

Service Document **Exchange Set**

DISCALO CCD 6300

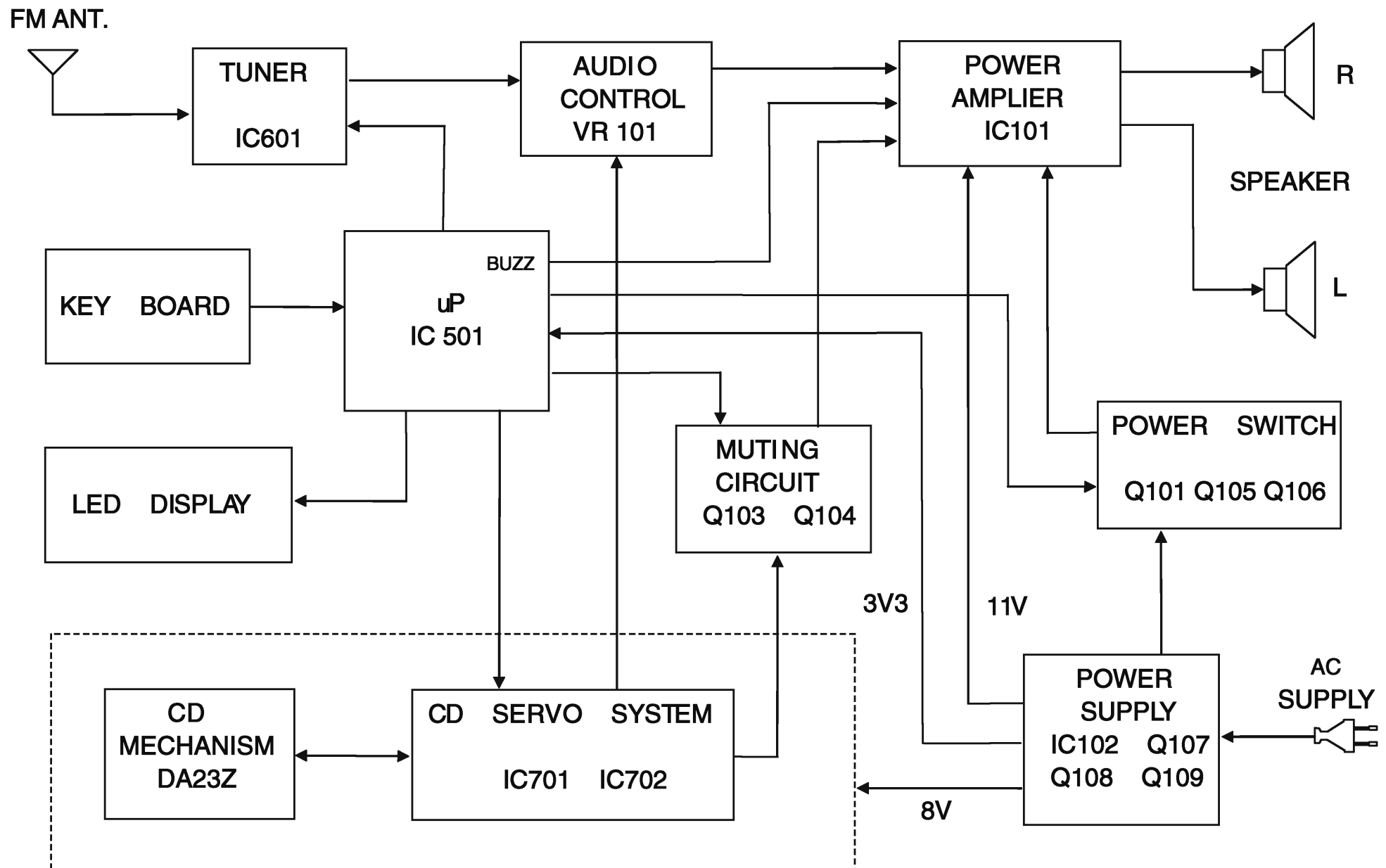
Service Manual
Sicherheit
Safety
Materialnr./Part No. 720108000000

