

YTA-45/95

GUITAR AMPLIFIER

 **YAMAHA SERVICE MANUAL**

006305

① 2 ② Printed in Japan 10-77

YTA-45 Specifications

1. CONTROLS	VOLUME, BASS, MIDDLE, TREBLE, REVERB, TREMLO INTENSITY, TREMLO SPEED, FOOT SW REVERB, TREMLO
2. OTHER FITTINGS	PILOT LAMP, POWER SW, AC OUTLET (MAX 250W) CHANNEL 2 INPUT HIGH, LOW SIGNAL OUT 1
3. SPEAKERS	JA3052A X 1
4. POWER AMPLIFIER	SOLID STATE (OCL TYPE)
5. ELECTRICAL RATINGS	TRANSISTORS 27 IC 1 OUTPUT POWER 45W RMS POWER CONSUMPTION 120W 100V/110V/117V/125V/220V/240V/ AC 50/60 Hz
6. DIMENSIONS	HEIGT 495m/m WIDTH 550m/m PEPTH 250m/m
7. WEIGHT	17kg
8. FINISH	GREY LEATHERETTE

NOTE: Abbreviations of wire colors

BL : Black
BR : Brown
RE : Red
OR : Orange
YE : Yellow

GR : Green
BE : Blue
VI : Violet
GY : Gray
WH : White

GG : Grass Green
SB : Sky Blue
PK : Pink
TR : Transparent
PT : Tin Plated Wire

Wire colors in the circuit diagrams are indicated as above.

YTA-95 Specifications

1. CONTROLS

VOLUME, BASS, MIDDLE, TREBLE, REVERB.
INTENSITY (TREMLO/WAWWAW)
SPEED (TREMLO/WAW WAW)
BRILLIANCE (I, II, OFF)
TREMLO/WAW WAW
(TREMLO, WAWWAW, OFF)
FOOT SW

2. OTHER FITTINGS

REVERB. TREMLO/WAWWAW
PILOT LAMP, POWER SW
AC OUTLET (MAX. 250W)
CHANNEL 2
INPUT HIGH, LOW
OUTPUT JACK 1 (TO AMPLIFIER)

3. SPEAKERS

JA3052A X 2

4. POWER AMPLIFIER

SOLID STATE (OCL TYPE)

