Nitro ANV15-41 Sportage\_RBH (ZYT)

# LIFECYCLE EXTENSION GUIDE

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# Self-Repair

This chapter highlights the limited self-repair capabilities of the product.

Prior performing self-repair, familiarize yourself with the Safety Guidelines and Recommended Equipment sections first as described in the chapter "Disassembly Procedures".

Depending on model, the following key components are eligible for self-repair (if applicable);

- Battery pack
- HDD / SSD module
- DIMM module(s)
- WLAN module
- LTE module

If a particular key component is listed and thus would be eligible for self-repair, but is not described in the "Disassembly Procedures" section, then this component is either not present on the respective model, or it is present but embedded on the motherboard and therefore not eligible for self-repair.

#### ≡> NOTE:

Do not attempt to replace other components than those listed above.

#### ≡> NOTE:

For replacement parts, always use only Acer certified components in order to safeguard quality, optimum system performance, stability and reliability of the product.

#### ≡> NOTE:

Any damage to the product that occur during self-repair, or which has occurred as a result of a careless or unsuccessful self-repair attempt, is not covered by the standard product warranty.

## System BIOS & Driver Updates

Visit <u>http://www.acer.com/support</u> to discover the available system BIOS and Drivers for this product. After selecting the desired country/language, either enter the model name or product serial number, or select the product from the list of suggested models in order to get access to product-specific software and documentation.

To update the system BIOS:

- Download the desired system BIOS version from the website
- Unzip the downloaded file to your computer
- Double-click the extracted file in order to initiate the update process
- The update process itself is fully automated and its progress is visualized by means of a progress indicator
- A visual notification is shown when the update is complete

#### **≡**> NOTE:

Upgrading the system BIOS incorrectly, or intermittence of the system BIOS update process could harm the product.

#### ≡> NOTE:

System BIOS upgrades or downgrades, if not performed by an Acer Service Center or authorized Service Partner, are at own risk.

#### To update Drivers:

Run Windows Update in order to get the latest drivers from Acer:

- Select the Start **4** button
- Go to Settings 3 > Update & Security  $\bigcirc$  > Windows Update  $\bigcirc$
- Available Drivers will automatically be listed on the screen. Press **Download** to start the download of the respective driver
- Installation of the driver will start automatically once the download is completed

## Software Recovery

This product has embedded software recovery tools which can be used to either perform a partial or full software recovery, but also to create a Factory Default recovery media.

For more information about the software recovery options, how to perform a software recovery or creating a Factory Default recovery media, please refer to the chapter "Recovery" which is available in the User Manual of the product.

#### ≡> NOTE:

In the event of not being able to create a Factory Default recovery media, it is possible to obtain a copy of the recovery media through Acer Customer Service (http://www.acer.com/support)

This is not a free of charge service.

## Safety Guidelines

This chapter contains step by step procedures on how to remove and de-install components from the computer. Use the following safety guidelines to ensure your personal safety. Each procedure included in this chapter assumes that you are preparing your computer for recycling and disposal. By performing any of these procedures you acknowledge that any remaining warranty applicable to your computer will be voided. Before you start any of the procedures in this chapter, make sure to read the following safety guidelines and the respective instructions within the chapter.

#### **CAUTION!**

- Turn off your computer and disconnect all power sources before opening the computer cover or panels.
- To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface at the same time as touching a connector on the back of the computer.
- Take off any metal objects on your arms or fingers such as bracelets, rings or watches and make sure your hands are completely dry. Even if your unit is unplugged, there may still be some remaining electric charge.
- If a component does not come out easily, do not forcefully remove it. Instead, check that you are removing it correctly and that no wires or other parts are in the way.
- When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable.

## **Recommended Equipment**

The following equipment are recommended to do the following maintenance procedures:

- Wrist grounding strap and conductive mat
- Flat screwdriver
- Philips screwdriver
- Polydrive screwdriver
- Plastic tweezers
- Flat plastic pry

## WEEE Annex VII Component

These components are classified as requiring selective treatment:

- Battery pack
- SSD modules
- WLAN module
- DIMM modules
- USB board
- RTC battery
- Mainboard
- Touchpad module
- LCD panel

# Pre-disassembly Instructions

Do the following prior to starting any maintenance procedures:

- 1. Place the system on a stable work surface.
- 2. Remove the AC adapter from the DC-in jack (A) as shown in Figure 1-1.
- 3. Remove all cables from the system.



