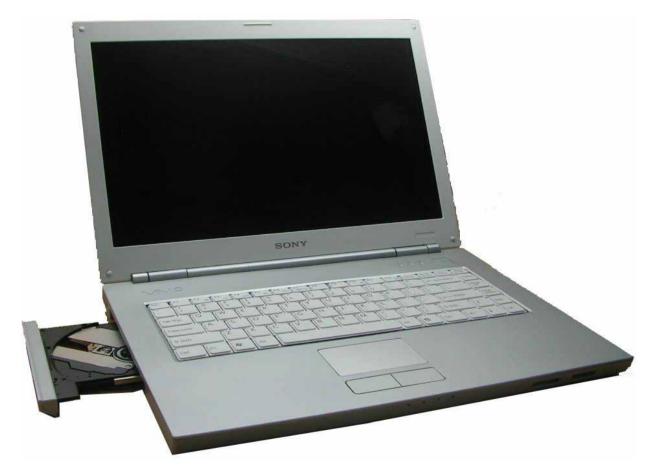
VGN-N Series

VGN-N SERIES



VGN-N Series – Preliminary Considerations

Safety Precautions

In order to prevent harm to both yourself and the unit, ALWAYS disconnect all peripherals and cables, and unplug the AC Adapter before performing any repairs on the unit. Shoes with non-conductive rubber soles should be worn to minimize the chance of shock or injury.

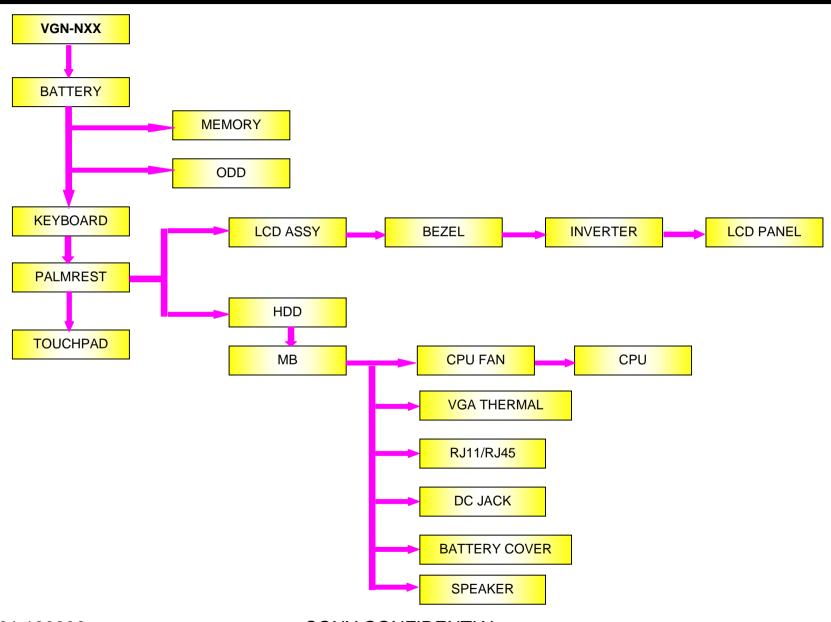
ESD Protection

The components of the VGN-N Series are susceptible to damage caused by ESD (electrostatic discharge). Always follow proper grounding procedures and utilize appropriate equipment such as a wrist grounding strap and anti-static mat when performing any repairs on the unit. If a properly grounded wrist strap is not available, touch an unpainted metal surface of the computer chassis to discharge static electricity. This should be done periodically during the repair to discharge any static charge that has been accumulated. When removing a component from the system, be sure to place it on an anti-static mat.

Cosmetic Care

Always protect both the unit and the repair surface from scratches, dings, dents, and other cosmetic damage by placing a protective mat between the unit and the repair surface. Never place an LCD face-down on an unprotected surface.

