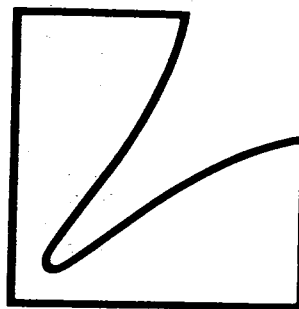
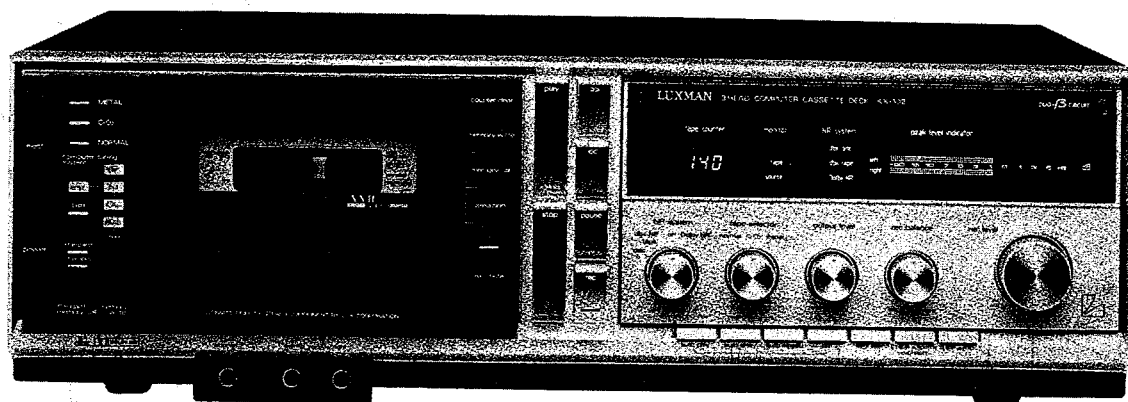


SERVICE MANUAL



Servo Face Two Head
Metal Cassette Deck

KX-102

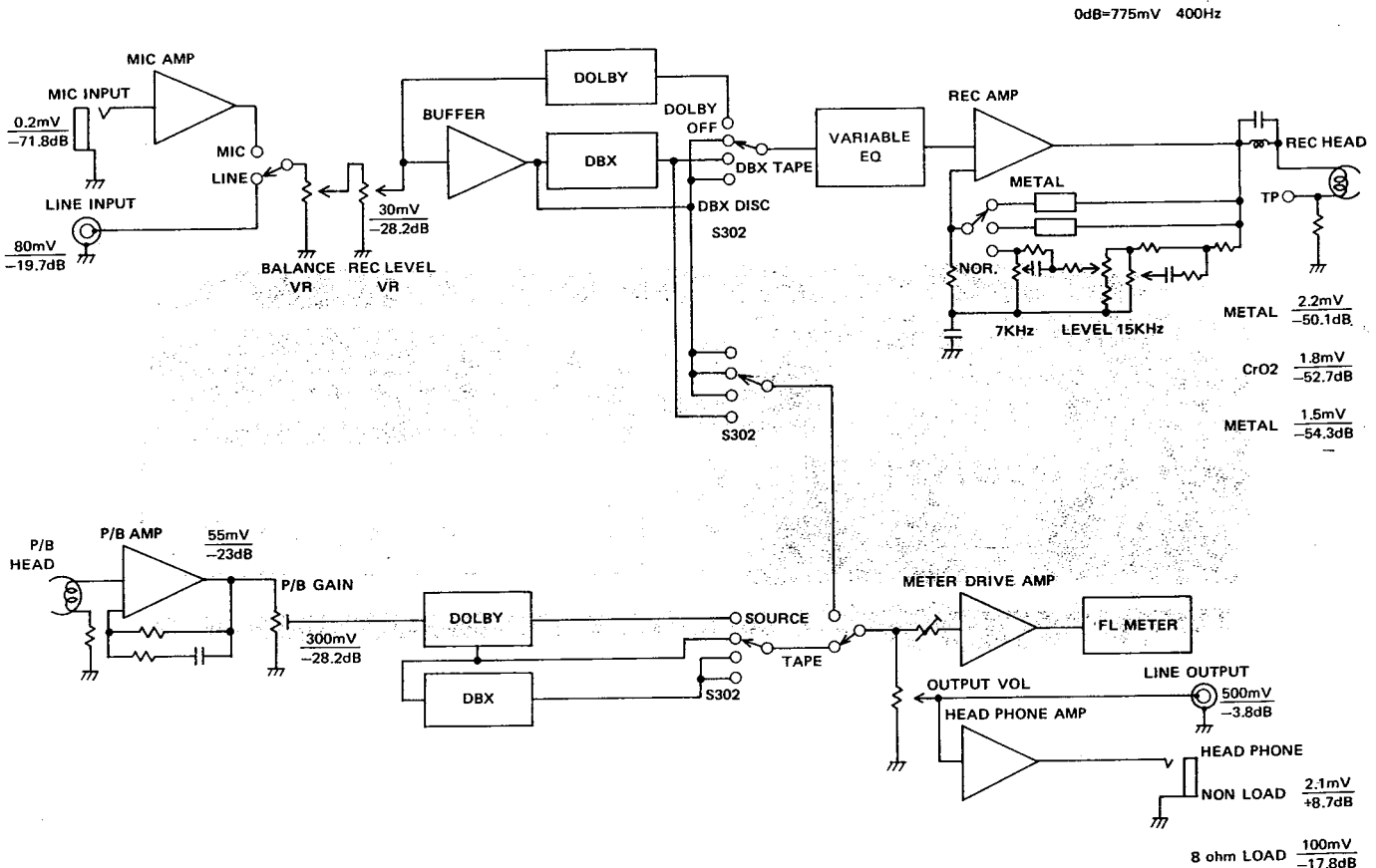


KX-102

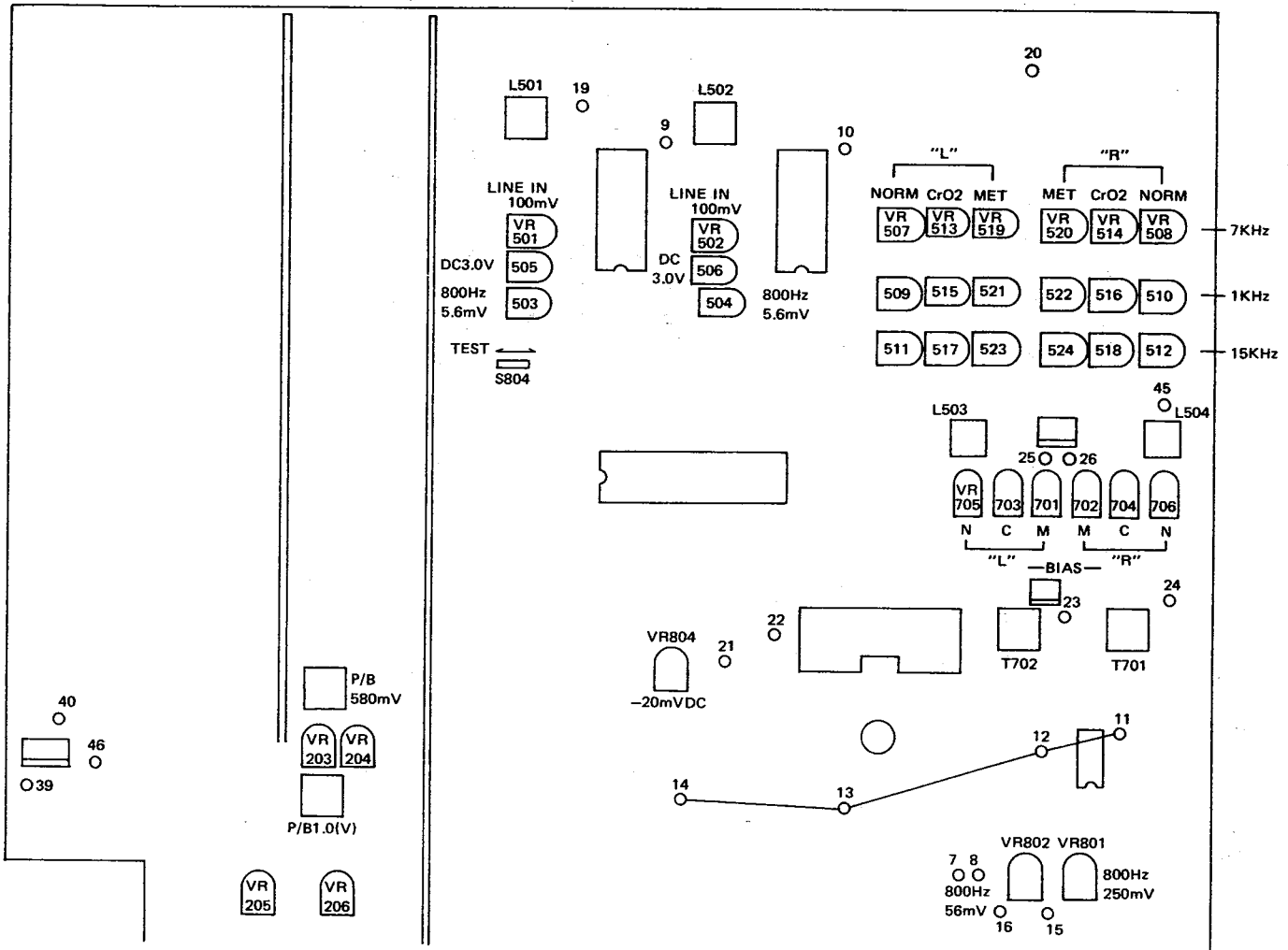
Contents

Level Diagram	2
Mother PCB Adjustment Locations	2
NR PCB Adjustment Locations	2
Adjustment Procedures	3, 4, 5, 6
Exploded View(1)	7
Exploded View(1) Parts List	8
Exploded View(2)	8
Exploded View(2) Parts List	10
Packing Material Parts List	10
Master PCB Parts List	11, 12, 13, 14, 15
NR Switch PCB Parts List	15
Meter PCB Parts List	16
LED & SW PCB(R) Parts List	16
Jack PCB Parts List	16
NR PCB Parts List	17, 18
Switch & VR PCB Parts List	19
Control PCB Parts List	20, 21
LED PCB Parts List	22
LED & SW PCB(L) Parts List	22
KB Switch PCB Parts List	22
μPC4556C, μPC4557C, μPC4558C	23
HA12019	23
HA12020	23
MC14011B, MC14081B	24
MC14049UB	24
MC14066B	24
NJM2901N	25
NE650N	25
NJM072D	25
TD62504	25
BA843	26
HD44801A48	26
Destinations Parts List	27
Schematic Diagram(A)	28
Schematic Diagram(B)	29
Specifications	30

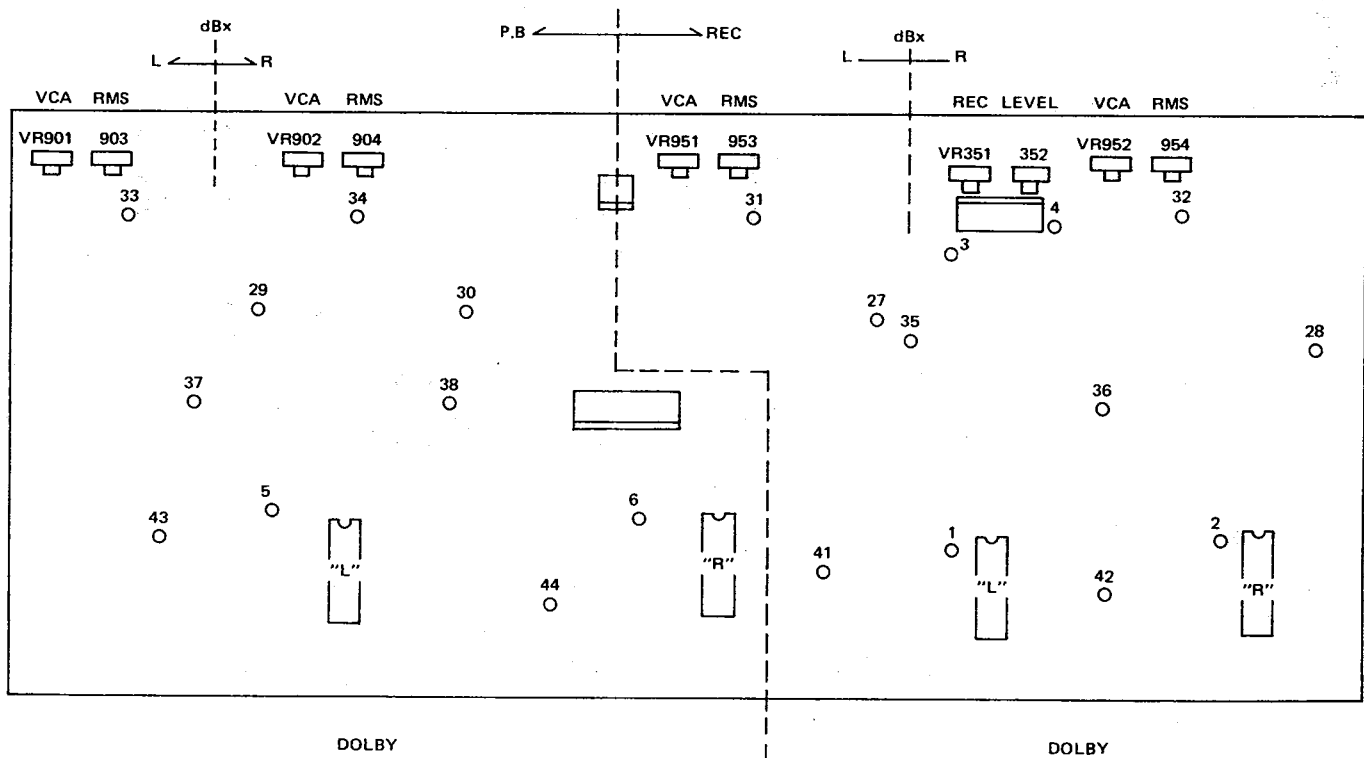
Level Diagram



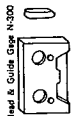
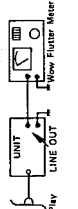
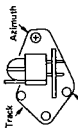
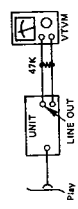
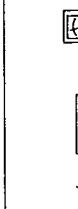
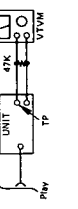
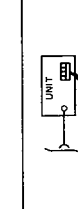
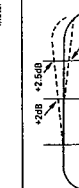
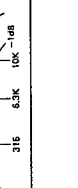
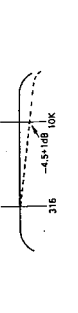
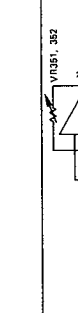
Mother PCB Adjustment Locations



