

Service Manual

Model No. **CR-W405U**
Weather Band Receiver



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE


There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 Service Navigation

1.1. About Lead Free Solder(PbF)

Distinction of PbF PCB

- PCBs(manufacture)using lead free solder will have a PbF stamp on the PCB.

Caution

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a soldering iron with temperature control and adjust it to $700 \pm 20^\circ\text{F}$ ($370 \pm 10^\circ\text{C}$). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C)

1.2. Maintenance

Your products is designed and manufactured to ensure a minimum of maintenance. Use a dry, a soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvents.

1.3. Notes

[RADIO BLOCK]

Do not align the AM/FM package block. When the package block is necessary, it will be supplied already aligned at the factory.

2 Specifications

2.1. Specifications

General

Power Supply :	12V DC (11V - 16V), Test Voltage 14.4 V Negative Ground
Current consumption :	Less than 2.5 A (0.5 W 4-speaker)
Maximum Power Output :	37W × 4 channels at 400 Hz, Vol- ume Control Maximum
Tone adjustment range:	Bass : ±12 dB at 100 Hz Treble : ±12 dB at 10 kHz
Power Output :	18 W per channel into 4Ω, 40 to 30,000 Hz at 3% THD
Suitable Speaker Impedance :	4 Ω
Dimensions (W×H×D) :	178 mm × 50 mm × 160 mm {7" x 1-15/16" x 6-5/16"}
Weight :	0.9 kg { 1 lbs. 16 oz. }

Front AUX Input

Input impedance :	10 kΩ
Allowable external input :	2.0 V
Connector :	3.5 mm stereo mini pin
Audio input sensitivity :	200 mVrms

FM Stereo Radio

Frequency Range :	87.9 MHz-107.9 MHz
Usable Sensitivity :	12 dBf (1.1μV/ 75Ω, S/N 30dB)
50 dB Quieting Sensitivity :	17 dBf (1.8μV/ 75Ω)
Frequency Response :	30-15,000 Hz ± 3 dB
Alternate Channel Selectivity :	75 dB
Stereo Separation :	35 dB at 1 kHz
Signal/Noise Ratio :	70 dB (Mono)

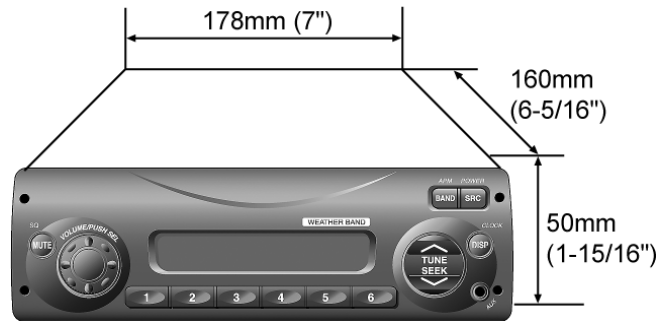
AM Radio

Frequency Range :	530 kHz-1710 kHz
Usable Sensitivity :	28 dB/μV (25uV, S/N 20 dB)

Weather Band Radio

Frequency Range :	162.400 MHz - 162.550 MHz
Usable Sensitivity :	3 dB/μV (S/N 20 dB)
Signal/Noise Ratio (40 dB/μV) :	50 dB

2.2. Dimensions



* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimensions and Weight shown are approximate.

3 Features

- Front AUX terminal.
- Sound Control(FLAT,ROCK,POP and VOCAL).
- Illumination interlock control.

4 Technical Descriptions

4.1. Terminals Description

4.1.1. Main Block

IC601:LC723781XX02

PIN No.	Port	Description	I/O	FM (V)	AM (V)	WB (V)
1	XIN	Main system clock signal input.	I	2.53	2.53	2.54
2	TEST2	Test terminal 2.	I	0	0	0
3	VREG	Regulator output bypass condenser connected.	O	3	3	3
4	VSSCPU	GND	--	0	0	0
5	N.C.	Not connection.	O	0	0	0
6	N.C.	Not connection.	O	0	0	0
7	N.C.	Not connection.	O	0	0	0
8	N.C.	Not connection.	O	0	0	0
9	LCD_DO	LCD data signal output.	I	5.17	5.17	5.17
10	LCD_DI	LCD data signal input.	O	0	0	0
11	LCD_CLK	LCD clock signal output.	O	5.13	5.16	5.16
12	LCD_CE	LCD chip enable signal output.	O	0	0	0
13	N.C.	Not connection.	O	0	0	0
14	N.C.	Not connection.	O	0	0	0
15	PDM_SCK	Radio preset direct memory EEPROM I2C clock signal output.	O	5.16	5.17	5.15
16	PDM_SDA	Radio preset direct memory EEPROM I2C data signal input.	I/O	5.15	5.16	5.17
17	N.C.	Not connection.	O	0	0	0
18	N.C.	Not connection.	O	0	0	0
19	N.C.	Not connection.	O	0	0	0
20	N.C.	Not connection.	O	0	0	0
21	N.C.	Not connection.	O	0	0	0
22	N.C.	Not connection.	O	0	0	0
23	N.C.	Not connection.	O	0	0	0
24	N.C.	Not connection.	O	0	0	0
25	N.C.	Not connection.	O	0	0	0
26	N.C.	Not connection.	O	0	0	0
27	N.C.	Not connection.	O	0	0	0
28	N.C.	Not connection.	O	0	0	0
29	N.C.	Not connection.	I	0	0	0
30	N.C.	Not connection.	I	0	0	0
31	N.C.	Not connection.	I	0	0	0
32	N.C.	Not connection.	I	0	0	0
33	N.C.	Not connection.	O	0	0	0
34	N.C.	Not connection.	O	0	0	0
35	N.C.	Not connection.	O	0	0	0
36	N.C.	Not connection.	O	0	0	0
37	N.C.	Not connection.	O	0	0	0
38	N.C.	Not connection.	O	0	0	0
39	VDDPORT	VDD +5V	-	5.16	5.16	5.16
40	VSSPORT	GND	-	0	0	0
41	N.C.	Not connection.	O	0	0	0
42	N.C.	Not connection.	O	0	0	0
43	N.C.	Not connection.	O	0	0	0
44	N.C.	Not connection.	O	0	0	0
45	N.C.	Not connection.	O	0	0	0
46	N.C.	Not connection.	O	0	0	0
47	N.C.	Not connection.	O	0	0	0
48	N.C.	Not connection.	O	0	0	0
49	PWR_CNT	Power-on control signal output.	O	5.15	5.15	5.15
50	AMP_STB	Amp stby control signal output.	O	5.15	5.15	5.15
51	AMP_MUTE	Amp mute control signal.	O	0	0	0
52	N.C.	Not connection.	O	0	0	0
53	SSC	Tuner search sensitivity change.	O	5.15	5.15	5.15
54	AF_MUTE	AF mute control signal output(Pre-out).	O	0	0	0

PIN No.	Port	Description	I/O	FM (V)	AM (V)	WB (V)
55	E-VOL_I2C_SDA	Electronic Vol-IC data control signal.	I/O	5.16	5.16	5.15
56	E-VOL_I2C_SCK	Electronic Vol-IC clock control signal.	O	5.16	5.16	5.15
57	ILL_CNT	ILLM PWM control signal input.	I	0.3	0.3	0.3
58	POWER_LED	Power LED signal control.	O	0.17	0.15	0.15
59	ILL_PWM	ILLM PWM control signal output.	O	0.3	0.3	0.3
60	N.C.	Not connection.	O	0	0	0
61	ILL_P_SEN S	Backlight ILLM on/off control signal detection input.	I	5.21	5.21	5.21
62	N.C.	Not connection.	O	0	0	0
63	N.C.	Not connection.	O	0	0	0
64	N.C.	Not connection.	O	0	0	0
65	N.C.	Not connection.	O	0	0	0
66	N.C.	Not connection.	O	0	0	0
67	BATT	Battery power connected signal detection.	I	5.17	5.17	5.17
68	MODE_B	Rotary clock signal B output.	I	5.13	5.13	5.13
69	N.C.	Not connection.	O	0	0	0
70	N.C.	Not connection.	O	0	0	0
71	MODE_A	Rotary clock signal A output.	I	5.13	5.13	5.13
72	N.C.	Not connection.	O	0	0	0
73	WB_MODE	Wbpower control signal output.	O	8	8	0
74	N.C.	Not connection.	O	0	0	0
75	RADIO_MODE	Radio power control signal output.	O	0	0	8.35
76	FM/AM SW	FM/AM control signal output.	O	0	8	0
77	N.C.	Not connection.	I	0	0	0
78	ST_SW	Steering sw A/D control signal input.	I	0	0	0
79	BATT_LEV EL	Battery voltage level detection signal input.	I	4.04	4.04	4.04
80	N.C.	Not connection.	I	0	0	0
81	VSSADC	GND	--	0	0	0
82	N.C.	Not connection.	I	0	0	0
83	ST	FM stereo signal input	I	5.23	5.23	1.48
84	VSM	FM/AM SD signal input.	I	0	0.5	0
85	N.C.	Not connection.	I	0	0	0
86	RESET	Reset signal input	I	5.17	5.17	5.17
87	ACC	ACC power connected signal detection	I	5.3	5.3	5.3
88	N.C.	Not connection.	I	0	0	0
89	N.C.	Not connection.	I	0	0	0
90	FM/AM_IFC	FM/AM IFC signal input	I	0	0	0
91	N.C.	Not connection.	I	0	0	0
92	SUBPD	None	O	1.5	1.47	0
93	VDDPLL	Power supply of PLL	-	5.17	5.17	5.17
94	WB OSC	WB local oscillator signal input.	I	0	0	1.49
95	OSC_FM/AM	FM/AM OSC signal input	I	1.49	1.49	0
96	VSSPLL	GND	-	0	0	0
97	N.C.	Not connection.	O	0	0	0
98	EO1	PLL phase comparison error output	O	1.47	1.45	1.38
99	TEST1	Test terminal 1.	-	0	0	0
100	XOUT	Main system clock crystal connection.	O	2.62	2.62	2.62

Note 1 :

Voltage measurements are with respect to ground, with a voltmeter (internal resistance : 10M Ω).

