

C 725BEE

**STEREO
RECEIVER**

SERVICE MANUAL

C 725BEE

**STEREO
RECEIVER**

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.

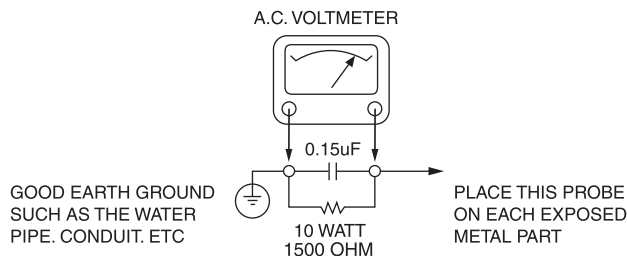
SAFETY CHECKS

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 A/V Receiver 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 A/V Receiver 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 A/V Receiver 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 A/V Receiver 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.

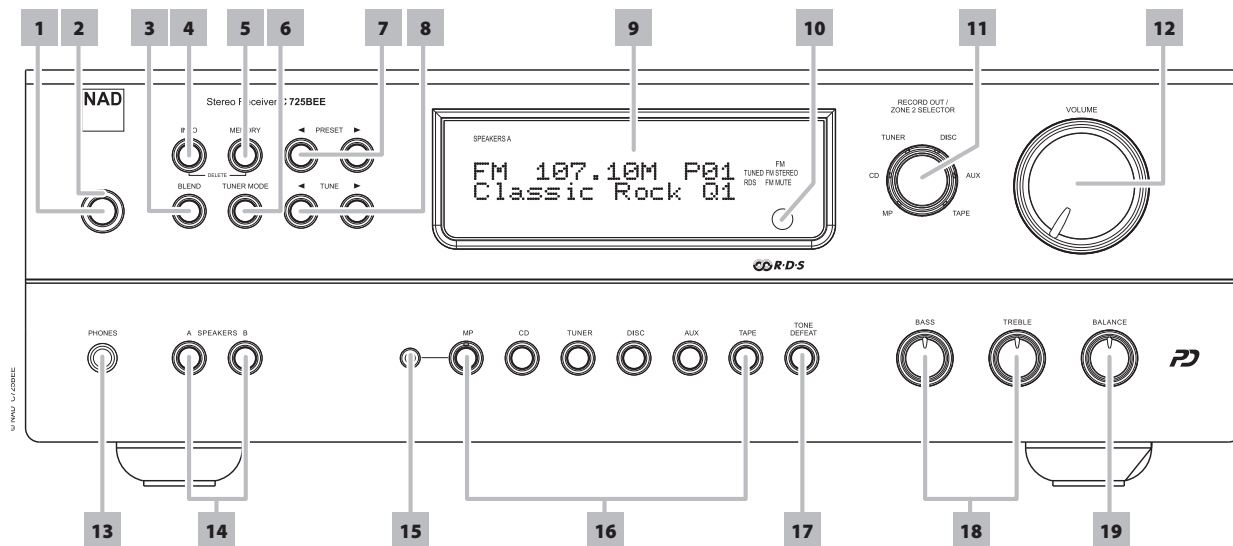
1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential 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.)

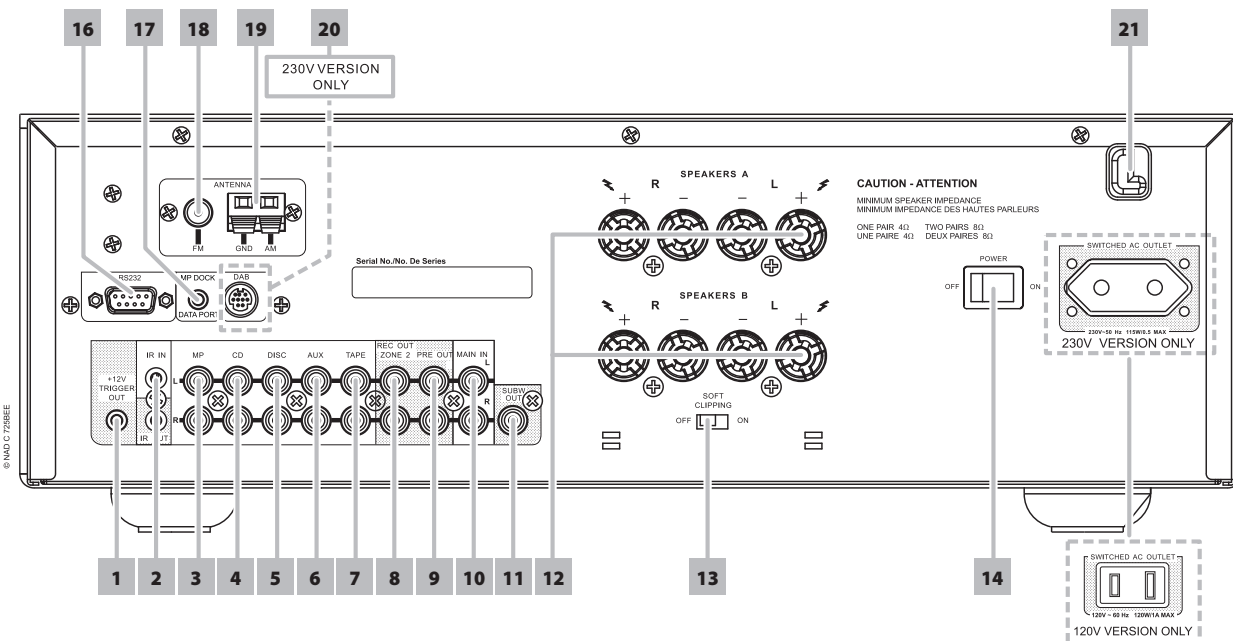
IDENTIFICATION OF CONTROLS

FRONT PANEL



- | | | |
|----------------------------------|----------------------------------|--------------------|
| 1. Power | 7. Preset | 14. Speaker A & B |
| 2. Power/Standby /Protection/Led | 8. Tune | 15. MP input |
| 3. Blend | 9. VFD | 16. Input selector |
| 4. Info | 10. IR Receiver | 17. Tone defeat |
| 5. Memory | 11. Record out / Zone 2 selector | 18. Tone controls |
| 6. Tuner Mode | 12. Volume | 19. Balance |
| | 13. Headphone | |

REAR PANEL



- | | |
|---------------------|-----------------------------------|
| 1. +12V trigger out | 11. Sub out |
| 2. IR in / out | 12. Speaker out |
| 3. MP input | 13. Soft Clipping |
| 4. CD input | 14. ON / OFF power(AC) switch |
| 5. DISC input | 15. Switched AC outlet |
| 6. AUX input | 16. RS232 input |
| 7. TAPE input | 17. MP Dock data port |
| 8. REC out | 18. Antenna (FM) |
| 9. PRE out | 19. Antenna(AM) |
| 10. Main in | 20. DAB input (230V version only) |

PREAMPLIFIER SECTION

LINE LEVEL INPUTS

(MP, CD, Disc, Aux, Tape)

Input impedance (R and C)	22 kohms + 100 pF
Input sensitivity (ref. rated power)	320 mV
Maximum input signal	> 4.5V
Signal / Noise ratio, A-weighted (from CD Input to Speakers Output, Volume Setting for 500mV in , 8ohms 1W out)	97.0 dB ref. 1W
Signal to noise ratio preamp out, IHF "A" weighted	110 dB re 500mV
Frequency response, 20 Hz – 20 kHz	< +/-0.1 dB (tone defeat on) < +/-0.2 dB (tone defeat off)
THD + Noise, SMPTE IM	< 0.01% at 5 V out

LINE LEVEL OUTPUTS

Pre-amp output impedance	80 ohms
Tape output impedance	Source Z + 1kohms
Maximum output level	pre-amp out : > 11 V Tape-out : > 10 V

CONTROLS

Treble	+/- 5 dB at 10 kHz
Bass	+/- 8 dB at 100 Hz

IR IN and OUT

Input Resistance	> 10 kohms
Input Voltage	Min 5 V
Output Resistance	< 30 ohms

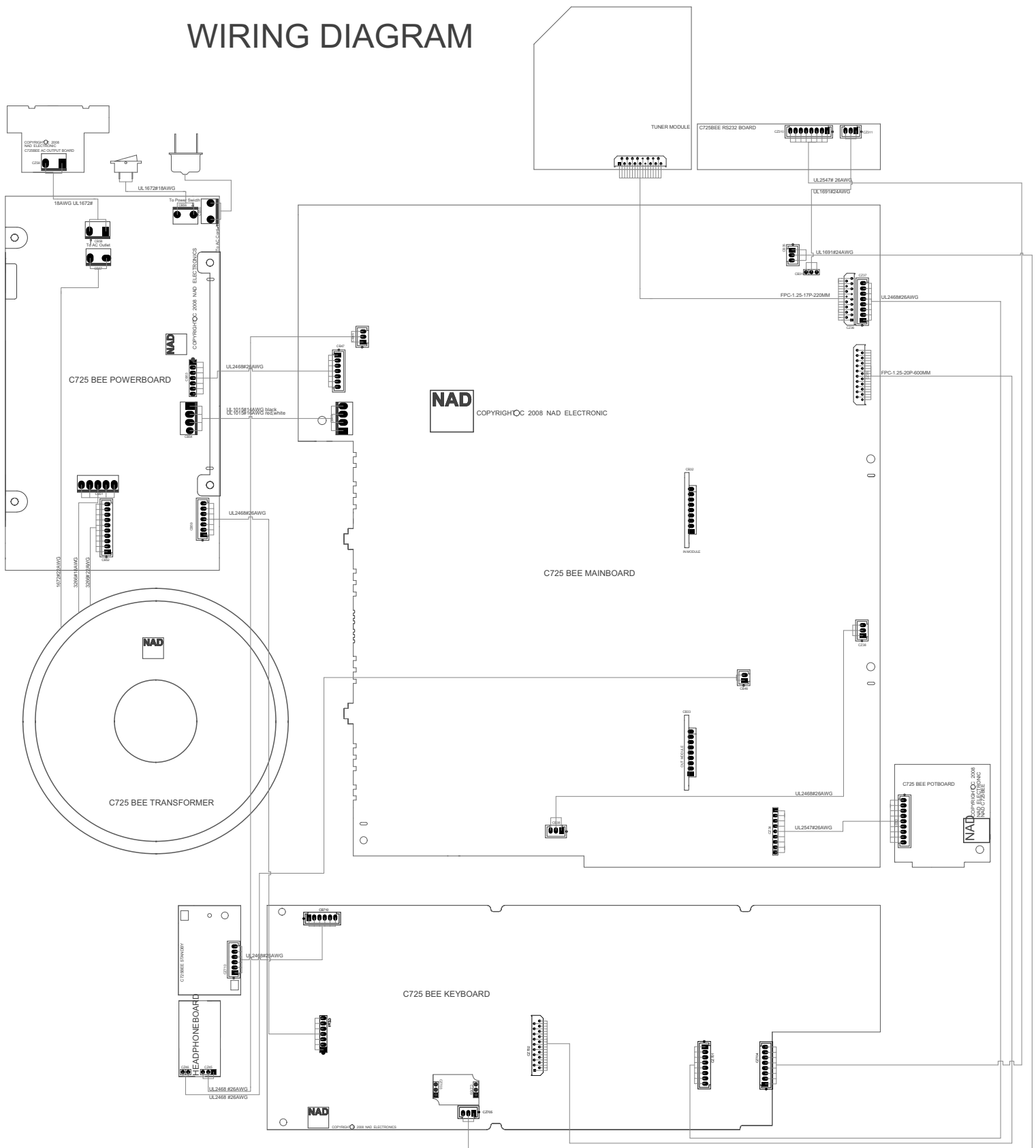
TRIGGER Out

Output Current	50 mA
Output Voltage	12 V

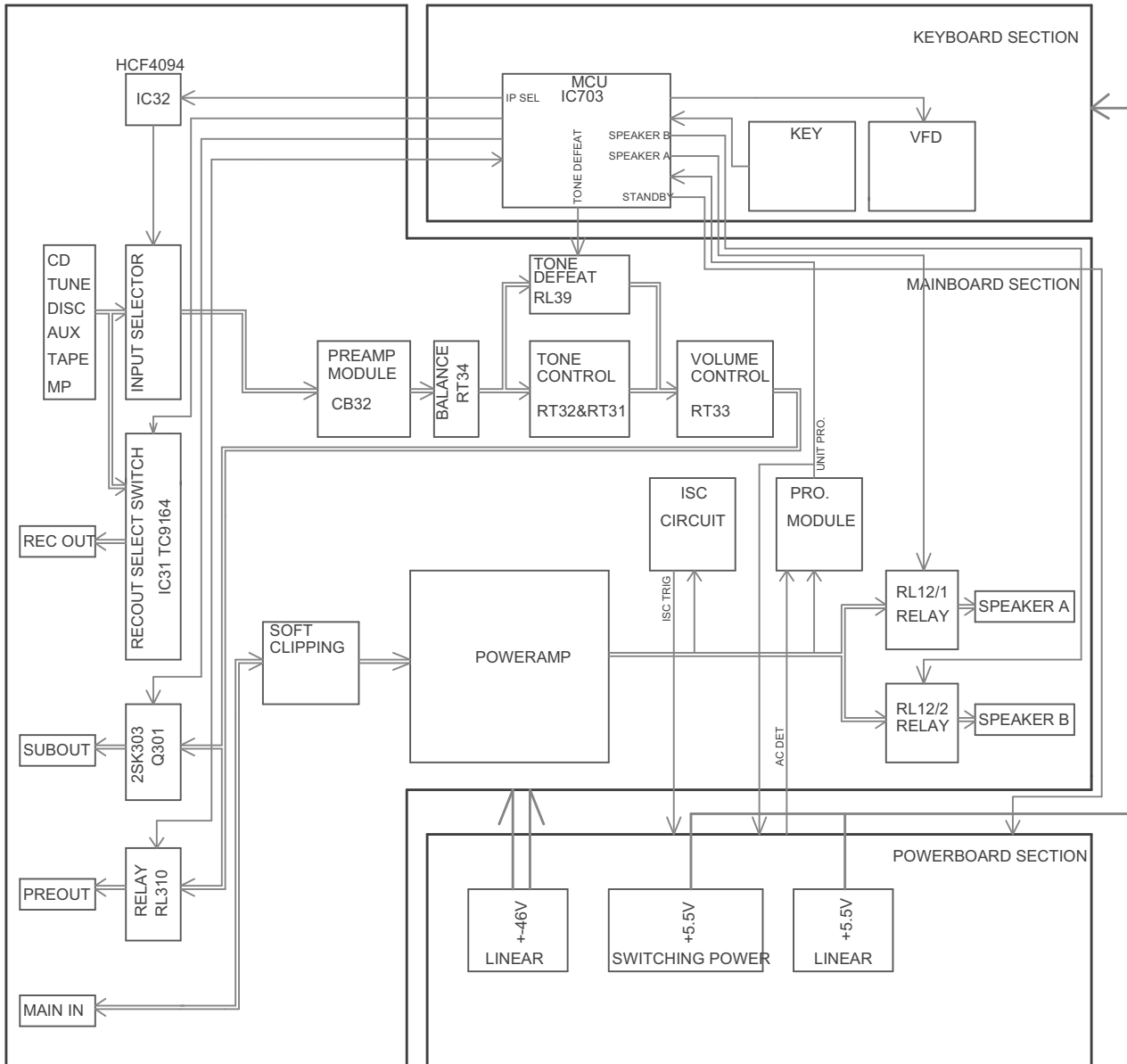
DIMENSIONS AND WEIGHTS

Net Weight	9.4 kg (20.7 lb)
Shipping Weight	11 kg (22 lb)
DIMENSION (W×H×D)	435 × 149 × 396MM