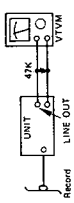
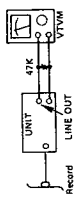
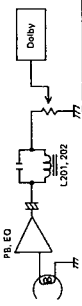
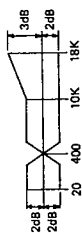
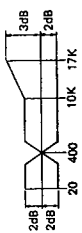
NR PCB Adjustment Locations



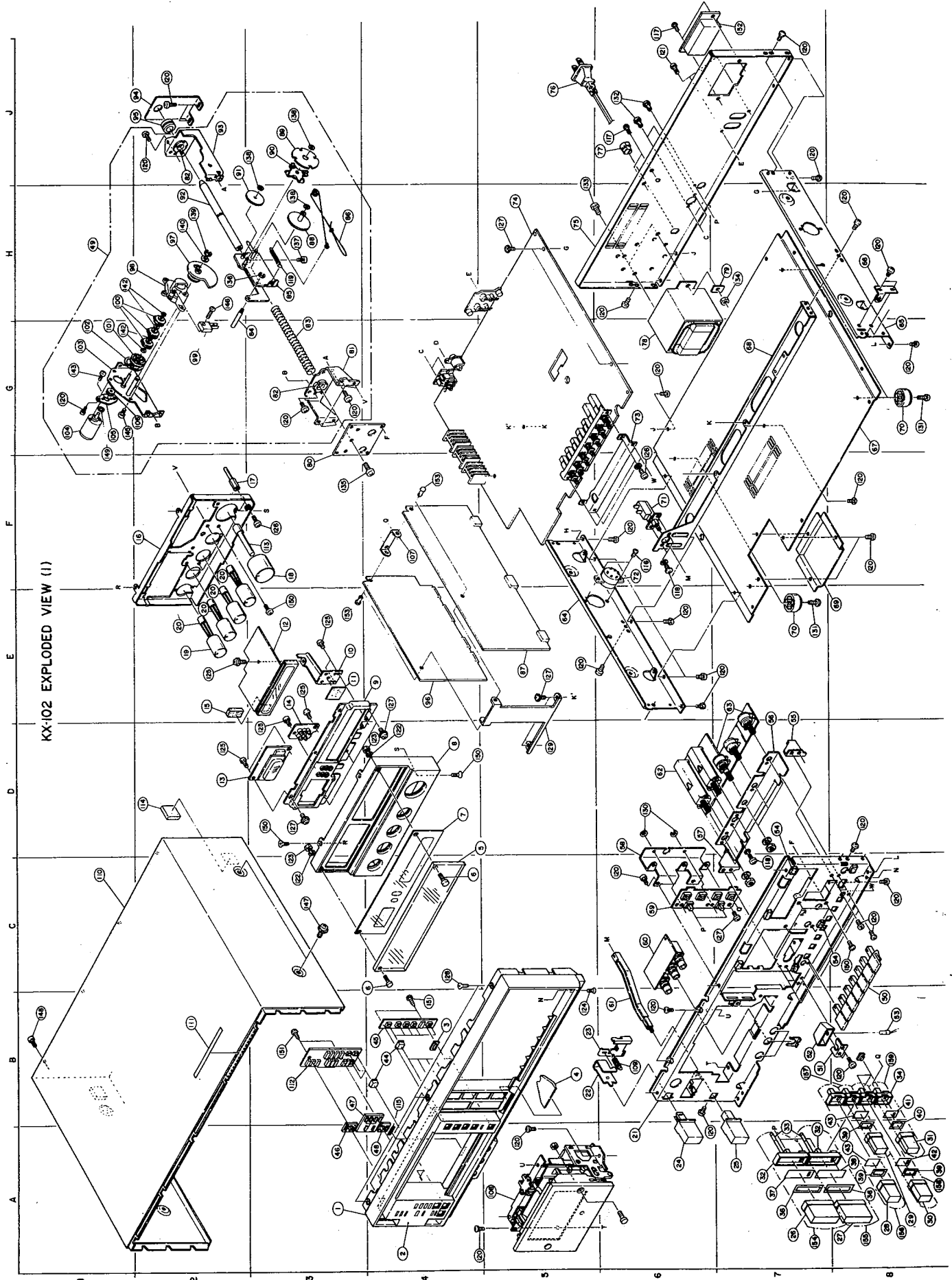
Adjustment Procedures

Step	Description	Mode	Adjusting Point	Test point	Connection	Remarks
1	Tape Transportation Check	Play	 Slew Head	 Head & Guide Gap N-300		Make sure that does not touch the tape guide of erase and R/P heads, by using "Slew Head". Confirm that R/P head is placed without any tilt against the "M-300" gage.
2	Torque Check	Play FF & REW	 Torque Meter			Take Up Torque : 30- 60g. cm Back Tension Torque : 4- 8g. cm FF & REW Torque : 70-130g. cm
3	Tape Speed and Wow Flutter Check	Playback	 For Speed Adjust Motor	Line Out		Test Tape : MTT-111 (3KHz) Speed : 3000Hz $\pm 1.5\%$ Wow Flutter : No more than 0.05% (JIS W.R.M.S.)
4	Head Azimuth Adjustment	Playback	 Track Azimuth			Test Tape : MTT-114 (10KHz) or MTT-215C (315Hz, 10KHz) Line Out : Maximum of both Channel
5	Playback Dolby Level Adjustment	Playback Tape Select : Normal NR : Off	VR203-Lch VR204-Rch	TP-5 TP-6		Test Tape : MTT-150 (400Hz, 200nWb/m) TP Output : 580mV
		Playback Tape Select : Normal NR : Off	VR205-Lch VR206-Rch	TP-7 TP-8		Test Tape : MTT-150 (400Hz, 200nWb/m) TP Output : 1.0V
6	F. L. Meter Adjustment	Playback	VR451-Lch VR452-Rch	Meter Display		Test Tape : MTT-150 Meter Display : 0 dB
7	Playback Frequency Response Check	Playback TaPe Slect : Normal NR : Off	Step 1-5	Line Out		Test Tape : MTT-217U or MTT-215C
		Playback Tape Select : Cr02 NR : Off				Test Tape : MTT-144or MTT-215C
		Playback Tape Select : Metal NR : Off				
8	Line Input Level Adjustment	Monitor : Source Tape Select : Normal NR : Off	Rec Level VR Balance VR	TP-1 TP-2		Line Input : 1KHz 300mV TP Output : 580mV
			VR 351-Lch VR352-Rch	TP-3 TP-4		

Step	Description	Mode	Adjusting Point	Test point	Connection	Remarks
9	Tone OSC Adjustment	Stop Mode Short circuit all four Terminals (TP11,12,13,14)	VR801	TP-15		TP Output : 800Hz 250mV
			VR802	TP-16		TP Output : 56mV
10	Bias OSC Frequency Adjustment	Record Tape Select : Metal NR : Off	T702	TP23-TP24(GND)		Input : Non TP Output : 105K $\pm$ 1KHz 280mV
11	Record Amp Bias Trap Adjustment	Record Tape Select : Metal NR : Off	L503-Lch L504-Rch T701	TP25-TP45(GND) TP26-TP45(GND)		Input : Non TP Output : Maximum
		Record Tape Select : Metal NR : Off	VR701-Lch VR702-Rch			Input : Non TP Output : 1.3mV
		Record Tape Select : Cr02 NR : Off	VR703-Lch VR704-Rch			Input : Non TP Output : 0.7mV
12	Bias Current Adjustment (Pre Set)	Record Tape Select : Normal NR : Off	VR705-Lch VR706-Rch			Input : Non TP Output : 0.65mV
		Stop Mode Short circuit all four Terminals (TP11, 12, 13, 14)	VR505-Lch VR650-Rch	TP-9 TP-10		TP Output : 3.0V DC
		Record Short circuit all four Terminals (TP11, 12, 13, 14) SW(S804) : Test	VR503-Lch VR504-Rch	TP-19 TP-20		TP Output : 5.6mV
13	Tone OSC Rec Out Adjustment	Stop Mode Short circuit all four Terminals (TP11, 12, 13, 14)	VR505-Lch VR650-Rch	TP-9 TP-10		
		Record Short circuit all four Terminals (TP11, 12, 13, 14) SW(S804) : Test	VR503-Lch VR504-Rch	TP-19 TP-20		
14	Line Rec Out Adjustment	Stop Mode NR : Off	Rec Level VR Balance VR	TP-3 TP-4		Line Input : 800Hz 300mV TP Output : 580mV
		Record NR : Off	VR501-Lch VR502-Rch	TP-19 TP-20		Line Input : 800Hz 300mV TP Output : 100mV
15	Rec Equalizer Adjustment	Record Tape Select : Normal NR : Off	L501 L502	TP25-TP45(GND) TP26-TP45(GND)		Line Input : 23KHz, 16.8mV TP Output : Maximum
		Rec Bias : Off				
16	Input Level Adjustment	Monitor : Source TaPe Select : Normal NR : Off	Rec Level VR Balance VR	Line Out		Line Input : 400Hz 300mV TP Output : 500mV

Step	Description	Mode	Adjusting Point	Test point	Connection	Remarks
17	Record Level Adjustment	Record/Play Tape Select : Metal NR : Off	VR521-Lch VR522-Rch	Line Out		Line Input : 400Hz 300mV TP Output : 500mV $\pm$ 0.5dB
		Record/Play Tape Select : Cr02 NR : Off	VR515-Lch VR516-Rch			
		Record/Play Tape Select : Normal NR : Off	VR509-Lch VR510-Rch			
18	Record Distortion Adjustment	Record/Play Tape Select : Metal NR : Off	VR701-Lch VR702-Rch	Line Out		Line Input : 400Hz 300mV TP Output : 500mV No more than 1.5%
		Record/Play Tape Select : Cr02 NR : Off	VR703-Lch VR704-Rch			
		Record/Play Tape Select : Normal NR : Off	VR705-Lch VR706-Rch			
19	Playback Amp Bias Trap Adjustment	Record Tape Select : Metal Dolby NR : Off	L201-Lch L202-Rch	Line Out		Input : Non Line Out : Minimum
		Record/Play Tape Select : Metal NR : Off	VR521-Lch VR522-Rch			
		Record/Play Tape Select : Metal NR : Off	VR519-Lch VR520-Rch			
20	Record/Playback Frequency Response Adjustment	Record/Play Tape Select : Metal NR : Off	VR523-Lch VR524-Rch	Line Out		Line Input : -25dB Test Tape : AC711
		Record/Play Tape Select : Metal NR : Off	VR515-Lch VR516-Rch			
		Record/Play Tape Select : Metal NR : Off	VR513-Lch VR514-Rch			
20	Record/Playback Frequency Response Adjustment	Record/Play Tape Select : Metal NR : Off	VR517-Lch VR518-Rch	Line Out		Line Input : -25dB Test Tape : AC 512
		Record/Play Tape Select : Metal NR : Off	VR515-Lch VR516-Rch			
		Record/Play Tape Select : Metal NR : Off	VR513-Lch VR514-Rch			

Exploded View(1)



KX-102 EXPLODED VIEW (1)