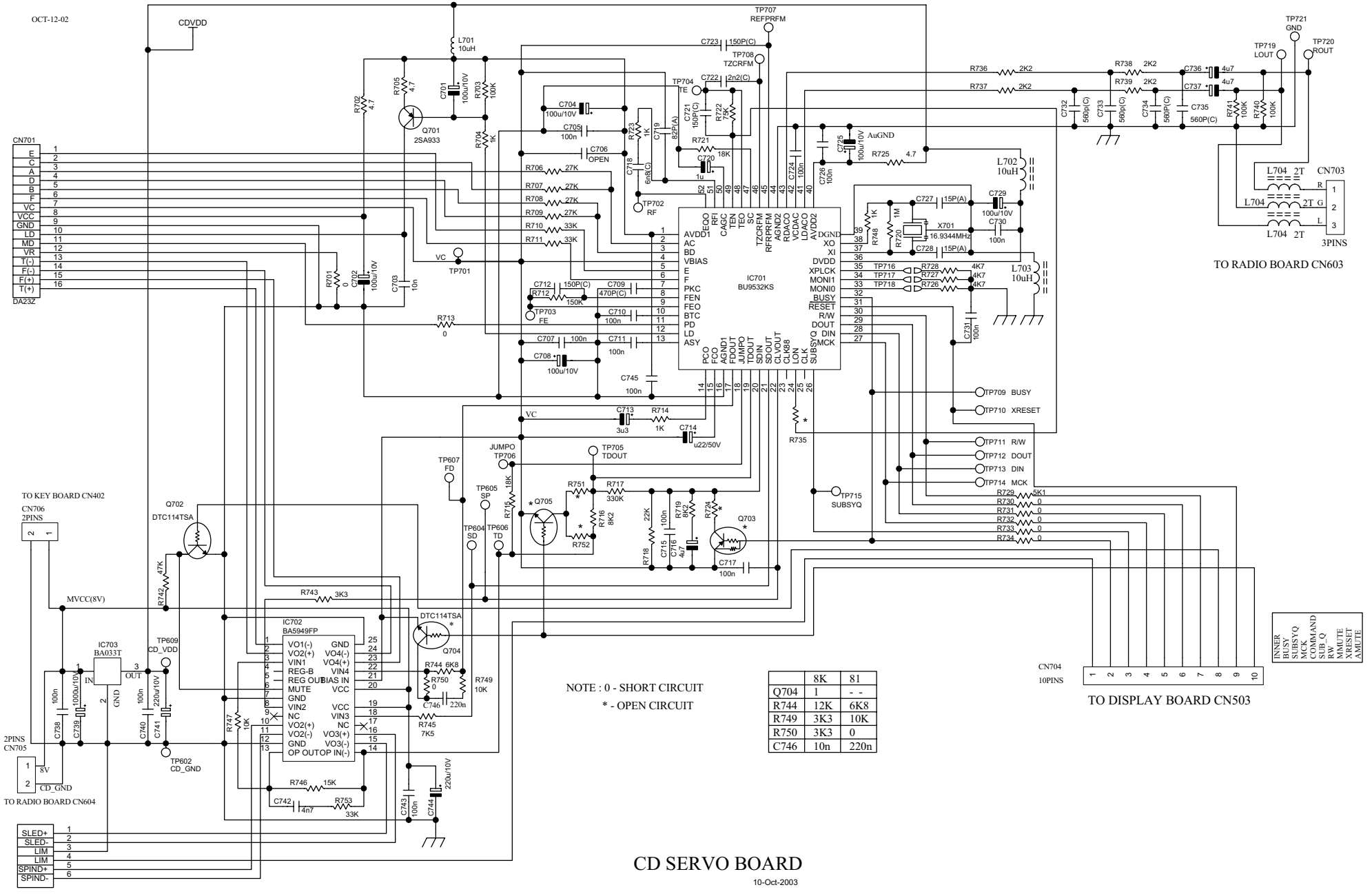


Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Materialnummer 720108000000, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!



The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 720108000000, as well as the respective national deviations.





