

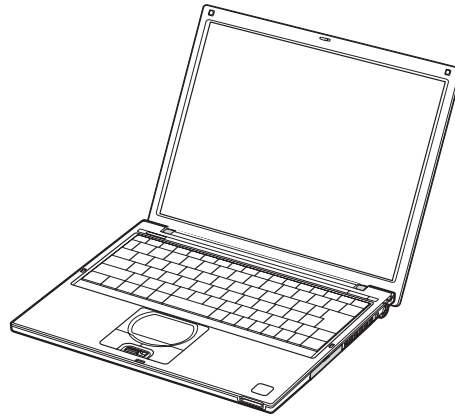
PCG-VX89/VX89K/VX89P

SERVICE MANUAL

For American Area
US Model
Canadian Model

Ver 1-2002J

Revision History



Illust : PCG-VX89P

Lineup : PCG-VX89P
PCG-VX89K
PCG-VX89

WiFi[™]
The Standard for
Wireless Fidelity.



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NOTEBOOK COMPUTER

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Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer’s instructions.

CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100°C (212°F) or incinerate.

Dispose of used battery promptly.
Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilation or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.



Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set’s components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the Δ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

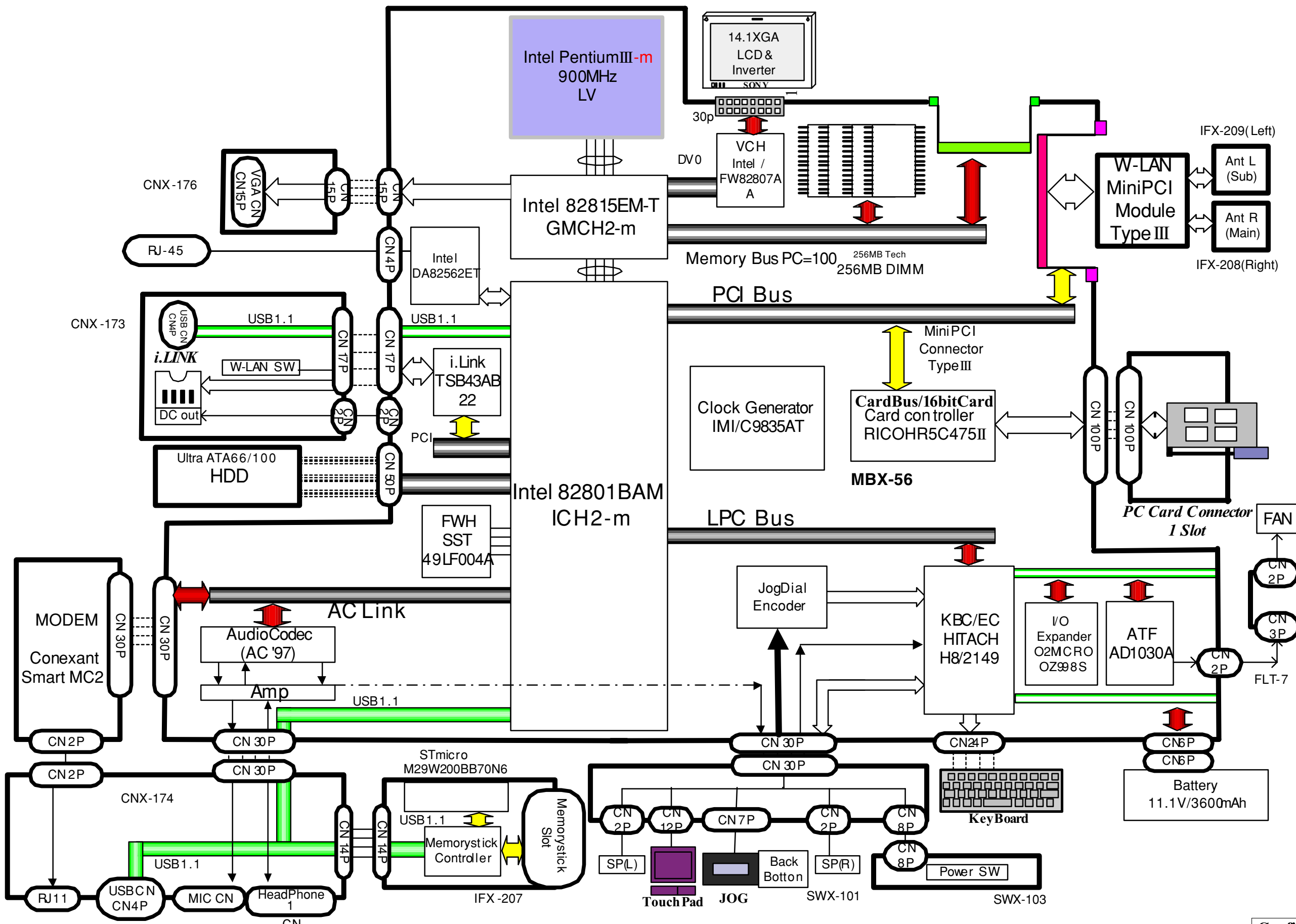
LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE Δ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

