

DCCassette Car Radio 22 DC 811/00R 22 DC 821/00R

Service
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Service Manual



12 V



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PHILIPS

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TECHNICAL DATA

GENERAL

Power supply:	14,4 V
Quiescent current:	< 2.0 mA
Playback current:	2,8 A (4x5 W)

TUNER

FM	87.5 - 108 MHz	grid: 100 kHz search, 100 kHz manual
MW	531 - 1611 kHz (565 - 186 m)	grid: 9 kHz search, 1 kHz manual
LW	144 - 288 kHz (2083 - 1042 m)	grid: 9 kHz search, 9 kHz manual
SW	5.95 - 6.2 MHz (50.4 - 48.4 m)	grid: 5 kHz search, 5 kHz manual
Presets: 6 FM1, 6 FM2, 6 FM-AST, 6 SW, 6 MW, 6 LW		
Sensitivity 26 dB S/N:		
	FM: 4 µV	
	SW: 28 µV	
	MW: 28 µV	
	LW: 56 µV	
IF (FM / AM):	10.7 MHz	

COMPACT CASSETTE

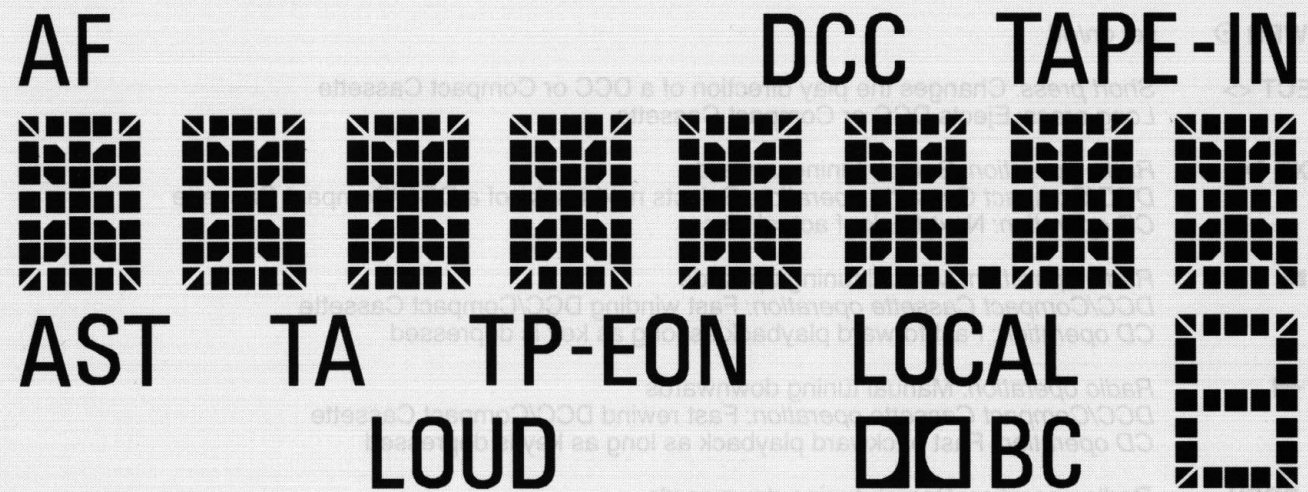
Number of tracks:	2x2
Tape speed:	4,75 cm/s
Winding time:	100 s (C60)
Frequency response:	40 - 14.000 Hz
Wow and flutter:	0.2% (IEC 386 / DIN 45507)
S/N ratio (DOLBY OFF):	FE: 48 dB (weighted) CR: 53 dB (weighted)

AMPLIFIER

Output:	4 x 4.5 W sinus (at 10% THD)
Bass:	+/- 12 dB (100 Hz), 2 dB steps
Treble:	+/- 12 dB (10 KHz), 2 dB steps
Channel separation:	> 30 dB
Telefonmute:	> -40 dB

CONTROLS

■	Retrac handle release
POWER ⊙	set on/off
EJECT <>	<i>Short press:</i> Changes the play direction of a DCC or Compact Cassette <i>Long press:</i> Ejects DCC or Compact Cassette
NEXT ►	<i>Radio operation:</i> Search tuning upwards <i>DCC/Compact Cassette operation:</i> Selects next tracks of a DCC/Compact Cassette <i>CD operation:</i> Next track of actual disc
►►	<i>Radio operation:</i> Manual tuning upwards <i>DCC/Compact Cassette operation:</i> Fast winding DCC/Compact Cassette <i>CD operation:</i> Fast forward playback as long as key is depressed
◄◄	<i>Radio operation:</i> Manual tuning downwards <i>DCC/Compact Cassette operation:</i> Fast rewind DCC/Compact Cassette <i>CD operation:</i> Fast backward playback as long as key is depressed
◄ PREV	<i>Radio operation:</i> Search tuning downwards <i>DCC/Compact Cassette operation:</i> Selects previous tracks of a DCC/Compact Cassette <i>CD operation:</i> Previous track of actual disc
∩	Volume, Bass or Treble down; Balance to left; Fader to rear
⊕	Volume, Bass or Treble up; Balance to right; Fader to front
BASS BAL	Bass/Balance selector
TREB FAD	Treble/Fader selector
MUTE	Audio Mute; interrupts playback of DCC, Compact Cassette or CD (pause)
100 ... 6	<i>Radio operation:</i> Station presets <i>CD operation:</i> Disc selection
100	Dolby Noise Reduction B or C type (only for Compact Cassette)
LOUD RST	<i>Short press:</i> Loudness <i>Long press:</i> Audio reset
DISP	<i>Radio operation:</i> Shows the frequency and the selected wave band instead of the station-name <i>DCC operation:</i> Selects the DCC text mode (only with pre-recorded DCC's) <i>CD operation:</i> Shows total number of tracks and total play time of actual disc
LOC	Selector for strong (local) stations
TA	<i>Short press:</i> Traffic information/announcement <i>Long press:</i> Skips a traffic message
BAND RND	<i>Radio operation:</i> Selects the desired wave band (FM1, FM2, FM3, MW, LW, SW) <i>CD operation:</i> Random track selection of actual disc <i>Long press:</i> Enters the 'INIT' mode
AST SCAN	<i>Radio operation:</i> Auto-Store to program the six strongest stations of the current reception area <i>CD operation:</i> 10 sec.- playback of each track of actual disc
SRC	Selects source (Radio, DCC/Compact Cassette or CD-Changer)



DISPLAY INDICATIONS

AF	Tuned station broadcasts RDS information with Alternative Frequencies
DCC	A Digital Compact Cassette is in the cassette deck
TAPE-IN	A Compact Cassette is in the cassette deck
	<i>Radio operation:</i> Preset station (1 out of 6) is selected <i>DCC/Compact Cassette operation:</i> Indicates side A or B of the DCC/Compact Cassette
LOCAL	Searches for strong (local) stations only
	Dolby Noise Reduction B or C is switched on (only Compact Cassette)
TP TP-EON	Traffic Program: Indicates that the station broadcasts traffic information A Traffic message is received via Enhanced Other Networks
LOUD	Loudness is switched on
TA	Traffic Announcement mode is switched on
	<i>Radio operation:</i> Wave band and frequency or (FM only) the station name <i>Audio adjustment:</i> Shows the current settings of Bass, Balance, Treble or Fader <i>DCC operation:</i> Shows track number and elapsed time or text mode(only prerecorded DCC's) <i>INIT mode:</i> Shows initialization parameters and their settings
AST	Auto-Store band chosen (on FM3)

INIT MODE

Select INIT MODE by pressing the BAND key for at least 3 seconds, until a bleep is heard.

The following parameters can be changed when the set is in INIT MODE:

1. Illumination colour

After entering INIT MODE, the display shows 'COLOR'. Toggle between 'green' or 'orange' colour with the \uparrow/\downarrow keys.

2. Viewing angle

After entering INIT MODE, select the 'VIEW' parameter with the \leftarrow PREV or NEXT \rightarrow keys. The display should show 'VIEW 0'. Select the viewing angle between -1 and 2 with the \uparrow/\downarrow keys for best legibility of the display.

3. AF mode

After entering INIT MODE, select the 'AF' parameter with the \leftarrow PREV \rightarrow or NEXT \rightarrow keys. The display should show e.g. 'AF ON'. Select between 'AF ON' or 'AF OFF' with the \uparrow/\downarrow keys.

If you want to store an RDS station without automatic retuning, you have to do the following:

Tune to the desired station.

After entering INIT MODE, select 'AF OFF'.

Leave the INIT MODE (see below) and store this station.

4. AM wave bands on/off

If you don't want to use the AM wave bands (MW, LW and SW), those bands can be switched off.

After entering INIT MODE, select the 'AM' parameter with the \leftarrow PREV or NEXT \rightarrow keys.

The display should show e.g. 'AM ON'.

Select between 'AM ON' and 'AM OFF' with the \uparrow/\downarrow keys.

When you select 'AM OFF', you can choose only between FM1, FM2 and FM3.

To leave the INIT MODE, press briefly the BAND key.

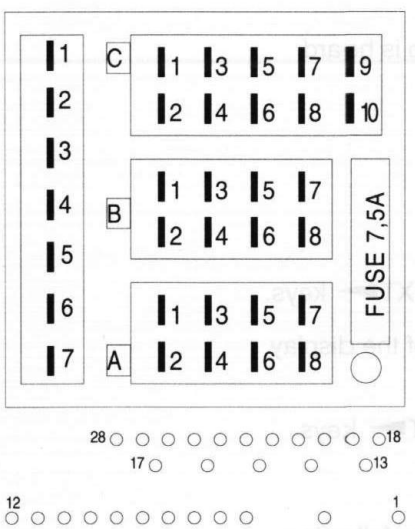
The INIT MODE will be left automatically, when no keys are depressed within 10 seconds.

- NOTE:** For informations about how to use the set see the 'Operating Instructions'.
- NOTE:** The handling of flat pack IC's is described in Service Information A86-100, dated 1986-07-01.
- NOTE:** Switch off power supply before connecting or disconnecting the cassette deck.
- NOTE:** Extension cables for front unit and cassette deck are NOT available as serviceparts. You can build these by using the coded sockets and plugs.
- NOTE:** Single buttons of the ornamental plate are NOT available. If there is an absolute need for single buttons you can take apart a complete delivered plate.
- NOTE:** For more information about the RDS feature use the 'computer based training course RDS' which is available at Philips Consumer Service.

Contact: Philips Consumer Electronics
Philips International Support Centre
Building SBP6
NL 5600 MD Eindhoven

tlx routing indicator: NLMEVAB
FAX: + 31 40 73 35 53

CONNECTORBLOCK 22DC811+22DC821



- D1: SWITCHED + >5
- D2: REMOTE RETURN >12
- D3: SIGNAL GND >7
- D4: LINE OUT FR >8
- D5: LINE OUT RR >9
- D6: LINE OUT FL >10
- D7: LINE OUT RL >11
- C1: GND >28
- C2: D2B+ (DC821) >27
- C3: D2B- (DC821) >23
- C4: NC
- C5: PERM.+ >17
- C6: GND >6
- C7: SWITCHED + >16
- C8: EXT.IN R (DC821) >26
- C9: EXT.IN L (DC821) >3
- C10: EXT.IN GND (DC821) >25
- B1: RR+ >22
- B2: RR- >24
- B3: FR+ >21
- B4: FR- >22
- B5: FL+ >13
- B6: FL- >19
- B7: RL+ >19
- B8: RL- >14
- A1: TEL.MUTE >15
- A2: GND >18
- A3: NC
- A4: PERM.+ >4
- A5: SWITCHED + >5
- A6: EXT.JLL. >2
- A7: IGN.KEY+ (FUSE) >1
- A8: GND >18

Key- and Display-test, Romcode version front µC

- Separate the front unit assy from the set.
- Connector 1801: connect pin 1 + 10 to ground and pin 4 to 5 V - Display shows 'KEY TEST'.

Key-test

When pushing the buttons the concerned indication must be displayed.