NOTE : 0 - SHORT CIRCUIT
* - OPEN CIRCUIT

Q704	8K	81
R744	12K	6K8
R749	3K3	10K
R750	3K3	0
C746	10n	220n

CD SERVO BOARD

10-Oct-2003

SERVO SECTION

SLED+	1
SLED-	2
LIM	3
SPIND+	4
SPIND-	5
SPIND-	6

CN702
DA232

TO RADIO BOARD CN604
2PINS
CN705
1 8V
2 CD_GND

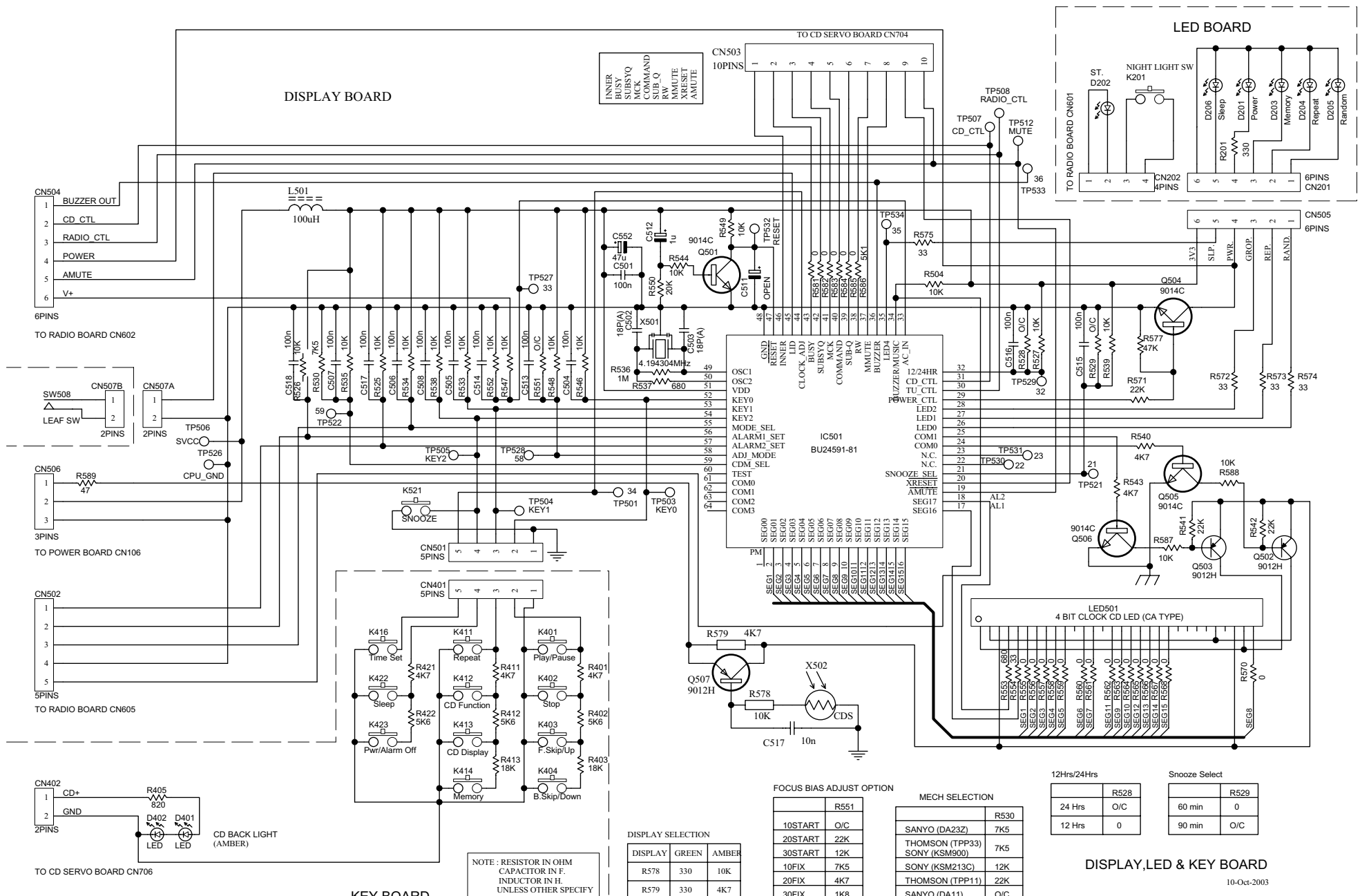
TO KEY BOARD CN402
CN706
2PINS
1 2

TO DISPLAY BOARD CN503
CN704
10PINS
1 2 3 4 5 6 7 8 9 10

INSTR	1
BUSY	2
SUBSYQ	3
MCK	4
COMMAND	5
SPIN_Q	6
R/W	7
MMUTE	8
XRESET	9
AMUTE	10

TO RADIO BOARD CN603

CN701	1
E	2
C	3
A	4
D	5
B	6
F	7
VC	8
VCC	9
GND	10
LD	11
MD	12
VR	13
T(-)	14
FL(-)	15
FL(+)	16
T(+)	16
DA232	



DISPLAY BOARD

LED BOARD

KEY BOARD

DISPLAY, LED & KEY BOARD

10-Oct-2003

INNER
BUSY
SUBSYQ
CLK COMMAND
SUB_O
RW
MMUTE
XRESET
AMUTE

NOTE: RESISTOR IN OHM
CAPACITOR IN F.
INDUCTOR IN H.
UNLESS OTHER SPECIFY

DISPLAY SELECTION

DISPLAY	GREEN	AMBER
R578	330	10K
R579	330	4K7

FOCUS BIAS ADJUST OPTION

	R551
10START	O/C
20START	22K
30START	12K
10FIX	7K5
20FIX	4K7
30FIX	1K8

MECH SELECTION

	R530
SANYO (DA23Z)	7K5
THOMSON (TPP33)	7K5
SONY (KSM900)	7K5
SONY (KSM213C)	12K
THOMSON (TPP11)	22K
SANYO (DA11)	O/C

12Hrs/24Hrs	R528
24 Hrs	O/C
12 Hrs	0

Snooze Select	R529
60 min	0
90 min	O/C

CN504
1 BUZZER OUT
2 CD_CTL
3 RADIO_CTL
4 POWER
5 AMUTE
6 V+
6PINS

TO RADIO BOARD CN602

CN506
1 R589 47
2
3
3PINS

TO POWER BOARD CN106

CN502
1
2
3
4
5
5PINS

TO RADIO BOARD CN605

CN402
1 CD+
2 GND
2PINS

TO CD SERVO BOARD CN706

CN503
10PINS
1 TO CD SERVO BOARD CN704

TP508 RADIO_CTL
TP507 CD_CTL
TP512 MUTE
TP533

TO RADIO BOARD CN601

CN505
6PINS
1
2
3
4
5
6

TO RADIO BOARD CN601

IC501 BU24591-81
GND
RESET
LID
INNER
SUBSYQ
BUSY
SUBSYO
COMMAND
SUB_O
RW
MMUTE
XRESET
AMUTE
SNOOZE SEL
XRESET
AMUTE
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG09
SEG08
SEG07
SEG06
SEG05
SEG04
SEG03
SEG02
SEG01
SEG00
PM
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
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SEG06
SEG05
SEG04
SEG03
SEG02
SEG01
SEG00
PM

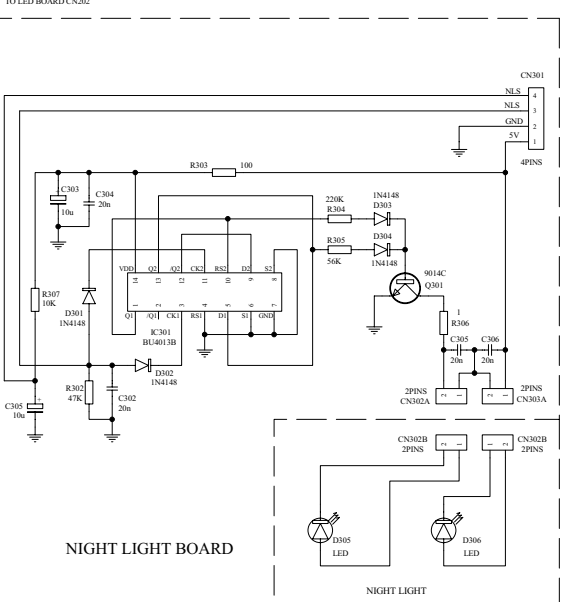
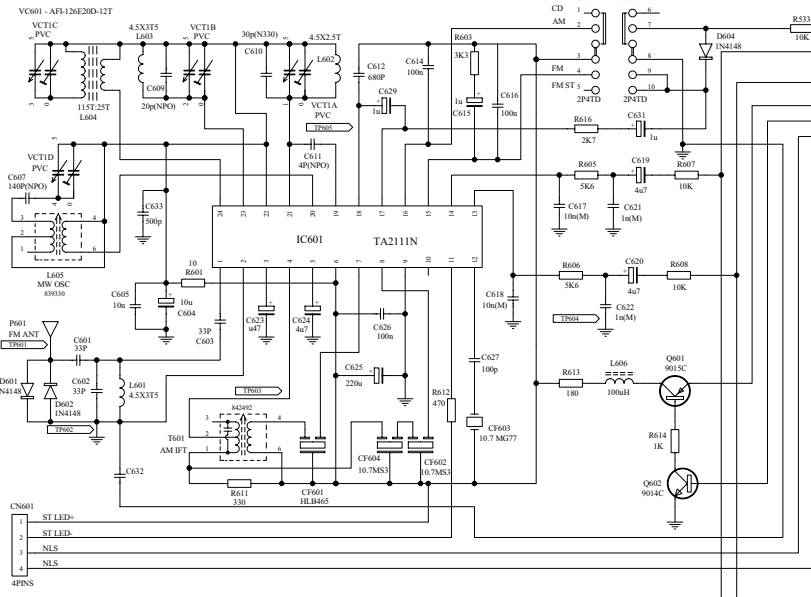
12/24HR
CD_CTL
TU_CTL
POWER_CTL
LED2
LED1
LED0
COM1
COM0
N.C.
N.C.
SNOOZE SEL
XRESET
AMUTE
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG09
SEG08
SEG07
SEG06
SEG05
SEG04
SEG03
SEG02
SEG01
SEG00
PM

