

RC-20

PHRASE RECORDER

SERVICE NOTES

*First Edition
Issued by RJA*

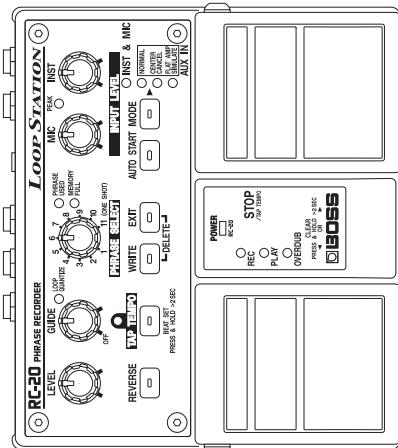
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SPECIFICATIONS

RC-20 : PHRASE RECORDER

- **Nominal Input Level**
 - INPUT : -20 dBu (Variable)
 - MIC : -40 dBu (Variable)
 - AUX IN : -10 dBu
- **Power Consumption**
 - 85 mA (9 V max.)
 - * Expected battery life under continuous use:
 - Carbon : 9 hours
 - Alkaline : 25 hours
 - These figures will vary depending on the actual conditions of use.
- **Input Impedance**
 - INPUT : 1M ohm
 - MIC : 1k ohm
 - AUX IN : 47k ohm
- **Nominal Output Level**
 - OUTPUT : 20 dBu
- **Output Impedance**
 - 1k ohm
- **Recommended Load**
 - 10k ohm or greater
- **Internal Memory**
 - Recording Time : 5 min. 30 sec. (max.)
 - 10 loop phrases + one-shot phrase (max.)
- **Controls**
 - REC/PLAY/OVERDUB Pedal
 - STOP/TAP TEMPO Pedal
 - INST Knob
 - MIC Knob
 - PHRASE SELECT Knob
 - GUIDE Knob
 - LEVEL Knob
 - REVERSE Button
 - TAP TEMPO Button
 - WRITE Button
 - EXIT Button
 - AUTO START Button
 - MODE Button
- **Accessories**
 - Owner's Manual English (#G6017294)
 - Dry battery <AA type> x 6 (#******)
 - Sound Library for RC-20 <Sample Phrase CD-ROMs (#G2567113)
 - Sound Library for RC-20 <Sample Phrase CD LEAFLETS> (#G6017447)
- **Options**
 - AC Adapter (PSA-series)
 - Foot Switch (FS-5U)
- **Indicators**
 - POWER (serves also as battery check indicator)
 - REC
 - PLAY
 - OVERDUB
 - PEAK
 - PHRASE USED
 - MEMORY FULL
 - LOOP QUANTIZE
 - TAP TEMPO
 - REVERSE
 - WRITE
 - EXIT
 - AUTO START
 - INST & MIC
 - NORMAL
 - CENTER CANCEL
 - FLAT AMP SIMULATE
- **Connectors**
 - INST Jack
 - MIC Jack
 - AUX IN Jack (Stereo miniature phone type)
 - PHRASE SHIFT Jack
 - REVERSE Jack
 - OUTPUT Jack



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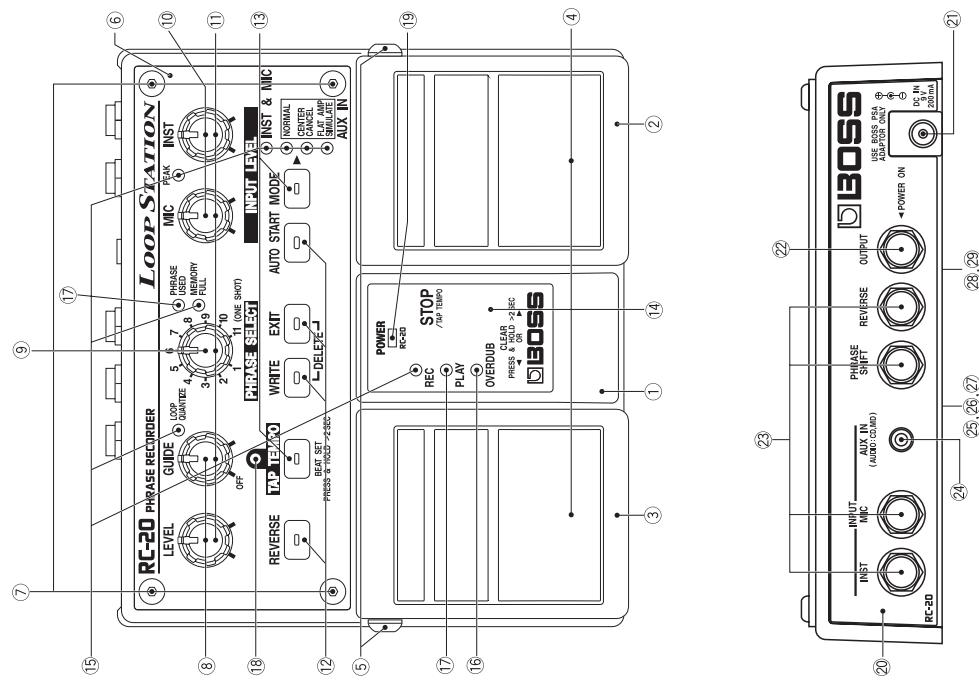
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A LOCATION OF CONTROLS