KX-102

Exploded View(1) Parts List

Index	Symbol No.	Stock No.	Description	Index	Symbol No.	Stock No.	Description
A3	1	07D52966F04	Frame, Front	G6	78	25T52166F01	Trans, Power (UZ)
A4	2	07D55535F01	Frame, Mecha.			25T51182F01	Trans, Power (AK)
B4	3	61B55532F04	Crystal, Ind			25T52165F01	Trans, Power (UQ)
B5	4	61A53115F01	Crystal, Acryl	H7	79	07A40871F01	Support, Trans Washer
D4	5	61B52901F02	Crystal, Meter	F3	80	07A52886F01	Support, Servo
C4	6	03A52884F01	Scr, Spl. "B" M3x10	G3	81	07B53095F01	Bkt, Panel
D4	7	61B52899F02	Crystal, Filter	G3,J2	82	43A52932F01	Sleeve, A
D4	8	07D52909F02	Frame, Servo	G3	83	41A52935F01	Spring, Servo
E4	9	07C52903F01	Frame, Meter	G3	84	47A52931F02	Shaft, 3
E3	10	07A52887F01	Support, Meter	H3	85	01A57211F01	Ass'y, Stopper Bkt.
E3	11	75A53140F01	Cushion, Meter	H3	86	30S43803G05	Dial Cord
E3	12	01V56500F69	Ass'y, FL Meter PCB	E5	87	01V56500F62	Ass'y, NR PCB
D2	13	65T41785F01	Lamp, FL Counter Ass'y	E5	88	44A52923F01	Gear, Dumper A
E3	14	01V56500F70	Ass'y, LED PCB	J3	89	49A52922F01	Wheel, Dumper
E2	15	75A56279F01	Cushion, Meter	J3	90	44A53019F01	Gear, Dumper C
F2	16	27C52908F01	Chassis, Servo	J2	91	44A52924F01	Gear, Dumper B
F3	17	47A52891F01	Shaft, Servo Guide	H2	92	47A52930F01	Shaft, 10
F3	18	36B52958F01	Knob, Control 28	J2	93	07B53096F01	Bkt, Slide
E2	19	36A52963F01	Knob, Control	J2	94	07B52894F01	Support, Servo A
E2,F2	20	47A53082F01	Shaft, A	J2	95	43A55383F01	Bushing, Shaft
A6	21	27D52912F01	Chassis, Front	E4	96	01V56500F61	Ass'y, Control PCB
B5	22	45A52889F01	Lever, Eject	H2	97	45B52928F01	Cam, Servo
B5	23	45A52888F01	Arm, Eject	H1	98	44B52927F01	Gear, Fix
A6	24	36B53066F01	Knob, Push C	G2	99	40T52936F01	Switch, Servo
A7	25	36B52897F01	Knob, Power SW	H1	100	01V41500F30	Ass'y, Planet Gear
A7	26	36A52961F03	Knob, Crystal B	G1	101	49A52926F01	Wheel, 20
A8	27	36A52961F04	Knob, Crystal B	G1	102	42A50299F01	Belt, Counter
A8	28	36A52962F07	Knob, Crystal A	G1	103	01A57210F01	Ass'y, Motor Bkt.
A8	29	36A52962F08	Knob, Crystal A	G1	104	59T52973F01	Motor, Servo
A8	30	36A52962F06	Knob, Crystal A	G1	105	07A53094F01	Support, Motor
A8	31	36A52962F05	Knob, Crystal A	G2	106	49A52925F01	Wheel, 10
A7	32	07B52959F01	Frame, Knob A	F4	107	07A55530F01	Bkt, Panel
A7	33	47A52890F01	Shaft, SW Guide	A5	108	01U55000F99	FL87E32C, CAS. DK.
B8	34	07B52960F01	Frame, Knob B	B6	109	41A53142F01	Spring, Eject
B8	35	61B53086F01	Crystal, Indicator A	C1	110	15D52911F01	Cover, Top
A8,A7	36	43A56379F02	Spacer, Film B	B2	111	43A56871F01	Spacer, 1187
A8,A7	37	43A53139F01	Spacer, Crystal D	B3	112	01V56500F74	Ass'y, LED & SW PCB L
A8	38	43A53071F01	Spacer, Crystal A	F3	113	47A56389F01	Shaft, 1376
A8	39	43A56378F03	Spacer, Film A	D2	114	43A56380F01	Spacer, Rubber 1184
B8	40	43A56378F03	Spacer, Film A	B4	115	43A57045F01	Spacer, Frame
B8	41	43A53072F02	Spacer, Crystal B	F6	116	03S44205G03	Scr, T-Tite M3x8 (AK)
A8	42	43A53072F01	Spacer, Crystal B	J6	117	03S44205G38	Scr, T-Tite M3x6
A8	43	43A53138F01	Spacer, Crystal C	C7,E6	118	03C40014G04	Scr, Mch M3x6
B4	44	36A55533F01	Knob, Push	H3	119	41A52934F01	Spring, Dumper
B4	45	01V56500F75	Ass'y, LED & SW PCB R		120	03S44205G05	Scr, T-Tite M3x5
A3	46	61B55532F01	Crystal, Ind	J6	121	03S40012G41	Scr, Tpg. M3x8
B3	47	61B55532F02	Crystal, Ind	C3,D4	122	04S40071G01	Washer, 3.1x5.9x0.7
A4	48	61B55532F03	Crystal, Ind	C3,D4	123	02S40000G12	Nut, Hex. M3
H1	49	01C55485F01	Ass'y, Servo Mech.	B5	124	03S44205G50	Scr, T-Tite M3x6 Fit.
B8	50	36B52896F01	Knob, Push D	D2,E3	125	03S40012G03	Scr, Tpg. M3x6
B7	51	07A53113F01	Bkt, Lamp	F6,F3	126	03C40014G09	Scr, Mch M3x5
B7	52	43A53112F01	Bashing, Lamp		127	03C42723U01	Scr, Cup. M3x6
B8	53	65T55548F03	Lamp, W/Cap 14V-117mA	C4	128	03S44205G46	Scr, T-Tite M3x6 TRS
D7,C8	54	75A53141F01	Cushion, Panel	D5	129	07B55531F01	Bkt, Panel
E7	55	07A56254F01	Bkt, 3062	D6	130	04C42091G11	Wash, "C" 2.5
E7	56	07B52893F01	Support, VR	E7,G8	131	03S44205G25	Scr, T-Tite M4x10
D6	57	07A56253F01	Bkt, 3061	J6	132	05B41635J03	Rivet, Push
D6	58	07B52892F01	Bkt, SW	H5	133	03S40036U07	Scr, T-Tite M4x12
C6	59	01V56500F66	Ass'y, Key Board SW PCB	H7	134	02S40000G09	Nut, Hex M4
C6	60	01V56500F60	Ass'y, Jack PCB	F3	135	03S43997P60	Scr, Mch M4x8
B6	61	45B44337F01	Lever, Knob	H2	136	04C42091G06	Washer, "C" 1.5
D6	62	01V58400F46	Ass'y, NR SW PCB	H3	137	03S40011G22	Scr, Mch M3x12
E7	63	01V56500F67	Ass'y, SW & VR PCB	H3,J3	138	04A41345P01	Washer, 1.2x3.5x0.25
E5	64	27C52907F01	Chassis, Side	H2	139	04C42091G04	Washer, "C" 3.0
G8	65	27C53392F01	Chassis, Side	H2	140	04S40075G18	Washer, 4.1x6.5x0.25
H8	66	07A52885F01	Support, Guide	H1,G1	142	04S40075G06	Washer, 2.1x4x0.25
G8	67	15C52904F01	Cover, Bottom	G1	143	03S43997P58	Scr, Mch M2x3
G7	68	27C52906F01	Chassis, Center	G1	145	03S40011G17	Scr, Mch M3x6
E8	69	07A53356F01	Bkt, Bottom	H2	146	03S40011G30	Scr, Mch M2x6
E7,G8	70	75A52969F01	Pad, Trannleg	C3	147	03S40036U01	Scr, T-Tite M4x8
F6	71	40T47454F01	SW, Power SDLIP	B1	148	03S44205G02	Scr, T-Tite M3x6
		40T45561F02	SW, Power (AK)	G1	149	43A44303P04	Washer, Oil Shiel
F6	72	40T40705T04	SW, Select (AK)		150	03S44205G16	Scr, T-Tite M3x6
G6	73	07B52895F01	Support, SW	B3,B4	151	03S40012G09	Scr, Tpg. M3x8
H5	74	01V56500F59	Ass'y, Mother PCB	J7	152	15B50733F01	Case, Battery
		01V58700F58	Ass'y, Mother PCB (AK)	E3,F3	153	05B41635J02	Rivet, Push
H5	75	15D55529F01	Cover, Rear	A7	154	01V56700F92	Ass'y, Knob Play
		15D55529F02	Cover, Rear (AK)	A8	155	01V56700F93	Ass'y, Knob Stop
J5	76	28T40916U01	Plug, AC Cord	A8	156	01V56700F94	Ass'y, Knob FF
		28T50179F03	AC Cord (AK)	B7	157	01V56700F95	Ass'y, Knob Rew
J6	77	43B41625J01	Stopper, Cord	A8	158	01V56700F96	Ass'y, Knob Pause
		43B41625J02	Support, Cord (AK)	B8	159	01V56700F97	Ass'y, Knob Rec

KX-102

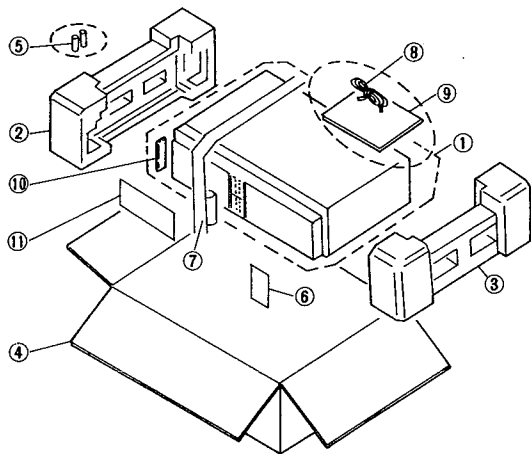
KX-102



Exploded View(2) Parts List

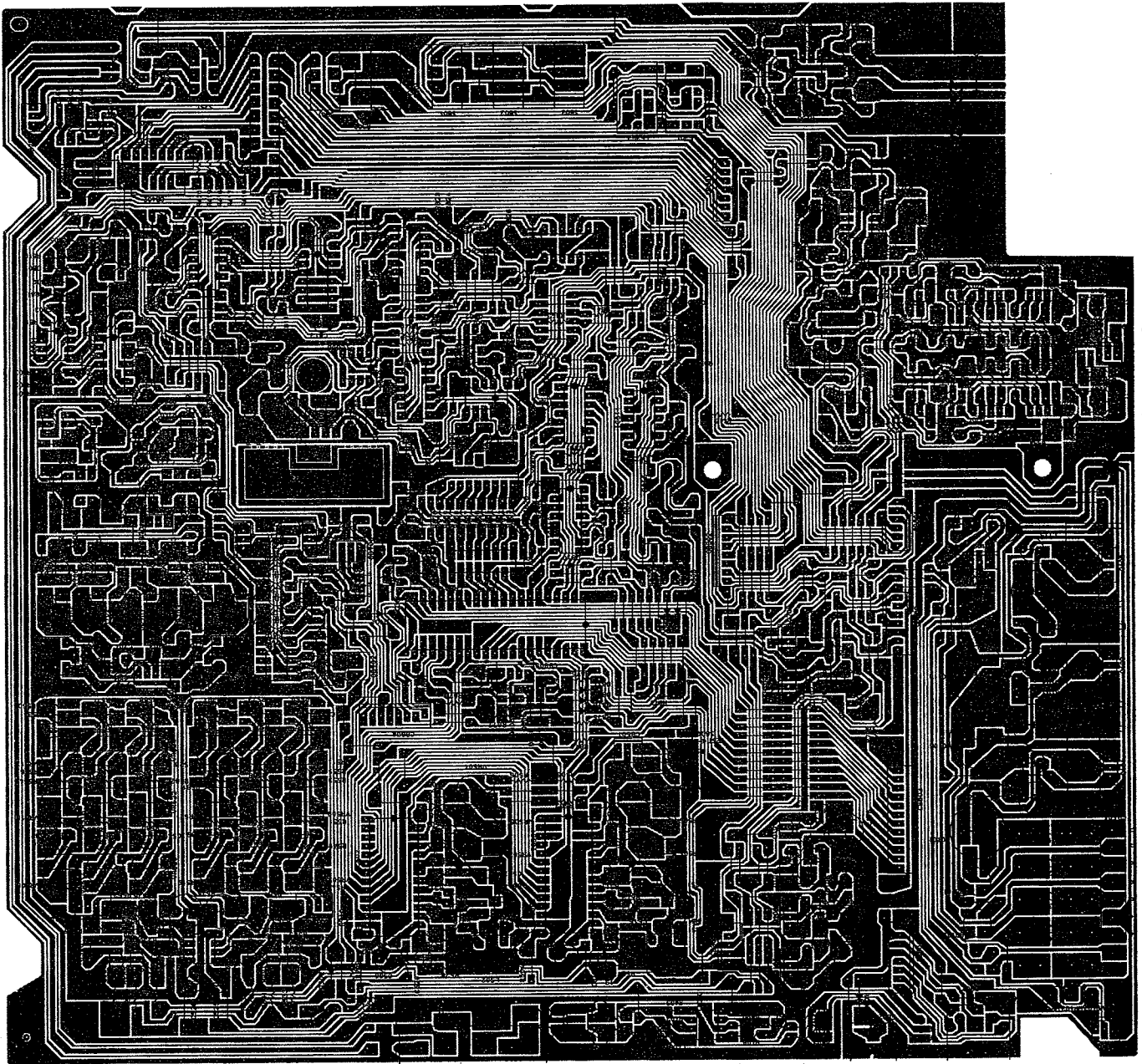
Index	Symbol No.	Stock No.	Description	Index	Symbol No.	Stock No.	Description
D6	1	F011-139	Ass'y, Chassis	C1	50	04S40071G01	Washer, 3.1x5.9x0.7
C7	2	F014-053	Ass'y, Pinchroller	B1	51	61B52902F01	Crystal, Door
G6	3	15B44924F05	Cover, Dust	C1	52	07C47355F02	Frame, Door
H6	4	65T55548F02	Lamp, 14V 50mA	A3	53	03A52883F01	Scr, Special M3x9
H6	5	61A44936F01	Lens, Indicator	B2	54	04S40070G39	Washer, 3.2x6x0.5
G2	7	F214-015	Bkt, Solenoid	C6,G5	55	FG114-15	Scr, M2. 6x4.5
F1	8	FP11N-11	Panel, Connector	F1	57	FG143-26	Scr, Mch. M2. 6x5
C7	9	FC17D-11	Base, Head		59	KG194-12	Scr, T-Tite M3x6
G3	10	FR346-11	Base, Assist		60	KG194-46	Scr, T-Tite M3x4.5
H5	11	FR347-12	Bkt, Motor	F6	61	FJ111-40	Washer, Pol. 2.1x0.5
B4	12	FR349-13	Bkt, Dumper	C5	62	FJ111-18	Washer, Pol. 2x0.25
E7	13	FR350-12	Bkt, Door		63	FJ123-14	Washer, Lock 1.7
B5	14	FR352-11	Lever, Safety		64	FJ123-21	Washer, Lock 2.6
C3	15	FC11H-12	Arm, Eject Lock	E3	65	FJ123-19	Washer, Lock 3.5
H3	16	FR355-14	Arm, FF Solenoid	D6	66	FJ141-12	Washer, Oil Shiel
D3	17	FR356-14	Arm, Switch	C3,E3	67	FG137-11	Scr, F-Lock M2x3
C3	18	FD17T-12	Arm, Record	A3	69	UG11D-11	Scr, T-Tite M2x12
A5	19	FR13V-12	Ass'y, Tension Arm	A6	70	FK572-11	Spring, Azimuth
E5	20	FR359-12	Arm, Play Solenoid	H5	71	FK11F-16	Spring, Thrust
B5,B7	21	FR360-12	Guide, Cassette	H2	72	FK11Y-13	Rod, Brake
C1	22	FD19L-12	Frame, Door	D6	73	FK12A-11	Spring, Brake
D6	23	FK551-13	Spring, Cassette	D6	74	FC15G-13	Lever, Brake
D1	24	FK553-12	Spring, Hold	D3	75	FC15H-11	Bkt, Sensor
A5	25	FK568-11	Spring, Door	D3	76	FP11E-11	Panel, Sensor
C7	26	FK569-13	Spring, Pinchroller	G1	77	FD12W-12	Arm, Brake
G3	27	FK570-12	Spring, Sol. Bkt.	D7	78	FF11C-13	Rubber, Brake
A7,A6	28	FK572-11	Spring, Azimuth	F7	80	03S40036U03	Scr, T-Tite M3x6
B4	29	FK573-11	Sprig, Arm Lock	F3	82	FG143-17	Scr, Mch. M2.6x3
G4	30	FK574-12	Spring, Assist Base	A7	83	FJ151-11	Washer
F3	31	FK575-11	Spring, Play Idler	A7	84	FK11F-23	Spring, Tilt
F5	32	FK576-12	Spring, Play Sol. Arm	A7	85	UG11K-12	Scr, Bind M2x18
F4	33	FK577-12	Sprng, Head Base	A7	86	UG11M-11	Scr, Tilt
A6	34	FK578-13	Spring, Head Base	C4	89	FK11C-11	Spring, Brake Arm
D6	35	FK579-11	Spring, Back Tension	A6	90	FG137-12	Scr, F-Lock M2x4
G5	36	FM281-11	Spacer, Flywheel	A7	91	UG11K-11	Scr, Bind M2x11.5
B6	37	FD14U-11	Spacer, Head	C5	92	FK579-13	Spring, Back Tension
B3,B5	38	FM296-11	Spacer		93	KG189-11	Scr, Mch. M3x5
F5	39	FM153-11	Gear, Play	E4	101	FO82-044	Ass'y, Solenoid Bkt
B5	40	FN154-13	Gear, Idler	E2,E3	102	PKA16106	Solenoid
F5	41	FP462-11	Belt, Main	H3	103	F064-093	Ass'y, Motor
E4	42	FP463-11	Belt, Sub	A7	104	FU12G-12	Head, R/P
C6	43	FP464-11	Pad, Cushion	A7	105	FU163-11	Head, Erase
G5	44	FR13L-11	Ass'y, Flywheel	G1	106	FE173-11	SW, Slide
E3	45	FP469-12	Ass'y, Idler	D4	107	AU11C-00	LED, Sensor TLN104
E3	46	FP470-11	Ass'y, Clutch	E3	108	AZ11H-00	Tr, Sensor TPS605
C6	47	FR12N-11	Ass'y, Take Up Reel	C2	109	02S40000G12	Nut, Bex. M3
A3	48	FP472-11	Ass'y, Dumper	B3	110	43A51937F01	Spacer, Eject
C5	49	FR12P-11	Ass'y, Supply Reel	B7	111	FG137-13	Scr, F-Lock M2x5

