

SERVICE MANUAL

CI 940

**MULTI-CHANNEL
AMPLIFIER**

CI 940

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AMPLIFIER**

NAD

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PRODUCT SAFETY SERVICING GUIDELINES

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM AC LINE SHOCK.

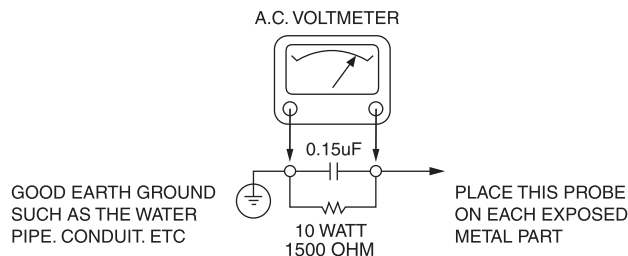
SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

SUBJECT : FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS. FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING AC CORD). AND REPLACE IF NECESSARY FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES, DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN AC LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS. HANDLE AND SCREWS) TO BE SURE THE SET IS SAFET TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN AC VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD, 150V AC TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME.
MEASURE THE AC VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR.
REVERSE THE AC PLUG AND REPEAT AC VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART.

VOLTAGE MEASURE MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMP AC ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT : GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE. OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

SERVICING PRECAUTIONS

CAUTION : Before servicing the poweramplifier covered by this service data and its supplements and addends, read and follow the **SAFETY PRECAUTIONS**. **NOTE** : if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publication, always follow the safety precautions.

Remember Safety First:

General Servicing Precautions

1. Always unplug the poweramplifier AC power cord from the AC power source before:
 - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
 - (2) Disconnecting or reconnecting any internal electrical plug or other electrical connection.
 - (3) Connecting a test substitute in parallel with an electrolytic capacitor.**Caution** : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this poweramplifier or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cottontipped swab, or comparable soft applicator.
Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this poweramplifier and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.

Note 1 : Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical Es devices are integrated circuits and some field effect transistors and semiconductor chip components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freonpropelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

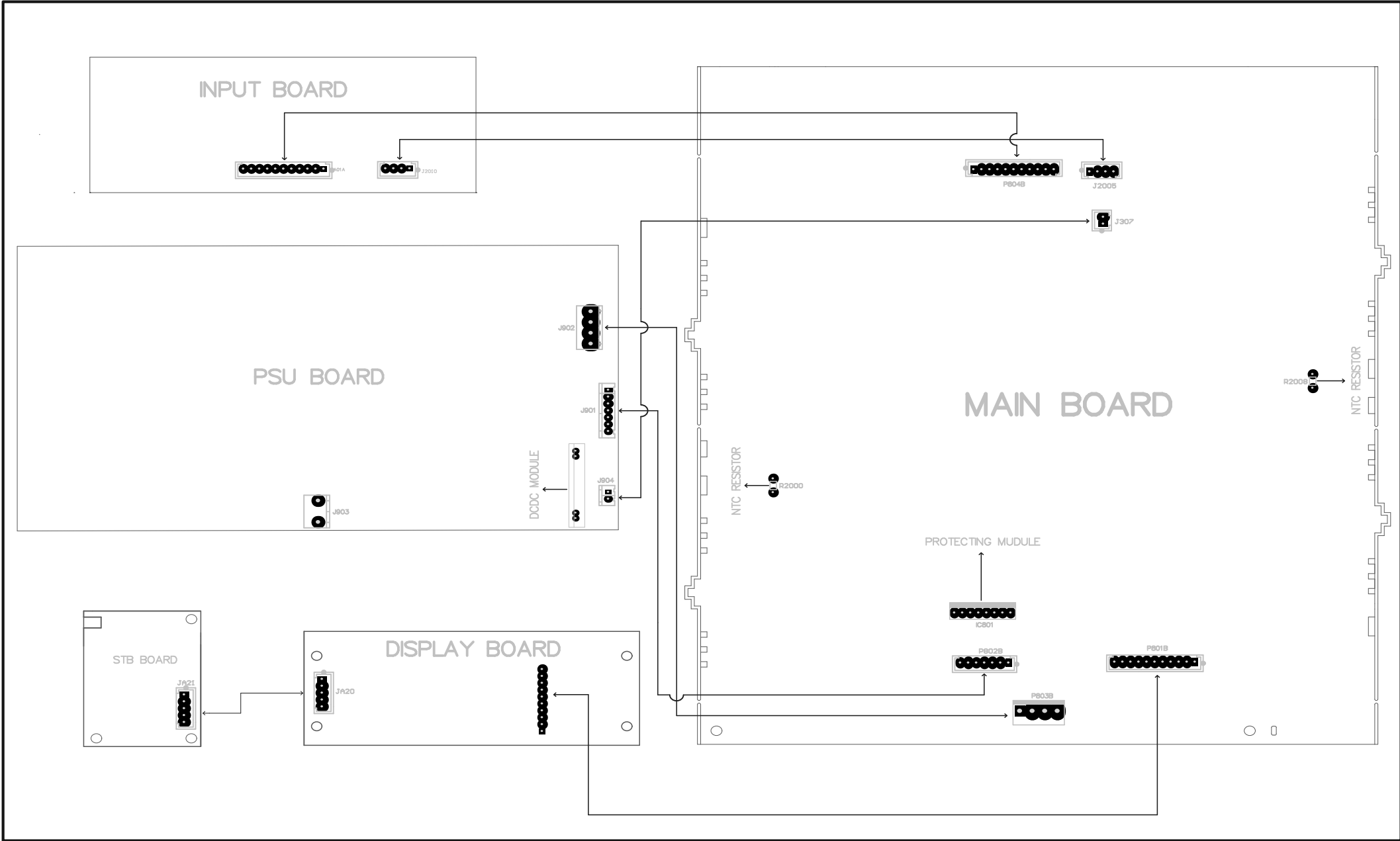
Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handing unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

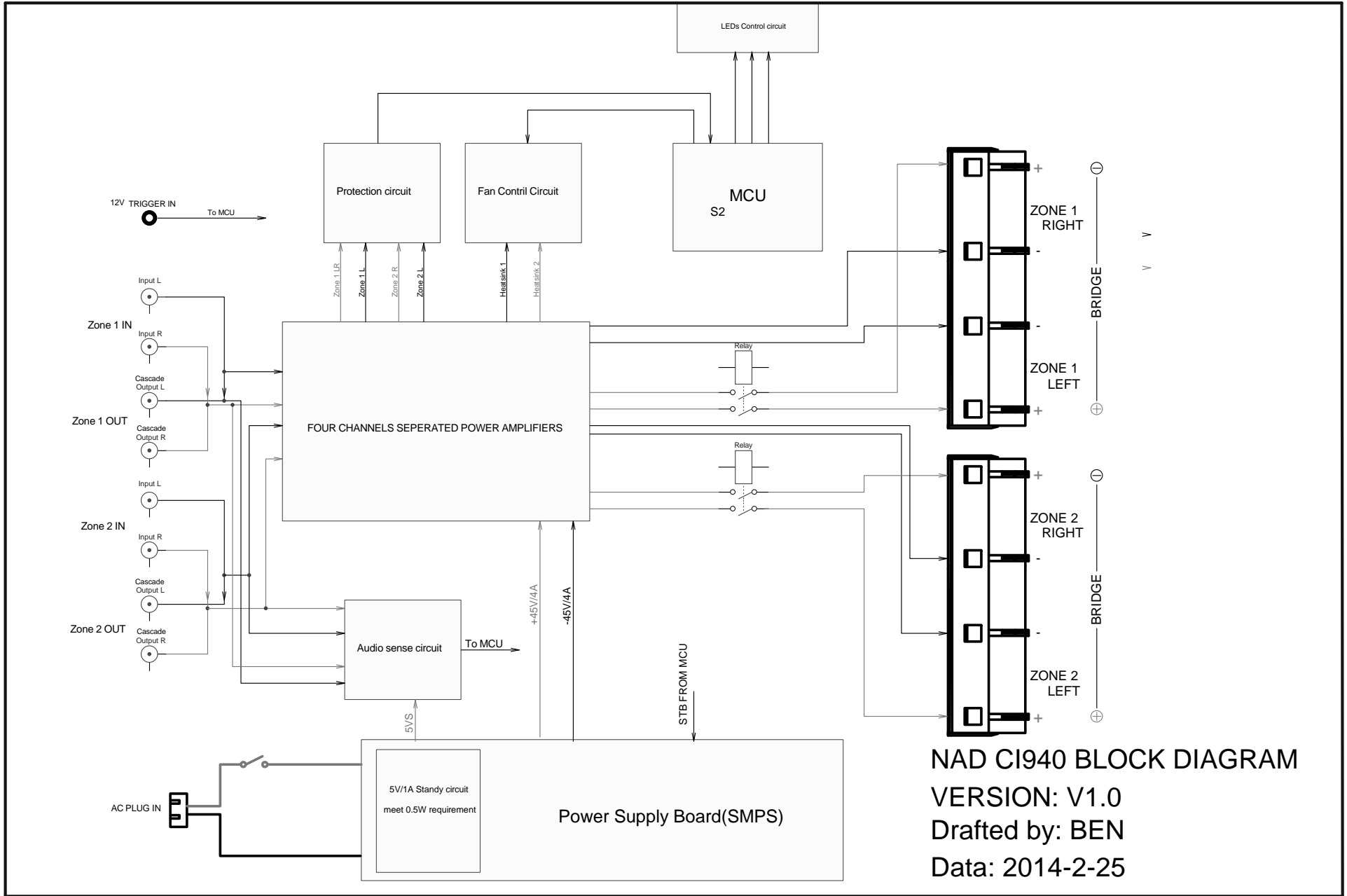
SPECIFICATIONS

		CI 940
Continuous Output Power	8 Ohms/4 Ohms 8 Ohms in Bridge Mode	4 x 35W (ref. rated THD, 20Hz-20kHz, all channels driven) 2 x 70W
Rated THD (250mW to rated power, CCIF IMD, DIM 100)		≤0.03% (ref. 20Hz-20kHz)
IHF Dynamic Power	8 ohms 4 ohms 2 ohms	55W 85W 95W
Damping Factor		>180 (ref. 8 ohms, 50Hz and 1kHz)
Input Sensitivity		270mV (ref. rated power)
Voltage Gain		35dB
Frequency Response		±0.2dB (ref. 20Hz-20kHz) -3dB at 3Hz and 100kHz
Signal/Noise Ratio, A-Weighted		>95dBA (ref. 1W) >110dB (ref. 35W)
Trigger		5-30V In (AC/DC) -52dBV, 12V Out
Time to Automatic Standby (without signal at input sense mode)		<10 minutes
GENERAL		
Rated Power		270W (120V 60Hz, 230V 50Hz)
Idle Power		<55W
Standby power		<0.5W
Unit Dimension (WxHxD) - Gross ** (includes knobs, terminals, feet and mounting brackets)		483 x 105 x 323mm 19 1/16 x 4 3/16 x 12 3/4"
Net weight		6.96kg (15.35lb)
Shipping weight		8.4kg (18.5lb)