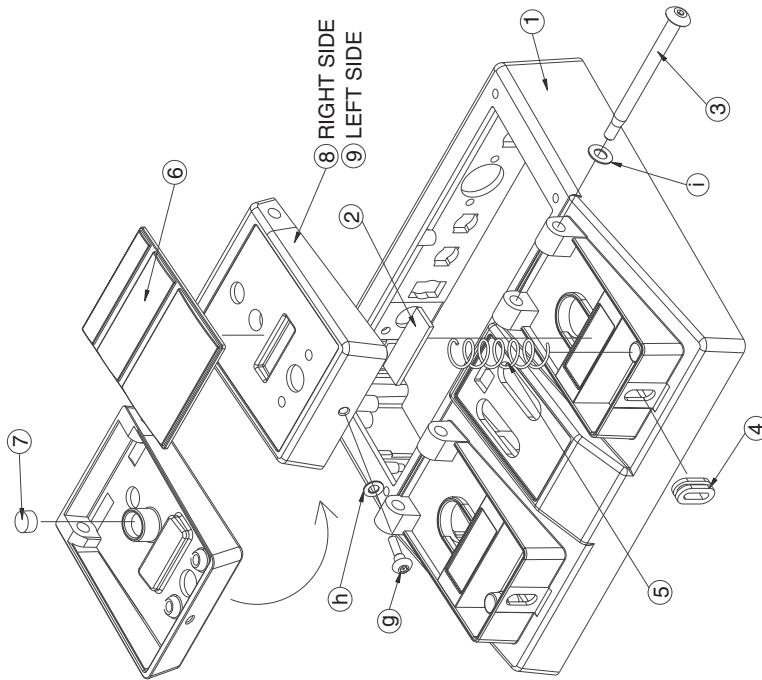
B	[Parts]	Part No.	Part Code	Part Name	Qty
C	1	G2017146	G2187531	CASE PEDAL R	1
D	2	G2187530	G2357116	PEDAL PLATE PEDAL SHAFT	2
E	3	G2357116	H5029851	PANEL	2
F	4	G2357116	G2217133	HEXAGON SOCKET BUTTON HEAD SCREW M4x6	1
G	5	G2357116	H5029850	POT: RD901-401-125F-B34-11D	4
H	6	G2357116	F3279802	POT: RD901-401-125F-B34-11D	2
I	7	G2357116	F3279803	POT: RD901-401-125F-B34-11D	2
J	8	G2357116	F3279805	POT: RD901-401-125F-B34-11D	2
K	9	G2357116	F3279806	R-KNOB	1
L	10	G2477122	F3279808	KEYTOP S BLACK WITH LENS	2
M	11	G2477122	F3279810	KEYTOP S WITHOUT LENS	2
N	12	G2477130	G2217137	LED PANEL	1
O	13	G2477130	G2217137	LED RED	1
P	14	G2217137	F32928100	LED (YELLOW) L-34 YDSL	1
Q	15	G2217137	F5029125	LED (YELLOW) L-34 YDSL	1
R	16	G2217137	F5029125	LED (RED/GREEN) GL3E08	1
S	17	F5029124	F5029126	POWER LED L-13GDT	1
T	18	F5029124	F5029126	REAR PANEL	1
U	19	F5029126	G2217135	ADAPTOR JACK DL-07/LB-020	1
V	20	F5029126	G2217135	6.5MM JACK HTL-064-L12D	1
W	21	F344940301	F344940301	6.5MM JACK HTL-064-L12D	1
X	22	F344940301	F344940301	MINI JACK AU32A-3C	1
Y	23	F344940301	F344940301	BATTERY COVER	1
Z	24	F3449404	F3449404	BOTTOM COVER	2
AA	25	F3449404	G2017621	LABEL CAUTION	1
AB	26	F3449404	G2017148	QUICK MANUAL LABEL	1
AC	27	F3449404	G2357118		1
AD	28	F3449404	F2359803		1
AE	29	F3449404	G2557348		1