Packing Material Parts List



Symbol No.	Stock No.	Description
1	56B40442T02	Pkg, Front Frame
2	56D55867F02	Pkg, Tray
3	56D55868F02	Pkg, Tray
4	56C53420F14	Carton, Pkg
5	60T58064F01	Battery, SUM-3
6	43A56256F01	Spacer, Packing
7	42A56255F01	Belt, Packing
8	28T44352F01	Plug, Out Put Cord
9	ME0249	Owner's Manual
10	56A57313F01	Pkg, Spacer
11	15A41885U01	Covev, Door

KX-102



Remarks

Capacitor : El. . . Electrolytic, Ce. . . Ceramic, My. . . Mylar, BP. . . Bi-Polar
 Pp. . . Polypropylene, Pe. . . Polyethylene, Ta. . . Tantalum
 Resistor : Rd. . . Carbon

KX-102

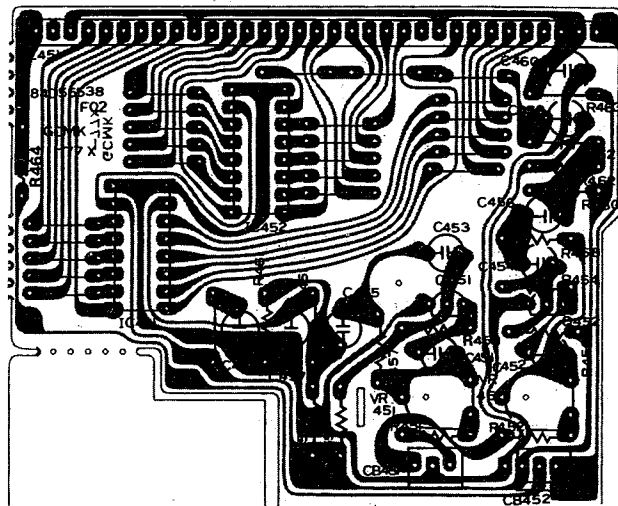
Master PCB Parts List

Symbol No.	Stock No.	Description
(Filter)		
CF301	91T42537U01	MPX LP-V20
CF302	91T42537U01	MPX LP-V20
(IC)		
IC201	51S43471U02	uPC4558C
IC251	51S43471U02	uPC4558C
IC401	51S43471U01	uPC4557C
IC501,502	51T52145F01	HA12020
IC503	51T51173F01	uPC4556C
IC701	51S43471U02	uPC4558C
IC801	51S43471U02	uPC4558C
IC802	51T40941U01	MC14066BCP
IC803	51T40941U01	MC14066BCP
IC804	51T52154F01	NJM2901N
IC805	51T52154F01	NJM2901N
IC806	51S43471U02	uPC4558C
IC807	51T52144F01	NJM072D
IC808	51T40941U01	MC14066BCP
IC809	51T52157F01	MC14081
IC810	51T51781F01	MC14049UB
IC811	51T52154F01	NJM2901N
IC812	51T52158F01	TD62504
IC813	51T51993F01	HD44801A48
IC814	51T40242T01	MC14011BCP
(Transistor & FET)		
Q101	48T56031F01	2SD1266P, Q
Q102	48T56031F01	2SD1266P, Q
Q103	48T56030F01	2SB941P, Q
Q104	48T40081T03	2SA733P
Q105	48T56030F01	2SB941P, Q
Q106	48T56031F01	2SD1266P, Q
Q107	48S43239G02	2SC509Y
Q108	48T56031F01	2SD1266P, Q
Q109	48T56031F01	2SD1266P, Q
Q201,202	48T44982P01	2SC1583G
Q203,204	48T43816F01	2SA798F, G
Q205,206	48T51175F01	2SC1775F
Q207,208	48T51175F01	2SC1775E
Q401,402	48T51878F01	2SC2878A, B
Q501,502	48T51878F01	2SC2878A, B
Q503,504	48S43525F05	2SC1815Y, GR
Q701,702	48S41196U03	2SC1980T
Q703,704	48S41196U03	2SC1980T
Q706	48S43525F05	2SC1815Y, GR
Q707	48T56030F01	2SB941P, Q
Q708	48T56030F01	2SB941P, Q
Q709	48T56031F01	2SD1266P, Q
Q710	48S43525F05	2SC1815Y, GR
Q711	48S43525F05	2SC1815Y, GR
Q712	48S43525F05	2SC1815Y, GR
Q713	48S43525F05	2SC1815Y, GR
Q801	48T52152F01	2SK30A, GR FET
Q802	48T52122F01	2SK301R FET
Q803	48S43525F05	2SC1815Y, GR
Q804	48S43525F05	2SC1815Y, GR
Q805	48S43525F05	2SC1815Y, GR
Q806	48S43525F05	2SC1815Y, GR
(Variable Resistor)		
VR203,204	18T52946F17	47K

Symbol No.	Stock No.	Description
VR205,206	18T52946F11	4.7K
VR501,502	18T52946F13	10K
VR503,504	18T52946F13	10K
VR505,506	18T52946F15	22K
VR507,508	18T52946F19	100K
VR509,510	18T52946F13	10K
VR511,512	18T52946F13	10K
VR513,514	18T52946F19	100K
VR515,516	18T52946F13	10K
VR517,518	18T52946F13	10K
VR519,520	18T52946F19	100K
VR521,522	18T52946F13	10K
VR523,524	18T52946F13	10K
VR701,702	18T52946F15	22K
VR703,704	18T52946F13	10K
VR705,706	18T52946F13	10K
VR801	18T52946F19	100K
VR802	18T52946F07	1K
VR804	18T52946F15	22K
(Diode, Bridge)		
BD101	48T50629F01	WL-02
BD102	48T50629F01	WL-02
(Terminal)		
E251	09T56001F01	Phono, Plate
E601	09T50261F01	Jack Control
E602	09T52976F01	Plate, Phono 1P
(Trans, OSC)		
T701	25T56004F01	Trans, OSC
T702	25T56004F01	Trans, OSC
(Coil)		
L201,202	24T51914F02	Trap, 10mH
L501,502	24T51914F08	Trap, 6.8mH
L503,504	24T51914F01	Trap, 4.7mH
L801	24S41449F08	Radial, 22mH
(SWitch)		
S251,401	40T55541F01	SUL731A Push
S301,302		
S601,603		
S804	40T56373F01	SSS312 Slide
(Diode)		
D401	48T51582F01	MA-150
D501	48T51582F01	MA-150
D601	48T43982F01	OA95
D602	48T43982F01	OA95
D701	48T51582F01	MA-150
D801	48T51582F01	MA-150
D802	48T51582F01	MA-150
D803	48T51582F01	MA-150
D804	48T51582F01	MA-150
D805	48T51582F01	MA-150
D806	48T51582F01	MA-150
D807	48T51582F01	MA-150
D808	48T51582F01	MA-150
D809	48T51582F01	MA-150
D810	48T51582F01	MA-150
D811	48T51582F01	MA-150
D812	48T51582F01	MA-150
D813	48T51582F01	MA-150
D814	48T51582F01	MA-150

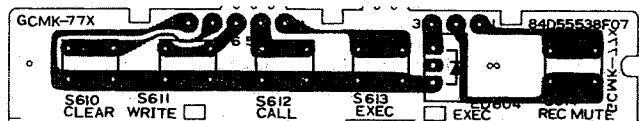
Meter PCB parts List

Symbol No.	Stock No.	Description			
(IC)					
IC451,452	51T42626F01	HA12019			
(FL Meter)					
E451	65T52950F01	12DW7YS			
(Variable Resistor)					
VR451,452	18T52946F17	47K			
(Transistor)					
Q451,452	48S43525F05	2SC1815Y, GR			
(Diode)					
D451,452	48T43982F01	0A95			
(Capacitor)					
C451,452	23S40657F10	10uF	16V	E1	
C453,454	23S40657F10	10uF	16V	E1	
C455,456	23S40657F10	10uF	16V	E1	
C457,458	23T42478F21	0.33uF	50V LN	E1	
(Resistor)					
R451,452	06S44593P97	22K	1/4W	Rd	
R453,454	06S44594P29	430K	1/4W	Rd	
R455,456	06S44593P71	1.8K	1/4W	Rd	
R457,458	06S44594P18	150K	1/4W	Rd	
R459,460	06S44594P50	3.3M	1/4W	Rd	
R461,462	06S44593P85	6.8K	1/4W	Rd	
R464	06S44593P33	47	1/4WRd		



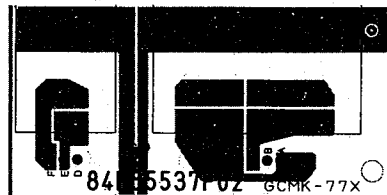
LED & SW PCB(R) Parts List

Symbol No.	Stock No.	Description
(Switch)		
S610	40T51411F01	TACT
S611	40T51411F01	TACT
S612	40T51411F01	TACT
S613	40T51411F01	TACT
S614	40T51411F01	TACT



Jack PCB Parts List

Symbol No.	Stock No.	Description
(Jack, Mic)		
E401	09T55174F12	Metal-6.5
E251	09T52956F01	M1665