WIRE DIAGRAM

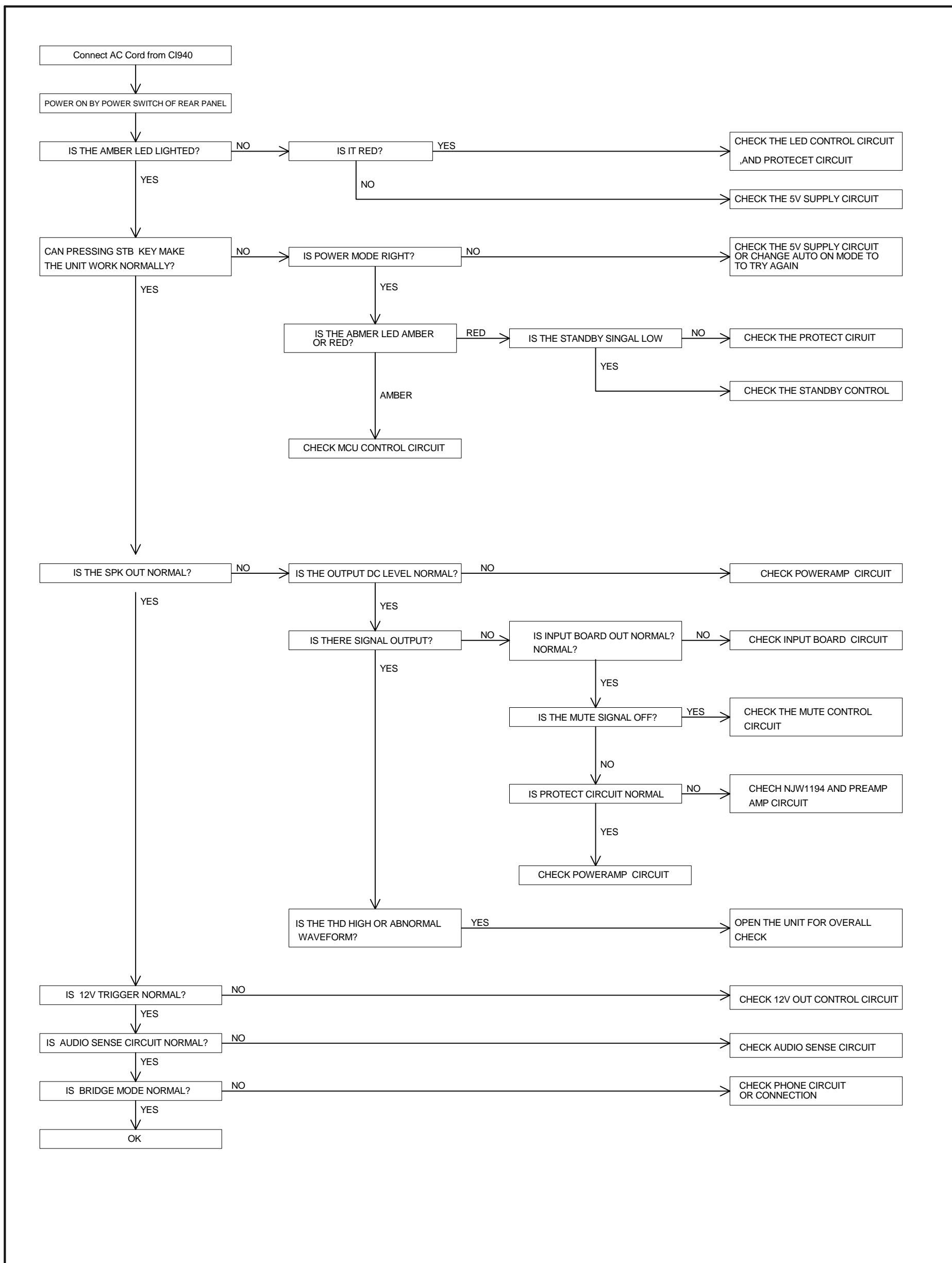


BLOCK DIAGRAM

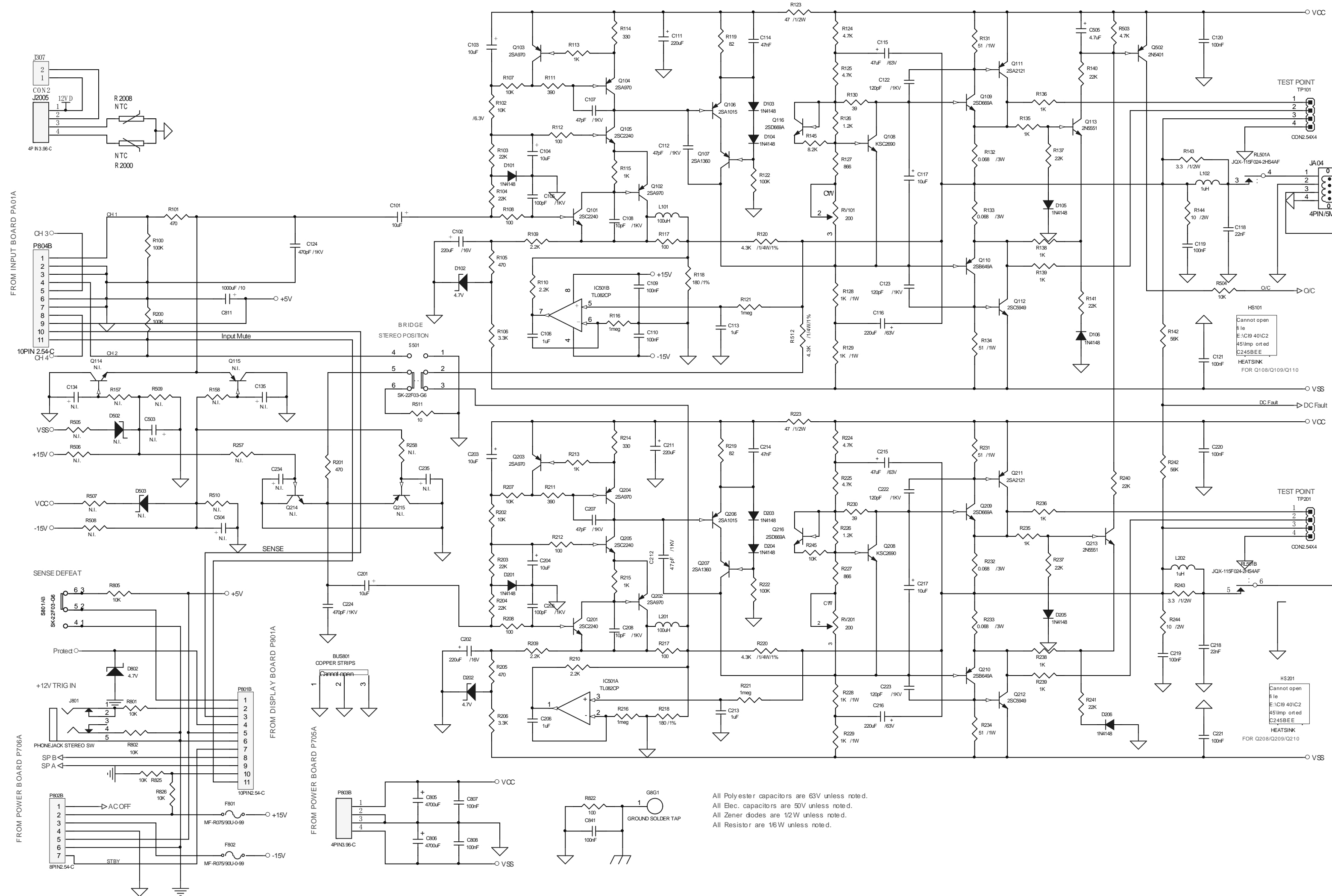


NAD CI940 BLOCK DIAGRAM
 VERSION: V1.0
 Drafted by: BEN
 Data: 2014-2-25

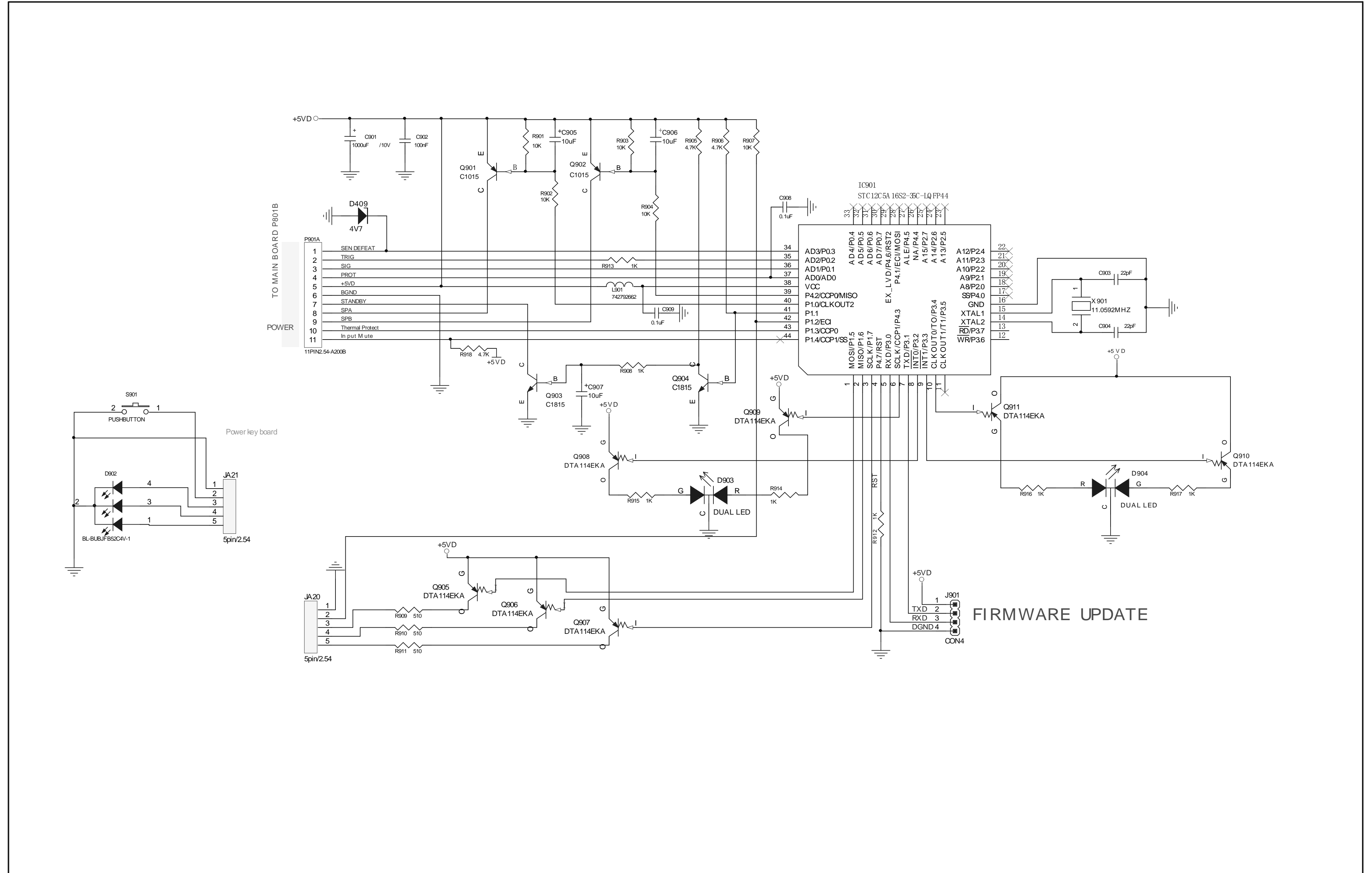
TROUBLESHOOTING GUIDE



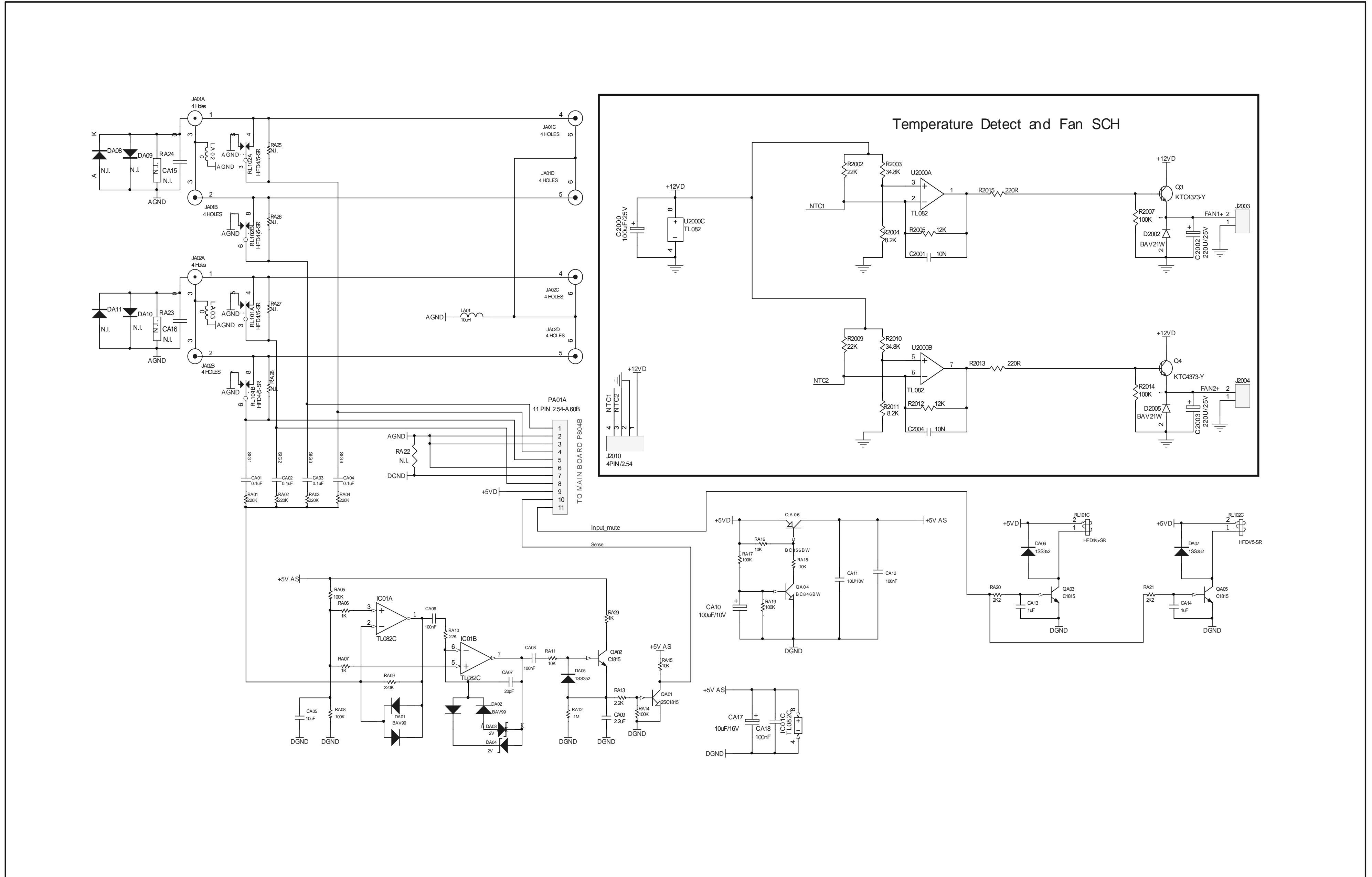
1.MAIN BOARD (2/2)



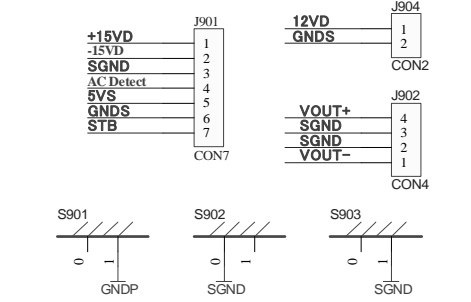
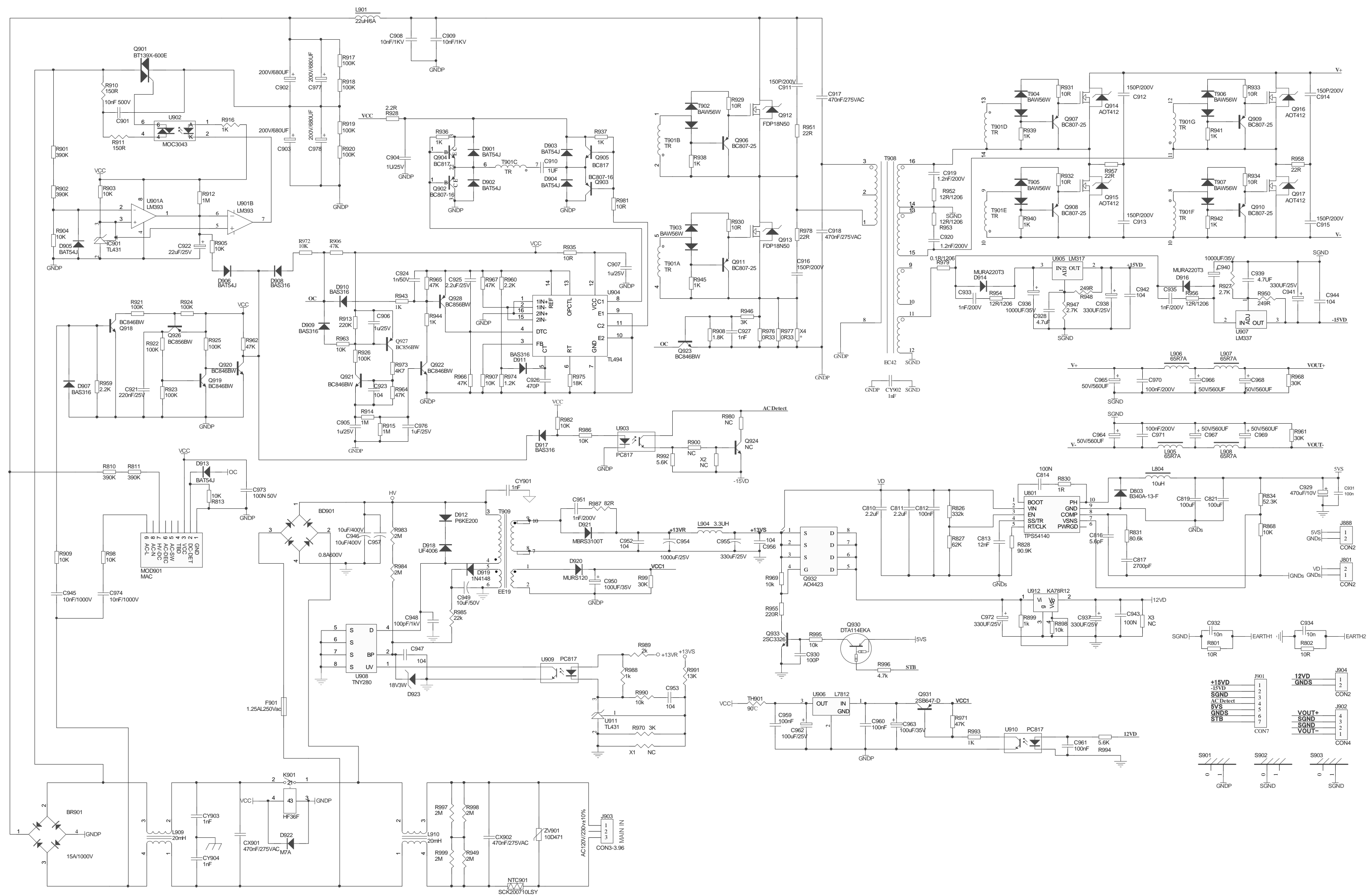
2.DISPLAY & POWERKEY BOARD