5. ELECTRICAL RATINGS

TRANSISTORS 35
IC 1
DIODES 11
OUTPUT POWER 90W RMS
POWER CONSUMPTION 250W
100V/110V/117V/125V/220V/240V, AC50/60Hz

6. DIMENSIONS

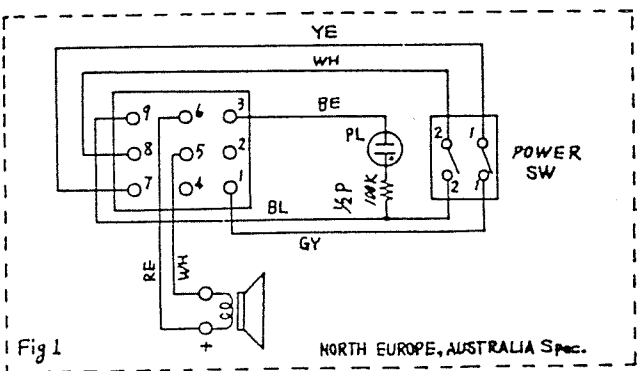
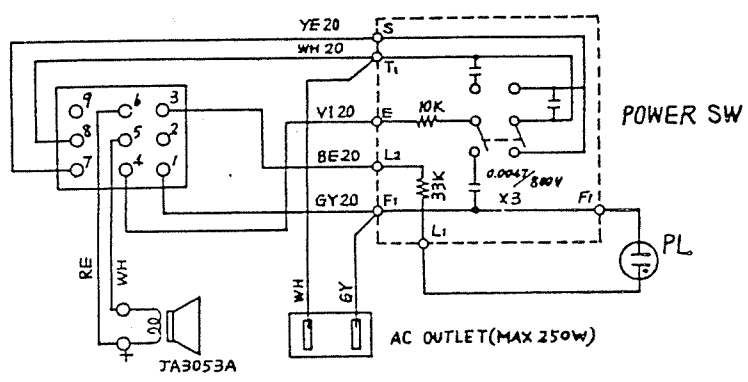
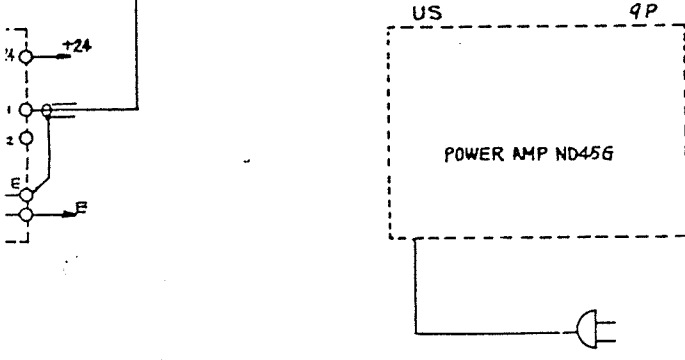
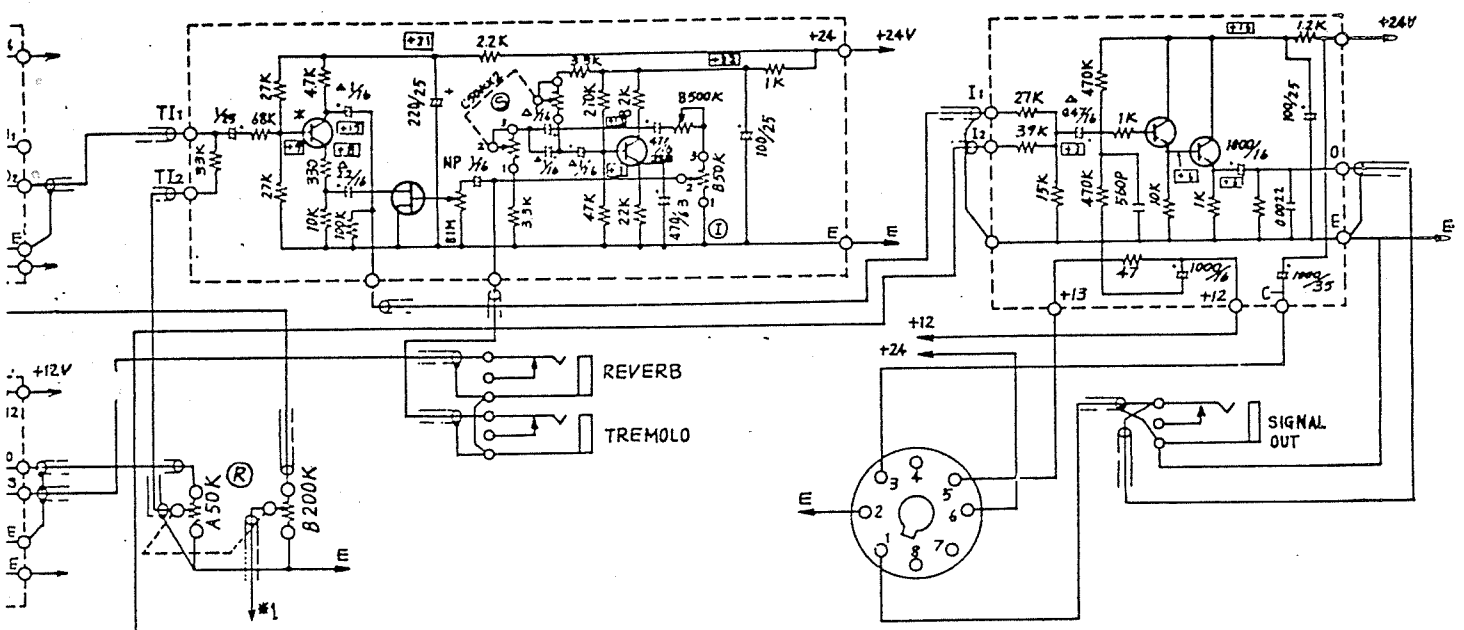
HEIGHT: 516mm
WIDTH: 713mm
DEPTH: 260mm