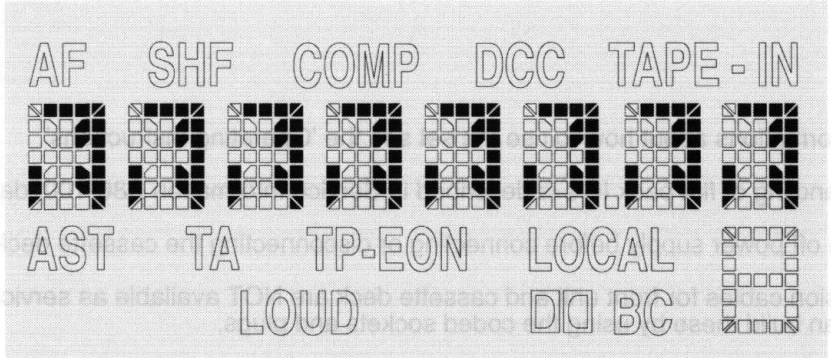
Display-test

- Hold preset 1 - figure Preset 1 must be displayed
- Hold preset 2 - all display-segments are blanked
- Hold preset 3 - figure Preset 2 must be displayed

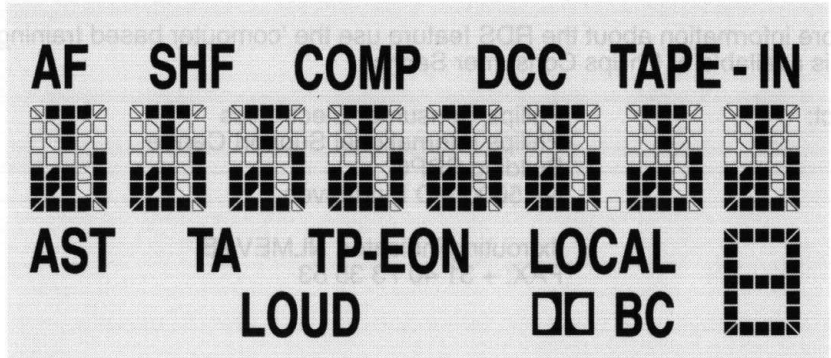
Romcode version

- Hold preset 4 - the software version of the front µC must be displayed (e.g. RC 04)

Preset 1



Preset 3



Checks 22DC811 + 22DC821

Check	Band	Icon 1	Icon 2	Icon 3	Icon 4	Icon 5
Varicap-voltage	AM			144 KHz	IC 7251 PIN 15	> 2,2 V
	FM			6200 KHz 87,5 MHz 108 MHz	FM 1008 PIN 15	< 6,0 V > 1,0 V < 6,0 V
Demodulated AM - level	AM	990 KHz, 10 mV 1 KHz, 30% AM			IC 7201 PIN 12	350 +/- 100 mV
Demodulated FM - level	FM	93,0 MHz, 1 mV Δ f = 22,5 KHz f mod = 1 KHz			FM 1008 PIN 2	160 mV
		93,0 MHz, 1 mV Δ f = 6,75 KHz f mod = 19 KHz				45 mV
		93,0 MHz, 1 mV Δ f = 3,75 KHz f mod = 57 KHz				20 mV
S/N ratio	FM	93,0 MHz, 1 mV Δ f = 22,5 KHz f mod = 1 KHz			Connectorblock Section B PIN 3 + PIN 5	1,4 V => Referencelevel (dB)
		93,0 MHz, 1 mV Δ f = 22,5 KHz unmodulated				Referencelevel > - 50 dB
	990 KHz, 2mV 30 % mod., 1KHz			1,4 V => Referencelevel (dB)		
	990 KHz, 2mV unmodulated			Referencelevel > - 48 dB		
Wide band AGC switch	A M	990 KHz, 2mV without modulation			IC 7201 PIN 1	V1 ~ 6,5 V
		990 KHz, 200mV without modulation				V2 ~ 7,0 V (V2 - V1 > 0,5 V)
FM - search - sensitivity	FM	94,1 MHz, 160 µV Δ f = 22,5 KHz f mod = 1 KHz			LO - Search tuning	tuning stop after 2. run
		94,1 MHz, 250 µV Δ f = 22,5 KHz f mod = 1 KHz			LO - Search tuning	tuning stop after 1. run
		94,1 MHz, 4 µV Δ f = 22,5 KHz f mod = 1 KHz			DX - Search tuning	no tuning stop
		94,1 MHz, 10 µV Δ f = 22,5 KHz f mod = 1 KHz			DX - Search tuning	tuning stop after 1. run
AM - search-sensitivity	A M	990 KHz, 240 µV 1 KHz, 30% AM			LO - Search tuning	tuning stop after 2. run
		990 KHz, 370 µV 1 KHz, 30% AM			LO - Search tuning	tuning stop after 1. run
		990 KHz, 22 µV 1 KHz, 30% AM			DX - Search tuning	no tuning stop
		990 KHz, 50 µV 1 KHz, 30% AM			DX - Search tuning	tuning stop after 1. run

CHECK LOW VOLTAGE CONTROL CIRCUIT

- Supply voltage 14.4 V
Set switched on
Pos. 7701, pin 7 = 4.7 V +/- 400 mV
- Supply voltage 8.3 V +/- 900 mV
Set switches off automatically
Pos. 7701, pin 7 = 0.5 V +/- 500 mV
- Supply voltage 14.4 V
Set switches on
Pos. 7701, pin 7 = 4.7 V +/- 400 mV

Adjustments 22DC811 + 22DC821

Adjustment	Band					
α - 3 dB	FM	94,1 MHz, 1 mV Δ f = 22,5 KHz f mod = 1 KHz	R 3105	Connectorblock Section B PIN 3 + PIN 5	1,4 V => Referencelevel (dB)	
		94,1 MHz, 7 μV Δ f = 22,5 KHz f mod = 1 KHz				Referencelevel - 3 dB
10 dB Channel-separation	FM	94,1 MHz, 120 μV Δ f = 22,5 KHz f mod = 1 KHz (right channel only) Stereo-Pilot 10%	R 3630	Connectorblock Section B PIN 3 <-> PIN 5	10 dB (+/- 1 dB)	
Channel - separation maximum	FM	94,1 MHz, 10 mV Δ f = 22,5 KHz f mod = 1 KHz (right channel only) Stereo-Pilot 10%	R 3608	Connectorblock Section B PIN 3 <-> PIN 5	max. (ca. 34 dB)	
Check α - 3 dB again and adjust if necessary						
Noise - detector	FM	98,0 MHz, 1 mV Δ f = 75 KHz f mod = 40 KHz	R 3426	IC 7420 PIN 14	850 +/- 50 mV (AC)	

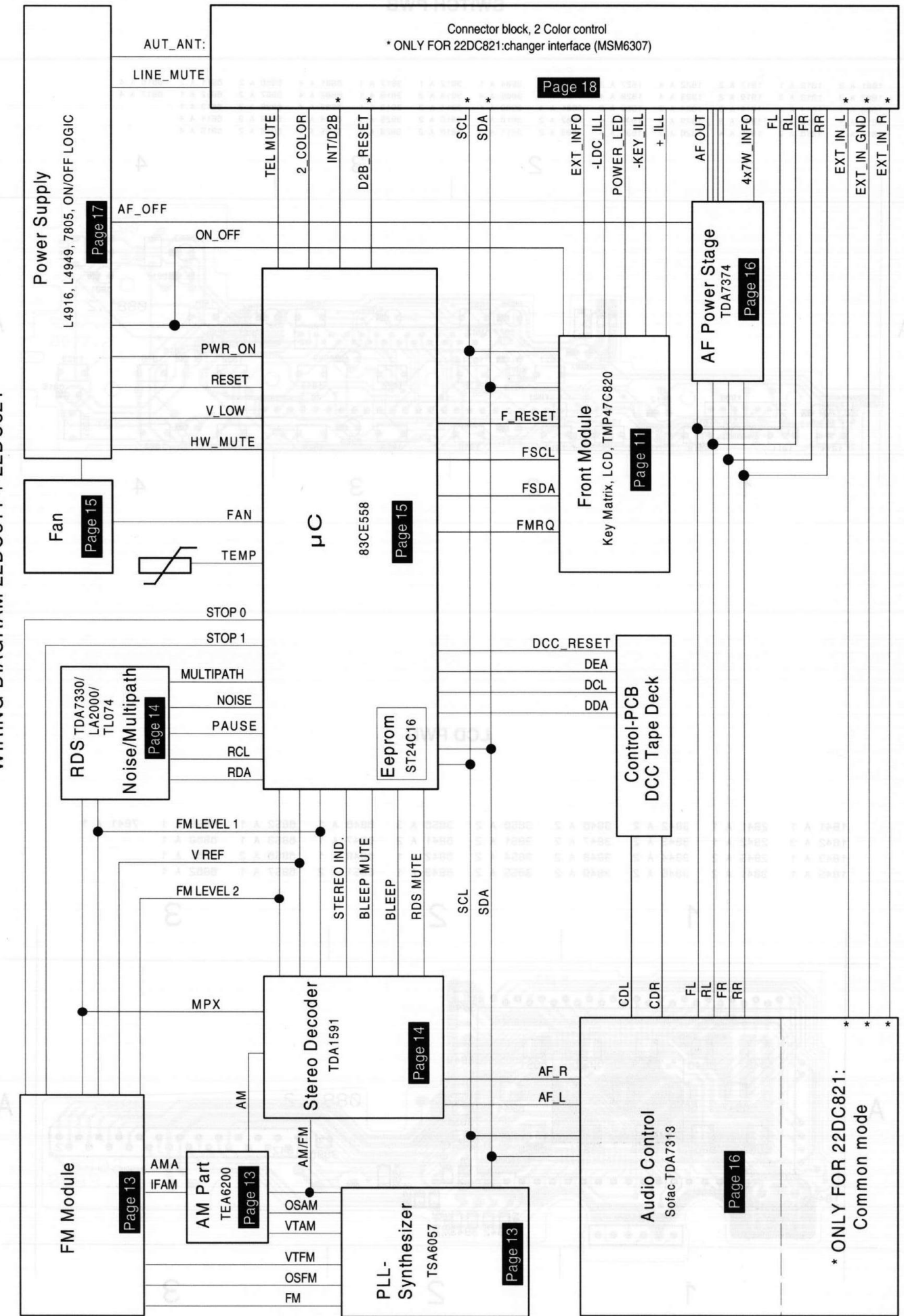
Do not adjust coils 5210 and 5228 (AM-PART), because they are correctly preadjusted by supplier !

! NOTE

FM- and AM- search sensitivities are only adjustable with a special equipment via software. If you get sets with search sensitivities out of specification, send them to factory-service in Wetzlar until further notice.

Philips Apparatefabrik Wetzlar
Department SP-CS
Philipsstrasse 1
D - 35576 Wetzlar
GERMANY

WIRING DIAGRAM 22DC811 + 22DC821



* ONLY FOR 22DC821:
Common mode

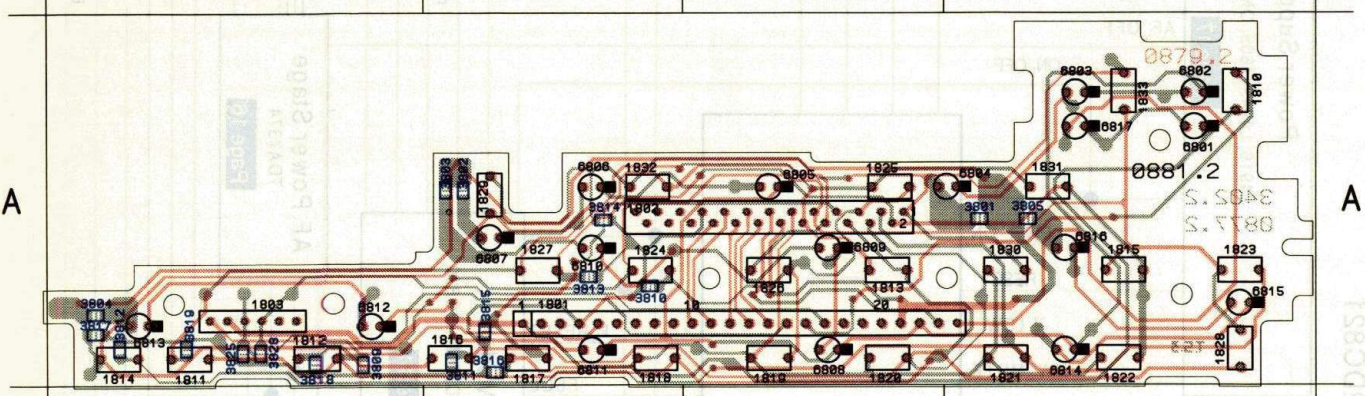
1801 A 3	1812 A 1	1817 A 2	1822 A 4	1827 A 2	1832 A 2	3804 A 1	3812 A 1	3817 A 1	6801 A 4	6806 A 2	6811 A 2	6816 A 4
1802 A 3	1813 A 3	1818 A 2	1823 A 4	1828 A 4	1833 A 4	3805 A 4	3813 A 2	3818 A 1	6802 A 4	6807 A 1	6812 A 1	6817 A 4
1803 A 1	1814 A 1	1819 A 3	1824 A 2	1829 A 2	3801 A 4	3800 A 1	3814 A 2	3819 A 1	6803 A 4	6808 A 3	6813 A 1	
1810 A 4	1815 A 4	1820 A 3	1825 A 3	1830 A 4	3802 A 2	3810 A 2	3815 A 2	3825 A 1	6804 A 4	6809 A 3	6814 A 4	
1811 A 1	1816 A 2	1821 A 4	1826 A 3	1831 A 4	3803 A 2	3811 A 2	3816 A 2	3828 A 1	6805 A 3	6810 A 2	6815 A 4	

