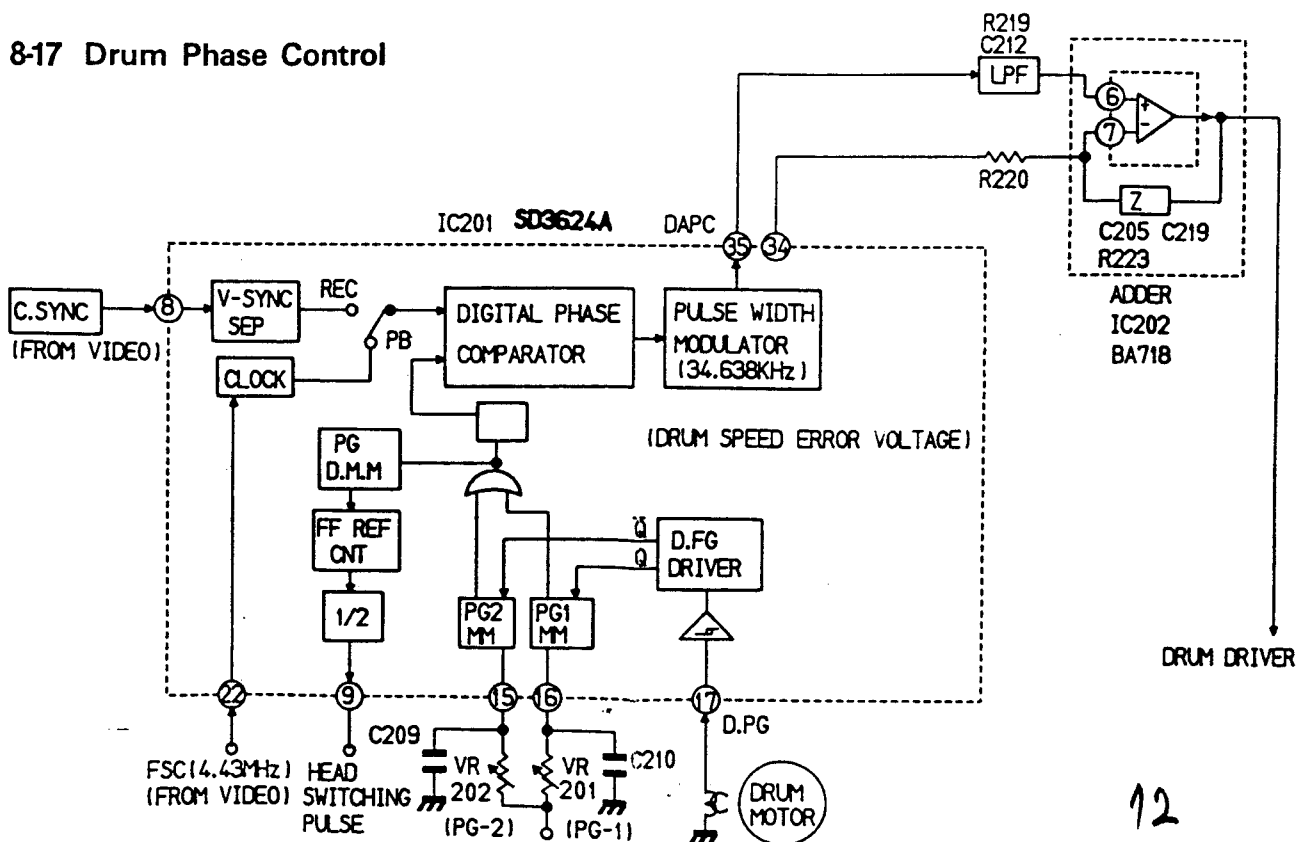
8-15 Audio Playback Process



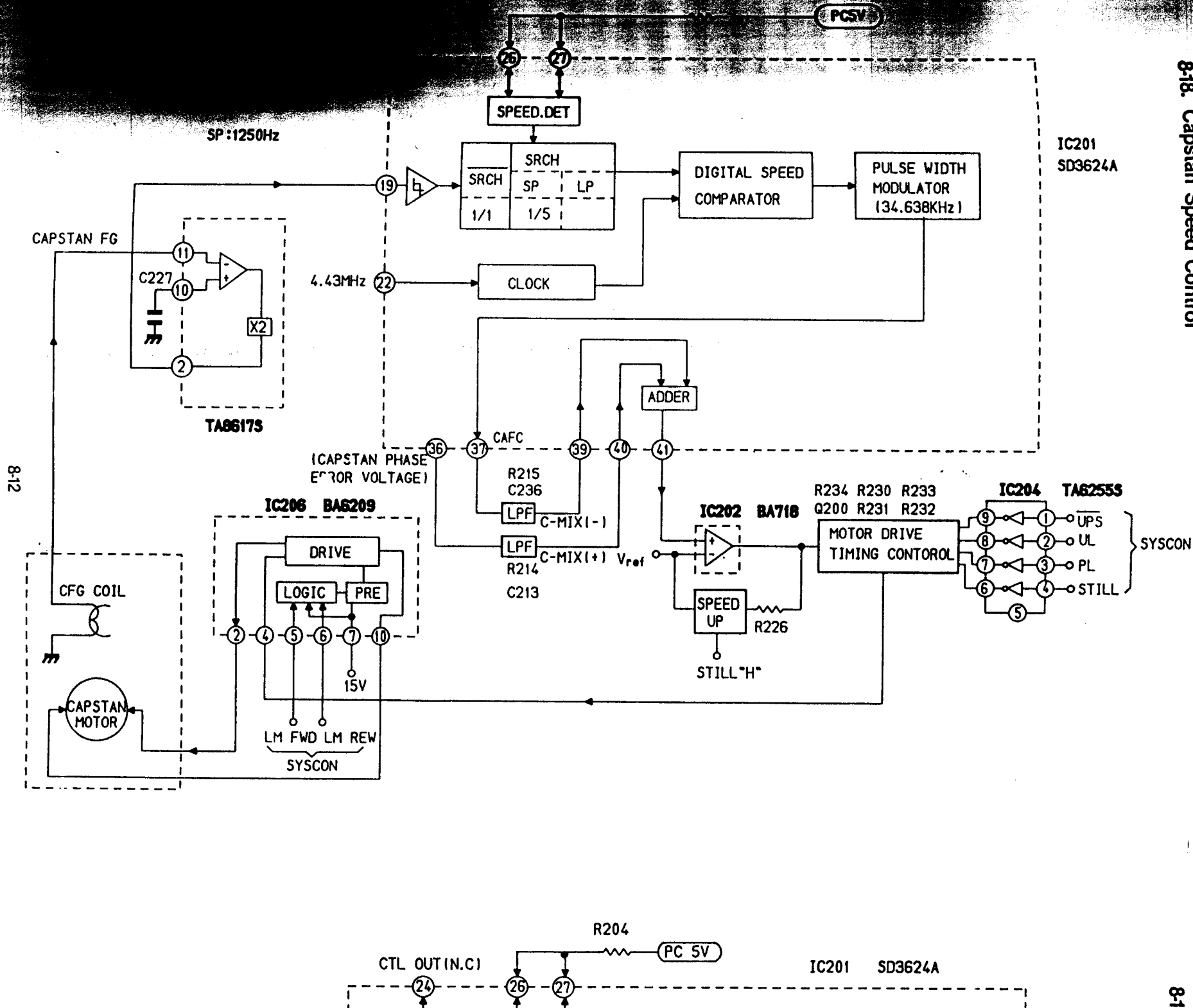
8-16 Drum Speed Control



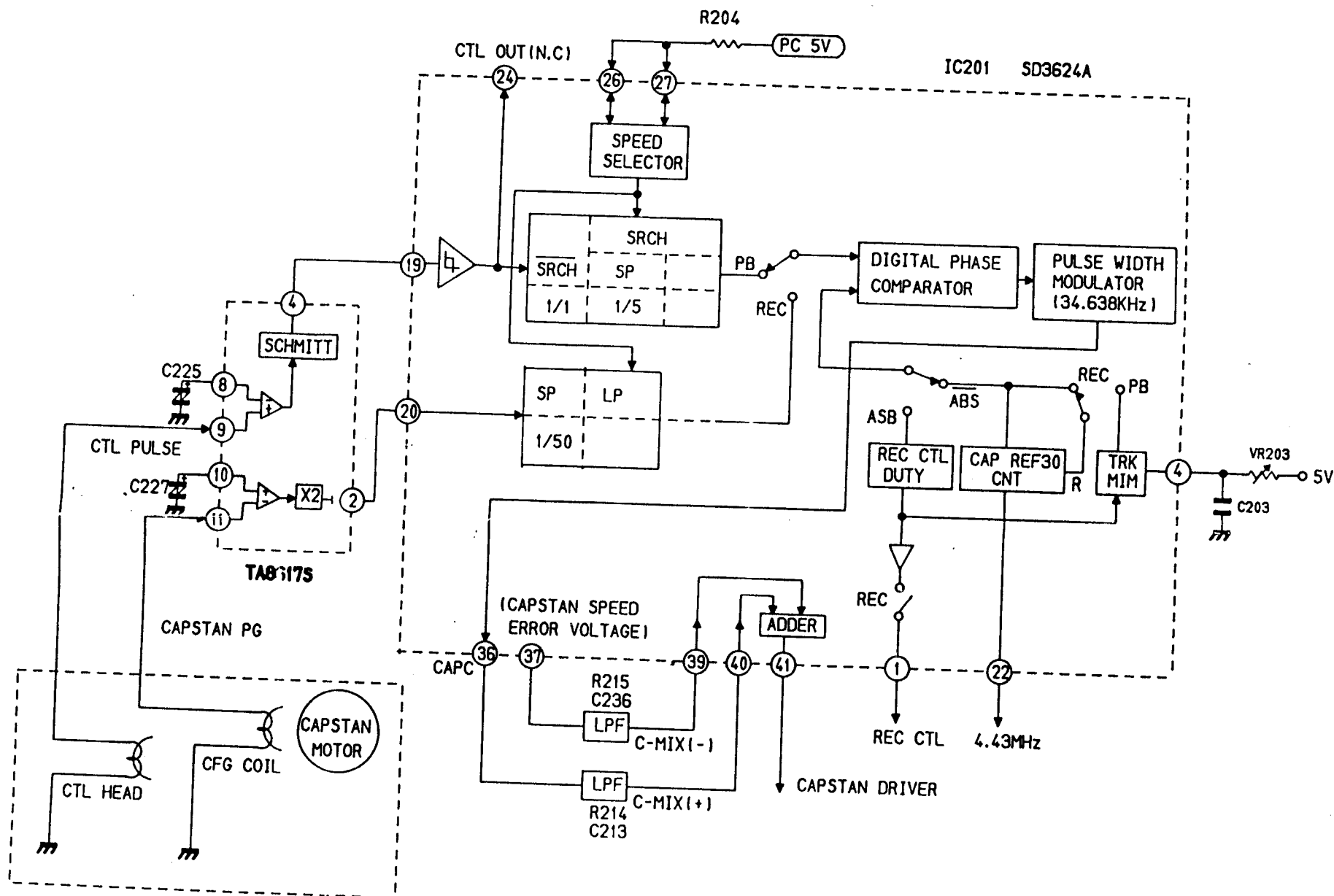
8-17 Drum Phase Control



8-18. Capstan Speed Control



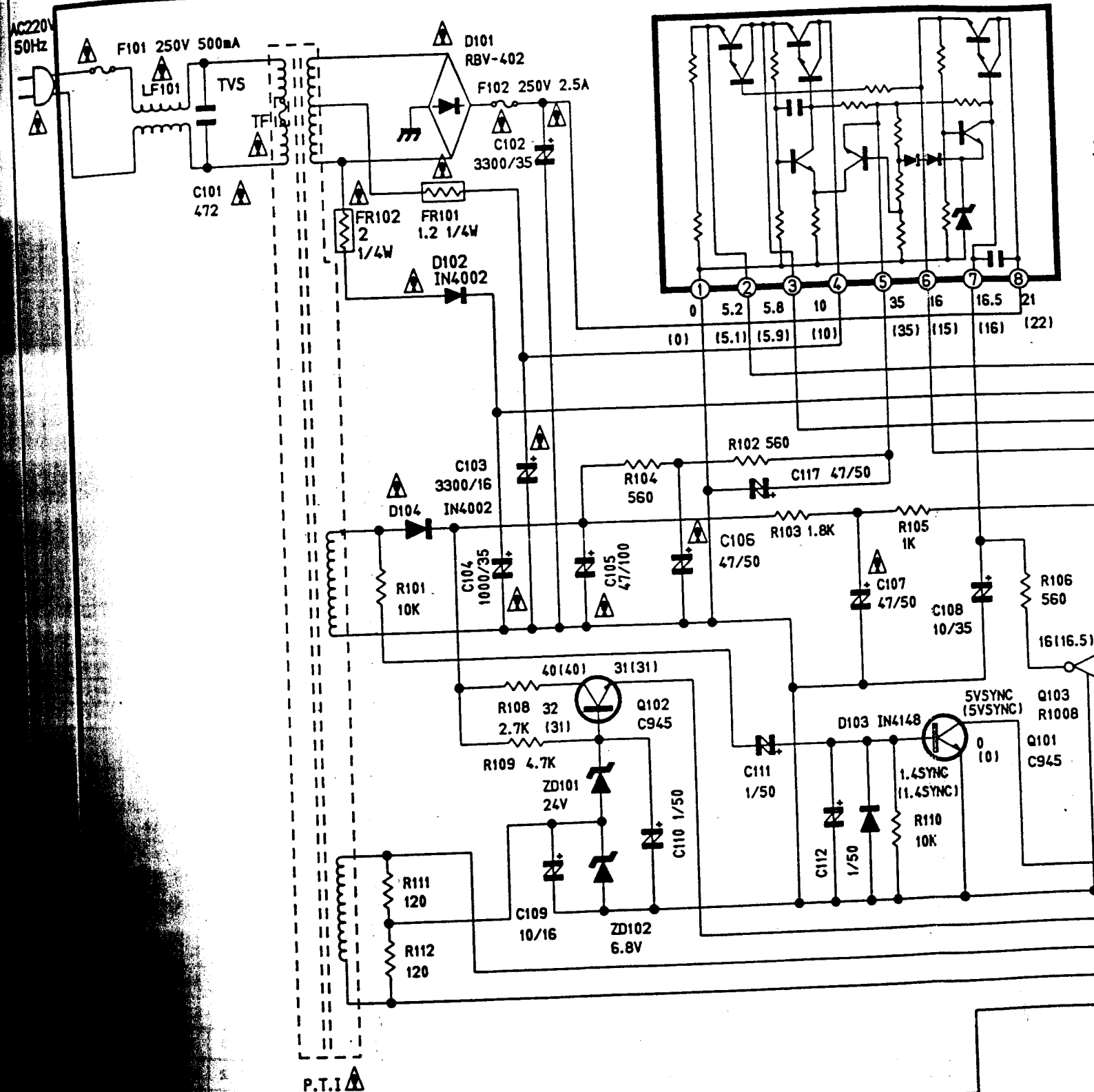
8-19. Capstan Phase Control

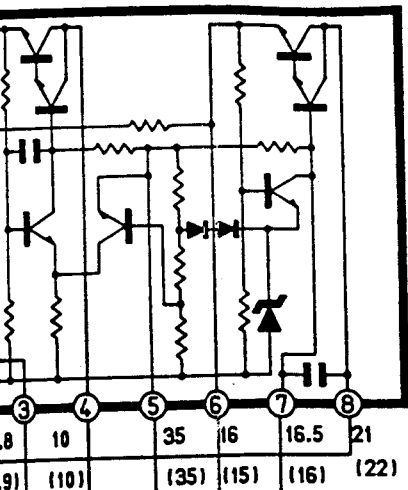


10. SCHEMATICS

- 10-1. Regulator
- 10-2. Power
- 10-3. System Control
- 10-4. Servo
- 10-5. Luminance/Chrominance
- 10-6. Audio
- 10-7. Pre-Amp
- 10-8-1. Tuner (SVX301, VX-710)
- 10-8-2. Tuner (VB-710)
- 10-9. Timer/Input Key
- 10-10. Deck Joint
- 10-11. Function Switch
- 10-12. Remote Control

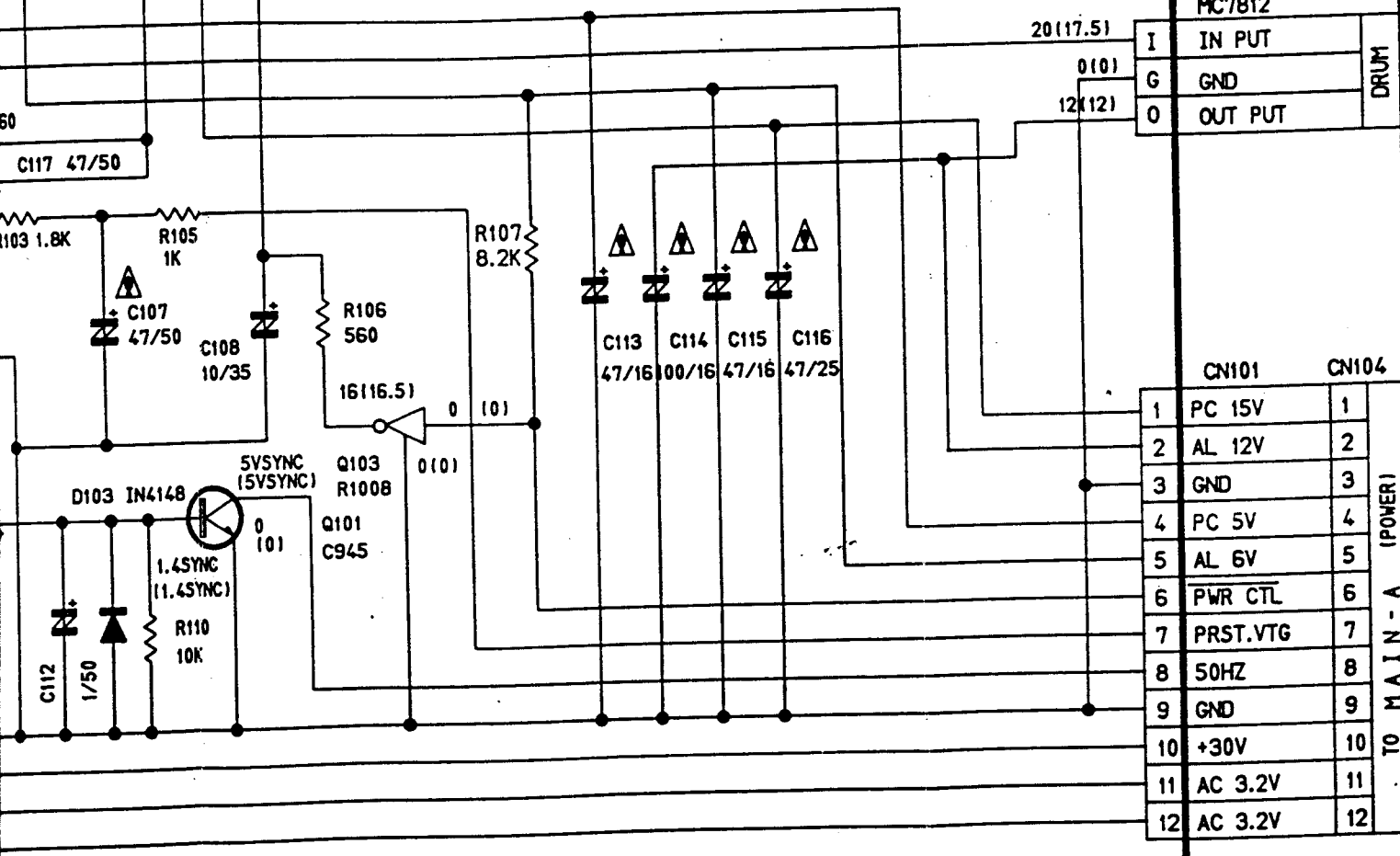
10-1. Regulator





△
IC101
STK-5333

△
IC102
MC7812



REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE PIN NO.	IC 101						
	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	0	0	0	0	0	0	0