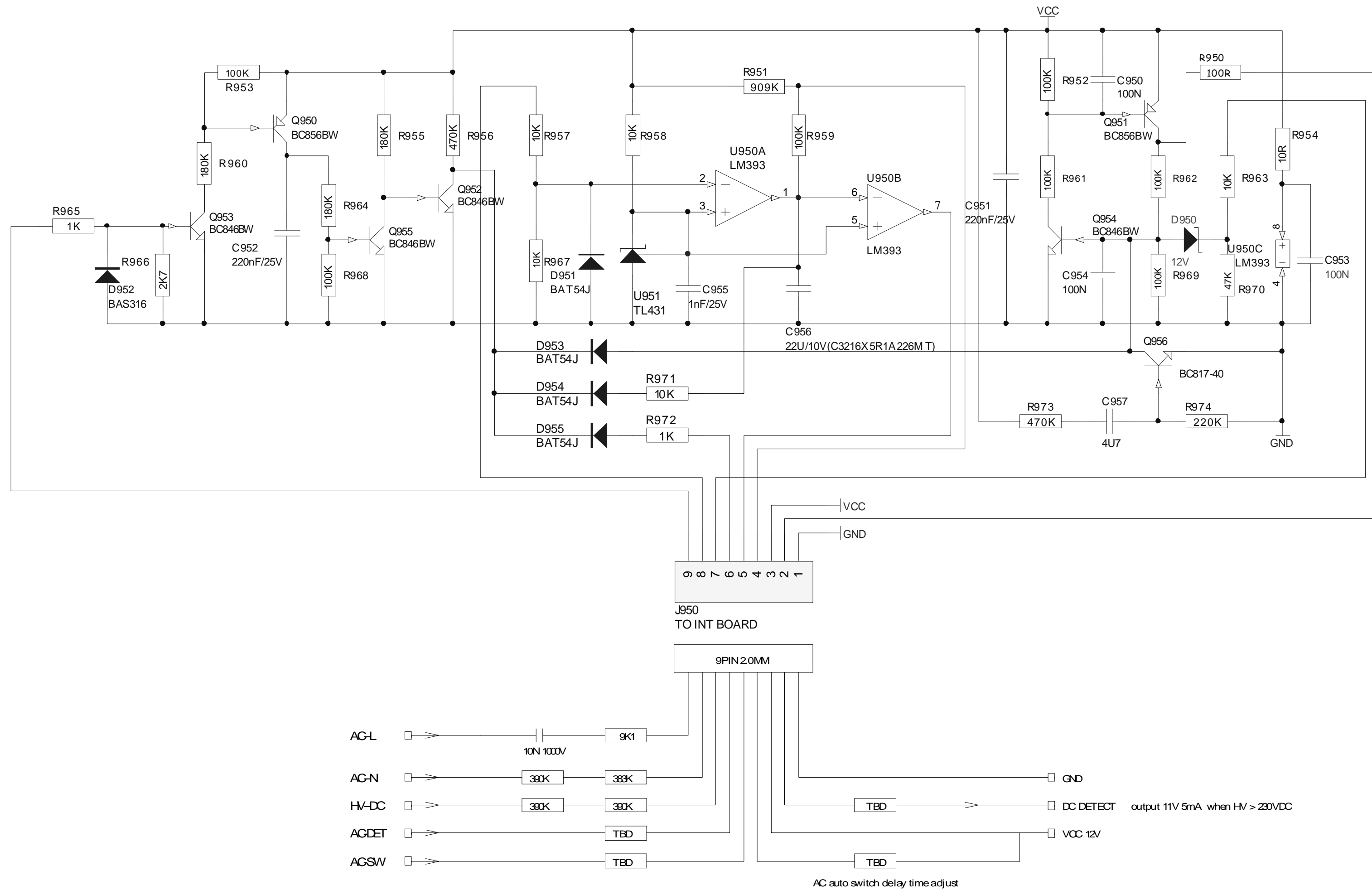
3.INPUT BOARD



4.PSU & DCDC BOARD

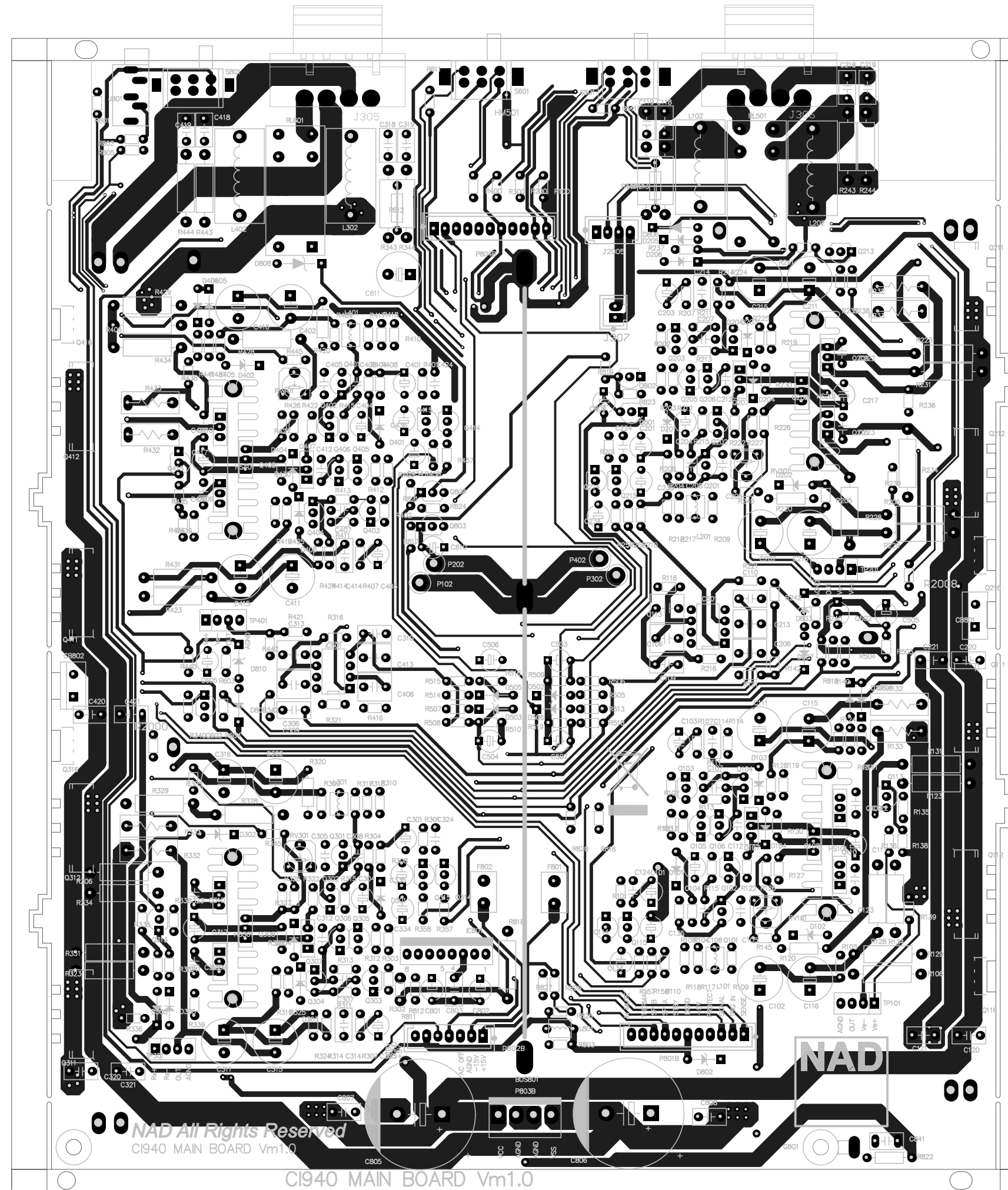


5.DUAL VOLTAGE BOARD

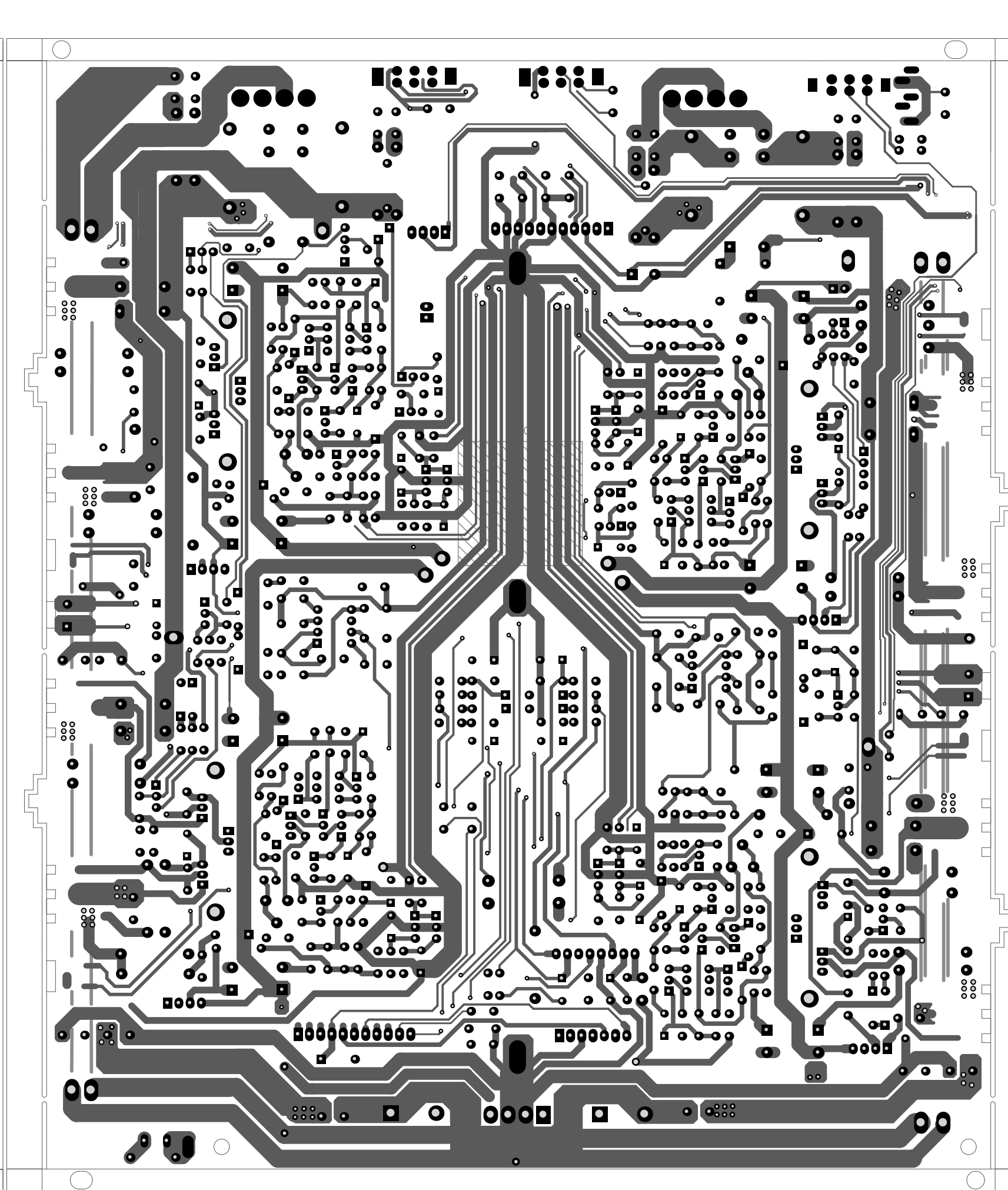


PCB LAYOUT

1.MAIN BOARD

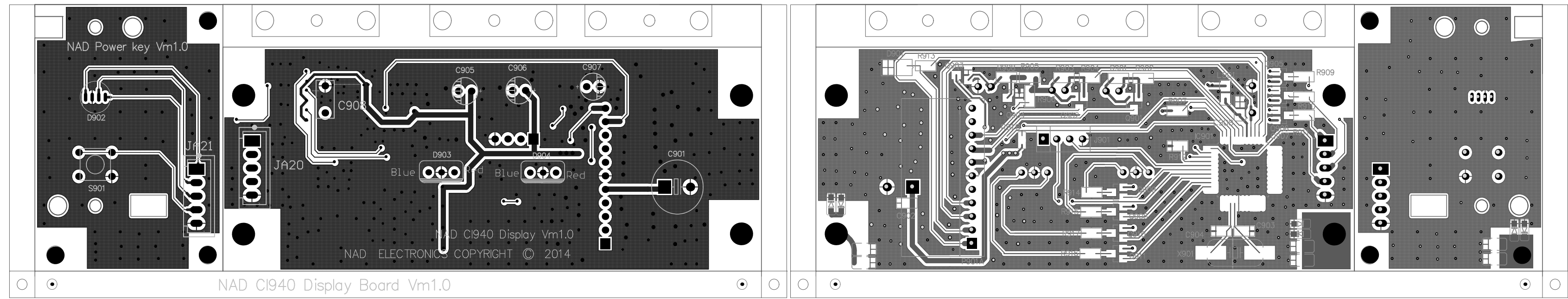


Top Layout



Bottom Layout

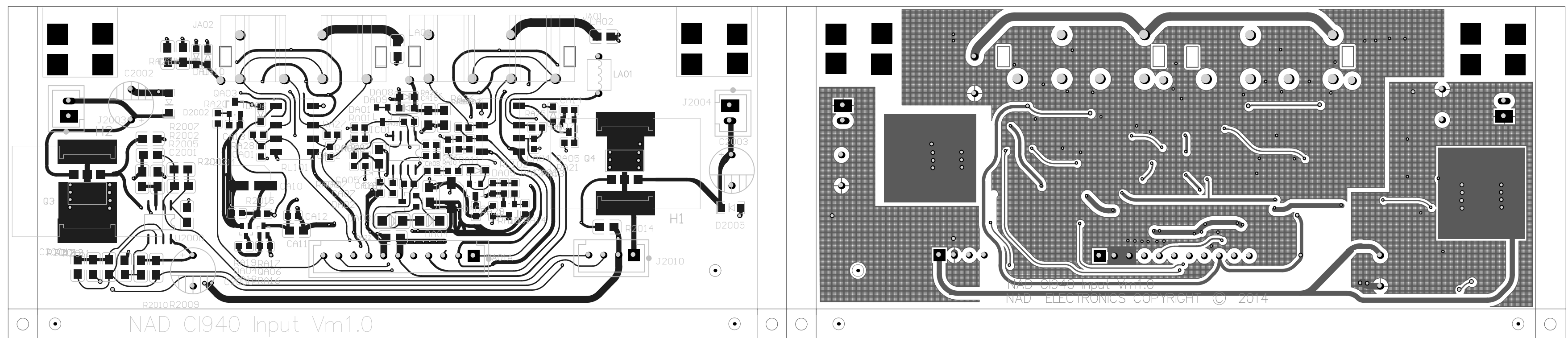
2.DISPLAY BOARD AND POWERKEY BOARD



Top Layout

Bottom Layout

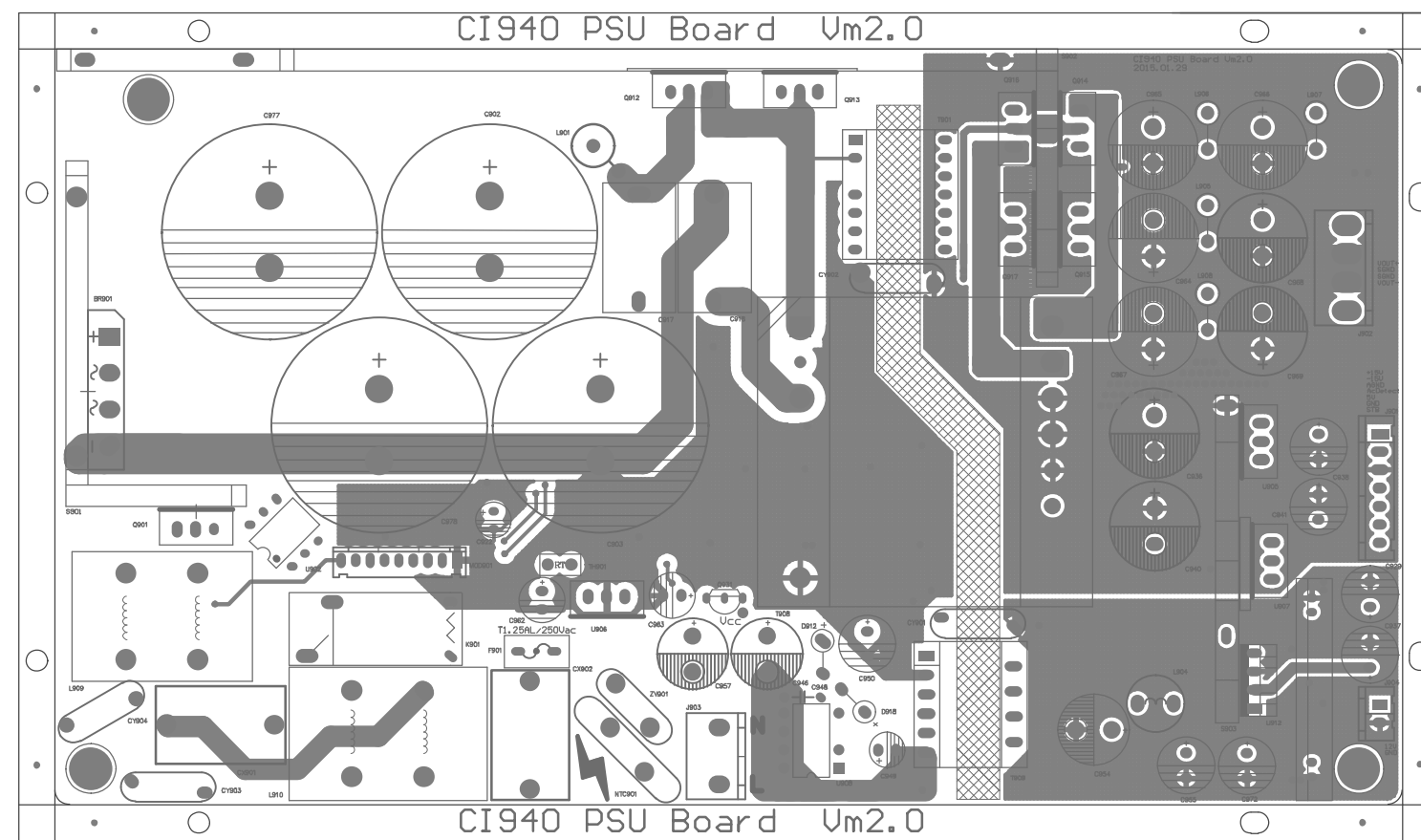
3.INPUT BOARD



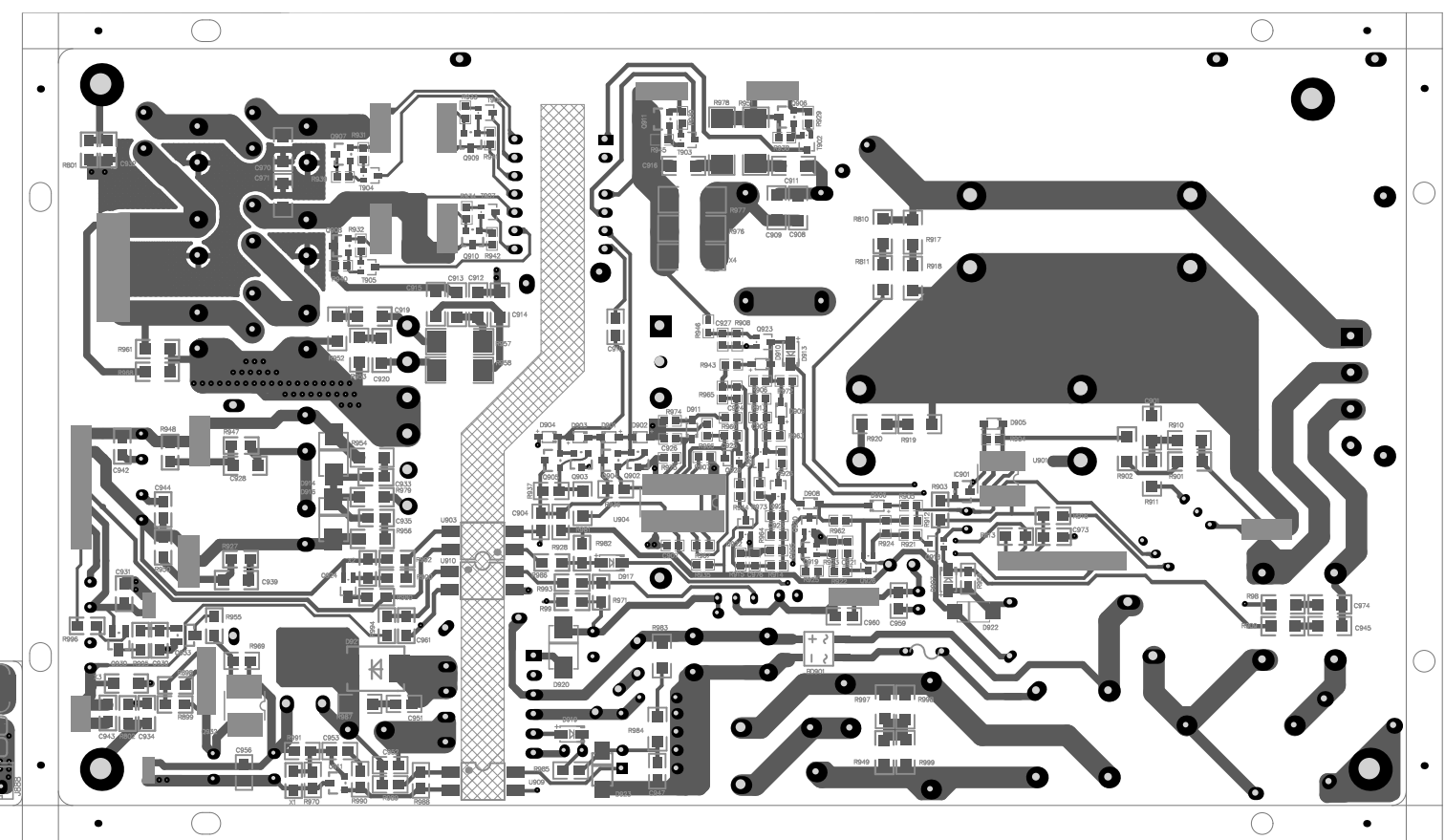
Top Layout

Bottom Layout

4.PSU & DCDC BOARD

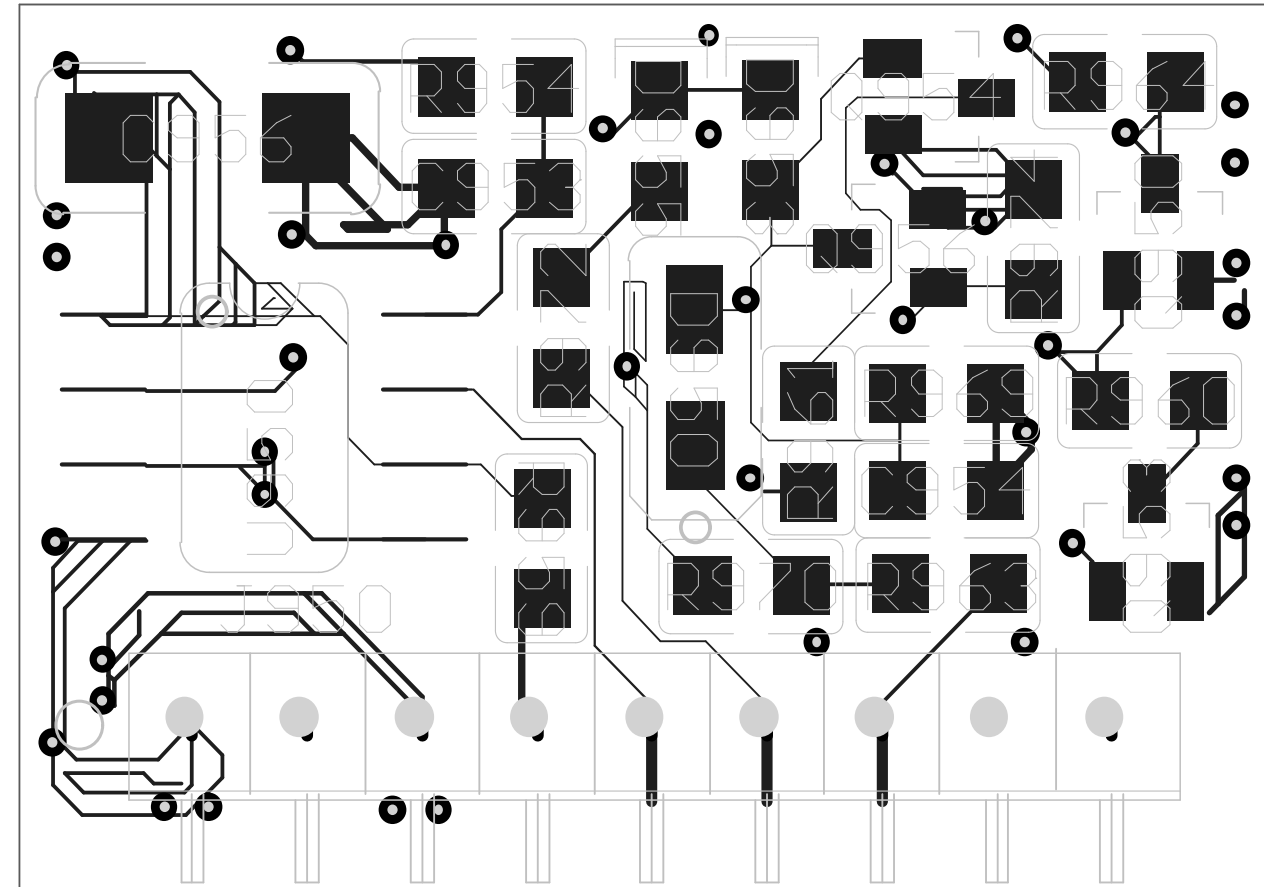


Top Layout

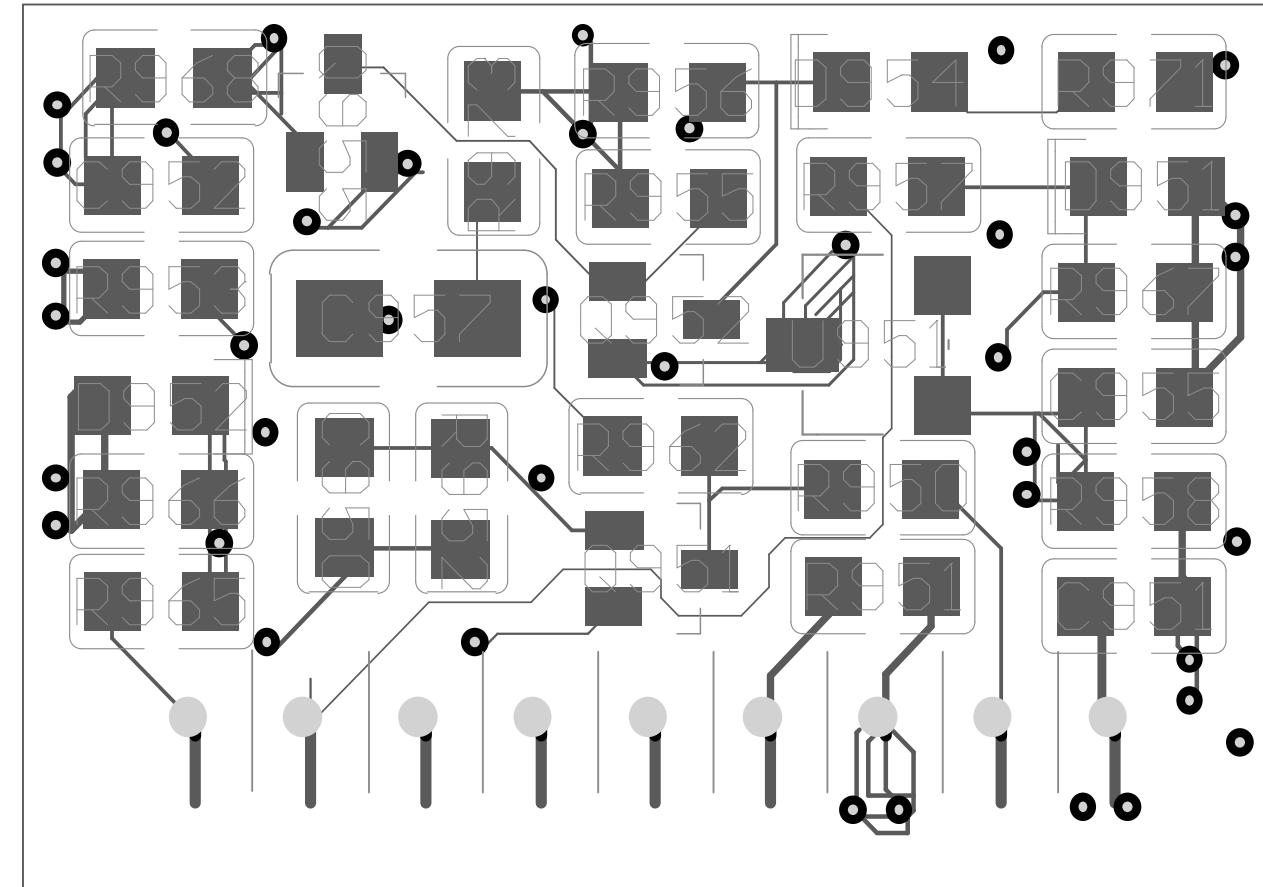


Bottom Layout

5. PSU DUAL VOLTAGE BOARD



Top Layout



Bottom Layout

ELECTRICAL PARTS LIST

PCB-1:MAIN BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-94001-20	Main Board	
	02-94001-01	Main Board	
	A16-94001-22	Main Board PCB	VM1.1 FR-4,1.6mm,2Layers,1Oz,TG130,231x260mm
	DIODE		
D101, D103, D104, D105, D106, D201, D203, D204, D205, D206, D301, D303, D304, D305, D306, D401, D403, D404, D405, D406, D807, D809	33-44148-00	Switch Diode	1N4148
D102, D202, D302, D402, D802, D803, D810	33-14709-00	Zener Diode	4.7V, 1/2W
D806, D808	33-12400-10	Zener Diode	24V 1W DO-41
	TRANSISTOR		
Q502, Q602	31-05401-03	Transistor	2N5401
Q113, Q213, Q313	31-05551-02	Transistor	2N5551
Q102, Q103, Q104, Q202, Q203, Q204, Q302, Q303, Q304, Q402, Q403, Q404	31-00970-00	Transistor	2SA970-GR(TPE2,F) TO-92
Q102, Q103, Q104, Q202, Q203, Q204, Q302, Q303, Q304, Q402, Q403, Q404	or 31-01268-00	Transistor	KTA1268-GR, TO-92
Q804	31-01015-04	Transistor	A1015-GR
Q801, Q803	31-01815-04	Transistor	C1815-GR
Q105, Q205, Q305, Q405	31-02240-00	Transistor	2SC2240-GR(TPE2,F) TO-92
Q105, Q205, Q305, Q405	or 31-03200-00	Transistor	KTC3200-GR, TO-92
	RESISTOR		
R511, R611	07-20100-50	Metal Film Resistor	10Ω, 1/6W, ±5%
R118, R218, R318, R418	07-21800-50	Metal Film Resistor	180Ω, 1/6W, ±1%
R130, R230, R330, R430	07-22709-50	Metal Film Resistor	27Ω, 1/6W, ±1%
R119, R219, R319, R419	07-20820-50	Metal Film Resistor	82Ω, 1/6W, ±5%
R108, R112, R117, R208, R212, R217, R308, R312, R317, R408, R412, R417	07-20101-50	Metal Film Resistor	100Ω, 1/6W, ±5%
R114, R214, R314, R414	07-20331-50	Metal Film Resistor	330Ω, 1/6W, ±5%
R111, R211, R311, R411	07-20391-50	Metal Film Resistor	390Ω, 1/6W, ±5%
R101, R105, R201, R205, R301, R305, R401, R405	07-20471-50	Metal Film Resistor	470Ω, 1/6W, ±5%
R127, R227, R327, R427	07-28660-50	Metal Film Resistor	RJ13 866Ω, 1/6W, ±1%
R113, R115, R135, R136, R138, R139, R213, R215, R235, R236, R238, R239, R313, R315, R335, R336, R338, R339, R413, R415, R435, R436, R438, R439	07-20102-50	Metal Film Resistor	1KΩ, 1/6W, ±5%
R126, R226, R326, R426	07-20122-50	Metal Film Resistor	1K2Ω, 1/6W, ±5%
R109, R209, R309, R409	07-22201-50	Metal Film Resistor	2K2Ω, 1/6W, ±1%