1

2

3

4



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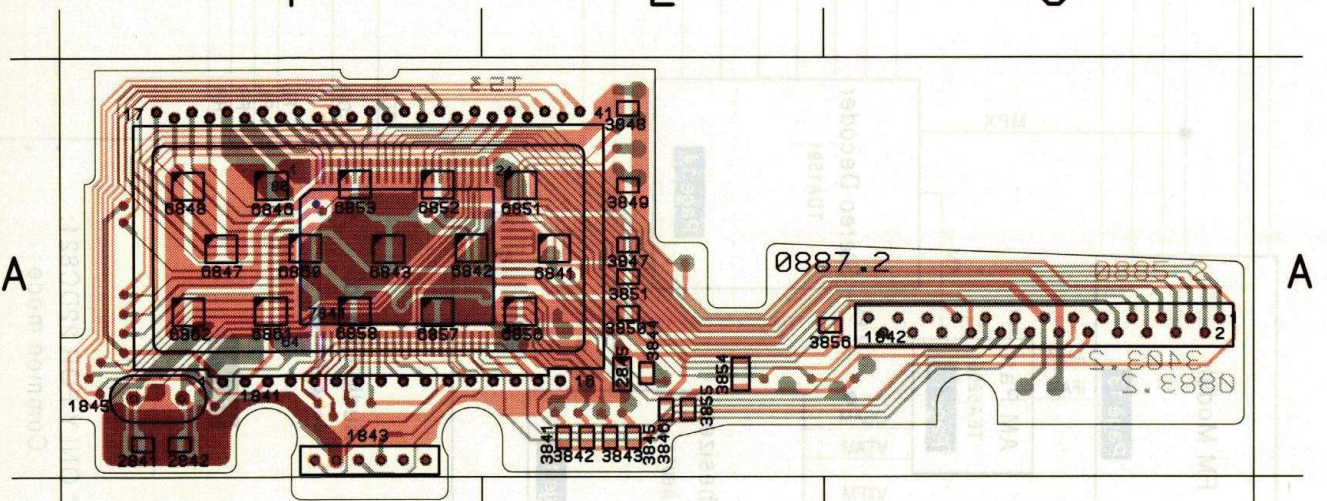
LCD PWB

1841 A 1	2841 A 1	3842 A 2	3846 A 2	3850 A 2	3856 A 3	6846 A 1	6852 A 1	6858 A 1	7841 A 1
1842 A 3	2842 A 1	3843 A 2	3847 A 2	3851 A 2	6841 A 2	6847 A 1	6853 A 1	6860 A 1	
1843 A 1	2845 A 2	3844 A 2	3848 A 2	3854 A 2	6842 A 1	6848 A 1	6856 A 2	6861 A 1	
1845 A 1	3841 A 2	3845 A 2	3849 A 2	3855 A 2	6843 A 1	6851 A 2	6857 A 1	6862 A 1	

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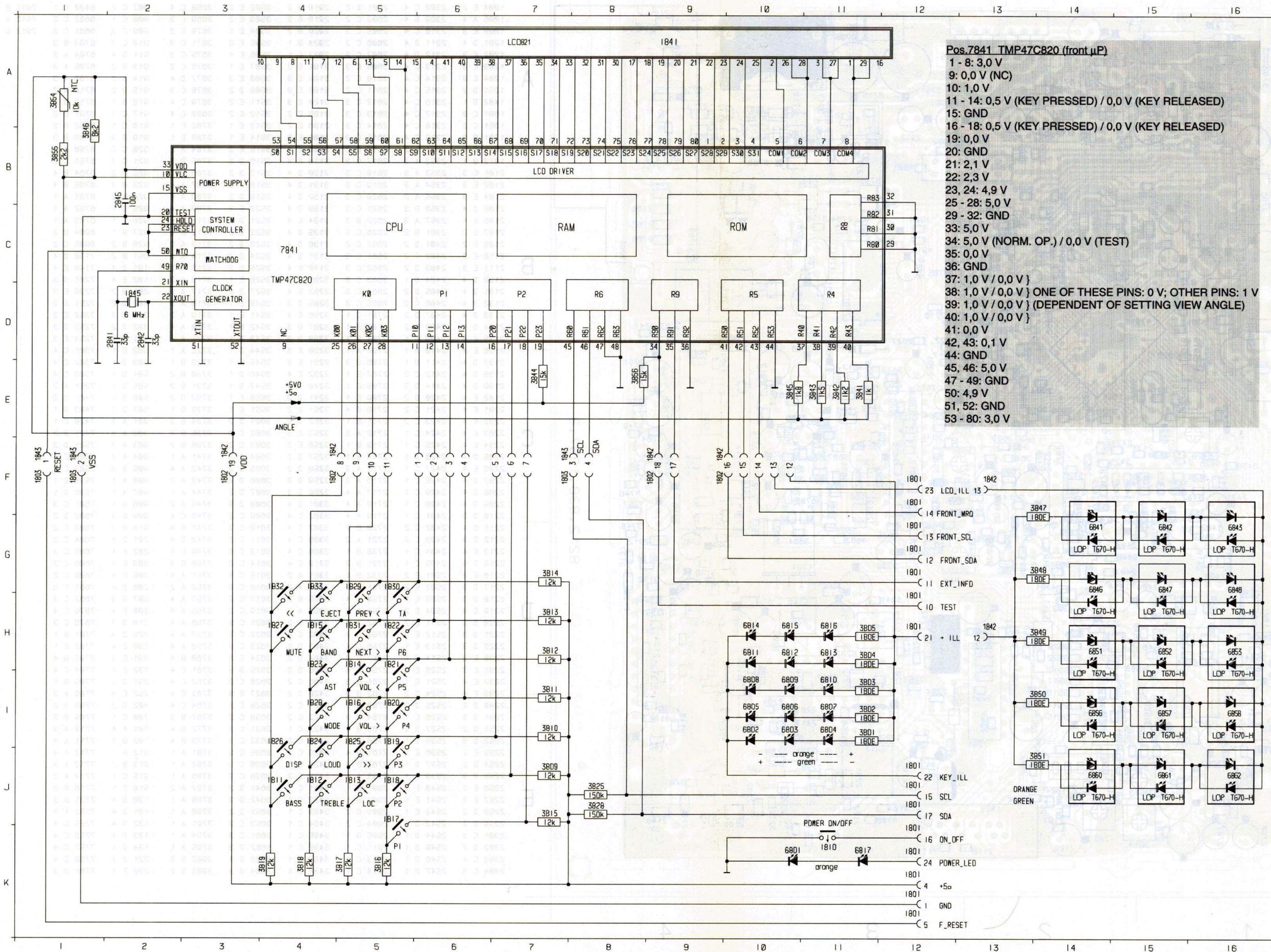


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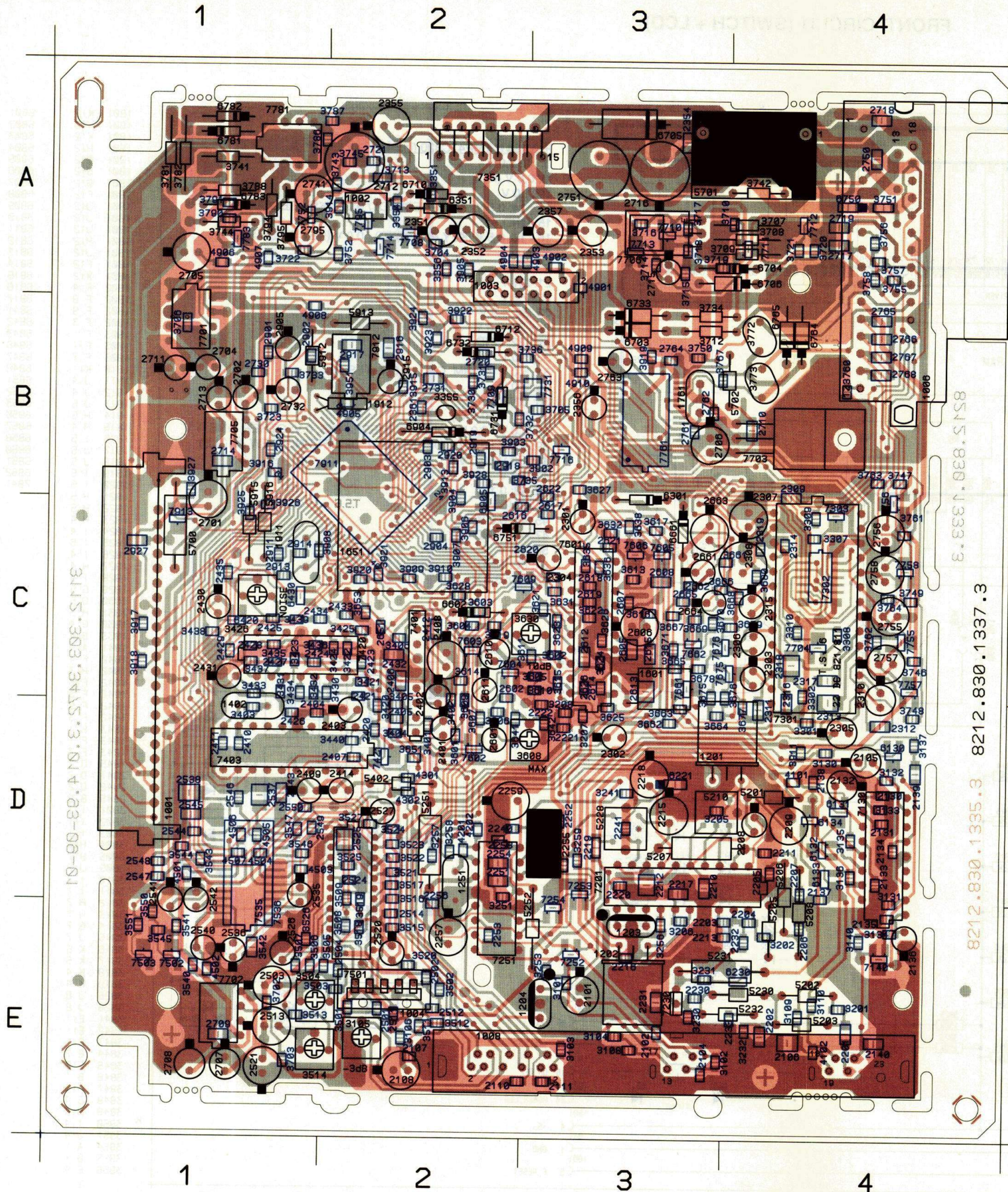
FRONT CIRCUIT (SWITCH + LCD)



Pos.7841 TMP47C820 (front μP)

1 - 8: 3,0 V
 9: 0,0 V (NC)
 10: 1,0 V
 11 - 14: 0,5 V (KEY PRESSED) / 0,0 V (KEY RELEASED)
 15: GND
 16 - 18: 0,5 V (KEY PRESSED) / 0,0 V (KEY RELEASED)
 19: 0,0 V
 20: GND
 21: 2,1 V
 22: 2,3 V
 23, 24: 4,9 V
 25 - 28: 5,0 V
 29 - 32: GND
 33: 5,0 V
 34: 5,0 V (NORM. OP.) / 0,0 V (TEST)
 35: 0,0 V
 36: GND
 37: 1,0 V / 0,0 V }
 38: 1,0 V / 0,0 V } ONE OF THESE PINS: 0 V; OTHER PINS: 1 V
 39: 1,0 V / 0,0 V } (DEPENDENT OF SETTING VIEW ANGLE)
 40: 1,0 V / 0,0 V }
 41: 0,0 V
 42, 43: 0,1 V
 44: GND
 45, 46: 5,0 V
 47 - 49: GND
 50: 4,9 V
 51, 52: GND
 53 - 80: 3,0 V

1801	K12	6801	K10
1801	K12	6802	K10
1801	K12	6803	K10
1801	H12	6804	K11
1801	G12	6805	K10
1801	G12	6806	K10
1801	G12	6807	K11
1801	F12	6808	K10
1801	J12	6809	K10
1801	J12	6810	K11
1801	J12	6811	K10
1801	H12	6812	K10
1801	F12	6813	K11
1801	F12	6814	K10
1801	K12	6815	K10
1802	F 4	6816	K11
1802	F 9	6817	K11
1802	F 9	6818	G14
1802	F 3	6819	G15
1803	F 1	6820	G16
1803	F 1	6821	G14
1803	F 7	6822	G15
1810	K11	6823	G16
1811	J 4	6824	H14
1812	J 4	6825	H15
1813	J 5	6826	H16
1814	H 5	6827	K14
1815	H 4	6828	K15
1816	I 5	6829	K16
1817	J 5	6830	K14
1818	J 5	6831	K15
1819	I 5	6832	K16
1820	I 5	6833	K16
1821	H 5	6834	K16
1822	H 5	6835	K16
1823	H 4	6836	K16
1824	I 4	6837	K16
1825	I 5	6838	K16
1826	I 4	6839	K16
1827	H 4	6840	K16
1828	I 4	6841	K16
1829	G 5	6842	K16
1830	G 5	6843	K16
1831	H 5	6844	K16
1832	G 4	6845	K16
1833	G 4	6846	K16
1841	A 9	6847	K16
1842	F 4	6848	K16
1842	H13	6849	K16
1842	F13	6850	K16
1842	F 9	6851	K16
1842	F 9	6852	K16
1842	F 3	6853	K16
1843	F 1	6854	K16
1843	F 7	6855	K16
1845	D 2	6856	K16
2841	D 2	6857	K16
2845	B 2	6858	K16
3801	I11	6859	K16
3802	I11	6860	K16
3803	I11	6861	K16
3804	H11	6862	K16
3805	H11	6863	K16
3809	J 7	6864	K16
3810	I 7	6865	K16
3811	I 7	6866	K16
3812	H 7	6867	K16
3813	H 7	6868	K16
3814	G 7	6869	K16
3815	J 7	6870	K16
3816	K 5	6871	K16
3817	K 5	6872	K16
3818	K 4	6873	K16
3819	K 4	6874	K16
3825	J 8	6875	K16
3828	J 8	6876	K16
3841	E11	6877	K16
3842	E11	6878	K16
3843	E11	6879	K16
3844	E 7	6880	K16
3845	E10	6881	K16
3846	B 1	6882	K16
3847	F14	6883	K16
3848	G14	6884	K16
3849	H14	6885	K16
3850	I14	6886	K16
3851	J14	6887	K16
3854	A 1	6888	K16
3855	B 1	6889	K16
3856	E 8	6890	K16

