


# ONKYO® SERVICE MANUAL

## Integrated Stereo Amplifier MODEL A-8047V

UD	120V AC, 60Hz
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### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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## SPECIFICATIONS

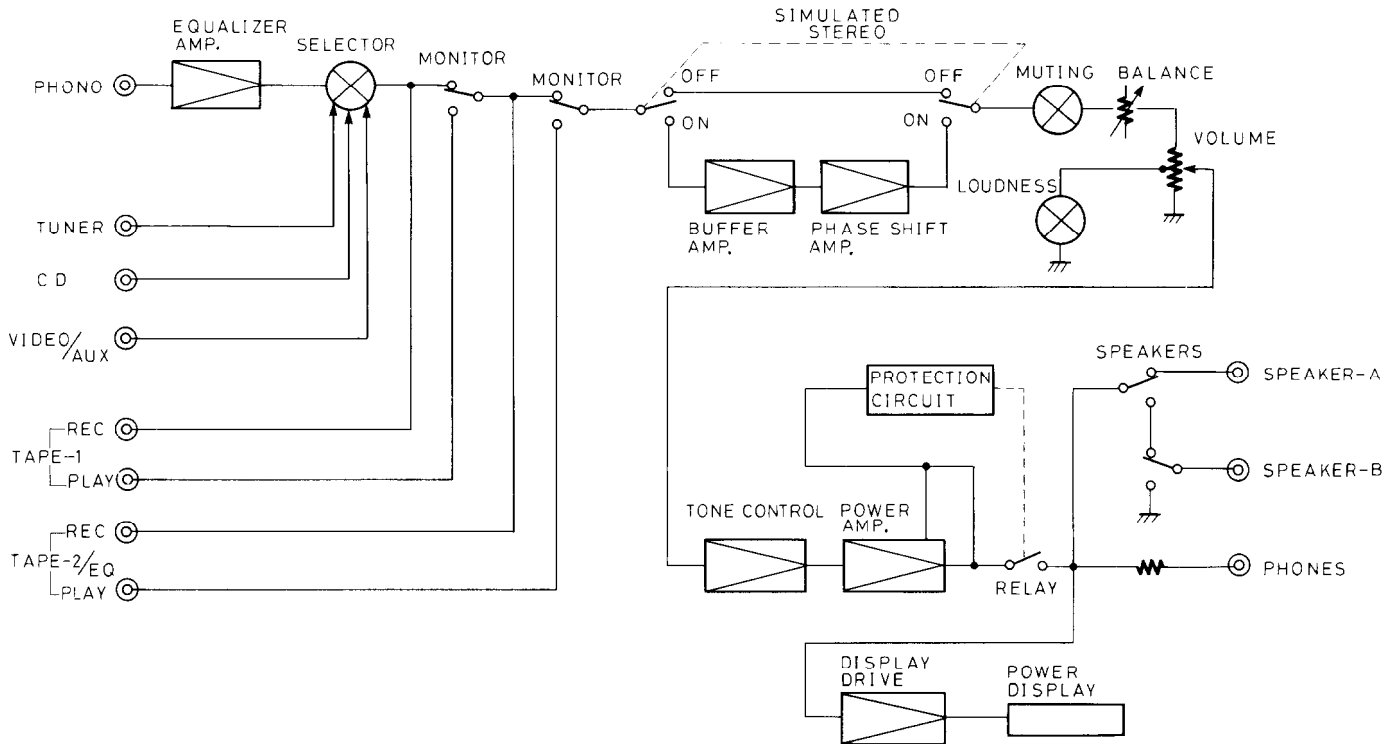
Power Output:	100 watts per channel, min. RMS, at 8 ohms, both channels driven, from 20Hz to 20kHz, with no more than 0.09% THD.	
Total Harmonic Distortion:	0.09% at 100 watts	
IM Distortion:	0.09% at 100 watts	
Damping Factor:	40 at 8 ohms	
Frequency Response:	15 – 30,000Hz $\pm$ 1dB	
Sensitivity and Impedance:	Phono:	2.5mV/50 kohms
	Tuner/CD/AUX:	150mV/50 kohms
	Tape Play:	150mV/50 kohms
	Tape Rec:	150mV/3.5 kohms (phono)
Phono Overload:	150mV RMS at 1 kHz, 0.09% THD	
Bass Control:	$\pm$ 8 dB at 100Hz	
Treble Control:	$\pm$ 8 dB at 10,000Hz	
Signal to Noise Ratio:	Phono:	75dB (IHF A-202, 5mV input, 1 watt output)
	Tuner & Tape:	80dB (IHF A-202, 0.5V input, 1 watt output)
Loudness Control:	+6 dB at 70Hz, +5 dB at 10kHz	
Audio Muting:	-20 dB	

### General

Power Supply:	AC 120V, 60Hz
Semiconductors:	IC: 8 TR: 2 Diode: 18 LED: 20
Dimensions:	435(W) $\times$ 112(H) $\times$ 278(D)mm
	17-1/8" $\times$ 4-7/16" $\times$ 10-15/16"
Weight:	7.6 kg. (16.8 lbs.)

