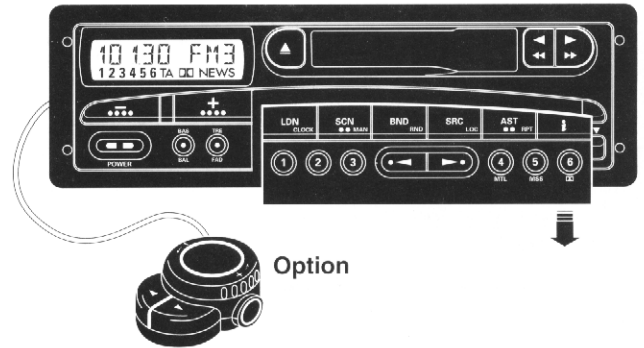


Cassette Car Radio 90RC328/00
90RC348/00/30/97
90RC388/00

**Service
 Service
 Service**



Service Manual

RC328, RC348

For repair information of the Cassette deck see Service Manual No 4822 725 xxxxx of Auto Cassette Deck CDS-36PS2.

→ 4822 725 25471

12 V

RC388











For repair information of the Cassette deck see Service Manual No 4822 725 xxxxx of Auto Cassette Deck CDS101XPS2.

→ 4822 725 25472

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Reference Table

Function Version	 NEWS	 AUTOREVERSE	 DOLBY B	 MSS MUSIC SEARCH SYSTEM	 MeCr METAL CHROME	 BASS/TREBLE	 4 CHANNEL LINE-OUT	 2 CHANNEL LINE-OUT	 CDCC CD CHANGER CONTROL	 Remote
RC388	✓	CDS101	✓	✓	✓	✓	✓		✓	Optional
RC348/00/30	✓	CDS36				✓		✓	✓	Optional
RC348/97	✓	CDS36				✓			✓	Optional
RC328	✓	CDS36				✓				Optional

Technical Specifications

General

Power Supply	:	10.8 - 15.6V
Quiescent Current (at 12.6V)	:	< 4.5mA
Fuse	:	10A

Radio

FM	:	87.5 - 108MHz
LW	:	144 - 288kHz
MW	:	531 - 1629kHz
SW	:	5.850 - 6.250MHz
IF-FM (1/2)	:	10.7MHz/72.2MHz
IF-AM(1/2)	:	10.7MHz/450kHz
a - 3dB	:	5 ± 3µV
FM sensitivity for 26dB S/N	:	≤ 5µV
MW sensitivity for 26dB S/N	:	≤ 25µV
LW sensitivity for 26dB S/N	:	≤ 30µV
SW sensitivity for 26dB S/N	:	≤ 19µV

Cassette Deck CDS-36 *) and CDS101 *)

Number of tracks	:	2 X 2
Tapespeed	:	4.76 cm/second +3% - 1%
Wow and Flutter	:	0.3%
Cross talk	:	>48dB

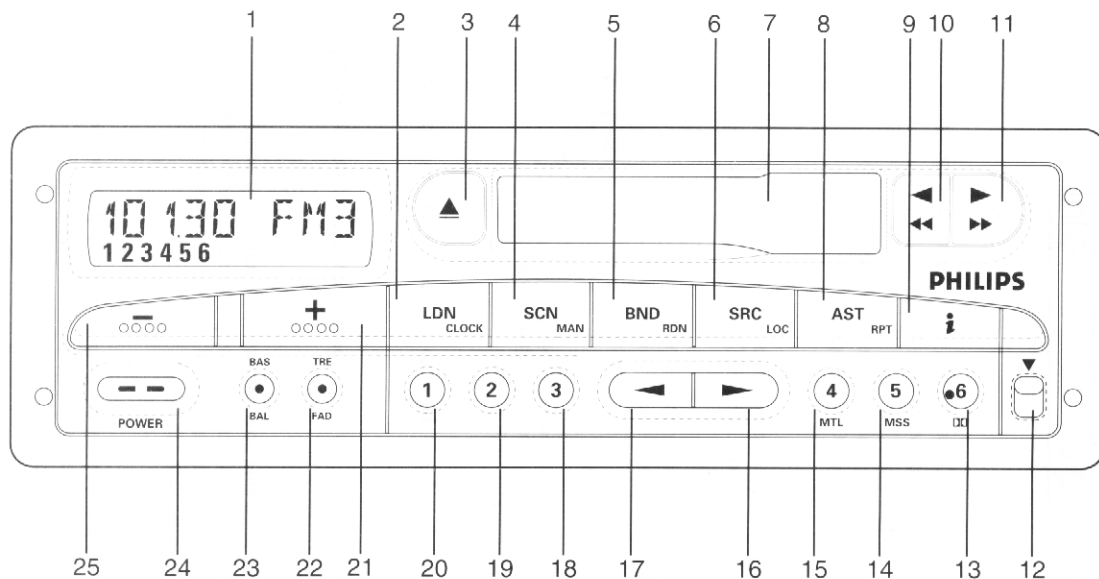
Amplifier

Output Power (D=10%)	:	4x20W ± 1dB/4Ω
Loudness	:	9 ± 2dB at 60Hz
Bass	:	12 ± 2dB at 60Hz
Treble	:	10 ± 2dB at 10kHz
Balance	:	> 12dB
Input sensitivity (Line in) *)	:	150mV
Max. input voltage (Line in) *)	:	2V
Max. line out current *)	:	400mA
Max. line out voltage *)	:	1V

Tuner range table

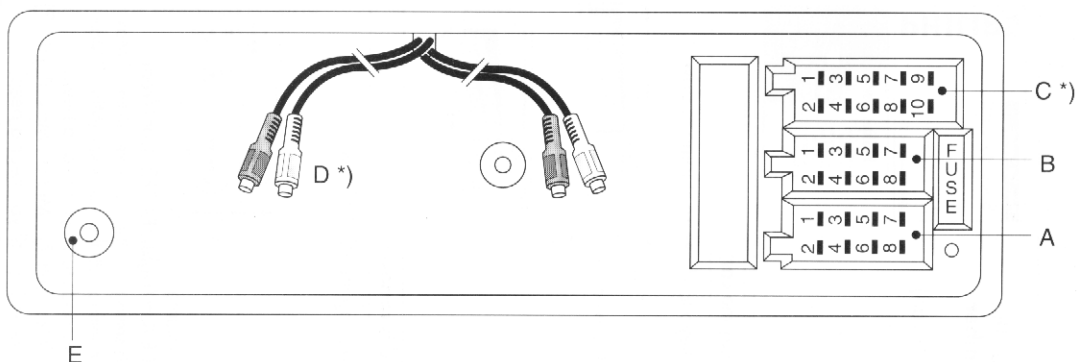
Area	Bands	Frequency	Grids Manual/Search
Europe	FM	87.5 - 108MHz	50kHz/100kHz
	LW	144 - 288kHz	1kHz
	MW	531 - 1629kHz	1kHz/9kHz
	SW	5.850 - 6.250MHz	1kHz
USA	FM	87.5 - 108MHz	50kHz/100kHz
	AM	530 - 1710kHz	1kHz/10kHz

*) See Reference Table



Controls

1	Liquid crystal display	1800	14	Preset 5 / Music search *)	1817
2	Loudness / Clock	1819 / 1826	15	Preset 4 / Metal *)	1815
3	Eject		16	Search up	1812
4	Scan / Manual	1821 / 1828	17	Search down	1813
5	Band / Random *)	1820 / 1827	18	Preset 3	1818
6	Source / Local	1811 / 1825	19	Preset 2	1814
7	Cassette compartment		20	Preset 1	1822
8	Autostore / Repeat *)	1823 / 1829	21	Volume up	1808 / 1809
9	Traffic announcement/News	1824 / 1830	22	Treble / Fader	1806
10	FRW / FFV		23	Bass / Balance	1807
11	FFV / FRW		24	Power	1810 / 1811
12	Release knob		25	Volume down	1804 / 1805
13	Preset 6 / Dolby *)	1816			



Connections

A1 : Telephone Mute	B1 : Rear Right +	C1 : D ² B GND	D *) : 2 channel Line out
A2 : Remote control ground	B2 : Rear Right Return -	C2 : D ² B+	4 Channel Line out
A3 : Remote input	B3 : Front Right +	C3 : D ² B-	
A4 : Permanent Plus	B4 : Front Right Return -	C4 : N.C.	E : Aerial Connection
A5 : Auto Antenna	B5 : Front Left +	C5 : CDCC Supply	
A6 : External Illumination Plus	B6 : Front Left Return -	C6 : GND	
A7 : Ignition on-off	B7 : Rear Left +	C7 : Switched +	
A8 : Power GND	B8 : Rear Left Return -	C8 : Line-In Right	
		C9 : Line-in Left	
		C10 : Line-in Gnd	

*) See Reference Table

Service Hints

Tuner reception check (test mode)

Press Preset 2 and Preset 4 for more than 1 second to activate the test mode. The display shows :

F P M F F F F

- F - Field strength
range 0 F hexadecimal
(corresponds to Poor signal strength Good signal strength)
 - P - Pause
range 0 ... F hexadecimal
(corresponds to No Pause indicator Pause indicator present)
 - M - Multipath
range 0 ... F hexadecimal
(corresponds to No multipath signal Multipath signal present)
- F F F F - 4 figures of tuned frequency
range 87.5 - 108.0

Start up condition of RC388/RC348/RC328

It is very important that the uP is reset every time when the set is first connected or during power up.

1. First time when the permanent supply A4 is connected :

- i) Item 7921 HEF4044BT generate a low pulse (width 1 second) on pin 13.
- ii) Item 7913 BC857B which act as an inverter convert the low pulse into a high pulse (width 1 second) to pin 30 (RESET) of the main uP CE559.
- iii) uP will be reset and the set enter into the Standby mode, which means that the set is ready to be power up by the Power key.

Pulse width (τ) is determined by item 3930 (100k) and 2920 (10uF) :

$$\tau = R * C$$

$$\tau = 100k * 10u = 1 \text{ second}$$

Note : Set will go into standby mode only when the above condition (i & ii) are fulfilled.

During standby mode :

$$A4 = 14.4V$$

$$A4_SENSE = 4V$$

$$A7_SENSE = 4.2V$$

$$STABIC_ON/OFF = 5V$$

2. When the set is power up by the power button :

- i) Item 7921 HEF4044BT generate a low pulse (width 1.5m second) on pin 13.
- ii) Item 7913 BC857B which act as an inverter convert the low pulse into a high pulse (width 1.5m second) to pin 30 (RESET) of the main uP CE559.
- iii) uP will be reset and the set will turn on.

Pulse width (τ) is determined by item 3929 (470k) and 2921 (3.3nF) :

$$\tau = R * C$$

$$\tau = 470k * 3.3nF = 1.5m \text{ second}$$

Note : Set will turn on only when the above condition (i & ii) are fulfilled.

During Power up :

$$A4 = 14.4V$$

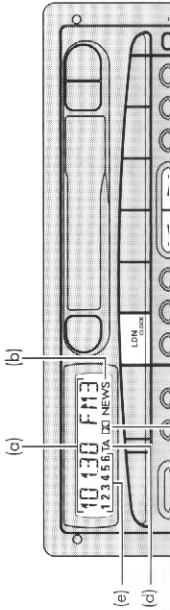
$$A4_SENSE = 4V$$

$$A7_SENSE = 4.2V$$

$$STABIC_ON/OFF = 0V$$

Additional Function Check:

Item	Input	Output
Telephone Mute	Init Mode : Phone 'LO' Tune set to FM mode Connect A1 (T188) to GND	Set displays "CALL" Set speaker is muted.
Telephone Mute	Init Mode : Phone 'HI' Tune set to FM mode Connect A1 (T188) to +5V	Set displays "CALL" Set speaker is muted.
Auto Antenna Switch + Remote +	Switch on set. Connect a resistor of 470Ω from A5 to GND.	Measure at one end of the 470Ω a voltage of +12V.
CDCC+	Apply supply (A4 & A7 to the set) Switch off the set.	Measure at C5 (T119) a voltage of +12V
Line-out	Tuner set to FM mode, 97MHz Inject 97MHz, 22.5kHz dev. E _i =1mV, 1kHz mod. Set volume setting at 1Vrms at speaker output.	Measure at pin D4 (T140) to D7 (T143) a 1kHz AF signal of 50mVrms.



ON/OFF LOGIC CHECK :

Steps	Permanent (A7)	Ignition (A4)	Action	Observation
1	ON	OFF	Turn set ON with power key.	Set is turn on.
2	ON	ON	With set in the ON mode.	Set remains on.
3	ON	OFF	Switch off ignition.	Set will be off, follow by two beeps.

Detachable Front Unit

The Detachable front unit is part of the Car Radio. Hence it is necessary that the customer always bring the complete set (with detachable unit) when service is needed. This statement was also printed in the Instruction For Use.

RC388/RC348/RC328 Software Release Status

Item	7700 CE559
SW Release	R1.0
Description	P83CE559EFB/016
Checksum	2ASC
Service Code	4822 209 12722

To read the 'checksum' of microprocessor

Power on the set, press simultaneously the preset 1 and preset 6 keys. 4 digit number (checksum of the main microprocessor) appear on the display.

Set will go back to the last mode of operation after about 5 seconds or after Power reset.



WARNING

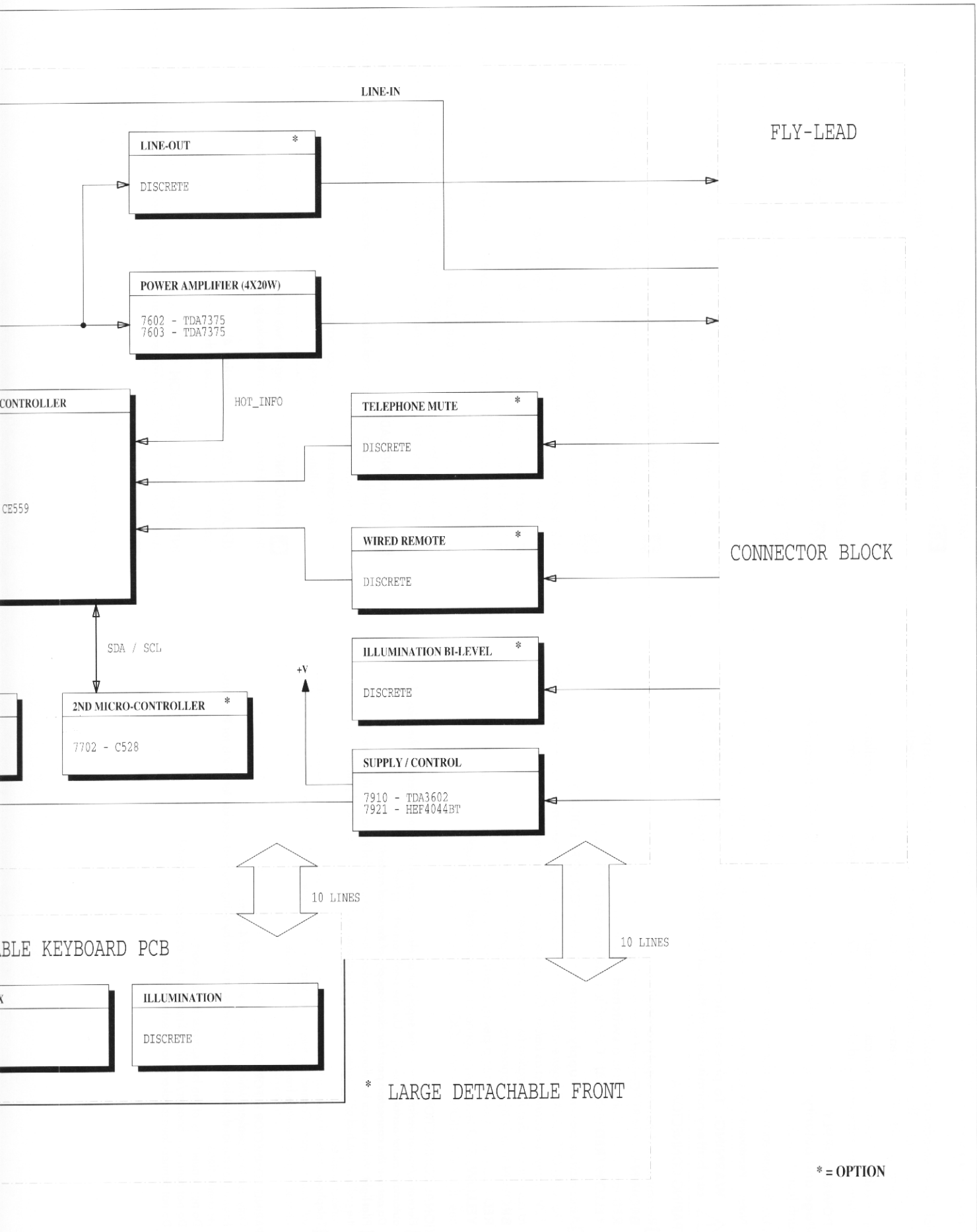
All IC's and many semiconductors are susceptible to electronic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected to the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

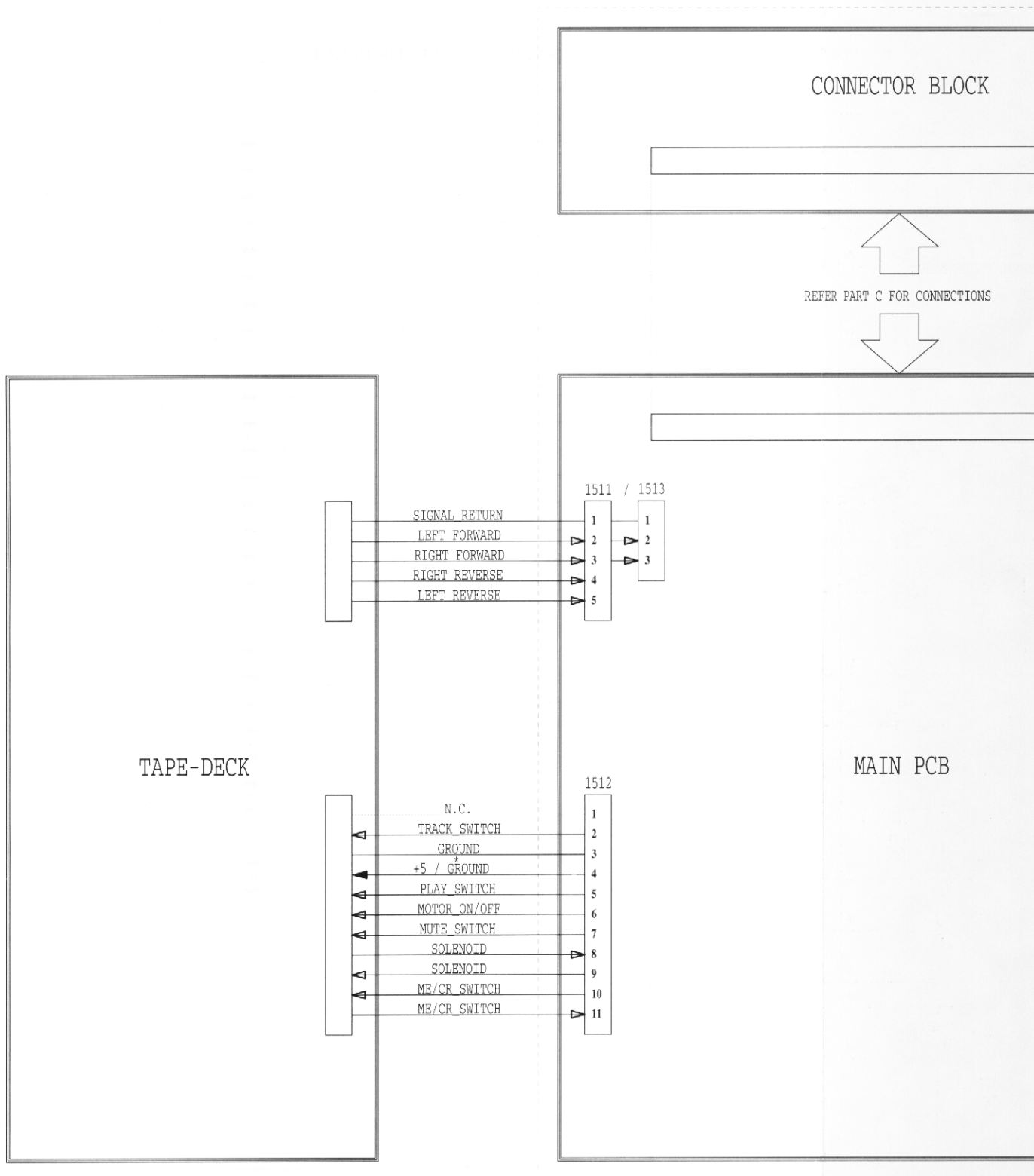
OPERATING INSTRUCTIONS
THEFT PROTECTION

PART A : ELECTRICAL ARCHITECTURE





T B : WIRING DIAGRAM



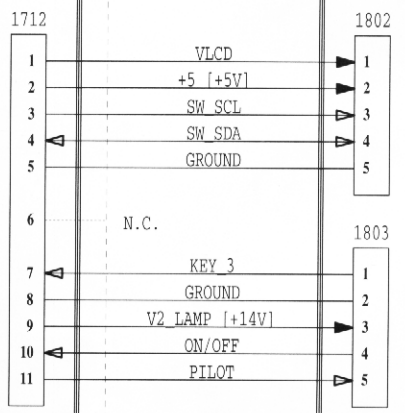
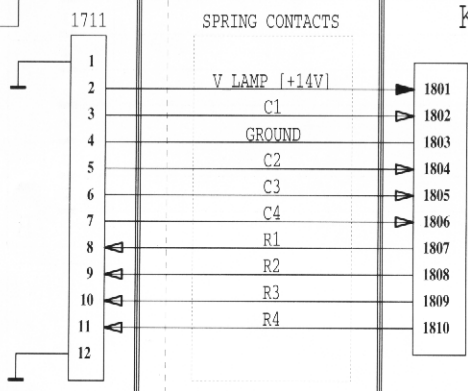
CONNECTOR BLOCK