NR PCB Parts List

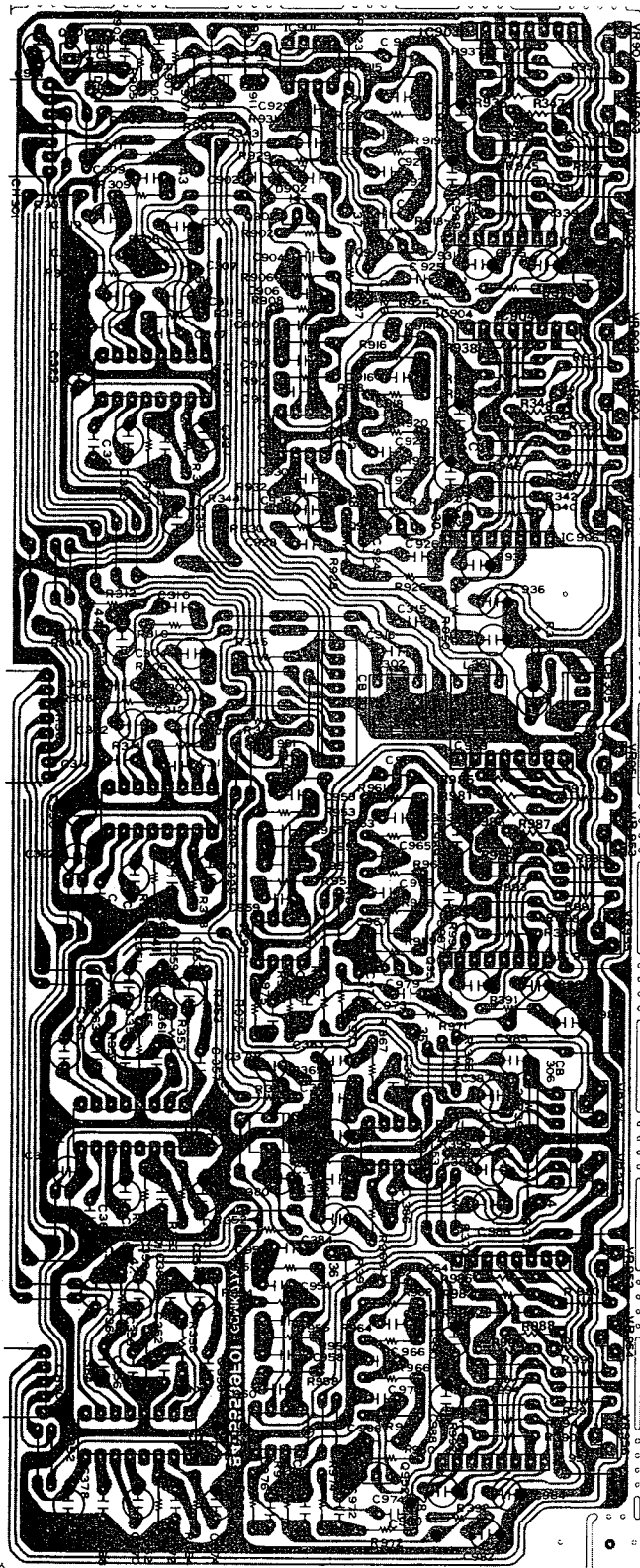
Symbol No.	Stock No.	Description
(IC)		
IC301,302	51S40114T03	NE650N
IC351,352	51S40114T03	NE650N
IC353	51S43471U02	uPC4558C
IC901,902	51S43471U02	uPC4558C
IC903,904	51T52116F01	uPC1252H
IC905,906	51T52117F01	uPC1253H
IC951,952	51S43471U02	uPC4558C
IC953,954	51T52116F01	uPC1252H
IC955,956	51T52117F01	uPC1253H
(Coil, Trap)		
L301,302	24T51914F02	10mH
(Variable Resistor)		
VR351,352	18T55064F17	47K
VR901,902	18T55064F17	47K
VR903,904	18T55064F17	47K
VR951,952	18T55064F17	47K
VR953,954	18T55064F17	47K
(Diode)		
D301,302	48T51582F01	MA-150
(Transistor)		
Q901,902	48T52122F01	23K301R
Q903,904	48S44578J01	2SC945L, P
Q951,952	48S44578J01	2SC945L, P
(Capacitor)		
C301,302	23T42477F16	1uF 50V BP E1
C303,304	23S40657F10	10uF 16V E1
C305,306	08S40656F18	0.027uF My
C307,308	08S40656F09	0.0047uF My
C309,310	08S40656F10	0.0056uF My
C311,312	23T42477F06	10uF 16V BP E1
C315,316	08T42081U09	220pF Pe
C317,318	08S40656F03	0.0015uF My
C319,320	23T42477F06	10uF 16V BP E1
C321,322	08S40656F21	0.047uF My
C323,324	23S40657F10	10uF 16V E1
C325,326	08S40656F25	0.1uF My
C327,328	23T42478F21	0.33uF 50V LN E1
C329,330	23S40657F16	4.7uF 25V E1
C331,332	23S40657F16	4.7uF 25V E1
C333	23S40657F16	4.7uF 25V E1
C351,352	23T42477F16	1uF 50V BP E1
C353,354	23S40657F10	10uF 16V E1
C355,356	08S40656F18	0.027uF My
C357,358	08S40656F09	0.0047uF My
C359,360	08S40656F10	0.0056uF My
C365,366	23T42477F06	10uF 16V BP E1
C367,368	08S40656F21	0.047uF My
C369,370	23S40657F10	10uF 16V E1
C371,372	08S40656F25	0.1uF My
C373,374	23T42478F21	0.33uF 50V LN E1
C375,376	23S40657F16	4.7uF 25V E1
C377,378	23S40657F16	4.7uF 25V E1
C379,380	23T42477F06	10uF 16V BP E1
C381,382	08T52448F05	0.00047uF Pp
C383,384	23T42477F06	10uF 16V BP E1
C387,388	23T42477F09	4.7uF 25V BP E1
C389,390	23S40657F16	4.7uF 25V E1
C901,902	23T42477F06	10uF 16V BP E1

Symbol No.	Stock No.	Description
C903,904	08S40656F25	0.1uF My
C905,906	08S40656F25	0.1uF My
C907,908	08T50579F15	0.15 Tf
C909,910	08T50579F15	0.15 Tf
C911,912	08T42081U08	200pF Pe
C913,914	08S40656F25	0.1uF My
C915,916	08S40656F25	0.1uF My
C917,918	08S40656F07	0.0033uF My
C919,920	08S40656F07	0.0033uF My
C921,922	08T52448F01	0.00033uF Pp
C923,924	08S40656F25	0.1uF My
C925,926	08S40656F13	0.01uF My
C927,928	08S40656F13	0.01uF My
C929,930	08T42081U01	100pF Pe
C931,932	23S40657F28	1uF 50V E1
C933,934	23T56604F01	10uF 16V E1
C935,936	23S40657F10	10uF 16V E1
C937,938	23T42477F06	10uF 16V BP E1
C939,940	23S40657F16	4.7uF 25V E1
C941,942	23S40657F16	4.7uF 25V E1
C951,952	08S40656F25	0.1uF My
C953,954	08S40656F25	0.1uF My
C955,956	08T50579F15	0.15 Tf
C957,958	08T50579F15	0.15 Tf
C959,960	08S40656F13	0.01uF My
C961,962	08S40656F25	0.1uF My
C963,964	08S40656F25	0.1uF My
C965,966	08S40656F07	0.0033uF My
C967,968	08S40656F07	0.0033uF My
C969,970	08T52448F01	0.00033uF Pp
C971,972	08S40666F25	0.1uF My
C973,974	08S40656F13	0.01uF My
C975,976	08T42081U01	100pF Pe
C977,978	08T42081U01	100pF Pe
C979,980	23S40657F28	1uF 50V E1
C981,982	23T56604F01	10uF 16V E1
C983,984	23S40657F10	10uF 16V E1
C985,986	23T42477F06	10uF 16V BP E1
C987,988	23S40657F16	4.7uF 25V E1
C989,990	23S40657F16	4.7uF 25V E1
(Resistor)		
R303,304	06S44593P65	1K-1/4W Rd
R305,306	06S44594P06	47K-1/4W Rd
R307,308	06S44593P77	3.3K-1/4W Rd
R309,310	06S44593P47	180-1/4W Rd
R311,312	06S44594P14	100K-1/4W Rd
R313,314	06S44594P14	100K-1/4W Rd
R315,316	06S44594P20	180K-1/4W Rd
R317,318	06S44594P24	270K-1/4W Rd
R319	06S44594P14	100K-1/4W Rd
R320	06S44594P02	33K-1/4W Rd
R339,340	06T58273F01	22 1/2W Rd
R341,342	06S44593P65	1K-1/4W Rd
R343,344	06S44593P41	100-1/4W Rd
R345,346	06S44594P14	100K-1/4W Rd
R347,348	06S44593P99	27K-1/4W Rd
R349,350	06S44593P96	20K-1/4W Rd
R351,352	06S44593P65	1K-1/4W Rd
R353,354	06S44594P06	47K-1/4W Rd

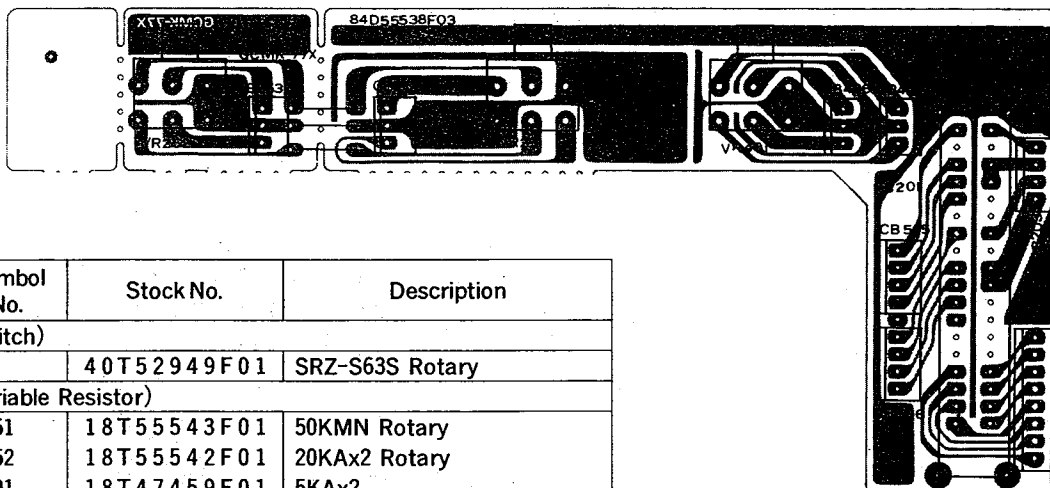
Symbol No.	Stock No.	Description	
R355,356	06S44593P77	3.3K-1/4W	Rd
R357,358	06S44593P47	180-1/4W	Rd
R359,360	06S44594P14	100K-1/4W	Rd
R361,362	06S44594P20	180K-1/4W	Rd
R363,364	06S44594P24	270K-1/4W	Rd
R365,366	06S44593P65	1K-1/4W	Rd
R367,368	06S44593P79	3.9K-1/4W	Rd
R369,370	06S44594P06	47K-1/4W	Rd
R371,372	06S44594P14	100K-1/4W	Rd
R373,374	06S44594P22	220K-1/4W	Rd
R389,390	06T58273F01	22	1/2W Rd
R391,392	06S44593P17	1K-1/4W	Rd
R393,394	06S44593P65	1K-1/4W	Rd
R395,396	06S44594P14	100K-1/4W	Rd
R397,398	06S44593P41	100-1/4W	Rd
R901,902	06S44594P14	100K-1/4W	Rd
R903,904	06S44594P14	100K-1/4W	Rd
R905,906	06S44594P01	30K-1/4W	Rd
R907,908	06S44594P16	120K-1/4W	Rd
R909,910	06S44594P02	33K-1/4W	Rd
R911,912	06S44593P89	10K-1/4W	Rd
R913,914	06S44594P02	33K-1/4W	Rd
R915,916	06S44594P13	91K-1/4W	Rd
R917,918	06S44593P81	4.7K-1/4W	Rd
R919,920	06S44594P02	33K-1/4W	Rd
R921,922	06S44593P85	6.8K-1/4W	Rd
R923,924	06S44593P81	4.7K-1/4W	Rd
R925,926	06S44594P02	33K-1/4W	Rd
R927,928	06S44593P77	3.3K-1/4W	Rd
R929,930	06S44593P89	10K-1/4W	Rd
R931,932	06S44594P02	33K-1/4W	Rd
R933,934	06S44594P14	100K-1/4W	Rd
R935,936	06S44593P34	51-1/4W	Rd
R937,938	06S44593P89	10K-1/4W	Rd
R939,940	06S44593P79	3.9K-1/4W	Rd
R941,942	06S44594P30	470K-1/4W	Rd
R943,944	06S44593P24	20-1/4W	Rd
R945,946	06S44594P43	1.6M-1/4W	Rd
R949,950	06S44593P17	10-1/4W	Rd
R951,952	06S44594P03	36K-1/4W	Rd
R953,954	06S44594P16	120K-1/4W	Rd
R955,956	06S44594P02	33K-1/4W	Rd
R957,958	06S44593P89	10K-1/4W	Rd
R959,960	06S44594P02	33K-1/4W	Rd
R961,962	06S44594P13	91K-1/4W	Rd
R963,964	06S44593P81	4.7K-1/4W	Rd
R965,966	06S44594P02	33K-1/4W	Rd
R967,968	06S44593P85	6.8K-1/4W	Rd
R969,970	06S44593P81	4.7K-1/4W	Rd
R971,972	06S44594P02	33K-1/4W	Rd
R973,974	06S44593P77	3.3K-1/4W	Rd
R975,976	06S44593P89	10K-1/4W	Rd
R977,978	06S44594P02	33K-1/4W	Rd
R979,980	06S44594P14	100K-1/4W	Rd
R981,982	06S44593P34	51-1/4W	Rd
R983,984	06S44593P79	3.9K-1/4W	Rd
R985,986	06S44593P89	10K-1/4W	Rd
R987,988	06S44593P99	27K-1/4W	Rd
R989,990	06S44593P96	20K-1/4W	Rd

Symbol No.	Stock No.	Description	
R991,992	06S44594P30	470K-1/4W	Rd
R993,994	06S44594P43	1.6M-1/4W	Rd
R995,996	06S44593P24	20-1/4W	Rd

