

SERVICE SAFETY PRECAUTIONS (UL)

1. Use exact replacement parts for critical locations marked "⚠"
2. Return lead dress to original position and re-install protective covers.
3. Before returning to customer, test for shock hazard; use either method A or B:
 - A. Leakage test "cold":
 1. Unplug the AC cord; turn power switch ON.
 2. Connect one lead of High Voltage Insulation Tester to both prongs of the AC plug.
 3. Touch other lead to all exposed metal parts.
 4. Impedance measurement must be 0.3-5.0 Megohms.
 - B. Leakage test, "live":
 1. Plug unit directly into the AC outlet; do not use isolation transformer.
 2. Connect one lead of the Leakage Current Tester to earth ground.
 3. Touch other lead to all exposed metal parts.
 4. Leakage measurement must be less than 0.5 milliamps.

SERVICE SAFETY PRECAUTIONS

1. Use exact replacement part for critical locations, marked "▲" on parts list.
2. Return lead dress to original position, and re-install protective covers.
3. Before returning to customer, test for shock hazard; use either method A or B:


A. Leakage test, "cold":


1. Unplug AC cord, turn power switch ON.
2. Connect one lead of High Voltage Insulation Tester to both prongs of AC plug.
3. Touch other lead to all exposed metal parts.
4. Impedance measurement must be 0.3 - 5.0 Megohms.

B. Leakage test, "live":

1. Plug unit directly into AC outlet; do not use isolation transformer.
2. Connect one lead of Leakage Current Tester to earth ground.
3. Touch other lead to all exposed metal parts.
4. Leakage measurement must be less than 0.5 milliamps.

4. Replacing the fuses

 This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

 Ce symbole indique que le fusible utilise est a rapide.
Pour une protection permanents, n'utiliser que des fusibles de meme type.
Ce dernier est indique la qu le present symbol est appose.
For continued protection against fire hazard, replace with same type fuse.
For fuse rating refer to the marking adjacent to the symbol.

Circuit No.	Part No.	Description
F901	252164Y	5A-UL/T-237, Primary <AH>
F902	252076	3.15A-SE-EAK, Primary <C>
F903	252075	2.5A-SE-EAK, Primary <C>
F921	252156Y	1A-UL/T-237, Secondary <AH>
	252070	1A-SE-EAK, Secondary <C>
F922	252156Y	1A-UL/T-237, Secondary <AH>
	252070	1A-SE-EAK, Secondary <C>

5. To Initialize the unit

This device employs a microprocessor to perform various functions and operations.
If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a reset, please follow the procedure below.

1. Press and hold down the CD button, then press the POWER button.
2. Take the power supply cord from the socket while "TEST-" is displayed.
3. After "clear" is displayed, the preset memory and each mode stored in then memory, such as surround, are initialized and will return to the factory settings.

6. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer.

Connect the insulating-resistance tester between the plug of power supply cord and the screw on the back panel.
Specifications : 3.3Mohm \pm 10% at 500V.

TABLE OF CONTENTS

Service Procedures	2	IC Block Diagram and Descriptions	10
Specifications	3	Packing View	14
Front Panel Controls	4	Printed Circuit Views from Bottom Side	15
Block Diagram	5	Wiring Diagram	18
Exploded View	6	Printed Circuit board-Parts List	19
Exploded View Part List	7	Adjustment Procedures	23
Microprocessor Connection Diagram	8	Schematic Diagram	24
Microprocessor Terminal Description	9		

SPECIFICATIONS

AMPLIFIER SECTION

STEREO MODE:

Continuous Power

into 8 Ω 75W

into 4 Ω 75W

Dynamic Power:

into 8 Ω 100W

into 4 Ω 170W

(Min. RMS power per channel, 20Hz-20kHz, both channels driven, with no more than rated distortion)

Front L/R and Center Channels

50W into 8 Ω

Rear Channels

15W per channel into 8 Ω , 1kHz: 0.3% THD

THD 20Hz-20kHz

0.08% (Front) (stereo mode)

IM distortion

0.08% (Front) (stereo mode)

Damping factor

60 at 8 Ω (Front)

Input sensitivity and Impedance:

Phono: 2.5mV, 47k ohms

Line: 150mV, 18k ohms

Video: 1Vp-p, 75 ohms

Output level and Impedance

Tape 1,2 Line Out: 150mV, 2.2k ohms

Video 2 Line Out: 150mV, 2.2k ohms

Pre Out: 1V, 2.2k ohms (Subwoofer)

Video: 1Vp-p, 75 ohms (Video 2, Monitor)

Phono Overload 1kHz, 0.5% THD

120mV RMS

Frequency response 5Hz to 50kHz

± 0.8 dB

RIAA Deviation 20Hz-20kHz

± 0.8 dB

Tone control

Bass: ± 8 dB at 100Hz

Treble: ± 8 dB at 10kHz

Signal/Noise ratio

Phono 80dB (IHF A, 5mV input)

CD/Tape: 100dB (IHF A)

Muting:

-40dB

Remote Control

Power, Master Volume Up/Down, Mute, Sleep, Surround Mode, Delay Time, Test Tone, Center Volume Up/Down,

Rear Volume, Up/Down, Input Selector (CD, Phono, Tuner, Tape 1, Tape 2, Video 1, Video 2)

Deck A/B, (Play, Reverse Play, Stop, Record/Pause, Fast Forward, Rewind)

CD: (Play, Pause, Stop, Disc, Skip Forward/Back)

Tuner: (Bank, Preset Up/Down)

Physical Specification

Dimensions in mm (WxHxD)

435 x 145 x 330

Net weight

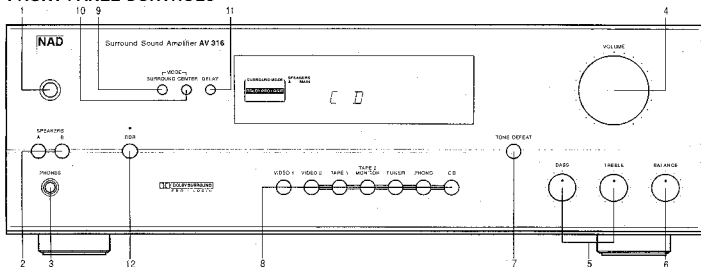
9.6kg

Shipping weight

10.7kg

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

FRONT PANEL CONTROLS



- | | | |
|---------------------|--|-------------|
| 1. POWER | 5. BASS & TREBLE CONTROLS | 9. SURROUND |
| 2. SPEAKERS A B | 6. BALANCE | 10. CENTER |
| 3. HEADPHONE SOCKET | 7. TONE DEFEAT | 11. DELAY |
| 4. VOLUME | 8. VIDEO 1, VIDEO 2, TAPE 1, TAPE 2 MONITOR, TUNER, CD | 12. CDR |

© 1991 NAD ELECTRONICS LTD. AV316

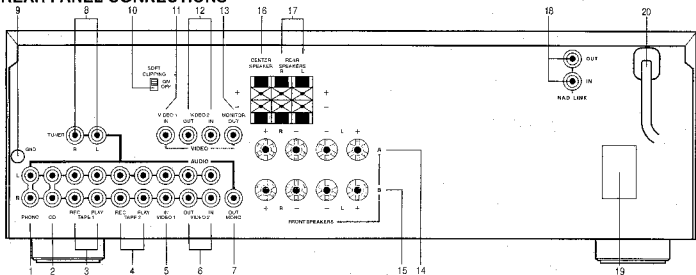


The lightning flash with arrowhead, within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

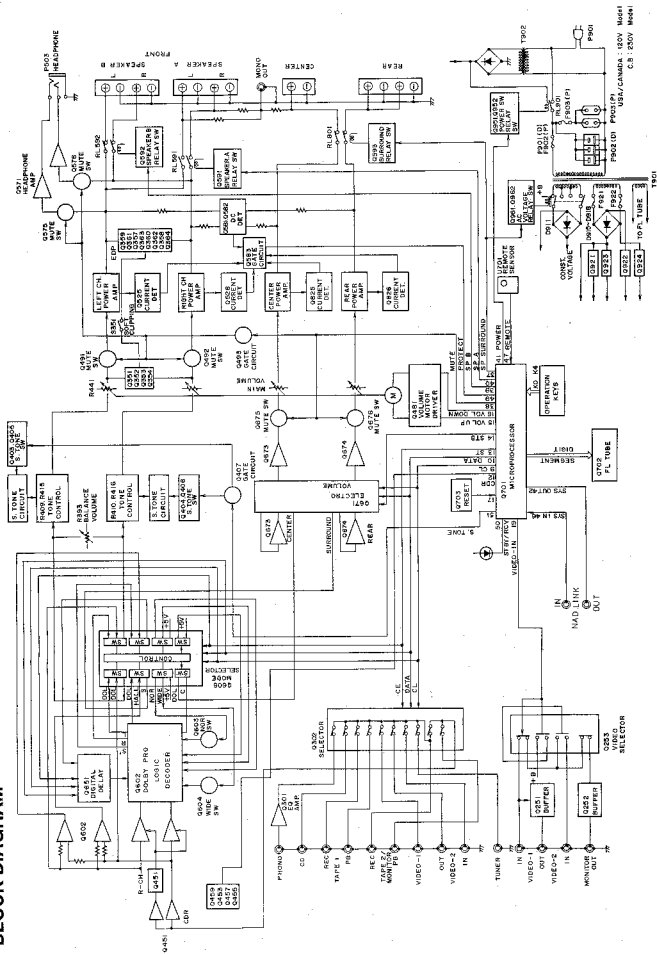
REAR PANEL CONNECTIONS



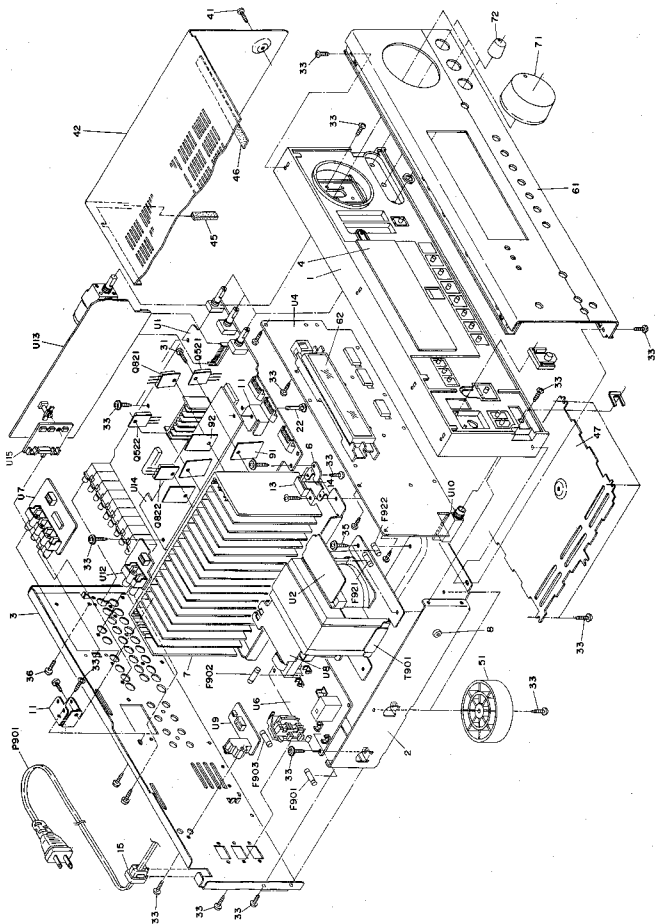
- | | | |
|----------------|--------------------------|--|
| 1. PHONO INPUT | 8. TUNER | 15. FRONT SPEAKERS B |
| 2. CD INPUT | 9. GROUND TERMINAL | 16. CENTER SPEAKER |
| 3. TAPE 1 | 10. SOFT CLIPPING | 17. REAR SPEAKERS |
| 4. TAPE 2 | 11. VIDEO 1 | 18. NAD-LINK IN OUT |
| 5. VIDEO 1 | 12. VIDEO 2 | 19. AC OUTLETS (EUROPEAN AND US VERSIONS ONLY) |
| 6. VIDEO 2 | 13. MONITOR VIDEO OUTPUT | 20. AC POWER CORD CONNECTOR |
| 7. MONO OUT | 14. FRONT SPEAKERS A | |