.. WEIGHT

27kg

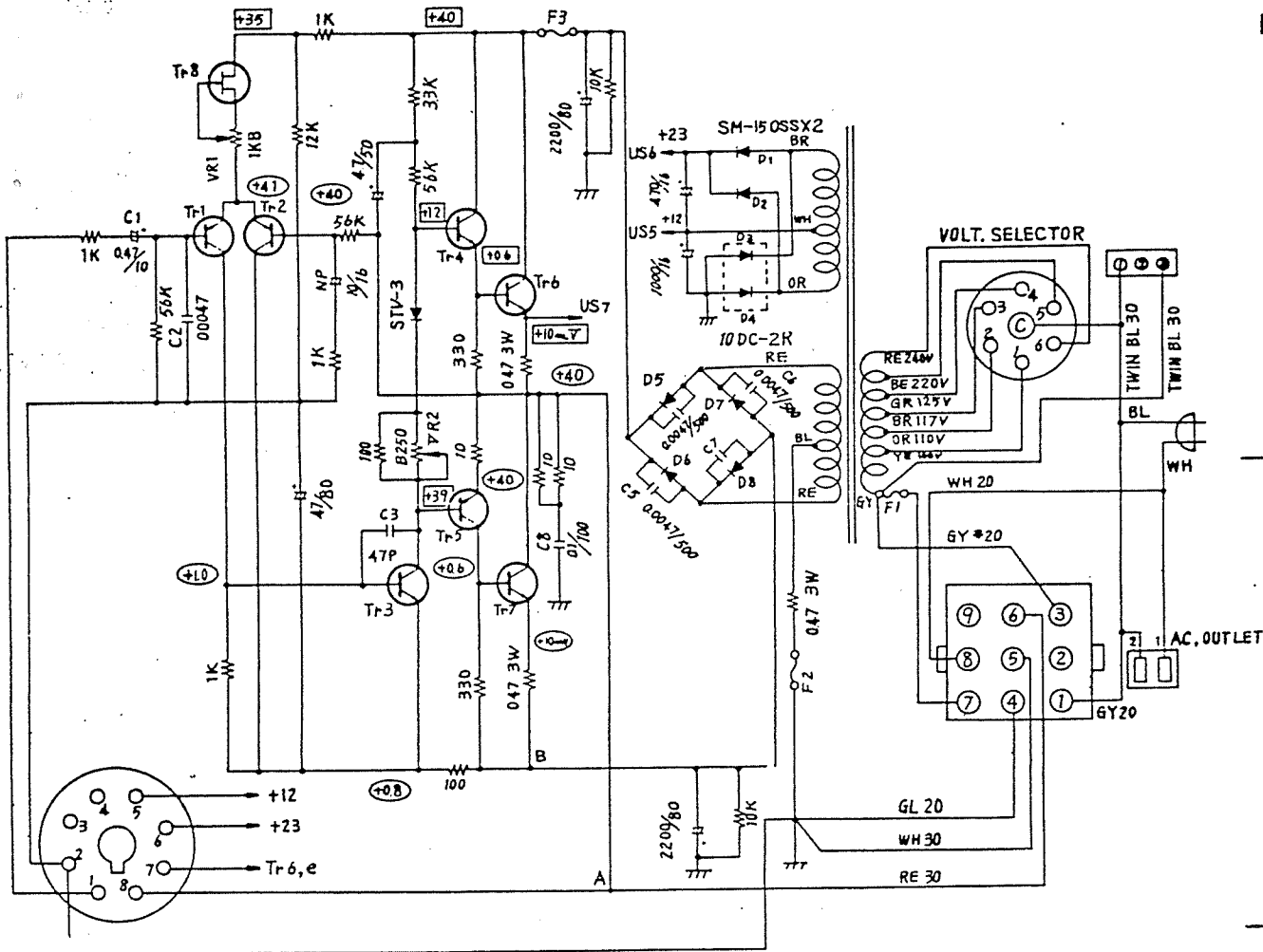
8. FINISH

GREY LEATHERETTE

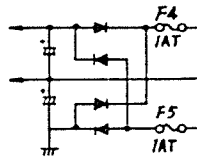


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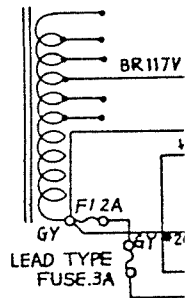
YTA-45 Power Amplifier Circuit Diagram



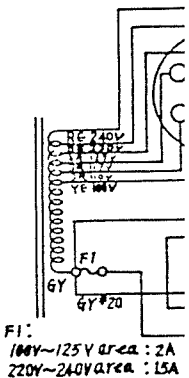
North Europe (



UL, CSA Spec.

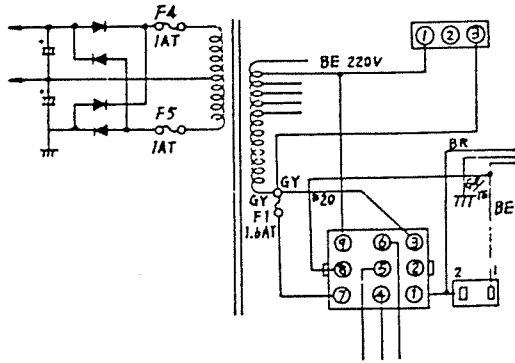


Europe, South

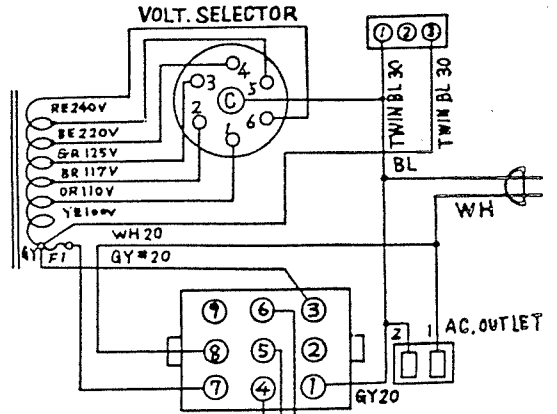


- Notes)
1. Transistor
 Tr1, Tr2 : 2SA502 (12~10)
 Tr3, Tr4 : 2SC484 (Y)
 Tr5 : 2SA484 (Y)
 Tr6, Tr7 : 2SC898 red mark
 Tr8 : 2SK-30 (Y)
 2. Diode
 D1, D2 : SM150SS
 D3, D4 : 10DC-2R red
 D5, D6 : 10DC-4 black
 D7, D8 : 10DC-4R red
 3. Fuse
 F1, F2, F3 : 250V 2A
 4. Capacitor
 C1 : Solid AL Capacitor
 C2, C8 : mylar capacitor
 C3~C7 : Ceramic Capacitor 500V
 5. Power Transformer GA0198
 6. Voltage at Tester
 □ marked: from A point
 ○ marked: from B point

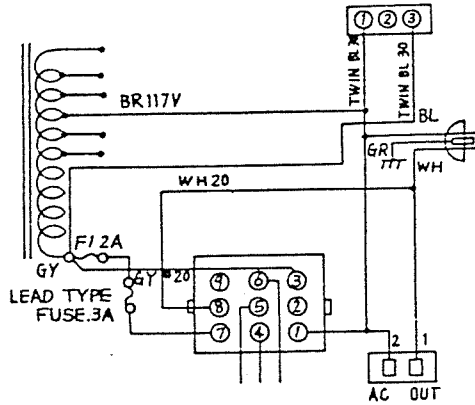
North Europe (SEMKO, NEMKO) Spec.



