

# SERVICE MANUAL



## MODEL 5100

### 4 CHANNEL ADD AMPLIFIER

DIMENSIONS : H-5 $\frac{7}{8}$ ", W-10 $\frac{5}{16}$ ", D-14"      WEIGHT : 17.4 lbs.

#### SPECIFICATIONS

Total Dynamic Power :	100W (50W+50W) 4Ω IHF 68W (34W+34W) 8Ω IHF
Continuous Power :	66W (33W+33W) 4Ω 52W (26W+26W) 8Ω
Load Impedance :	4~16Ω
THD at Rated Power :	Less than 0.5% at 1kHz
IM Distortion at Rated Power :	1%
Power Band Width :	30~30Hz
Frequency Response :	20~50kHz
Damping Factor :	50 (1kHz)
Input Sensitivity :	Tape 180mV Aux 180mV Ch1, 3 IN 500mV Ch2, 4 Main IN 500mV Recording OUT 180mV Ch2, 4 Pre OUT 500mV
Output Level :	AUX -70dB
Signal to Noise Ratio :	Phase inverse scatter circuit
SFCS :	
S. E. A. SECTION	
S. E. A. Center Frequency :	40Hz, 250Hz, 1kHz, 5kHz, 15kHz
S. E. A. Control Range :	±12dB
Power Consumption :	85W (maximum Power)
Power Source :	100, 120, 220, 240V Selectable 50/60Hz

## REMOVAL OF CHASSIS

- ① Loosen 5 screws from the bottom of the wooden case.
- ② Pull out the chassis in the arrow direction lifting it up slightly with both hands. Also lift up with both hands in case of closing chassis into the cabinet.

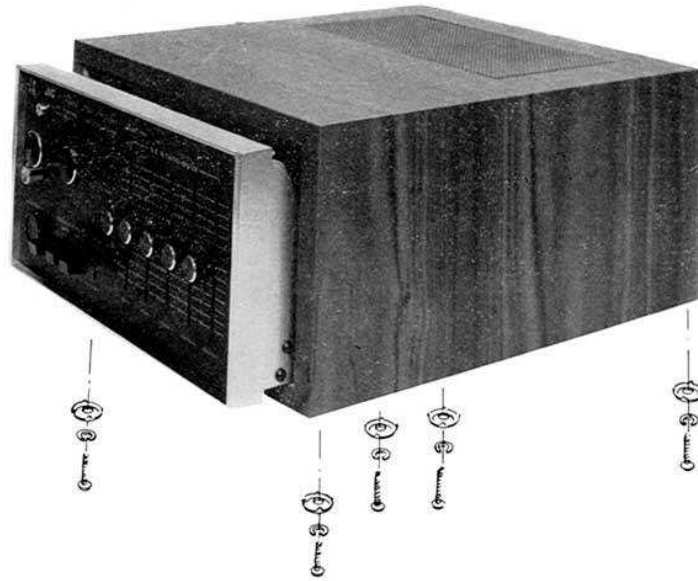


Fig. 1

## MAIN PARTS ARRANGEMENT

### FRONT VIEW

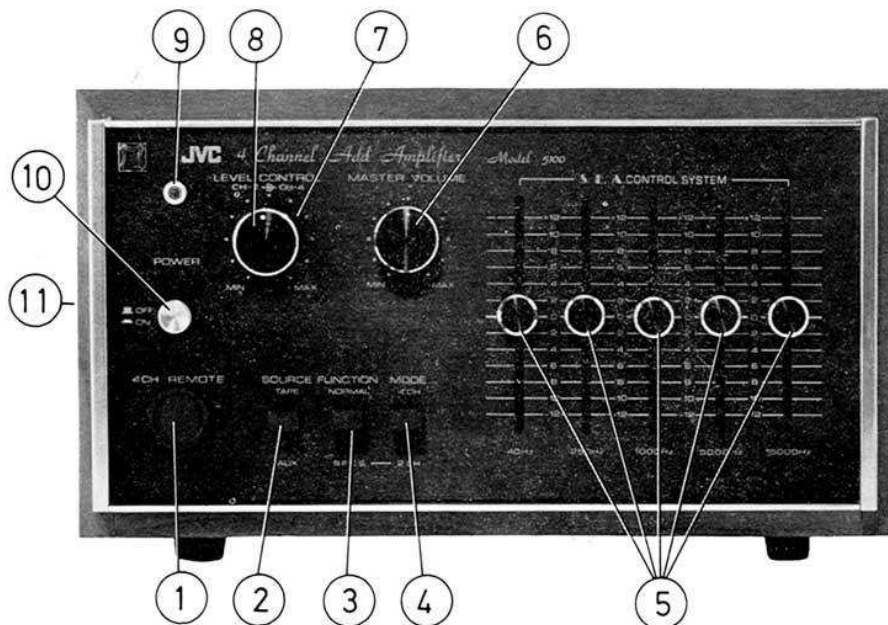


Fig. 2

Dwg. No.	Parts No	Parts Name	Dwg. No.	Parts No.	Parts Name
1	E46642-002	Balance Remote Cap Ass'y	7	E46826-001	Level Control CH-4 Knob
2	E42997-001	Source Knob	8	E46824-001	Level Control CH-2 Knob
3	"	Function Knob	9	E41427-1	Rabbit Eye
4	"	Mode Knob	10	E46606-001	Power Switch Knob
5	E46604-001	Slide Knob	11	DL-ED1261	Wooden Case
6	E46607-001	Master Volume Knob			