Figure 1-1. Adapter Outlet

#### ≡> NOTE:

Make sure the system is completely powered off.

1. Remove eleven (11) screws from the base cover (Figure 1-2).



Figure 1-2. Base Cover Removal

2. Carefully pry the base cover starting from the upper edges to release the upper latches (Figure 1-3).



Figure 1-3. Base Cover Removal

3. Continue to release the remaining latches on the left, right, and bottom sides. Then grasp and remove the base cover from the system (Figure 1-4).



Figure 1-4. Base Cover Removal

Base Cover Removal

1. Detach the mylar (A) as shown in Figure 1-5.



Figure 1-5. Battery Pack Removal

2. Detach the tape (B) securing the battery cable connection (Figure 1-6).



Figure 1-6. Battery Pack Removal

3. Disconnect the battery cable from the mainboard connector (C) (Figure 1-7).



Figure 1-7. Battery Pack Removal

4. Lift to release the battery pack (D) from the compartment studs (highlighted with the green lines) (Figure 1-8). Then remove the battery pack.



Figure 1-8. Battery Pack Removal

- <image><text><text><text><text><text><text><text><text><text>
- 5. Detach another mylar (E) securing the battery cable in place (Figure 1-9).

Figure 1-9. Battery Pack Removal

#### + IMPORTANT:

Follow local regulations for battery disposal.

#### **Battery Pack Removal**

- 1. Find the SSD modules (A) on the top assembly (Figure 1-10).
- 2. Remove one (1) screw securing one of the SSD modules (Figure 1-10).



Figure 1-10. SSD Module Removal

3. Disconnect the SSD module from the mainboard connector (B) (Figure 1-11). Then remove the SSD module.



Figure 1-11. SSD Module Removal

- 4. Repeat steps 2~3 to remove another SSD module.
- 5. By holding the upper edge of the copper foil with mylar (C), unfold and detach it from the SSD module as shown in Figure 1-12 and Figure 1-13 but DO NOT remove yet!



Figure 1-12. SSD Module Removal



Figure 1-13. SSD Module Removal

6. Detach the SSD module from the adhesive graphite strip (marked with yellow dashed line) as shown in Figure 1-14.



Figure 1-14. SSD Module Removal

7. Repeat steps 5~6 to remove the copper foil with mylar from another SSD module.

Battery Pack Removal

1. Find the WLAN module (A) on the top assembly (Figure 1-15).



Figure 1-15. WLAN Module Location

- Disconnect the WLAN antennas cables from the WLAN module connectors (B) (Figure 1-16).
- 3. Remove one (1) screw securing the WLAN module in place (Figure 1-16).



Figure 1-16. WLAN Module Removal

4. Disconnect the WLAN module from the mainboard connector (C) (Figure 1-17). Then remove the WLAN module.



Figure 1-17. WLAN Module Removal

## **DIMM Modules Removal**

## Prerequisite:

#### **Battery Pack Removal**

- 1. Find the DIMM modules (A) in the system (Figure 1-18).
- 2. Push the DIMM module clips (B) outwards (Figure 1-18).



Figure 1-18. DIMM Module Removal

3. Disconnect the DIMM module from the mainboard connector (C) (Figure 1-19). Then remove the DIMM module.



Figure 1-19. DIMM Module Removal

- 4. Repeat steps 2~3 to remove another DIMM module.
- 5. Peel off the composite foil with thermal pad (D) from the DIMM module (Figure 1-20).



Figure 1-20. DIMM Module Removal

6. Detach the DIMM module from the adhesive graphite strip (marked with yellow dashed line) as shown in Figure 1-21.



Figure 1-21. DIMM Module Removal

7. Repeat steps 5~6 to remove the composite foil with thermal pad from another DIMM module.

#### **Battery Pack Removal**

- 1. Disconnect the USB board FFC (A) from the USB board and mainboard connectors Then carefully detach the FFC from its underneath adhesive (highlighted with the yellow lines) as shown in Figure 1-22. Remove the USB board FFC.
- 2. Remove one (1) screw securing the USB board (Figure 1-22).



Figure 1-22. USB Board Removal

## **A** CAUTION:

USB board FFC (Flexible Flat Circuit) can be damaged if removed while the USB board and mainboard connectors are locked.

3. Release the USB board (B) from the I/O port slots, guide pins (C), and guide studs (highlighted with the green lines) on the top assembly (Figure 1-23). Then remove the USB board.



