

VPCF1 Series

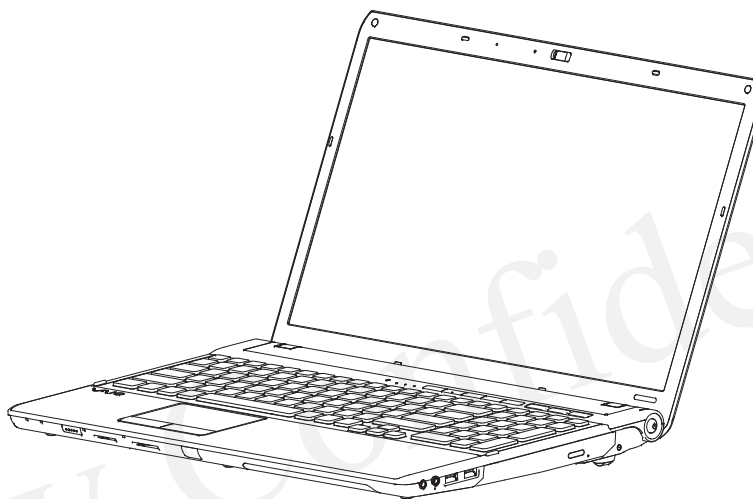
SERVICE MANUAL

Ver.10-2012F

Revision History

Area	Model	Lineup
Japanese	Japanese	VPCF117F/JW VPCF118F/JW VPCF119F/J/BI VPCF11AFJ* VPCF11AGJ* VPCF11AHJ* VPCF11ZHJ*
		VPCF111FX/B VPCF111FX/H VPCF112FX/B VPCF112FX/H VPCF113FX/B VPCF113FX/H VPCF114FX/B VPCF114FX/H VPCF115FM/B VPCF116FX/B VPCF116FX/H VPCF117FX/B VPCF117FX/H VPCF119* VPCF1190S*
American	US Canadian	VPCF110FL/BI VPCF111FB/B VPCF112HB/BI VPCF1190L*
	Latin	VPCF111FD/B VPCF113FD/B VPCF117FD/B
	Quebec	VPCF111FD/B VPCF113FD/B VPCF117FD/B
European	AEP/UK	VPCF11C5E* VPCF11E1R/H VPCF11J0E/H VPCF11J1E/B VPCF11M1E/H VPCF11M1E/W VPCF11M1R/H VPCF11S1E/B VPCF11S1R/B VPCF11Z1E/BI VPCF11Z1R/BI
Asian/Oceania/ South Africa	International Korean Taiwan Chinese	VPCF115FG/B VPCF116FG/BI VPCF117HG/BI VPCF116FK/BI VPCF115FW/B VPCF116FW/BI VPCF119FC/BI

*: CTO Model



- Design and specifications are subject to change without notice.


PERSONAL COMPUTER

SONY®

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All other names of systems, products and services in this manual are trademarks or registered trademarks of their respective owners. In this manual, the (TM) or (R) mark are not specified.

The components identified by mark  contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

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 mis-treated. Do not disassemble, heat above 60°C (140°F) or incinerate. Dispose of used battery promptly. Keep away from children.

CAUTION: Changing the back up battery.


- Overcharging, short circuiting, reverse charging, mutilation 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  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 270°C.
- 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 IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

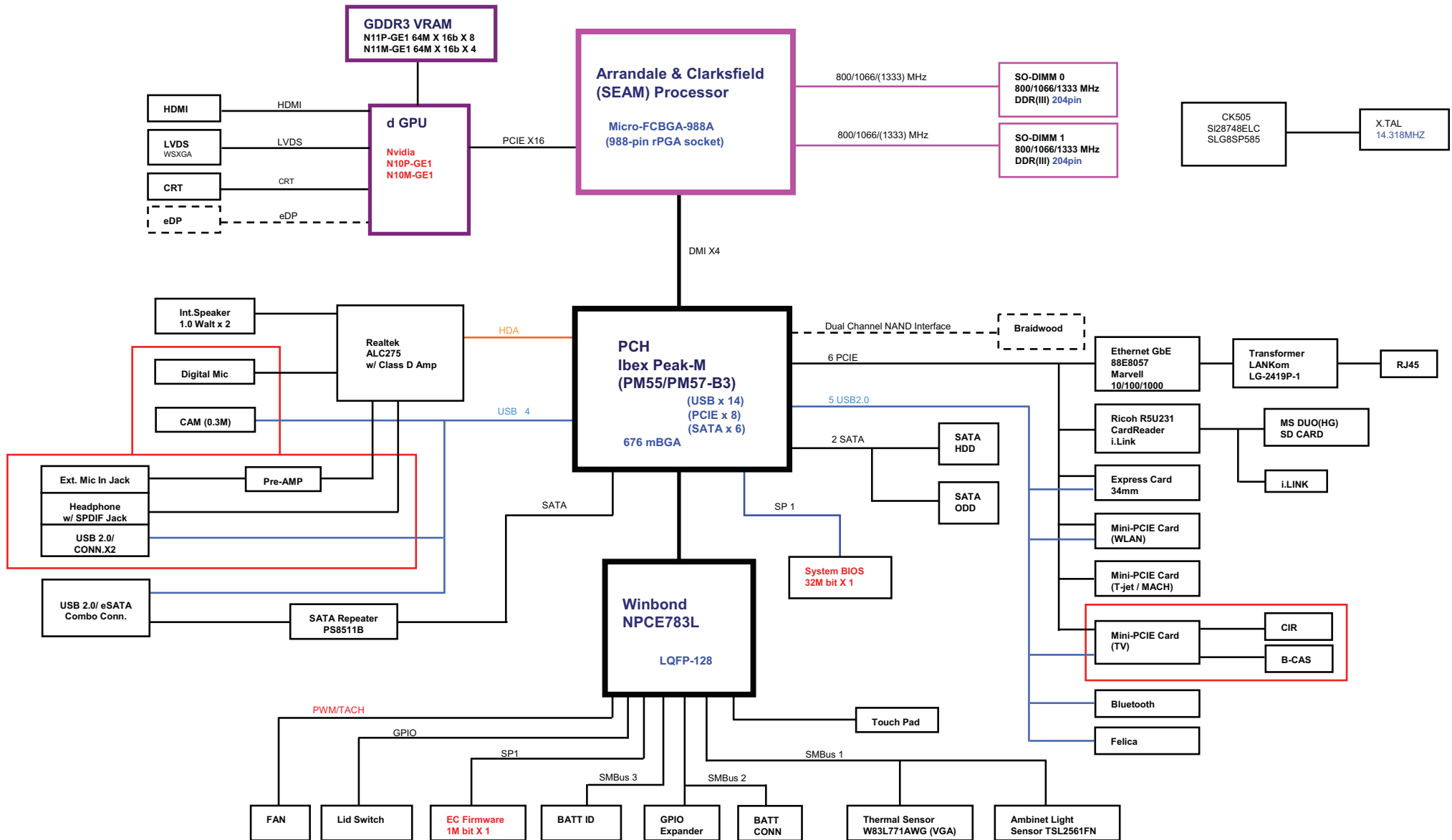
Section	Title	Page
CHAPTER1. BLOCK DIAGRAM		
1-1.	VPCF1 Series.....	1-1
		(to 1-1)
CHAPTER2. FRAME HARNESS DIAGRAM		
2-1.	VPCF1 Series (TOP).....	2-1
2-2.	VPCF1 Series (BOTTOM).....	2-2
		(to 2-2)
CHAPTER3. EXPLODED VIEWS AND PARTS LIST		
	Note.....	3-2
	Screws	
	S-1. Screws.....	3-3
	Palmrest	
	P-1. Palmrest.....	3-4
	Main Board	
	M-1. Main Board.....	3-5
	Bottom	
	B-1. Bottom.....	3-6
	Cabinet Cover	
	C-1. Cabinet Cover.....	3-7
	ODD	
	D-1. ODD.....	3-8
	HDD	
	H-1. HDD.....	3-9
	LCD	
	L-1. LCD.....	3-10
	Accessories	
	A-1. Accessories.....	3-11
	DIP Switch.....	3-12
		(to 3-12)

