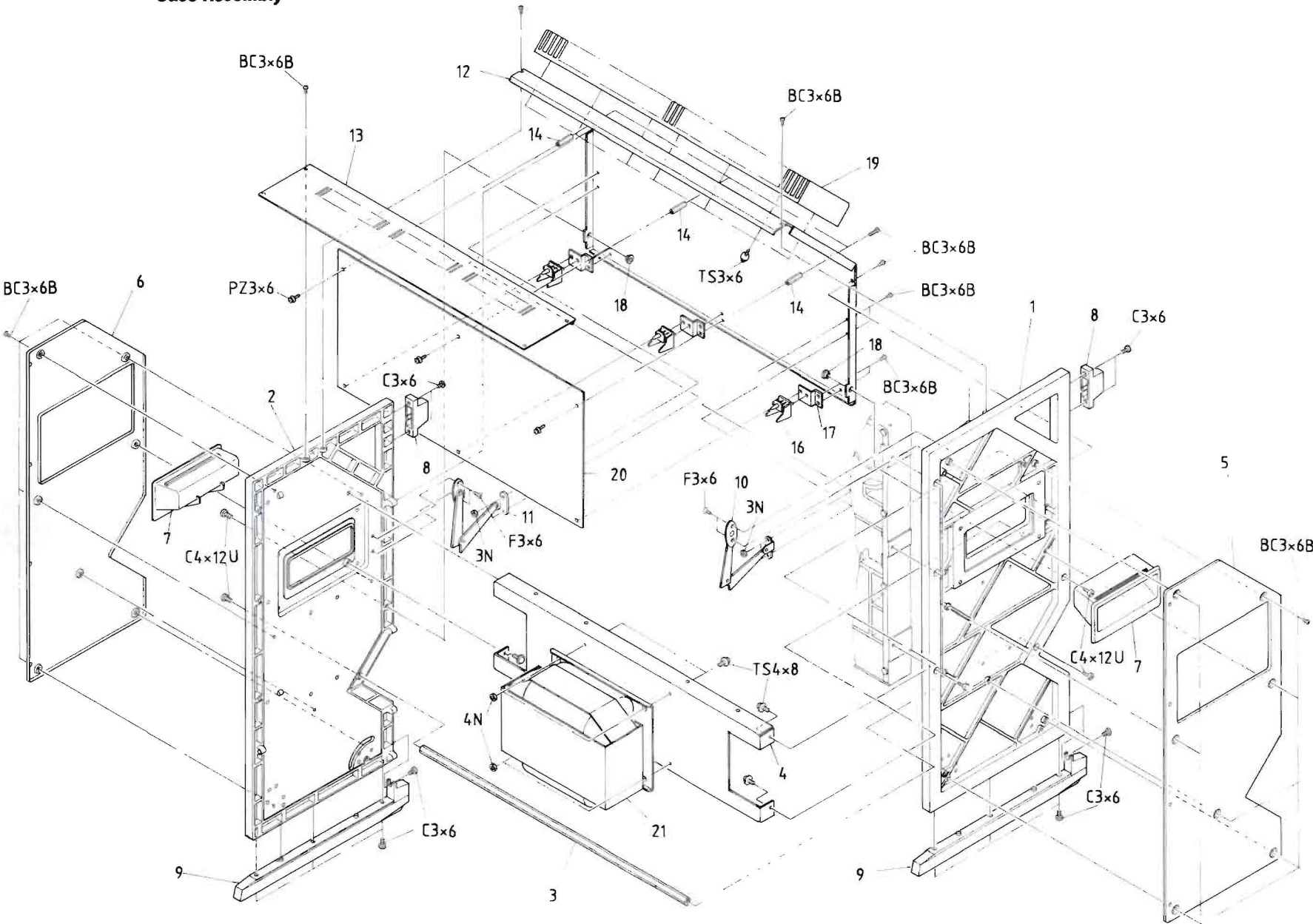
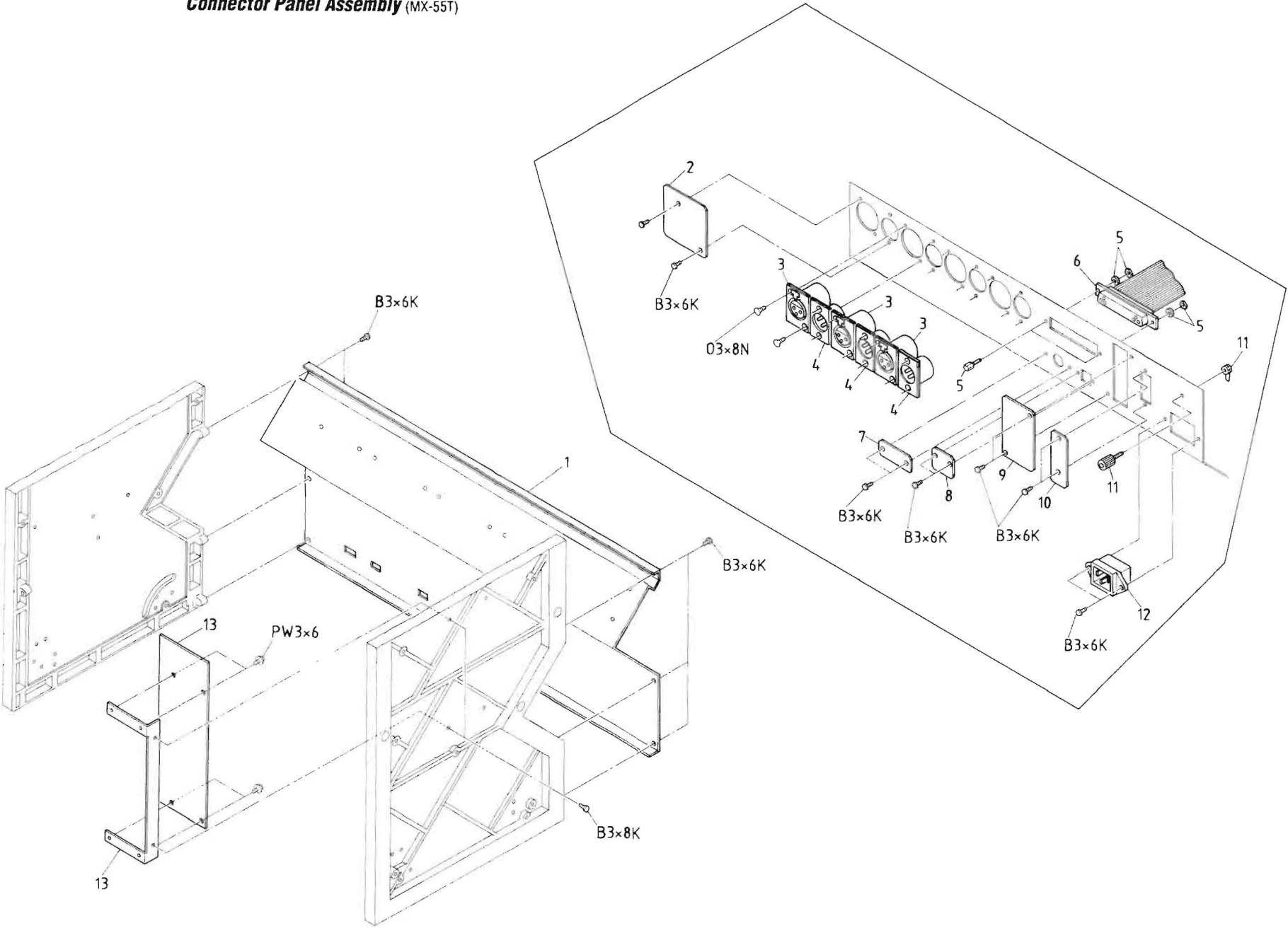


Case Assembly



**Connector Panel Assembly** (MX-55T)



**[2] Connector Panel Assembly** (MX-55T)

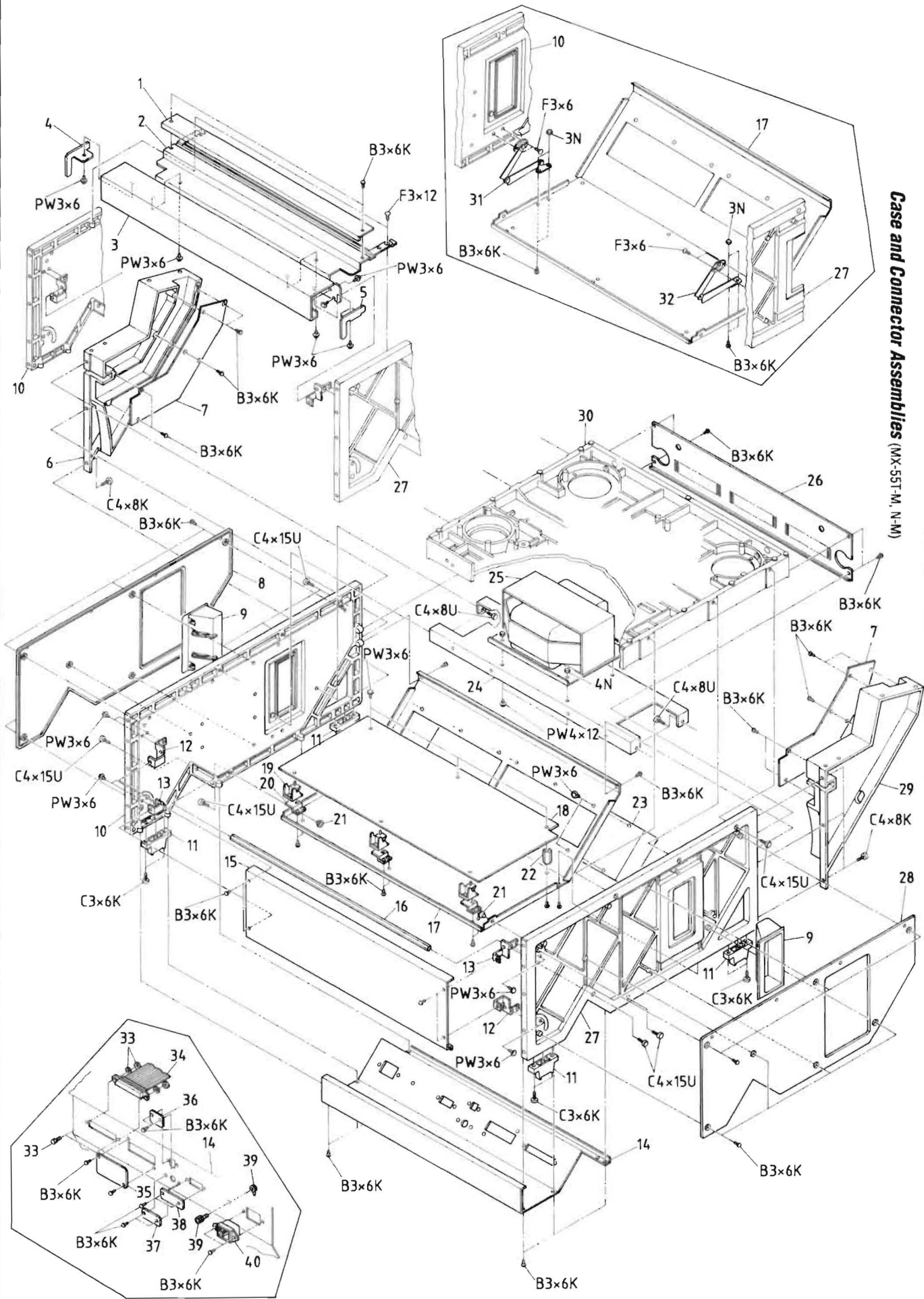
No.	Parts Name	Parts No.	Remarks
1.	Panel, Connector	CB76401-	
2.	Panel A, Blank	CB75003-	
3.	Connector, XL-Type Receptacle	CN103194	
4.	Connector, XL-Type Receptacle	CN103195	
5.	Screw, Lock	CB7B-212	
6.	Cable Assembly, Parallel I/O	PZ9D204-	
7.	Panel D, Blank	CB75007-	
8.	Panel B, Blank	CB75004-	
9.	Panel C, Blank	CB75005-	
10.	Panel E, Blank	CB75008-	
11.	Terminal	CN901040	
12.	AC Inlet	CN603012	
13.	LINE OUT PCB Assembly	PB-1AWA-	

**[3] Case and Connector Assemblies** (MX-55T-M, N-M)

No.	Parts Name	Parts No.	Remarks
1.	Angle, Front	K113805-	
2.	Chassis, Front	K113803-	
3.	Protector Assembly	K1138-A-	
4.	Holder L, Sheet	K113807-	
5.	Holder R, Sheet	K113806-	
6.	Frame L, Top	K113813-	
7.	Panel, Blind	K113816-	
8.	Panel L, Side	K112306-	
9.	Handle	CY1004--	
10.	Frame L	K112312-	
11.	Case Foot	CY4108--	
12.	Bracket L	K113802-	
13.	Bracket R	K113801-	
14.	Panel, Connector	CB76001-	
15.	Cover, Front	K113804-	
16.	Stud	KZ7B819-	
17.	Panel A, Rear	K112304-	
18.	CONTROL PCB Assembly	PB-4HHA-	
19.	Spacer, Hinge	PZ4E089-	
20.	Angle, Hinge	K112310-	
21.	Collar	KZ6C119-	
22.	Stud	KZ9H220A	
23.	Heatsink Assembly	CB-751--	
24.	Bracket, Power Transformer	K112311-	
25.	Power Transformer	TF11119-	
26.	Panel B, Rear	K113810-	
27.	Frame R	K112313-	
28.	Panel R, Side	K112307-	
29.	Frame R, Top	K113812-	
30.	Panel, Top	T004104-	
31.	Hinge L	CY2015--	
32.	Hinge R	CY2016--	
33.	Screw, Lock	CN7B-212	
34.	Cable Assembly, Parallel I/O	PZ9D164-	
35.	Panel C, Blank	CB75005-	
36.	Panel B, Blank	CB75004-	
37.	Panel D, Blank	CB75007-	
38.	Panel E, Blank	CB75008-	
39.	Terminal, Ground	CN901040	
40.	AC Inlet	CB603012	



**Case and Connector Assemblies (MX-55T-M, N-M)**



This exploded view diagram illustrates the assembly of a mechanical unit, likely a door or panel. The main assembly is shown in a perspective view, with various components and fasteners labeled with numbers and part numbers.

**Callouts and Part Numbers:**

- 1:** Main assembly unit.
- 2:** Panel or door.
- 3:** Mounting bracket.
- 4:** Fastener.
- 5:** Fastener.
- 6:** Fastener.
- 7:** Fastener.
- 8:** Fastener.
- 9:** Fastener.
- 10:** Fastener.
- 11:** Fastener.
- 12:** Fastener.
- 13:** Fastener.
- 14:** Fastener.
- 15:** Fastener.
- 16:** Fastener.
- 17:** Fastener.
- 18:** Fastener.
- 19:** Fastener.
- 20:** Fastener.
- 21:** Fastener.
- 22:** Fastener.
- 23:** Fastener.
- 24:** Fastener.
- 25:** Fastener.
- 26:** Fastener.
- 27:** Fastener.
- 28:** Fastener.
- 29:** Fastener.