© 1991 NAD ELECTRONICS LTD. AV316

BLOCK DIAGRAM



EXPLODED VIEW



PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	27110872Y	Front bracket	P504	2560004-4	NANTWA-5*14	U2	1A600597-4Y	NAETC-5397-4, Power secondary supply circuit pe board ass'y <AH>
2	27100298AY	Chassis	P901	253192HIT or 253194MAY	AS-LUC-6*18 or AS-LUC-6*18		1A600597-4AY	NAETC-5397-4A, Power secondary supply circuit pe board ass'y <C>
3	27102096AY	Rear panel <AH>	P2102	253092-1A	AS-CBE-2, Power supply cord <AH>	U4	1A600567-1Y	NADIS-5467-1, Display circuit pe board ass'y <AH>
4	27102097AY	Rear panel <C>	P2103	253198HIT	AS-RS, Power supply cord 	U6	1A600569-1Y	NADIS-5467-1A, Display circuit pe board ass'y <C>
6	27102107AY	Rear panel 	P2104	253197HIT	AS-SAA, Power supply cord 		1A600569-1Y	NAPS-5469-1, Power primary supply circuit pe board ass'y <AH>
7	27100330CY	Bracket H	P901	252106T	3A-UUT-257, Primary fuse <AH>		1A600569-1AY	NAPS-5469-1A, Power primary supply circuit pe board ass'y <C>
8	27100331CY	Radator <AH>	P902	252076	31SA-SE-EAK, Primary fuse <C>		1A600569-1BY	NAPS-5469-1B, Power primary supply circuit pe board ass'y
11	2710623Y	Radator <C>	P903	252075	25A-SE-EAK, Primary fuse <C>	U7	1A600570-1Y	NAETC-5470-1, Video circuit pe board ass'y
12	27141530AY	Retainer H	P921	252156Y	1A-UUT-257, Secondary fuse <AH>	U8	1A600571-1Y	NAETC-5471-1, Primary circuit pe board ass'y
13	27141654Y	Retainer H, H2	P922	252157Y	1A-SE-EAK, Secondary fuse <AH>	U9	1A600572-1Y	NAETC-5472-1, NAP LINK terminal pe board ass'y
14	27100730Y	Retainer	P922	252155Y	1A-UUT-237, Secondary fuse <C>	U10	1A600573-1Y	NAETC-5473-1, Headphone terminal pe board ass'y <AH>
15	27300730	Cord bushing, #2271	Q21, 522	252070Y	1A-SE-EAK, Secondary fuse <C>	U12	1A600575-1Y	NAETC-5475-1, Tuner terminal pe board ass'y <AH>
16	88009	Plastic rivet <C>	Q21, 522	252073 or 252074	25C3300-O or 25C3300-O	U13	1A600575-1AY	NAETC-5475-1A, Tuner terminal pe board ass'y <C>
23	27190524	HGLS-16RF, Holder	Q22, 524	2201483	25C3281-O, Power amplifier transistor	U14	1A600577-1Y	NAAF-5477-1, Center and rear amplifier circuit pe board ass'y <AH>
28	27190062	Holder	Q22, 524	2202813 or 2201473	25A1943-O or 25A1943-O	U15	1A600577-1AY	NAAF-5477-1A, Center and rear amplifier circuit pe board ass'y <C>
31	801-433	3MSRW, SW-14(B)(C), Semi screw	Q821, 822	2201473	25C3192-O, Power amplifier transistor			
33	831-30088	3TTB-83, Self-tapping screw	Q22, 524	2202235 or 2202235	25C3192-O or 25C3192-O			
35	8204-0089	4TTB-8C(B)(C), Self-tapping screw	Q22, 524	2202235 or 2202235	25C467-O or 25C467-O			
41	8343-0088	3TTB-83(B)(C), Self-tapping screw	Q22, 524	2202235 or 2202235	25C3181N-O or 25C3181N-O			
42	28184386ZY	Top cover	Q22, 524	2202235 or 2202235	25C467-Y or 25C467-Y			
44	28143306TY	Cushion, 4x5x50	Q821, 824	2202256	25C467-P, Power amplifier transistor			
45	28143311Y	Cushion, 4x10x20	Q821, 824	2203033 or 2202243	25A1940-O or 25A1940-O			
46	28140546Y	Cushion, 4x3x10x390	Q821, 824	2202243 or 2202243	25A1694-O or 25A1694-O			
47	27170304AY	Bacon board	Q821, 824	2202243 or 2202243	25A1694-N-O or 25A1694-N-O			
51	27175305Y	Leg ass'y	Q821, 824	2202244 or 2202244	25A1694-Y or 25A1694-Y			
61	1A600121Y	Front panel ass'y	R597	2202246	25A1694-P, Power amplifier transistor			
62	18191718Y	Clear plate	T901	230118Y	PT19M04BC22, Posistor			
71	28325155	Knob, volume	T901	230118Y	RFT-1243D, Power transformer <AH>			
72	28325004AY	Knob, tone	T901	230118Y	RFT-1243P, Power transformer <C>			
73	28325141Y	Knob, power	U1	1A600596-4Y	NAAR-5396-4A, Main circuit pe board ass'y <AH>			
91	222021	Isolation sheet, Q821-Q824	U1	1A600596-4Y	NAAR-5396-4A, Main circuit pe board ass'y <C>			
92	260208	Wire tie	U1	1A600596-4Y	NAAR-5396-4A, Main circuit pe board ass'y <C>			
93	223023	Isolation sheet, Q921-Q924	U1	1A600596-4Y	NAAR-5396-4A, Main circuit pe board ass'y <C>			
94	28173221Y	Isolation plate <C>	U1	1A600596-4Y	NAAR-5396-4A, Main circuit pe board ass'y <C>			

NOTE: <AH>: U.S.A., Canadian model only
: U.K. model only
<C>: Australian model only
<C>: European model only

NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

CAUTION: Replacement for transistor of mark "*"*, if necessary, must be made from the same base group (HFT) as the original type.

MICROPROCESSOR TERMINAL DESCRIPTION

Q701: # PD78042AGF-072

Pin No.	Function	I/O	Description
17	TG1G	O	Grid control output pin. On at the high level.
8	VDD		Power supply pin (+5V).
9	CL	O	Clock output pin. Connect to the terminals CK of function switch Q302, surround mode switch Q606, electro volume Q671 and digital delay Q651.
10	DATA	O	Data output pin. Connect to the terminals DATA of function switch Q302, surround mode switch Q606, electro volume Q671 and digital delay Q651.
11	PLL		Not used.
12	CDR	O	Chip enable output pin for Q459.
13	ST	O	Chip enable output pin. Connect to the terminals ST of function switch Q302, surround mode switch Q606, electro volume Q671 and digital delay Q651.
14	STB	O	Chip enable output pin for electro volume Q671.
15	VOLUP	O	Volume control output pin. Volume up
16	VOLDOWN	O	Volume control output pin. Volume down (Refer table 1.)
17	RESET	I	System reset input pin
18	PRESET		Not used.
19	VIDEO IN	O	Video input selector output pin.
20	AVSS		Ground pin of A/D converter
21	MODE 2	I	Initializing input of operation mode
22	AREA	I	Initializing input of area region
23	MODE 1	I	Initializing input of operation mode
24	K4	I	Not used.
25	K3	I	Not used.
26	K2	I	Not used.
27	K1	I	Operation key connection pin
28	K0	I	Operation key connection pin
29	AVDD		Analogous power supply of A/D converter
30	AVREF		Reference voltage input pin of A/D converter
31	XT1		Crystal connection pin for sub system clock resonator
32	XT2		Not used.
33	VSS		Ground pin
34	X1		Resonator connection terminal for main system clock
35	X2		Connect the ceramic resonator 4.19MHz.
36	TUMUT	O	Not used
37	SPCRL	O	Relay control pin for speaker.
38	FRONT MUT	O	Muting output pin for amplifier section
39	SPBRL	O	Relay control pin for speaker.
40	SPARL	O	Relay control pin for speaker
41	PW	O	Power source control output pin
42	SYSOUT	O	System code output pin. (NAD OUT)
43	RDSDATA		Not used
44	RDSCLK		Not used
45	POFF	I	Power stoppage detector input pin
46	SYSIN	I	System code input pin (NAD IN)
47	REMIN	I	Remote control signal input pin
48	IC		Internal connection pin. Connect to the ground terminal.
49	PROTECT	I	Detector input pin of protection circuit. H:On
50	STBY/RCV	O	Stand-by and received indicator output pin
51	STONE/TONEB	O	Tone defeat control output pin.
52	VDD		Power supply pin (+5V)
53	STEREO		Not used
54	SD		Not used
55	RDS SIG		Not used
56	RFIN		Not used
57-70	PVPE	O	Segment output pins. On at the high level.
71	VLOAD	I	Pull-down resistor connection pin of controller and driver of FL.
72-75	PD/PA	O	Segment output pins. On at the high level.
76-80	I2G/8G	O	Grid control output pin. On at the high level.

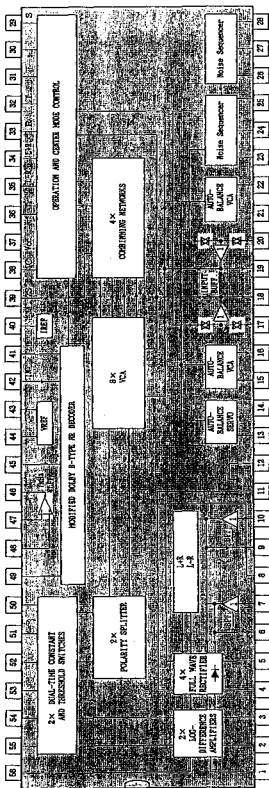
Operation	#15	#16
VOLUME UP	H	L
VOLUME DOWN	L	H
STOP	H	H

Table 1

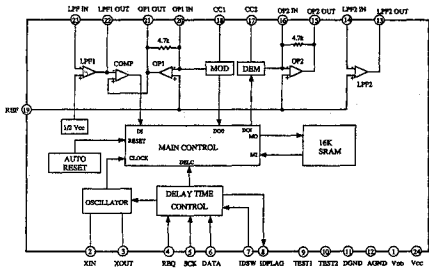
IC BLOCK DIAGRAM AND DESCRIPTIONS

Q602: NJM2177L / M69032P (Dolby Pro Logic)

C-RECT-OUT	1	56	S-RECT-OUT
R-RECT-OUT	2	55	VLR-TC2
L-RECT-OUT	3	54	VLR-TC1
S-RECT-TC	4	53	VCS-TC1
C-RECT-TC	5	52	VCS-TC2
L-BPP-OUT	6	51	VCS-TC3
L-BPP-IN	7	50	VLR-TC3
L-RECT-TC	8	49	NR-TC
R-BPP-OUT	9	48	LPP-NINV-IN LPP non-inversion input
R-BPP-IN	10	47	LPP-INV-IN LPP inversion input
R-RECT-TC	11	46	LPP-OUT LPP output
QND	12	45	NR-WT
AB-GATE	13	44	VREF
AB-HOLD-TC	14	43	VREF
L-AB-IN	15	42	NR-IN NR input
Auto balance L ch input	16	41	NR-VCF
L-AB-OUT	17	40	IREP
Auto balance L ch output	18	39	S'-OUT Surround output before delay processing
L-IN	19	38	C'-OUT Center channel output
Left channel input	20	37	Vcc
L-INBUF-OUT	21	36	CENTER-MODE
R ch input/Buffer output	22	35	L-R-OUT Subsector output (L-R)
R-IN	23	34	L+R-OUT Adder output (L+R)
Right channel input	24	33	R-OUT Right channel output
R-INBUF-OUT	25	32	L-OUT Left channel output
R ch input/Buffer output	26	31	MODE-CNT 20/4 channels switch
L-AB-OUT	27	30	CENTER-CNT Center channel ON/OFF switch
Auto balance R ch output	28	29	S-OUT Surround output
R-AB-IN			
Auto balance R ch input			
NOISE-CNT-E			
Signal/Noise selector			
NOISE-CNT-A			
Noise output selector			
NOISE-CNT-B			
Noise output selector			
NOISE-REF			
NOISE-HPF			
NOISE-LPF			

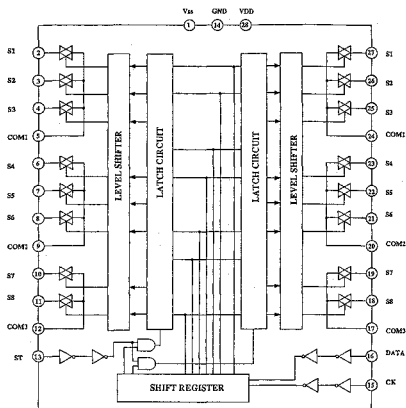


G651: NJU9701D / M65830P (Digital Delay)