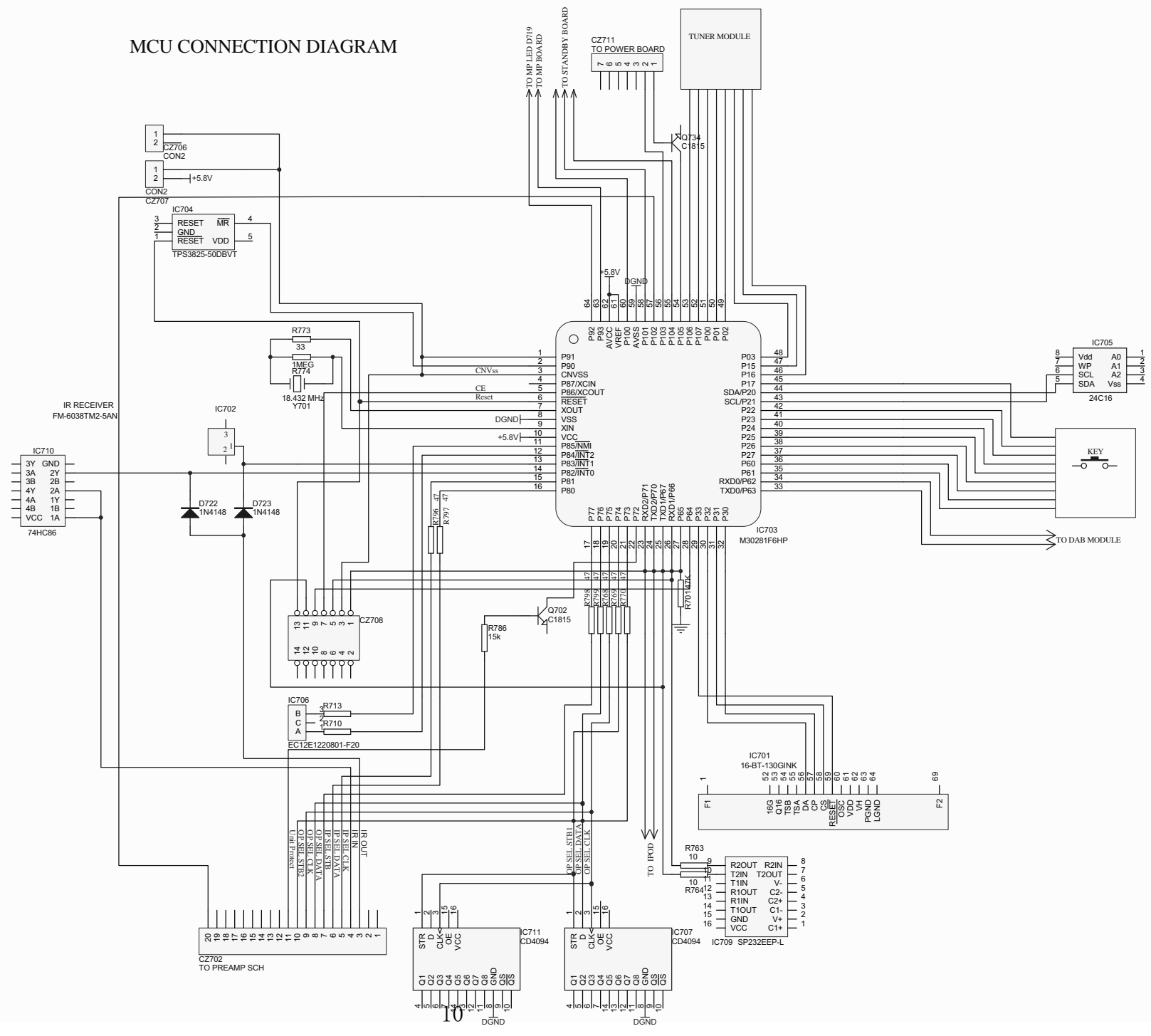
WIRING DIAGRAM



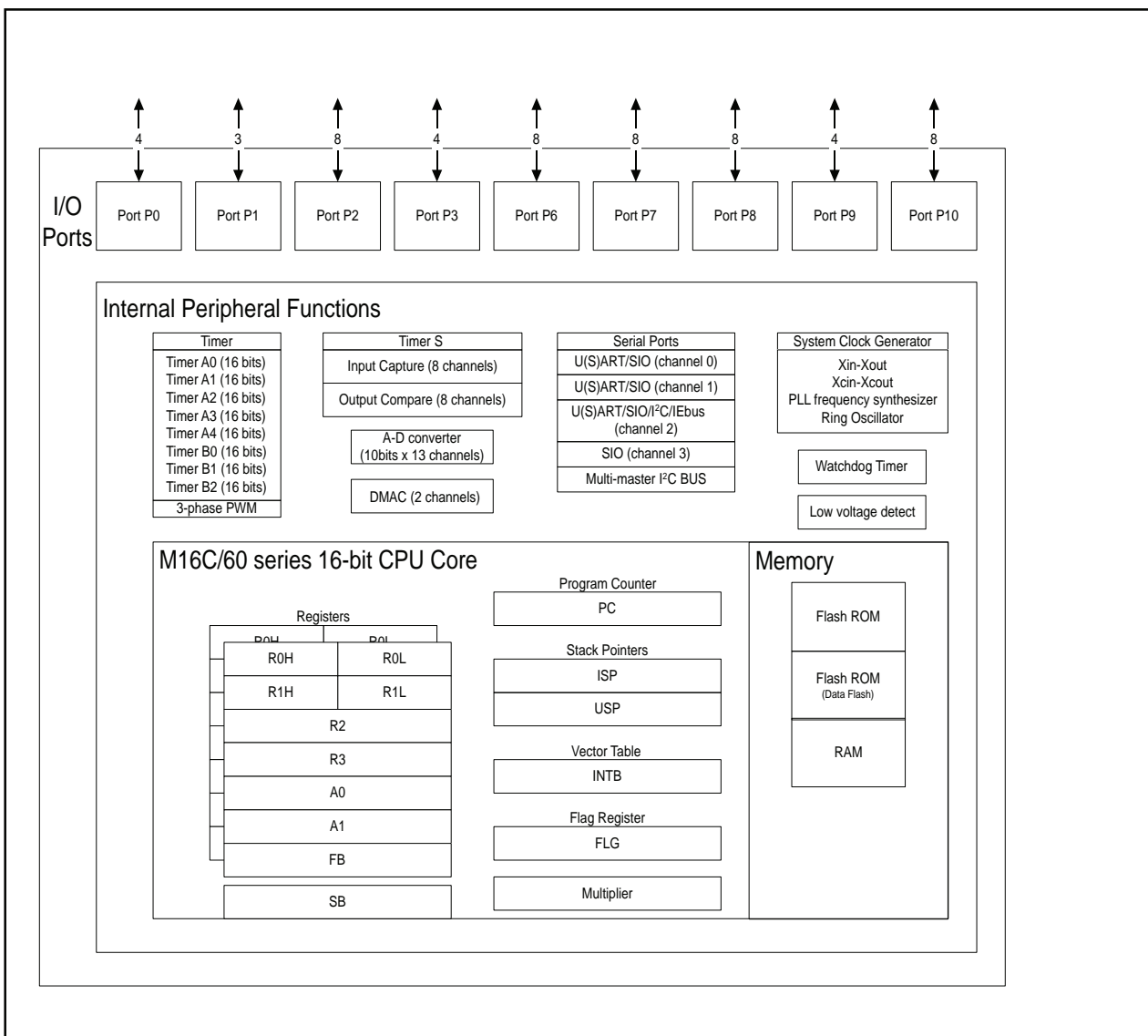
BLOCK DIAGRAM



MCU CONNECTION DIAGRAM



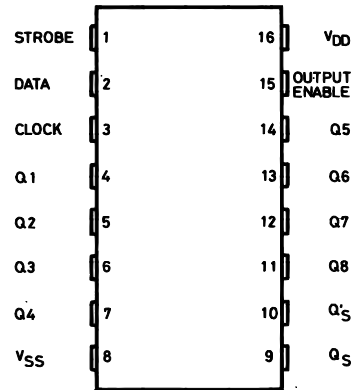
MCU
30281FA
KEY BOARD IC703



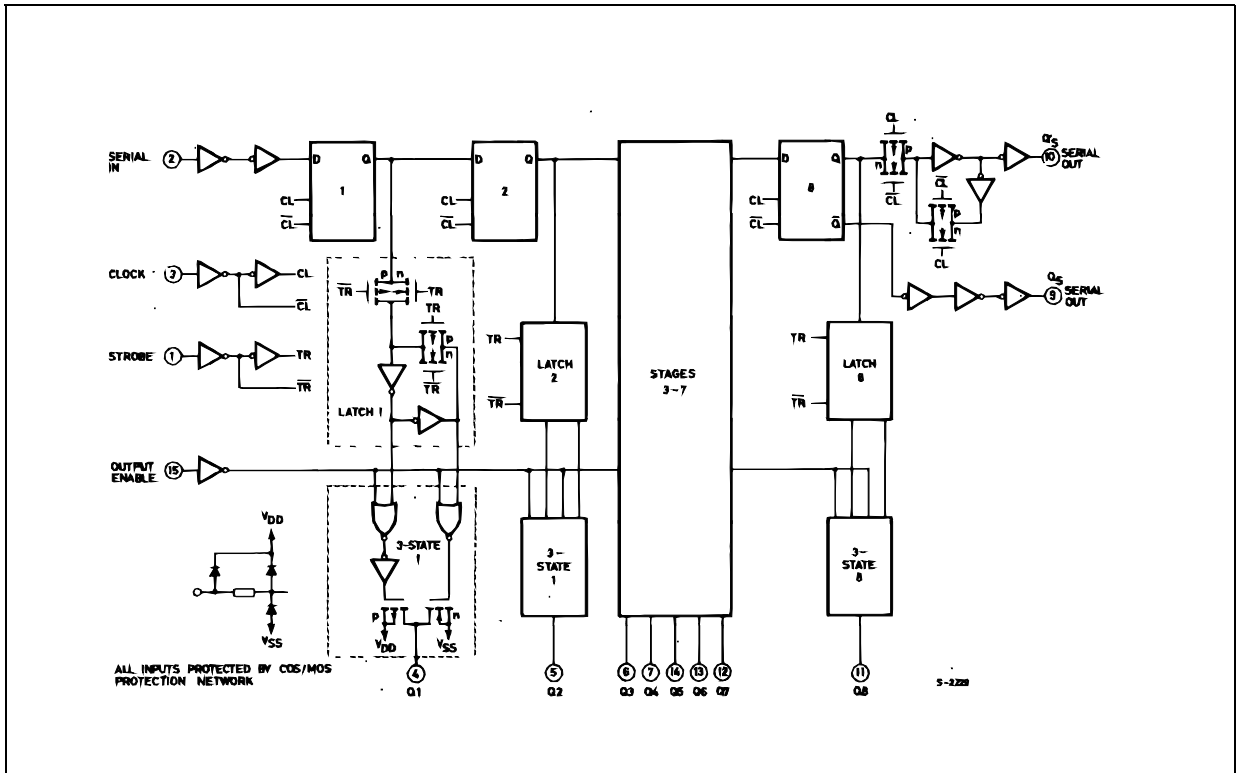
CD4094

KEYBOARD:IC707 IC711

MAINBOARD:IC32

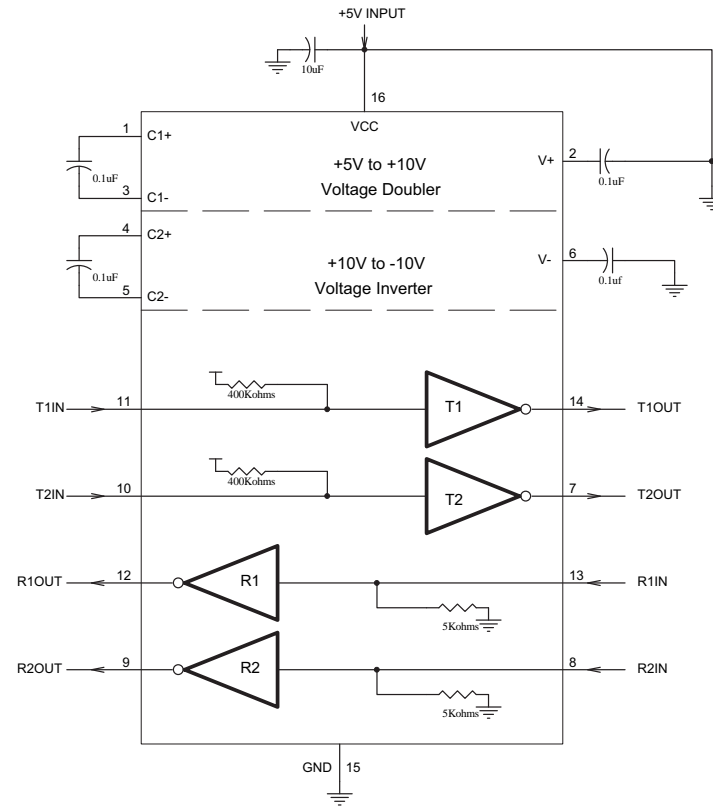
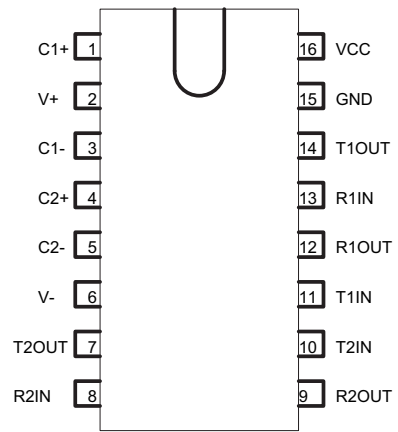


5-2228



5-2228

IC709
 keyboard,SP232EEP

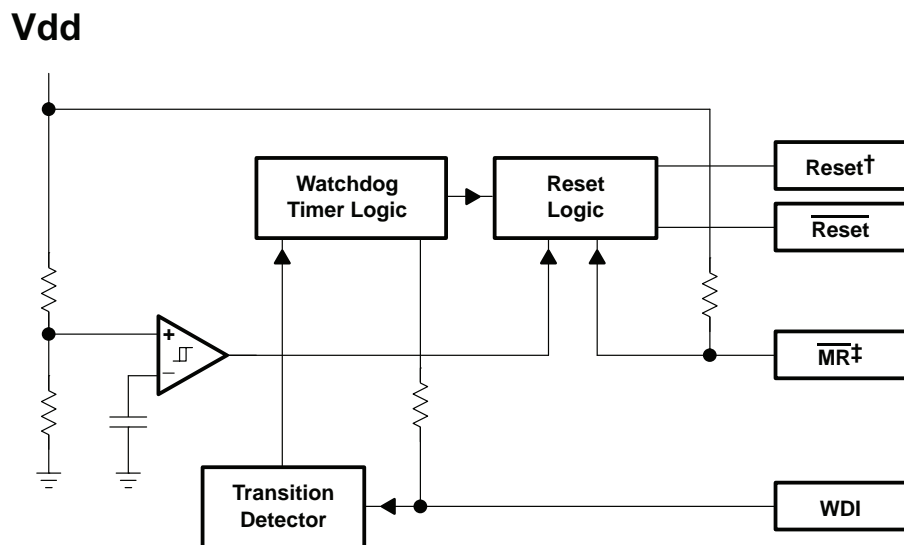


PROCESSOR SUPERVISORY CIRCUIT

TPS3825

KEY BOARD IC704

BLOCK DIAGRAM:

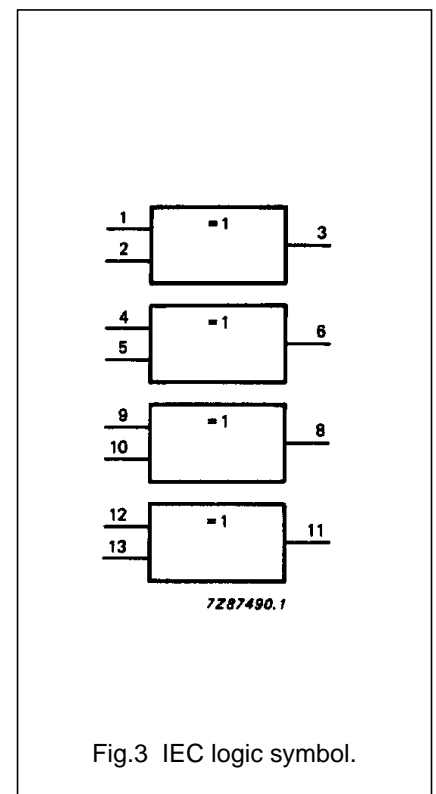
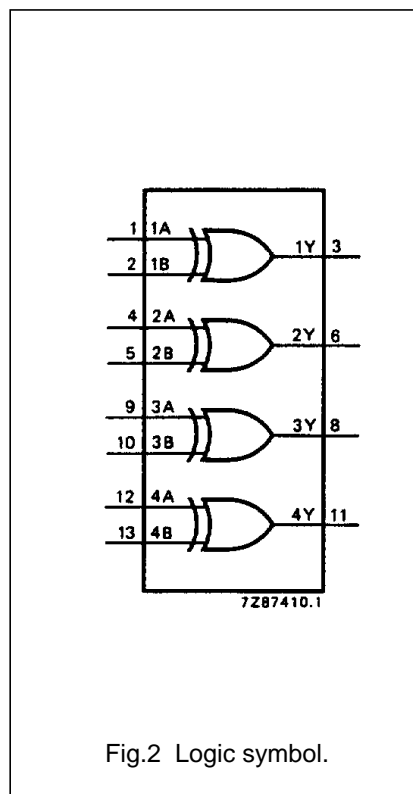
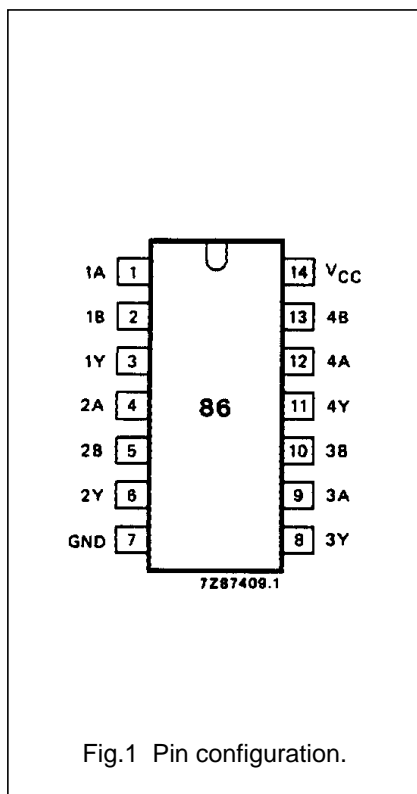


74HC86 KEY BOARD IC710

Quad 2-input EXCLUSIVE-OR gate

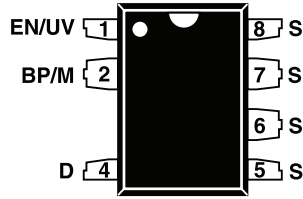
PIN DESCRIPTION

PIN NO.	SYMBOL	NAME AND FUNCTION
1, 4, 9, 12	1A to 4A	data inputs
2, 5, 10, 13	1B to 4B	data inputs
3, 6, 8, 11	1Y to 4Y	data outputs
7	GND	ground (0 V)
14	V _{CC}	positive supply voltage

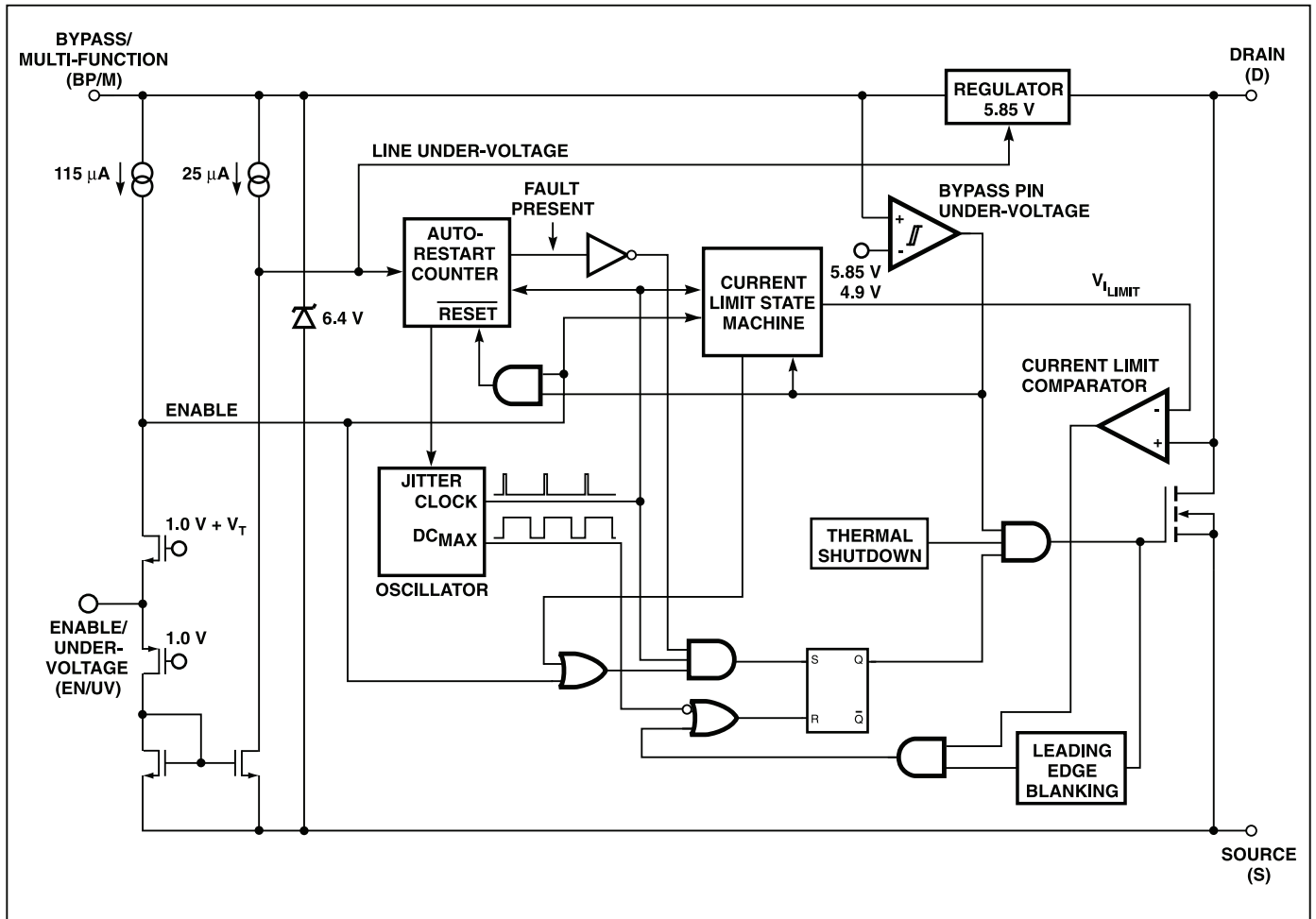


**TNY274
POWERBOARD:IC51**

PIN CONNECTION :



BLOCK DIAGRAM:



ALIGNMENT PROCEDURES

I. INITIAL

A. LOWEST VOLUME ADJUSTMENT

1. Tune the volume pot to lowest state.
2. Input a high voltage signal such as 5V from CD input.
3. Connect a oscilloscope to L channel binding posts.
4. Observing the oscilloscope,adjust VR301,make the output of speakers become to the lowest level.
5. Adjusting VR302,make R channel output become to the lowest level by same way.

B. IDLING CURRENT

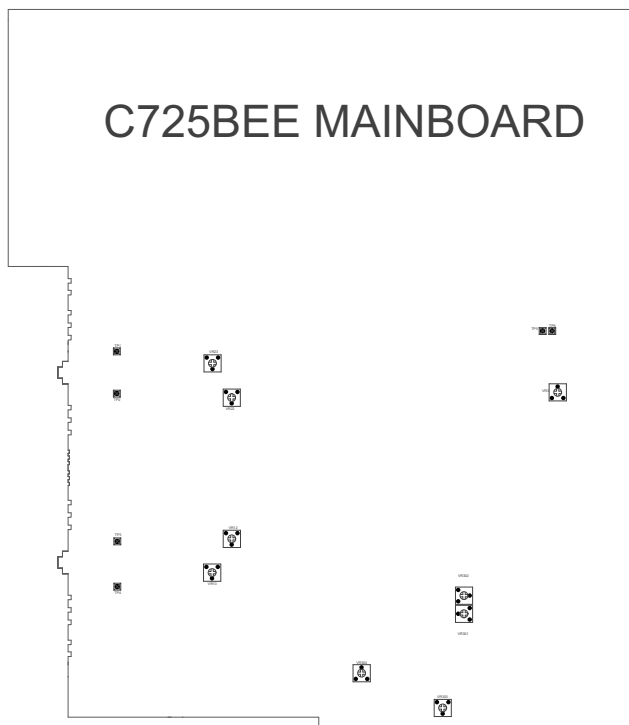
1. Power on
2. Running 5 minutes with no signal
3. Connect a DC voltmeter to TP1 and TP2 ,adjust VR22/VR23 for 6mV reading on voltmeter.
4. Connect a DC voltmeter to TP3 and TP4 ,adjust VR12/VR13 for 6mV reading on voltmeter.

C.ISC CIRCUIT ORIGINAL ADJUSTING

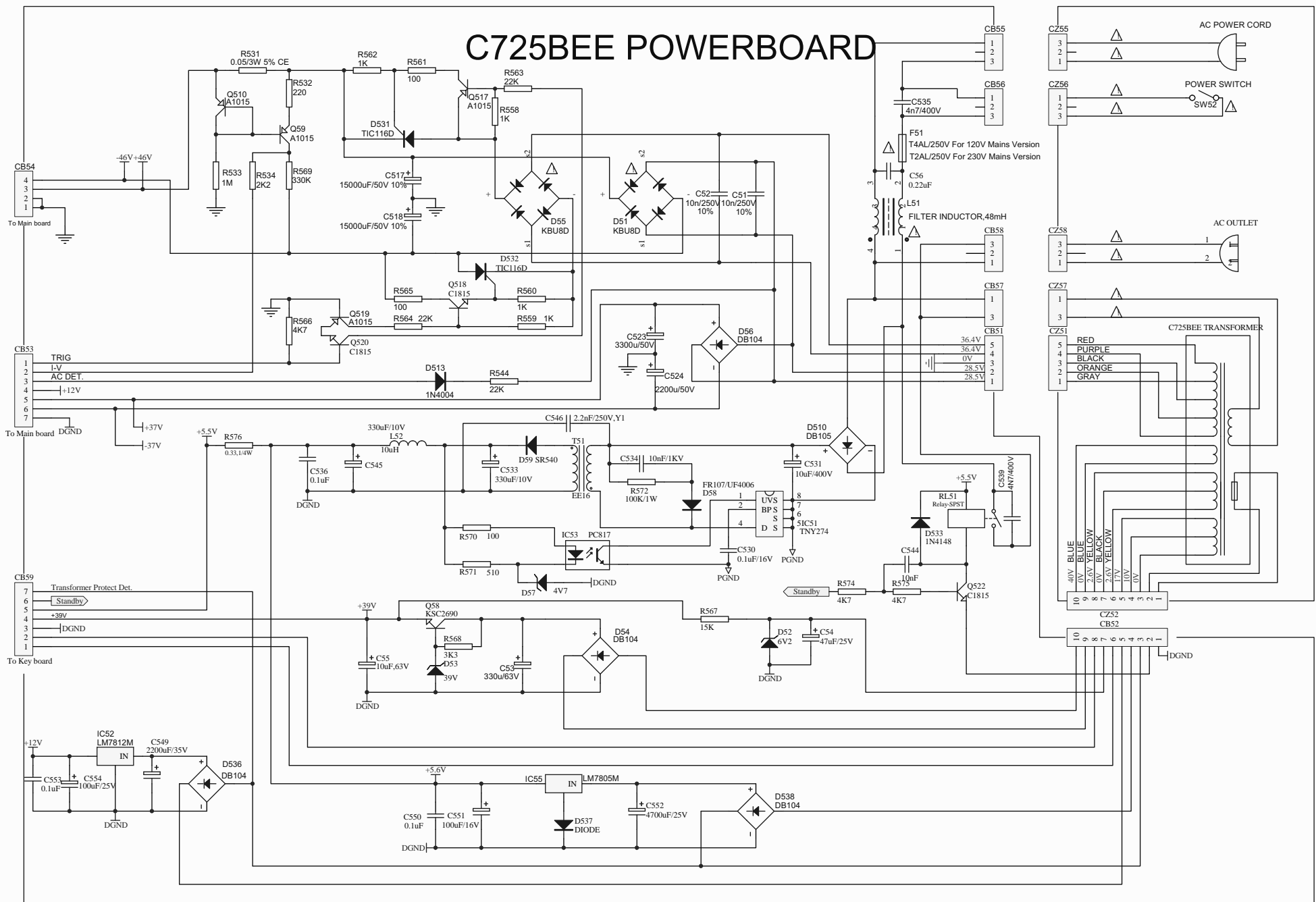
Adjust the pot VR3 to make the DC voltage of the point of TP5 to the same as TP6

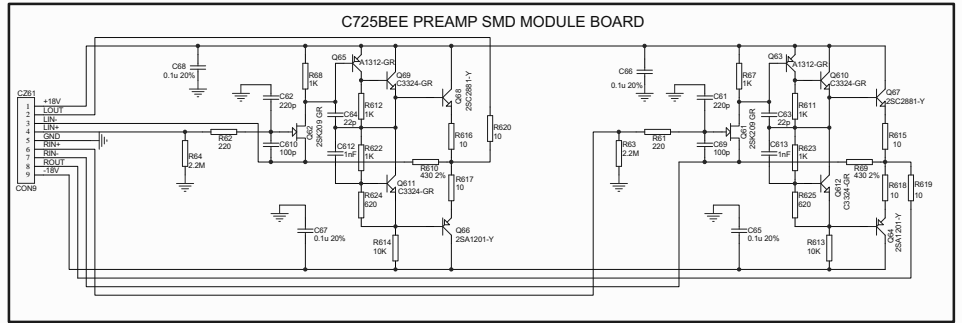
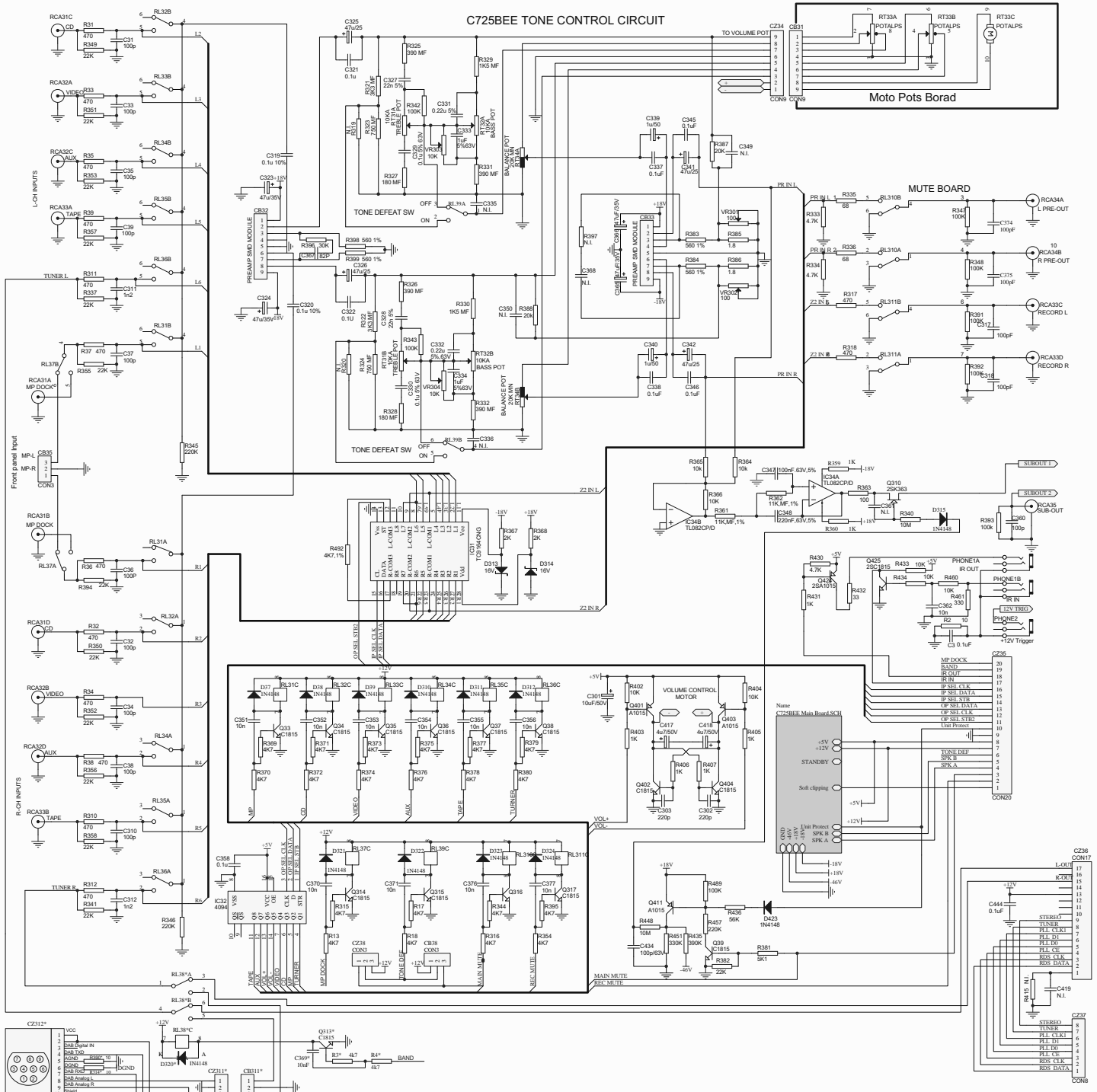
II. FINAL ADJUSTMENT

Repeat procedure A,B and C for the lowest volume level, idling current alignment and ISC original level respectively.