LED501
4 BIT CLOCK CD LED (CA TYPE)

12Hrs/24Hrs	R528
24 Hrs	O/C
12 Hrs	0

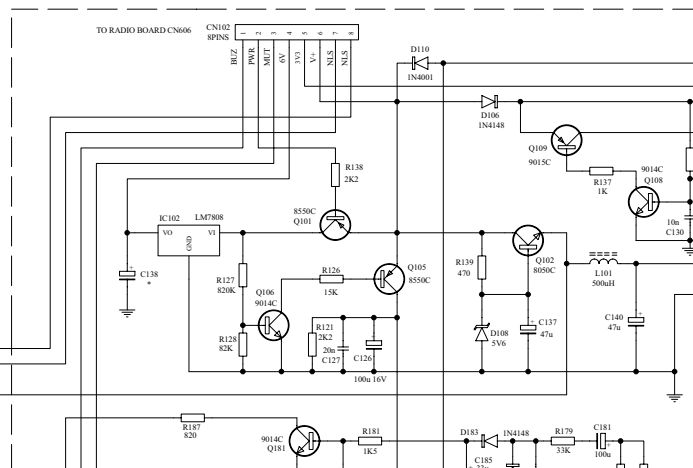
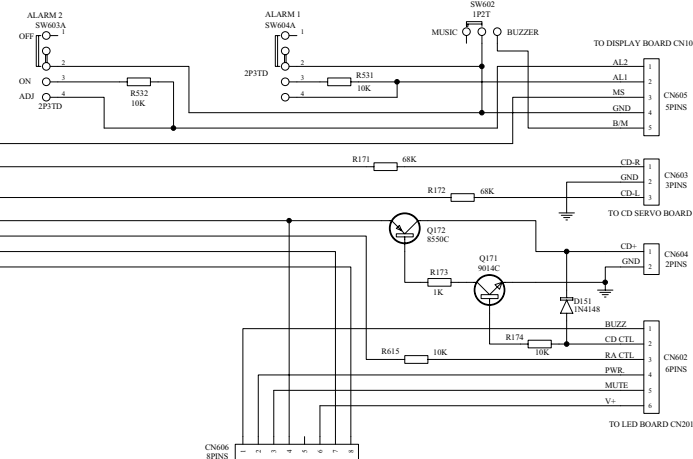
Snooze Select	R529
60 min	0
90 min	O/C