PIN 2	5	5	5	5	5	5	5
PIN 3	6	6	6	6	6	6	6
PIN 4	10	9	9	9	9	9	9
PIN 5	21	21	21	21	21	21	21
PIN 6	15	15	15	15	15	15.5	15.5
PIN 7	17	16.5	16.5	16.5	16.5	16.5	16.5
PIN 8	22	21	22	21	21	21	21

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE PIN NO.	IC 102						
	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
I	19	19	19	19	19	19	19
G	0	0	0	0	0	0	0
O	13	12.5	12.5	12.5	12.5	13	13

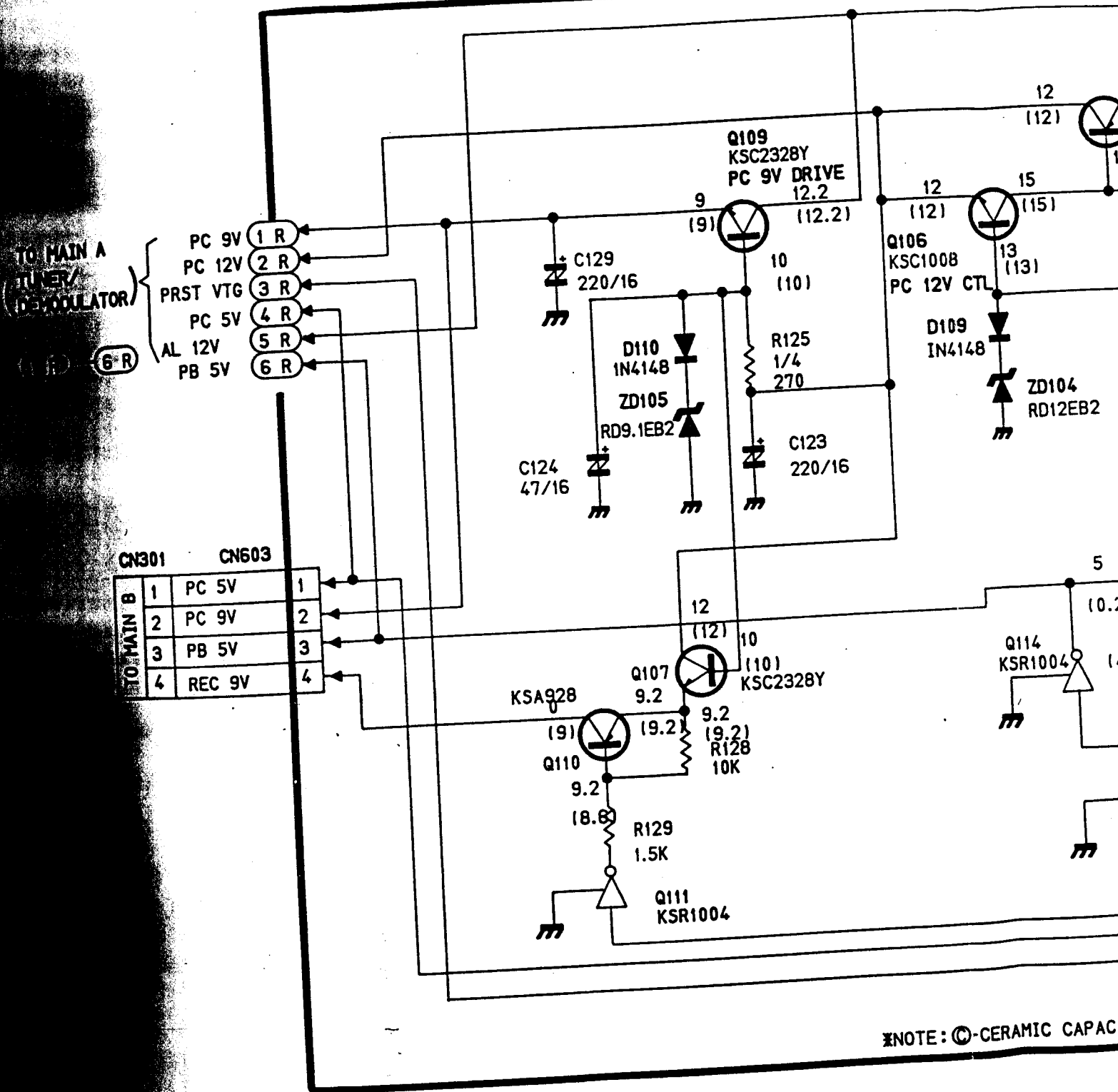
REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

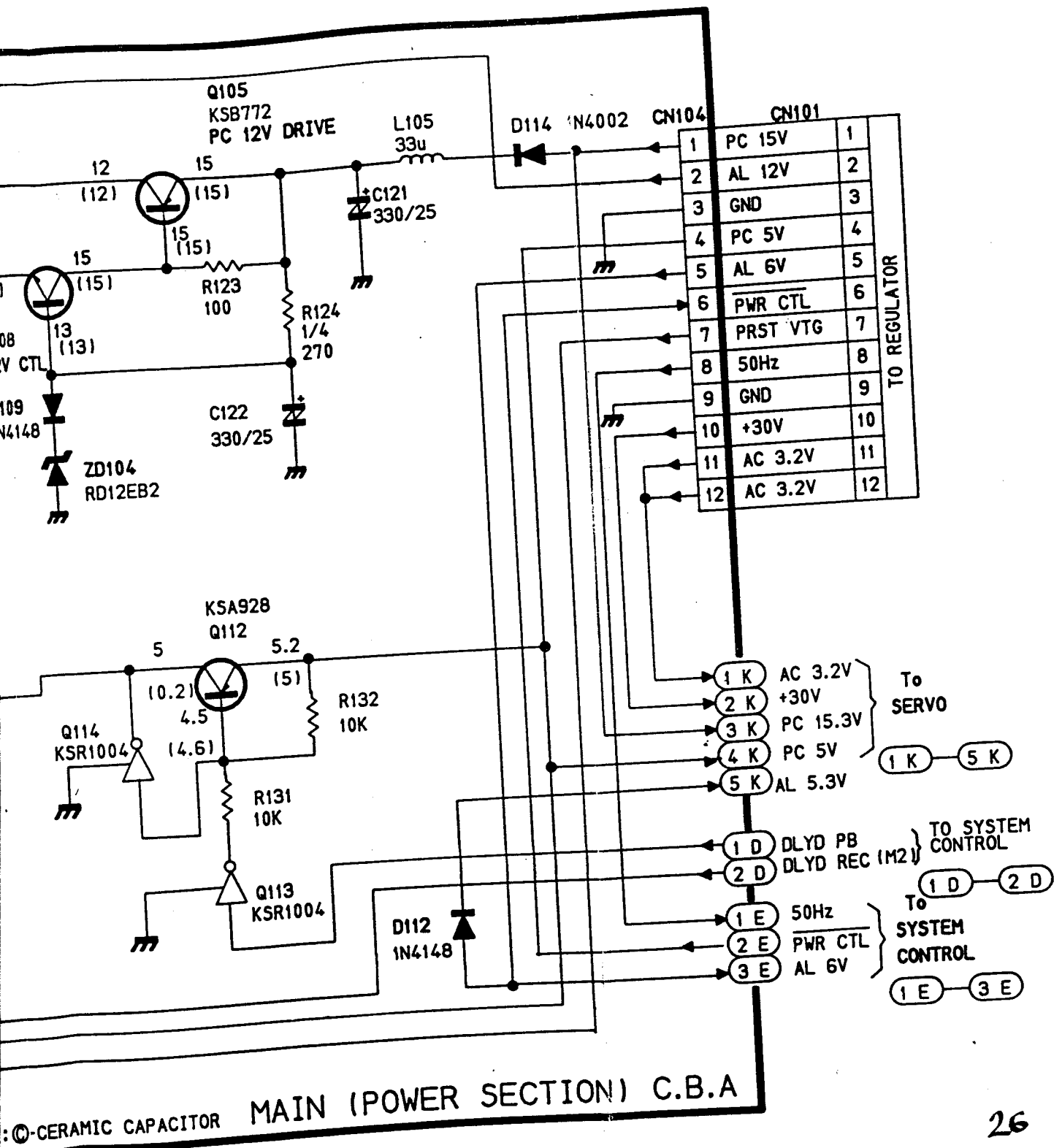
MODE Tr No.	STOP			REC			PLAY			REW			F. FWD			REV. S			FWD. S		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
Q 101	0	5	1.2	0	5	1.2	0	5	1.2	0	5	1.2	0	5	1.2	0	5	2	0	5	2
Q 102	32	32	32.5	31	31	32	32	32	32.5	31	31.5	32	31.5	32	32.5	31.5	32	32.5	31.5	32	32.5
Q 103	0	16	0	0	16	0	0	16	0	0	16	0	0	16.5	0	0	16.5	0	0	16.5	0