R110, R210, R310, R410	07-20222-50	Metal Film Resistor	2K2Ω, 1/6W, ±5%
R145, R445	07-28201-50	Metal Film Resistor	8K2Ω, 1/6W, ±5%
R124, R125, R224, R225, R503, R324, R325, R424, R425, R603	07-20472-50	Metal Film Resistor	4K7Ω, 1/6W, ±5%
R102, R107, R202, R207, R245, R504, R302, R307, R345, R402, R407, R604, R801, R802, R805, R816, R817, R825	07-20103-50	Metal Film Resistor	10KΩ, 1/6W, ±5%

R103, R104, R137, R140, R141, R203, R204, R237, R240, R241, R303, R304, R337, R340, R341, R403, R404, R437, R440, R441, R819, R821, R823, R824	07-20223-50	Metal Film Resistor	22KΩ, 1/6W, ±5%
R826	07-22202-50	Metal Film Resistor	22kΩ,1/6W,±1%
R827	07-22702-50	Metal Film Resistor	27KΩ,1/6W,±1%
R813	07-20473-50	Metal Film Resistor	47KΩ, 1/6W, ±5%
R142, R242, R342, R442	07-20563-50	Metal Film Resistor	56KΩ, 1/6W, ±5%
R100, R122, R200, R222, R300, R322, R400, R422, R820	07-20104-50	Metal Film Resistor	100KΩ, 1/6W, ±5%
R116, R121, R216, R221, R316, R321, R416, R421	07-20105-50	Metal Film Resistor	1MΩ,1/6W,±5%
R120, R220, R512, R320, R420, R612	07-22431-51	Metal Film Resistor	RJ14,2.43KΩ,1/4W,±1%
R822	07-20101-50	Metal Film Resistor	100Ω, 1/6W, ±5%
R143, R243, R343, R443	07-20339-20	Metal Film Resistor	3.3Ω, 1/2W, ±5%
R123, R223, R323, R423	07-20470-20	Metal Film Resistor	47Ω, 1/2W, ±5%
R106, R206, R306, R406	07-20332-51	Metal Film Resistor	3K3Ω, 1/4W, ±5%
R131, R134, R231, R234, R331, R334, R431, R434	07-30510-01	Metal Oxide Film Resistor	51Ω, 1W, ±5%
R128, R129, R228, R229, R328, R329, R428, R429,	07-30102-05	Metal Oxide Film Resistor	1KΩ, 1W, ±5%
R144, R244, R344, R444	07-30100-12	Metal Oxide Film Resistor	10Ω, 2W, ±5%
R818	07-30271-01	Metal Oxide Film Resistor	270Ω, 1W, ±5%
R811	07-30332-01	Metal Oxide Film Resistor	3.3KΩ, 1W, ±5%, Pitch=5mm
R132, R133, R232, R233, R332, R333, R432, R433	07-40687-03	Cement Resistor	0.068Ω, 3W, ±5%
	CAPACITOR		
C108, C208, C308, C408	05-10013-01	Ceramic Capacitor	10pF, ±5%, 1KV
C112, C212, C312, C412	05-47013-01	Ceramic Capacitor	47pF, ±5%, 1KV
C105, C205, C305, C405	05-10113-04	Ceramic Capacitor	100pF, ±5%, 1KV
C122, C123, C222, C223, C322, C323, C422, C423	05-22113-01	Ceramic Capacitor	220pF, 10%, 1KV
C124, C224, C324, C424	05-47113-02	Ceramic Capacitor	470pF, ±5%, 1KV
C318	25-22361-05	Polyester capacitor	22nF, ±5%, 63V
C114, C214, C314, C414	25-47361-01	Polyester capacitor	47nF, ±5%, 63V
C109, C110, C119, C120, C121, C219, C220, C221, C309, C310, C320, C321, C419, C420, C421, C807, C808	25-10461-07	Polyester capacitor	100nF, ±5%, 63V
C113, C206, C313, C406	25-10561-02	Polyester capacitor	1uF, ±5%, 63V
C505, C605	06-47951-05	ALU Electrolytic Capacitor	4.7uF/50V, ±20%
C101, C103, C104, C117, C201, C203, C204, C217, C301, C303, C304, C317, C401, C403, C404, C417	06-10051-01	ALU Electrolytic Capacitor	10uF/50V, ±20%
C801	06-47021-01	ALU Electrolytic Capacitor	47uF/25V, ±20%