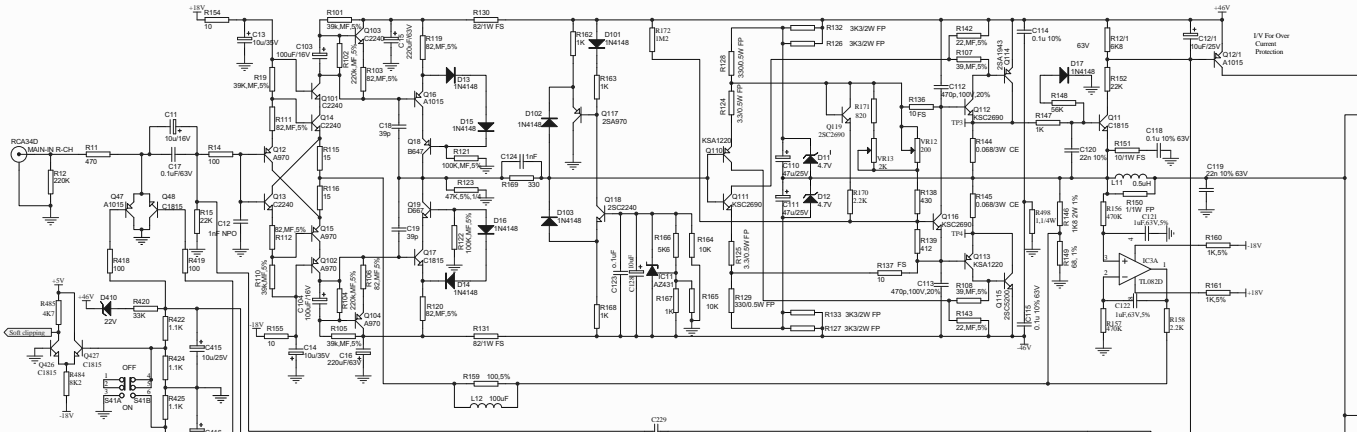
C725BEE POWERBOARD



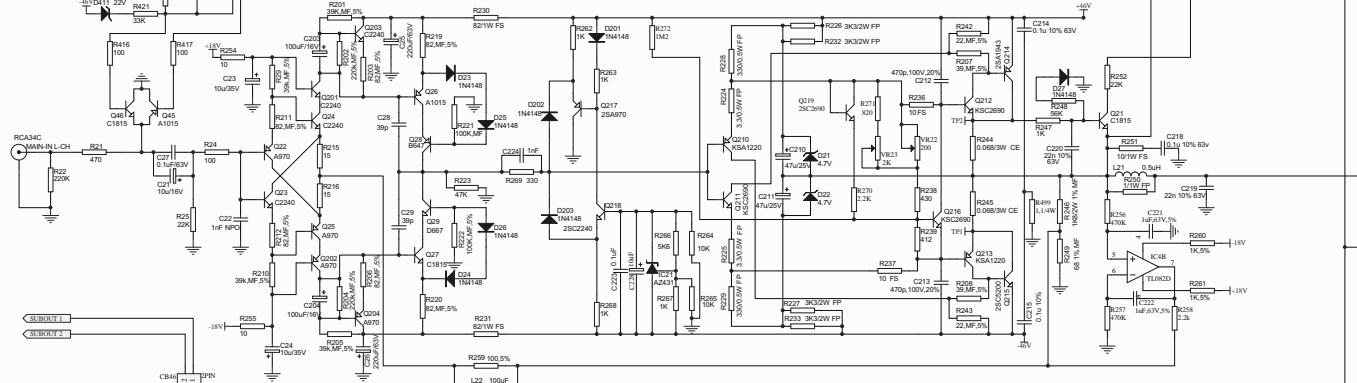


C725BEE AMP

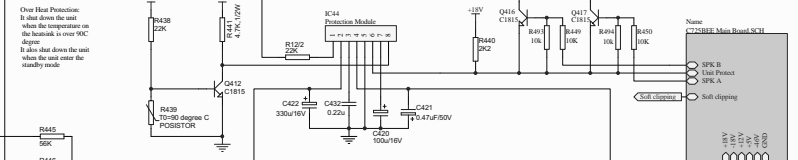
C725BEE POWER AMP CIR. R



POWER AMP CIR. L



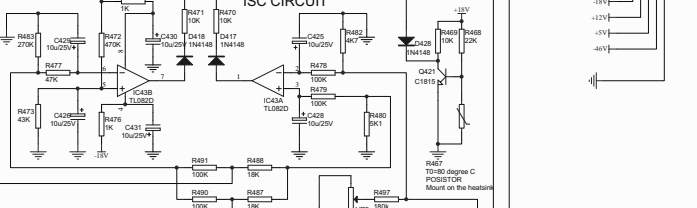
PROTECTION CIR.



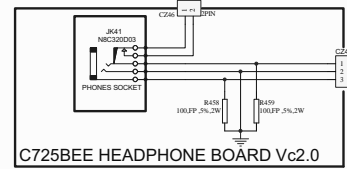
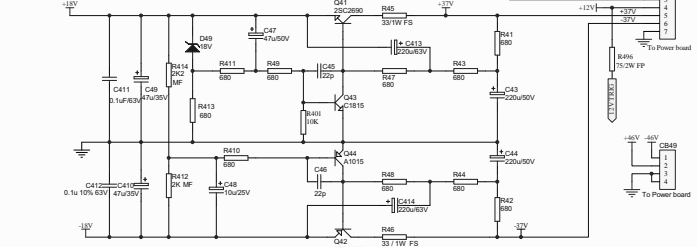
Over Heat Protection:
It shut down the amp
when the temperature on
the feedback is over 90C
degree
It also shut down the amp
when the unit enters the
standby mode.

ISC Circuit:
It switch the power
supply to lower voltage
when the load impedance is
low, or the temperature on
the feedback is over
90C degree

ISC CIRCUIT



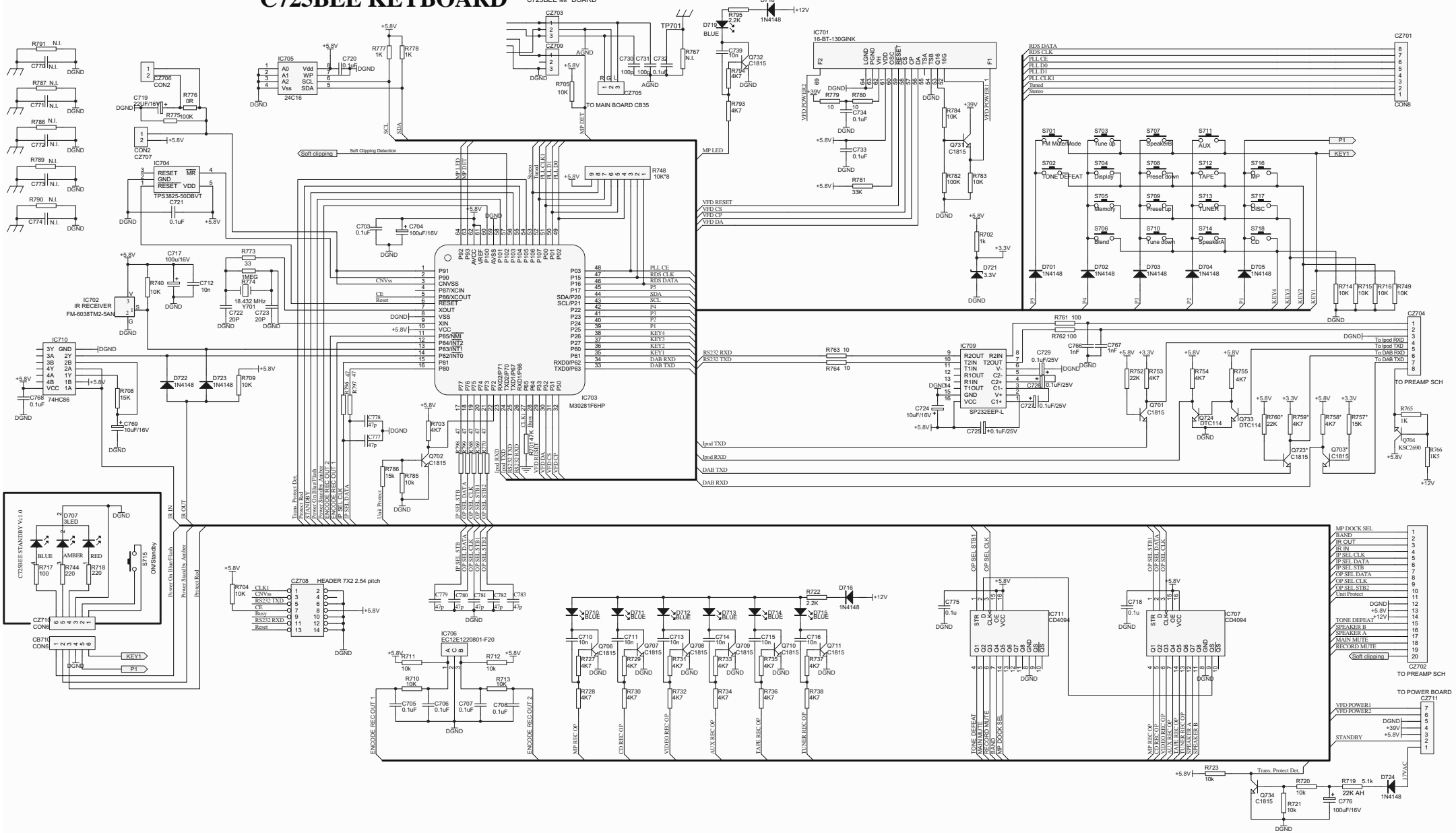
SUPPLY CIR.



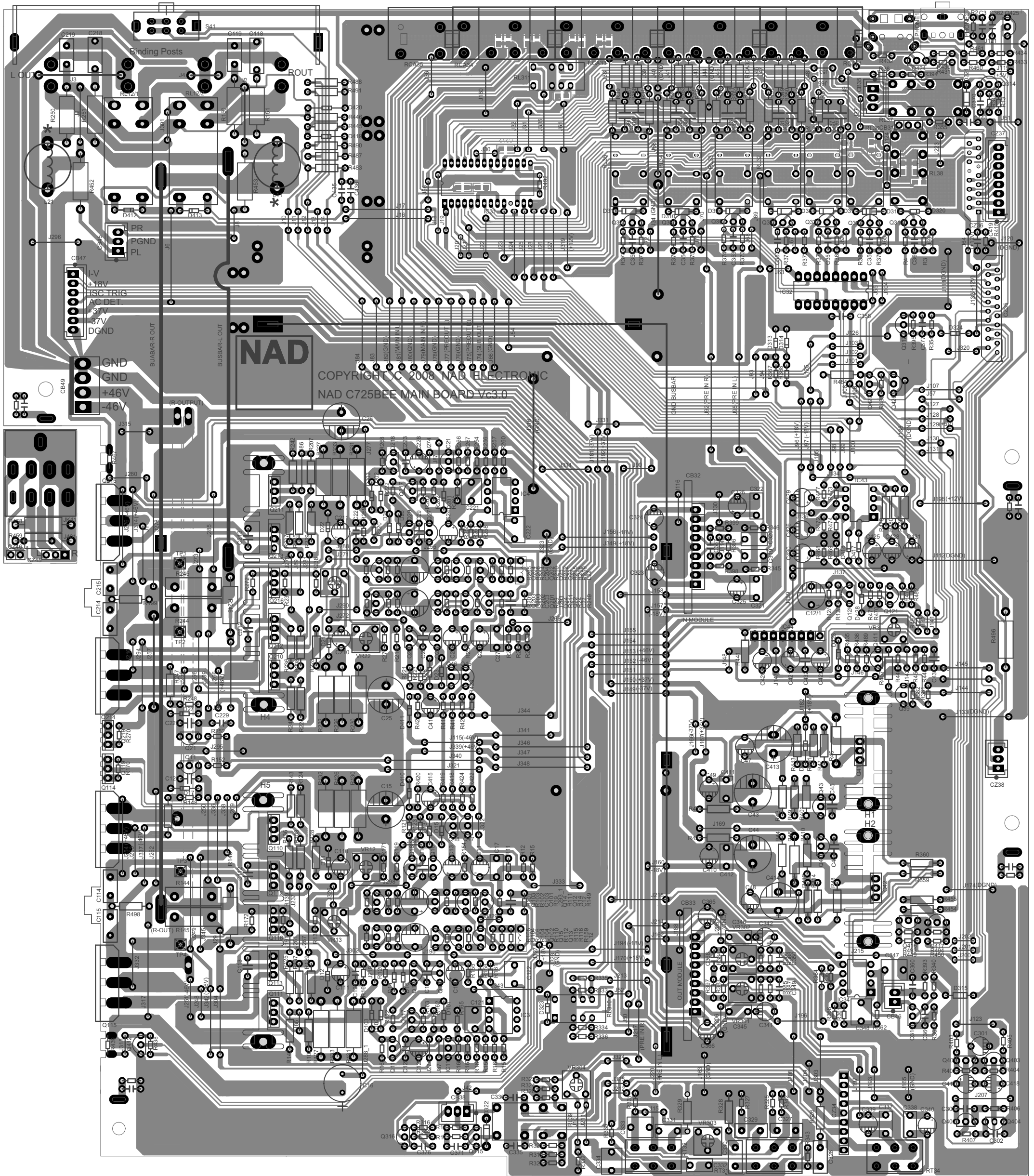
C725BEE HEADPHONE BOARD Vc2.0

C725BEE KEYBOARD

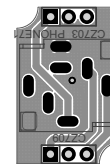
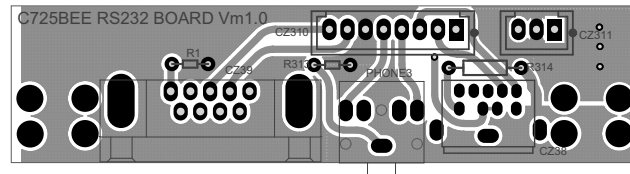
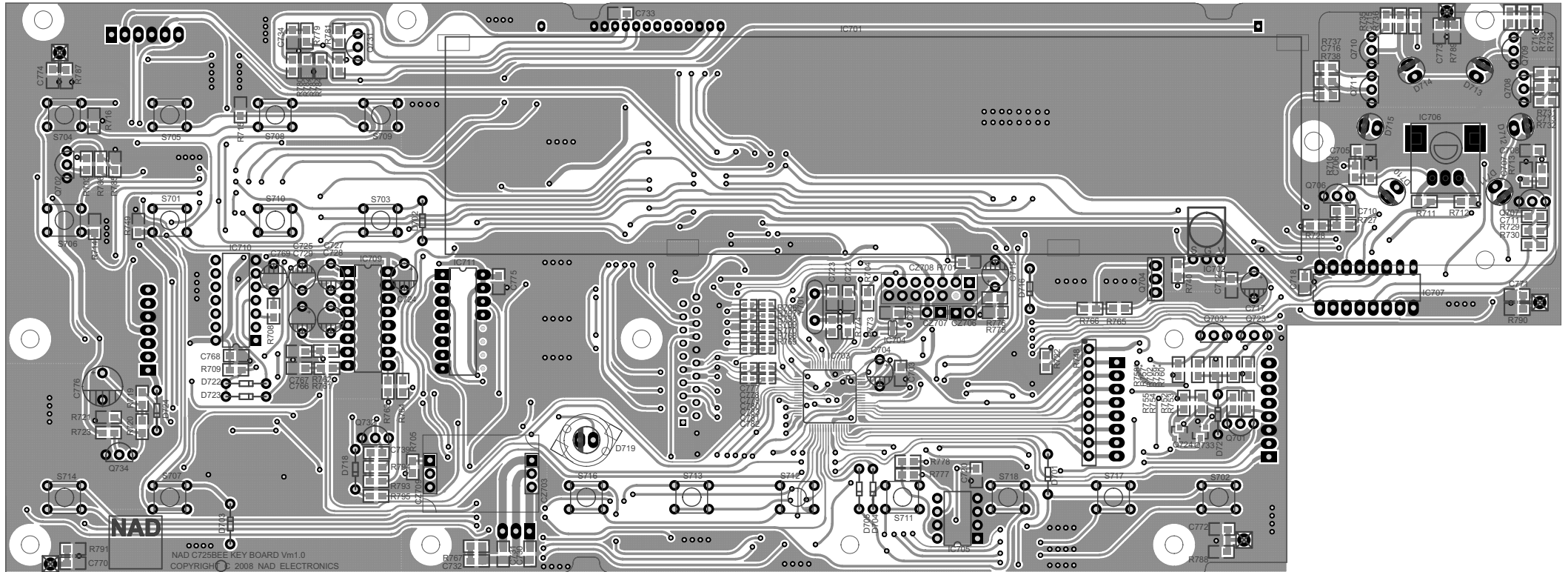
C725BEE MP BOARD