**Fastener Specifications:**

- C3x10N:** Screws.
- C3x8N:** Screws.
- C3x6:** Screws.
- C3x12:** Screws.
- C3x18:** Screws.
- P2x8N:** Screws.
- P2x6N:** Screws.
- P2x4:** Screws.
- F3x8:** Screws.
- F3x6:** Screws.
- SC3x4N:** Screws.
- MX-55T, MX-55T-M:** Mounting bracket.
- MX-55N, MX-55D:** Mounting bracket.

**[4] Head Assembly**

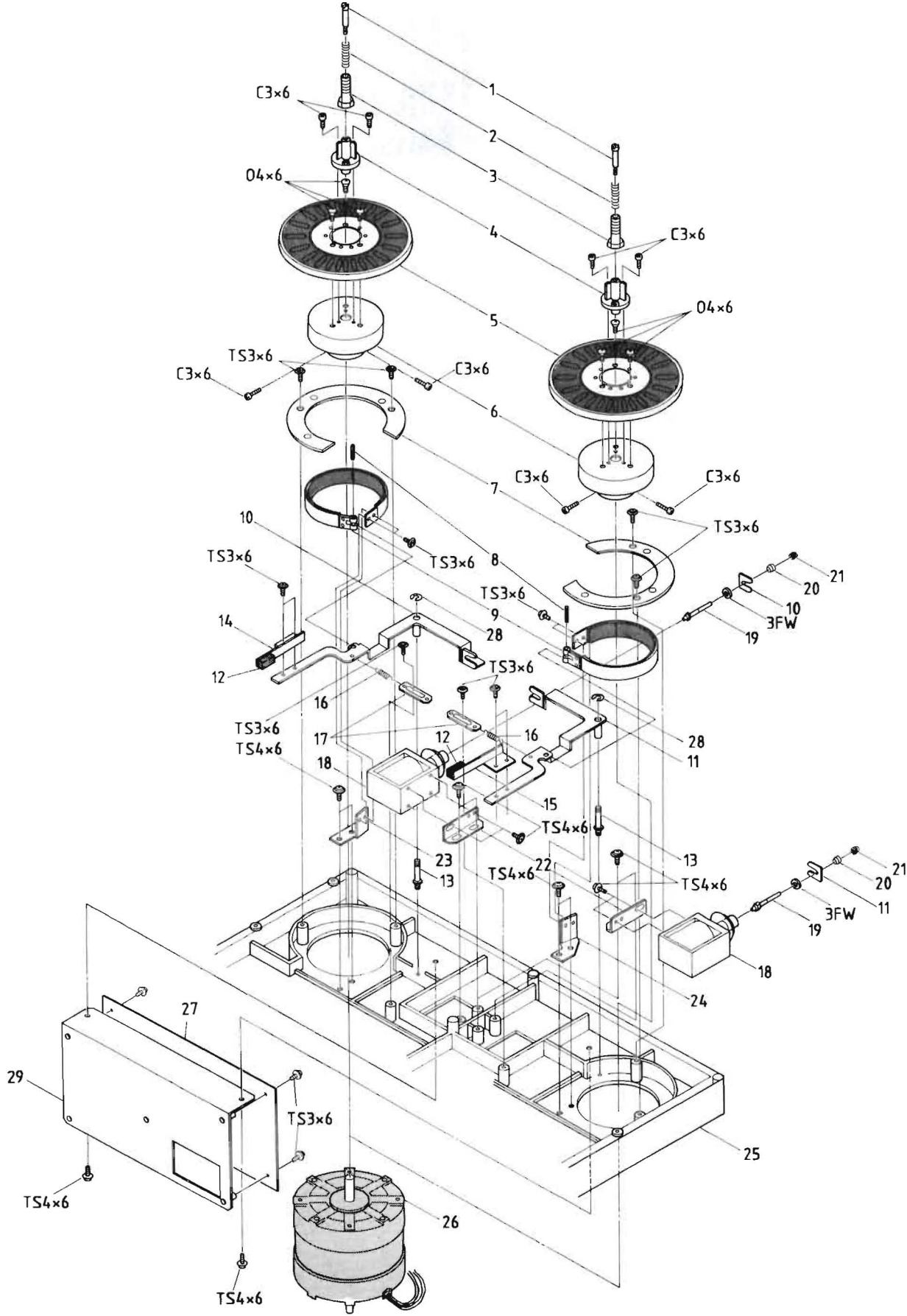
<b>No.</b>	<b>Parts Name</b>	<b>Parts No.</b>	<b>Remarks</b>
1.	Head Housing Assembly	KH-43GB-	
2.	Head Housing Assembly	KH-43GA-	MX-55D
3.	Base, Head	KH0C069-	
4.	Bracket, Head	KH0D143-	MX-55N-M
5.	Case, Shield	KH0B033-	MX-55N-M
6.	Protector Assembly	KH-43GC-	MX-55N-M
7.	Spacer	KH43G02-	
8.	Head Assembly, Erase	GH4E082D	MX-55N-M
9.	Head Assembly, Record	GH4R005	MX-55N-M
10.	Head Assembly, 4 trk 2 ch Repro	GH4P069-	MX-55N, D
11.	Head Assembly, 2 trk 2 ch Repro	GH4P027-	MX-55N-M
12.	Label, Record Head	PT5032A--	
13.	Label, Reproduce Head	PT5032B--	
14.	Stud	KZ7B147-	
15.	Stud	KZ7B820-	
16.	Guide, Tape	KG4A003-	
17.	Pin, Head	KZ5G020-	
18.	Pin, Retaining	KH42C03-	
19.	Spring, Head Position Adjustment	GS2016--	MX-55N-M
20.	Plate, Shield	KH43G01-	
21.	Connector, D-sub Type	CN225103	
22.	Skirt	T004102-	
23.	HEAD AMPLIFIER PCB Assembly	PB-1AAA-	
	Support, Connector	PB1AA01-	
24.	Spring Pin	F62314--	MX-55N-M
25.	Spring, Head Position Adjustment	GS2015--	MX-55T, T-M
26.	Head, Dummy	KH43D01-	MX-55T, T-M, N-M
27.	Head Assembly, 1/4" 3 trk Erase	KH4E141A	MX-55T, T-M
28.	Head Assembly, 1/4" 3 trk Record	KH4R139A	MX-55T, T-M
29.	Head Assembly, 1/4" 3 trk Repro	KH4P140A	MX-55T, T-M



[5] Reel Assembly

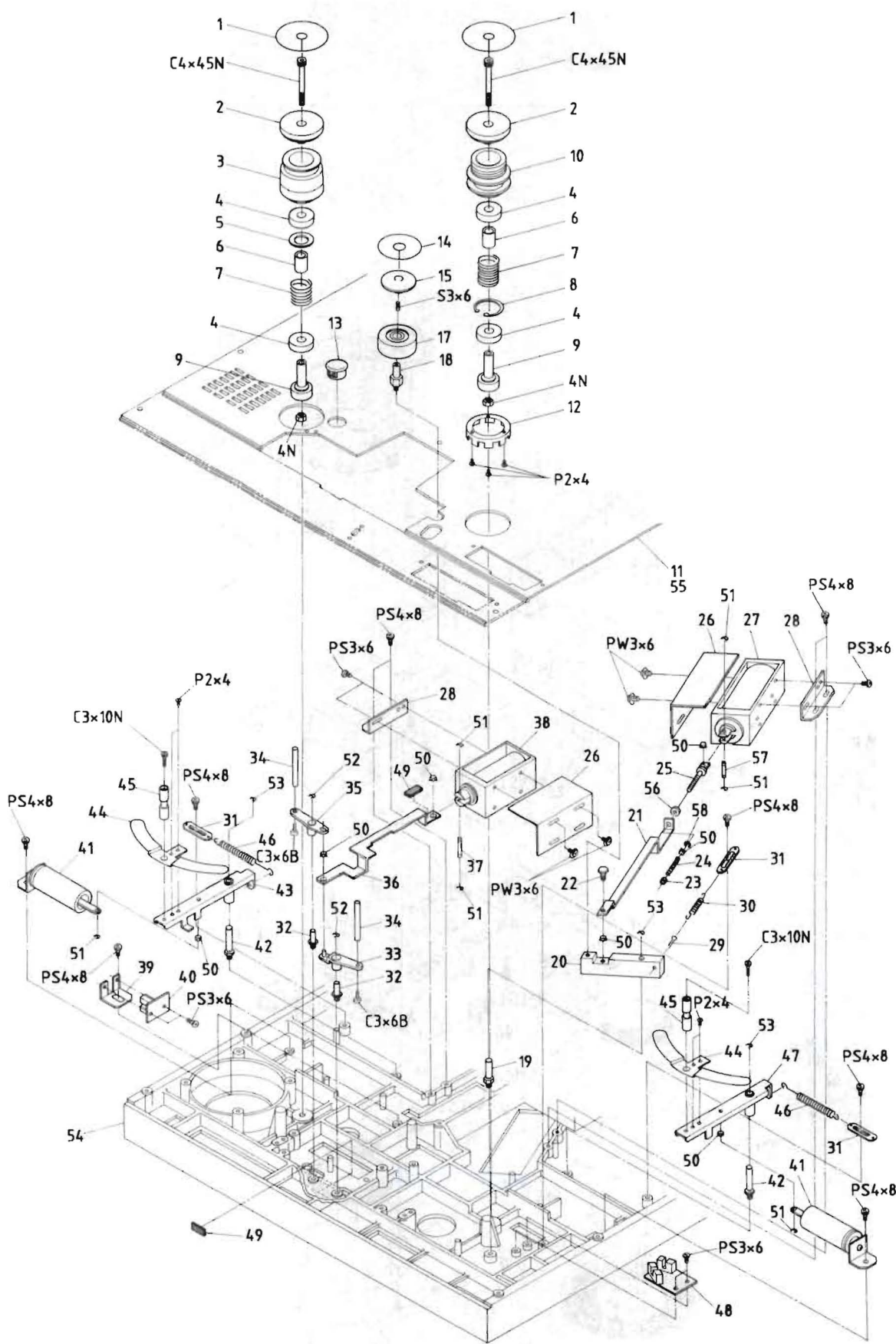
No.	Parts Name	Parts No.	Remarks
1.	Pin, Reel Shaft	KW0E058-	
2.	Spring	GS2109--	
3.	Shaft, Reel	KW0B052-	
4.	Nail, Reel Drive	KW0E063-	
5.	Reel Table Assembly	KW-41DF-	
6.	Drum, Brake	KW0A057-	
7.	Guide, Brake	KW41D02-	
8.	Spring Pin	F62314--	
9.	Brake Band Assembly	KW-4E-A-	
10.	Brake Arm L Assembly	KW-41DB-	
11.	Brake Arm R Assembly	KW-41DA-	
12.	Stopper, Rubber	PZ1C113-	
13.	Shaft, Arm	KW41D01-	
14.	Angle L, Brake	KZ3A135-	
15.	Angle R, Brake	KZ3A136-	
16.	Spring	GS1149--	
17.	Plate, Spring Adjustment	KZ3A134-	
18.	Solenoid	GP1F04--	
19.	Screw	KZ6A095-	
20.	Washer	KZ6C116-	
21.	Nut	F951D001	
22.	Bracket, Solenoid	KZ2A127-	
23.	Angle L, Brake	KW41D11-	
24.	Angle R, Brake	KW41D10-	
25.	Plate, Deck	T004104-	
26.	Motor, Reel	MR1C032-	
	Connector	CN404217	
	Contact, Socket	CN7B-005	
27.	VOLTAGE SELECT PCB Assembly	PB-7NWA-	
	Capacitor	CZ10052W	
	Fuse, 5 A	FH9-007-	Slow blow
	Fuse, 1 A	FH7A010-	12.5 V
	Fuse, 2 A	FH7A020-	12.5 V
	Fuse, 5 A	FH7A050-	12.5 V
28.	Retaining Ring, E-type	F7504.0--	
29.	Bracket Assembly	T0046-A-	

**Reel Assembly**





**Tape Transport Assembly (1)**



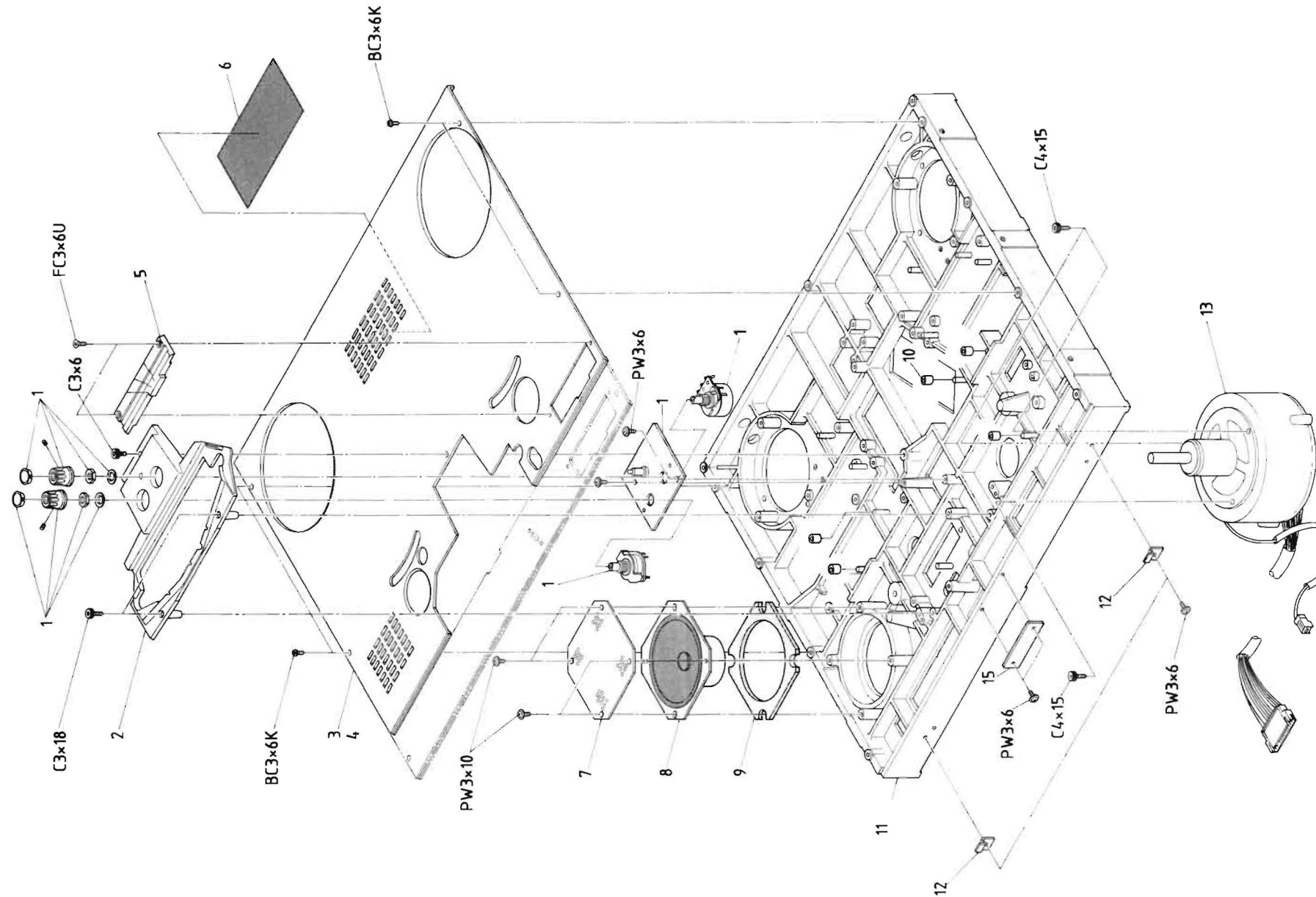
[6] Tape Transport Assembly (1)

