

Service
Service
Service



Service Manual

CONTENTS

Technical specification-----	1-1--1-8
Version variation -----	2-1
Safety Instruction -----	2-2
Block diagram-----	3-1
Wiring diagram -----	3-2
Circuit diagram-----	4-1--4-3
MAIN +USB+KEY POWER BOARD	
TOP & BOTTOM LAYOUT -----	5-1--5-4
Exploded diagram -----	6-1

©Copyright 2012 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips.



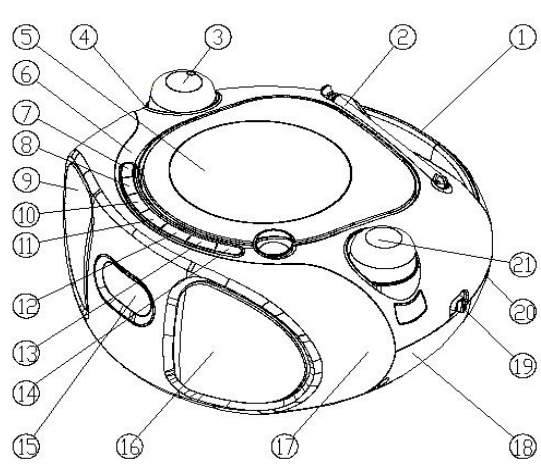

Published by LZ 1302 Subject to modification

3141 785 39520

Version 1.0



PHILIPS

Description	Pos.	Description	Pos.
	1	HANDLE	
	2	ANTENNA	
	3	VOLUME KNOB	
	4	DBB KNOB	
	5	CD DOOR	
	6	TOP CABINET	
	7	RANDOM KEY	
	8	REPT KEY	
	9	SPEAKER GRILLE(L)	
	10	PREVIOUS KEY	
	11	PLAY/PAUSE KEY	
	12	NEXT KEY	
	13	STOP KEY	
	14	PROG KEY	
	15	FRONT LENS	
	16	SPEAKER GRILLE(R)	
	17	FRONT CABINET	
	18	BOTTOM CABINET	
	19	FUNCTION KNOB	
	20	AUX JACK	
	21	TUNING KNOB	
Battery location: BOTTOM CABINET			
			

CABINET	
Dimensions with Boxes (L x W x H): 281*261*144MM	Material: ABS / HIPS
Dimensions without Boxes (L x W x H): 261X245X125MM	Finishing: Spray
Weight (including packing):. 2KG	Unit in Master carton: N/A
Weight (excluding packing and batteries): 1.63KG	Units in Dealer carton: 1 set

INTERCONNECTION POSSIBILITIES			
Pos.	Connection/Function	Connector type	Electrical data (input or R.O.P)
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			

ACCESSORIES :

		SET SPECIFICATION	
VER 1		CD/MP3/FM/USB	
		AZ385/05/12/96	
Prepared:	Supers:	10	Sh. 190
KT	Check:	DATE:	© PHILIPS Electronics Hong Kong Ltd., BU-PORABLE AUDIO

REMARKS :											
General description:										1	
LIFETIME : 5 YEARS (ACC. TO UAN-D1611)										2	
PERFORMANCE CLASSES :											
	TUNER	SUPPLY, AMPLIFIER	SPEAKER BOXES	RECORDER	CLOCK	CD	DCC	TELEPHONE	REC. PLAYER		
I	x	x								3	
II						x				4	
III										5	
SAFETY REQUIREMENTS: EN 60065 (IEC 65) CE ,										6	
RADIATION, IMMUNITY REQUIREMENTS: (EMC) EN55013, EN55020 , (Version 05/12/61 approbation CB only) EN61000-3-2:2006 EN61000-3-3:1995 (Version /61 approbation CB only)										7	
CLIMATIC REQUIREMENTS: (acc. to UAN-D1590)											
All climates: -10 <input checked="" type="checkbox"/> till +50 <input checked="" type="checkbox"/> (Functional); Set has to be pre-conditioned for 2 hour, except CD function										8	
For all measurements: 25 <input checked="" type="checkbox"/>										9	
POWER SUPPLY:											
MAINS (AC) operation					DC (int. or ext.) operation / Backup Buffer						
Voltage selection:		See table below			Battery type: R14, UM2, C-cell x 6; nom.: 9V minimum operating voltage : 5V for CD / Tape 3.3V for TU						10
Selection:		See table below			Lifetime: CD <input checked="" type="checkbox"/> 1.0 hours, TU <input checked="" type="checkbox"/> 20 hours, (R14 <input checked="" type="checkbox"/> ~ alkaline batteries)						11
Frequency:		See table below			External DC: No						12
POWER CONSUMPTION:											
Power off mode: <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> typ.					Standby: <0.5W (power off mode)						13
Maximum: 15 w					Maximum:						14
General: Q and R according to production division rules : $Q \leq 1\%$ (Major), $Q \leq 4\%$ (Minor) Measured according to: $R \leq 3\%$ (CE52)											
DERIVED VERSIONS:										APPROBATION	15
Version	AC Voltage/ Frequency on typeplate		Safety Tolerance	Tuner							
/05 UK	230VAC 50HZ		+/-10%	FM,							
/12 Europe	230VAC 50HZ		+/-10%	FM,							
/61 Korea	220VAC 60HZ		+/-10%	FM							