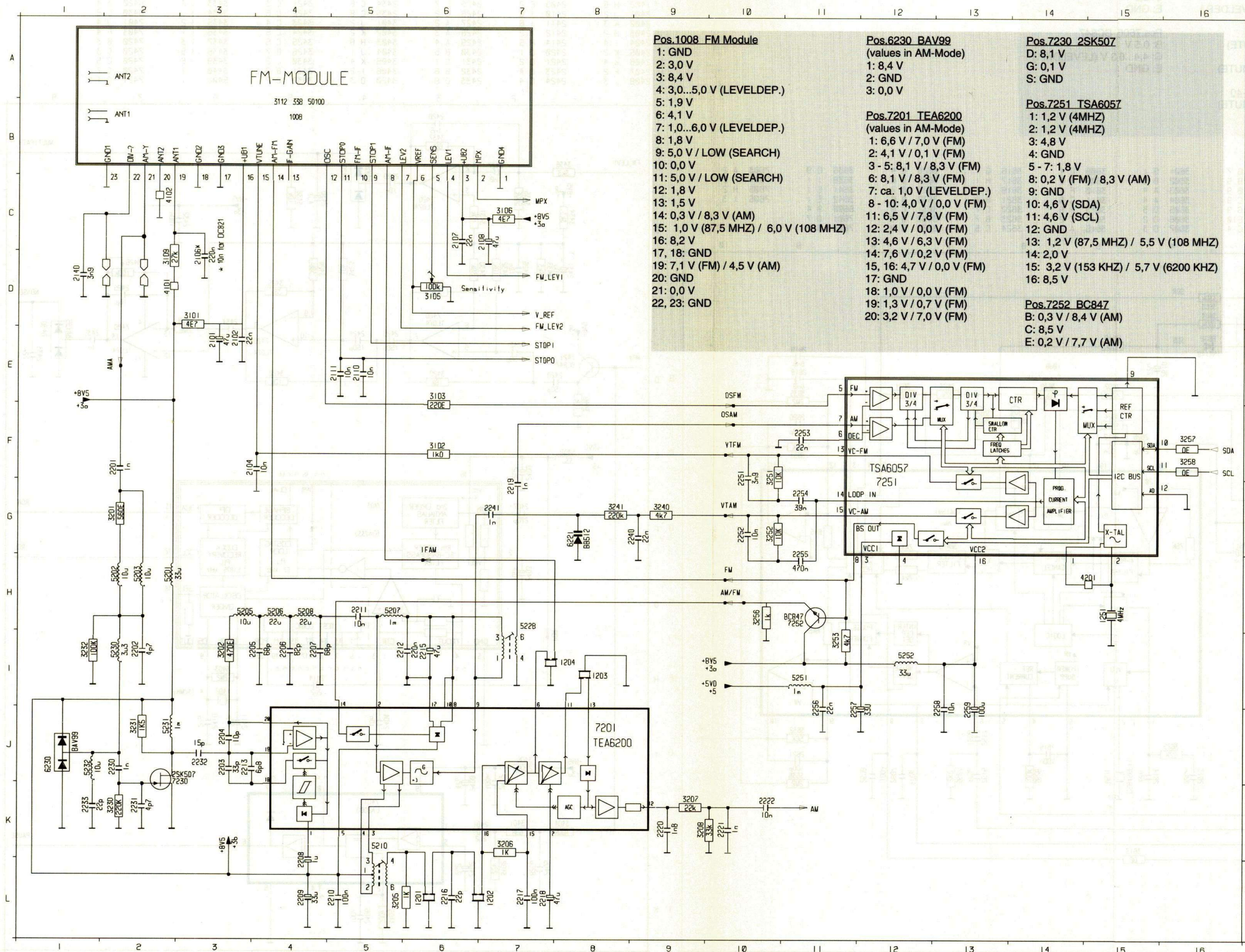


100 C 1	2305 D 4	2548 D 1	2915 B 2	3439 C 1	3665 C 3	3904 B 2	6301 B 3	7781 A 1
1002 A 2	2306 C 4	2549 D 1	2916 B 2	3440 D 2	3666 C 3	3905 A 2	6351 A 2	7783 A 1
1003 B 2	2307 C 4	2550 D 1	2917 B 2	3501 E 2	3667 C 3	3906 C 2	6420 C 1	7795 A 2
1004 E 2	2308 C 4	2601 D 2	2918 B 2	3502 E 2	3668 C 4	3907 C 2	6430 C 1	7911 B 2
1006 A 4	2309 B 4	2602 C 2	2919 B 2	3503 E 2	3669 C 3	3908 C 1	6602 C 2	7912 B 2
1008 E 3	2310 C 4	2605 C 3	2920 B 2	3504 E 1	3670 C 3	3909 C 2	6661 C 3	7913 C 1
1201 D 4	2311 D 4	2606 C 3	2924 B 1	3505 E 2	3671 C 3	3910 C 2	6703 B 3	
1202 E 3	2312 D 4	2607 C 3	2927 C 1	3506 E 1	3675 C 3	3911 D 4	6704 A 3	
1203 E 3	2313 C 4	2608 C 3	3101 E 3	3507 E 1	3676 C 3	3913 B 2	6705 A 3	
1204 E 3	2314 C 4	2610 C 2	3102 E 3	3508 E 2	3677 D 4	3914 A 2	6706 A 3	
1251 D 2	2315 C 4	2611 C 2	3103 E 3	3509 D 2	3678 C 3	3915 B 2	6710 A 2	
1402 D 1	2316 C 4	2612 C 3	3104 E 3	3511 E 2	3679 C 4	3916 B 1	6712 B 2	
1601 C 3	2317 C 4	2613 C 3	3105 E 2	3512 E 2	3680 C 4	3917 C 1	6731 B 2	
1651 C 2	2318 C 4	2614 C 3	3106 E 2	3513 E 1	3702 E 1	3918 C 1	6732 B 2	
1761 B 3	2319 C 4	2615 C 3	3108 E 3	3514 E 1	3703 E 1	3919 B 3	6733 B 3	
1911 C 1	2351 A 2	2616 C 2	3109 E 4	3515 E 2	3704 A 2	3920 C 2	6750 A 4	
1912 B 1	2352 A 2	2617 C 3	3110 E 4	3516 D 2	3705 B 3	3921 C 2	6751 C 2	
2101 E 3	2353 A 3	2618 C 3	3130 D 4	3517 D 2	3706 B 1	3922 B 2	6764 B 4	
2102 E 3	2354 A 3	2619 C 3	3131 D 4	3518 E 2	3707 A 4	3923 B 2	6765 B 4	
2104 E 3	2355 A 2	2620 C 3	3132 D 4	3519 D 2	3708 A 4	3924 B 2	6781 A 1	
2105 D 4	2356 B 3	2621 C 3	3133 D 4	3520 E 2	3709 A 4	3925 C 1	6782 A 1	
2106 E 4	2357 A 3	2622 B 3	3134 E 4	3521 D 2	3710 A 4	3926 C 1	6783 A 1	
2107 E 2	2361 B 2	2626 C 3	3135 D 4	3522 D 2	3712 B 3	3927 B 1	6904 B 2	
2108 E 2	2401 D 2	2651 C 2	3136 D 4	3523 D 2	3713 A 2	3928 B 2	6905 C 2	
2110 E 2	2402 C 2	2661 C 3	3137 D 4	3524 D 2	3714 A 3	3951 B 2	7130 D 4	
2111 E 3	2403 D 2	2662 C 3	3140 E 4	3525 D 2	3715 A 3	4101 D 4	7140 E 4	
2130 D 4	2404 D 1	2663 C 3	3201 E 4	3526 E 1	3716 A 3	4102 E 4	7201 D 3	
2131 D 4	2405 D 2	2664 C 3	3202 E 4	3527 D 2	3717 A 3	4201 D 2	7230 E 3	
2132 D 4	2406 C 2	2665 C 3	3205 D 3	3540 E 1	3718 A 3	4202 D 2	7251 D 2	
2133 D 4	2407 D 2	2701 C 1	3206 E 3	3541 E 1	3719 A 3	4301 D 2	7252 E 3	
2134 D 4	2408 C 2	2702 B 1	3207 D 3	3542 E 1	3720 A 4	4302 D 2	7253 D 3	
2135 E 4	2409 D 1	2704 B 1	3208 D 3	3543 D 1	3721 A 4	4501 D 1	7254 E 3	
2136 E 4	2410 D 1	2705 A 1	3230 E 3	3544 D 1	3722 A 1	4502 E 1	7301 C 4	
2137 D 4	2411 D 1	2706 B 3	3231 E 3	3545 E 1	3723 B 1	4503 D 1	7302 C 4	
2138 D 4	2412 C 2	2707 E 1	3232 E 4	3546 D 1	3730 B 2	4504 D 1	7303 C 4	
2139 D 4	2414 D 2	2708 E 1	3240 D 3	3547 D 1	3731 B 2	4505 D 1	7351 A 2	
2140 E 4	2420 D 2	2709 E 1	3241 D 3	3550 E 1	3732 B 2	4506 D 1	7401 C 2	
2201 E 4	2421 C 2	2710 B 4	3251 D 2	3551 E 1	3733 B 1	4507 D 1	7403 D 1	
2202 E 4	2423 C 2	2711 B 1	3252 D 3	3601 D 2	3734 B 3	4901 A 3	7420 C 1	
2203 E 4	2424 C 1	2712 A 2	3253 E 3	3602 C 3	3735 B 2	4902 A 3	7421 D 2	
2204 E 4	2425 C 1	2713 B 1	3256 E 3	3603 C 2	3736 B 2	4903 A 2	7501 D 2	
2205 D 4	2426 D 1	2714 B 1	3257 D 2	3604 C 2	3741 A 1	4904 A 2	7502 E 1	
2206 E 4	2427 C 1	2715 A 3	3258 D 2	3605 C 3	3742 A 4	4905 B 2	7503 E 1	
2207 D 4	2428 C 1	2716 A 3	3259 D 3	3606 D 2	3743 A 2	4906 A 1	7535 D 1	
2208 D 4	2429 C 1	2717 A 4	3260 D 3	3607 D 2	3744 A 1	4907 A 1	7536 D 1	
2209 D 4	2430 C 1	2718 A 4	3301 D 4	3608 D 3	3745 A 2	4908 B 1	7601 C 3	
2210 D 3	2431 C 1	2719 A 4	3302 C 4	3609 C 2	3746 C 4	4909 B 3	7602 D 2	
2211 D 4	2432 C 2	2720 B 2	3307 C 4	3610 C 3	3747 B 4	4910 B 3	7603 C 2	
2212 D 3	2433 C 2	2721 A 2	3308 C 4	3611 C 3	3748 D 4	5201 D 4	7604 C 2	
2213 E 4	2434 C 1	2730 B 1	3309 C 4	3613 C 3	3749 C 4	5202 E 4	7605 C 3	
2215 D 3	2435 C 1	2731 B 2	3310 C 4	3614 C 2	3750 B 3	5203 E 4	7606 C 3	
2216 E 3	2501 E 2	2732 B 1	3351 A 2	3615 C 3	3751 A 4	5205 E 4	7609 C 2	
2217 D 3	2502 E 2	2741 A 1	3354 A 2	3616 C 3	3752 A 2	5206 D 4	7661 C 3	
2218 D 3	2503 E 1	2750 A 4	3355 B 2	3617 C 3	3753 A 4	5207 D 3	7662 C 3	
2219 D 3	2504 E 2	2751 A 3	3356 A 2	3619 C 2	3755 A 4	5208 E 4	7675 C 4	
2220 D 3	2511 E 2	2752 A 4	3401 D 2	3621 C 3	3756 A 4	5210 D 3	7676 C 3	
2221 D 3	2512 E 2	2755 C 4	3402 C 2	3622 C 3	3757 A 4	5228 D 3	7701 B 1	
2222 D 3	2513 E 1	2756 C 4	3403 D 1	3623 C 3	3758 A 4	5230 E 4	7702 E 1	
2230 E 3	2514 E 2	2757 C 4	3404 D 2	3624 C 3	3760 B 4	5231 E 3	7703 B 4	
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2232 E 4	2521 E 1	2761 B 3	3406 C 2	3626 C 3	3762 C 4	5251 D 2	7705 B 1	
2233 E 4	2524 D 2	2762 B 3	3420 C 2	3627 B 3	3763 B 4	5252 E 3	7706 A 3	
2240 D 2	2525 D 2	2763 B 3	3421 C 2	3628 C 2	3764 C 4	5402 D 2	7708 A 2	
2241 D 3	2526 E 1	2764 B 3	3422 C 2	3629 C 3	3767 B 3	5700 C 1	7709 B 2	
2251 D 2	2527 D 2	2765 B 4	3423 C 1	3631 C 3	3772 B 4	5701 A 4	7710 A 3	
2252 D 3	2535 D 1	2766 B 4	3424 C 2	3632 C 3	3773 B 4	5702 B 3	7711 A 4	
2253 E 2	2536 E 1	2767 B 4	3425 C 2	3635 C 3	3781 A 1	5912 B 1	7712 A 4	
2254 D 2	2537 D 1	2768 B 4	3426 C 1	3636 C 3	3782 A 1	5913 B 2	7713 A 3	
2255 D 3	2538 D 1	2795 A 1	3430 C 2	3638 C 3	3786 A 1	5915 C 1	7714 A 2	
2256 E 2	2540 E 1	2901 B 1	3431 C 1	3641 D 2	3787 A 2	5916 C 1	7716 B 3	
2257 E 2	2541 E 1	2902 B 1	3432 C 1	3642 D 3	3788 A 1	6130 D 4	7731 B 3	
2258 D 2	2542 E 1	2903 B 2	3433 C 1	3651 D 2	3790 A 1	6131 D 4	7752 A 1	
2259 D 2	2543 D 1	2904 C 2	3434 C 1	3653 C 2	3791 A 1	6132 D 4	7755 C 4	
2301 C 3	2544 D 1	2905 B 1	3435 C 1	3661 C 3	3794 A 1	6133 D 4	7756 C 4	
2302 D 3	2545 D 1	2911 C 1	3436 C 1	3662 D 3	3795 A 1	6134 D 4	7757 C 4	
2303 C 4	2546 D 1	2913 C 1	3437 C 1	3663 D 3	3902 B 3	6221 D 3	7758 C 4	
2304 C 3	2547 D 1	2914 C 1	3438 C 1	3664 D 3	3903 B 2	6230 E 4	7761 B 3	