Figure 1-23. USB Board Removal

#### **Battery Pack Removal**

1. Detach the thermal mylar (A) securing the WLAN antennas cables on the heatsink (Figure 1-24).



Figure 1-24. LCD Module Removal

2. Disconnect the WLAN antennas cables from the WLAN module connectors (B). Then unroute and release the cables from the cable guides and routing rubbers as shown in Figure 1-25.



Figure 1-25. LCD Module Removal

3. Disconnect the eDP cable from the mainboard connector (C). Then unroute the cable from the cable guides as shown in Figure 1-26.



Figure 1-26. LCD Module Removal

4. Remove six (6) screws securing the LCD hinges (Figure 1-27).



Figure 1-27. LCD Module Removal

5. Lift the top assembly until it is fully open (Figure 1-28).



Figure 1-28. LCD Module Removal

6. Close the top assembly and lift both LCD hinges until they are fully extended (Figure 1-29).



Figure 1-29. LCD Module Removal

7. Open the top assembly again. Then remove the top assembly away from the LCD module (D) (Figure 1-30).

### **A** CAUTION:

Make sure all cables are moved away from the device to avoid damage during removal.



Figure 1-30. LCD Module Removal

#### SSD Modules Removal

- 1. Disconnect the RTC battery cable from the mainboard connector (A). Then release the cable from the cable guides as shown in Figure 1-31.
- 2. Using plastic tweezers, carefully pry to detach the adhesive tape underneath the RTC battery (B) (Figure 1-31). Then remove the RTC battery.



Figure 1-31. RTC Battery Removal

#### + IMPORTANT:

Follow local regulations for battery disposal.

Ensure that the SSD Modules, WLAN Module, DIMM Modules, and Heatsink have been disassembled prior removing the mainboard.

1. Remove three (3) screws (A) securing the left LCD hinge (Figure 1-32).



Figure 1-32. Mainboard Removal

2. Lift the top assembly until it is fully open (Figure 1-33).



Figure 1-33. Mainboard Removal

3. Close the top assembly and lift the left LCD hinge until it is fully extended (Figure 1-34).



Figure 1-34. Mainboard Removal

4. Detach the mylar (B) securing the keyboard backlight FPC connection (Figure 1-35).



Figure 1-35. Mainboard Removal

- 5. Disconnect the USB board FFC from the mainboard connector (C) (Figure 1-36).
- 6. Disconnect the hall sensor board FFC from the mainboard connector (D) (Figure 1-36).
- 7. Disconnect the keyboard FPC from the mainboard connector (E) (Figure 1-36).
- Disconnect the keyboard backlight FPC from the mainboard connector (F) (Figure 1-36).
- 9. Disconnect the touchpad FFC from the mainboard connector (G) (Figure 1-36).
- 10. Disconnect the speaker cable from the mainboard connector (H) (Figure 1-36).
- 11. Pry to detach the adhesive tape underneath the RTC battery (I). Then unroute the RTC battery cable from the cable guides as shown in Figure 1-36.
- 12. Disconnect the eDP cable from the mainboard connector (J). Then unroute the cable from the cable guides as shown in Figure 1-36.



Figure 1-36. Mainboard Removal

### **A** CAUTION:

USB board FFC (Flexible Flat Circuit), hall sensor board FFC, touchpad FFC, keyboard FPC (Flexible Printed Circuit), and keyboard backlight FPC, can be damaged if removed while the mainboard connectors are locked.

13. Remove three (3) screws (K) securing the mainboard (Figure 1-37).



Figure 1-37. Mainboard Removal

14. Release the mainboard (L) from the I/O ports slots and guide pins (M) on the top assembly (Figure 1-38). Then remove the mainboard.



Figure 1-38. Mainboard Removal



Figure 1-39. Mainboard

#### + **IMPORTANT:**

Circuit boards >10 cm<sup>2</sup> have been highlighted with a yellow rectangle as shown in Figure 1-39. Remove the circuit board and follow local regulations for disposal.

Ensure that the **Speakers** and **Mainboard** have been disassembled prior removing the touchpad module.

- 1. Slightly detach and lift the mylar. Then hold the mylar and keyboard FPC.
- 2. Detach the mylar (A) securing the touchpad FFC connection (Figure 1-40).



Figure 1-40. Touchpad Module Removal

3. Disconnect the touchpad FFC (B) from the touchpad module connector (Figure 1-41). Then remove the FFC.



Figure 1-41. Touchpad Module Removal

## **A** CAUTION:

Touchpad FFC (Flexible Flat Circuit) can be damaged if removed while the touchpad module connector is locked.