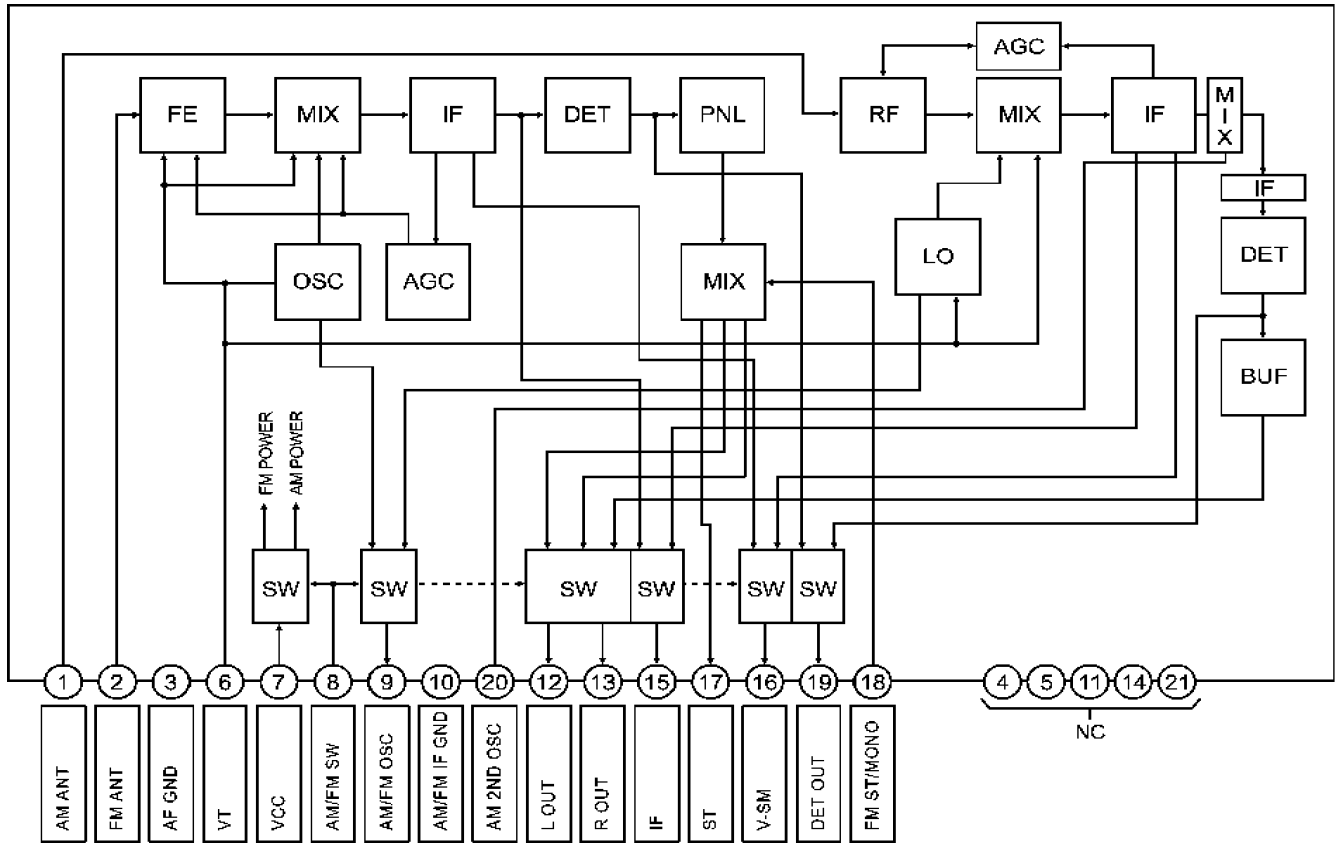
4.1.2. Display Block

IC901:C0HBA0000225

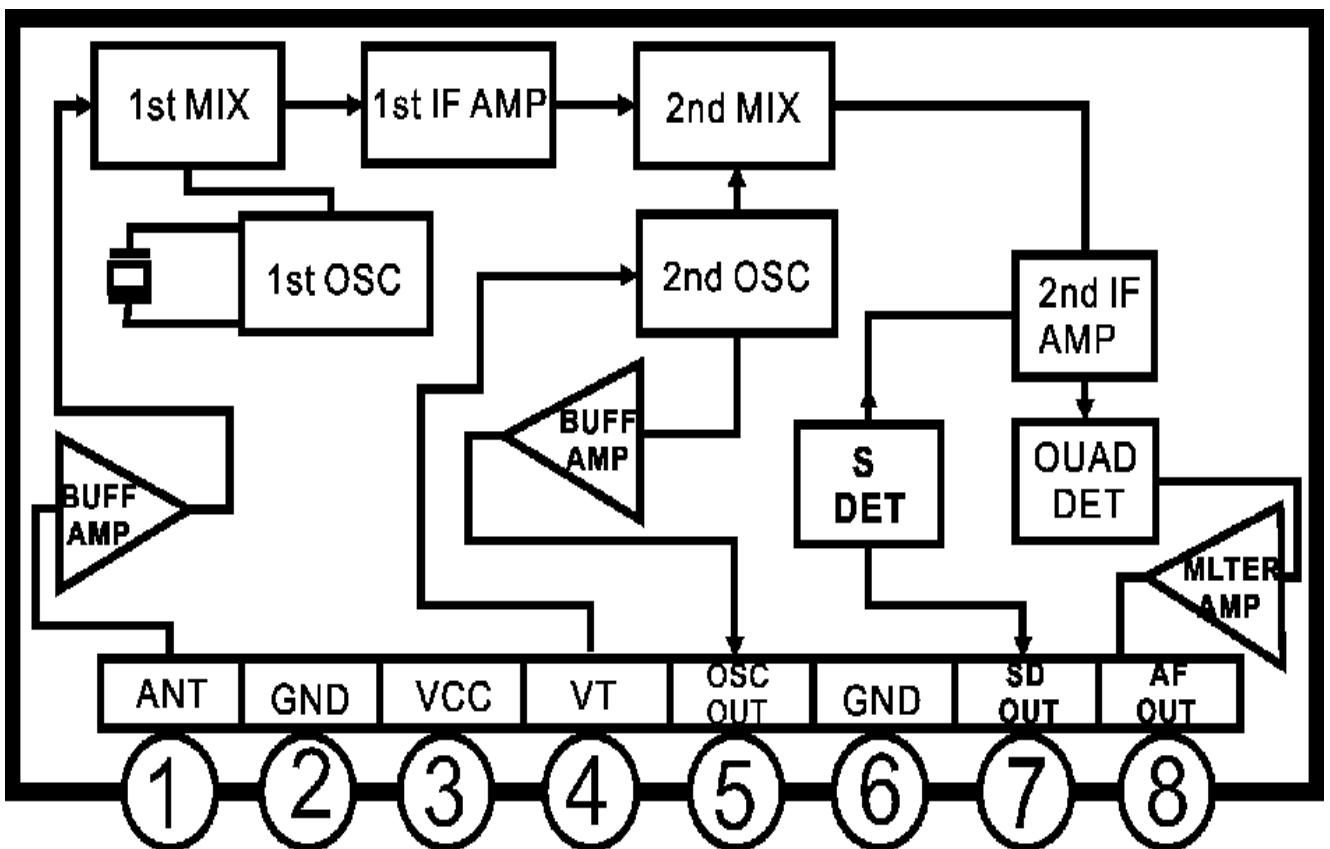
PIN No.	Port	Description	I/O	(V)
1-35	SEG1-35	LCD segment.	O	2.5
36-39	NC	No connection.	-	0
40-43	COM1-4	LCD common.	O	2.5
44-49	KS1-6	Key data output.	O	0.9
50-54	KI1-5	Key data input.	I	0
55	TEST	Connecting to ground.	-	0
56	VDD	+5V power supply.	-	5.1
57	VDD1	Ground through capacitor.	-	3.3
58	VDD2	Ground through capacitor.	-	1.7
59	VSS	Ground.	-	0
60	OSC	CR oscillator.	-	3.9
61	DO	Key data output.	O	4.4
62	CE	Chip enable.	I	0
63	CLK	LCD clock.	I	0
64	DI	LCD data input.	I	0