REFER PART C FOR CONNECTIONS

MAIN PCB

DETACHABLE
KEYBOARD

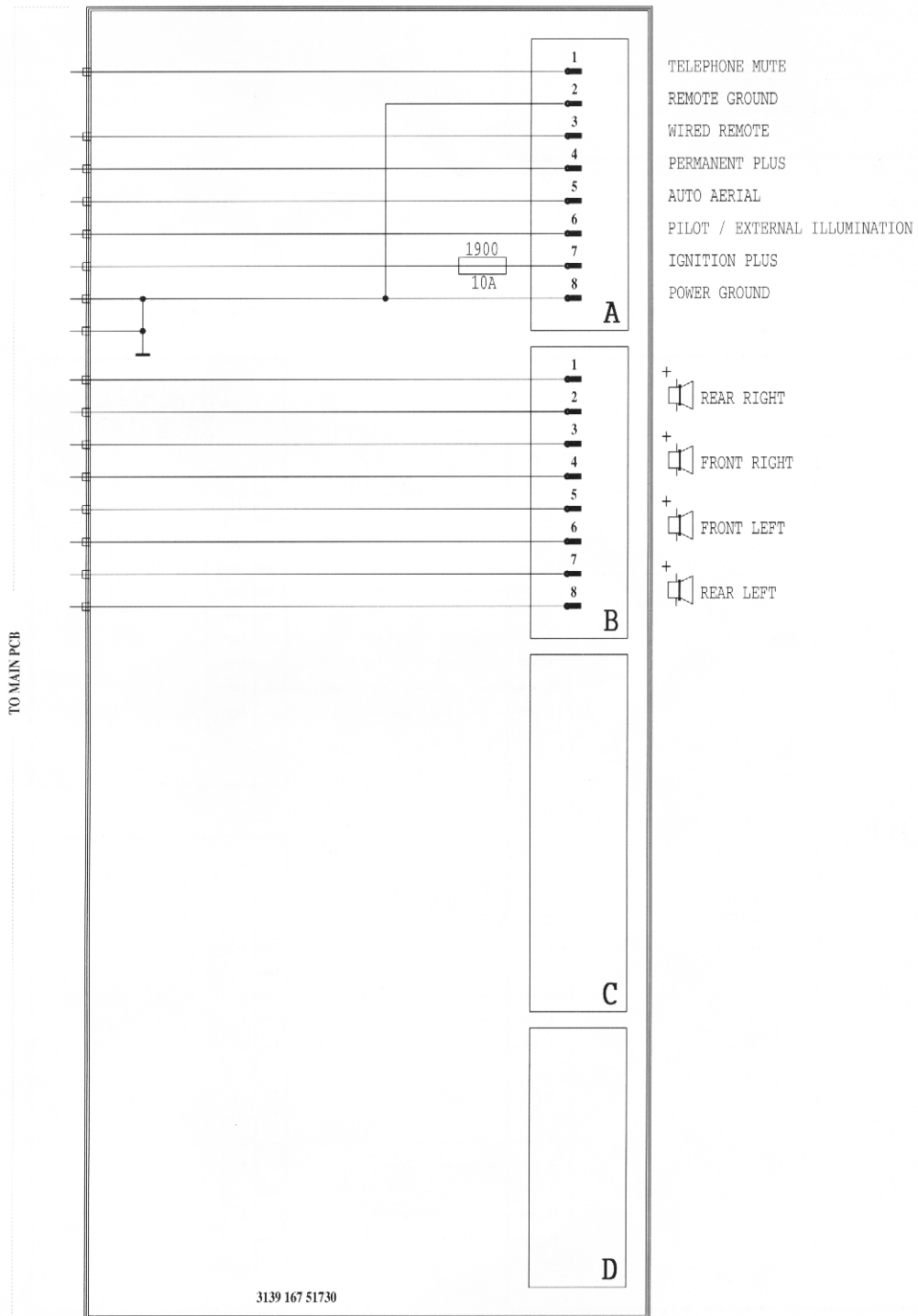
LCD/KEYBOARD
PCB



MAIN PCB ASSEMBLY

PART C : CONNECTOR BLOCK

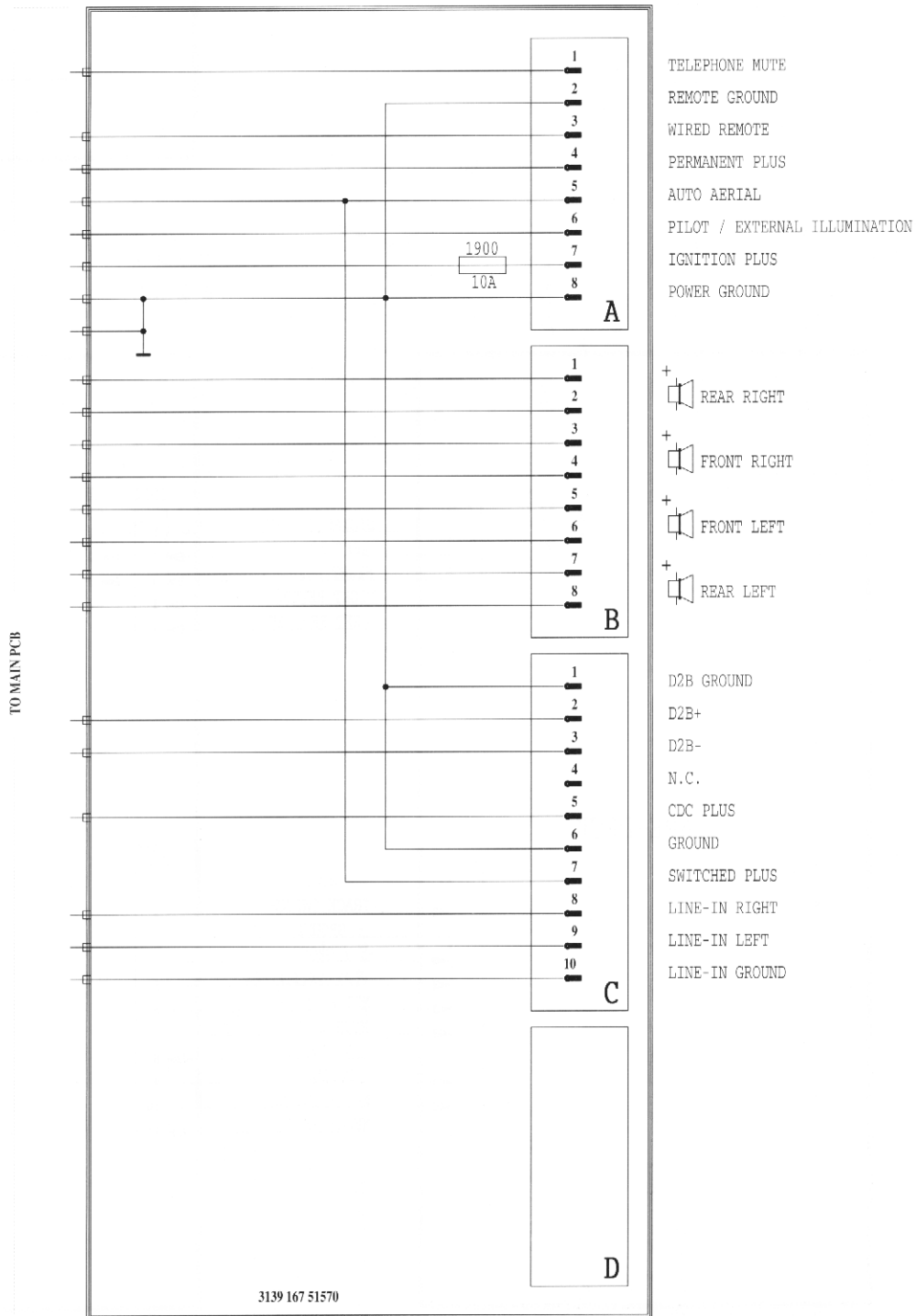
4X20W CONNECTOR BLOCK



3139 167 51730

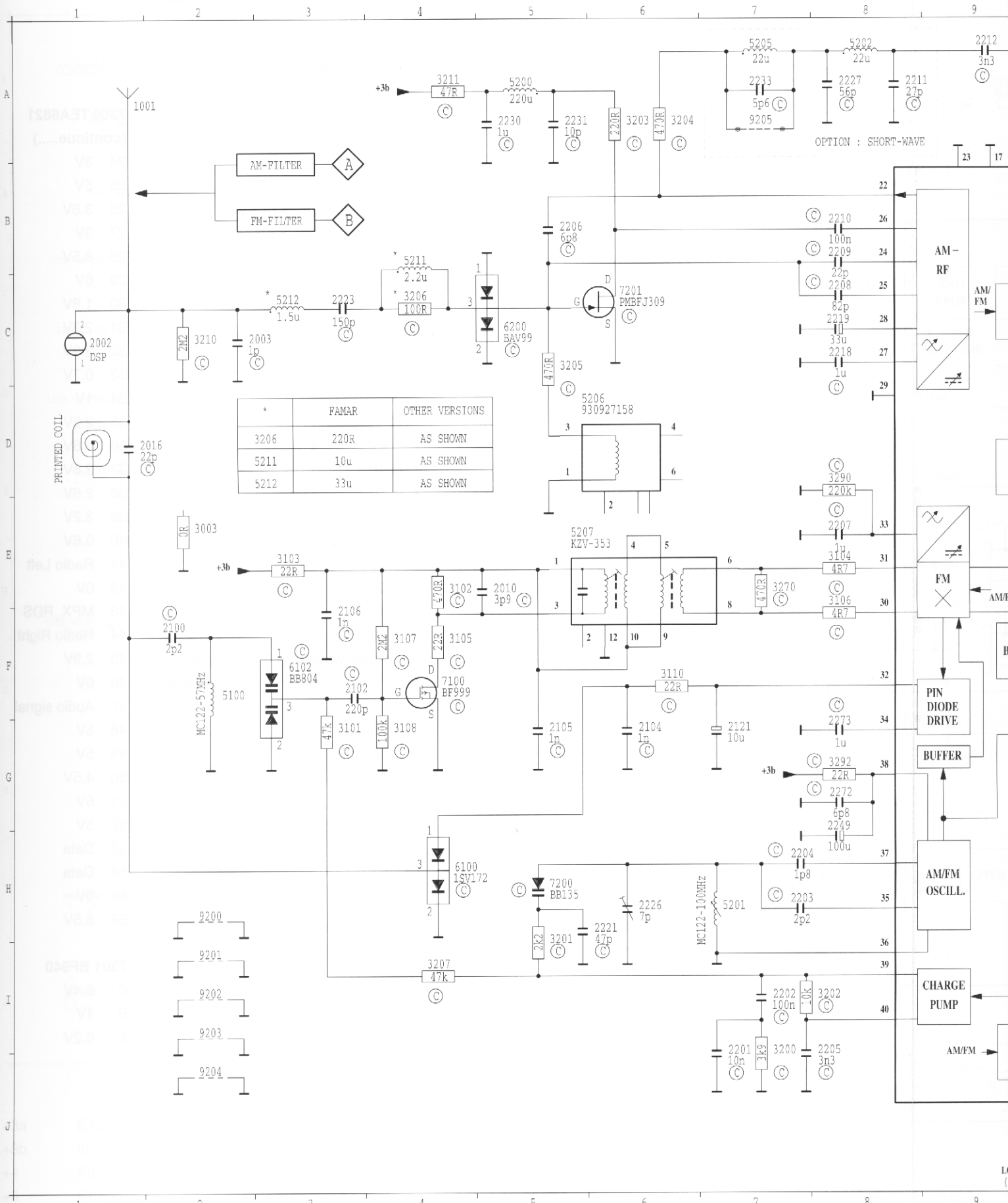
FOR RC328/00, RC448/00

4X20W CONNECTOR BLOCK



FOR RC348/00, RC348/30, RC348/97, RC388/00, RC448/30, RC468/00

PART 1 : TUNER IC91 (MAIN PCB)



+3B J11/A4/E2/G7
 +5B G12/H6
 IFAM1 C12

IFAM2 C12
 IFFM1 E12
 IFFM2 F12

LOCK_DET J9
 REF1 H12
 REF2 G12

SCL I12
 SDA I12

Voltage measured in FM mode with
A4 = 14.4V
A7 = 14.4V
unless otherwise stated.

(off) = Power off

(on) = Power on

+1 +14V
+2 +14.4V
+3a, +3b 8.5V
+4 +5V
+5, +5a,+5b +5V
+7 +5V
+CDCC 14V
Vref 5V
V_LAMP 14V

7100 BF999

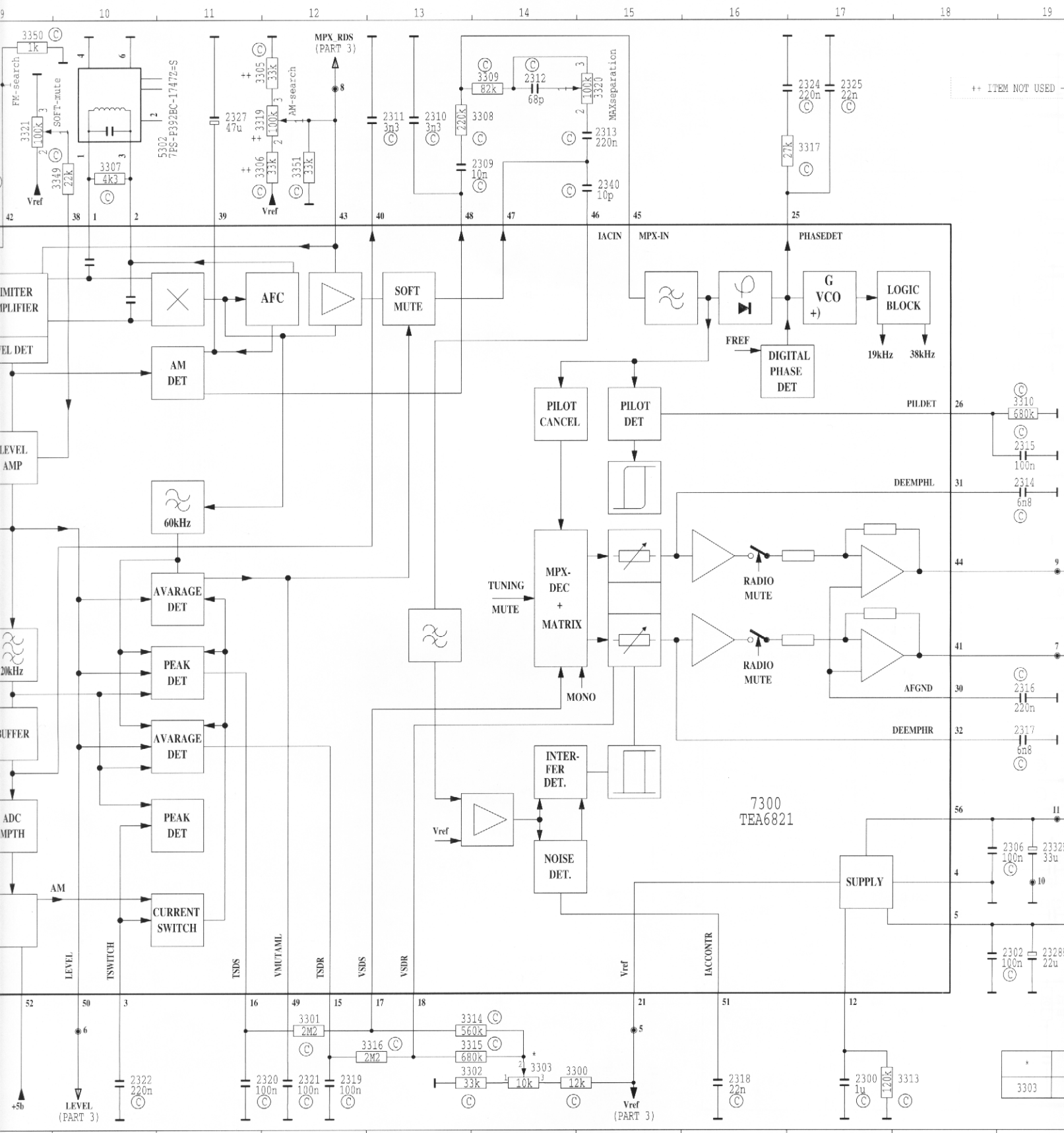
G 0.4V
D 8V
S 0V

7201 PMBF J309

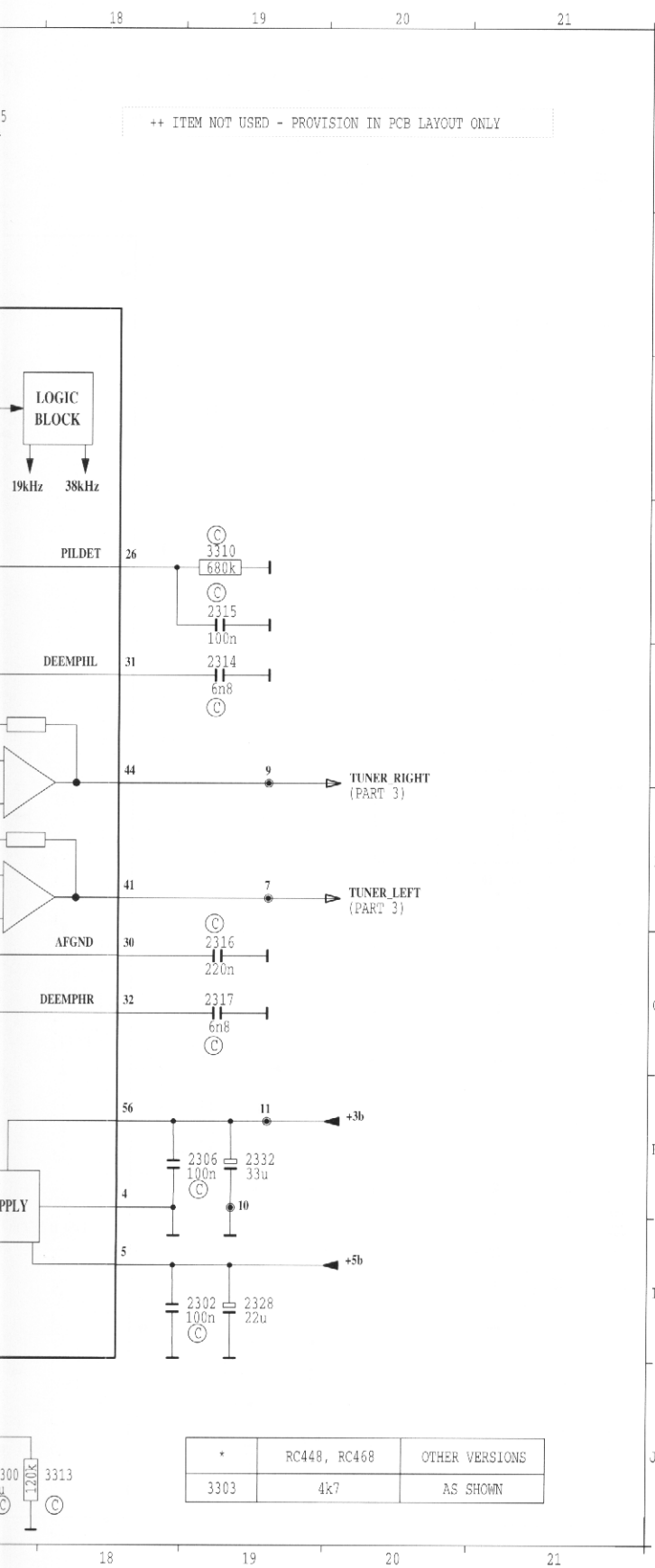
G 5V
D 8V
S 0V

7202 TEA6811

1 0V
2 5V
3 5V
4 5V
5 5V
6 Pulse waveform 0.24v p-p 5V dc
7 Pulse waveform 0.24v p-p 5V dc
8 0V
9 5V
10 0V
11 8.5V
12 8.5V
13 8.5V
14 0V
15 8.5V
16 8.5V
17 0V
18 0V
19 0V
20 0V
21 0V
22 0V
23 0V
24 0V
25 0V
26 0V
27 0V
28 0V
29 0V
30 3.1V
31 3.1V
32 0V
33 4.3V
34 4.2V
35 2.6V
36 0V
37 6.1V
38 8.2V
39 3.6V
40 3.5V



TUNER_LEFT F20
TUNER_RIGHT E20
TUNER_SCL J8
TUNER_SDA J8
Vref J15/B9/B12



Voltage measured in FM mode with
A4 = 14.4V
A7 = 14.4V
 unless otherwise stated.

(off) = Power off
 (on) = Power on

7300 TEA6821		(continue.....)	
24	3V		
25	5V		
26	3.6V	+1	+14V
27	3V	+2	+14.4V
28	8.5V	+3a, +3b	8.5V
29	6V	+4	+5V
30	1.8V	+5, +5a, +5b	+5V
31	2.3V	+7	+5V
32	2.3V	+CDCC	14V
33	0.7V	Vref	5V
34	1V	V_LAMP	14V

7300 TEA6821

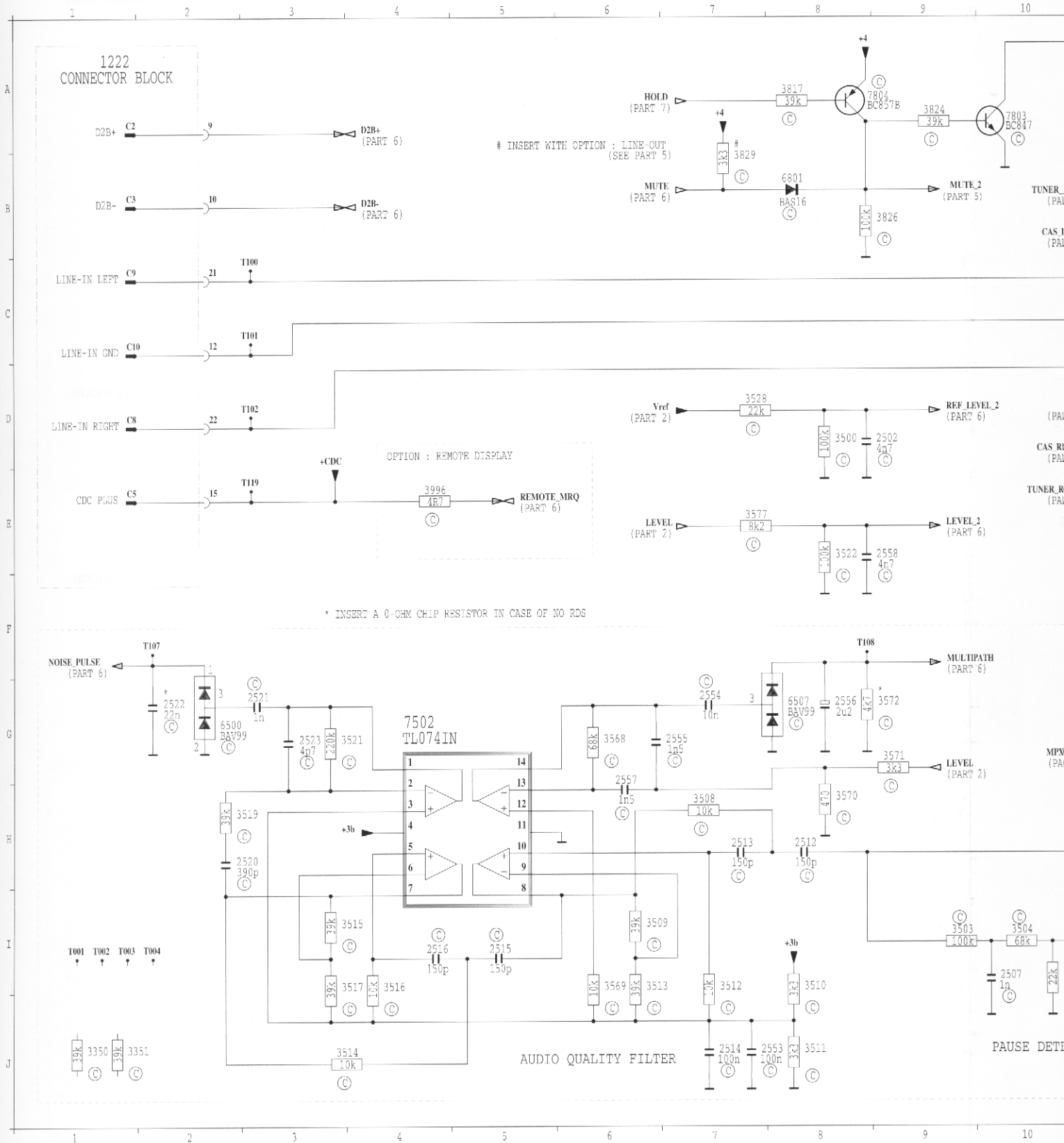
35	2.8V
36	2.8V
37	2.8V
38	2.6V
39	3.2V
40	0.6V
41	Radio Left
42	0V
43	MPX_RDS
44	Radio Right
45	2.9V
46	0V
47	Audio signal
48	5V
49	5V
50	4.5V
51	6V
52	5V
53	Data
54	Data
55	0V
56	8.5V