## MAIN PARTS ARRANGEMENT

### UPPER VIEW

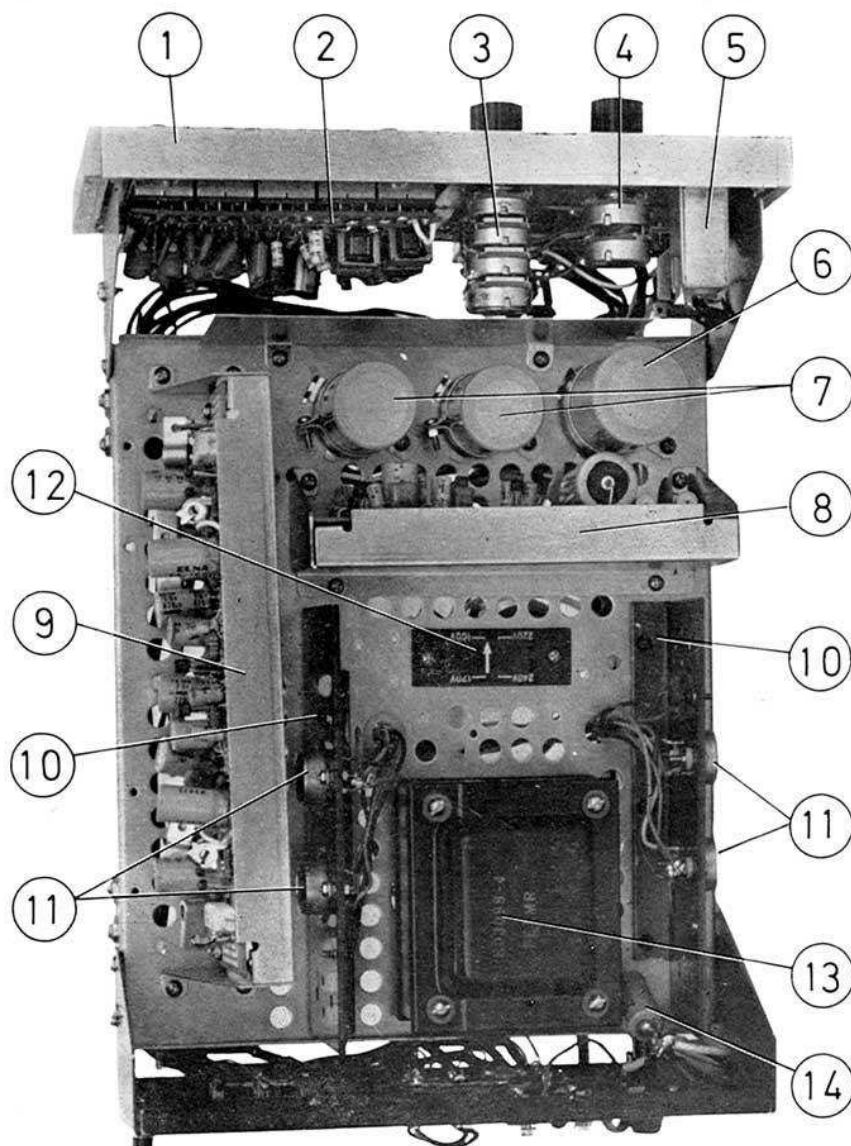


Fig. 3

Dwg. No.	Parts No.	Parts Name	Dwg. No.	Parts No.	Parts Name
1	E32805-001	Front Panel Sub Ass'y	8	TAP-106B	Power Source Protector & SFCS
2	TAC-129C	S. E. A. Circuit Board Ass'y	9	TAD-76	Circuit Board Ass'y
3	Q30385-002	Master Volume	10	E30375-DS	Drive Amp. Circuit Board Ass'y
4	E0352-17	Level Control Volume	11	2SC1030	Radiation Plate
5	Q04967-9	Pilot Lamp	12	E04085	Power Transistor
6	Q03600-21	Electrolytic Capacitor	13	E03098-4	Voltage Selector Plug
7	Q03592-21	Electrolytic Capacitor	14	Q03212-103M	Power Transformer
					O. F. T. Capacitor