10-00-00.A10.8.5748.008.5118

8212.830.1335.3 8212.830.1337.3

FM MODUL / AM PART / PLL SYNTHESIZER



- Pos.1008_FM Module**
- 1: GND
 - 2: 3,0 V
 - 3: 8,4 V
 - 4: 3,0...5,0 V (LEVELDEP.)
 - 5: 1,9 V
 - 6: 4,1 V
 - 7: 1,0...6,0 V (LEVELDEP.)
 - 8: 1,8 V
 - 9: 5,0 V / LOW (SEARCH)
 - 10: 0,0 V
 - 11: 5,0 V / LOW (SEARCH)
 - 12: 1,8 V
 - 13: 1,5 V
 - 14: 0,3 V / 8,3 V (AM)
 - 15: 1,0 V (87,5 MHZ) / 6,0 V (108 MHZ)
 - 16: 8,2 V
 - 17, 18: GND
 - 19: 7,1 V (FM) / 4,5 V (AM)
 - 20: GND
 - 21: 0,0 V
 - 22, 23: GND

- Pos.6230_BAV99**
(values in AM-Mode)
- 1: 8,4 V
 - 2: GND
 - 3: 0,0 V
- Pos.7201_TEA6200**
(values in AM-Mode)
- 1: 6,6 V / 7,0 V (FM)
 - 2: 4,1 V / 0,1 V (FM)
 - 3 - 5: 8,1 V / 8,3 V (FM)
 - 6: 8,1 V / 8,3 V (FM)
 - 7: ca. 1,0 V (LEVELDEP.)
 - 8 - 10: 4,0 V / 0,0 V (FM)
 - 11: 6,5 V / 7,8 V (FM)
 - 12: 2,4 V / 0,0 V (FM)
 - 13: 4,6 V / 6,3 V (FM)
 - 14: 7,6 V / 0,2 V (FM)
 - 15, 16: 4,7 V / 0,0 V (FM)
 - 18: 1,0 V / 0,0 V (FM)
 - 19: 1,3 V / 0,7 V (FM)
 - 20: 3,2 V / 7,0 V (FM)

- Pos.7230_2SK507**
- D: 8,1 V
 - G: 0,1 V
 - S: GND
- Pos.7251_TSA6057**
- 1: 1,2 V (4MHZ)
 - 2: 1,2 V (4MHZ)
 - 3: 4,8 V
 - 4: GND
 - 5 - 7: 1,8 V
 - 8: 0,2 V (FM) / 8,3 V (AM)
 - 9: GND
 - 10: 4,6 V (SDA)
 - 11: 4,6 V (SCL)
 - 12: GND
 - 13: 1,2 V (87,5 MHZ) / 5,5 V (108 MHZ)
 - 14: 2,0 V
 - 15: 3,2 V (153 KHZ) / 5,7 V (6200 KHZ)
 - 16: 8,5 V

- Pos.7252_BCR47**
- B: 0,3 V / 8,4 V (AM)
 - C: 8,5 V
 - E: 0,2 V / 7,7 V (AM)

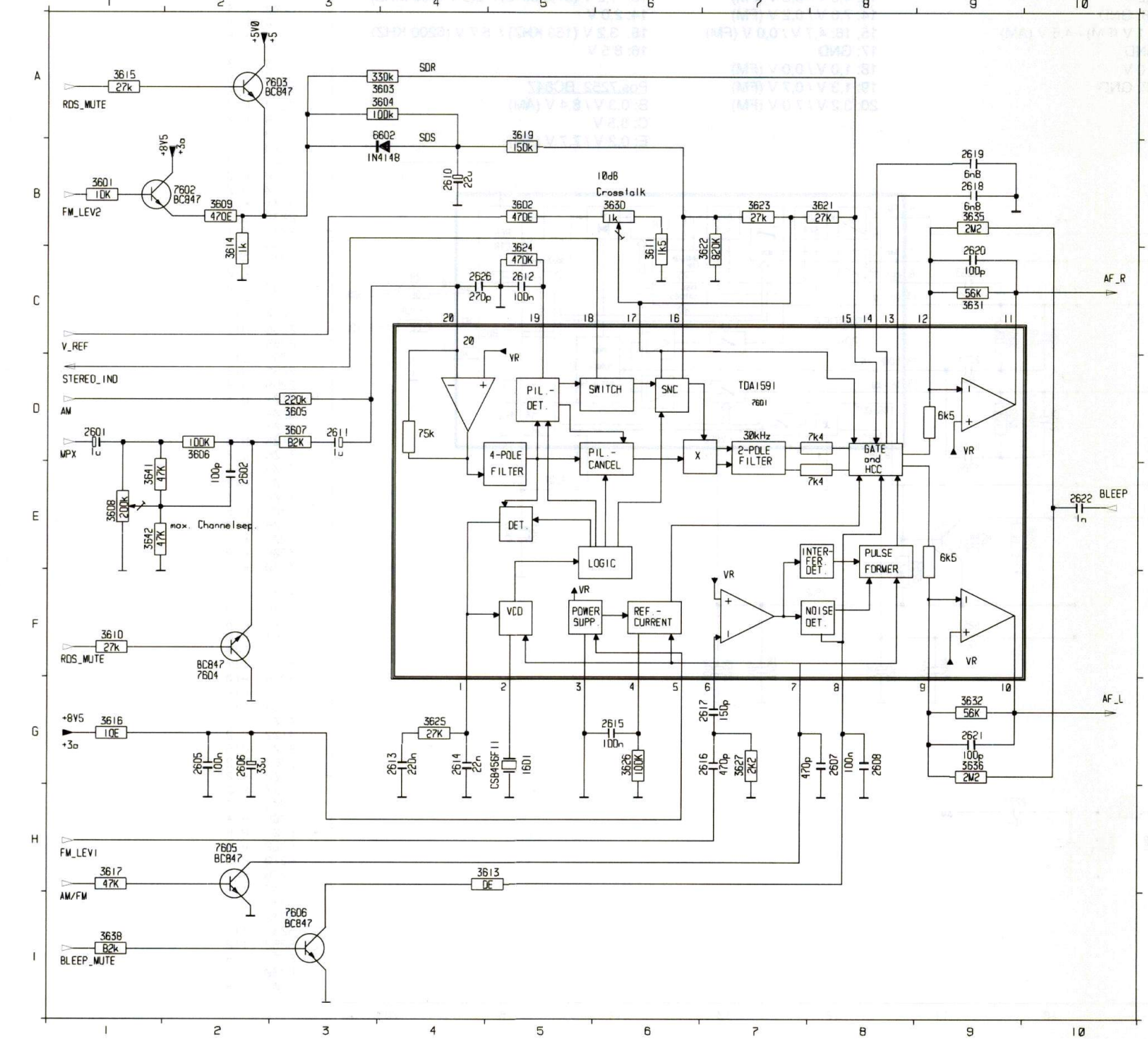
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1201	L 6	7251	G12
1202	L 7	7252	H11
1203	I 8		
1204	I 8		
1251	H15		
2101	E 3		
2102	E 3		
2104	F 3		
2106	D 3		
2107	C 6		
2108	C 7		
2110	E 5		
2111	E 5		
2140	D 1		
2201	F 2		
2202	I 2		
2203	J 3		
2204	J 3		
2205	I 4		
2206	I 4		
2207	I 4		
2208	L 4		
2209	L 4		
2210	L 5		
2211	H 5		
2212	I 5		
2213	J 3		
2215	I 6		
2216	L 6		
2217	L 7		
2218	L 7		
2219	G 7		
2220	K 9		
2221	K 10		
2222	K 10		
2230	J 2		
2231	K 2		
2232	J 3		
2233	K 1		
2240	G 9		
2241	G 7		
2251	F 10		
2252	G 10		
2253	F 11		
2254	G 11		
2255	H 11		
2256	H 11		
2257	J 11		
2258	J 13		
2259	J 13		
3101	D 3		
3102	F 6		
3103	E 6		
3105	D 6		
3106	C 7		
3109	D 2		
3201	G 2		
3202	I 3		
3205	L 5		
3206	K 7		
3207	K 9		
3208	K 9		
3230	K 2		
3231	J 2		
3232	I 1		
3240	G 9		
3241	G 8		
3251	F 10		
3252	G 10		
3253	I 11		
3256	H 10		
3257	F 16		
3258	F 16		
4101	D 2		
4102	C 2		
4201	H 15		
5201	H 2		
5202	H 2		
5203	H 2		
5205	H 3		
5206	H 4		
5207	H 5		
5208	H 4		
5210	K 5		
5228	H 7		
5230	I 2		
5231	J 2		
5232	J 1		
5251	I 11		
5252	I 12		
6221	G 8		
6230	J 1		
7201	J 8		

STEREO DECODER

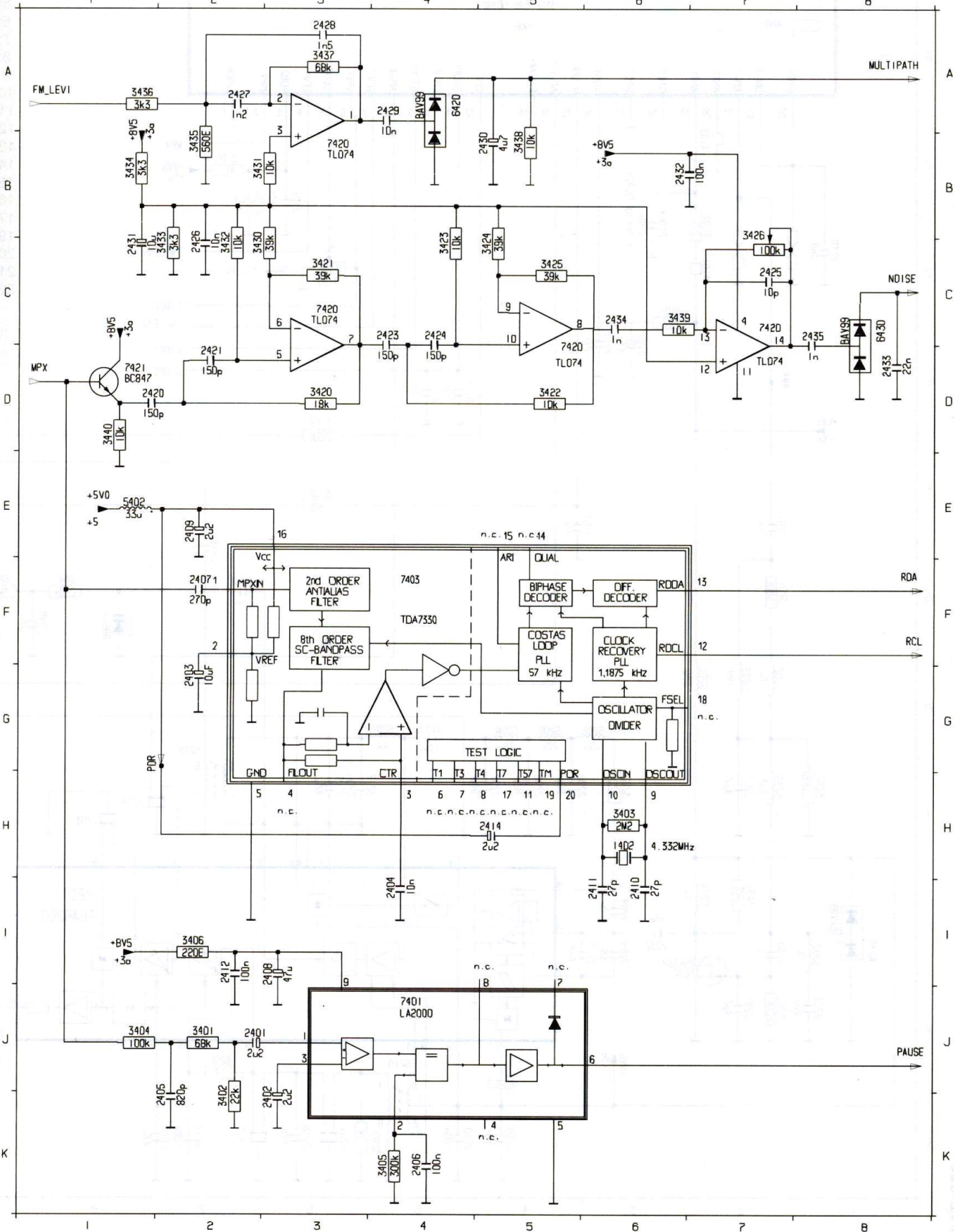
RDS / NOISE / MULTIPATH

Pos.7601 TDA1591	Pos.7602 BC847	Pos.7605 BC847
1: 4,6 V	B: 1,0...6,0 V (LEVELDEP.)	B: 0,3 V
2: 4,3 V	C: 8,4 V	C: 2,3 V
3: GND	E: 0,0...5,0 V (LEVELDEP.)	E: GND
4: 3,0 V		
5: 8,4 V	Pos.7603 BC847	Pos.7606 BC847
6: 2,2 V	B: 0,1 V / 4 V (MUTE)	B: 0,5 V
7: 2,2 V / 0,0 V (AM)	C: 5,0 V	C: 4,4...6,3 V (LEVELDEP.)
8: 6,3 V	E: 2,4 V / 3,4 V (MUTE)	E: GND
9 - 14: 3,8 V		
15 - 17: 2,8 V	Pos.7604 BC847-40	
18: 5,0 V / 0,0 V (MONO)	B: 0,1 V / 0,7 V (MUTE)	
19: 0,5 V	C: GND	
20: 3,0 V	E: 0,0 V	

