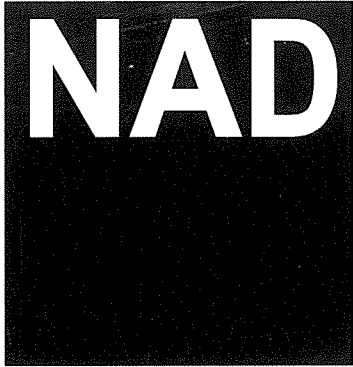


SERVICE MANUAL



S 100

PRE-AMPLIFIER

S 100

PRE-AMPLIFIER

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SERVICE SAFETY PRECAUTIONS

1. Replacing the Fuses


CAUTION: FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH SAME TYPE OF FUSE.

REFERENCE NO.	PART NUMBER	DESCRIPTION
AC INLET FUSE F451-F452*AH	5120-0032-0	Fuse Time Lag 500mA 250V 5x20mm UL/CSA Fuse Time Lag 2A 250V 5x20mm UL/CSA
AC INLET FUSE F451-F452*C	5120-0065-0	Fuse Time Lag 250mA 250V 5x20mm SEMKO/VDE Fuse Time Lag 2A 250V 5x20mm SEMKO/VDE

NOTE:

*AH : North American model only
*C : European model only

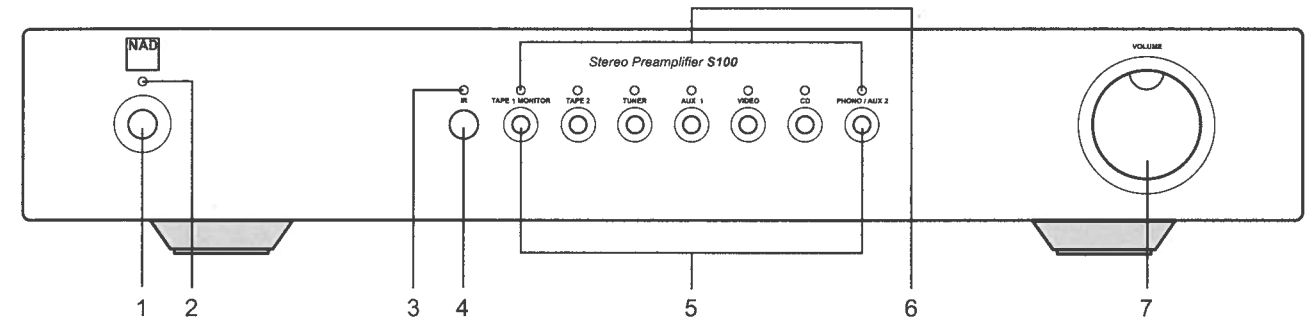
2. Safety-check out (North American model only)

Parts marked with the symbol  are critical with regard to the risk of fire and electric shock. Replace only with parts recommended by the manufacturer.


Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit.


FRONT PANEL / REAR PANEL VIEW

FRONT PANEL CONTROLS

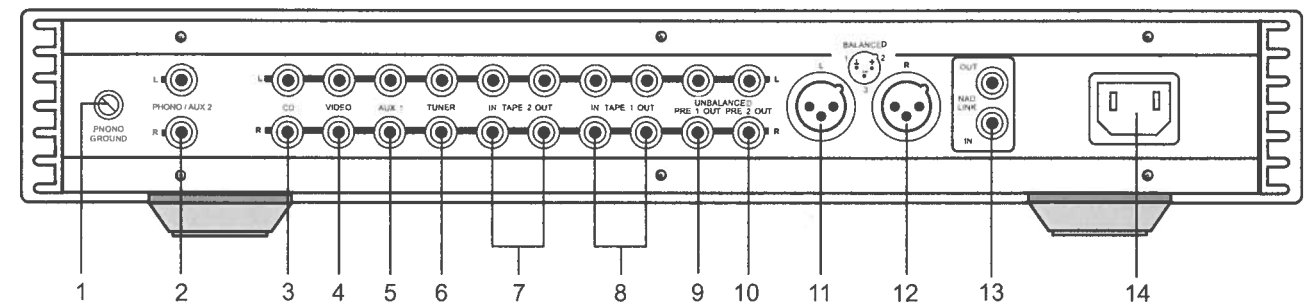


- | | |
|------------------------|--------------------|
| 1. POWER SWITCH | 5. INPUT SELECTOR |
| 2. POWER INDICATOR | 6. INPUT INDICATOR |
| 3. INFRA-RED INDICATOR | 7. VOLUME CONTROL |
| 4. INFRA-RED RECEIVER | |

 The graphic symbol of a lightning flash with an arrow point within a triangle signifies that there is dangerous voltage within the unit and it poses a hazard to anyone removing the cover to gain access to the interior of the unit. **Only qualified service personnel should make such attempt.**

 The graphic symbol of an exclamation point within an equilateral triangle warns a user of the device that it is necessary to refer to the instruction manual and its warnings for proper operation of the unit.

REAR PANEL CONNECTIONS



- | | |
|--------------------------|---------------------------|
| 1. PHONO GROUND TERMINAL | 8. TAPE 1 INPUT/OUTPUT |
| 2. PHONO/AUX 2 INPUT | 9. UNBALANCE PREOUT 1 |
| 3. CD INPUT | 10. UNBALANCED PREOUT 2 |
| 4. VIDEO INPUT | 11. BALANCED PREOUT LEFT |
| 5. AUX 1 INPUT | 12. BALANCED PREOUT RIGHT |
| 6. TUNER INPUT | 13. NAD LINK INPUT/OUTPUT |
| 7. TAPE 2 INPUT/OUTPUT | 14. AC INLET |

SPECIFICATIONS

Measured in accordance with EIA Standard RS-490 (IHF-A-202) 1978.

Input impedance (R + C)		20K Ω + 450pF
Sensitivity	500mV out	170mV
Maximum input signal		>9.5V
Signal-to-Noise ratio (A-weighted)	ref. 500mV	98dB
Frequency response	20Hz - 20kHz	+/-0.05dB
THD		0.001%
Channel separation	1kHz/10kHz	85dB/65dB
Gain tracking error		+/-0.1dB at maximum +/-3dB at -60dB level
Output impedance		50 Ω
Maximum output level		>9.5V

With optional Phono Module

Input impedance	MM	1K Ω
	MC	220 Ω /100 Ω /22 Ω
Gain	MM and MC	35dB/45dB/55db/65dB
Input overload (20Hz/1kHz/20kHz)	MM (35dB)	20mV/200mV/1700mV
	MC (35dB)	1.3mV/13mV/110mV
Signal-to-Noise ratio	MM (with cartridge)	85dB ref. 5mV input
	MC (100 Ω)	85dB ref. 0.5mV input
RIAA accuracy	MM and MC	+/-0.2dB
THD	MM and MC	0.005%

Physical specifications

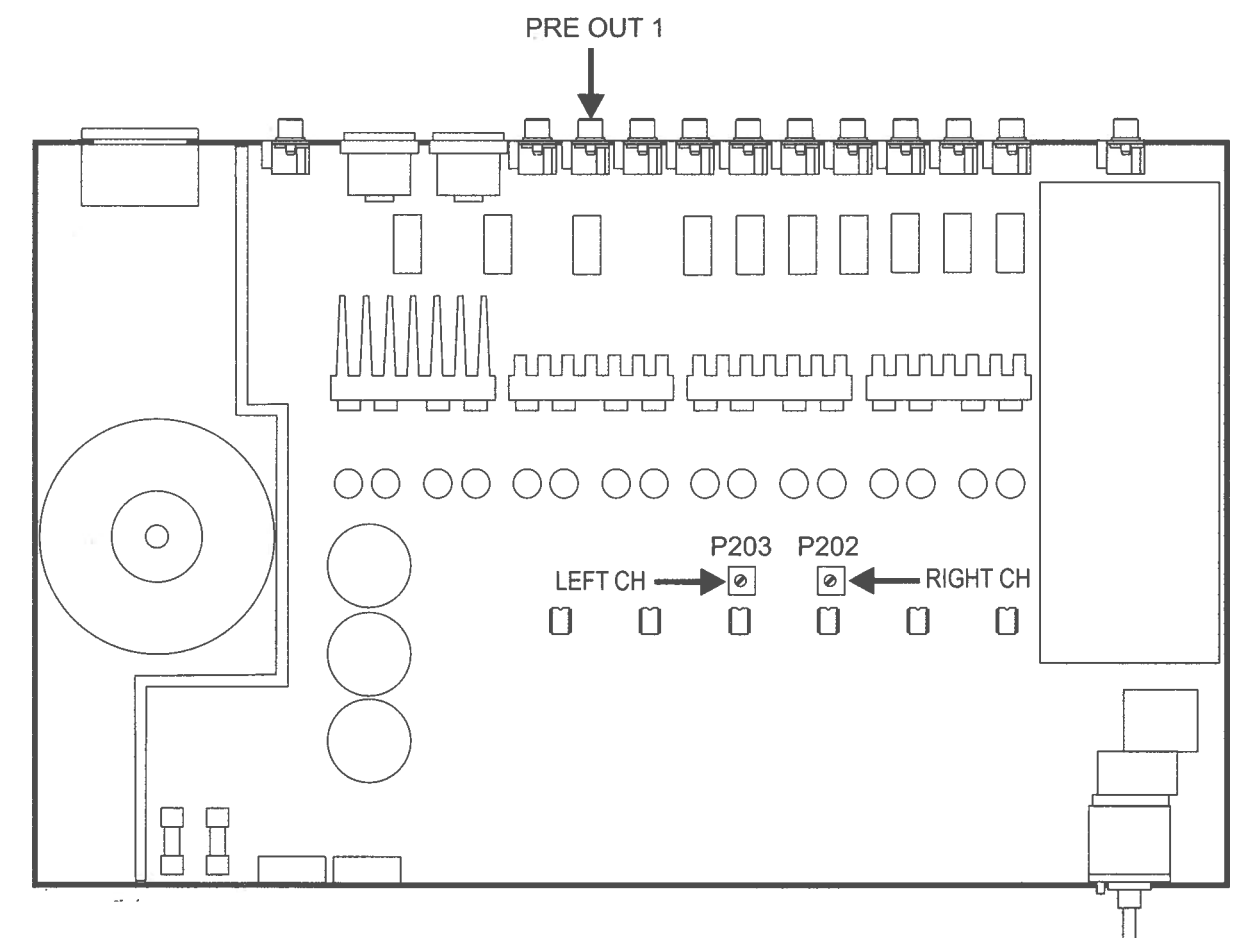
Dimensions (W x H x D)	450 x 67 x 286 mm
Net weight	5.2 kg / 11.5 lbs