Specifications and features are subject to change without notice.

## BLOCK DIAGRAM



## PRECAUTIONS

### 1. Replacing the fuses

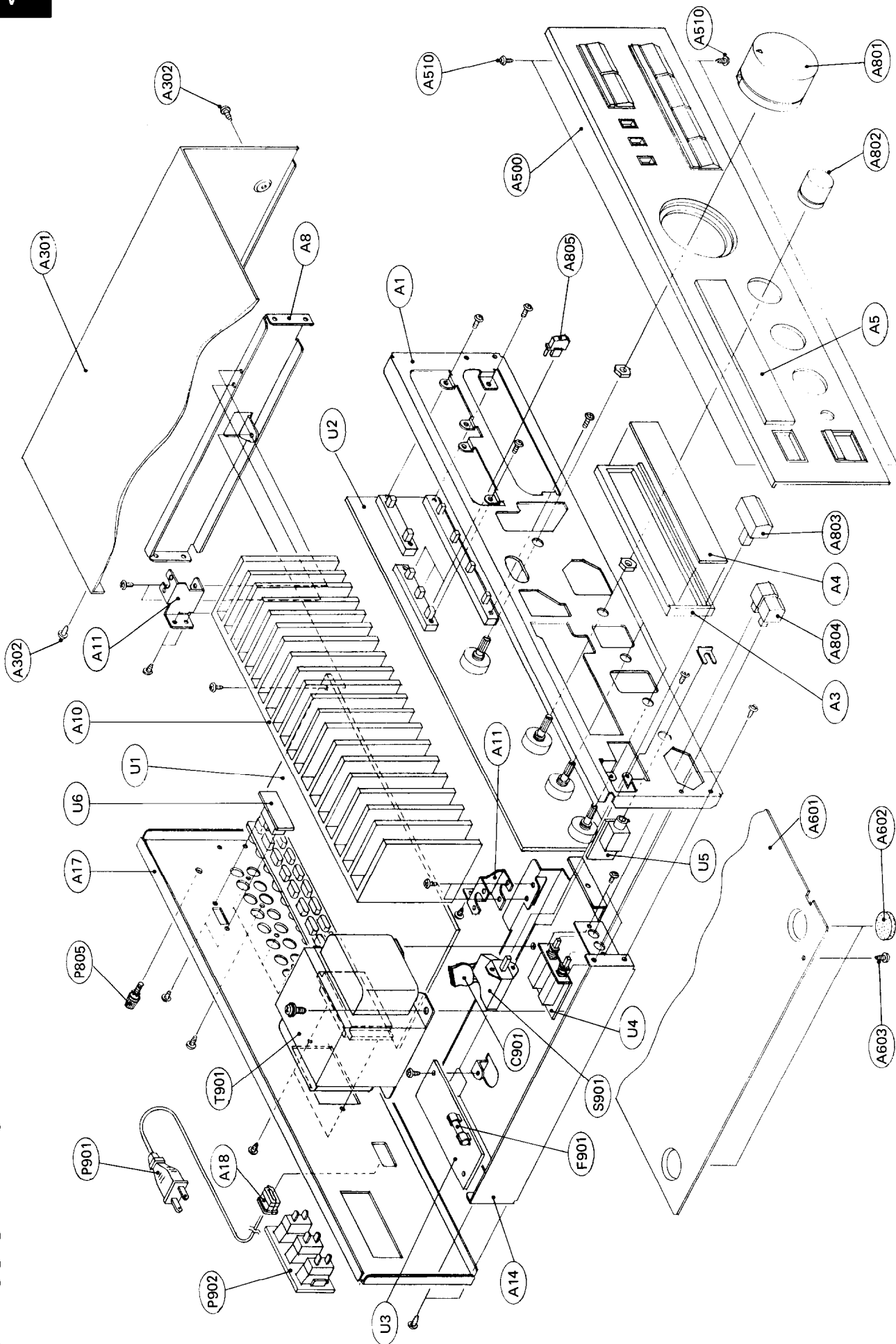
For continued protection against risk fire, replace only with same type and same rating fuse.

CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252052	7A(ST-6), Primary fuse

### 2. Insulation resistance measurement

Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND on the back panel.  
Specifications; More than 10 M $\Omega$  at 500V.