No.	Parts Name	Parts No.	Remarks
1.	Film, Protection	KZ6C091-	
2.	Cap, Roller	KI4N001-	
3.	Roller, Impedance	KI0A066-	
4.	Bearing	BA1Z064-	
5.	Washer	KZ6C061-	
6.	Collar	KZ7C080-	
7.	Spring	GS2108--	
8.	Retaining Ring, C-type	F7019.0-	
9.	Shaft, Roller	GR4Y003-	
10.	Roller, Tachometer	GR4Z003-	
11.	Skin, Deck	T004101-	MX-55T
12.	Ring, Slit	SR3Z033-	
13.	Plug, Hole	PZ1G118-	
14.	Film, Protection	KZ6C092-	
15.	Cap, Pinch Roller	KP0C030-	
17.	Pinch Roller Assembly	KP-4S-A-	
18.	Shaft, Pinch Roller	KP0B051-	
19.	Shaft, Arm	KP4S002-	
20.	Arm, Pinch Roller	KP4S001-	
21.	Link, Solenoid	KZ3A137-	
22.	Pin, Link	KZ5G028-	
23.	Nut	F951D001	
24.	Spring	GS2125--	
25.	Screw, Link Adjustment	KZ6A109-	
26.	Plate, Shield	KR4R008-	
27.	Solenoid	GP1B12--	
28.	Bracket, Solenoid	KZ2A127-	
29.	Pin, Split	F66212--	
30.	Spring	GS1033--	
31.	Plate, Spring Adjustment	KZ3A134-	
32.	Shaft, Link	KW41D03-	
33.	Lifter Link R Assembly	KR-4T-B-	
34.	Pin, Lifter	KR4T001-	
35.	Lifter Link L Assembly	KR-4T-A-	
36.	Link, Lifter	KR4T002-	
37.	Pin, Solenoid	KZ5A006-	
38.	Solenoid	GP1Q01--	
39.	Bracket, Sensor PCA	KZ2A129-	
40.	PHOTO SENSOR PCB Assembly	PB-4HFA-	(Sensor: PN-0227)
41.	Air Pot Assembly	AS-73W--	
42.	Shaft, Arm	KA41D12-	
43.	Tension Arm L Assembly	KA-41DB-	
44.	Blind	KA41D01-	
45.	Guide, Tape	KG4D008-	
46.	Spring	GS1148--	
47.	Tension Arm R Assembly	KA-41DC	
48.	TACH SENSOR PCB Assembly	PB-4HCA-	(Sensor: PN-0212)
49.	Stopper, Rubber	PZ1C113-	
50.	Bush	KZ6C118-	
51.	Retaining Ring, E-type	F7502.0-	
52.	Retaining Ring, E-type	F7503.0-	
53.	Retaining Ring, E-type	F7504.0-	
54.	Plate, Deck	T004104-	
55.	Skin, Deck	T004703-	MX-55N-M, T-M
56.	Cushion	PZ1C118	
57.	Pin, Solenoid	KZ5A003	
58.	Washer, Nylon	KZ6C044	

[7] Tape Transport Assembly (2)

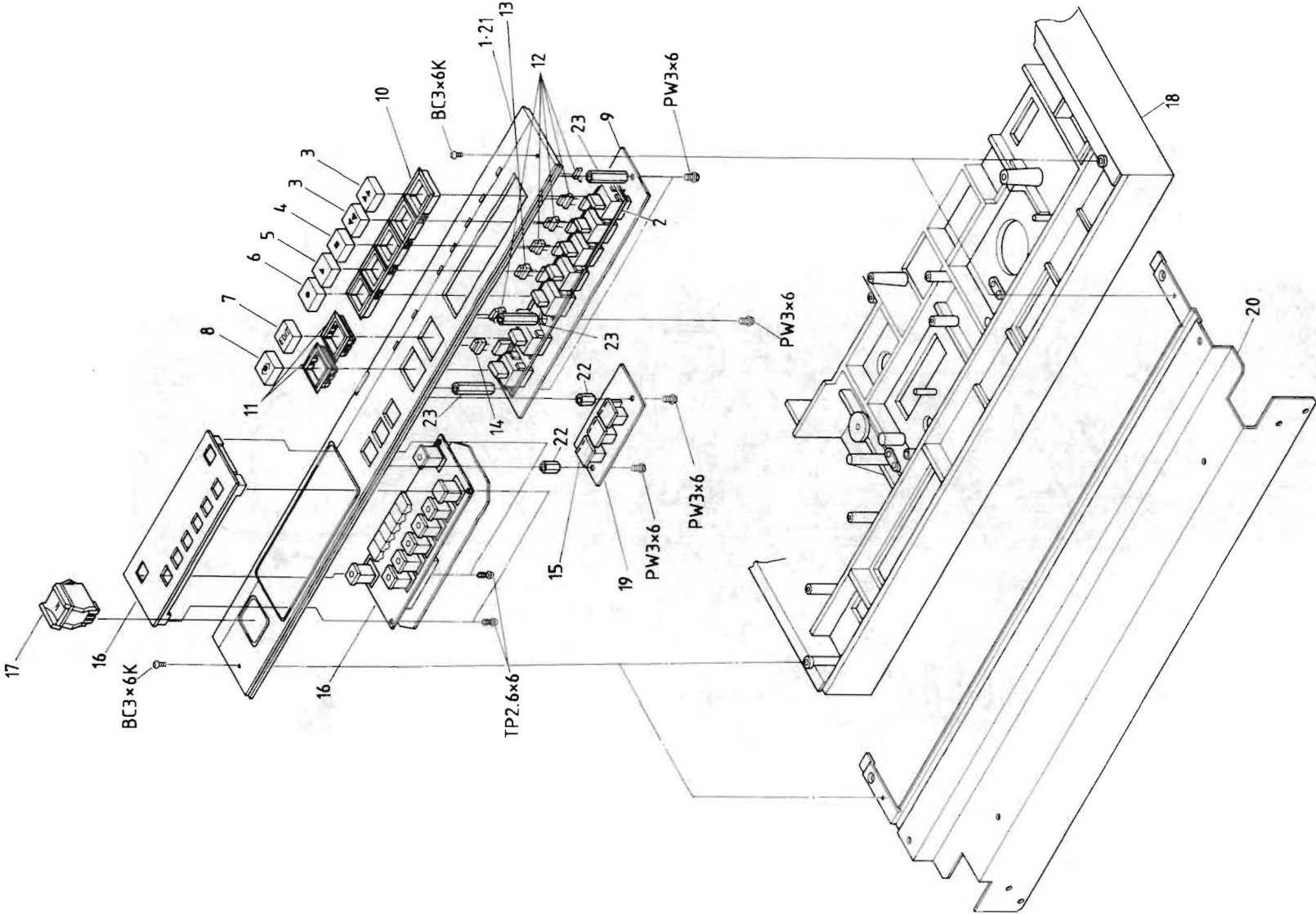
No.	Parts Name	Parts No.	Remarks
1.	PITCH CONTROL VR PCB Assembly	PB-4HGA-	
	Rotary Encoder	SR3Z027-	
	Rotary Switch	WH63087-	
	Knob	KN1103--	
	Cap	KN1099--	
2.	Skirt	T004102-	
3.	Skin, Deck	T004101-	MX-55N, T
4.	Skin, Deck	T004703-	MX-55N-M, T-M
5.	Block, Splicing	T004109-	
6.	Blind	PZ1B070-	
7.	Cover, Speaker	T004105-	
8.	Speaker Assembly	T0041-A-	
9.	Cushion, Speaker	PZ1C120-	
10.	Damper	PZ1C109-	
11.	Plate, Deck	T004104-	
12.	Stopper	KZ2A130-	MX-55N, T
13.	Motor, Capstan	KC-41C--	
14.	-----		
15.	Plate, Support	T004702-	MX-55N-M, T-M

