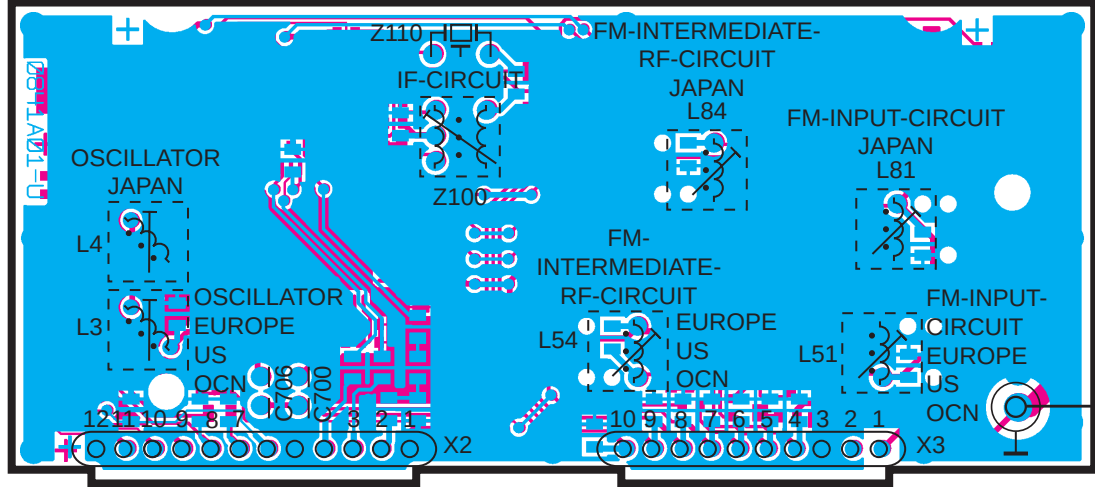


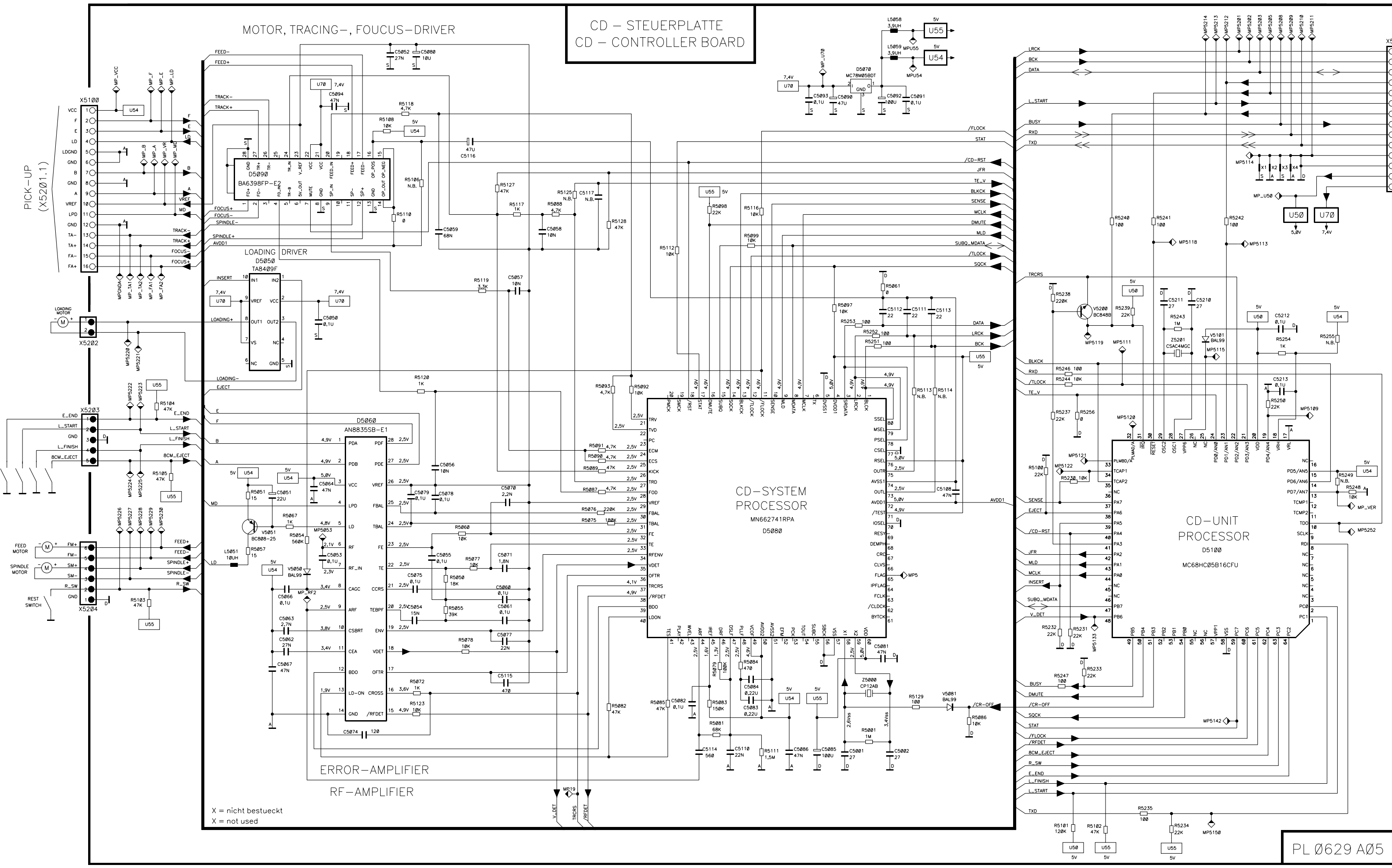
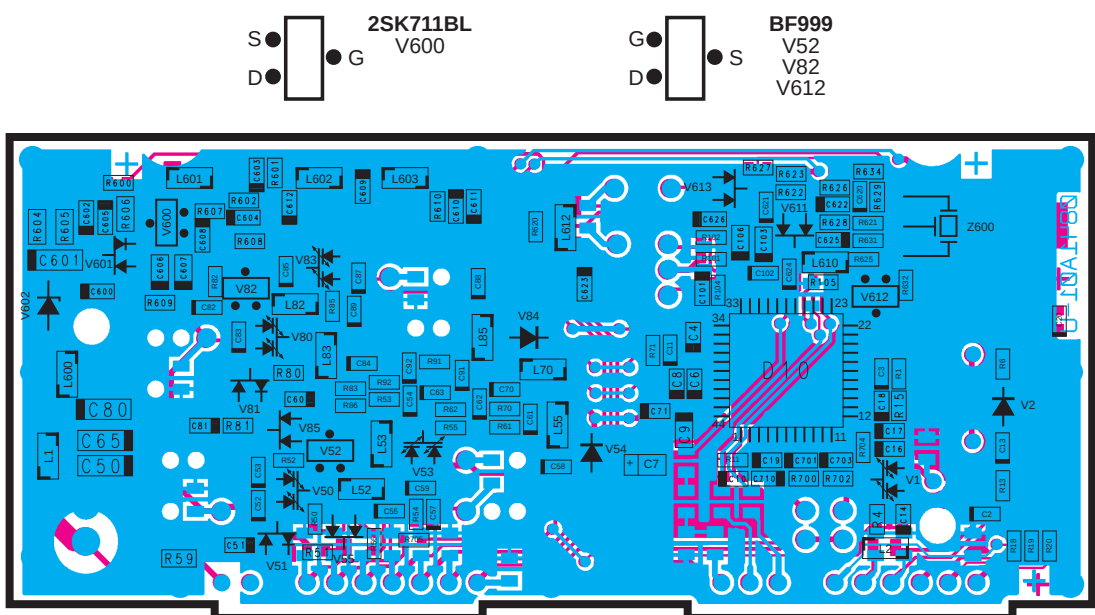
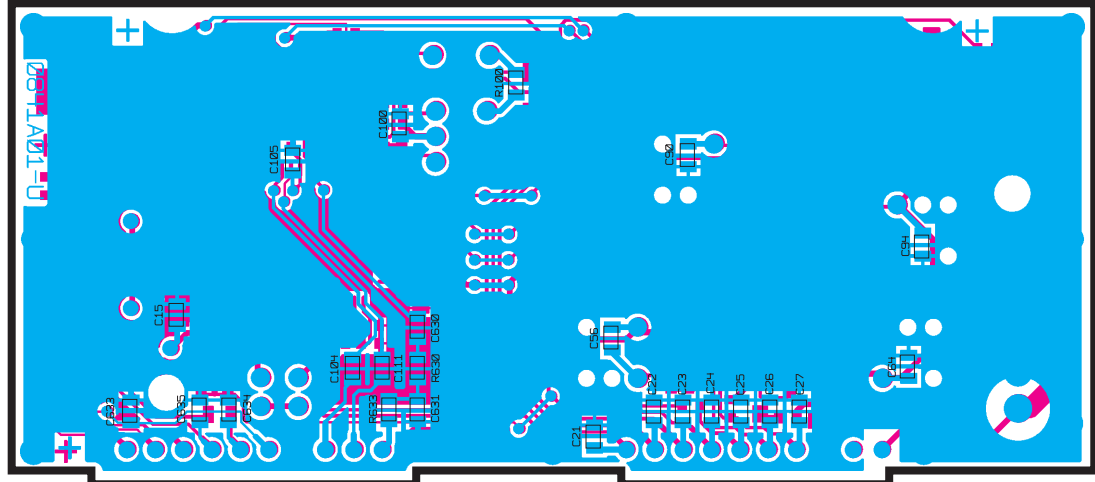


X2 (X11)