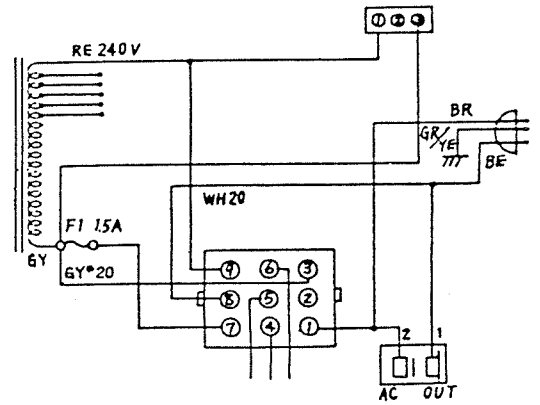
General Spec.



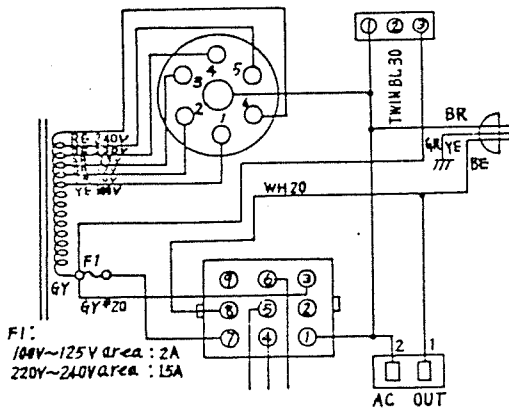
UL, CSA Spec.



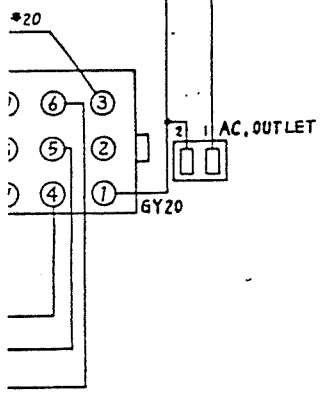
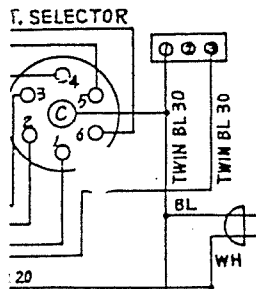
Australia Spec.



Europe, South Africa Spec.