Section	Title	Page
CHAPTER4.OTHERS		
4-1.	Replacing the CPU	4-1
4-2.	Holding Method of Motherboard.....	4-2
		(to 4-2)

- SPECIFICATIONS are listed on page 3-1 of “CHAPTER3. EXPLODED VIEWS AND PARTS LIST.
 - History of the changes is shown as the “Revision History” at the end of this data.

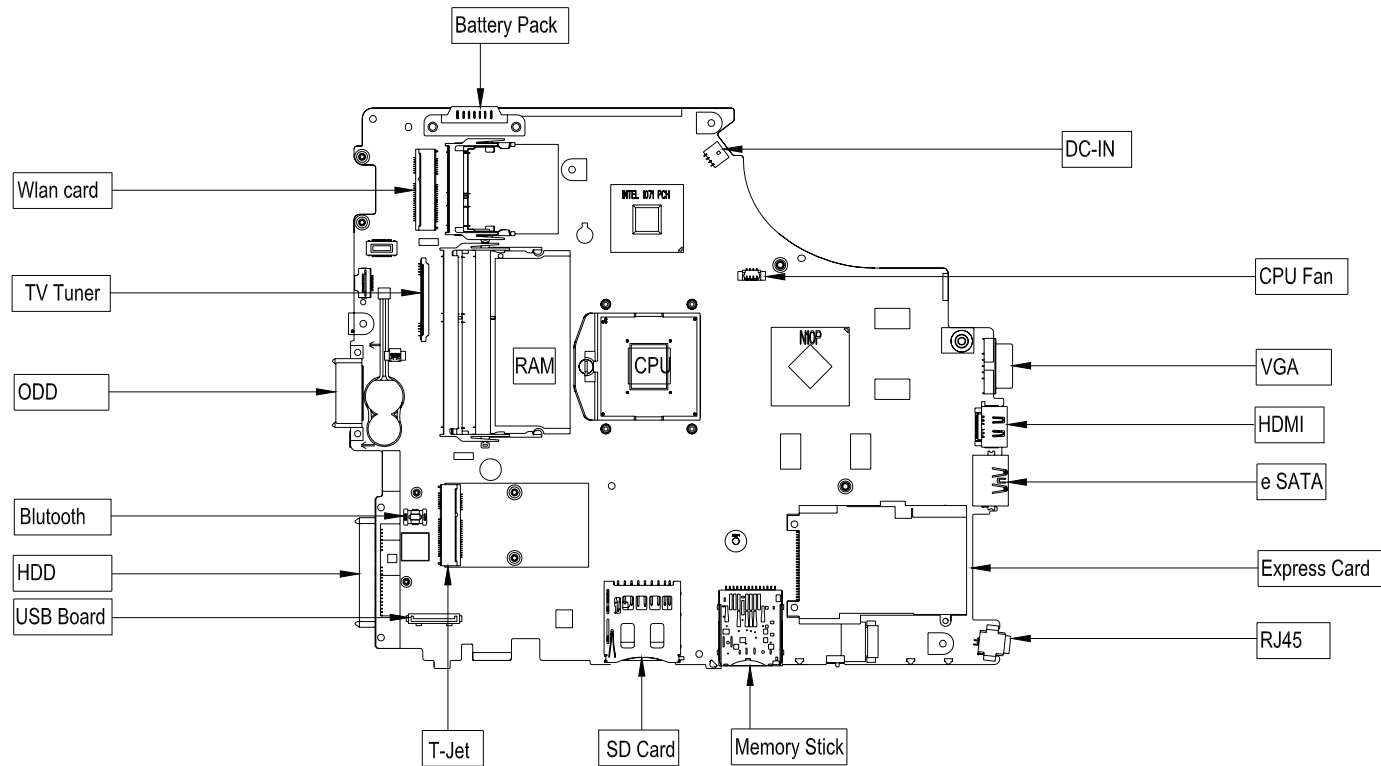
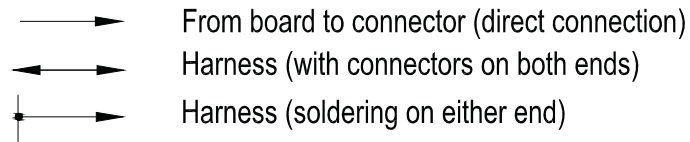
CHAPTER1. BLOCK DIAGRAM