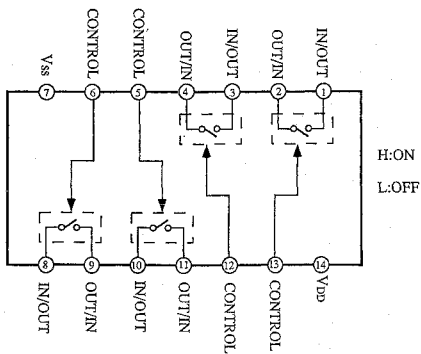


Pin No.	Mark	Function	I/O	Description
1	VDD	Digital power supply	-	
2	XIN	Resonator input	I	Connect the 2MHz ceramic resonator
3	XOUT	Resonator output	O	
4	REQ	Request	I	Data request input
5	SCK	Shift lock	I	Serial data shift clock input
6	DATA	Data	I	Serial data input
7	IDSW	ID switch	I	External input of 4th bit of ID code
8	IDFLAG	ID flag	O	Data input confirmation pulse and serial data output
9	TEST1	Test 1	-	Normal mode when low level
10	TEST2	Test 2	-	Normal mode when low level
11	D.GND	Digital ground	-	
12	A.GND	Analog ground	-	
13	LFP2 OUT	LFP filter 2 output	O	
14	LFP2 IN	LFP filter 2 input	I	
15	OP2 OUT	Operation amp. 2 output	O	
16	OP2 IN	Operation amp. 2 input	I	
17	CC2	Current control 2	-	Demodulation ADM control
18	CC1	Current control 1	-	Modulation ADM control
19	REF	Reference	-	Analog reference voltage=1/2VCC
20	OP1 IN	Operation amp. 1 input	I	
21	OP1 OUT	Operation amp. 1 output	O	
22	LFP1 OUT	LFP filter 1 output	O	
23	LFP1 IN	LFP filter 1 input	I	
24	VCC	Analog power supply	-	

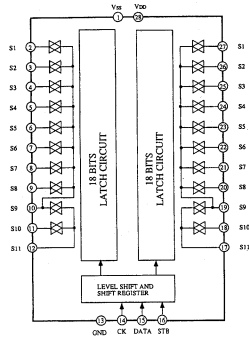
Q606: TC9162N / NJU7311L (Function Switch)



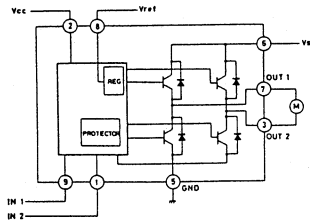
Q253: 4066B (Analog Switch)



Q302: TC9273N-010 (Function Switch)



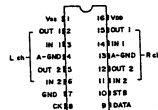
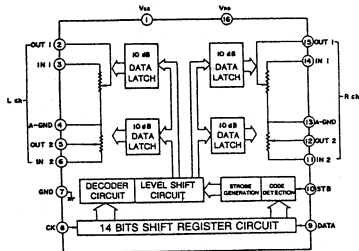
Q481: TA7291S (Volume driver)



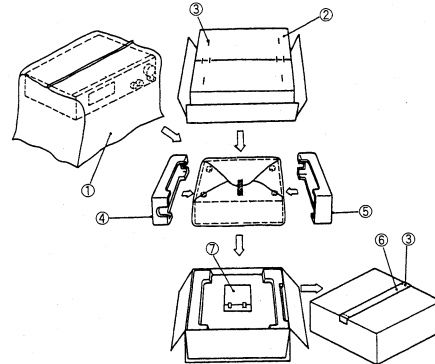
INPUT		OUTPUT		MODE
IN 1	IN 2	OUT 1	OUT 2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW: Counter clockwise direction
 CW: Clockwise direction

Q671: TC9213P (Electro Volume)



PACKING VIEW

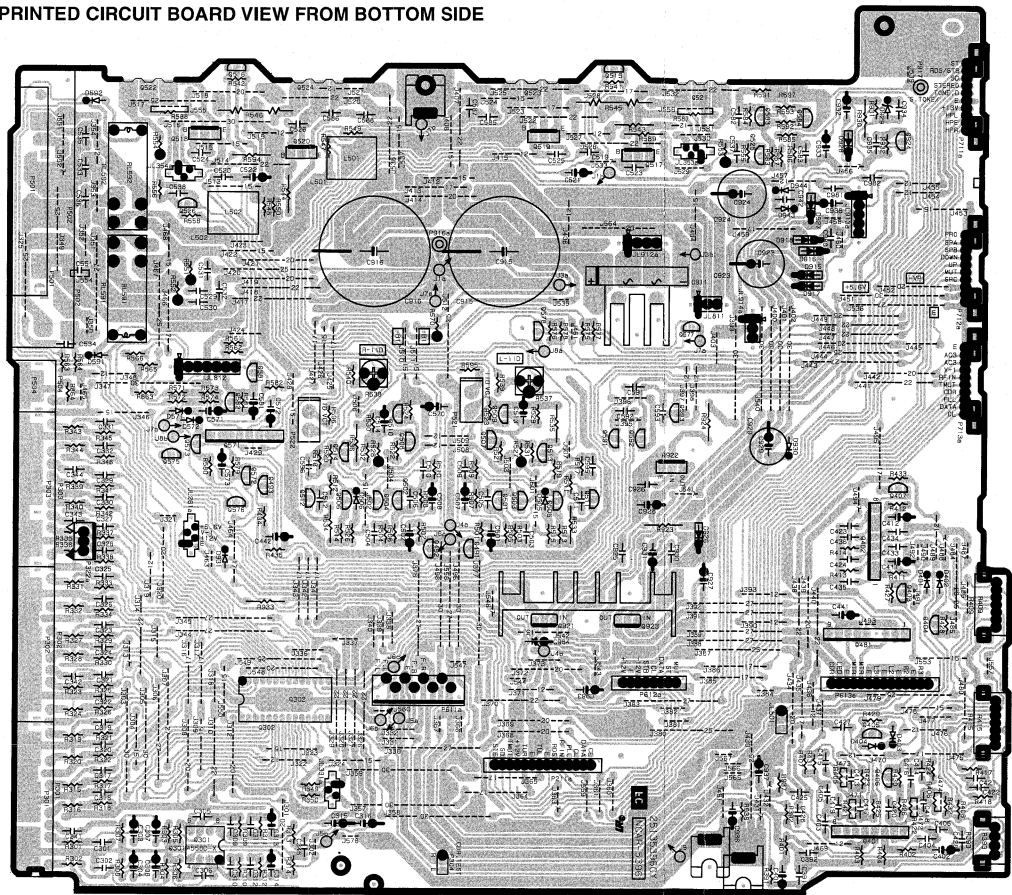


PACKING PARTS LIST

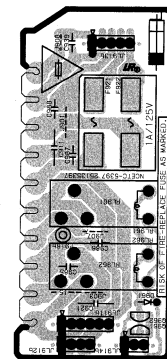
REF.NO.	PART NO.	DESCRIPTION
1	29100034-1Y	Styren bag, 850x650
2	29052900AY	Carton Box
3	282321 or 282301	Staple
4	29091694Y	Pad, L
5	29091695Y	Pad, R
6	29110071 or 29110098	PP tape, W=50
7	Accessory bag ass'y	
	29100097-1Y	Styren bag, 350x250
	24140300Y	RC-300S, Remote control transmitter
	3010194	UM-3, Two batteries
	29342165Y	Instruction manual, U6
	2010317Y	Remote control cable, NAD LINK
	29355233Y	Instruction sheet <AH>
	29365043Y	Warranty card <B1>
	29360778Y	Label, Flash <AH>
	29361573Y	Label, PE-LD <C>
	29361759Y	Label, UL/CL-UL <AH>
	29361573Y	Label, PE-LD <C>

NOTE: <AH>: U.S.A., Canadian model only
 : U.K. model only
 <B1>: Australian model only
 <C>: European model only

PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



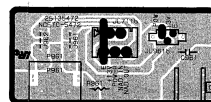
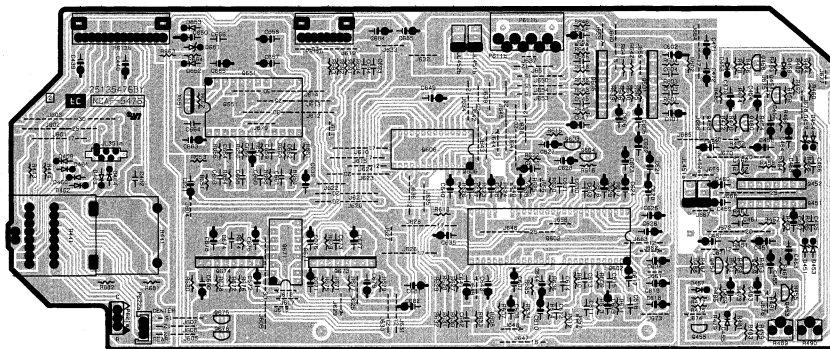
MAIN CIRCUIT PC BOARD (NAAR-5396)



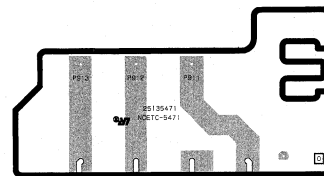
POWER SECONDARY SUPPLY CIRCUIT
PC BOARD (NAETC-5397)

PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

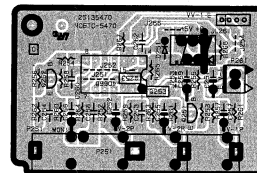
SURROUND CIRCUIT PC BOARD (NAAF-5476)



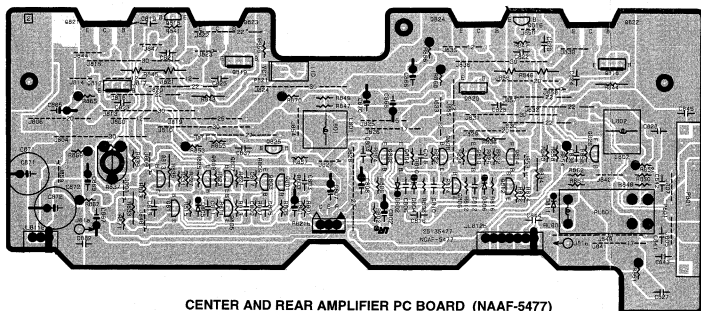
NADLINK TERMINAL PC BOARD
(NAETC-5472)



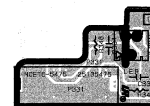
PRIMARY CIRCUIT PC BOARD
(NAETC-5471)



VIDEO CIRCUIT PC BOARD
(NAETC-5470)



CENTER AND REAR AMPLIFIER PC BOARD (NAAF-5477)

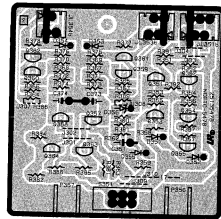
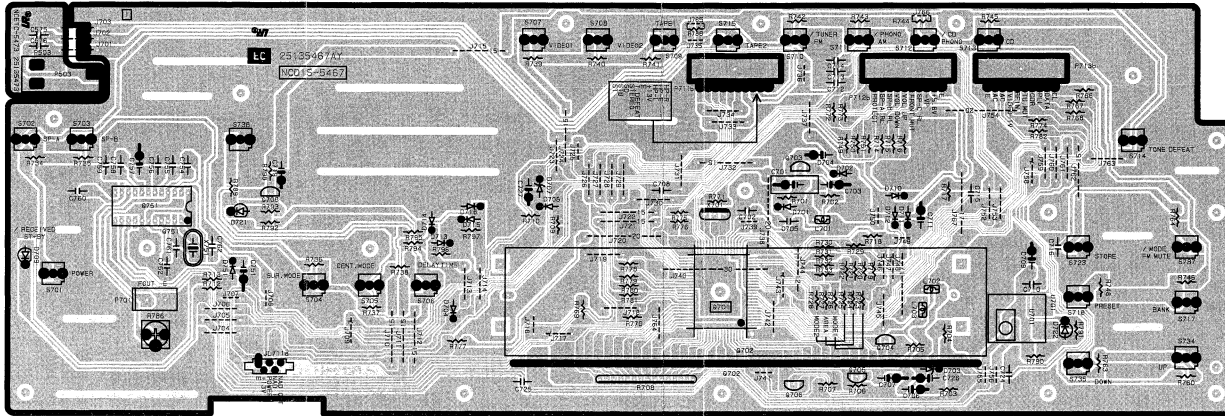