VGN-N Series – Flow Chart



Rev 1.01.100906 SONY CONFIDENTIAL 3

VGN-N Series - Screws



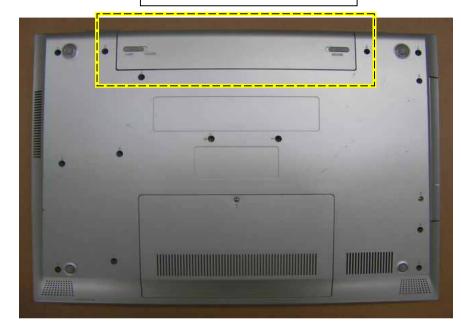
Screw needed for Disassembly

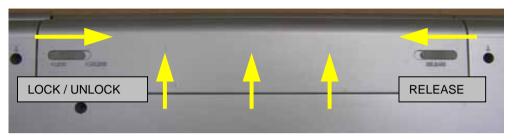
Station	Screw model		Amount
ODD	В3	M2*L7	2
KEYBOARD	В3	M2*L7	1
воттом	В3	M2*L7	12
воттом	B7	M2*L3	3
воттом	B2	M2*L1.8	3
BATTERY COVER	B2	M2*L1.8	1
PALMREST	B9	M2*L10	1
HINGE	B1	M3*L6	6
HDD	B9	M2*L10	2
MOTHERBOARD	B3	M2*L7	3
CPU FAN	B4	M2*L5	4
VGA THERMAL	B4	M2*L5	2
LCD BEZEL	B4	M2*L5	4
SPEAKER	B10	T2*L3	4

VGN-N Series - Battery Removal

1)

OVERVIEW-BACK





PRESS THE UNLOCK TAB AND THE RELEASE TAB TOWARDS THE CENTER OF THE BATTERY. SLIDE THE BATTERY AWAY THE SYSTEM.

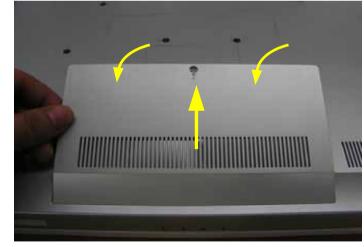
VGN-N Series - Memory Removal

1)

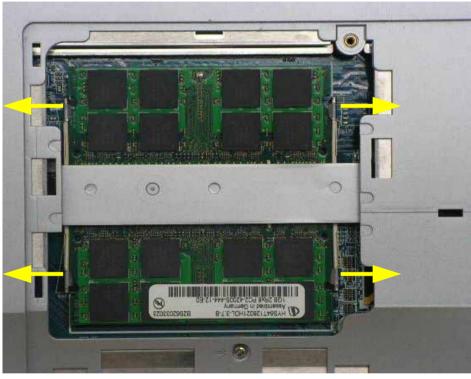


LOOSEN ONE RETAINED SCREW

2)



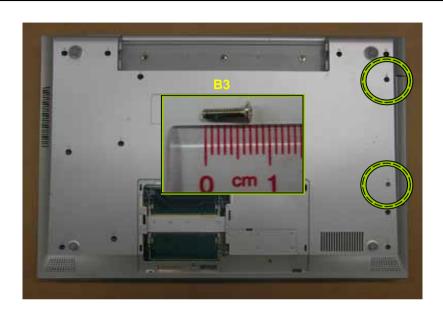
ROTATE THE RAM DOOR FROM THE UPPER EDGE AND LIFT UP



REMOVE EACH RAM MODULE BY RELEASING THE CLIPS AND LIFTING THE RAM FROM THE SOCKET

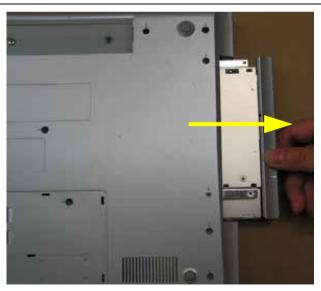
VGN-N Series - Optical Drive Removal

1)