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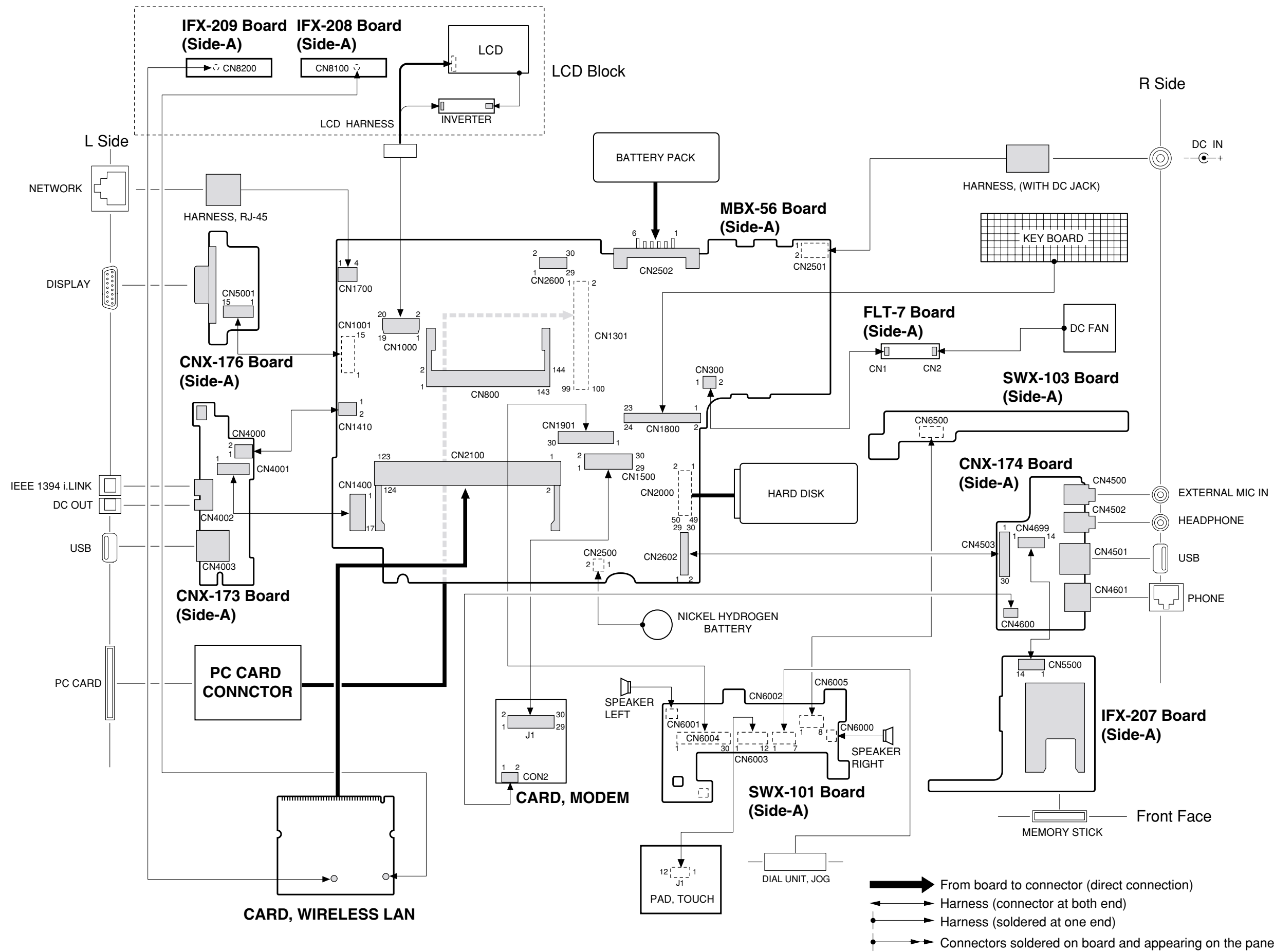
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History of the changes is shown as the
“Revision History” at the end of this data.