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE Tr No.	STOP			REC			PLAY			REW			F. FWD			REV. S			FWD. S		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
12	15	15	12	15	15	12	15	15	12	15	15	12	15	15	12	15	15	12	15	15	12
15	13	12	15	13	12	15	13	12	15	13	12	15	13	12	15	13	12	15	13	12	15
12	10	4.2	12	10	4.2	12	10	4.2	12	10	4.2	12	10	4.2	12	10	4.2	12	10	4.2	12
12.2	10	9	12.2	10	9	12.2	10	9	12.2	10	9	12.2	10	9	12.2	10	9	12.2	10	9	12.2
0	9.2	9.2	9	8.6	9.2	0	9.2	9.2	0	9.2	9.2	0	9.2	9.2	0	9.2	9.2	0	9.2	9.2	0
2	0	0	0	5	0	9.2	0	0	9.2	0	0	9.2	0	0	9.2	0	0	9.2	0	0	9.2
2	4.6	5.	0.2	4.6	5.2	5	4.5	5	0.2	4.6	5	0.2	4.6	5	0.2	4.6	5	0.2	4.6	5	0.2
0	0	4	0	0	0	5	0	4	0	0	4	0	0	4	0	0	5	0	0	5	0
0.2	4	0	0.2	4	0	5	0	0	0.2	4	0	0.2	4	0	5	0	0	5	0	0	5

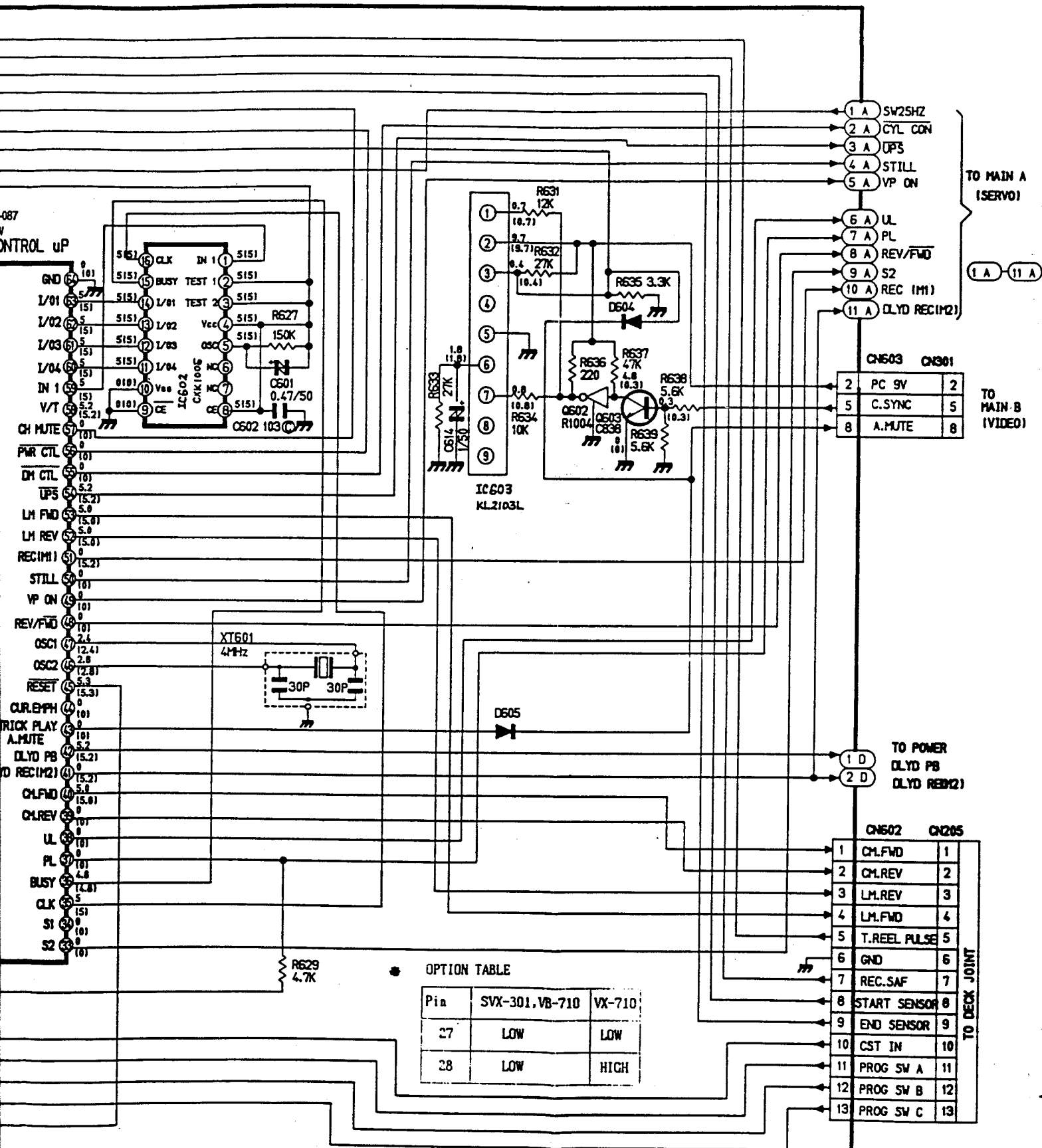
10-2 Power





10-3 System Control





TE: C-CERAMIC CAPACITOR

MAIN (SYSTEM CONTROL SECTION) C.B.A

REV S. : REVERSE SEARCH
FWD S. : FORWARD SEARCH

REV S. : REVERSE SEARCH
FWD S. : FORWARD SEARCH

MODE		IC 001					
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	4.5	2.0	2.0	2.1	2.1	2.1	2.1
PIN 2	0	—	—	—	—	—	—
PIN 3	0	0	0	0	0	0	0
PIN 4	5	5	5	5	5	5	5
PIN 5	0	0	0	0	0	0	0
PIN 6	3.4	3.4	3.4	3.4	3.4	3.4	3.4
PIN 7	5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 8	5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 9	0	5	0	5	5	5	5
PIN 10	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PIN 11	0	0	0	0	0	0	0
PIN 12	5	5	5	5	5	5	5
PIN 13	0	0	0	0	0	0	0
PIN 14	0	0	0	0	0	0	0
PIN 15	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PIN 16	0	0	0	0	0	0	0
PIN 17	0.8	0.8	0.8	0.8	0.8	0.8	0.8
PIN 18	5	5	5	5	5	5	5
PIN 19	0	0	0	0	0	0	0
PIN 20	5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 21	0	5.1	5.1	5.1	5.1	0	5.1
PIN 22	4.8	0	0	0	0	4.8	0
PIN 23	0	5.1	5.1	0	0	5	5
PIN 24	0	0	0	0	0	0	0
PIN 25	0	0	0	0	0	0	0
PIN 26	0	0	0	0	0	0	0
PIN 27	0	0	0	0	0	0	0
PIN 28	0	0	0	0	0	0	0
PIN 29	5.1	5	5	5	5	5	5
PIN 30	5.1	5	5	5	5	5	5
PIN 31	0	0	0	0	0	0	0
PIN 32	5	5	5	5	5	5	5
PIN 33	0	0	0	0	0	0	0
PIN 34	5	5	5	5	5	5	5
PIN 35	4.8	4.8	4.8	4.8	4.8	4.8	4.8
PIN 36	0	0	0	0	0	0	0
PIN 37	0	0	0	0	0	0	0

MODE		IC 001					
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 39	4.8	0	0	4.8	0	4.8	0
PIN 40	4.8	4.8	4.8	0	4.8	0	5
PIN 41	0	5	0	0	0	0	0
PIN 42	0	0	5	0	0	5	5
PIN 43	0	0	0	0	0	0	0
PIN 44	0	0	0	0	0	0	0
PIN 45	5	5	5	5	5	5	5
PIN 46	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PIN 47	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PIN 48	0	0	0	5	0	5	0
PIN 49	0	0	0	5	5	5	5
PIN 50	0	0	0	0	0	0	0
PIN 51	0	5	0	0	0	0	0
PIN 52	4.8	4.8	4.8	4.8	4.8	4.8	4.8
PIN 53	4.8	4.8	4.8	4.8	4.8	4.8	4.8
PIN 54	0	5	5	5	5	5	5
PIN 55	5	0	0	5	5	0	0
PIN 56	0	0	0	0	0	0	0
PIN 57	0	0	0	0	0	0	0
PIN 58	5	5	5	5	5	5	5
PIN 59	5	5	5	5	5	5	5
PIN 60	5	5	5	5	5	5	5
PIN 61	5	5	5	5	5	5	5
PIN 62	5	5	5	5	5	5	5
PIN 63	5	5	5	5	5	5	5
PIN 64	0	0	0	0	0	0	0

MODE		STOP
PIN 1	5	
PIN 2	5.1	
PIN 3	5.1	
PIN 4	5.1	
PIN 5	5.1	
PIN 6	0	
PIN 7	0	
PIN 8	5	
PIN 9	0	
PIN 10	0	
PIN 11	5	
PIN 12	5	
PIN 13	5	
PIN 14	5	
PIN 15	5	
PIN 16	5	

REVERSE SEARCH
FWD S.: FORWARD SEARCH

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

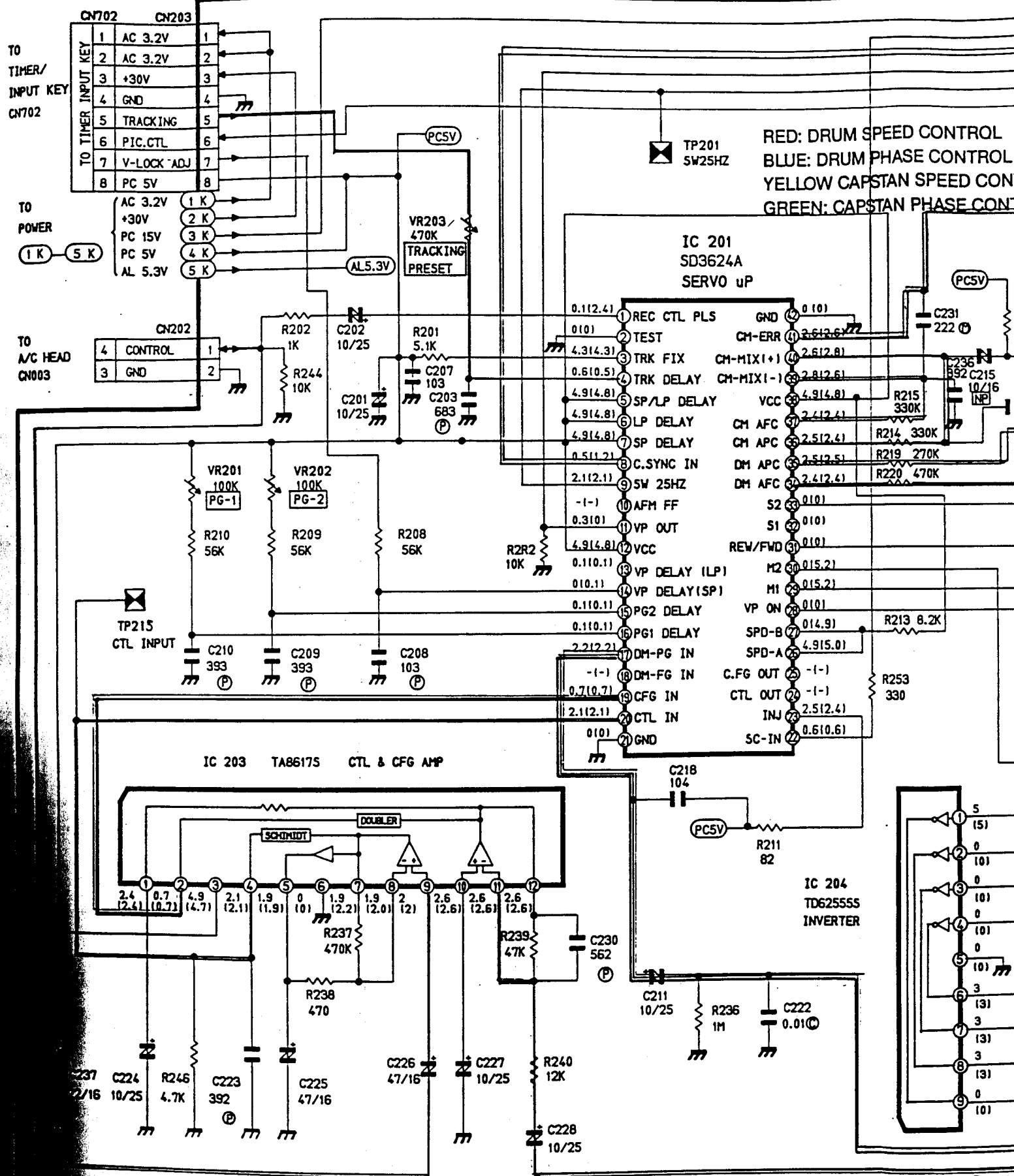
MODE		IC 802						
PIN NO.		STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1		5	5	5	5	5	5	5
PIN 2		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 3		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 4		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 5		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 6		0	0	0	0	0	0	0
PIN 7		0	0	0	0	0	0	0
PIN 8		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 9		0	0	0	0	0	0	0
PIN 10		0	0	0	0	0	0	0
PIN 11		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 12		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 13		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 14		5.1	5.1	5.1	5.1	5.1	5.1	5.1
PIN 15		5	5	5	5	5	5	5
PIN 16		5.1	5.1	5.1	5.1	5.1	5.1	5.1