1 = GND	7 = U81 (8,5V)
2 = IF-OUT-DIVERSITY	8 = TUNER-OSZ
3 = IF-OUT+	9 = CS-D10
4 = IF-OUT-	10 = SI-2IC
5 = GND	11 = CLK-2IC
6 = F-REF	12 = SO-2IC

X3 (X10)

1 = ANT	6 = 4U
2 = NC	7 = U83 (8,4V)
3 = GND	8 = U82 (8,4V)
4 = U-JP(0V/8,2V)	9 = U81 (8,5V)
5 = U-EU(8,2V/0V)	10 = U-PLL (9,7V)

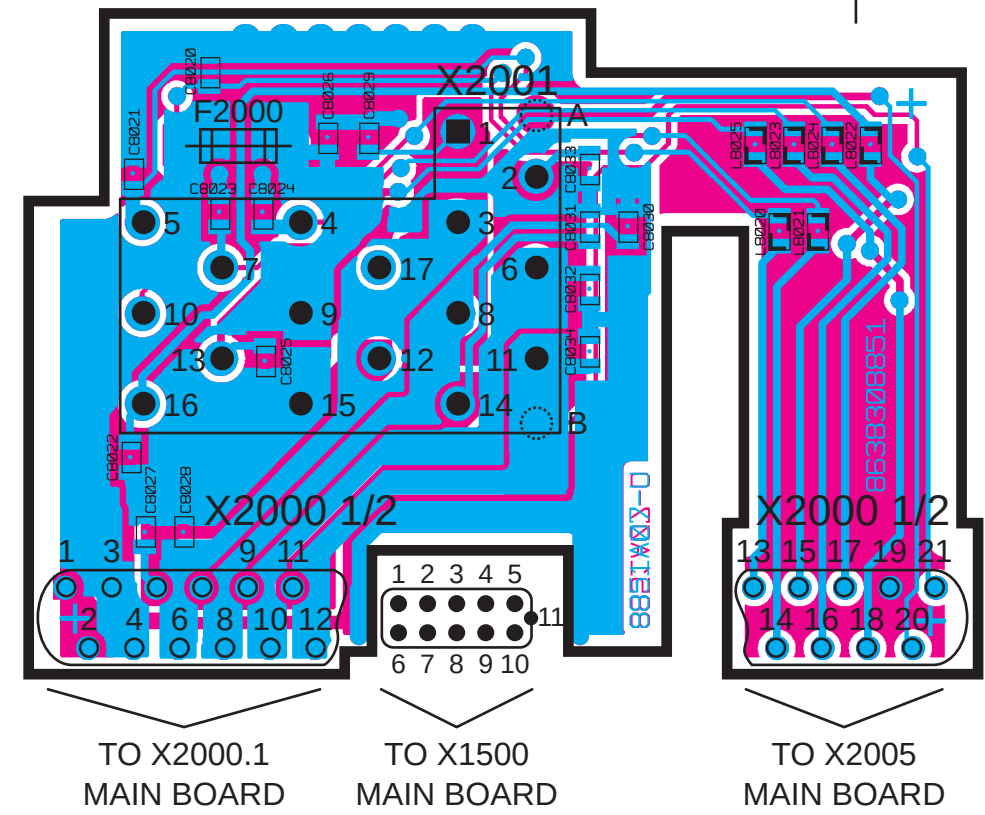
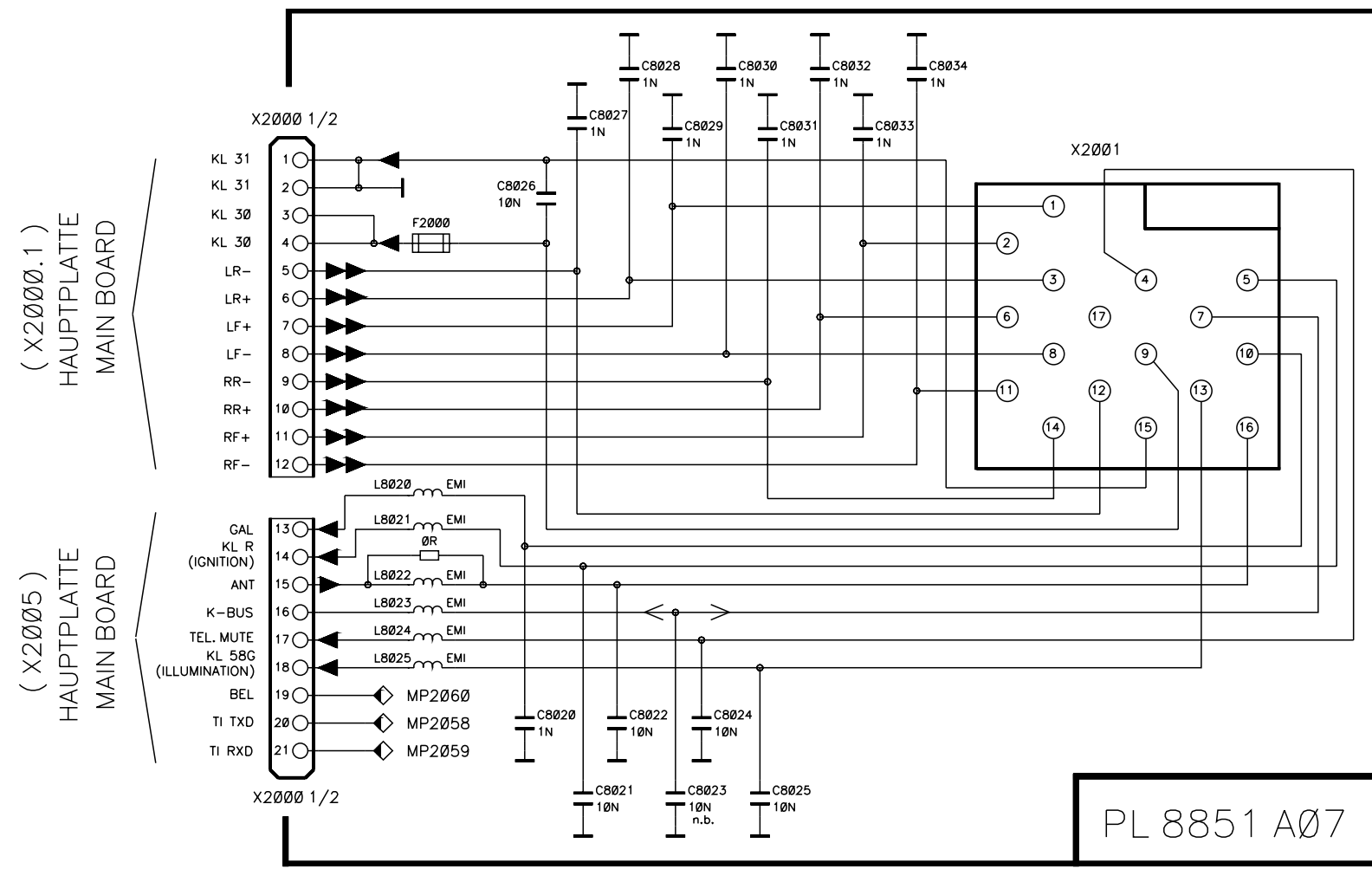
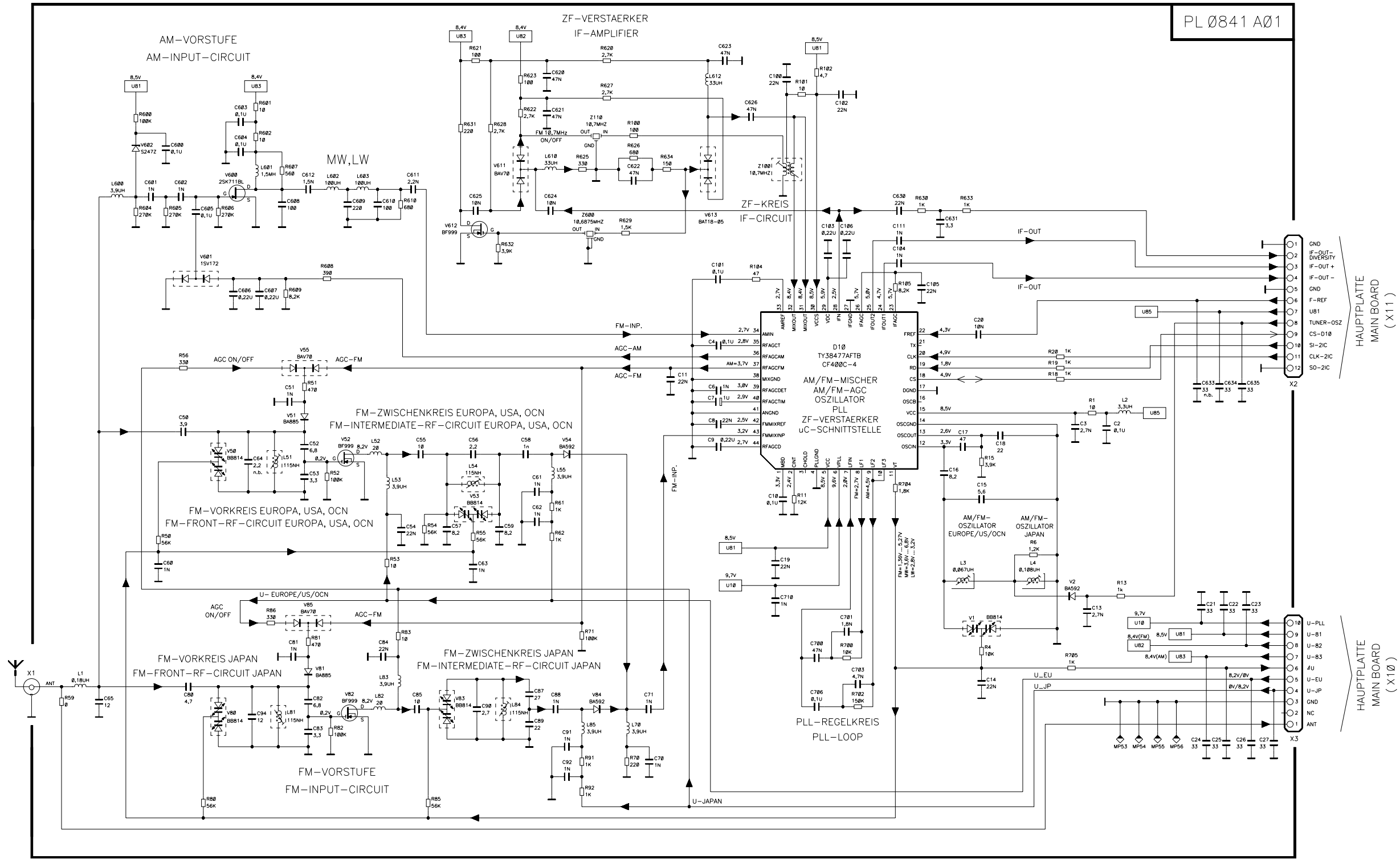
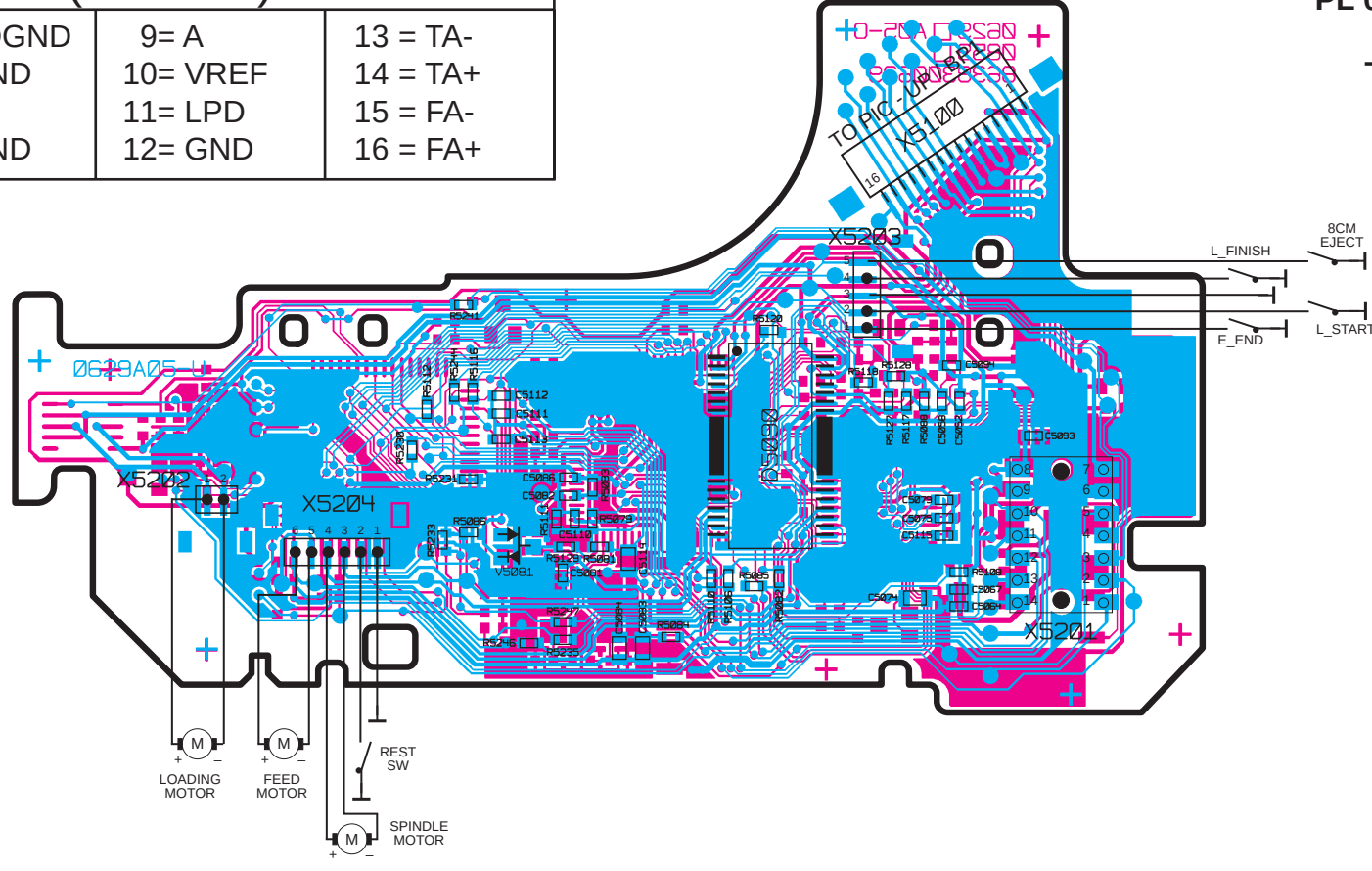
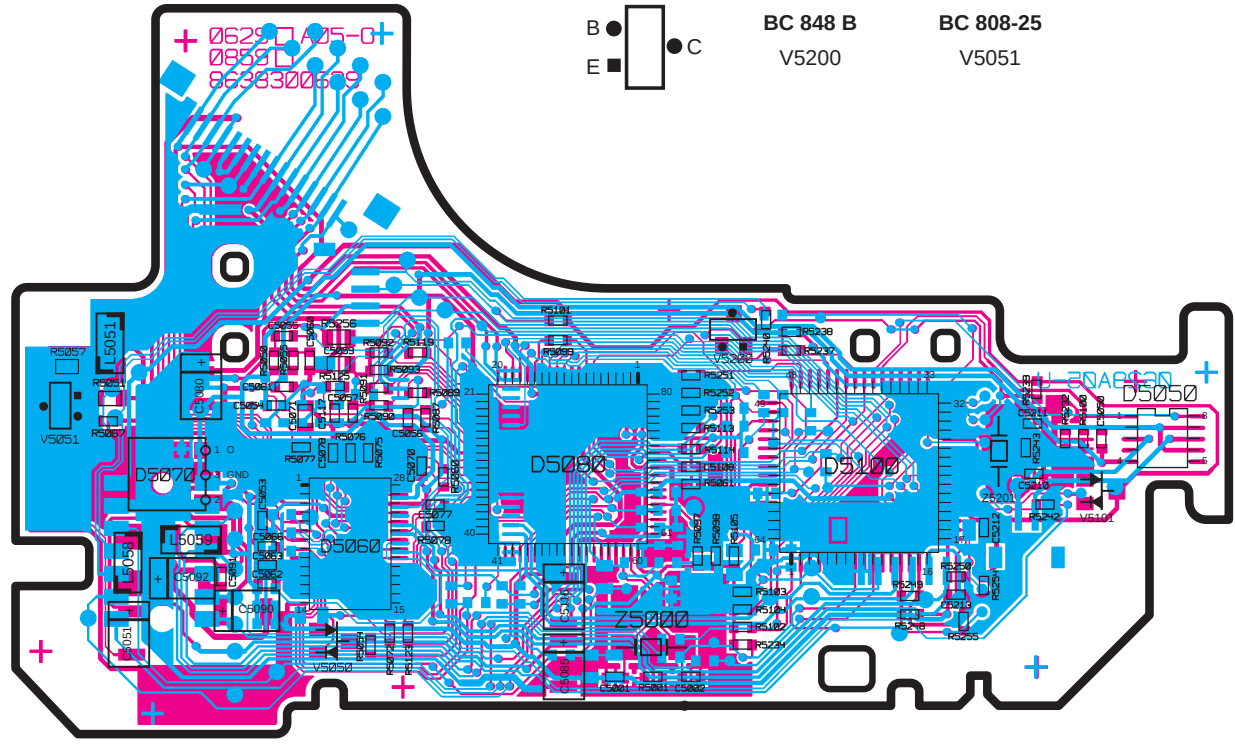