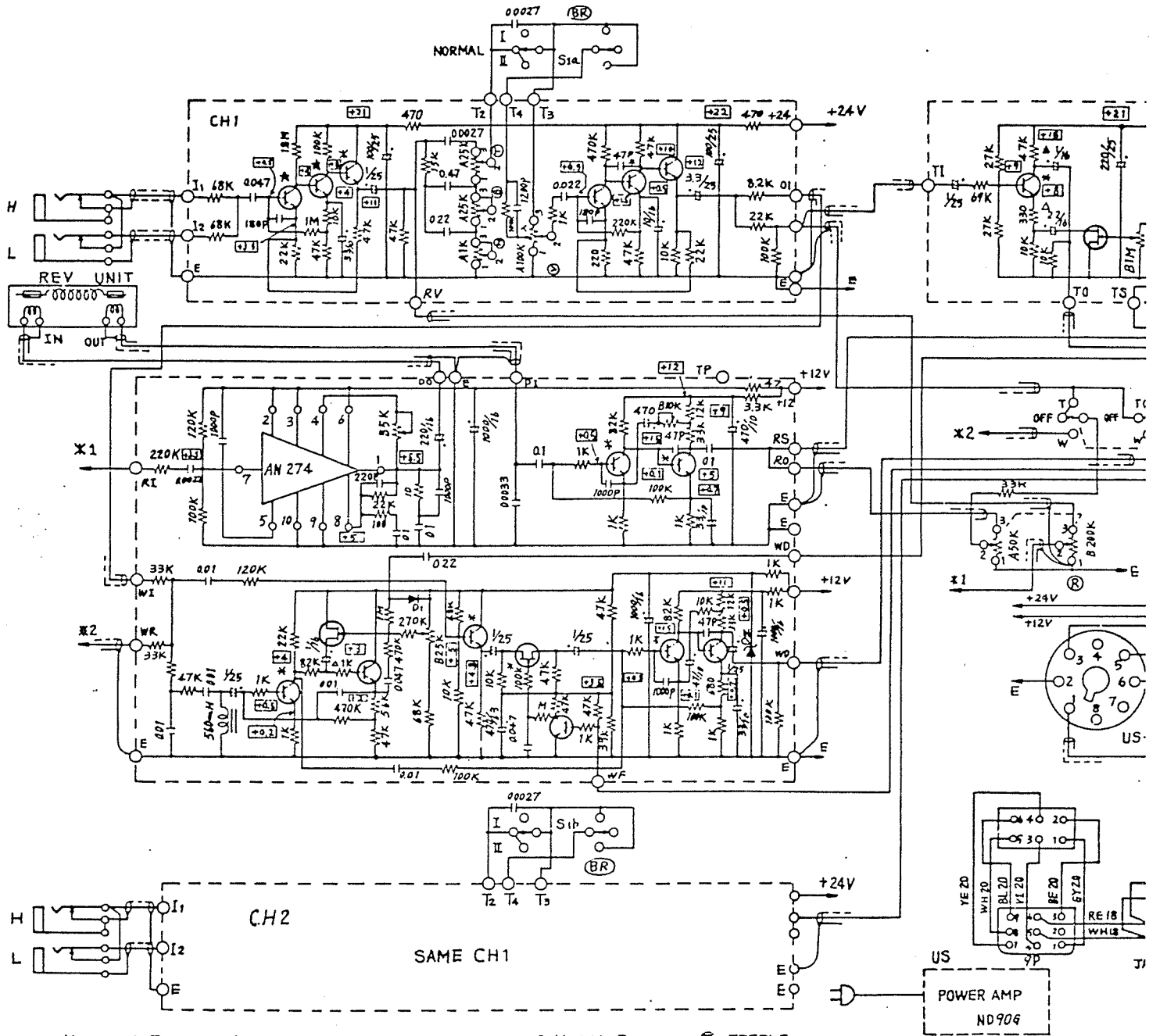


F1:
100V-125V area : 2A
220V-240V area : 1.5A



- 1502 (12-16)
- 1484 (Y)
- 1484 (Y)
- 1898 red mark
- 1-30 (Y)
- 150SS
- 10C-2R red
- 10C-4 black
- 10C-4R red
- 10V 2A
- 100µF AL Capacitor
- 100µF electrolytic capacitor
- 100µF Ceramic Capacitor 500V
- 0198
- joint
- joint

YTA-95 Overall Circuit Diagram

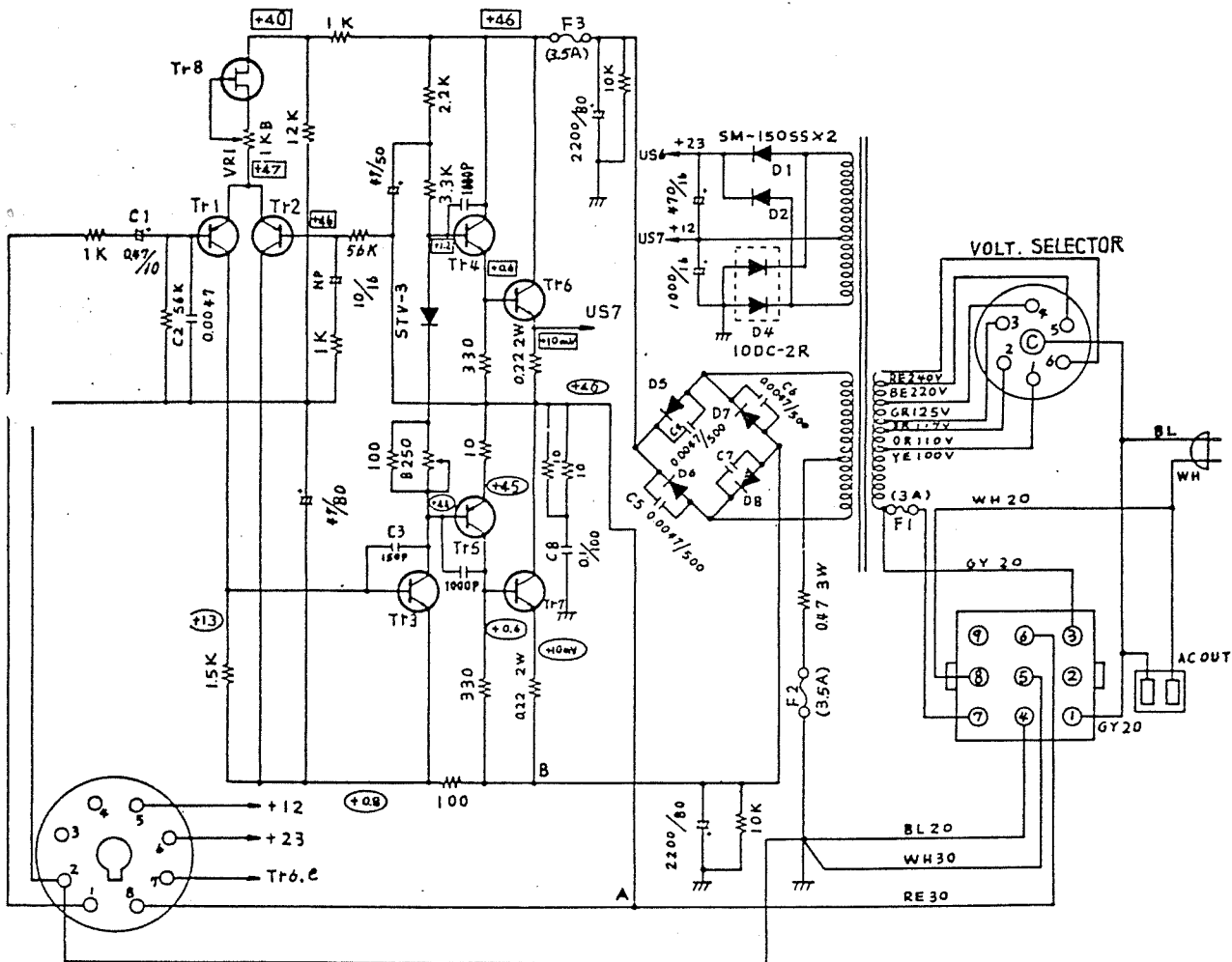


- Notes.
1. Transistor ☆ Marked (4 pcs.)
 = Marked (13 pcs.): 2SC732(BL)
 Others: (7, pcs.): 2SC828(P)
 Diode D1: 1S1555
 D2: WZ-090
 FET 2SK30(Y) (3 pcs.)
 2. △ Marked: Solid AL Capacitor (8 pcs.)