		CD/MP3/FM/USB AZ385/05/12/96				SET SPECIFICATION			
VER 1									
Prepared:		Supers:		10		Sh. 190		A4	
K/T Check:		DATE:		© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO					

REMARKS: For operation and thermal stability test : 220/230/240Vac setting : 198Vac to 264Vac 120Vac setting : 99Vac to 140Vac dual voltage ac setting (120Vac / 230Vac) : 99Vac to 140Vac and 196Vac to 264Vac	16
--	----

TUNER PART

TECHNICAL description:

	AM (circuitry)	FMAM	(active components)	FM	
RF				KT0922	1
IF				1	2
Detector					3
Decoder					4

GENERAL part:

WAVE RANGE		TOLERANCES	TUNING STEP	
				5
				6
FM (05/96/12/61 version)	87.5 –108MHZ	LOW : +0.3/-0.3MHZ HIGH: +0.4/-0.4MHZ		7
				8
				9
				10

AERIAL:

	FM telescope : 430 mm	11
FM wire : N/A	Execution - N/A	12

INDICATORS:

Pointer stroke:	Execution pointer:	13
Knob indication over:	Field Strength:	14

ELECTRICAL DATA:

AM:	Nom.	limit	FM:	nom.	limit	
RATED OUTPUT POWER 10% THD 80%Mod 120dB	/	/	AM Suppression	/	/	15
			-3dB limiting point	12	18 dBf	16
Amplification reserve			Amplification reserve	2	+/-2 dB	17
AGC figure of merit			AFC holding range (average)			18
Distortion (RF 74 to 94 dBuV/m, m=80%)			Distortion (RF 32 to 72 dBuV, mono \square 100kHz, Stereo : 90% + 9%)	5	7 %	19
			Stereo -46dB quieting ; 120kHz LPF ; ^	40	44 dBuV	20
			Cross-talk (RF 1mV, \square 40kHz, 400Hz /1kHz / 5kHz)	21/25/18	18/20/15 dB	21
Strong S/N radio RF 94dBuV/m, m=80%			S/N radio (A-Weighted, RF 4mV)	53	50 dBA	22
Channel difference			Channel unbalance (250Hz to 6300Hz)	0	3 dB	23
Modulation hum (30% mod)			Modulation hum (22.5kHz dev) ϵ A-Weighted	44	40 dB	24
2, 3th IF harmonics rejection (RF 64 to 94dBuV/m)			8, 9,10 th harmonics whistle	35	30 dB	25
Overall frequency response (-3dB)			Overall frequency response (+/- 3dB, 1kHz ref)			26
			- 50us	70	80 Hz	
			-	12k	10k Hz	
Oscillator stop voltage 120V setting 230V setting			Oscillator stop voltage 120V setting 230V setting	90 190	96 Vac 192 Vac	27

	VER 1	CD/MP3/FM/USB AZ385/05/12/96	SET SPECIFICATION	

Prepared:	Supers:	10	Sh. 190	A4
KF Check:	DATE:	© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO		