1601 G 5	2610 B 4	2617 G 7	3601 B 1	3608 E 1	3616 G 1	3625 G 4	3636 G 9	7603 A 2
2601 D 1	2611 D 3	2618 B 9	3602 B 5	3609 B 2	3617 H 1	3626 G 6	3638 I 1	7604 F 2
2602 E 2	2612 C 5	2619 B 9	3603 A 4	3610 F 1	3619 A 5	3627 G 7	3641 E 1	7605 H 2
2605 G 2	2613 G 4	2620 C 9	3604 A 4	3611 C 6	3621 B 8	3630 B 6	3642 E 1	7606 I 3
2606 G 2	2614 G 4	2621 G 9	3605 D 3	3613 H 5	3622 C 7	3631 C 9	6602 B 4	
2607 G 8	2615 G 6	2622 E 10	3606 D 2	3614 C 2	3623 B 7	3632 G 9	7601 D 7	
2608 G 8	2616 G 7	2626 C 4	3607 D 3	3615 A 1	3624 C 5	3635 B 9	7602 B 2	

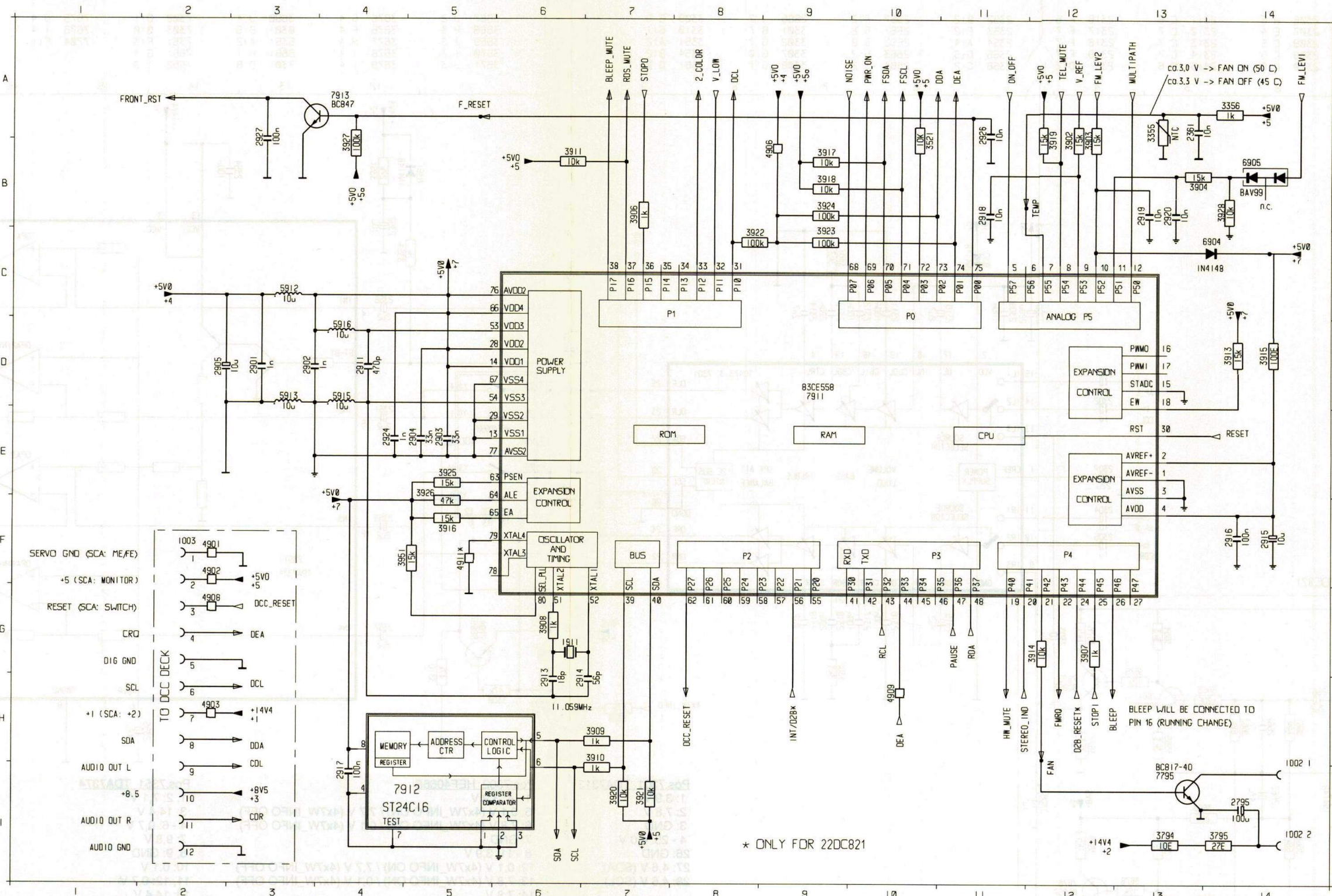


1402 H 6	2409 E 2	2425 C 7	2434 C 6	3421 C 3	3433 C 2	6420 A 4
2401 J 2	2410 I 6	2426 C 2	2435 C 8	3422 D 5	3434 B 1	6430 C 8
2402 K 3	2411 I 6	2427 A 2	3401 J 2	3423 C 4	3435 B 2	7401 J 4
2403 G 2	2412 I 2	2428 A 3	3402 K 2	3424 C 5	3436 A 1	7403 F 4
2404 I 4	2414 H 5	2429 A 4	3403 H 6	3425 C 5	3437 A 3	7420 B 3
2405 K 2	2420 D 1	2430 B 5	3404 J 1	3426 B 7	3438 B 5	7420 C 3
2406 K 4	2421 D 2	2431 C 1	3405 K 4	3430 C 2	3439 C 6	7420 D 5
2407 F 2	2423 C 4	2432 B 6	3406 I 2	3431 B 2	3440 D 1	7420 C 7
2408 I 3	2424 C 4	2433 D 8	3420 D 3	3432 C 2	5402 E 1	7421 D 1



uC / EEPROM / FAN / DCC CONNECTOR

- Pos.6420 BAV99**
1: 0,0 V
2: GND
3: 0,0 V
- Pos.6430 BAV99**
1: 0,0 V
2: GND
3: 0,0 V
- Pos.7401 LA2000**
1: 1,9 V
2: 7,1 V / 0,0 V (AM)
3: 2,0 V
4: 0,0 V (NC)
5: GND
6: 5,0 V
7: 4,3 V (NC)
8: 3,0 V (NC)
9: 7,5 V
- Pos.7403 TDA7330**
1, 2: 2,2 V
3: 1,5 V
4: 1,5 V (NC)
5: GND
6 - 8: NC
9, 10: 2,4 V (4,3 MHz)
11: 2,4 V (NC)
12: 2,5 V
13: ca. 1,8 V
14: 5,0 V (NC)
15: 0,1 V (NC)
16: 5,0 V
17: 0,1 V (NC)
18: 0,1 V (NC)
19: 0,1 V (NC)
20: 0,1 V
- Pos.7420 TL074**
1 - 3: 4,2 V
4: 8,5 V
5 - 8: 4,2 V
9: 4,3 V
10: 4,2 V
11: GND
12 - 14: 4,2 V
- Pos.7421 BC847**
B: 3,1 V
C: 8,5 V
E: 2,2...2,8 V (LEVEL DEP.)

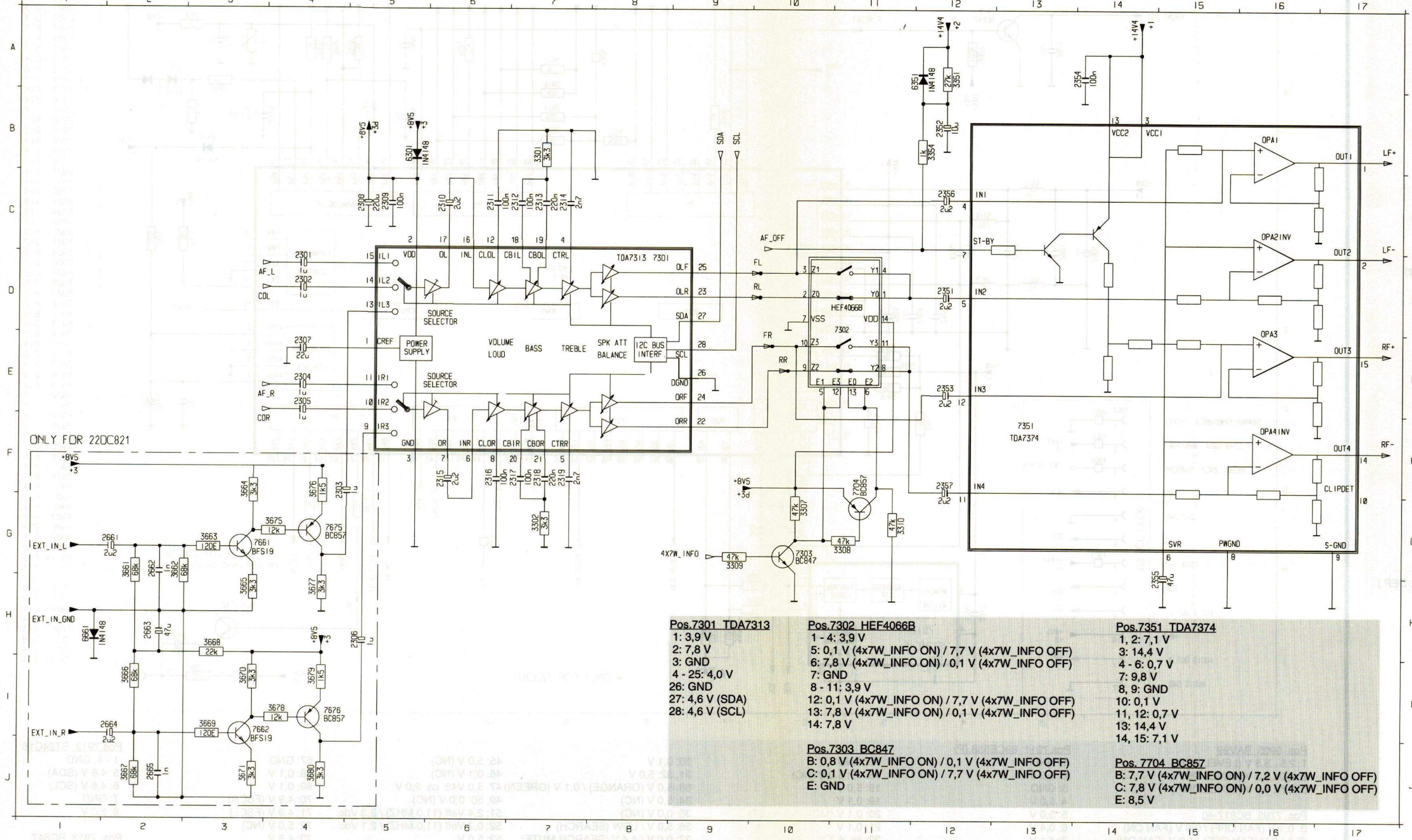


- 1002 HI4
- 1002 I14
- 1003 F 2
- 1911 G 6
- 2361 A13
- 2795 I14
- 2901 D 3
- 2902 D 3
- 2903 E 5
- 2904 E 5
- 2905 D 2
- 2911 D 4
- 2913 H 6
- 2914 H 7
- 2915 F14
- 2916 F14
- 2917 I 4
- 2918 B11
- 2919 B13
- 2920 B13
- 2924 E 4
- 2926 A11
- 2927 A 4
- 3355 A13
- 3356 A14
- 3521 A10
- 3794 I13
- 3795 I14
- 3902 A12
- 3903 A12
- 3904 B13
- 3906 B 7
- 3907 G12
- 3908 G 6
- 3909 H 7
- 3910 H 7
- 3911 B 6
- 3913 D14
- 3914 G12
- 3915 D14
- 3916 F 5
- 3917 B 9
- 3918 B 9
- 3919 A12
- 3920 I 7
- 3921 I 7
- 3922 C 8
- 3923 C 9
- 3924 B 9
- 3925 E 5
- 3926 E 5
- 3927 B 4
- 3928 B14
- 3951 F 4
- 4901 F 2
- 4902 F 2
- 4903 H 2
- 4906 B 9
- 4908 G 2
- 4909 H10
- 4911 X F 5
- 5912 C 3
- 5913 D 3
- 5915 D 4
- 5916 D 4
- 6904 C14
- 6905 B14
- 7795 I13
- 7911 D 9
- 7912 I 4
- 7913 A 4