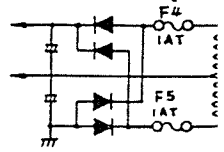
3. Variable Resistor
 ⊕ TREBLE
 ⊕ BASS
 ⊕ MIDDLE
 ⊕ REVERB
 ⊕ INTENSITY
 ⊕ SPEED
 ⊕/W : TREMOLO/WAW WAW
 ⊕ BR : BRILLIANCE

4. AC OUTLET : except for North Europe, Europe, South Africa & Australia Spec.
5. POWER SW. : North Europe & Australia Spec. : Fig 1.
6. □ Marked: Voltage at Tester

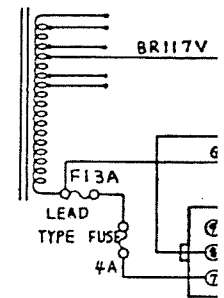
YTA-95 Power Amplifier Circuit Diagram



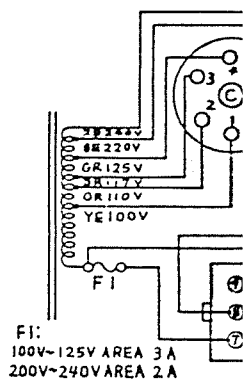
North Europ (SE)



UL, CSA Spec



Europe, South

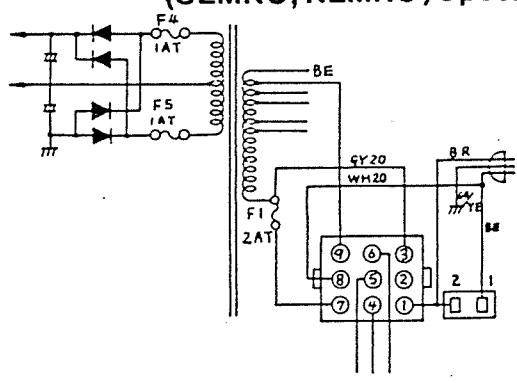


- Notes)
- 1.) Transistor Tr1, Tr2 : 2SA502 (12~ 16)
Tr3, : 2SC484 (Y)
Tr5, : 2SA483 (Y)
Tr6, Tr7, : 2SC1080
Tr8, : 2SK-30 (Y)
Tr4, : 2SC783 (Y)
 - 2.) Diode D1, D2 : SM150SS
D3, D4 : 100C-2R
D5, D6, D7, D8 : M9235
 - 3.) Fuse F1 : 3A F2 : 3.5A F3 : 3.5A
North Europe, Europe, : F2, F3 : 3.0A
 - 4.) Capacitor C1 : Solid AL capacitor
C2, C8 : Mylar capacitor
C3~ C7 : Ceramic capacitor
 - 5.) Power Transformer : GA0199
 - 6.) Voltage at Tester

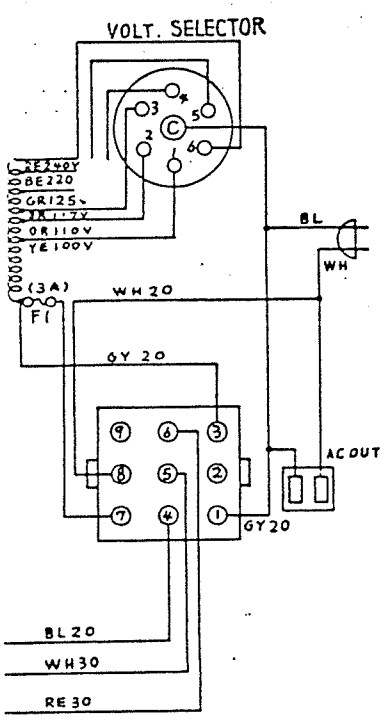
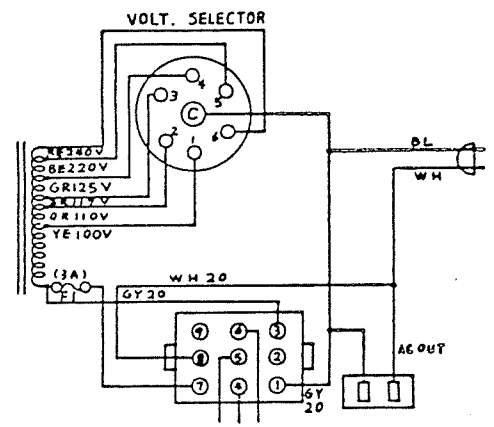
□	marked: from A point
○	marked: from B point