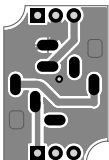
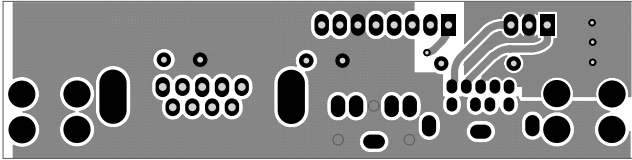
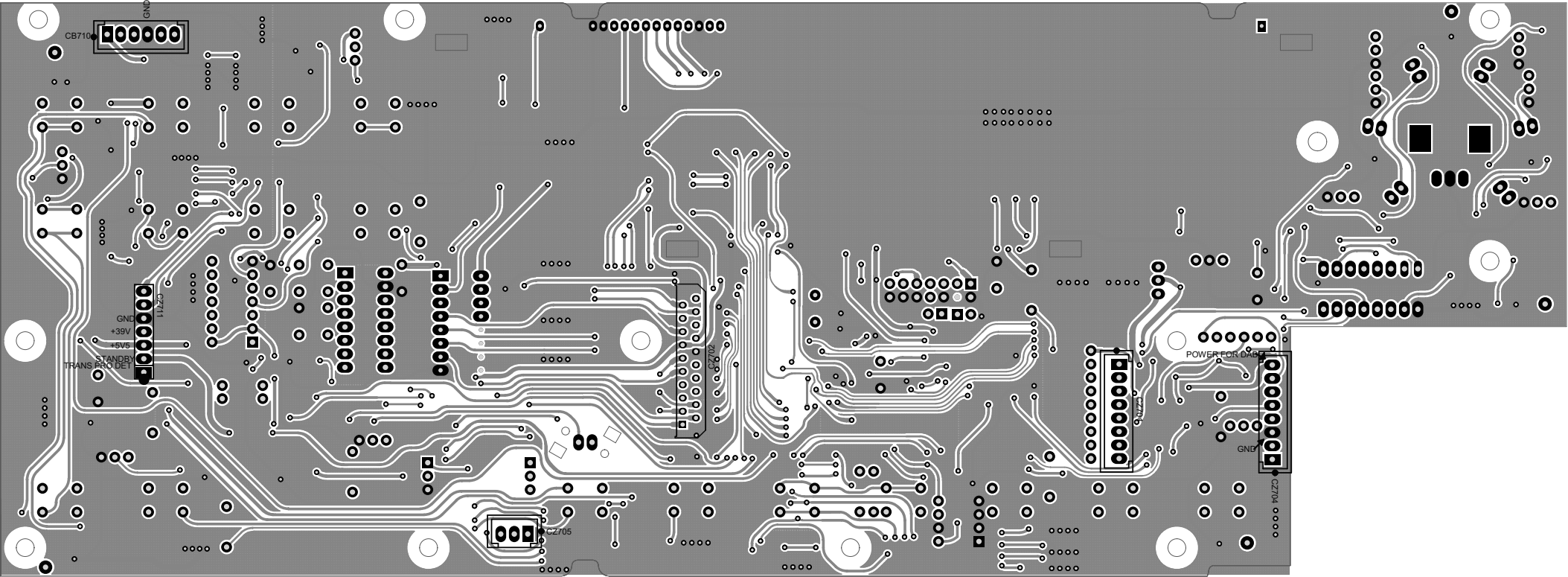
C725BEE MAINBOARD+PHONEJACK



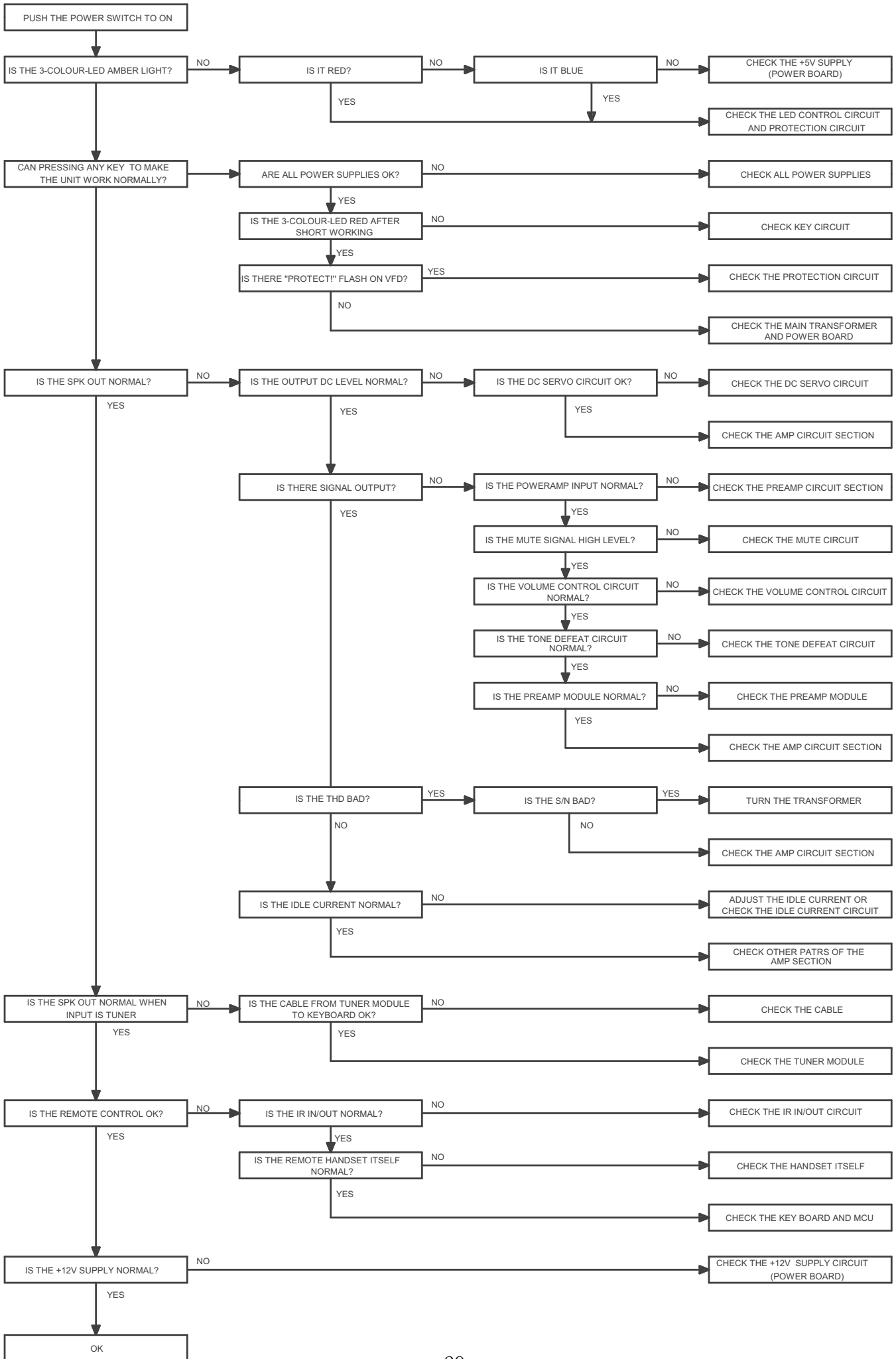
C725 KEYBOARD + MPBOARD + RSR232BOARD TOP LAYER



BOTTOM LAYER



TROUBLESHOOTING GUIDE



ELECTRIC PARTS LIST

Designator	HS P/N	Part Type
MAINBOARD	01-72501-10	AH
	01-72501-20	C
C311, C312	26-12251-11	1.2nJ, 50V, 0805, NPO
C317, C318, C374, C375	26-10151-01	100pJ, 50V, 0805, NPO
R311, R312, R317, R318	07-90471-01	470Ω ±5%
R337, R341	07-90223-01	22K, ±5% 0805
R347, R348, R391, R392	07-90104-01	100KΩ ±5%
	DIODES	
D13, D14, D15, D16, D17, D23, D24, D25, D26, D27, D37, D38, D39, D310, D311, D312, D315, D321, D322, D323, D324, D101, D102, D103, D201, D202, D203, D412, D413, D417, D418, D423, D428	33-44148-00	1N4148
D320*	33-44148-00	1N4148
D419, D420	33-44148-00	1N4148
D11, D12, D21, D22	33-14709-00	4.7V, 0.5W
D313, D314	33-11600-00	16V 0.5W
D49	33-11800-00	18V 0.5W
D410, D411	33-11800-00	18V 0.5W
D325	33-15609-00	5.6V, 0.5W
	TRANSISTORS	
Q310	J31-00363-00	2SK363
Q12/1, Q16, Q26, Q44, Q45, Q47, Q401, Q403, Q411, Q424	31-01015-00	2SA1015
Q11, Q17, Q21, Q27, Q33, Q34, Q35, Q36, Q37, Q38, Q39, Q43, Q46, Q48, Q314, Q315, Q316, Q317, Q402, Q404, Q412, Q416, Q417, Q421, Q425, Q426, Q427	31-01815-00	2SC1815
Q313*	31-01815-00	2SC1815
Q12, Q15, Q22, Q25, Q102, Q104, Q117, Q202, Q204, Q217	J31-00970-00	2SA970
Q13, Q14, Q23, Q24, Q101, Q103, Q118, Q201, Q203, Q218	J31-02240-00	2SC2240 GR
Q18, Q28	31-00647-00	2SB647A
Q19, Q29	31-00667-00	2SD667A
	ICS	
IC11, IC21	03-00431-03	AZ431BZ-B
	CAPACITORS	
C45, C46	05-22013-00	22p,1KV ±10%
C18, C19, C28, C29	05-39013-00	39p,1KV ±5%
C367	05-82013-00	82P,1KV ±10%
C360, C434	05-10113-01	100p/1KV± 10%
C302, C303	05-22113-01	220p/1KV ±10%
C382, C383, C384	05-43113-00	CC8104aSL431K1KVT,430pF,1KV,± 10%,F5.0

C112, C113, C212, C213, C378, C379, C380	05-47113-00	470p,1KV ±10%
C124, C224, C435, C436	05-10213-02	1nF,1KV ±10%
C12, C22	05-47113-02	470pF, 1KV, ±5%, NPO
C351, C352, C353, C354, C355, C356, C362, C370, C371, C376, C377	24-10312-00	10n,100V 10%
C369*	24-10312-00	10n,100V 10%
C120, C220	24-22312-04	22n,100V 10%
C123, C223, C3, C358, C444	24-10412-01	0.1u,100V, 20%
C432	24-22461-00	0.22uF, 63V, ±20%
C119, C219, C327, C328	25-22361-05	22n/63V 5%
C17, C114, C115, C27, C214, C215, , C319, C320, C321, C322, C337, C338, C345, C346, C411, C412	25-10412-02	0.1u/100V 10%
C329, C330, C347	25-10461-07	0.1u/63V 5%
C331, C332, C348	25-22461-02	0.22u/63V 5%
C121, C122, C221, C222, C333, C334	25-10561-02	1uF,63V,5%
C421	06-47851-02	0.47uF, 50V, ±20%
C339, C340	06-10951-08	1uF, 50V, ±20%
C417, C418	06-47951-00	4u7/50V 20%
C11, C21	06-10051-08	10uF, 50V, ±20%
C12/1, C13, C14, C23, C24, C48, C128, C228, C301, C415, C416, C425, C426, C428, C429, C430, C431	06-10051-00	10uF, 50V, ±20%
C325, C326, C341, C342	06-47021-06	47uF, 25V, ±20%
C110, C111, C210, C211, C323, C324, C365, C366, C49, C410	06-47031-05	47uF, 35V, ± 20%
C47	06-47051-02	47uF, 50V, ±20%
C103, C104, C203, C204, C420	06-10111-00	100uF, 16V, ±20%
C15, C16, C25, C26, C413, C414, C43, C44	06-22161-00	220u/63V 20%
C422	06-33111-01	330uF, 16V, ±20%
	RESISTORS	
R498, R499	07-10109-51	1R, 1/4W, ±5%
R385, R386	07-10189-50	1R8, 1/6W, ±5%
R2, R154, R155, R254, R255	07-10100-50	10Ω, 1/6W, ±5%
R115, R116, R215, R216	07-10150-50	15Ω,1/6W, ±5%
R142, R143, R242, R243	07-10220-51	22R, 1/4W, ±5%
R432	07-10330-50	33R, 1/6W, ±5%
R107, R108, R207, R208	07-10390-51	39R,5%,1/4W
R335, R336	07-10680-50	68R,5%,1/6W
R14, R24, R159, R259, R363, R416, R417, R418, R419	07-10101-50	100Ω ±5% 1/6W
R169, R269, R461	07-10331-50	330Ω ±5% 1/6W
R11, R21, R36	07-10471-50	470Ω ±5% 1/6W
R31, R32, R33, R34, R35, R37, R38, R39, R310	07-10471-51	470Ω ±5% 1/4W