7301 BF940

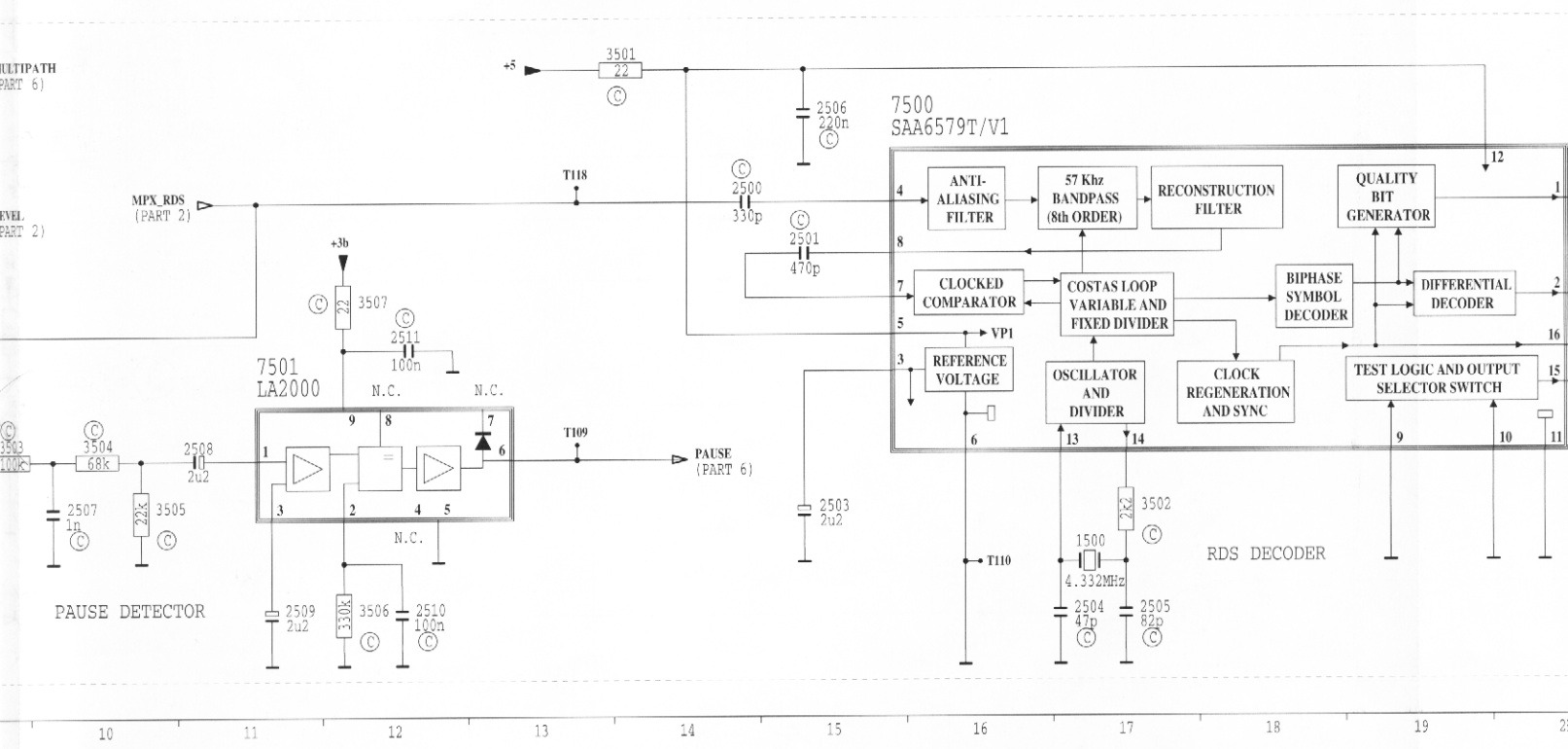
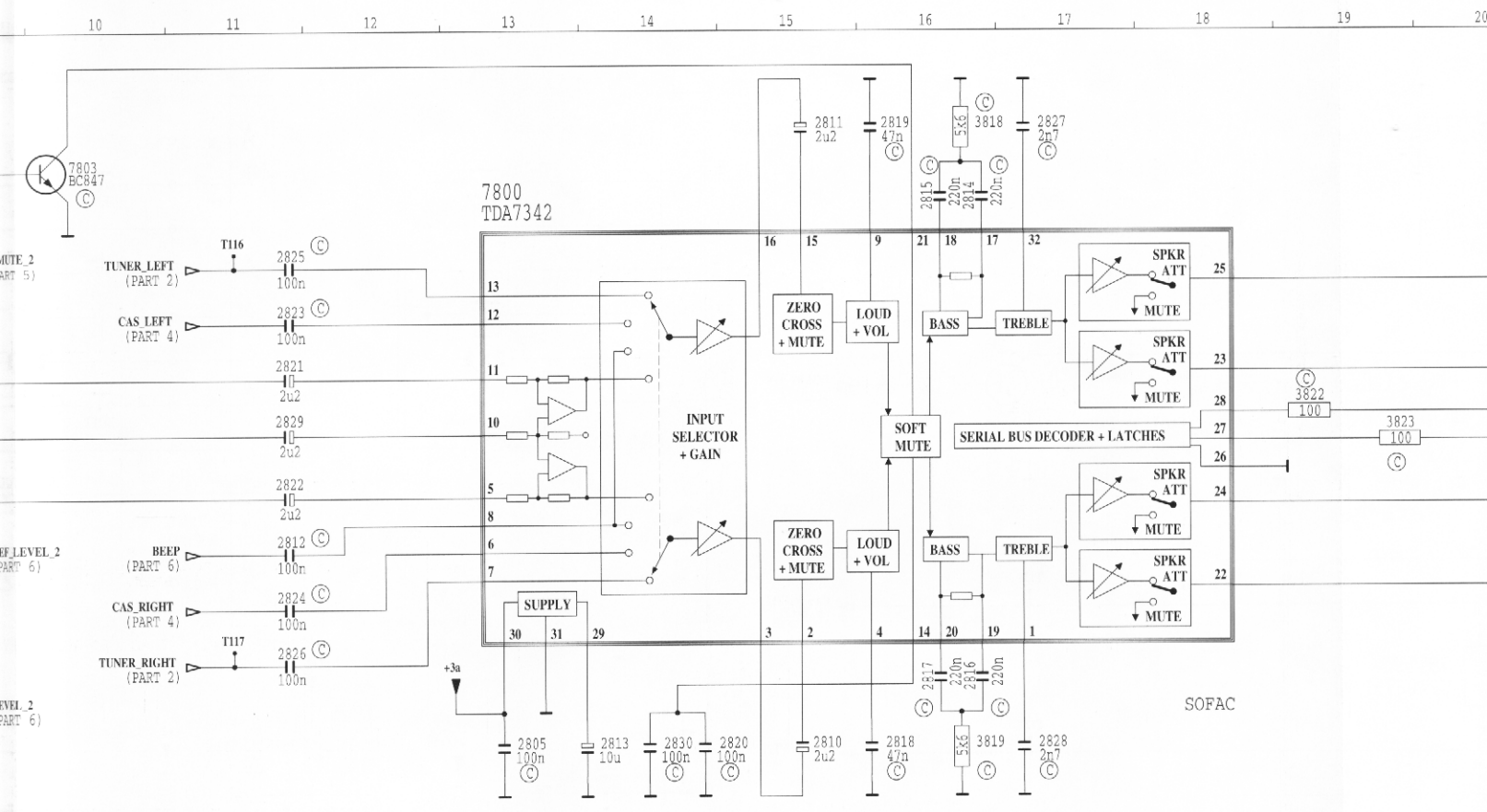
C	6.4V
B	1V
E	0.2V

1300 A 8
 1301 C 4
 1302 C 6
 1303 D 5
 2214 D 5
 2224 G 5
 2228 F 6
 2229 E 3
 2230 E 3
 2300 J 17
 2301 D 7
 2302 I 19
 2305 C 6
 2306 H 19
 2307 A 9
 2308 A 8
 2309 B 14
 2310 A 13
 2311 A 13
 2312 A 14
 2313 A 15
 2314 E 19
 2315 D 9
 2316 G 9
 2317 G 9
 2318 J 16
 2319 J 12
 2320 J 12
 2321 J 12
 2322 J 10
 2324 A 17
 2325 A 17
 2327 A 11
 2328 I 19
 2330 E 6
 2332 H 19
 2333 A 4
 2340 B 15
 2349 B 5
 2308 I 1
 2309 I 1
 2310 B 5
 3300 J 15
 3301 J 12
 3302 J 14
 3303 J 14
 3305 A 12
 3306 B 12
 3307 B 10
 3308 A 14
 3309 A 14
 3310 D 19
 3313 J 18
 3314 J 14
 3315 J 14
 3316 J 13
 3317 A 17
 3318 B 6
 3319 A 15
 3320 A 9
 3321 A 9
 3322 A 9
 3323 B 5
 3324 A 5
 3325 C 5
 3326 C 5
 3327 A 5
 3330 B 9
 3331 C 9
 3332 A 7
 3334 A 9
 3335 A 9
 3336 B 2
 3337 G 6
 5208 A 3
 5209 F 4
 5210 F 5
 5301 B 7
 5302 B 11
 7300 H 16
 7301 B 5

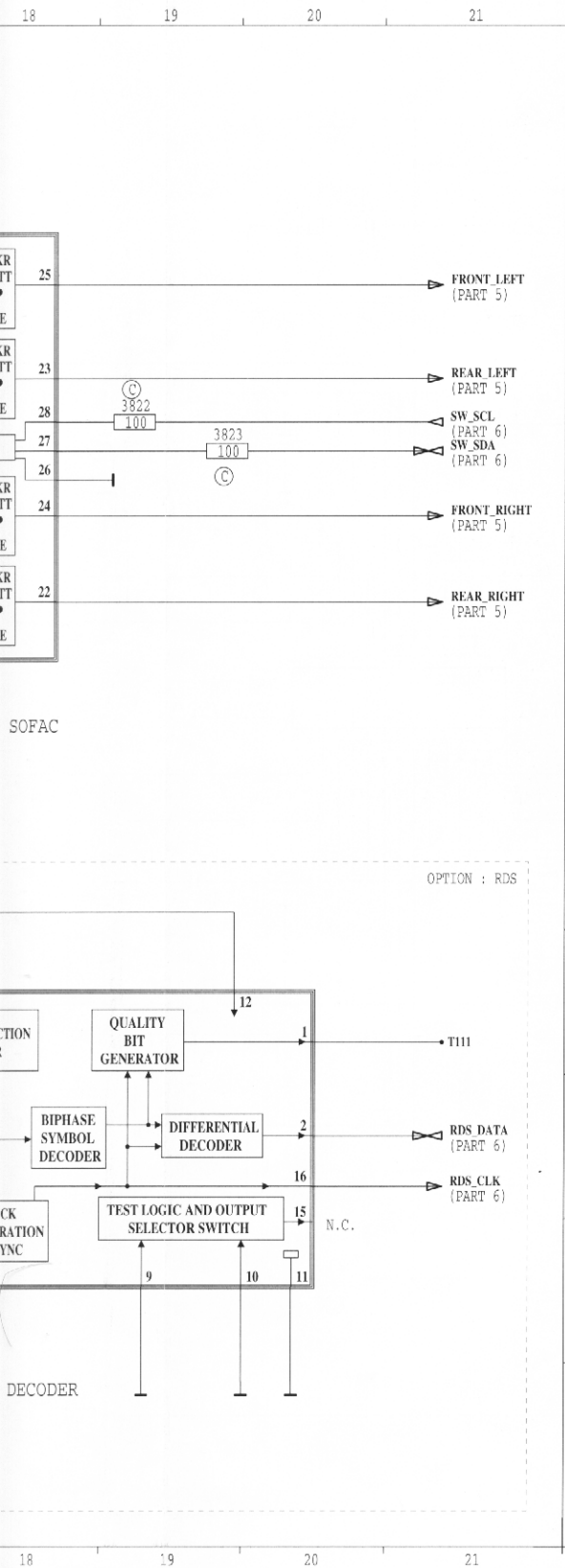
PART 3 : RDS & SOFAC (MAIN PCB)



+3a	E13	BEEP	D11	FRONT_LEFT	B21	MPX_RDS	G10
+3b	I8	CAS_LEFT	B11	FRONT_RIGHT	D21	MULTIPATH	F9
+4	A8	CAS_RIGHT	D11	HOLD	A7	MUTE	B7
+5	F13	D2B+	A3	LEVEL	E7/G9	MUTE_2	B9
+CDC	E3	D2B-	B3	LEVEL2	E9	NOISE_PULSE	F1



S	G10	PAUSE	I14	REF_LEVEL	D9	TUNER_RIGHT	E11
H	F9	RDS_CLK	H21	REMOTE_MRQ	E5	Vref	D7
	B7	RDS_DATA	H21	SW_SCL	C21		
	B9	REAR_LEFT	C21	SW_SDA	C21		
ULSE	F1	REAR_RIGHT	D21	TUNER_LEFT	B11		



FRONT_RIGHT E11
REAR_RIGHT D7

Voltage measured in FM mode with

A4 = 14.4V

A7 = 14.4V

unless otherwise stated.

(off) = Power off

(on) = Power on

+3b 8V

Vref 5V

+5b 5V

6500 BAV99

1 0V

2 0V

3 4.2V

6507 BAV99

1 0V

2 0V

3 4.2V

7500 SAA6579T/V1

1 Square wave 5Vp-p

2 Square wave 5Vp-p

3 2.5V

4 Audio signal

5 5V

6 <0.5V

7 Audio signal

8 Audio signal

9 0V

10 0V

11 0V

12 5V

13 Sine wave 0.6Vp-p

14 Sine wave 3.2Vp-p

15 N.C.

16 Square wave 5Vp-p

7501 LA2000

1 0.2V

2 5V

3 0.2V

4,5 N.C.

6 5V

7,8 N.C.

9 8.5V

7502 TL0741N

1 4.1V

2 4.1V

3 4.1V

4 8.2V

5 4.1V

6 4.1V

7 4.1V

8 4.1V

7502 TL0741N (continue.....)

9 4.1VDC,
2.2V p-p Sawtooth waveform

10 4.1V

11 0V

12 4.1V

13 4.1V

14 4.1V

7800 TDA7342

1 4.4V

2 4.4V

3 4.4V

4 4.4V

5 4V

6 4.4V

7 4V

8 4V

9 4.1V

10 4.4V

11 4.4V

12 4V

13 4V

14 1V

15 4.4V

16 4.4V

17 4.4V

18 4.4V

19 4.4V

20 4.4V

21 4.4V

22 3.7V

23 3.7V

24 3.7V

25 3.7V

27 5V

28 5V

29 4.2V

30 8.5V

31 0V

32 4.4V

7803 BC847

C 0V (off)
4.4V (on)

B 5V (off)

0V (on)

E 0V

7804 BC857B

C 5V (off)

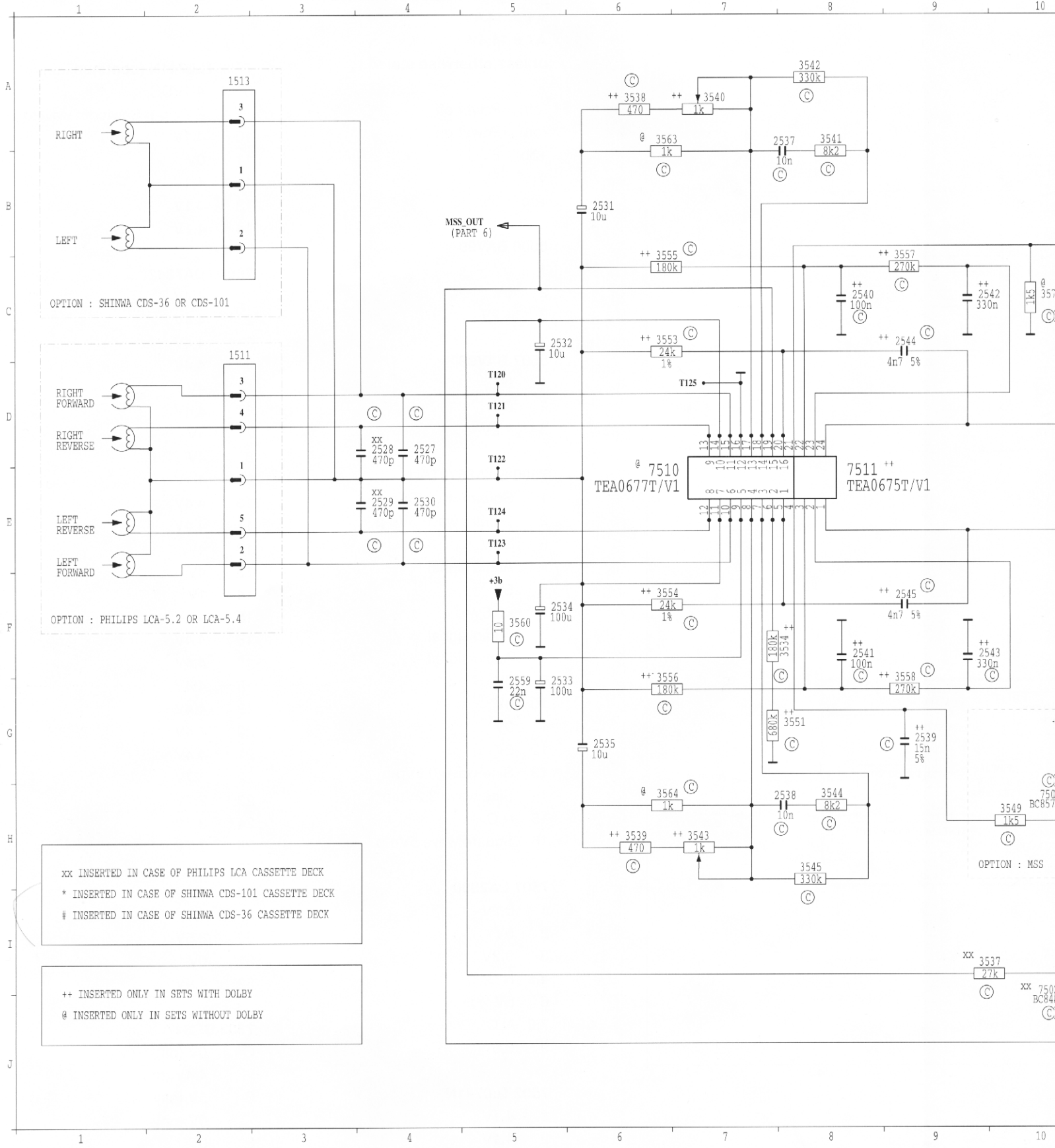
0V (on)

B 4.4V (off)

5V (on)

E 5V

PART 4 : CASSETTE PRE-AMPLIFIER & DOLBY (MAIN PCB)



xx INSERTED IN CASE OF PHILIPS LCA CASSETTE DECK
 * INSERTED IN CASE OF SHINWA CDS-101 CASSETTE DECK
 # INSERTED IN CASE OF SHINWA CDS-36 CASSETTE DECK

++ INSERTED ONLY IN SETS WITH DOLBY
 @ INSERTED ONLY IN SETS WITHOUT DOLBY

OPTION : MSS
 750 BC857
 750 BC84

+2	E16/E17	CAS_LEFT	E12	LEFT FWD	E1	RIGHT FW
+3a	G10	CAS_RIGHT	D12	LEFT	B1	RIGHT RE
+3b	G11/F5	DOLBY_ON	C13	MSS	H12	RIGHT
+5	E15/E20/F17/G18/J20/I12	LEFT_REV	E1	MSS_OUT	B5	

PART 5 : POWER AMPLIFIER & LINE-OUT (MAIN PCB)

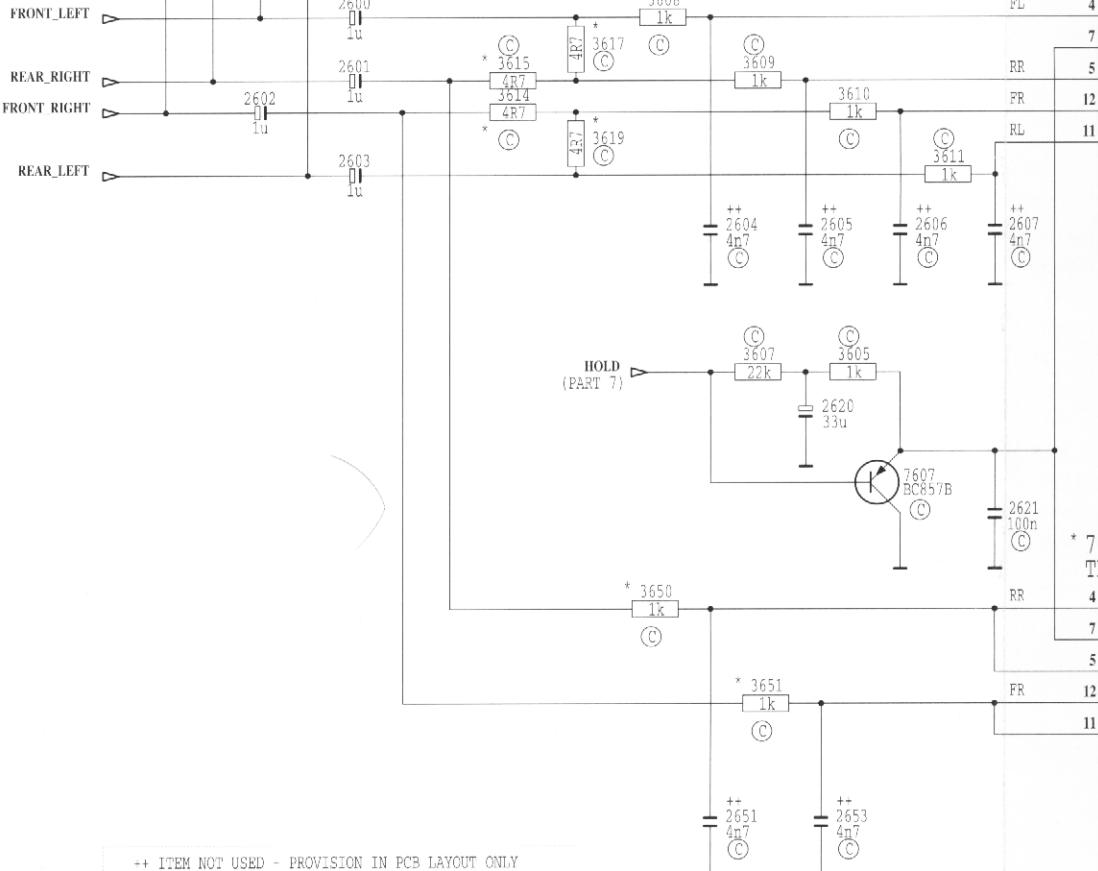
*	4X7W ONLY	4X20W ONLY
2611	DELETE	INSERT
2612	DELETE	INSERT
2656	INSERT	DELETE
3614	INSERT	DELETE
3615	INSERT	DELETE
3617	DELETE	INSERT
3618	INSERT	DELETE
3619	DELETE	INSERT
3620	INSERT	DELETE
3621	DELETE	INSERT
3622	DELETE	INSERT
3629	DELETE	INSERT
3630	DELETE	INSERT
3650	DELETE	INSERT
3651	DELETE	INSERT
7603	DELETE	INSERT
7606	DELETE	INSERT
9801	DELETE	INSERT
9802	INSERT	DELETE

OPTION : LINE-OUT

DELETED IN CASE OF LINE-OUT WITH REAR CHANNELS ONLY OR IN REMOTE DISPLAY VERSIONS

OPTION : BUCHEROT FILTER

@	4X7W ONLY	4X20W ONLY
2657	INSERT	INSERT
2658	INSERT	INSERT
2659	INSERT	INSERT
2660	INSERT	INSERT
2661	DELETE	INSERT
2662	DELETE	INSERT
2663	DELETE	INSERT
2664	DELETE	INSERT
3652	INSERT	INSERT
3653	INSERT	INSERT
3654	INSERT	INSERT
3655	INSERT	INSERT
3656	DELETE	INSERT
3657	DELETE	INSERT
3658	DELETE	INSERT
3659	DELETE	INSERT

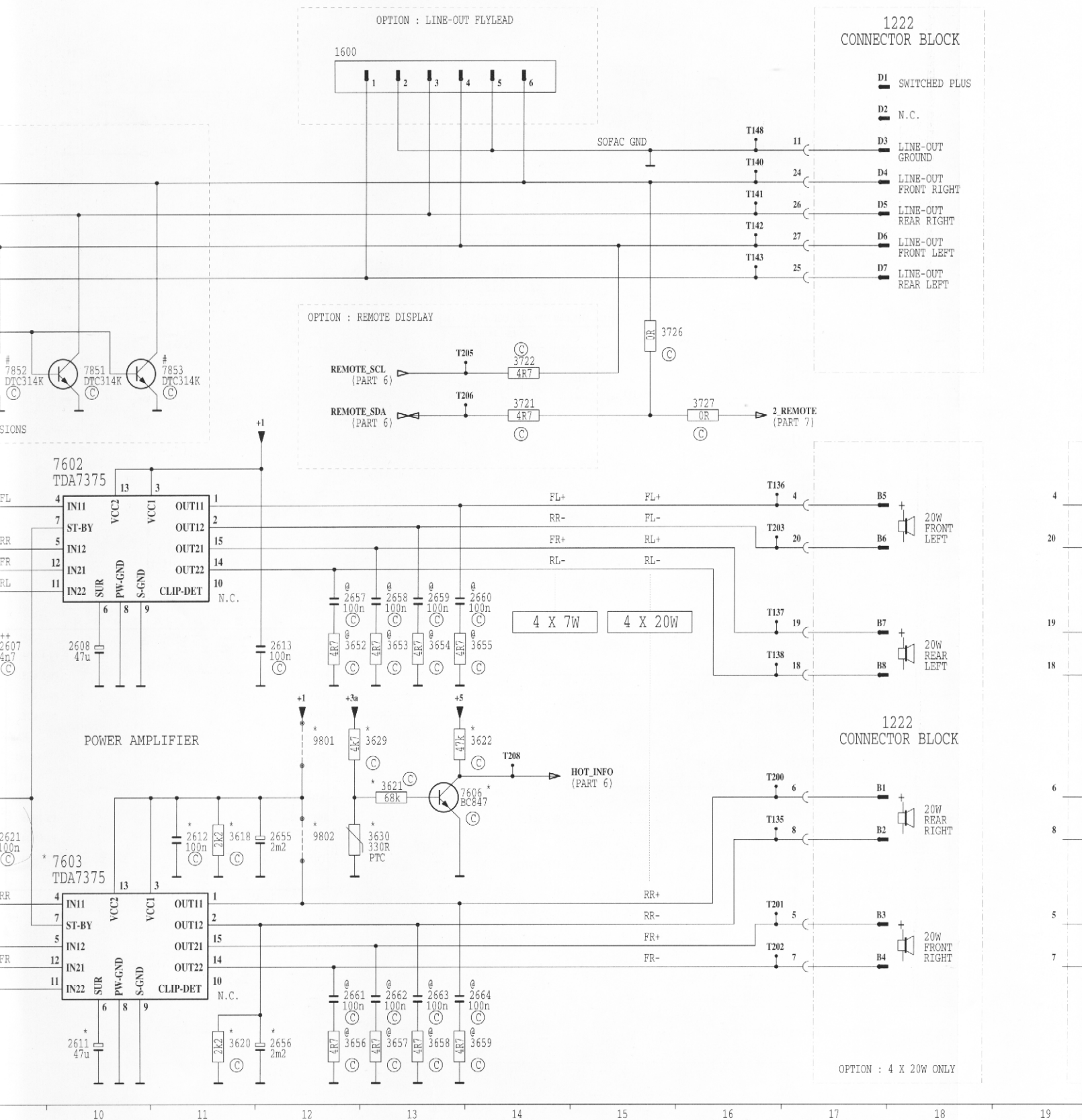


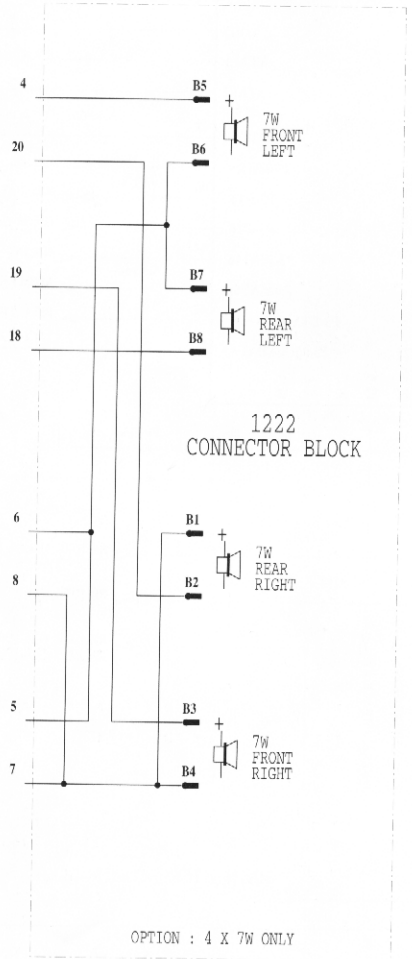
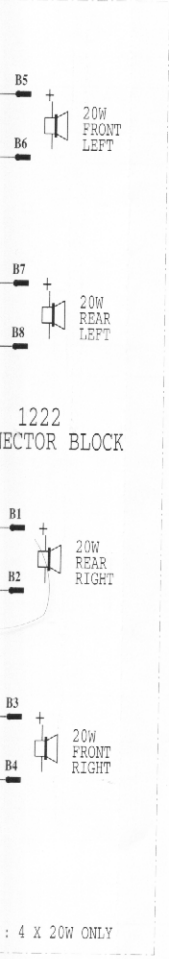
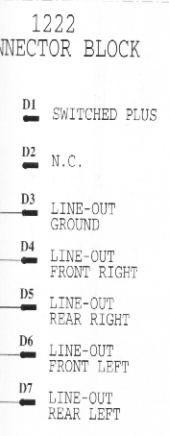
++ ITEM NOT USED - PROVISION IN PCB LAYOUT ONLY