RADIO BOARD

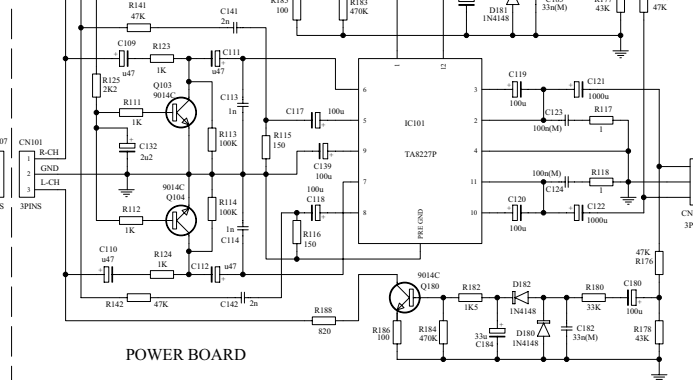


NIGHT LIGHT BOARD

NIGHT LIGHT

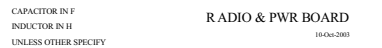


RECTIFY SECTION

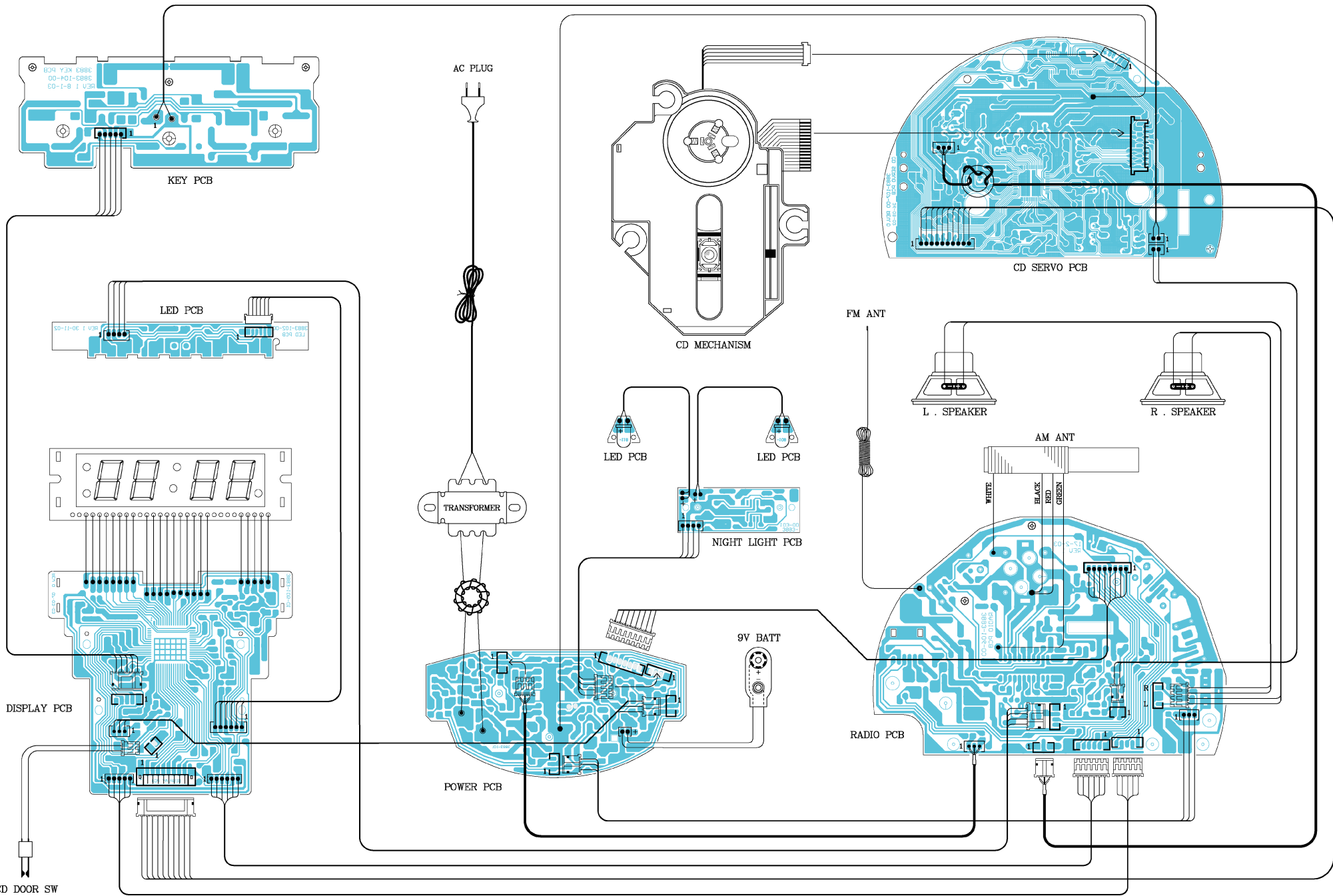


POWER BOARD

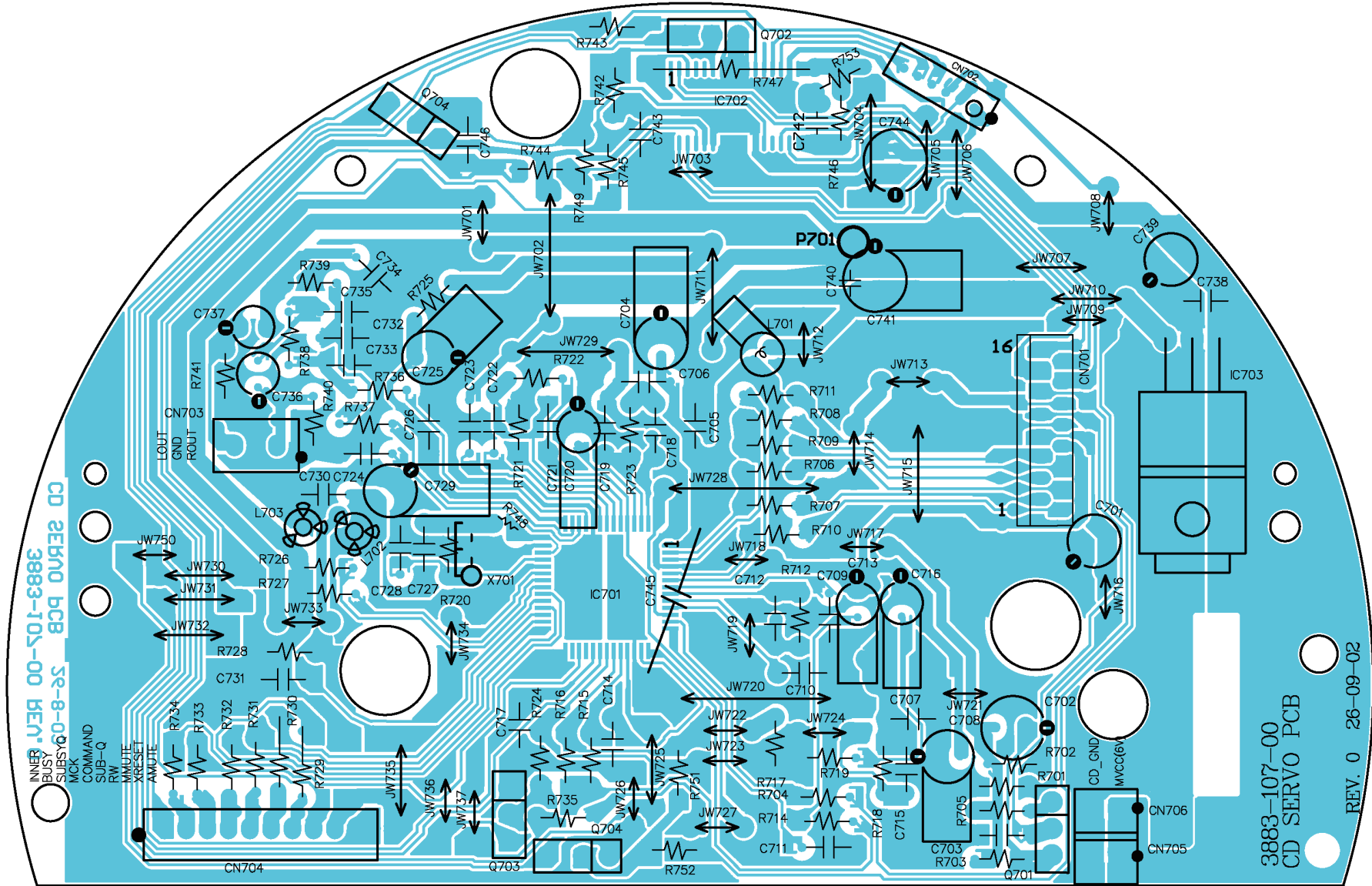
NOTE:
RESISTOR IN OHM
CAPACITOR IN F
INDUCTOR IN H