Search tuning sensitivity		/	N/A	Search tuning sensitivity		/	N/A	28				
Search tuning stop accuracy		/	N/A	Search tuning stop accuracy		/	N/A	29				
RF <input checked="" type="checkbox"/> 6 to 1mV		/	N/A	-20uV ~ 20mV		/	N/A					
RF <input checked="" type="checkbox"/> 1V/m		/		-20mV ~ 500mV with step size = 50kHz		/						
		/		-20mV ~ 500mV with step size > 50kHz		/						
Search time of total tuning range		/	N/A	Search time of total tuning range			N/A	30				
IF		455KHZ	<input checked="" type="checkbox"/> BkHz	IF				31				
Frequency drift vs temp.		0.7 / 1000 * operating frequency		Frequency drift vs temp.		15KHZ/ ; °C		32				
-10 <input checked="" type="checkbox"/> to 10 <input checked="" type="checkbox"/>						10KHZ/ ; °C						
10 <input checked="" type="checkbox"/> to 30 <input checked="" type="checkbox"/>						15KHZ/ ; °C						
30 <input checked="" type="checkbox"/> to 50 <input checked="" type="checkbox"/>												
Dial calibration		5	7%	Dial calibration		-1.2	+/- 1.5MHz	33				
				Stereo On point (Pilot deviation : 6kHz)		14	15.5 dBuV	34				
						Switching on - 6dB		35				
wave range		Sensitivity for 50mW		noise limited sensitivity (26dB)		Image rejection	IF rejection	large signal	Selectivity S9/300kHz	bandwidthB+3dB		
FM	nom.				13	21	55	130dBf	21		36	
	lim.				15	19	50	125dBf	19		37	
MW	nom.											
	lim.											
unit		<input checked="" type="checkbox"/> V/m	<input checked="" type="checkbox"/> V	dBf	<input checked="" type="checkbox"/> V/m	dBf	dB	dB	dB	mV/m	dB	kHz
REMARKS:												

SUPPLY, AF-AMPLIFIER & LOUDSPEAKER PART:

TECHNICAL description:					
	Power supply	Tone Control	AF-Amplifier	Loudspeaker	
Active components			D8227		1
Passive components				2 X 1 W, 8ohm	2
					3
GENERAL part:					
Headphone type		None			4
Loudspeaker filter, high pass		None			5
Loudspeaker filter, low pass		None			6
Power stage protection		AC – NO; DC - NO; Temperature – YES; Short circuit – NO			7
Public address		No			8
INDICATORS:					
Output power or VU-meter		No	:	digits:	9
Frequency response		No	:	digits:	10
Low power (battery)		No			11
ELECTRICAL DATA: £CALL 20KHz LPF£ ' TONE/EQUALIZER/DBB					
		Balance control		No	12
		Mechanical noise (ISO 1996)			13
		Noise overall (ISO)			14
		Channel difference at 50mW			15
		Hum (vol.max.-20dB to vol.min.)		Limit: 260 nW	16
		Residual noise (volume minimum)		Limit: 350 nW	17

		CD/MP3/FM/USB AZ385/05/12/96		SET SPECIFICATION	
VER 1					
Prepared:		Supers:		10	Sh. 190
KF	Check:	DATE:		© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO	
				A4	

Input sens.: Nom.			650mV		mV	
for 50mW Limit:					mV	
Line outp.: Nom.					mV	
voltage Limit:					mV	
OUTPUT POWER:						
Mains operation:	D=10%	2 X 1W	☒		Limit: - 1dB	18
Battery operation:	D=10%	2 X 1W	☒		Limit: - 1dB	19
Music power (MPO) / Peak-MPO (PMPO):					(acc. to DIN45324)	20
Short term maximum output power:		-2*1.2W			(acc. to IEC 60268-15)	21
Long term maximum output power:		-			(acc. to IEC 60268-15)	22
Headphone output voltage/power:						23
Bandwidth FTC - 1dB at:		n.a.			(acc. to FTC/16/1/D/432)	24
Bandwidth DIN - 3dB at:		-			(acc. to IEC 60268-15)	25
Frequency response at Vol. max - 20dB:		typ. 60Hz to 16kHz	(☒dB)			26
DBB raise level		4db at 125hz vol max-20db			Disc SBC429 Track 12	
LOUDSPEAKER (output):						
Low pass crossover frequency:	-	kHz	tolerance:		Hz	27
High pass crossover frequency:	-	kHz	tolerance:		Hz	28
Short term maximum output power:	-	W (acc. to IEC 60268-15)				29
Long term maximum output power:	-	W (acc. to IEC 60268-15)				30
Frequency response at:	-	Hz			kHz	31
REMARKS:						
27 : Measured in Tuner mode; 28: CD Mode.						32

CD-PART: (SANYO DA11B3VF CD MECHANISM) (BALL type)