- +1 E11/G12
- +3a G12
- +5 G13
- 2_REMOTE D16

- FRONT_LEFT E3
- FRONT_RIGHT F3
- HOLD G7
- HOT_INFO H14

- MUTE_2 D6
- REAR_LEFT F3
- REAR_RIGHT E3
- REMOTE_SCL D13
- REMOTE_SDA D13





A	1222	A17
	1222	G17
	1600	A12
	2600	E15
	2601	E15
	2602	F14
	2603	F14
	2604	F14
	2605	F14
	2606	F14
	2607	F14
	2608	F10
	2611	J10
	2612	H11
	2613	F12
	2620	H18
	2621	H19
	2651	J17
	2653	J17
	2655	H12
	2656	J12
	2657	F14
	2658	F14
	2659	F13
	2660	F14
	2661	J12
	2662	J13
	2663	J13
	2664	J14
C	2850	C16
	2851	C16
	2852	B17
	2853	B17
	3605	C16
	3607	G17
	3608	E17
	3609	E17
	3610	F18
	3611	F18
	3614	F16
	3615	E16
	3617	E17
	3618	H11
	3619	F17
	3620	J11
	3621	H13
	3622	G14
	3629	G13
	3630	H13
	3650	I17
	3651	F12
	3652	F13
	3653	F13
	3654	F13
	3655	F14
	3656	J12
	3657	J13
	3658	J13
	3659	J14
	3721	D14
	3722	D14
	3726	D15
F	7850	D17
	7851	C16
	7852	C16
	7853	C17
	7602	E10
	7603	I10
	7606	H13
	7607	H18
	7850	D18
	7851	D10
	7852	D19
	7853	D11
	9801	G12
	9802	H12
G		
H		
I		
J		

Voltage measured in FM mode with
A4 = 14.4V
A7 = 14.4V
unless otherwise stated.

(off) = Power off
 (on) = Power on

+1	+14.V
+2	+14.4V
+3a, +3b	8.5V
+4	+5V
+5, +5a, +5b	+5V
+7	+5V
Vref	5V
V_LAMP	14V

7602 TDA7375

1	6.4V
2	6.4V
3	14.4V
4	0.8V
5	0.8V
6	0.8V
7	4.8V
8	0V
9	0V
10	N.C.
11	0.8V
12	0.8V
13	14.4V
14	6.4V
15	6.4V

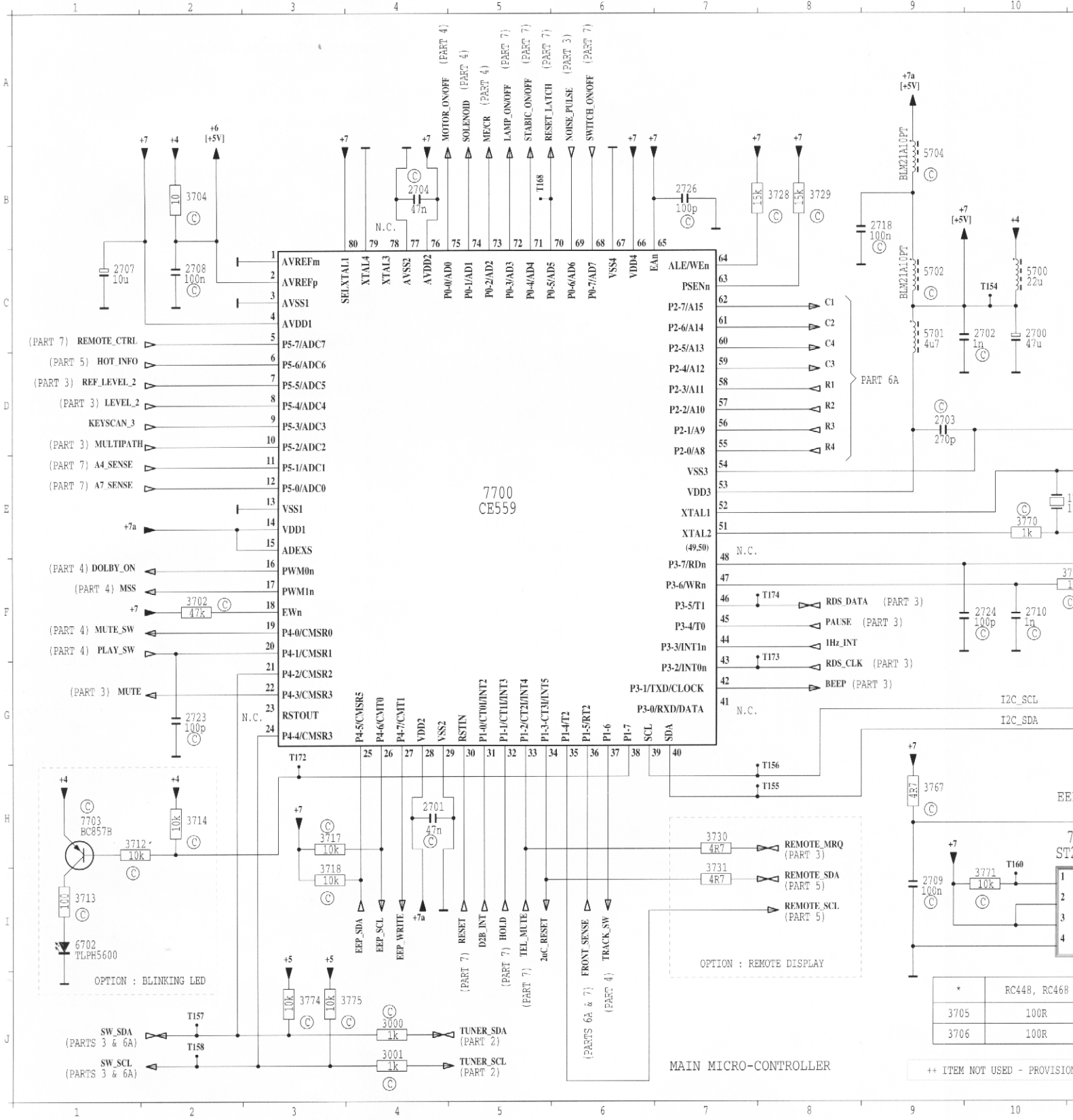
7603 TDA7375

1	6.4V
2	6.4V
3	14.4V
4	0.8V
5	0.8V
6	0.8V
7	4.8V
8	0V
9	0V
10	N.C.
11	0.8V
12	0.8V
13	14.4V
14	6.4V
15	6.4V

7606 BC847

C	5V
	0V ("too hot")
B	0V
	0.7V ("too hot")
E	0V

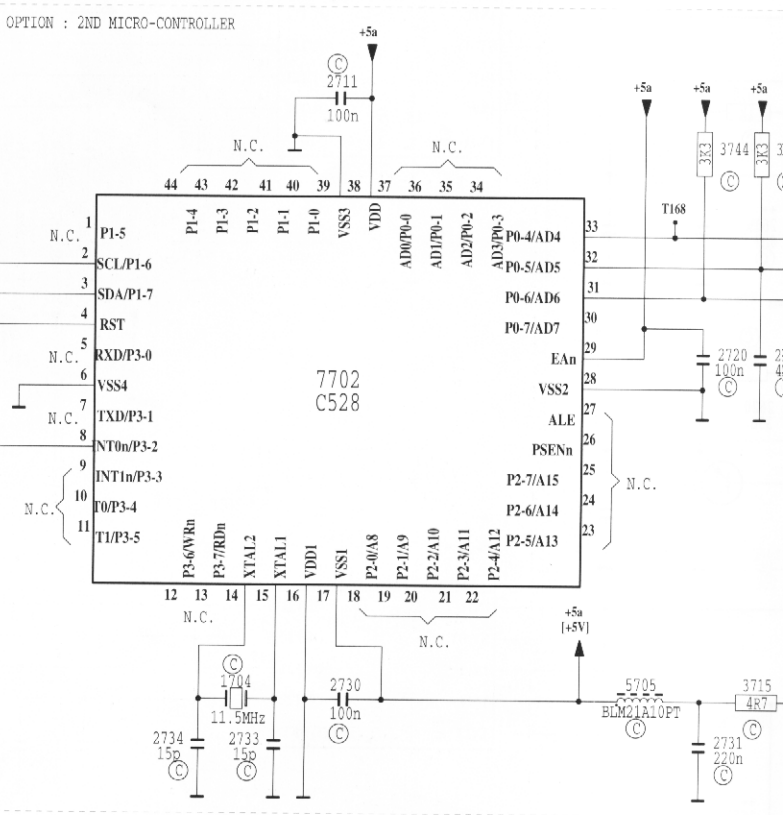
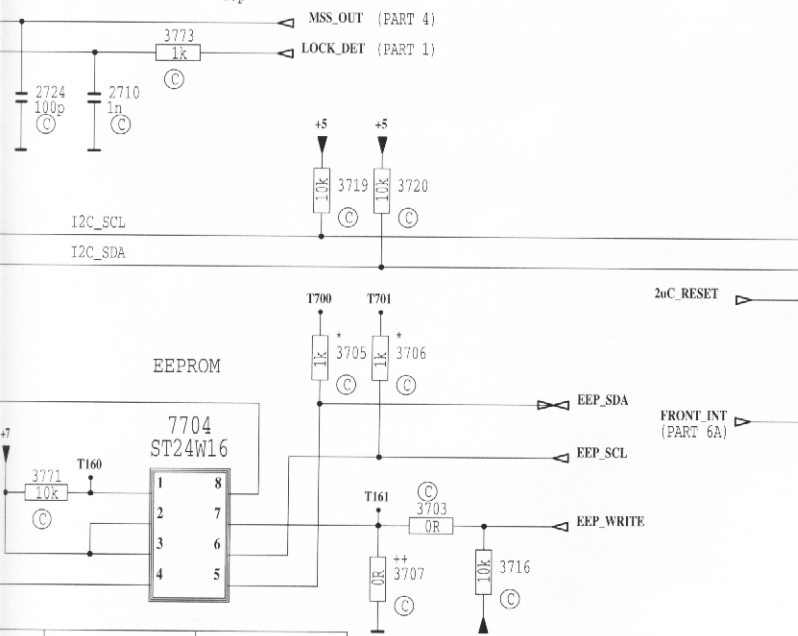
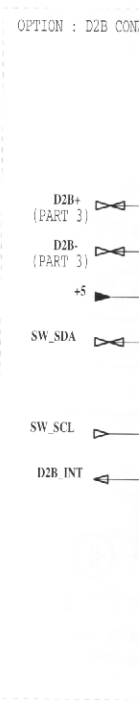
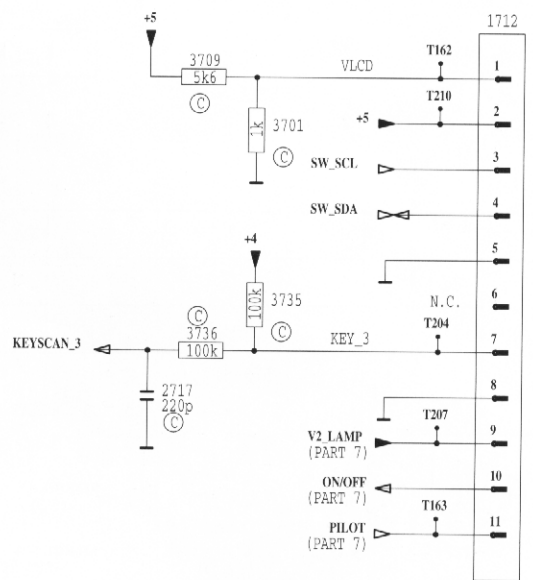
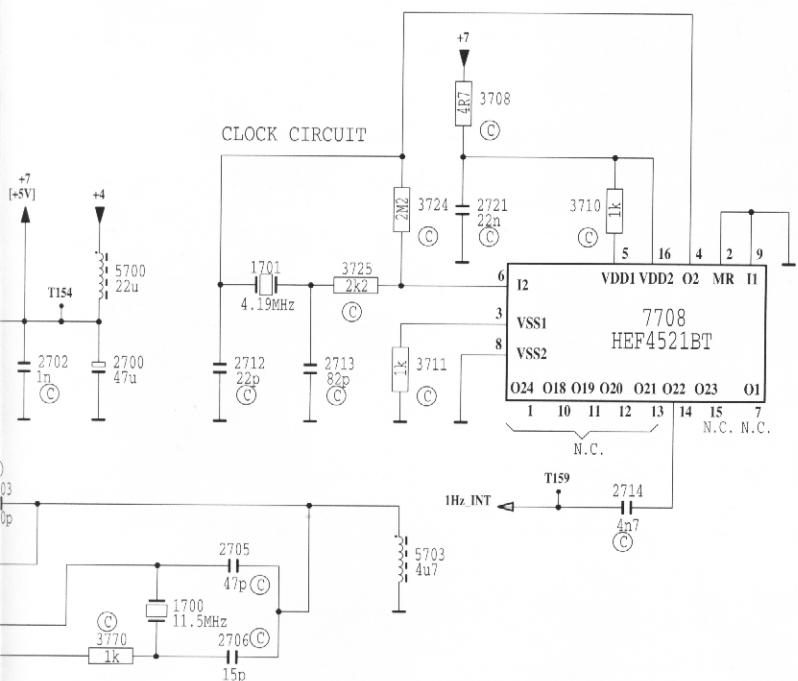
PART 6 : MAIN & 2ND MICRO-CONTROLLERS, EEPROM & BLINKING LED (MAIN PCB)



*	RC448, RC468
3705	100R
3706	100R

++ ITEM NOT USED - PROVISION

+4	B2/B10/H1	BEEP	G8	FRONT_SENSE	I6	MSS	F1
+5	A16/J20/G12/J3	C1/C2/C3/C4	D8	HOLD	I5	MSS_OUT	F11
+5a	F19/J19	D2B+	B20	HOLD	D1	MULTIPATH	D1
+6	B2	D2B-	B20	KEYSCAN	D1	MUTE	G1
+7	B1/B3/B7/B9/A12/F1/H3/H9/J13	D2B_INT	I5/D20	KEYSCAN_3	C16	MUTE_SW	F1
+7a	A9/E1	DOLBY_ON	F1	LAMP_ON/OFF	B5	NOISE_PULSE	B6
1Hz_INT	F8/D13	EEP_SCL	I4/I14	LEVEL_2	D1	ON/OFF	D17
2uC_RESET	I5/G14	EEP_SDA	I4/I14	LOCK_DET	F11	PAUSE	F8
A4_SENSE	E1	EEP_WRITE	I4/I14	ME/CR	B5	PLAY_SW	F1
A7_SENSE	E1	FRONT_INT	H14	MOTOR_ON/OFF	B4	PILOT	D17



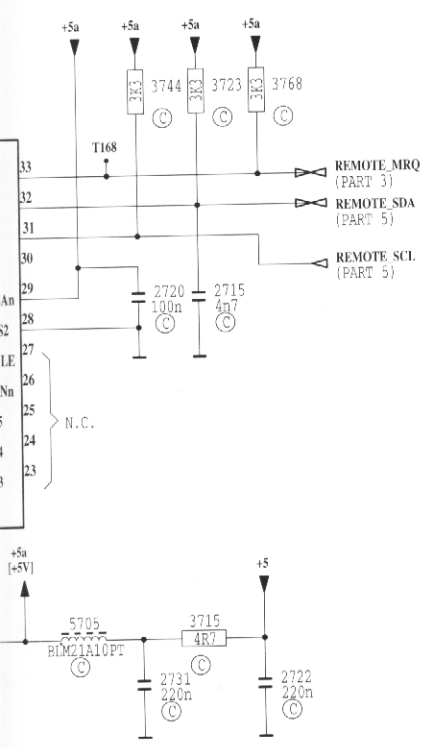
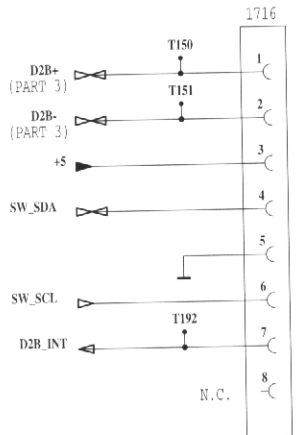
*	RC448, RC468	OTHER VERSIONS
3705	100R	AS SHOWN
3706	100R	AS SHOWN

ITEM NOT USED - PROVISION IN PCB LAYOUT ONLY

- | | | | | |
|-----|-------------|--------|---------------|------------|
| F1 | R4/R3/R2/R1 | D8 | SOLENOID | B5 |
| F11 | RDS_CLK | G8 | STABIC ON/OFF | B5 |
| D1 | RDS_DATA | F8 | SW_SCL | J2/B17/C20 |
| G1 | REF_LEVEL_2 | D1 | SW_SDA | J2/B17/C20 |
| F1 | REMOTE_CTRL | C1 | SWITCH_ON/OFF | B6 |
| B6 | REMOTE_MRQ | H8/G21 | TEL_MUTE | I5 |
| D17 | REMOTE_SCL | I8/G21 | TRACK_SW | I6 |
| F8 | REMOTE_SDA | I8/G21 | TUNER_SCL | J4 |
| F1 | RESET | I5 | TUNER_SDA | J4 |
| D17 | RESET_LATCH | B5 | V2_LAMP | D17 |

19 20 21

OPTION : D2B CONNECTOR



19 20 21

Voltage measured in FM mode with
A4 = 14.4V
A7 = 14.4V
 unless otherwise stated.

(off) = Power off
 (on) = Power on

7700 CE559
 (continue...)

7700 CE559
 (continue...)

+1	+14.V
+2	+14.4V
+3a, +3b	8.5V
+4	+5V
+5, +5a, +5b	+5V
+7	+5V
Vref	5V
V_LAMP	14V

28	5V (on)
	5V (off)
29	0V (on)
	0V (off)
30	0V (on)
	0V (off)
31	5V (on)
	0V (off)
32	5V (on)
	0V (off)
33	0V (on)
	2.5V (off)
34	0V (on)
	0V (off)
35	5V (on)
	0V (off)
36	0V (on)
	0V (off)
37	0V (on)
	2.5V (off)
38	5V (on)
	5V (off)
39	5V (on)
	0V (off)
40	5V (on)
	0V (off)
41	0V (on)
	0V (off)
42	5V (on)
	0V (off)
43	Square wave 5Vp-p (on)
	0V (off)
44	1Hz pulse wave (on)
	1Hz pulse wave (off)
45	5V (on)
	0V (off)
46	RDS data
47	5V (on)
	0V (off)
48	5V (on)
	0V (off)
49	0V (on)
	0V (off)
50	0V (on)
	0V (off)
51	Sine wave 0.2Vp-p (on)
	0V (off)
52	Sine wave 0.16Vp-p (on)
	0V (off)
53	Sine wave 0.24Vp-p (on)
	0V (off)
54	0V (on)
	5V (off)
55	key matrix
56	key matrix
57	key matrix
58	key matrix
59	key matrix
60	key matrix
61	key matrix
62	key matrix
63	5V (on)
	5V (off)

64	0V
65	5V (on)
	5V (off)
66	5V (on)
	5V (off)
67	0V (on)
	0V (off)
68	0V (on)
	0V (off)
69	0V (on)
	0V (off)
70	5V (on)
	5V (off)
71	0V (on)
	5V (off)
72	0V (on)
	3V (off)
73	0V (ME/CR on)
	5V (ME/CR off)
74	0V (on)
	0V (off)
75	0V (on)
	0V (off)
76	5V (on)
	5V (off)
77	0V (on)
	0V (off)
78	0V (on)
	0V (off)
79	0V (on)
	0V (off)
80	5V (on)
	5V (off)

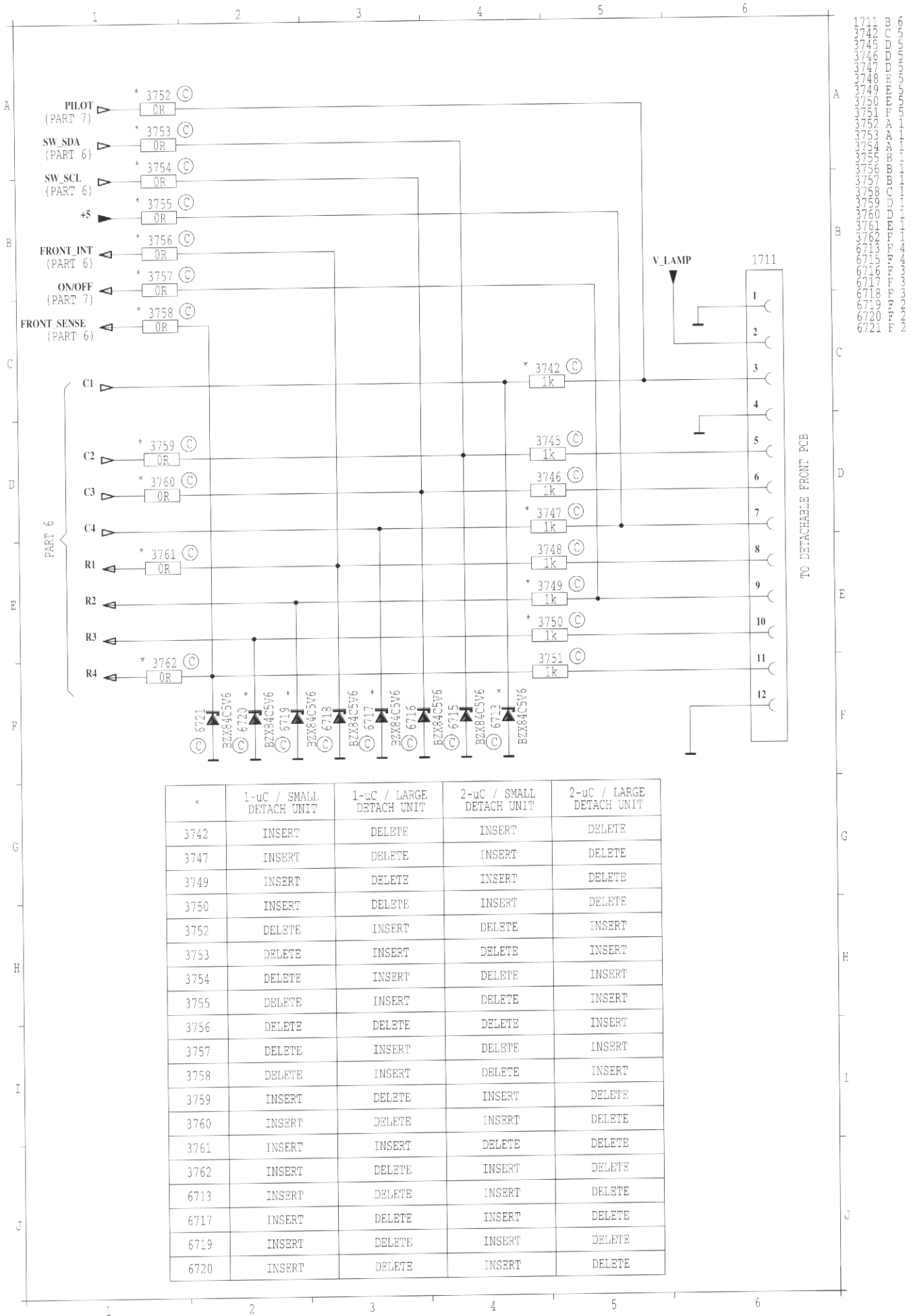
7700 CE559

7704 ST24W16

1	0V (on)
	0V (off)
2	5V (on)
	5V (off)
3	0V (on)
	0V (off)
4	5V (on)
	0V (off)
5	5V (on)
	5V (off)
6	5V (on)
	0V (off)
7	5V (on)
	0V (off)
8	5V (on)
	0V (off)
9	5V (on)
	5V (off)
10	0V (on)
	0V (off)
11	5V (on)
	5V (off)
12	5V (on)
	5V (off)
13	0V (on)
	0V (off)
14	5V (on)
	5V (off)
15	5V (on)
	5V (off)
16	0V (Dolby on)
	5V (Dolby off)
17	0V
18	5V (on)
	5V (off)
19	0V (on)
	0V (off)
20	5V (on)
	2.5V (off)
21	data
22	0V (on)
	5V (off)
23	0V (on)
	0V (off)
24	data
25	5V (on)
	5V (off)
26	5V (on)
	5V (off)
27	5V (on)
	5V (off)