TUNER TERMINAL CIRCUIT PC BOARD
(NAETC-5475)

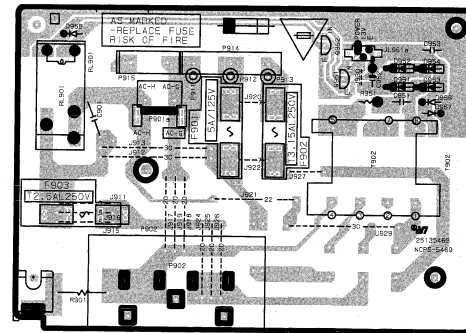
PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

HEADPHONE TERMINAL PC BOARD
(NAETC-5473)

DISPLAY CIRCUIT PC BOARD (NADIS-5467)

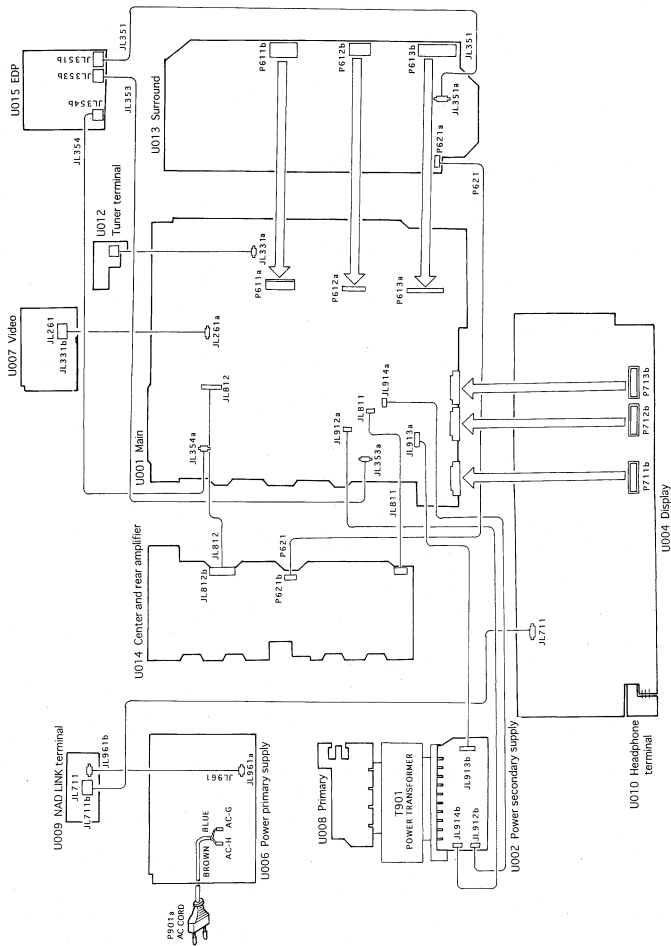


EDP CIRCUIT PC BOARD (NAETC-5478)



POWER PRIMARY SUPPLY CIRCUIT PC BOARD
(NAPS-5469)

WIRING DIAGRAM



PRINTED CIRCUIT BOARD-PARTS LIST

MAIN CIRCUIT PC BOARD (NAAR-5396-4/4A)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q301	222502	NJM4558D-X
Q302	22240881	TC9273N-010
Q401, Q402	22240247 or 22240293	BA15218N or NJM4558L-D
Q481	22240239	TA7291S
Q571	22240752	NJM4556L
Q921	22278012SNEC	MPC78M12AHF
Q922	22279012S	79M12HF
Q923	22278056JRC	NJM78M56FA
	Transistors	
Q403-Q406	2211945	2SK246-GR
Q407	2213510	DTA114ES
Q491, Q492	2213631 or 2213632	RN1241-A or RN1241-B
Q493	2213510	DTA114ES
Q501-Q504	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q505, Q506	2213354	2SA933S-R
Q507, Q508	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q509, Q510	2213284	2SC1740S-R
Q511, Q512	2211353 or 2211354	2SA949-O or 2SA949-Y
Q513, Q514	2211633 or 2211634	2SC2229-O or 2SC2229-Y
Q515, Q516	2213284	2SC1740S-R
Q517, Q518	2203010 or 2202034	2SC5171 or 2SD1763A-D
Q519, Q520	2203000 or 2202024	2SA1930 or 2SB1186A-D
Q525, Q526	2211633 or 2211634	2SC2229-O or 2SC2229-Y
Q572	221282	DTC144ES
Q573	2211164	2SC2120-Y
Q575-Q576	2213631 or 2213632	RN1241-A or RN1241-B
Q581, Q582	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q583	2211792 or 2211793	2SA992-F or 2SA992-E
Q584	2213284	2SC1740S-R
Q924	2211455	2SA1015-GR
Q591-Q593	2213640	DTC1231S
	Diodes	
D401-Q404	223163	1SS133
D505, D506	223163	1SS133
D571, D572	223163	1SS133
D591, D592	223163	1SS133
D911	2238003R	RBV602
D915-D918	22380032	1SR139-100
D926-D928	22380032	1SR139-100
D929	224473304	MTZ133D
D930, D931	223163	1SS133
	Coils	
L501, L502	231176S	S-13C
	Capacitors	
C303, C304	354741009	10 μ F, 16V, Elect.
C307, C308	354721019	100 μ F, 6.3V, Elect.
C309, C310	374726224	6200pF, \pm 5%, 50V, Plastic
C311, C312	374721824	1800pF, \pm 5%, 50V, Plastic
C313-C316	354741009	10 μ F, 16V, Elect.
C391, C392	374721015	100pF, \pm 10%, 50V, Plastic
C401, C402	354741009	10 μ F, 16V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
C411, C412	354741009	10 μ F, 16V, Elect.
C427, C428	374721534	0.015 μ F, \pm 5%, 50V, Plastic
C433, C434	374721534	0.015 μ F, \pm 5%, 50V, Plastic
C435, C436	374721015	100pF, \pm 10%, 50V, Plastic
C441	354721019	100 μ F, 6.3V, Elect.
C442	354780109	1 μ F, 50V, Elect.
C501, C502	354741009	10 μ F, 16V, Elect.
C503, C504	374721015	100pF, \pm 10%, 50V, Plastic
C507, C508	354724719	470 μ F, 6.3V, Elect.
C513, C514	354722219	220 μ F, 6.3V, Elect.
C521, C522	354772209	22 μ F, 6.3V, Elect.
C529-C532	374721044	0.01 μ F, \pm 5%, 50V, Plastic
C570	354791019	100 μ F, 100V, Elect.
C571-C573	354741009 or 355741009	10 μ F, 16V, Elect. 10 μ F, 16V, Elect.
C581	354721019	100 μ F, 6.3V, Elect.
C915, C916	3504286	12000 μ F, 6.3V, Elect.
C923	354761029	1000 μ F, 35V, Elect.
C924	354763319	330 μ F, 35V, Elect.
C927, C928	354741009	10 μ F, 16V, Elect.
C931	354741009	10 μ F, 16V, Elect.
C932, C933	354781019	100 μ F, 50V, Elect.
C936, C937	354741009	10 μ F, 16V, Elect.
C938	354781009	10 μ F, 50V, Elect.
C983, C984	354741009	10 μ F, 16V, Elect.
	Resistors	
R393	5104288	N11RLC250KWT20Z, Balance
R409, R415	5104356	N14RLC100KWT20Z, Tone
R527, R528	443524734	47 kohm \pm 5%, 1/2W, Metal oxide
R535, R536	4500095	100 ohm \pm 5%, 1/4W, Metal
R537, R538	5210259	N06HR 2KBC, Trim
R543, R544	4500107	330 ohm \pm 5%, 1/4W, Metal
R545, R546	4000132	RCG55 0.22 OHMK, Metal plate
R551, R552	453630824	8.2 ohm \pm 5%, 1W, Metal
R553, R554	443523924	3.9 kohm \pm 5%, 1/2W, Metal
R570	443522204	22 ohm \pm 5%, 1/2W, Metal oxide
R587, R588	4500001	BPR2FK 0.10 ohm, Metal plate
R923	4500055	2.2 ohm \pm 5%, 1/4W, Metal
R924	4500069	8.2 ohm \pm 5%, 1/4W, Metal
R930	4500079	22 ohm \pm 5%, 1/4W, Metal
R933	4500087	47 ohm \pm 5%, 1/4W, Metal
	Relays	
RL591, RL592	25065339	NRL-2PSA-DC24-046
	Pin Jacks	
P301-P303	25045458Y or 25045300Y	NPJ-6PDBL279 or NPJ-6PDBL159
P504	25045459Y or 25045302	NPJ-1PDBL280 or NPJ-1PDBL161
	Plugs	
P304	25055405	NPLG-3P387
P611a	25055678	NPLG-8P634
P612a	25055649	NPLG-8P605
P613a	25055652	NPLG-14P608
	Sockets	
P711a-P713a	25051046	NSCT-10P833
	Wire holders	
JL261a	25051088	NSCT-4P875
JL331a	25051087	NSCT-3P874
JL353a	25051088	NSCT-4P875
JL354a	25051087	NSCT-3P874
JL811a	25051107	NSCT-3P894
JL812a	25051111	NSCT-7P898
JL912a	25051108	NSCT-4P895

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
JL913a	25051109	NSCT-5P896			
JL914a	25051107	NSCT-3P894	L701-L703	233454K220	NCH-1452 220K
	Terminals			Ceramic lock	
P501	25060125 or 25060125	NTM-8PDMN058 or NTM-8PDMN058	X701	3010163	CST4.19MGW
P521,P522	25060062	2P-5, WW terminal		Capacitors	
	Crimp ass'y		C701	3000075	0.047F, 5.5V, Super
P916	2069915360ULY		C702	375524744	0.47 μ F \pm 5%, 50V, Plastic
	Radiators		C703	354721019	100 μ F, 6.3V, Elect.
D911a	27160227	RAD-076	C704	355780109	1 μ F, 50V, Elect.
Q921a	27160209	RAD-67	C706	355780109	1 μ F, 50V, Elect.
	838430107	3TTB+10S(BC), Self-tapping screw	C707	355780109	1 μ F, 50V, Elect.
	27141059Y	Plate, GND	C709	355721019	100 μ F, 6.3V, Elect.
			C711	355721019	100 μ F, 6.3V, Elect.
			C726,C727	355741009	10 μ F, 16V, Elect.
POWER SECONDARY SUPPLY CIRCUIT PC BOARD (NAETC-5397-4/4A)				Switches	
CIRCUIT NO.	PAR NO.	DESCRIPTION	S701-S706	25035652	NPS-111-S604
	Transistors		S708-S712	25035652	NPS-111-S604
Q961	221282	DTC144ES	S714,S716	25035652	NPS-111-S604
Q962	2213640	DTC123JS	S738	25035652	NPS-111-S604
	Diode			Plugs	
D961	223163	ISS133	P711b-P713b	25055659	NPLG-10P615
	Capacitors		JL711a	25051089	NSCT-5P876
C987,C988	374731044	0.1 μ F, 100V, Plastic		Holder	
	Relays		Q702a	27190937AY	FL
RL961,RL962	25065503	NRL-1P10A-DC24-091	POWER PRIMARY SUPPLY PC BOARD (NAPS-5469-1/1A)		
	Fuse holders		CIRCUIT NO.	PART NO.	DESCRIPTION
F921a,F922a	25050065	YSH403T		Transistors	
	Wire holders		Q951	221282	DTC144ES
JL912b	25051107	NSCT-4P895	Q952	2213650	DTD113ZS
JL913b	25051109	NSCT-5P896		Diodes	
JL914b	25051107	NSCT-3P894	D951-D954	22380032	1SR139-100
A961	29360398	LABEL(FUSE) <C>	D955	223163	ISS133
	DISPLAY CIRCUIT PC BOARD (NADIS-5467-1/1A)			Transformers	
CIRCUIT NO.	PART NO.	DESCRIPTION	T902	2300670A	NPT-1111D <AH>
	Remote sensor		T902	2300671AY	NPT-1111P <C>
U701	24130010	HC-312		Capacitor	
	FL tube		C901	3500191	DE7150F-103M AC400V/125V
Q702	212143	FIP13QM8	C952	354742219	220 μ F, 16V, Elect.
	ICs		R951	453530824	8.2 ohm, 1/2W, Metal
Q701	22240950	MPD78042AGF-072		Plug	
	Transistors		P901a	25055675	NPLG-2P631 <AH>
Q703	221282	DTC144ES		Socket	
Q704-Q706	2213284	2SC1740S-R	P902	25051124	NSCT-6P911 <AH>
Q708	221282	DTC144ES	P902	25051125	NSCT-4P912 <C>
	Diodes			Relay	
D701,Q702	223163	ISS133	RL901	25065483	NRL-1P5A DC12-084
D703	224470913	MTZJ9.1C		Fuse holders	
D704	223163	ISS133	F901a	25050065	YSH403T <AH>
D707	224470562	MTZJ5.6B	F902a,F903a	25050065	YSH403T <C>
D708	223163	ISS133	F902a	25050065	YSH403T
D709	225292D	SEL4310G-D			
D710-D716	223163	ISS133			
D721	225291D	SEL4910D-D			