Technical description:					
	Input	Output	Motor/control	Logic control	1
Active components			SCA4720	Ali-M5677-ALAA	2
Passive components					3
	Signal processing	D/A converter	HF-preamplifier	Servoprocessor	4
Active components	CD: Ali-M5677-ALAA	CD: Ali-M5677-ALAA			5
Passive components					6
Indicators/Display/Keys:					
Display: LCD for Track No. display 3 Digit					7
Keys: Slide switches & tact switches					8
Playability: (acc. to AHR-82-Gbu-00-4201)					
	Limit	Typical	Testdisc		9
Wedge	600 ☒n	900 ☒n	TNO 7,9 of SBC 444A (7104 099 24990)		10
Eccentric	150 ☒n	200 ☒n	TNO 1,24 of 200☒n disc (7104 099 24960)		11
Fingerprint	No audible defect		TNO 11 of Subchassis 8A		12
Black dot	500 ☒n	600 ☒n	TNO 13, 14 of SBC 444A (7104 099 24990)		13
Double black dot	No failure		TNO 9 of Subchassis 8A		14
Skew 0.6 deg, 8cm	No audible defect		TNO 1,6 of 0.6deg C, 8cm skew disc		15
Bad HF track	No audible defect		TNO 8 of Subchassis 8A		16
Heavy fingerprint	No track jumps/plops		TNO 10 of Subchassis 8A		17
Maximum diameter	No audio effect		Last TNO of Subchassis 8A		18

		CD/MP3/FM/USB		SET SPECIFICATION	
VER 1		AZ385/05/12/96			
Prepared:		Supers:		10 Sh. 190	
K/T Check:		DATE:		© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO	
				A4	

Input sens.: Nom.			650mV		mV	
for 50mW Limit:					mV	
Line outp.: Nom.					mV	
voltage Limit:					mV	
OUTPUT POWER:						
Mains operation:	D=10%	2 X 1W	☒		Limit: - 1dB	18
Battery operation:	D=10%	2 X 1W	☒		Limit: - 1dB	19
Music power (MPO) / Peak-MPO (PMPO):					(acc. to DIN45324)	20
Short term maximum output power:		-2*1.2W			(acc. to IEC 60268-15)	21
Long term maximum output power:		-			(acc. to IEC 60268-15)	22
Headphone output voltage/power:						23
Bandwidth FTC - 1dB at:		n.a.			(acc. to FTC/16/1/D/432)	24
Bandwidth DIN - 3dB at:		-			(acc. to IEC 60268-15)	25
Frequency response at Vol. max - 20dB:		typ. 60Hz to 16kHz	(☒dB)			26
DBB raise level		4db at125hz vol max-20db			Disc SBC429 Track 12	
LOUDSPEAKER (output):						
Low pass crossover frequency:	-	kHz	tolerance:		Hz	27
High pass crossover frequency:	-	kHz	tolerance:		Hz	28
Short term maximum output power:	-	W	(acc. to IEC 60268-15)			29
Long term maximum output power:	-	W	(acc. to IEC 60268-15)			30
Frequency response at:	-	Hz			kHz	31
REMARKS:						32
27 : Measured in Tuner mode; 28: CD Mode.						

CD-PART: (SANYO DA11B3VF CD MECHANISM) (BALL type)

Technical description:					
	Input	Output	Motor/control	Logic control	1
Active components			SCA4720	Ali-M5677-ALAA	2
Passive components					3
	Signal processing	D/A converter	HF-preamplifier	Servoprocessor	4
Active components	CD: Ali-M5677-ALAA	CD: Ali-M5677-ALAA			5
Passive components					6
Indicators/Display/Keys:					
Display: LCD for Track No. display 3 Digit					7
Keys: Slide switches & tact switches					8
Playability: (acc. to AHR-82-Gbu-00-4201)					
	Limit	Typical	Testdisc		9
Wedge	600 ☒n	900 ☒n	TNO 7,9 of SBC 444A (7104 099 24990)		10
Eccentric	150 ☒n	200 ☒n	TNO 1,24 of 200☒n disc (7104 099 24960)		11
Fingerprint	No audible defect		TNO 11 of Subchassis 8A		12
Black dot	500 ☒n	600 ☒n	TNO 13, 14 of SBC 444A (7104 099 24990)		13
Double black dot	No failure		TNO 9 of Subchassis 8A		14
Skew 0.6 deg, 8cm	No audible defect		TNO 1,6 of 0.6deg C, 8cm skew disc		15
Bad HF track	No audible defect		TNO 8 of Subchassis 8A		16
Heavy fingerprint	No track jumps/plops		TNO 10 of Subchassis 8A		17
Maximum diameter	No audio effect		Last TNO of Subchassis 8A		18

		CD/MP3/FM/USB		SET SPECIFICATION	
VER 1		AZ385/05/12/96			
Prepared:		Supers:		10	Sh. 190
KT	Check:	DATE:	© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO		
				A4	