### ***Tape Transport Assembly (2)***





**Transport Control Panel**





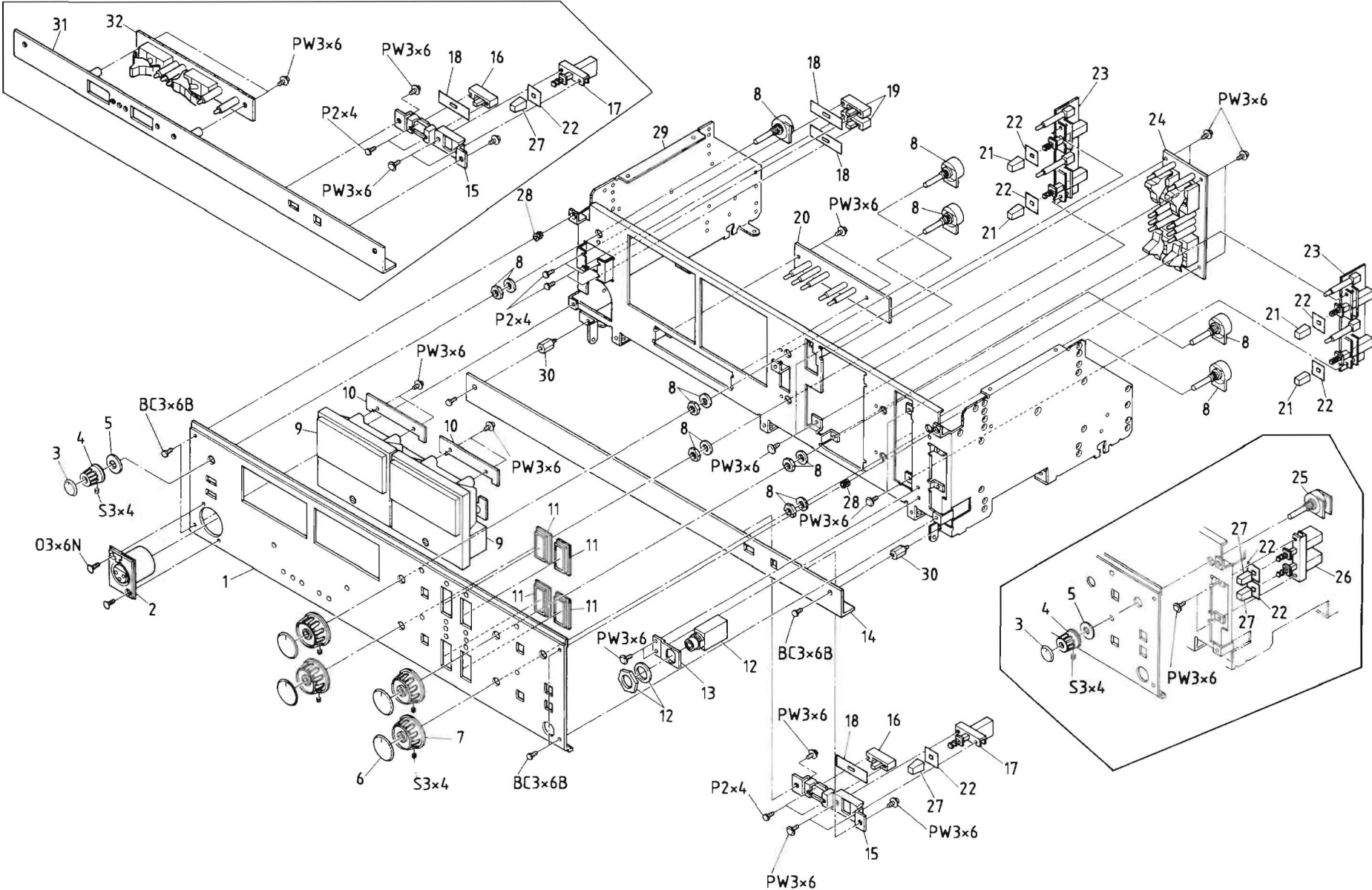
[8] Transport Control Panel

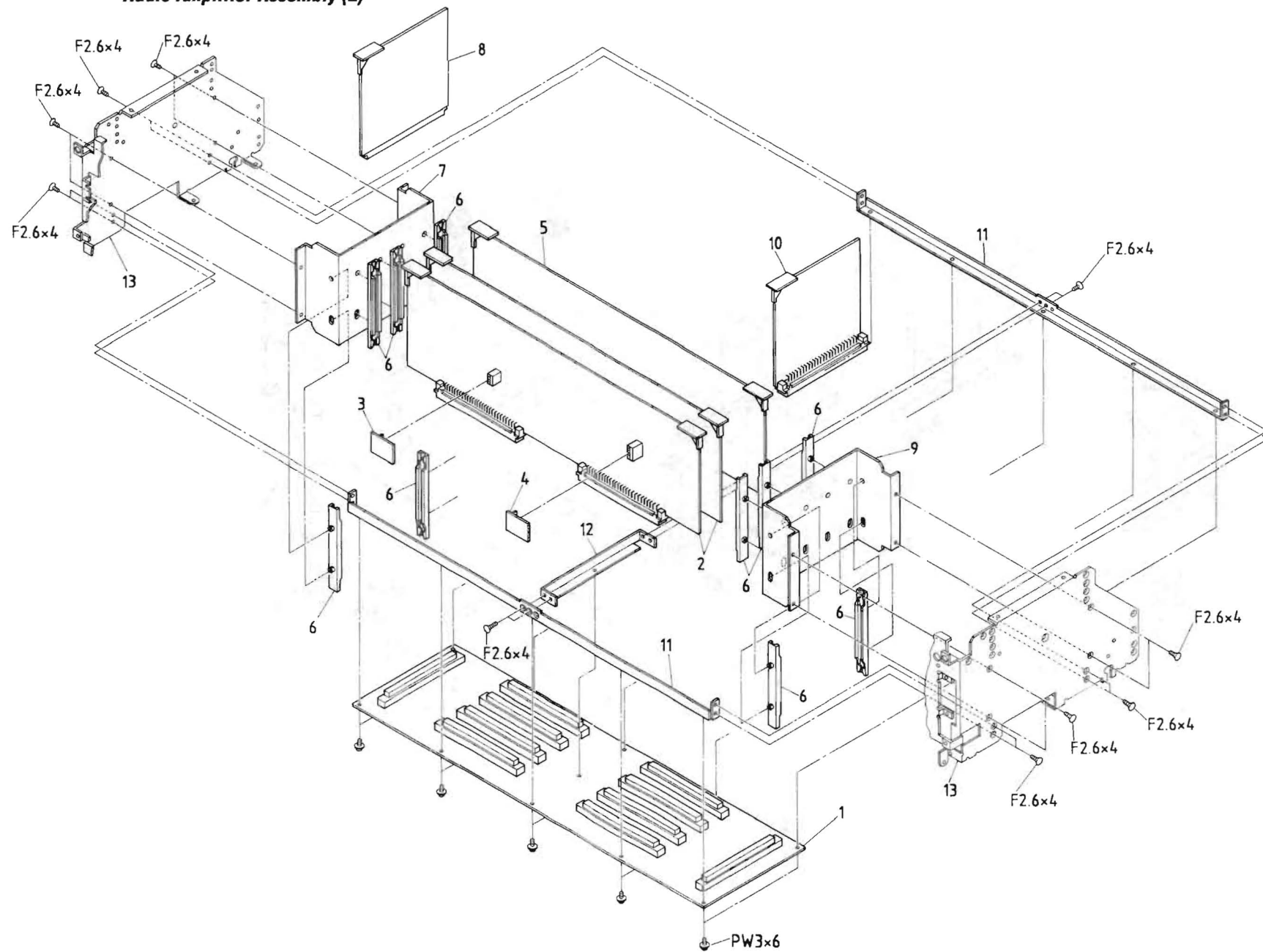
No.	Parts Name	Parts No.	Remarks
1.	Panel, Control	CB21K01-	MX-55T
2.	Frame, Switch	CB21K03-	
3.	Button, WIND	KN2143--	
4.	Button, STOP	KN2141--	
5.	Button, PLAY	KN2142--	
6.	Button, RECORD	KN2144--	
7.	Button, EDIT	KN2147--	
8.	Button, CUE	KN2145--	
9.	CONTROL SWITCH PCB Assembly 1	PB-4HDA-	
	Push Switch	WH11258-	
10.	Escutcheon, Switch	PZ4A027-	
11.	Escutcheon, Switch	PZ4A026-	
12.	LED	PNTLG208	Green
13.	LED	PNTLR208	Red
14.	LED	PNTLY208	Yellow
15.	Cap, Switch	WH0B126C	Gray
16.	Timer Display Assembly	ZA-93E--	
	Lens	KN5010--	
	TIMER INDICATOR PCB Assembly	PB-7HTA-	
	TIMER DRIVE PCB Assembly	PB-7HUA-	
17.	Switch, Power	WH42062-	
18.	Plate, Deck	T004104-	
19.	CONTROL SWITCH PCB Assembly 2	PB-4HEA-	
	Push Switch	WH11294-	
20.	Chassis, Front	K113803-	MX-55N-M, T-M
21.	Panel, Control	CB22H01-	MX-55N-M, T-M
22.	Stud	KZ9H080A	
23.	Stud	KZ9H220A	

[9] Audio Amplifier Assembly (1)

No.	Parts Name	Parts No.	Remarks
1.	Panel, Amplifier	A112301-	
2.	Connector, XL-type Receptacle	CN103194	Female
3.	Cap, Knob	KN1099--	
4.	Knob	KN1103--	
5.	Washer	KZ6C048-	
6.	Cap, Knob	KN1102--	
7.	Knob	KN1100--	
8.	Potentiometer	RV214100	
9.	VU Meter	ME11021-	
10.	LED PCB Assembly	PB-7LMB-	
11.	Escutcheon	PZ4A021-	
12.	Phone Jack	CN603228	
13.	Holder, Phone Jack	A112310-	
14.	Panel, Switch	A113817-	MX-55N-M
15.	Angle, Oscillator Switch	A114605-	
16.	Slide Switch	WH12290-	
17.	Push Switch	WH320544	
18.	Blind	PZ1B066-	
19.	Switch	WH320546	
20.	EQ/REF FLUX LED PCB Assembly	PB-7LJA-	
21.	Button	KN1060--	Yellow
22.	Blind	PZ1B053-	
23.	SRL SWITCH PCB Assembly	PB-7LKA-	
24.	MODE SWITCH PCB Assembly	PB-7QKA-	
25.	Potentiometer	RV214105	
26.	Push Switch	WH12291-	
27.	Button	KN1061--	
28.	Pivot	PZ1F005-	
29.	Amplifier Chassis Sub Assembly	A1138-C-	
30.	Stud	KZ9L110A	
31.	Panel, Time Code	A114601-	MX-55T, T-M
32.	TC MODE SWITCH PCB Assembly	PB-7PTA-	MX-55T, T-M

Audio Amplifier Assembly (1)



**Audio Amplifier Assembly (2)**

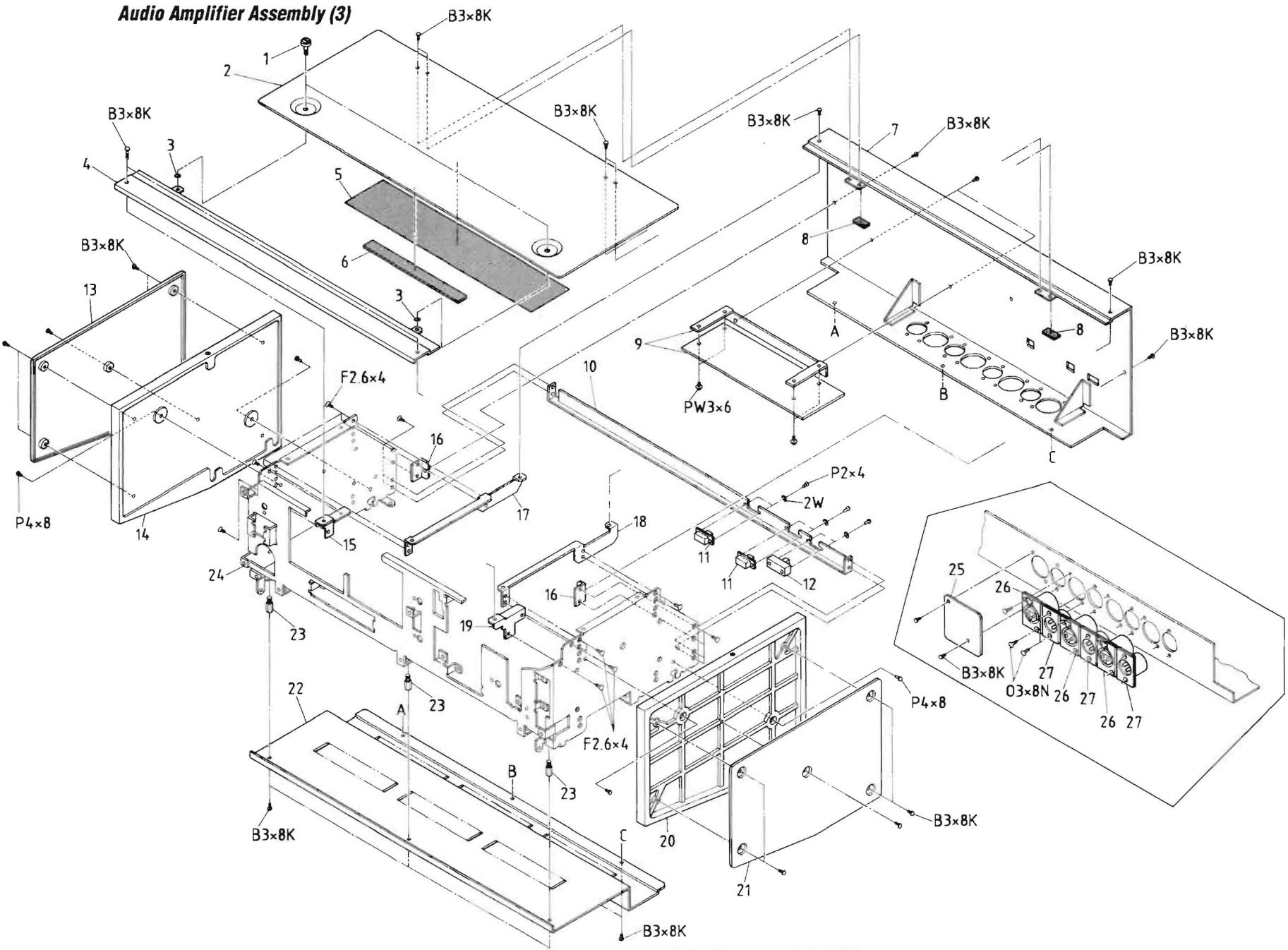
**[10] Audio Amplifier Assembly (2)**

No.	Parts Name	Parts No.	Remarks
1.	MOTHER PCB Assembly	PB-7PSA-	
2.	AUDIO AMPLIFIER PCB Assembly	PB-1AVAA	
3.	REC REF. PCB Assembly	PB-7NAA-	
4.	REP REF. PCB Assembly	PB-7MZA-	
5.	TIME CODE AMPLIFIER PCB Assembly	PB-1CKA-	MX-55T, T-M
6.	Rail, Guide	A109905-	
7.	Panel L, Support	A113810-	
8.	MONITOR AMPLIFIER PCB Assembly	PB-1AUA-	
9.	Panel R, Support	A113809-	
10.	MIC. AMPLIFIER PCB Assembly	PB-1ATA-	
11.	Support, Side	A113811-	
12.	Angle, Center	A113812-	
13.	Amplifier Chassis Sub Assembly	A1138-C-	

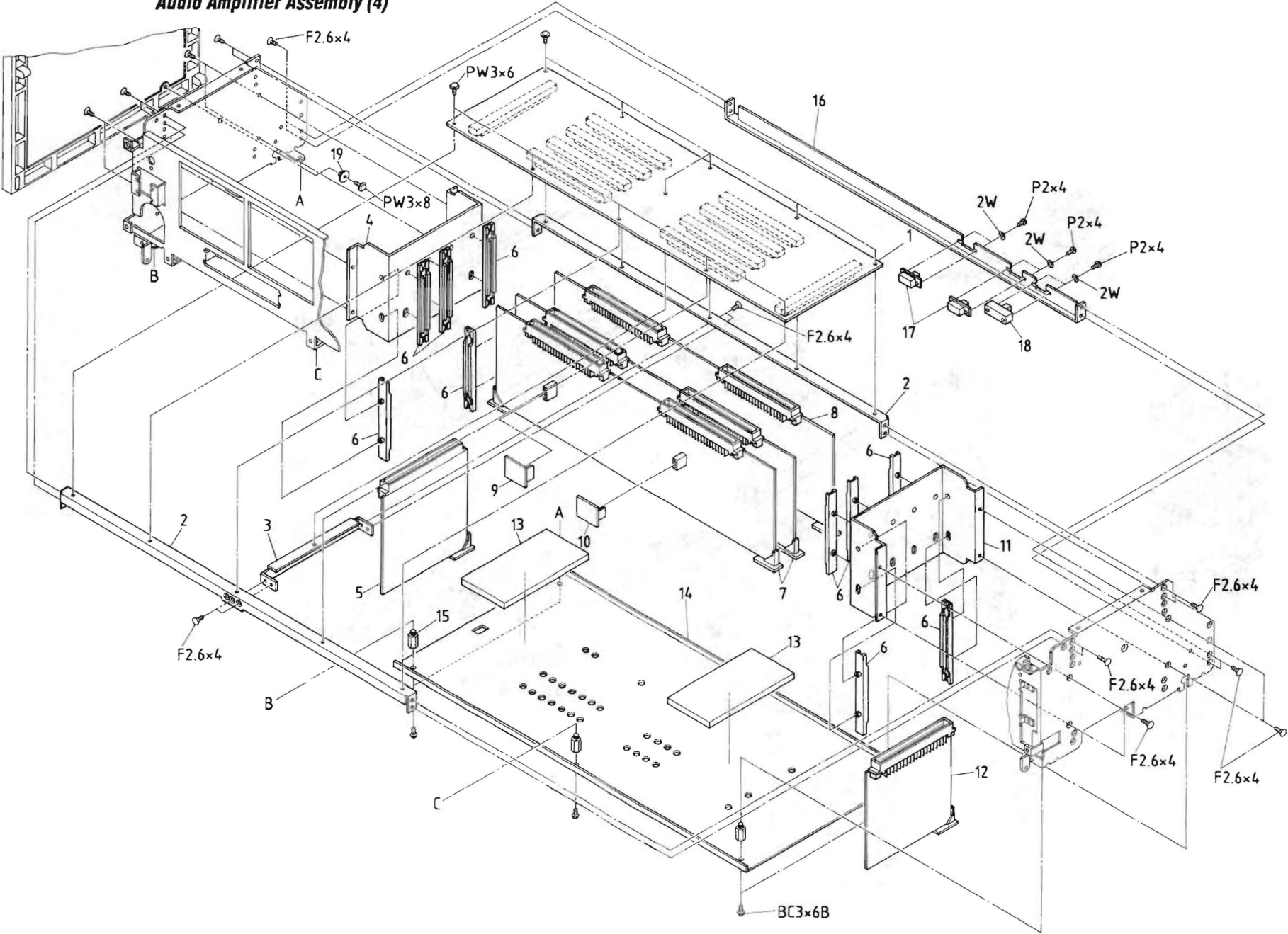


**[11] Audio Amplifier Assembly (3)**

No.	Parts Name	Parts No.	Remarks
1.	Screw	KZ6A098-	
2.	Panel, Amplifier Top	A113825-	
3.	Retaining Ring, E-type	F7502.0-	
4.	Amplifier Panel Sub Assembly	KZ6A098-	
5.	Label	PT4224--	
6.	Spacer	PZ1C122-	
7.	Panel, Connector	A113824-	
8.	Cushion	PZ1C127-	
9.	OUTPUT AMPLIFIER PCB Assembly	PB-1AWA-	
10.	Angle, Switch	A113807-	
11.	Switch	WH320601	
12.	Switch	WH320546	
13.	Side Panel L	K113818-	
14.	Side Panel L, Top	K113815-	
15.	Angle L, Cover	K113816-	
16.	Angle, Connector	A113808-	
17.	Supporter R	A113826-	
18.	Supporter L	A113827-	
19.	Angle R, Cover	A113815-	
20.	Side Panel R, Top	K113814-	
21.	Side Panel R	K113817-	
22.	Panel, Bottom	A113823-	
23.	Stud	KZ9L110A	
24.	Amplifier Chassis	A1138-C-	
25.	Blind A	CB75003-	
26.	Connector, XL-Type Receptacle	CN103194	
27.	Connector, XL-Type Receptacle	CN103195	



Audio Amplifier Assembly (4)














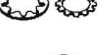

















[12] Audio Amplifier Assembly (4)