CHASSIS-EXPLODED VIEW

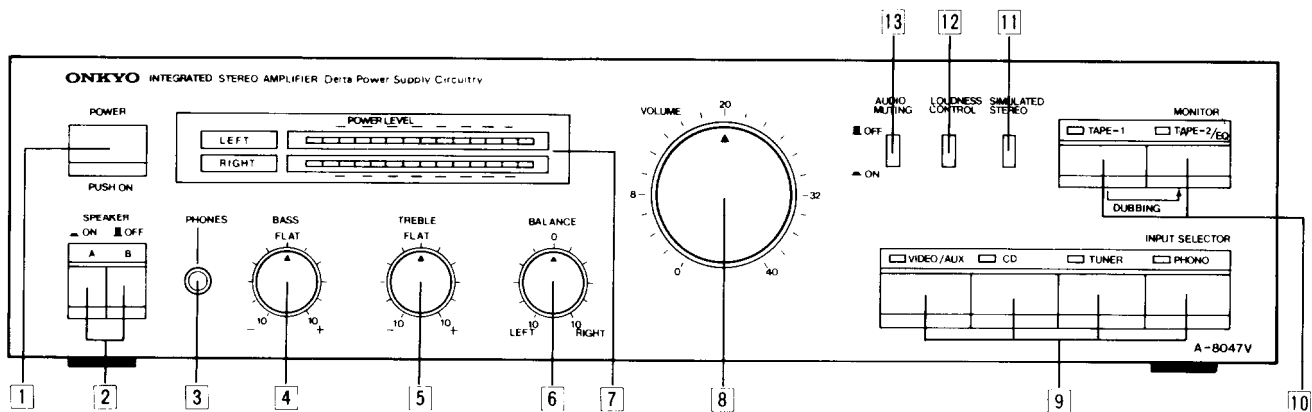


# CHASSIS-EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
A1	27110255A	Front bracket	A806	28322346	Knob, Speaker, right
A3	27190397	Holder	Q501(Q601)	222051	STK-4044V, IC
A4	28133142	Back plate	△ T901	2300016	NPT-887D, Power transformer
A5	28191317	Clear plate	△ F901	252052	7A(ST-6), Primary fuse
A8	27115193	Side bracket	△ S901	25035201	NPS-111-L165P, Power switch
A10	27160175	Radiator	△ S902	25065123	NPS-1258P, Slide switch
A11	27141020	Bracket HE	△ C901	3500065A	0.01μF, AC400V/125V, Capacitor
A12	800509	Spring	C901a	27300601	SB1925, Cover capacitor
A14	27130404	Bracket PT	△ P901	253112	AS-UC-4 #18, Power supply cable
A17	27120747	Back panel	△ P902	25050139	NSCT-6P38, AC outlet
A18	27300750	#2271, Strainrelief	P805	25060044	3 × 14, Ground terminal
A301	28184295	Top cover	U1	17858588	NAMA2388, Equalizer and Power amplifier pc board ass'y
A500	17858121	Front panel ass'y	U2	17858589	NAAF-2389, Tone/Muting/Volume pc board ass'y
A510	834430068	3TTS+6B(BC), Tapping screw	U3	17858590	NAFU-2390, Fuse pc board ass'y
A601	27170208	Bottom board	U4	17858591	NASW-2391, Speaker switch pc board ass'y
A602	27175028	Bottom leg	U5	17858592	NASJ-2392, Headphone jack pc board ass'y
A603	834430068	3TTS+6B(BC), Tapping screw	U6	17858510	NASW-2410, Mode switch pc board ass'y
A801	28322058A	Knob, VOLUME			
A802	28322059	Knob, TONE			
A803	28321905B	Knob, POWER			
A804	28322345	Knob, SPEAKER, left			
A805	28322213	Knob, PUSH			

NOTE: THE COMPONENTS IDENTIFIED BY MARK  $\Delta$  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

## FRONT PANEL FACILITIES



1. Power switch (POWER)
2. Speaker Selector (SPEAKERS)
3. Headphone jack (PHONES)
4. Bass Control (BASS)
5. Treble Control (TREBLE)
6. Balance Control (BALANCE)
7. Level Meters
8. Volume Control (VOLUME)
9. Input Selector Switches and Indicators (INPUT SELECTOR)
10. Tape Monitor Switch and Indicator (MONITOR)
11. Simulated Stereo (SIMULATED STEREO)
12. Loudness Control (LOUDNESS)
13. Audio Muting (MUTING)