1	5V
2	5V
3	5V
4	0V
5	5V
6	5V
7	5V
8	5V
7708 HEF4521BT	
1	N.C.
2	0V
3	Sine wave
4	Sine wave
	2.6Vp-p
5	5V
6	Sine wave
	1Vp-p 1.6V dc
7	N.C.
8	0V
9	0V
10	N.C.
11	N.C.
12	1.6V
12	N.C.
13	N.C.
14	1Hz pulse wave
15	N.C.
16	5V

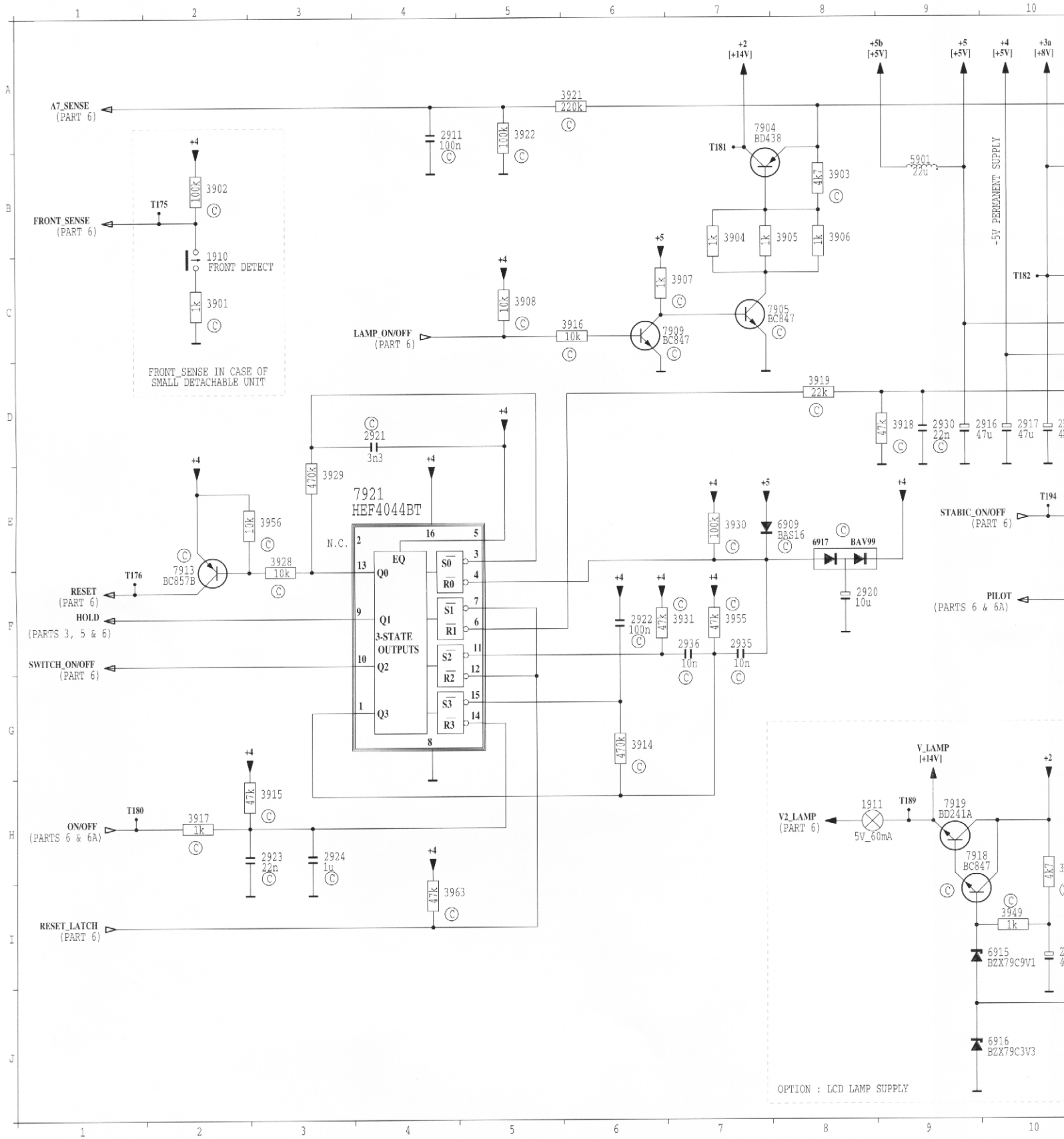
PART 6A : DETACHABLE FRONT CONNECTOR (MAIN PCB)



Some useful tips on Micro-processor.

Pin No.	Name	i/o	State	Function / Description
5	REMOTE_CTRL	i	5V	Remote control is connected
			0V	No Remote control is connected
6	HOT_INFO	i	5V	Temperature of set is ok.
			0V	Temperature of set is too high. Display shows "TOO HOT". Volume will be reduce automatically.
11	A4_SENSE	i	5V	A4 (permanent plus) is connected.
			0V	A4 (permanent plus) is not connected.
12	A7_SENSE	i	5V	A7 (ignition plus) is connected.
			0V	A7 (ignition plus) is not connected.
16	DOLBY_ON	o	0V	Dolby on
			5V	Dolby off
19	MUTE_SW	o	5V	Fast forward/Fast Backward
			0V	Normal cassette play.
20	PLAY_SW	o	5V	No tape in the cassette compartment
			0V	Tape in the cassette compartment
22	MUTE	o	5V	Set is muted.
			0V	Set is not muted.
33	TEL_MUTE Init mode : Phone "LO"	i	5V	Set is muted and display shows "CALL".
			0V	Set play as normal.
33	TEL_MUTE Init mode : Phone "HI"	i	5V	Set play as normal.
			0V	Set is muted and display shows "CALL".
34	2UC_RESET	o		To reset the 2nd micro processor.
36	FRONT_SENSE	i	0V	Detach front is attached.
			5V	Detach front is remove.
37	TRACK_SW	o		Toggle between "1" and "0" when direction of tape is changed.
38	P1_7	o		Send pulses to blink LED when FRONT_SENSE is high (5V).
42	BEEP	o		Beep output.
43	RDS_CLK	i		RDS clock
44	1Hz_INT	i		1Hz signal.
51	XTAL2			Oscillator connection terminal.
52	XTAL1			Oscillator connection terminal.
71	STABIC_ON/OFF	o	0V	Set is power on.
			5V	Set is on standby mode
73	ME/CR	o	0V	ME/CR is on.
			5V	ME/CR is off.

PART 7 : SUPPLY & CONTROL (MAIN PCB)



+1 A18/B16

+2 J17/H10/A8

+3a A10

+3b A11

+4 A10/C5/E7/E9/D11/F6/G2/H4/E2/A2

+5

+5b

+6

+CDCC

2_REMOTE

G17/G18/I14/A9/C6/E7

A9

F17

A17

E18

A4_SENSE

A7_SENSE

FRONT_SENSE

HOLD

LAMP_ON/OFF

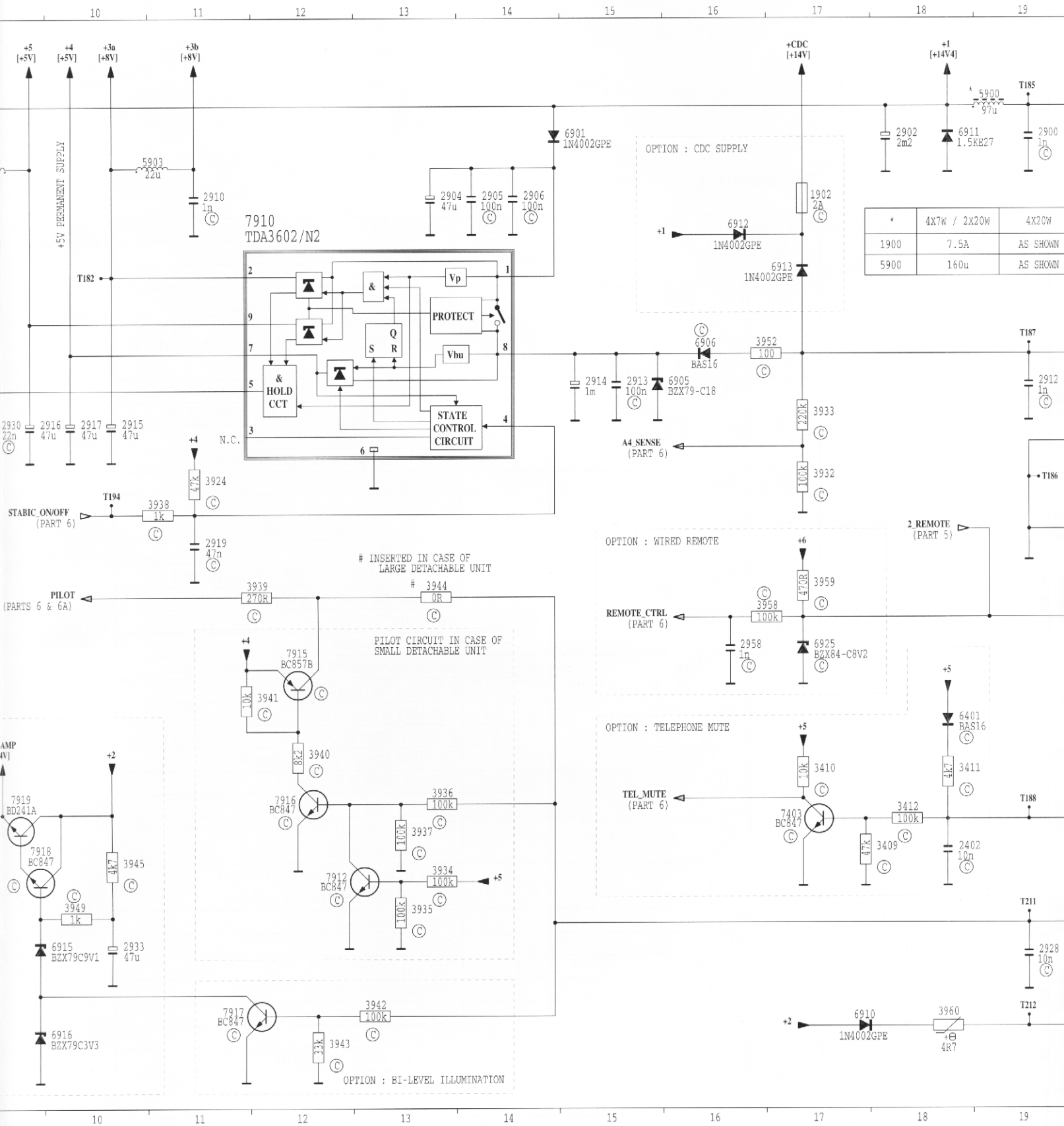
D16

A1

B1

F1

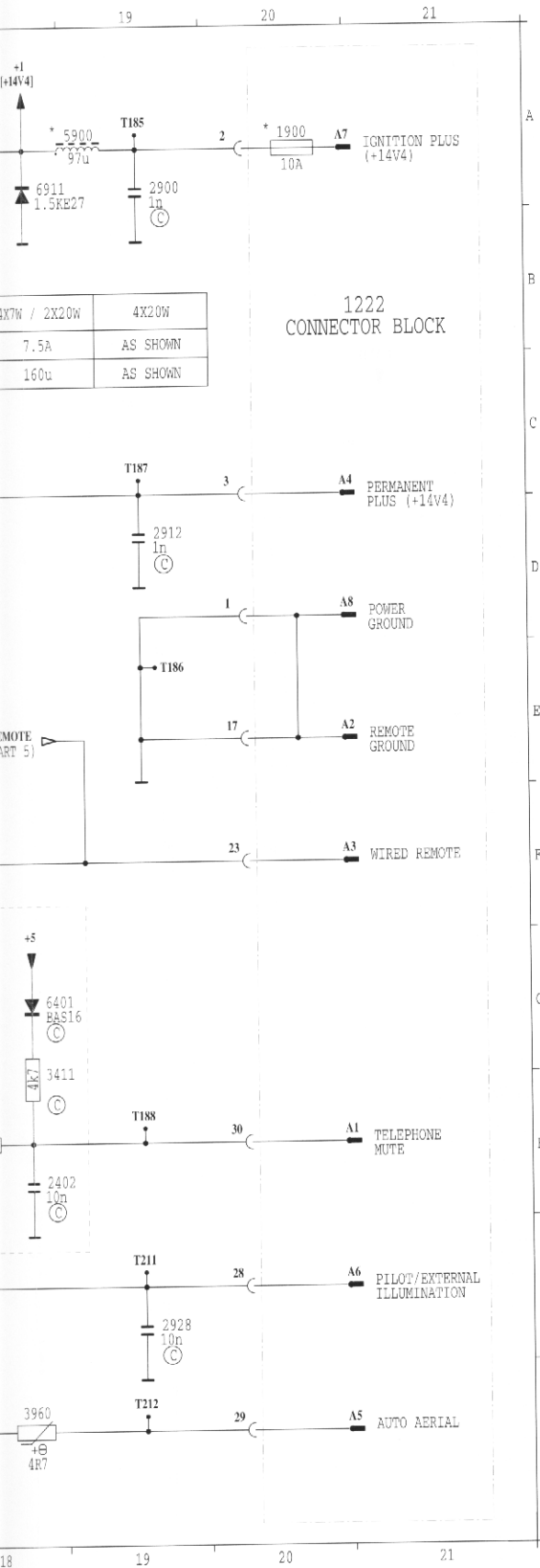
C4



SENSE D16
SENSE A1
_SENSE B1
ON/OFF F1
ON/OFF C4

ON/OFF H1
PLOT F10
REMOTE_CTRL F16
RESET F1
RESET_LATCH I1

STABC_ON/OFF E10
SWITCH_ON/OFF F1
TEL_MUTE H16
V_LAMP H9
V2_LAMP H8



- 1222 B20
- 1902 B17
- 1910 C 2
- 1911 H 8
- 2402 H18
- 2900 A19
- 2902 A18
- 2904 B13
- 2905 B14
- 2906 B14
- 2910 B11
- 2911 A 4
- 2912 D19
- 2913 D15
- 2914 D15
- 2915 D10
- 2916 D10
- 2917 D10
- 2919 E11
- 2920 F 8
- 2921 D 4
- 2922 F 6
- 2923 H 3
- 2924 H 3
- 2925 H 19
- 2930 D 9
- 2933 I10
- 2935 F 7
- 2936 F 7
- 2958 F16
- 3409 H18
- 3410 H17
- 3411 H18
- 3412 H1
- 3901 C 6
- 3902 B 8
- 3903 B 8
- 3904 B 8
- 3905 B 8
- 3906 B 8
- 3907 C 7
- 3908 C 7
- 3914 G 6
- 3915 H 6
- 3916 H 6
- 3917 H 6
- 3918 H 6
- 3919 D 6
- 3920 A 6
- 3921 A 6
- 3922 A 6
- 3923 A 6
- 3924 E11
- 3928 E 1
- 3929 E 1
- 3930 E 1
- 3931 F 7
- 3932 E17
- 3933 D17
- 3934 H13
- 3935 I13
- 3936 H13
- 3937 H13
- 3938 A13
- 3939 A13
- 3940 G12
- 3941 G12
- 3942 J13
- 3943 I12
- 3944 F13
- 3945 H10
- 3949 I10
- 3952 C17
- 3955 F 7
- 3956 E 3
- 3958 F17
- 3959 F17
- 3960 J18
- 3963 I 4
- 5900 A19
- 5901 B 9
- 5903 B11
- 6401 G18
- 6901 A15
- 6905 D16
- 6906 C16
- 6909 E 8
- 6910 J17
- 6911 A18
- 6912 D16
- 6913 C17
- 6915 I10
- 6916 J10
- 6917 E 8
- 6925 F17
- 7403 H17
- 7904 A 7
- 7905 C 7
- 7909 C 6
- 7910 B12
- 7912 I12
- 7913 F 2
- 7915 F12
- 7916 H12
- 7917 J11
- 7918 H 9
- 7919 H 9
- 7921 E 3

Voltage measured in FM mode with
A4 = 14.4V
A7 = 14.4V
 unless otherwise stated.

(off) = Power off
 (on) = Power on

+1 +14.V
 +2 +14.4V
 +3a, +3b 8.5V
 +4 +5V
 +5, +5a,+5b +5V
 +7 +5V
 Vref 5V
 V_LAMP 14V

7909 BC847
 C 1V (on)
 0V (off)
 B 0V (on)
 0.7V (off)
 E 0V

7403 BC847
 C 0V
 B 0.7V
 E 0

7910 TDA3602/N2
 1 13V
 2 8V
 3 N.C.
 4 0.2V (on)
 5V (off)

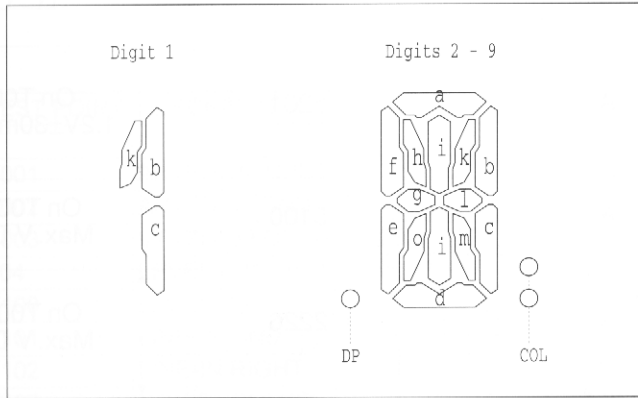
7904 BD438
 C 14V (on)
 0V (off)
 B 14.4V
 E 13.2V (on)
 14V (off)

7921 HEF4044BT
 1 5V
 2 N.C.
 3 1.8V
 4 5V
 5 5V
 6 5V
 7 5V
 8 13V
 9 5V

7905 BC847
 C 0V (on)
 14.4 (off)
 B 1V (on)
 0V (off)
 E 0V

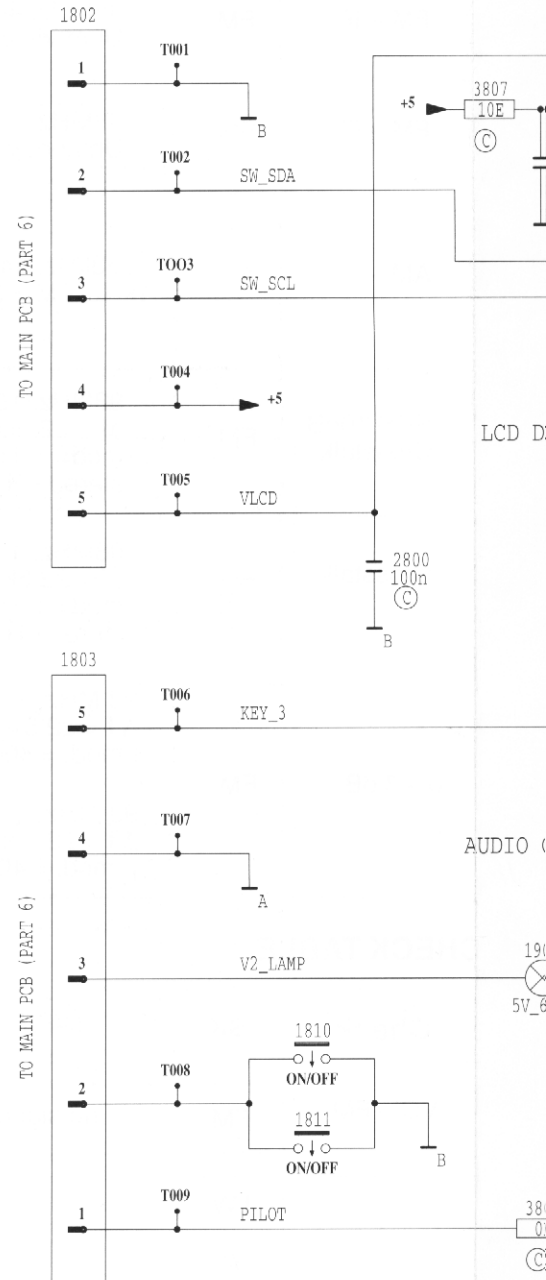
7909 BC847
 1 5V
 2 N.C.
 3 1.8V
 4 5V
 5 5V
 6 5V
 7 5V
 8 0V
 9 5V
 10 0V
 11 5V
 12 5V
 13 5V
 14 5V
 15 3.4V
 16 5V

PART 8 : LCD DRIVER & AUDIO CONTROL (SUB-PCB)



LCD PINOUT TABLE

7800 DRIVER PINS	1800 LCD PINS	COM 1	COM 2	COM 3	COM 4
13	1	COM 1			
14	2		COM 2		
15	3			COM 3	
16	4				COM 4
17	5	3	1 b c k	1	2
18	6	4	2f	2g	2e
19	7	2a	2h	2i	2o
20	8	2k	2l	2m	2d
21	9	2b	3f	2c	3e
22	10	3h	3g	3o	3d
23	11	3a	3k	3i	3m
24	12	DP	3b	3l	3c
25	13	5	4f	4g	4e
26	14	4a	4h	4i	4o
27	15	4k	4l	4m	4d
28	16	4b	5f	4c	5e
45	17	5h	5g	5o	5d
44	18	5a	5k	5i	5m
43	19	6	5b	5l	5c
42	20	TA	6f	6g	6e
41	21	6a	6h	6i	6o
40	22	6k	6l	6m	6d
39	23	6b	7f	6c	7e
38	24	7h	7g	7o	7d
37	25	7a	7k	7i	7m
36	26	□	7b	7l	7c
35	27	COL	8f	8g	8e
34	28	8a	8h	8i	8o
33	29	8k	8l	8m	8d
32	30	8b	9f	8c	9e
31	31	9h	9g	9o	9d
30	32	9a	9k	9i	9m
29	33	NEWS	9b	9l	9c