C115, C215, C315, C415	06-47061-03	ALU Electrolytic Capacitor	CD263,47uF,63V,±20%,105 °C, F5.0
C102, C202, C302, C402	06-22111-05	ALU Electrolytic Capacitor	220uF/16V, ±20%
C111, C211, C311, C411	06-22151-01	ALU Electrolytic Capacitor	220uF/50V, ±20%
C116, C216, C316, C416	06-22161-01	ALU Electrolytic Capacitor	220uF/63V, ±20%
C802	06-68111-00	Alu Electrolytic Capacitor	CD110X,680uF,10V,±20%,D=8mm
C811	06-10211-05	Alu Electrolytic Capacitor	CD263X,1000uF,10V,±20%,105 °C, F5.0
C107, C207, C307, C407	05-47013-01	Ceramic Capacitor	47pF, ±5%, 1KV
C118, C218, C418	25-22361-05	Polyester capacitor	22nF, ±5%, 63V
C319, C841	25-10461-07	Polyester capacitor	100nF, ±5%, 63V
C803	25-22461-01	Polyester capacitor	220nF, 10%, 63V

C106, C213, C306, C413	25-10561-02	Polyester capacitor	1uF, ±5%, 63V
C809, C810	06-10951-03	ALU Electrolytic Capacitor	1uF/50V, ±20%
C805, C806	06-47261-00	ALU Electrolytic Capacitor	CD294, 4700uF, 63V, ±20%, 105 °C, 2pin,Pitch=10,25*50
	JUMPER		
R803	21-06500-00	Link	5mm, D=1mm
	TRANSISTOR		
Q106, Q206, Q306, Q406, Q802	31-01015-04	Transistor	A1015-GR
Q413	31-05551-02	Transistor	2N5551
Q101, Q201, Q301, Q401	31-02240-00	Transistor	2SC2240-GR(TPE2,F) TO-92
Q101, Q201, Q301, Q401	or 31-03200-00	Transistor	KTC3200-GR,TO-92
Q110, Q210, Q310, Q410	31-00649-01	Transistor	2SB649A-C, TO126C
Q109, Q209, Q309, Q409	31-00669-01	Transistor	2SD669A-C, TO126C
Q108, Q208, Q308, Q408	31-02690-01	Transistor	KSC2690A-Y, TO126
Q108, Q208, Q308, Q408	78-238002-2	Insupad TO220 Silpad	Silica gel,17X12X0.2
Q107, Q207, Q307, Q407	31-01360-00	Transistor	2SA1360-O(Q) TO126
Q107, Q207, Q307, Q407	or N31-01381-00	Transistor	KTA1381-Y,TO126
	IC		
IC501, IC601	03-00082-00	DUAL OP-AMP	TL082,DIP8
IC801	02-01237-11	1237 MODULE PCB	HS1237
	SWITCH		
S501, S601	11-05202-06	Slide SWITCH	SK-22F03-G6
S801	11-05202-17	Slide SWITCH	SK-22F03-G3
	INDUCTOR		
L102, L202, L302, L402	08-01079-01	Inductor	1uH
L101, L201, L301, L401	A08-01101-01	Inductor(Coil)	EMC421-121NS
	RELAY		
RL501, RL601	A12-03102-05	Power Relay	JQX-115F/024-2HS4AF(144)
	CONNECTOR		
JA03, JA04	13-25004-01	Terminal Block	OQ045401000AG/90D-5.08-4P
Use for JA03, JA04	13-15004-00	Connector	TJ045103000AG
J801	17-07001-07	HEADPHONE SOCKET	CKX-3.5-20A / LJE0366DS-5
P802B	13-22507-00	Connector Socket	XHB 2.5A-7A/TJC3-7A
P801B P804B	13-22511-01	HOUSING	XHB 2.54-11A/TJC3-11A
P803B	13-23904-00	HOUSING	4PIN3.96-C
TP101, TP201, TP301, TP401	13-12504-30	Connector	2.54mm pitch, 4Pin, CNT-M254-1*4-GS-5.6/3-N
Connect Main Board And Protection module	13-12508-02	Connector	2.54 8pin
J2005	13-22504-00	Connector Socket	XHB 2.5A-4A
J307	13-22502-00	Connector Socket	XHB 2.5A-2A
	14-24502-12	Cable	UL2468#16AWG*2P ,L=195mm
	FUSE		
F801, F802	A07-70759-00	PTC	MF-R075-0-99
	POT		
RV101, RV201, RV301, RV401	09-02201-02	Variable Resistor	200Ω, W206-2ALB