REMOVE TWO SCREWS

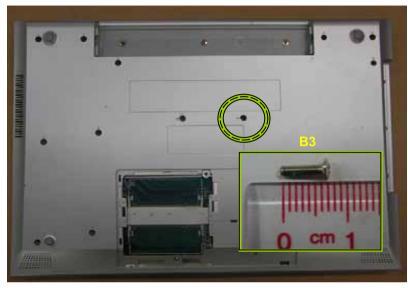
2)



SLIDE THE OPTICAL DRIVE OUT OF THE SYSTEM

VGN-N Series - Keyboard Removal

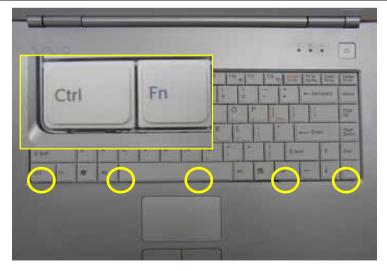
1)



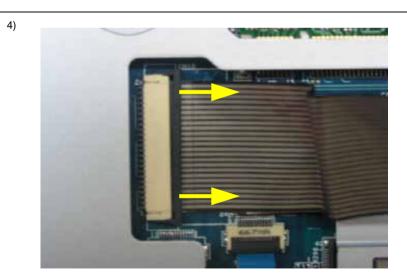
REMOVE ONE SCREW



ROTATE THE KEYBOARD FROM THE BOTTOM TO REMOVE



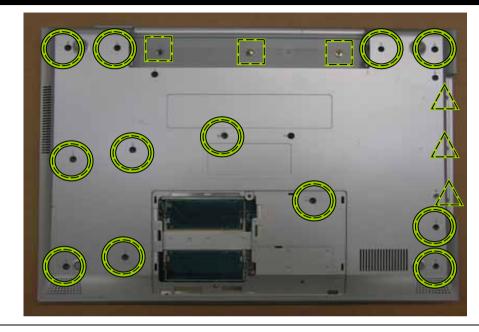
RELEASE FIVE TABS FROM THE BOTTOM OF THE KEYBOARD



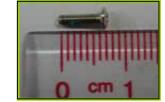
DISCONNECT THE KEYBOARD CABLE

VGN-N Series - Palmrest Removal

1)



B3

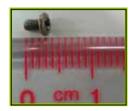


B2



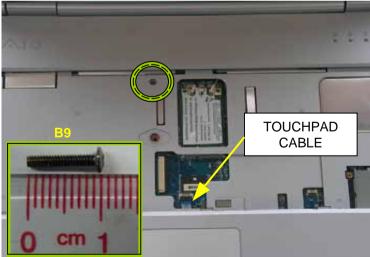
B7



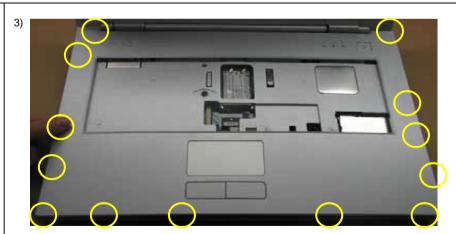


REMOVE EIGHTEEN SCREWS FROM THE PALMREST. NOTE THERE ARE THREE DIFFERENT LENGTHS





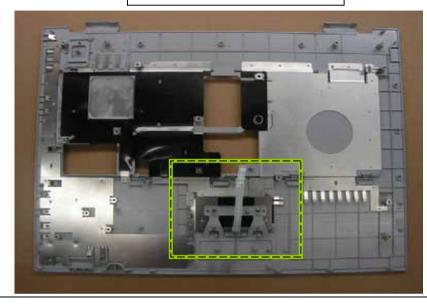
DISCONNECT THE TOUCHPAD CABLE. REMOVE ONE SCREW