R454, R455	07-10511-51	510Ω ±5% 1/4W
R41, R42, R43, R44, R47, R48, R49, R410, R411, R413	07-10681-51	680Ω ±5% 1/4W
R171, R271	07-10821-50	820R, 1/6W, ±5%
R147, R247, R359, R360, R476	07-10102-51	1K, 1/4W, ±5%
R160, R161, R162, R163, R167, R168, R260, R261, R262, R263, R267, R268, R403, R405, R406, R407, R431, R474	07-10102-50	1K, 1/6W, ±5%
R422, R423, R424, R425	07-10112-50	1.1KΩ ±5% 1/6W
R367, R368	07-10202-50	2KΩ ±5% 1/6W
R412	07-10202-51	2KΩ ±5% 1/4W
R158, R170, R258, R270, R440	07-10222-50	2K2, 1/6W, ±5%
R414	07-10222-51	2K2, 1/4W, ±5%
R13, R17, R18, R315, R316, R333, R334, R344, R354, R369, R370, R371, R372, R373, R374, R375, R376, R377, R378, R379, R380, R395, R430, R482, R485	07-10472-50	4K7 , ±5% 1/6W
R3*, R4*	07-10472-50	4K7 , ±5% 1/6W
R381	07-10512-50	5.1KΩ ±5% 1/6W
R480	07-10512-51	5.1KΩ ±5% 1/4W
R166, R266	07-10562-50	5K6, 1/6W, ±5%
R12/1	07-10682-50	6K8, 1/6W, ±5%
R484	07-10822-51	8K2, 1/4W, ±5%
R164, R165, R264, R265, R364, R365, R366, R402, R404, R433, R434, R449, R450, R460, R469, R470, R471, R493, R494	07-10103-50	10K, 1/6W, ±5%
R401	07-10103-51	10K, 1/4W, ±5%
R487, R488	07-10183-51	18K ±5% 1/4W
R387, R388	07-10203-50	20K, 1/6W, ±5%
R12/2, R15, R25, R152, R252, R382, R355, R394, R438, R468	07-10223-50	22K,1/6W,±5%
R349, R350, R351, R352, R353, R356, R357, R358	07-10223-51	22K ±5% 1/4W
R420, R421	07-10273-50	27KΩ ±5% 1/6W
R396	07-10303-50	30K,1/6W,±5%
R473	07-10433-50	43K,1/6W,±5%
R123, R223, R477	07-10473-50	47K,5%,1/6W
R148, R248, R436	07-10563-50	56K,1/6W,±5%
R445, R446	07-10563-51	56K,1/4W,±5%
R342, R343, R393, R478, R479, R489	07-10104-50	100K,1/6W, ±5%
R490, R491	07-10104-51	100K,1/4W, ±5%
R12, R22, R345, R346	07-10224-50	220KΩ ±5% 1/6W
R457	07-10224-51	220KΩ ±5% 1/4W
R483	07-10274-51	270K,±5% 1/4W
R451	07-10334-50	330KΩ ±5% 1/6W
R435	07-10394-50	390KΩ ±5% 1/6W

R156, R157, R256, R257, R472	07-10474-50	470K, 1/6W, ±5%
R172, R272	07-10125-50	1M2 1/6W, ±5%
R340, R448	07-10106-50	10MΩ, 1/6W, ±5%
R149, R249	07-26809-50	68R, 1%,1/6W
R103, R106, R111, R112, R119, R120, R203, R206, R211, R212, R219, R220	07-20820-50	82R,5%,1/6W
R327	07-20181-50	180R, 1/6W, ±5%
R328	07-20181-51	180R, 1/4W, ±5%
R325, R331, R332	07-23900-50	390R, 1/6W, ±1%
R326	07-23900-51	390R, 1/4W, ±1%
R138, R139, R238, R239	07-24120-50	412R, 1/6W, ±1%
R383, R384, R398, R399	07-25600-50	560R, 1/6W, ±1%
R323, R324	07-27500-50	750R, 1/6W, ±1%
R329	07-21501-51	1K5, 1/4W, ±1%
R330	07-21501-50	1K5, 1/6W, ±1%
R321, R322	07-23301-50	3K3, 1/6W, ±1%
R441	07-20472-20	4.7K, 1/2W, ±5%
R492	07-24701-50	4.7KΩ ±1% 1/6W
R361, R362	07-21102-50	11K,MF,1%,1/6W
R19, R29, R101, R105, R110, R201, R205, R210	07-20393-50	39K,MF,5%,1/6W
R121, R122, R221, R222	07-20104-50	100KΩ ±5% 1/6W
R497	07-21803-50	180k,1/6W,±1%
R102, R104, R202, R204	07-20224-50	220KΩ ±5% 1/6W
	LINKS	
J10, J11, J13, J14, J15, J19, J20, J29, J30, J33, J42, J52, J53, J56, J59, J60, J62, J64, J67, J71, J72, J87, J114, J118, J119, J122, J130, J136, J141, J142, J143, J147, J148, J157, J160, J162, J173, J191, J200, J201, J202, J212, J219, J221, J224, J225, J226, J227, J233, J243, J247, J258, J260, J262, J269	21-06500-00	L=5mm
J272, J273	21-06500-00	L=5mm
J8, J12, J21, J37, J38, J39, J40, J41, J43, J45, J46, J47, J48, J50, J51, J55, J65, J90, J101, J102, J103, J104, J109, J116, J120, J127, J128, J129, J131, J165, J166, J167, J172, J182, J190, J193, J204, J205, J206, J209, J210, J216, J222, J223, J231, J236, J242, J248, J255, J265, J276	21-06750-00	L=7.5mm
J9, J22, J31, J36, J57, J73, J86, J89, J93, J94, J98, J99, J106, J107, J123, J124, J134, J146, J163, J169, J181, J188, J192, J211, J213, J214, J215, J237, J241, J245, J251, J264, J266, J286	21-06101-00	L=10mm

J1, J23, J32, J35, J44, J54, J61, J100, J125, J139, J144, J145, J158, J174, J180, J187, J189, J195, J196, J197, J199, J220, J253	21-06121-01	L=12.5mm
J2, J7, J18, J49, J88, J111, J115, J117, J121, J126, J149, J150, J168, J170, J179, J185, J186, J194, J207, J208, J217, J218, J232, J240, J244, J256, J268	21-06151-00	L=15mm
J24, J25, J26, J27, J28, J66, J74, J75, J76, J77, J78, J79, J80, J81, J82, J83, J84, J85, J96, J97, J105, J132, J133, J175, J176, J177, J198, J239, J246, J261, J267	21-06181-00	L=18mm
J110, J112, J113, J151, J152, J153, J154, J155, J159, J254, J259, J263, J270	21-06201-00	L=20mm
	TRANSISTOR	
Q110, Q113, Q210, Q213, Q42	31-01220-00	KSA1220
Q111, Q112, Q116, Q211, Q212, Q216, Q41	31-02690-00	KSC2690
IC3, IC4, IC43	03-00082-00	TL082CP/D
IC34	03-05532-00	NE5532N
IC44	02-01237-00	
IC31	J03-09164-00	TC9164CNG
IC32	03-04094-00	CD4094/HEF4094
	CAPACITORS	
C31, C32, C33, C34, C35, C36, C37, C38, C39, C310	05-10113-05	100pF,1KV, ± 10%
C118, C218	25-10461-04	0.1u/63V 5%
	RESISTORS	
R150, R250	07-30109-01	1Ω/1W 5%
R124, R125, R224, R225	07-30339-00	3.3Ω/1/2W 5%
R496	07-30750-02	75Ω/2W 5%
R452, R453	07-30221-03	220Ω/2W 5%
R128, R129, R228, R229	07-30331-00	330Ω/0.5W 5%
R146, R246	07-30182-02	1K8, 2W, FP, ±5%
R126, R127, R132, R133, R226, R227, R232, R233	07-30332-12	3K3, 2W, FP, ±5%
R136, R137, R236, R237	07-50100-10	10Ω/1/4W 5%
R151, R251	07-50100-01	10Ω/1W 5%
R45, R46	07-50330-03	33Ω, 1W, ±5%
R130, R131, R230, R231	07-50820-02	82Ω/1W 5%
R144, R145, R244, R245	07-40687-03	0.068Ω/3W 5%
	INDUCTORS	
L11, L21	08-01005-00	0.5uH
L12, L22, J68, J63, J108	A08-01101-01	100uH,±20%
	POTS	
VR301, VR302	09-02101-00	100R

VR12, VR22	09-02201-02	200R
VR13, VR23	09-02202-01	2KΩ
VR3, VR303, VR304	09-02103-00	10K
RT31, RT32	J09-01103-14	10KA
RT34	J09-01203-06	20K MN
	RELAYS & SWITCHS	
RL31, RL32, RL33, RL34, RL35, RL36, RL37, RL39	12-02101-02	JRC-27F/012/S
RL38*	12-02101-02	JRC-27F/012/S
RL310, RL311	12-02202-06	HFD3/12
RL12/1, RL12/2	A12-03102-05	JQX-115F/024-2HS4AF(144)(555)
S41	11-05202-12	SOFT CLIPPING
	CONNECTORS	
R-POWER	14-72502-00	UL 2468 , 16AWG, height 8-10mm; length 111mm(blue), 151mm(white)
CB311--CZ311	14-72503-00	UL1691, #24AWG, XHB 2.5A-3Y connector。 white/black/red, L=120mm
CZ34——CB31	14-72509-00	UL2547# 26AWG, SCN 2.5A-9D plug,XHB 2.5A-9Y connector,L=150mm
CZ705——CB35	14-72503-01	UL1691, 24AWG, SCN 2.5A-3D plug, —XHB 2.5A-3Y connector。 white/black/red, L=650mm
CZ701--CZ37	14-72508-01	UL2468#26AWG,SCN 2.5A-8D plug,XHB 2.5A-8Y connector,white L=470mm
to upc1237 module	13-12508-02	2.54 8pin plug
TP1, TP2, TP3, TP4, TP5, TP6	13-10001-00	Test-1(R)
CB46	13-22502-00	XHB2.5A-2A
CB45, CB38, CZ38	13-22503-00	XHB2.5A-3A
CB47	13-22507-00	XHB2.5A-7A
CB49	13-23904-00	VH 3.96A-4A
CZ36	13-21217-00	FPC1.25 17PIN
CZ35	13-21220-00	FPC1.25 20PIN
RCA31, RCA32, RCA33, RCA34	17-01004-05	4 holes
RCA35	17-01001-11	1 hole,AV-8.4-14
PHONE2	17-02001-04	ST-323B-04 CKK-3.5-02-3P
PHONE1	J17-02002-00	PHONEJACK2
	BINDING POST	
CB715	02-03005-20	C VERSION
CB715	02-03005-10	AH VERSION
BINDING POST PARTS	17-03002-01	C VERSION
BINDING POST PARTS	17-03002-11	AH VERSION
BINDING POST PARTS	73-001003-0	ABS
BINDING POST PARTS	73-001005-0	ABS
BINDING POST PARTS	69-001001-0	HPB59-1
BINDING POST PARTS	69-001002-0	HPB59-1
BINDING POST PARTS	17-03002-02	C VERSION
BINDING POST PARTS	17-03002-12	AH VERSION
BINDING POST PARTS	73-001004-0	ABS
BINDING POST PARTS	73-001006-0	ABS

BINDING POST PARTS	69-001001-0	HPB59-1
BINDING POST PARTS	69-001002-0	HPB59-1
BINDING POST PARTS	71-001001-1	ABS
BINDING POST PARTS	66-005006-0	TIN PLATE T=0.50
BINDING POST PARTS	69-005006-0	H62Y2 T=1.0
BINDING POST PARTS	69-002004-0	T2Y2 T=1.0
	LINKS	
J16, J17, J184, J250	21-06221-01	L=22.5mm
J6, J69, J70, J91, J92, J95, J135, J137, J138, J140, J156, J161, J164, J178, J234, J238, J249, J252	21-06251-00	L=25mm
J4, J228	21-10750-00	L=7.5mm
J279	21-10101-00	L=10mm
J5, J271	21-10151-00	L=15mm
J58	21-10201-00	L=20mm
J3	21-10221-01	L=22.5mm
J257	21-10251-00	L=25mm
J34, J235, J274, J275, J277, J278	21-10301-00	L=30mm
	21-10000-00	Φ1.0
	METAL PARTS	
GND-BUABAR	69-123001-0	T2Y2 T=1.0mm
BUABAR-R, OUT	69-047001-0	BUABAR-R, OUT
BUABAR-L, OUT	69-047005-0	BUABAR-L, OUT
H1, H2	70-091005-0	ALU 6063 BLACK
H4, H5	70-019003-1	aluminum 30mm
HEATSINK 1(2)	61-022510-5	MB2.5×10
HEATSINK2	61-022208-6	BTB2.6×8
HEATSINK1 (2)	62-010202-5	M2.5
PREAMP MODULE PCB	01-35504-00	
	TRANSISTORS	
Q61, Q62	J31-00209-00	2SK209-GR
Q63, Q65	J31-01312-00	2SA1312-GR
Q69, Q610, Q611, Q612	J31-03324-00	2SC3324GR
Q64, Q66	31-01201-01	2SA1201-Y
Q67, Q68	J31-02881-01	2SC2881-Y
	CAPACITORS	
C63, C64,	26-22051-00	22pF, 50V, ±5%,NPO
C69, C610	26-10151-00	100p, 50V, ±5%,NPO
C61, C62	26-22151-00	220p, 50V, ±5%,NPO
C613, C612	26-10251-00	1nF, 50V, ±5%,X7R
C65, C66, C67, C68	26-10451-00	0.1uF, 50V, ±10%,Y5V
	RESISTORS	
R615, R616, R617, R618, R619, R620	07-90100-00	10Ω, ±5%
R61, R62	07-90221-00	220Ω, ±5%
R69, R610	07-94300-00	430Ω, 1%
R624, R625	07-90621-00	620Ω, ±5%

R67, R68, R611, R612, R622, R623	07-90102-00	1K Ω , \pm 5%
R613, R614	07-90103-00	10K Ω , \pm 5%
R63, R64	07-90225-00	2.2M Ω , \pm 5%
	CONNECTORS	
CZ61(INsertED, TO, CB32.CB33, ON, THE, MAIN, BOARD)	13-12509-01	S006
ASSY HEATSINK	02-72500-00	
Q119, Q219	31-02690-00	KSC2690
Q114, Q214	J31-01943-00	2SA1943
Q115, Q215	J31-05200-00	2SC5200
R467	JA07-70022-08	ST-22 80C L TYPE
R439	JA07-70022-09	ST-22 90C L TYPE
Insulation Cushion(Big)	J78-001004-0	SFAT482
Clamper	66-001009-0	HS4-C320_B009V1-M012
Machine Screw	61-044514-0	MT4X14
Self Taping Screw	61-023208-0	BTB3 \times 8
SELF TAPING SCREW	61-023212-0	BTB3 \times 12
TEM.SW Clamper	66-018005-0	65Mn HRC48-52
Main Heat Sink	70-123004-0	6063 T5 L=80
POWERBOARD	01-72502-10	AH
	01-72502-20	C
	DIODES	
D533	33-44148-00	1N4148
D59	33-20540-00	SR540
D58	33-20107-00	FR107
D58	or 33-24006-00	UF4006
D513, D536, D538	33-24004-02	1N4004
D513	33-24004-00	1N4004
D57	33-14709-04	4.7V, 0.5W, \pm 2%
D52	33-16209-00	6.2V, 0.5W, \pm 5%
D53	33-13900-10	39V
D54, D56	33-30142-00	DB104
D510	33-30162-00	DB105
D51, D55	33-30822-00	8A/200V
D531, D532	33-60116-00	TIC116D/BT151-500R
	TRANSISTORS	
Q59, Q510, Q517, Q519	31-01015-00	2SA1015
Q518, Q520, Q522	31-01815-00	2SC1815
Q58	31-02690-00	KSC2690
	ICS	
IC55	03-00317-00	LM317T
IC52	03-07812-00	LM7812
IC53	A03-00817-00	PC817X2J000F
IC51	03-00274-00	TNY274PN
	CAPACITORS	
C530	26-10412-01	0.1 μ F/100V, X7R
C544	24-10312-00	10nF, 100V, 10%