ALIGNMENT PROCEDURE

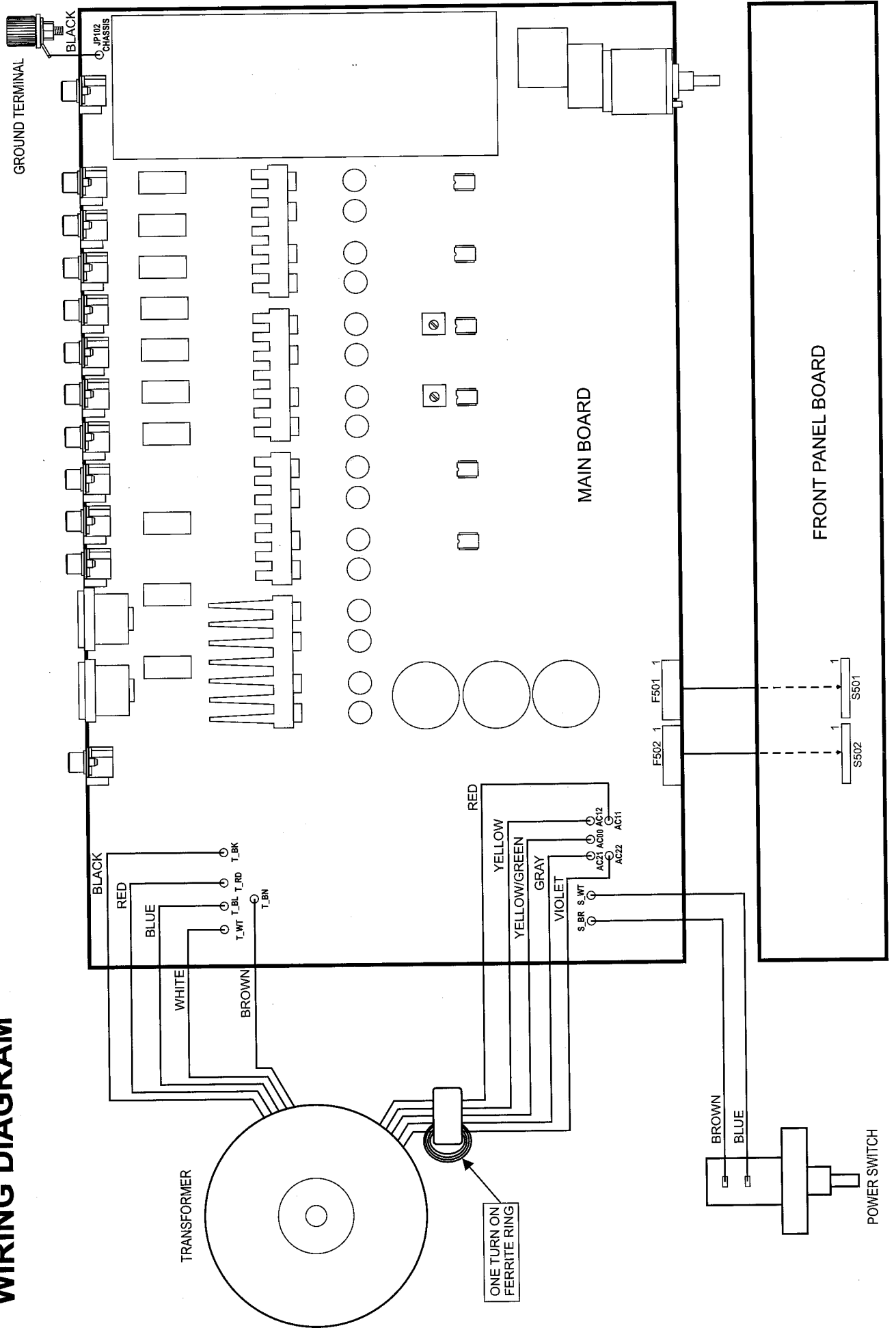
OFFSET VOLTAGE ALIGNMENT

1. Set volume control to minimum and select CD input (no input signal).
2. Connect a digital millivoltmeter to left channel PRE OUT 1.
3. Adjust P203 until output offset voltage is within $0 \pm 0.2\text{mV}$.
4. Repeat steps 2 and 3 while connecting to right channel PREOUT 1 and adjusting P202.