CD-RW playability							
1	Fingerprint	“K” TNO 18		No audible disturbance			
2	Black dot	“K” 13, 17	um	800	400		
3	Low reflection	“L”		No audible disturbance			
4	High reflection	“M”		Startup			
MP3 playability : See specification on CD-DA							
MP3 - Data-format-check							
Remark :support ISO-9660, Joliet format and UDF 1.0 & 2.0							
1	File format check	Html file of “N”		File in non supported formats are skipped.			
2	Sample rate check	“N”		No audible disturbance			
3	Bitrate check 32,40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 250, 320 kbps, VBR (variable bit rate)	“N”		No audible disturbance			
4	Multisession	“O”		All titles accessible, no audible disturbance			
5	Iso9660	“N”		All titles accessible, no audible disturbance			
6	Playlist m3u			Not supported			
7	Id3 check	“N”		Text in display ok			
8	CD-Extra (1 audio session + 1 digital session)	“Q” Remark : selectable by mode button		No audible disturbance.			
9	Direct CD	“R”		No audible disturbance			
10	Mixed CD	“P”		No audible disturbance			
11	AAC-playback			Not supported			
12	WMA-playback			Not supported			
13	Max. titles / directories	“S” max. 350 titles and directories, avg. length of filename/foldername is 20 characters		All titles accessible, no audible disturbance.			

		CD/MP3/FM/USB AZ385/05/12/96		SET SPECIFICATION			
VER 1							
Prepared:		Supers:		10		Sh. 190	
K/T Check:		DATE:		© PHILIPS Electronics, Hong Kong Ltd., BU-PORTABLE AUDIO			
						A4	

USB-PART ELECTRICAL CHARACTERISTICS MEASUREMENT DATA SHEET

Item	Description	condition	Unit	Normal	Limit		
1	max. Output current		mA	250	500		
2	Output Voltage		V	5	,+0.2/-0.1		
4	Frequency Response	100Hz-10K	dB		+/-6dB		
5	Distortion	1KHz	THD%		<3%		
6	S/N £PA-Weighte£'	1KHz	dB	60	>50dB		
7	channel seperation	1KHz	dB	40	>30dB		
8	Working current		mA	130mA	<180		
9	charge current during play song		mA	0-200	>300		
10	output power		W	1	1		

USB Compatibility Test

Support MSC/MTP dual mode USB device .

Test requirement and method follow attached file as below:



"USB Direct
Compatibility tes

5

		CD/MP3/FM/USB AZ385/05/12/96		SET SPECIFICATION		
VER 1						
Prepared:		Supers:		10	Sh. 190	
KT	Check:	DATE:	© PHILIPS Electronics Hong Kong Ltd., BU-PORTABLE AUDIO			

2.0 SAFETY INSTRUCTIONS

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

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

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le braceleterti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatische n Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Verlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen identiek aan de gespecificeerde, worden toegepast.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisés les pièces de rechange identiques à celles spécifiées.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

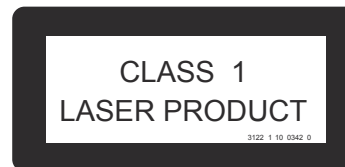
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambi identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

Caution: These servicing instructions are for use by qualified service personnel only.

To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

ESD

**(GB)** Warning !

Invisible laser radiation when open. Avoid direct exposure to beam.

(S) Varning !