gram

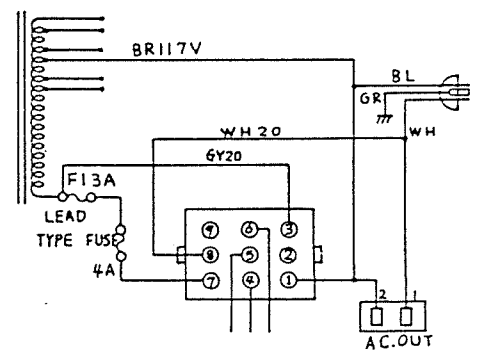
**North Europe
(SEMKO, NEMKO) Spec.**



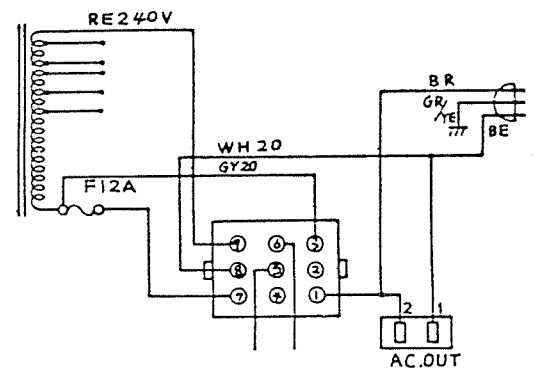
General Spec.



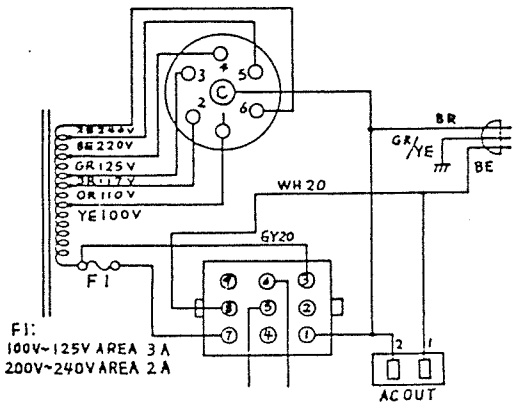
UL, CSA Spec.



Australia Spec.



Europe, South Africa Spec.



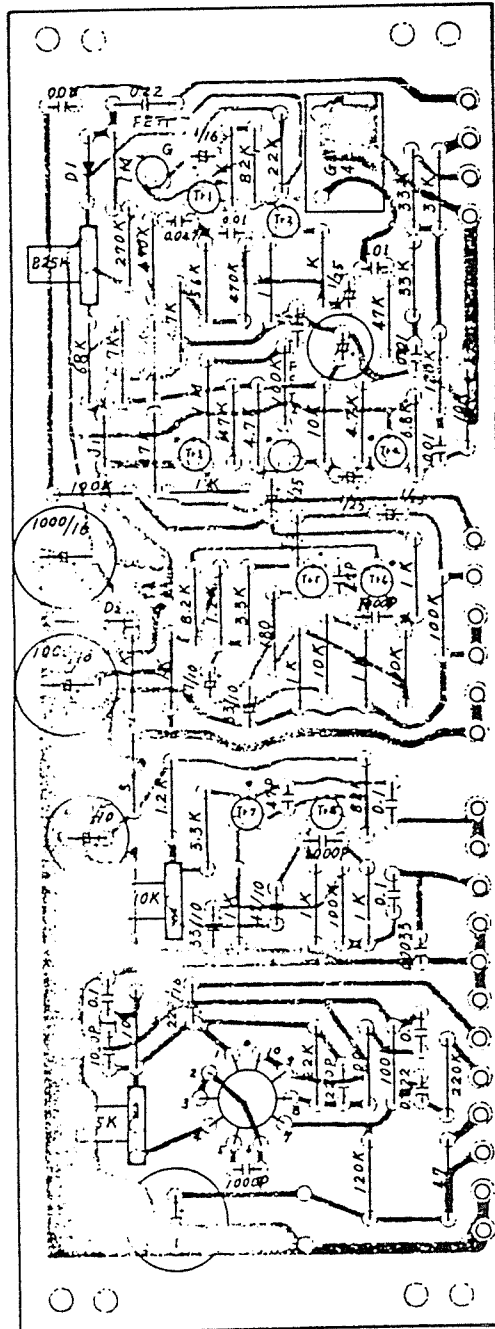
- Tr1, Tr2 : 2SA602 (12-16)
- Tr3 : 2SC484 (Y)
- Tr5 : 2SA483 (Y)
- Tr6, Tr7 : 2SC1080
- Tr8 : 2SK-30 (Y)
- Tr4 : 2SC783 (Y)
- D1, D2 : SM150SS
- D3, D4 : 10DC-2R
- D5, D6, D7, D8 : M9235
- F1 : 3A F2 : 3.5A F3 : 3.5A
- North Europe, Europe. : F2, F3 : 3.0A
- C1 : Solid AL capacitor
- C2, C8 : Mylar capacitor
- C3-C7 : Ceramic capacitor
- Transformer : GA0199
- at Tester
- marked: from A point
- marked: from B point

F1:
100V~125V AREA 3A
200V~240V AREA 2A

Reverb & Waw Waw Circuit

RW Circuit Board No. 1190 (NA2238)