No.	Parts Name	Parts No.	Remarks
1.	MOTHER PCB Assembly	PB-7PSA-	
2.	Support, Side	A113811-	
3.	Angle, Center	A113812-	
4.	Panel L, Support	A113810-	
5.	MONITOR AMPLIFIER PCB Assembly	PB-1AUA-	
6.	Rail, Guide	A109905-	
7.	AUDIO AMPLIFIER PCB Assembly	PB-1AVAA	
8.	TIME CODE AMPLIFIER PCB Assembly	PB-1CKA-	
9.	REC REF. PCB Assembly	PB-7NAA-	
10.	REP REF. PCB Assembly	PB-7MZA-	
11.	Panel R, Support	A113809-	
12.	MIC. AMPLIFIER PCB Assembly	PB-1ATA-	
13.	Pad	PZ1C128-	
14.	Panel, Bottom	A114602-	
15.	Stud	KZ9L110A	
16.	Angle, Switch	A113807-	
17.	Switch	WH320601	
18.	Switch	WH320546	
19.	Collar	KZ6C117-	



Assembling Hardware

Name	Code	Name	Code
 Bind SEMS Screw	BS	 Hex Head Bolt	H
 Pan SEMS Screw	PS	 Hex Nut	N
 Triple Screw	TS	 Flat Washer	W
 Binding Head Screw	B	 Fiber Washer	FW
 Pan Head Screw	P	 Stainless Steel Washer	SSW
 Flat Countersunk Head Screw	F	 Spring Washer	SW
 Oval Countersunk Head Screw	O	 Lock Washer	LW
 Truss Head Screw	T	 Knob Washer	KW
 Pan Screw with Spring Washer and Flat Washer	PZ	 Retaining Ring, E-type	E
 Hex Socket Head Screw	C	 Retaining Ring, C-type, Outer	CO
 Hex Socket Headless Set Screw, Flat	S	 Retaining Ring, C-type, Inner	CI
 Hex Socket Headless Set Screw, Pinpoint	SP	 Spring Pin	SPN
 Button Head Socket Cap Screw	BC	<div><p><b>Example 1: Screw</b></p><p>BS 3 x 6 N</p><p>Plating</p><p>L: Length (mm)</p><p>D: Diameter of Thread (mm)</p><p>Code</p><p>No indication: Zinc N: Nickel B: Black Zinc K: Black Nickel</p><p><b>Example 2: Washer</b></p><p>3 SW</p><p>Code</p><p>D: Diameter (mm)</p></div>	
 Flat Head Socket Cap Screw	FC		
 Tapping Pan Head Screw	TP		
 Tapping Flat Countersunk Head Screw	TF		
 Flat Head Wood Screw	FWS		

All screws conform to ISO standard, and have a cross-recessed head, unless otherwise noted.  
ISO screws have a point inscribed in the head.





## ***SECTION 8***

# ***Printed Circuit Board Layouts and Parts Lists***

### ***8.1 General***

The following P.C.B. pattern layout drawings and parts lists are provided for service reference. Parts list includes only main parts or the parts difficult to obtain in the field. Also the lists include the parts which should be replaced with the exact same parts supplied by Otari to maintain the performance. Many diodes, transistors, and ICs are well described in the schematics attached to the machine, so to find out the correct parts number of those parts you need, refer to the schematics.

### ***8.2 Parts Lists***

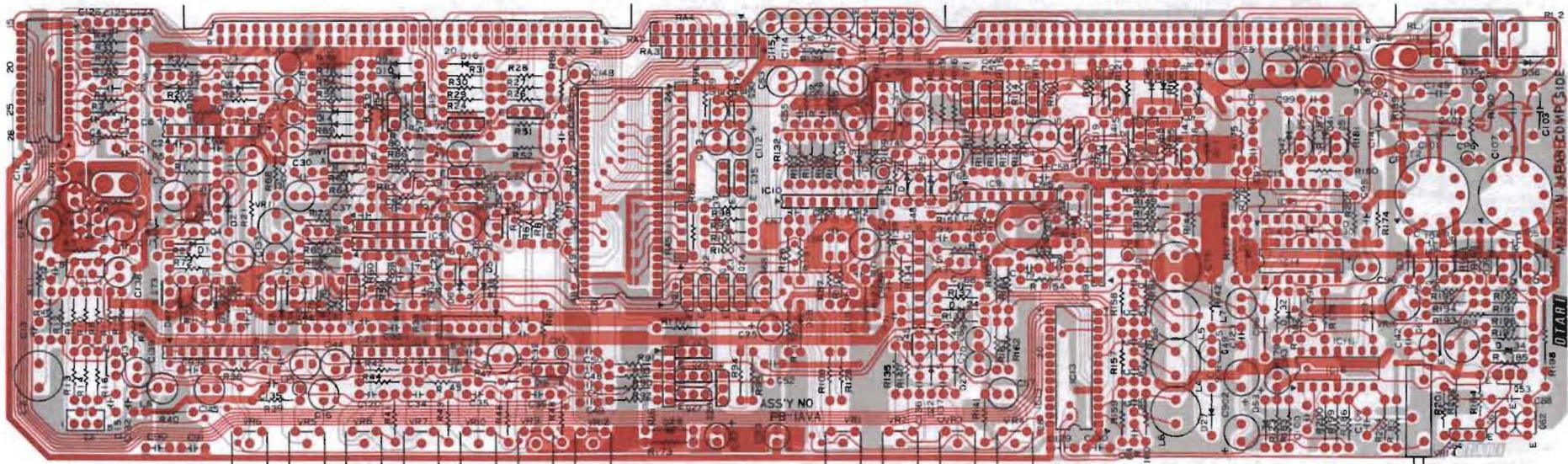
You will find drawings for the following P.C.B.s in this section.

<b>No.</b>	<b>Description</b>	<b>Part No.</b>
1.	Audio Amplifier PCB Assembly	PB-1AVA-
2.	Control PCB Assembly	PB-4HHA-
3.	Mic Amplifier PCB Assembly	PB-1ATA-
4.	Monitor Amplifier PCB Assembly	PB-1AUA-
5.	Head Amplifier PCB Assembly	PB-1AAA-
6.	Output Amplifier PCB Assembly	PB-1AWA-
7.	Time Code Amplifier PCB Assembly	PB-1CKA-

**[1] Audio Amplifier PCB Assembly**

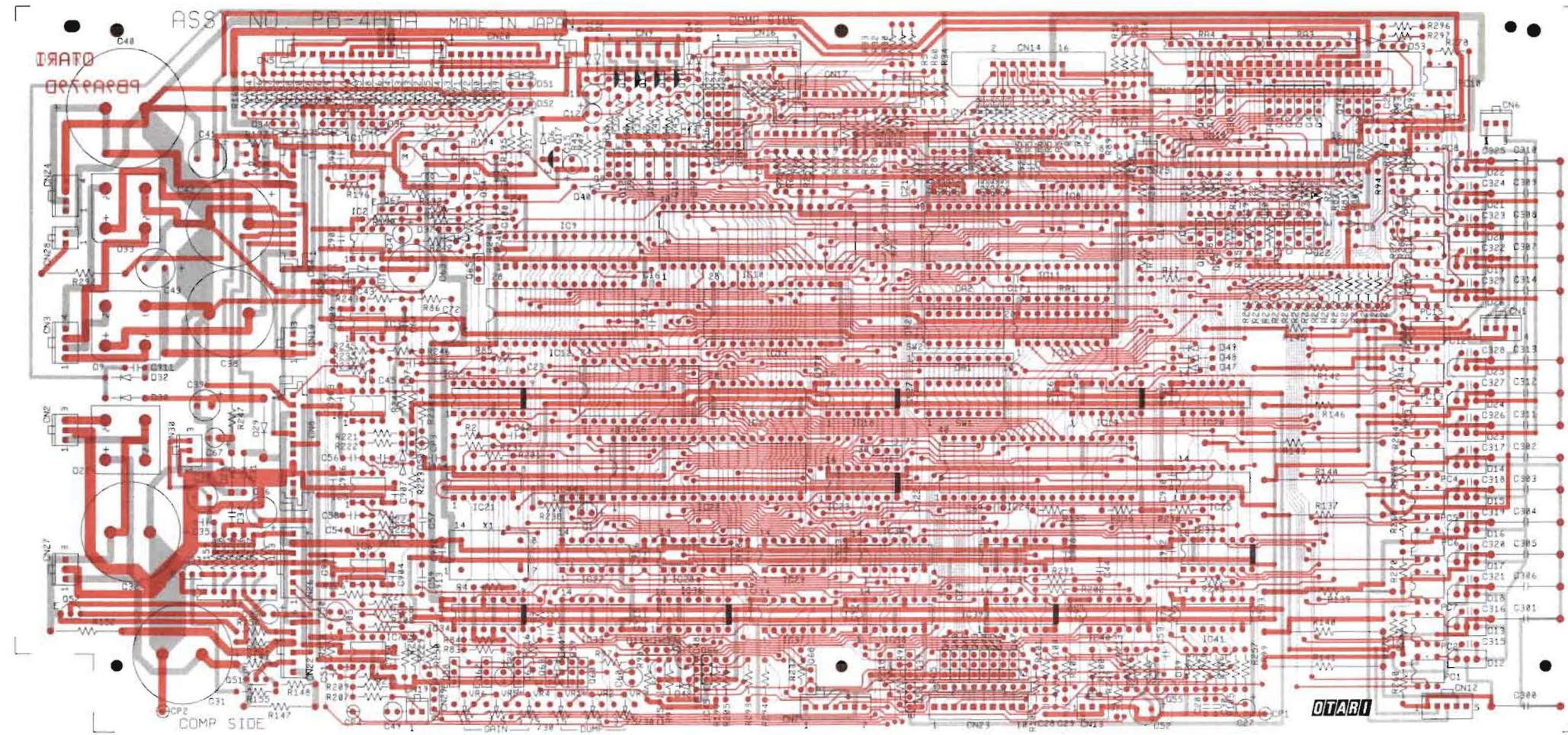
<b>Ref. No.</b>	<b>Description</b>	<b>Otari Part No.</b>
IC 1	TC9164N	ITC9164N
IC 2-6, 9-12	M5219L	IM5219L
IC 8	Mode Controller	I-0142
IC 13	TC9163N	ITC9163N
IC 14	MC14011B	IMC14044
IC 15	MC14013B	IMC14013
IC 16	TL084CN	ITL084CN
Q 1	2SA798G	QA798G
Q 2	2SC1583G	QC1583G
Q 3, 18, 29-34, 62, 66	2SC1815BL	QC1518BL
Q 4-6, 8-11, 19, 39, 40, 42, 44, 47-49, 43, 54	2SK362BL	Q2K362BL
Q 7, 20, 38, 41, 45, 46, 51, 73, 74	2SJ104V	Q2SJ104V
Q 12, 14-16	2SC3327B	QC3327B
Q 13, 25-28, 35, 37, 63	RN2202 or RT1P141S	Q-0004
Q 17, 52, 69, 70, 71, 79	RN2204 or RT1P441S	Q-0006
Q 21-24	RN1202 or RT1N141S	Q-0008
Q 53	2SC3421Y	QC3421Y
Q 55-58	2SA720R	QA720R
Q 61	2SC2655Y	QC2655Y
Q 67	2SA1020Y	QA1020Y
Q 68	RN1204 or RT1N441S	Q-0010
D 1-11, 13-27, 31-33, 37-42, 45-49, 52	1S1585LB5	PN-0199
D 28, 29, 34, 53	RD5.1EB3	PN-0011
D 30	RD15EB3	PN-0044
D 35, 36	ERA15-02	PN-0285
L 1	3640-181	IN19105
L 2	3508-682	IN19132
L 3, 8	3640-182	IN19117
L 4	3508-392	IN19129
L 5	3508-103	IN19134
L 6	3508-123	IN19135
L 7, 9	3640-102	IN19114
VR 1, 12	EVM-31GA00B14	RV414283
VR 2, 3	EVM-31GA00B54	RV454285
VR 4-6	EVM-31GA00B53	RV453282
VR 7-10	EVM-31GA00B24	RV424284
VR 11	EVM-36GA00B14	RV414296
VR 13	EVM-36GA00B52	RV452292
VR 14	RJC094P202	RV423171
VR 15	EVM-36GA00B53	RV453295
RL 1, 2	G2Q-187P DC24V	RY1DC051
T 1, 2	Bias Buffer Transformer	TF31023

Audio Amplifier PCB Assembly





Control PCB Assembly



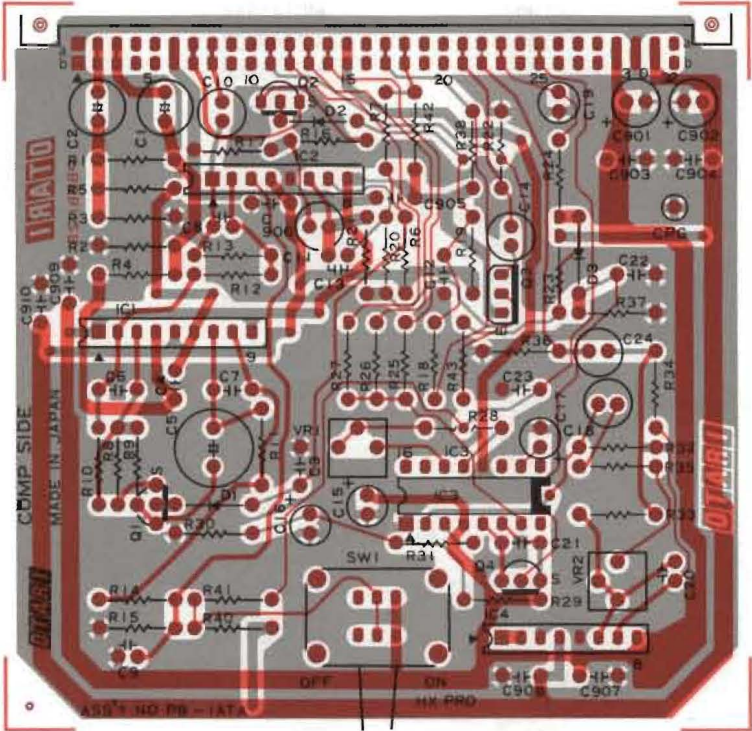


**[2] Control PCB Assembly**

<b>Ref. No.</b>	<b>Description</b>	<b>Otarl Part No.</b>
IC 1, 2	M5223P	IM5223P
IC 3	μPC311C	IHC311C
IC 4-7	M5219P	I-0067
IC 8, 20	TC74HC04P	IQ04
IC 9	HM6264ALSP-15	I-0135
IC 10, 24	M5M82C55AP-5	IM5L8255
IC 11	M5L8279P-5	IM5L8279
IC 12	HN4827128G-25	I-0065
IC 13	Timer Counter	I-0112
IC 14	TC74HC540P	IQ540
IC 15	PC74HC4046A	IQ4046A
IC 16	TMP82C54P-2	I-0145
IC 17	TC74HC574P	IQ574
IC 18	TC74HC138P	IQ138
IC 19, 33	NE590N	I-NE590N
IC 21	MC14069B	IMC14069
IC 22	MSM80C85ARS	IM5L8085
IC 23	TC74HC139P	IQ139
IC 25, 30	TC74HC00P	IQ00
IC 27	TC74HC393P	IQ393
IC 28	TC74HC14P	IQ14
IC 29	TC74HCU04UP	IQU04
IC 31, 35, 38	TC74HC74P	IQ74
IC 34	MC14538B	IMC14538
IC 36	TC74HC390P	IQ390
IC 37	MC14081B	IMC14081
IC 39	MC14194B	IMC14194
IC 40	MC14070B	IMC14070
IC 41	MC14584B	IMC14584
IC 42	M5230L	I-0062
IC 43	μPC78L05	IHC78L05
IC 44, 45	M51957BL	IM51957B
Q 1-12, 19-31, 33, 34, 36-48, 58-63, 65, 67, 68	UN1211	Q-0008
Q 13-17, 51	2SA1020Y	QA1020Y
Q 35, 55	2SC1815BL	QC1815BL
Q 50, 66	UN1111	Q-0004
Q 52, 54	2SC2655Y	QC2655Y
Q 53	2SC2878B	QC2878B
D 1-6, 31, 32, 41	ERA15-02	PN-0285T
D 8, 42	TLR124	PNTLR124
D 9, 27, 33	4D4B41	PN4D4B41
D 10, 39, 47-49	1S1585LB5 TP3	PN-0199T
D 11, 34-37, 44, 50-53	MC931	PN-0230
D 12-26	BCR3AM-8-B1	PNBCR3AM
D 28, 30, 40, 43	ERA82-004	PN-0264
D 29	ERC84-009	PN-0266
DA 1, 2	NAL8CS	PNNAL8CS
PC 1-15	PB01AP-8 photo-coupler	PN-0267
RL 1	AG2014 DS1-M-DC24V	RY1DC060
VR 1-6	10K	RV414296
VR 7	2K	RV423294
SW 1, 2	A6MS-8	WH98012
X'tal	KHC8500A 6.144 MHz	PZ4C041