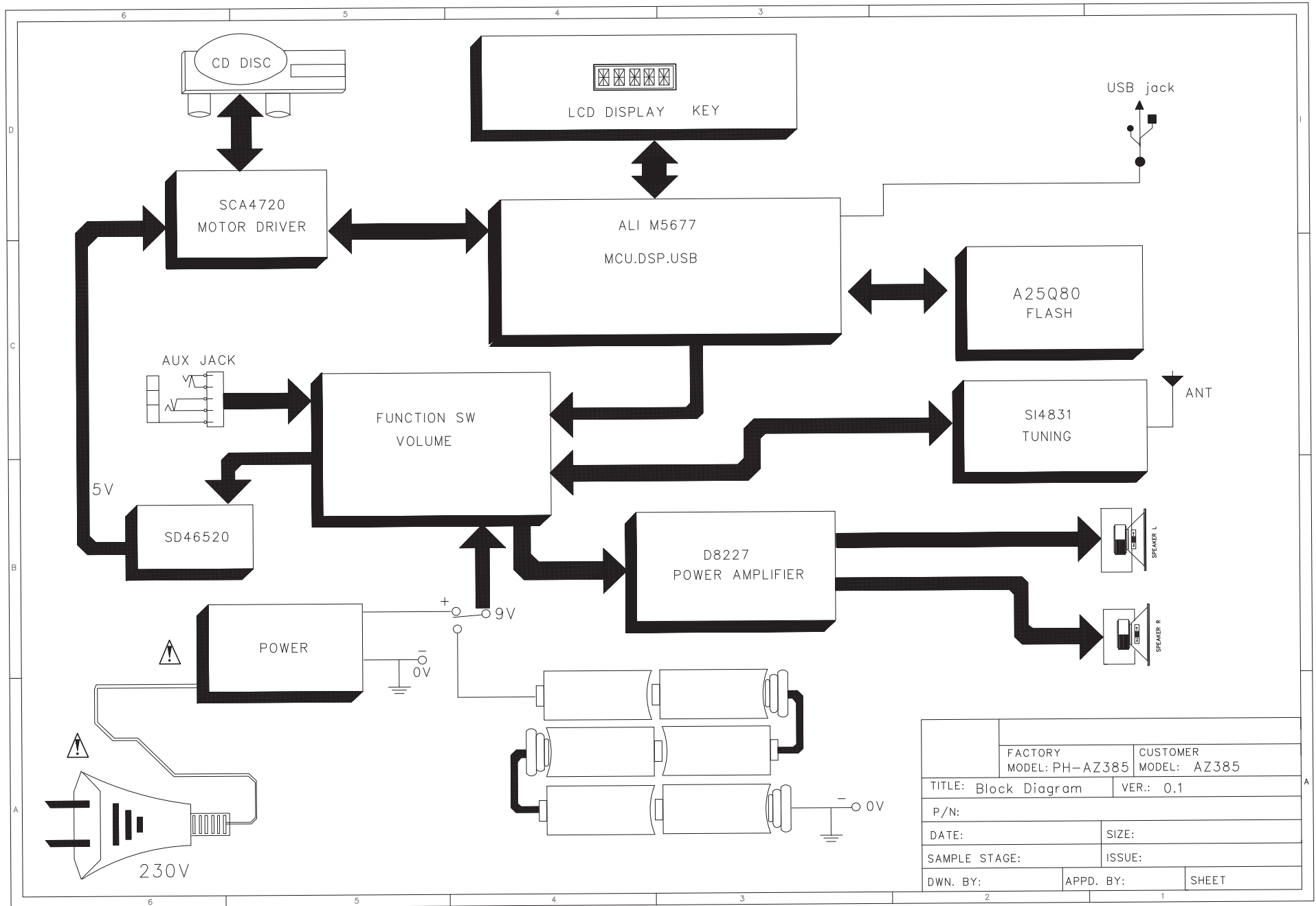
Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