ADJUSTMENT POINTS

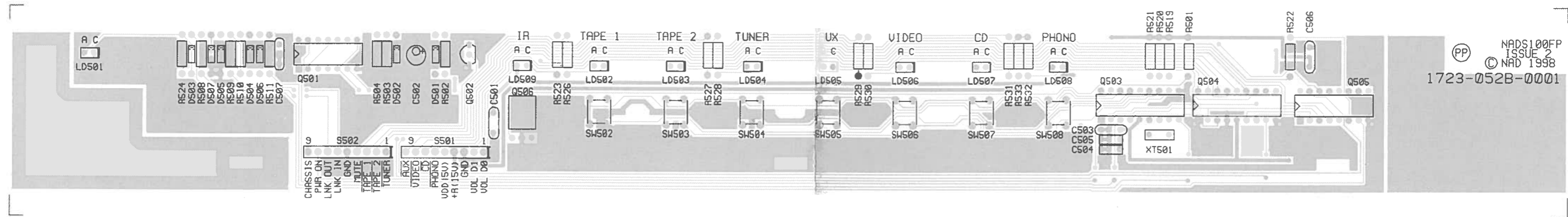


WIRING DIAGRAM

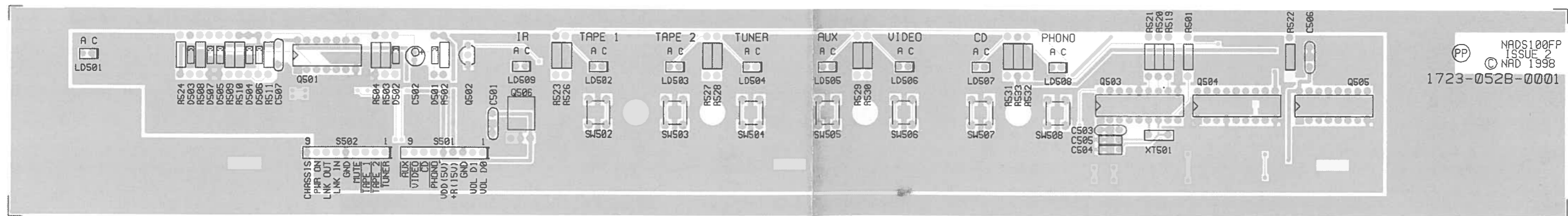


PCB LAYOUT

FRONT PANEL - COMPONENT SIDE

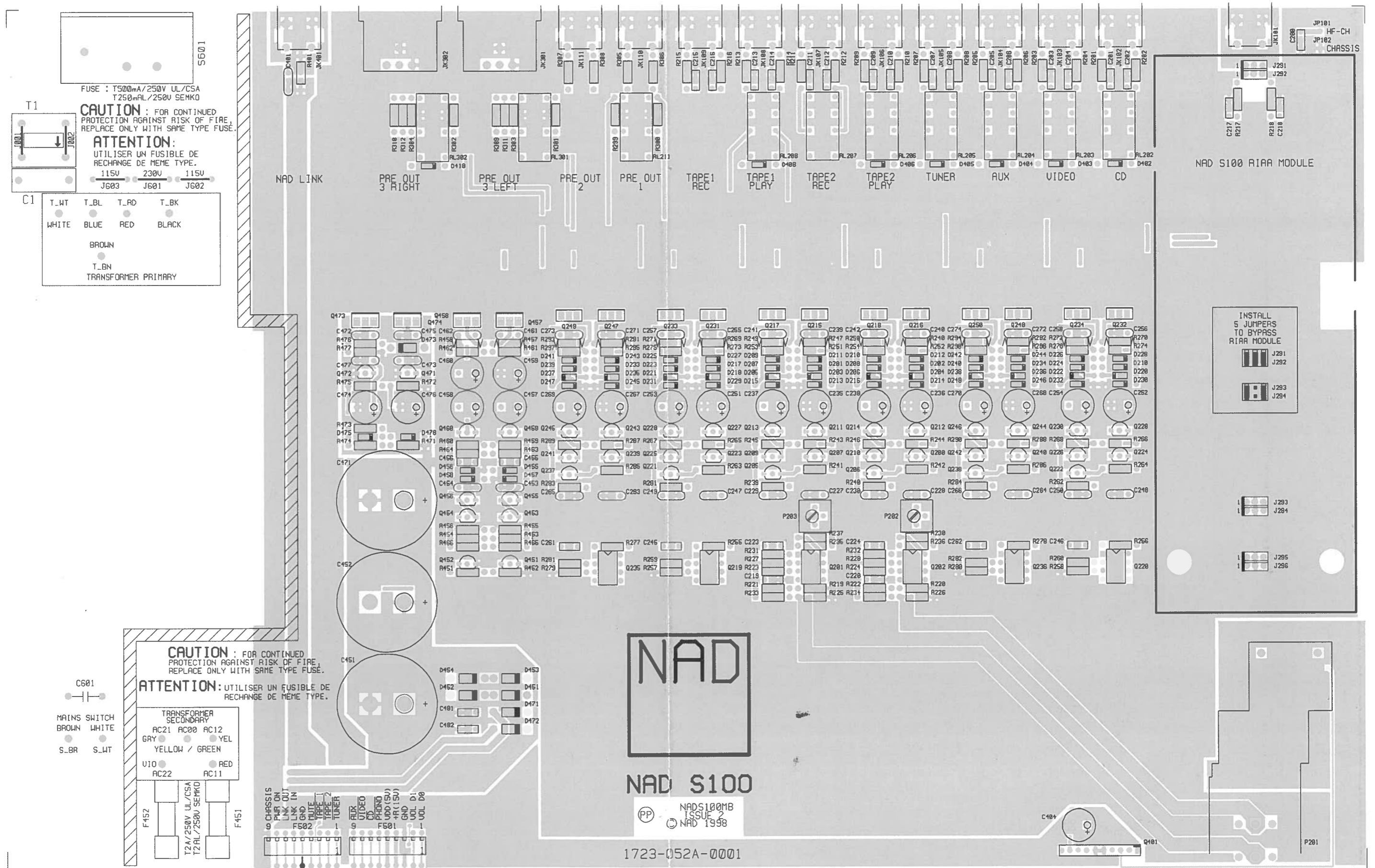


FRONT PANEL - SOLDER SIDE



PCB LAYOUT

MAIN BOARD - COMPONENT SIDE



FUSE : 1500mA/250V UL/CSA
T250mAL/250V SEMKO

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE FUSE.

ATTENTION : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

115V 230V 115V
J603 J601 J602

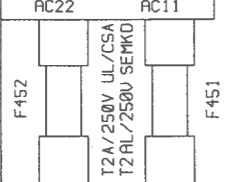
T_WT	T_BL	T_RD	T_BK
WHITE	BLUE	RED	BLACK
BROWN			
T_BN			
TRANSFORMER PRIMARY			

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE FUSE.

ATTENTION : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

TRANSFORMER SECONDARY
AC21 AC00 AC12
GRAY YEL
YELLOW / GREEN

U10 AC22 AC11
RED



NAD

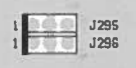
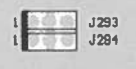
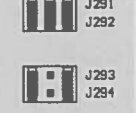
NAD S100

NADS100MB
ISSUE 2
NAD 1998

1723-052A-0001

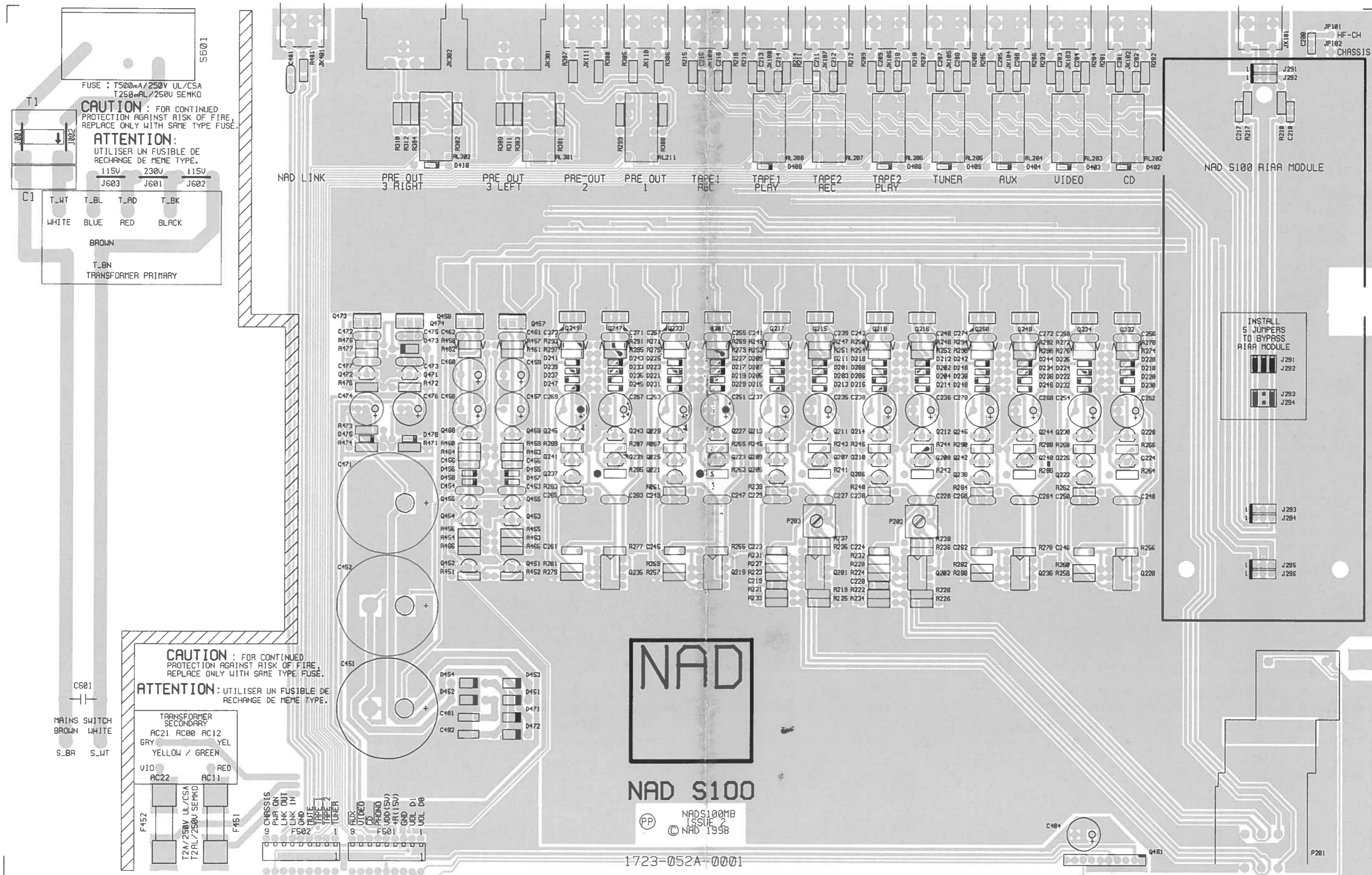
NAD S100 RIAA MODULE

INSTALL 5 JUMPERS TO BYPASS RIAA MODULE



PCB LAYOUT

MAIN BOARD - SOLDER SIDE



FUSE : T500mA/250V UL/CSA
T250mA/250V SEMKO

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE FUSE.

ATTENTION : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

115V J603 230V J601 115V J602

T₁
J001 J002
C1
T_{WT} T_{BL} T_{AD} T_{BK}
WHITE BLUE RED BLACK
BROWN
T_{BN}
TRANSFORMER PRIMARY

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE FUSE.

ATTENTION : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

TRANSFORMER SECONDARY
AC21 AC00 AC12
GRY YEL
YELLOW / GREEN
V10 AC22 RED AC11

F452 T2A/250V UL/CSA T2AL/250V SEMKO F451

CHASSIS GND
PWR ON LINK OUT
LINK IN
F502
MUTE
TAPE 1
TAPE 2
TUNER
AUX
VIDEO
CD
PHONO
VDD (5V)
+R (15V)
F501
GND
VOL D1
VOL D0