YTA-95



- Notes)
1. Transistor
 Tr2, Tr3 : 2SC828 (P)
 Tr1, 4, 5, 6, 7, 8: 2SC844 (Q)
 2. FET: 2SK30 (Y)
 3. Diode
 D1 : 1S1555
 D2 : WZ-090

YTA-45, YTA-95 Parts List

Parts No.	Parts Name	Description	Remarks
AA2436	Back Panel	YTA-45	
AA2386	Back Panel	YTA-95	
CB0166	Pilot Lens		
CB1868	Knob # 1868		
CB1869	Knob # 1869		
CB1870	Knob # 1870		
CB0777	Lamp Holder		
LA0128	AC Socket	Miyama # 503B	
LA0109	Color Terminal Board		
LA0029	Earth Lug Board		
JA3052A	Speaker		
JB0026	Neon Lamp	NE-2P	
KA0197	Power SW	MARQUARDT D145-1301	
NB0198	Foot SW (Black)		
	Foot SW (Gray)		
ND4501G	Power Amplifier	45W	General Spec.
ND4502G	Power Amplifier	45W	except for General Spec.
NB1661	Reverb. Unit		
NA2243	Circuit Board # 1187	YTA-45, YTA-95	
NA2244	Circuit Board # 1216	YTA-45, YTA-95	
NA2258	Circuit Board # 1226	YTA-45	
NA2259	Circuit Board # 1227-2	YTA-45	
NA2250	Circuit Board # 1227-1	YTA-95	
NA2220	Circuit Board # 1185-3	YTA-45, YTA-95	100V area
	Circuit Board # 1185-4	YTA-45, YTA-95	200V area
NA2238	Circuit Board # 1190-2	YTA-95	
HC0305	Variable Resistor A50K+B200K HS320150		

CIRCUIT BOARD PARTS LIST

	Transistor 2SC732 (BL)		
	Transistor 2SC644 (Q)		
	Transistor 2SC828 (P)		
	FET 2SK30 (Y)		
	IC AN274		
	Diode 1S1555		
	Zener Diode WZ-090		
KA0198	Toggle Switch	S-7B	
	Variable Resistor B5K	18K-3-1	
	Variable Resistor B10K	18K-3-1	
	Variable Resistor B25K	18K-3-1	
	Variable Resistor B500K	10K-5	
	Variable Resistor B1M	10K-5	
HC0301	Variable Resistor A1K HS320010		24φ e=20mm
HC0302	Variable Resistor A25K HS320040		24φ e=20mm
HC0303	Variable Resistor A100K HS320070		24φ e=20mm
HC0304	Variable Resistor B50K HS320100		24φ e=20mm
HC0306	Variable Resistor C50K X 2 HS320130		24φ e=20mm
	Heat Sink #0512		

Power Amplifier Parts List (except for Circuit Board)

Parts No.	Parte Name	Piscription	Remarks
	Lug Terminal Type Electrolytic Capacitor 2200 μ /80V		
GA0198	Power Transformer	YTA-45	
GA0199	Power Transformer	YTA-95	
	Fuse 1.5A 250V		Australia, South Africa
	Fuse 2A 250V		except for Europe, North Europe
	Fuse 3A 250V		
	Fuse 3.5A 250V		
	Lead Type Fuse 3A	UL approved	UL, CSA
	Lead Type Fuse 4A		
	Miniature Fuse 1AT	SEMKO approved	North Europe
	Miniature Fuse 1.6AT	SEMKO approved	North Europe, Europe
	Miniature Fuse 2AT	SEMKO approved	North Europe, Europe
LB0082	Voltage Selector	MITSUMI	General, Europe, South Africa
LB0086	Fuse Holder	SEMKO approved	North Europe
LB0128	AC Socket	MIYAMA #503B	
MZ0582	9P Socket Wires		
MZ0613	Connector Unit		
MZ0066	AC Cord	3.3m	General
MZ0438	AC Cord	3.3m 3 core	South Africa
MZ0484	AC Cord	Miniature Cord	Australia
MZ0555	AC Cord	SEMKO approved 3.3m	North Europe
MZ0623	AC Cord	UL, CSA approved	UL, CSA
NA2203-1	Circuit Board # 1136		except for Europe, North Europe
NA2203-2	Circuit Board # 1136		Europe, North Europe

Power Amplifier Parts List (Circuit Board)

	Variable Resistor B-250	18K-3-1	
	Variable Resistor B-1K	18K-3-1	
	Cement Resistor 0.47 3P		
	Transistor 2SA502 (12-16)	TOSHIBA	
	2SA484 (Y)	TOSHIBA	YTA-45 (ND-45G)
	2SC484 (Y)	TOSHIBA	
	2SC898 (A) or (B)	HITACHI	YTA-45 (ND-45G)
	2SA483 (O.R)	TOSHIBA	YTA-95 (ND-90G)
	2SC783 (O.R)	TOSHIBA	YTA-95 (ND-90G)
	2SC1080 (Y)	TOSHIBA	YTA-95 (ND-90G)
	FET 2SK30 (Y)		
	Diode 10DC-4	Nippon International	
	10DC-4R	Nippon International	
	10DC-2R	Nippon International	
	SM-150SS	ORIGIN	
	Varistor STV-3		