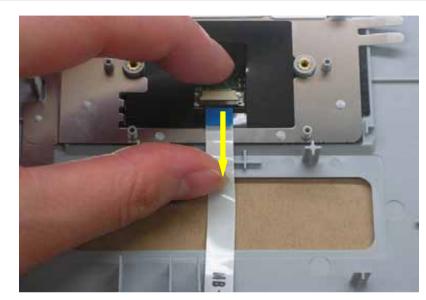


LIFT THE PALMREST FROM THE FRONT EDGE. GENTLY RELEASING THE DETENTS

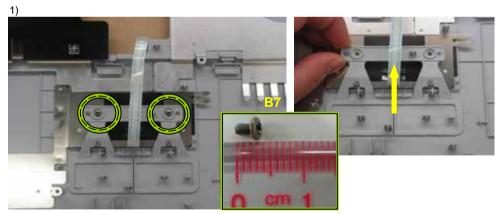
VGN-N Series - Touchpad Removal

OVERVIEW-BACK





DISCONNECT THE TOUCHPAD CABLE



REMOVE TWO SCREWS. LIFT THE TOUCHPAD BUTTONS FROM THE TOP EDGE

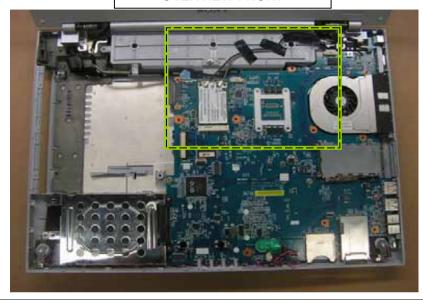


THE TOUCHPAD IS AFFIXED TO THE PALMREST WITH DOUBLE-SIDED ADHESIVE

Rev 1.01.100906 SONY CONFIDENTIAL 10

VGN-N Series - Wireless LAN Card Removal

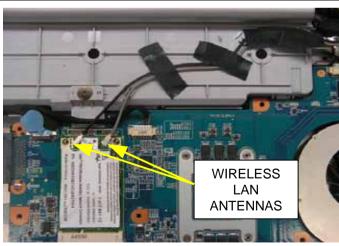
OVERVIEW-FRONT





RELEASE THE WIRLESS CARD BY PRESSING THE TWO CLIPS AWAY FROM THE CARD

1)



DISCONNECT THE WLAN ANTENNAS. NOTE THE ROUTING OF THE ANTENNAS



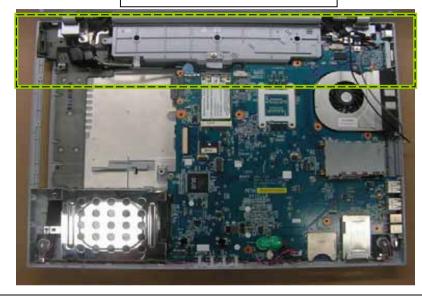
LIFT THE SIDE OF THE WIRELESS CARD UP. REMOVE THE CARD AWAY FROM THE SOCKET

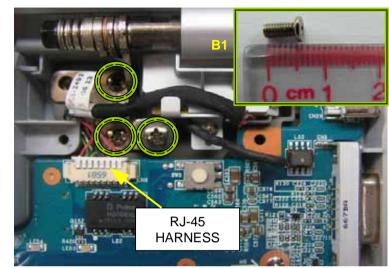
Rev 1.01.100906

2)

VGN-N Series - LCD Assembly Removal

OVERVIEW-FRONT





DISCONNECT THE RJ-45 HARNESS. REMOVE THREE SCREWS ON THE RIGHT HINGE AND LIFT LCD ASSEMBLY FROM THE SYSTEM

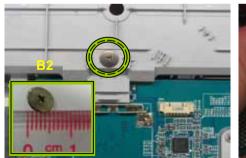
1)



DISCONNECT THE TWO CONNECTORS ON THE LCD HARNESS. REMOVE THREE SCREWS FROM THE LEFT HINGE

3)

2)