NAD

NAD S100

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1723-052A-0001

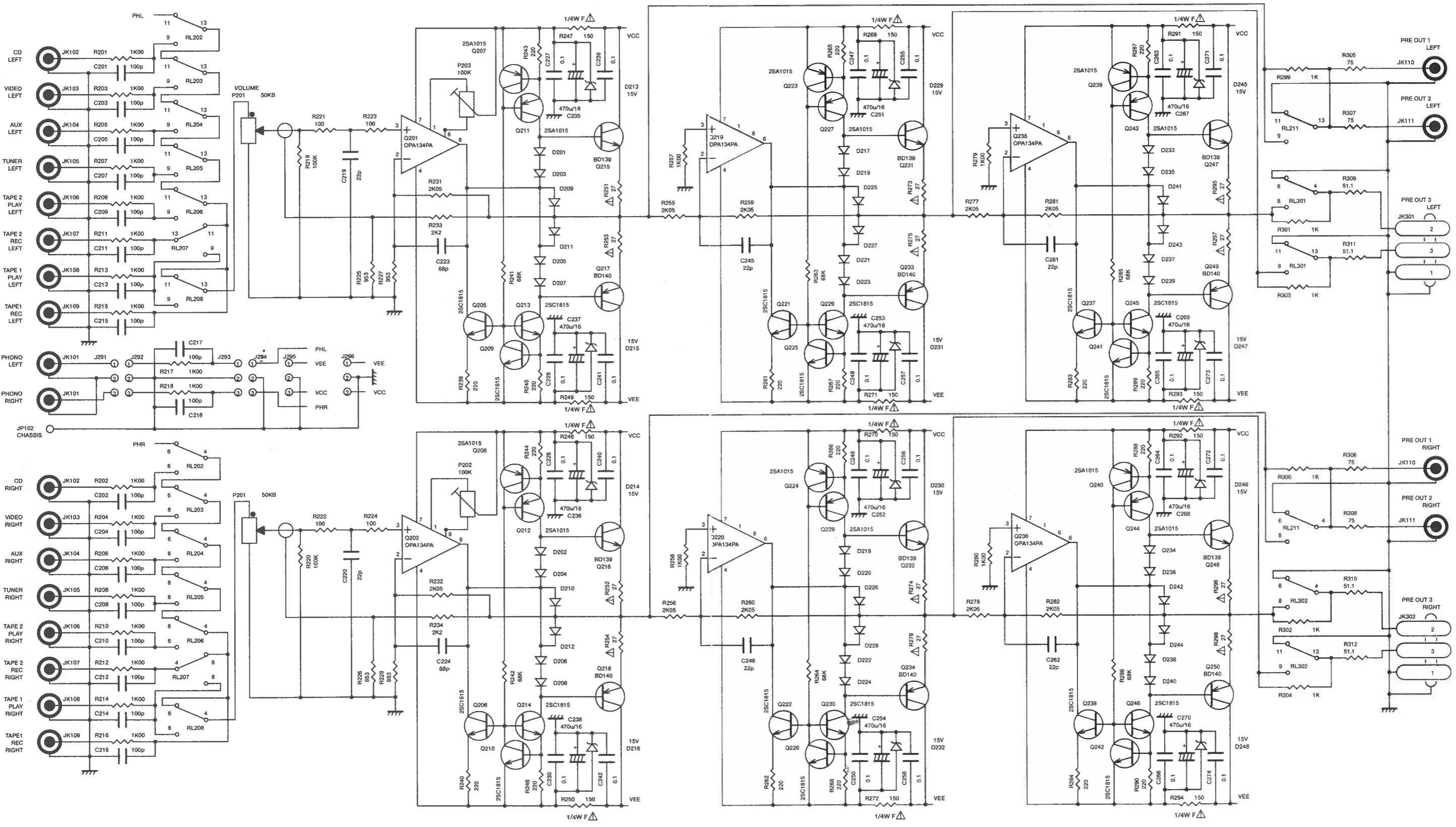
NAD S100 RIAA MODULE

INSTALL 5 JUMPERS TO BYPASS RIAA MODULE
J291 J292
J293 J294

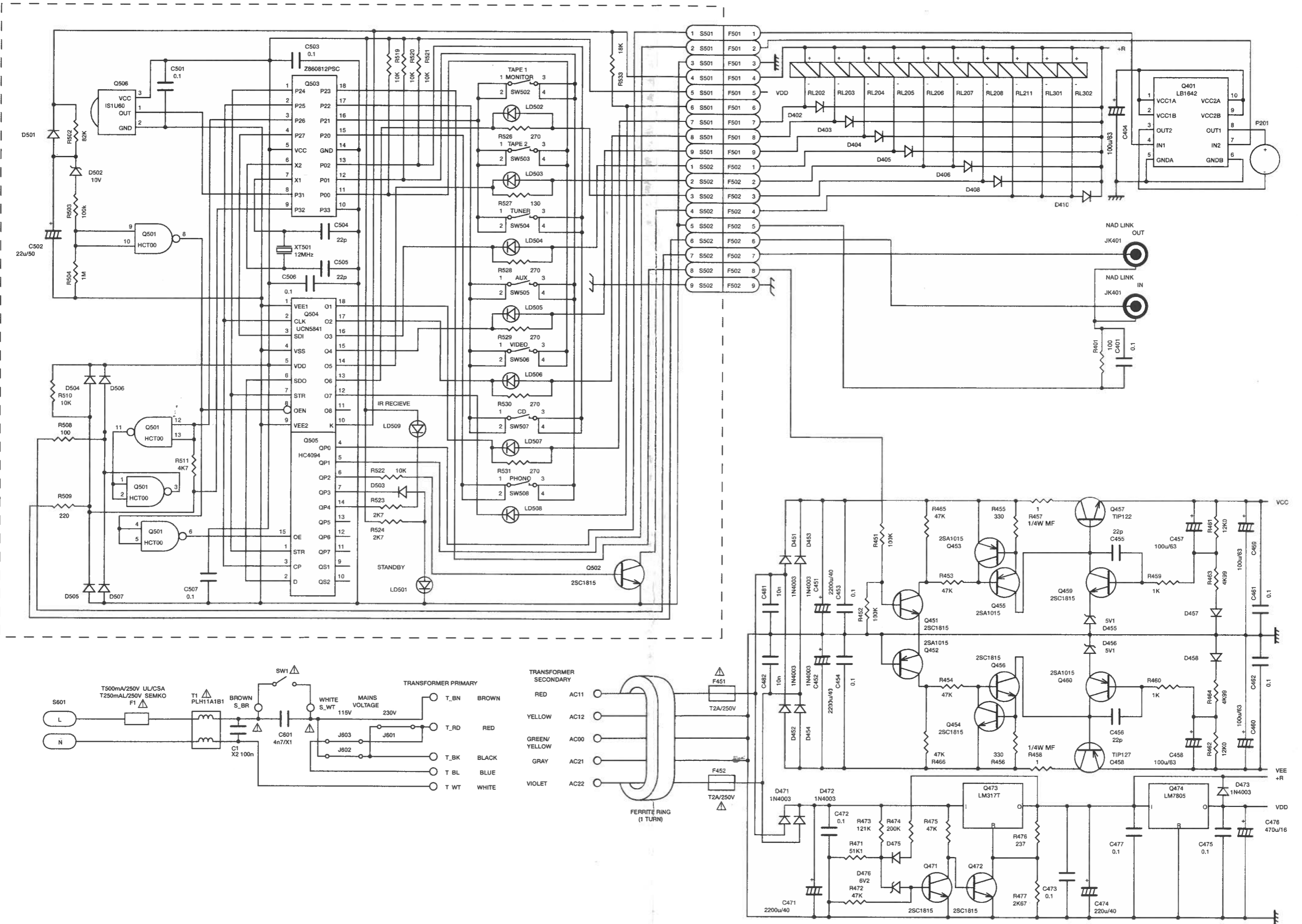
J293 J294
J295 J296

SCHEMATIC DIAGRAM

PREAMP



SCHEMATIC DIAGRAM CONTROL AND PSU BOARD



ELECTRICAL PARTS LIST

Reference No	Part Number	Description
KEYBOARD ASSEMBLY PCB BOARD		
	PCB-N0820C-KEY	KEYBOARD ASSEMBLY
CAPACITORS		
C502	157E-226M-5-LIK	CE 25V 22µF 20%
C504-C505	15CG-220A-5-GIE	CC 22pF 100V 1% NPO
DIODES		
D501,D503-D507	4804-1480-2	DIODE 1N4148 AT
D502	4837-1011-2	DZ 1/2W 10.1V AT
ICs		
Q501	3130-7370-0	IC 74HCT00 NAND GATE
Q503	3130-4740-1	IC UPZ86C0812PSCR2649 MASKED
Q504	3130-6920-0	IC UCN5841 RELAY DRIVER
Q505	3130-3600-0	IC 4094 8-BIT SIPO SR 3S
LED		
LD501-LD509	3700-3538-B	LED 3MM FLAT TOP BLUE
TRANSISTORS		
Q502	4860-0700-5	TR 2SC1815 GR
IR SENSOR		
Q506	481X-8035-3	IR SENSOR SBX8035-F
RESISTORS		
R502	471F-823J-2-E	RMF 0.4W 82K 5%
R503	471F-104J-2-E	RMF 0.4W 100K 5%
R504	471F-105J-2-E	RMF 0.4W 1M 5%
R508	471F-101J-2-E	RMF 0.4W 100R 5%
R509	471F-221J-2-E	RMF 0.4W 220 5%
R510	471F-103J-2-E	RMF 0.4W 10K 5%
R511	471F-472J-2-E	RMF 0.4W 4.7K 5%
R519-R522	471F-101J-2-E	RMF 0.4W 100R 5%
R523-R524	471F-272J-2-E	RMF 0.4W 2.7K 5%
R526	471F-271J-2-E	RMF 0.4W 270R 5%
R527	471F-131J-2-E	RMF 0.4W 130R 5%
R528-R531	471F-271J-2-E	RMF 0.4W 270R 5%
R533	471F-183J-2-E	RMF 0.4W 18K 5%
RESONATORS		
XT501	2703-0190-0	CR RESONATOR CSA 12MHZ
SWITCHES		
SW502-SW508	5200-3011-0-01	TACT SWITCH 4P
MAIN BOARD ASSEMBLY PCB BOARD		
*AH	PCB-N0820C-MAIN	MAIN ASSEMBLY
*C	PCB-N0821C-MAIN	MAIN ASSEMBLY