## POWER TRANSFORMER CIRCUIT

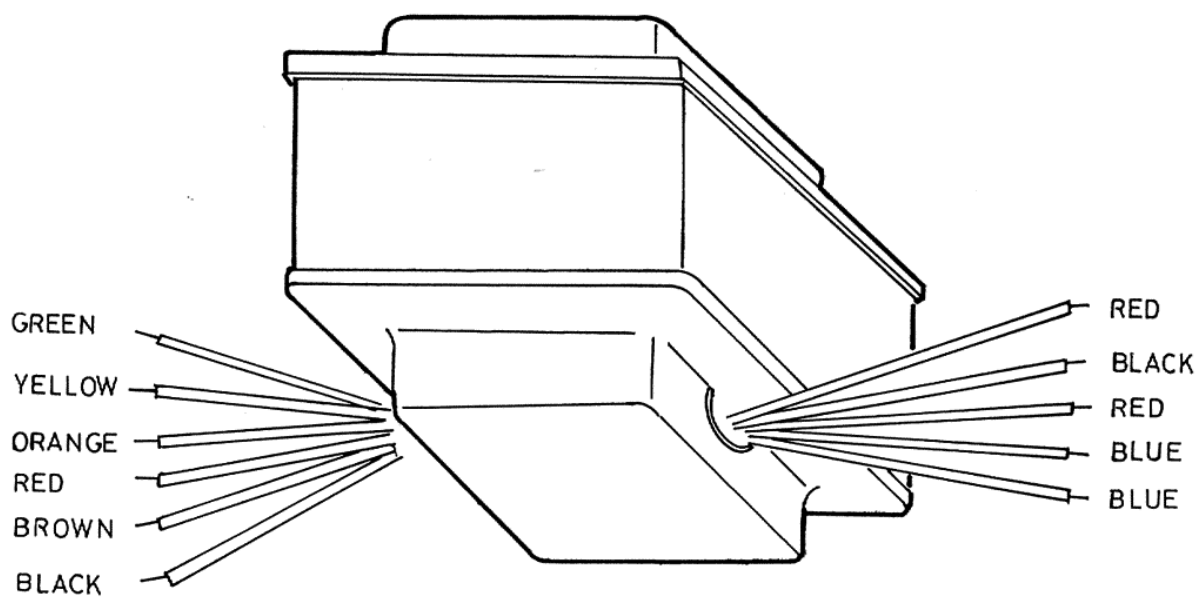


Fig. 4

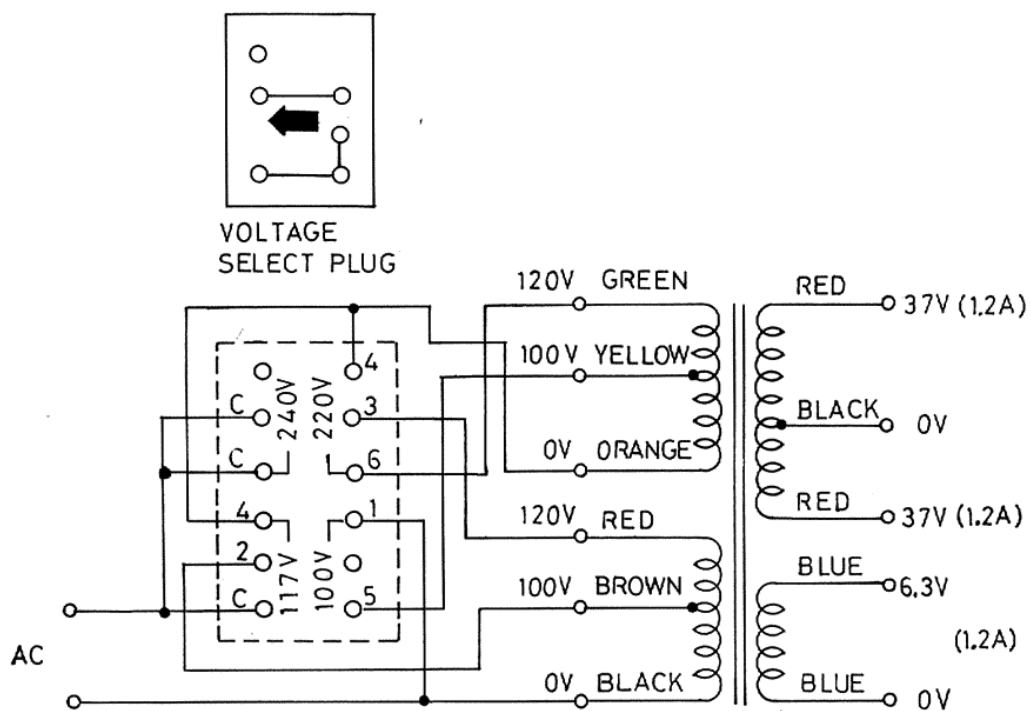


Fig. 5

## USED TRANSISTOR

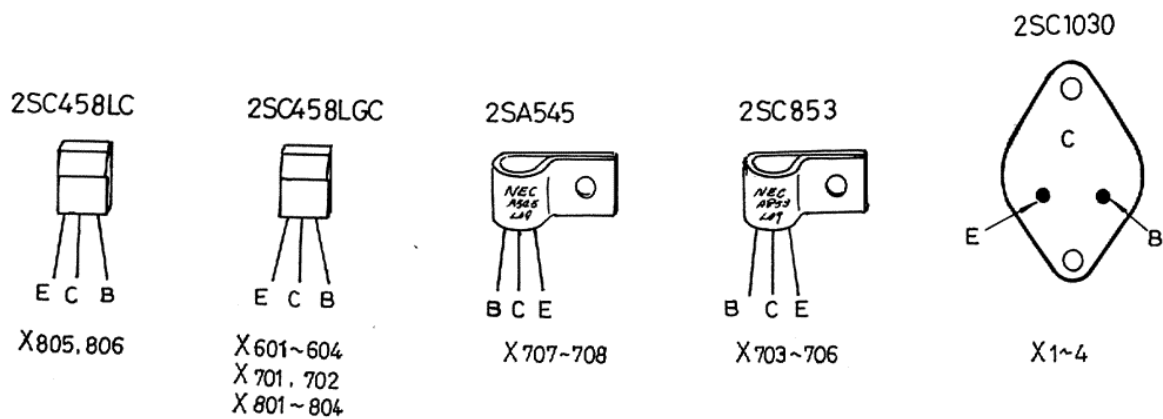
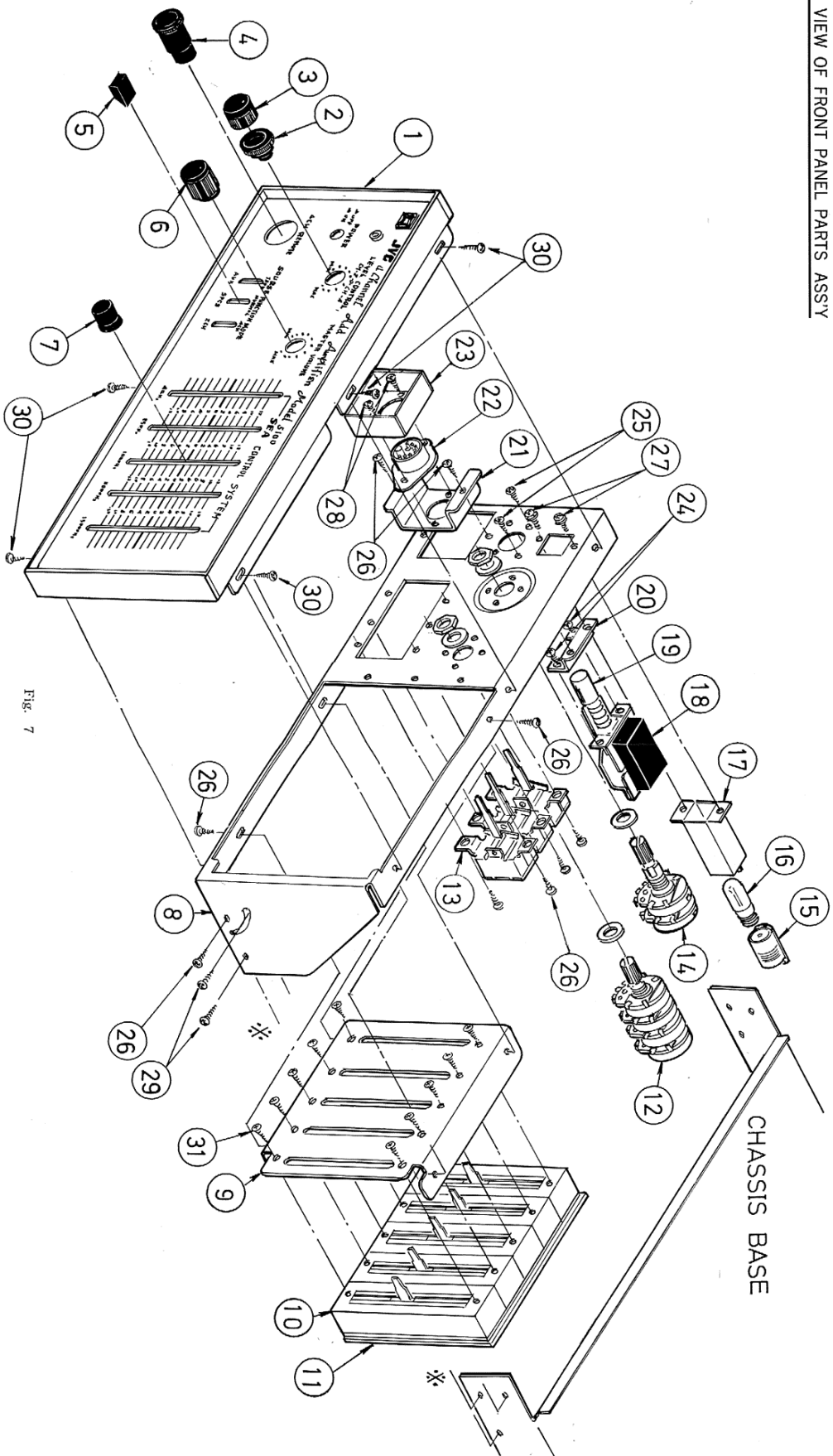