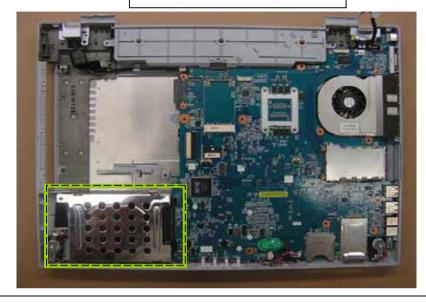


REMOVE ONE SCREW FROM THE LCD HARNESS ROUTING GUIDE. LIFT THE ROUTING GUIDE UP

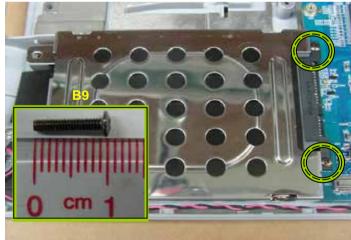
Rev 1.01.100906 SONY CONFIDENTIAL 12

VGN-N Series - Hard Drive Removal

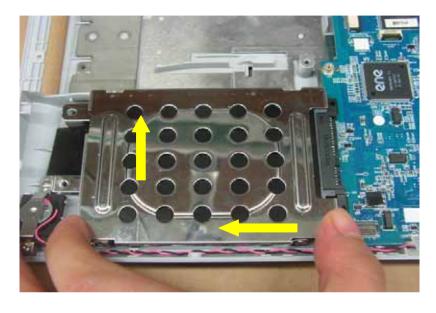
OVERVIEW-FRONT







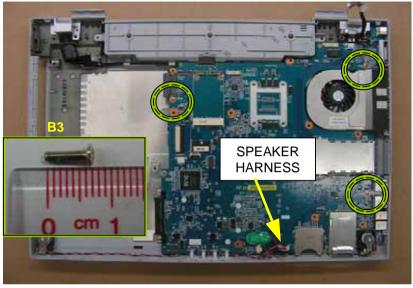
REMOVE TWO SCREWS



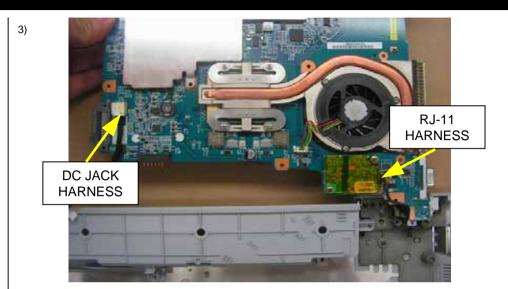
SLIDE THE HDD TO THE LEFT AND LIFT UP

VGN-N Series - Motherboard Removal

1)



DISCONNECT THE SPEAKER HARNESS. REMOVE THREE SCREWS



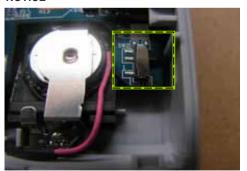
GENTLY TURN THE MOTHERBOARD OVER AND DISCONNECT THE DC JACK HARNESS AND THE RJ-11 HARNESS

2)



LIFT UP THE LEFT SIDE OF THE MOTHERBOARD AND SLIDE THE MOTHERBOARD TO THE LEFT TO REMOVE

NOTICE



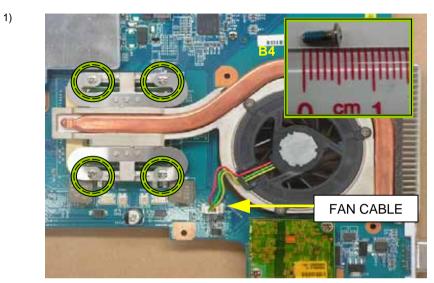


WHEN INSTALLING THE MOTHERBAORD. ENSURE THE WIRELESS LAN SWITCH ON THE MOTHERBOARD IS IN THE SAME POSITION THE WIRELESS LAN SWITCH ON THE BOTTOM HOUSING