4.2. IC Block Diagram

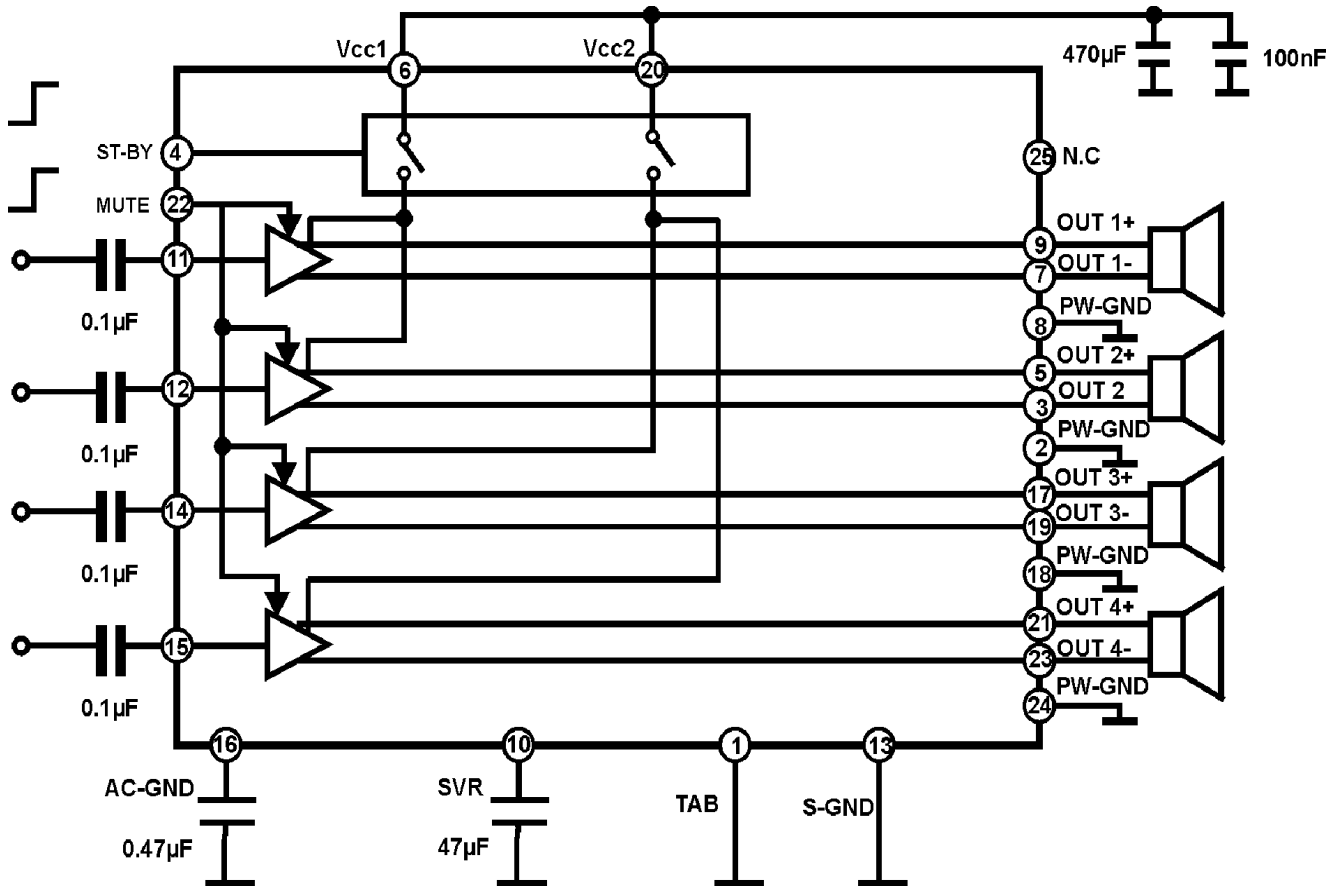
4.2.1. Main Block



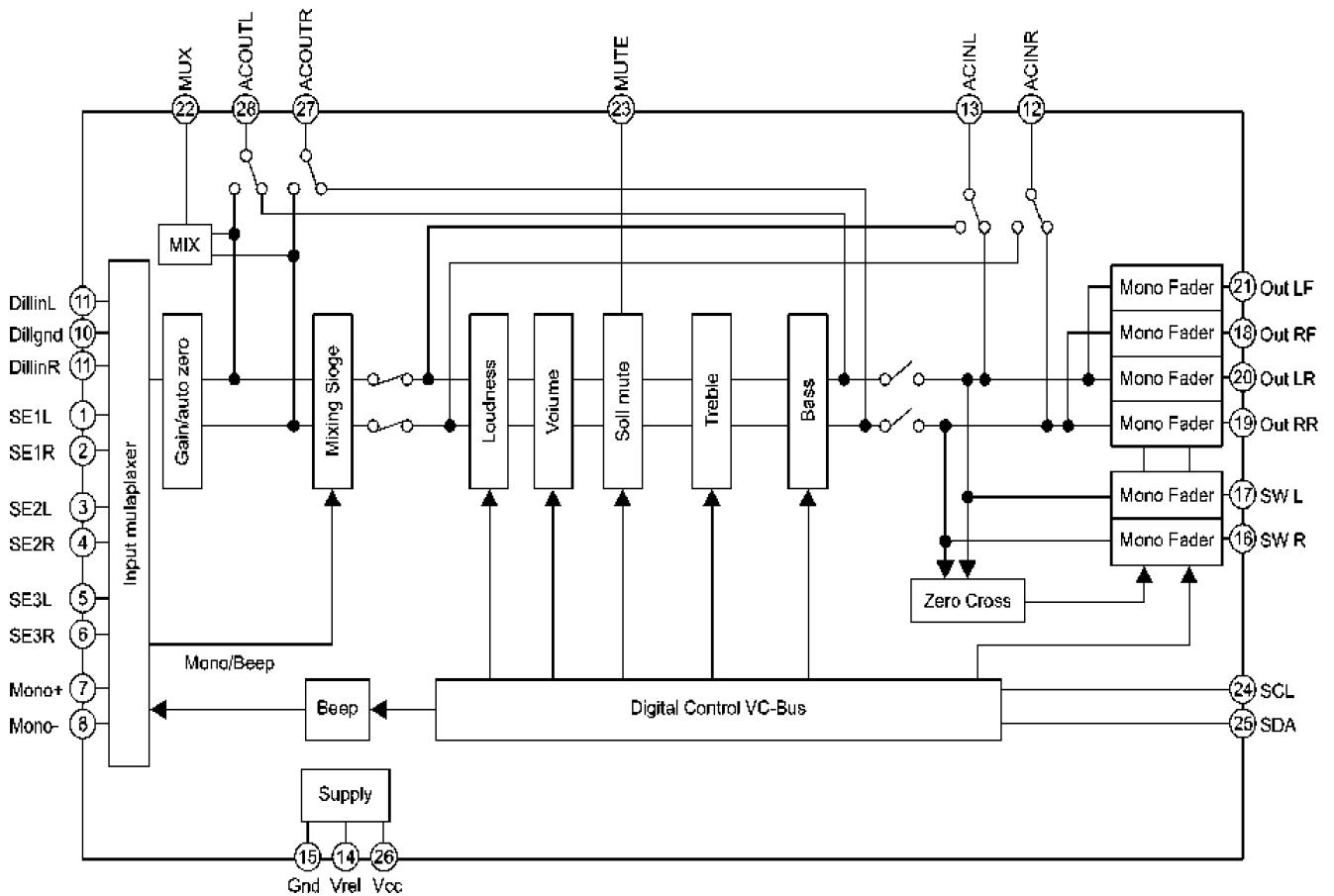
P50:C5BA00000122



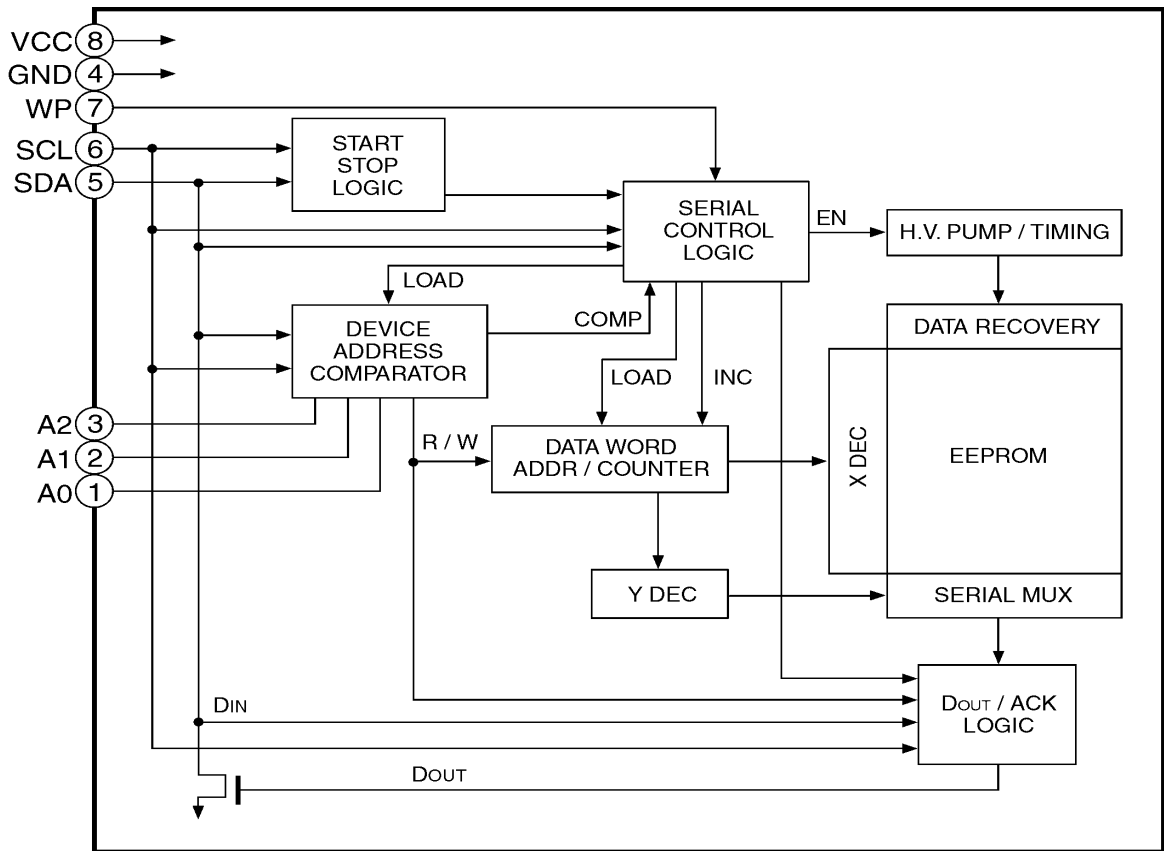
P51:J3CZAB000001



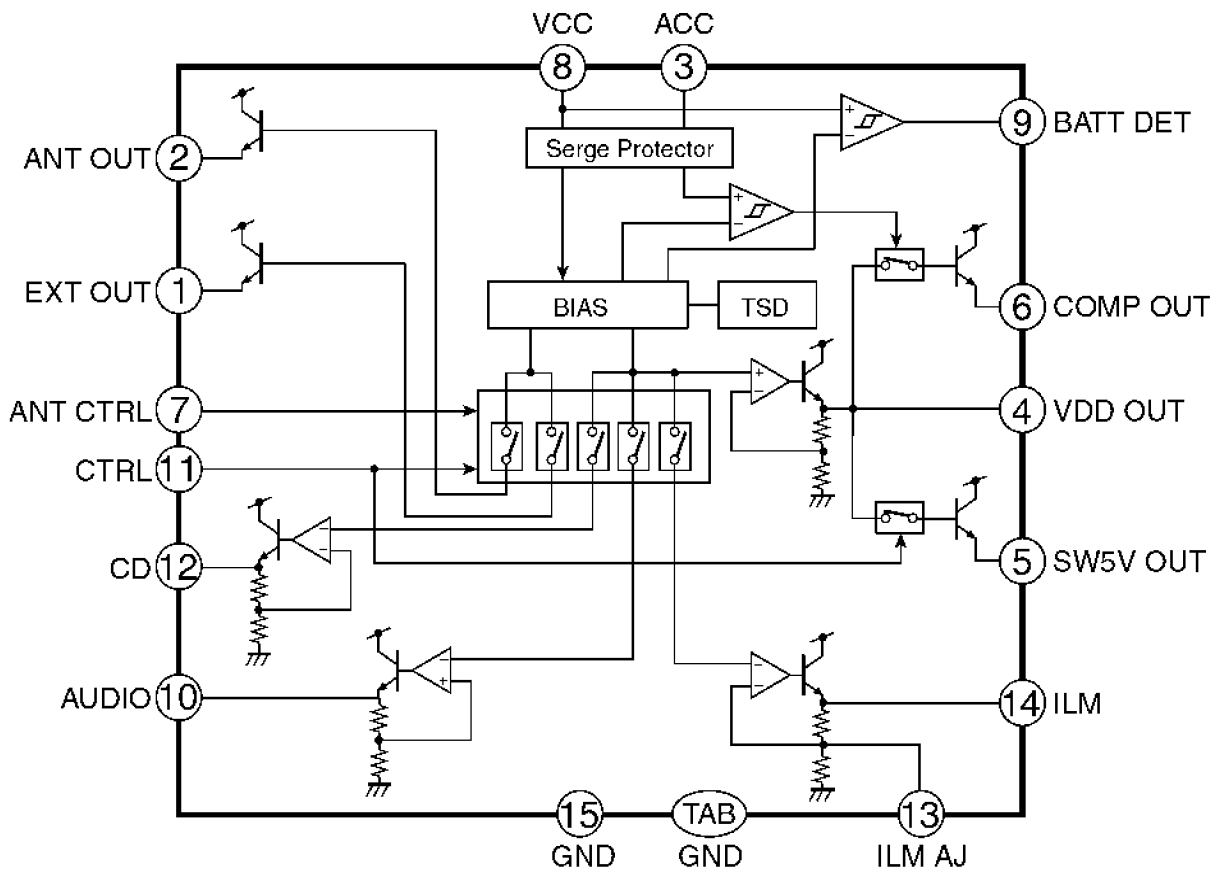
IC201:C1EA0000042



IC301:C1BB00000543

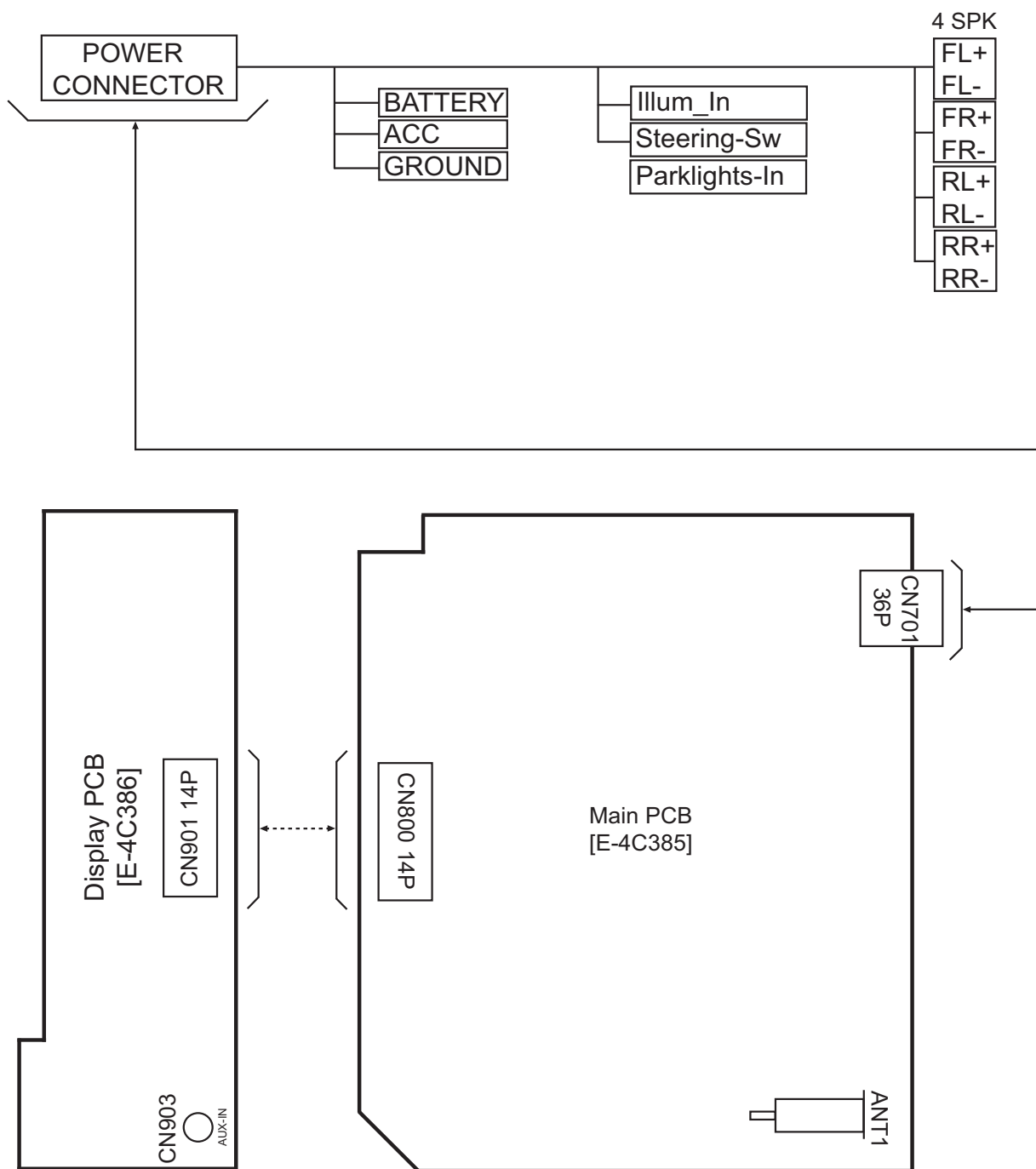


IC602:C3EBCY000018



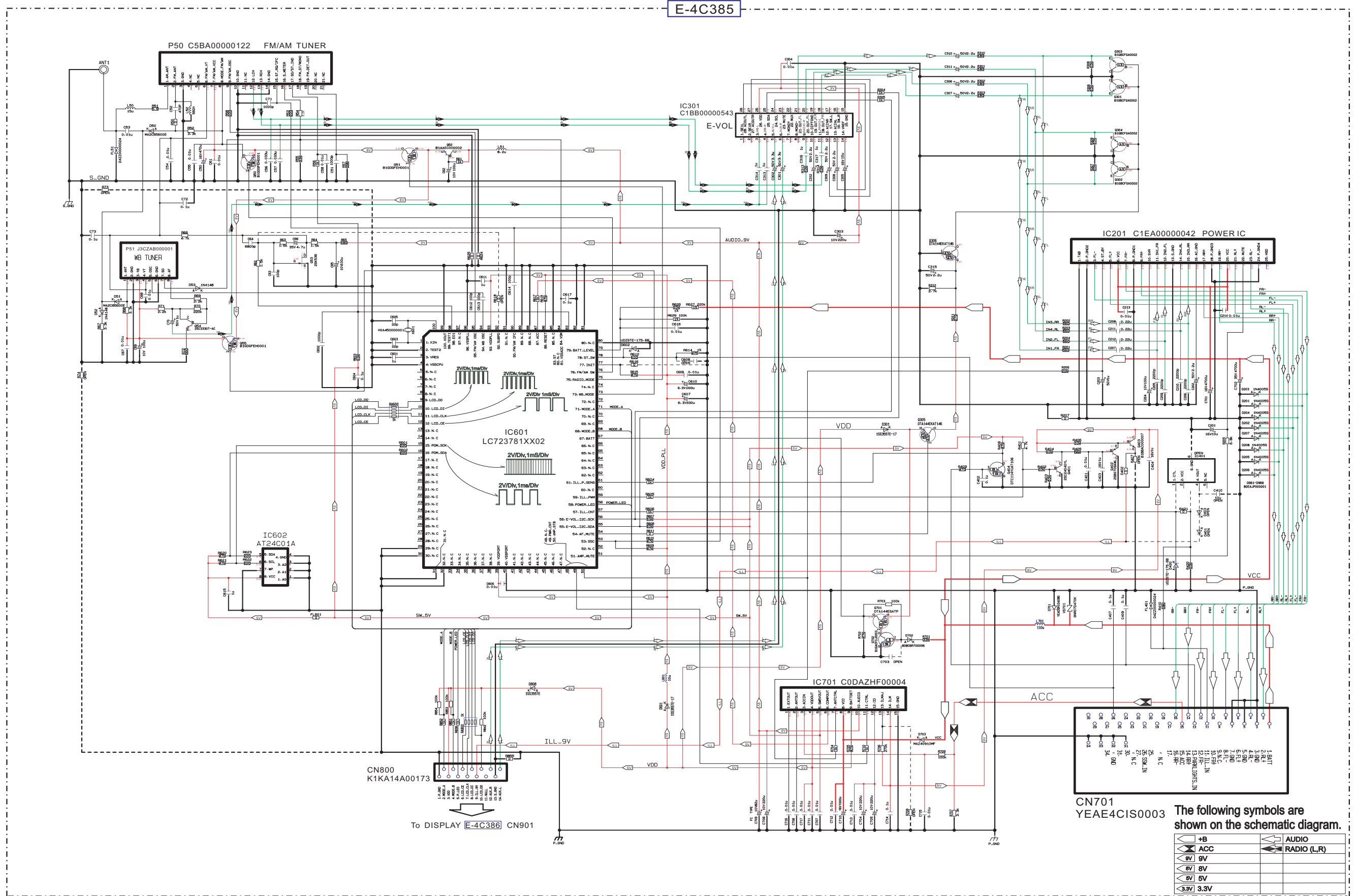
IC701:C0DAZHF00004

6 Wiring Connection Diagram



7 Schematic Diagram

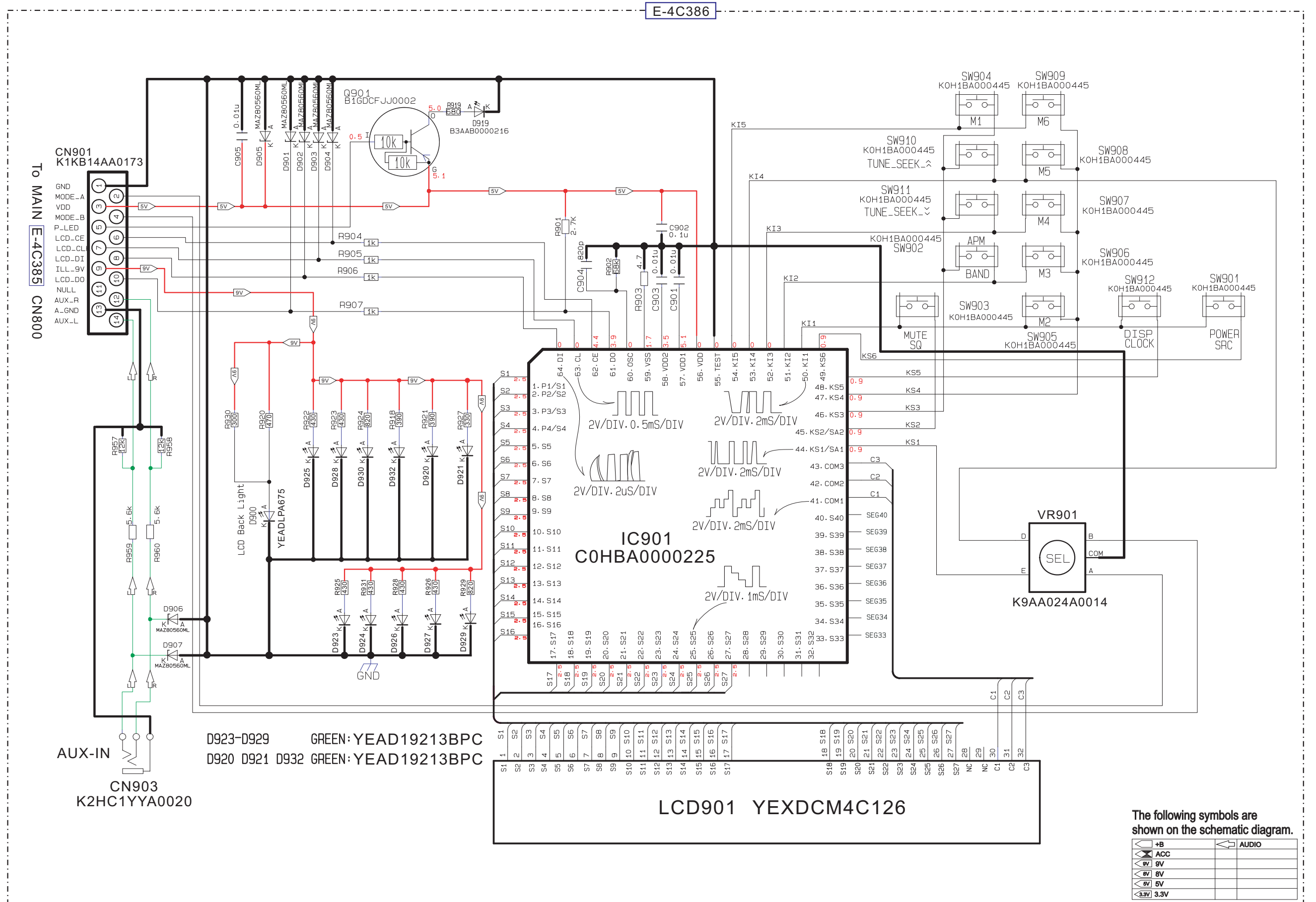
7.1. Main Block



The following symbols are shown on the schematic diagram.