X5100 (X5201.1)

1 = VCC	5 = LDGND	9 = A	13 = TA-
2 = F	6 = GND	10 = VREF	14 = TA+
3 = E	7 = B	11 = LPD	15 = FA-
4 = LD	8 = GND	12 = GND	16 = FA+

X5201 (X5000)

1 = BCK	5 = CD-RESET
2 = LRCK	6 = L-START
3 = DATA	7 = WAKE-UP
4 = POWER DOWN	8 = BUSY
5 = CD-RESET	9 = RXD
6 = L-START	10 = TXD
7 = WAKE-UP	11 = GND
8 = BUSY	12 = GND
9 = RXD	13 = U50 (5,0V)
10 = TXD	14 = U7 (7,4V)



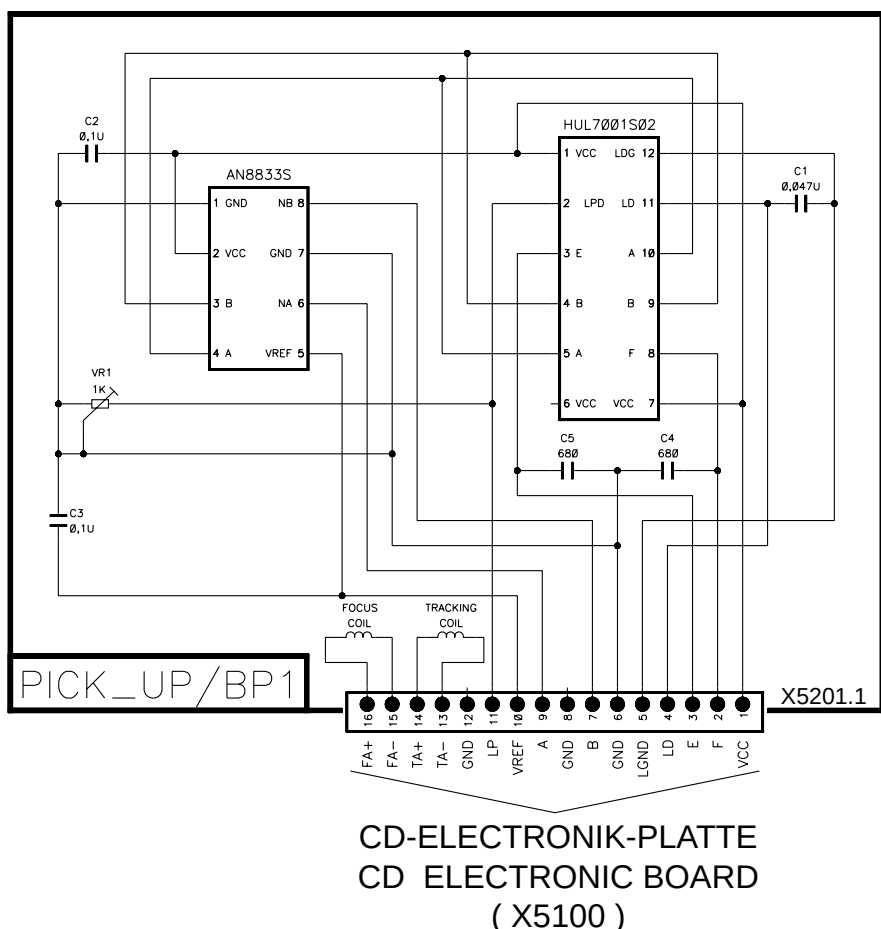
X1500

1 = AUX L +
2 = AUX R +
3 + 6 = GND
7 + 11 = GND

X2001

1 = LF+
2 = RF+
3 = LR+
4 = TEL-MUTE
5 = KL-R (IGNITION14,4V)
6 = RR+
7 = K-BUS
8 = LF-
9 = KL30 / 14,4V
10 = GAL
11 = RF-
12 = LR-
13 = KL58G (ILLUMINATION)
14 = RR-
15 = KL31 / GND
16 = ANT 14,2 V

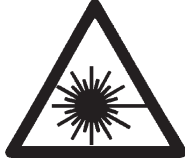
X2000 1/2	X2000.1	X2001
1 + 2 = KL31 - GND	1 + 2	15
3 + 4 = KL30 - 14,4V	3 + 4	9
5 = LR-	5	12
6 = LR+	6	3
7 = LF+	7	1
8 = LF-	8	8
9 = RR-	9	14
10 = RR+	10	6
11 = RF+	11	2
12 = RF-	12	11
X2000 1/2	X2005	
13 = GAL	1	10
14 = KL-R (IGNITION14,4V)	2	5
15 = ANT 14,2V	3	16
16 = K-BUS	4	7
17 = TEL-MUTE (ILLUMINATION)	5	4
18 = KL58G	6	13
20 = MAUS-BUS TXD	8	A
21 = MAUS-BUS RXD	9	B



BLAUPUNKT AUTORADIO **BMW CD43 DIN PLUS**
7 649 272 042
BMW CD43 E46 PLUS
7 649 272 040
BMW CD43 E39 PLUS
7 649 272 044
8 622 401 923 BN/ST 1/99

Schaltbild • Circuit diagram

CLASS 1 LASER PRODUCT



**UNSICHTBARE LASERSTRAHLUNG
NICHT DEM STRAHL AUSSETZEN
LASERKLASSE 3B**

VORSICHT!
Das Gerät beinhaltet eine Laserkomponente!
Im Servicefall nachfolgende Hinweise beachten:

- Das Gerät arbeitet mit unsichtbarem Laserstrahl. Bei geöffnetem Gerät tritt im Bereich des Plattentisches Laserstrahlung aus.
- Nicht in den Strahl blicken.
- Unbeteiligte Personen vom Arbeitsplatz fernhalten.
- Der Betrachtungsabstand darf 13cm nicht unterschreiten. Kann dies nicht eingehalten werden, muß eine geeignete Laserschutzbrille getragen werden.

CAUTION!
This unit contains a laser component!
For service observe the following important instructions:

- The unit operates with an invisible laser beam. When the cover is removed, near the disc compartment, invisible laser beams are apparent.
- Avoid direct eye contact with these beams.
- Keep other people away from the working place.
- The viewing distance should not be less than 13cm. If this distance cannot be ensured, use suitable laser safety goggles.

ACHTUNG:
Bei Arbeiten an den unter Spannung stehenden und nicht mit entsprechenden Filtern oder Streuscheiben abgedeckten LED's, müssen nachfolgende Vorschriften beachtet werden:

- Reparaturen oder Funktionsprüfungen dürfen nur mit einer Schutzbrille erfolgen. Die zu verwendenden Sichtscheiben müssen einen UV- bzw. Sonnenschutzfilter haben (z.B. UVEX sportstyle 9186 088).
- Der Betrieb mit höheren Strömen, auch kurzzeitig, ist nicht zulässig.
- Der Blickwinkel zur Leiterplatte darf 60° nicht übersteigen.

Die Nichtbeachtung der Verarbeitungsvorschriften kann schwere Augenschädigungen zur Folge haben!

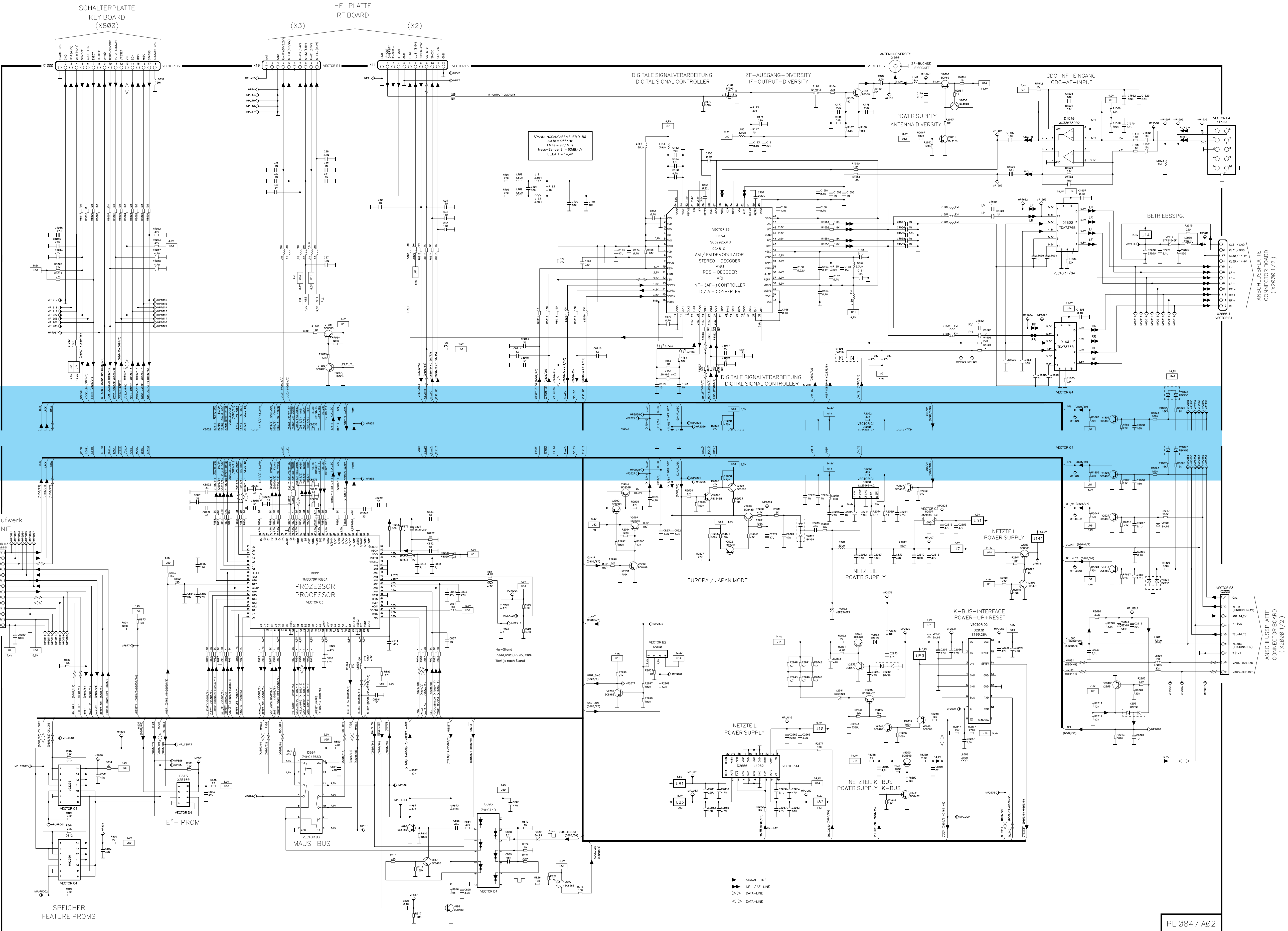
ATTENTION:
For the process of handling the LEDs when they are supplied with their operating voltage and not covered by their respective filters or diffuser screens, the following instructions have to be observed:

- Repairs and function checks may be carried out with protection glasses only. The used glass material must have a UV- or sun ray protection filter (e.g. UVEX sportstyle 9186 088).
- The operation with higher currents, also for short duration, is not permitted.
- The viewing angle towards the circuit board may not exceed 60°.