CHAPTER 1. BLOCK DIAGRAM



CHAPTER 2. FRAME HARNESS DIAGRAM



CARD, WIRELESS LAN

CHAPTER 3.

EXPLODED VIEWS AND PARTS LIST

NOTE:

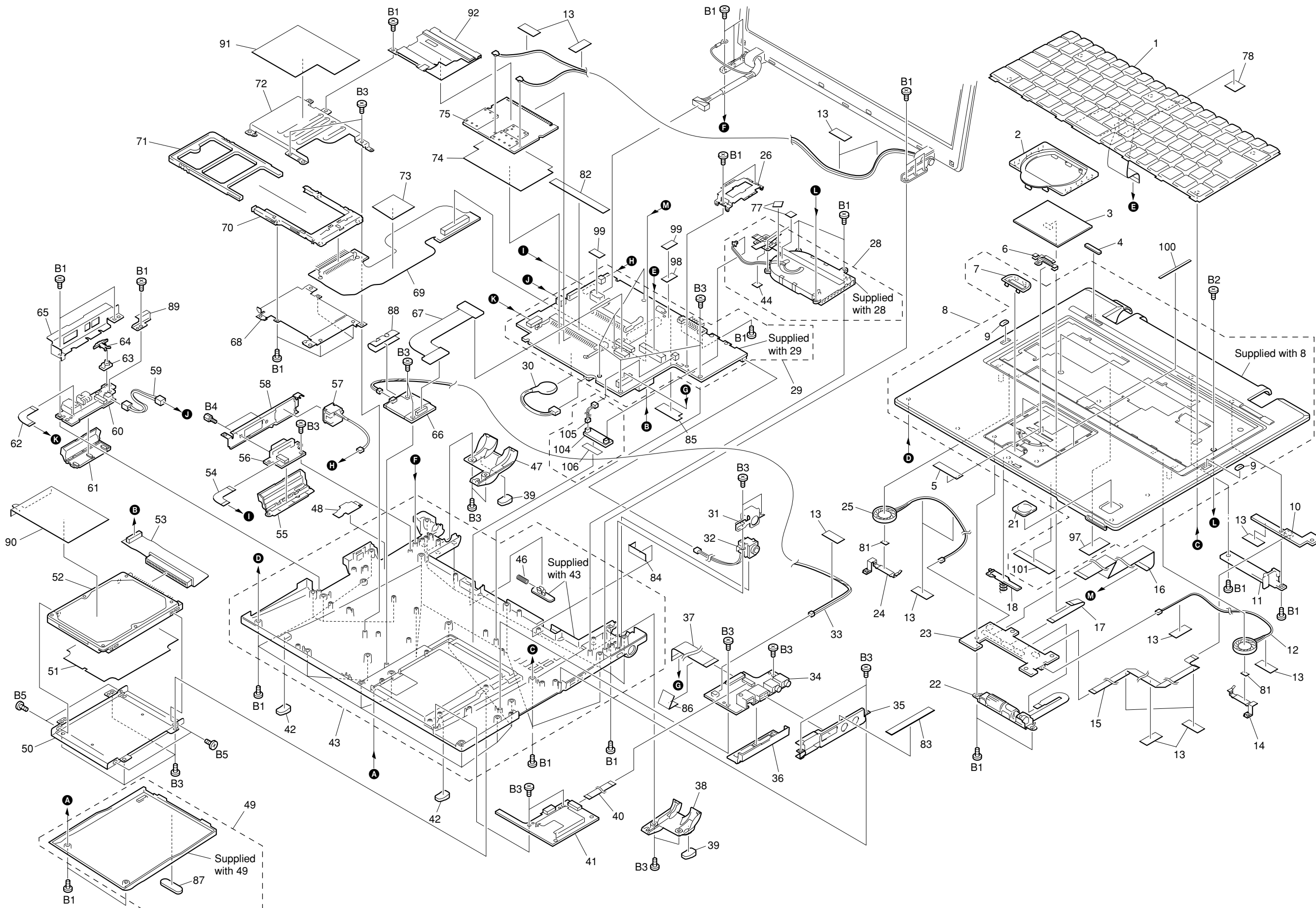
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- When two or more parts are shown in parallel, use the part described first as the main part.
- The parts marked “ \$ ” are the High Value Modules.
- The parts marked “ # ” are the parts on which barcode label is attached.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