4. Detach the conductive tape (C) from the touchpad module and top assembly (Figure 1-42).



Figure 1-42. Touchpad Module Removal

5. Remove three (3) screws securing the touchpad module (Figure 1-43).



Figure 1-43. Touchpad Module Removal

- 6. Using the screwdriver, push the guide pins (D) firmly to release it from the top assembly (Figure 1-44).
- 7. Slide the touchpad module (E) slightly to disengage it from the bottom latches (F), and then remove the touchpad module from the top assembly (Figure 1-44).



Figure 1-44. Touchpad Module Removal

LCD Module Removal

1. Pry the LCD bezel from the bottom side to release the latches (Figure 1-45).



Figure 1-45. LCD Bezel Removal

2. Pry the LCD bezel from the left side to release the latches (Figure 1-46).



Figure 1-46. LCD Bezel Removal

3. Continue prying along the right side of the bezel (Figure 1-47).



Figure 1-47. LCD Bezel Removal

4. Continue prying along the upper side of the bezel until all the latches have been released (Figure 1-48). Then lift and remove the bezel from LCD module.



Figure 1-48. LCD Bezel Removal

#### LCD Bezel Removal

#### ≡> NOTE:

The eDP cable includes the LCD panel cable and the camera cable.

1. Unroute and release the eDP cable from the LCD hinge and the cable guides on the LCD cover as shown in Figure 1-49.



Figure 1-49. LCD Panel Removal

 Pry slightly to access the double-sided mounting tape (B) underneath the LCD panel (C). Then pull to detach the double-sided mounting tape.

Repeat the same procedure to remove the double-sided mounting tape on another side of the LCD panel (Figure 1-50).



Figure 1-50. LCD Panel Removal

3. Carefully turn the LCD panel over so that the display panel is facing down on a flat surface. Then detach the mylar (D) securing the eDP cable to the LCD panel (Figure 1-51).



Figure 1-51. LCD Panel Removal

4. Lift the latch (E) securing the eDP cable (Figure 1-52).



Figure 1-52. LCD Panel Removal

5. Disconnect the eDP cable from the LCD panel connector (F) (Figure 1-53). Then remove the LCD panel.



Figure 1-53. LCD Panel Removal

Ensure that the **USB Board**, **Hall Sensor Board**, **LCD Module**, and **Touchpad Module** have been disassembled prior removing the top assembly.

#### ≡> NOTE:

The keyboard is included as part of the top assembly and can not be disassembled. In the event that the keyboard can no longer be used, replace the entire top assembly.



Figure 1-54. Top Assembly (Keyboard)



Figure 1-55. System Block Diagram

# Troubleshooting

This chapter shows you how to deal with common system problems. Read it before calling a technician if a problem occurs. Solutions to more serious problems require opening up the computer. Do not attempt to open the computer yourself; contact your dealer or authorized service center for assistance.

## Troubleshooting tips

This computer incorporates an advanced design that delivers on-screen error message reports to help you solve problems.

If the system reports an error message or an error symptom occurs, see "Error messages" below. If the problem cannot be resolved, contact your dealer.

## Error messages

If you receive an error message, note the message and take the corrective action. The following table lists the error messages in the alphabetical order together with the recommended course of action.

Error Messages	Corrective Action
CMOS battery bad	Contact your dealer or an authorized service center.
CMOS checksum error	Contact your dealer or an authorized service center.
Disk boot failure	Insert a system (bootable) disk, then press <b>Enter</b> to reboot.
Equipment configuration error	Press <b>F2</b> (during POST) to enter BIOS utility, then press <b>Exit</b> in the BIOS utility to reboot.
Hard disk 0 error	Contact your dealer or an authorized service center.
Hard disk 0 extended type error	Contact your dealer or an authorized service center.
I/O parity error	Contact your dealer or an authorized service center.
Keyboard error or no keyboard connected	Contact your dealer or an authorized service center.
Keyboard interface error	Contact your dealer or an authorized service center.
Memory size mismatch	Press <b>F2</b> (during POST) to enter BIOS utility, then press <b>Exit</b> in the BIOS utility to reboot.

#### Table 1-1. Error Messages

If you still encounter problems after going through the corrective measures, please contact your dealer or an authorized service center for assistance.

# FRU (Field Replaceable Unit) List

Please contact your local service center to find out how to obtain the part or replace your device.