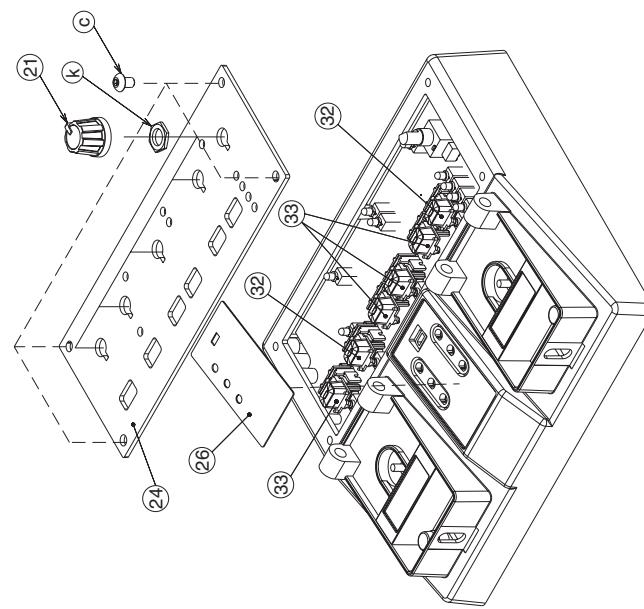
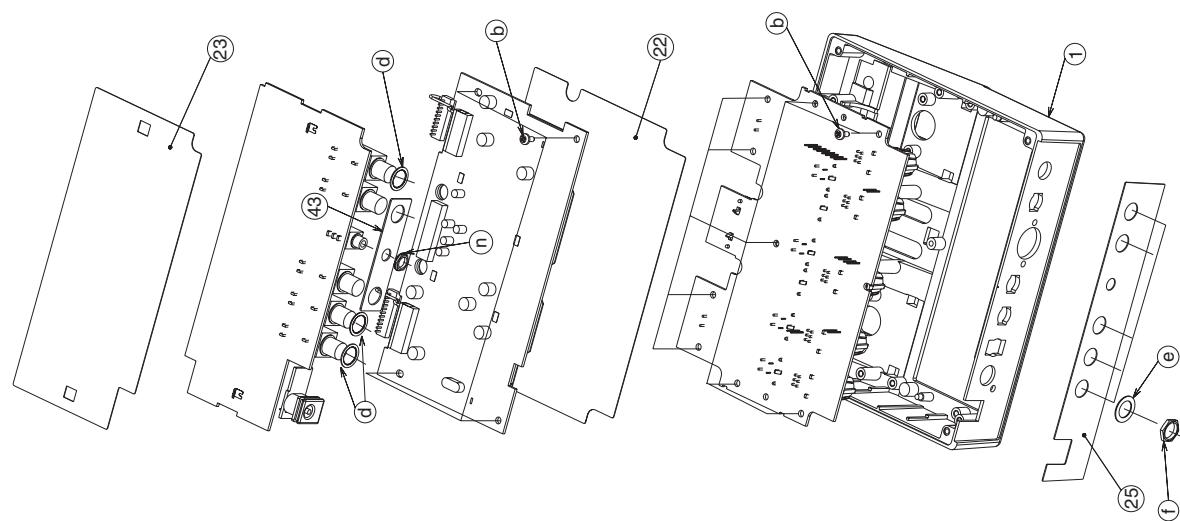