Fig. 6

EXPLODED VIEW OF FRONT PANEL PARTS ASS'Y



No.	Parts No.	Parts Name	Description
1	E32805-001	Front Panel Sub Ass'y	
2	E46826-001	Double Knob	Level Control CH-4
3	E46824-001	"	Level Control CH-2
4	E46642-002	Balance Remote Cap Ass'y	4-CH Remote
5	E42997-001	Lever Knob	Source, Function, Mode
6	E46607-001	Knob	Master Volume
7	E46604-001	Slide Knob	S. E. A.
8	E20879-001	Front Bracket	
9	E32807-001	Slide Volume Holder	
10	E03306-001S	Slide Variable Resistor	
11	TAC-129C	S. E. A. Circuit Board Ass'y	
12	Q30385-002	Variable Resistor	
13	Q03082-001	Lever Switch	
14	E0352-17	Variable Resistor	
15	Q30110-A	Lamp Socket Ass'y	
16	Q04967-9	Pilot Lamp	

No.	Parts No.	Parts Name	Description
17	E44653-001S	Light Shield	
18	Q03385-001S	Push Switch	Power Switch
19	E46606-001	Push Button Knob	"
20	E46914-001	Push Switch Bracket	
21	E46819-001	Balance Remote Holder	
22	E03380-001	8P Socket	
23	E46820-001	Balance Remote Cover	4 CH Remote
24	E44865-001S	Screw	
25	SBSB3006N	Tapping Screw	
26	SSSB3006N	"	
27	LPSP3006NS	Ass'y Screw	
28	SBSB3006M	Tapping Screw	
29	SSSB3006C	"	
30	SSSB3006C	"	
31	SSSP3006ZS	Screw	

EXPLODED VIEW OF REAR PANEL PARTS ASS'Y

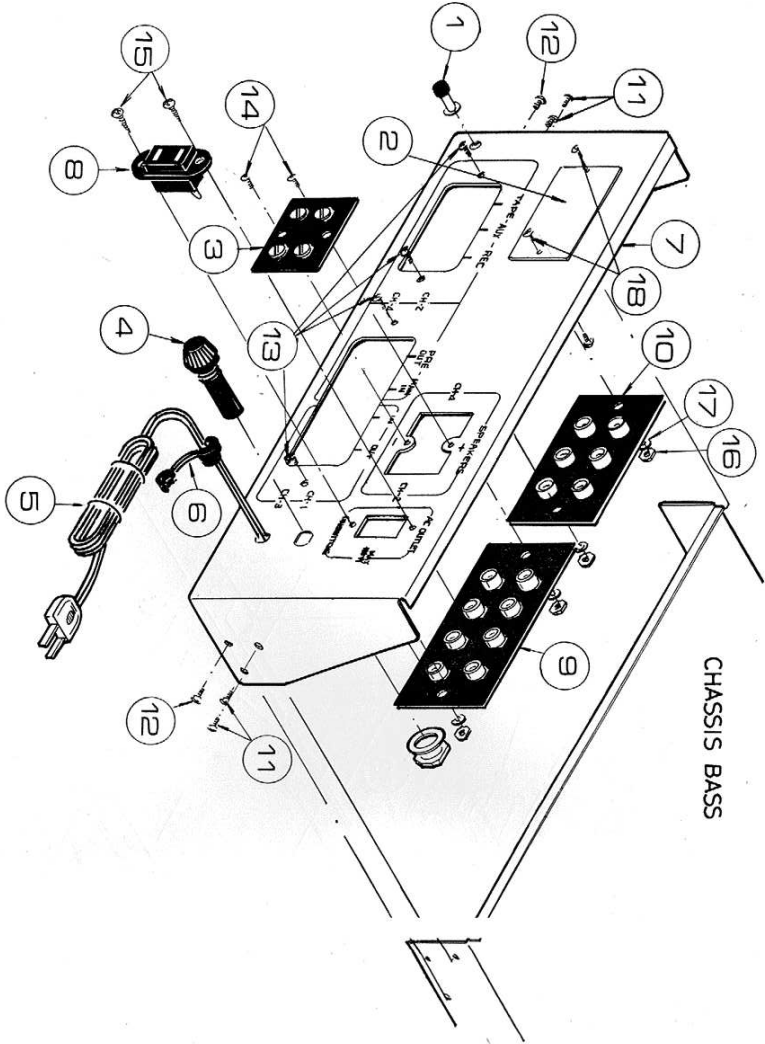
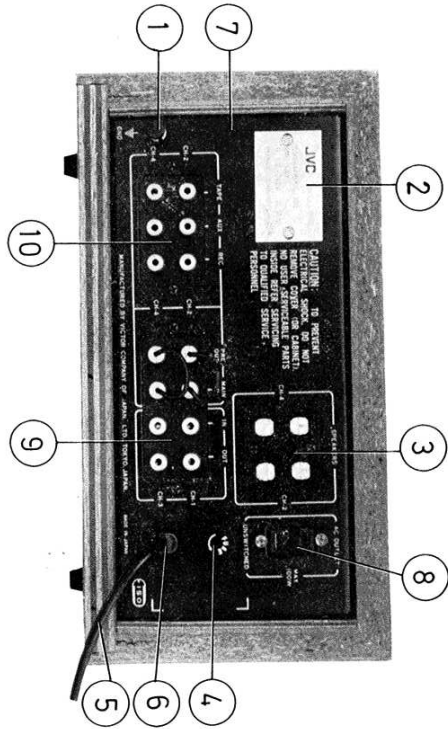


Fig. 8

No.	Parts No.	Parts Name	Description
1	E04069	Push Terminal	GND
2	E46369-014	Rating Plate	Speaker
3	Q30156-001	Terminal Board Assy	
4	Q30210-001	Fuse Socket Assy	
5	Q03056-14	Power Cord with Plug	
6	E31704-001	Power Cord Stopper	
7	E32806-001	Rear Panel	
8	Q30120-001	AC Socket	
9	E03043-80	Pin Jack Assy	UL



No.	Parts No.	Parts Name	Description
10	E03043-60	Pin Jack Assy	
11	SBSB3006C	Tapping Screw	
12	SBSB3006M	"	
13	SPSP3008MS	Screw	
14	SBSB3008M	Tapping Screw	
15	SBSB3008M	Tapping Screw	
16	NNB3000NS	Nut	
17	WLS3000	Lock Washer	
18	SBSB3006N	Tapping Screw	