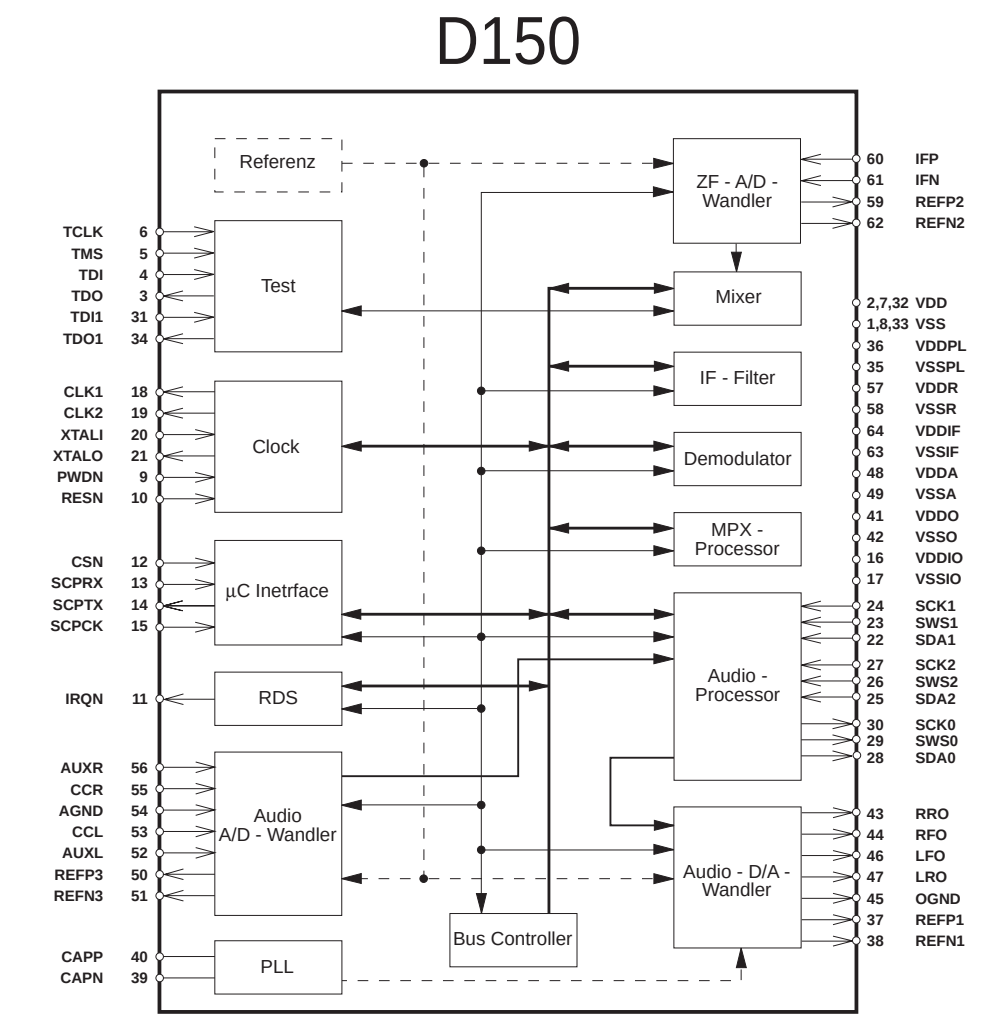
In the case of non-observance of the instructions serious damage to the eyes may result.

Prüfdiagnose Tuner IC (D1)						
Pin	Band	Frequenz	E'	Uss	Vemerke	Notice
24-25 (ZF-OUT)	FM	97.1 MHz	83 dBµV	650 mVss	jeweils gegen Masse	respective against GND
28	FM	97.1 MHz	80 dBµV	25 mVss		
31+32	FM	97.1 MHz	80 dBµV	200 mVss	jeweils gegen Masse	respective against GND
31+32	AM	900 kHz	80 dBµV	200 mVss	jeweils gegen Masse	respective against GND
34 (AM-IN)	AM	900 kHz	80 dBµV			
36	AM	900 kHz	ab 75 dBµV	50 mVss	künstliche Antenne aus	not commutated
37	FM	97.1 MHz	ab 80 dBµV			
43 (FM-IN)	FM	97.1 MHz	94 dBµV	5 mVss		

Pin-Belegung des FM/AM Tuner-IC D1 Tuner IC D1 Pin configuration				
Pin No.	I/O	Name	Funktion	Function
1	-	MXDEC	Mischer Entkopplung für PLL	Mixer decoupling for PLL
2	-	CHOLD	Stop PLL	Stop PLL
3	-			
4	-	PLLGND	PLL- Masse	PLL Ground
5	-	VCC	PLL Versorgung	PLL supply voltage
6	-	VPLL	PLL Überspannung	PLL overvoltage
7	I	LFINP	Schleifenfiltereingang	PLL loop filter input
8	O	LF2	Schleifenfilter 2	PLL loop filter Output 1
9				
10	O	LF3	Schleifenfilter 3	PLL loop filter Output 3
11	I	VTUNE	Abstimmungsspannung	Tuning voltage
12	I	OSCINP	Oszillator Eingang	Oscillator input
13	O	OSCOUT	Oszillator Ausgang	Oscillator Output
14	-	OSCGND	Oszillator Masse	Oscillator Ground
15	O	VCC	8.5V	8.5V
16	O	OSCIBS	Oszillatorbuffer Output	Oscillator Buffer Output
17	I	DGND	Digitale Masse	Digital Ground
18	I	CS	Chip Select	Chip Select
19	I	RD	Dateneingang	DATA IN
20	I	CLK	Clock	Clock
21	O	TX	Datenausgang	DATA OUT
22	I	REFREQ	Referenzfrequenz	Reference frequency
23	-	IFAGC2	ZF Regelspannung 2	IF AGC 2
24	O	IFOUT1	ZF - Ausgang 1	IF output 1
25	O	IFOUT2	ZF - Ausgang 2	IF output 2
26	-	IFAGC1	ZF Regelspannung 1	IF AGC 1
27	-	IFGND	ZF Masse	IF Ground
28	I	IFIN	ZF Eingang	IF input
29	-	VDC	Interne Referenzspannung	Internal reference voltage
30	-	VCC	8.5V	8.5V
31	O	MIXOUT2	Mischerausgang 2	Mixer Output 2
32	O	MIXOUT1	Mischerausgang 1	Mixer Output 1
33	-	AMREF	AM - Referenzeingang	AM reference input
34	I	AMMAXIN	AM Mischereingang	AM Mixer input
35	-	RFAGC3	HF Regelspannung (aufregend)	RF AGC 3
36	O	RFAGC4AM	HF Steuerspannung Vorstufe AM	HF Steuerspannung Vorstufe AM
37	O	RFAGCFM	HF Steuerspannung Vorstufe FM	HF Steuerspannung Vorstufe FM
38	-	MIXGND	Mischer Masse	Mixer Ground
39	-	RFAGC2	HF Regelspannung (Destor)	RF AGC 2
40	-	RFAGC1	HF Regelspannung (abregend)	RF AGC 1
41	-	ANGND	Analog Masse	Analog ground
42	-	FMMIXREF	Referenzspannung FM Mischer	Reference voltage FM mixer
43	I	FMMIXINP	FM Mischer Eingang	FM mixer input
44	-	RFAGC2D	AGC-Entkopplung	AGC decoupling