# PRINTED CIRCUIT BOARD PARTS LIST

## EQUALIZER & POWER AMPLIFIER PC BOARD (NAMA-2388)

CIRCUIT NO.	PART NO.	DESCRIPTION
<b>ICs</b>		
Q101, Q201	222534	NJM4559DX
Q701	222584	TA7317P
<b>Transistors</b>		
Q502, Q602	2211395 or 2211396	2SA970 GR or 2SA970 BL
<b>Diodes</b>		
D701	2239492 or 2239493 or 2243162 or 2243163	RD6.2EB2 or RD6.2EB3 or MTZ6.2B MTZ6.2C
D702, D703	223145T or 223150T or 223124T	1S2076TD or US1040 or 1S2473
D901~D910	223895	P300GL
D911, D912	2241192 or 2243273 or 2239713	GZA-18Y or MTZ18C or RD18EB3
D913	223862 or 223890	WL01 or W01RL
<b>Capacitors</b>		
C101, C201	352780229	2.2 $\mu$ F, 50V, Elect.
C104, C204	352721019	100 $\mu$ F, 6.3V, Elect.
C105, C205	371126224	6200pF, 50V, Mylar
C106, C206	371121824	1800pF, 50V, Mylar
C107, C207	352780229	2.2 $\mu$ F, 50V, Elect.
C108, C109	352752219	220 $\mu$ F, 25V, Elect.
C501, C601	352750479	4.7 $\mu$ F, 25V, Elect.
C504, C604	3500080	100 $\mu$ F, 10V, Elect.
C510, C610	352780109	1 $\mu$ F, 50V, Elect.
C511, C611	371124735	0.047 $\mu$ F, 50V, Mylar
C512, C513	352711019	100 $\mu$ F, 80V, Elect.
C612, C613		
C514, C515	352711009	10 $\mu$ F, 80V, Elect.
C614, C615		
C702	352722219	220 $\mu$ F, 6.3V, Elect.
C703	352784799	0.47 $\mu$ F, 50V, Elect.
C704	352743319	330 $\mu$ F, 16V, Elect.
C706	352732209	22 $\mu$ F, 10V, Elect.
C801	379122235	0.022 $\mu$ F, 50V, Film, DEW
C904, C905	3504191	10000 $\mu$ F, 71V, Elect.
C906, C907	352781019	100 $\mu$ F, 50V, Elect.
C908, C909	352752219	220 $\mu$ F, 25V, Elect.
C910	352741029	1000 $\mu$ F, 16V, Elect.
<b>Resistors</b>		
R506, R507	4000080	0.47 $\Omega$ , 5W, Metal oxide film
R606, R607		
R509, R609	441621004	10 $\Omega$ , 1W, Metal oxide film
R510, R511	441521014	100 $\Omega$ , 1/2W, Metal oxide film
R610, R611		
R512, R513	4000063	0.47 $\Omega$ , 2W, Metal plate
R612, R613		

CIRCUIT NO.	PART NO.	DESCRIPTION
R901~R904	441629114	910 $\Omega$ , 1W, Metal oxide film
R905	441623914	390 $\Omega$ , 1W, Metal oxide film
<b>Relay</b>		
RL701	25065140	NRL-2P5A-DC12-06
<b>Terminal</b>		
P801~P804	25045171	NPJ-4PDML65
P806	25060058	NTM-8PDML25

## TONE CONTROL PC BOARD (NAAF-2389)

CIRCUIT NO.	PART NO.	DESCRIPTION
<b>ICs</b>		
Q151 (Q152)	222502	NJM-4558DX
Q153 (Q253)	222534	NJM-4559DX
Q551, Q651	222623	IR2E02
<b>Diodes</b>		
D551, D651	223145 or 223150 or 223124	1S2076TD or US1040 or 1S2473
D552, D652	225121	SEL9713MB02
D914~D917	225173 or 225174	SLR-55MC3M or SLR-55MC3N
D918, D919	225167RB or 225167RC	GL-5HY10-RB or GL-5HY10-RC
<b>Capacitors</b>		
C151, C152, C155	352780229	2.2 $\mu$ F, 50V, Elect.
C153	371121235	0.01 $\mu$ F, 50V, Mylar
C154	371121124	1100pF, 50V, Mylar
C156, C157	352780339	3.3 $\mu$ F, 50V, Elect.
C159, C259	371123935	0.039 $\mu$ F, 50V, Mylar
C160, C164	352780109	1 $\mu$ F, 50V, Elect.
C165, C265	352742209	22 $\mu$ F, 16V, Elect.
C166, C266	371126825	6800pF, 50V, Mylar
C167, C267	371126835	0.068 $\mu$ F, 50V, Mylar
C168, C268	371121025	1000pF, 50V, Mylar
C169, C269	371128225	8200pF, 50V, Mylar
C170, C171	352780339	3.3 $\mu$ F, 50V, Elect.
C260, C264	352780109	1 $\mu$ F, 50V, Elect.
C551, C553	352741009	10 $\mu$ F, 16V, Elect.
C651		
C552, C652	352780109	1 $\mu$ F, 50V, Elect.
<b>Resistors</b>		
R162	5104173	N16RHC250KWT20, Variable resistor
R167, (R267)	5104174	N16RGH100KBT20, Variable resistor
R173, (R273)	5104175	N16RGHC250KC20, Variable resistor
R177, (R277)	5104175	N16RGHC250KC20, Variable resistor
R906~R908	441521024	1k $\Omega$ , 1/2W, Metal Oxide film
<b>Switch</b>		
S101, (S102~S104)	25035488	NPS-442-L450

CIRCUIT NO.	PART NO.	DESCRIPTION
S105, (S106)	25035489	NPS-242-L451
S107, (S108, S109)	25035490	NPS-322-L452
	<b>Etc.</b>	
	27270167	Spacer, LED

**HEADPHONE JACK PC BOARD (NASJ-2392)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Resistors</b>	
R517, R617	441623914	390Ω, 1W, Metal oxide film
	<b>Headphone jack</b>	
P807	25045139	HLJC540-01-010