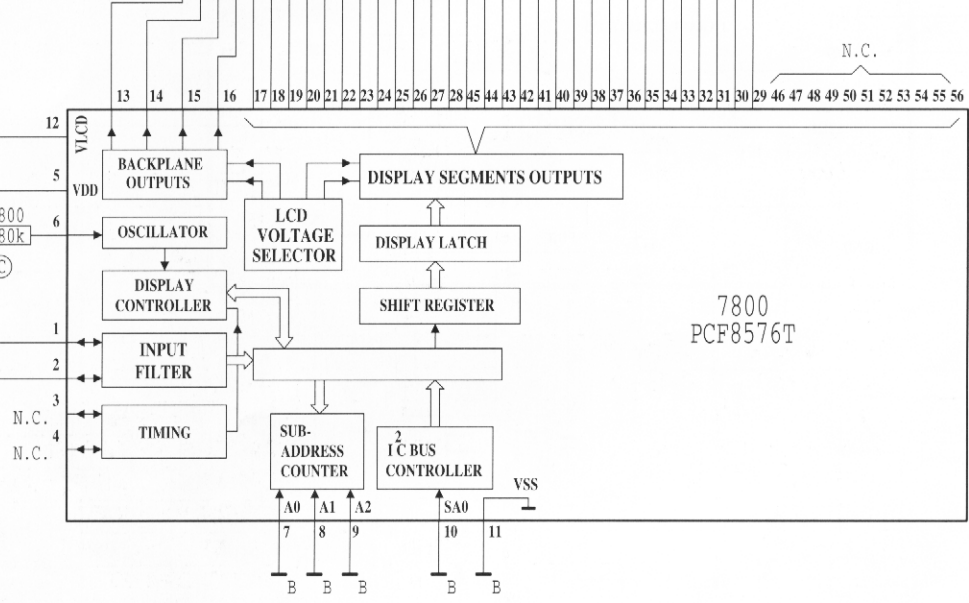


7 8 9 10 11 12 13 14

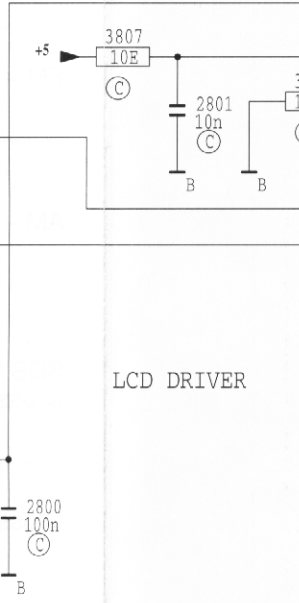
1800 LCD



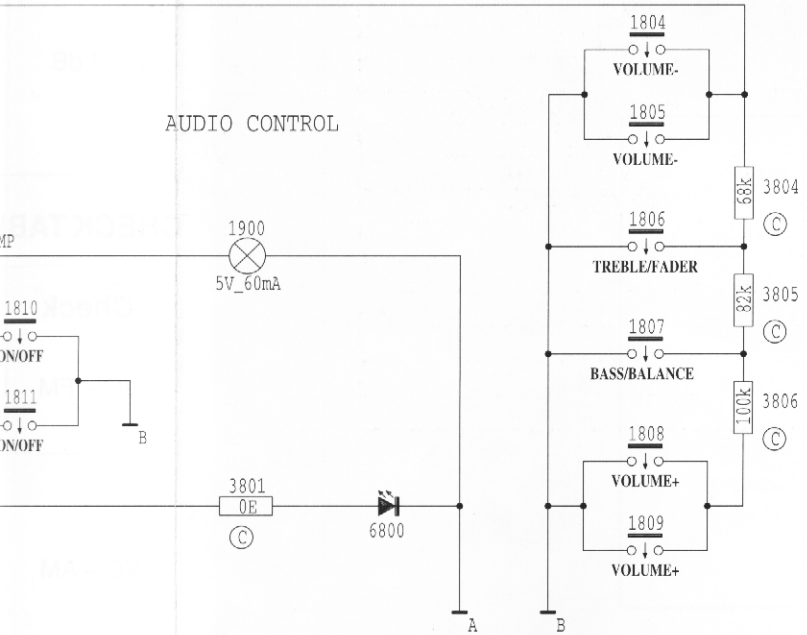
1800 A10
1802 C 5
1803 G 5
1804 G10
1805 H10
1806 H10
1807 I10
1808 I10
1809 J10
1810 I 7
1811 I 7
1900 H 8
2800 F 7
2801 D 8
3800 D 9
3801 J 8
3804 H11
3805 I11
3806 I11
3807 C 8
6800 J 9
7800 D13



LCD DRIVER



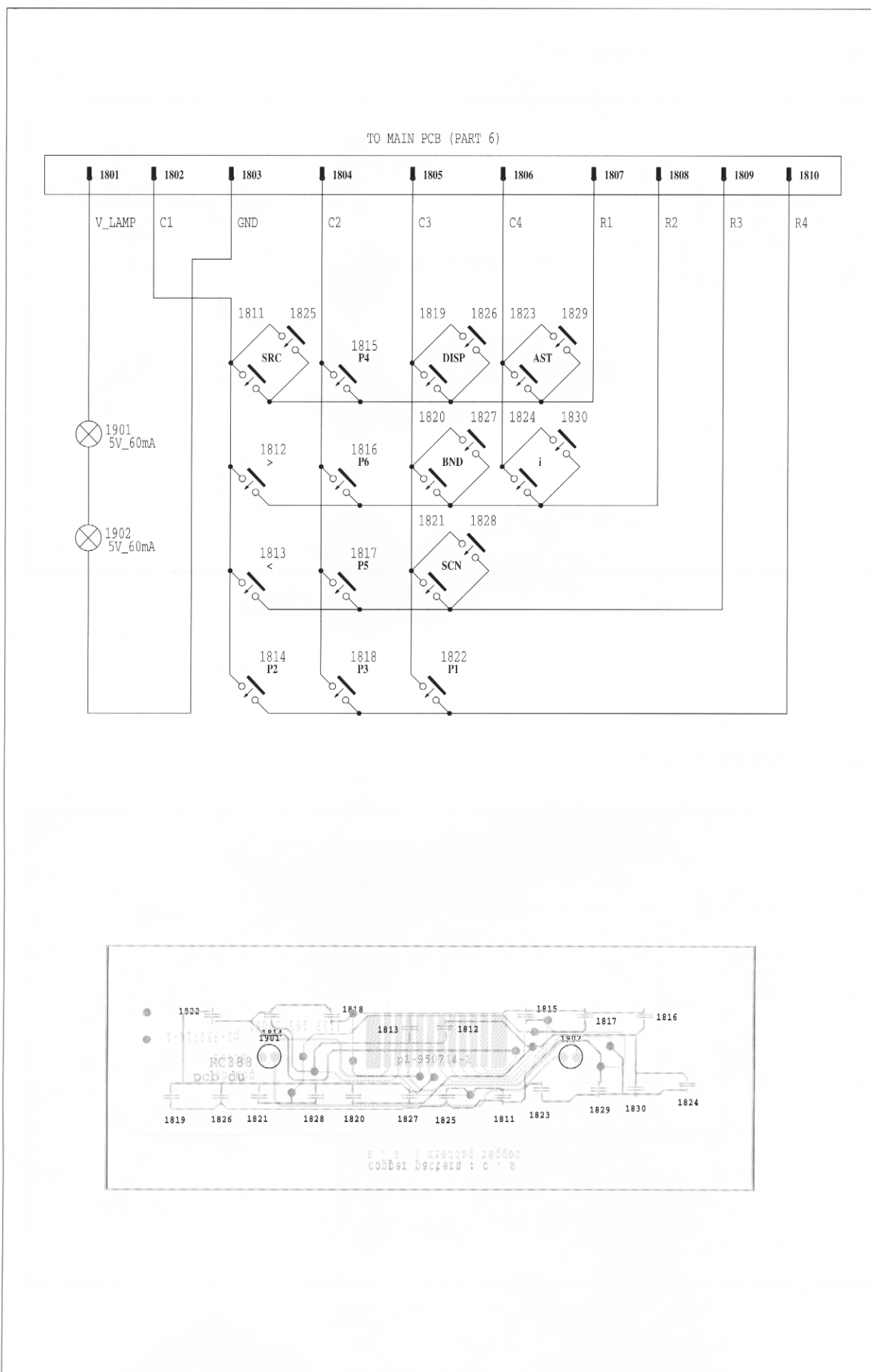
AUDIO CONTROL



7 8 9 10 11 12 13 14

PART 9 : DETACHABLE KEYBOARD (FRONT PCB)

PART 10 :



PART 10 : D2B (SUB-PCB)

ALIGNMENT
For more info

Alignment

RF Coil

FM - RF

RF Trimmer

FM - IF

FM - IF

AM - IF

SDS 10d
Crosstalk

Crosstalk

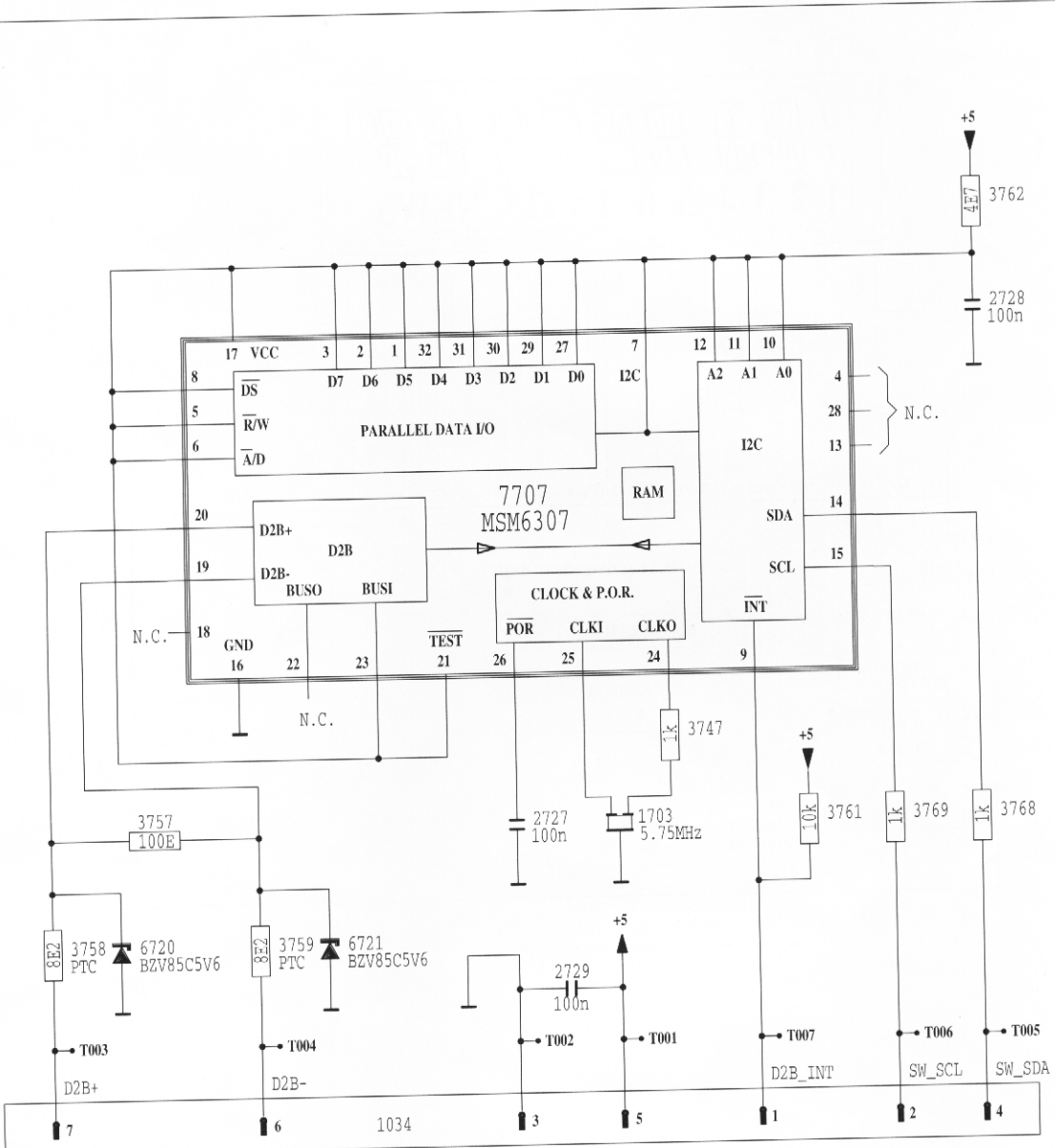
$\alpha - 3$ dB

CHECK TA

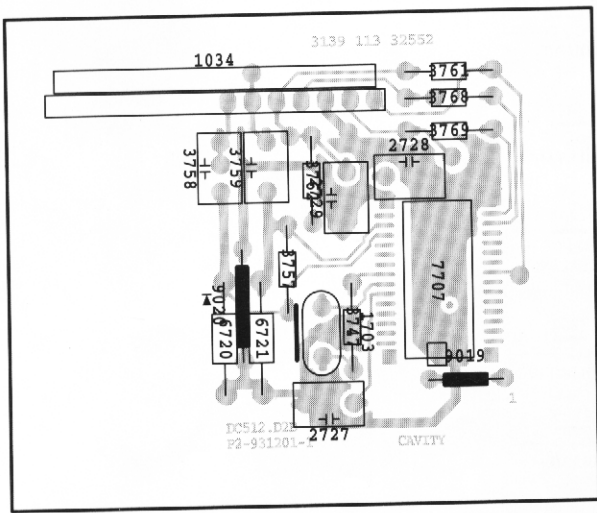
Check

VC - FM

VC - AM


















TO MAIN PCB (PART 6) OPTION : D2B (WITH LINE-IN)







ALIGNMENT TABLE

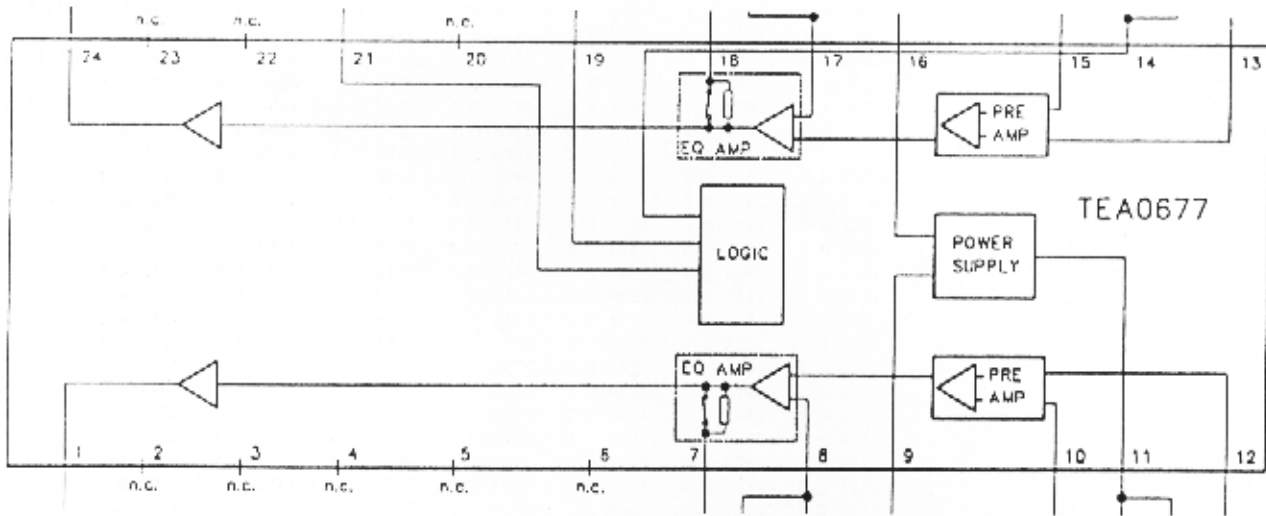
For more information see general information " General alignment procedures for car radio"

Alignment	SK					
RF Coil	FM	88MHz no signal	A		5201	On T003 1.2V±30mV DC
FM - RF	FM	88MHz, 44µV Unmodulated	A		5100	On T004 Max. V DC
RF Trimmer	FM	104MHz, 44µV Unmodulated	A		2226	On T004 Max. V DC
FM - IF	FM	98MHz, 44µV Unmodulated	A		5210 5209	On T004 Max. V DC
FM - IF	FM	98MHz, 44µV Unmodulated	A		5208	On T004 Max. V DC
AM - IF	AM	1053kHz, 44µV 1kHz, AM = 30%	B		5301	On T004 Max. V DC
SDS 10dB Crosstalk	FM	98MHz, 150µV Δf = 22.5kHz mod= 1kHz stereo - R	A		3303	L(T116) - R(T117) ≥ 10dB
Crosstalk	FM	98MHz, 1 mV Δf = 22.5kHz mod= 1kHz stereo - R	A		3320	L(T116) - R(T117) ≥ 10dB
α - 3 dB	FM	93 MHz, 1 mV Δf = 22.5 kHz f mod. = 400 Hz	A			T116 = 0 dB
		93 MHz, 5 µV Δf = 22.5 kHz f mod. = 400 Hz			3321	T116 - 3 dB

CHECK TABLE

Check	SK				Setting of controls	
VC - FM	FM	no signal		88MHz		1.17VDC < T003 < 1.23VDC
				108MHz		T003 > 5.0VDC
VC - AM	LW	no signal		144 kHz		T003 > 1.5VDC
	MW			1611 kHz		T003 < 7VDC
	SW			5850kHz		T003 > 1.5VDC
				6250kHz		T003 < 3VDC

TEST POINT	DESCRIPTION	TEST POINT	DESCRIPTION
T001	ANTENNA INPUT	T156	I2C_SCL
T002	ANTENNA GND	T157	SW_SDA
T003	VT (PIN 39 OF ITEM 7202)	T158	SW_SCL
004	LEVEL (PIN 50 OF ITEM 7300)	T159	1HZ
T100	LINE-IN LEFT	T160	EEPROM TEST
T101	LINE-IN GND	T161	EEPROM_WRITE
T102	LINE-IN RIGHT	T162	VLCD
T107	NOISE_PULSE	T163	PILOT
T108	MULTIPATH	T164	SW_SDA
T109	PAUSE	T168	MRQ
T110	RDS_GND	T172	6W_RC_INT
T111	RDS_CLK	T173	RDS_CLK
T116	RADIO_LEFT	T174	RDS_DATA
T117	RADIO_RIGHT	T175	FRONT_DETECT
T118	MPX_RDS	T176	RESET
T119	+CDCC	T180	ON/OFF
T120	TAPE IN RIGHT FORWARD	T181	+2(+14.4v)
T121	TAPE IN RIGHT REVERSE	T182	+3(+8.5V)
T122	TAPE IN COMMON	T185	IGNITION SUPPLY (A7)
T123	TAPE IN LEFT FORWARD	T186	POWER SUPPLY GND
T124	TAPE IN LEFT REVERSE	T187	PERMANENT SUPPLY(A4)
T125	TAPE GND	T188	TELEPHONE MUTE
T126	CAS_RIGHT	T192	D2B INT
T127	CAS_LEFT	T194	STABIC_ON/OFF
T128	MUTE_SW +	T200	RR+
T129	MOTOR +	T201	FR+
T130	MUTE_SW -	T202	FR-
T131	TRACK_SW	T203	FL-
T132	SOLENOID	T204	KEY_3
T133	ME_CR	T205	REM_LCD_SCL
T134	PLAY_SW	T206	REM_LCD_SDA
T135	RR-	T207	+V2_LAMP
T136	FL+	T210	+5(+5V)
T137	RL+	T211	PILOT ILLUMINATION
T138	RL-	T212	AUTO AERIAL
T140	LINE_OUT_FR	T700	SDA (EEPROM)
T141	LINE_OUT_RR	T701	SCL (EEPROM)
T142	LINE_OUT_FL		
T143	LINE_OUT_RL		
T148	LINE_OUT_GND		
T151	D2B		
T154	+7(+5V)		
T155	I2C_SDA		



PINNING

SYMBOL	PIN	DESCRIPTION
OUTA	1	output channel A
n.c.	2	not connected
n.c.	3	not connected
n.c.	4	not connected
n.c.	5	not connected
n.c.	6	not connected
EOA	7	equalizing output channel A
EQFA	8	equalizing input channel A
V _{cc}	9	voltage supply
INA1	10	input channel A1 (forward or reverse)
V _{REF}	11	reference voltage
INA2	12	input channel A2 (reverse or forward)
INB2	13	input channel B2 (reverse or forward)
HS	14	headswitch input
INB1	15	input channel B1 (forward or reverse)
GND	16	ground
EQFB	17	equalizing input channel B
EQB	18	equalizing output channel B
EQS	19	equalizing switch input
n.c.	20	not connected
ACUR	21	auxiliary current
n.c.	22	not connected
n.c.	23	not connected
OUTB	24	output channel B

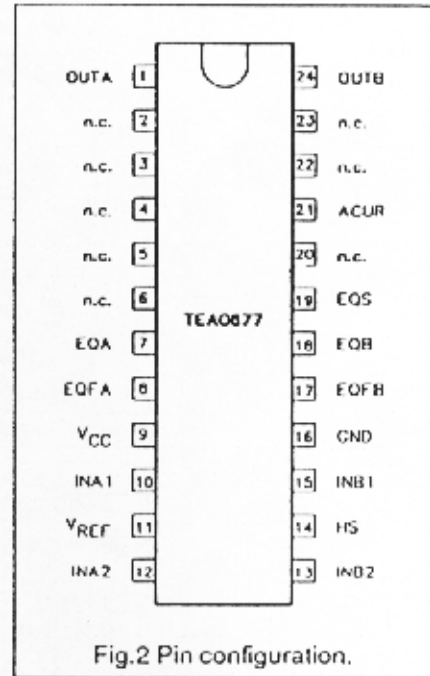
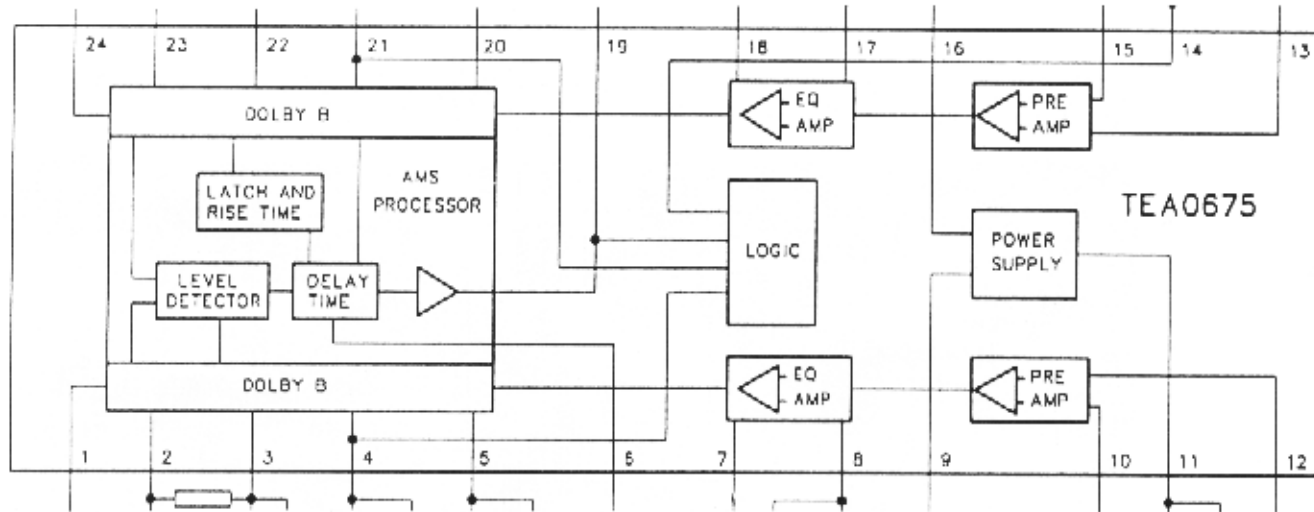


Fig.2 Pin configuration.