# WIER CONNECTION

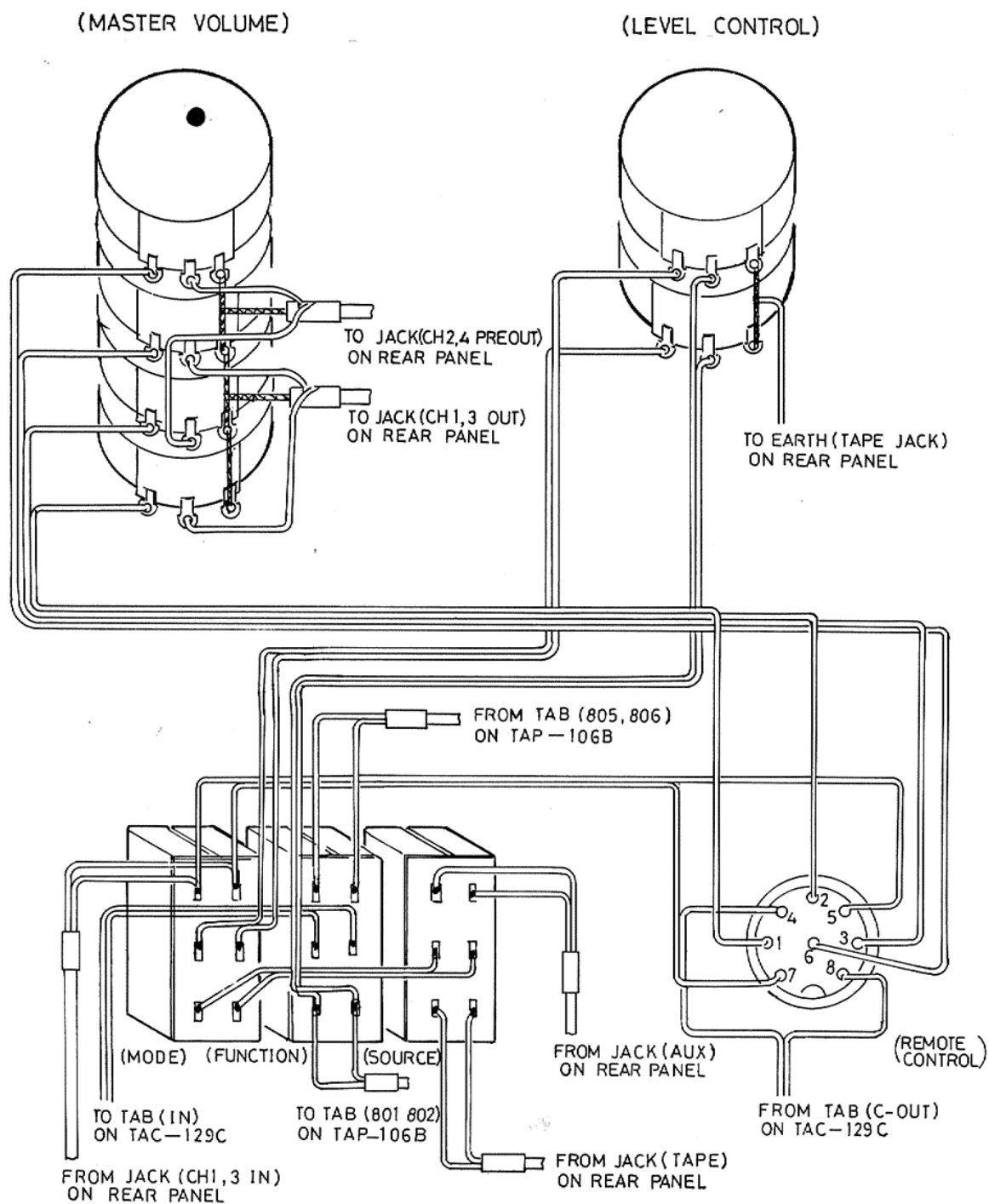


Fig. 10

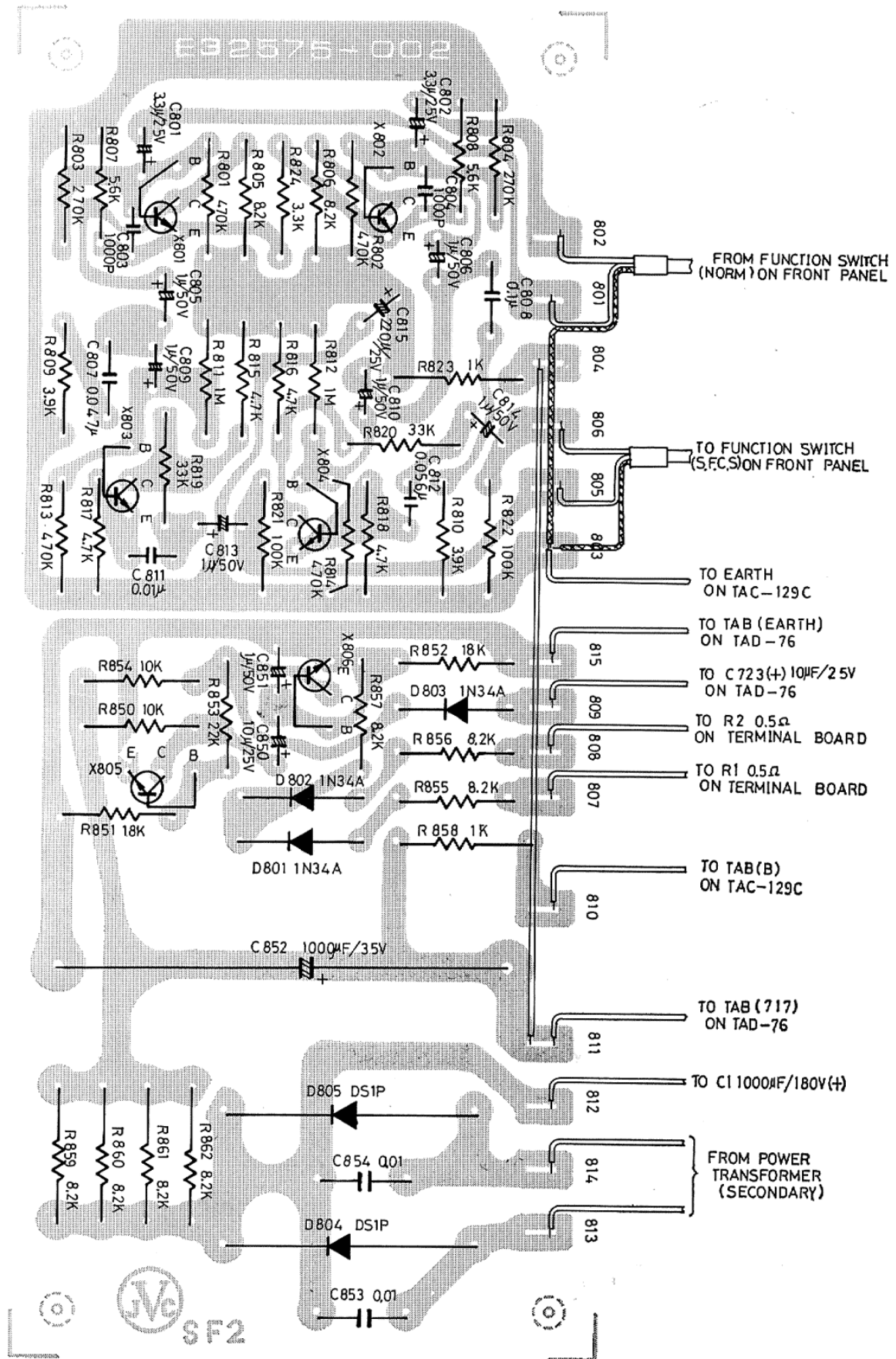


Fig. 11



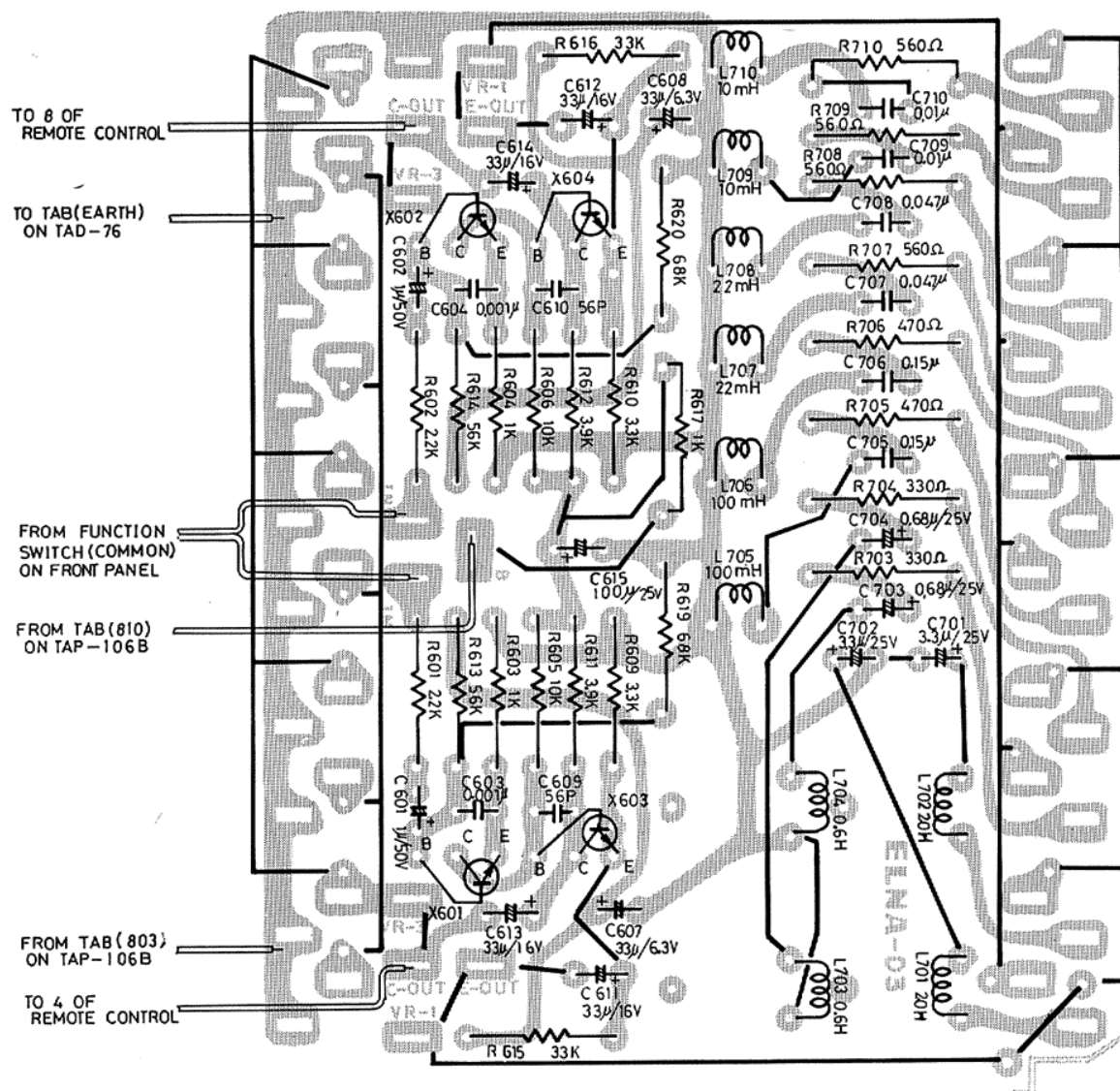


Fig. 12

MAKER'S NAME OF USED TRANSISTOR, IC AND DIODE

2SC458LGC or LC	}	Hitachi
2SC1030		
1N34A		
2SC853M or L	}	NEC
2SA545M or L		
DS410	}	Sanyo
SDT-20		
DS-1P		Fuji