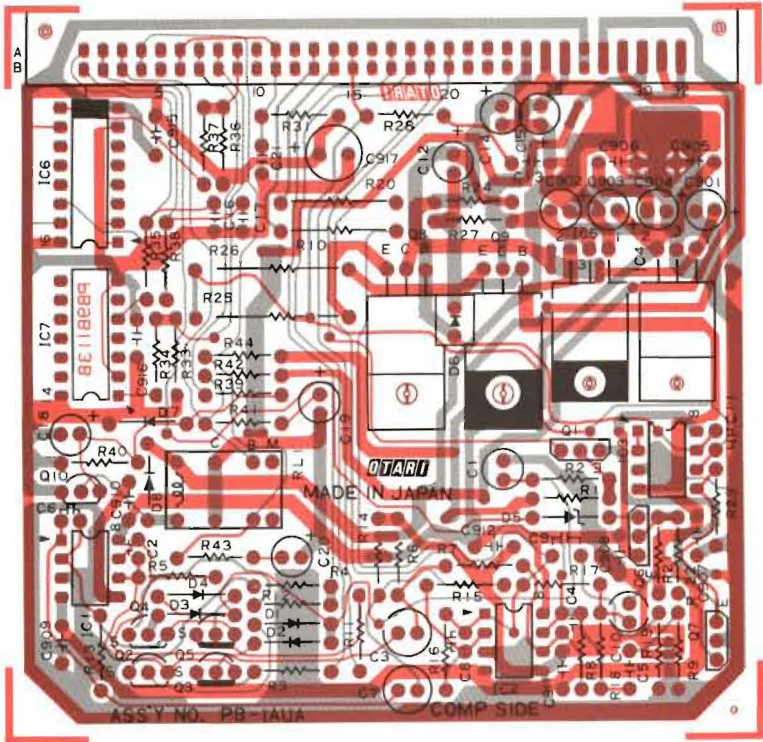
[3] Mic Amplifier PCB Assembly

Ref. No.	Description	Otarl Part No.
IC 1	NJM2043S	I-0146
IC 2, 4	M5219L	IM5219L
IC 3	XR-2206CP	I-0074
Q 1, 2, 4	2SJ104V	Q2SJ104V
Q 3	RN2204	Q-0006
D 1-3	1S1585LB5	PN-0199
VR 1	EVM-36GA00B12 100 ohms	RV412290
VR 2	EVM-36GA00B24 20 kohms	RV424297
SW 1	SSSP-322 L = 12	WH32058



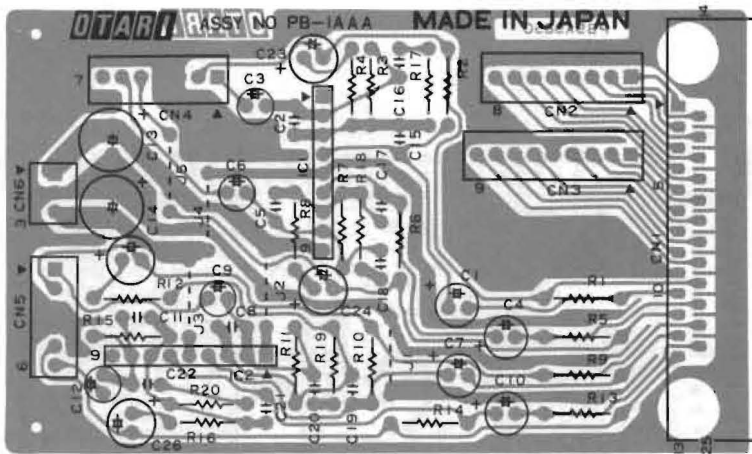
[4] Monitor Amplifier PCB Assembly

Ref. No.	Description	Otari Part No.
IC 1, 3	M5219P or NJM4560D	I-0067
IC 2	M5216P or NJM4556	I-0009
IC 4	μPC78M15H	IHC78M15
IC 5	μA79M15AUC	IIM15AUC
IC 6	MC14518B	IMC14518
IC 7	MC14024B	IMC14024
Q 1, 6	RN2204 or RT1P441S	Q-0006
Q 2, 4	2SK362BL	Q2K362BL
Q 3, 5	2SJ104V	Q2SJ104V
Q 7	2SC3327B	QC3327B
Q 8	2SD14080	QD14080
Q 9	2SB1070	QB1070
Q 10	2SC1815BL	QC1815BL
D 1-4	1S1585LB5	PN-0199
D 5	RD10EB2	PN0031
D 6	KB-265 or VD1222	PNKB-265
D 7, 8	ERA15-02	PN-0285
RL 1	G5A-237P DC 24V	RY2DC089



[5] Head Amplifier PCB Assembly

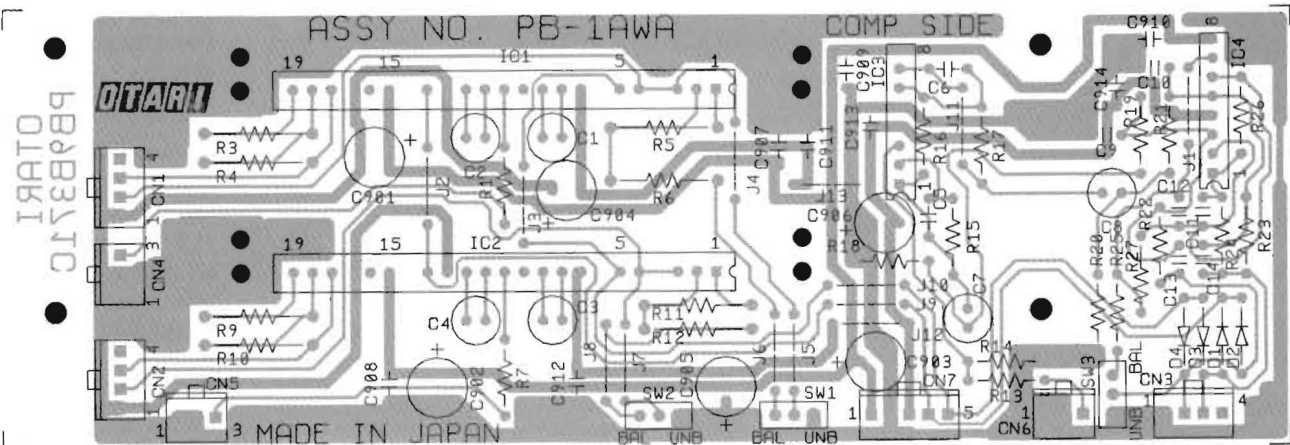
Ref. No.	Description	Otarl Part No.
IC 1, 2	NJM2043S	I-0146





[6] Output Amplifier PCB Assembly

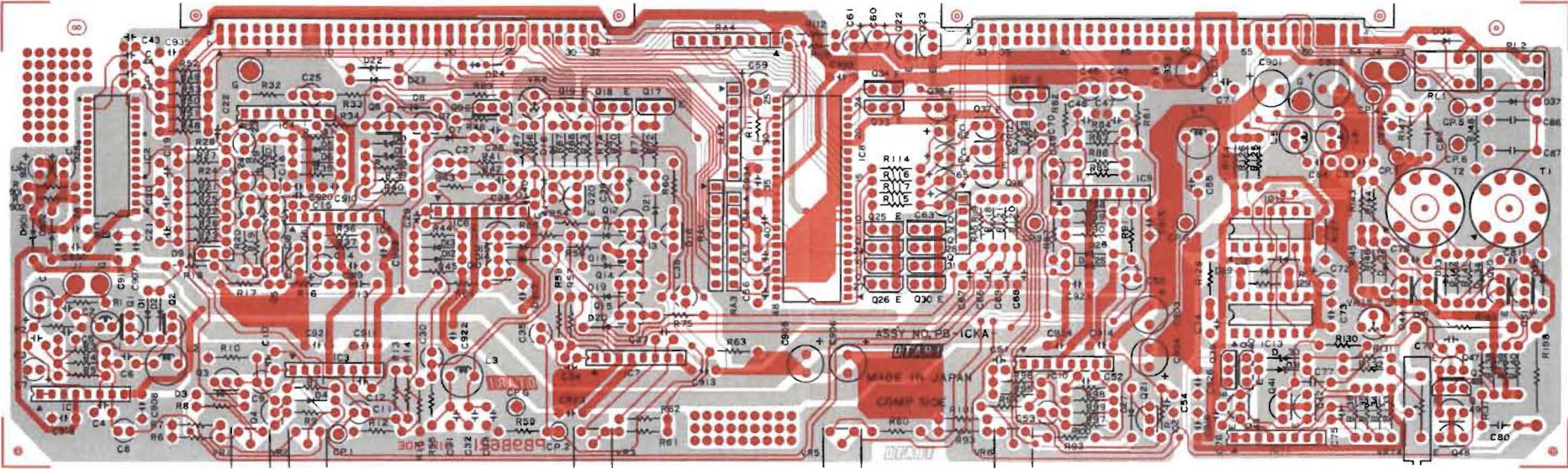
Ref. No.	Description	Otari Part No.
IC 1, 2	Line Out Amplifier IC	I-0178A
IC 3, 4	M5219L	IM5219L
D 1-4	1S1585LB5	PN-0199



[7] Time Code Amplifier PCB Assembly

Ref. No.	Description	Otari Part No.
IC 1, 3-7, 9, 10, 11	M5219L	IM5219L
IC 2	TC9163N	ITC9163N
IC 8	Mode Controller	I-0142
IC 12	MC14011B	IMC14011
IC 13	MC14013B	IMC14013
Q 1, 2, 8, 13	2SJ104V	Q2SJ104V
Q 3, 4, 7, 10-12, 14-16, 21	2SK362BL	Q2K362BL
Q 5, 6, 19, 22, 23, 35-38, 41, 48	2SC1815BL	QC1815BL
Q 9	RT1P441S or RN2204	Q-0006
Q 17, 18, 28-32, 34, 39	RT1P141S or RN2202	Q-0004
Q 20	2SC3327B	QC3327B
Q 24-27, 33, 40, 46	RT1N141S or RN1202	Q-0008
Q 42, 43, 49	2SC2655Y	QC2655Y
Q 44, 45, 50, 51	2SA720R	QA720R
Q 47	2SA1020Y	QA1020Y
D 1-8, 12-24, 27, 29, 32-35	1S1585LB5	PN-0199
D 9	MC-931 or 1SS227	PN-0230
D 10, 11, 25, 26, 30, 31 901, 902	RD5.1EB3	PN-0011
D 28	RD15EB3	PN-0044
D 36, 37	ERA15-02	PN-0285
L 1	3640-181	IN19105
L 2	3508-682	IN19132
L 3	3508-182	IN19085
L 4	3508-102	IN19123
L 5, 6	3640-271	IN19107
RL 1, 2	G2Q-187P-V DC24V	RY1DC051
T 1, 2	Bias Buffer Transformer	TF31023
VR 1, 2, 6	EVM-31GA00B53	RV453282
VR 3, 5	EVM-31GA00B14	RV414283
VR 4	EVM-36GA00B54	RV454298
VR 14	3006P-EC8-502	RV453163
VR 15	EVM-36GA00B53	RV453295

Time Code Amplifier PCB Assembly



PB9B621



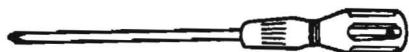
## ***Recommended Tools***

Otari can supply the tools necessary for the adjustment and maintenance of your machine. To order any tool, please contact Otari and order tools by part number on drawings.