NR PCB

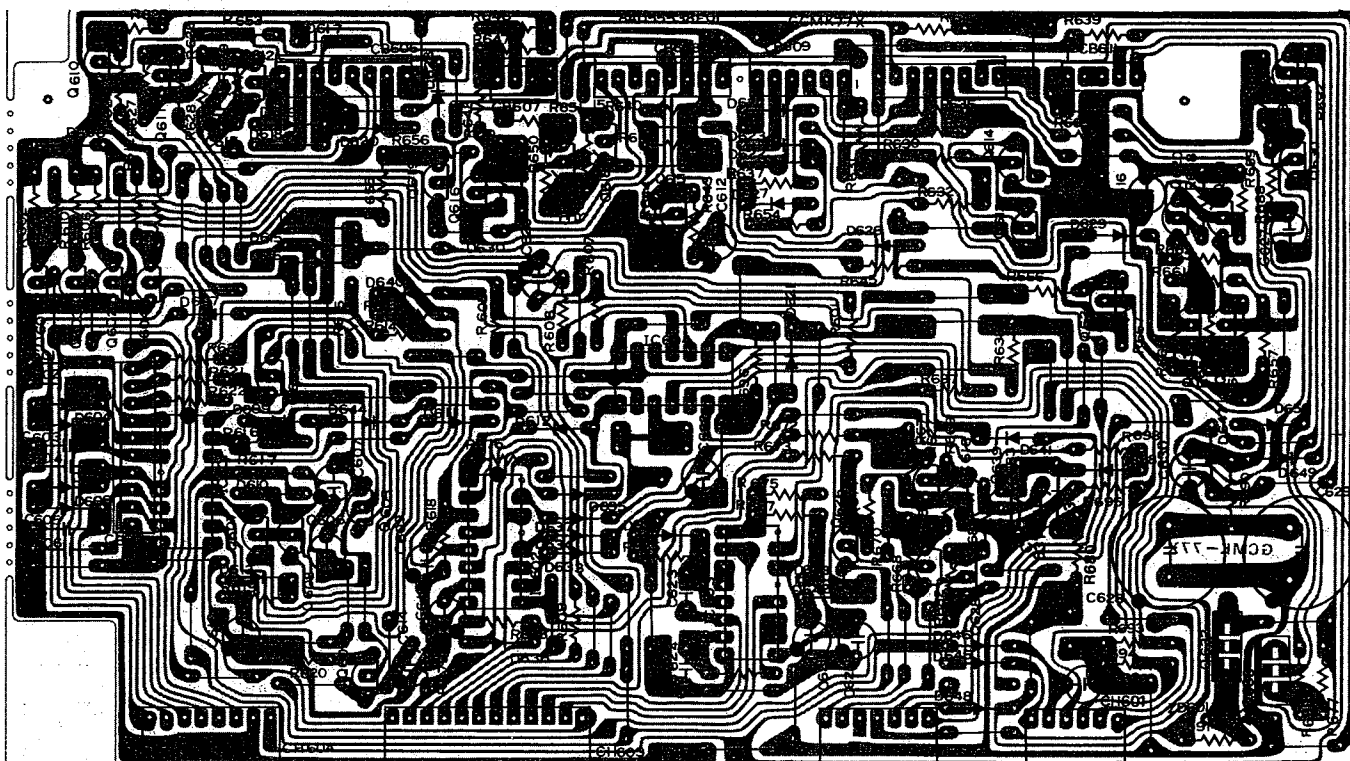


Switch & VR PCB Parts List



Symbol No.	Stock No.	Description
(Switch)		
S201	4 0 T 5 2 9 4 9 F 0 1	SRZ-S63S Rotary
(Variable Resistor)		
VR251	1 8 T 5 5 5 4 3 F 0 1	50KMN Rotary
VR252	1 8 T 5 5 5 4 2 F 0 1	20KAx2 Rotary
VR401	1 8 T 4 7 4 5 9 F 0 1	5KAx2

Control PCB



KX-102

Control PCB Parts List

Symbol No.	Stock No.	Description
(IC)		
IC601	51S47110F01	BA843
IC602	51T51781F01	MC14049UB
IC603	51T51781F01	MC14049UB
IC604	51T52157F01	MC14081
(Transistor)		
Q601	48S44578J01	2SC945L, P
Q602	48S44578J01	2SC945L, P
Q603	48S44578J01	2SC945L, P
Q604	48S44578J01	2SC945L, P
Q605	48S44578J01	2SC945L, P
Q606	48S44578J01	2SC945L, P
Q607	48S44578J01	2SC945L, P
Q608	48S44578J01	2SC945L, P
Q609	48S44578J01	2SC945L, P
Q610	48S40832F04	2SC1318NC-S
Q611	48S40832F04	2SC1318NC-S
Q612	48S40832F04	2SC1318NC-S
Q613	48S44578J01	2SC945L, P
Q614	48S44578J01	2SC945L, P
Q615	48S44578J01	2SC945L, P
Q616	48S44578J01	2SC945L, P
Q617	48T40081T03	2SA733P
Q618	48T40081T03	2SA733P
Q619	48S44578J01	2SC945L, P
Q620	48S44578J01	2SC945L, P
Q621	48S44578J01	2SC945L, P
Q622	48S44578J01	2SC945L, P
Q623	48S44578J01	2SC945L, P
Q624	48S44578J01	2SC945L, P
Q625	48T40081T03	2SA733P
Q626	48S44578J01	2SC945L, P
Q627	48S44578J01	2SC945L, P
Q628	48T40081T03	2SA733P
Q630	48S40832F04	2SC1318NC-S
Q631	48S40832F04	2SC1318NC-S
Q632	48T42620F02	2SD880Y
Q633	48T44652P01	2SA490Y
Q639	48S44578J01	2SC945L, P
(Diode)		
D603	48T51582F01	MA-150
D604	48T51582F01	MA-150
D605	48T51582F01	MA-150
D606	48T51582F01	MA-150
D607	48T51582F01	MA-150
D608	48T51582F01	MA-150
D609	48T51582F01	MA-150
D610	48T51582F01	MA-150
D611	48T51582F01	MA-150
D612	48T51582F01	MA-150
D613	48T51582F01	MA-150
D614	48T51582F01	MA-150
D615	48T51582F01	MA-150
D616	48T51582F01	MA-150
D617	48T55186F01	GP10D
D618	48T55186F01	GP10D
D619	48T55186F01	GP10D
D620	48T55186F01	GP10D
D621	48T51582F01	MA-150

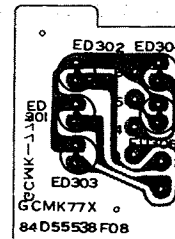
Symbol No.	Stock No.	Description
D622	48T51582F01	MA-150
D623	48T51582F01	MA-150
D624	48T51582F01	MA-150
D624	48T51582F01	MA-150
D626	48T51582F01	MA-150
D627	48T51582F01	MA-150
D628	48T51582F01	MA-150
D629	48T51582F01	MA-150
D630	48T51582F01	MA-150
D631	48T51582F01	MA-150
D633	48T51582F01	MA-150
D634	48T51582F01	MA-150
D635	48T51582F01	MA-150
D636	48T51582F01	MA-150
D637	48T51582F01	MA-150
D638	48T51582F01	MA-150
D639	48T51582F01	MA-150
D640	48T51582F01	MA-150
D641	48T51582F01	MA-150
D642	48T51582F01	MA-150
D643	48T51582F01	MA-150
D644	48T51582F01	MA-150
D645	48T51582F01	MA-150
D646	48T51582F01	MA-150
D647	48T51582F01	GP10D
D648	48T51582F01	GP10D
D649	48T51582F01	MA-150
D650	48T51582F01	MA-150
D651	48T51582F01	MA-150
(Capacitor)		
C601	08S44505P61	10000pF Ce
C602	08S44505P61	10000pF Ce
C603	08S44505P61	10000pF Ce
C604	08S44505P61	10000pF Ce
C605	08S44505P61	10000pF Ce
C606	08S44505P61	10000pF Ce
C607	23S40657F05	22uF 10V E1
C608	23S40657F05	22uF 10V E1
C609	23S40657F16	4.7uF 25V E1
C610	23S40657F16	4.7uF 25V E1
C612	23S40657F10	10uF 16V E1
C613	08S44505P61	10000pF Ce
C614	23S40657F16	4.7uF 25V E1
C615	23S40657F10	10uF 16V E1
C618	23S40657F10	10uF 16V E1
C619	23S40657F28	1uF 50V E1
C620	23S40657F28	1uF 50V E1
C621	23S40657F07	47uF 10V E1
C622	23S40657F10	10uF 16V E1
C623	08S40656F25	0.1uF My
C624	08S40656F25	0.1uF My
C625	23S40657F10	10uF 16V E1
C626	23S40657F05	22uF 10V E1
C627	23S40657F10	10uF 16V E1
C628	23S41198U76	3300uF 16V E1
C629	23S41198U76	3300uF 16V E1
C630	23S40657F07	47uF 10V E1
C631	23S40657F16	4.7uF 25V E1

Symbol No.	Stock No.	Description	
(Resistor)			
R601	06S44593P97	22K-1/4W	Rd
R602	06S44593P97	22K-1/4W	Rd
R603	06S44593P97	22K-1/4W	Rd
R605	06S44593P97	22K-1/4W	Rd
R606	06S44593P97	22K-1/4W	Rd
R607	06S44593P97	22K-1/4W	Rd
R608	06S44593P97	22K-1/4W	Rd
R609	06S44593P97	22K-1/4W	Rd
R610	06S44593P97	22K-1/4W	Rd
R611	06S44593P97	22K-1/4W	Rd
R612	06S44593P97	22K-1/4W	Rd
R613	06S44593P97	22K-1/4W	Rd
R614	06S44593P97	22K-1/4W	Rd
R615	06S44593P89	10K-1/4W	Rd
R616	06S44593P97	22K-1/4W	Rd
R617	06S44593P97	22K-1/4W	Rd
R618	06S44594P14	100K-1/4W	Rd
R619	06S44593P81	4.7K-1/4W	Rd
R620	06S44594P14	100K-1/4W	Rd
R621	06S44593P41	100K-1/4W	Rd
R622	06S44593P41	100-1/4W	Rd
R623	06S44593P41	100-1/4W	Rd
R624	06S44593P57	470-1/4W	Rd
R625	06S44593P73	2.2K-1/4W	Rd
R626	06S44593P57	470-1/4W	Rd
R627	06S44593P73	2.2K-1/4W	Rd
R628	06S44593P57	470-1/4W	Rd
R629	06S44593P73	2.2K-1/4W	Rd
R630	06S44593P89	10K-1/4W	Rd
R631	06S44593P89	10K-1/4W	Rd
R632	06S44593P89	10K-1/4W	Rd
R633	06S44593P89	10K-1/4W	Rd
R635	06S44593P89	10K-1/4W	Rd
R636	06S44593P89	10K-1/4W	Rd
R637	06S44593P89	10K-1/4W	Rd
R638	06S44593P89	10K-1/4W	Rd
R639	06S44593P41	100-1/4W	Rd
R640	06S44593P89	10K-1/4W	Rd
R641	06S44593P89	10K-1/4W	Rd
R642	06S44593P89	10K-1/4W	Rd
R643	06S44593P97	22K-1/4W	Rd
R644	06S44593P97	22K-1/4W	Rd
R645	06S44594P02	33K-1/4W	Rd
R646	06S44593P59	560-1/4W	Rd
R647	06S44593P69	1.5K-1/4W	Rd
R648	06S44594P02	33K-1/4W	Rd
R649	06S44593P77	3.3K-1/4W	Rd
R650	06S44593P89	10K-1/4W	Rd

Symbol No.	Stock No.	Description	
R651	06S44593P89	10K-1/4W	Rd
R652	06S44593P89	10K-1/4W	Rd
R653	06S44593P89	10K-1/4W	Rd
R654	06S44593P89	10K-1/4W	Rd
R655	06S44593P89	10K-1/4W	Rd
R656	06S44593P89	10K-1/4W	Rd
R657	06S44593P77	3.3K-1/4W	Rd
R658	06S44593P89	10K-1/4W	Rd
R659	06S44593P89	10K-1/4W	Rd
R660	06S44593P77	3.3K-1/4W	Rd
R661	06S44593P89	10K-1/4W	Rd
R662	06S44593P89	10K-1/4W	Rd
R663	06S44593P89	10K-1/4W	Rd
R664	06S44593P89	10K-1/4W	Rd
R665	06S44593P59	560-1/4W	Rd
R666	06S44593P97	22K-1/4W	Rd
R667	06S44593P97	22K-1/4W	Rd
R668	06S44593P89	10K-1/4W	Rd
R669	06S44593P89	10K-1/4W	Rd
R670	06S44593P89	10K-1/4W	Rd
R671	06S44593P97	22K-1/4W	Rd
R672	06S44593P97	22K-1/4W	Rd
R673	06S44593P97	22K-1/4W	Rd
R674	06S44593P97	22K-1/4W	Rd
R675	06S44594P14	100K-1/4W	Rd
R676	06S44593P97	22K-1/4W	Rd
R677	06S44593P73	2.2K-1/4W	Rd
R678	06S44593P97	22K-1/4W	Rd
R679	06S44593P97	22K-1/4W	Rd
R680	06S44593P89	10K-1/4W	Rd
R682	06S44593P89	10K-1/4W	Rd
R683	06S44593P89	10K-1/4W	Rd
R684	06S44593P89	10K-1/4W	Rd
R685	06S44594P22	220K-1/4W	Rd
R686	06S44594P14	100K-1/4W	Rd
R687	06S44594P14	100K-1/4W	Rd
R688	06S44593P73	2.2K-1/4W	Rd
R689	06S44593P73	2.2K-1/4W	Rd
R690	06S44593P73	2.2K-1/4W	Rd
R691	06S44593P59	560-1/4W	Rd
R692	06S44593P69	1.5K-1/4W	Rd
R693	06S44593P97	22K-1/4W	Rd
R694	06S44593P97	22K-1/4W	Rd
R695	06S44593P97	22K-1/4W	Rd
R696	06S44593P97	22K-1/4W	Rd
R697	06S44593P97	22K-1/4W	Rd
R698	06S44593P97	22K-1/4W	Rd
R699	06S44593P73	2.2K-1/4W	Rd

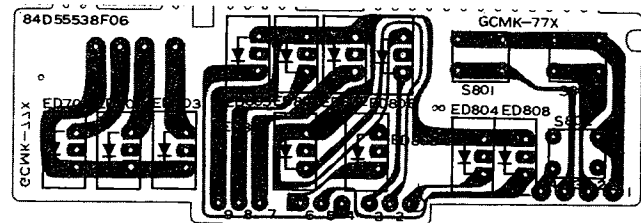
LED PCB Parts List

Symbol No.	Stock No.	Description
(LED)		
ED301	48T52955F01	GL-2AR1 Red
ED302	48T52955F01	GL-2AR1 Red
ED303	48T52955F01	GL-2AR1 Red
ED304	48T52955F01	GL-2AR1 Red
ED305	48T52955F01	GL-2AR1 Red