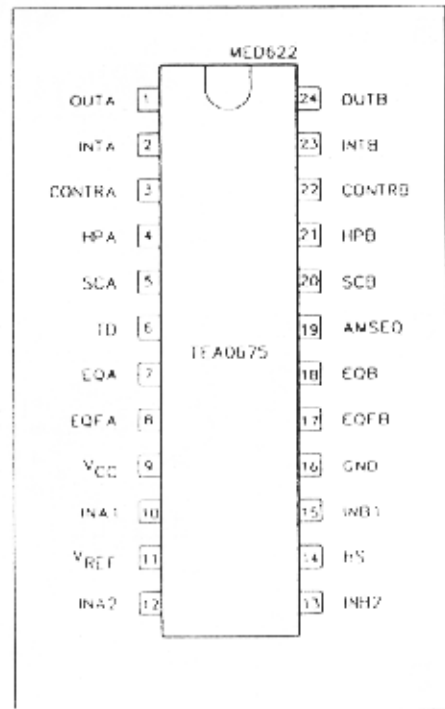
PINNING

SYMBOL
OUTA
INTA
CONTRA
HPA
SCA
TD
FOA
EQFA
V _{cc}
INA1
V _{REF}
INA2
INB2
HS
INB1
GND
EQFB
EQB
AMSEQ
SCB
HPB
CONTRB
INTB
OUTB

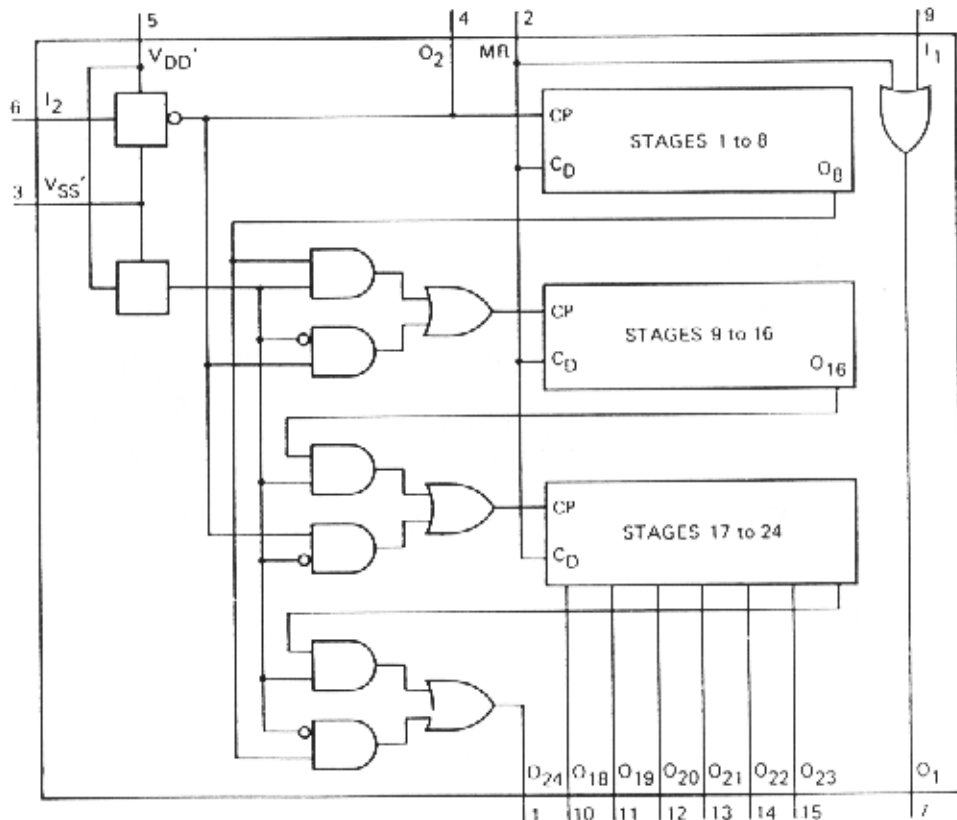


PINNING

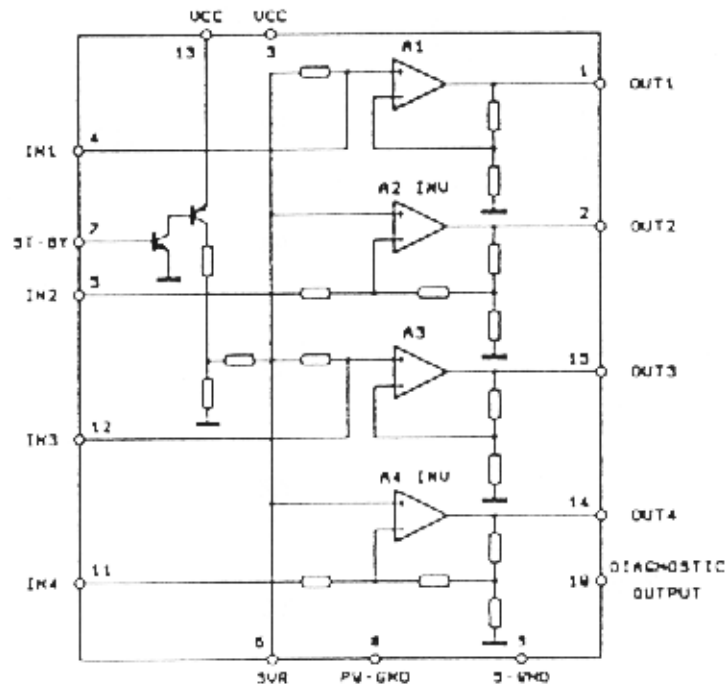
SYMBOL	PIN	DESCRIPTION
OUTA	1	output channel A
INTA	2	integrating filter channel A
CONTRA	3	control voltage channel A
HPA	4	high-pass filter channel A
SCA	5	side chain channel A
TD	6	delay time constant
EQA	7	equalizing output channel A
EQFA	8	equalizing input channel A
V _{CC}	9	voltage supply
INA1	10	input channel A1 (forward or reverse)
V _{REF}	11	reference voltage
INA2	12	input channel A2 (reverse or forward)
INB2	13	input channel B2 (reverse or forward)
HS	14	headswitch input
INB1	15	input channel B1 (forward or reverse)
GND	16	ground
EQFB	17	equalizing input channel B
EQB	18	equalizing output channel B
AMSEQ	19	AMS output and EQ-switch input
SCB	20	side chain channel B
HPB	21	high pass filter channel B
CONTRB	22	control voltage channel B
INTB	23	integrating filter channel B
OUTB	24	output channel B



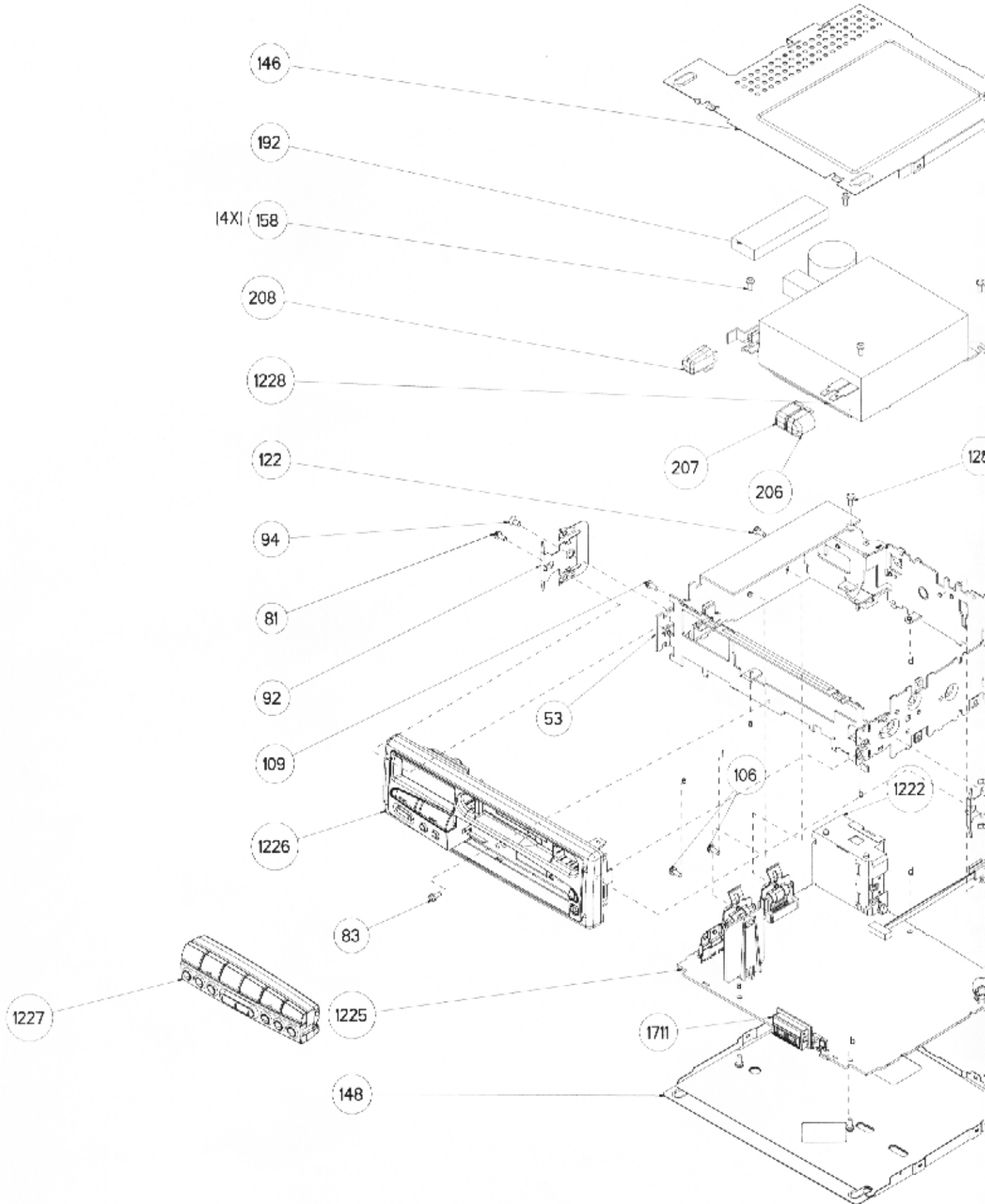
7708 HEF4521B

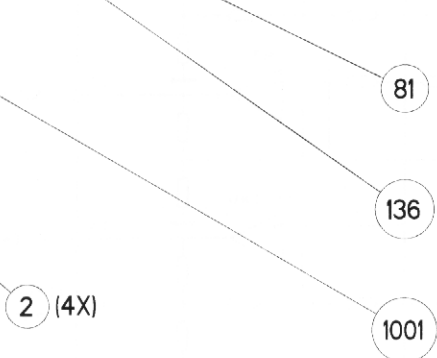
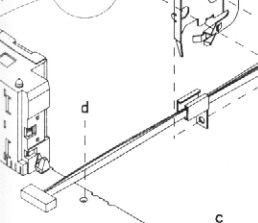
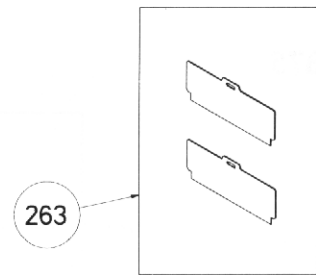
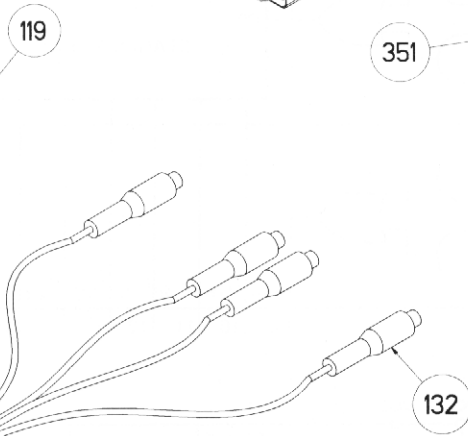
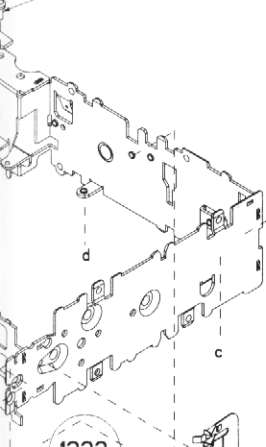
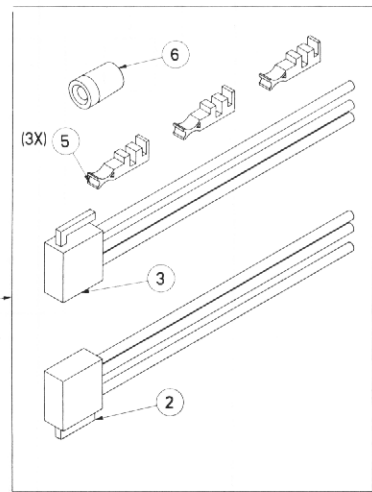
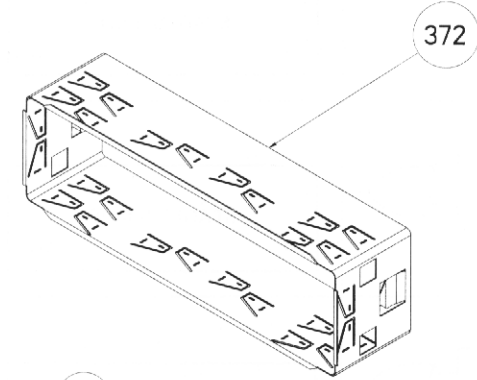
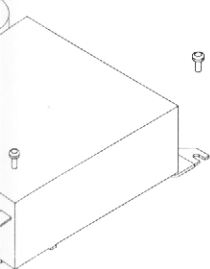
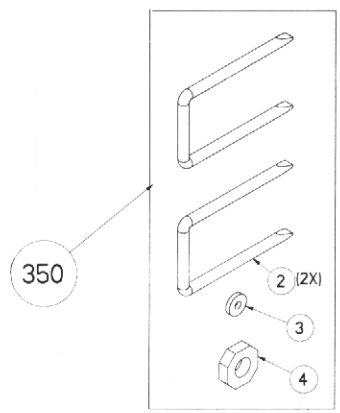
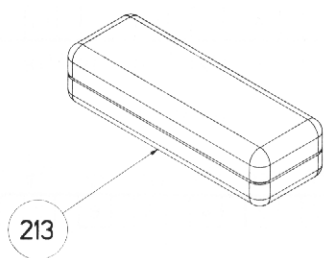
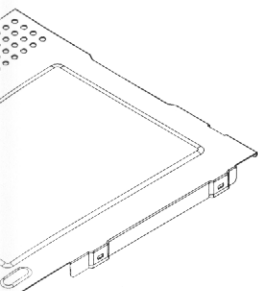


7603 TDA7375



Set Exploded View









SET MECHANICAL PARTSLIST





92	4822 492 71046	SPRING MOUNTING - NOT FOR RC348/97
132	4822 320 11123	CABLE LINE OUT 4 CHANNEL - RC388
132	4822 320 11128	CABLE LINE OUT 2 CHANNEL - NOT FOR RC348/97,RC328
213	4822 600 70758	CASE DETACHABLE UNIT
263	4822 466 10711	PLATE DIFFUSOR ASSY - NOT FOR RC348/97
350/2	4822 404 20437	BRACKET MOUNTING - NOT FOR RC348/97
351	4822 321 62722	MOUNTING MATERIAL - NOT FOR RC348/97
372	4822 423 90186	SLEEVE
	4822 320 11129	CABLE ASSY -FOR RC348/97
	4822 423 41249	PROTECTION CD CHANGER - RC348,RC388
	4822 736 14011	DFU - MULTI LANGUAGE
	4822 492 11008	SPRING FLAP CASSETTE
206+207+208	4822 410 10225	BUTTON ASSY
1226+1227	4822 459 04072	FRONT PANEL ASSY - RC388
1226+1227	4822 459 04069	FRONT PANEL ASSY - RC328
1226+1227	4822 459 04071	FRONT PANEL ASSY - RC348/00/30
1226+1227	4822 459 04073	FRONT PANEL ASSY - RC348/97
1228	4822 691 10455	TAPEDECK CDS101XPS2 - RC388
1228	4822 691 10456	TAPEDECK CDS36PS2 -RC328,RC348

Note : Only the mentioned parts are considered as service parts.

LCD keyboard PCB

MISCELLANEOUS		
1900	4822 134 10004	Lamp 5V 115MA
2800	4822 126 13196	100nF 10% 25V
		
2801	5322 122 34098	10nF 10% 63V
		
3800	4822 051 20184	180k 5% 0.1W
3801	4822 051 20008	0Ω 0 JUMPER
3804	4822 051 20683	68k 5% 0.1W
3805	4822 117 11149	82k 1% 0.1W
3806	4822 051 20104	100k 5% 0.1W
3807	4822 051 20109	10Ω 5% 0.1W
		
6800	4822 130 82989	TLH02400
		
7800	5322 209 11129	PCF8576T

D²B PCB - NOT FOR RC328

MISCELLANEOUS		
1703	4822 242 81659	CST5.75MGW-TF01
		
2727	5322 121 42386	100nF 5% 63V
2728	5322 121 42386	100nF 5% 63V
2729	5322 121 42386	100nF 5% 63V
		
3747	4822 116 83863	1k 5% 0.5W
3757	4822 116 52175	100Ω 5% 0.5W
3758	4822 116 40221	8Ω 20%
3759	4822 116 40221	8Ω 20%
3761	4822 116 83864	10k 5% 0.5W
3762	4822 116 52176	10Ω 5% 0.5W
3768	4822 116 83863	1k 5% 0.5W
3769	4822 116 83863	1k 5% 0.5W
		
6720	4822 130 32904	BZV85-C5V6
6721	4822 130 32904	BZV85-C5V6
		
7707	4822 209 32743	MSM6307GS-VK

MAIN PCB

MISCELLANEOUS

1001	4822 267 30883	ANTENNA BUSH
1222	4822 265 10314	CONNECTOR BLOCK -RC348
1222	4822 265 10318	CONNECTOR BLOCK -RC328
1222	4822 265 10314	CONNECTOR BLOCK -RC388
1300	4822 242 81503	FILTER CER SFP450H
1301	4822 242 81701	SFE10.7MS3C10K
1302	4822 242 81701	SFE10.7MS3C10K
1303	4822 242 81701	SFE10.7MS3C10K
1500	4822 242 72195	CRYSTAL 4.332MHZ
1700	4822 242 81856	RESONATOR CER 11.5MHZ
1701	4822 242 10239	CRYSTAL 4.194304MHZ
1705	4822 256 30483	CONNECTOR LAMP
1800	4822 135 00003	LCD
1900	4822 071 21003	FUSE BLADE (10A)
1902	4822 253 30446	SM FUSE 2A 32V - RC388,RC348
1910	4822 276 13503	SWITCH DETECT 0.1A 30V
1911	4822 134 10003	Lamp T1.25 5V 115mA
4300	4822 242 81698	CRYSTAL 61.5MHZ

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2002	4822 252 60125	SURGE PROTECTOR 200V
2003	5322 122 32447	1pF 5% 50V
2010	5322 122 31944	3.9pF 5% 50V
2016	5322 122 32658	22pF 5% 50V
2100	5322 122 33063	2.2pF 5% 50V
2102	4822 122 33575	220pF 5% 50V
2104	5322 122 34123	1nF 10% 50V
2105	5322 122 34123	1nF 10% 50V
2106	5322 122 34123	1nF 10% 50V
2121	4822 124 41017	10μF 16V
2200	4822 126 13196	100nF 10% 25V
2201	5322 122 34098	10nF 10% 63V
2202	4822 126 13196	100nF 10% 25V
2203	5322 122 33063	2.2pF 5% 50V
2204	5322 126 10343	1.8pF 5% 63V
2205	5322 122 33446	3.3nF 10% 63V
2206	5322 122 32269	6.8pF 5% 50V
2207	4822 126 11692	1μF 50V +80%-20%
2208	4822 122 33515	82pF 5% 63V
2209	5322 122 32658	22pF 5% 50V
2210	4822 126 13196	100nF 10% 25V
2211	5322 122 31946	27pF 5% 63V
2212	5322 122 33446	3.3nF 10% 63V
2213	4822 126 13196	100nF 10% 25V
2214	5322 122 32654	22nF 10% 63V
2215	4822 126 13196	100nF 10% 25V
2217	4822 124 23279	22μF 20% 16V
2218	4822 126 11692	1μF 50V +80%-20%
2219	4822 124 23281	33μF 20% 16V

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2220	4822 124 23281	33μF 20% 16V
2221	5322 122 32452	47pF 5% 63V
2223	5322 122 33538	150pF 2% 63V
2224	5322 122 34098	10nF 10% 63V
2226	4822 125 60217	3P-11pF N45 100V
2227	4822 126 13693	56pF 1% 63V
2228	5322 122 32287	4.7pF 5% 50V
2229	5322 122 32448	10pF 5% 50V
2230	4822 126 11692	1μF 50V +80%-20%
2231	5322 122 32448	10pF 5% 50V
2232	5322 122 32448	10pF 5% 50V
2233	5322 122 32967	5.6pF 10% 63V
2249	4822 124 80453	100μF 20% 10V
2272	5322 122 32269	6.8pF 5% 50V
2273	4822 126 11692	1μF 50V +80%-20%
2300	4822 126 11692	1μF 50V +80%-20%
2301	5322 122 32654	22nF 10% 63V
2302	4822 126 13196	100nF 10% 25V
2305	4822 126 13196	100nF 10% 25V
2306	4822 126 13196	100nF 10% 25V
2307	4822 126 13196	100nF 10% 25V
2308	4822 126 13196	100nF 10% 25V
2309	5322 122 34098	10nF 10% 63V
2310	5322 122 33446	3.3nF 10% 63V
2311	5322 122 33446	3.3nF 10% 63V
2312	4822 122 33514	68pF 5% 50V
2313	4822 126 13057	220nF 10% 25V
2314	5322 122 31866	6.8nF 10% 63V
2315	4822 126 13196	100nF 10% 25V
2316	4822 126 13057	220nF 10% 25V
2317	5322 122 31866	6.8nF 10% 63V
2318	5322 122 32654	22nF 10% 63V
2319	4822 126 13196	100nF 10% 25V
2320	4822 126 13196	100nF 10% 25V
2321	4822 126 13196	100nF 10% 25V
2322	4822 126 13057	220nF 10% 25V
2324	4822 126 13057	220nF 10% 25V
2325	5322 122 32654	22nF 10% 63V
2327	4822 124 22646	47μF 20% 16V
2328	4822 124 23279	22μF 20% 16V
2330	4822 126 13196	100nF 10% 25V
2332	4822 124 23281	33μF 20% 16V
2333	5322 122 34098	10nF 10% 63V
2340	5322 122 32448	10pF 5% 50V
2349	5322 122 34098	10nF 10% 63V
2402	5322 122 34098	10nF 10% 63V
2500	5322 122 31863	330pF 5% 50V
2501	5322 122 32268	470pF 10% 50V
2502	5322 126 10223	4.7nF 10% 63V
2503	4822 124 23504	2.2μF 20% 50V
2504	5322 122 32452	47pF 5% 63V
2505	4822 122 33515	82pF 5% 63V

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2506	4822	
2507	5322	
2508	4822	
2509	4822	
2510	4822	
2511	4822	
2512	5322	
2513	5322	
2514	4822	
2515	5322	
2516	5322	
2518	5322	
2520	4822	
2521	5322	
2522	5322	
2523	5322	
2527	5322	
2530	5322	
2531	4822	
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2535	4822	
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2546	4822	
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2553	4822	
2554	5322	
2555	5322	
2556	4822	
2557	5322	
2558	5322	
2559	5322	
2600	4822	
2601	4822	
2602	4822	
2603	4822	
2604	5322	
2605	5322	
2606	5322	
2607	5322	
2608	4822	
2611	4822	
2612	4822	



2506	4822 126 13057	220nF 10% 25V
2507	5322 122 34123	1nF 10% 50V
2508	4822 124 23504	2.2μF 20% 50V
2509	4822 124 23504	2.2μF 20% 50V
2510	4822 126 13196	100nF 10% 25V
2511	4822 126 13196	100nF 10% 25V
2512	5322 122 33538	150pF 2% 63V
2513	5322 122 33538	150pF 2% 63V
2514	4822 126 13196	100nF 10% 25V
2515	5322 122 33538	150pF 2% 63V
2516	5322 122 33538	150pF 2% 63V
2518	5322 122 34123	1nF 10% 50V
2520	4822 122 32636	390pF 5% 50V
2521	5322 122 34123	1nF 10% 50V
2522	5322 122 32654	22nF 10% 63V
2523	5322 122 32287	4.7pF 5% 50V
2527	5322 122 32268	470pF 10% 50V
2530	5322 122 32268	470pF 10% 50V
2531	4822 124 41017	10μF 16V
2532	4822 124 41017	10μF 16V
2533	4822 124 80453	100μF 20% 10V
2534	4822 124 80453	100μF 20% 10V
2535	4822 124 41017	10μF 16V
2537	5322 122 34098	10nF 10% 63V
2538	5322 122 34098	10nF 10% 63V
2539	4822 126 13188	15nF 5% 63V -RC388
2540	4822 126 13196	100nF 10% 25V -RC388
2541	4822 126 13196	100nF 10% 25V -RC388
2542	5322 121 42661	330nF 5% 63V -RC388
2543	5322 121 42661	330nF 5% 63V -RC388
2544	5322 126 12698	4nF 72% -RC388
2545	5322 126 12698	4nF 72% -RC388
2546	4822 126 13188	15nF 5% 63V -RC388
2549	4822 126 13196	100nF 10% 25V -RC388
2553	4822 126 13196	100nF 10% 25V
2554	5322 122 34098	10nF 10% 63V
2555	5322 122 31865	1.5nF 10% 63V
2556	4822 124 23504	2.2μF 20% 50V
2557	5322 122 31865	1.5nF 10% 63V
2558	5322 126 10223	4.7nF 10% 63V
2559	5322 122 32654	22nF 10% 63V
2600	4822 124 23282	1μF 20% 50V
2601	4822 124 23282	1μF 20% 50V
2602	4822 124 23282	1μF 20% 50V
2603	4822 124 23282	1μF 20% 50V
2604	5322 126 10223	4.7nF 10% 63V
2605	5322 126 10223	4.7nF 10% 63V
2606	5322 126 10223	4.7nF 10% 63V
2607	5322 126 10223	4.7nF 10% 63V
2608	4822 124 80056	47μF 20% 16V
2611	4822 124 80056	47μF 20% 16V
2612	4822 126 13196	100nF 10% 25V