1-1.VPCF1 Series

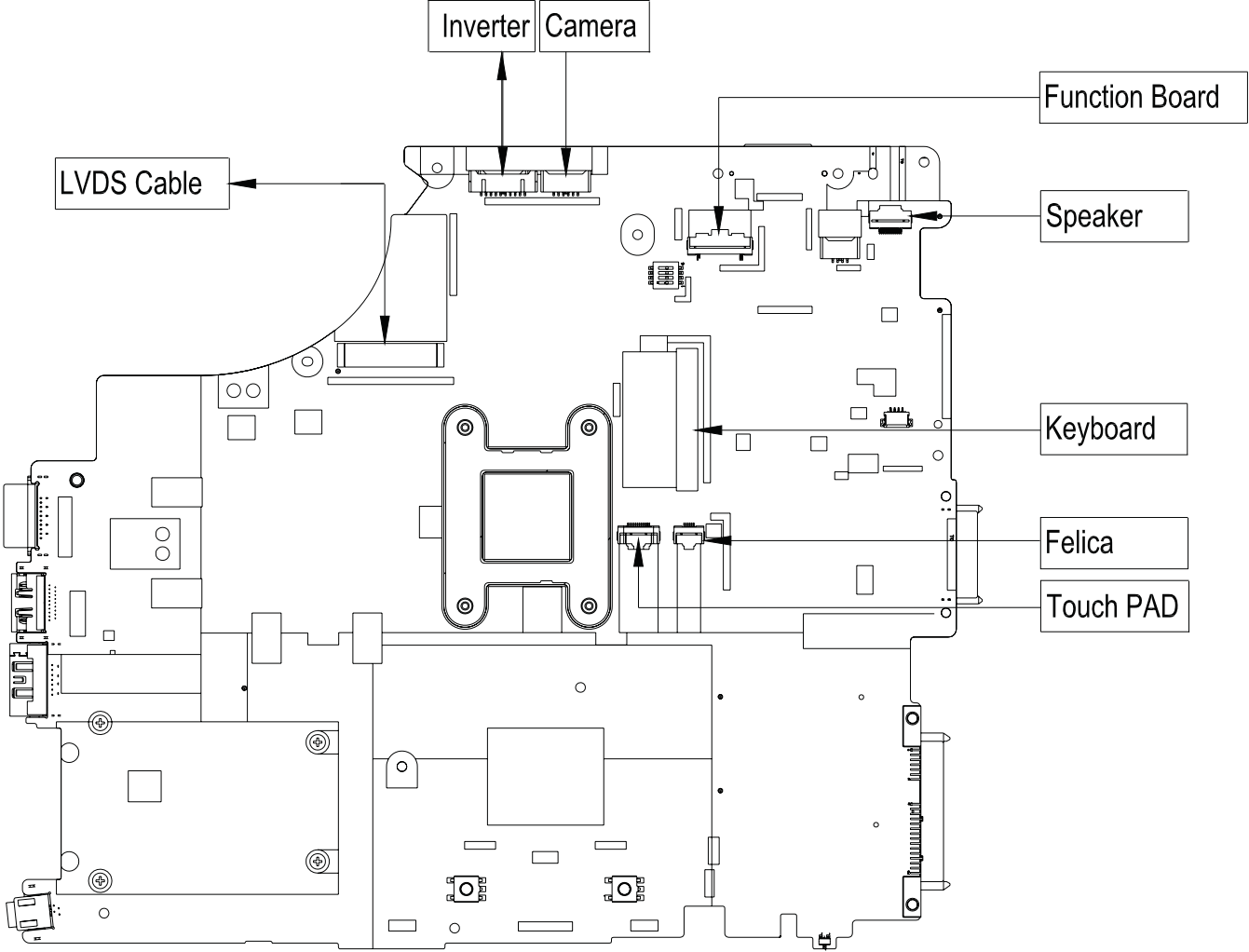


CHAPTER 2. FRAME HARNESS DIAGRAM

2-1.VPCF1 Series (TOP)



2-2.VPCF1 Series (BOTTOM)



CHAPTER 3. EXPLODED VIEWS AND PARTS LIST

• The parts list is compiled by blocks of a Palmrest and bottom etc.
The sections of the parts list are different depending on the model.
Please refer to list of contents shown.

Section	Page
Note	3-2
Screws	
S-1.Screws.....	3-3
Palmrest	
P-1.Palmrest.....	3-4
Main Board	
M-1.Main Board	3-5
Bottom	
B-1.Bottom.....	3-6
Cabinet Cover	
C-1.Cabinet Cover.....	3-7
ODD	
D-1.ODD.....	3-8
HDD	
H-1.HDD.....	3-9
LCD	
L-1.LCD.....	3-10
Accessories	
A-1.Accessories.....	3-11
DIP Switch	3-12

- Double-click on the paper clip mark in the Spec column to open the specifications list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.



	Palmrest	Main Board	Bottom	ODD	HDD	LCD	Accessories	Spec
J	F117FJ/W	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F118FJ/W	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F119FJ/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11AFJ*	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11AGJ*	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11AHJ*	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11ZHJ*	P-1	M-1	B-1	D-1	H-1	L-1	A-1
AM	F110FL/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F111FB/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F111FD/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F111FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F111FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F112FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F112FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F112HB/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F113FD/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F113FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F113FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F114FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F114FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F116FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F115FM/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F116FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F117FD/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F117FX/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
F117FX/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1	
F119*	P-1	M-1	B-1	D-1	H-1	L-1	A-1	
F1190L*	P-1	M-1	B-1	D-1	H-1	L-1	A-1	
F1190S*	P-1	M-1	B-1	D-1	H-1	L-1	A-1	
EU	F11C5E*	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11E1R/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11J0E/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11J1E/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11M1E/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11M1E/W	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11M1R/H	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11S1E/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11S1R/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F11Z1E/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
F11Z1R/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1	
AO	F115FG/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F115FW/B	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F116FG/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F116FK/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F116FW/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
	F117HG/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1
F119FC/BI	P-1	M-1	B-1	D-1	H-1	L-1	A-1	


*: CTO Model


Note

- Parts List is attached on the upper right portion of each EXPLODED VIEW.
- 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.
- The parts marks “\$” are the Reuse Parts.
- The parts marks with “&” indicates specific parts handling for Japan region. Disregard “&” marking for other than Japan region.
- Color after description in [] shows color variation name of the main body.
- The model that is accompanied by asterisk (*) is the CTO model.
- When replacing the HDD of RAID setting, please exchange to the same HDD that was installed.

Basically, the parts marked “●” should be used for service.
 The parts marked “□” in the parts list are substitution parts.
 If the part marked “●” is not available, you can order the parts marked “□”, but it may not be stocked.

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

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

The components identified by mark  contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

- If there is the Remarks column in the parts list, the features of applicable models are indicated in it for the parts that are different depending on each model. For the abbreviations used in the remarks column, please refer to the <table 1>.










<table 1>

Full-Name	Short-Name
Bluetooth	BT
Felica	Felica
Wireless WAN	WAN
Wireless LAN	WLAN
1seg Tuner	1seg
Finger Print Sensor	FP
Security Chip	TPM
Flash Memory	F Mem
Camera	Camera

- If “No-” is described on the left side of the Short-Name, it means ‘not equipped’.
 Example: “No-BT” “No-Felica” etc.
- When several descriptions are listed, each description is separated with “, (comma)” or “or”. “Comma” means plus.
 Example.1: The parts for the model equipped with BT and Felica and WLAN →BT, Felica, WLAN
 Example.2: The parts for the model equipped with BT or Felica →BT or Felica
- If the color is in the remarks column, it indicates the color of parts itself.