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
JL961a	Wire holder 25051087	NSCT-3P874	Q606	22340795 or 22340398	NIJ7311L or TC9162N
	Cover 27301216	SB-1925A, Capacitor <C>	Q651	22240687 or 22240686	NIJ9701D or M65830P
	Terminal 25060092	NTM-1S33 <C>	Q671 Q673,Q674	22240266 22240247 or 22240293	TC9213P BA15218N or NJM4558L-D
VIDEO CIRCUIT PC BOARD (NAETC-5470-1)			Transistors		
CIRCUIT NO.	PART NO.	DESCRIPTION	Q453,Q454	2212524	2SK363-GR
			Q455,Q456	2213284	2SC1740S-R
			Q457,Q458	2213354	2SA933S-R
			Q459,Q460	2213631	RN1241-A
			Q603,Q604	2213631	RN1241-A
			Q675,Q676	2213631	RN1241-A
Q251,Q252	2213284 or 2212115	2SC1740S-R or 2SC2458-GR			
Q253	222840661	4066B			
D251	223163	1SS133	D451-D454	224470332	MTZJ3.3B
			D455-D464	223163	1SS133
			D651	224470562	MTZJ5.6B
			D652,Q653	223163	1SS133
C251,C252	354721019	100 μ F, 6.3V, Elect.	X651	Resonator 3010217	CS72.04MG040, Ceramic
C255,C256	354724719	470 μ F, 6.3V, Elect.			
C257,C259	354721019	100 μ F, 6.3V, Elect.			
P251	25045339Y	NPI-4PDYIE190	C432,C440	354741009	10 μ F, 16V, Elect.
			C451,C452	354744709	47 μ F, 16V, Elect.
			C453-C458	354741019	100 μ F, 16V, Elect.
			C459,C460	354741009	10 μ F, 16V, Elect.
JL261	25055625	NPLG-4P587	C461,C462	374721015	100pF, \pm 10%, 50V, Plastic
			C463,C464	354741019	100 μ F, 16V, Elect.
			C465,C466	374721015	100pF, \pm 10%, 50V, Plastic
NAD LINK TERMINAL PC BOARD (NAETC-5472-1)			C467,C468	354741009	10 μ F, 16V, Elect.
CIRCUIT NO.	PART NO.	DESCRIPTION	C469,C470	354780479	4.7 μ F, 50V, Elect.
			C471,C472	354741009	10 μ F, 16V, Elect.
P961	25045395	NPI-2PDYIE221	C601,C602	354780229	2.2 μ F, 50V, Elect.
			C605,C606	354741009	10 μ F, 16V, Elect.
			C607-C610	354781099	0.1 μ F, 50V, Elect.
JL711b	25055626	NPLG-5P588	C613,C614	374724734	0.047 μ F, \pm 5%, 50V, Plastic
			C615,C616	374722234	0.022 μ F, \pm 5%, 50V, Plastic
			C617-C620	354781099	0.1 μ F, 50V, Elect.
JL961b	25051087	NSCT-3P874	C621,C622	354780479	4.7 μ F, 50V, Elect.
			C623-C627	354782299	0.22 μ F, 50V, Elect.
HEADPHONE TERMINAL PC BOARD (NAETC-5473-1)			C628	354741009	10 μ F, 16V, Elect.
CIRCUIT NO.	PART NO.	DESCRIPTION	C629	354786899	0.68 μ F, 50V, Elect.
			C630	374724734	0.047 μ F, \pm 5%, 50V, Plastic
			C631	374725624	5600pF, \pm 5%, 50V, Plastic
P503	25045255	YKB21-5009	C632,C634	354780229	2.2 μ F, 50V, Elect.
			C635	354741019	100 μ F, 16V, Elect.
TUNER TERMINAL PC BOARD (NAETC-5475-1/1A)			C636-C641	354741009	10 μ F, 16V, Elect.
CIRCUIT NO.	PART NO.	DESCRIPTION	C642	374724724	4700pF, \pm 5%, 50V, Plastic
			C643	354741009	10 μ F, 16V, Elect.
			C644	391141007	10 μ F, 16V, Elect.
P331	25045463 or 25045360	NPI-2PDWH284 or NPI-2PDWH206	C647-C650	354741009	10 μ F, 16V, Elect.
			C651	354780229	2.2 μ F, 50V, Elect.
			C653	374723924	3900pF, \pm 5%, 50V, Plastic
			C655	374726834	0.068 μ F, \pm 5%, 50V, Plastic
JL331b	25055624	NPLG-3P586	C656	354744709	47 μ F, 16V, Elect.
			C657,C658	354781099	0.1 μ F, 50V, Elect.
SURROUND CIRCUIT PC BOARD (NAAF-5476-1)			C659	374726834	0.068 μ F, \pm 5%, 50V, Plastic
CIRCUIT NO.	PART NO.	DESCRIPTION	C660	374725624	5600pF, \pm 5%, 50V, Plastic
			C661	374724724	4700pF, \pm 5%, 50V, Plastic
			C663,C665	354721019	100 μ F, 6.3V, Elect.
Q451,Q452	22240250	NJM2068L-D	C666	375524744	0.47 μ F, \pm 5%, 50V, Plastic
Q601	22240247 or 22240293	BA15218N or NJM4558L-D	C671,C672	354780229	2.2 μ F, 50V, Elect.
Q602	22240683 or 22240692	NJM2177L or M69032P	C675,C676	354741009	10 μ F, 16V, Elect.
Q605	22240247 or 22240293	BA15218N or NJM4558L-D	C677,C678	354780229	2.2 μ F, 50V, Elect.
			C679-C682	354741009	10 μ F, 16V, Elect.
			C684,C685	354741009	10 μ F, 16V, Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors	
R441	5104347	N16RQL100KB725F
R489,R490	5210292	N06HR 10KBE, Trim

	Sockets	
P611b	25051127	NSCT-8P914
P612b	25050983Y	NSCT-8P770
P613b	25050986Y	NSCT-14P773

P621a	Socket ass'y 2000802AUL	NSAS-6P758
-------	----------------------------	------------

P622a	Plug 25055405	NPLG-3P387
-------	------------------	------------

JL351a	Wire holder 25051089	NSCT-5P876
--------	-------------------------	------------

CENTER AND REAR AMPLIFIER CIRCUIT PC BOARD
(NAAF-5477-1/1A)

CIRCUIT NO. PART NO. DESCRIPTION

	Transistors	
Q801-Q804	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q805,Q806	2213354	2SA933S-R
Q807,Q808	2211733 or 2211732	2SC1845-E or 2SC1845-F
Q809,Q810	2213284	2SC1740S-R
Q811,Q812	2211353	2SA949-O
Q813,Q814	2211633	2SC2229-O
Q815,Q816	2213284	2SC1740S-R
Q817,Q818	2203010	2SC5171
Q819,Q820	2203000	2SA1930
Q825,Q826	2211733 or 2211732	2SC1845-E or 2SC1845-F

	Diodes	
D805,D806	223163	1SS133
D811	223163	1SS133

	Coils	
L801,L802	2311765	S-1.3C

	Capacitors	
C801,C802	354741009	10 μ F, 16V, Elect.
C807	354742219	220 μ F, 16V, Elect.
C808	354744709	47 μ F, 16V, Elect.
C821,C822	374724734	0.047 μ F, $\pm 5\%$, 50V, Plastic
C827,C828	374724734	0.047 μ F, $\pm 5\%$, 50V, Plastic
C865-C870	354700109	1 μ F, 160V, Elect.
C871,C872	354774709	47 μ F, 63V, Elect.

	Resistors	
R826	443524734	47 k ohm, 1/2W, Metal oxide
R833,R834	4500081	27 ohm, 1/4W, Metal
R835,R836	4500095	100 ohm, 1/4W, Metal
R837	5215043	2KBC
R843,R844	4500107	330 ohm, 1/4W, Metal
R845	4000132	0.22 OHMK, Metal plate
R846	4000131	0.22 OHMK, Metal plate
R851,R852	453630824	8.2 ohm, 1W, Metal
R853,R854	443523924	3.9 kohm, 1/2W, Metal oxide
R865,R866	453530224	2.2 ohm, 1/2W, Metal
R867-R870	443522204	22 ohm, 1/2W, Metal oxide

P621b	Plug 25055234	NPLG-3P218
-------	------------------	------------

RL801	Relay 25065485	NRL-2P2A-DC24-086
-------	-------------------	-------------------

CIRCUIT NO.	PART NO.	DESCRIPTION
	Wire trap	
JL811b	25050280	NSCT-3P108
JL812b	25050284	NSCT-7P112

	Terminal	
P801	250600234	NTM-6PDM1.56
P821	250600062	2P-5

EDP CRUCUIT PC BOARD (NAETC-5478-1)
CIRCUIT NO. PART NO. DESCRIPTION

	Transistors	
Q351	2213284	2SC1740S-R
Q352	2213354	2SA933S-R
Q353	2213284	2SC1740S-R
Q354,Q355	2213354	2SA933S-R
Q357,Q358	2213284	2SC1740S-R
Q359-Q362	2213354	2SA933S-R
Q363,Q364	2213284	2SC1740S-R

	Diodes	
D351-D355	223163	1SS133
D356	224470512	MT2J5.1B

	Capacitors	
C351	354741009	10 μ F, 16V, Elect.
C373,C374	354741019	100 μ F, 16V, Elect.

	Slide switch	
S351	25065286Y	NSS-22112

	Screw trim	
P356,P357	25065425	M3

	Wire trap	
JL351b	25055626	NPLG-5P588
JL353b	25055625	NPLG-4P587
JL354b	25055624	NPLG-3P586

CAUTION: Replacement for transistor of mark "*", if necessary,
must be made from the same beta group (HFE) as
the original type.

**NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.**

ADJUSTMENT PROCEDURES

Preparation

1. Outputs

Connect the non-inductive type resistors of 8 ohms to the speaker terminals A unless otherwise noted.

2. Standard Knob Positions

Master Volume Control	Maximum
Bass Control	Center
Treble Control	Center
Balance Control	Center
Input Selector.....	CD
Tape 2 Monitor	Off
Muting	Off
Tone Defeat.....	Off
Speaker A.....	On
Speaker B.....	Off
Center Mode.....	Wide Band
Delay Time.....	20 ms
Center Level	0 dB
Rear Level	0 dB
Surround Mode	Off
CDR	Off
Soft Clipping	Off

IDLING CURRENT ADJUSTMENT

1. Connect the DC voltmeter to the terminals P521, P522 (VCT and IID) on the main circuit pc board, and P821 on the center and rear amp. pc board.

2. Adjust the trim resistors R537, R538 and R837 so that the indicator of voltmeter becomes $3.25\text{mV} \pm 0.25\text{mV}$.

NOTE: Adjust after switching on for 5 minutes. Set Volume knob to the minimum position.