	MISC		
HS101, HS201, HS301, HS401	78-040001-0	Heatsink Cushion	HS4-860-B009V1-P007
FB501	79-132001-0	CR PAD	CR Black, 26*26*12.5mm
	METAL PARTS		
G8G1	32-28042-00	Ground Solder Tap	GND-8
HS101, HS201, HS301, HS401	70-460005-0	Heatsink4	AL6063,T=3mm,black oxide,H=35mm
BUS801	69-010001-0	BUSBAR	HS4-T972-B009V1-M015
	FASTENERS		
R290Heatsink(C)	61-023508-0	Machine Screw	MB3x8,plated black zinc
	01-94000-00	ASSY HEATSINK	
	70-460001-3	Main Heatsink	6063 T5, black oxide
	66-001009-0	CLAMPER	HS4-C320-B009V1-M012
	66-018005-0	Tem.Sw Clamp	65Mn HRC48-52 HS4-C372B009V1M014
	61-354516-0	Hexagon Socket Head Screw	M4x16,plated black zinc
CLAMPER(2X2)	63-010408-0	Plain Washer	GB97.1-85 φ4, plated blue zinc
CLAMPER(2X2)	63-020411-0	Spring Washer	GB93-87 φ4, plated blue zinc
Fixed thermistor	61-023508-0	Machine Screw	MB3x8,plated black zinc
Tem.Sw Clamp	61-023510-0	Machine Screw	MB3x10,plated black zinc
	78-001004-0	Heat Conductive Pad	SFAT482
Q116, Q216, Q316, Q416	31-00669-01	Transistor	2SD669A-C, TO126
Q111, Q211, Q311, Q411	31-02121-00	Transistor	2SA2121-O
Q112, Q212, Q312, Q412	31-05949-00	Transistor	2SC5949-O
CB801, CB802	A07-70022-09	THERMAL CIRCUIT BRAKE	ST-22 90C L TYPE
R2000, R2008	07-70103-08	NTC	103AT-4,10KΩ 1% shape 1, L=75mm,103AT-4-80025
To the mainboard R2000 R2008 fixed on the Main Heat sink	A16-94007-21	NTC PCB	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130, 25x6mm
3XPower key BOARD;3XDISPLAY BOARD, 6xNTC board	A16-94020-21	DISPLAY+Power key BOARD +NTC Board PCB ASSY	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130,TG130, 153×160mm
PCB-2:DISPLAY BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-94002-00	CI940 DISPLAY BOARD	
	02-94002-00	CI940 DISPLAY BOARD	SMT
	A16-94002-21	DISPLAY BOARD PCB ASSY	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130, 106x42mm
3XPower key BOARD;3XDISPLAY BOARD, 6xNTC board	A16-94020-21	DISPLAY+Power key BOARD +NTC Board PCB ASSY	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130, 153x160mm
	DIODE		
D901	33-14709-10	Zener Diode	4V7,1/2W, LL34
Q905, Q906, Q907, Q908, Q909, Q910, Q911	31-00114-01	Transistor	DTA114EKA
D903, D904	33-50326-04	LED	φ3,red blue,BL-BUBB5201G-YJ-T05

RESISTOR			
R901, R902, R903, R904, R907	07-90103-01	Chip Resistor	10KΩ,0805,1/8W,±5%,RC0805JR-0710KL
R905, R906	07-90472-01	Chip Resistor	4.7KΩ,0805,1/8W,±5%,RC0805JR-074K7L
R908, R912, R913	07-90102-01	Chip Resistor	1KΩ,0805,1/8W,±5%,RC0805JR-071KL
R909, R910, R911, R914,R916	07-95100-01	Chip Resistor	510Ω,0805,1/8W,±1%,RC0805FR-07510RL
R915, R917	07-95101-01	Chip Resistor	5.1KΩ,0805,1/8W,±1%,RC0805FR-075K1L
R918	07-94701-00	Chip Resistor	4.7KΩ,0603,1/10W,±1%,RC0603FR-074K7L
CAPACTIOR			
C902 C909	26-10451-21	Ceramic Chip Capacitor	100nJ,50V,0805,X7R,CC0805JRX7R9BB104
C903, C904	26-22051-01	Ceramic Chip Capacitor	22PJ,50V,0805,NPO
CRYSTAL			
X901	04-11102-01	Crystal SMD	HLX-M-T-11.0592M-20-TR
TRANSISTOR			
Q901, Q902	31-01015-03	Transistor	A1015, SOT23
Q903, Q904	31-01815-03	Transistor	C1815 SOT23
IC			
IC901	03-00162-01	MCU	STC12C5A16S2-35I-LQFP44
FERRITE BEAD			
L901	08-04331-06	Ferrite Bead SMD	742792037, 330ohm@100MHz, ±25%, 2A
CAPACTIOR			
C905, C906,C907	06-10051-02	Alu Electrolytic Capacitor	CD263(X),10uF,50V,±20%,105 °C
C901	06-10211-05	ALU Electrolytic Capacitor	CD263X,1000uF,10V,±20%,105 °C ,F5.0
C908	25-10461-07	Metallized Polyester Film Capacitor	CL23B-63V-104JR, C241J104J20A201
CONNECTOR			
P901A	14-94011-00	Connector	UL2468#24AWG*11P, L=160mm
J901	13-12504-28	Connector	2.54mm pitch,4pin,CNT-M254-1*4-GS-5/3-N
JA20	13-22505-00	Connector	XHB 2.5A-5A/TJC3-5A
PCB-3:INPUT BOARD			
PART NO.		DESCRIPTION	
PCB INFO			
	01-94003-00	Input Board	
	02-94003-00	Input Board	SMT
	A16-94003-22	Input Board PCB	VM1.1, FR-4,1.6mm,2Layers,1Oz, TG130
2xInput board	A16-94030-22	Input Board PCB ASSY	2->1,VM1.1 FR-4,1.6mm,2Layers,1Oz, TG130, 132x128mm
DIODE			
DA05, DA06, DA07	33-40352-01	Diodes	1SS352
DA01, DA02	33-40099-04	Switch Diode	BAV99
D2002, D2005	33-40021-11	Switch Diode	BAV21W,SOD123
DA03, DA04	33-12009-10	Zener Diode SMD	2V, 1/2W , LL34

RESISTOR			
RA06,RA07,RA29	07-91001-00	Chip Resistor	1K Ω ,0603,1/10W, \pm 1%
RA13, RA20, RA21	07-92201-00	Chip Resistor	2.2K Ω ,0603,1/10W, \pm 1%
RA11,RA15,RA16,RA18	07-91002-00	Chip Resistor	10K Ω ,0603,1/10W, \pm 1%
RA10	07-92202-00	Chip Resistor	22K Ω ,0603,1/10W, \pm 1%
RA05,RA08,RA14,RA17,RA19	07-91003-00	Chip Resistor	100K Ω ,0603,1/10W, \pm 1%
RA01,RA02,RA03,RA04,RA09	07-92203-00	Chip Resistor	220K Ω ,0603,1/10W, \pm 1%
RA12	07-91004-00	Chip Resistor	1M Ω ,0603,1/10W, \pm 1%
LA02,LA03	07-90000-01	Chip Resistor	0 Ω ,0805,1/8W, \pm 5%,RC0805JR-0722RL
R2002,R2009	07-92202-01	Chip Resistor	22K Ω ,0805,1/8W, \pm 1%,RC0805FR-0722KL
R2003,R2010	07-93002-01	Chip Resistor	30K Ω ,0805,1/8W, \pm 1%,RC0805FR-0730KL
R2004,R2011	07-98201-01	Chip Resistor	8.2K Ω ,0805,1/8W, \pm 1%,RC0805FR-078K2L
R2005,R2012	07-91202-01	Chip Resistor	12K Ω ,0805,1/8W, \pm 1%,RC0805FR-0712KL
R2007,R2014	07-90104-01	Chip Resistor	100K Ω ,0805,1/8W, \pm 5%,RC0805JR-07100KL
R2013,R2015	07-92200-01	Chip Resistor	220 Ω ,0805,1/8W, \pm 1%,RC0805FR-07220RL
CAPACITOR			
CA07	26-47951-00	Ceramic Chip Capacitor	4.7pJ,50V,0603,NPO
CA09	26-22511-20	Ceramic Chip Capacitor	2.2uK,16V,0603,X7R
CA01,CA02,CA03,CA04,CA06,CA08,CA12	26-10451-10	Ceramic Chip Capacitor	100nK,50V,0603,X7R
CA13, CA14	26-10511-20	Ceramic Chip Capacitor	1uK,16V,0603,X7R,C1608X7R1C105K
C2001,C2004	26-10351-01	Electrolytic Capacitor SMD	10nK,50V,0805,X7R
CA18	26-10451-11	Ceramic Chip Capacitor	100nK,50V,0805,X7R,C2012X7R1H104KT
CA05,CA11	26-10611-11	Ceramic Chip Capacitor	10uFK,10V,X5R,0805,C2012X5R1A106KT
CA17	06-10011-20	Chip Alu Electrolytic Capacitor	10uF,16V, \pm 20%,105 $^{\circ}$ C,VZH100M1C0406-TR0
CA10	06-10111-33	Alu Electrolytic Capacitor SMD	100uF,10V, \pm 20%,85 $^{\circ}$ C,VE-101M1A0605-TR0
C2000	06-10121-02	Alu Electrolytic Capacitor	CD263(X),100uF,25V, \pm 20%,105 $^{\circ}$ C,F5.0
C2002, C2003	06-22121-03	Alu Electrolytic Capacitor	CD263(X),220uF,25V, \pm 20%,F5.0
TRANSISTOR			
QA06	31-00856-03	Transistor	BC856BW SOT323
QA04	31-00846-02	Transistor	BC846BW SOT323
QA01, QA02, QA03, QA05	31-01815-03	Transistor	C1815 SOT23
Q3,Q4	31-02222-02	Transistor	PZT2222AT1G, NPN
Q3,Q4	or 31-05516-01	NPN Medium Power Transistors	BCP55-16
Q3,Q4	or 31-00493-00	Transistor	FZT493
IC			
IC01,U2000	03-00082-01	Dual OPAMP	TL082BCDR
RELAY			
RL101, RL102	12-02202-17	Signal Relay	HFD4/5-SR
HEATSINK			
Q3, Q4	J70-287007-0	Heatsink	7106D/TRG
INDUCTOR			
LA01	08-02100-01	Inductor	10uH LGK0305-200N, Pitch=5mm
CONNECTOR			

JA01, JA02	17-01004-00	4RCA	AV4-8.4-13, 4RCA
J2010	13-22504-05	Connector Socket	XHB 2.5A-4AW
J2003, J2004	13-22502-00	Connector Socket	XHB 2.5A-2A
PA01A	13-22511-02	HOUSING	XHB-11AW
	67-114001-0	PCB Terminal	HS40-360.1-B009V1-M002
PCB-4:POWER KEY BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-94004-00	POWER KEY BOARD	
	A16-94004-21	POWER KEY PCB	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130, 37x50mm
3XPower key BOARD;3XDISPLAY BOARD, 6xNTC board	A16-94020-21	DISPLAY+Power key BOARD +NTC Board PCB ASSY	VM1.0 FR-4,1.6mm,2Layers,1Oz, TG130, 153x160mm
	SWITCH		
S901	11-04101-05	TACT SWITCH	IT-1102A-1160
JA21	13-22505-00	Connector	XHB 2.5A-5A/TJC3-5A
	DIODE		
D902	33-50565-12	LED (three color)	BL-BB3JCUB2C4V-1-10F
PCB-5:PSU BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-94005-00	PSU BOARD	
	02-94005-01	PSU BOARD	SMT
	A16-94005-22	PSU BOARD PCB	VM2.0,FR-4,1.6mm ,2Layers,1Oz,TG130, 115x197mm
	DIODE		
D907, D908, D909, D910, D911, D917	33-20316-01	High speed Diode	BAS316
D907, D908, D909, D910, D911, D917	or N33-44448-01	High speed Diode	IN4448HWS-7-F
D901, D902, D903, D904, D905, D906, D913	33-40054-02	Schottky Rectifier Diode	BAT54J
T902, T903, T904, T905, T906, T907	33-40056-00	High-speed double diode	BAW56W SOT323
T902, T903, T904, T905, T906, T907	or 33-40056-01	High-speed double diode	BAW56W-7-F
D922	33-20007-00	Rectifier Diode	M7A, 1A 1000V
D914, D916	33-20220-01	Ultrafast Power Rectifier	MURA220T3G
D919	33-44148-17	Schottky Rectifier Diode	1N4148
D920	33-20120-01	Schottky Rectifier Diode	MURS120/MURS120T3G
BD901	33-30062-00	BRIDGE RECTIFIER	B6S, 0.8A 600V
D923	33-11800-30	Zener Diode	18V, 3W, ±5%, SMA
D921	33-23100-00	Schottky Rectifier Diode	MBRS3100T
BR901	33-31562-01	Rectifier Bridge	GBU1506C
D918	33-24006-00	Rectifier Diode	UF4006
D912	33-26200-00	Transient Suppressor	P6KE-200A
	TRANSISTOR		
Q902, Q903, Q906, Q907, Q908, Q909, Q910, Q911	31-00807-40	Transistors	BC807-40W PNP
Q904, Q905	31-00817-40	Transistors	BC817-40W PNP


Q918, Q919, Q920, Q921, Q922, Q923	31-00846-02	Transistors	BC846BW SOT323
Q918, Q919, Q920, Q921, Q922, Q923	or N31-00846-06	Transistors	BC846BW-7-F
Q926, Q927, Q928	31-00856-03	Transistors	BC856BW SOT323
Q926, Q927, Q928	or N31-00856-06	Transistors	BC856BW-7-F
Q930	31-00114-01	Digital transistor	DTA114EKA
Q933	31-03326-01	Transistor	2SC3326-A(TE85L,F), SC-59
Q932	31-04423-01	P-Channel MOSFET	AO4423L,SOIC-8
Q901	31-00139-03	12 A four-quadrant triacs,	BT139X-600E,127
	IC		
U904	03-00494-02	Power controller IC	TL494CDR, SOIC-16
IC901, U911	03-00431-11	Regulator	TL431BCDBZR
U903, U909, U910	A03-00817-09	Photo Coupler	EL817S1(B)(TA)-F
U901	03-00393-02	LOW POWER DUAL OP-AMP	LM393MX/NOPB
U908	03-00280-01	Power controller IC	TNY280PN
U912	03-07812-10	3-Terminal Regulator	KA78R12
U906	03-07812-00	3-Terminal Regulator	L7812CV
U907	03-00337-00	Regulator	NJM337F
U905	03-00317-04	Regulator	NJM317F
U902	03-03043-01	ZERO-CROSS OPTOISOLATORS TRIAC DRIVER OUTPUT	MOC3043M
	RESISTOR		
R929, R930, R931, R932, R933, R934, R935	07-91009-00	Chip Resistor	10 Ω ,0603,1/10W, \pm 1%,RC0603FR-0710RL
R938, R939, R940, R941, R942, R943, R944, R945	07-91001-00	Chip Resistor	1K Ω ,0603,1/10W, \pm 1%,RC0603FR-071KL
R974	07-91201-00	Chip Resistor	1.2K Ω ,0603,1/10W, \pm 1%,RC0603FR-071K2L
R908	07-91801-00	Chip Resistor	1.8K Ω ,0603,1/10W, \pm 1%,RC0603FR-071K8L
R959, R960	07-92201-00	Chip Resistor	2.2K Ω ,0603,1/10W, \pm 1%,RC0603FR-072K2L
R946	07-93001-00	Chip Resistor	3K Ω ,0603,1/10W, \pm 1%,RC0603FR-073KL
R973	07-94701-00	Chip Resistor	4.7K Ω ,0603,1/10W, \pm 1%,RC0603FR-074K7L
R904, R905, R907, R963, R972, R898	07-91002-00	Chip Resistor	10K Ω ,0603,1/10W, \pm 1%,RC0603FR-0710KL
R975	07-91802-00	Chip Resistor	18K Ω ,0603,1/10W, \pm 1%,RC0603FR-0718KL
R906, R962, R964, R965, R966, R967	07-94702-00	Chip Resistor	47K Ω ,0603,1/10W, \pm 1%,RC0603FR-0747KL
R921, R922, R923, R924, R925, R926	07-91003-00	Chip Resistor	100K Ω ,0603,1/10W, \pm 1%,RC0603FR-07100KL
R913	07-92203-00	Chip Resistor	220K Ω ,0603,1/10W, \pm 1%,RC0603FR-07100KL
R912, R914, R915	07-91004-00	Chip Resistor	1M Ω ,0603,1/10W, \pm 1%,RC0603FR-071ML
R928	07-92208-01	Chip Resistor	2.2 Ω ,0805,1/8W, \pm 1%,RC0805FR-072R2L
R801, R802	07-91009-01	Chip Resistor	10 Ω ,0805,1/8W, \pm 1%,RC0805FR-0710RL
R955	07-92200-01	Chip Resistor	220 Ω ,0805,1/8W, \pm 1%,RC0805FR-07220RL
R948, R950	07-92490-01	Chip Resistor	249 Ω ,0805,1/8W, \pm 1%,RC0805FR-07249RL
R916, R936, R937, R988,R899	07-91001-01	Chip Resistor	1K Ω ,0805,1/8W, \pm 1%,RC0805FR-071KL