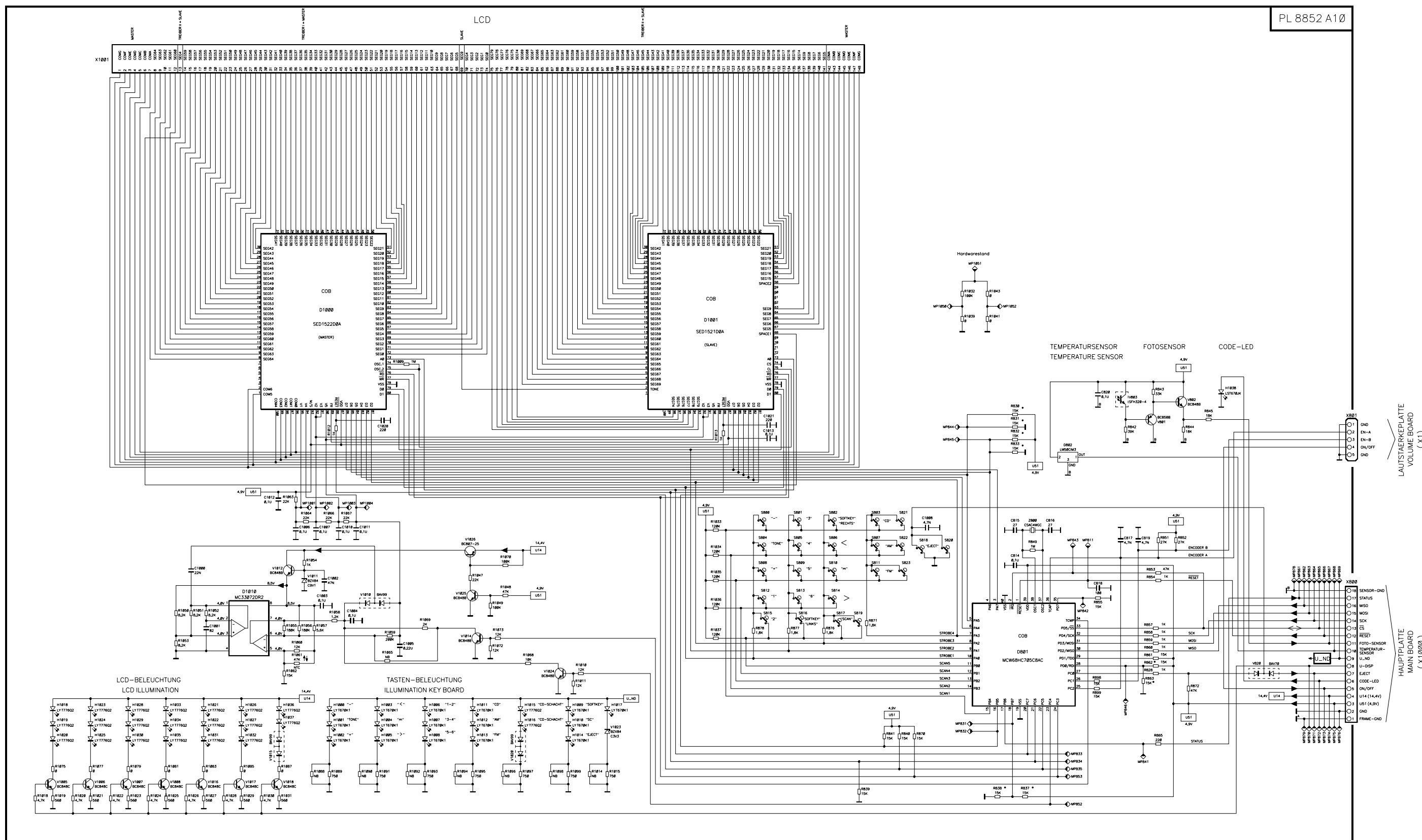


Pin-Belegung des IC D150 Digital IC D150 Pin Configuration				
Pin No.	I/O	Name	Funktion	Function
1	-	VSS	Masse	Ground
2	-	VDD	5 V	5 V
4	I	TDI	Testdateneingang	Test Data Input
5	I	TMS	Test Mode	Testmode
6	I	TCLK	Test Clock	Testclock
7	-	VDD	5 V	5 V
8	-	VSS	Masse	Ground
9	-	PWON	Power down Zustand	Power down Mode
10	I	RESN	Reset	Hardware reset (active LOW)
11	O	IRQN	RDS Alarm/SLIS	RDS alarm/search stop
12	I	CSN	Chip select Eingang	Chip select µC interface
13	I	SCRFX	Serielle Daten µC Interface	Serial data µC interface IN
14	O	SCRFX	Serielle Daten µC Interface	Serial data µC interface OUT
15	I	SPCKC	Clock µC Interface	Clock µC interface
16	-	OSCGND	Phosphorspannung Digitale Ein-Ausgänge	Voltage for digital I/O
17	-	VSSIO	Masse Digitale Ein-Ausgänge	Ground for digital I/O
18	O	CKL1	Programmierbare Clock 1	Programmable clock 1
20	I	XTALO	28.5 MHz Oszillator	28.5 MHz Oscillator
21	O	XTALO	28.5 MHz Oszillator	Oscillator 28.5 MHz
31	I	TDI1	Testdateneingang 1	Test input 1
32	-	VDD	5 V	5 V
33	-	VSS	Masse	Ground
35	-	VSSPLL	Masse (Minus) PLL	Ground (minus) PLL
36	-	VDDPLL	Plus PLL 5V	PLL 5V (pos.)
37	O	REFP1	Audio DIA-Wandler Positive Referenz	Audio DIA converter (pos. reference)
38	O	REFN1	Audio DIA-Wandler Negative Referenz	Audio DIA converter (neg. reference)
39	-	CAPN	PLL Kapazität (negativ)	PLL capacity (neg.)
40	-	CAPP	PLL Kapazität (positiv)	PLL capacity (pos.)
41	-	VDDO	Audio DIA - Wandler 5V	Audio DIA converter (+5V)
42	-	VSSO	Audio DIA - Wandler Masse	Audio DIA converter (ground)
44	O	RFO	Audio Rechts (analog)	Analogic audio right
45	O	GOAD	Masse Analogisorgänge	Ground
46	-	LFO	Audio Links (analog)	Analogic audio left
48	-	VDDA	5V AD - Wandler	5V AD - converter
49	-	VSSA	Masse AD - Wandler	Ground AD - converter
50	O	REFP3	Audio DIA-Wandler Positive Referenz	Audio DIA converter (pos. reference)
51	O	REFN3	Audio DIA-Wandler Negative Referenz	Audio DIA converter (neg. reference)
52	I	AUXL	Externen Eingang links	Auxiliary left
53	I	CCL	Cassette Eingang links	Cassette input left
54	-	AGND	Ground für Audio Inputs	Ground for Audio inputs
55	I	CCR	Cassette Eingang rechts	Cassette input right
56	I	AURR	Externen Eingang rechts	Auxiliary left right
57	-	VDDR	5 V	5 V
58	-	VSSR	Masse	Ground
59	O	REFP2	Audio DIA-Wandler Positive Referenz	Audio DIA converter (pos. reference)
60	I	IFP	ZF Eingang (pos)	IF input (pos)
61	I	IFN	ZF Eingang (minus)	IF input (neg.)
62	O	REFN2	Audio DIA-Wandler Negative Referenz	Audio DIA converter (neg. reference)
63	-	VSSIF	ZF AD - Wandler (minus)	IF AD converter (-)
64	-	VDDIF	ZF AD - Wandler 5 V	IF AD converter (+5V)



PL 0847 A02

BMW - CD43 DIN PLUS

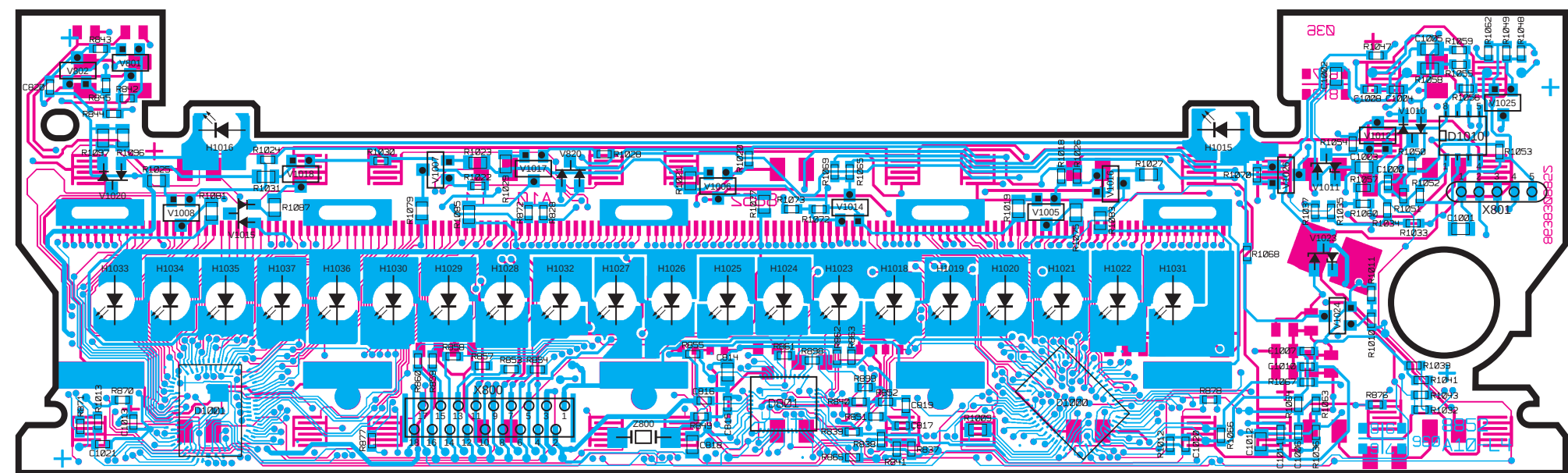


Schalterplatte
Key board
PL 8852 A10
Chip

BC 848 C	BC 848 B	BC 807-25
V1005 V1006 V1007 V1008 V1016 V1017 V1018	V802 V1014 V1024 V1025	V1026 BC 858 B V801

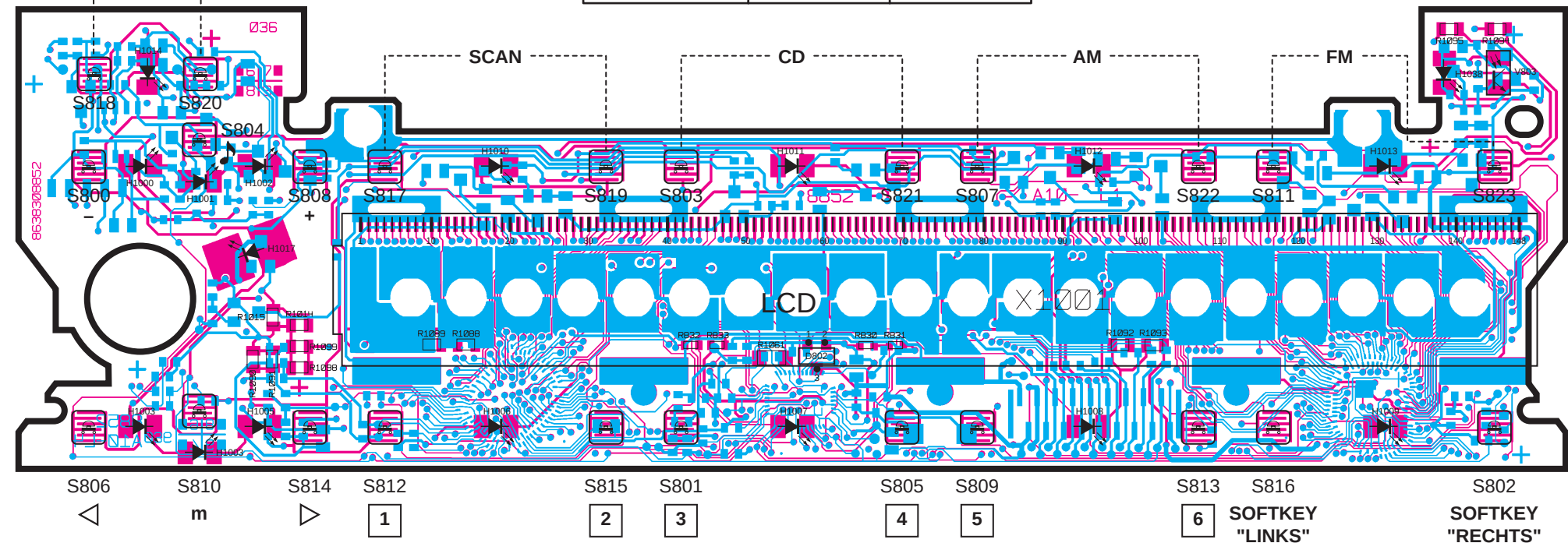
X800 (TO X1000)	
1 = FRAME-GND	10 = TEMP-SENSOR
2 = GND	11 = FOTO-SENSOR
3 = U51 (4,9V)	12 = RESET
4 = U14 (14,4V)	13 = CS
5 = ON / OFF	14 = SCK
6 = CODE-LED	15 = MOSI
7 = EJECT	16 = MISO
8 = U-DISP	17 = STATUS
9 = U-ND	18 = SENSOR-GND