CDR ADJUSTMENT

1. Set the volume to minimum position.

2. Connect the Dual Channel Voltmeter to test point (P304) on main pc board.

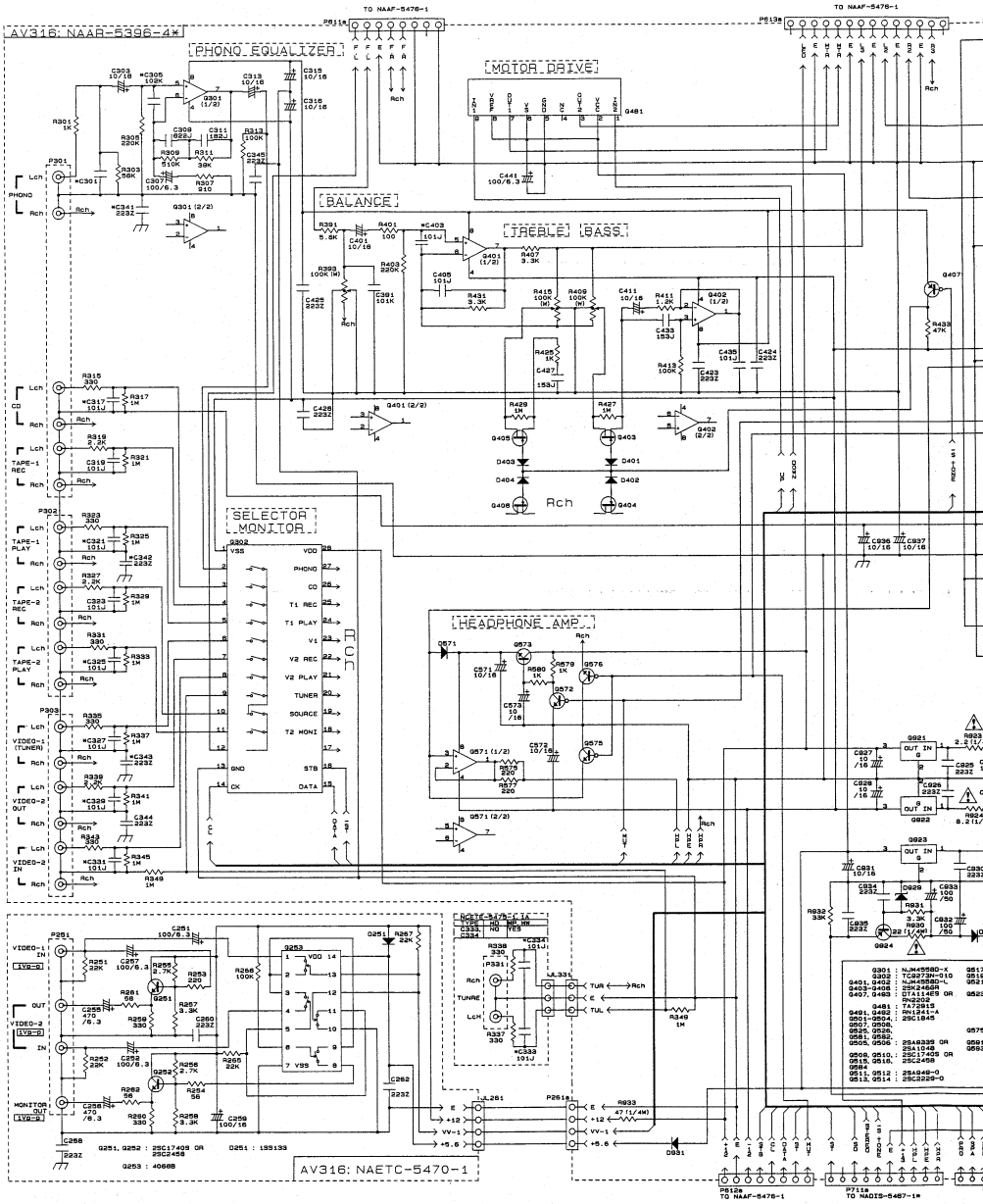
3. Set the function to "CD" position. Input the signal (1kHz-15dBV).

4. Turn "CDR" on, adjust the output level at "L ch" with "R489 on surround pc board" until it reaches "-11dBV".

5. Adjust the output level (both channel) with "R490" to "-11dBV \pm 1.0dBV" on test point (P304) slowly & Precisely.

(The difference between "L ch" and "R ch" should be "0 \pm 0.5dB".)

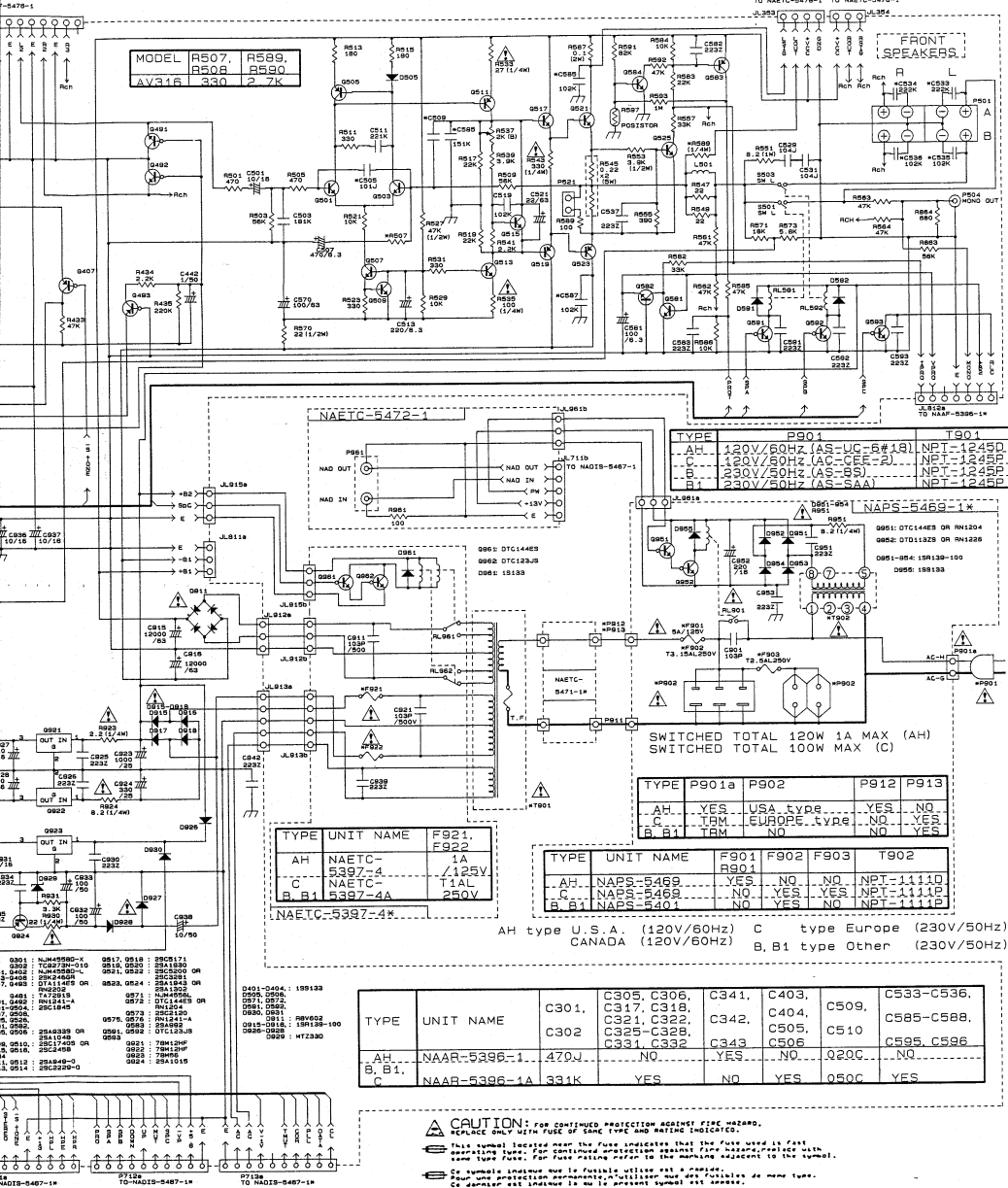
SCHEMATIC DIAGRAM



0301	NH45950-X	0517	0517
0401	0402	NH45950-D10	0518
0403	0404	0520C874	0521
0407	0408	DT1145R OR	0522
0501	0502	0523	
0503	0504	0524	
0505	0506	0525	
0508	0510	0526	
0511	0512	0527	
0513	0514	0528	
0515	0516	0529	
0518	0519	0530	
0521	0522	0531	
0523	0524	0532	
0525	0526	0533	
0527	0528	0534	
0529	0530	0535	
0531	0532	0536	
0533	0534	0537	
0535	0536	0538	
0537	0538	0539	
0539	0540	0541	
0541	0542	0543	
0543	0544	0545	
0545	0546	0547	
0547	0548	0549	
0549	0550	0551	
0551	0552	0553	
0553	0554	0555	
0555	0556	0557	
0557	0558	0559	
0559	0560	0561	
0561	0562	0563	
0563	0564	0565	
0565	0566	0567	
0567	0568	0569	
0569	0570	0571	
0571	0572	0573	
0573	0574	0575	
0575	0576	0577	
0577	0578	0579	
0579	0580	0581	
0581	0582	0583	
0583	0584	0585	
0585	0586	0587	
0587	0588	0589	
0589	0590	0591	
0591	0592	0593	
0593	0594	0595	
0595	0596	0597	
0597	0598	0599	
0599	0600	0601	
0601	0602	0603	
0603	0604	0605	
0605	0606	0607	
0607	0608	0609	
0609	0610	0611	
0611	0612	0613	
0613	0614	0615	
0615	0616	0617	
0617	0618	0619	
0619	0620	0621	
0621	0622	0623	
0623	0624	0625	
0625	0626	0627	
0627	0628	0629	
0629	0630	0631	
0631	0632	0633	
0633	0634	0635	
0635	0636	0637	
0637	0638	0639	
0639	0640	0641	
0641	0642	0643	
0643	0644	0645	
0645	0646	0647	
0647	0648	0649	
0649	0650	0651	
0651	0652	0653	
0653	0654	0655	
0655	0656	0657	
0657	0658	0659	
0659	0660	0661	
0661	0662	0663	
0663	0664	0665	
0665	0666	0667	
0667	0668	0669	
0669	0670	0671	
0671	0672	0673	
0673	0674	0675	
0675	0676	0677	
0677	0678	0679	
0679	0680	0681	
0681	0682	0683	
0683	0684	0685	
0685	0686	0687	
0687	0688	0689	
0689	0690	0691	
0691	0692	0693	
0693	0694	0695	
0695	0696	0697	
0697	0698	0699	
0699	0700	0701	
0701	0702	0703	
0703	0704	0705	
0705	0706	0707	
0707	0708	0709	
0709	0710	0711	
0711	0712	0713	
0713	0714	0715	
0715	0716	0717	
0717	0718	0719	
0719	0720	0721	
0721	0722	0723	
0723	0724	0725	
0725	0726	0727	
0727	0728	0729	
0729	0730	0731	
0731	0732	0733	
0733	0734	0735	
0735	0736	0737	
0737	0738	0739	
0739	0740	0741	
0741	0742	0743	
0743	0744	0745	
0745	0746	0747	
0747	0748	0749	
0749	0750	0751	
0751	0752	0753	
0753	0754	0755	
0755	0756	0757	
0757	0758	0759	
0759	0760	0761	
0761	0762	0763	
0763	0764	0765	
0765	0766	0767	
0767	0768	0769	
0769	0770	0771	
0771	0772	0773	
0773	0774	0775	
0775	0776	0777	
0777	0778	0779	
0779	0780	0781	
0781	0782	0783	
0783	0784	0785	
0785	0786	0787	
0787	0788	0789	
0789	0790	0791	
0791	0792	0793	
0793	0794	0795	
0795	0796	0797	
0797	0798	0799	
0799	0800	0801	

AV316: NAETC-5470-1

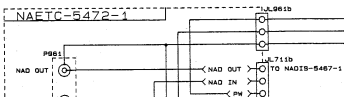
TO NAEP-5476-1 TO NAEP-5476-1 TO NAEP-5476-1 TO NAEP-5476-1



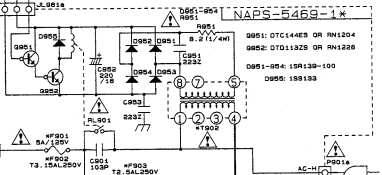
MODEL R507, R589, R590, R591
AV31A 330 2 7K

TO NAETC-5478-1 TO NAETC-5478-1

FRONT SPEAKERS



TYPE	P901	T901
AH	120V/60HZ (AS-UC-6#18)	NPT-1245D
C	120V/60HZ (AC-CEE-2)	NPT-1245P
B	230V/50HZ (AS-S5)	NPT-1245B
B	230V/50HZ (AS-SAA)	NPT-1245P



SWITCHED TOTAL 120W 1A MAX (AH)
SWITCHED TOTAL 100W MAX (C)

TYPE	P901a	P902	P912	P913
AH	YES	USA type	YES	NO
C	TRM	EUROPE type	NO	YES
B, B1	TRM	NO	NO	YES

TYPE	UNIT NAME	F921	F922
AH	NAETC-5397-4	1A	125V
C	NAETC-5397-4	11A	250V
B, B1	5397-4A	250V	

TYPE	UNIT NAME	F901	F902	F903	T902
AH	NAPS-5469	YES	NO	NO	NPT-1111D
C	NAPS-5469	NO	YES	YES	NPT-1111P
B, B1	NAPS-5401	NO	YES	NO	NPT-1111P

AH type U.S.A. (120V/60Hz) C type Europe (230V/50Hz)
CANADA (120V/60Hz) B, B1 type Other (230V/50Hz)

TYPE	UNIT NAME	C301	C305, C306, C317, C318, C321, C322, C325-C328, C331, C332	C341, C342, C343	C403, C404, C505, C506	C509, Q20C	C533-C536, C585-C588, C595, C596, C598, C599
AH	NAAR-5396-1	.470J	NO	YES	NO	Q20C	NO
B, B1	NAAR-5396-1A	331K	YES	NO	YES	Q50C	YES

CAUTION: For continued protection against fire hazard, REPLACE ONLY WITH PART NUMBER SPECIFIED. This symbol located near the fuse indicates that the fuse used is fast melting type. For fuse ratings refer to the marking adjacent to the symbol.