UNLESS OTHER SPECIFY



RADIO & PWR BOARD



CD SERVO PCB



INNER
BUSY
SUBSQ
MCK
COMMAND
SUB-Q
RW
MANUTE
XRESET
AMUTE

CD SERVO PCB
3883-105-00 REV.0

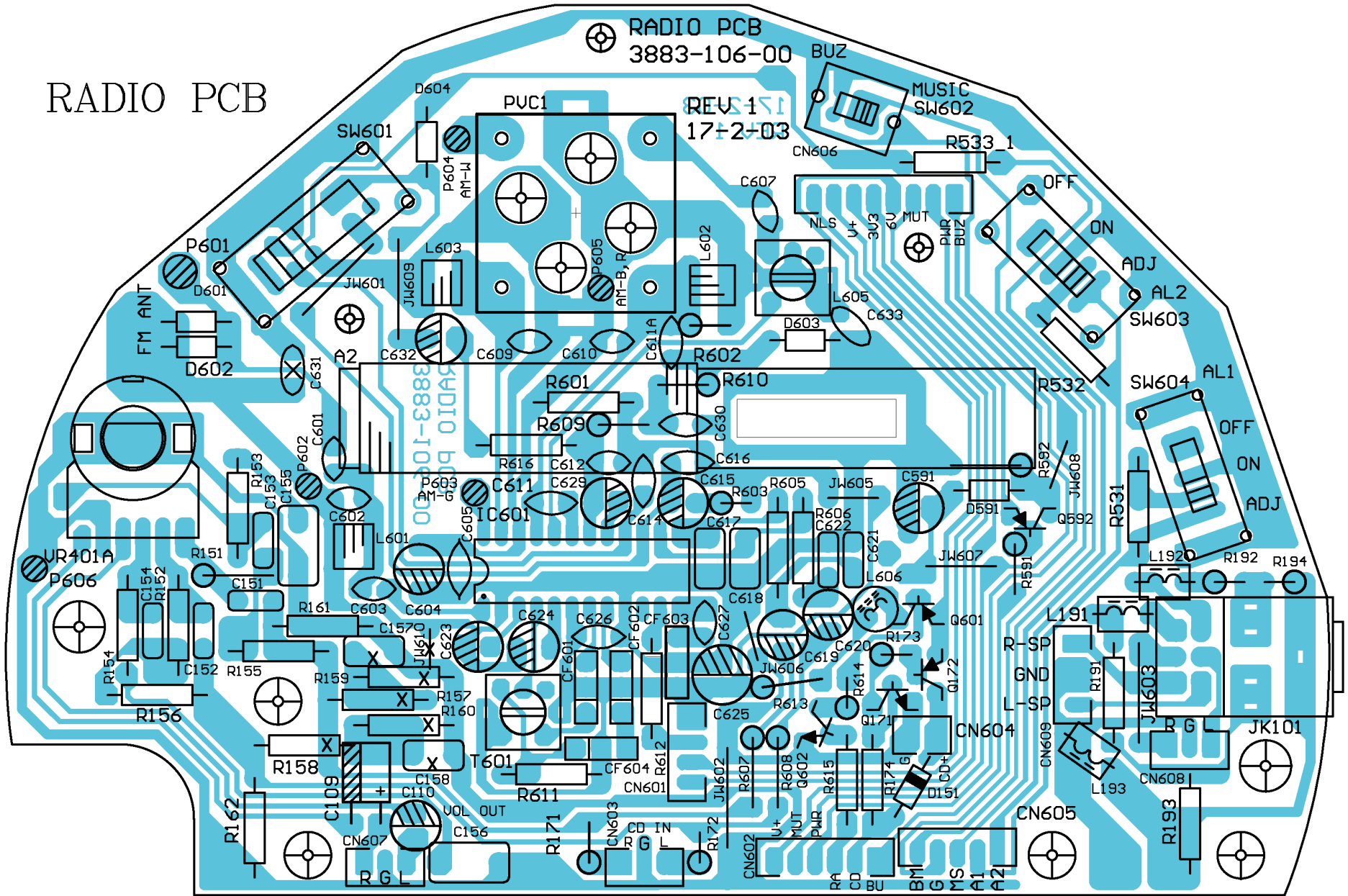
3883-107-00
CD SERVO PCB

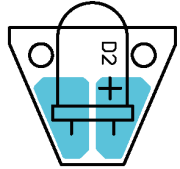
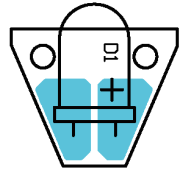
REV. 0 26-09-02