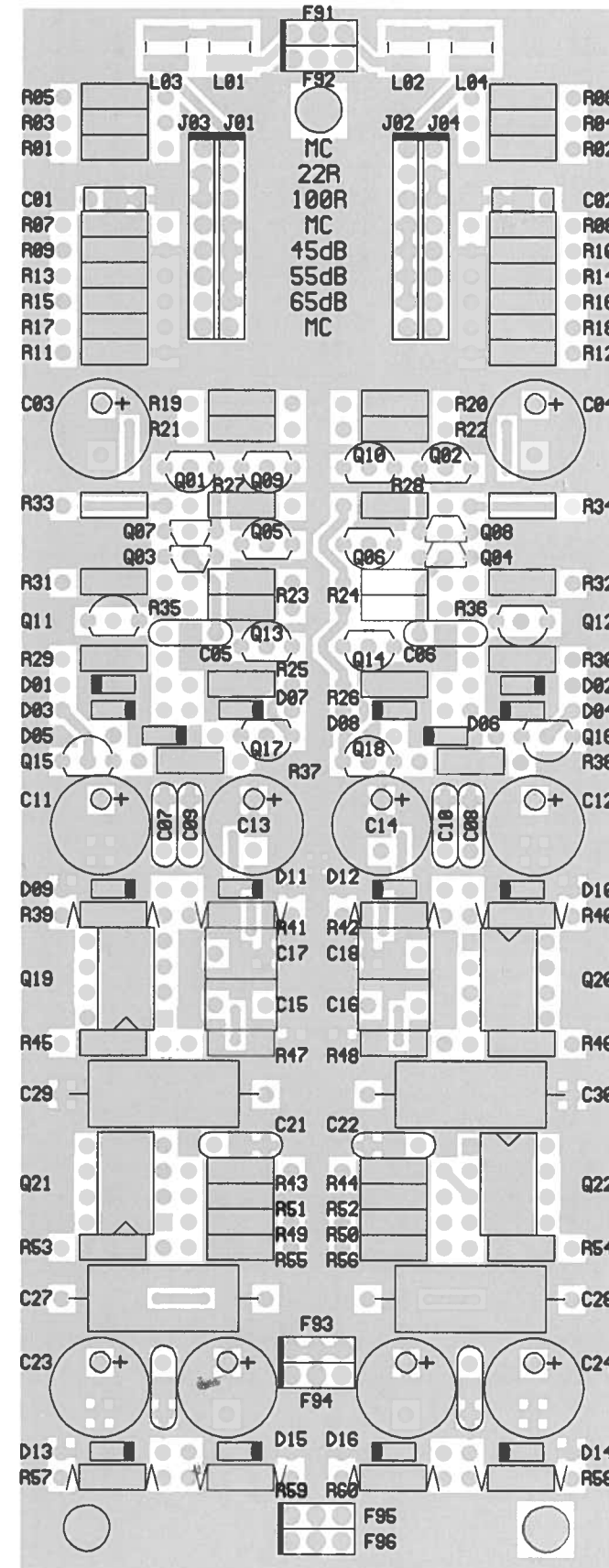
Reference No	Part Number	Description
CAPACITORS		
C1*C	8910-0229-0	CAP 250V PHE830MB6100MX2 100nF
C201-C218	153H-101C-9-NLW	CM 100V 100pF 2%
C219-C220	158H-220J-5-IQ	CP 100V 22pF 5%
C223-C224	158H-680J-5-IQ	CP 100V 68pF 5%
C227-C230	153I-104M-9-NLU	CM 63V 0.1µF 20%
C235-C238	157D-477M-5-SXF	CE 16V 470µF 20%
C239-C242	153I-104M-9-NLU	CM 63V 0.1µF 20%
C245-C246	158H-220J-5-IQ	CP 100V 22pF 5%
C247-C250	153I-104M-9-NLU	CM 63V 0.1µF 20%
C251-C254	157D-477M-5-SXF	CE 16V 470µF 20%
C255-C258	153I-104M-9-NLU	CM 63V 0.1µF 20%
C261-C262	158H-220J-5-IQ	CP 100V 22pF 5%
C263-C266	153I-104M-9-NLU	CM 63V 0.1µF 20%
C267-C270	157D-477M-5-SXF	CE 16V 470µF 20%
C271-C274,C401	153I-104M-9-NLU	CM 63V 0.1µF 20%
C404	157I-107M-5-SXK	CE 63V 100µF 20%
C451-C452	8910-0213-0	CE 50V 4700µF 20%
C453-C454	153I-104M-9-NLU	CM 63V 0.1µF 20%
C455-C456	158H-220J-5-IQ	CP 100V 22pF 5%
C457-C460	157I-107M-5-SXK	CE 63V 100µF 20%
C461-C462	153I-104M-9-NLU	CM 63V 0.1µF 20%
C471	8910-0213-0	CE 50V 4700µF 20%
C472-C473	153I-104M-9-NLU	CM 63V 0.1µF 20%
C474	157I-227M-5-S9K	CE 63V 220µF 20%
C475,C477	153I-104M-9-NLU	CM 63V 0.1µF 20%
C476	157D-477M-5-SXF	CE 16V 470µF 20%
C481-C482	15FI-103Z-5-HKE	CC 63V 0.01µF +80/-20% Z5U
C601	8910-0049-0	CAP 400V 4700pF DE7150F472MVA1KC
COIL		
T1*C	1806-2500-0	CHOKO COIL 180µH 250V 1.2A
DIODES		
D201-D212	4804-1480-2	DIODE 1N4148
D213-D216	4837-15C1-2	ZD 1/2W 14.3-15.1V
D217-D228	4804-1480-2	DIODE 1N4148
D229-D232	4837-15C1-2	ZD 1/2W 14.3-15.1V
D233-D244	4804-1480-2	DIODE 1N4148
D245-D248	4837-15C1-2	ZD 1/2W 14.3-15.1V
D402-D408,D410	4804-1480-2	DIODE 1N4148
D451-D454	4804-0030-2	DIODE IN4003
D455-D456	4837-5V11-2	DZ 1/2W 5.1V
D457-D458	4804-1480-2	DIODE 1N4148
D471-D473	4804-0030-2	DIODE IN4003
D475	4804-1480-2	DIODE 1N4148
D476	4837-6V21-2	ZD 1/2W 6.2V
FERRITE CORE		
*C	1808-0130-0	FERRITE CORE D19XT10
FUSES		
F451-F452*AH	5120-0032-0	FUSE TIME LAG 2A 250V 5X20MM UL/CSA
F451-F452*C	5120-0065-0	FUSE TIME LAG 2A 250V 5X20MM SEMKO/VDE
RCA JACK		
JK101-JK111	2113-1203-0	2P RCA JACK W/R AU
JK401	2113-1121-0	2P RCA JACK Y/Y AU

<u>Reference No</u>	<u>Part Number</u>	<u>Description</u>
ICs		
Q201-Q202	3130-6940-0	IC OPA134PA OP AMP
Q219-Q220	3130-6940-0	IC OPA134PA OP AMP
Q235-Q236	3130-6940-0	IC OPA134PA OP AMP
Q401	3130-3410-0	IC LB1642 MOTOR DRIVER
Q473	3130-5610-0	IC LM317T+ADJ REGULATOR
Q474	3130-2020-3	IC 7805 REG 5V 1.5A
TRANSISTORS		
Q205-Q206	4860-0700-5	TR 2SC1815 GR
Q207-Q208	4860-0660-5	TR 2SA1015 GR
Q209-Q210	4860-0700-5	TR 2SC1815 GR
Q211-Q212	4860-0660-5	TR 2SA1015 GR
Q213-Q214	4860-0700-5	TR 2SC1815 GR
Q215-Q216	485D-1390-5	TR BD139-10 HFE 63-160
Q217-Q218	4860-1430-5	TR BD140-10 HFE 63-160
Q221-Q222	4860-0700-5	TR 2SC1815 GR
Q223-Q224	4860-0660-5	TR 2SA1015 GR
Q225-Q226	4860-0700-5	TR 2SC1815 GR
Q227-Q228	4860-0660-5	TR 2SA1015 GR
Q229-Q230	4860-0700-5	TR 2SC1815 GR
Q231-Q232	485D-1390-5	TR BD139-10 HFE 63-160
Q233-Q234	4860-1430-5	TR BD140-10 HFE 63-160
Q237-Q238	4860-0700-5	TR 2SC1815 GR
Q239-Q240	4860-0660-5	TR 2SA1015 GR
Q241-Q242	4860-0700-5	TR 2SC1815 GR
Q243-Q244	4860-0660-5	TR 2SA1015 GR
Q245-Q246	4860-0700-5	TR 2SC1815 GR
Q247-Q248	485D-1390-5	TR BD139-10 HFE 63-160
Q249-Q250	4860-1430-5	TR BD140-10 HFE 63-160
Q451,Q454,Q456	4860-0700-5	TR 2SC1815 GR
Q452-Q453,Q455	4860-0660-5	TR 2SA1015 GR
Q457	4860-1910-5	TR TIP122 HFE 1000
Q458	4860-1920-5	TR TIP127 HFE 1000
Q459,Q471-Q472	4860-0700-5	TR 2SC1815 GR
Q460	4860-0660-5	TR 2SA1015 GR
RESISTORS		
R201-R218	471G-102A-2-E	RMF 0.6W 1K 1%
R219-R220	471F-104J-2-E	RMF 0.4W 100K 5%
R221-R224	471F-101J-2-E	RMF 0.4W 100R 5%
R225-R228	471G-9530-2-E	RMF 0.6W 953 1%
R231-R232	471G-2051-2-E	RMF 0.6W 2.05K 1%
R233-R234	471F-222J-2-E	RMF 0.4W 2.2K 5%
R239-R240	471F-221J-2-E	RMF 0.4W 220 5%
R241-R242	471F-683J-2-E	RMF 0.4W 68K 5%
R243-R246	471F-221J-2-E	RMF 0.4W 220 5%
R247-R250	4715-151J-2-F	RFU 1/4W 150R 5%
R251-R254	471E-270J-2-EF	RFU 0.3W 27R 5%
R255-R256	471G-2051-2-E	RMF 0.6W 2.05K 1%
R257-R258	471G-102A-2-E	RMF 0.6W 1K 1%
R259-R260	471G-2051-2-E	RMF 0.6W 2.05K 1%
R261-R262	471F-221J-2-E	RMF 0.4W 220 5%
R263-R264	471F-683J-2-E	RMF 0.4W 68K 5%
R265-R268	471F-221J-2-E	RMF 0.4W 220 5%
R269-R272	4715-151J-2-F	RFU 1/4W 150R 5%
R273-R276	471E-270J-2-EF	RFU 0.3W 27R 5%