- Pos. 6905 BAV99**
1: 2,5...3,5 V (LEVEL DEP.)
2: 3,0...4,3 V (LEVEL DEP.)
3: 2,7...4,0 V (LEVEL DEP.)
- Pos. 7795 BC817-40**
B: 0,1 V (FAN OFF) / 0,6 V (FAN ON)
C: 14,2 V (FAN OFF) / 1,6 V (FAN ON)
E: GND
- Pos. 7911 89CE558 (P)**
1: GND
2: 5,0 V
3: GND
4: 5,0 V
5: 5,0 V
6: 0,4 V
7: 4,1 V
8: 4,6 V / 0,6 V (PHONE)
9: 4,0 V
10: 1,0...6,0 V (LEVEL DEP.)
11: 3,0...5,0 V (LEVEL DEP.)
12: 0,0 V
13: GND
14: 5,0 V
- Pos. 7912 ST24C16**
1 - 4: GND
5: 4,6 V (SDA)
6: 4,6 V (SCL)
7: GND
8: 5,0 V
- Pos. 7913 BC847**
B: 0,1 V / 0,6 V (F_RES.)
C: 4,9 V
E: GND
- 15: GND**
- 16, 17: 5,0 V (NC)**
- 18: 5,0 V**
- 19: 0,1 V**
- 20: 0,1 V (MO) / 5,0 V (ST)**
- 21: 0,1 V**
- 22: ca. 4,7 V**
- 23: 0,1 V (NC)**
- 24: 5,0 V (NC)**
- 25: 5,0 V / LOW (SEARCH)**
- 26: 0 5 V OR 5 0 V (AT BLEEP)**
- 27: 5,0 V (NC)**
- 28: 5,0 V**
- 29: GND**
- 30: 0,1 V**
- 31, 32: 5,0 V**
- 33: 5,0 V (ORANGE) / 0,1 V (GREEN)**
- 34: 5,0 V (NC)**
- 35: 0,0 V (NC)**
- 36: 5,0 V / LOW (SEARCH)**
- 37: 0,0 V / 4,4 V (SEARCH MUTE)**
- 38: 0,1 V**
- 39: 4,9 V (SCL)**
- 40: 4,9 V (SDA)**
- 41: 5,0 V (NC)**
- 42: 5,0 V (NC)**
- 43: 2,5 V**
- 44: 5,0 V (RADIO OP.)**
- 45: 5,0 V (NC)**
- 46: 0,1 V (NC)**
- 47: 5,0 V48: ca. 2,0 V**
- 49, 50: 0,0 V (NC)**
- 51: 2,4 Veff (11,0 MHZ) / 2,3 Vdc**
- 52: 0,7 Veff (11,0 MHZ) / 2,1 Vdc**
- 53: 5,0 V**
- 54: 0,1 V**
- 55 - 61: 5,0 V (NC)**
- 62: 5,0 V**
- 63: 5,0 V**
- 64: 0,0 V (ON) / 5,0 V (OFF)**
- 65: 5,0 V**
- 66: 5,0 V**
- 67: GND**
- 68: 0,1 V**
- 69: 0,1 V**
- 70: 4,9 V (FSDA)**
- 71: 4,9 V (FSCL)**
- 72: 5,0 V (NC)**
- 73: 4,8 V**
- 74: 5,0 V**
- 75: 0,1 V**
- 76: 5,0 V**
- 77: GND**
- 78, 79: 0,0 V (NC)**
- 80: 5,0 V (OSC)**

AUDIO CONTROL / AF POWER STAGE

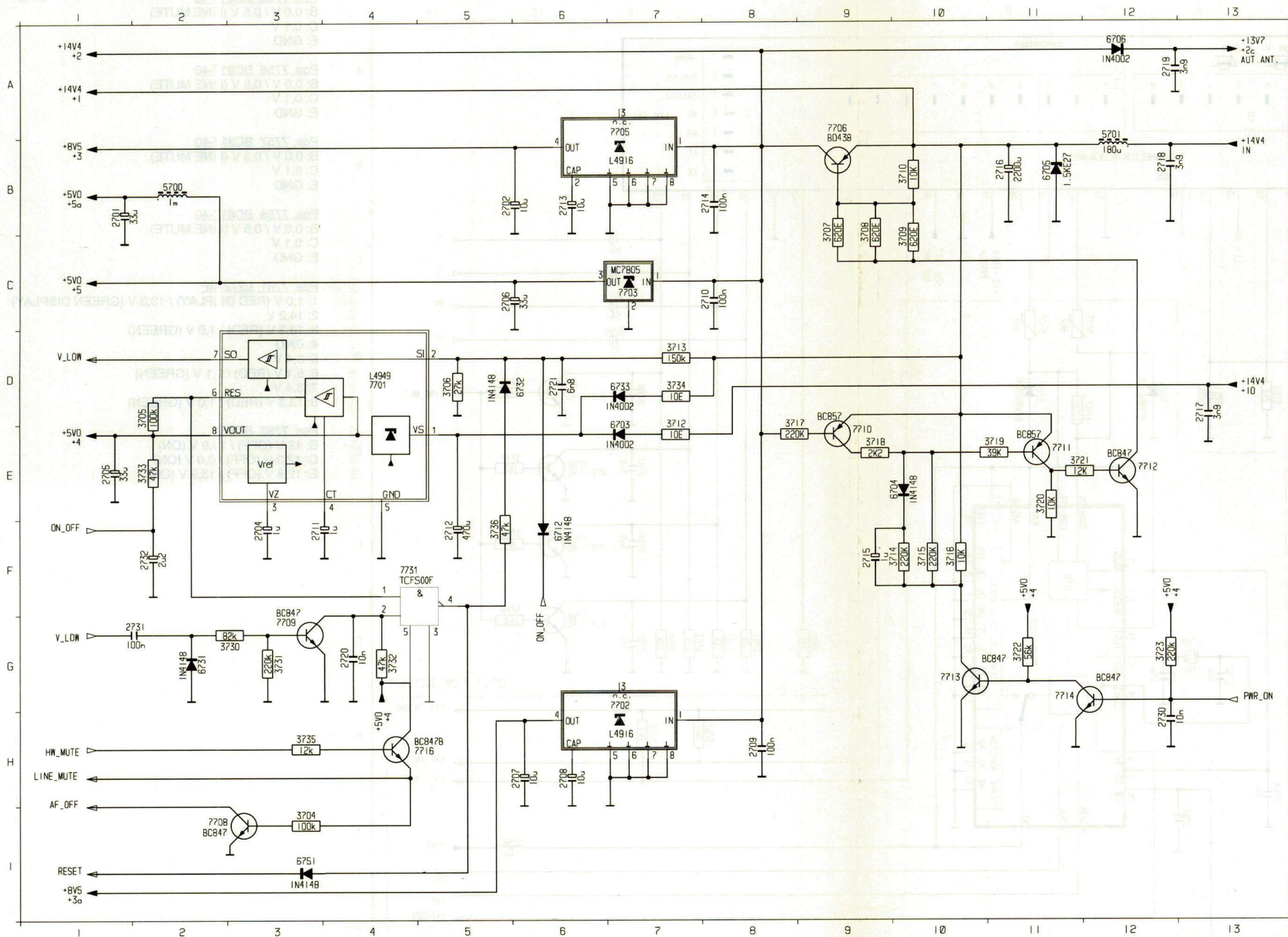
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2302 D 4	2307 E 4	2312 C 7	2317 F 7	2353 E12	2661 G 2	3301 B 7	3310 G11	3663 G 3	3668 H 3	3676 F 4	6301 B 5	7303 G10	7676 I 4
2303 F 4	2308 C 5	2313 C 7	2318 F 7	2354 A14	2662 G 2	3302 G 7	3351 A12	3664 F 3	3669 I 3	3677 H 4	6351 A12	7351 F13	7704 F11
2304 E 4	2309 C 5	2314 F 7	2319 F 7	2355 G15	2663 H 2	3307 G10	3354 B12	3665 H 3	3670 I 3	3678 I 4	6661 H 1	7661 G 3	
2305 E 4	2310 C 6	2315 F 6	2351 D12	2356 C12	2664 I 2	3308 G11	3661 G 2	3666 I 2	3671 J 3	3679 I 4	7301 D 8	7662 I 3	



<p>Pos.7301 TDA7313</p> <p>1: 3,9 V</p> <p>2: 7,8 V</p> <p>3: GND</p> <p>4 - 25: 4,0 V</p> <p>26: GND</p> <p>27: 4,6 V (SDA)</p> <p>28: 4,6 V (SCL)</p>	<p>Pos.7302 HEF4066B</p> <p>1 - 4: 3,9 V</p> <p>5: 0,1 V (4x7W_INFO ON) / 7,7 V (4x7W_INFO OFF)</p> <p>6: 7,8 V (4x7W_INFO ON) / 0,1 V (4x7W_INFO OFF)</p> <p>7: GND</p> <p>8 - 11: 3,9 V</p> <p>12: 0,1 V (4x7W_INFO ON) / 7,7 V (4x7W_INFO OFF)</p> <p>13: 7,8 V (4x7W_INFO ON) / 0,1 V (4x7W_INFO OFF)</p> <p>14: 7,8 V</p>	<p>Pos.7351 TDA7374</p> <p>1, 2: 7,1 V</p> <p>3: 14,4 V</p> <p>4 - 6: 0,7 V</p> <p>7: 9,8 V</p> <p>8, 9: GND</p> <p>10: 0,1 V</p> <p>11, 12: 0,7 V</p> <p>13: 14,4 V</p> <p>14, 15: 7,1 V</p>
<p>Pos.7303 BC847</p> <p>B: 0,8 V (4x7W_INFO ON) / 0,1 V (4x7W_INFO OFF)</p> <p>C: 0,1 V (4x7W_INFO ON) / 7,7 V (4x7W_INFO OFF)</p> <p>E: GND</p>	<p>Pos.7704 BC857</p> <p>B: 7,7 V (4x7W_INFO ON) / 7,2 V (4x7W_INFO OFF)</p> <p>C: 7,8 V (4x7W_INFO ON) / 0,0 V (4x7W_INFO OFF)</p> <p>E: 8,5 V</p>	

POWER SUPPLY

2701	B 1	2709	H 8	2716	B11	2731	G 2	3709	C10	3717	E 8	3730	G 3	5700	B 2	6731	G 2	7705	A 7	7713	G10
2702	B 5	2710	C 8	2717	D13	2732	F 2	3710	B10	3718	E 9	3731	G 3	5701	B12	6732	D 6	7706	A 9	7714	G11
2704	F 3	2711	F 3	2718	B12	3704	I 3	3712	E 7	3719	E11	3732	G 4	6703	E 7	6733	D 7	7708	I 3	7716	H 4
2705	E 1	2712	F 5	2719	A12	3705	O 2	3713	D 7	3720	E11	3733	E 2	6704	E10	6751	I 3	7709	G 3	7731	F 4
2706	C 5	2713	B 6	2720	G 4	3706	D 5	3714	F10	3721	E11	3734	D 7	6705	B11	7701	D 4	7710	F 9		
2707	H 6	2714	B 8	2721	D 6	3707	B 9	3715	F10	3722	G11	3735	H 3	6706	A12	7702	G 7	7711	E11		
2708	H 6	2715	F 9	2730	H12	3708	B 9	3716	F10	3723	G12	3736	F 5	6712	F 6	7703	C 7	7712	E12		