RADIO PCB

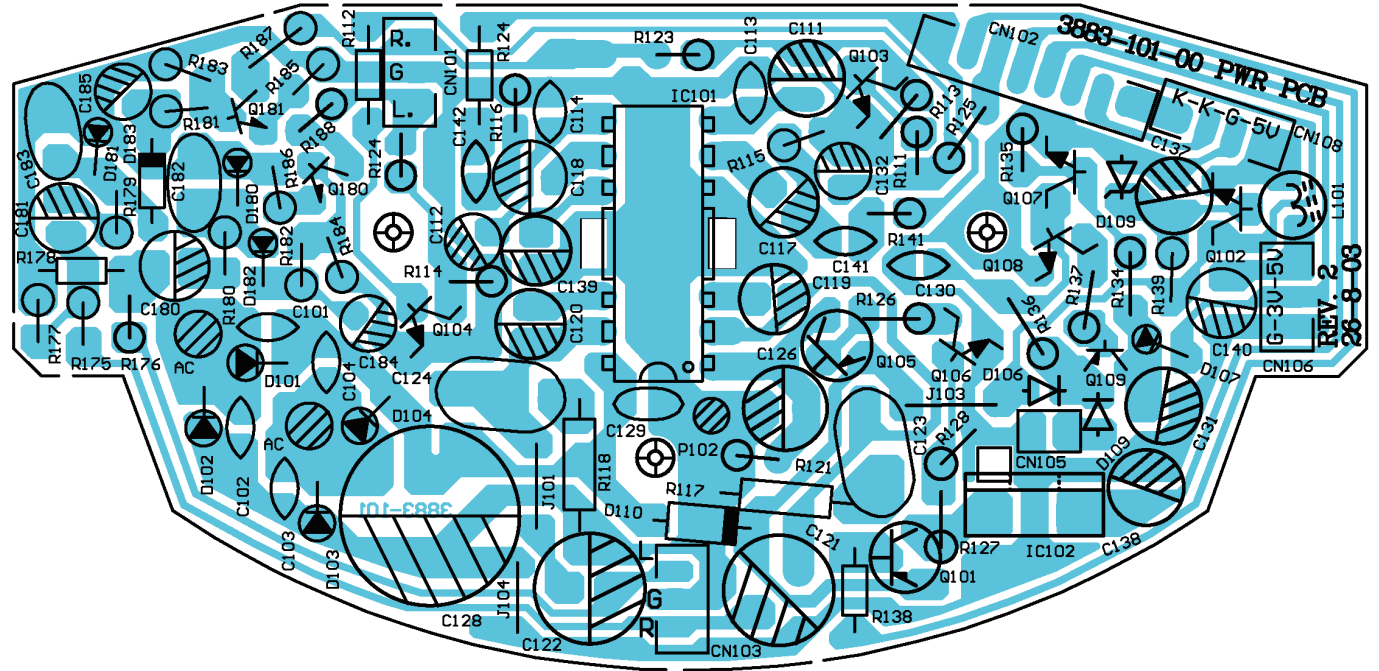
RADIO PCB
3883-106-00 BUZ

REV 1.51
17-2-03

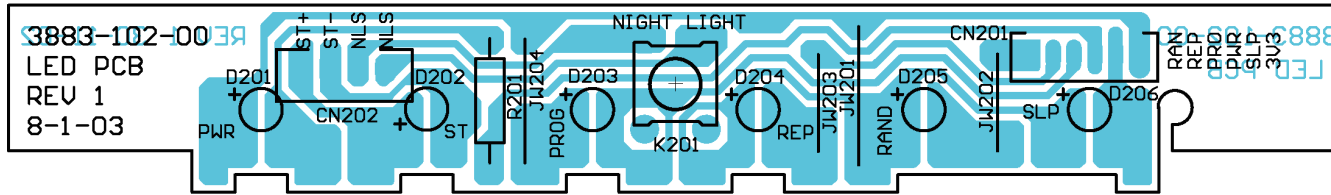




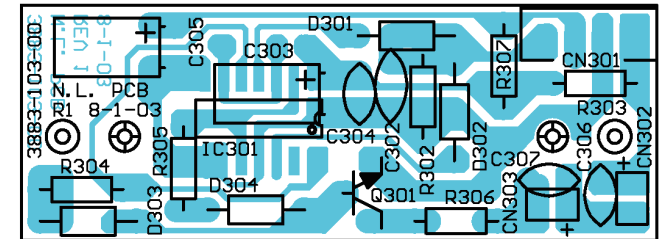
LED PCB



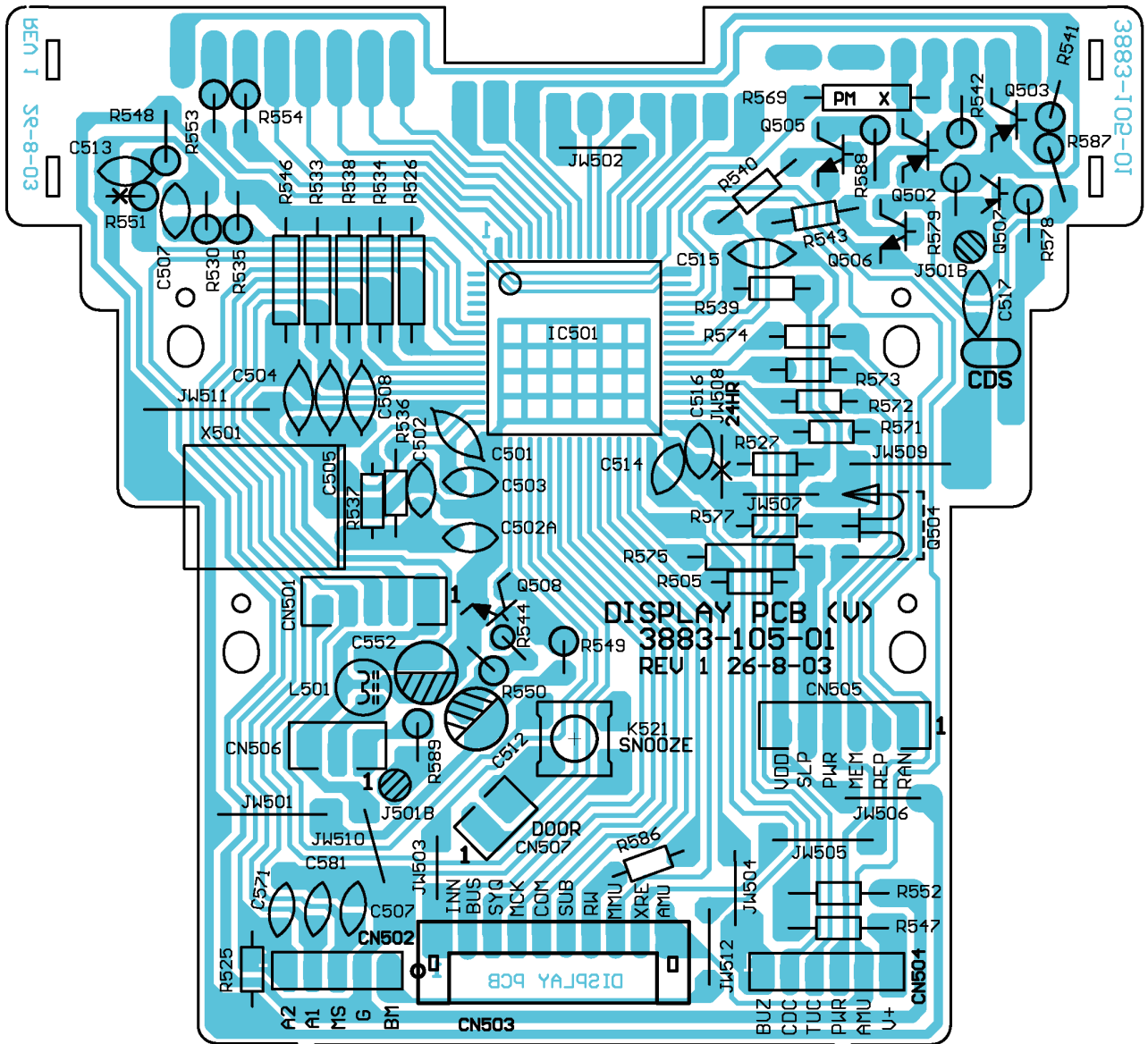
POWER PCB



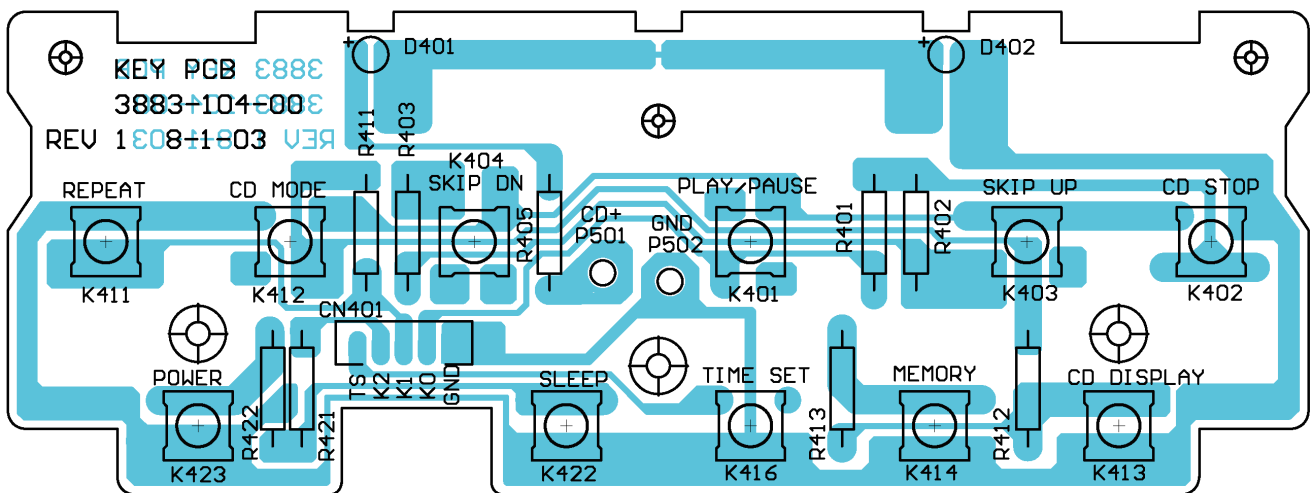
LED PCB



NIGHT LIGHT PCB



DISPLAY PCB



KEY PCB

ALIGNMENT PROCEDURE

MODEL: CCD6300

INSTRUMENTS REQUIRED

1. Signal Generator
2. FM Signal Generator
3. FM/AM IF Sweep Generator (10.7 MHz for FM)
4. VTVM
5. Oscilloscope
6. Frequency counter
7. Regulated DC power supply

GENERAL PREPARATION

1. Check source voltage, DC or AC according to specifications
2. Set function switch to band being aligned
3. Signal input should be kept as low as possible to avoid AGC and AFC function
4. Standard modulation :
AM 1 KHz 30% mod
FM 1 KHz 22.5 KHz dev

AM IF ALIGNMENT

STEP	SIGNAL SOURCE (AM RF Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	A standard radiation loop	465KHz	TP605 & TP604 Detector output terminal and ground	Quiet Point	T601	Maximum	Volume control at min. position
2	Repeat step 1 for max. output						

FM IF ALIGNMENT

This model requires no FM IF alignment as the IF is fixed by ceramic filter and discriminator CF602 & CF603. Please take note that correct type and same color dot of ceramic filter is used in servicing, diff color dot of ceramic filter may cause worse IF 'S' curve characteristic and distortion.