S-1. Screws

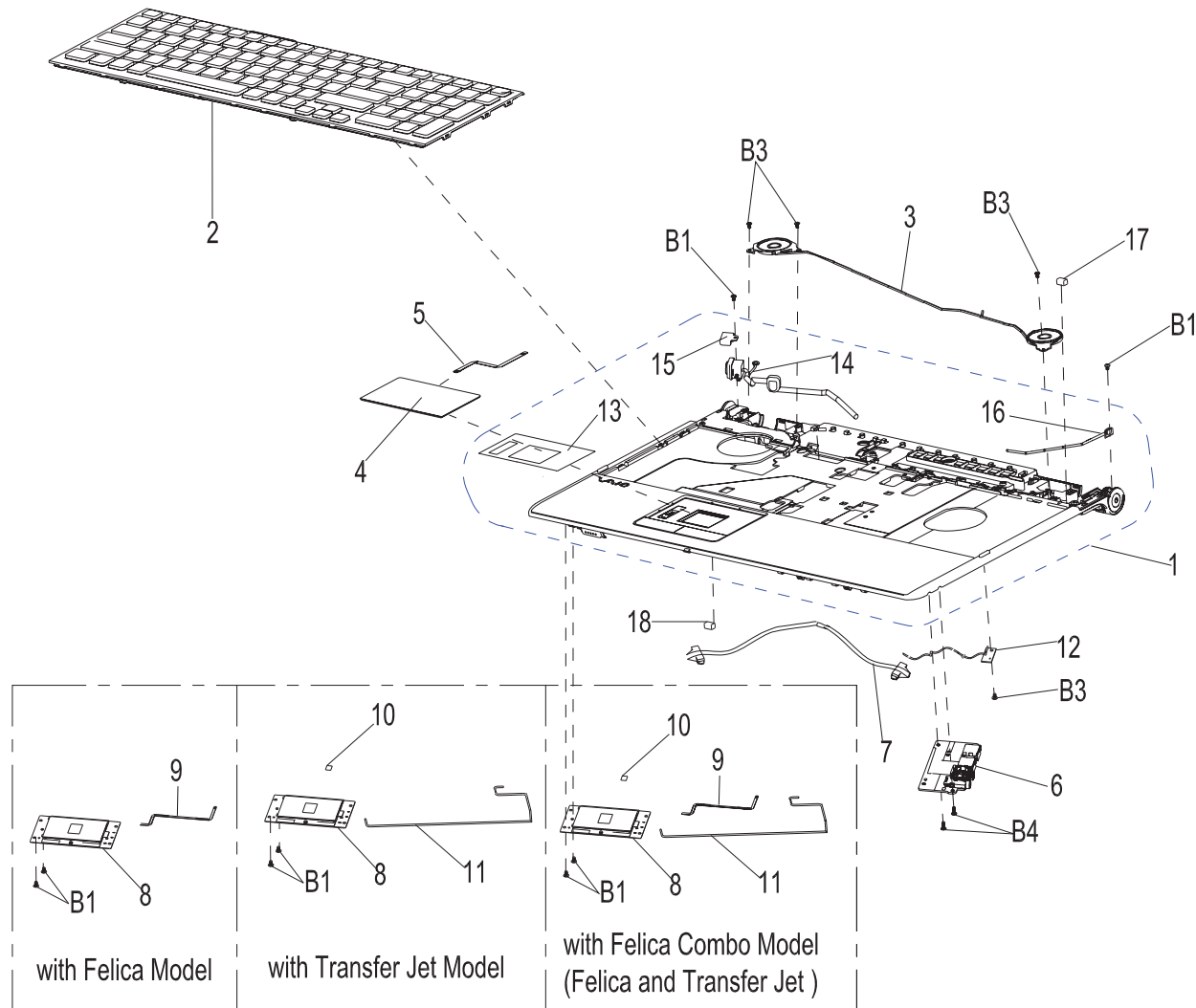
- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.

B1	B2	B3	B4	B5	B6	B7	B8	B9
								
M2*L2	M2*L2.5	M2*L3	M2*L5	M2*L8	M2*L12	M3*L8	I2*L2	M3*L3
Black	Silver	Black	Black	Black	Black	Black	Silver	Silver