Pos.7701 L4949

- 1: 13,6 V
- 2: 2,2 V
- 3: 7,0 V
- 4: 2,3 V
- 5: GND
- 6 - 8: 5,0 V

Pos.7702 L4916

- 1: 14,2 V
- 2: 2,5 V
- 3: 0,0 V
- 4: 8,4 V
- 5 - 8: GND

Pos.7703 MC7805

- 1: 14,2 V
- 2: GND
- 3: 5,0 V

Pos.7705 L4916

- 1: 14,2 V
- 2: 2,5 V
- 3: 0,0 V
- 4: 8,4 V
- 5 - 8: GND

Pos.7706 BD438

- B: 13,5 V
- C: 14,2 V
- E: 14,4 V

Pos.7708 BC847

- B: 0,0 V
- C: 10 V
- E: GND

Pos.7709 BC847

- B: 0,0 V
- C: 5,0 V
- E: GND

Pos.7710 BC857

- B: 14 V
- C: 10,2 V
- E: 14,4 V

Pos.7711 BC857

- B: 13,8 V
- C: 14,4 V
- E: 14,5 V

Pos.7712 BC847

- B: 0,9 V
- C: 0,3 V (ON) / 14,4 V (OFF)
- E: GND

Pos.7713 BC847

- B: 0,8 V
- C: 0,2 V
- E: GND

Pos.7714 BC847

- B: 0,1 V (ON) / 0,6 V (OFF)
- C: 0,8 V (ON)
- E: GND

Pos.7716 BC847B

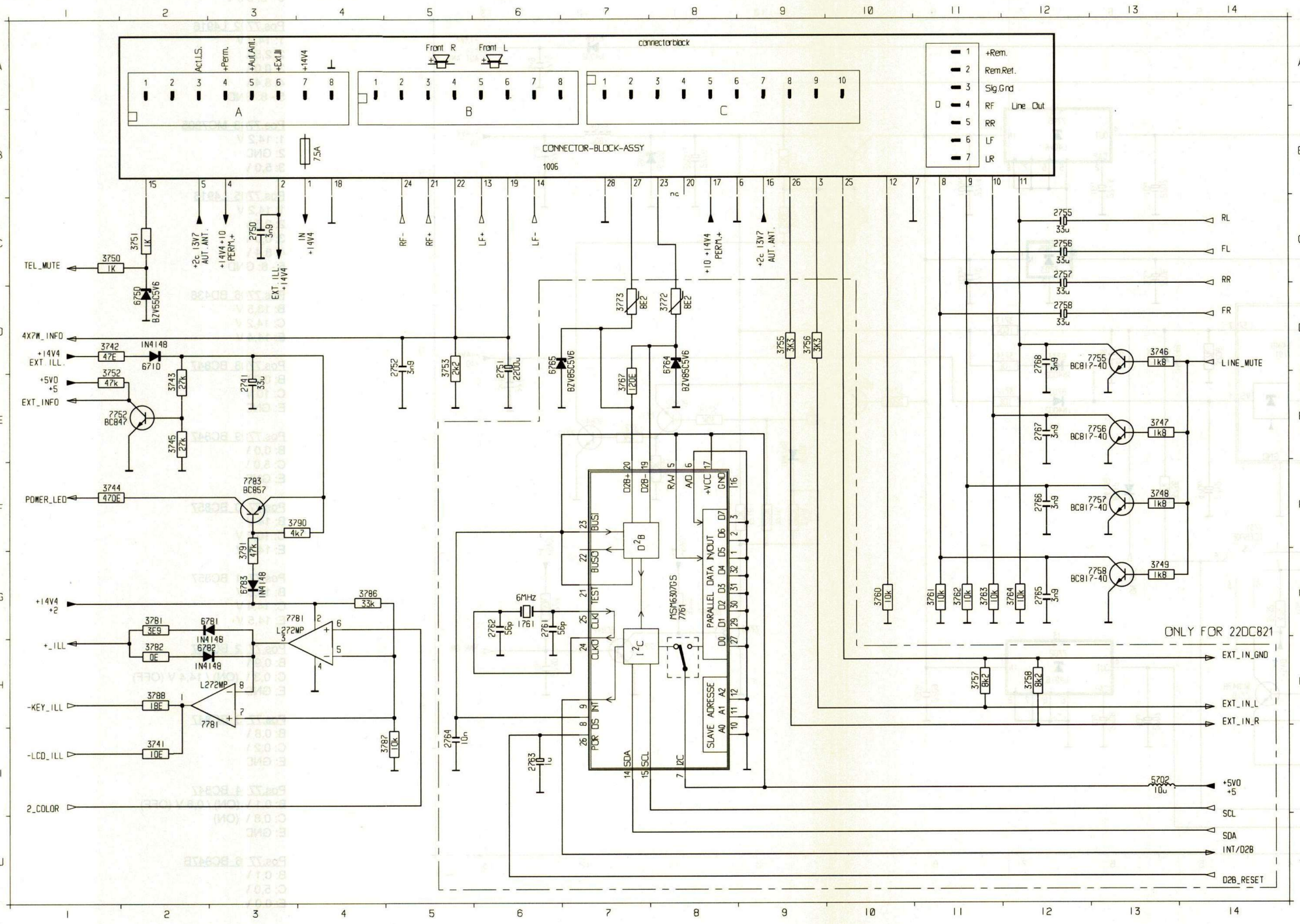
- B: 0,1 V
- C: 5,0 V
- E: 0,0 V

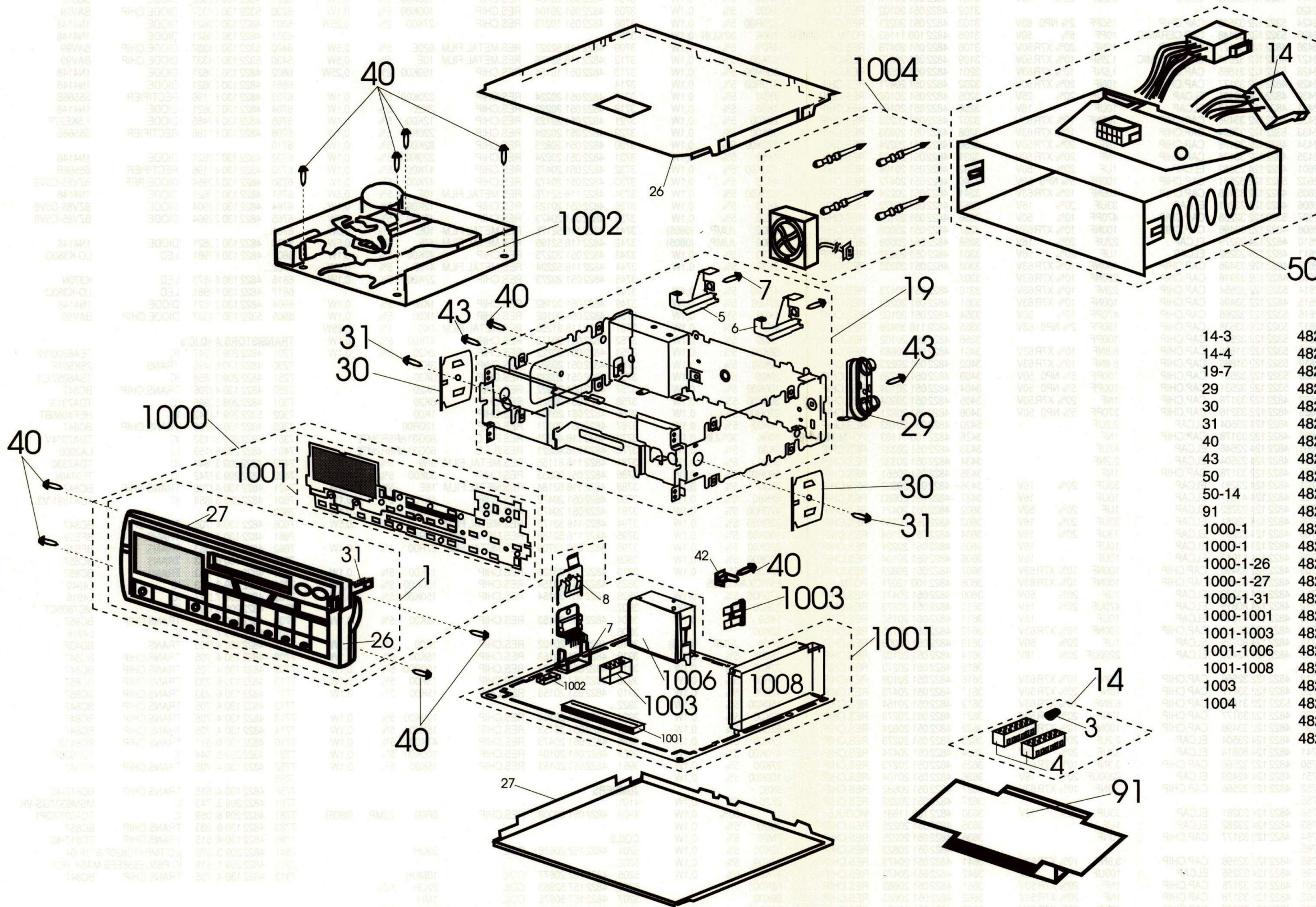
Pos.7731 TCFS00F

- 1: 5,0 V }
- 2: 5,0 V }
- 3: 0,1 V } NORMAL OPERATION
- 4: 0,1 V }
- 5: 5,0 V }

1006	B 6	2755	C12	2763	I 6	3741	I 2	3747	E13	3753	D 5	3761	G11	3773	D 7	3790	F 4	6765	D 6	7756	E13	7783	F 3
1761	G 6	2756	C12	2764	I 5	3742	D 1	3748	F13	3755	D 9	3762	G11	3781	G 2	3791	F 3	6781	G 3	7757	F13		
2741	E 3	2757	C12	2765	G12	3743	E 2	3749	G13	3756	D 9	3763	G11	3782	H 2	5702	I13	6782	H 2	7758	G13		
2750	C 3	2758	D12	2766	F12	3744	F 1	3750	C 1	3757	H11	3764	G12	3786	G 4	6710	D 2	6783	G 3	7761	G 8		
2751	D 6	2761	G 6	2767	E12	3745	E 2	3751	C 2	3758	H12	3767	E 7	3787	I 5	6750	D 2	7752	E 2	7781	G 4		
2752	D 5	2762	G 6	2768	D12	3746	D13	3752	E 1	3760	G10	3772	D 8	3788	H 2	6764	D 8	7755	D13	7781	H 3		

- Pos. 7752 BC847**
B: 0,7 V (OFF) / 0,8 V (ON)
C: 0,0 V (OFF) / 0,1 V (ON)
E: GND
- Pos. 7755 BC817-40**
B: 0,0 V / 0,5 V (LINE MUTE)
C: 0,1 V
E: GND
- Pos. 7756 BC817-40**
B: 0,0 V / 0,5 V (LINE MUTE)
C: 0,1 V
E: GND
- Pos. 7757 BC817-40**
B: 0,0 V / 0,5 V (LINE MUTE)
C: 0,1 V
E: GND
- Pos. 7758 BC817-40**
B: 0,0 V / 0,5 V (LINE MUTE)
C: 0,1 V
E: GND
- Pos. 7781 L272 MP**
1: 1,0 V (RED DISPLAY) / 13,3 V (GREEN DISPLAY)
2: 14,2 V
3: 13,3 V (RED) / 1,0 V (GREEN)
4: GND
5: 3,4 V
6: 5,1 V (RED) / 0,1 V (GREEN)
7: 3,4 V
8: 13,3 V (RED) / 1,0 V (GREEN)
- Pos. 7783 BC857**
B: 12 V (OFF) / 13,9 V (ON)
C: 12,3 V (OFF) / 0,0 V (ON)
E: 12,8 V (OFF) / 13,9 V (ON)





14-3	4822	532	11092	BUFFER MOUNTING
14-4	4822	267	41036	CONNECTOR MOUNTING 6P
19-7	4822	502	11715	SCREW M2,5X5
29	4822	268	20224	AERIAL SOCKET
30	4822	404	21234	SPRING FIXATION
31	4822	502	12866	SCREW M3X5
40	4822	502	11715	SCREW M2,5X5
43	4822	502	12796	SCREW M2,5X12
50	4822	691	10414	SLEEVE RETRAC
50-14	4822	321	61534	CABLE,CONNECT.POWER
91	4822	015	20646	DCC CLEANING CASS.SBC3500
1000-1	4822	459	50818	ORN.PLATE ASSY DC811
1000-1	4822	701	13894	ORN.PLATE ASSY DC821
1000-1-26	4822	498	40585	RETRAC HANDLE
1000-1-27	4822	464	70588	FRAME COVER
1000-1-31	4822	492	71083	SPRING FOR HANDLE
1000-1001	4822	214	52171	FRONT PWB COMBINATION
1001-1003	4822	267	51329	CONNECTOR 12P
1001-1006	4822	290	61114	CONNECTORBLOCK ASSY
1001-1008	4822	210	10589	FM MODUL
1003	4822	071	27502	FUSE 7.5A
1004	4822	515	20135	COOLING FAN ASSY
	4822	736	21941	DIRECT. FOR USE DC811
	4822	736	22038	DIRECT. FOR USE DC821

MISCELLANEOUS

Table with columns: Part Number, Description, Value/Unit, and Remarks. Rows include various capacitor and resistor types like CRYSTAL, CERAM FILTER, and RESONATOR.

CAPACITORS

Table listing various capacitor types such as ELCAP, CAP.CHIP, and CAP.CERAMIC with their respective values and tolerances.

Main table listing electronic components with columns: Part Number, Description, Value, Tolerance, and Remarks. Includes rows for CAP.CHIP, ELCAP, and various resistor values.

Main table listing electronic components with columns: Part Number, Description, Value, Tolerance, and Remarks. Includes rows for RESISTORS and various resistor values.

Main table listing electronic components with columns: Part Number, Description, Value, Tolerance, and Remarks. Includes rows for RESISTORS, JUMPERS, and COILS.

Main table listing electronic components with columns: Part Number, Description, Value, Tolerance, and Remarks. Includes rows for DIODES and TRANSISTORS AND IC's.