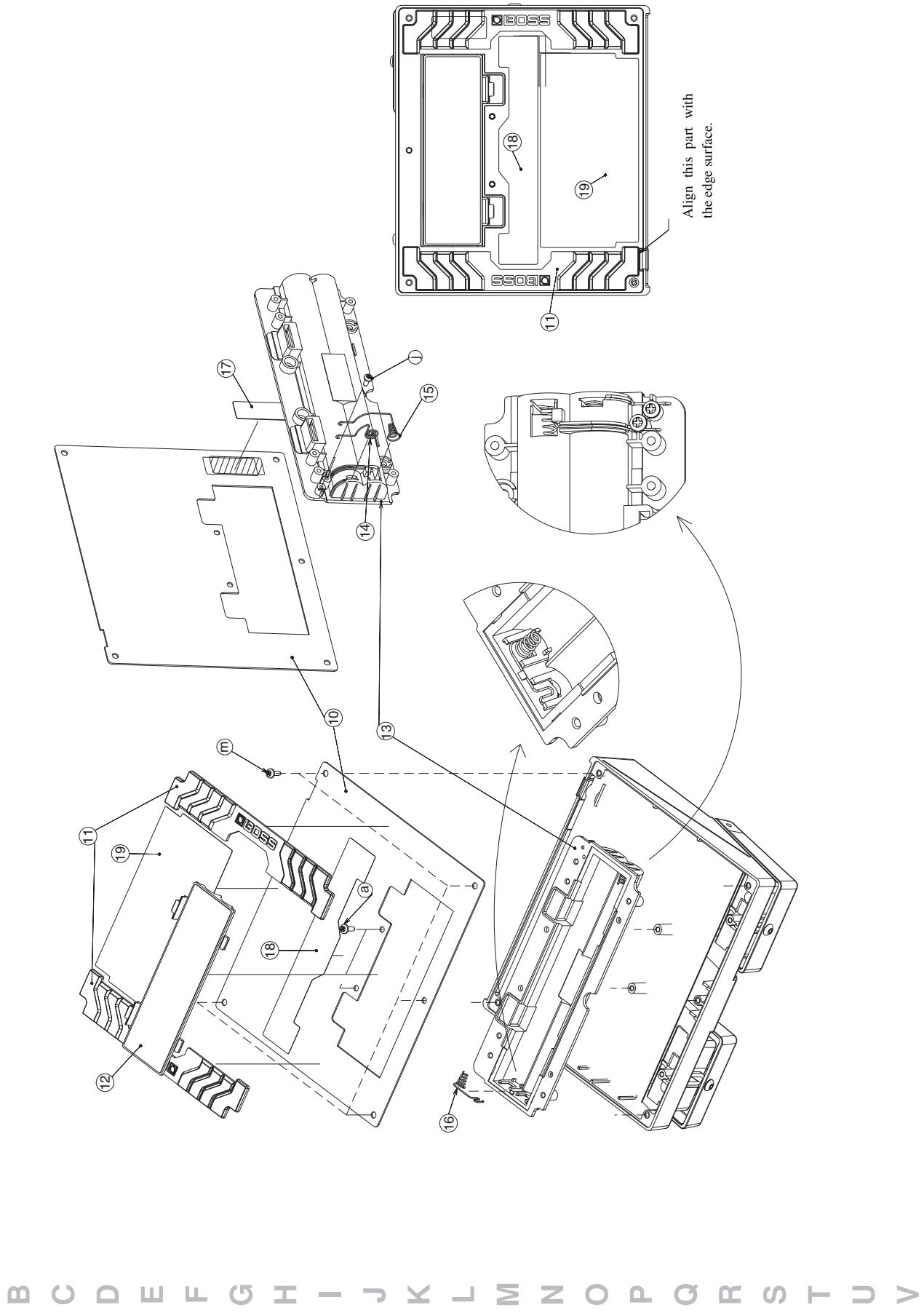
A EXPLODED VIEW

[Parts]				
B	No.	Part Code	Part Name	Qty
C	1	G2017146	CASE	1
C	2	G2257111	CUSHION R	2
C	3	H5029851	PEDAL SHAFT	2
C	4	2215770201	PEDAL GUIDE BUSH	2
D	5	G2277104	SPRING	2
D	6	G2257116	PEDAL PLATE	2
D	7	G2257115	PEDAL FOOT	2
D	8	G2187530	PEDAL R	1
E	9	G2187531	PEDAL L	1
E	10	G2017148	BOTTOM COVER	1
E	11	G2257118	BOTTOM FOOT	2
F	12	G2017621	BATTERY COVER	1
F	13	G2017620	BATTERY CASE Y6	1
F	14	G2177308	BATTERY TERMINAL (+)	1
F	15	G2177309	BATTERY TERMINAL (-)	1
F	16	G2177307	BATTERY TERMINAL (+)	1
F	17	G2257130	BATTERY INSULATING SHEET	1
G	18	P239803	LABEL CAUTION	1
G	19	G2357848	QUICK MANUAL LABEL	1
G	21	G2277122	R-KNOB	5
H	22	G2257129	INSULATING SHEET CENTER	1
H	23	G2257131	INSULATING SHEET BOTTOM	1
H	24	G2217133	PANEL	1
H	25	G2217135	REAR PANEL	1
I	26	G2217137	LED PANEL	1
I	32	G227751301	KEYTOP S WITHOUT LENS	2
I	33	G227751001	KEYTOP S BLACK WITH LENS	4
I	43	G2197502	MINIJACK HOLDER	1

[Screws]				
K	No.	Part Code	Part Name	Qty
K	a	H5019115	SCREW 3x8 PANTAPPING-2 BZC	2
K	b	H5019110	SCREW 3x6 PANTAPPING-2 FEZC	13
K	c	H5029850	SCREW M3x6 HEXAGON SOCKET BUTTON HEAD FENI	4
K	d	40011923	INTERNAL TOOTH WASHER M9.5x12.5x0.5 FENI	3
K	e	40016467	JACK WASHER M9.5x14x0.5 FENI	5
K	f	40123545	JACK NUT M9x11.2x1 NI	5
K	g	H5029852	SCREW 4x5 HEXAGON SOCKET BUTTON HEAD FEBZC	2
K	h	H5039413	NYLON WASHER M4.1x7.5x0.5 BLACK	2
K	i	H5039414	NYLON WASHER M5.1x9.3x0.5 BLACK	2
K	j	H5019430	SCREW 2x6.5 BINDING TAPITTE P FEZC	2
K	k	H5039521	VR ACCESSORY NUT M7	5
N	m	H5029325	SCREW 3x6 PAN HEAD TAPITTE-2 BZC	5