<b>No.</b>	<b>Name</b>	<b>Notes</b>
1.	Screw driver (Phillips #1)	Generic: Metric cross-recessed screws: M2 and M2.6
2.	Screw driver (Phillips #2)	Generic: Metric cross-recessed screws; M3, M4, and M5
3.	Screw driver (Phillips #0)	Generic: Metric cross-recessed screws: M2 (Magnetic head)
4.	Slotted screw driver	Generic: Metric slot-recessed screws; M2, M2.6, and M3
5.	Slotted pocket driver	Generic: Metric slot-recessed screws; M2
6.	Insulating adjustment screw driver	Adjustment for bias or RF circuit
7.	Nut driver (5.5 mm)	Generic: Hex head bolt and nut M3
8.	Nut driver (7 mm)	Generic: Hex head bolt and nut M4
9.	Double-ended wrench (5.5 & 7 mm)	Generic: Hex head bolt and nut M3, M4, and Standoffs
10.	Double-ended wrench (6 & 8 mm)	Generic: Hex head bolt and nut M5 and Standoffs
11.	Diagonal plier	Generic: Wire cutting (copper wire only)
12.	Diagonal close and flush cutting plier	Capacity of cutting diameter; steel wire — 1 mm, hard steel wire — 0.5 mm
13.	Long nose plier	Generic: Assembly work
14.	Alignment tool kit	Ferrite core and trim pot adjusting tool
15.	Tweezer	Trim pot adjusting tool
16.	Tweezer	Generic: Pick up
17.	Scale (150 mm)	Metric
18.	Attache style tool case	
19.	Hex and spline wrench kit	Generic: Metric hex socket screws M3, M4, M5, and M6
20.	Lubricating oil (Anderol #456)	For Direct Drive Capstan Motor bearing



- 1). ZT1A021 (Phillips #1)
- 2). ZT1A022 (Phillips #2)



- 6). ZT1A026



- 3). ZT1A023



- 7). ZT1A027 (5.5mm)
- 8). ZT1A028 (7mm)



- 4). ZT1A024



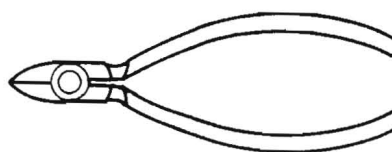
- 9). ZT1A030 (5.5mm and 7mm)
- 10). ZT1A031 (6mm and 8mm)



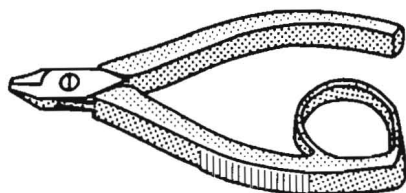
- 5). ZT1A025



- 11). ZT1A032



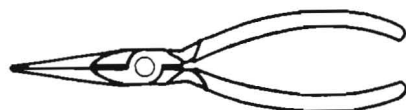
12). ZT1A033



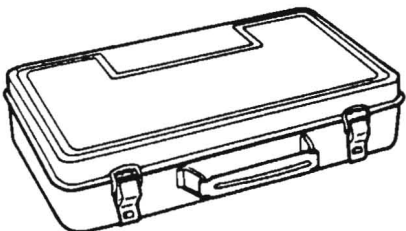
17). ZT1A037



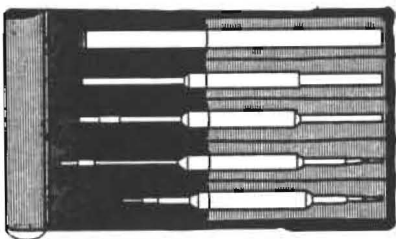
13). ZT1A034



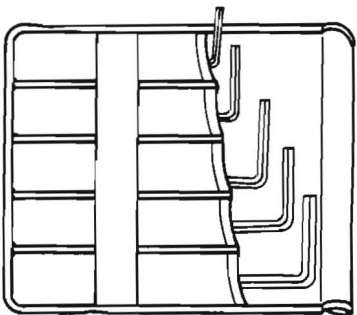
18). ZT1A038



14). ZT1A029



19). ZT1A039



15). ZT1A035



20). PZ9E003



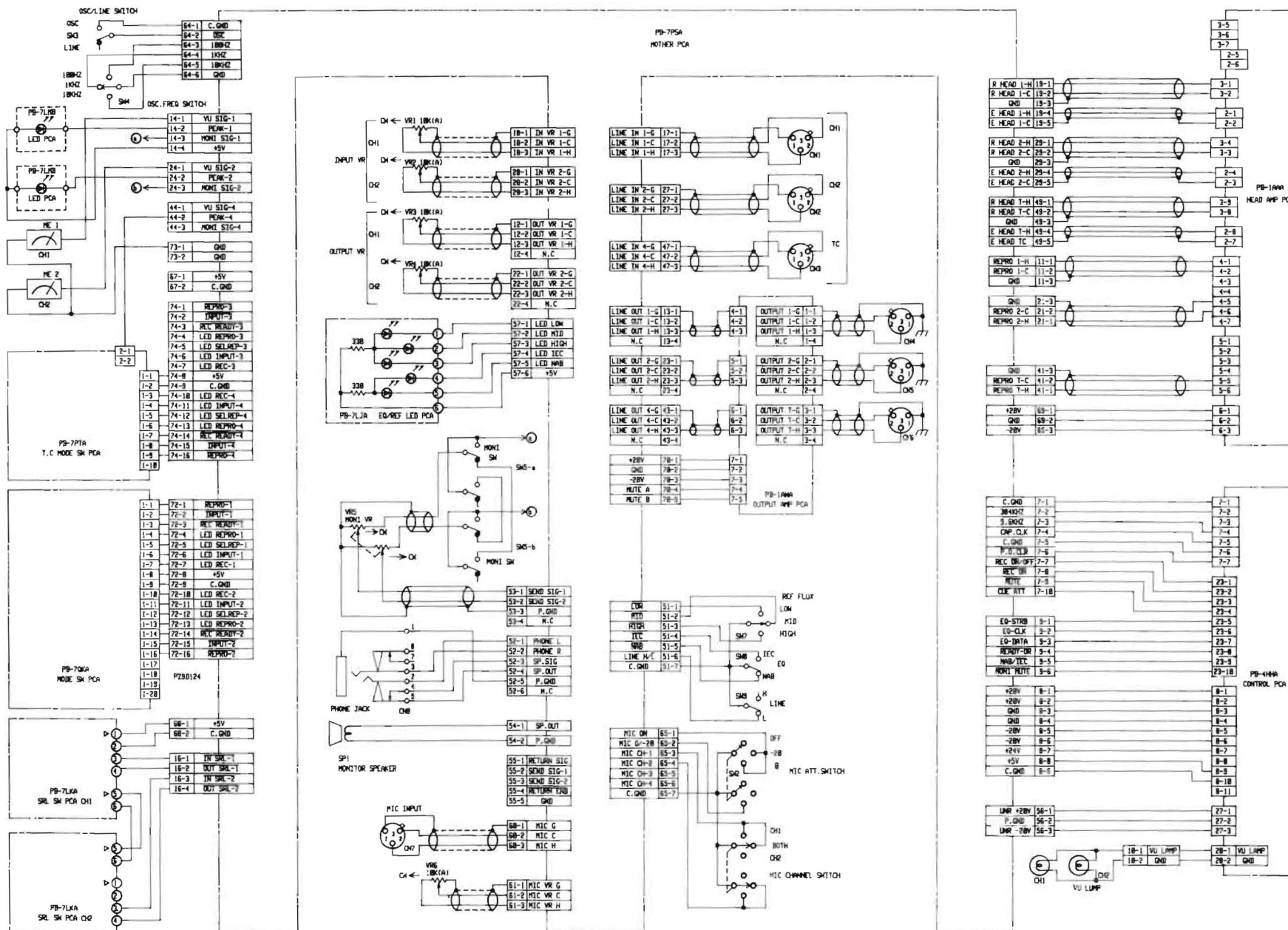
16). ZT1A036



## Schematic Diagrams

Type H ~

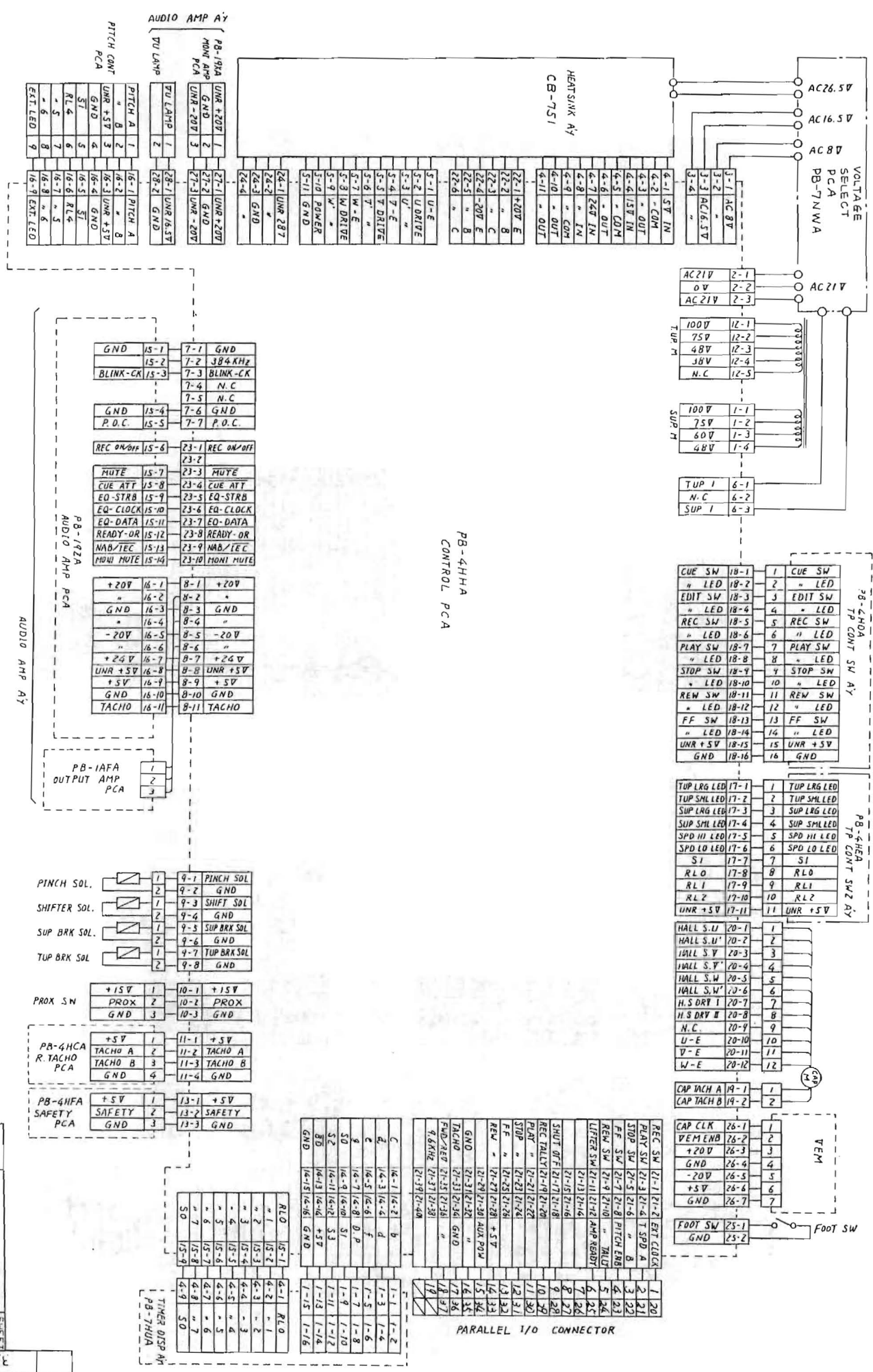
Part No.	Assembly Name	DWG No.	Note
A11460B	Audio Amplifier Assembly Wiring Diagram	3-15169	
T00410A	Control Wiring Diagram	3-13305	
KH43R0A	Head Assembly Wiring Diagram	4-44850	MX-55T, T-M
KH43U0A	Head Assembly Wiring Diagram	4-44661	MX-55N-M
PB1AA0A	Head Amplifier PCB Assembly	3-15170	
PB1AV0A	Audio Amplifier PCB Assembly	3-15714-6	
PB1AV0B	Time Code Amplifier PCB Assembly	3-14108-10	MX-55T, T-M
PB1AW0A	Output Amplifier PCB assembly	3-14530	
PB1AT0A	Mic. Amplifier PCB Assembly	3-13845	
PB1AU0A	Monitor Amplifier PCB Assembly	3-13849	
PB7PS0A	Mother PCB Assembly	3-13844	
PB4HH0A	Control PCB Assembly	3-13273-5	
PB7QK0A	Mode Switch PCB Assembly	4-44456	
PB7PT0A	Time Code Mode Switch PCB Assembly	4-44457	MX-55T, T-M
PB7LK0A	SRL Switch PCB Assembly	4-43798	
PB7LJ0A	EQ/Ref. Flux LED PCB Assembly	4-43797	
PB4HC0A	Roller Tach. PCB Assembly	4-43800	
PB4HD0A	Transport Control Switch 1 PCB Assembly	4-43801	
PB4HE0A	Transport Control Switch 2 PCB Assembly	4-43802	
PB4HF0A	Safety PCB Assembly	4-43803	
PB4HG0A	Pitch Control PCB Assembly	4-43084	
PB7HT0A	Timer Indicator PCB Assembly	3-12639	
PB7HU0A	Timer Drive PCB Assembly	3-12643	
PB7NB0A	Voltage Select PCB Assembly	3-13306	
CB75101	Heatsink Assembly	3-13272	
PB7NA0A	Rec. Ref. Level Select PCB Assembly	4-43795	
PB7MZ0A	Rep. Ref. Level Select PCB Assembly	4-43796	



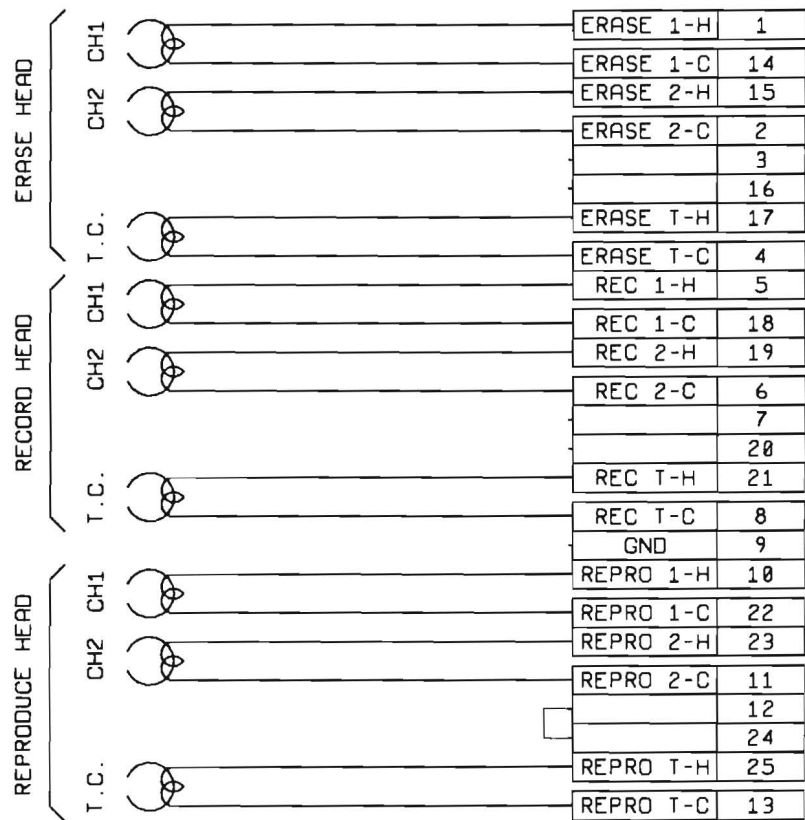
REF NO	OTARI PART NO	DESCRIPTION	REF NO	OTARI PART NO	DESCRIPTION
1, 3, 7	CH180845	XLB-3-31	1, 2, 7	MS20546	SS423-08
4, 6	CH180845	XLB-3-32	3	HN12258	PSA1-M85B1 2SL
8	CH682220	ML1867-81-B18	4	MS20544	SS423-12
9	CH68264	172211-6	5	HN12251	PSA21C3, 4A1S81 2SL2
10	CH68268	172211-3	6	MS20548	SS423-22 L=12
11, 1, 5	RV214100	VHM-CH6825A14	ME	ME11021	VU METER
5	RV214105	RN163124 18K(A) L=25	SP	SP1000	770A-51015