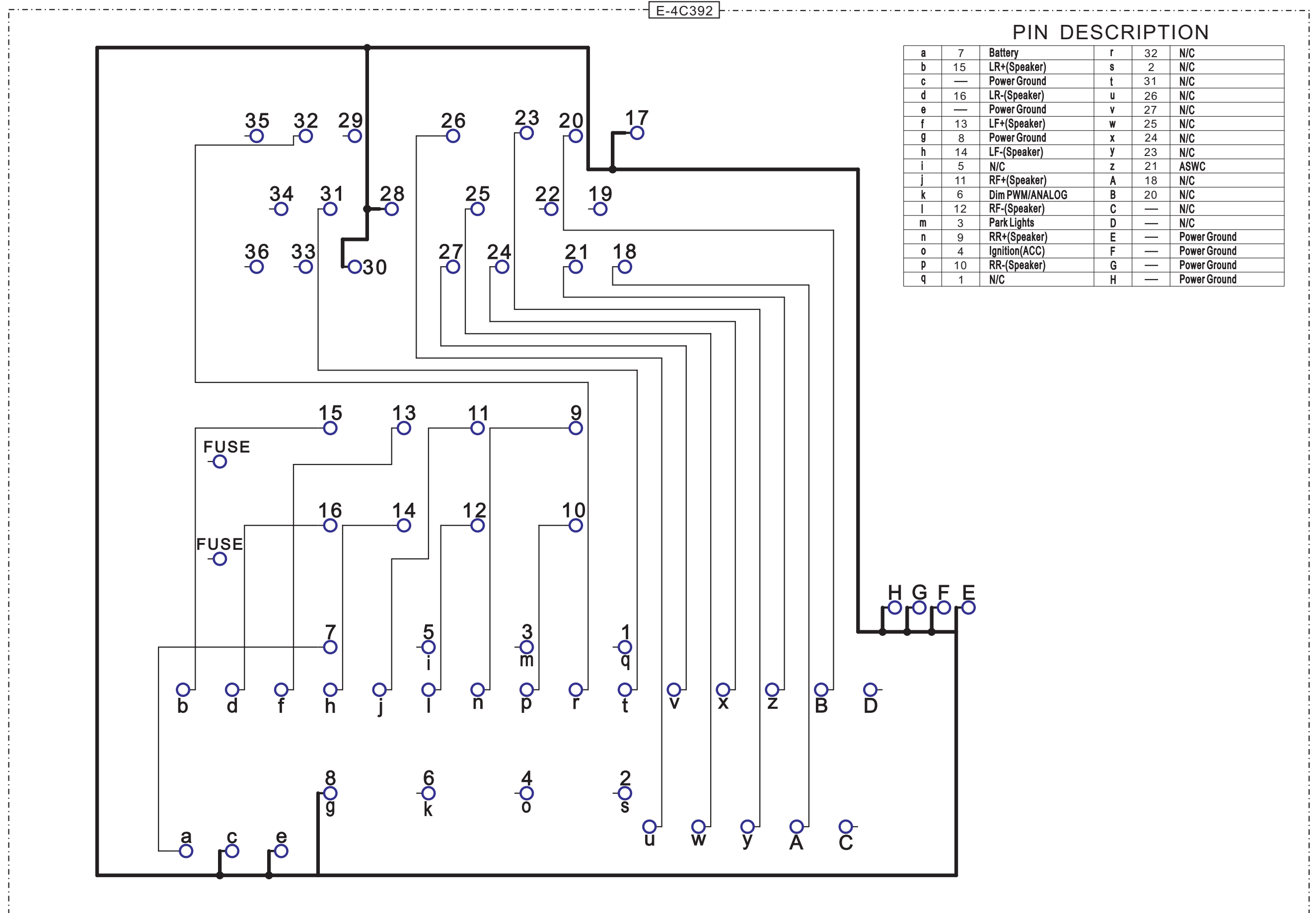
CR-W405U MAIN

7.2. Display Block



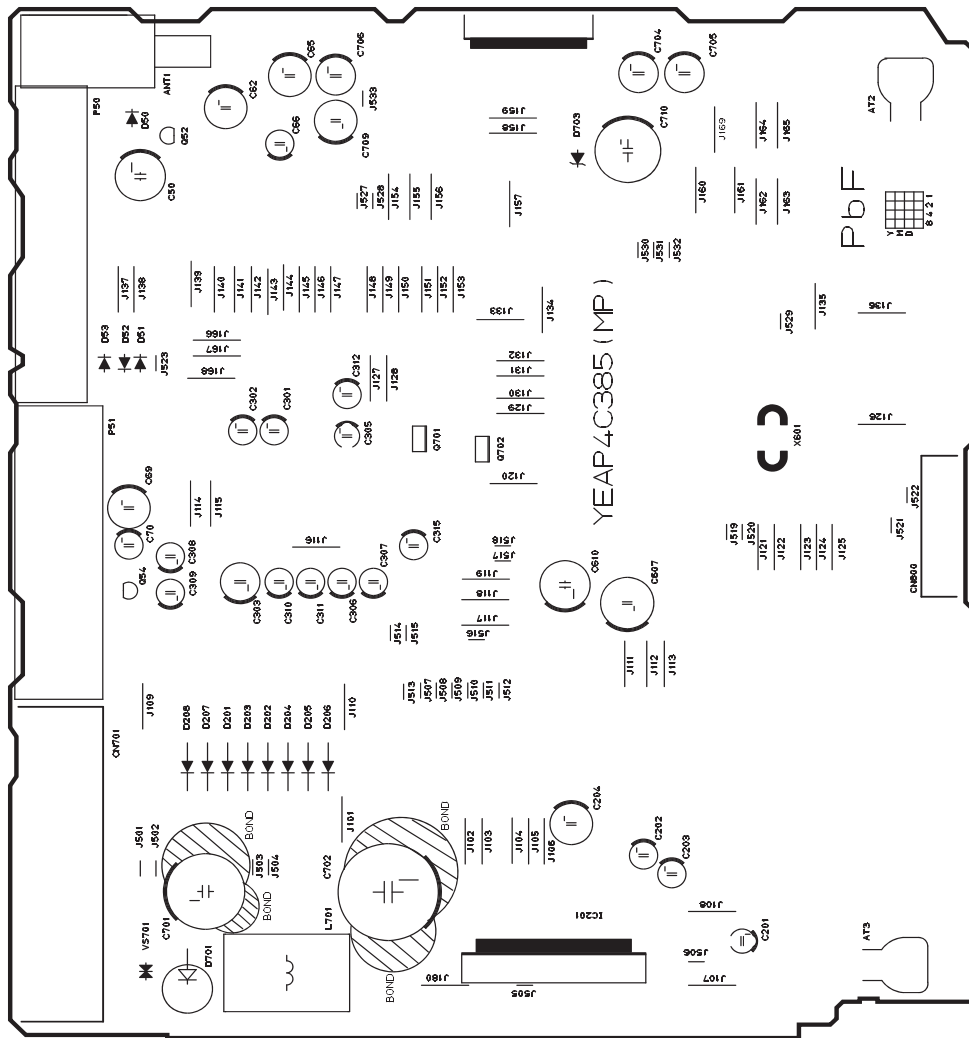
CR-W405U DISPLAY

7.3. Iso Block



8 Printed Circuit Board

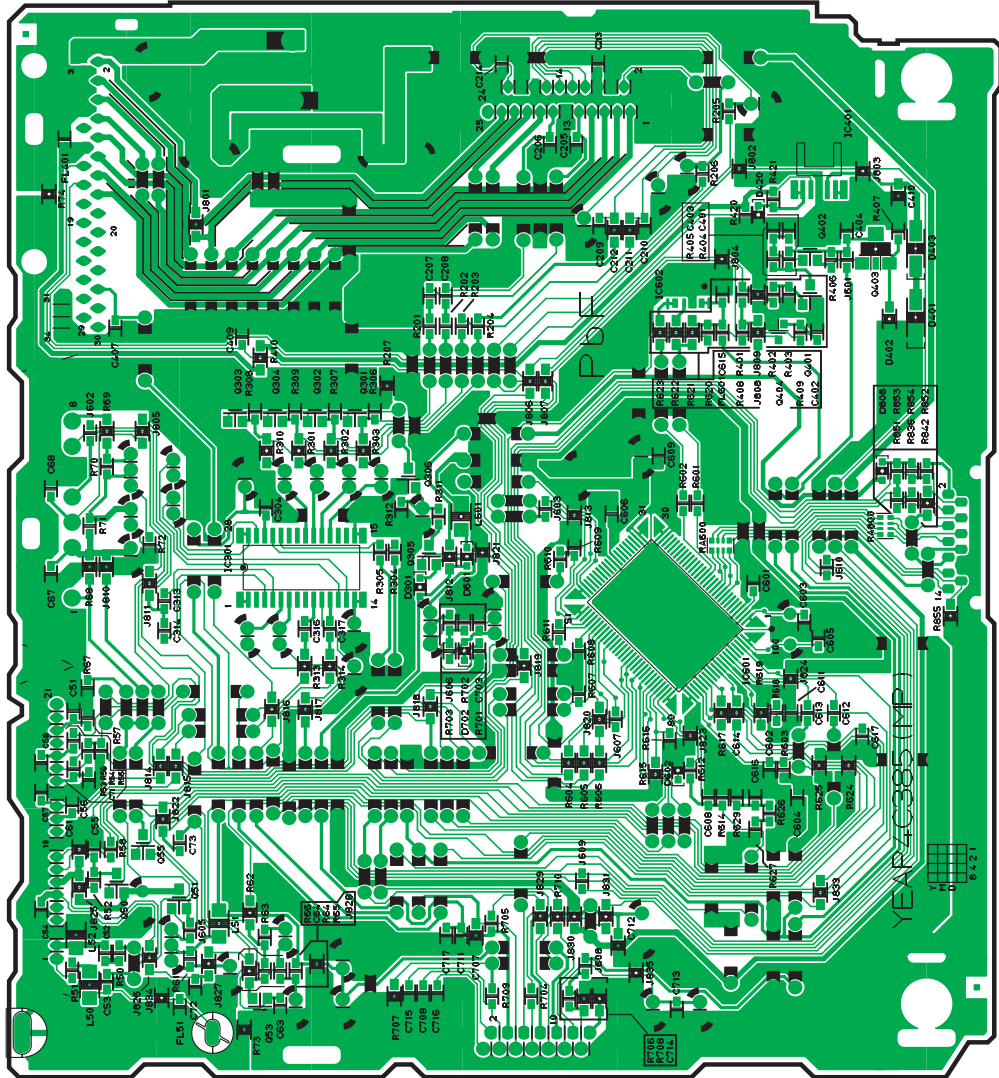
8.1. Main Block (Top View)



[E-4C385][Top View]

CR-W405U MAIN P.C.B

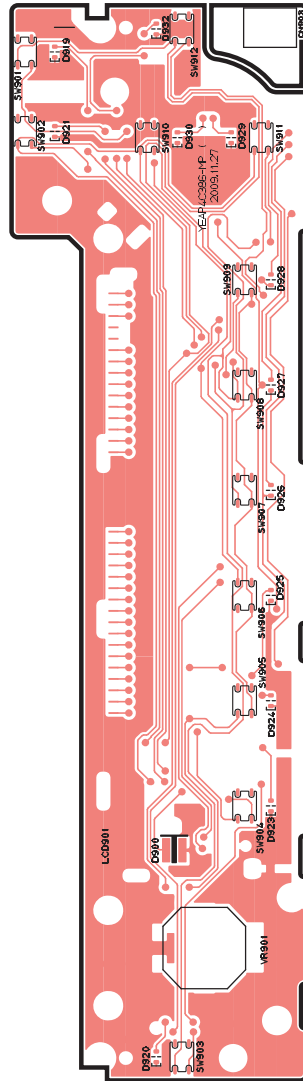
8.2. Main Block (Bottom View)



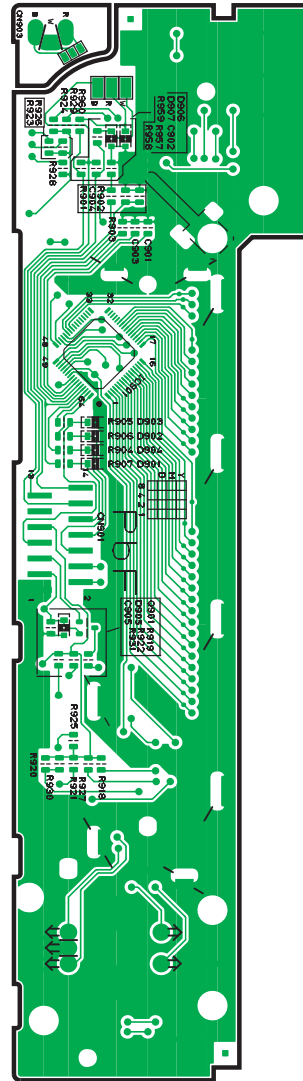
[E-4C385][Bottom View]