**FUSE PC BOARD (NAFU-2390)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Fuse holder</b>	
	250113	SN5051

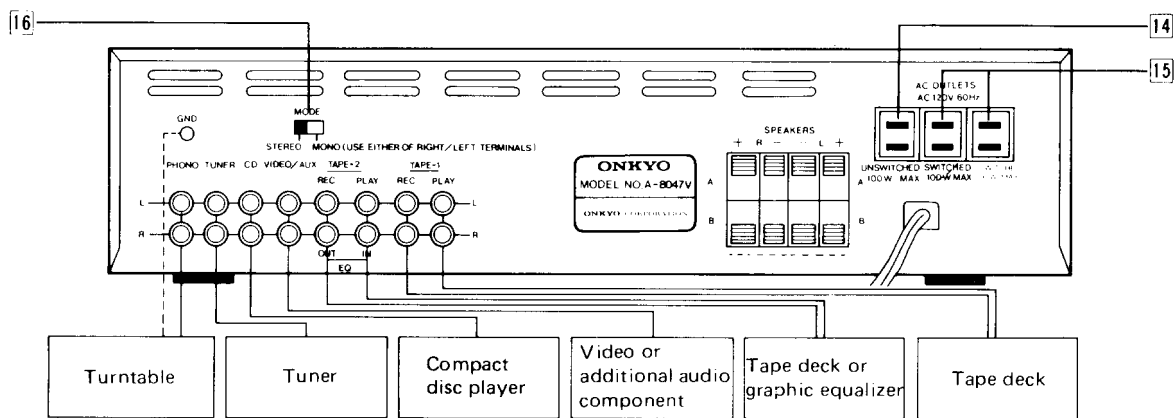
**MODE SWITCH PC BOARD (NASW-2410)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Switch</b>	
P801	25065126	NSS-2259

**SPEAKER SWITCH PC BOARD (NASW-2391)**

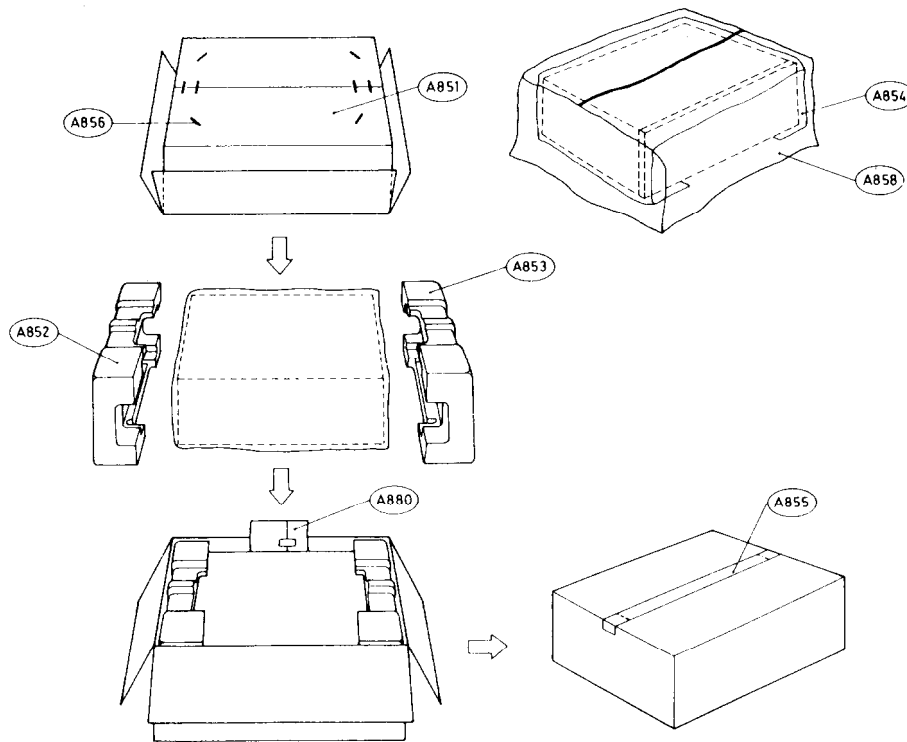
CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>Switch</b>	
S501, (S502)	25035487	NPS-242-L449

**SYSTEM CONNECTIONS**



- 14. AC Outlet (UNSWITCHED)
- 15. AC Outlet (SWITCHED)
- 16. Mode Sitch (MODE)

# PACKING PROCEDURES



REF. NO.	PART NO.	DESCRIPTION
A851	29051167	Master carton box
A852	29091019A	Pad, left
A853	29091020A	Pad, right
A854	29095012-1	Protection sheet
A855	260012	Damplon tape
A856	282301	Sealing hook
A858	29100063	750 × 580, Poly bag
A880	Accessory bag ass'y	
	29340907	Instruction manual
	29365006-7	Warranty card [U]
	29358002C	Service station list [U]
	29100006A	350 × 250, Poly bag
	29360778	Label [U]