2613	4822 126 13196	100nF 10% 25V
2620	4822 124 23281	33μF 20% 16V
2621	4822 126 13196	100nF 10% 25V
2651	5322 126 10223	4.7nF 10% 63V
2653	5322 126 10223	4.7nF 10% 63V
2655	4822 124 80769	2200μF 20% 16V
2657	4822 126 13196	100nF 10% 25V
2658	4822 126 13196	100nF 10% 25V
2659	4822 126 13196	100nF 10% 25V
2660	4822 126 13196	100nF 10% 25V
2661	4822 126 13196	100nF 10% 25V
2662	4822 126 13196	100nF 10% 25V
2663	4822 126 13196	100nF 10% 25V
2664	4822 126 13196	100nF 10% 25V
2700	4822 124 22646	47μF 20% 16V
2701	4822 126 13343	47nF 10% 25V
2702	5322 122 34123	1nF 10% 50V
2703	4822 122 33216	270pF 5% 50V
2704	4822 126 13343	47nF 10% 25V
2705	5322 122 32452	47pF 5% 63V
2706	5322 122 33869	15pF 5% 63V
2707	4822 124 41017	10μF 16V
2708	4822 126 13196	100nF 10% 25V
2709	4822 126 13196	100nF 10% 25V
2710	5322 122 34123	1nF 10% 50V
2712	5322 122 32658	22pF 5% 50V
2713	4822 122 33515	82pF 5% 63V
2714	5322 126 10223	4.7nF 10% 63V
2717	4822 122 33575	220pF 5% 50V
2718	4822 126 13196	100nF 10% 25V
2721	5322 122 32654	22nF 10% 63V
2723	5322 122 32531	100pF 5% 50V
2724	5322 122 32531	100pF 5% 50V
2726	5322 122 32531	100pF 5% 50V
2805	4822 126 13196	100nF 10% 25V
2810	4822 124 23504	2.2μF 20% 50V
2811	4822 124 23504	2.2μF 20% 50V
2812	4822 126 13196	100nF 10% 25V
2813	4822 124 41017	10μF 16V
2814	4822 126 13057	220nF 10% 25V
2815	4822 126 13057	220nF 10% 25V
2816	4822 126 13057	220nF 10% 25V
2817	4822 126 13057	220nF 10% 25V
2818	4822 126 13343	47nF 10% 25V
2819	4822 126 13343	47nF 10% 25V
2820	4822 126 13196	100nF 10% 25V
2821	4822 124 23504	2.2μF 20% 50V -RC388,RC348
2822	4822 124 23504	2.2μF 20% 50V -RC388,RC348
2823	4822 126 13196	100nF 10% 25V
2824	4822 126 13196	100nF 10% 25V

MAIN PCB



2825	4822 126 13196	100nF 10% 25V
2826	4822 126 13196	100nF 10% 25V
2827	4822 122 32627	2.7nF 10% 50V
2828	4822 122 32627	2.7nF 10% 50V
2829	4822 124 23504	2.2µF 20% 50V -RC388,RC348
2830	4822 126 13196	100nF 10% 25V
2850	4822 124 23504	2.2µF 20% 50V -RC388
2851	4822 124 23504	2.2µF 20% 50V -RC388
2852	4822 124 23504	2.2µF 20% 50V -RC388
2853	4822 124 23504	2.2µF 20% 50V -RC388,RC348
2900	5322 122 34123	1nF 10% 50V
2902	4822 124 80768	2200µF 20% 16V
2904	4822 124 80056	47µF 20% 16V
2905	4822 126 13196	100nF 10% 25V
2906	4822 126 13196	100nF 10% 25V
2910	5322 122 34123	1nF 10% 50V
2911	4822 126 13196	100nF 10% 25V
2912	5322 122 34123	1nF 10% 50V
2913	4822 126 13196	100nF 10% 25V
2914	4822 124 80766	1000µF 20% 25V
2915	4822 124 80056	47µF 20% 16V
2916	4822 124 80056	47µF 20% 16V
2917	4822 124 80056	47µF 20% 16V
2919	4822 126 13343	47nF 10% 25V
2920	4822 124 41017	10µF 16V
2921	5322 122 33446	3.3nF 10% 63V
2922	4822 126 13196	100nF 10% 25V
2923	5322 122 32654	22nF 10% 63V
2928	5322 122 34098	10nF 10% 63V
2930	5322 122 32654	22nF 10% 63V
2933	4822 124 22646	47µF 20% 16V
2935	5322 122 34098	10nF 10% 63V
2936	5322 122 34098	10nF 10% 63V
2958	5322 122 34123	1nF 10% 50V



3000	4822 051 20102	1k 5% 0.1W
3001	4822 051 20102	1k 5% 0.1W
3003	4822 051 20008	0Ω 0 JUMPER
3101	4822 051 20473	47k 5% 0.1W
3102	4822 051 20471	470Ω 5% 0.1W
3103	4822 051 20229	22Ω 5% 0.1W
3104	4822 051 20008	0Ω 0 JUMPER
3105	4822 051 20229	22Ω 5% 0.1W
3106	4822 051 20008	0Ω 0 JUMPER
3107	4822 051 20225	2M2 5% 0.1W
3108	4822 051 20104	100k 5% 0.1W
3110	4822 051 20229	22Ω 5% 0.1W



3200	4822 051 20392	3k9 5% 0.1W
3201	4822 051 20222	2k2 5% 0.1W
3202	4822 051 20103	10k 5% 0.1W
3203	4822 051 20221	220Ω 5% 0.1W
3204	4822 051 20471	470Ω 5% 0.1W
3205	4822 051 20471	470Ω 5% 0.1W
3206	4822 051 20101	100Ω 5% 0.1W
3207	4822 051 20473	47k 5% 0.1W
3208	4822 051 20103	10k 5% 0.1W
3209	4822 051 20103	10k 5% 0.1W
3210	4822 051 20225	2M2 5% 0.1W
3211	4822 051 20479	47Ω 5% 0.1W
3212	4822 051 20229	22Ω 5% 0.1W
3213	4822 051 20478	4k7 5% 0.1W
3270	4822 051 20471	470Ω 5% 0.1W
3290	4822 051 20224	220k 5% 0.1W
3292	4822 051 20229	22Ω 5% 0.1W
3300	4822 117 11383	12k 1% 0.1W
3301	4822 051 20225	2M2 5% 0.1W
3302	4822 051 20333	33k 5% 0.1W
3303	4822 100 20166	10k 30%LIN 0.1W
3307	4822 051 20432	4k3 5% 0.1W
3308	4822 051 20224	220k 5% 0.1W
3309	4822 117 11149	82k 1% 0.1W
3310	4822 051 20684	680k 5% 0.1W
3313	4822 051 20124	120k 5% 0.1W
3314	4822 051 20564	560k 5% 0.1W
3315	4822 051 20684	680k 5% 0.1W
3316	4822 051 20225	2M2 5% 0.1W
3317	4822 051 20273	27k 5% 0.1W
3318	4822 051 20391	390Ω 5% 0.1W
3320	4822 100 11163	100k 30%LIN 0.1W
3321	4822 100 11163	100k 30%LIN 0.1W
3323	4822 051 20391	390Ω 5% 0.1W
3324	4822 051 20272	2k7 5% 0.1W
3325	4822 051 20101	100Ω 5% 0.1W
3326	4822 051 20391	390Ω 5% 0.1W
3327	4822 051 20681	680Ω 5% 0.1W
3341	4822 051 20479	47Ω 5% 0.1W
3348	4822 051 20681	680Ω 5% 0.1W
3349	4822 051 20223	22k 5% 0.1W
3350	4822 051 20102	1k 5% 0.1W
3351	4822 051 20333	33k 5% 0.1W
3409	4822 051 20473	47k 5% 0.1W
3410	4822 051 20103	10k 5% 0.1W
3411	4822 051 20472	4k7 5% 0.1W
3412	4822 051 20104	100k 5% 0.1W
3500	4822 051 20104	100k 5% 0.1W
3501	4822 051 20229	22Ω 5% 0.1W
3502	4822 051 20222	2k2 5% 0.1W
3503	4822 051 20104	100k 5% 0.1W
3504	4822 051 20683	68k 5% 0.1W

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3505	4822 051 20223	22k 5% 0.1W
3506	4822 051 20334	330k 5% 0.1W
3507	4822 051 20229	22Ω 5% 0.1W
3508	4822 051 20103	10k 5% 0.1W
3509	4822 051 20393	39k 5% 0.1W
3510	4822 051 20332	3k3 5% 0.1W
3511	4822 051 20332	3k3 5% 0.1W
3512	4822 051 20103	10k 5% 0.1W
3513	4822 051 20393	39k 5% 0.1W
3514	4822 051 20103	10k 5% 0.1W
3515	4822 051 20393	39k 5% 0.1W
3516	4822 051 20103	10k 5% 0.1W
3517	4822 051 20393	39k 5% 0.1W
3518	4822 051 20008	0Ω 0 JUMPER -RC388
3519	4822 051 20393	39k 5% 0.1W
3520	4822 051 20223	22k 5% 0.1W -RC388
3521	4822 051 20224	220k 5% 0.1W
3522	4822 051 20104	100k 5% 0.1W
3523	4822 051 20103	10k 5% 0.1W -RC388
3524	4822 116 81437	5Ω6 5% 0.5W
3525	4822 116 81437	5Ω6 5% 0.5W
3526	4822 116 81437	5Ω6 5% 0.5W
3527	4822 051 20472	4k7 5% 0.1W
3528	4822 051 20223	22k 5% 0.1W
3529	4822 051 20103	10k 5% 0.1W
3530	4822 051 20222	2k2 5% 0.1W
3531	4822 051 20473	47k 5% 0.1W
3532	4822 051 20222	2k2 5% 0.1W
3533	4822 051 20102	1k 5% 0.1W -RC328
3534	4822 051 20184	180k 5% 0.-RC388
3535	4822 051 20471	470Ω 5% 0.1W
3536	4822 051 20008	0Ω 0 JUMPER - RC388
3538	4822 051 20471	470Ω 5% 0.1W - RC388
3539	4822 051 20471	470Ω 5% 0.1W - RC388
3540	4822 100 11681	1k 30% 0.1W - RC388
3541	4822 051 20822	8k2 5% 0.1W
3542	4822 051 20334	330k 5% 0.1W
3543	4822 100 11681	1k 30% 0.1W - RC388
3544	4822 051 20822	8k2 5% 0.1W
3545	4822 051 20334	330k 5% 0.1W
3548	4822 051 20102	1k 5% 0.1W - RC388
3549	4822 117 11139	1k5 1% 0.1W - RC388
3550	4822 051 20153	15k 5% 0.1W - RC388
3551	4822 051 20684	680k 5% 0.1W - RC388
3552	4822 051 20473	47k 5% 0.1W - RC388
3553	4822 117 10507	24k 1% 0.1W - RC388
3554	4822 117 10507	24k 1% 0.1W - RC388
3555	4822 051 20184	180k 5% 0.1W - RC388
3556	4822 051 20184	180k 5% 0.1W - RC388
3557	4822 051 20274	270k 5% 0.1W - RC388
3558	4822 051 20274	270k 5% 0.1W - RC388
3559	4822 117 11139	1k5 1% 0.1W - RC388





3560	4822 051 20109	10Ω 5% 0.1W
3562	4822 051 20153	15k 5% 0.1W
3563	4822 051 20102	1k 5% 0.1W RC328
3564	4822 051 20102	1k 5% 0.1W RC328
3565	4822 051 20473	47k 5% 0.1W - RC388
3566	4822 116 83863	1k 5% 0.5W - RC388
3568	4822 051 20683	68k 5% 0.1W
3569	4822 051 20103	10k 5% 0.1W
3570	4822 051 20471	470Ω 5% 0.1W
3571	4822 051 20332	3k3 5% 0.1W
3572	4822 051 20472	4k7 5% 0.1W
3573	4822 117 11139	1k5 1% 0.1W RC328
3576	4822 051 20473	47k 5% 0. - RC388
3577	4822 051 20822	8k2 5% 0.1W
3578	4822 051 20101	100Ω 5% 0.1W - RC388
3579	4822 051 20473	47k 5% 0.1W - RC388
3580	4822 051 20473	47k 5% 0. - RC388
3581	4822 051 20153	15k 5% 0.1W RC328
3582	4822 051 20223	22k 5% 0.1W
3605	4822 051 20102	1k 5% 0.1W
3607	4822 051 20223	22k 5% 0.1W
3608	4822 051 20102	1k 5% 0.1W
3609	4822 051 20102	1k 5% 0.1W
3610	4822 051 20102	1k 5% 0.1W
3611	4822 051 20102	1k 5% 0.1W
3617	4822 051 20478	4Ω7 5% 0.1W
3619	4822 051 20478	4Ω7 5% 0.1W
3621	4822 051 20683	68k 5% 0.1W
3622	4822 051 20472	4k7 5% 0.1W
3629	4822 051 20472	4k7 5% 0.1W
3630	4822 116 40254	PTC 330Ω 16V
3650	4822 051 20102	1k 5% 0.1W
3651	4822 051 20102	1k 5% 0.1W
3652	4822 051 20478	4Ω7 5% 0.1W
3653	4822 051 20478	4Ω7 5% 0.1W
3654	4822 051 20478	4Ω7 5% 0.1W
3655	4822 051 20478	4Ω7 5% 0.1W
3656	4822 051 20478	4Ω7 5% 0.1W
3657	4822 051 20478	4Ω7 5% 0.1W
3658	4822 051 20478	4Ω7 5% 0.1W
3659	4822 051 20478	4Ω7 5% 0.1W
3701	4822 051 20102	1k 5% 0.1W
3702	4822 051 20473	47k 5% 0.1W
3703	4822 051 20008	0Ω 0 JUMPER
3704	4822 051 20109	10Ω 5% 0.1W
3705	4822 051 20102	1k 5% 0.1W
3706	4822 051 20102	1k 5% 0.1W
3708	4822 051 20478	4Ω7 5% 0.1W
3709	4822 051 20562	5k6 5% 0.1W
3710	4822 051 20102	1k 5% 0.1W
3711	4822 051 20102	1k 5% 0.1W
3712	4822 051 20103	10k 5% 0.1W


MAIN BOARD


		
3713	4822 051 20101	100Ω 5% 0.1W
3714	4822 051 20103	10k 5% 0.1W
3716	4822 051 20103	10k 5% 0.1W
3717	4822 051 20103	10k 5% 0.1W
3718	4822 051 20103	10k 5% 0.1W
3719	4822 051 20103	10k 5% 0.1W
3720	4822 051 20103	10k 5% 0.1W
3724	4822 051 20225	2M2 5% 0.1W
3725	4822 051 20222	2k2 5% 0.1W
3728	4822 051 20153	15k 5% 0.1W
3729	4822 051 20153	15k 5% 0.1W
3735	4822 051 20104	100k 5% 0.1W
3736	4822 051 20104	100k 5% 0.1W
3742	4822 051 20102	1k 5% 0.1W
3745	4822 051 20102	1k 5% 0.1W
3746	4822 051 20102	1k 5% 0.1W
3747	4822 051 20102	1k 5% 0.1W
3748	4822 051 20102	1k 5% 0.1W
3749	4822 051 20102	1k 5% 0.1W
3750	4822 051 20102	1k 5% 0.1W
3751	4822 051 20102	1k 5% 0.1W
3759	4822 051 20008	0Ω 0 JUMPER
3760	4822 051 20008	0Ω 0 JUMPER
3761	4822 051 20008	0Ω 0 JUMPER
3762	4822 051 20008	0Ω 0 JUMPER
3767	4822 051 20478	4Ω7 5% 0.1W
3770	4822 051 20102	1k 5% 0.1W
3771	4822 051 20103	10k 5% 0.1W
3773	4822 051 20102	1k 5% 0.1W
3774	4822 051 20103	10k 5% 0.1W
3775	4822 051 20103	10k 5% 0.1W
3817	4822 051 20393	39k 5% 0.1W
3818	4822 051 20562	5k6 5% 0.1W
3819	4822 051 20562	5k6 5% 0.1W
3822	4822 051 20101	100Ω 5% 0.1W
3823	4822 051 20101	100Ω 5% 0.1W
3824	4822 051 20393	39k 5% 0.1W
3826	4822 051 20104	100k 5% 0.1W
3829	4822 051 20332	3k3 5% 0.1W - RC388
3830	4822 051 20332	3k3 5% 0.1W - RC388
3850	4822 051 20103	10k 5% 0.1W - RC388
3851	4822 051 20103	10k 5% 0.1W - RC388
3852	4822 051 20103	10k 5% 0.1W - RC388
3853	4822 051 20103	10k 5% 0.1W - RC388
3901	4822 051 20102	1k 5% 0.1W
3902	4822 051 20104	100k 5% 0.1W
3903	4822 051 20472	4k7 5% 0.1W
3904	4822 116 83863	1k 5% 0.5W
3905	4822 116 83863	1k 5% 0.5W
3906	4822 116 83863	1k 5% 0.5W
3907	4822 051 20102	1k 5% 0.1W
3908	4822 051 20103	10k 5% 0.1W

		
3914	4822 051 20474	470k 5% 0.1W
3915	4822 051 20473	47k 5% 0.1W
3916	4822 051 20103	10k 5% 0.1W
3917	4822 051 20102	1k 5% 0.1W
3918	4822 051 20473	47k 5% 0.1W
3919	4822 051 20223	22k 5% 0.1W
3921	4822 051 20224	220k 5% 0.1W
3922	4822 051 20104	100k 5% 0.1W
3924	4822 051 20473	47k 5% 0.1W
3928	4822 051 20103	10k 5% 0.1W
3929	4822 116 52285	470k 5% 0.5W
3930	4822 051 20104	100k 5% 0.1W
3931	4822 051 20473	47k 5% 0.1W
3932	4822 051 20104	100k 5% 0.1W
3933	4822 051 20224	220k 5% 0.1W
3934	4822 051 20104	100k 5% 0.1W
3935	4822 051 20104	100k 5% 0.1W
3936	4822 051 20104	100k 5% 0.1W
3937	4822 051 20104	100k 5% 0.1W
3938	4822 051 20102	1k 5% 0.1W
3939	4822 051 20271	270Ω 5% 0.1W
3940	4822 051 20822	8k2 5% 0.1W
3941	4822 051 20103	10k 5% 0.1W
3942	4822 051 20104	100k 5% 0.1W
3943	4822 051 20333	33k 5% 0.1W
3945	4822 051 20472	4k7 5% 0.1W
3949	4822 051 20102	1k 5% 0.1W
3952	4822 051 20101	100Ω 5% 0.1W
3955	4822 051 20473	47k 5% 0.1W
3956	4822 051 20103	10k 5% 0.1W
3958	4822 051 20104	100k 5% 0.1W
3959	4822 051 20471	470Ω 5% 0.1W
3960	4822 116 40216	PTC 4Ω7 56V 20%
3963	4822 051 20473	47k 5% 0.1W
3987	4822 051 20008	0Ω 0 JUMPER
3995	4822 051 20008	0Ω 0 JUMPER

		
5100	4822 157 71482	IND VAR 57MHz
5200	4822 157 62593	IND FXD 220μH 1%
5201	4822 157 71059	IND VAR 100MHz
5202	4822 157 52983	IND FXD 22μH 10%
5203	4822 157 53473	IND FXD 1000μH 1%
5205	4822 157 52983	IND FXD 22μH 10%
5206	4822 157 71057	IND VAR 47000μH 6%
5207	4822 157 71058	FILTER VAR KZV-353
5208	4822 156 21722	IND VAR 10.7MHz
5209	4822 157 71055	IND VAR 72.2MHz
5210	4822 157 71055	IND VAR 72.2MHz
5211	4822 156 21721	IND LAL02 2.2μH 1%

	
5212	4822
5301	4822
5302	4822
5700	4822
5701	4822
5702	4822
5703	4822
5704	4822
5900	4822
5901	4822
5903	4822

	
6100	4822
6102	4822
6200	5322
6401	5322
6500	5322
6507	5322
6510	5322
6702	4822
6713	4822
6715	4822
6716	4822
6717	4822
6718	4822
6719	4822
6720	4822
6721	4822
6801	5322
6901	5322
6905	4822
6906	5322
6909	5322
6910	5322
6911	4822
6912	5322
6913	5322
6915	4822
6916	5322
6917	5322
6925	5322

	
7100	4822
7200	4822
7201	4822
7202	4822



5212	4822 156 21719	IND LAL02 1.5μH 1%
5301	4822 156 21724	IND VAR 450KHz
5302	4822 157 71061	IND VAR 10.7MHz
5700	4822 157 50961	IND LAL04 22μH 1%
5701	4822 157 60122	IND LAL02 4.7μH 1%
5702	4822 157 71206	IND FXD SM 100MHz
5703	4822 157 60122	IND LAL02 4.7UH 1%
5704	4822 157 71206	IND FXD SM 100MHz
5900	4822 157 70935	COIL ASSY
5901	4822 157 50961	IND LAL04 22μH 1%
5903	4822 157 50961	IND LAL04 22μH 1%



6100	4822 130 81711	1SV172
6102	4822 130 81643	BB804
6200	5322 130 34337	BAV99
6401	5322 130 31928	BAS16
6500	5322 130 34337	BAV99
6507	5322 130 34337	BAV99
6510	5322 130 30684	1N4002GPE - RC388
6702	4822 130 82996	TLPH5600
6713	4822 130 80125	BZX84-C5V6
6715	4822 130 80125	BZX84-C5V6
6716	4822 130 80125	BZX84-C5V6
6717	4822 130 80125	BZX84-C5V6
6718	4822 130 80125	BZX84-C5V6
6719	4822 130 80125	BZX84-C5V6
6720	4822 130 80125	BZX84-C5V6
6721	4822 130 80125	BZX84-C5V6
6801	5322 130 31928	BAS16
6901	5322 130 30684	1N4002GPE
6905	4822 130 31024	BZX79-C18
6906	5322 130 31928	BAS16
6909	5322 130 31928	BAS16
6910	5322 130 30684	1N4002GPE
6911	4822 130 81624	1.5KE27
6912	5322 130 30684	1N4002GPE - RC388,RC348
6913	5322 130 30684	1N4002GPE - RC388,RC348
6915	4822 130 30862	BZX79-C9V1
6916	5322 130 31504	BZX79-C3V3
6917	5322 130 34337	BAV99
6925	5322 130 80255	BZX84-C8V2



7100	4822 130 63545	BF999
7200	4822 130 83614	BB135
7201	4822 130 63534	PMBFJ309
7202	4822 209 33168	TEA6811V/C2/R1



7300	4822 209 33167	TEA6821T/V2
7301	4822 130 60887	BF840
7403	4822 130 42705	BC847
7500	4822 209 31981	SAA6579T/V1
7501	4822 209 83159	LA2000
7502	4822 209 32742	TL074IN
7503	4822 130 42705	BC847
7505	4822 130 42615	BC817-40 - RC388
7506	4822 130 44283	BC636
7507	4822 130 42705	BC847 - RC388
7508	5322 130 60508	BC857B - RC388
7509	4822 130 42705	BC847 - RC388
7510	4822 209 33237	TEA0677T/V1-RC328,RC348
7511	4822 209 32744	TEA0675T/V1 - RC388
7513	4822 130 42705	BC847 - RC388
7514	4822 130 42705	BC847 - RC388
7602	4822 209 33629	TDA7375
7603	4822 209 33629	TDA7375
7606	4822 130 42705	BC847
7607	5322 130 60508	BC857B
7700	4822 209 12722	PR3CE559EFB/016
7703	5322 130 60508	BC857B
7704	4822 900 10742	ST24C16CB6 -RC328
7704	4822 900 10743	ST24C16CB6 -RC348
7704	4822 900 10744	ST24C16CB6 -RC388
7708	5322 209 11461	HEF4521BT
7800	4822 209 12723	TDA7342
7803	4822 130 42705	BC847
7804	5322 130 60508	BC857B
7850	4822 130 63747	DTC314TK - RC388,RC348
7851	4822 130 63747	DTC314TK - RC388,RC348
7852	4822 130 63747	DTC314TK - RC388
7853	4822 130 63747	DTC314TK - RC388
7904	4822 130 40995	BD438
7905	4822 130 42705	BC847
7909	4822 130 42705	BC847
7910	4822 209 33029	TDA3602/N3
7912	4822 130 42705	BC847
7913	5322 130 60508	BC857B
7915	5322 130 60508	BC857B
7916	4822 130 42705	BC847
7917	4822 130 42705	BC847
7918	4822 130 42705	BC847
7919	4822 130 63539	BD241A
7921	4822 209 12628	HEF4044BT