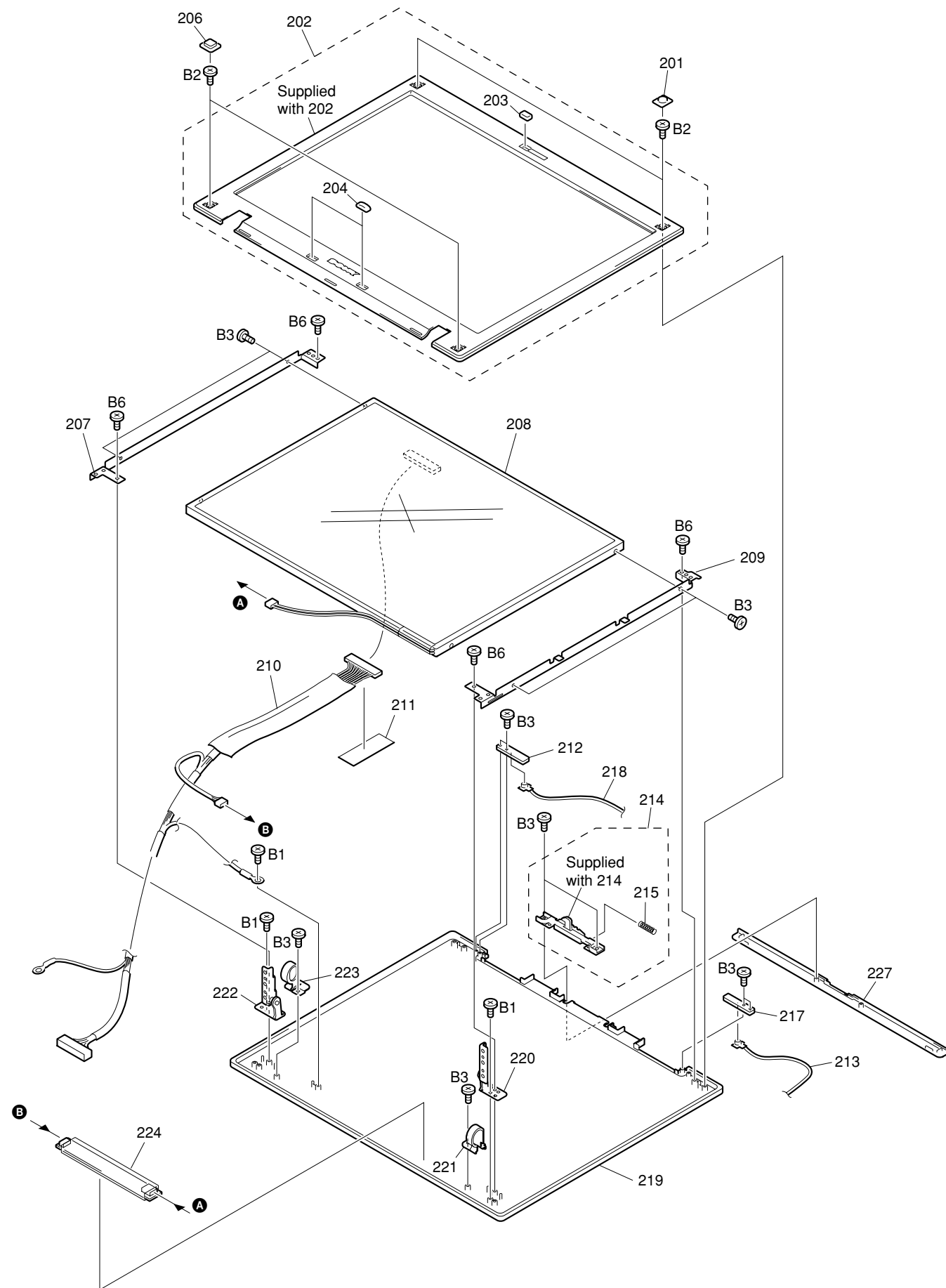
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