C534	A25-10322-04	MKP64, X1,10nF,310V,±20%
C536, C550, C553	24-10412-01	0.1u,100V,20%
C546	A05-22242-00	2.2nF, 400V(X1), 250V(Y1),±5%
C535, C539	A05-47242-00	4n7p, 400V, ±20%
Sleeve Boot	78-001001-1	Sleeve Boot
C51, C52,	25-10322-00	10n/250V 10%
C56	A25-22422-03	MKP62, 275V, 0.22uF 10%
C56	or A25-22422-09	MPX, 275V, 0.22uF 10%
C531	06-10042-00	CD11H, 10uF/400V, 20%
C55,	06-10061-01	10uF,63V
C54	06-47021-00	47u/25V 20%
C551	06-10111-00	100uF, 16V, ±20%
C554	06-10121-00	100uF, 25V, ±20%
C53	06-33161-00	330u/63V
C533, C545	06-33111-01	330uF/16V
C549	06-22251-01	2200u/50V 20%
C524	06-22251-00	2200u/50V 20%
C523	06-33251-00	3300u/50V 20%
C552	06-47221-00	4700u/25V 20%
C517, C518	06-15351-01	15000u/50V 20%
	RESISTORS	
R531	07-40507-03	0.05/3W 5% CE
R570	07-10101-50	100R, ±5% 1/6w
R561, R565	07-10101-51	100R, ±5% 1/4w
R532	07-10221-50	220Ω, ±5%, 1/6W
R571	07-10511-50	510R,±5% 1/6w
R558, R562, R574, R575	07-10102-50	1KΩ, ±5%, 1/6W
R559, R560	07-10102-51	1KΩ, ±5%, 1/4W
R534	07-10222-51	2.2KΩ, ±5%, 1/4W
R568	07-10332-50	3.3KΩ ±5% 1/6w
R566	07-10472-51	4.7KΩ, ±5%, 1/4W
R567	07-10153-50	15K,±5% 1/6w
R544, R563, R564	07-10223-51	22KΩ, ±5%, 1/4W
R569	07-10334-50	330KΩ, ±5%, 1/6W
R533	07-10105-50	1MΩ, ±5%,1/6W
R578	07-22700-50	270Ω, 1/6W, ±1%
R577	07-21001-50	1K, 1/6W, ±1%
R572	07-30104-05	100KΩ, 1W, ±5%,
	FUSES	
F51	A20-12202-00	T2AL250V 618 Series
F51	A20-12402-00	T4AL250V 618 Series
	20-20000-00	HF-004
	INDUCTORS	
L51	A22-00183-00	2x1.8mH
	RELAYS	
RL51	A12-02101-05	HF115F-I/005-1HS3A555 16A/250V 5V
RL51	or A12-02101-01	DH1U 15A/250V 5V

	CONNECTORS	
CB55, CB56, CB58,	13-23903-01	VH 3.96A-3A
CB57	13-23903-11	VH 3.96A-3A
CB54	13-23904-00	VH 3.96A-4A
CB51	13-23905-12	VH 3.96A-5A
CB52	13-22510-00	XHB2.5A-10A
CB59	13-22507-00	XHB2.5A-7A
CB53--CB47	14-72507-00	UL2468#26AWG, 2.5A-7D plug,XHB 2.5A-7Y connector,white L=100mm
	LINKS	
J503, J504, J514, J516, L52	21-06500-00	L=5mm
J505, J508, J515	21-06750-00	L=7.5mm
J502	21-06101-00	L=10mm
J509, J513	21-06121-01	L=12.5mm
J, 501, J511, J512	21-06151-00	L=15mm
J507	21-10750-00	L=7.5mm
J506	21-10201-00	L=20mm
	21-10000-00	Φ1.0
	HEATSINKS	
H504	70-002005-0	15×35mm
H503	70-051005-1	6063 T5, BLACK
H501, H502	70-042001-0	L=30
H501, H502, H504	61-023204-0	BTB3X4
H503	61-023508-0	MB3×8
H503	62-010302-2	M3
H503	63-020308-1	Φ3
KEYBOARD	01-72503-10	AH
	01-72503-20	C
	TRANSISTORS	
Q724, Q733	31-00114-05	DTC114EKA
	ICS	
IC703	03-30281-11	M30281FAHP (programmed)
IC703	J03-30281-01	M30281FAHP
IC704	J03-03825-50	TPS3825-50DBVT
	CAPACITORS	
C777, C778, C779, C780, C781, C782, C783	26-47051-00	47pJ, 50V, 0603, NPO
C722, C723	26-20051-01	20pJ, 50V, 0805, NPO
C730, C731	26-10151-01	100pJ, 50V, 0805, NPO
C766, C767	26-10251-01	1nK, 50V, 0805, X7R
C710, C711, C712, C713, C714, C715, C716, C739	26-10351-01	10nK, 50V, 0805, X7R
C703, C705, C706, C707, C708, C720, C718, C721, C732, C733, C734, C768, C775	26-10451-01	0.1uZ, 50V, 0805, Y5V
	RESISTORS	
R768, R769, R770, R796, R797, R798, R799	07-90470-00	47R, ±5%,0603
R776	07-90000-01	0R, 0805

R763, R764, R779, R780	07-90100-01	10R, ±5%, 0805
R773	07-90330-01	33R, ±5%,0805
R761, R762	07-90101-01	100R, ±5%,0805
R702, R765, R777, R778	07-90102-01	1K, ±5%, 0805
R766	07-90152-01	1K5, ±5%,0805
R722, R795	07-90222-01	2.2K, ±5%, 0805
R703, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R753, R754, R755, R793, R794	07-90472-01	4K7, ±5%, 0805
R758*, R759*	07-90472-01	4K7, ±5%, 0805
R704, R705, R709, R710, R711, R712, R713, R714, R715, R716, R720, R721, R723, R740, R749, R783, R784, R785	07-90103-01	10K, ±5%, 0805
R757*	07-90153-01	15K, ±5%, 0805
R708, R786	07-90153-01	15K, ±5%, 0805
R760*	07-90223-01	22K, ±5%, 0805
R752	07-90223-01	22K, ±5%, 0805
R781,	07-90333-01	33k, ±5%, 0805
R701	07-90473-01	47K, ±5%, 0805
R775, R782	07-90104-01	100K, ±5%, 0805
R774	07-90105-01	1M, ±5%, 0805
	DIODES	
D701, D702, D703, D704, D705, D716, D718, D722, D723, D724	33-44148-00	1N4148
D721	33-13309-00	3.3V
D710, D711, D712, D713, D714, D715, D719	33-50360-03	LED Φ3
	TRANSISTORS	
Q704	31-02690-00	KSC2690AYSTU
Q701, Q702, Q706, Q707, Q708, Q709, Q710, Q711, Q731, Q732, Q734	31-01815-00	2SC1815 GR
Q703*, Q723*	31-01815-00	2SC1815 GR
	ICS	
IC701	J23-16157-00	16-BT-157GINK
IC705	03-02416-01	AT24C16-10PI-2.7
IC710	03-07486-00	CD74HC86E, DIP14
IC707, IC711	03-04094-00	CD4094/HEF4094
IC706	J37-12122-00	EC12E1220801-F20
IC702	03-06038-00	FM-6038TM2-5AN
IC709	03-00232-00	SP232EEP-L
	CRYSTALS	
Y701	04-11842-02	H-S-F-18.432M-12-3030-4085-50, 18.432MHz, CL=12pF, FL=30PPM
	CAPACITORS	
C725, C727, C728, C729	06-10821-00	CD110, 0.1uF, 25V, 20%
C724, C769	06-10011-00	CD110, 10uF/16V, 20%
C719	06-22011-00	CD110, 22UF/16V, 20%

C704, C717, C776	06-10111-00	100uF, 16V, ±20%
	RESISTOR NETWORK	
R748	07-01002-09	10K, 2%, 9PIN
	SWITCHES	
S701, S702, S703, S704, S705, S706, S707, S708, S709, S710, S711, S712, S713, S714, S716, S717, S718	11-04101-00	Selector
	CONNECTORS	
CZ711--CB59	14-72507-01	UL2468#26AWG,SCN 2.5A-7D plug,XHB 2.5A-7Y connector,white L=250mm
CZ705	13-22503-00	XHB2.5A-3A
CB710	13-22506-00	XHB2.5A-6A
CZ701, CZ704	13-22508-00	XHB2.5A-8A
CZ706, CZ707	13-12502-00	2PIN, 2.54
CZ703, CZ709	13-12503-10	3PIN, 2.54, S=3mm
CZ708	13-12514-00	HEADER 7X2 2.54 pitch
CZ702	13-21220-00	FPC1.25 20PIN
	METAL PARTS	
	75-123001-0	ABS, Black (OP PN: 25-024-0352-90)
	61-023208-0	BTB3X8
POT BOARD	01-72504-00	
	POTS	
RT33	J09-01203-05	20KB
	CONNECTORS	
CB31	13-22509-00	9PIN
RS232 BOARD	01-72505-10	AH
	01-72505-20	C
	RESISTORS	
R389*	07-90750-01	75R, ±5%,0805
R1, R313	07-10100-50	10R, 1/6W, ±5%
R314*	07-10100-51	10R, 1/4W, ±5%
	LINKS	
R390*	21-06500-00	L=5mm
	CONNECTORS	
CZ704—CZ310	14-72508-00	UL2547# 26AWG,SCN 2.5A-8D plug,XHB 2.5A-8Y connector,L=520mm
CZ311	13-22503-00	XHB2.5A-3A
CZ39	17-08009-00	DB9, 7906-9-F-B
CZ312*	17-04009-01	DSW*39
PHONE3	17-02001-34	CKX-3.5-02C-G
	METAL PARTS	
	67-114001-0	SECC-N5 T=1
MP BOARD	01-72506-00	
	CONNECTORS	
PHONE5	17-02001-14	CKX-3.5-28-5P / JY-3562-01-350G
STANDBY BOARD	01-72507-00	
	RESISTORS	

R717	07-10101-50	100Ω ±5% 1/6w
R718, R744	07-10221-50	220Ω ±5% 1/6w
	LEDS	
D707	33-50565-02	LED
	SWITCHS	
S715	11-04101-05	IT-1102A-1160
	CONNECTORS	
CB710—CZ710	14-72506-00	UL2468#26AWG,SCN 2.5A-6DW plug,XHB 2.5A-6Y connector,white L=80mm
HEADPHONE BOARD	01-72508-00	
	RESISTORS	
R458, R459	07-30101-04	100Ω 2W ±5%
	CONNECTORS	
JK41	17-02001-00	CK6.35-06 9P
CZ45—CB45	14-72503-02	UL2468#26AWG,SCN 2.5A-3D plug,XHB 2.5A-3Y connector, white L=400mm
CZ46—CB46	14-72502-01	UL2468 #26AWG,XHB LD2.5A-2Y connector;SCN 2.5A-2D plug;L=400mm
	LINKS	
J401	21-06750-00	L=7.5mm
AC OUTLET BOARD	01-72509-20	
	CONNECTORS	
CZ58	13-23903-02	VH 3.96A-3AW
Misc and Mechanical Parts		
	CONNECTORS	
Rock Switch	A11-01101-03	RF-1003-BB2
CZ38—CB38	14-72503-03	UL2468,#26AWG,XHB 2.5A-3Y connector, white L=300mm
CB56—POWER, SWITCH	A14-72502-02	UL1672#18AWG, VH-3Y connector,red L=100mm
CB49—CB54	14-72504-00	UL1015#14AWG black;UL1015#16AWG red、white, VH 3.96A-4Y connector,L=130mm
CZ36—TUNER	14-72017-10	FPC (180mm) 17PIN
CZ35—CZ702	14-72520-00	20pin,1.25mm,L=600mm
	TRANSFORMERS	
T51	A18-72516-00	EE16
	TUNERS	
TUNER ANTENNA(AM)	J30-37300-10	LS0146BL-X000101-0
TUNER ANTENNA (FM)	30-37300-00	HAN-001
TV Matcher	30-87200-00	IF-11/ZB-6
	METAL PARTS	
Chassis	66-123001-1	SECC-N5 T=1mm
Subfascia	66-123002-5	SECC-N5 T=1mm
Service Cover	66-047003-0	T=1mm
Copper Spacer	69-047003-0	13.6mm
PCB Support	66-019004-0	HS40-C352-B009V1-M014
Transformer Bracket	66-001010-0	HS40-C320-B009V1-M013
Phone Bracket	66-123003-0	SECC-N5 T=1mm
Connectible Bracket	66-011011-0	HS40-T172_B009V1-M026

Tuner Bracket	66-047004-0	SECC-N5 T=1.0mm
Metal Disc	66-001008-0	HS40-C320_B009V1-M020
Shielding Box	67-091003-0	Transformer
Shorting Plug	30-63200-00	HS40-C320_B009V1-M014
	FASTENERS	
Self Taping Screws	61-023205-0	BTB3X5
Self Taping Screws	61-023206-0	BTB3X6
Self Taping Screws	61-023208-0	BTB3X8
Self Taping Screws	61-024108-0	STB4X8,
Self Taping Screws	61-023106-0	STB3X6
Self Taping Screws	61-023104-0	STB3X4
Self Taping Screws	61-023108-0	STB3X8
Machine Screws	61-023506-0	MB3X6
Machine Screws	61-023508-0	MB3X8
Bolt	64-108055-0	GB5781 M8X55
Spring Washer	63-020820-1	GB93(8)
Plain Washer	63-010816-0	GB97(8)
Nut	62-010802-0	GB6170(M8)
	PLASTIC PARTS	
VFD Lens	76-123001-0	(OP P/N: 25-008-0405-92)
Foot ASSY	87-010004-0	Foot ASSY
Foot	75-010004-1	HS40-T973-B009V1-P006
Foot Pad	J78-001002-0	HS40-C320-B009V1-P010
	Accessory	
Relief Bushing	A84-001002-0	SB4F-4
Cable Tie	84-001003-0	YJ-100
Cable Tie	84-047001-0	YJ-123
Wire Holder	84-041001-0	WCLA-1
Power, Switch	78-000220-0	Φ22
Phone, Jack(1)	86-014001-0	15x5x0.3mm
Expanded Rubber	86-018002-1	110x25x0.5mm
Nonwavens B	86-018001-0	24x14x0.5mm
3mm Rubber Pad	86-009003-0	10x10x3mm
4mm Rubber Pad	86-010003-0	10x15x4mm
GASKET	79-123001-0	CR,10*10*60
Window Lens Film	76-123002-0	PE T=0.1
	PACKING LIST	
Carton Box	88-123001-0A	555×474×244
Polyfoam End Cap(1)	89-005001-6	
Polyfoam End Cap(2)	89-005002-5	
Polybag	90-005001-0	690X550mm
Polybag	90-001013-0	105×280mm
Polybag	90-028004-0	220X250mm
Manu Polybag	90-001002-0	220X370mm
Non-woven Cloth	90-005002-3	H=133 W=100 L=435
LABEL	94-001004-2	
Serial No. Label	94-123001-0	60*10

Fuse Caution Label	94-003004-0	34×84
EPE Film	90-123001-0	420X206mm
	ACCESSORIES	
Instruction Manual	30-47250-00	
Instruction Manual	30-47251-00	
Remote Control	J30-17250-00	SR-8
Batteries	30-22100-10	5# 2006/66/EC
Remote Control	J30-17251-00	KRC-L1860RC(ZR5)
Batteries	30-28601-10	CR2025 2006/66/EC
FOR AH VERSION ONLY(BLACK)		
MAIN TRANSFORMER	A18-72515-10	TD-120-0150K
MAIN TRANSFORMER	or A18-72515-30	ETO08230
MAIN TRANSFORMER	or A18-72515-50	HA100B-0542
CB58—AC, OUTPUT	A14-72002-00	VH 3.96A-3Yconnector, KST FDFD2-187(8),18AWG UL1672# red L=100mm
TUNER	J37-01140-23	KST-MB114MA0-23
AC CORD(AMERICAN)	JA15-10121-16	LP-5W & SPT-2 18AWG & VH3.96-3PIN
AC CORD(AMERICAN)	or A15-10121-17	2UTJ2 & NISPT-2 18AWG/2C & VH3.96-3PIN
AC Outlet	A17-07002-10	JY0647A
Rear Panel(AH)	67-123003-0	SECC-N5 T=1mm
Rear Panel(AH)	80-123003-0	SECC-N5 T=1mm
Rear Panel(AH)	65-123003-0	SECC-N5 T=1mm
Top Cover	67-123001-1	SECC-N5 T=1mm,PPG:PCSC90103S#5
Fascia	J70-123001-1	6063 T5
End cap L	J70-123002-0	6063 T5
End cap R	J70-123003-0	6063 T5
Self Taping Screw	61-023106-0	STB3X6
Self Taping Screw	61-084108-0	STPW4X8
Volume Knob	73-014002-2	
Tone Knob	73-014001-2	
Volume Knob Bezel	77-091003-2	
Selector Knob	75-047001-2	
Plastic Subfascia	77-123001-1	ABS 765B
MP Button Bezel	77-123002-0	PC, UL94V-0
Selector Knob Bezel	77-123003-0	PC, UL94V-0
Duo Buttons	74-123001-1	ABS 765B,
Power Button	74-123003-1	ABS 765B
POWER BUTTON BEZEL	77-123004-1	Clear PC, UL 94V-0
Barcode Label	94-123003-0	AH
Guarantee Card	94-009005-1	AH
FOR C VERSION ONLY(BLACK)		
MAIN TRANSFORMER	A18-72515-20	TD-230-0150B
MAIN TRANSFORMER	or A18-72515-40	ETO08060
MAIN TRANSFORMER	or A18-72515-60	HA100B-0538
CB58—CZ58	A14-72002-01	VH 3.96A-3Y connector, 18AWG UL1672# redL=100mm
TUNER	J37-01141-23	KST-MB114MA1-23