NAME	AUDIO AMP A'y	SHEET	15169
PART NO.	A11460B	1 OF 1	
APPLIED	A1138, A1146, A1147		



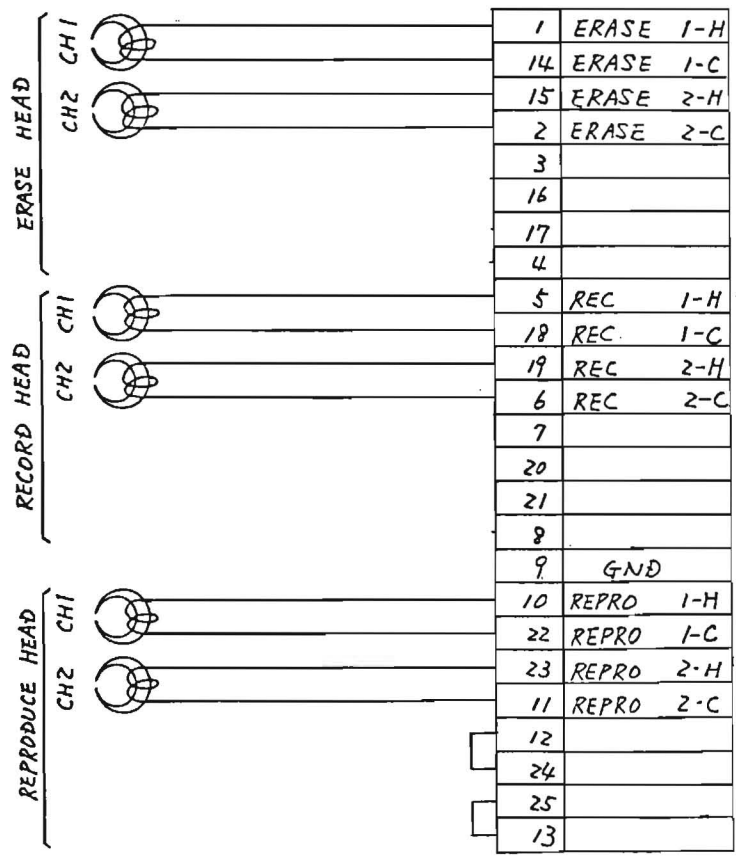


NAME	CNT WIR DIA	SHEET
PART NO.	T00410A	OF
APPLIED	T0041	3.13305



NAME	HEAD ASSY	SHEET 1 OF 1
PART NO.	KH43R0A	
APPLIED	KH-43R	

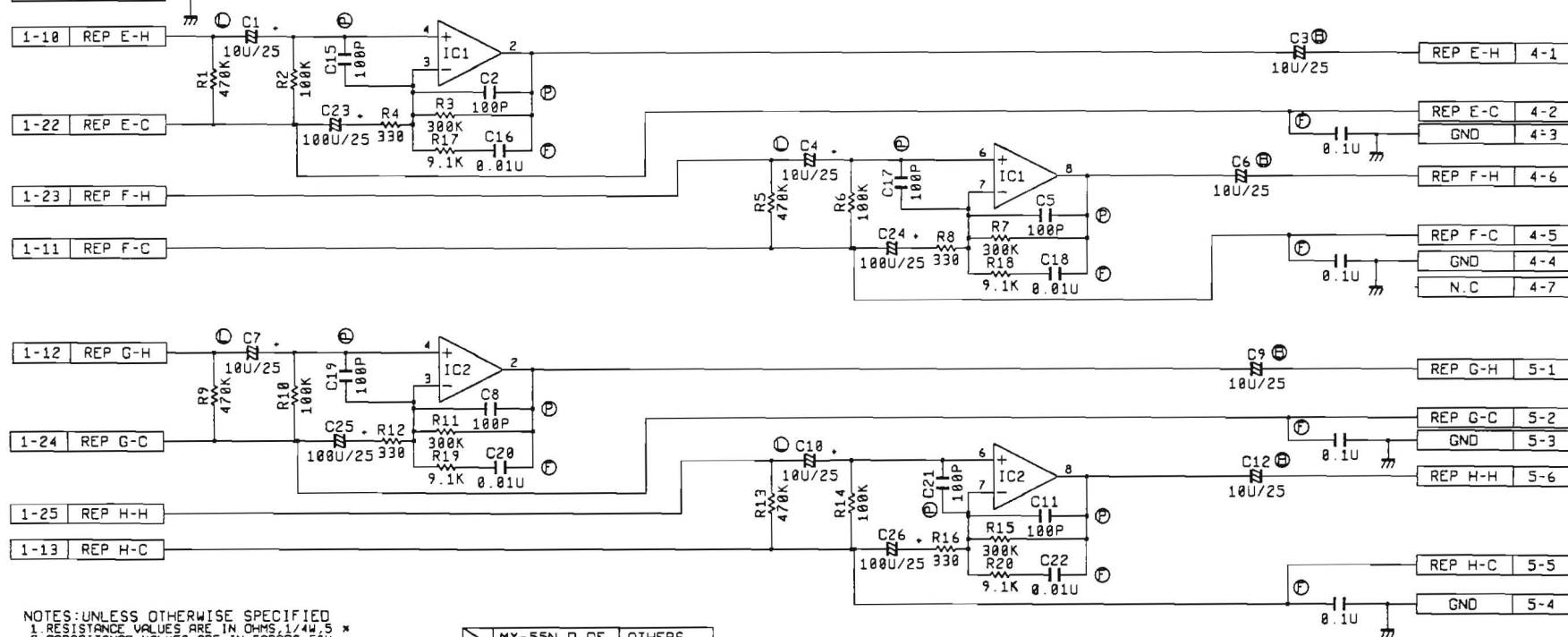
DWG. NO. 4 . 44850



NAME	Head Assembly	DWS. NO. 4 44661
PART NO.	KH 43U0A	
APPLIED	KH-43U	



1-1	ERASE A-H	ERASE A-H	2-1
1-14	ERASE A-C	ERASE A-C	2-2
1-15	ERASE B-H	ERASE B-H	2-4
1-2	ERASE B-C	ERASE B-C	2-3
1-3	ERASE C-H	ERASE C-H	2-5
1-16	ERASE C-C	ERASE C-C	2-6
1-17	ERASE D-H	ERASE D-H	2-8
1-4	ERASE D-C	ERASE D-C	2-7
1-5	REC A-H	REC A-H	3-1
1-18	REC A-C	REC A-C	3-2
1-19	REC B-H	REC B-H	3-4
1-6	REC B-C	REC B-C	3-3
		GND	3-5
1-7	REC C-H	REC C-H	3-6
1-20	REC C-C	REC C-C	3-7
1-21	REC D-H	REC D-H	3-9
1-8	REC D-C	REC D-C	3-8
1-9	GND		



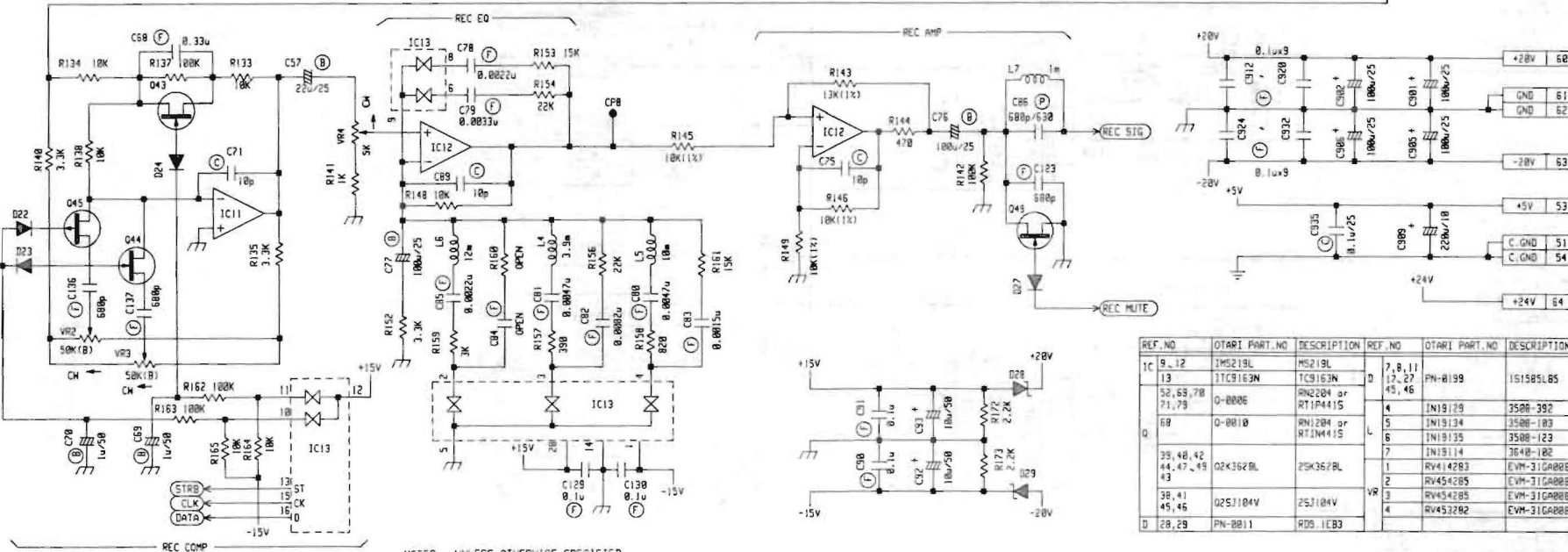
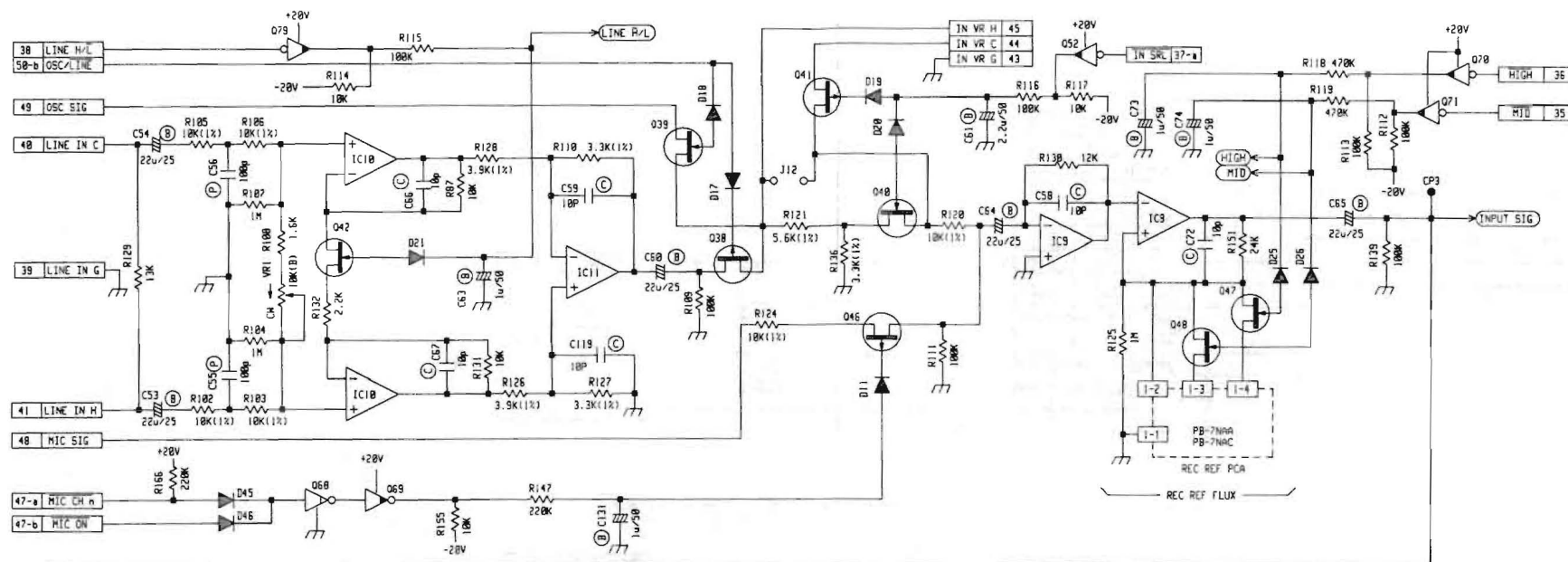
NOTES: UNLESS OTHERWISE SPECIFIED  
1. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%  
2. CAPACITANCE VALUES ARE IN FARADS, 50V  
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:  
ALUMINUM ELECTROLYTIC CAPACITOR  
BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR  
MYLAR FILM CAPACITOR (±5%, 50V)  
POLYSTYRENE FILM CAPACITOR (±5%, 50V)  
CERAMIC CAPACITOR  
MICRA CAPACITOR (±5%)  
TANTALUM ELECTROLYTIC CAPACITOR  
POLYPROPYLENE FILM CAPACITOR (±5%)  
LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR  
METALIZED PAPER CAPACITOR (±10%)  
SPARK KILLER  
4. SAFETY COMPONENT: REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

	MX-55N,D,DE	OTHERS
A	CH1	CH1
B	NONE	CH2
C	CH2	CH3
D	NONE	CH4(T.C.)
E	4TR-CH1	CH1
F	4TR-CH2	CH2
G	2TR-CH1	CH3
H	2TR-CH2	CH4(T.C.)

REF. NO.	OTAR	PART NO.	DESCRIPTION
IC 1,2,3,4	I-0146		NJM2043SD

NAME	HEAD AMP PCA	SHEET 1 OF 1
PART NO.	PB1AA0A	
APPLIED	PB-1AAA	

DWG. NO. 3 15170



NOTES : UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.

- ⊖ : ALUMINUM ELECTROLYTIC CAPACITOR.
- ⊖ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
- ⊖ : MYLAR FILM CAPACITOR. (5%, 50V)
- ⊖ : POLYSTYRENE FILM CAPACITOR. (5%, 50V)
- ⊖ : CERAMIC CAPACITOR.

- ⊖ : MICRA CAPACITOR. (5%)
- ⊖ : TANTALUM ELECTROLYTIC CAPACITOR.
- ⊖ : POLYPROPYLENE FILM CAPACITOR. (5%)
- ⊖ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- ⊖ : METALLIZED PAPER CAPACITOR. (10%)
- ⊖ : SAFETY COMPONENT ; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

REF. NO	OTARI PART. NO	DESCRIPTION	REF. NO	OTARI PART. NO	DESCRIPTION
1C	9_12	2MS213L	MS213L	7, 8, 11	
13	1TC9163N	TC9163N	17, 27	PN-0199	151585L85
52, 63, 78	Q-0006	AN2204 or RT1P415	45, 46		
68	Q-0010	AN1204 or RT1N415	4	1N1913	3508-392
			5	1N1913A	3508-103
			6	1N1913S	3508-123
			7	1N19114	3648-102
39, 48, 42			1	RV414283	EVM-31GAB0814 (INPUT SENS.)
44, 47, 45			2	RV454285	EVM-31GAB0854 (REC EQ.H)
38, 41	Q25J104V	25J104V	3	RV454285	EVM-31GAB0854 (REC EQ.L)
45, 46			4	RV452282	EVM-31GAB0853 (RECORD LEVEL)
D	28, 29	PN-0011	RD5-1EB3		

NAME AUDIO AMP PCA  
PART NO. PB1AV0A-  
APPLIED PB-1AVA

3.15714