3-1. Main Section

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
1	1-477-283-21	\$ # KEYBOARD UNIT (US)	63	4-662-573-02	SPACER (WL)
2	4-662-400-02	COVER (TP)	64	4-662-574-02	SWITCH (WL)
3	1-796-319-11	PAD, TOUCH	* 65	4-662-570-02	BRACKET (IO L)
4	4-666-738-21	(VX89P)...LABEL (ID)	66	1-761-380-23	# CARD, MODEM
4	4-666-738-31	(VX89)...LABEL (ID)	67	1-685-170-11	FPC (MDC)
4	4-666-738-41	(VX89K)...LABEL (ID)	* 68	4-662-665-02	PLATE (PCC)
5	4-663-835-01	TAPE (TP)	69	1-684-994-11	FPC (PC CARD, WITH CONNECTOR)
6	4-657-945-01	PLATE (TP)	70	1-816-580-11	CONNECTOR, PC CARD (EJECTOR)
7	4-662-405-02	ESCUTCHEON (JOG)	71	4-643-832-41	DUMMY CARD
8	X-4624-713-6	HOUSING (PARM REST) ASSY	* 72	4-662-664-02	PROTECTOR (PCC)
9	4-662-787-01	CUSHION (CENTER BZ)	73	4-663-422-01	SHEET (FPC MDC)
10	A-8067-219-A	COMPLETE PWB SWX-103	74	4-663-421-02	SHEET (MPCI)
11	4-662-421-02	CASE (CAPS)	75	1-761-495-11	CARD, WIRELESS LAN
12	1-825-150-21	SPEAKER, (2.0CM)	77	4-664-890-02	CUSHION HEATSINK
13	4-658-789-02	TAPE (HARNESS)	78	4-664-957-01	SHEET KEYBOARD
14	4-663-133-01	HOLDER (SP) (R)	81	4-665-008-01	SHEET (SP)
15	1-824-088-11	CABLE,FLEXIBLE FLAT (SWX1-SWX2)	82	4-665-009-01	TAPE (MPCI)
16	1-824-085-11	CABLE, FLEXIBLE FLAT (MBX-SWX1)	83	4-664-909-01	SHEET (BRACKET R)
17	1-824-089-11	CABLE, FLEXIBLE FLAT (SWX1-TP)	84	4-663-932-01	SHEET (DC), INSULATING
18	X-4624-886-2	PARM ASSY, LATCH	85	4-664-221-01	SHEET (MBX), INSULATING
21	4-662-407-01	WINDOW (MS)	86	4-664-224-01	SHEET (FPC 30)
22	1-476-945-11	ENCODER, JOG	87	4-660-499-11	CUSHION DOOR
23	A-8067-218-A	\$ COMPLETE PWB SWX-101	88	4-657-991-01	SHEET (JOG), INSULATING
24	4-663-132-01	HOLDER (SP) (L)	89	4-664-253-02	PLATE (WL)
25	1-825-150-11	SPEAKER, (2.0CM)	90	4-664-254-02	SHEET (HDD), CONDUCTIVE
* 26	4-662-918-01	PROTECTOR HEATSINK	91	4-664-581-01	SHEET (PC CARD)