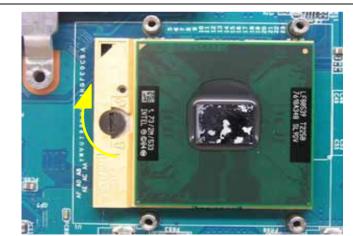
VGN-N Series - CPU Removal

OVERVIEW-BACK





DISCONNECT THE CPU FAN. REMOVE FOUR SCREWS AND LIFT THE COOLING UNIT UP



RELEASE THE CPU LOCK BY ROTATING THE LOCK CLOCKWISE WITH A FLAT-BLADE SCREWDRIVER. CAREFULLY LIFT THE CPU UP

Rev 1.01.100906 SONY CONFIDENTIAL 15

VGN-N Series - VGA Thermal Removal

OVERVIEW-BACK



REMOVE TWO SCREWS AND LIFT THE VGA THERMAL UNIT UP

Rev 1.01.100906 SONY CONFIDENTIAL 16

VGN-N Series - RJ-11/RJ-45 Harness Removal

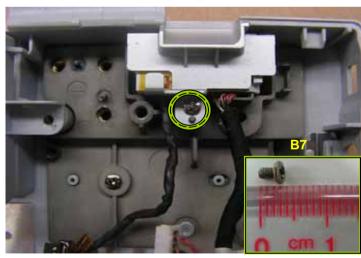
OVERVIEW-FRONT



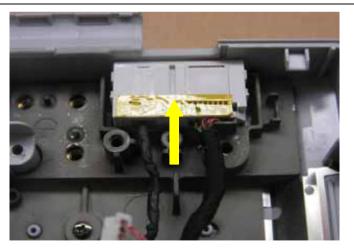


RELEASE THE CLIP ON EACH SIDE OF THE RJ-11 /RJ-45 BRACKET AND LIFT THE BRACKET UP

1)



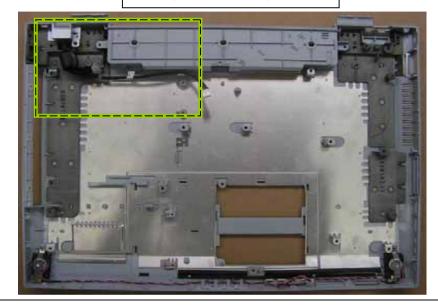
REMOVE ONE SCREW FROM THE RJ-11 /RJ-45 HARNESS



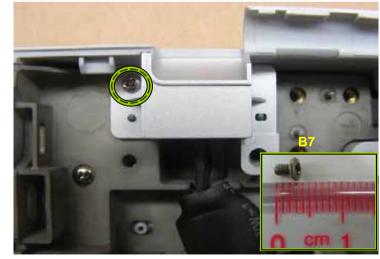
LIFT THE RJ-11 /RJ-45 HARNESS UP

VGN-N Series - DC Jack Harness Removal

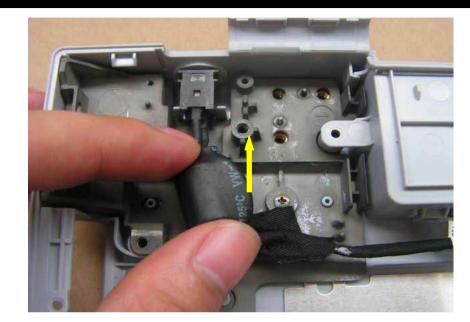
OVERVIEW-FRONT







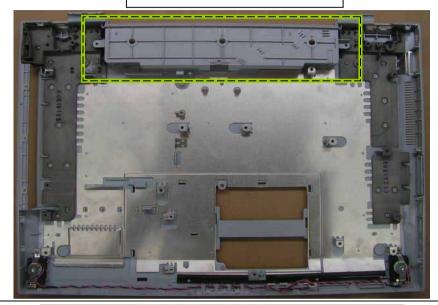
REMOVE ONE SCREW AND LIFT THE DC JACK BRACKET UP