Reference No	Part Number	Description
R277-R278	471G-2051-2-E	RMF 0.6W 2.05K 1%
R279-R280	471G-102A-2-E	RMF 0.6W 1K 1%
R281-R282	471G-2051-2-E	RMF 0.6W 2.05K 1%
R283-R284	471F-221J-2-E	RMF 0.4W 220 5%
R285-R286	471F-683J-2-E	RMF 0.4W 68K 5%
R287-R290	471F-221J-2-E	RMF 0.4W 220 5%
R291-R294	△ 4715-151J-2-F	RFU 1/4W 150R 5%
R295-R298	△ 471E-270J-2-EF	RFU 0.3W 27R 5%
R299-R304	471F-102J-2-E	RMF 0.4W 1K 5%
R305-R308	471G-750A-2-E	RMF 0.6W 75R 1%
R309-R312	471G-51R1-2-E	RMF 0.6W 51.1R 1%
R401	471F-101J-2-E	RMF 0.4W 100R 5%
R451-R452	471F-104J-2-E	RMF 0.4W 100K 5%
R453-R454	471F-473J-2-E	RMF 0.4W 47K 5%
R455-R456	471F-331J-2-E	RMF 0.4W 330R 5%
R457-R458	4715-010J-2	RMF 1/4W 1R 5%
R459-R460	471F-102J-2-E	RMF 0.4W 1K 5%
R461-R462	471G-123A-2-E	RMF 0.6W 12K 1%
R463-R464	471G-4991-2-E	RMF 0.6W 4.99K 1%
R465-R466	471F-473J-2-E	RMF 0.4W 47K 5%
R471	471G-5112-2-E	RMF 0.6W 51.1K 1%
R472,R475	471F-473J-2-E	RMF 0.4W 47K 5%
R473	471G-1213-2-E	RMF 0.6W 121K 1%
R474	471G-204A-2-E	RMF 0.6W 200K 1%
R476	471G-2370-2-E	RMF 0.6W 237R 1%
R477	471G-2671-2-E	RMF 0.6W 2.67K 1%
VARIABLE RESISTORS		
P201	4750-4766-0	VR 2X20KA RK27112-MC MOTORPOTMETER
P202-P203	4756-1040-3-18	SVR 100K 3386P-1
RELAYS		
RL202-RL208,RL211	4500-0270-0	RELAY DPDT RY-12W-OH-K 12V
RL301-RL302	4500-0270-0	RELAY DPDT RY-12W-OH-K 12V
SWITCH		
SW1	△ 5200-0961-0-01	POWER SWITCH

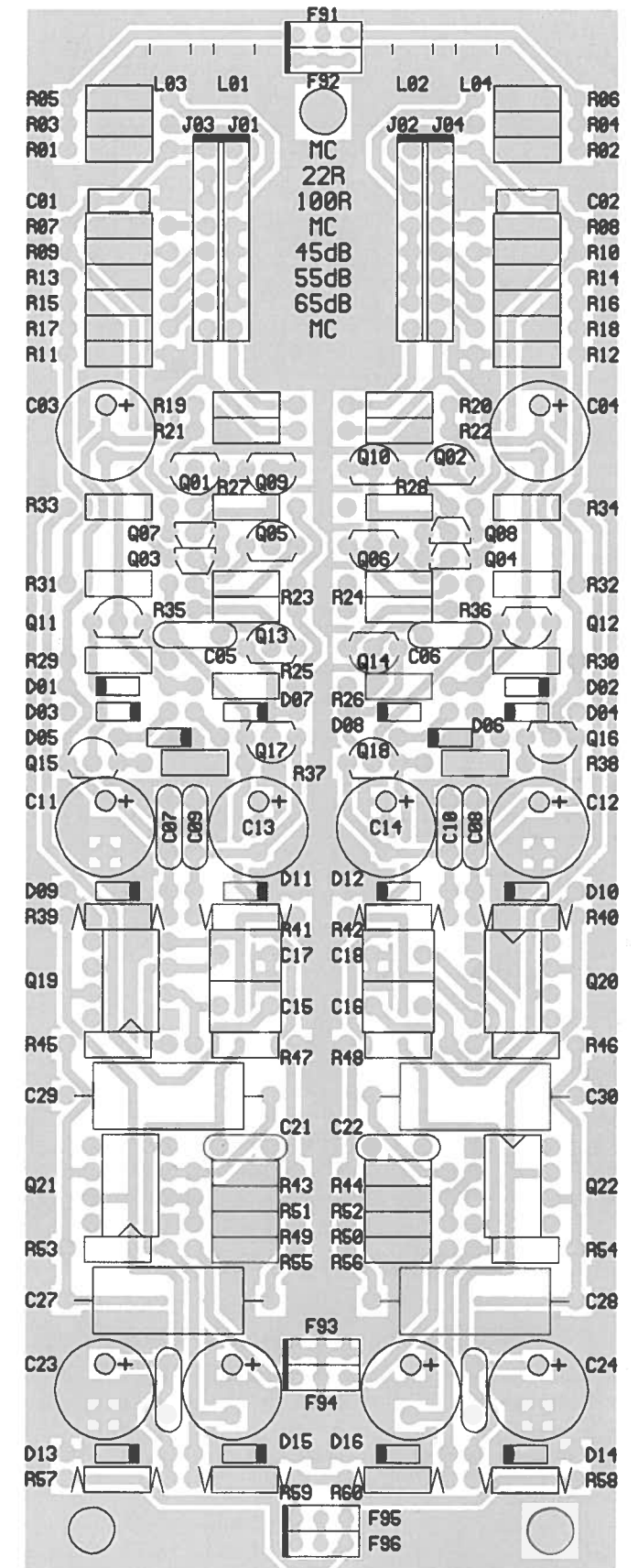
Note: - The components identified by △ mark are critical for risk of the fire and electrical shock. Replace only with part number specified.
- < *AH > : USA, Canadian model only.
- < *C > : European model only.
- Capacitors : CC - Ceramic, CE - Electrolytic, CM - Mylar, CP - Polystyrene.
- Resistors : RMF - Metal Film, RFU - Fusible.

PHONO MODULE PCB LAYOUT PREAMPLIFIER MODULE BOARD COMPONENT SIDE



PP NAD S10 R1AA
ISSUE 1
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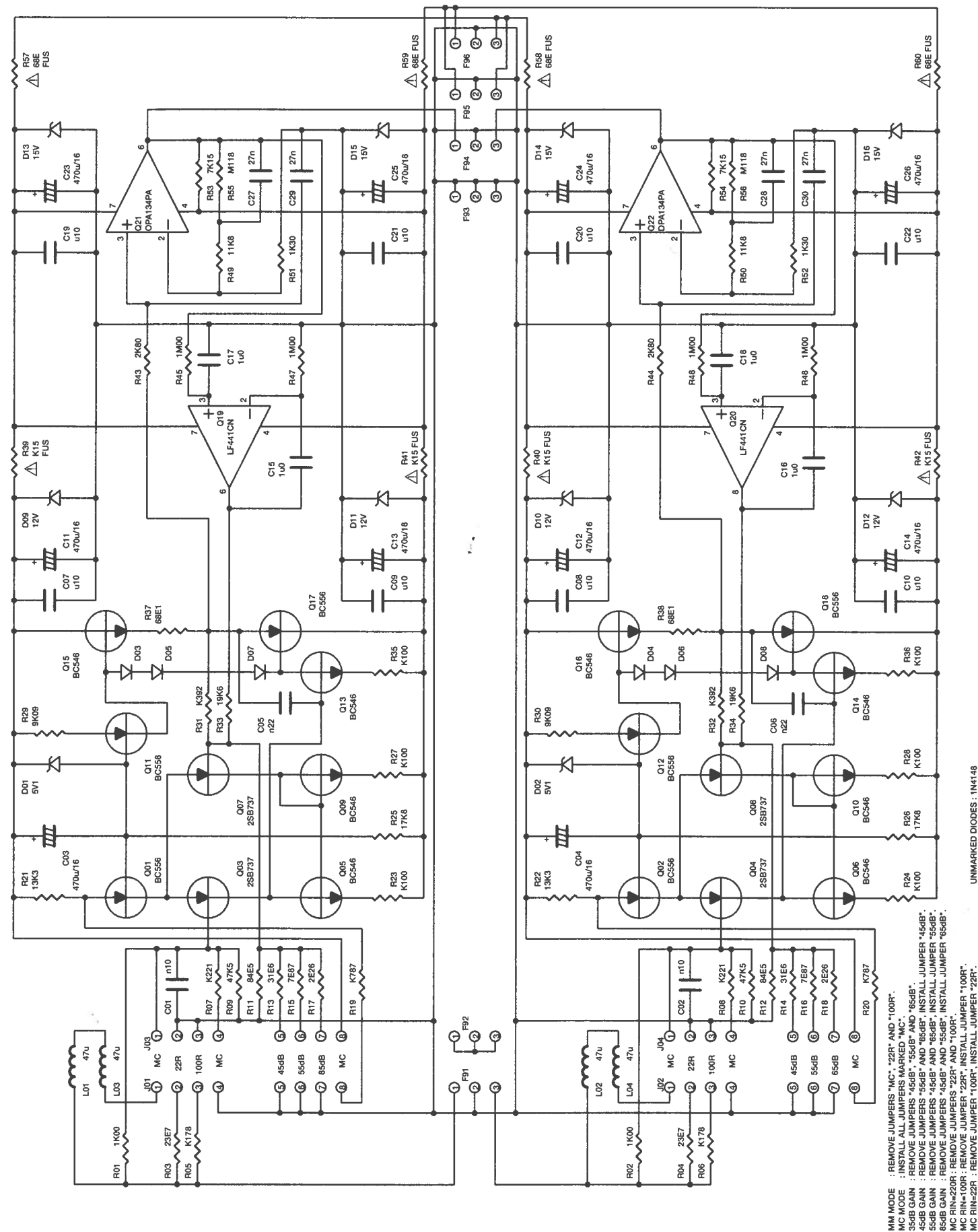
SOLDER SIDE