Do not substitute a fuse of a different rating unless specifically approved by the manufacturer. Do not substitute a fuse of a different type unless specifically approved by the manufacturer.

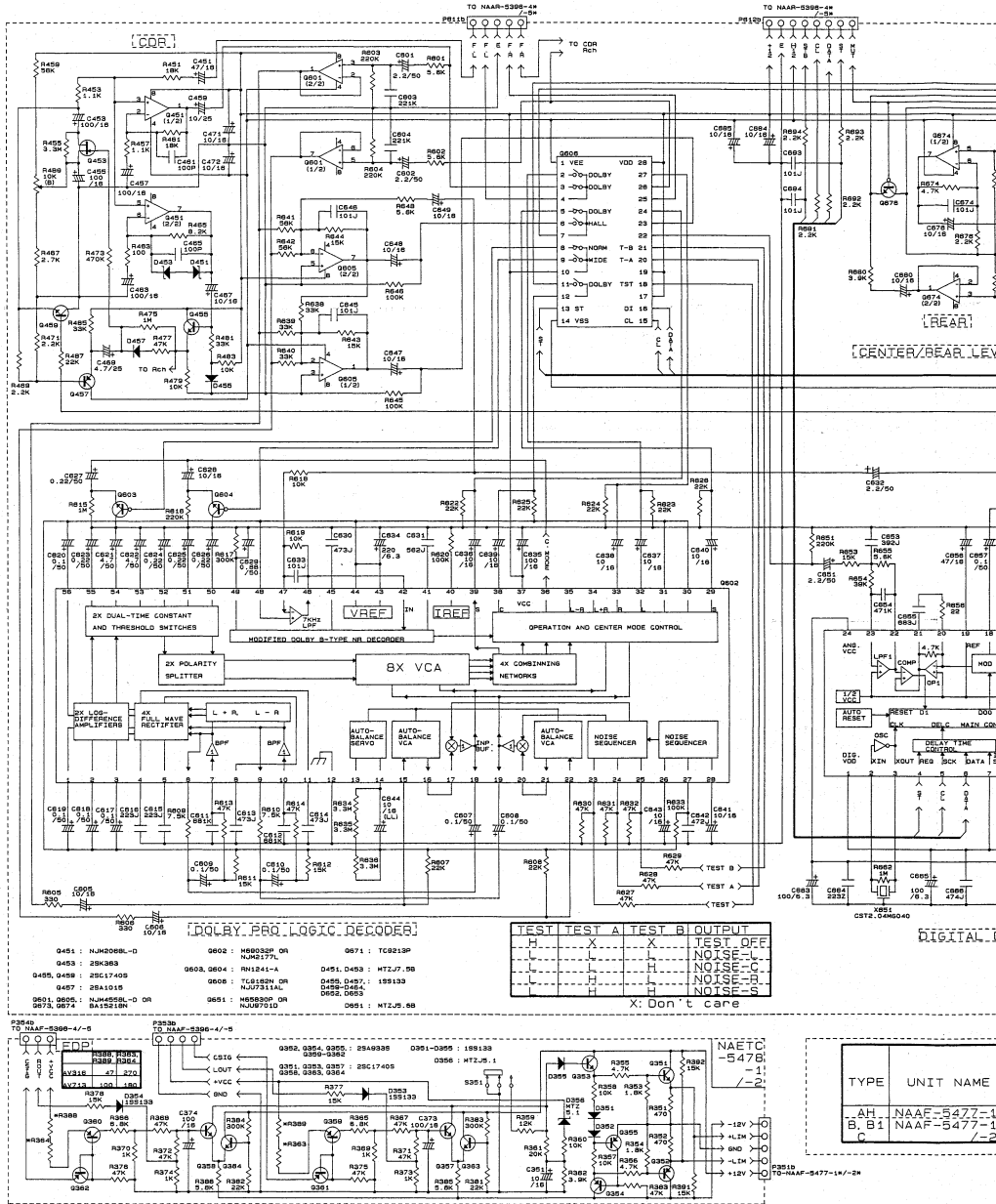
NOTE

THE COMPONENTS IDENTIFIED BY NAME ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED. (DO NOT MEASURE DC VOLTAGE, (OHM INPUT SIGNAL) MULTIMETER CHARACTERISTICS. ALL CAPACITORS ARE IN μ F UNLESS OTHERWISE NOTED. ALL RESISTORS ARE IN Ω UNLESS OTHERWISE NOTED. THE THICK LINES IN THE BOARD ARE THE PRINTING SIDE OF THE PARTS CASE. THIS PRINTING IS SUBJECT TO CHANGE FOR IMPROVEMENT.

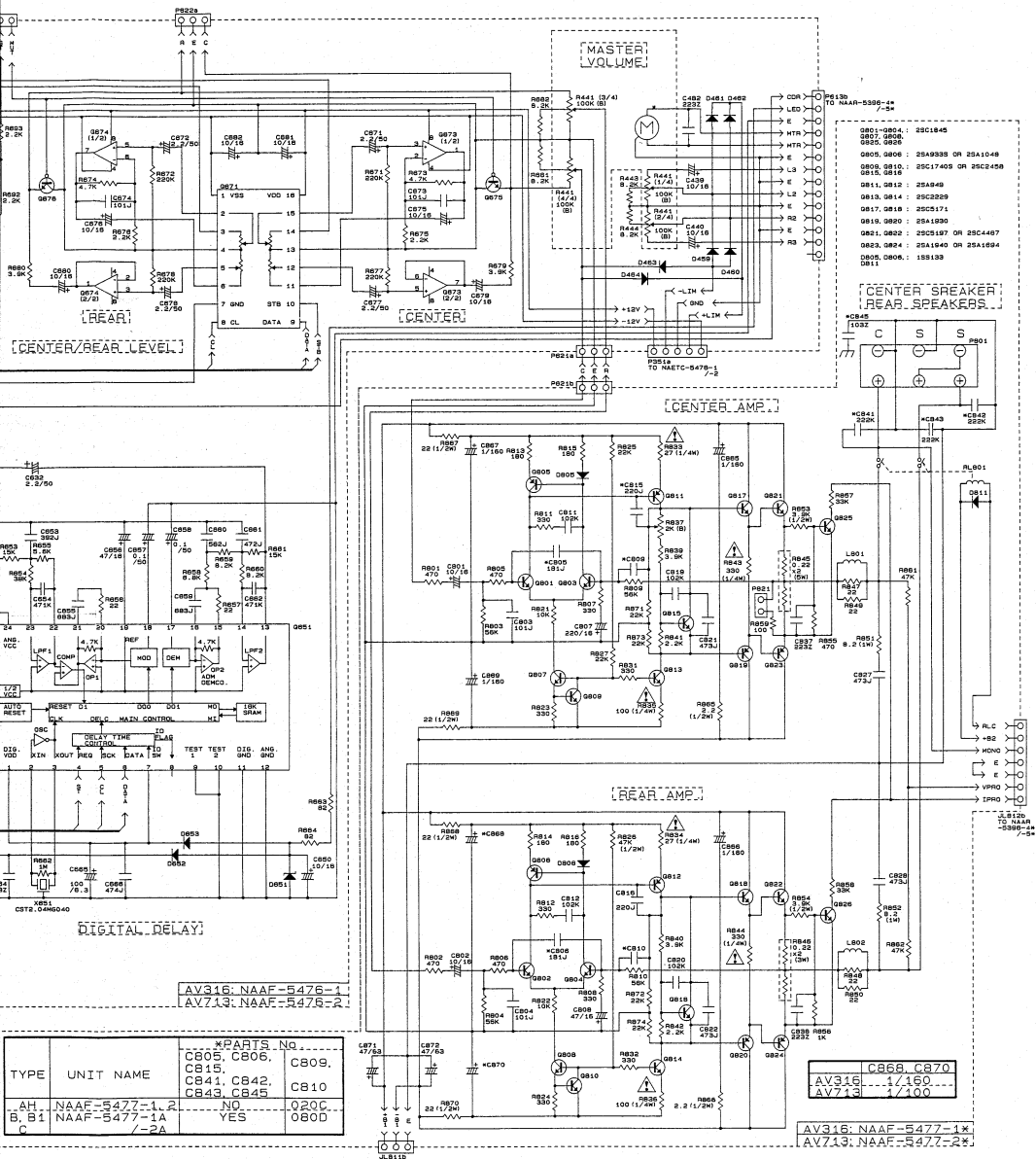
SCHEMATIC DIAGRAM

A
B
C
D
E
F

1 2 3 4



TYPE	UNIT NAME
AH	NAAF-5477-1
B, B1	NAAF-5477-1
C	NAAF-5477-1



AV316: NAAF-5476-1
 AV713: NAAF-5476-2

TYPE	UNIT NAME	PARTS No.
		C805, C806, C809.
		C815.
AH	NAAF-5477-1A	NO
B, B1	NAAF-5477-1A	020C
C	--2A	YES
		080D

C868, C870
 AV316: 4450
 AV713: 4100

AV316: NAAF-5477-1A
 AV713: NAAF-5477-2A

SCHEMATIC DIAGRAM

VOLTAGE CHARTS (ALL VOLTS)