* 28	1-763-838-11	DC FAN (WITH HEATSINK)	92	X-4624-953-2	PLATE (MINI-PCI) ASSY
29	A-8112-160-A	\$ # C/P (MBX-56) (P900) (S)	97	4-665-091-01	PLATE (KEYBOARD)
30	1-468-624-21	BATTERY, VANADIUM-LITHIUM	98	4-665-092-01	CUSHION (PKB)
* 31	4-662-925-01	DC, HOLDER	99	4-665-317-01	CUSHION MZ
32	1-961-483-21	HARNESS (WITH DC JACK)	100	4-665-096-01	TAPE (COVER TP)
33	1-960-827-71	HARNESS (2 PIN)	101	4-664-828-01	ADHESIVE TAPE (BOTTOM)
34	A-8067-207-A	\$ COMPLETE PWB CNX-174	104	A-8067-505-A	\$ COMPLETE PWB FLT-7
* 35	4-662-571-01	BRACKET (IO R)	105	1-961-895-11	HARNESS
36	X-4624-779-2	ASSY DOOR R	106	4-666-382-01	ADHESIVE (TAPE) (FLT-7)
37	1-824-086-11	CABLE, FLEXIBLE FLAT (MBX-CNX)	B1	4-664-453-01	SCREW (M2X4), SPECIAL HEAD
38	4-663-369-02	COVER (R), FOOT	B2	4-664-453-11	SCREW (M2X5.5), SPECIAL HEAD
39	4-662-877-02	RUBBER (REAR), FOOT	B3	4-641-726-21	SCREW (M2), SPECIAL HEAD
40	1-824-087-11	CABLE, FLEXIBLE FLAT (CNX-IFX)	B4	4-635-966-01	SCREW (HEX)
41	A-8067-544-A	\$ COMPLETE PWB IFX-207	B5	4-635-301-01	SCREW M3X4
42	4-662-878-02	RUBBER (FRONT), FOOT			
43	X-4624-811-2	HOUSING (BOTTOM) ASSY			
44	4-659-832-01	SHEET, THERMAL			
46	4-635-956-01	SPRING (B), COMPRESSION COIL			
47	4-663-370-02	COVER (L), FOOT			
48	4-663-438-02	SHEET			
49	X-4624-888-2	DOOR (HDD) ASSY			
* 50	4-662-388-02	BRACKET (HDD)			
51	4-664-157-01	SHEET (HDD)			
52	A-8059-344-A	\$ # ASSY HDD 30GB (T,20,F) (S)			
53	1-685-027-11	PWB, FLEXIBLE PRINT (HDD)			
54	1-684-993-11	FPC (VGA)			
55	X-4624-780-4	ASSY DOOR V			
56	A-8067-204-A	\$ COMPLETE PWB CNX-176			
57	1-961-763-11	HARNESS, RJ-45			
* 58	4-662-572-01	BRACKET (IO V)			
59	1-791-608-21	CONNECTOR, HARNESS WITH (DC)			
60	A-8067-205-A	\$ COMPLETE PWB CNX-173			
61	X-4624-781-4	ASSY DOOR L			
62	1-684-986-11	FPC (I. LINK)			