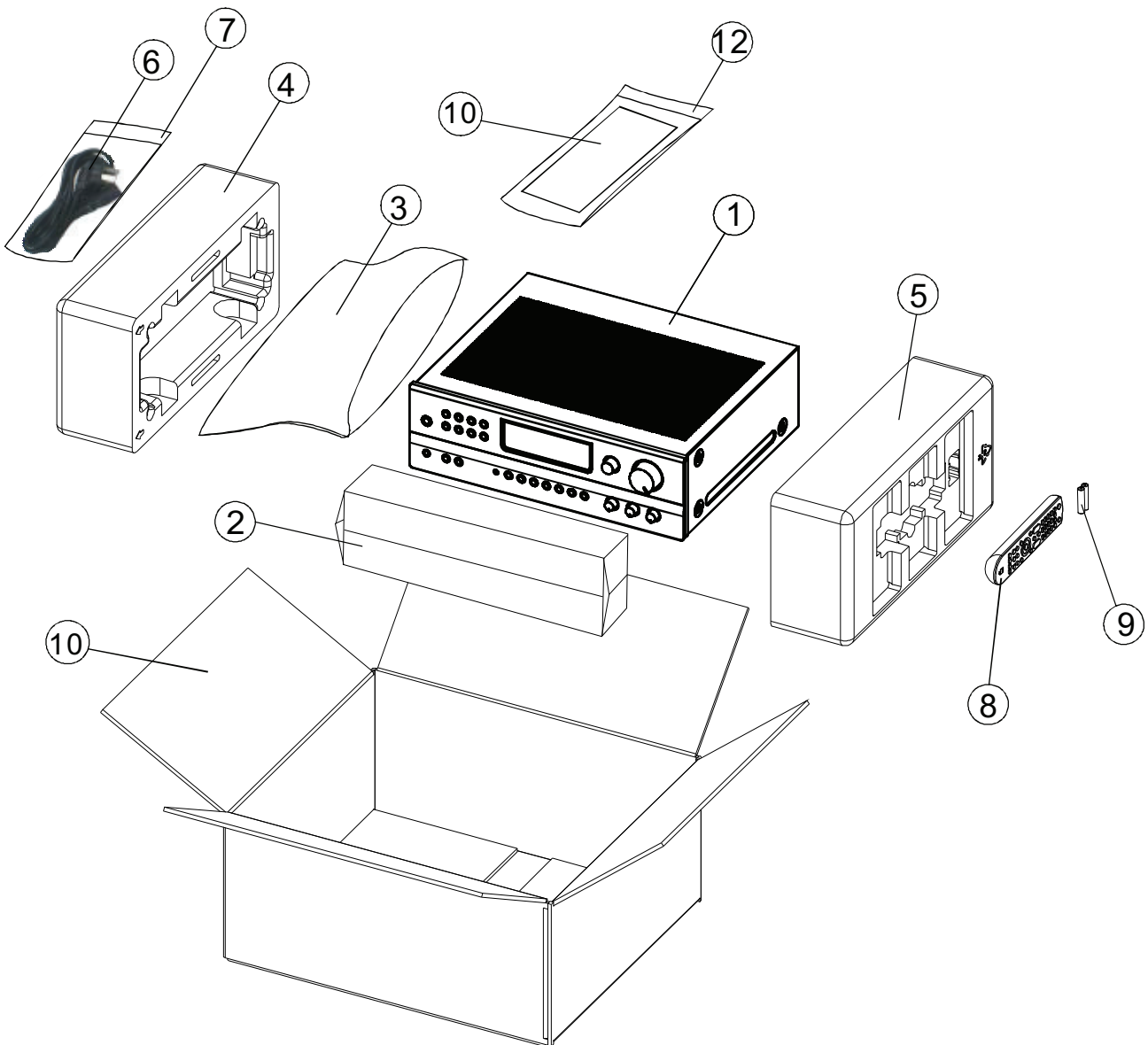
AC CORD(EURO)	JA15-02251-24	LP-21 & H03VVH2-F 2×0.75mm2 & VH3.96-3PIN
AC CORD(EURO)	or A15-02251-25	2VTJ1 & H03VVH2-F 2×0.75mm2 & VH3.96-3PIN
AC Outlet	JA17-07002-20	A302-D006-0P
AC Outlet(2)	61-023208-0	BTB3X8
AC Outlet(1)	78-000500-0	Φ50
Rear Panel(C)	67-123002-0A	SECC-N5 T=1mm
Rear Panel(C)	80-123002-0	SECC-N5 T=1mm
Rear Panel(C)	65-123002-0	SECC-N5 T=1mm
Top Cover	67-123001-1	SECC-N5 T=1mm,PPG:PCSC90103S#5
Fascia	J70-123001-1	6063 T5
End cap L	J70-123002-0	6063 T5
End cap R	J70-123003-0	6063 T5
Self Taping Screw	61-023106-0	STB3X6
Self Taping Screw	61-084108-0	STPW4X8
Volume Knob	73-014002-2	C320BEE
Tone Knob	73-014001-2	C320BEE
Volume Knob Bezel	77-091003-2	HS40-C355-B009V1-P003 C
Selector Knob	75-047001-2	HS40-C720BEE_B009V1-P001 D
Plastic Subfascia	77-123001-1	HS40-C725BEE-B12V1-P003 B
MP Button Bezel	77-123002-0	HS40-C725BEE-B12V1-P004
Selector Knob Bezel	77-123003-0	HS40-C725BEE-B12V1-P005
Duo Buttons	74-123001-1	ABS 765B
Power Button	74-123003-1	ABS 765B
POWER BUTTON BEZEL	77-123004-1	Clear PC, UL 94V-0
Barcode Label	94-123002-0	C VERSION
FOR C VERSION ONLY(TI)		
MAIN TRANSFORMER	A18-72515-20	TD-230-0150B
MAIN TRANSFORMER	or A18-72515-40	ETO08060
MAIN TRANSFORMER	or A18-72515-60	HA100B-0538
CB58—CZ58	A14-72002-01	VH 3.96A-3Y connector, 18AWG UL1672# red L=100mm
TUNER	J37-01141-23	KST-MB114MA1-23
AC CORD(EURO)	JA15-02251-24	LP-21 & H03VVH2-F 2×0.75mm2 & VH3.96-3PIN
AC CORD(EURO)	or A15-02251-25	2VTJ1 & H03VVH2-F 2×0.75mm2 & VH3.96-3PIN
AC Outlet	JA17-07002-20	A302-D006-0P
AC Outlet(2)	61-023208-0	BTB3X8
AC Outlet(1)	78-000500-0	Φ50
Rear Panel(C)	67-123002-0A	SECC-N5 T=1mm
Rear Panel(C)	80-123002-0	SECC-N5 T=1mm
Rear Panel(C)	65-123002-0	SECC-N5 T=1mm
Top Cover	67-123011-1	SECC-N5 T=1mm, TI
Fascia	J70-123011-1	6063 T5,TI
End cap L	J70-123012-0	6063 T5,TI
End cap R	J70-123013-0	6063 T5, TI
Self Taping Screw	61-023106-1	STB3X6,

Self Taping Screw	61-084106-2	STPW4X6
Volume Knob	73-020002-1	TI
Tone Knob	73-020001-1	TI
Volume Knob Bezel	77-091013-1	TI
Selector Knob	75-047011-2	TI
Plastic Subfascia	77-123011-1	ABS 765B
MP Button Bezel	77-123012-0	PC, UL94V-0, TI
Selector Knob Bezel	77-123013-0	PC, UL94V-0, TI
Duo Buttons	74-123011-1	ABS 765B, TI
Power Button	74-123013-1	ABS 765B, TI
POWER BUTTON BEZEL	77-123014-1	Clear PC, UL 94V-0, TI
Barcode Label	94-123004-0	CT VERSION
FOR AH VERSION ONLY(TI)		
MAIN TRANSFORMER	A18-72515-10	TD-120-0150K
MAIN TRANSFORMER	or A18-72515-30	ETO08230
MAIN TRANSFORMER	or NA18-72515-50	HA100B-0542
CB58—AC, OUTPUT	A14-72002-00	VH 3.96A-3Y connector, KST FDFD2-187, 18AWG UL1672# red L=100mm
TUNER	J37-01140-23	KST-MB114MA0-23
AC CORD(AMERICAN)	JA15-10121-16	LP-5W & SPT-2 18AWG & VH3.96-3PIN
AC CORD(AMERICAN)	or A15-10121-17	2UTJ2 & NISPT-2 18AWG/2C & VH3.96-3PIN
AC Outlet	A17-07002-10	JY0647A
Rear Panel(AH)	67-123003-0	SECC-N5 T=1mm
Rear Panel(AH)	80-123003-0	SECC-N5 T=1mm
Rear Panel(AH)	65-123003-0	SECC-N5 T=1mm
Top Cover	67-123011-1	SECC-N5 T=1mm, TI
Fascia	J70-123011-1	6063 T5, TI
End cap L	J70-123012-0	6063 T5, TI
End cap R	J70-123013-0	6063 T5, TI
Self Taping Screw	61-023106-1	STB3X6
Self Taping Screw	61-084106-2	
Volume Knob	73-020002-1	TI
Tone Knob	73-020001-1	TI
Volume Knob Bezel	77-091013-1	TI
Selector Knob	75-047011-2	TI
Plastic Subfascia	77-123011-1	ABS 765B, TI
MP Button Bezel	77-123012-0	PC, UL94V-0, TI
Selector Knob Bezel	77-123013-0	PC, UL94V-0, TI
Duo Buttons	74-123011-1	ABS 765B, TI
Power Button	74-123013-1	ABS 765B, TI
POWER BUTTON BEZEL	77-123014-1	Clear PC, UL 94V-0, TI
Barcode Label	94-123005-0	CT VERSION
Guarantee Card	94-009005-1	AH VERSION

C725BEE,E, P, , DED,,VIEW,,PARTS,,, IST

REF.N,	PART,N, .	DESCRIPTI, N	Qty.	REF.N,	PART,N, .	DESCRIPTI, N	Qty.
C001	66-123001-1	Chassis	1	R004	01-72505-10	RS232,Board	AH:1
C002	66-047003-0	Base,Cover	1		01-72505-20	RS232,Board	C:1
C003	66-001010-0	THANSBracket	1	R005	A11-01101-03	Rock,S, itch	1
C004	67-091003-0	Shielding,Box	1	R006	A84-001002-0	Relief,Bushing	1
C005	A18-72515-10	Transformer	AH:1	R007	A17-07002-10	AC,Intlet	AH:1
	A18-72515-30	Transformer	C:1		01-72509-20	AC,Intput,Board	C:1
C006	66-001008-0	Transformer,Disc	1	T001	67-123001-1	Top,Cover	1
C007	94-001004-2	Transformer,, abel	1				
C008	70-123004-0	Heatsink,	1	P001	70-002005-0	Heatsink	2
C009	J78-001004-0	Insulation,Cushion(Big)	4	P002	70-051005-1	Heatsink	1
C010	66-001009-0	Clamper	2	P003	70-042001-0	Heatsink	1
C011	66-018005-0	TEM.SW,Clamper	2	M001	02-03005-10	Binding,Post,Assy	AH:1
C012	01-72502-10	Power,Board	AH:1		02-03005-20	Binding,Post,Assy	C:1
	01-72502-20	Power,Board	C:1	M002	69-123001-0	Bus,Bar	1
C013	66-019004-0	PCB,Support	1	M003	69-047005-0	Bus,Bar	1
C014	01-72501-10	Main,Board	AH:1	M004	69-047001-0	Bus,Bar	1
	01-72501-20	Main,Board	C:1	M005	70-091005-0	Heatsink	2
C015	75-010004-1	Foot	4	M006	70-019003-1	Heatsink	2
C016	78-001002-0	Foot,Pad	4	, 001	75-123001-0	VFD,Bracket	1
F001	70-123001-1	Fascia	1	RS01	67-114001-0	PCB,Terminal	2
F002	70-123002-0	End,Cap,,	1	S001	61-023108-0	Self,Taping,Scre, ,STB3, 8	4
F003	70-123003-0	End,Cap,R	1	S002	61-023106-0	Self,Taping,Scre, ,STB3, 6	44
F004	73-014001-2	Tone,, nob	3	S003	61-023206-0	Self,Taping,Scre, ,BTB3, 6	21
F005	73-014002-2	Volume,, nob	1	S004	61-023205-0	Self,Taping,Scre, ,BTB3, 5	18
F006	75-047001-2	Selector,, nob	1	S005	61-023208-0	Self,Taping,Scre, ,BTB3, 8	AH:13,C:15
F007	76-123001-0	VFD,, ens	1	S006	61-023104-0	Self,Taping,Scre, ,STB3, 4	2
F008	77-123003-0	Selector,, nob,Be, el	1	S007	61-023506-0	Machine,Scre, ,MB3, 6	4
F009	77-123002-0	MP,Button,Be, el	1	S008	61-023508-0	Machine,Scre, ,MB3, 8	3
F010	77-123004-1	Po, er,Button,Be, el	1	S009	61-024108-0	Self,Taping,Scre, ,STB3, 8	4
F011	77-123001-1	Plastic,Subfascia	1	S010	64-108055-0	Bolt,, B5781M8, 55,	1
F012	77-091003-2	Volume,, nob,Be, el	1	S011	63-010816-0	Plain,Washer, B97(8)	2
F013	74-123003-1	Po, er,Button	1	S012	63-020820-1	Spring,Washer, B93(8)	2
F014	74-123001-1	2P,I,nput,,Button	9	S013	62-010802-0	Nut,, B6170(M8),	2
F015	66-123003-0	Phone,Bracket	1	S014	61-022510-5	Machine,Scre, ,MB2.5×10	2
F016	01-72508-00	Headphone,Board,	1	S015	62-010202-5	Nut,M2.5,	2
F017	01-72507-00	Standby,Board	1	S016	61-022208-6	Self,Taping,Scre, ,BTB2.6, 8	10
F018	01-72503-10	Keyboard	AH:1	S017	61-044514-0	Machine,Scre, ,MT4×14	2
	01-72503-20	Keyboard	C:1	S018	61-023212-0	Self,Taping,Scre, ,BTB3, 12	2
F019	66-123002-5	Subfascia	1	S019	61-023204-0	Self,Taping,Scre, ,BTB3, 4	3
F020	01-72504-00	Pots,Board	1	S020	62-010302-2	Nut,M3,	1
F021	66-011011-0	Connectible,Bracket	1	S021	63-020308-1	Spring,Washer,3	1
R001	67-123003-0	Rear,Panel	AH:1	S022	61-084108-0	Self,Taping,Scre, ,STPW4, 8	6
	67-123002-0A	Rear,Panel	C:1				
R002	J37-011140-23	Tuner	AH:1				
	J37-011141-23	Tuner	C:1				
R003	66-047004-0	Tuner,Bracket	1				

C725BEE Packing Accessory Section



REF.NO	Part No.	Description	Qty.
1	00-72500-10	C725Bee AH Version	AH:1
	00-72500-20	C725Bee C Version	C:1
	00-72500-30	C725Bee CT Version	CT:1
	00-72500-30	C725Bee AHT Version	AHT:1
2	90-005002-3	Non-Woven Cloth	1
3	90-005001-0	Polybag	1
4	89-005002-5	Polyfoam End Cap(2)	1
5	89-005001-6	Polyfoam End Cap(1)	1
6	JA15-10121-16 or A15-10121-17	AC Cord	AH/AHT:1
	JA15-02251-24 or A15-02251-25	AC Cord	C/CT:1
7	90-001013-0	AC Cord Polybag	1
8	J30-17250-00	Remote Control	1
9	30-22100-10	Batteries	2
10	88-123001-0A	Carton Box	1
11	30-47250-00 and 30- 47251-00	Instruction Manual	1
12	90-001002-0	Manu Polybag	1

SERVICE MANUAL

C 725BEE

STEREO RECEIVER

NAD ELECTRONICS LTD
TORONTO