P-1. Palmrest

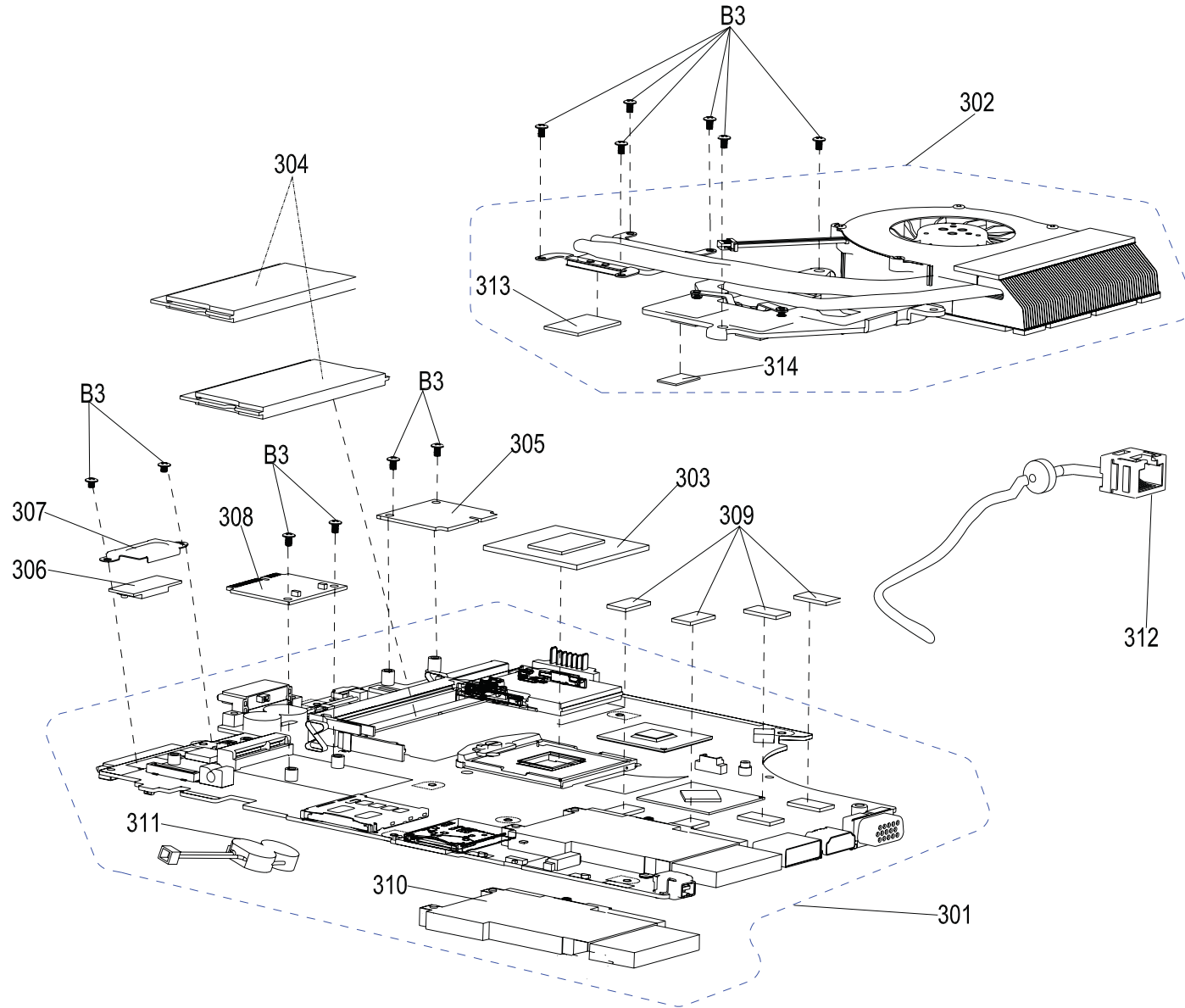


- Double-click on the paper clip mark to open the parts list.
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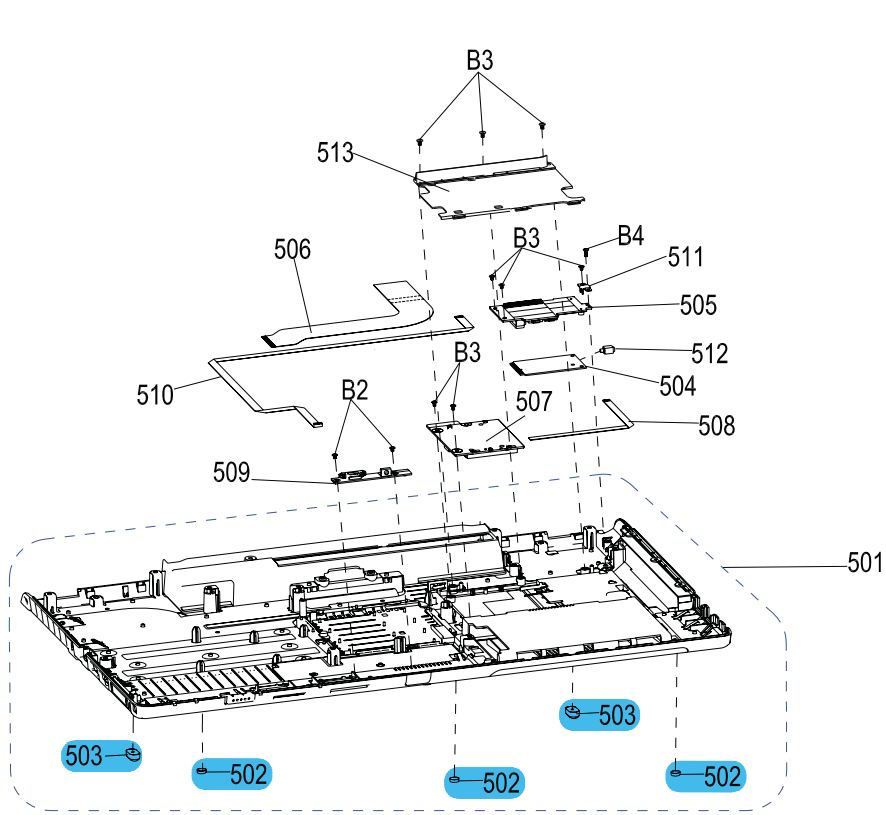
M-1. Main Board

- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.

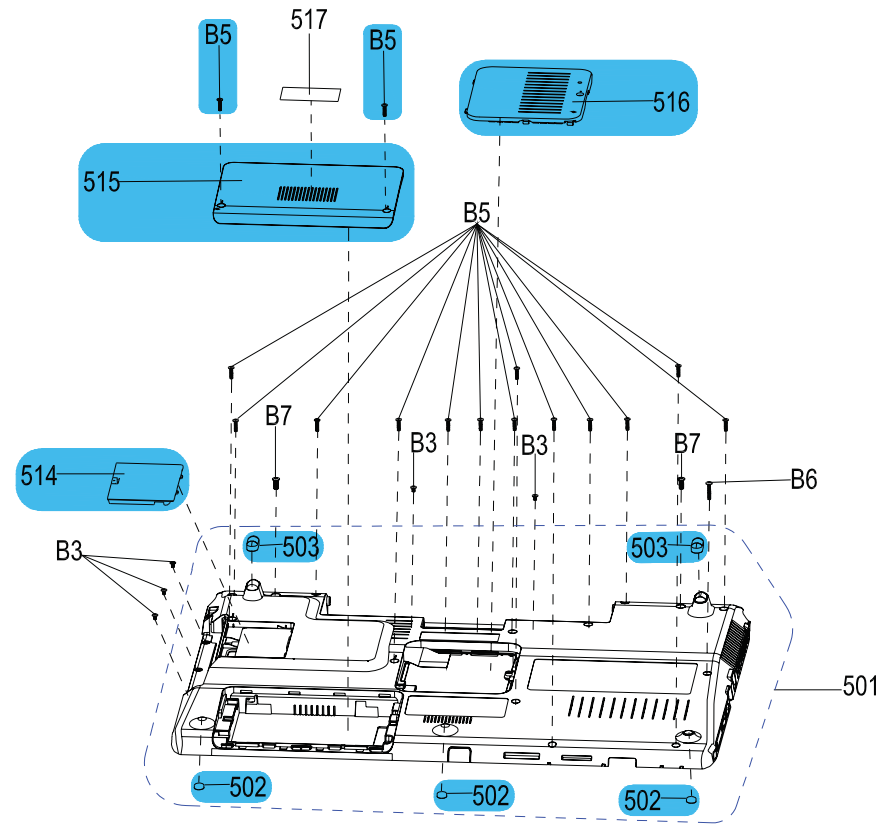


B-1. Bottom

- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.