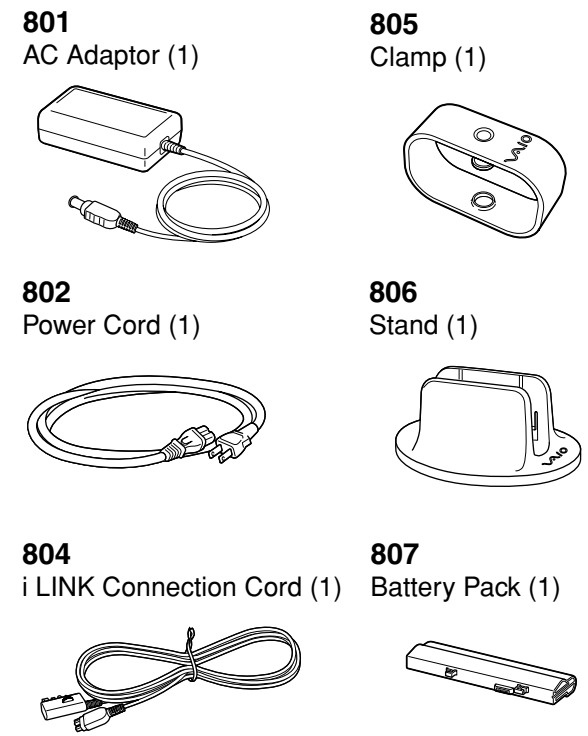
3-2. LCD Section – Made by HI –



Ref.No.	Part No.	Description
201	4-662-789-01	COVER (LCD), SCREW
202	X-4624-714-2	HOUSING (BEZEL) ASSY
203	4-662-788-01	CUSHION, LATCH
204	4-662-787-01	CUSHION (CENTER BZ)
206	4-659-342-01	BLIND (LCD), SCREW
* 207	4-662-427-01	BRACKET (LCD L)
208	A-8067-411-A	LCD (14HI) ASSY (S)
* 209	4-662-434-01	BRACKET (LCD R)
210	1-961-709-11	HARNESS, LCD
211	4-658-789-02	TAPE (HARNESS)
212	A-8067-221-A	COMPLETE PWB IFX-209
213	1-823-844-21	CABLE, COAXIAL (BLACK) (L670)
214	X-4624-887-1	DISPLAY ASSY, LATCH
215	4-639-623-01	SPRING (LATCH), COIL
217	A-8067-220-A	COMPLETE PWB IFX-208
218	1-823-844-31	CABLE, COAXIAL (GRAY) (L930)
219	X-4624-812-2	HOUSING (DISPLAY) ASSY
220	X-4624-716-2	HINGE (RIGHT) ASSY
221	4-662-383-02	COVER (HINGE) (R)
222	X-4624-717-2	HINGE (LEFT) ASSY
223	4-662-382-02	COVER (HINGE) (L)
224	1-476-735-11	INVERTER UNIT
227	X-4625-019-1	ESCUTCHEON (WL) ASSY
B1	4-664-453-01	SCREW (M2X4), SPECIAL HEAD
B2	4-664-453-11	SCREW (M2X4), SPECIAL HEAD
B3	4-641-726-21	SCREW (M2), SPECIAL HEAD
B6	4-641-726-71	SCREW (M2), SPECIAL HEAD

Ref.No.	Part No.	Description
		ACCESSORIES *****
△ 801	1-476-943-21	ADAPTOR, AC
△ 802	1-757-562-31	CORD, POWER
804	1-823-439-11	CORD, ILINK CONNECTION
805	4-657-363-01	CLAMP
806	X-4625-087-1	STAND ASSY
807	A-8110-748-A	BP2S/HI (U) ASSY (S)
	4-668-323-01	(VX89K)... SPECIFICATION SHEET, 2370UAZ
	4-667-818-01	QUICK START, 2370UA
		LOOK AT EXPLODED VIEWS OF THE PART *****
808		PCGA-CRWD2

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.




808
CD-RW/DVD-ROM Drive (PCGA-CRWD2)

- The CD-RW/DVD-ROM Drive itself does not have the Part No. Refer to the PCGA-CRWD2 Service manual (9-874-566-01). Because only the 804 iLINK Connection Cord is required for connection with a computer, the following parts are not supplied with the CD-RW/DVD-ROM drive.

1-476-940-22 ADAPTOR, AC
1-757-562-31 CORD, POWER
1-790-763-21 CORD, CONNECTION
4-663-161-11 MANUAL, INSTRUCTION
4-663-751-11 MANUAL, INSTRUCTION (FIRST)

List of PCG-VX Series (As of October, 2002)

Model Name	Service Manual Part No.
PCG-VX88 PCG-VX88P	9-874-532-01
PCG-VX89 PCG-VX89K PCG-VX89P	9-876-021-01

 : Additional Models



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Revision History

Suffix	Ver.	Date	Contents	QM No.
-01	Ver. 1	2002.10.04	First Edition	
< Remarks >				