R970	07-91201-01	Chip Resistor	1.2K Ω ,0805,1/8W, \pm 1%,RC0805FR-071K2L
R989	07-92001-01	Chip Resistor	2K Ω ,0805,1/8W, \pm 1%,RC0805FR-072KL
R927, R947	07-92701-01	Chip Resistor	2.7K Ω ,0805,1/8W, \pm 1%,RC0805FR-072K7L
R996, R993	07-94701-01	Chip Resistor	4.7K Ω ,0805,1/8W, \pm 1%,RC0805FR-074K7L
R991	07-95231-01	Chip Resistor	5.23K Ω ,0805,1/8W, \pm 1%,RC0805FR-075K23L
R992, R994	07-95601-01	Chip Resistor	5.6K Ω ,0805,1/8W, \pm 1%,RC0805FR-075K6L
R813, R903, R969, R982, R986, R990, R995	07-91002-01	Chip Resistor	10K Ω ,0805,1/8W, \pm 1%,RC0805FR-0710KL
R971	07-94702-01	Chip Resistor	47K Ω ,0805,1/8W, \pm 1%,RC0805FR-0747KL
R985	07-92202-01	Chip Resistor	22K Ω ,0805,1/8W, \pm 1%,RC0805FR-0722KL
R979	07-91007-12	Chip Resistor	0.1 Ω ,1206,1/4W, \pm 1%,RL1206FR-070R1L
R981	07-91009-02	Chip Resistor	10 Ω ,1206,1/4W, \pm 1%,RC1206FR-0710RL
R952, R953, R954, R956	07-91209-02	Chip Resistor	12 Ω ,1206,1/4W, \pm 1%,RC1206FR-0712RL
R987	07-90820-02	Chip Resistor	82 Ω ,1206,1/4W, \pm 5%,RC1206JR-0782RL
R910, R911	07-91500-02	Chip Resistor	150 Ω ,1206,1/4W, \pm 1%,RC1206FR-07150RL
R99, R909	07-90103-02	Chip Resistor	10K Ω ,1206,1/4W, \pm 1%
R961, R968	07-90303-02	Chip Resistor	30K Ω ,1206,1/4W, \pm 1%
R917, R918, R919, R920	07-91003-02	Chip Resistor	100K Ω ,1206,1/4W, \pm 1%,RC1206FR-07100KL
R949, R997, R998, R999	07-90105-02	Chip Resistor	1M Ω ,1206,1/4W, \pm 5%,RC1206JR-071ML
R810, R811, R901, R902	07-93903-02	Chip Resistor	390K Ω ,1206,1/4W, \pm 1%,RC1206FR-07390KL
R983, R984	07-90205-02	Chip Resistor	2M Ω ,1206,1/4W, \pm 5%,RC1206JR-072ML
R976, R977	07-93307-06	Chip Resistor	0.33 Ω , \pm 1%,2512
R951, R957, R958, R978	07-90220-06	Chip Resistor	22 Ω ,2512,1W, \pm 5%
NTC901	A07-72381-00	NTC	SCK200710LSY
ZV901	07-70471-03	TVS	TUR10D471
CAPACITOR			
C926	26-47151-00	Ceramic Chip Capacitor	470pJ,50V,0603,NPO
C924, C927	26-10251-00	Ceramic Chip Capacitor	1nK,50V,0603,X7R
C923	26-10421-10	Ceramic Chip Capacitor	100nK,25V,0603,X7R
C921	26-22421-00	Ceramic Chip Capacitor	220nK,25V,0603,X7R,C1608X7R1E224KT
C905, C906, C907, C976	26-10521-10	Ceramic Chip Capacitor	1uK,25V,0603,X7R
C925	26-22511-10	Ceramic Chip Capacitor	2.2uK, 0603, 10V, X5R
C904, C910	26-10521-01	Ceramic Chip Capacitor	1uF, 10%, 25V, X7R
C928, C939	26-47551-12	Ceramic Chip Capacitor	4.7uK,50V,1206,X5R,GRM319R61H475KA12D
C933, C935, C951	26-10222-01	Ceramic Chip Capacitor	1nK,200V,0805,X7R
C932, C934	26-10351-01	Ceramic Chip Capacitor	10nK,50V,0805,X7R
C931, C942, C943, C944, C947, C952, C953, C956, C959, C960, C961,C973	26-10412-01	Ceramic Chip Capacitor	100nK,100V,X7R,0805,C2012X7R2A104KT
C919, C920	26-12222-12	Ceramic Chip Capacitor	1.2nF,200V, \pm 5%,NPO, C1206N122J201T / MA1206CG-122J-201ERG /
C911, C912, C913, C914, C915, C916	26-15122-02	Ceramic Chip Capacitor	150p 200V NPO 1206

C901, C908, C909, C945, C974	26-10362-12	Ceramic Chip Capacitor	10nK,630V,X7R,1206,1206CC103 KAZ1A
C970, C971	26-10422-02	Ceramic Chip Capacitor	100nK,200V,1206,X7R,C3216X7R 2E104KT
C930	26-10151-01	Ceramic Chip Capacitor	100pJ,50V,0805,NPO,C2012C0G 1H101JT
CX901, CX902, C917, C918	A25-47422-00	Interferenece Suppression Cap	MKP62/MPX,0.47uF, 275V, 10%, Pitch=15mm
CY901 CY902 CY903 CY904	A05-10242-00	Hign Voltage Cermatic Capacitor	1nF,400V(X1),250V(Y1),±20%,CT81-400VAC-08b-2E4-102M-YA
C949	06-10051-02	Alu Electrolytic Capacitor	CD263(X),10uF,50V,±20%,105 °C
C946, C957	06-10042-00	Alu Electrolytic Capacitor	CD11H,10uF,400V,±20%,105 °C,F5.0
C922	06-22021-03	Alu Electrolytic Capacitor	CD263(X),22uF,25V,±20%,F2.5,D=5mm
C962	06-10121-04	Alu Electrolytic Capacitor	CD263(X),100uF,25V,±20%,105 °C,F2.5
C963	06-10131-03	Alu Electrolytic Capacitor	CD286,100uF,35V,±20%,105 °C,F2.5
C950	06-10131-06	Alu Electrolytic Capacitor	CD263,100uF,35V,±20%,105 °C,F3.5
C929	06-47111-11	Alu Electrolytic Capacitor	CD287,470uF,10V,±20%,Pitch=3.5mm D=8mm
C964, C965, C966, C967, C968, C969	06-56151-01	Alu Electrolytic Capacitor	CD28L 560uF,50V,±20%,105 °C
C964, C965, C966, C967, C968, C969	or 06-56151-00	Alu Electrolytic Capacitor	560uF,50V,±20%,105 °C RXW561M1HBK-1325
C936, C940	06-10231-03	Alu Electrolytic Capacitor	CD287,1000uF,35V,±20%,12.5x25,F5.0
C937, C938, C941, C955, C972	06-33121-04	Alu Electrolytic Capacitor	CD286,330uF,25V,±20% 8x11.5mm
C954	06-10221-03	Alu Electrolytic Capacitor	CD289,1000uF,25V,±20%,10x25,F5.0
C902, C903, C977, C978	06-68122-06	Alu Electrolytic Capacitor	CD294, 680uF, 200V, ±20%, 30x30mm
Use for C977Alu Electrolytic Capacitor Caution	94-175003-0	Alu Electrolytic Capacitor Caution Label	φ30 PET High temperature resistance 120° Black print over yellow
	MOSFET		
Q912, Q913	31-01850-03	N-ch POWER MOSFET	FDP18N50
Q914, Q915, Q916, Q917	31-00412-00	MOSFET	AOT412
Q931	31-00647-01	Transistor	2SB647-D
	RELAY		
K901	12-01101-19	Relay	HF36F/012-HST(555), TV-5
	INDUCTOR		
L901	08-05220-00	INDUCTOR	22uH 3A, MESC-220M-01
L909, L910	J22-07422-00	Common Inductor	SC7422-145A, 20mH 2A
L905, L906, L907, L908	08-02065-00	Ferriet Bead	65R/100MHZ 7A,BL01RN1A1F1J
L904	08-02339-00	Inductor	3.3uH,LGB0810-3.3uH
	TRANSFORMER		
T901	J22-07316-00	Transformer	GATE Drive SR
T909	A22-00019-20	Transformer SBY	EEL19STBHS-E
T908	A22-00042-13	Transformer	ER42 CI940
TH901	A07-70022-19	Thermal Circuit Brake	ST-22 90°C W TYPE
	CONNECTOR		
J903	13-23903-01	Connector	LD7.92A-2A
J902	13-23904-00	Connector	VH3.96A-4A
J904	14-94002-00	Cable	UL2468#26AWG*2C , L=500mm

J901(TO MAIN board P802B	14-94007-00	Cable	UL2468#26AWG*7C, L=280mm
F901	A20-12122-04	FUSE	1.25AL250V
MECHANISM PARTS			
S902	70-460002-0	Heat sink	T=3mm
S901	70-460003-0	Heat sink	T=3mm
	70-420003-2	Heat sink	T=3mm
FASTENERS			
	85-460002-0	Moveable Bushing	KG-030N, L=260mm
(Q912, Q913)	66-162004-0	S2 Clamp 3	
Q912, Q913	78-184001-0	Insulated Sleeve	TO-220CV
Clamp3	A78-000080-0	Heat Shrinking Tube	Φ8
Use for S901, S902	62-010302-0	Nut	GB6170, M3, Environmental blue zinc
Use for U905, U912	61-023208-0	Self Tapping Screw	BTB3X8, plated black zinc
U907	61-023210-0	Self Tapping Screw	BTB3x10-plated black zinc
Use for Q901	61-023510-0	Machine Screw	MB3x10,plated blue zinc
S901,S902	61-023512-0	Machine Screw	MB3x12,plated black zinc
Use for Q914, Q915, Q916, Q917	61-023515-0	Machine Screw	MB3x15,plated blue zinc
Use for Q914, Q915, Q916, Q917	78-369002-0	Insulated Cushion	26x20mm
Use for Q914, Q915, Q916, Q917	85-157001-0	Transistor Washer	TW-4,white
Use for S901, S902	63-020308-1	Spring Washer	φ3,plated black zinc
U907	85-157001-0	Transistor Washer	TW-4, white
U907	78-090004-0	Insulated Cushion	19x14mm*1.5mm
PCB-6:PSU Dual Voltage Module BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-28504-00	PSU Dual Voltage Module	
	02-28504-00	PSU Dual Voltage Module	SMT
	A16-28504-21	PSU Dual Voltage Module PCB	VM1.0,FR-4,1.6mm,44Layers,1Oz,TG130
	A16-28540-21	PSU Dual Voltage Module PCB ASSM	45->1,VM1.0,FR-4,1.6mm,4Layers,1Oz,TG130, 116x141mm
DIODE			
D950	33-11200-05	Zener Diode	PDZ12B 12V 0.4W SOD323
D952	33-20316-01	High speed Diode	BAS316
D951, D953, D954, D955	33-40054-02	Schottky Rectifier Diode	BAT54J
TRANSISTOR			
Q952, Q953, Q954, Q955	31-00846-02	Transistor	BC846BW SOT323
Q950, Q951	31-00856-03	Transistor	BC856BW SOT323
Q956	31-00817-01	NPN Transistor	BC817-40W, 45V 500mA
IC			
U951	03-00431-05	Shunt Regulator	TL431CDBZR
U950	03-00393-03	Dual Differential Comparator	LM393DRG3
U950	or03-00393-01	Dual Differential Comparator	LM393DR2G
RESISTOR			
R954	07-91009-00	Chip resistor	10Ω,0603,1/10W,±1%,RC0603FR-0710RL
R950	07-91000-00	Chip Resistor	100Ω,0603,1/10W,±1%,RC0603FR-07100RL