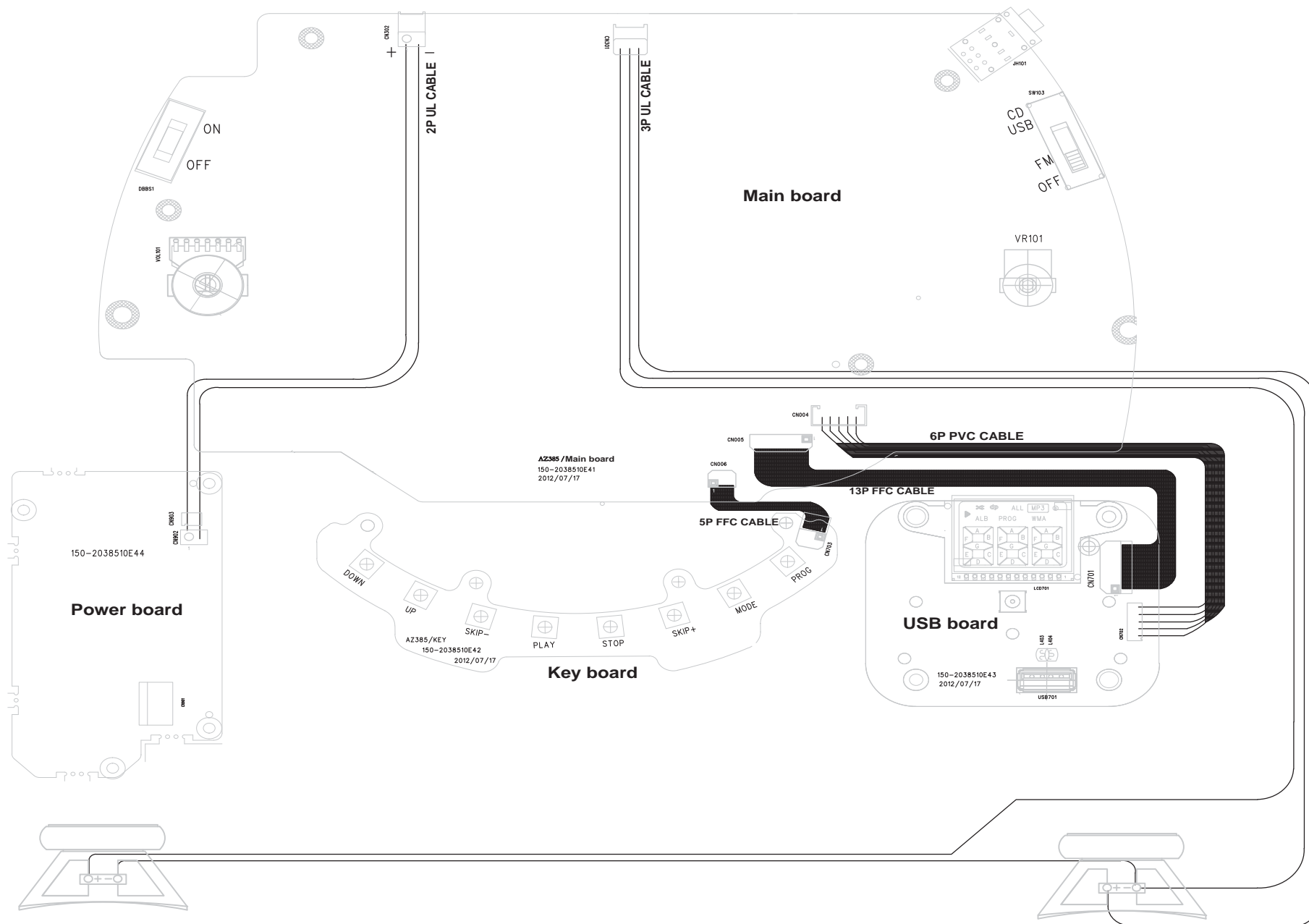
Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen !

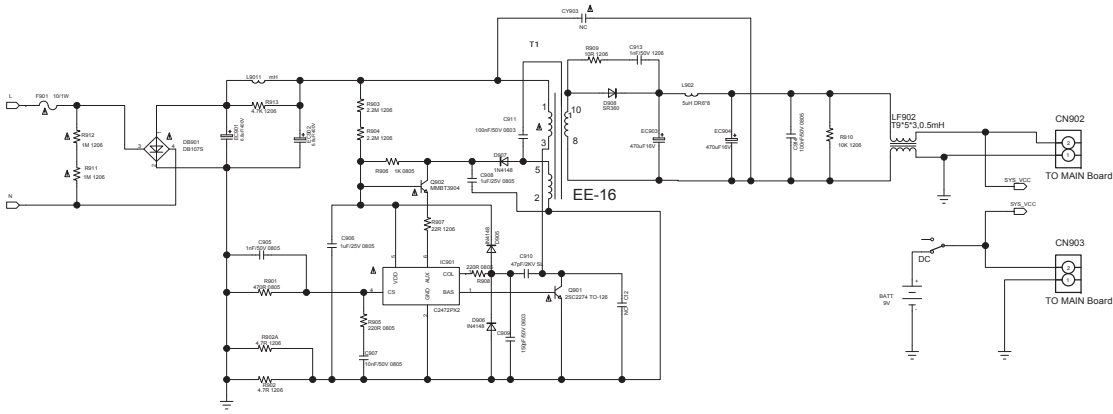
DK Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.