LIFT THE DC JACK HARNESS UP

VGN-N Series - Battery Bay Cover Removal

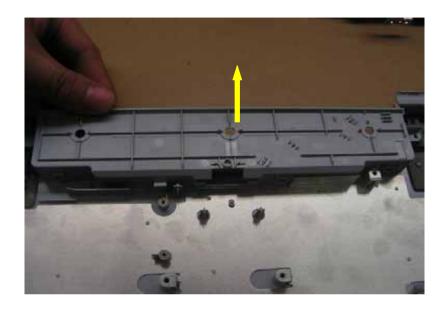
OVERVIEW-FRONT







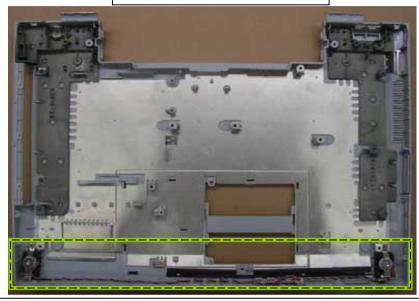
GENTLY RELEASE THE FOUR CLIPS ON THE BATTERY BAY COVER



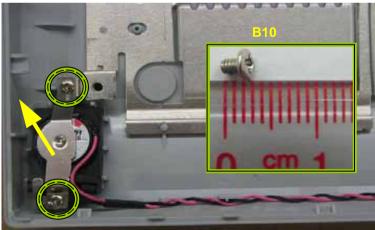
LIFT THE BATTERY BAY COVER UP

VGN-N Series - Speaker Removal

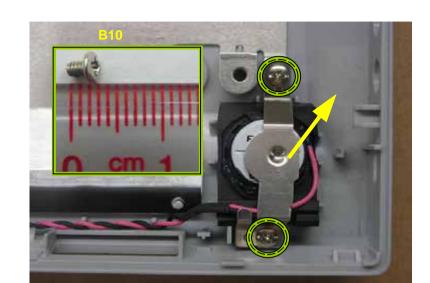
OVERVIEW-FRONT







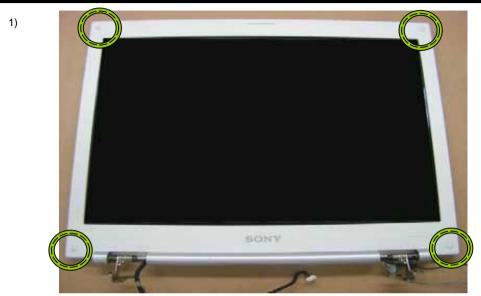
REMOVE TWO SCREWS AND LIFT THE LEFT SPEAKER BRACKET UP.NOTE THE ROUTING OF THE CABLE



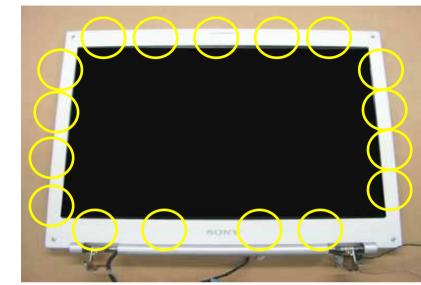
REMOVE TWO SCREWS AND LIFT THE SPEAKER BRACKET UP. LIFT THE SPEAKERS AND HARNESS UP. NOTE THE ROUTING OF THE HARNESS