X801 (TO X1)	
1 = GND	
2 = EN-A	
3 = EN-B	
4 = ON/OFF	
5 = GND	

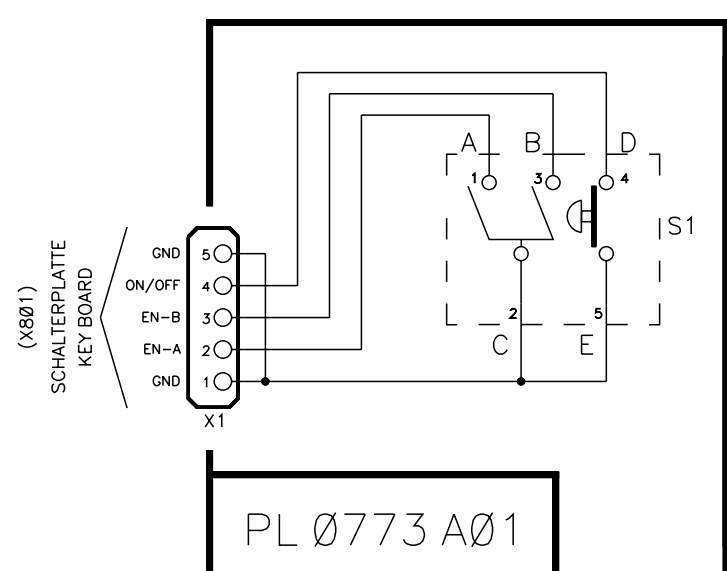


Schalterplatte
Key board
PL 8852 A10
Chip

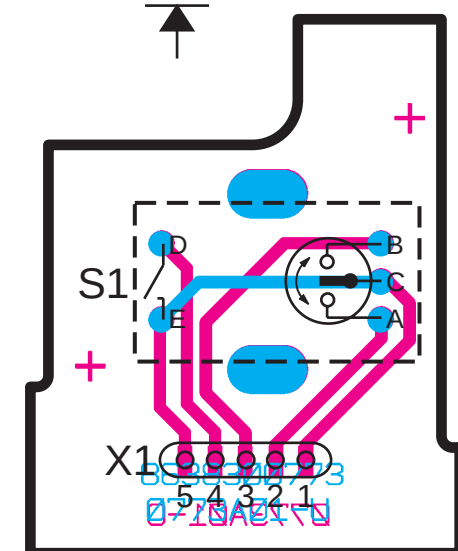
	SOFTKEY "LINKS"	SOFTKEY "RECHTS"
D	RDS	TP
CAN	RDS	PTY
US	RDS	PTY
JP	---	TRF
AUSTRALIA	RDS	MUTE



BMW-CD43 E46



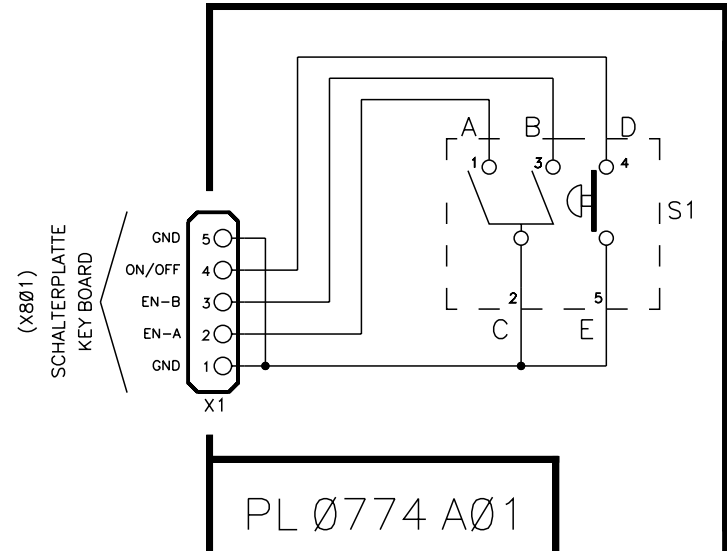
Inkrementen-Geber
Encoder board
PL 0773 A01



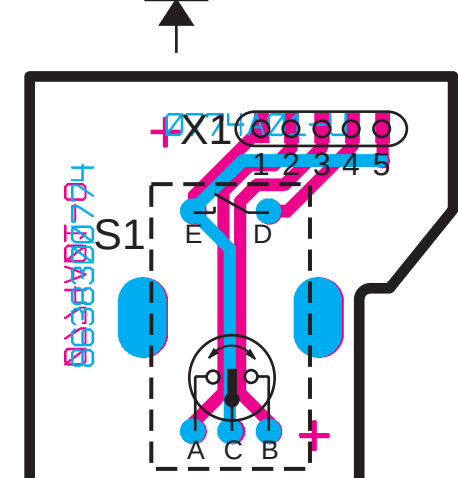
X1
(TO X801)

1 = GND
2 = EN-A
3 = EN-B
4 = ON/OFF
5 = GND

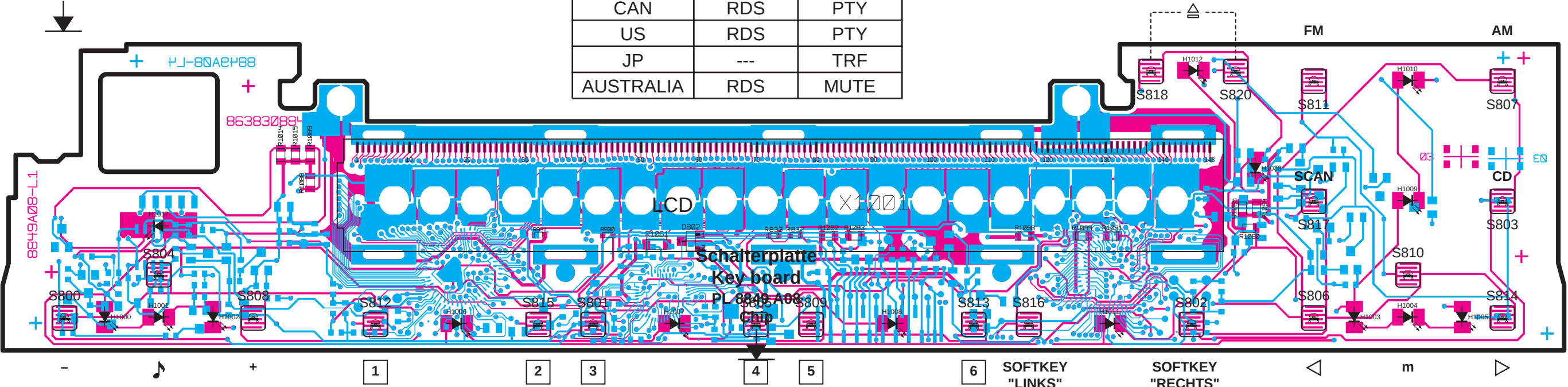
BMW-CD43 DIN



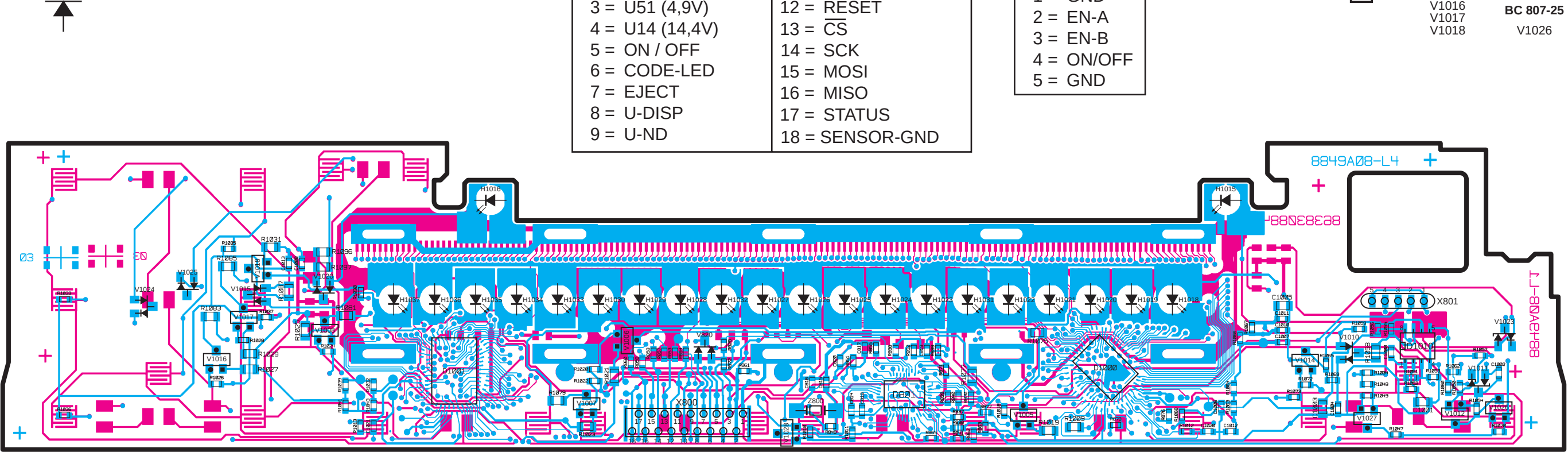
Inkrementen-Geber
Encoder board
PL 0774 A01