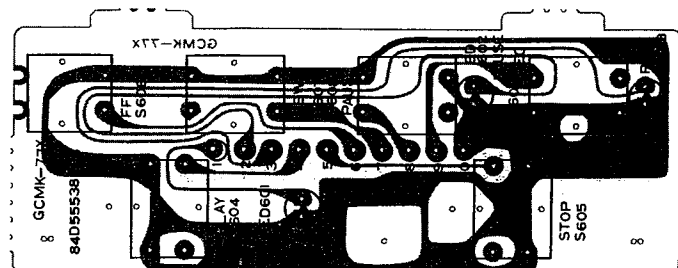
LED & SW PCB(L) Parts List

Symbol No.	Stock No.	Description
(LED)		
ED701	48T55546F01	LD001
ED702	48T55546F01	LD001
ED703	48T55546F01	LD001
ED801	48T55546F04	LD001Y YEL
ED802	48T55546F04	LD001Y YEL
ED803	48T55546F01	LD001
ED804	48T55546F04	LD001Y YEL
ED805	48T55546F02	LD001GG GRN
ED806	48T55546F04	LD001Y YEL
ED807	48T55546F01	LD001
ED808	48T55546F04	LD001Y YEL
(Switch)		
S801	40T51411F01	TACT
S802	40T51411F01	TACT
S803	40T51411F01	TACT



KB Switch PCB Partst List

Symbol No.	Stock No.	Description
(LED)		
ED601	48T52953F01	BR3432S
ED602	48T52953F01	BR3432S
ED603	48T52953F01	BR3432S
(Switch)		
S604	40T52952F01	KHC10903
S605	40T52952F01	KHC10903
S606	40T52951F01	KHC10901
S607	40T52951F01	KHC10901
S608	40T52951F01	KHC10901
S609	40T52951F01	KHC10901



KX-102

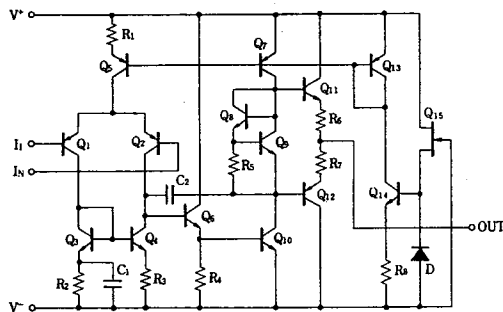
μ PC4556C, μ PC4557C, μ PC4558C

High Performance Dual Operational Amplifier

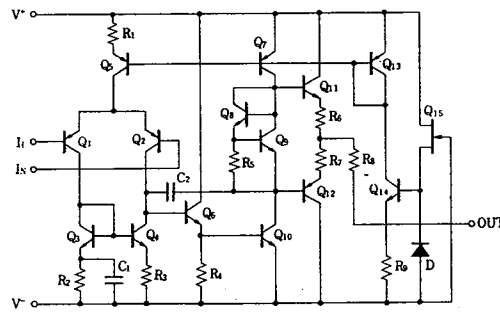
μ PC4556C, μ PC4557

μ PC4558C

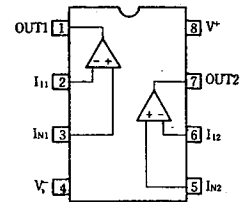
Equivalent Circuit



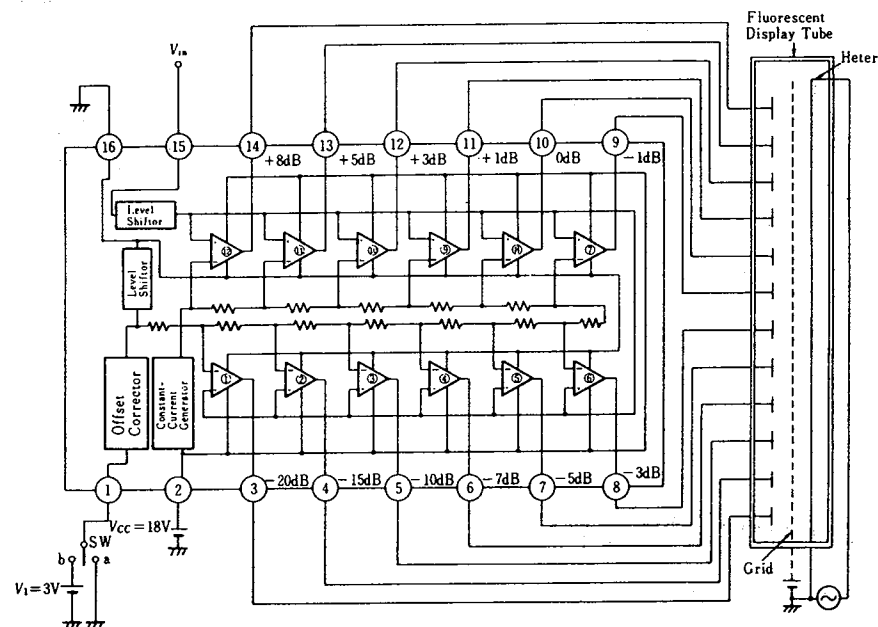
Equivalent Circuit



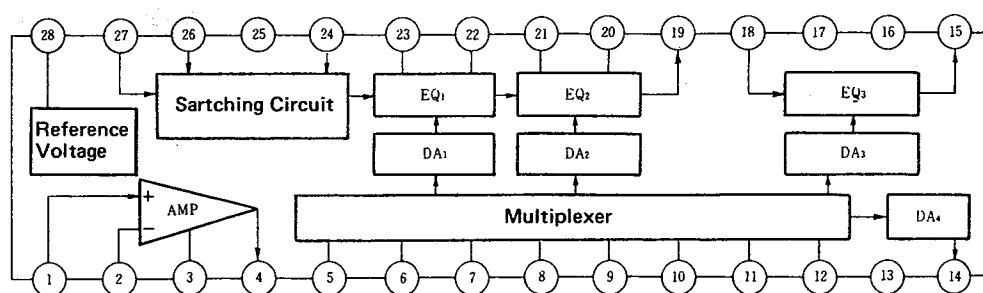
Connection Diagram (Top View)



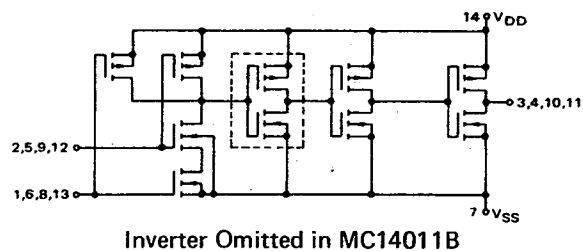
HA12019 Fluorescent Tube Driver for Graph Display



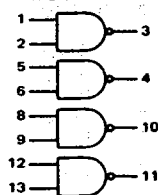
HA12020 Automatic Equalizer



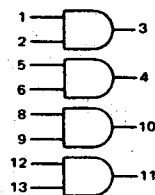
MC14011B Quad 2—Input NAND Gate
MC14081B Quad 2—Input AND Gate



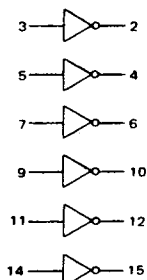
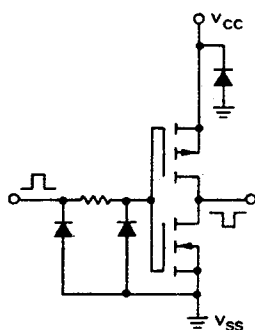
**NAND
MC14011B**



**AND
MC14081B**

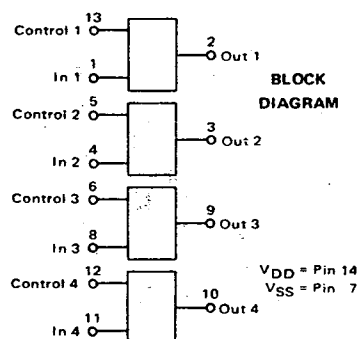
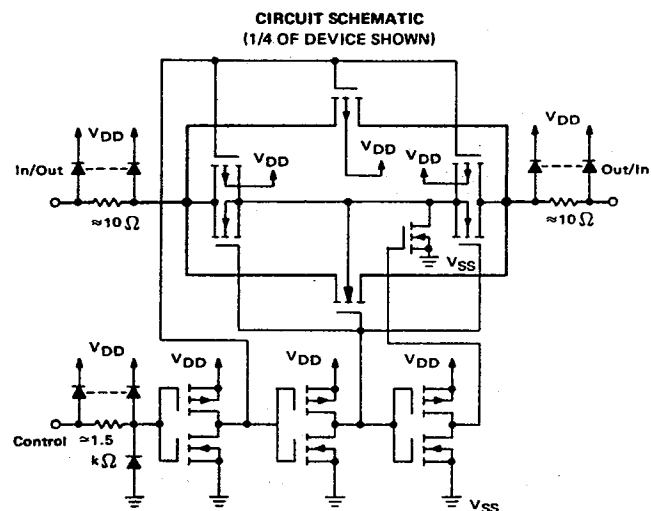


MC14049UB Hex Buffers



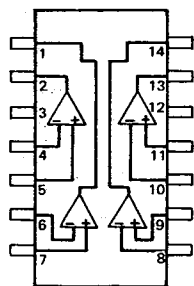
NC = Pin 13, 16
VSS = Pin 8
VCC = Pin 1

MC14066B Quad Analog Switch/Quad Multiplexer

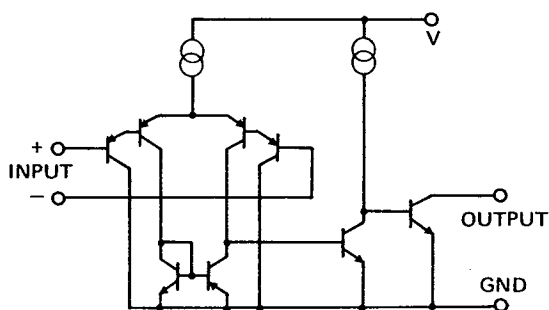


NJM2901N Quad Single

Supply Comparator

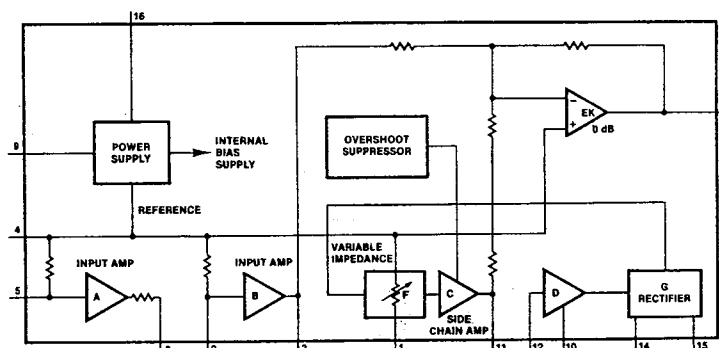
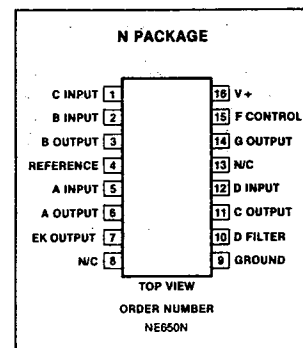


1. OUTPUT 2
2. OUTPUT 1
3. V₋
4. - INPUT 1
5. + INPUT 1
6. - INPUT 2
7. + INPUT 2
8. - INPUT 3
9. + INPUT 3
10. - INPUT 4
11. + INPUT 4
12. GROUND
13. OUTPUT 4
14. OUTPUT 3



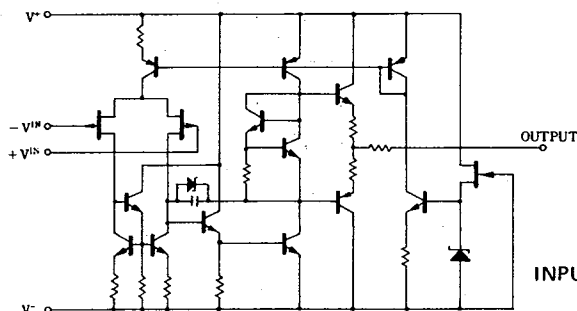
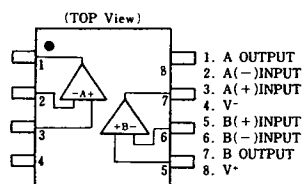
NE650N Dolby B/C Type Noise Reduction

PIN CONFIGURATION



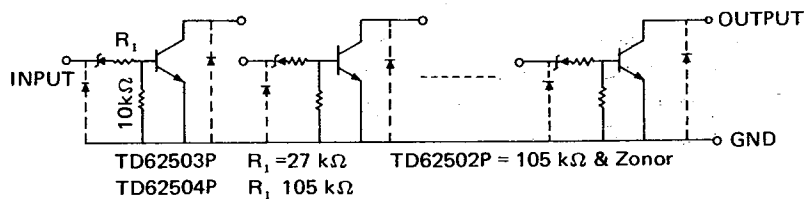
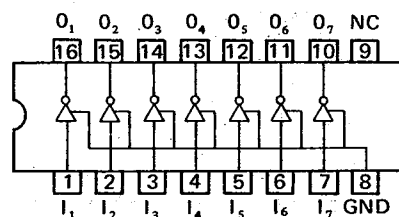
NJM072D Dual J-FET