N	n	H5039324	MINI JACK NUT M6 FENI	1



A EXPLODED VIEW**B****C****D****E****F****G****H****I****J****K****L****M****N****O****P****Q****R****S****T****U****V**

A EXPLoded VIEW

PARTS LIST

SAFETY PRECAUTION: The parts marked  are new (initial parts). Use only listed part for replacement.	CONSIDERATIONS ON PARTS ORDERING When ordering any parts listed in the parts list, please specify the following items in the order sheet. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 2px;">PART NUMBER</th><th style="text-align: left; padding: 2px;">DESCRIPTION</th><th style="text-align: left; padding: 2px;">MODEL NUMBER</th></tr> </thead> <tbody> <tr> <td style="text-align: left; padding: 2px;">Ex. 23573241</td><td style="text-align: left; padding: 2px;">Sharp key</td><td style="text-align: left; padding: 2px;">C-2050</td></tr> <tr> <td style="text-align: left; padding: 2px;">10</td><td style="text-align: left; padding: 2px;">Knife (orange)</td><td style="text-align: left; padding: 2px;">DAC-1SD</td></tr> <tr> <td style="text-align: left; padding: 2px;">15</td><td style="text-align: left; padding: 2px;">2347017300</td><td></td></tr> </tbody> </table> <p>Failure to completely fill in the above items with correct number and description will result in delayed or even undelivered replacement.</p>	PART NUMBER	DESCRIPTION	MODEL NUMBER	Ex. 23573241	Sharp key	C-2050	10	Knife (orange)	DAC-1SD	15	2347017300	
PART NUMBER	DESCRIPTION	MODEL NUMBER											
Ex. 23573241	Sharp key	C-2050											
10	Knife (orange)	DAC-1SD											
15	2347017300												