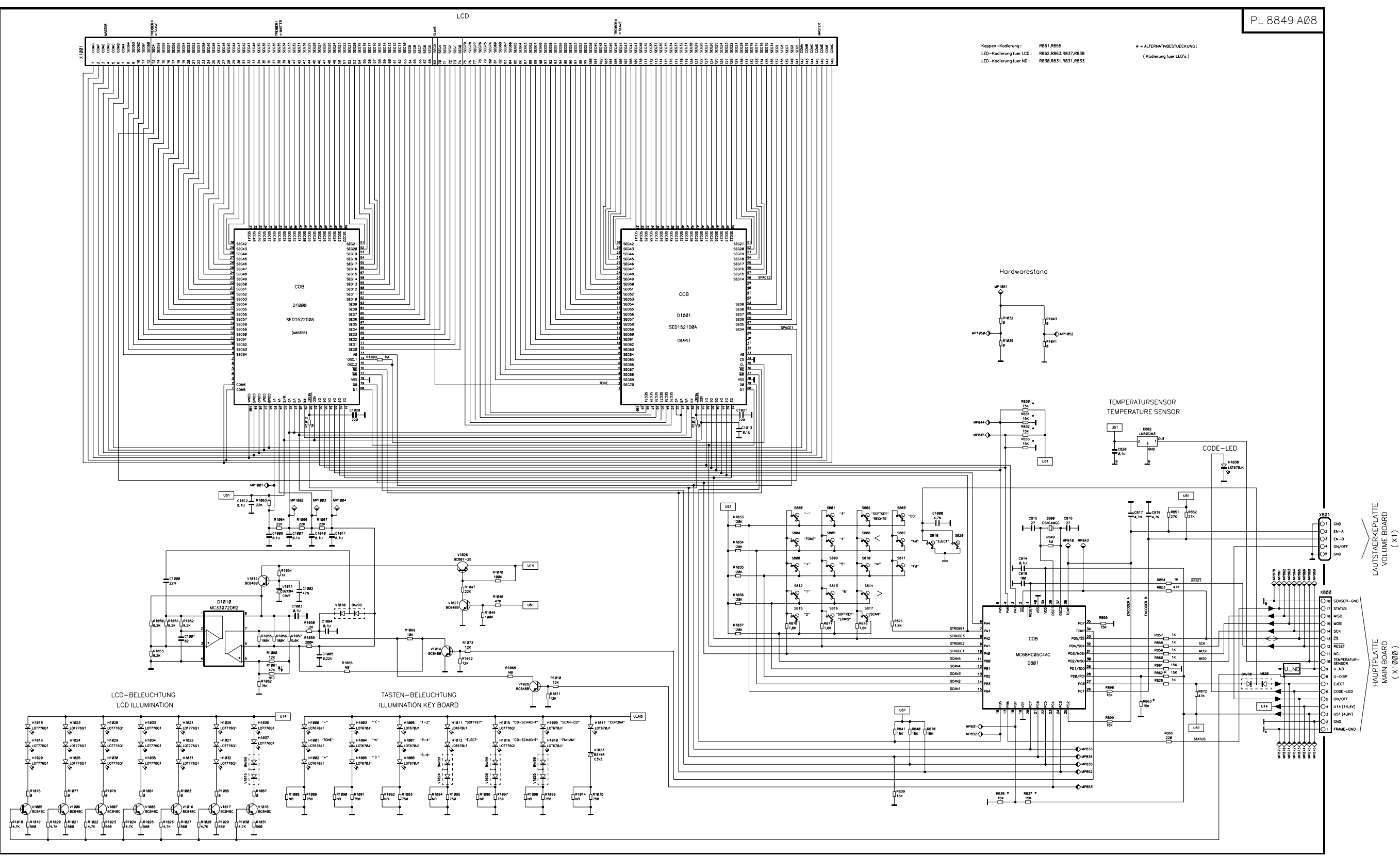
Schalterplatte
Key board
PL 8849 A08
Chip



Schalterplatte
Key board
PL 8849 A08
Chip

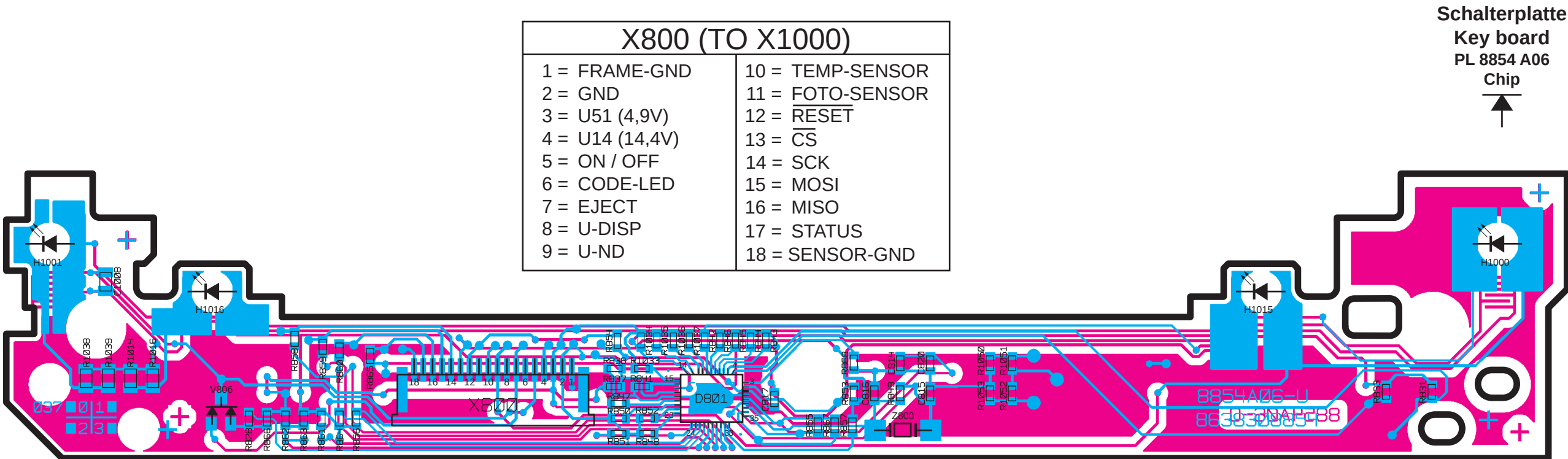
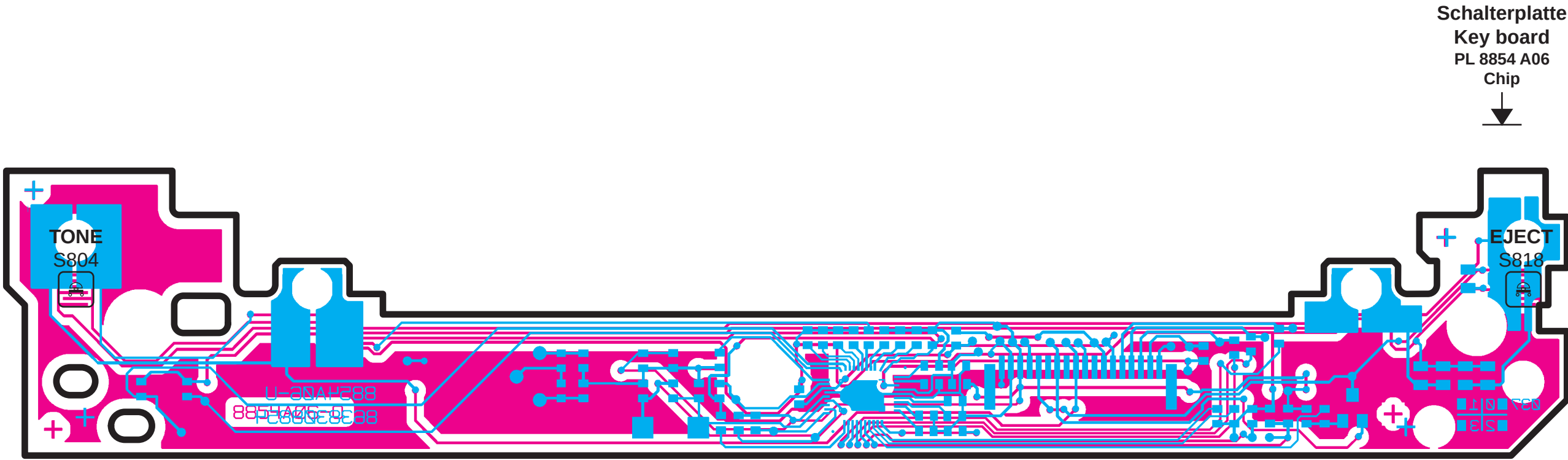


BMW-CD43 E46 PLUS



BMW CD43 DIN PLUS8 649 272 042
BMW CD43 E46 PLUS8 649 272 040
BMW CD43 E39 PLUS8 649 272 044

}8 622 401 923 BN/ST 01/99



BMW-CD43 E39 PLUS