# **Exploded Diagrams**



Figure 1-56. System Exploded Diagram

Table	1-2.	System	Exploded	Diagram
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No.	Description	Acer Part No.
1	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Arabic NK.I1517.10L	6B.QPEN7.001
2	FAN 70*70*9.5	23.QNAN7.002
3	FAN 73*70*9.5	23.QNAN7.001
4	HEAT SINK	24.QPDN7.001
5	MYLAR FOR THERMAL	47.QGCN7.003
6	RUBBER SI MB	47.QNAN7.005
7	Wireless LAN AZUREWAVE 802.11ax (Wi-Fi 6) BT5.2 MT7921_AW-XB468NF Mediatek 2x2 M.2 2230 PCIe	KE.11X0Z.001
8	Mainboard ANV15-41 AMD R57535HS GN21-X2 6GB	NB.QPE11.001
9	CABLE USB BOARD	50.QNAN7.001
10	BOARD USB	55.QPDN7.001
11	FOIL COMPOSITE W/ PAD	47.QMBN7.001
12	Memory HYNIX SO-DIMM DDRV 5600 8GB HMCG66AGBSA LF+HF 1anm, A-die 1Rx16	KN.8GB0G.082
13	Flash Disk HYNIX SSD NAND 1024GB M.2 2280 BC901 1024G HFS001TEJ9X110N LF+HF	KN.01K0G.004
14	FOIL CU W/ MYLAR, GRAPHITE SHEET	47.QJQN7.005
15	INSULATOR MYLAR ON BATTERY CABLE	47.HUVN7.002
16	ACETATE TAPE FOR BATTERY(21*21mm)	47.HKKN7.001
17	Battery LGES Typ.57Wh 3574mAh 4S1P AP21D8M 210x72x8.5(mm) AP18E 15.4V 65W Polymer RI	KT.0040G.015
18	BOARD HALL SENSOR	55.QNAN7.002
19	CABLE HALL SENSOR BOARD	50.QNAN7.003
20	CABLE TOUCHPAD	50.QNAN7.002
21	TOUCHPAD MODULE N- FINGERPRINT SKU NC.24611.06Z	56.QNAN7.001
22	SPONGE W/MYLAR,CONDTAPE	47.QNAN7.003
23	SPEAKER R+L	23.QNAN7.003
24	LOWER CASE	64.QNAN7.001



Figure 1-57. LCD Assembly Exploded Diagram

Table 1-3.	LCD	Assembly	Exploded	Diagram
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No.	Description	Acer Part No.
1	LCD COVER N15.6FHDSURILBY2 144HZ	61.QPDN7.001
2	CABLE LCD 144HZ	50.QNAN7.004
3	Camera Tech-Front HD Camera YHVC-1 OV9734 SPCA2112N 1L3B059F1(BG) SPG18P4HM4H-1 TNR	KS.0HD0Q.020

Table 1-3.	LCD Assembly Exploded Diagram (Continued)
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No.	Description	Acer Part No.
4	RUBBER W/FABRIC MESH	47.QNAN7.004
5	ANTENNA MAIN+AUX	50.QNAN7.006
6	LED LCD Panel AUO 15.6"W FHD None Glare B156HAN08.4 HW 0A LF 250nit 25ms 800:1 (eDP, value IPS, narrow border, 144Hz)	KL.15605.066
7	HINGE L	33.QNAN7.001
	HINGE R	33.QNAN7.002
8	LCD ADHESIVE ,206*6.5*0.6 144HZ LCD	47.QNAN7.001
9	LCD BEZEL	62.QNAN7.001

### Table 1-4. FRU List

Category	Description	Acer Part No.
ADAPTER		
	Adapter LITE-ON PA-1131-26AA 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black	KP.13503.010
	Adapter DELTA ADP-135NB BA 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black	KP.13501.008
	Adapter Chicony Power A135A025P 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black	KP.1350H.002
BATTERY		
	Battery LGES Typ.57Wh 3574mAh 4S1P AP21D8M 210x72x8.5(mm) AP18E 15.4V 65W Polymer RI	KT.0040G.015
	Battery SIMPLO Typ.59Wh 3720mAh 4S1P AP18E7M 210x72x8.5(mm) AP18E 15.4V 65W Polymer TI BQ40Z555 FW5.9	KT.00407.017
BOARD		
	BOARD USB	55.QPDN7.001
	BOARD HALL SENSOR	55.QNAN7.002
CABLE	•	1
	CABLE USB BOARD	50.QNAN7.001
	CABLE TOUCHPAD	50.QNAN7.002