Qty	CASING	G2017620 BATTERY CASE V6 G2017621 BATTERY COVER G2017148 BOTTOM COVER G2357118 BOTTOM FOOT	1 1 1 2
	G2017446 CASE G2217137 LED PANEL	G2217133 PANEL G2187531 PEDALL L	1 1
#	G2217136 CASE G2217135 PANEL	G2357116 PEDAL PLATE G2187530 PEDAL R	1 1
H5029851 PEDAL SHAFT G2217135 REAR PANEL		62x53	
#			2
KNOB, BUTTON	G247751001 KEYTOP S BLACK WITH LENS G247751301 KEYTOP S WITHOUT LENS G2477122 R-KNOB		4 2 5
SWITCH	01780101 SKQKAB 13129778 SKQKAH	TACT SWITCH TACT SWITCH	SW1,SW2,SW4,SW6-SW8 on PB SW3,SW5 on PB
JACK, EXT TERMINAL	13449150MF HTJ-064-12D 13449150MF HTJ-064-12L F3440404 AI324A-3C F344940501 DI-0711B-020	6.5MM JACK (STEREO) 6.5MM JACK (MONO) MINI JACK ADAPTOR JACK	JK7 on JB JK1,JK2,JK4,JK5 on JB JK3 on JB JK6 on JB
PWB ASSY	75D433M000 CENTER PWB ASSY 75D433M001 PANEL PWB ASSY	(EXG)	1 1
	NOTE : PANEL PWB ASSY includes the following parts.		
	***** PANEL BOARD ASSY *****	PANEL BOARD ASSY	
	***** JACK BOARD ASSY *****	JACK BOARD ASSY	
IC	# 02780089 UPD703102GH-33-W05 VER 1.01 # 02653023 TC5V64-ATT # 02451434 AK4552VT # 02453389 LC32VA265T-25 # 0212556 LD24085B-SD1 # 00346445 NIM2100ME(T3) # 15189265 M5218AF-60E # 02458009 TC4066BF(EL) # 15259118 TC4V66F(TE12L) # 15259884 TC7508FT(H385L) # 01906156 S-8520535-BJS-T2 # 02455056 S-80930ALMP-DAT-T2	IC (CPU) IC (FLASH MEMORY) IC (ADDA) IC (DRAM) IC (BIPOLAR OP AMP) IC (BIPOLAR OP AMP) IC (CMOS) IC (CMOS) IC (CMOS) IC (CMOS) IC (DC-DC REGULATOR) IC (RESET)	I C1 on CB IC6 on CB IC5 on CB IC4 on CB IC3 on CB IC2 on CR IC1 on PB, IC2, IC3, IC5, IC6 on JB IC1 on JB IC4 on JB IC5 on CB IC7 on JB
TRANSISTOR	15319107 2SC4116-GR(TES5R) 1532910310 2SK880-QRT(ES5R)	TRANSISTOR FET TRANSISTOR	Q1, Q2 on PB, Q2 on JB Q1, Q11 on JB