PP NAD S10 R1AA
ISSUE 1
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PHONO MODULE SCHEMATIC DIAGRAM

MM / MC RIAA PREAMPLIFIER MODULE



PHONO MODULE ELECTRICAL PARTS LIST

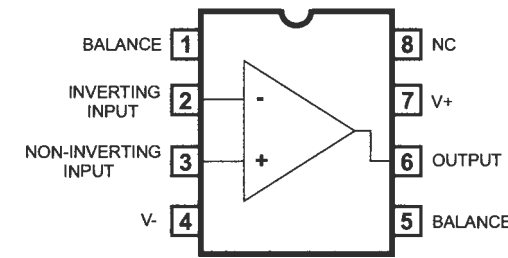
Reference No	Part Number	Description
RIAA ASSEMBLY		
PCB BOARD		
	PCB-N0822C-PHON	PHONO RIAA ASSEMBLY
CAPACITORS		
C01-C02	153H-101J-9-NLW	CM 100V 100pF 5%
C03-C04	157D-477M-5-SXF	CE 16V 470uF 20%
C05-C06	153H-221J-9-NLW	CM 100V 220pF 5%
C07-C10	153I-104M-9-NLU	CM 63V 0.1uF 20%
C11-C14	157D-477M-5-SXF	CE 16V 470uF 20%
C15-C18	153I-105J-9-NSU	CM 63V 1uF 5%
C19-C22	153I-104M-9-NLU	CM 63V 0.1uF 20%
C23-C26	157D-477M-5-SXF	CE 16V 470uF 20%
C27-C30	158I-273A-2-M3E	CP 63V 0.027uF 1%
DIODES		
D01-D02	4837-5V11-2	DZ 1/2W 5.1V
D03-D08	4804-1480-2	DIODE 1N4148
D09-D12	4837-13A1-2	DZ 12.11-12.75V MTZJ-13A
D13-D16	4837-15C1-2	DZ 1/2W 14.3-15.1V
INDUCTORS		
L01-L04	1803-0031-0	INDUCTOR 47uH 5% B78008-S1473-K1
TRANSISTORS		
Q01-Q02	485C-556B-5	TR BC556B HFE 220-475
Q03-Q04, Q07-Q08	485B-737R-5	TR 2SB737 HFE 180-390
Q05-Q06, Q9-Q10	485C-546B-5	TR BC546B HFE 200-450
Q11-Q12, Q17-Q18	485C-556B-5	TR BC556B HFE 220-475
Q13-Q16	485C-546B-5	TR BC546B HFE 200-450
ICs		
Q19-Q20	3130-7000-0	IC LF441CN OP AMP
Q21-Q22	3130-6940-0	IC OPA134PA OP AMP
RESISTORS		
R01-R02	471G-102A-2-E	RMF 0.6W 1K 1%
R03-R04	471G-23R7-2-E	RMF 0.6W 23.7R 1%
R05-R06	471G-1780-2-E	RMF 0.6W 178R 1%
R07-R08	471G-2210-2-E	RMF 0.6W 221R 1%
R09-R10	471G-4752-2-E	RMF 0.6W 47.5K 1%
R11-R12	471G-84R5-2-E	RMF 0.6W 84.5R 1%
R13-R14	471G-31R6-2-E	RMF 0.6W 31.6R 1%
R15-R16	471G-7R87-2-E	RMF 0.6W 7.87R 1%
R17-R18	471G-2R26-2-E	RMF 0.6W 2.26R 1%
R19-R20	471G-7870-2-E	RMF 0.6W 787R 1%
R21-R22	471G-1332-2-E	RMF 0.6W 13.3K 1%
R23-R24	471G-101A-2-E	RMF 0.6W 100R 1%
R25-R26	471G-1782-2-E	RMF 0.6W 17.8K 1%
R27-R28	471G-101A-2-E	RMF 0.6W 100R 1%
R29-R30	471G-9091-2-E	RMF 0.6W 9.09K 1%
R31-R32	471G-3920-2-E	RMF 0.6W 392R 1%
R33-R34	471G-1962-2-E	RMF 0.6W 19.6K 1%
R35-R36	471G-101A-2-E	RMF 0.6W 100R 1%
R37-R38	471G-68R1-2-E	RMF 0.6W 68.1R 1%

Reference No	Part Number	Description
R39-R42	471E-151J-2-EF	RFU 0.3W 150R 5%
R43-R44	471G-282A-2-E	RMF 0.6W 2.8K 1%
R45-R48	471G-105A-2-E	RMF 0.6W 1M 1%
R49-R50	471G-1182-2-E	RMF 0.6W 11.8K 1%
R51-R52	471G-132A-2-E	RMF 0.6W 1.3K 1%
R53-R54	471G-7151-2-E	RMF 0.6W 7.15K 1%
R55-R56	471G-1183-2-E	RMF 0.6W 118K 1%
R57-R60	471E-680J-2-EF	RFU 0.3W 68R 5%

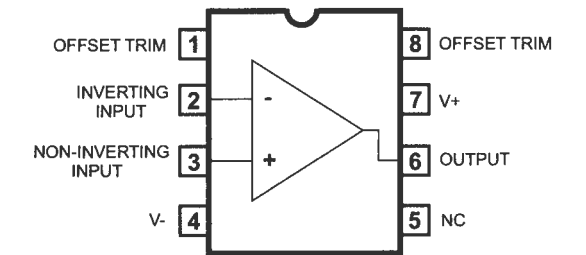
Note: – The components identified by \triangle mark are critical for risk of the fire and electrical shock.
 Replace only with part number specified.
 – Capacitors : CE - Electrolytic, CM - Mylar, CP - Polystrene.
 – Resistors : RMF - Metal Film, RFU - Fusible.

IC BLOCK DIAGRAM

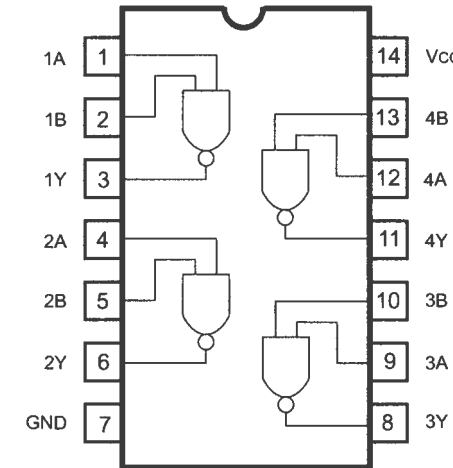
Q19-Q20: LF441CN
LOW POWER JFET OP-AMP



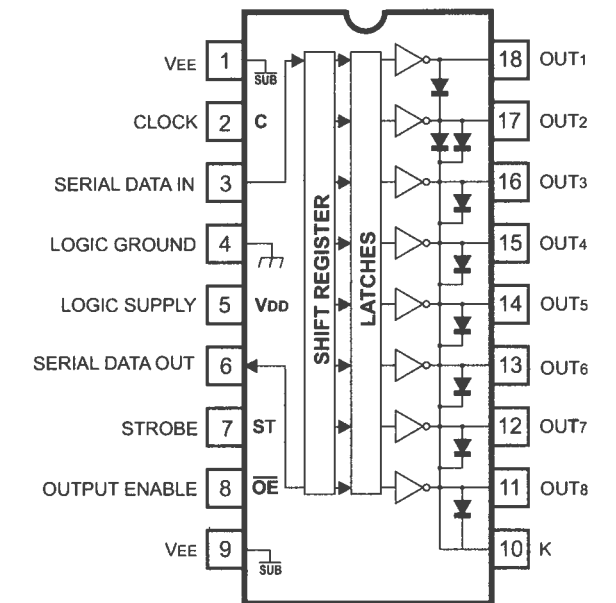
Q21-Q22, Q201-Q202, Q219-Q220, Q235-Q236:
OPA134PA
HIGH PERFORMANCE OP-AMP



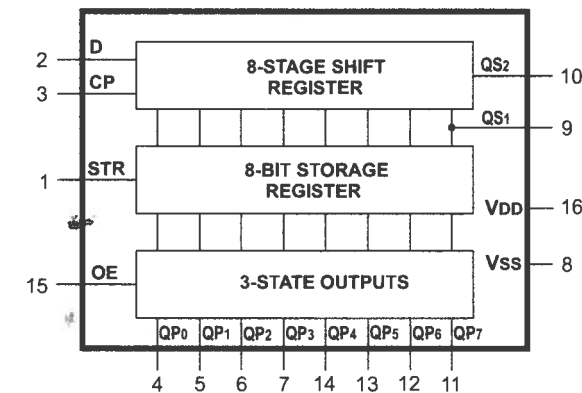
Q501: 74HCT00
QUAD 2-INPUT NAND GATE



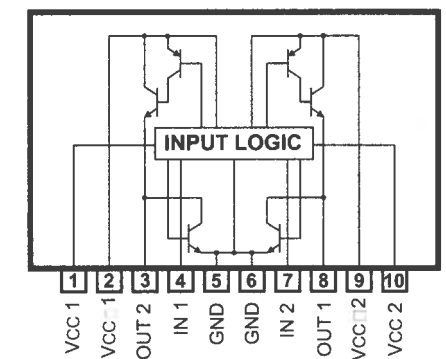
Q504: UCN5841
SERIAL INPUT LATCHED RELAY DRIVER