CR-W405U MAIN P.C.B

8.3. Display Block



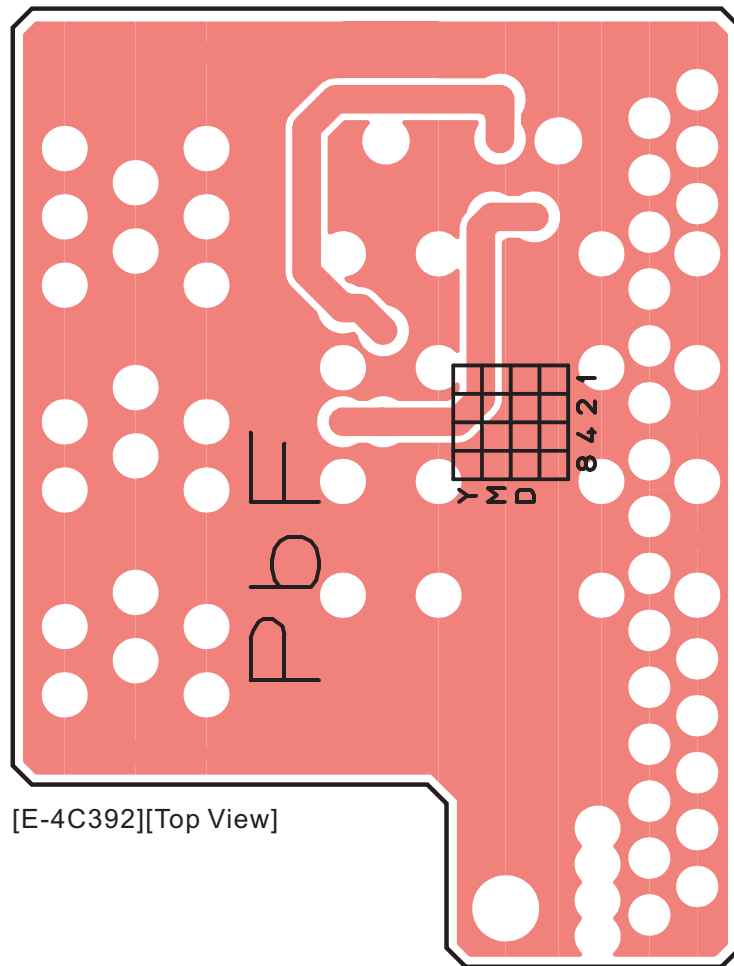
[E-4C386][Top View]



[E-4C386][Bottom View]

CR-W405U DISPLAY P.C.B

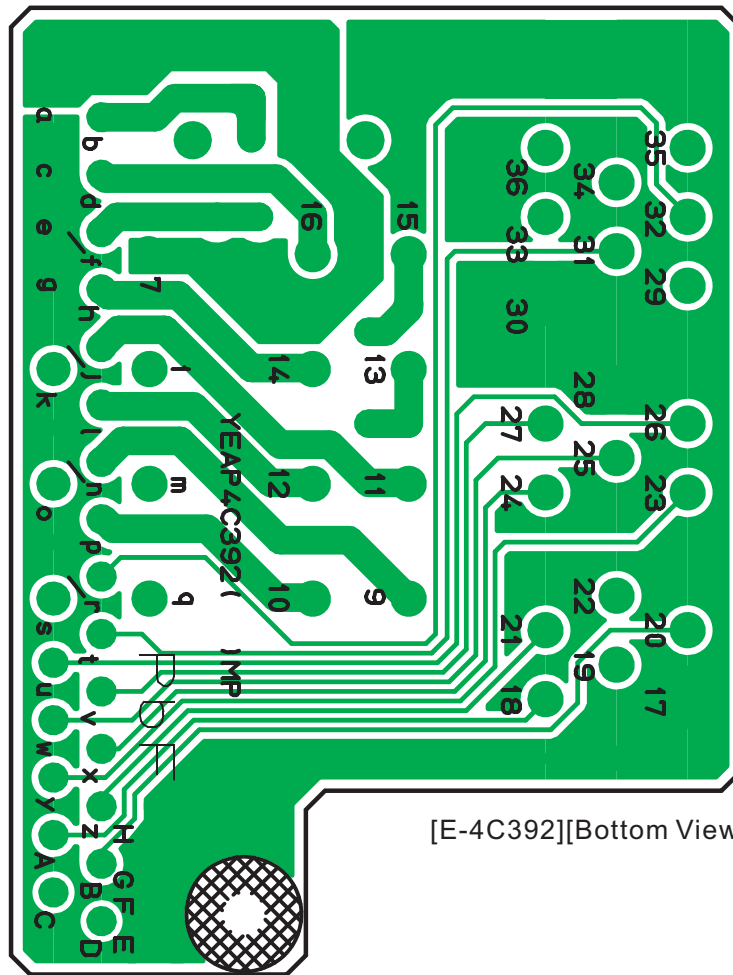
8.4. Iso Block (Top View)



[E-4C392][Top View]

CR-W405U ISO P.C.B

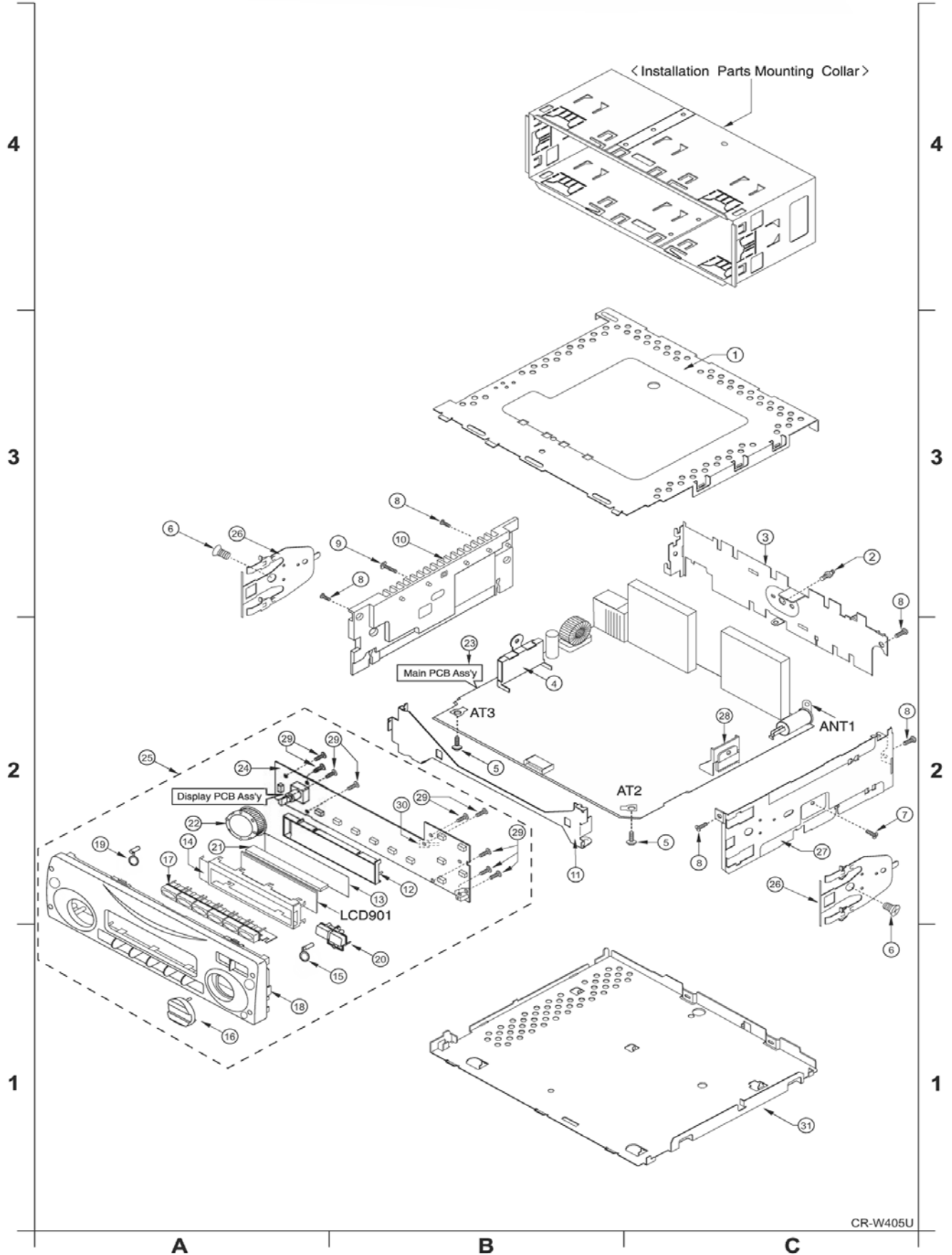
8.5. Iso Block (Bottom View)



9 Exploded View and Replacement Parts List

9.1. Exploded View (Unit)

■ Numbers in ○ are indicated REF.No.in the REPLACEMENT PARTS LIST



9.2. Replacement Parts List

Notes:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
 - Order intake period is basically six months after the first shipment.
5. Reference materials of parts with the "TSN" mark in the remarks column are uploaded in the TSN (Technical Service Navigation) system website. Please download from that website for references.
6. "T"marks in remarks column are indicated supply parts of PTW.

Ref No.	Part No.	Part Name & Description	Remarks
MAIN BLOCK [E-4C385]			
ICs AND TRANSISTORS			
IC201	C1EA00000042	IC	T
IC301	C1BB000000543	IC	T
IC601	LC723781XX02	IC	T
IC602	C3EBCY000018	IC	T
IC701	C0DAZHF00004	IC	T
P50	C5BA00000122	Tuner (W/B)	T
P51	J3CZAB000001	Tuner	T
Q301	B1GBCFGA0002	Transistor	T
Q302	B1GBCFGA0002	Transistor	T
Q303	B1GBCFGA0002	Transistor	T
Q304	B1GBCFGA0002	Transistor	T
Q305	B1GDCFN00002	Transistor	T
Q306	B1GDCFN00002	Transistor	T
Q401	2SC24040YL	Transistor	T
Q402	2SB0709AWL	Transistor	T
Q403	B1BBAC000014	Transistor	T
Q404	B1GBCFJN0009	Transistor	T
Q50	B1GDGFEH0001	Transistor	T
Q51	B1GDGFEH0001	Transistor	T
Q52	B1AAEC000002	Transistor	T
Q53	B1CBGF000005	Transistor	T
Q54	B1AAAF000002	Transistor	T
Q55	B1GDGFEH0001	Transistor	T
Q701	B1GCCFNN0005	Transistor	T
Q702	B1GACFCJ0003	Transistor	T
DIODES			
D201	B0EAJP000001	Diode	T
D202	B0EAJP000001	Diode	T
D203	B0EAJP000001	Diode	T
D204	B0EAJP000001	Diode	T
D205	B0EAJP000001	Diode	T
D206	B0EAJP000001	Diode	T
D207	B0EAJP000001	Diode	T
D208	B0EAJP000001	Diode	T
D301	B0ACCK000005	Diode	T
D402	D0YFR00J0001	Chip Ω 1/8W	T

Ref No.	Part No.	Part Name & Description	Remarks
D420	B0BC5R600003	Diode	T
D50	MA2C85600E	Diode	T
D51	MA2C85600E	Diode	T
D52	B0AADL000002	Diode	T
D53	B0AADL000002	Diode	T
D601	B0ACCK000005	Diode	T
D602	B0BC5R600003	Diode	T
D701	YEADSR10A08G	Silicon Diode	T
D702	B0BC6R700006	Diode	T
D703	B0JAME000085	Diode	T
D808	B0ACCK000005	Diode	T
VS701	D4ECY470A001	Zener Diode	T
CAPACITORS			
C201	F2A1C100A401	Electrolytic 10 μ F 16WV	T
C202	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C203	F2A1H1R0A407	Electrolytic 1 μ F 50WV	T
C204	F2A1A101A354	Electrolytic 100 μ F 10WV	T
C205	F1J1H222A733	Ceramic 2200pF 50WV	T
C206	F1J1H222A733	Ceramic 2200pF 50WV	T
C207	F1J1H224A784	Ceramic 0.22 μ F 50WV	T
C208	F1J1H224A784	Ceramic 0.22 μ F 50WV	T
C209	F1J1H222A733	Ceramic 2200pF 50WV	T
C210	F1J1H222A733	Ceramic 2200pF 50WV	T
C211	F1K1H224A152	Ceramic 0.22 μ F 50WV	T
C212	F1K1H224A152	Ceramic 0.22 μ F 50WV	T
C213	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C214	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C301	F2A1H3R3A407	Electrolytic 3.3 μ F 50WV	T
C302	F2A1H3R3A407	Electrolytic 3.3 μ F 50WV	T
C303	F2A1A221A807	Electrolytic 220 μ F 10WV	T
C304	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C305	F2A1C100A401	Electrolytic 10 μ F 16WV	T
C306	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C307	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C308	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C309	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C310	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C311	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C312	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C313	F1J1C105A173	Ceramic 1 μ F 16WV	T
C314	F1J1C105A173	Ceramic 1 μ F 16WV	T
C315	F2A1H2R2A407	Electrolytic 2.2 μ F 50WV	T
C316	F1J1C105A173	Ceramic 1 μ F 16WV	T
C317	F1J1C105A173	Ceramic 1 μ F 16WV	T
C401	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C402	F1J1H104A733	Ceramic 0.1 μ F 50WV	T
C403	F1J1C105A173	Ceramic 1 μ F 16WV	T
C404	F1J1C105A173	Ceramic 1 μ F 16WV	T
C407	F1J1H104A733	Ceramic 0.1 μ F 50WV	T
C409	F1J1H104A733	Ceramic 0.1 μ F 50WV	T
C50	F2A1C471A035	Electrolytic 470 μ F 16WV	T
C51	F1J1H102A733	Ceramic 1000pF 50WV	T
C52	F1J1H471A733	Ceramic 470pF 50WV	T
C53	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C54	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C55	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C56	F1J1H333A733	Ceramic 0.033 μ F 50WV	T
C57	F1J1H333A733	Ceramic 0.033 μ F 50WV	T
C58	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C601	F1J1C105A173	Ceramic 1 μ F 16WV	T
C602	F1J1H102A733	Ceramic 1000pF 50WV	T
C603	F1J1H220A732	Ceramic 22pF 50WV	T
C604	F1J1H104A733	Ceramic 0.1 μ F 50WV	T
C605	F1J1H220A732	Ceramic 22pF 50WV	T
C606	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C607	F2A0J331A020	Electrolytic 330 μ F 6.3WV	T
C609	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C61	F1K1H103A116	Ceramic 0.01 μ F 50WV	T
C610	F2A0J102A031	Electrolytic 100 μ F 6.3WV	T
C611	F1J1C105A173	Ceramic 1 μ F 16WV	T
C612	F1J1H101A732	Ceramic 100pF 50WV	T