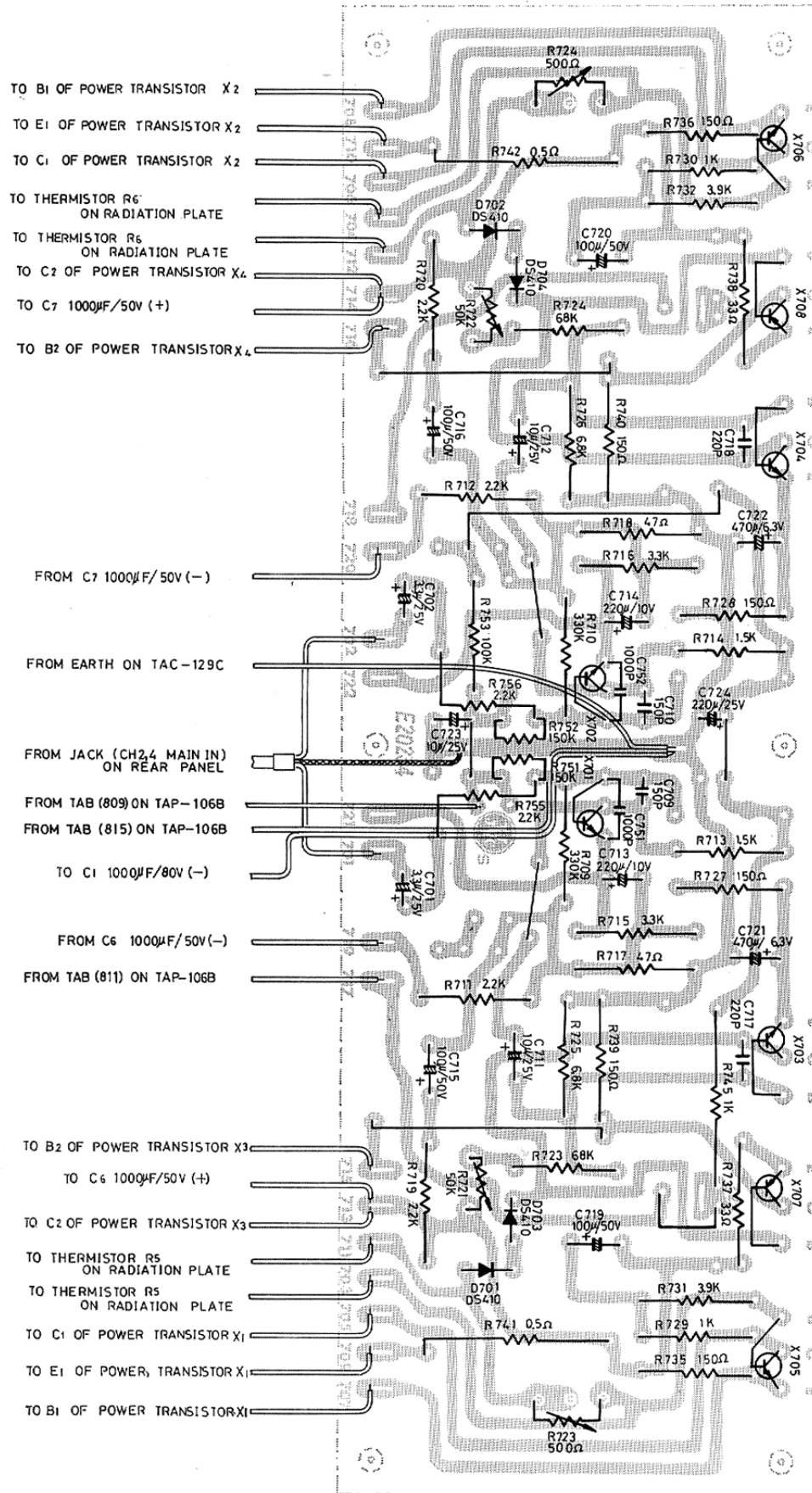


Fig. 13

## The List of Main Parts for Replacement

Parts No.	Parts Name	Description
<b>Cabinet Parts</b>		
DL-ED1261	Wooden Case	
E7857-1	Mounting Washer	
LPSP4025ZS	Ass'y Screw	
<b>Front Panel Ass'y</b>		
E32805-001	Front Panel Sub Ass'y	
E41302-003	Escutcheon Ring	
E41427-1	Rabbit Eye	
E45302-001	Washer	
E50571-2	Special Nut	
<b>Knob</b>		
E46607-001	Knob	For Master Volume
E46824-001	Double Knob	For CH-2 Level Control
E46826-001	"	For CH-4 Level Control
E42997-001	Lever Knob	For Source, Function, Mode
E46604-001	Slide Knob	For S. E. A.
E46606-001	Push Button Knob	For Power Switch
E46642-002	Balance Remote Cap Ass'y	For Remote Control
<b>Volume &amp; Switch</b>		
Q30385-002	Variable Resistor	For Master Volume
E0352-17	"	For Level Control
E03306-001S	Slide Variable Resistor	For S. E. A.
Q03885-001S	Push Switch	For Power Switch
Q03082-001	Lever Switch	For Source, Function, Mode
<b>Socket, Jack, Plug &amp; Terminal</b>		
Q30110-A	Lamp Socket Ass'y	
E03380-001	8P Socket	For Remote Control
E04085	Voltage Selector Plug	
E04084	Voltage Selector Socket	
Q30210-001	Fuse Socket Ass'y	
Q30120-001	AC Socket	UL
E03043-60	Pin Jack Ass'y	
" -80	"	
Q30156-001	Terminal Board Ass'y	For Speaker
E04069	Push Terminal	For GND
E46310-001	Terminal Board	
Q03001-31	Lug Strip Ass'y	
E41490-3	Pin Plug Ass'y	
<b>Transformer</b>		
E03098-4	Power Transformer	
<b>Pilot Lamp &amp; Fuse</b>		
Q04967-9	Pilot Lamp	8V 0.3A
04112-1.8	Fuse	For Used 220~240V
" -3.3	"	For Used 100~120V
<b>Capacitor</b>		
Q03203-103M	O. F. T. Capacitor	0.01 $\mu$ F C3
Q03212-103M	"	0.01 $\mu$ F C2
Q03600-21	Electrolytic Capacitor	1000 $\mu$ F/80V C1
Q03592-21	"	1000 $\mu$ F/50V C6,7
Q42309-4700	Ceramic Capacitor	4700pF C4,5
Q46962-1000	"	1000pF C10
Q03244-333	Mylar Capacitor	0.033 $\mu$ F C8,9

Parts No.	Parts Name	Description
<b>Transistor &amp; Thermistor</b>		
2SC1030	Power Transistor	X1~4
E41542-8	Insulator Film	
E41541-7	Spacer	
SPBP3012NS	Screw	
WLS3000N	Lock Washer	
E41543-1	Earth Lug	
NNB3000NS	Nut	
E41250-1	Thermistor Supportor	
E04026-4	Thermistor	R5, 6 (SDT-20)
E41251-1	Spring	
SBSB3008N	Tapping Screw	
<b>Power Cord</b>		
Q03056-14	Power Cord	
E31704-001	Power Cord Stopper	
<b>Drive Amp. Circuit</b>		
Board Ass'y		
TAD-76	Drive Amp. Circuit Board with Parts	
2SC853-M or L	Transistor	X703~706
2SA545-M or L	"	X707, 708
2SC458LGC	"	X701, 702
E03125-001	Varistor	DS410, D701~704
Q03110-200	Electrolytic Capacitor	220 $\mu$ F/25V C724
Q03106-200	"	220 $\mu$ F/10V C713, 714
Q03110-10	"	10 $\mu$ F/25V C711, 712, 723
" -3	"	3.3 $\mu$ F/25V C701, 702
Q03112-100	"	100 $\mu$ F/50V C715, 716, 719, 720
Q03111-10	"	10 $\mu$ F/50V C727, 728
Q03104-500	"	470 $\mu$ F/6.3V C721, 722
Q46962-1000	Ceramic Capacitor	C751, 752
Q04052-150	"	C709, 710
" -220	"	C717, 718
E04117-3-0.5	Unflamable Resistor	R741, 742
Q04842-6	Variable Resistor	500 $\Omega$ R723, 724
Q04848-3	"	50K $\Omega$ R721, 722
<b>S. E. A. Circuit</b>		
Board Ass'y		
TAC-129C	S.E.A. Circuit Board with Parts	
2SC458LGC	Transistor	X601~604
Q03104-30	Electrolytic Capacitor	33 $\mu$ F/6.3V C607, 608
Q03108-30	"	33 $\mu$ F/16V C611, 612
Q03110-30	"	33 $\mu$ F/25V C613, 614
Q03112-1	"	1 $\mu$ F/50V C601, 602
Q03110-100	"	100 $\mu$ F/25V C615
Q04052-56	Ceramic Capacitor	C609, 610
Q46962-1000	"	C603, 604
E03131-10	Tantal Capacitor	10 $\mu$ F/25V C701, 702
" -0.68	"	0.68 $\mu$ F/25V C703, 704
Q03244-103	Mylar Capacitor	C709, 710
" -473	"	C707, 708
" -224	"	C705, 706
E03108-12	Choke Coil	2.0H L701, 702
" -13	"	0.6H L703, 704
E0747-11	Ferri Inductor	100mH L705, 706
" -9	"	10mH L709, 710
" -10	"	22mH L707, 708