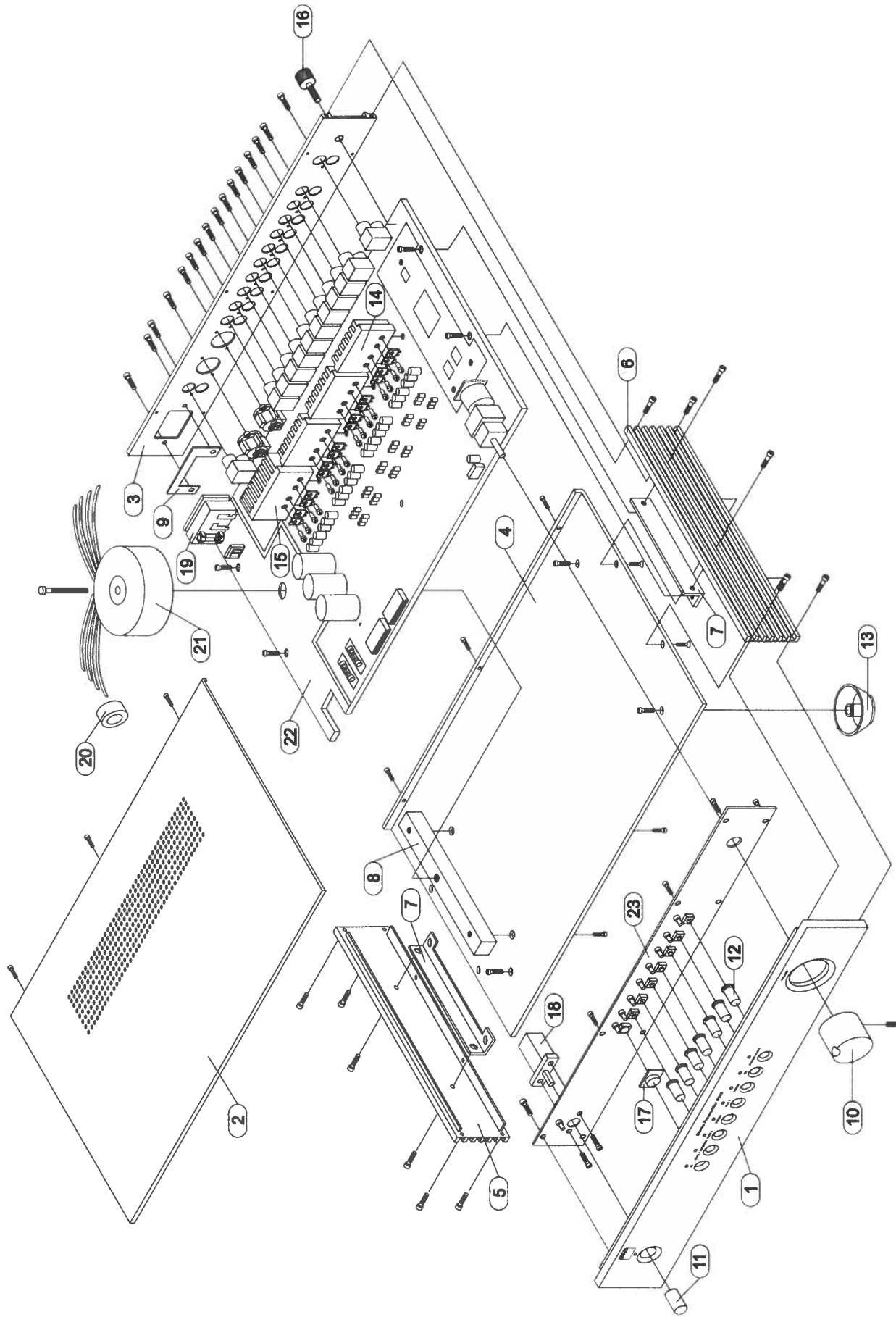
Q505: 4094
8-STAGE SHIFT/STORE REGISTER
WITH 3-STATE OUTPUTS



Q401: LB1642
MOTOR DRIVER



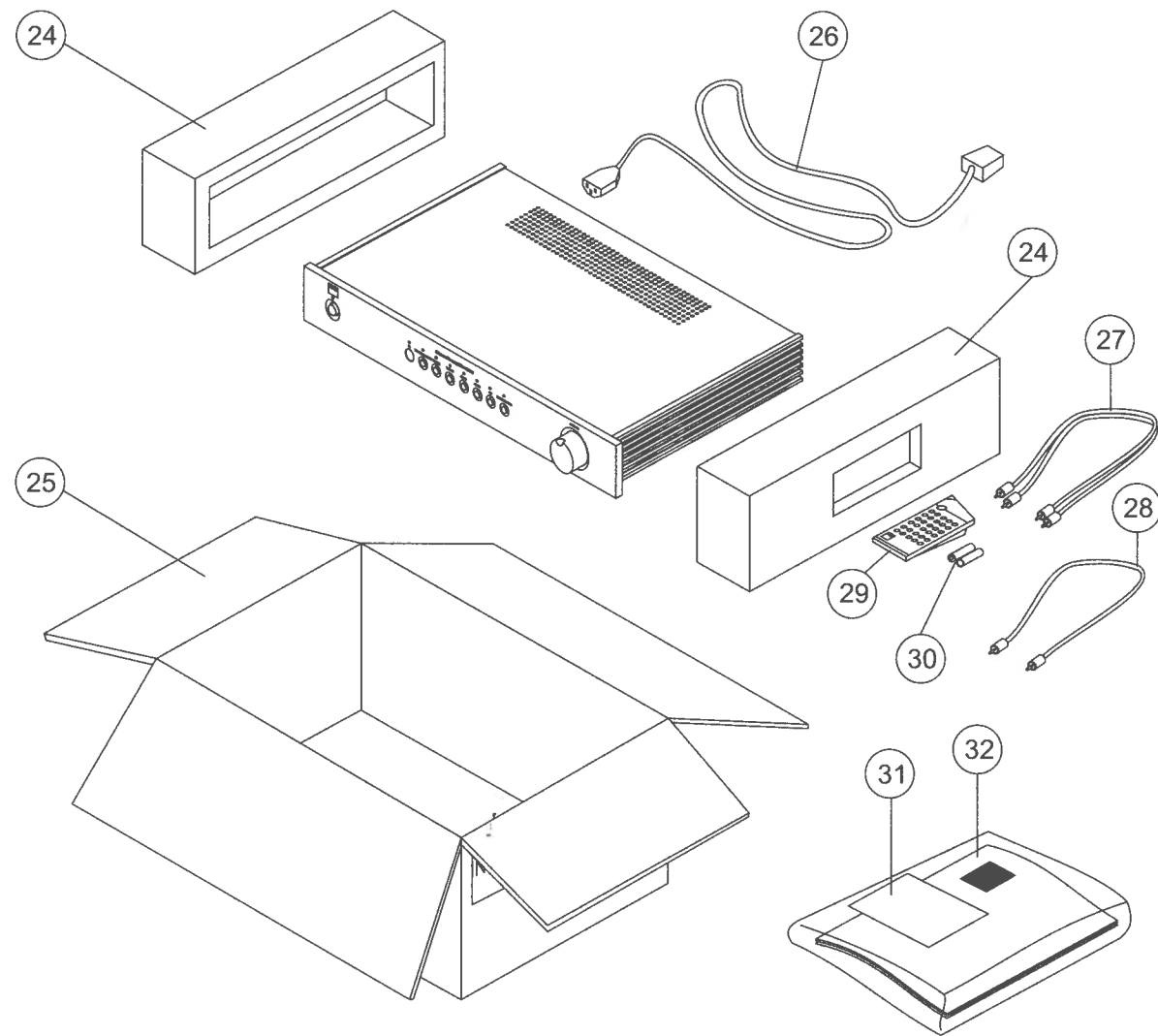
EXPLODED VIEW



EXPLODED VIEW PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	S100-2001-7	FASCIA	1
2	S100-2004-5	TOP COVER	1
3*AH	S100-2005AH-5	REAR PANEL 120V	1
3*C	S100-2005C-5	REAR PANEL 230V	1
4	S100-2003-5	BASE PLATE	1
5	S100-2002L-7	LEFT SIDE PANEL	1
6	S100-2002R-4	RIGHT SIDE PANEL	1
7	S100-2007-4	PCB BRACKET	2
8	S100-2008-1	TRANSFORMER BAR	1
9	S100-2020-1	AC INLET PLATE	1
10	S100-2031-2	VOLUME KNOB	1
11	S100-2011-3	10MM POWER BUTTON	1
12	S400-2121-1	6MM INPUT BUTTON	7
13	S100-2013-2	FOOT W/ RUBBER CUSHION	4
14	S100-2009-4	HEATSINK 1	3
15	S100-2019-2	HEATSINK 2	1
16	S100-0206	GROUND TERMINAL	1
17	S100-2221-1	IRS LENS	1
18	S100-0205	POWER SWITCH	1
19	AC1	AC INLET	1
20	S100-0203	FERRITE RING	1
21	TI-65571A	TRANSFORMER	1
22	S100-0100	MAIN PCB	1
23	S100-0150	FRONT PANEL PCB	1

PACKING DIAGRAM



ITEM	PART NUMBER	DESCRIPTION	QTY.
24	311215	POLYFOAM	1 SET
25	S100-2010-A	CARTON BOX	1
26*AH	POW4	POWER CORD NEMA 1-15 POLARIZED	1
26*C	POW2	POWER CORD CEE (7) XVII	1
27	101-000A	AUDIO CABLE	1
28	101-000B	NAD LINK CABLE	1
29	RC 450	REMOTE CONTROL HANDSET	1
30	R03	BATTERY	1 SET
31	WARR	WARRANTY CARD	1
32	S100-IM	INSTRUCTION MANUAL	1

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