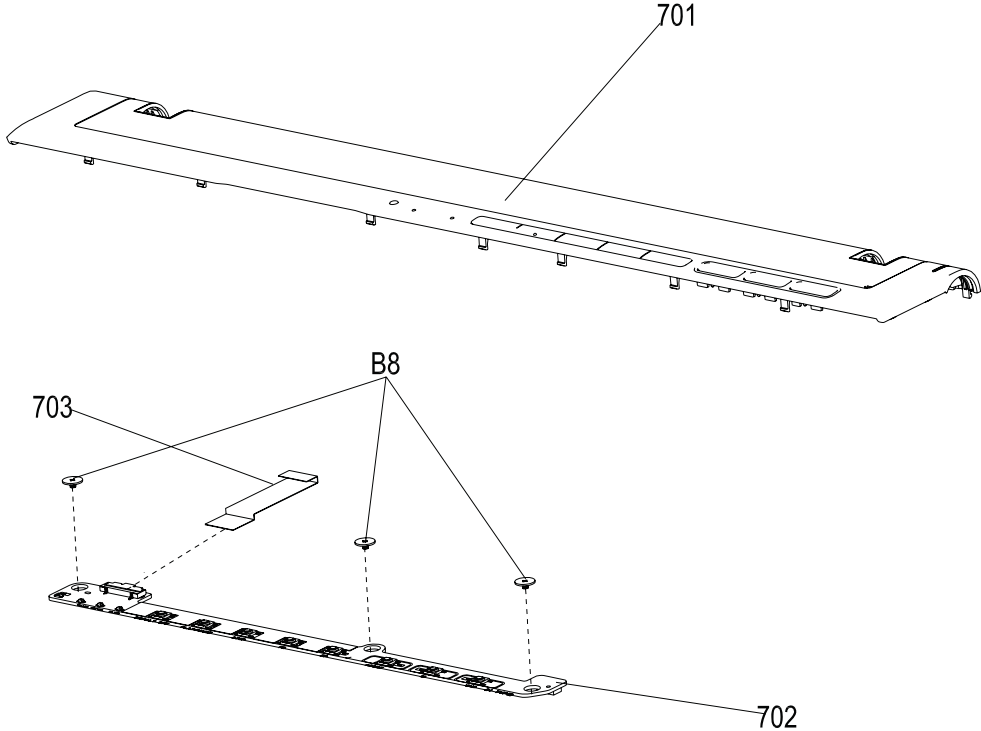
TOP VIEW



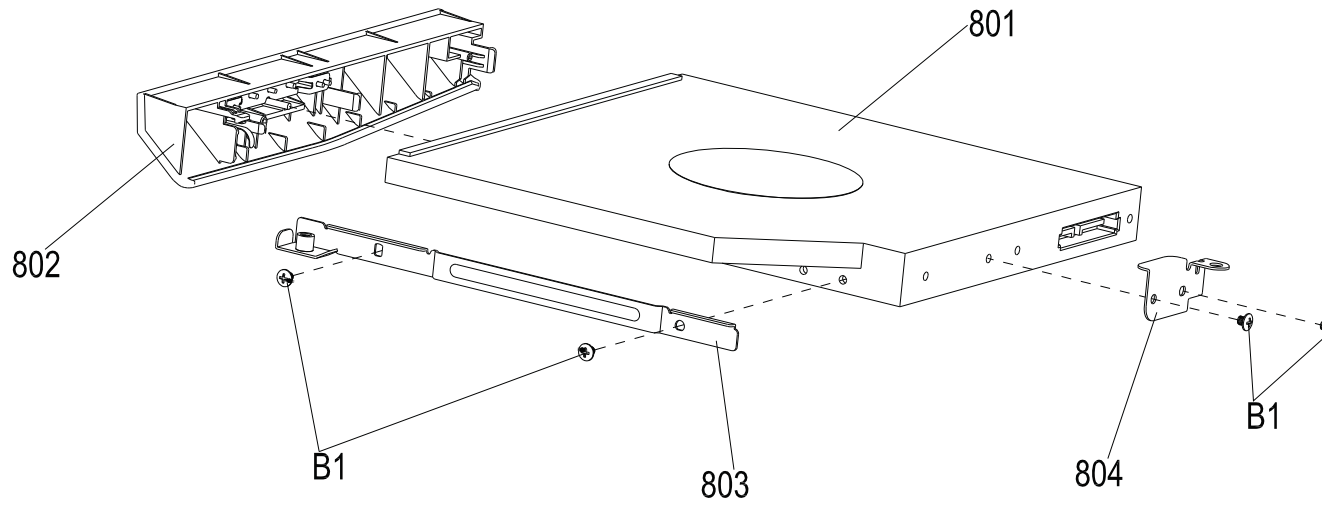
BOTTOM VIEW

C-1. Cabinet Cover

- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.

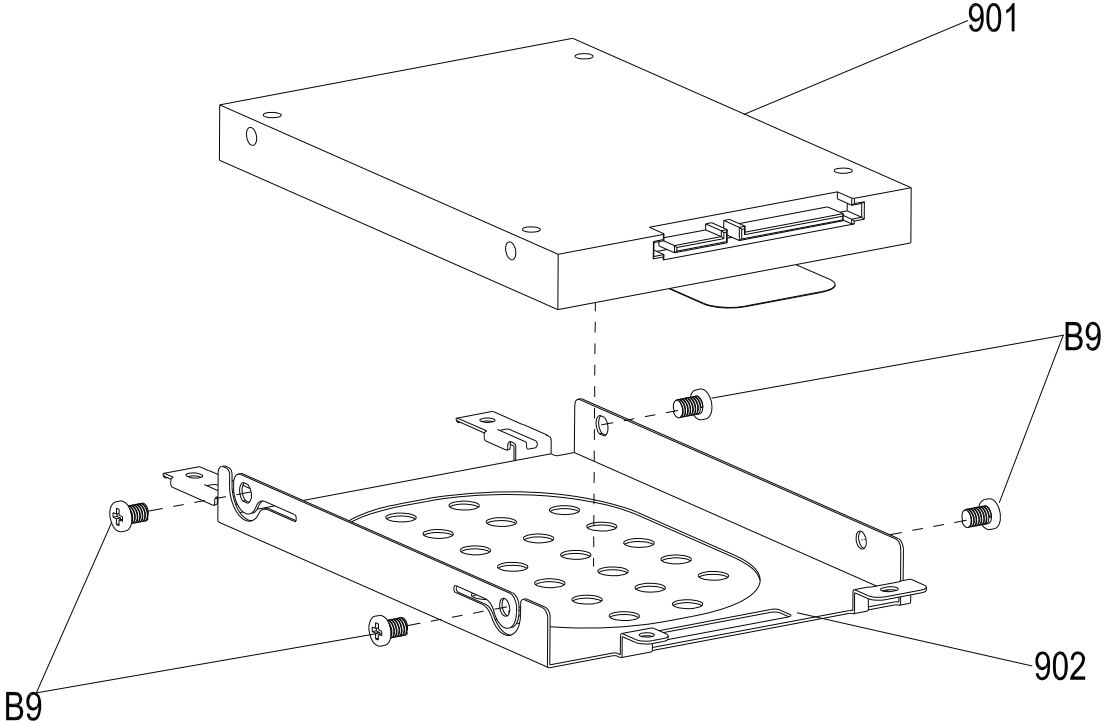


- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.



H-1. HDD

- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.