Parts No.	Parts Name	Description
Power Source, Protector & SFCS Circuit Board Ass'y		
TAP-106B	Power Source, Protector & SFCS Circuit Board with Parts	-
2SC458LC	Transistor	X805, 806
2SC458LGC	"	X801 ~ 804
DS-1P	Ge Diode	D804, 805
1N34A	"	D801 ~ 803
Q03137-1000	Electrolytic Capacitor	1000 $\mu$ F/35V C852
Q03110-200	"	220 $\mu$ F/25V C815
" -10	"	10 $\mu$ F/25V C850
" -3	"	3.3 $\mu$ F/25V C801, 802
Q03112-1	"	1 $\mu$ F/50V C805, 806, 809, 810, 813, 814, 851
Q42309-01	Celamic Capacitor	C853, 854
Q46962-1000	"	C803, 804
Q03244-103	Mylar Capacitor	C811
" -563	"	C812
" -473	"	C807
" -104	"	C808

NOTE : A sort of Resistor's Parts Number shown below.

PARTS NO.	SORT OF RESISTOR	
Q04804-	Carbon Resistor	$\frac{1}{2}$ W
Q04800-	"	$\frac{1}{4}$ W
04091-	Composition Resistor	$\frac{1}{2}$ W

When you order Resistor, write required Resistor value in addition to the right hand of hyphen.

For example : Q04804-1K=Carbon Resistor 1K $\Omega$   $\frac{1}{2}$ W.

## ACCESSORIES

04112-1.8	Fuse	1
04112-3.3	Fuse	1
E7958-D	Fuse Label	1
E64208-001	Envelope	1
E64103-001	Polishing Cloth	1
E30580-236A	Instruction Book	1
E30539-290A	Schematic Diagram	1
E64213-002	Warranty Card	1 (For JVC America Inc. only)
E64212-014	Warranty Card	1 (For US Military Personnel only)
E30660-175	Signal Cord with Plug	2
E64207-001	Envelope	1

## Requirement to Customers

- ◎ For the purpose of prompt supply of service parts, inscribe parts number, parts name, and model name correctly when you order.
- ◎ If possible please give an order for spare cabinet in early opportunity since it is very difficult to remanufacture cabinet case after production of the set was discontinued.

# The List of **JVC NIVICO** Service Manual

## (Phonograph)

No.	Model	No.	Model	No.	Model	No.	Model	No.	Model
2081	4TR-3U	2091	ARC-30A, 30B	2101	N760ME, N99U	2111(B)	STC-707C (R#-2)	2121	5007
2082	N-55T	2092	4TR-55	2102	SRP-472E	2112	SST-61	2122	L-21M
2083	SRE-103E	2093	{N670, N770 4TR-99u, etc	2103	SRP-469E	2113	{FRS-103EH.V (R#-2)	2123	ARC-10 Series
2084	N590F, 4TR-590F	2094	STP-7LA	2104	ARC-10L	2114	STP-808C	2124(B)	5003 (Revised)
2085	ARC-40A	2095	TRE-26C	2105	{BLA-204, 208 BLA-304, 30E	2115	SSL-95E	2125	L-311C
2086	TRE-12F	2096	STP-7F	2106	AST-140E	2116	MSL-16T	2126	5204
2087	SRP-467E	2097	N-880 (R#-2)	2107	ARC-12C, E	2117	AST-215E	2127	{4210, 4220, 4230 & (R#-2)
2088	SRP-468E	2098	N-163	2108	CSL-1E	2118	SRC-700U	2128	5305
2089	ECA-101E	2099	4TR-6U	2109	MSL-8E	2119	AST-102E	2129	TRE-12T
2090	STC-19	2100	MSL-15E	2110	SST-31	2120	No. 200E Series	2130	5304

No.	Model	No.	Model	No.	Model	No.	Model	No.	Model
2131	STP-808A	2141	5320, 5340	2151(B)	5040 (R#-2)	2161	4333U	2171	5202
2132	ARC-41, 42	2142	L-311D	2152	SSL-46E	2162	MPX-18B	2172	5220
2133	TRE-666C	2143	6102, 6103, 6104	2153	SSL-46EA	2163	MCA-104E	2173	ARC-15A
2134(B)	4TR-990DX (a)	2144	ARC-10	2154	MSL-300ES	2164	SEA-100E/5100	2174	4344, 4344U
2135	5001	2145	{5011/PST-1000E 5012/MST-1000E	2155	4330	2165	5240B	2175(B)	4450, 4450U
2136	SRP-B30E/5230	2146	5201	2156(B)	N-404, N-404Y	2166	4330U	2176	CSL-130SE
2137	N-65F	2147	MSL-300E	2157	MSL-501E	2167	MCA-105E/5107	2177	5020/5020U
2138	4TR-511D, L511D	2148	5310	2158	N202, 303	2168	5030/5030U	2178	MTR-10ME
2139(B)	SRP-B40E/5240	2149	MSL-110S	2159(B)	4211	2169	SRC-900	2179	5010L
2140	5203	2150	5205	2160	4333U, 4333	2170	5200	2180	4TR-1000
					5010				

No.	Model	No.	Model	No.	Model	No.	Model	No.	Model
2181(B)	4400, 4400U	2191	MCM-105E/5111	2201	MSL-201L	2211	BLA-500E		
2182	ARC-50	2192	5395	2202	MSL-201S	2212	MCT-V7E		
2183	MCT-105E/5108	2193	MSL-201E	2203	4431	2213	5306		
2184	SCR-500	2194	MCA-V7E	2204	4310	2214	N203/Run No. 2		
2185	4330M	2195	SRC-800	2205	N-303YE	2215	5250U		
2186	N-404F Series	2196	5301/GB-2E	2206	5500	2216	5444/5444U		
2187	5325, 5335	2197	5390	2207	5540	2217	5910		
2188	MSL-501L	2198	5321	2208	MTR-15ME	2218			
2189	MSA-404E	2199	5341/5341K	2209	5550/5550U	2219			
2190	N-202FMY	2200	5331/5331K	2210	5351/5351K	2220			

No.	Model	No.	Model	No.	Model	No.	Model	No.	Model