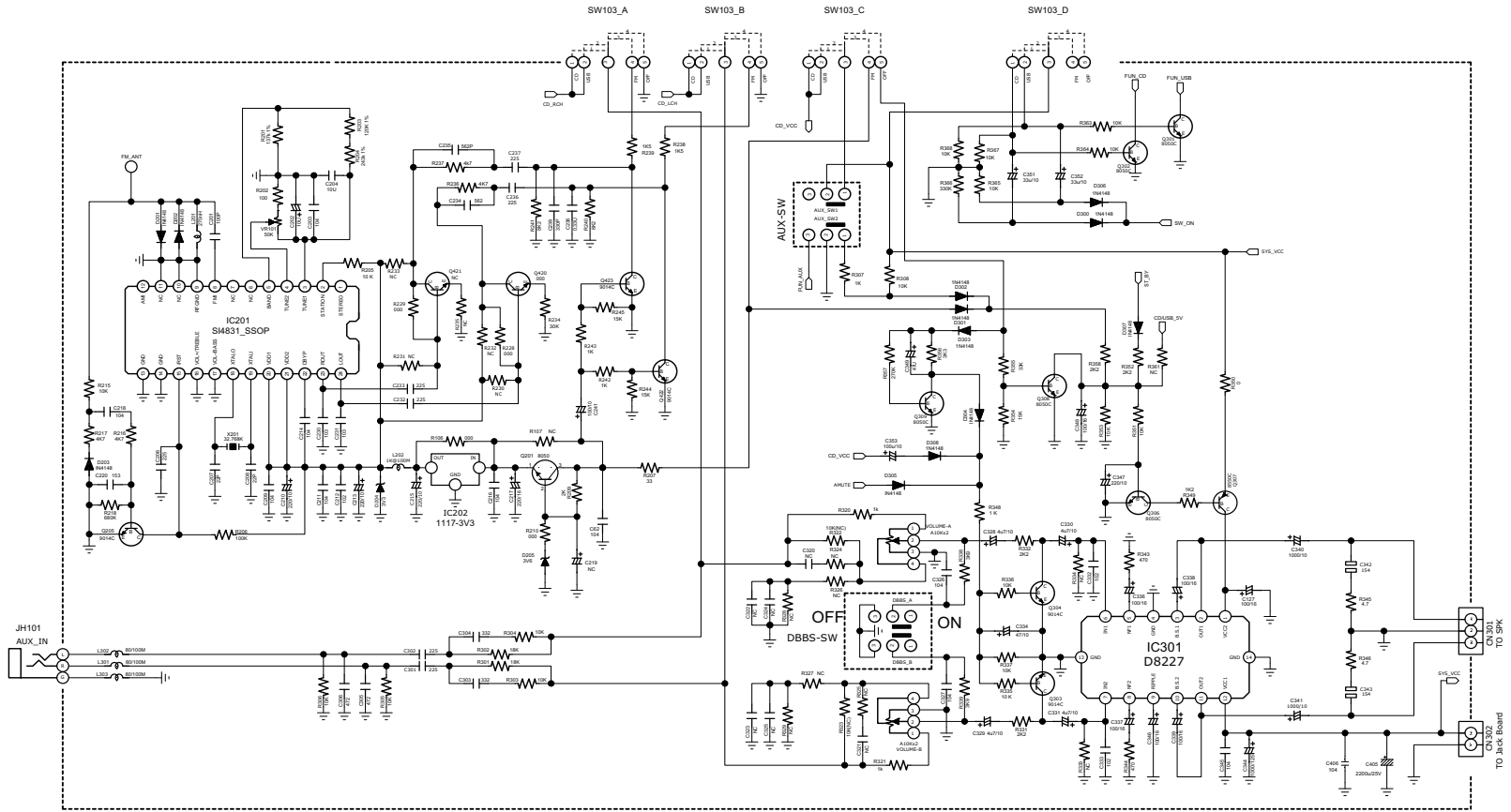
FACTORY MODEL: PH-AZ385		CUSTOMER MODEL: AZ385
TITLE: Block Diagram		VER.: 0.1
P/N:		
DATE:		SIZE:
SAMPLE STAGE:		ISSUE:
DWN. BY:	APPD. BY:	SHEET






Warning:
 The information shown in this document is for reference only, Harbour Light Technology Ltd. hold no responsibilities to any damages caused by using this document. It is the user's responsibilities to check all legal issues, performance, safety and all other concern. Before applying this information, user should agree with the above responsibility and understand it is the user's own risk to use this information.

 	SCALE	UNIT	DRAWN: li zhi wang		SCHEMATIC DIAGRAM						
	N / S	PAGE: 1 OF 2	CHECKED:	MODEL: AZ385		RADIO/AUDIO PART		REV: C			
HARBOUR LIGHT TECHNOLOGY LTD			APPROVED:			20	1	24	0	1	9



Warning:

The information shown in this document is for reference only, Harbour Light Technology Ltd. hold no responsibilities to any damages caused by using this document. It is the user's responsibilities to check all legal issues, performance, safety and all other concern. Before applying this information, user should agree with the above responsibility and understand it is the user's own risk to use this information.

		SCALE	UNIT	DRAWN: li zhi wang	SCHEMATIC DIAGRAM				
		N / S	PAGE: 1 OF 2	CHECKED:	MODEL: AZ385				
HARBOUR LIGHT TECHNOLOGY LTD				APPROVED:	RADIO/AUDIO PART			REV: C	
					2	0	1	2	0