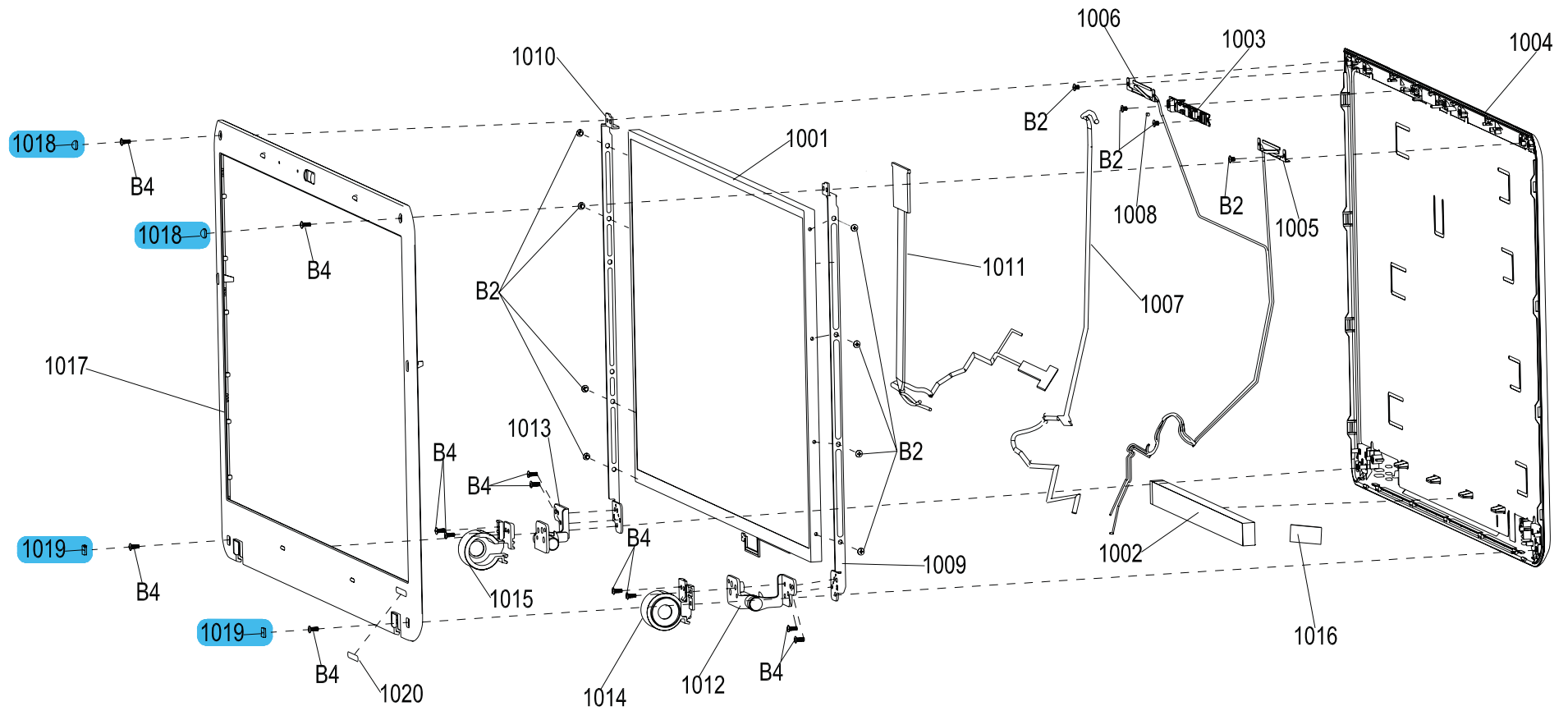


L-1. LCD

Parts List



- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.



A-1. Accessories

- Double-click on the paper clip mark to open the parts list.
- To open the parts list, Microsoft office Excel or Excel viewer is required.

2005
Power Cord



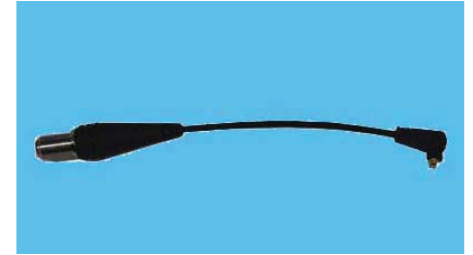
2006
AC Adapter



2007
Battery Pack



2013
RF External Cable



2014
Remote Commander

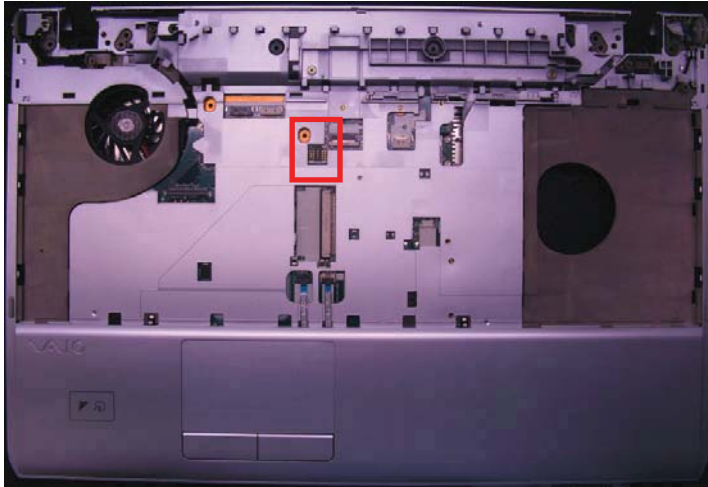


2018
HDMI Cable



DIP Switch

DIP Switch Location



DIP switch setting is different by the type of LCD.
For setting method, please refer to the table.

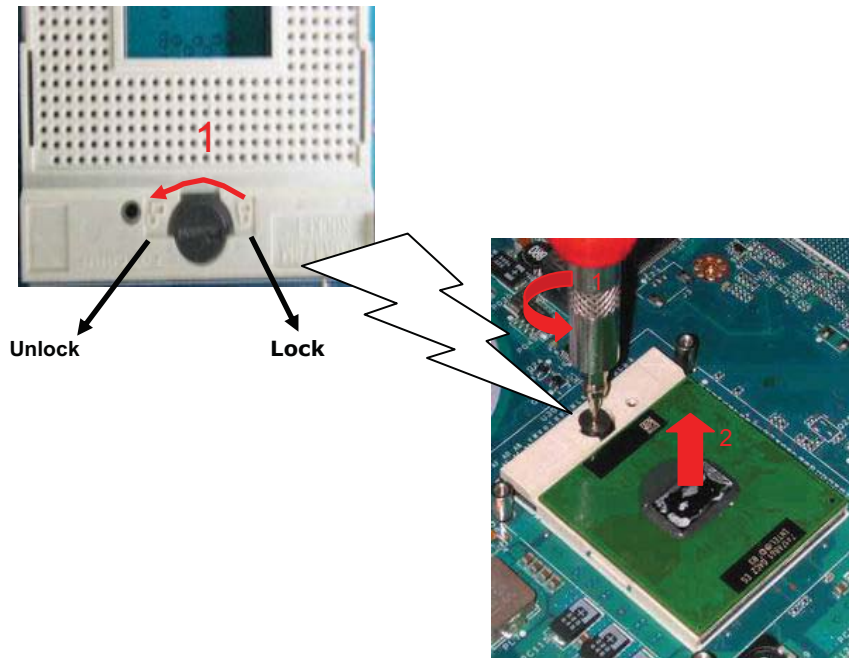
<p>VPCF111FD/F111FX/F112FD/F112FX/F113FX/F114FX/F119*/F1190L*/F1190S* (AM) VPCF11C5E*/F11E1R/H (EU) VPCF115FG/F115FW (AO)</p> <p>16.4/A-HD_HDAR/EEBR (Sharp) (A-1756-572-A) (A-1562-369-B)</p>
<p>VPCF111FD/F111FX/F112FD/F112FX/F113FX/F114FX/F119*/F1190L*/F1190S* (AM) VPCF11C5E*/F11E1R/H (EU) VPCF115FG/F115FW (AO)</p> <p>16.4/A-HD_HDAR/EEBR (LGD) (A-1707-449-D)</p>
<p>VPCF119FJ/F11AFJ*/F11AGJ*/F11AHJ*/F11ZHJ* (JP) VPCF110FL/F111FB/F112HB/F11J1E/F11S1E/F11Z1E/F11Z1R (AM) VPCF11C5E*/F11J1E/F11S1E/F11Z1E/F11Z1R (EU) VPCF117HG/F119FC (AO)</p> <p>16.4/Full-HD_HDAR/HC_SlimAdobe_BP (Sharp) (A-1772-658-A)</p>
<p>VPCF117FJ/F118FJ/ F11AFJ*/F11AGJ*/F11AHJ*/F11ZHJ* (JP) VPCF115MB/F116FX/F117FD/F117FX/ F119*/F1190L*/F1190S* (AM) VPCF11C5E*/ VPCF11J0E/HF11M1E/F11M1R/F11S1R (EU) VPCF116FG/F116FK/F116FW (AO)</p> <p>16.4/A-HD_HDAR/EEBR (Sharp) (A-1772-659-A)</p>