MODE		IC 803						
PIN NO.		STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1		0.7	0.7	0.7	0.7	0.7	0.7	0.7
PIN 2		9.7	9.7	9.7	9.7	9.7	9.7	9.7
PIN 3		0.4	0.4	0.4	0.4	0.4	0.4	0.4
PIN 4		2.2	2.2	2.2	2.2	2.2	2.2	2.2
PIN 5		0	0	0	0	0	0	0
PIN 6		1.8	1.8	1.8	1.8	1.8	1.8	1.8
PIN 7		0.9	0.9	0.9	0.9	0.9	0.9	0.9
PIN 8		6	6	6	6	6	6	6

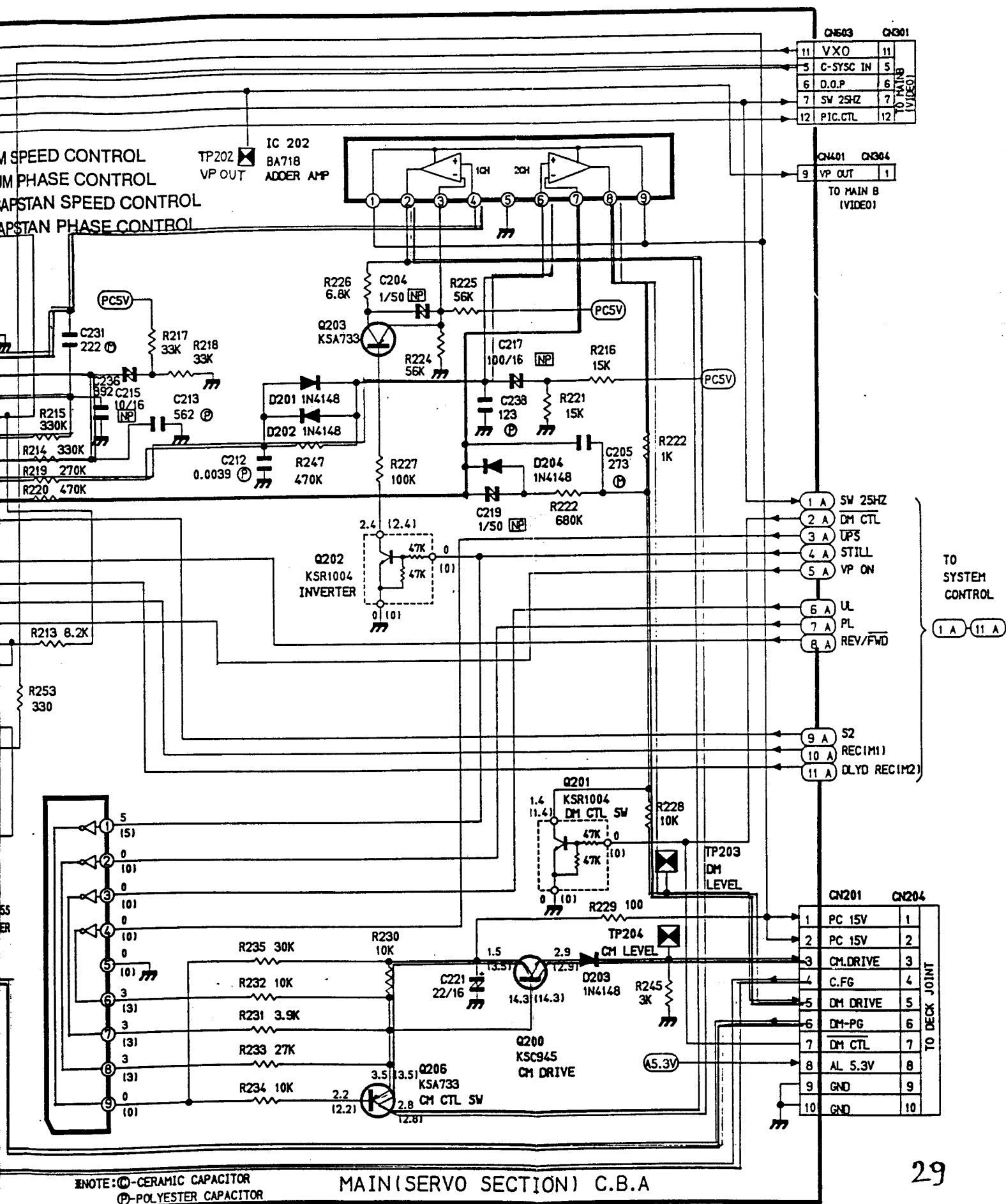
REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

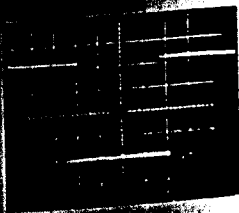
MODE		STOP			REC			PLAY			REW			F. FWD			REV. S			FWD. S		
Tr NO.		E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
Q 601		0	5	0.8	0	5	0.8	0	5	0.8	0	5	0.8	0	5	0.8	0	5	0.8	0	5	0.8
Q 602		0	1.5	4.5	0	1.5	4.5	0	1.5	4.5	0	1.5	4.5	0	1.5	4.5	0	1.5	4.5	0	1.5	4.5
Q 603		0	4.8	0.3	0	4.8	0.3	0	4.8	0.3	0	4.8	0.3	0	4.8	0.3	0	4.8	0.3	0	4.8	0.3