Input Operational Amplifier



TD62504

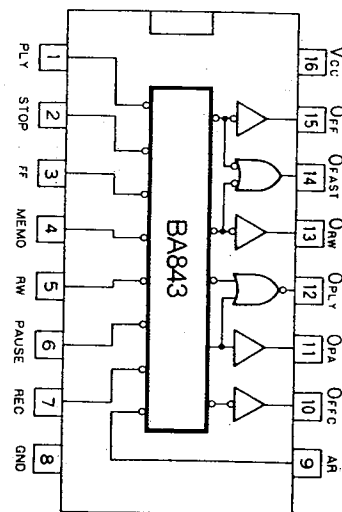
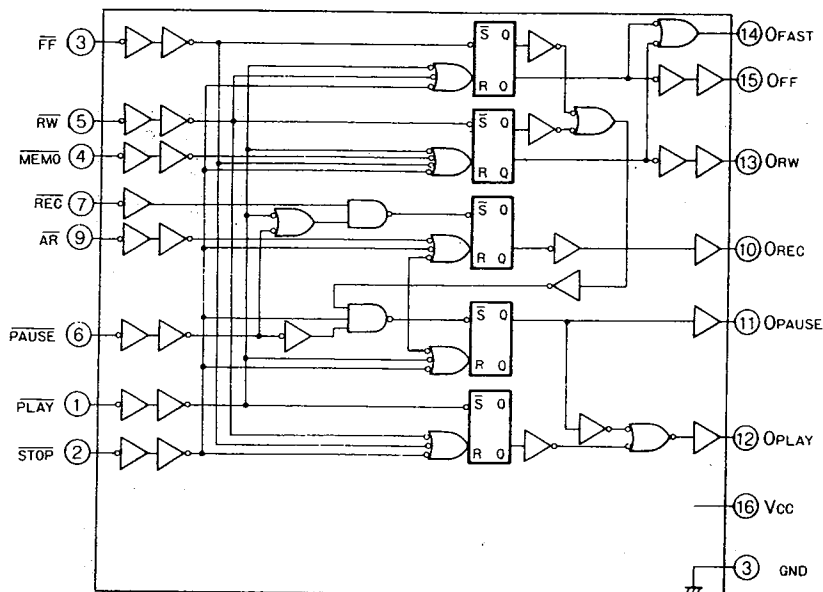
(TOP VIEW)



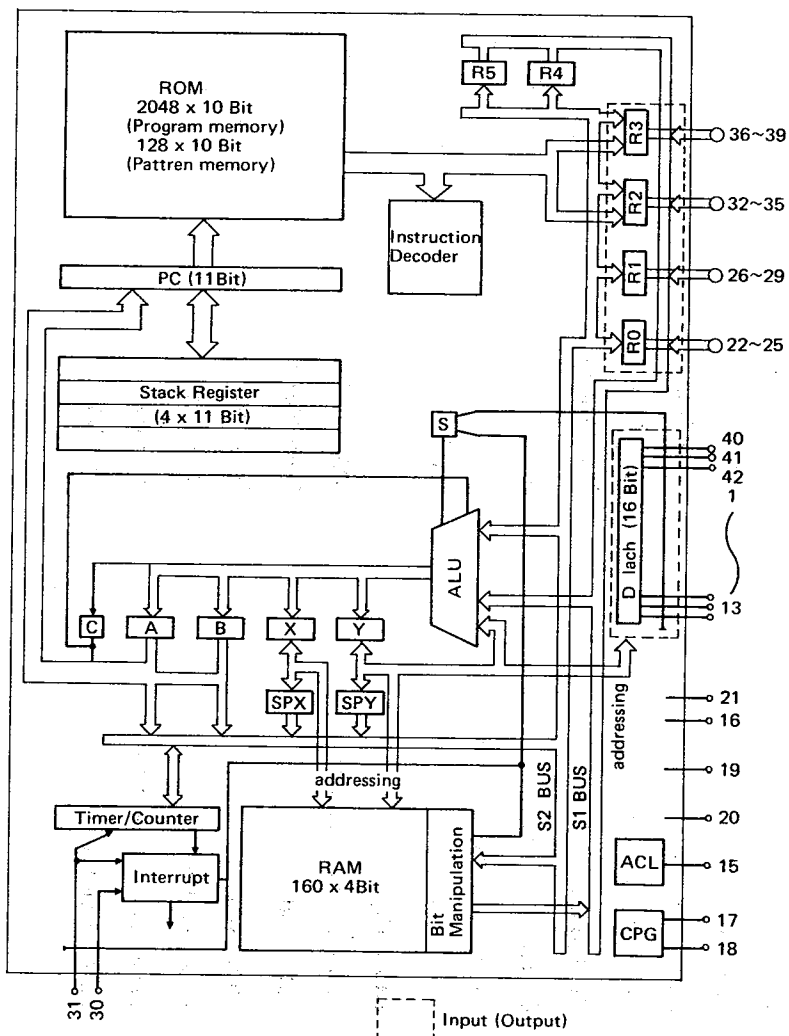
TD62503P $R_1 = 27 \text{ k}\Omega$ TD62502P = 105 k Ω & Zonor
TD62504P R_1 105 k Ω

BA843

Block Diagram



HD44801A48



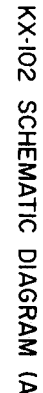
PIN No.	DESCRIPTION
1	CPSR
2	LRSL
3	ADRT
4	ADST
5	ADRS
6	TEST
7	PWFL
8	ADSL
9	STD
10	ERR
11	BIAS
12	OK
13	MEM
14	BAT
15	RESET
16	GND
17	OSC1
18	OSC2
19	HLT
20	TEST
21	Vcc
22	NOR
23	CrO2
24	FeCr
25	METAL
26	DT0
27	ATST
28	DT1
29	STD
30	DT2
31	MEMW
32	DT3
33	PLM
34	PLUS
35	ATRL
36	STOP
37	REW
38	RPPS
39	NINH
40	LTSO
41	LTS1
42	OSC0
43	OSC1
44	DT4
45	BATT
46	ADIN
47	BAT X
48	CPS L

CODING PULSE R
 L-R SELECT
 A/D RETURN
 A/D START
 A/D RESET
 TEST ON
 POWER FAILIN
 A/D SELECT
 RESET IN
 GROUND
 HOLT IN
 Vcc
 TAPE SELECT IN
 REC EQ DATE LINE
 BLES START SW
 REC EQ DATE LINE
 STD MEMORY SW
 REC EQ DATE LINE
 STD MEMORY
 REC EQ DATE LINE
 REC PB SIGNAL DETECT
 TAPE RUN PULSE IN
 AUTO TEST RELEASE
 STOP OUT
 REW OUT
 REC PLAY PAUSE OUT
 NOISE INHI OUT
 REC EQ IC SELECT
 OSC SELECT
 REC EQ DATE LINE
 BATTERY CHECK
 A/D IN
 BATTERY CHECK
 CODING PULSE L

Destinations Parts List

	UZ		UC (UL, CSA)		UP (OHA)		AK	
	USA		USA		Canada		Europe Other Asia	
	120V		120V		120V		220V	
Trans, Power	25T52166F01		25T52166F01		25T52165F01		25T51182F01	
SW, Power	40T47454F01		40T47454F01		40T47454F01		40T45561F02	
AC Cord	28T40916U01		28T40916U01		28T40916U01		28T50179F03	
Stopper, Cord	43B41625J01		43B41625J01		43B41625J01		43B41625J02	
Cover, Rear	15D55529F01		15D55529F01		15D55529F01		15D55529F02	
SW, Selector	Non Use		Non Use		Non Use		40T40705T04	
Label, Serial No.	54B57610F01		54B57610F01		54B57610F01		54A51740F01	
Label, Voltage	54A44257U06		54A44257U07		54A44257U10		54A44257U09	
Card, Warranty	68R51625F01		68R51625F01		54R58216F01		Non Use	
List, Service Station	68R51626F01		68R51626F01		Non Use		Non Use	
Card, Business Reply	68R57674F01		68R57674F01		Non Use		Non Use	
Carton, Bulk Pkg.	Non Use		Non Use		Non Use		56C53420F27	
Label, Warning (Carton)	Non Use		Non Use		54R58215F01		Non Use	
Label, Carton	Non Use		Non Use		Non Use		54B44258U17	
Label, UL	Non Use		54A44912F01		Non Use		Non Use	
Label, Bottom Caution	54A57559F02		54A57559F02		Non Use		Non Use	
Label, Side Caution	54A57559F01		54A57559F01		Non Use		Non Use	
Label, CSA	Non Use		Non Use		Non Use		54A44553G01	
Label, LL No.	Non Use		Non Use		Non Use		54C44558J02	
Label, Bottom Caution	Non Use		Non Use		54A57559F02		54A57559F02	
Label, Side Caution	Non Use		Non Use		54A57559F01		54A57559F01	

A vertical number line with tick marks labeled A, B, C, D, E, F, G, H, J, and K from top to bottom.



IC 201, 151, 737, 801, 406	pPc5358
IC 441	pPc5357
IC 452	pPc5356
IC 603, 803, 808	MC1006
IC 604, 505, 811	H4N261
IC 607	MC1007
IC 810	MC1009
IC 814	MC1011
IC 101, 182, 196, 198, 709	S301166
IC 101, 182, 707, 106	S302131
IC 137	S25598
IC 150	S25599
IC 203, 282	S25700
IC 203, 284	S25701
IC 203, 286	S25702
IC 203, 288	S25703
IC 203, 290	S25704
IC 203, 292	S25705
IC 203, 294	S25706
IC 203, 296	S25707
IC 203, 298	S25708
IC 203, 300	S25709
IC 203, 302	S25710
IC 203, 304	S25711
IC 203, 306	S25712
IC 203, 308	S25713
IC 203, 310	S25714
IC 203, 312	S25715
IC 203, 314	S25716
IC 203, 316	S25717
IC 203, 318	S25718
IC 203, 320	S25719
IC 203, 322	S25720
IC 203, 324	S25721
IC 203, 326	S25722
IC 203, 328	S25723
IC 203, 330	S25724
IC 203, 332	S25725
IC 203, 334	S25726
IC 203, 336	S25727
IC 203, 338	S25728
IC 203, 340	S25729
IC 203, 342	S25730
IC 203, 344	S25731
IC 203, 346	S25732
IC 203, 348	S25733
IC 203, 350	S25734
IC 203, 352	S25735
IC 203, 354	S25736
IC 203, 356	S25737
IC 203, 358	S25738
IC 203, 360	S25739
IC 203, 362	S25740
IC 203, 364	S25741
IC 203, 366	S25742
IC 203, 368	S25743
IC 203, 370	S25744
IC 203, 372	S25745
IC 203, 374	S25746
IC 203, 376	S25747
IC 203, 378	S25748
IC 203, 380	S25749
IC 203, 382	S25750
IC 203, 384	S25751
IC 203, 386	S25752
IC 203, 388	S25753
IC 203, 390	S25754
IC 203, 392	S25755
IC 203, 394	S25756
IC 203, 396	S25757
IC 203, 398	S25758
IC 203, 400	S25759
IC 203, 402	S25760
IC 203, 404	S25761
IC 203, 406	S25762
IC 203, 408	S25763
IC 203, 410	S25764
IC 203, 412	S25765
IC 203, 414	S25766
IC 203, 416	S25767
IC 203, 418	S25768
IC 203, 420	S25769
IC 203, 422	S25770
IC 203, 424	S25771
IC 203, 426	S25772
IC 203, 428	S25773
IC 203, 430	S25774
IC 203, 432	S25775
IC 203, 434	S25776
IC 203, 436	S25777
IC 203, 438	S25778
IC 203, 440	S25779
IC 203, 442	S25780
IC 203, 444	S25781
IC 203, 446	S25782
IC 203, 448	S25783
IC 203, 450	S25784
IC 203, 452	S25785
IC 203, 454	S25786
IC 203, 456	S25787
IC 203, 458	S25788
IC 203, 460	S25789
IC 203, 462	S25790
IC 203, 464	S25791
IC 203, 466	S25792
IC 203, 468	S25793
IC 203, 470	S25794
IC 203, 472	S25795
IC 203, 474	S25796
IC 203, 476	S25797
IC 203, 478	S25798
IC 203, 480	S25799
IC 203, 482	S25800
IC 203, 484	S25801
IC 203, 486	S25802
IC 203, 488	S25803
IC 203, 490	S25804
IC 203, 492	S25805
IC 203, 494	S25806
IC 203, 496	S

SWITCHES
5203 TAPE SELECT METAL/CHROME/NORMAL (METAL POS)
5403 MONITOR TAPE/SOURCE (TAPE POS)
5201 TAPE SELECT METAL/CHROME/NORMAL (METAL POS)
5401 MONITOR TAPE/SOURCE (TAPE POS)

Specifications

Heads :	Record/Playback head (Sendust), Erase head (Ferrite)		
Wow & Flutter :	no more than 0.04% (W.R.M.S.)		
Signal-to-Noise Ratio : (CCIR weighted)	Metal-Tape :	Better than 61dB	without NR
		Better than 68dB	with Dolby-B-NR
		Better than 94dB	with dbx NR
Cr02-Tape :		Better than 59dB	without NR
		Better than 67dB	with Dolby-B-NR
		Better than 92dB	with dbx NR
Nor.-Tape :		Better than 58dB	without NR
		Better than 67dB	with Dolby-B-NR
		Better than 90dB	with dbx NR
Frequency Response :	20-22,000 Hz (metal tape)		
	(20-20,000 Hz ± 3 dB)		
	20-20,000 Hz (Cr02 tape)		
	(20-19,000 Hz ± 3 dB)		
	20-18,000 Hz (Nor, tape)		
Overall Distortion :	(20-18,000 Hz ± 3 dB)		
	no more than 0.7% (Normal tape, 1kHz, 0dB)		
Input Sensitivity :	line in ;	100mV	
	mic;	0.25mV (recommended microphone impedance : 600 10K ohms)	
Output Level :	line out ;	500mV	
	headphone ;	1mW (8 ohms load)	
Power Consumption :	35W		
Dimensions :	453(W) x 365(W) x 147(H) mm		
	(17.8" x 14.4" x 5.8")		
	(including Legs, Rear Protrusions & Knobs)		
Weight :	Net	9.5kgs (20.9 lbs.)	
	Gross	12.0kgs (26.4 lbs.)	

Specifications and appearance design subject to change without notice.

- * NOISE REDUCTION CIRCUIT MADE UNDER LICENCE FROM DOLBY LABORATORIES.
THE WORD "DOLBY" AND THE DOUBLE-D SYMBOL ARE THE TRADE MARKS OF DOLBY LABORATORIES.
- * dbx is the trade mark of dbx incorporated.

SHINSEI KOKUSAI

KX-102



LUX CORPORATION, JAPAN

1-1, 1-CHOME, SHINSEI-NISHIMACHI, TOYONAKA-SHI, OSAKA
PHONE: 06-834-0004 CABLE: LUXMAN TOYONAKA TELEX: 5287106 LUJ

KX NK 8202 010A Printed in