F5367542	10/16V	CHIP CAPACITOR	C2,C20,C28,C30,C32 on PB C4-C9 on PB. C24,C34,C35 on JB	14	#	F2259117	SHIELD SHEET
F5367546	100/16V	CHIP CAPACITOR	C18 on PB. C23,C29,C40 on JB	4	#	G2177104	SPRING
02341489	ECPU/C474MA5	MYLAR CAPACITOR(SUBMICRON)	C10 on PB. C1,C9,C10 on JB	4	#		
INDUCTOR, COIL, FILTER							
F2449209	SLF0321F-151(MR7-20150UH)	COIL	L16 on JB	-	#	G6017295	OWNER'S MANUAL
F2449210	SLF0321F-4RM(RM7-24.7UH)	COIL	L15 on JB	-	#	G6017294	OWNER'S MANUAL
02563478	NFM4516P13C204F	EMI FILTER	C21 on JB	-	#	G2567113	CD-ROM
12449381	SBT-0460TF	EMI FILTER	L14 on JB	-	#	G60171447	CD MANUAL
12449386	SBT-0180W	EMI FILTER	FL1 on JB	-	#	40232334	WARRANTY CARD
00903167	N20122601T02	FERRITE-BEAD (CHIP)	L1-L7 on CB. L1-L10,L12,L13 on JB	19	#		
CRYSTAL, RESONATOR							
01899745	AT-41CD2 6.4MHZ	CRYSTAL	X3 on CB	-	#		
	MA-40624.576MHz TE24	CRYSTAL	X2 on CB	-	#		
CONNECTOR							
F3439160	S3015-0210 2P P=2MM	CONNECTOR	CN6 on JB	-	#		
# F3439165	A2001WR2-10P	CONNECTOR	CN3 on CB	-	#		
F3439166	A2001WR2-11P	CONNECTOR	CN2 on CB	-	#		
F3439167	A2001WR2-14P	CONNECTOR	CN1 on CB	-	#		
# F3439164	A2001WR2-8P	CONNECTOR	CN1 on JB	-	#		
WIRING, CABLE							
F3487222	3P L=40x3x5 MM P=2NM	RIBBON CABLE	CN3 on JB to CN4 on JB	-	#		
# G3487221	WIRING 3P		CN3 on PB to CN1 on JB	-	#		
# G3487220	WIRING 10P		CN1 on PB to CN3 on CB	-	#		
# G3487219	WIRING 11P		CN2 on PB to CN2 on CB	-	#		
# G3487163	WIRING BATTERY	L=80MM 2P	CN2 on JB to CN1 on CB	-	#		
SCREWS							
H5019430	SCREW 2.6x5	BINDING HEAD TAPITTE P FEZC	CN3 on PB to CN4 on JB	-	#		
H5019110	SCREW 3x6	PAN HEAD TAPITTE-2 FEZC	CN3 on PB to CN1 on JB	-	#		
H5029325	SCREW 3x6	PAN HEAD TAPITTE-2 BZC	CN1 on PB to CN3 on CB	-	#		
H5019115	SCREW 3x8	PAN HEAD TAPITTE-2 BZC	CN2 on PB to CN2 on CB	-	#		
H5029850	SCREW M14x6	HEXAGON SOCKET BUTTON HEAD FEZC	CN2 on JB to CN1 on CB	-	#		
H5029852	SCREW M4x3	HEXAGON SOCKET BUTTON HEAD FEZC	CN1 on JB to CN1 on CB	-	#		
H40123545	JACK NUT M9x11x2	NI	CN1 on JB to CN1 on CB	-	#		
40016467	JACK WASHER M9x2x4x0.5	FENI	CN1 on JB to CN1 on CB	-	#		
H5039521	VR ACCESSORY NUT M7	FENI	CN1 on JB to CN1 on CB	-	#		
H5039413	NYLON WASHER M4.1x7.5x0.5	BLACK	CN1 on JB to CN1 on CB	-	#		
H5039414	NYLON WASHER M5.1x9.5x0.5	BLACK	CN1 on JB to CN1 on CB	-	#		
40011923	WASHER M9.1x13	INTERNAL TOOTH	CN1 on JB to CN1 on CB	-	#		
H5039324	MINI JACK NUT M6	FENI	CN1 on JB to CN1 on CB	-	#		
PACKING							
# G2567114	CD PACKAGE	BATTERY INSULATING SHEET	CN1 on JB to CN1 on CB	-	#		
G2607212	PACKING CASE LOWER	BATTERY TERMINAL(-)	CN1 on JB to CN1 on CB	-	#		
G2627136	PACKING CASE UPPER	BATTERY TERMINAL(+)	CN1 on JB to CN1 on CB	-	#		
H2679505	POLYETHYLENE BAG	CUSHION R	CN1 on JB to CN1 on CB	-	#		
G2237614	REAR PAD	G2257131	INSULATING SHEET BOTTOM	-	#		
G2237613	SIDE PAD	G2257129	INSULATING SHEET CENTER	-	#		
MISCELLANEOUS							
G2257130	LABEL CAUTION	FCC/CB/C-TICK/EMC	CN1 on JB to CN1 on CB	-	#		
G2197309	LEAF A	G2197309	BATTERY INSULATING SHEET	-	#		
G2177308	LED GUIDE	G2177308	BATTERY TERMINAL(-)	-	#		
G2177307	LED SPACER	H=8MM	BATTERY TERMINAL(+)	-	#		
G2257111	MINI JACK HOLDER	M8	CUSHION R	-	#		
G2257115	PEDAL FOOT	M8	G2257131	-	#		
2315707021	PEDAL GUIDE BUSH	M8	G2257129	-	#		
G23573848	QUICK MANUAL LABEL	M8	FCC/CB/C-TICK/EMC	-	#		
F2259116	SHIELD COVER	M8	CUSHION R	-	#		