10-4. Servo

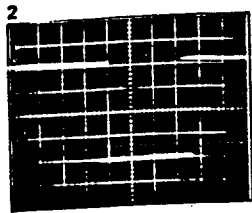


NOTE: (C)-CERAMIC
(P)-POLYMER

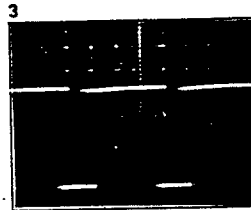




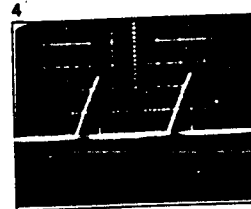
TP215
1V/5msec/cm
REC/PLAY



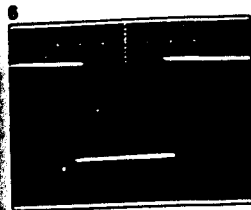
TP215
1V/5msec/cm
REC/PLAY



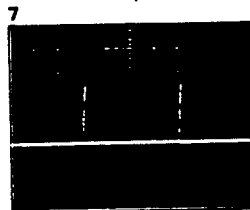
IC201-1
1V/10msec/cm
REC/PLAY



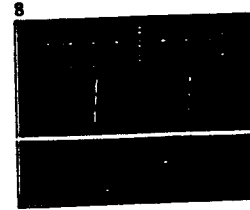
IC201-4
0.5V/10msec/cm
REC/PLAY



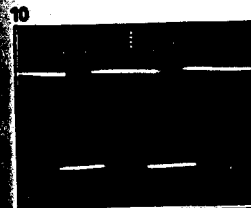
IC201-9
1V/5msec/cm
REC/PLAY



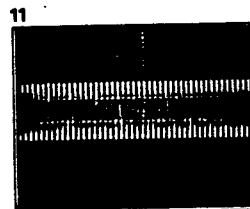
IC201-15
1V/10msec/cm
REC/PLAY



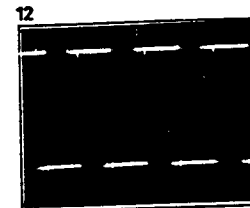
IC201-16
1V/10msec/cm
REC/PLAY



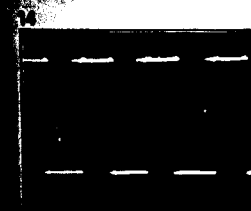
IC201-20
1V/10msec/cm
PLAY



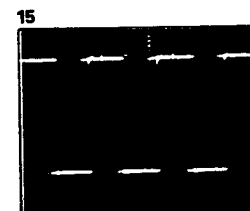
IC201-22
0.1V/1μsec/cm
REC/PLAY



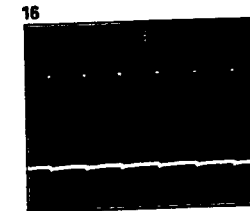
IC201-34
1V/10μsec/cm
REC/PLAY



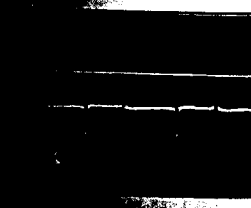
IC201-37
1V/10μsec/cm
PLAY



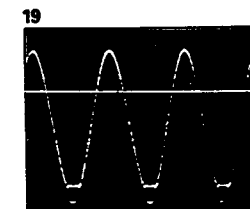
IC201-37
1V/10μsec/cm
REC/PLAY



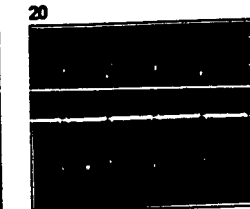
IC203-2
1V/0.5msec/cm
REC/PLAY



IC203-12
0.5V/0.5msec/cm
REC/PLAY



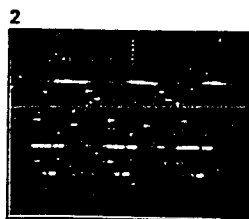
IC203-12
0.5V/0.5msec/cm
REC/PLAY



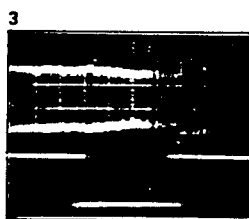
IC201-17
0.2V/10msec/cm
REC/PLAY



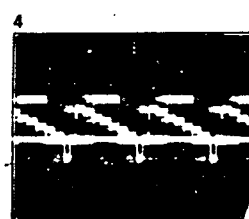
TP301
0.5V/20 μ sec/cm
REC/PLAY



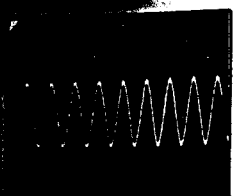
TP302
0.5V/20 μ sec/cm
REC/PLAY



TP303
0.1V/5msec/cm
PLAY



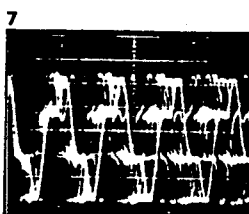
TP304
0.2V/20 μ sec/cm
PLAY



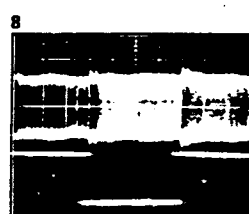
TP305
0.5V/20 μ sec/cm
REC



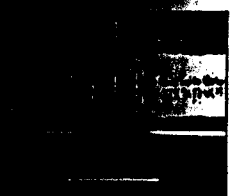
TP306
0.2V/20 μ sec/cm
REC



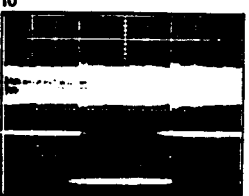
TP310
1V/0.1 μ sec/cm
REC



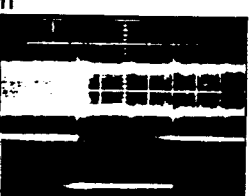
IC301-2
10mV/5msec/cm
PLAY



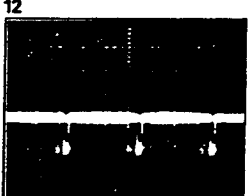
IC301-5
20mV/5msec/cm
PLAY



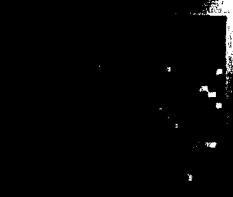
IC301-5
20mV/5msec/cm
PLAY



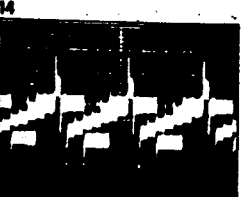
IC301-16
0.5V/5msec/cm
PLAY



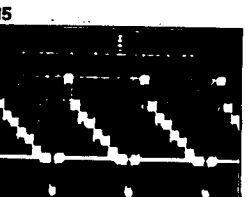
IC302-1
0.1V/20 μ sec/cm
REC



IC302-3
10mV/20 μ sec/cm
PLAY



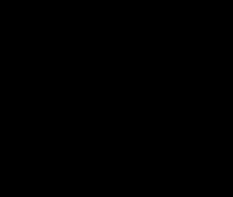
IC302-3
10mV/20 μ sec/cm
PLAY



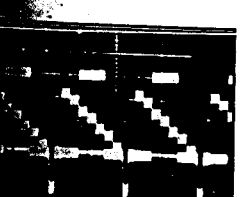
IC302-3
0.1V/20 μ sec/cm
REC



IC302-5
0.1V/20 μ sec/cm
PLAY



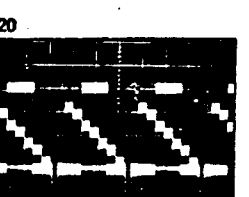
IC302-10
0.1V/20 μ sec/cm
PLAY



IC302-10
0.1V/20 μ sec/cm
PLAY

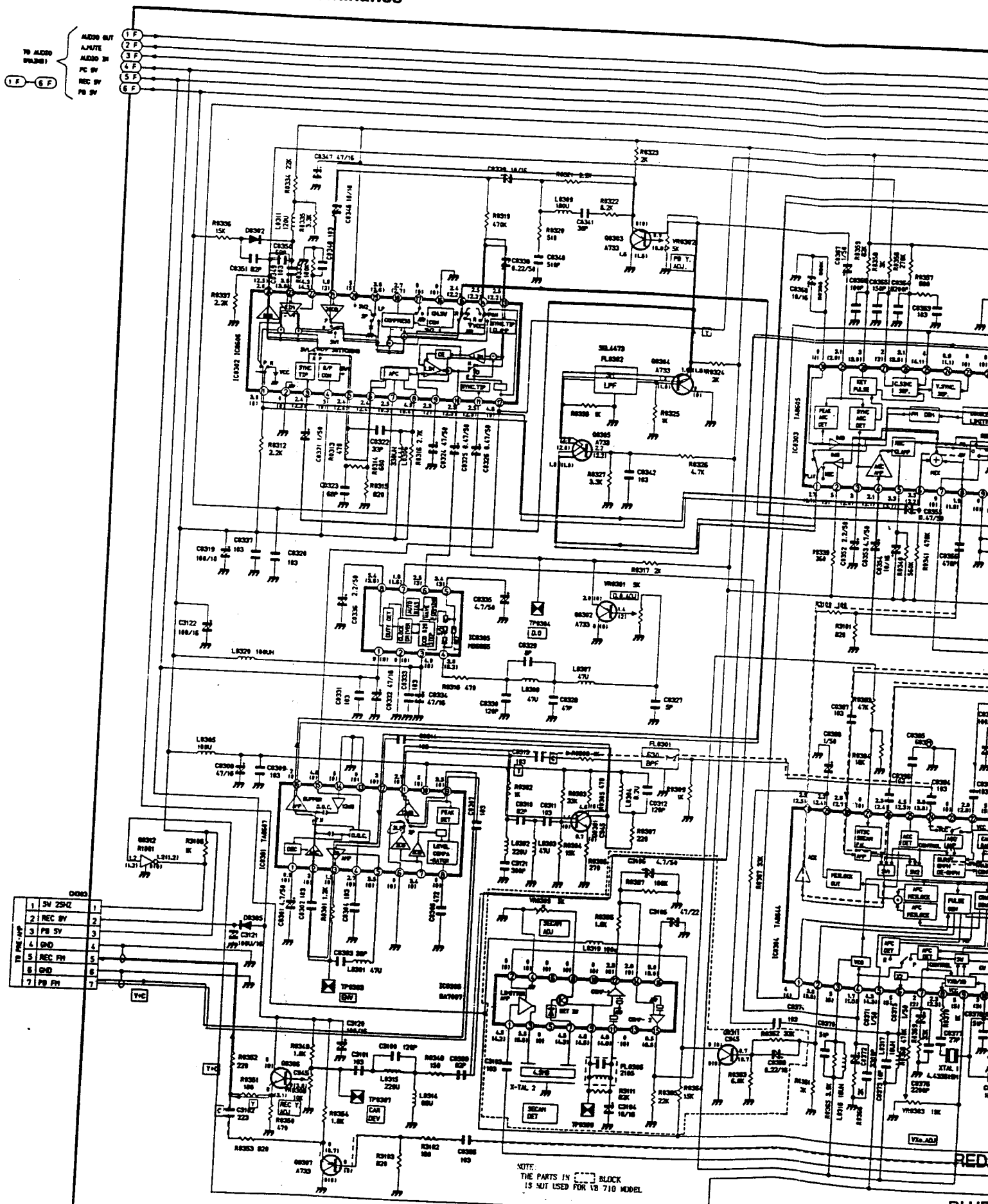


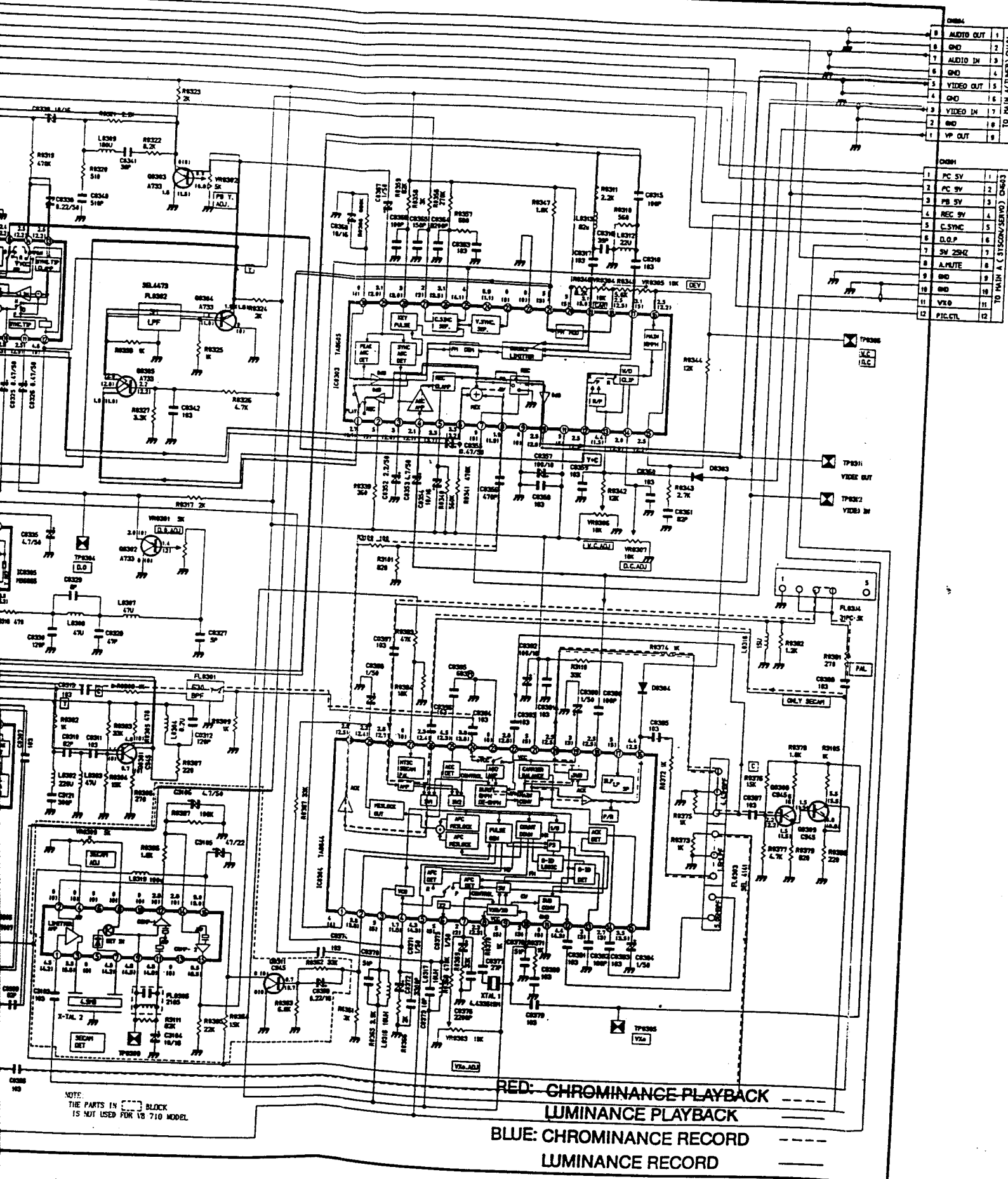
IC302-11
0.1V/20 μ sec/cm
PLAY



IC302-13
0.2V/20 μ sec/cm
PLAY

10-5. Luminance/Chrominance





REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 301						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	0	0	0.9	0	0	0.9	0.9
PIN 2	0	0	3.0	0	0	3.0	3.0
PIN 3	0	0	1.5	0	0	1.5	1.5
PIN 4	0	0	2.7	0	0	2.8	2.7
PIN 5	0.5	0	3.5	0	0	3.4	3.5
PIN 6	0	0	0	0	0	0	0
PIN 7	0	0	3.4	0	0	3.4	3.5
PIN 8	0	0	0	0	0	0	0.1
PIN 9	0	0	3.5	0	0	3.4	3.5
PIN 10	0	0	4.9	0	0	4.9	4.9
PIN 11	0	0	2.1	0	0	2.1	2.1
PIN 12	0	0	3.0	0	0	3.0	3.0
PIN 13	0	0	0	0	0	0	0
PIN 14	0	0	0	0	0	0	0
PIN 15	9	0	4.8	0	0	4.8	4.8
PIN 16	0	0	2.0	0	0	2.0	2.0

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 302						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	0.2	3.1	3.1	0.2	0.2	3.1	3.1
PIN 2	0	0	0	0	0	0	0
PIN 3	2.4	2.3	2.4	2.4	2.4	2.4	2.4
PIN 4	0.2	5	4.9	0.2	0	5	5.0
PIN 5	0.6	2.4	2.4	0.6	0.6	2.4	2.4
PIN 6	0.6	2.4	2.4	0.6	0.6	2.4	2.4
PIN 7	2.5	2.5	2.4	2.5	2.5	2.5	2.4
PIN 8	0.3	5.0	4.9	0.3	0.3	4.9	4.9
PIN 9	2.0	2.0	2.3	1.9	1.9	2.3	2.3
PIN 10	2.2	2.2	2.5	2.2	2.2	2.5	2.5
PIN 11	2.5	2.5	2.5	2.5	2.5	2.6	2.5
PIN 12	0.2	0	4.8	2.0	0.2	4.8	4.8
PIN 13	2.4	2.5	2.5	2.4	2.4	2.5	2.5
PIN 14	2.0	2.2	2.5	1.9	2.0	2.5	2.5
PIN 15	2.3	2.2	2.4	2.3	2.3	2.4	2.4
PIN 16	0	0	0	0	0	0	0
PIN 17	0	0	0	0	0	0	0
PIN 18	2.7	2.7	2.7	2.7	2.8	2.7	2.7
PIN 19	3.8	3.8	3.8	3.8	3.8	3.8	3.8
PIN 20	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PIN 21	1.8	2.0	1.9	1.8	1.8	1.9	1.9
PIN 22	4.3	4.3	4.3	4.3	4.3	4.3	4.3
PIN 23	2.8	3.8	3.8	3.9	3.9	3.8	3.8
PIN 24	2.1	2.0	2.0	2.1	2.1	2.0	2.0

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 303						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PIN 2	4.5	5.0	5.0	4.5	4.5	5.0	5.0
PIN 3	2.5	2.4	3.0	2.5	2.5	3.0	3.0
PIN 4	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PIN 5	3.6	3.7	3.3	3.6	3.6	3.3	3.0
PIN 6	3.3	3.2	3.5	3.3	3.3	3.7	3.6
PIN 7	0	0	0	0	0	0	0
PIN 8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
PIN 9	0	0	0	0	0	0	0
PIN 10	1.9	1.5	2.5	1.9	1.9	2.7	2.9
PIN 11	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PIN 12	2.3	2.2	2.5	2.3	2.3	2.5	2.5
PIN 13	1.5	1.5	5.0	1.5	1.5	4.4	4.4
PIN 14	2.0	2.0	2.0	2.0	2.3	2.0	2.0
PIN 15	2.3	2.2	2.5	2.3	2.3	2.5	2.5
PIN 16	2.3	2.2	2.5	2.3	2.3	2.5	2.5
PIN 17	5.0	5.0	3.1	5.0	5.0	3.1	3.1
PIN 18	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PIN 19	5.0	5.0	3.1	5.0	5.0	3.1	3.1
PIN 20	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PIN 21	3.0	3.0	5.0	3.0	3.0	5.0	5.0
PIN 22	0	0	0	0	0	0	0
PIN 23	0	0	0	0	0	0	0
PIN 24	0.9	1.1	0.9	0.9	0.9	0.9	0.9
PIN 25	2.0	4.1	0.4	2.0	2	0.4	0.4
PIN 26	3.6	3.5	3.1	3.6	3.6	3.2	3.4
PIN 27	2.1	2.0	2.0	2.2	2.1	2.2	2.5
PIN 28	1.4	3.7	0.4	1.4	1.4	0.4	0.4
PIN 29	3.0	2.9	3.1	3.0	3.0	3.1	3.4
PIN 30	0	0	0	0	0	0	0

REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
	PIN 1	0.8	4	0.4	0.9	0.8	0.9	4.0
	PIN 2	3.7	3.8	3.8	3.7	3.7	3.8	3.8
	PIN 3	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 4	1.7	1.8	1.7	1.7	1.7	2.3	1.8
	PIN 5	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	PIN 6	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 7	2.2	2.0	2.0	2.2	2.2	2.0	2.0
	PIN 8	2.5	2.3	2.3	2.5	2.5	2.3	2.3
	PIN 9	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 10	3.2	3.0	3.0	3.1	3.1	3.0	3.0
	PIN 11	0	0	0	0	0	0	0
	PIN 12	4.3	4.3	4.4	4.3	4.3	4.3	4.3
	PIN 13	3.0	3	3.0	3.0	3.0	3.0	3.0
	PIN 14	2.7	3	2.7	2.7	2.7	2.7	3.0
	PIN 15	2.4	2.4	2.3	2.3	2.3	2.4	2.4
	PIN 16	0	0	4.4	0	0	4.4	0
	PIN 17	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 18	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 19	2.8	3.0	3.0	2.8	3.0	3.0	3
	PIN 20	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 21	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 22	2.7	2.8	2.8	2.7	2.7	2.8	2.8
	PIN 23	0	0	0.0	0	0	0	0.0
	PIN 24	1.7	1.7	2.8	1.7	1.7	2.8	1.7
	PIN 25	3.8	2.3	4.5	3.8	3.8	4.0	2.3
	PIN 26	2.4	2.4	2.3	2.4	2.4	2.3	2.4
	PIN 27	0	0	0.0	0	0	0	0.0
	PIN 28	2.7	2.7	2.8	2.7	2.7	2.8	2.7
	PIN 29	1.7	2.4	2.3	1.8	1.8	2.3	2.4
	PIN 30	2.8	2.8	0	2.8	2.8	0	2.8

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
	PIN 1	0.8	4	0.4	0.9	0.8	0.9	4.0
	PIN 2	3.7	3.8	3.8	3.7	3.7	3.8	3.8
	PIN 3	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 4	1.7	1.8	1.7	1.7	1.7	2.3	1.8
	PIN 5	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	PIN 6	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 7	2.2	2.0	2.0	2.2	2.2	2.0	2.0
	PIN 8	2.5	2.3	2.3	2.5	2.5	2.3	2.3
	PIN 9	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 10	3.2	3.0	3.0	3.1	3.1	3.0	3.0
	PIN 11	0	0	0	0	0	0	0
	PIN 12	4.3	4.3	4.4	4.3	4.3	4.3	4.3
	PIN 13	3.0	3	3.0	3.0	3.0	3.0	3.0
	PIN 14	2.7	3	2.7	2.7	2.7	2.7	3.0
	PIN 15	2.4	2.4	2.3	2.3	2.3	2.4	2.4
	PIN 16	0	0	4.4	0	0	4.4	0
	PIN 17	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 18	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 19	2.8	3.0	3.0	2.8	3.0	3.0	3
	PIN 20	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 21	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 22	2.7	2.8	2.8	2.7	2.7	2.8	2.8
	PIN 23	0	0	0.0	0	0	0	0.0
	PIN 24	1.7	1.7	2.8	1.7	1.7	2.8	1.7
	PIN 25	3.8	2.3	4.5	3.8	3.8	4.0	2.3
	PIN 26	2.4	2.4	2.3	2.4	2.4	2.3	2.4
	PIN 27	0	0	0.0	0	0	0	0.0
	PIN 28	2.7	2.7	2.8	2.7	2.7	2.8	2.7
	PIN 29	1.7	2.4	2.3	1.8	1.8	2.3	2.4
	PIN 30	2.8	2.8	0	2.8	2.8	0	2.8

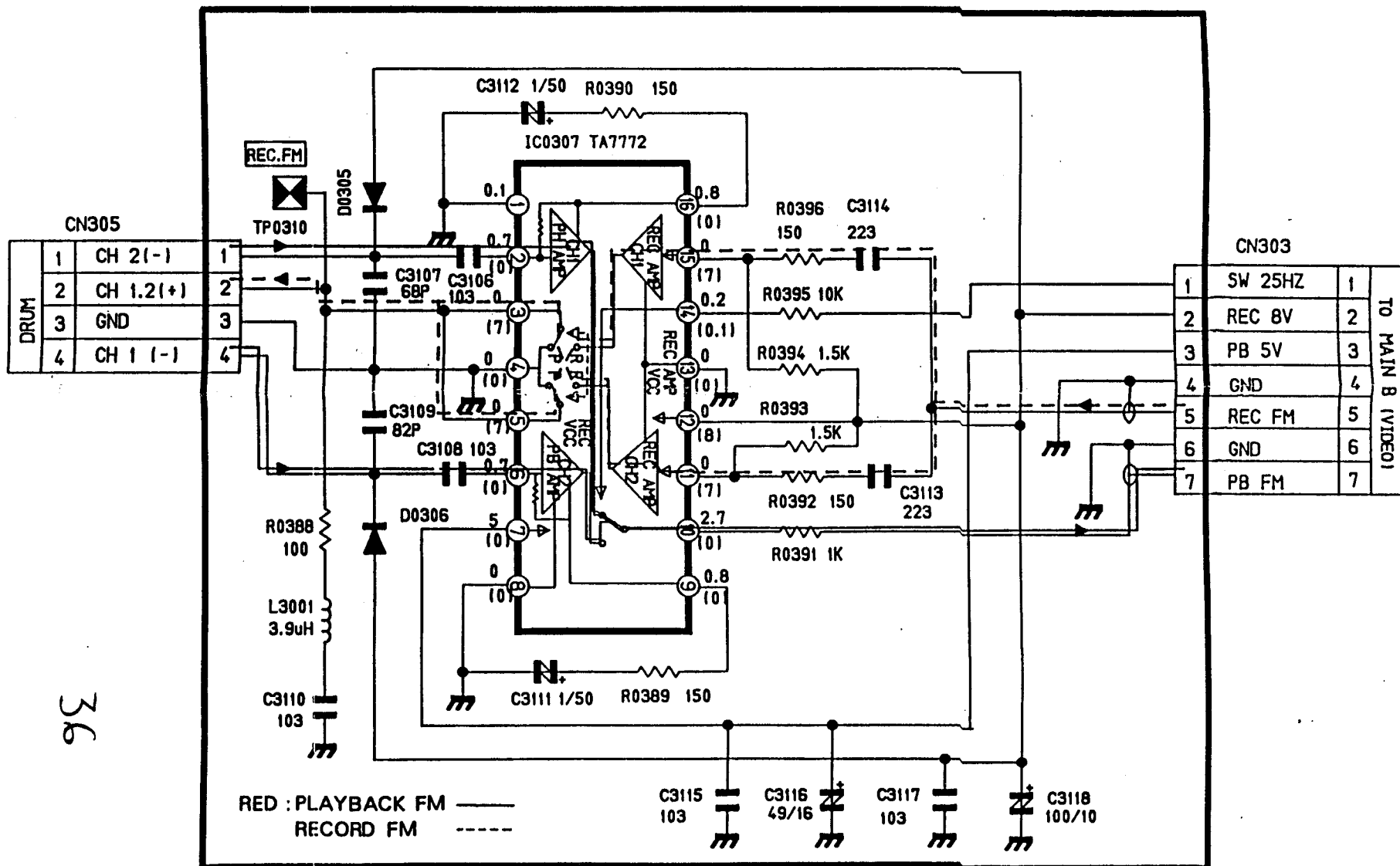
REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
	PIN 1	0.8	4	0.4	0.9	0.8	0.9	4.0
	PIN 2	3.7	3.8	3.8	3.7	3.7	3.8	3.8
	PIN 3	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 4	1.7	1.8	1.7	1.7	1.7	2.3	1.8
	PIN 5	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	PIN 6	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 7	2.2	2.0	2.0	2.2	2.2	2.0	2.0
	PIN 8	2.5	2.3	2.3	2.5	2.5	2.3	2.3
	PIN 9	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 10	3.2	3.0	3.0	3.1	3.1	3.0	3.0
	PIN 11	0	0	0	0	0	0	0
	PIN 12	4.3	4.3	4.4	4.3	4.3	4.3	4.3
	PIN 13	3.0	3	3.0	3.0	3.0	3.0	3.0
	PIN 14	2.7	3	2.7	2.7	2.7	2.7	3.0
	PIN 15	2.4	2.4	2.3	2.3	2.3	2.4	2.4
	PIN 16	0	0	4.4	0	0	4.4	0
	PIN 17	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	PIN 18	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 19	2.8	3.0	3.0	2.8	3.0	3.0	3
	PIN 20	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	PIN 21	5.0	5	5.0	5.0	5.0	5.0	5.0
	PIN 22	2.7	2.8	2.8	2.7	2.7	2.8	2.8
	PIN 23	0	0	0.0	0	0	0	0.0
	PIN 24	1.7	1.7	2.8	1.7	1.7	2.8	1.7
	PIN 25	3.8	2.3	4.5	3.8	3.8	4.0	2.3
	PIN 26	2.4	2.4	2.3	2.4	2.4	2.3	2.4
	PIN 27	0	0	0.0	0	0	0	0.0
	PIN 28	2.7	2.7	2.8	2.7	2.7	2.8	2.7
	PIN 29	1.7	2.4	2.3	1.8	1.8	2.3	2.4
	PIN 30	2.8	2.8	0	2.8	2.8	0	2.8

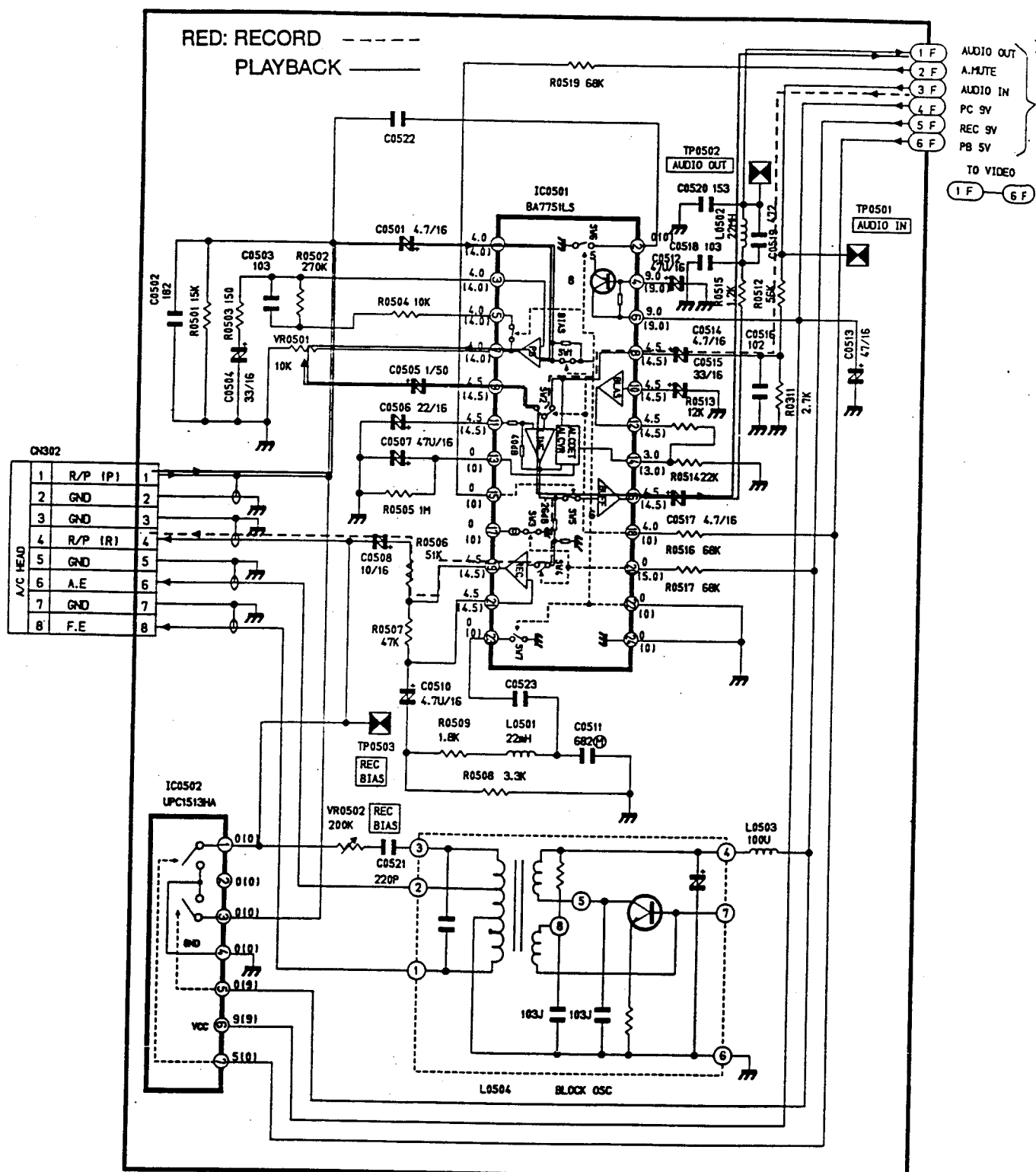
REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
Q301	E 0	0	0.7	0	0	0.7	0.7
	B 0	0	1.4	0	0	1.4	1.4
	C 0	0.2	4.6	0	0	4.6	4.6
Q302	E 0	0	0	0	0	0	0
	B 2	2	1.3	2	2	1.3	1.3
	C 0	0	2	0	0	2	2
Q303	E 0	0	0	0	0	0	0
	B 0.8	0.8	0.9	0.8	0.8	0.9	0.9
	C 1.5	1.5	1.6	1.5	1.5	1.6	1.6
Q304	E 0	0	0	0	0	0	0
	B 0.7	0.7	0.7	0.7	0.7	0.9	0.9
	C 1.3	1.3	1.4	1.3	1.3	1.5	1.5
Q305	E 0.7	0.7	0.8	0.7	0.7	0.8	0.8
	B 2.0	2	2	2	2	2	2
	C 2.8	2.8	2.8	2.8	2.8	2.8	2.8
Q306	E 0	3.1	0	0	0	0	0
	B 0	3.8	0	0	0	0	0
	C 0	9	2	0	0	2	2
Q307	E 0	0	0	0	0	0	0
	B 0	0	0	0	0	0	0
	C 0	0.4	0	0	0	0	0
Q308	E 3	3	3	3	3	3	3
	B 1	1	1	1	1	1	1
	C 0.8	0.8	0.8	0.8	0.8	0.8	0.8
Q309	E 2.7	2.7	2.7	2.7	2.7	2.7	2.7
	B 0.8	0.8	0.8	0.8	0.8	0.8	0.8
	C 0.5	0.5	0.5	0.5	0.5	0.5	0.5
Q311	E 0.4	0.4	0.4	0.4	0.4	0.4	0.4
	B 0.2	0.2	0.2	0.2	0.2	0.2	0.2
	C 0	0	0	0	0	0	0
Q312	E 0	0	0	0	0	0	0
	C 2.2	1.2	1.2	2.2	2.2	1.2	1.2
	B 0	1.2	1.2	0	0	1.2	1.2