CHAPTER 4. OTHERS

4-1. Replacing the CPU

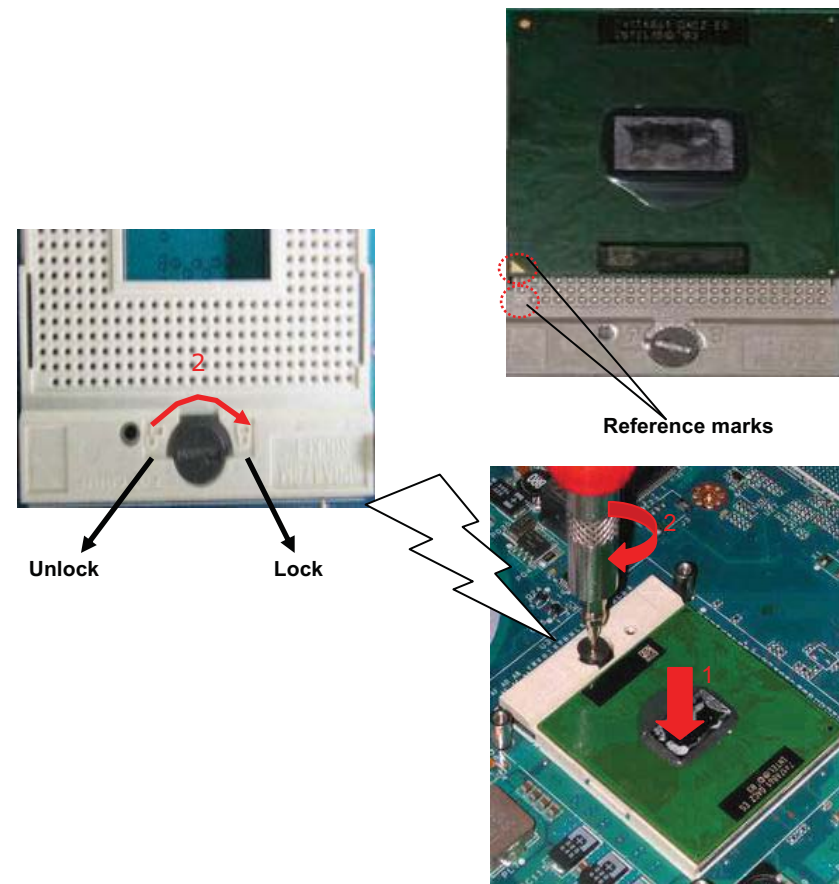
1. Removing the CPU

1. Insert a flat-blade screwdriver into the notch as shown illustration and rotate it so that the protrusion comes to the lock release position.
2. Pull the CPU gently upward to lift it out of the CPU socket



2. Installing the CPU

1. Align the triangle reference mark of the mark the CPU with that of the CPU socket and insert all the pins of the CPU to the corresponding holes of the CPU socket.
2. Insert the flat head (-) screwdriver into the specified position and rotate the screwdriver to the LOCK position.

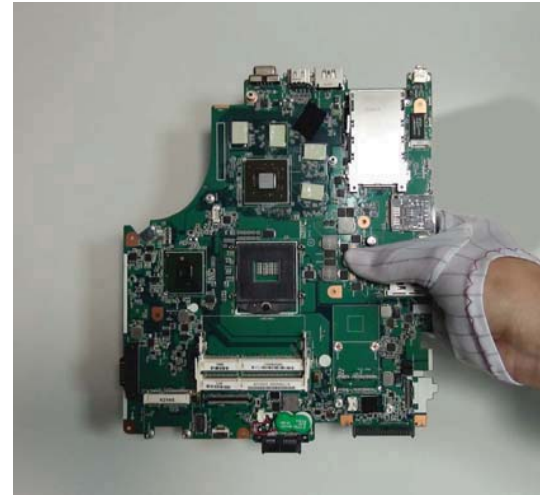


4-2 Holding Method of Motherboard

1. When operating with both hands, gently hold the middle of Main board edge as show.
2. When operating with one-hand, gently hold the middle of Main board edge and keep vertical.



(Level)



(Vertical)



VPCF1 Series (J/AM/EU/AO)

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Revision History

Suffix	Ver.	Date	Contents	QM No.
-01	Ver.1	2009.12.29	First Edition	
-02	Ver.2	2010.02.01	[ADD] Page3-4, Page3-6, Page3-8, Page3-9, Page3-10, Page3-11	
-03	Ver.3	2010.04.09	[ADD][CHG][COR] Page3-5, Page3-6, Page3-8, Page3-9, Page3-10,Page3-11, Page3-12	
-04	Ver.4	2010.05.10	[ADD][CHG] Page3-5, Page3-10, Page3-11	
-05	Ver.5	2010.07.02	[ADD][DEL]Page3-4, Page3-5, Page3-6, Page3-10	
-06	Ver.6	2010.11.01	[ADD] Page3-4, Page3-6, Page3-9, Page3-11	
-07	Ver.7	2011.03.08	[ADD][DEL] Page3-4, Page3-5, Page3-8, Page3-10, Page3-11	
-08	Ver.8	2011.07.01	[ADD][CHG] [DEL] Page3-5, Page3-8, Page3-11	
-09	Ver.9	2011.12.09	[ADD][CHG] [DEL] Page3-4, Page3-5, Page3-8, Page3-11	
-10	Ver.10	2012.06.15	[ADD][CHG] [COR] Page3-9, Page3-10, Page3-11	
<Remarks>				