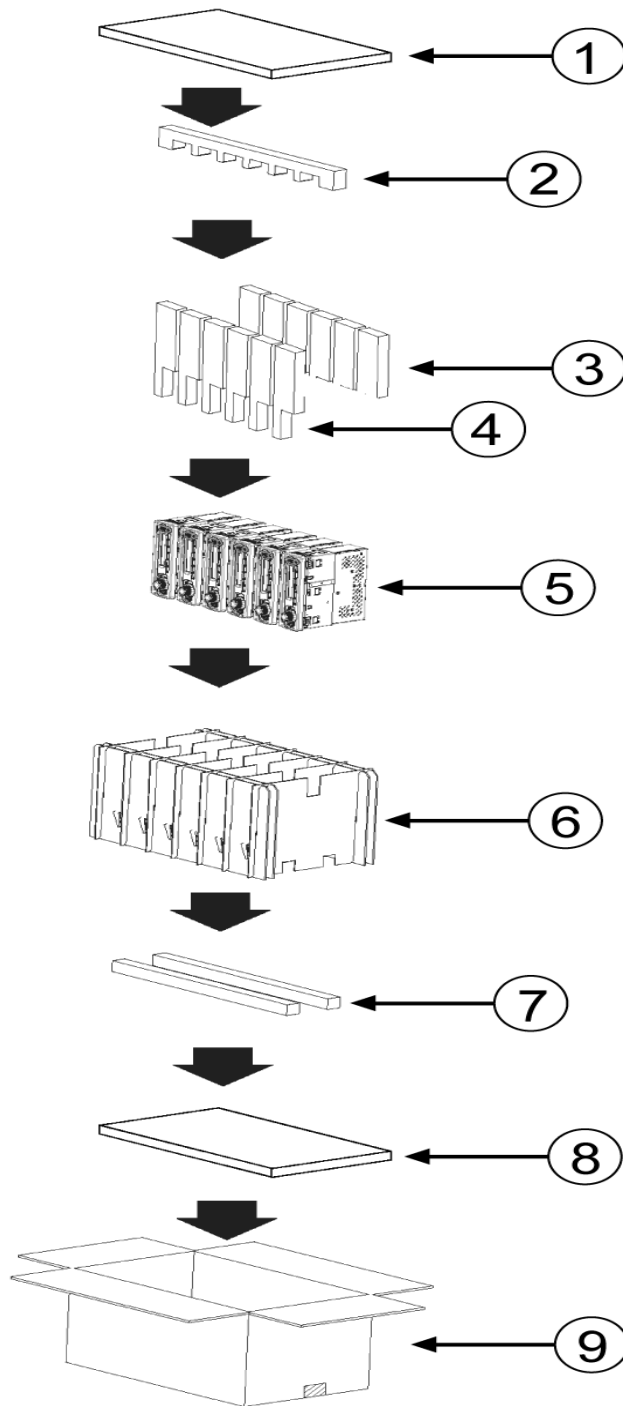
Ref No.	Part No.	Part Name & Description	Remarks
C613	F1J1H101A732	Ceramic 100pF 50WV	T
C614	F1K1H101A153	Ceramic 100pF 50WV	T
C615	F1J1C105A173	Ceramic 1μF 16WV	T
C616	F1J1H103A733	Ceramic 0.01μF 50WV	T
C617	F1J1H104A733	Ceramic 0.1μF 50WV	T
C62	F2A1A101A354	Electrolytic 100μF 10WV	T
C63	F1J1H101A732	Ceramic 100pF 50WV	T
C64	F1J1H682A733	Ceramic 6800pF 50WV	T
C65	F2A1A101A354	Electrolytic 100μF 10WV	T
C66	F2A1V4R7A961	Electrolytic 4.7μF 35WV	T
C67	F1J1H103A733	Ceramic 0.01μF 50WV	T
C68	F1J1H103A733	Ceramic 0.01μF 50WV	T
C69	F2A1A101A354	Electrolytic 100μF 10WV	T
C70	F2A1H1R0A407	Electrolytic 1μF 50WV	T
C701	ECA1CDT472L	Electrolytic 4700μF 16WV	T
C702	ECA1VM472CV	Electrolytic 4700μF 35WV	T
C704	F2A1A221A807	Electrolytic 220μF 10WV	T
C705	F2A1A221A807	Electrolytic 220μF 10WV	T
C706	F2A1A221A807	Electrolytic 220μF 10WV	T
C707	F1K1H103A116	Ceramic 0.01μF 50WV	T
C708	F1J1H103A733	Ceramic 0.01μF 50WV	T
C709	F2A1A820B205	Electrolytic 82μF 10WV	T
C71	F1J1H102A733	Ceramic 1000pF 50WV	T
C710	F2A1C102B400	Electrolytic 1000μF 16WV	T
C711	F1J1H103A733	Ceramic 0.01μF 50WV	T
C712	F1K1H103A116	Ceramic 0.01μF 50WV	T
C713	F1J1H103A733	Ceramic 0.01μF 50WV	T
C714	F1K1H104A116	Ceramic 0.1μF 50WV	T
C715	F1J1H103A733	Ceramic 0.01μF 50WV	T
C716	F1J1H103A733	Ceramic 0.01μF 50WV	T
C717	F1J1H103A733	Ceramic 0.01μF 50WV	T
C72	F1J1H104A733	Ceramic 0.1μF 50WV	T
C73	F1J1H104A733	Ceramic 0.1μF 50WV	T
RESISTORS			
J101	W6NL	Jumper Wire(10 mm)	T
J102	W6NL	Jumper Wire (10 mm)	T
J103	W6NL	Jumper Wire (10 mm)	T
J104	W6NL	Jumper Wire (10 mm)	T
J105	W6NL	Jumper Wire (10 mm)	T
J106	W6NL	Jumper Wire (10 mm)	T
J107	W6NL	Jumper Wire (10 mm)	T
J108	W6NL	Jumper Wire (10 mm)	T
J109	W6NL	Jumper Wire (10 mm)	T
J110	W6NL	Jumper Wire (10 mm)	T
J111	W6NL	Jumper Wire (10 mm)	T
J112	W6NL	Jumper Wire (10 mm)	T
J113	W6NL	Jumper Wire (10 mm)	T
J114	W6NL	Jumper Wire (10 mm)	T
J115	W6NL	Jumper Wire (10 mm)	T
J116	W6NL	Jumper Wire (10 mm)	T
J117	W6NL	Jumper Wire (10 mm)	T
J118	W6NL	Jumper Wire (10 mm)	T
J119	W6NL	Jumper Wire (10 mm)	T
J120	W6NL	Jumper Wire (10 mm)	T
J121	W6NL	Jumper Wire (10 mm)	T
J122	W6NL	Jumper Wire (10 mm)	T
J123	W6NL	Jumper Wire (10 mm)	T
J124	W6NL	Jumper Wire (10 mm)	T
J125	W6NL	Jumper Wire (10 mm)	T
J126	W6NL	Jumper Wire (10 mm)	T
J127	W6NL	Jumper Wire (10 mm)	T
J128	W6NL	Jumper Wire (10 mm)	T
J129	W6NL	Jumper Wire (10 mm)	T
J130	W6NL	Jumper Wire (10 mm)	T
J131	W6NL	Jumper Wire (10 mm)	T
J132	W6NL	Jumper Wire (10 mm)	T
J133	W6NL	Jumper Wire (10 mm)	T
J134	W6NL	Jumper Wire (10 mm)	T
J135	W6NL	Jumper Wire (10 mm)	T
J136	W6NL	Jumper Wire (10 mm)	T
J137	W6NL	Jumper Wire (10 mm)	T
J138	W6NL	Jumper Wire (10 mm)	T
J139	W6NL	Jumper Wire (10 mm)	T

Ref No.	Part No.	Part Name & Description	Remarks
J140	W6NL	Jumper Wire (10 mm)	T
J141	W6NL	Jumper Wire (10 mm)	T
J142	W6NL	Jumper Wire (10 mm)	T
J143	W6NL	Jumper Wire (10 mm)	T
J144	W6NL	Jumper Wire (10 mm)	T
J145	W6NL	Jumper Wire (10 mm)	T
J146	W6NL	Jumper Wire (10 mm)	T
J147	W6NL	Jumper Wire (10 mm)	T
J148	W6NL	Jumper Wire (10 mm)	T
J149	W6NL	Jumper Wire (10 mm)	T
J150	W6NL	Jumper Wire (10 mm)	T
J151	W6NL	Jumper Wire (10 mm)	T
J152	W6NL	Jumper Wire (10 mm)	T
J153	W6NL	Jumper Wire (10 mm)	T
J154	W6NL	Jumper Wire (10 mm)	T
J155	W6NL	Jumper Wire (10 mm)	T
J156	W6NL	Jumper Wire (10 mm)	T
J157	W6NL	Jumper Wire (10 mm)	T
J158	W6NL	Jumper Wire (10 mm)	T
J159	W6NL	Jumper Wire (10 mm)	T
J160	W6NL	Jumper Wire (10 mm)	T
J161	W6NL	Jumper Wire (10 mm)	T
J162	W6NL	Jumper Wire (10 mm)	T
J163	W6NL	Jumper Wire (10 mm)	T
J164	W6NL	Jumper Wire (10 mm)	T
J165	W6NL	Jumper Wire (10 mm)	T
J166	W6NL	Jumper Wire (10 mm)	T
J167	W6NL	Jumper Wire (10 mm)	T
J168	W6NL	Jumper Wire (10 mm)	T
J169	W6NL	Jumper Wire (10 mm)	T
J180	W6NL	Jumper Wire (10 mm)	T
J501	W6NL	Jumper Wire (10 mm)	T
J502	W6NL	Jumper Wire (10 mm)	T
J503	W6NL	Jumper Wire (10 mm)	T
J504	W6NL	Jumper Wire (10 mm)	T
J505	W6NL	Jumper Wire (10 mm)	T
J506	W6NL	Jumper Wire (10 mm)	T
J507	W6NL	Jumper Wire (10 mm)	T
J508	W6NL	Jumper Wire (10 mm)	T
J509	W6NL	Jumper Wire (10 mm)	T
J510	W6NL	Jumper Wire (10 mm)	T
J511	W6NL	Jumper Wire (10 mm)	T
J512	W6NL	Jumper Wire (10 mm)	T
J513	W6NL	Jumper Wire (10 mm)	T
J514	W6NL	Jumper Wire (10 mm)	T
J515	W6NL	Jumper Wire (10 mm)	T
J516	W6NL	Jumper Wire (10 mm)	T
J517	W6NL	Jumper Wire (10 mm)	T
J518	W6NL	Jumper Wire (10 mm)	T
J519	W6NL	Jumper Wire (10 mm)	T
J520	W6NL	Jumper Wire (10 mm)	T
J521	W6NL	Jumper Wire (10 mm)	T
J522	W6NL	Jumper Wire (10 mm)	T
J523	W6NL	Jumper Wire (10 mm)	T
J527	W6NL	Jumper Wire (10 mm)	T
J528	W6NL	Jumper Wire (10 mm)	T
J529	W6NL	Jumper Wire (10 mm)	T
J530	W6NL	Jumper Wire (10 mm)	T
J531	W6NL	Jumper Wire (10 mm)	T
J532	W6NL	Jumper Wire (10 mm)	T
J533	W6NL	Jumper Wire (10 mm)	T
J601	D0GDR00JA017	Chip 0Ω 1/10W	T
J602	D0GDR00JA017	Chip 0Ω 1/10W	T
J603	D0GDR00JA017	Chip 0Ω 1/10W	T
J605	D0GDR00JA017	Chip 0Ω 1/10W	T
J606	D0GDR00JA017	Chip 0Ω 1/10W	T
J607	D0GDR00JA017	Chip 0Ω 1/10W	T
J608	D0GDR00JA017	Chip 0Ω 1/10W	T
J609	D0GDR00JA017	Chip 0Ω 1/10W	T
J610	D0GDR00JA017	Chip 0Ω 1/10W	T
J801	D0YFR00J0001	Chip 0Ω 1/8W	T
J802	D0YFR00J0001	Chip 0Ω 1/8W	T
J803	D0YFR00J0001	Chip 0Ω 1/8W	T
J804	D0YFR00J0001	Chip 0Ω 1/8W	T