10-7. Pre-Amp



10-6. Audio



AUDIO

REV S. : REVERSE SEARCH
FWD S. : FORWARD SEARCH

REV S. : REVERSE SEARCH
FWD S. : FORWARD SEARCH

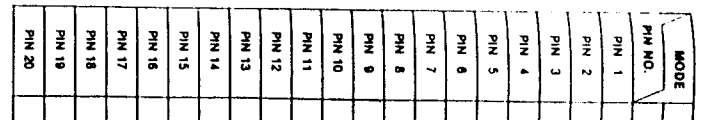
MODE		IC 501						
PIN NO.		STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1		3.8	4.0	4.0	4.0	4.0	4.0	4.0
PIN 2		0	0	0	0	0	0	0
PIN 3		3.8	4.0	4.0	4.0	4.0	4.0	4.0
PIN 4		9.0	9.0	9.0	9.0	9.0	9.0	9.0
PIN 5		4.0	4.0	4.2	4.0	4.0	4.0	4.0
PIN 6		9.0	9.0	9.0	9.0	0	9.0	9.0
PIN 7		4.0	4.0	4.0	4.0	4.0	4.0	4.0
PIN 8		4.6	4.7	4.6	4.6	4.6	4.7	4.6
PIN 9		4.6	4.4	4.3	4.3	4.6	4.4	4.3
PIN 10		4.6	4.7	4.5	4.7	4.6	4.7	4.6
PIN 11		4.6	4.4	4.3	4.7	4.6	4.4	4.4
PIN 12		4.6	4.7	4.6	4.7	4.6	4.7	4.7
PIN 13		0	0.7	0	0.8	0	0	0
PIN 14		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PIN 15		4.1	4.2	4.0	4.0	4.2	4.2	4.2
PIN 16		4.6	4.7	4.6	4.7	4.6	4.7	4.7
PIN 17		0	0	0	0	0	0	0
PIN 18		0.4	0	4	0.2	0.4	4.2	4.3
PIN 19		4.6	4.6	4.6	4.7	4.6	4.7	4.7
PIN 20		0	5.0	0	0	0.2	0	0
PIN 21		4.6	4.7	4.6	4.7	4.6	4.7	4.7
PIN 22		0	0	0	0	0	0	0
PIN 23		0	0	0	0	0	0	0
PIN 24		0	0	0	0	0	0	0

MODE		IC 502						
PIN NO.		STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1		0	0	0	0	0	0	0
PIN 2		0	0	0	0	0	0	0
PIN 3		0	0	0	0	0	0	0
PIN 4		0	0	0	0	0	0	0
PIN 5		0	9	0	0	0	0	0
PIN 6		9	9	9	9	9	9	9
PIN 7		0	0	5	0	0	5	5

VIDEO OUT
AUDIO IN
9V
C 9V
SY
VIDEO
S F

CH04			CH04
1	AUDIO OUT	9	TO MAIN B
2	CH01	8	
3	AUDIO IN	7	
4	CH02	6	
5	VIDEO OUT	5	
6	CH03	4	
7	VIDEO IN	3	
8	CH04	2	
9	V-LOCK	1	

11 CTLA FROM
 12 CTLS CH04



MAIN (TUNER/DEMULATOR SECTION) C.B.A

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 401						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	5.8	5.8	5.8	5.8	5.8	5.8	5.8
PIN 2	5.8	5.8	5.8	5.8	5.8	5.8	5.8
PIN 3	3	3	3	3	3	3	3
PIN 4	4	4	4	4	4	4	4
PIN 5	4	4	4	4	4	4	4
PIN 6	0	0	0	0	0	0	0
PIN 7	4	4	4	4	4	4	4
PIN 8	4	4	4	4	4	4	4
PIN 9	6	6	6	6	6	6	6
PIN 10	6	6	6	6	6	6	6
PIN 11	9	9	9	9	9	9	9
PIN 12	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PIN 13	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PIN 14	0	0	0	0	0	0	0
PIN 15	3.8	3.8	3.8	3.8	3.8	3.8	3.8
PIN 16	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 17	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 18	4	4	4	4	4	4	4
PIN 19	9.0	9	9	9	9	9	9
PIN 20	5	5	5	5	5	5	5

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 403						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 2	3.8	3.8	3.8	3.8	3.8	3.8	3.8
PIN 3	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 4	0	0	0	0	0	0	0
PIN 5	0	0	0	0	0	0	0
PIN 6	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 7	0.2	0	4	0.2	0.2	4	4
PIN 8	5.4	5.4	5.4	5.4	5.4	5.4	5.4
PIN 9	9.0	9	9	9	9	9	9

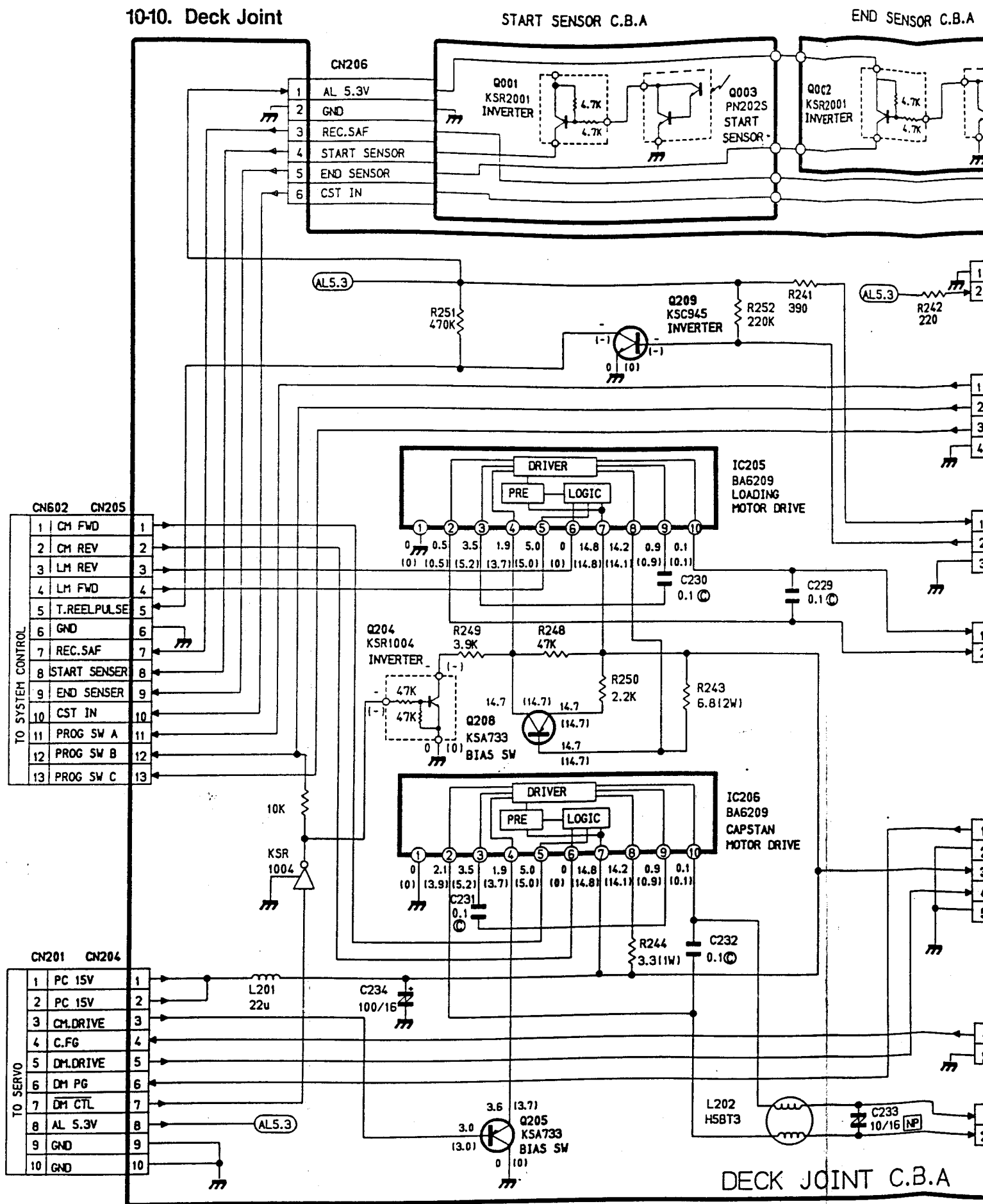
REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	IC 404						
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 2	3.8	3.8	3.8	3.8	3.8	3.8	3.8
PIN 3	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 4	0	0	0	0	0	0	0
PIN 5	0	0	0	0	0	0	0
PIN 6	6.2	6.2	6.2	6.2	6.2	6.2	6.2
PIN 7	0.2	0	4	0.2	0.2	4	4
PIN 8	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PIN 9	9.2	9.2	9.2	9.2	9.2	9.2	9.2