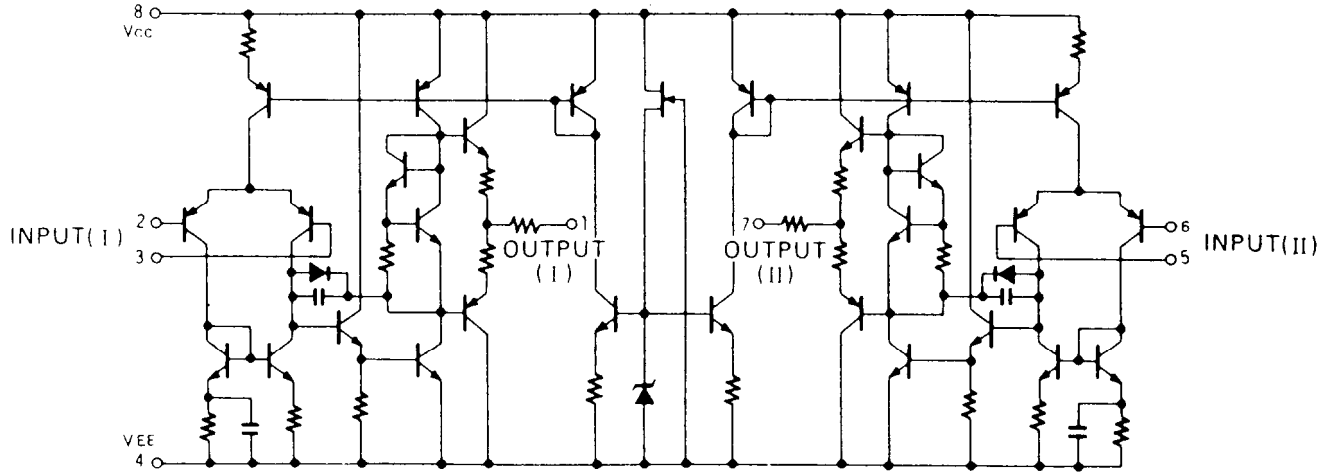
## NOTE

[U]: Only U.S.A. model

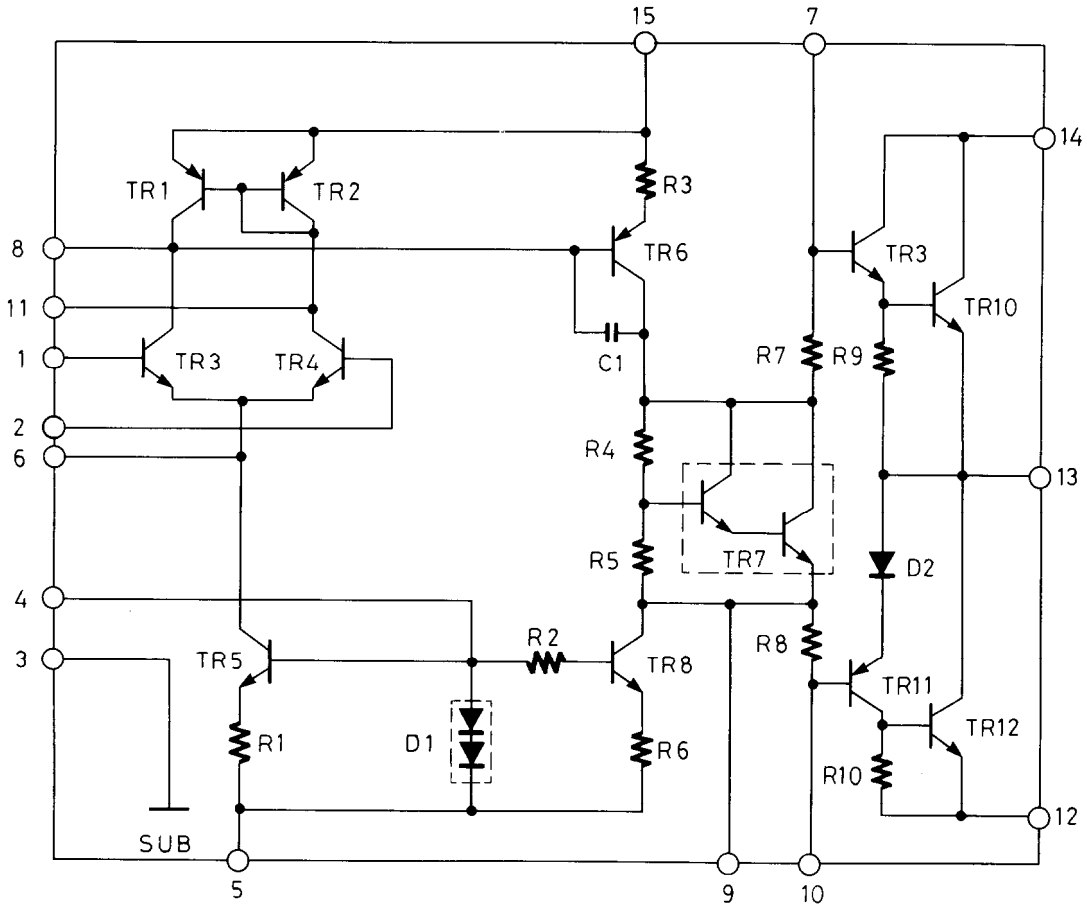


# IC BLOCK DIAGRAM

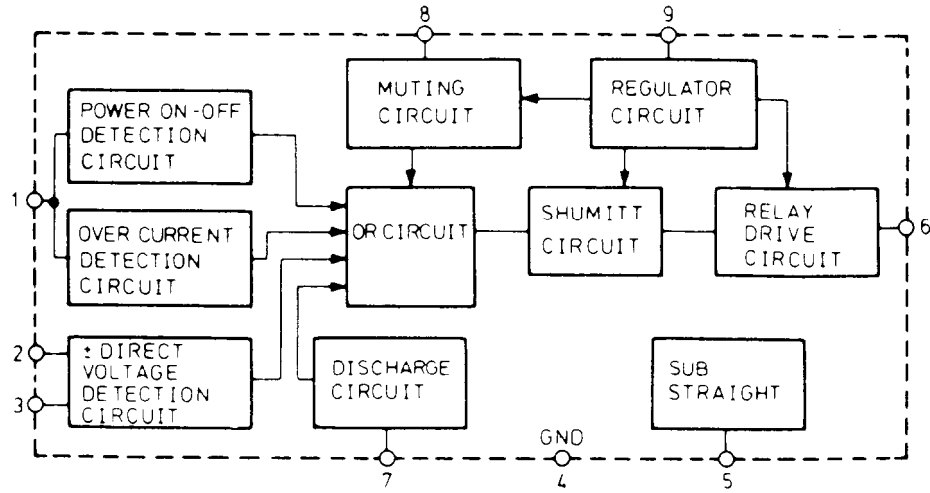
NJM-4558DX  
NJM-4559DX



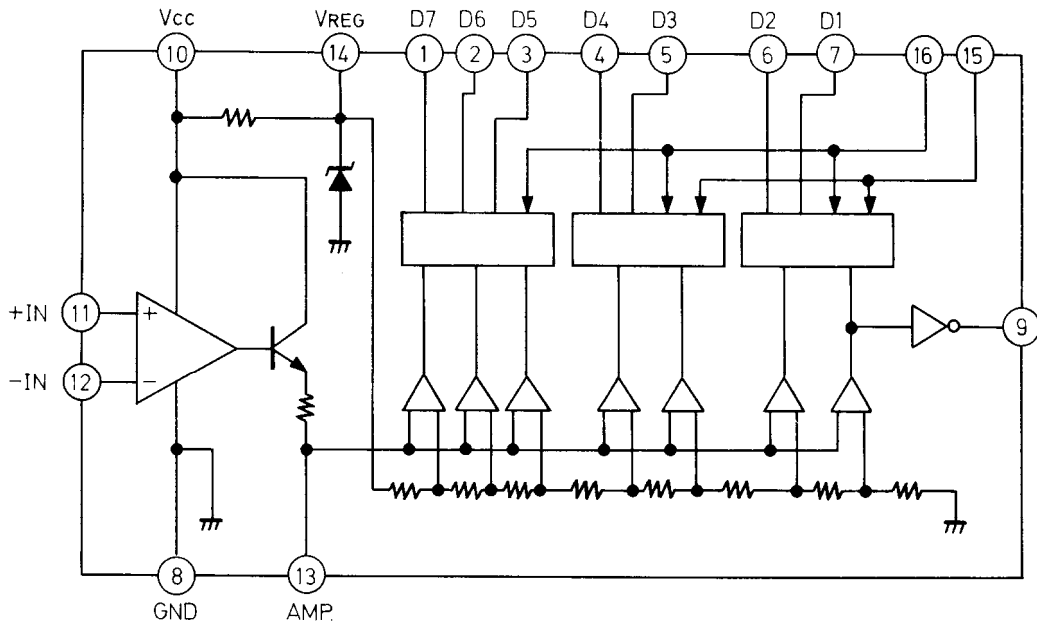
STK-4044V



TA-7317P



IR-2E02



CHANGE OF PARTS

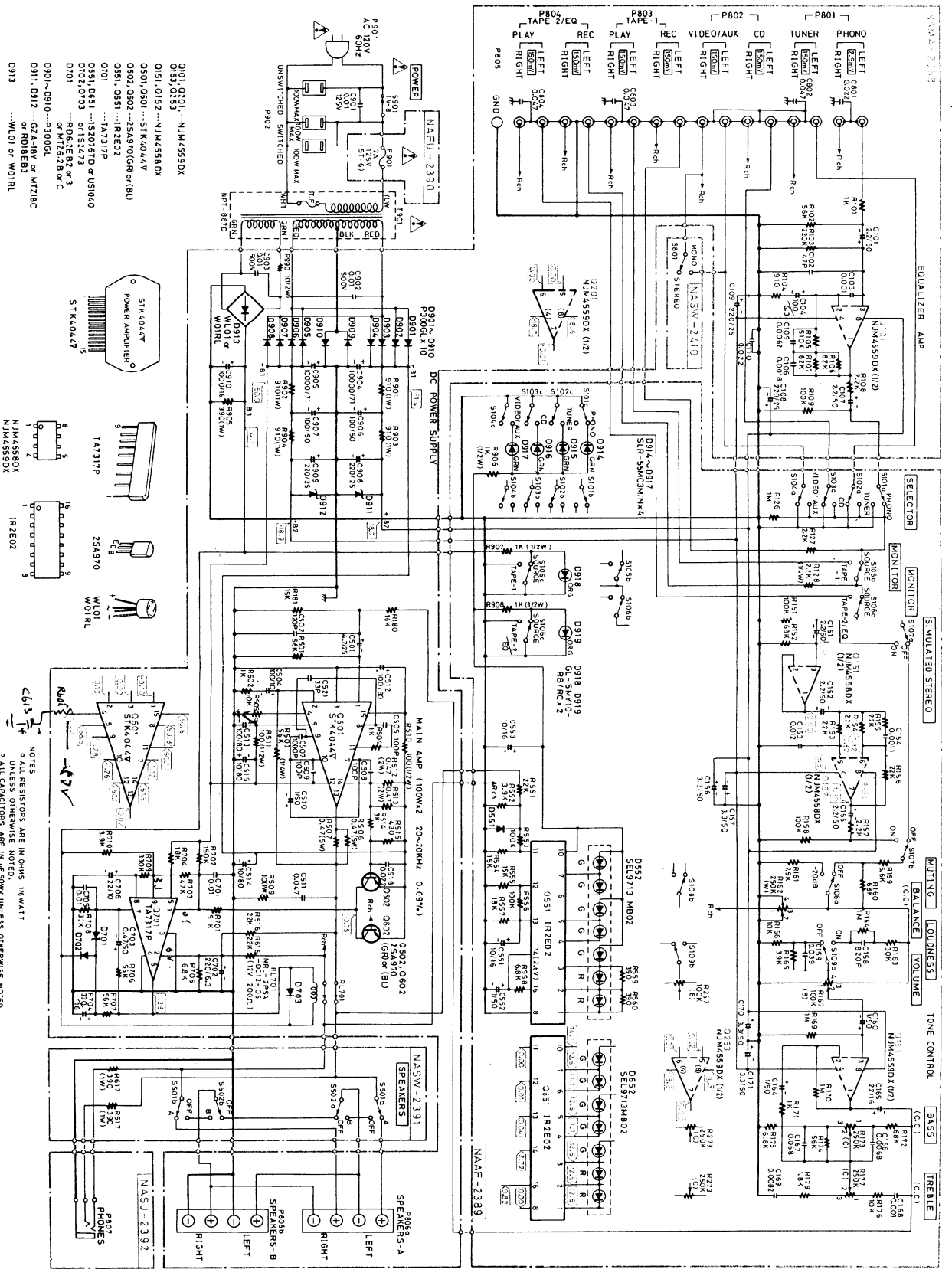
MODEL A-8047V

ONKYO CORP  
SERVICE DIVISION

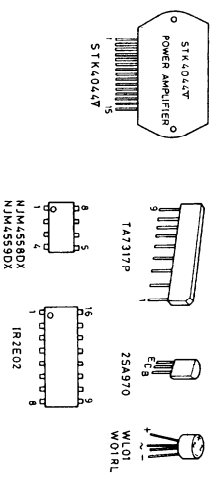
7, Nov., 8

TYPE	CIRCUIT NO.	DESCRIPTION	AFTER CHANGE SPECIFICATIONS	PART NO.	BEFORE CHANGE SPECIFICATIONS	PART NO.	CHANGE DESCRIPTION	APPLI- CATION