Ref No.	Part No.	Part Name & Description	Remarks
DISPLAY BLOCK [E-4C386]			
IC AND TRANSISTOR			
IC901	C0HBA0000225	IC	T
Q901	B1GDCFJJ0002	Transistor	T
DIODEs			
D900	YEADLPA675	LED (GREEN)	T
D901	MAZ80560ML	Zener Diode	T
D902	MAZ80560ML	Zener Diode	T
D903	MAZ80560ML	Zener Diode	T
D904	MAZ80560ML	Zener Diode	T
D905	MAZ80560ML	Zener Diode	T
D906	MAZ80560ML	Zener Diode	T
D907	MAZ80560ML	Zener Diode	T
D919	B3AAB0000216	LED	T
D920	YEAD19213BPC	LED (GREEN)	T
D921	YEAD19213BPC	LED (GREEN)	T
D923	YEAD19213BPC	LED (GREEN)	T
D924	YEAD19213BPC	LED (GREEN)	T
D925	YEAD19213BPC	LED (GREEN)	T
D926	YEAD19213BPC	LED (GREEN)	T
D927	YEAD19213BPC	LED (GREEN)	T
D928	YEAD19213BPC	LED (GREEN)	T
D929	YEAD19213BPC	LED (GREEN)	T
D930	YEAD19213BPC	LED (GREEN)	T
D932	YEAD19213BPC	LED (GREEN)	T
CAPACITORS			
C901	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C902	F1J1H104A036	Ceramic 0.1 μ F 50WV	T
C903	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
C904	F1J1H821A733	Ceramic 820pF 50WV	T
C905	F1J1H103A733	Ceramic 0.01 μ F 50WV	T
RESISTORS			
R901	D0GD272JA017	Chip 2.7k Ω 1/10W	T
R902	D0GD683JA017	Chip 68k Ω 1/10W	T
R903	D0GD4R7JA056	Chip 4.7 Ω 1/10W	T
R904	D0GD102JA017	Chip 1k Ω 1/10W	T
R905	D0GD102JA017	Chip 1k Ω 1/10W	T
R906	D0GD102JA017	Chip 1k Ω 1/10W	T
R907	D0GD102JA017	Chip 1k Ω 1/10W	T
R918	D0GD391JA017	Chip 390 Ω 1/10W	T
R919	D0GD681JA017	Chip 680 Ω 1/10W	T
R920	D0GD471JA017	Chip 470 Ω 1/10W	T
R921	D0GD391JA017	Chip 390 Ω 1/10W	T
R922	D0GD431JA017	Chip 150 Ω 1/10W	T
R923	D0GD431JA017	Chip 150 Ω 1/10W	T
R924	D0GD821JA017	Chip 560 Ω 1/10W	T
R925	D0GD431JA017	Chip 430 Ω 1/10W	T
R926	D0GD431JA017	Chip 430 Ω 1/10W	T
R927	D0GD331JA017	Chip 330 Ω 1/10W	T
R928	D0GD431JA017	Chip 430 Ω 1/10W	T
R929	D0GD821JA017	Chip 820 Ω 1/10W	T
R930	D0GD301JA017	Chip 300 Ω 1/10W	T
R931	D0GD431JA017	Chip 430 Ω 1/10W	T
R957	D0GD123JA017	Chip 12k Ω 1/10W	T
R958	D0GD123JA017	Chip 12k Ω 1/10W	T
R959	D0GD562JA017	Chip 5.6k Ω 1/10W	T
R960	D0GD562JA017	Chip 5.6k Ω 1/10W	T
CONNECTORS			
CN901	K1KB14AA0173	Connector(14 PIN)	T
CN903	K2HC1YYA0020	Aux Jack	T
SWITCHes			
SW901	K0H1BA000445	Tack Swich	T
SW902	K0H1BA000445	Tack Swich	T
SW903	K0H1BA000445	Tack Swich	T
SW904	K0H1BA000445	Tack Swich	T
SW905	K0H1BA000445	Tack Swich	T
SW906	K0H1BA000445	Tack Swich	T
SW907	K0H1BA000445	Tack Swich	T
SW908	K0H1BA000445	Tack Swich	T

Ref No.	Part No.	Part Name & Description	Remarks
SW909	K0H1BA000445	Tack Swich	T
SW910	K0H1BA000445	Tack Swich	T
SW911	K0H1BA000445	Tack Swich	T
SW912	K0H1BA000445	Tack Swich	T
VR			
VR901	K9AA024A0014	Encode VR	T
LCD			
LCD901	YEXDCM4C126	LCD	T
ACCESSORIES			
PRINTINGS			
	--	Operating Instructions	TSN
	ZZPRW405U	Printing Kit	T
INSTALLATION PARTs			
	FX0214C079YA	Mounting Collar	T
	ZZBIS5255JU	BIS-KIT	T
	YEFX9994C007	SET ESCAPE CLIP	T
MECHANICAL PARTs			
MISCELLANEOUS			
ANT1	K2JYYA000002	Ant Jack	T
AT2	YAT034C009ZA	Terminal	T
AT3	YAT034C009ZA	Terminal	T
1	YFA034C076ZA	Upper Cover	T
2	YJV014C003FN	Bolt	T
3	YFA084C096CA	Rear Plate	T
4	YFX214C403CA	IC Bracket	T
5	YEJT034C001N	Screw	T
6	XSS5+6FN	Screw	T
7	YJT034C706FN	Screw	T
8	XTB3+6FFN	Screw (T TYPE)	T
9	YEJT034C019N	Screw (CUP TIGHT 3X12)	T
10	YFF014C068CA	Heat Sink	T
11	YFA074C051CA	Front Plate	T
12	YFX014C115CA	Backlight Assy	T
13	YFV024C104ZA	Sheet (LCD)	T
14	FX0214C350XA	LCD Bracket	T
15	YFE134C573CA	Button (DISP)	T
16	YFE134C327ZB	Button (SEEK/TUNE)	T
17	YFE134C504CA	Button (PRESET)	T
18	YFC034C233CA	ESC Printing	T
19	YFE134C572CA	Button (MUTE)	T
20	YFE134C516CA	Button (BAND/PWR)	T
21	YFS014C065YA	Rubber Gum	T
22	YFE074C067CA	Vol Knob Assy	T
23	APCB385A0-TY	Main PCB Assy	T/RTL
24	APCB386A0-TY	Display PCB Assy	T/RTL
25	ESCW405U-TY	ESC Unit Assy	T/RTL
26	FX0054C030ZA	Spring Plate	T
27	YFA094C108CA	Right Plate	T
28	YFX214C357ZB	TR Bracket	T
29	XTB2+6GFN	Screw	T
30	YFX214C782ZA	Fixture (KEY PCB)	T
31	YFA054C062CA	Bottom Cover	T

9.3. Packing Parts List

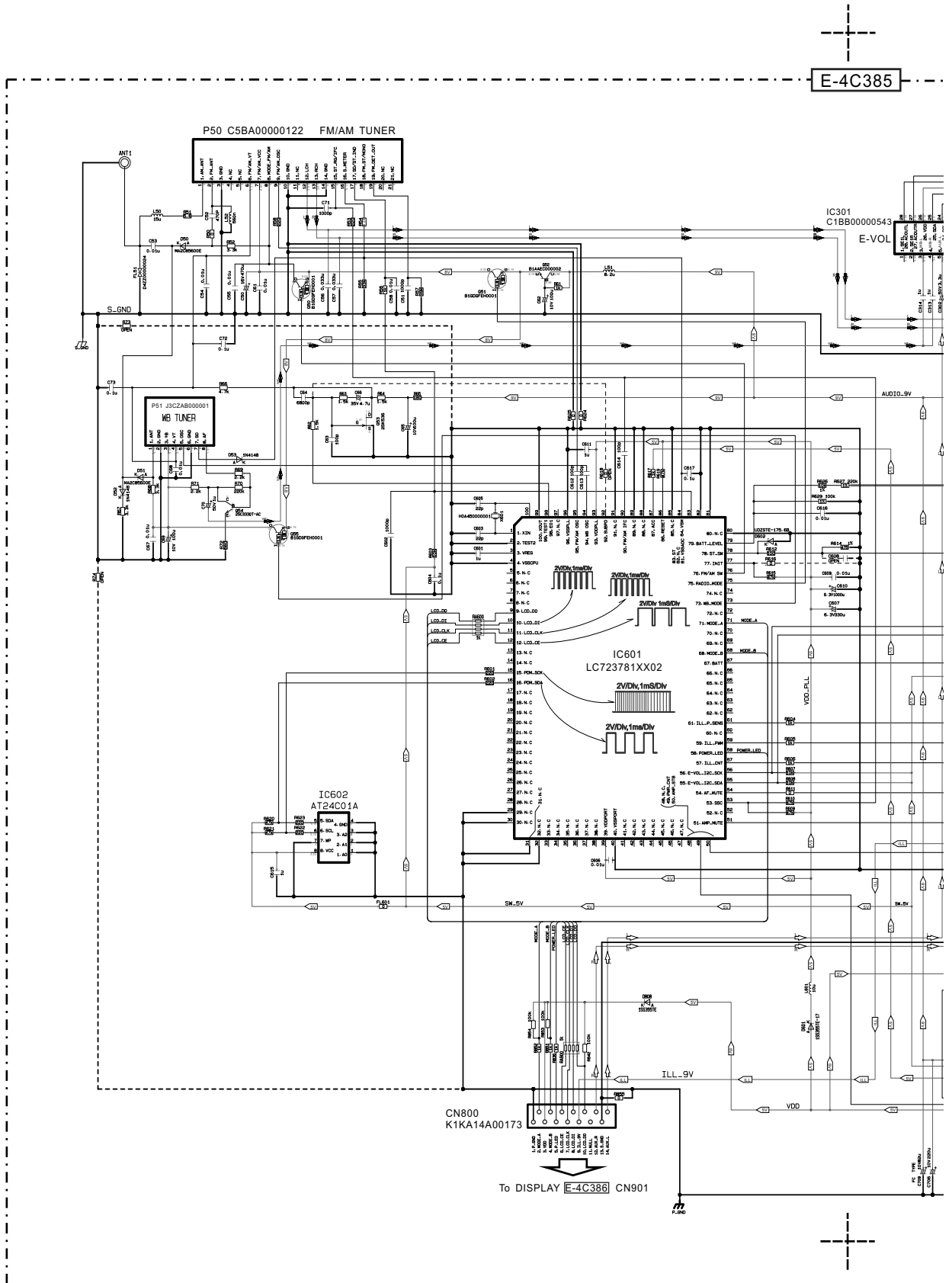


■ Item numbers listed below should not order regular spare parts. (not available)

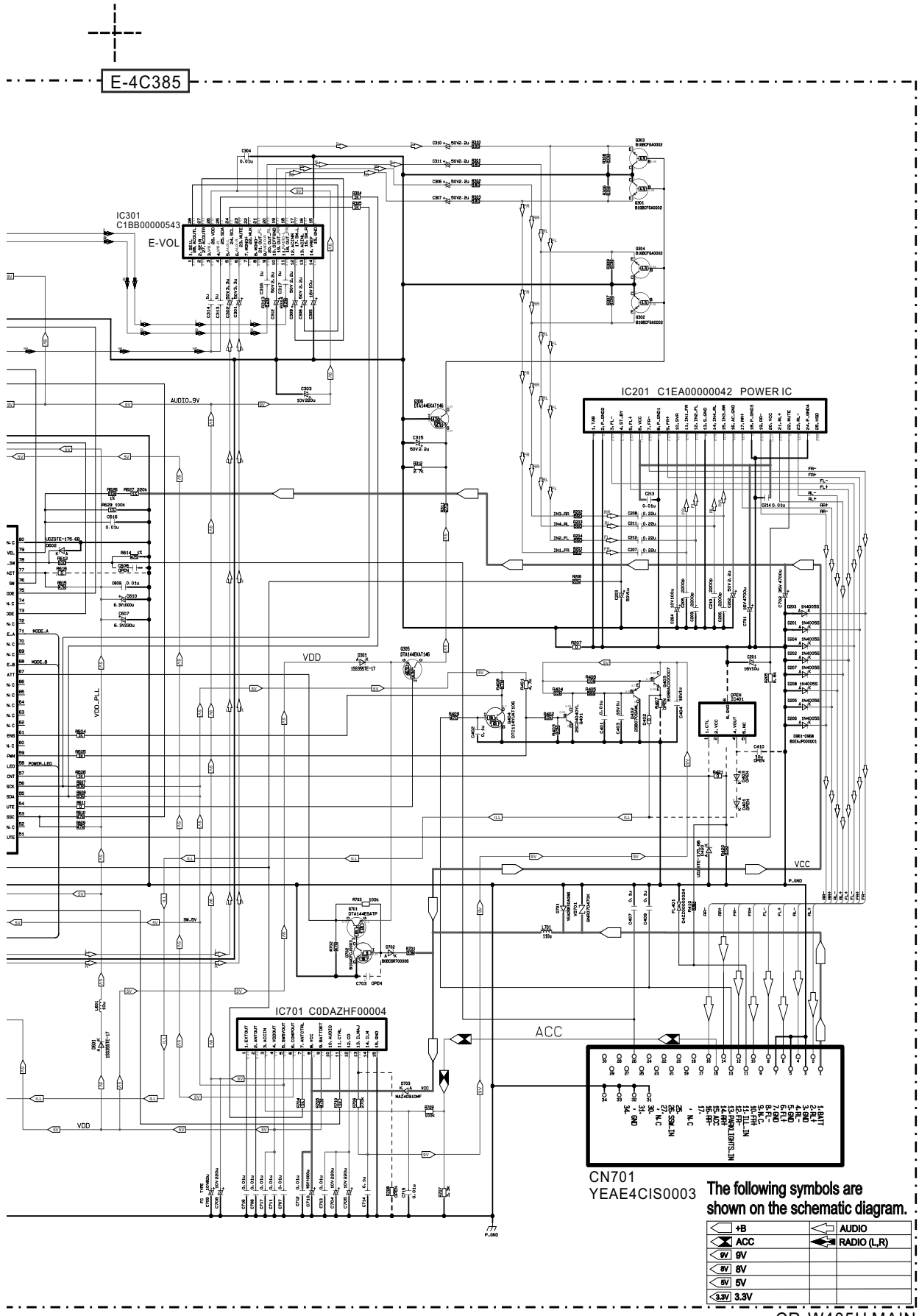
Item No	Parts No	Part Name & Description	Qty	Remarks
1	YFU134C051CA	PAD	1	Not available
2	YFU044C116CA	Cushion	1	Not available
3	YFU044C123CA	Cushion (Bottom)	1	Not available
4	YFU044C122CA	Cushion	1	Not available
5	---	Set	6	Not available
6	---	Cushion Assy	---	Not available
7	YFU044C117CA	Cushion	1	Not available
8	YFU134C051CA	PAD	1	Not available
9	YFU034C356CA	CARTON	1	Not available