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

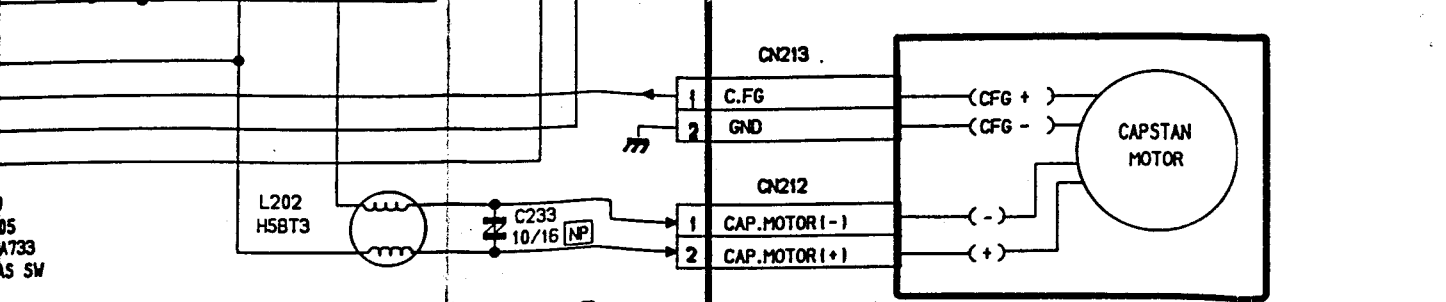
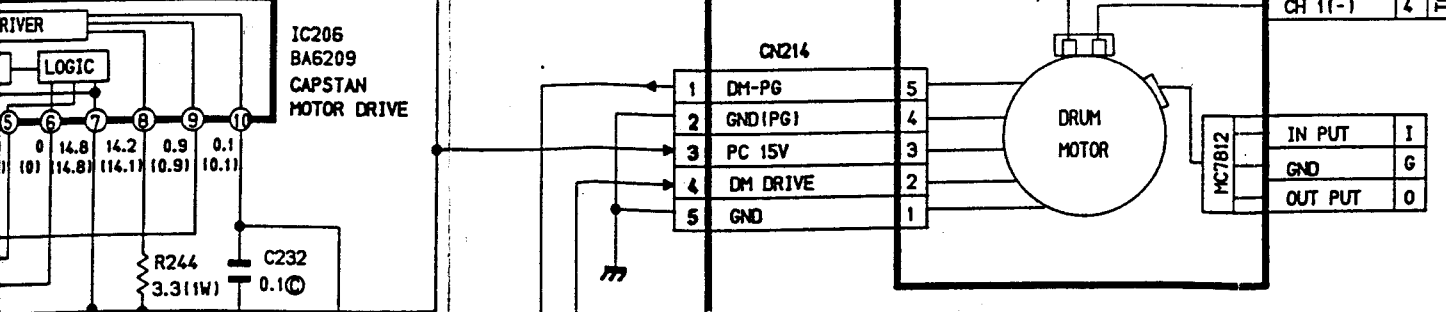
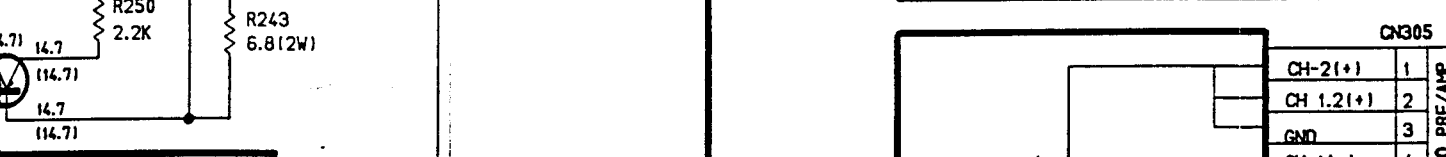
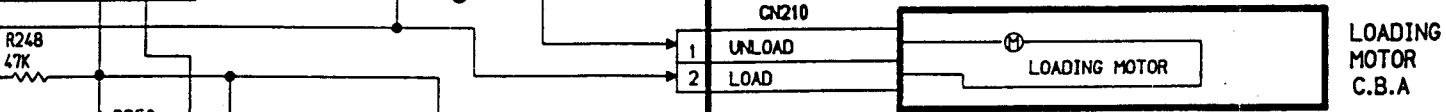
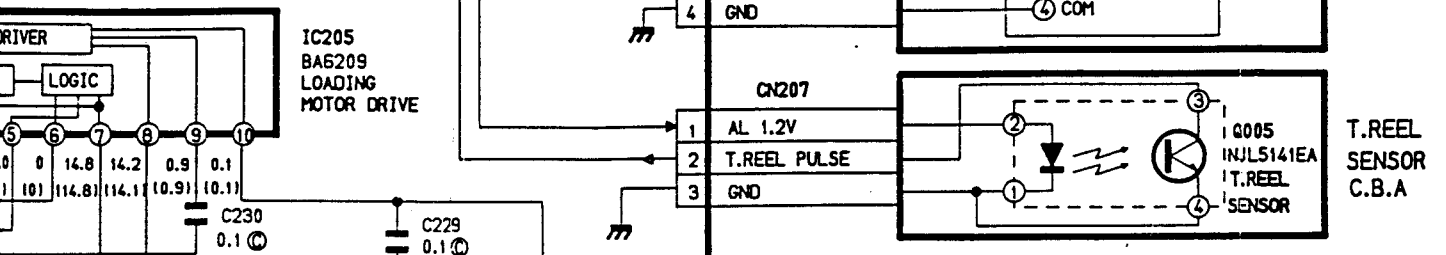
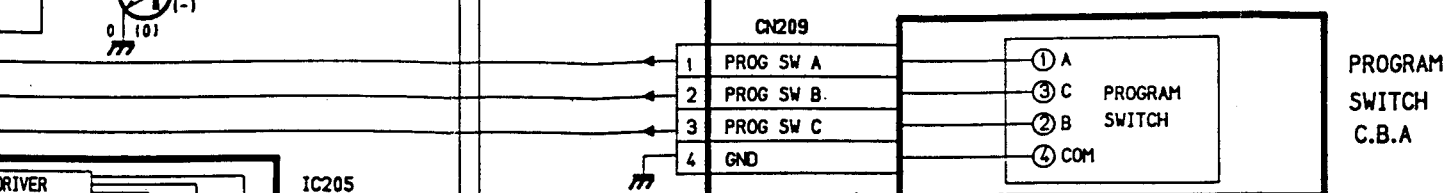
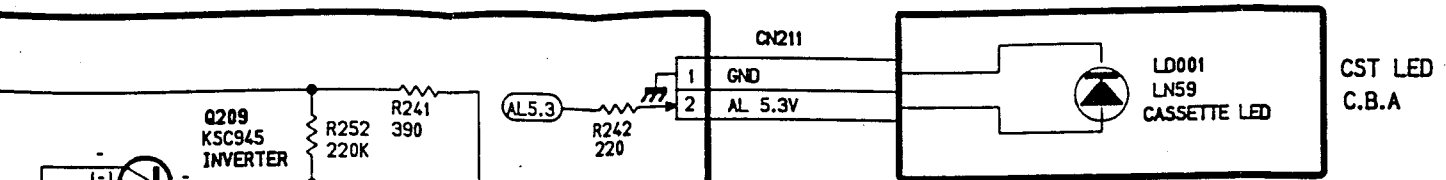
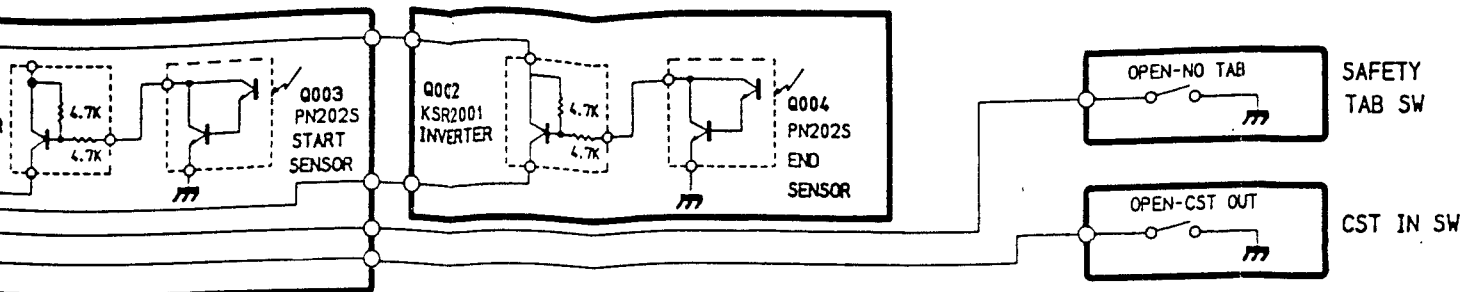
MODE	STOP			REC			PLAY			REW			F. FWD			REV. S			FWD. S		
TRNO.	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
Q 402	3.8	0	3.2	3.8	0	3.2	3.8	0	3.2	3.8	0	3.2	3.8	0	3.2	3.8	0	3.2	3.8	0	3.2
Q 403	3.3	9	4	3.3	9	4	3.3	9	4	3.3	9	4	3.3	9	4	3.3	9	4	3.3	9	4
Q 404	10	0	10	10	0	10	10	10	9.2	10	0	10	10	0	10	10	10	9.2	10	10	9.2
Q 405	0	10	0.2	0	10	0.2	0	0	5	0	10	0.2	0	10	0.2	0	0	5	0	0	5
Q 406	0.9	7.2	0.2	0.9	7.2	0.2	0.9	7.2	3.2	0.9	7.2	0.2	0.9	7.2	0.2	0.9	7.2	0.2	0.9	7.2	0.2
Q 407	0	2.9	0	0	2.9	0	0	2.9	0	0	2.9	0	0	2.9	0	0	2.9	0	0	2.9	0
Q 408	0.8	10	1.4	0.8	10	1.4	0.8	10	1.4	0.8	10	1.4	0.8	10	1.4	0.8	10	1.4	0.8	10	1.4

10-10. Deck Joint



RT SENSOR C.B.A

END SENSOR C.B.A



DECK JOINT C.B.A

05
A733
AS SW

TO REGULATOR
CN102

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE		IC 205					
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	0	0	0	0	0	0	0
PIN 2	0.5	0.5	0.5	0.5	0.5	0.5	0.5
PIN 3	0.9	0.9	0.9	0.9	0.9	0.9	0.9
PIN 4	2.3	14.8	14.7	14.7	14.7	2.2	14.7
PIN 5	5.0	14.7	5.0	5.0	5.0	5.0	5.0
PIN 6	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PIN 7	15.0	14.8	14.8	14.7	14.7	14.7	14.7
PIN 8	15.0	14.8	14.8	14.7	14.7	14.7	14.7
PIN 9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
PIN 10	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Sub Servo C.B.A

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE		IC 206					
PIN NO.	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
PIN 1	0	0	0	0	0	0	0
PIN 2	0.5	3.9	2.1	0.1	10.1	0.1	9.5
PIN 3	0.9	5.2	3.5	0.9	11.7	0.9	10.9
PIN 4	1.2	3.7	1.9	10.3	10.2	10.0	9.0
PIN 5	5.0	5.0	5.0	0	5.0	0	5.0
PIN 6	5.0	0	0	5.0	0	5.0	0
PIN 7	14.9	14.8	1.48	14.7	14.7	14.7	14.7
PIN 8	14.9	14.1	14.2	13.8	13.8	13.8	13.8
PIN 9	0.9	0.9	0.9	11.8	0.9	11.0	0.9
PIN 10	0.5	0.1	0.1	9.9	0.1	9.3	0.1

Sub Servo C.B.A

REV S.: REVERSE SEARCH
FWD S.: FORWARD SEARCH

MODE	STOP			REC			PLAY			REW			F.FWD			REV S.			FWD S.		
Tr No.	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
Q 204	0	0	4.9	0	14.7	0	0	14.7	0	0	14.7	0	0	14.7	0	0	0	4.9	0	14.7	0
Q 205	1.0	0	12.6	3.7	0	3.0	3.6	0	3.0	8.9	0	8.3	8.8	0	8.2	9.5	0	8.7	9.3	0	8.6
Q 208	14.9	2.2	14.9	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	2.2	14.7	14.7	14.7	14.7
Q 209	0	5.1	0.1	0	—	—	0	—	—	0	—	—	0	—	—	0	—	—	0	—	—

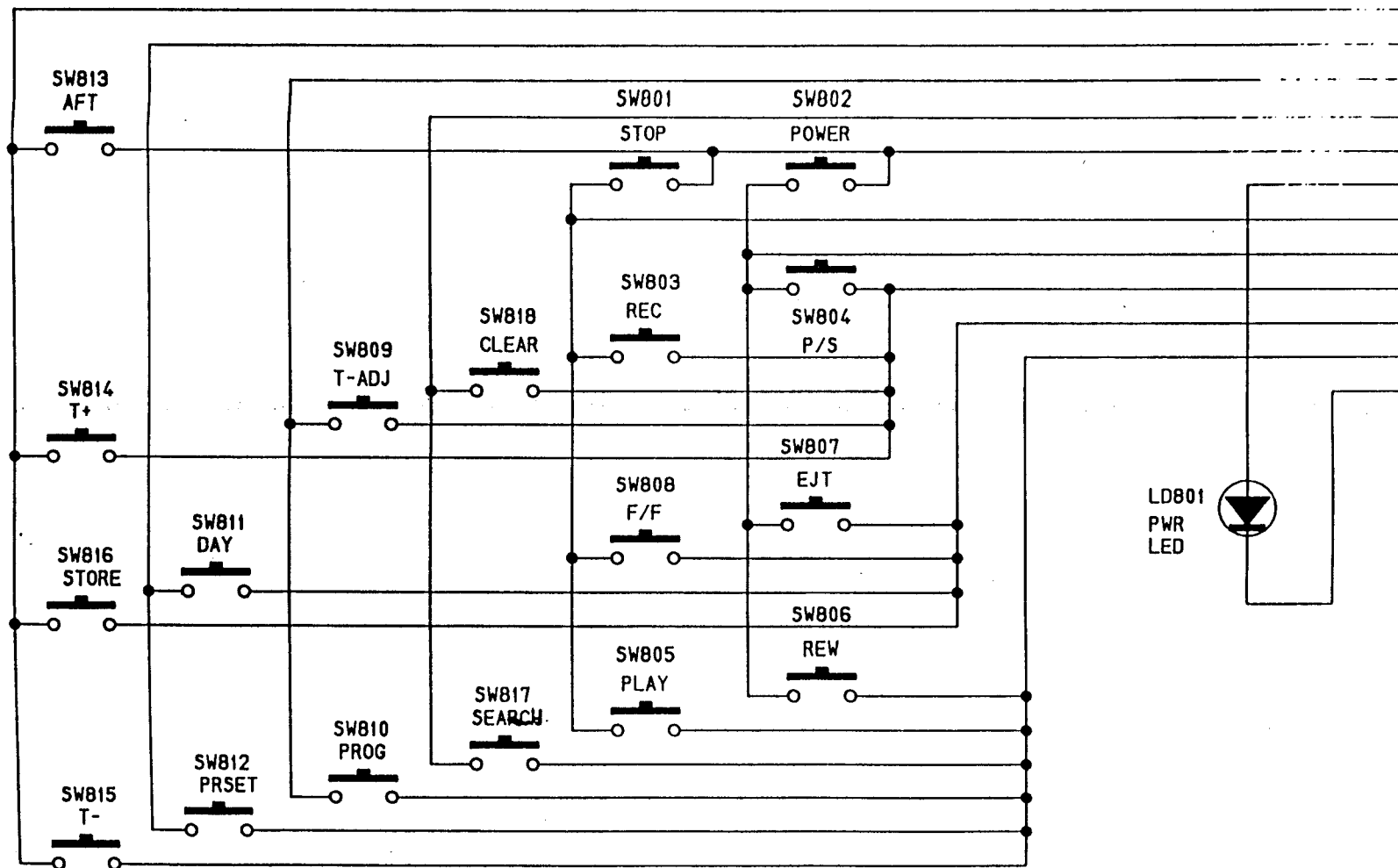
Sub Servo C.B.A

10-11. Function Switch

CN800

TIMER

1	SEGMENT B	1
2	SEGMENT C	2
3	SEGMENT D	3
4	SEGMENT A	4
5	KEY 3	5
6	PWR LED	6
7	SEGMENT L	7
8	SEGMENT G	8
9	KEY 2	9
10	KEY 4	10
11	KEY 1	11
12	GND	12



LD801
PWR
LED



10-12. Remote Control