Connect IF genescope output terminal to TP603 & TP602 (GND) in series with a 1000Pf capacitor, connect scope input terminal to TP605 & TP604 (GND), then the IF characteristic curve can be observed.

ALIGNMENT PROCEDURE

MODEL: CCD6300

FM RF ALIGNMENT

STEP	SIGNAL SOURCE (FM Signal Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	TP601 & TP602 through matching network if necessary	87.35 MHz (modulated)	Terminals across speaker voice coil	(Lowest end)	L602 (Osc. coil) stretch or squeeze	Maximum	Volume control at max. position
2		108.25 MHz (modulated)		(Highest end)	VCT1A (Osc. trimmer)		
3		90 MHz (modulated)		90 MHz	L603 (RF coil) stretch or squeeze		
4		106 MHz (modulated)		106 MHz	VCT1B (RF trimmer)		
5	Repeat steps 3 and 4 as necessary to minimize tracking error and also steps 1 and 2 if necessary						

FM MPX ALIGNMENT (NA)

SIGNAL SOURCE	SET SIGNAL TO	ALIGNMENT INDICATOR (Frequency Counter) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS

AM RF ALIGNMENT

STEP	SIGNAL SOURCE (AM Signal Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	A standard radiation loop ant.	515 KHz (modulated)	Across speaker voice coil	515 (Lowest end)	L 605 (Osc. coil)	Maximum	Volume control at max. position
2		1635 KHz (modulated)		1635 (Highest end)	VCT1D (Osc. trimmer)		
3		600 KHz (modulated)		600 KHz	L 604 (ant. coil)		
4		1400 KHz (modulated)		1400 KHz	VCT1C (ant. trimmer)		
5	Repeat steps 3 and 4 as necessary to minimize tracking error and also steps 1 and 2 if necessary						