10 Schematic Diagram for Printing with Letter Size

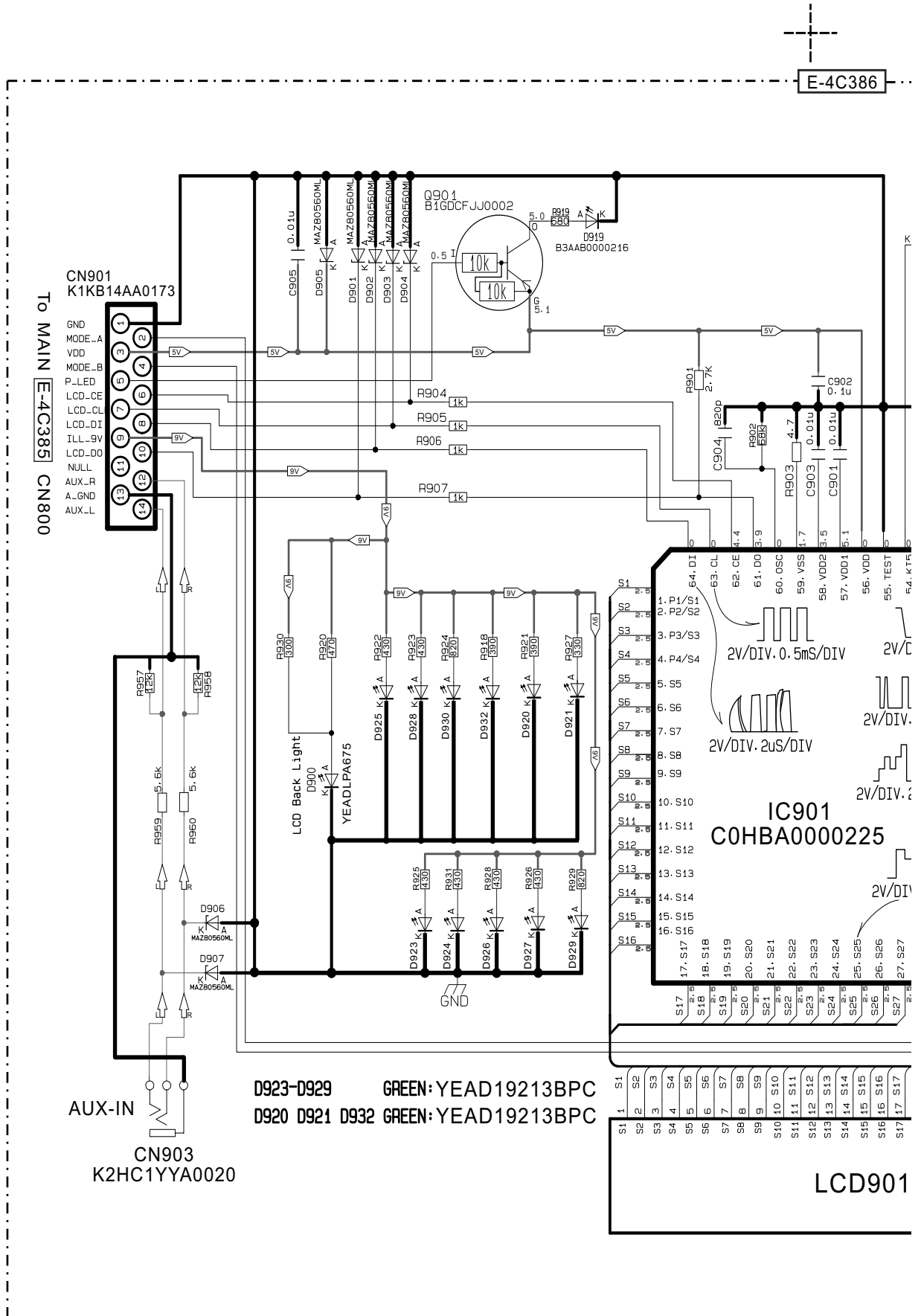
10.1. Main Block (Left Side)



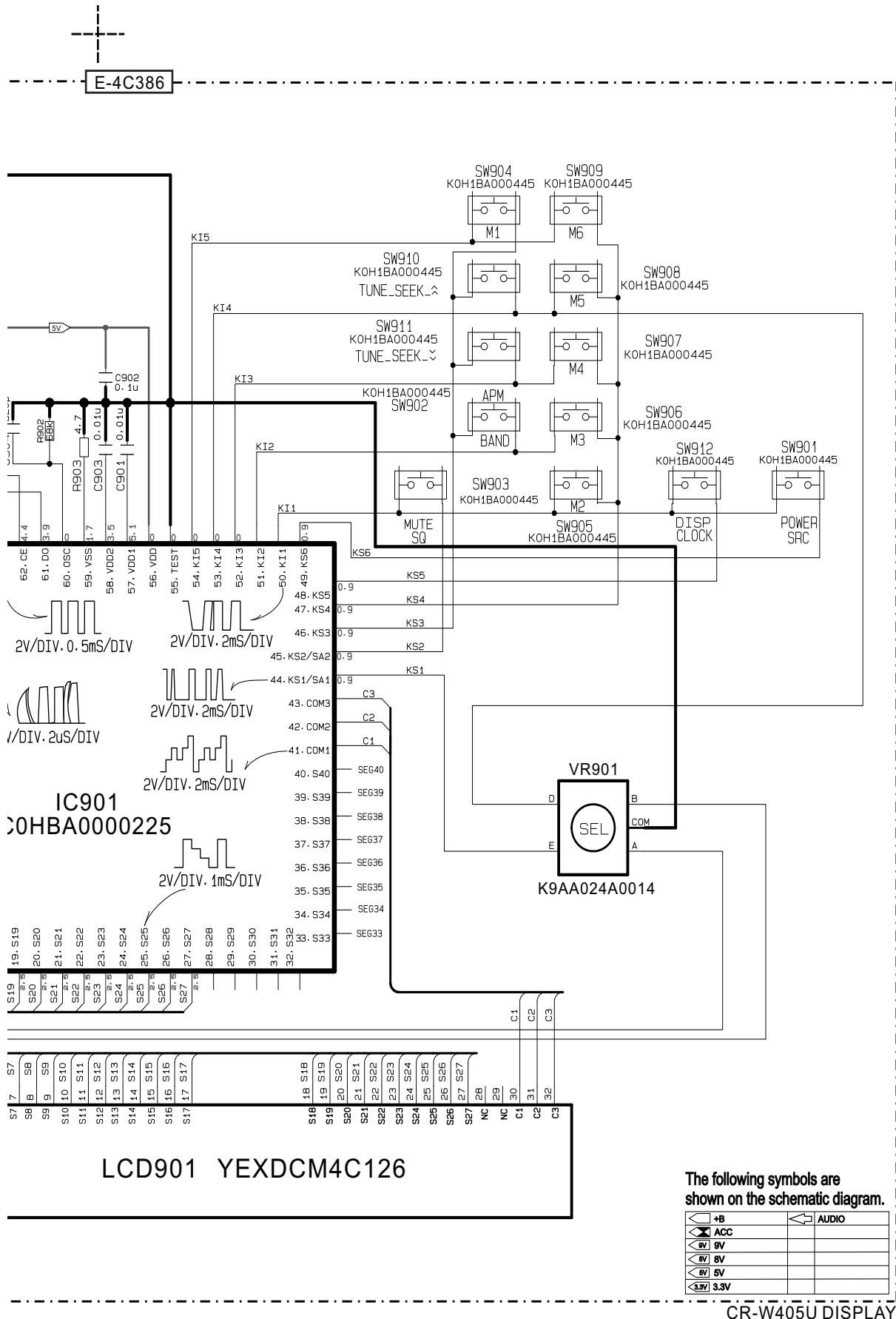
10.2. Main Block (Right side)



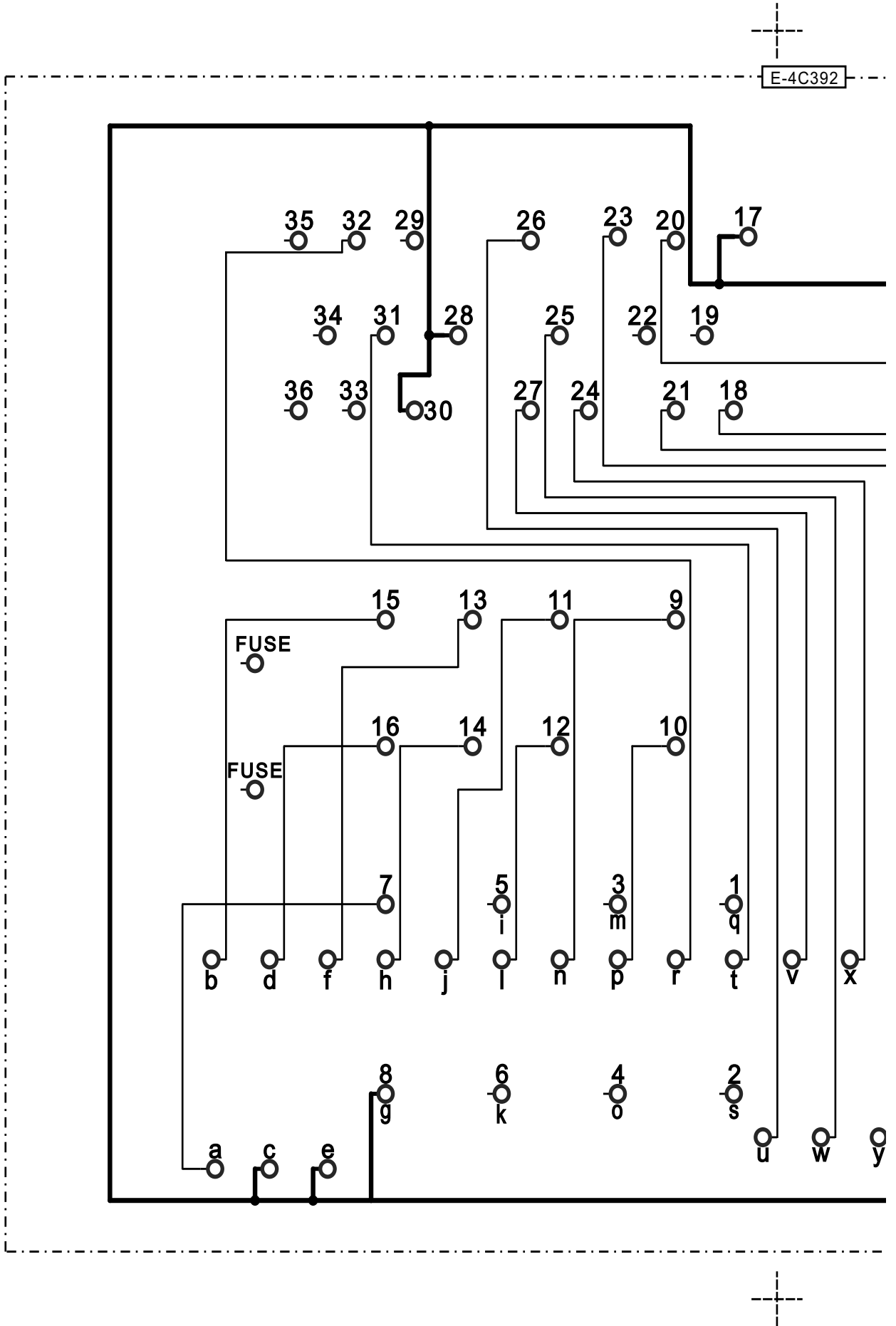
10.3. Display Block (Left Side)



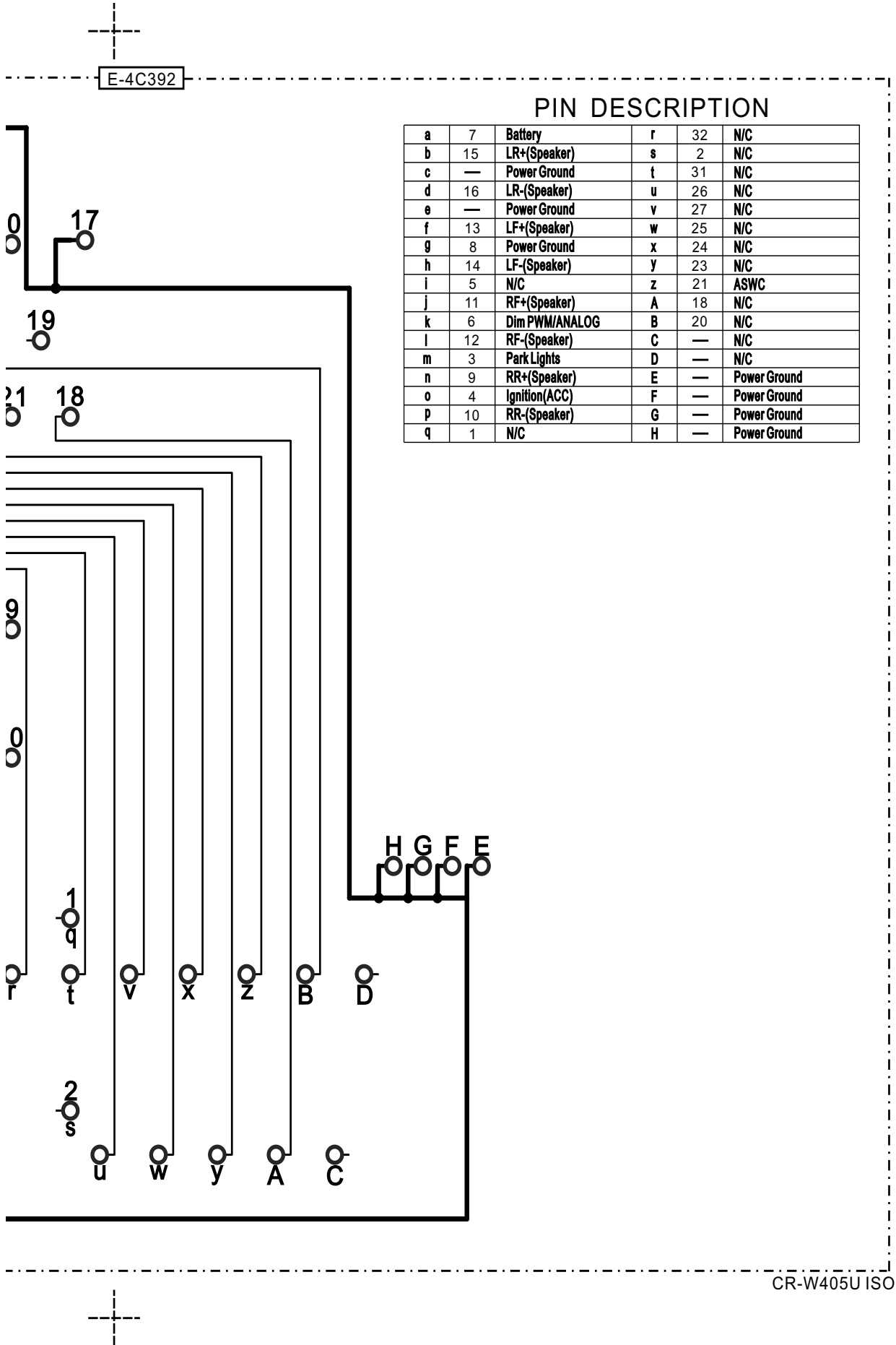
10.4. Display Block (Right side)



10.5. Iso Block (Left Side)



10.6. Iso Block (Right side)



CR-W405U ISO