NAMA- 2388	R990	Metal oxide film Label R	1 $\Omega$ , 1/2W	441520104 29360818	Add		UL	1231-
NAMA- 2388	C501, C601 C510, C610 RL701	Elect. capacitor Elect. capacitor Relay	4.7 $\mu$ F, 50V 1 $\mu$ F, 160V NRL-2P5A-DC12-38	3500093 3500094 25065275	4.7 $\mu$ F, 25V 1 $\mu$ F, 50V NRL-2P5A-DC12-38	352750479 352780109 25065140	To flame-proof type UL	2931-

# SCHEMATIC DIAGRAM



- 0101, 0101, ... NJM45590X  
 0153, 0153  
 0151, 0152, ... NJM45580X  
 0501, 0601, ... STK4044Y  
 0502, 0602, ... 2SA970 (GR or BU)  
 0551, 0651, ... IR2E02  
 0701, ... TA7317P  
 D551, D551, ... S2076TD or US1040  
 D702, D703, ... 0151243  
 D101, ... R05JE82 or C  
 or M1Z6.2B or C  
 D901 ~ D910, ... P-300GL  
 D911, D912, ... GZA-18Y or MT18C  
 or R0DBE3  
 D913, ... WJ01 or WJ01L



- NOTES
- ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE NOTED.
  - UNLESS OTHERWISE NOTED.
  - ALL CAPACITORS ARE IN P.F.S.W. UNLESS OTHERWISE NOTED.
  - RESISTOR VALUES IN P.F.S.W. ARE IN P.F.S.W. UNLESS OTHERWISE NOTED.
  - POLARITY IS INDICATED BY + AND -.
  - CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.
  - THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.

**ONKYO CORPORATION**