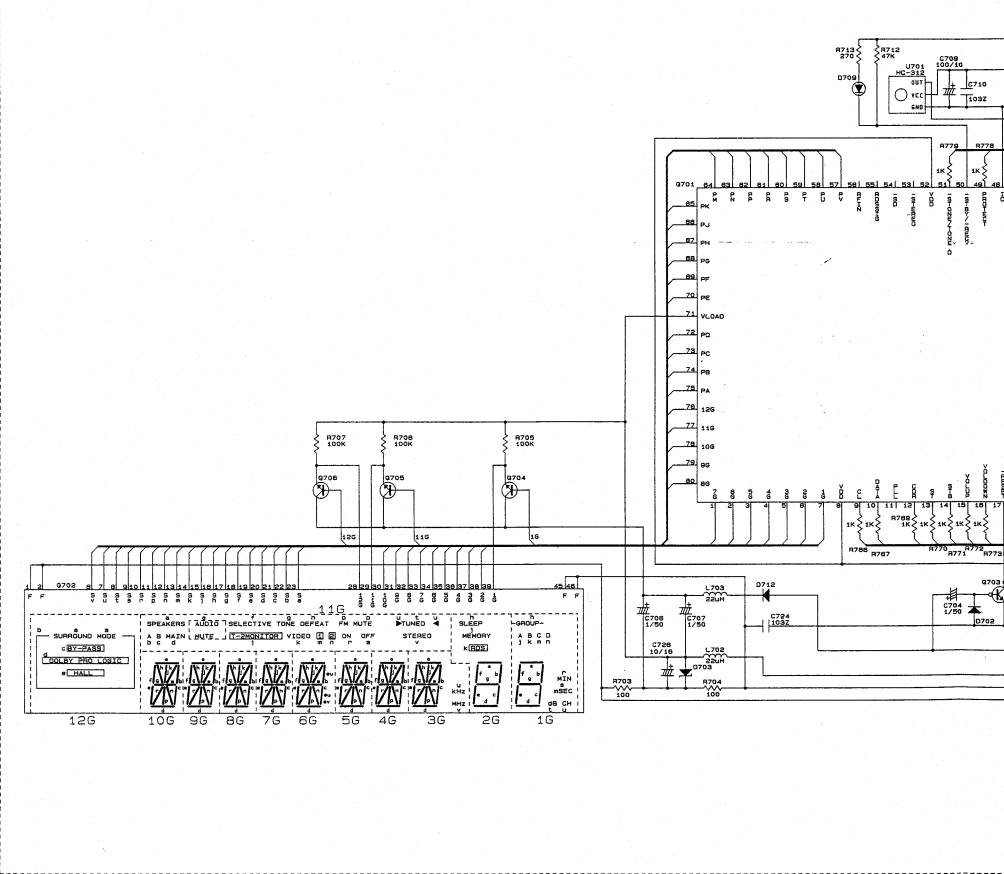
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q451	0.0	0.0	0.0	-11.8	0.0	0.0	0.0	11.8						
Q601	0.0	0.0	0.0	-11.8	0.0	0.0	0.0	11.8						
Q602	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	0.0	11.0	3.4	
No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.4	0.7	0.7	4.1	4.2	2.7	
No.	29	30	31	32	33	34	35	36	37	38	39	40	41	42
	4.1	4.1	4.1	4.1	4.1	4.1	4.1	11.8	4.1	4.1	1.4	4.1	4.1	
No.	43	44	45	46	47	48	49	50	51	52	53	54	55	56
	4.1	4.1	4.1	4.1	4.1	4.1	0.0	4.1	4.1	4.1	4.1	4.1	4.1	
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q605	0.0	0.0	0.0	-11.8	0.0	0.0	0.0	11.8						
Q606	-11.8	0.0	0.0	0.0	0.0	0.0	11.4	-0.9	11.8	0.0	0.0	0.0	0.0	0.0
No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	0.0	0.0	11.8	11.8	11.8	0.7	0.7	0.0	0.0	0.0	0.0	0.0	11.8	
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q651	5.0	2.2	2.3	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	2.5	2.5	
No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	2.5	2.5	0.7	0.7	2.5	2.5	2.5	2.5	5.0					
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q671	-11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No.	15	16												
	0.0	11.8												
No.	1	2	3	4	5	6	7	8						
Q673	0.0	0.0	0.0	-11.8	0.0	0.0	0.0	11.8						
Q674	0.0	0.0	0.0	-11.8	0.0	0.0	0.0	11.8						

VOLTAGE CHARTS (ALL VOLTS)

No.	1	2	3	4	5	6	7
Q233	5.5	5.5	5.5	1.1	0.0	0.0	0.0
Q301	0.0	0.0	0.0	-11.8	0.0	0.0	0.0
Q302	-11.8	0.0	0.0	0.0	0.0	0.0	0.0
No.	15	16	17	18	19	20	21
Q302	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No.	1	2	3	4	5	6	7
Q401	0.0	0.0	0.0	-11.8	0.0	0.0	0.0
Q402	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q481	-4.8	-5.6	0.6	0.6	0.6	5.6	0.6
Q571	0.0	0.0	0.0	-11.8	0.0	0.0	0.0
Q621	26.2	0.0	11.8				
Q622	-27.2	0.0	-11.8				
Q623	25.9	0.0	5.6				

No.	E	C	B	No.	E	C	B
Q251	4.9	10.2	5.5	Q513	-43.9	-1.2	-45.1
Q252	4.9	10.2	5.5	Q515	-1.2	1.2	-0.4
Q407	11.8	-11.8	1.1	Q517	-0.6	44.8	1.1
Q491	0.0	0.0	-11.5	Q519	-0.6	44.8	-1.1
Q492	0.0	0.0	-11.5	Q521	0.0	44.8	0.0
Q493	0.4	-11.5	0.0	Q523	0.0	44.8	-0.4
Q501	-0.6	44.0	0.0	Q525	0.0	44.5	0.0
Q503	-0.6	44.0	0.0	Q527	0.0	11.7	0.0
Q505	44.6	44.0	44.0	Q573	11.0	11.8	11.0
Q507	-43.9	-19.5	-43.9	Q575	0.0	0.0	-11.1
Q509	-44.5	-43.3	-43.9	Q576	0.0	0.0	-11.1
Q511	44.6	1.2	44.0	Q581	0.0	44.5	0.0

NADTS-5467-14



(ALL VOLTS)

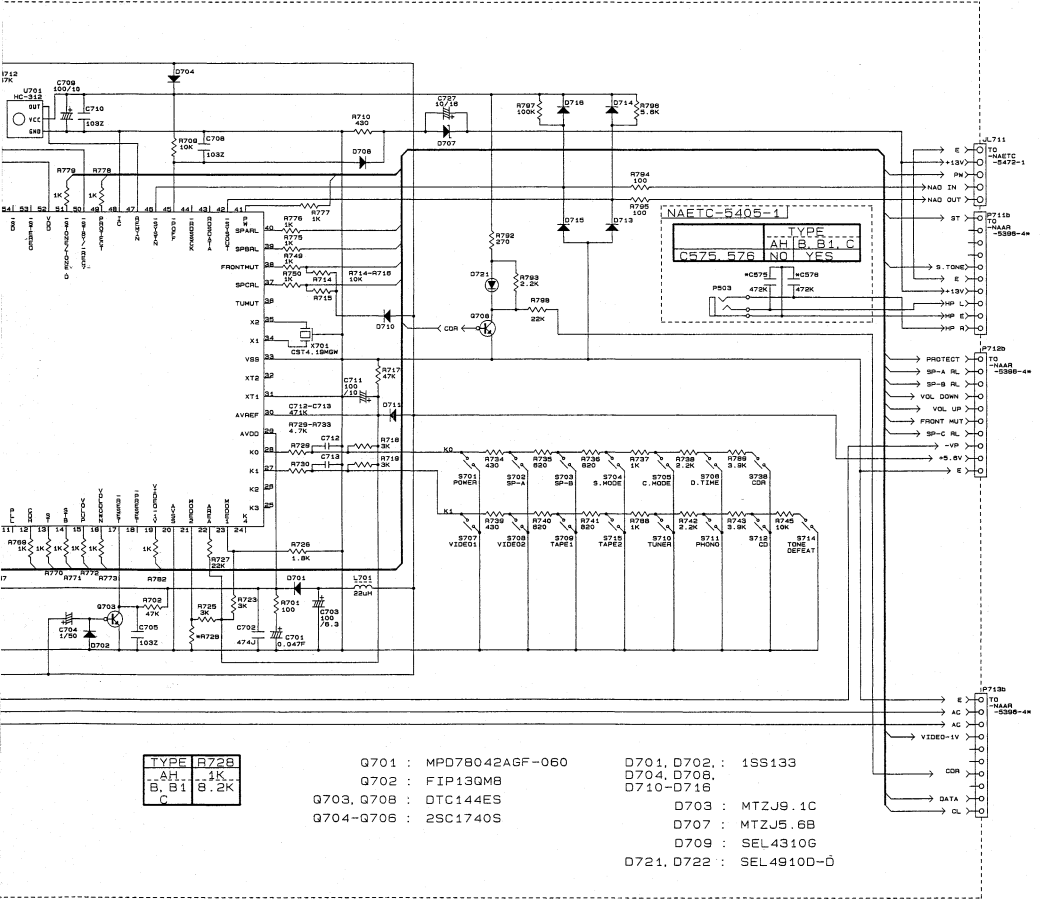
4	5	6	7	8	9	10	11	12	13	14	
5	-1.1	0.0	10.1	0.0	5.5	5.5	0.0	10.2	10.2	9.9	
0	-11.8	0.0	0.0	0.0	11.8						
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	19	20	21	22	23	24	25	26	27	28	
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8		
0	4	5	6	7	8	9	10	11	12	13	14
0	-11.8	0.0	0.0	0.0	11.8						
0	-11.8	0.0	0.0	0.0	11.8						
6	0.0	5.6	0.6	5.6	4.8						
0	-11.8	0.0	0.0	0.0	11.0						
8											
8											
8											

No.	E	C	B	No.	E	C	B	No.	E	C	B	No.	E	C	B
Q351	-2.0	11.8	2.6	Q453	0.0	11.8	0.6	Q807	-43.9	-19.5	-43.3	Q820	0.6	-44.8	-1.2
Q552	-2.0	-11.8	-2.6	Q457	0.6	-11.8	0.0	Q808	-43.9	-19.5	-43.3	Q821	0.0	44.8	0.6
Q353	9.6	11.8	10.2	Q459	0.0	0.0	1.0	Q809	-44.3	-45.3	-43.9	Q822	0.0	44.8	0.6
Q354	-9.6	-11.8	-10.2	Q463	0.0	0.0	11.4	Q810	-44.3	-45.3	-43.9	Q823	0.0	-44.8	-0.6
Q355	0.0	-10.2	-0.6	Q464	0.0	0.0	-0.6	Q811	-44.4	-1.2	-43.8	Q824	0.0	-44.8	-0.6
Q357	0.0	10.6	0.0	Q675	0.0	0.0	-1.5	Q812	44.4	1.2	43.8	Q825	0.0	44.5	0.0
Q358	0.0	10.6	0.0	Q676	0.0	0.0	-1.5	Q813	-43.9	-1.2	-43.3	Q826	0.0	44.5	0.0
Q359	44.8	1.4	44.2	Q801	-0.6	43.8	0.0	Q814	-43.9	-1.2	-43.3				
Q360	44.8	1.4	44.2	Q802	-0.6	43.8	0.0	Q815	-1.2	1.2	-0.6	No. D S G			
Q361	44.8	44.2	44.2	Q803	-0.6	43.8	0.0	Q816	-1.2	1.2	-0.6	Q453	1.7	1.7	0.0
Q362	44.8	44.2	44.2	Q804	-0.6	43.8	0.0	Q817	0.6	44.8	1.2				
Q363	0.0	11.8	0.6	Q805	44.4	43.8	43.8	Q818	0.6	44.8	1.2				
Q364	0.0	11.8	0.6	Q806	44.4	43.8	43.8	Q819	-0.6	-44.8	-1.2				

No.	E	C	B	No.	E	C	B	No.	D	S	G
Q513	-43.9	-1.2	-43.3	Q582	0.0	44.5	0.0	Q403	0.0	0.0	-3.2
Q515	-1.2	1.2	-0.6	Q583	44.8	0.0	44.7	Q404	0.0	0.0	-3.2
Q1517	0.6	44.8	1.2	Q584	0.0	44.5	0.0	Q405	0.0	0.0	-3.2
Q519	-0.6	-44.8	-1.2	Q591	0.0	0.0	3.6	Q406	0.0	0.0	-3.2
Q521	0.0	44.8	0.6	Q592	0.0	26.5	0.0				
Q523	0.0	-44.8	-0.6	Q593	0.0	0.0	3.6				
Q525	0.0	44.5	0.0	Q594	-32.2	-39.8	-32.8				
Q527	0.0	11.7	0.4	Q595	3.1	13.0	4.8				
Q529	11.0	11.8	11.6	Q592	0.0	0.0	3.1				
Q525	0.0	0.0	-11.3	Q561	0.1	27.1	0.4				
Q526	0.0	-11.3	Q562	0.0	27.1	0.1					
Q581	0.0	44.5	0.0								

VOLTAGE CHARTS (ALL VOLTS)

No.	E	C	B
Q703	0.0	4.8	0.0
Q704	-29.4	5.0	-29.3
Q705	-29.4	5.0	-29.3
Q706	-29.4	5.0	-29.3
Q708	0.0	5.2	0.0



TYPE	R72B
AH	1k
B	1k
C	2k

- Q701 : MPD78042AGF-060
- Q702 : FIP130MB
- Q703, Q708 : DTC144ES
- Q704-Q706 : 2SC1740S
- D701, D702 : 1SS133
- D704, D708, D710-D718 : 1N4148
- D703 : MTZJ9.1C
- D707 : MTZJ5.6B
- D709 : SEL4310G
- O721, O722 : SEL49100-D