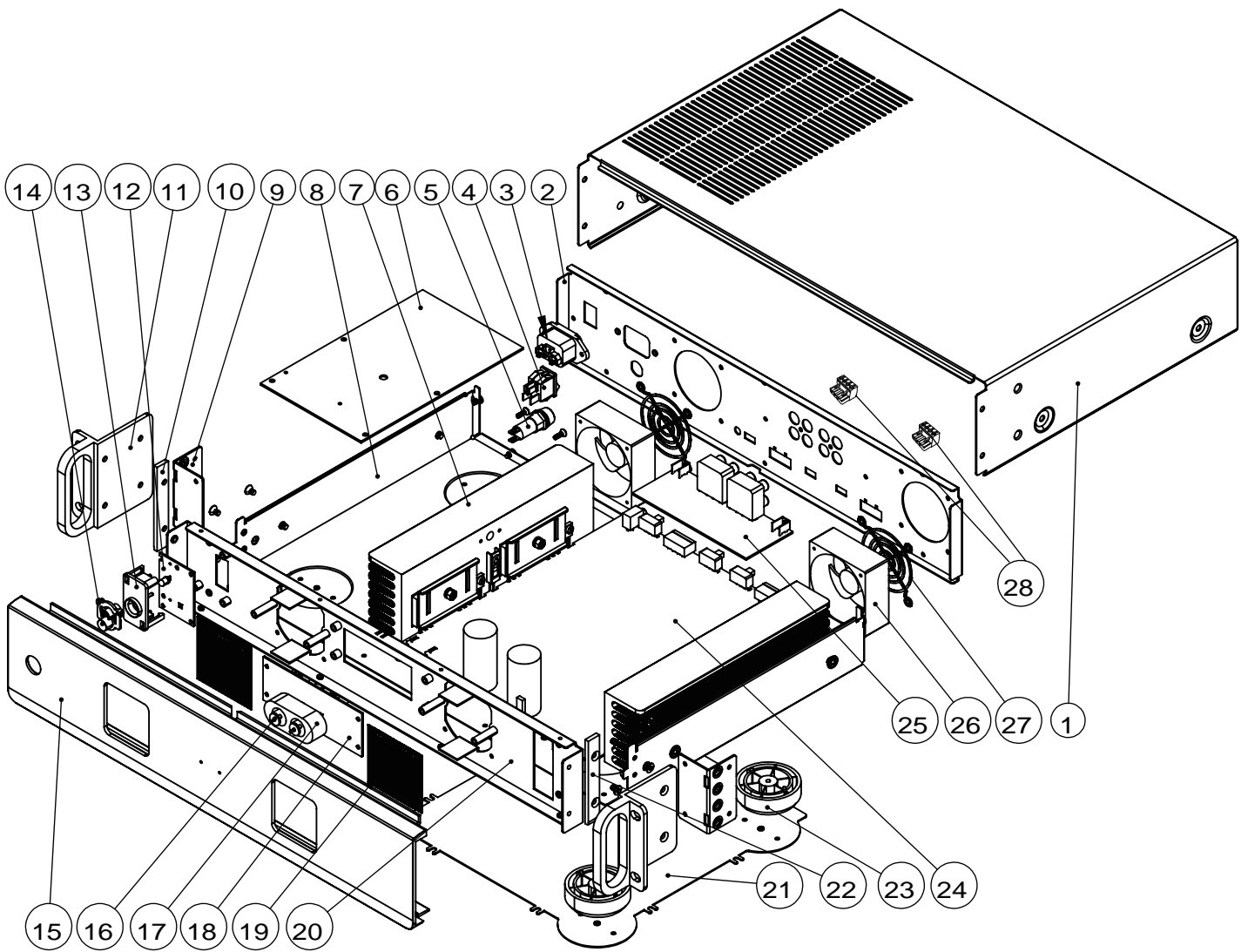
R965, R972	07-91001-00	Chip Resistor	1K Ω ,0603,1/10W, \pm 1%,RC0603FR-071KL
R966	07-92701-00	Chip Resistor	2.7K Ω ,0603,1/10W, \pm 1%,RC0603FR-072K7L
R957, R958, R963, R967, R971	07-91002-00	Chip Resistor	10K Ω ,0603,1/10W, \pm 1%,RC0603FR-0710KL
R970	07-94702-00	Chip Resistor	47K Ω ,0603,1/10W, \pm 1%,RC0603FR-0747KL
R952, R953, R959, R961, R962, R968, R969	07-91003-00	Chip resistor	100K Ω ,0603,1/10W, \pm 1%,RC0603FR-07100KL
R955, R960, R964	07-91803-00	Chip resistor	180K Ω ,0603,1/10W, \pm 1%,RC0603FR-07180KL
R974	07-92203-00	Chip resistor	220K Ω ,0603,1/10W, \pm 1%,RC0603FR-07220KL
R956 R973	07-94703-00	Chip resistor	470K Ω ,0603,1/10W, \pm 1%,RC0603FR-07470KL
R951	07-99093-00	Chip Resistor	909K Ω ,0603,1/10W, \pm 1%,RC0603FR-07909KL
	CAPACTIOR		
C955	26-10251-00	Ceramic Chip Capacitor	1nK,50V,0603,X7R
C950, C953, C954	26-10421-20	Ceramic Chip Capacitor	100nK,25V,0603,X7R,GRM188R71E104KA01D
C951, C952	26-22421-00	Ceramic Chip Capacitor	220nK,25V,0603,X7R,C1608X7R1E224KT
C957	26-47511-01	Chip Capacitor	4.7uK,16V,X5R,0805,C2012X5R1C475K
C956	26-22611-02	Chip Capacitor	22uM,10V,1206,X5R,C3216X5R1A226MT
	CONNECTOR		
J901	13-12009-01	Connector	CNT-M200-1*9-GD-3.4/2.4/0
PCB-7:DCDC BOARD			
	PART NO.		DESCRIPTION
	PCB INFO		
	01-94006-00	DCDC BOARD	
	02-94006-00	DCDC BOARD	SMT
	A16-94006-21	DCDC PCB	VM1.0,FR-4,1.6mm ,2Layers,2Oz, TG130
	A16-94060-21	DCDC PCB ASSM	20->1, VM1.0,FR-4,1.6mm ,2Layers,2Oz, TG130 ,110x134mm
	IC		
U801	03-54140-01	Power controller IC	TPS54140ADGQR,MSOP-10
	DIODE		
D803	33-20340-02	SCHOTTKY DIODE	B340A-13-F 40V 3A
	INDUCTOR		
L804	08-04100-05	Power Inductor	10uH,3A,GPSR0730-100M 7.2*6.6mm
	RESISTOR		
R826	07-93323-00	Chip Resistor	332K Ω ,0603,1/10W, \pm 1%,RC0603FR-07332KL
R827	07-96202-00	Chip Resistor	62K Ω ,0603,1/10W, \pm 1%,RC0603FR-0762KL
R831	07-98062-00	Chip Resistor	80.6K Ω ,0603,1/10W, \pm 1%,RC0603FR-0780K6L
R828	07-99092-00	Chip Resistor	90.9K Ω ,0603,1/10W, \pm 1% RC0603FR-0790K9L
R834	07-95232-00	Chip Resistor	52.3K Ω ,0603,1/10W, \pm 1%,RC0603FR-0752K3L

R868	07-91002-00	Chip Resistor	10K Ω ,0603,1/10W, \pm 1%,RC0603FR-0710KL
R830	07-91008-00	Chip resistor	1 Ω ,0603,1/10W, \pm 1%,RC0603FR-071RL
CAPACITOR			
C812	26-10451-11	Ceramic Chip Capacitor	100nK,50V,0805,X7R,C2012X7R1H104KT
C813	26-12351-10	Ceramic Chip Capacitor	12nK,0603,50V,X7R,C1608X7R1H123KT000N
C810, C811	26-22551-02	Ceramic Chip Capacitor	2.2uK,50V,1206,X7R,CC1206KKX7R9BB225
C816	26-56951-10	Ceramic Chip Capacitor	5.6pF,50V,0603,NPO, \pm 0.25pF,C1608C0G1H5R6CT
C817	26-27251-00	Ceramic Chip Capacitor	2n7K,50V,0603,X7R
C819,C821	26-10711-02	Ceramic Chip Capacitor	100uF, 10V, \pm 20%,X5R 1206,C3216X5R1A107M
C814	26-10421-10	Cermatic Chip Capacitor	100nK,25V 0603,X7R
CONNECTER			
J801, J888	13-12002-06	Header	CNT-M200-1*2-GD-3.4/2.4/0
WHOLE UNIT ASM			
SWITCH			
SW600	A11-01101-03	ROCKER SWITCH	RF-1003-BBG8A2L1T, 10A 250V, TV-5
AC INLET			
U600	A17-07002-07	AC INLET	SS-7BA-4.0
U600	or A17-07002-00	AC INLET	3516-T1C02
CABLE			
Connect Main Board P804B And Audio Input Board PA01B	14-94011-01	WIRE	UL1007#22AWG,L=120mm
Connect Main Board J2005 And Audio Input Board J2010	14-94004-00	WIRE	UL2468#26AWG*4P,L=120mm
PSU Board J902 TO MAIN Board P803B	14-94004-11	Cable	UL1569#16AWG,L=250mm
Connect DISPLAY Board JA20 and Switch Board JA21	14-41255-00	WIRE	UL2468 26AWG,L=150mm
AC INLET to Switch	A14-37501-10	WIRE	UL1672#16AWG,Red,L=100mm
Switch to Fuse holder	14-47001-12	WIRE	UL1672,18AWG,L=150mm
	14-24502-01	WIRE	UL1672#18AWG ,L=300mm(blue)/L=220mm(red)
	A20-12502-00	FUSE	0618005MXP, T5AL/250V
	JA20-20000-10	Fuse Holder	FPG1 3101.0010
	A15-10125-11	AC Cord	DTI-2P-02(polarity)+SVT 105C 18AWG/2C+DTII-2P-04,L=1800mm,Black
	or JA15-10125-01	AC Cord	LP-13W &,SVT 18AWGx2,Black 6' & LP-16
	or A15-10125-00	AC Cord	ME302P,SJT 18AWGx2,VAC17S
	A15-16250-17	AC Cord	SP-026+IS-14A H05VV-F 2*0.75  C-12(BLACK) L=1.8M (Y6A6B20161218000)
	or JA15-10250-20	AC Cord	PE-224 & H05VV-F, 2x 0.75mm ² ,2C Black 6' & LS-20
	or A15-10250-00	AC Cord	M3204,H05VV-F 2x 0.75mm,VAC17S
FAN			

	A35-26025-01	Fan	FD126025-SM1,L=11cm
	METAL PARTS		
	70-460004-0B	front panel	AL6063 T5
	67-460001-1	subfascia	SECC T=1.2mm
	65-460001-1	subfascia	SECC T=1.2mm
	66-420003-0	converter block	SECC T=1.5mm
	70-420007-1	Moutain Bar 2	AL 6063 T5
	70-420008-1	Moutain Bar 1	AL 6063 T5
	70-420012-1	Handle	AL 6063 T5
	67-420007-0	fan guard	G06B4-4HA-R
	67-420005-1	Mesh	SPCC T=0.5mm
	66-460001-1	chassis	SECC T=1mm
	66-460002-0	repair window	SECC T=1mm
	M67-460002-2C	rear panel	SECC T=1mm,
	80-460002-2	rear panel	SECC T=1mm
	65-460002-2	rear panel	SECC T=1mm
	67-460003-1	top cover	SECC T=1mm
	65-460003-1	top cover	SECC T=1mm
	MECHANISM PARTS		
	78-001002-1	Foot pad	VHMC-30U, HV=-90°±2° °,OD=25.5mm,ID=14.1mm,T=3mm
	75-124001-0	Foot	ABS765B
	74-123003-1	C725BEE 2p Input Buttons	ABS 765B
	77-124004-0	C375BEE Power Button Bezel	UL94V-0
	76-008001-0	LED lens	PMMA
	86-046001-0	LED Lens Gum	3m Dobbble side adhesive
	78-460001-0	Insulated Cushion	GK17, T=0.5mm
	EVA		
	79-420002-0	EVA1	34*10*3mm
	79-420003-1	EVA2	65*18*2mm
	79-460001-0	Indicator light EVA	
	79-420004-0	EVA3	420*8*0.5mm
	79-420005-1	EVA4	398*8*1mm
	79-272004-0	SPONGE	L110*W30*T5mm
	FASTENERS		
Fixed Bottom Board PCB(2). Power Borad(4)	61-023508-2	Machine Screw	MB3x8, plated nickel
Fixed Moutain 1(2),Moutain 2(2),Handle(4)	61-064510-0	Machine Screw	MF4x10, plated black zinc
Fixed Bottom Board, front panel and subfascia(4), subfascia and converter block(4),RCA(2)	61-023208-0	Self Tapping Screw	BTB3x8,plated black zinc
Fixed fan and fan guard	61-083532-6	Machine Screw	MPW3x32
Fixed fan(8),Fixed subfascia Insulated Cushion(4)	62-010302-1	Nut	M3,plated blue zinc
Fixed switch PCB(3),LED PCB(4),Fixed subfascia Insulated Cushion	61-023506-0	Machine Screw	MB3x6,plated black zinc
Install top cover	61-084208-0	Self Tapping Screw	BTPW4x8, plated black zinc
Main Heat sink(8)	61-023512-0	Machine Screw	MB3x12,plated black zinc

Foot pad and chassis(4),rear panel and chassis(5) , rear panel and top cover (3),front panel and subfascia(4) , Fixed 360.1 terminal and rear panel (2) Install switch socket(2),Install repair window(8)	61-023206-0	Self Tapping Screw	BTB3x6,plated black zinc
Fixed switch socket(2),converter block and chassis(4)	61-063208-0	Tapitite Screw	BTF3x8,plated black zinc
	ACCESSORY		
Power switch(2), Power input switch(2), Fuse socket((2)	A78-000050-1	HEAT SHRINKING TUBE	Φ5x12mm, CB-HFT
Fuse socket	A78-000150-1	HEAT SHRINKING TUBE	Φ15x40mm, CB-HFT
Power switch	A78-000220-1	HEAT SHRINKING TUBE	Φ22x25mm, CB-HFT
Power input socket	A78-000300-1	Heat Shrinking Tube	Φ30x25mm, CB-HFT
	84-001003-0	CABLE TIE	YJ-100
	85-460001-0	Nylon Spacer	3-16.8
	PACKING		
	88-460001-0A	Master carton	534*389*204mm
	89-460001-0	EPE LEFT	EPE White
	89-460002-0	EPE RIGHT	EPE White
	89-420003-0	EPE for handle	EPE White
	30-00050-00	Desiccant	20g, Silica gel
	90-114003-0	Polybag	
Moutain Bar	90-028003-0	Polybag	
	90-019001-0	Polybag	630X470mm
	90-001002-0	Manu Polybag	220X370mm
	94-460001-1	Version Labe	115x85mm
	94-460002-1	Version Label	115x85mm
	94-460003-0	SERIAL NO LABEL	53x10mm
	86-000053-0	Copperplate Lable	53x10mm
	30-49401-00	INSTRUCTION MANUAL	157g , 370X287mm, fold after: 185X287mm,Black
	30-51500-01	Guarantee Card(2013)	210X148mm, 250g

ASSY EXPLODE VIEW



EXPLODE VIEW PARTS LIST

ITEM	PART/NO	PART/NAME	QTY	REMARK
1	67-460003-1	top cover	1	
2	80-460002-2	rear panel	1	
3	A17-07002-07 or A17-07002-00	AC INLET	1	
4	A11-01101-03	switch	1	
5	JA20-20000-10	fuse holder	1	
6	01-94005-00	psu pcb	1	
7	70-460001-3	main heatsink	2	
8	66-460001-1	chassis	1	
9	66-420003-0	shifted block	2	
10	70-420008-1	mountain bar1	1	
11	70-420012-1	handle	2	
12	01-94004-00	power key PCB	1	
13	77-124004-0	power button bezel	1	
14	74-123003-1	input button	1	
15	70-460004-0B	front panel	1	
16	76-008001-0	led lens	2	
17	79-460001-0	light EVA	1	
18	01-94002-00	display PCB	1	
19	67-420005-1	mesh	2	
20	67-460001-1	subfascia	1	
21	66-460002-0	repair window	1	
22	70-420007-1	mountain bar2	1	
23	75-124001-0	foot	4	
24	01-94001-20	main board PCB	1	
25	01-94003-00	input board PCB	1	
26	A35-26025-01	fan	2	
27	67-420007-0	fan guard	2	
28	17-03004-30	speaker connector	2	

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