Rev 1.01.100906

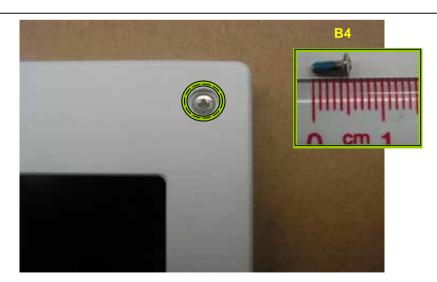
VGN-N Series – LCD Bezel Removal



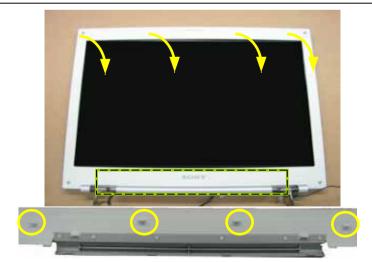
REMOVE FOUR SCREW COVERS



USING GENTLE PRESSURE FROM THE INNER EDGES. RELEASE THE DETENTS ON THE BEZEL



REMOVE ONE SCREW FROM BENEATH EACH SCREW COVER



ROTATE THE BEZEL TOWARDS THE BOTTOM OF THE UNIT TO RELEASE THE FOUR TABS

Rev 1.01.100906

2)

SONY CONFIDENTIAL

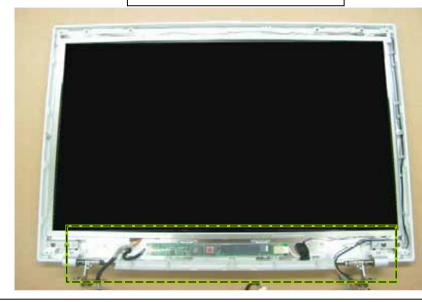
3)

21

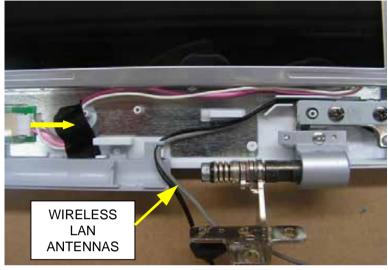
VGN-N Series – Inverter Removal

1)

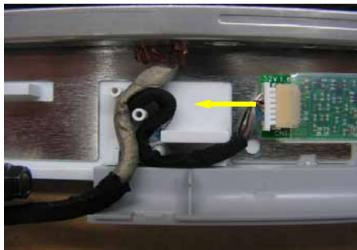
OVERVIEW-FRONT



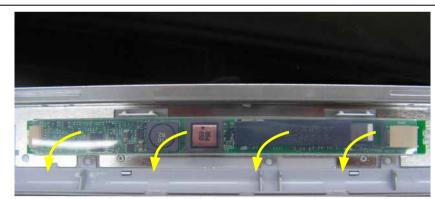
3)



DISCONNECT THE INVERTER CABLE. NOTE THE ROUTING OF THE CABLE AND THE WIRELESS LAN ANTENNAS



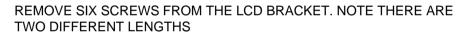
DISCONNECT THE LCD HARNESS FROM THE INVERTER. NOTE THE TOUTING OF THE HARNESS

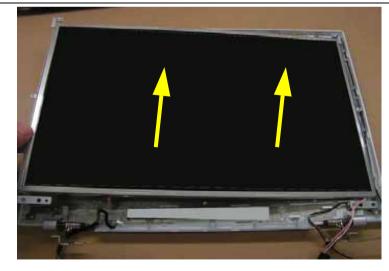


THE INVERTER IS AFFIXED TO THE DISPLAY HOUSING WITH DOUBLE SIDED ADHESIVE. GENTLY REMOVE THE INVERTER TOWARDS THE BOTTOM OF THE HOUSING.

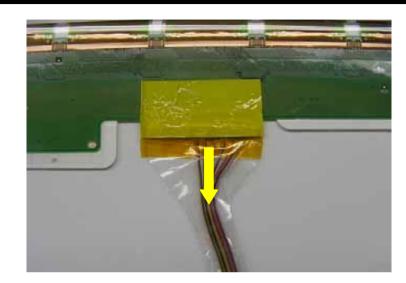
2)

VGN-N Series – LCD Panel Removal





LIFT THE LCD PANEL UP FROM THE HOUSING



REMOVE THE TAPE AND DISCONNECT THE LCD HARNESS ON THE REVERSE SIDE OF THE LCD

Rev 1.01.100906 SONY CONFIDENTIAL 23