Table 1-4.	FRU	List	(Continued)
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Category	Description	Acer Part No.
	CABLE HALL SENSOR BOARD	50.QNAN7.003
	CABLE LCD 144HZ	50.QNAN7.004
	CABLE LCD 165HZ	50.QNAN7.005
	ANTENNA MAIN+AUX	50.QNAN7.006
CAMERA		
	Camera Tech-Front HD Camera YHVC-1 OV9734 SPCA2112N 1L3B059F1(BG) SPG18P4HM4H-1 TNR	K5.0HD0Q.020
	Camera Tech-Front HD Camera YHVQ OV9734 RTS5855 1L3B059F1(BG) SPG18P4HM4H-1 TNR	KS.0HD0Q.024
	Camera Tech-Front FHD Camera YHVA-1 OV2740(COB) RTS5856W 1L4C066F2(BG) ZTS6735 3.2T TNR	KS.FHD0Q.005
	Camera CHICONY FHD FF CKFKF31-1 OV2740 SPCA2093N 1L4C066F2 (w/BG) ZTS6735 USB 3.2T TNR	KS.FHD06.007
FAN		
	FAN 73*70*9.5	23.QNAN7.001

Category	Description	Acer Part No.
	FAN 70*70*9.5	23.QNAN7.002
HDD		·
	Flash Disk HYNIX SSD NAND 1024GB M.2 2280 BC901 1024G HFS001TEJ9X110N LF+HF	KN.01K0G.004
	Flash Disk HYNIX SSD NAND 512GB M.2 2280 BC901 512G HFS512GEJ9X110N LF+HF	KN.5120G.036
	Flash Disk KINGSTON SSD NAND 512GB OM8SEP4512Q-AA LF+HF	KN.51207.013
	Flash Disk MICRON SSD NAND 1024GB Micron 2550 1024GB MTFDKBA1T0TGE-1BK15ABYY LF+HF	KN.01K04.007
KB ASSEMBLY		
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Arabic NK.I1517.10L	6B.QPEN7.001
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS FR/Arabic NK.I1517.113	6B.QPEN7.002
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Belgium NK.I1517.10Z	6B.QPEN7.003
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Brazilian Portuguese NK.I1517.110	6B.QPEN7.004
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS US International w/ Bulgaria NK.I1517.10X	6B.QPEN7.005
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS US International w/ Canadian French NK.I1517.10W	6B.QPEN7.006
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS SLO/CRO NK.I1517.11B	6B.QPEN7.007
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS CZ/SK NK.I1517.111	6B.QPEN7.008
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Danish NK.I1517.112	6B.QPEN7.009
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS French NK.I1517.114	6B.QPEN7.010
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS German NK.I1517.115	6B.QPEN7.011

Category	Description	Acer Part No.
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Greek NK.I1517.10N	6B.QPEN7.012
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS US International w/ Hebrew NK.I1517.10V	6B.QPEN7.013
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Hungarian NK.I1517.116	6B.QPEN7.014
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Persian NK.I1517.10S	6B.QPEN7.015
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Italian NK.I1517.117	6B.QPEN7.016
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 103KS Japanese NK.I1513.2QH	6B.QPEN7.017
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Korean NK.I1517.10P	6B.QPEN7.018
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS ALA-Spanish NK.I1517.10Y	6B.QPEN7.019
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Norwegian NK.I1517.119	6B.QPEN7.020
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Portuguese NK.I1517.11A	6B.QPEN7.021
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Russian NK.I1517.10Q	6B.QPEN7.022
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Nordic NK.I1517.118	6B.QPEN7.023
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Spanish NK.I1517.11C	6B.QPEN7.024
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Sweden NK.I1517.11D	6B.QPEN7.025
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Swiss/G NK.I1517.11E	6B.QPEN7.026
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Traditional Chinese NK.I1517.10M	6B.QPEN7.027
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Thailand NK.I1517.10T	6B.QPEN7.028

Category	Description	Acer Part No.
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS Turkish NK.I1517.11F	6B.QPEN7.029
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS US International NK.I1517.10U	6B.QPEN7.030
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 100KS UK NK.I1517.11G	6B.QPEN7.031
	KEYBOARD ASSY W/ UPPER CASE BL QV05P_N20BWL 99KS Ukrainian NK.I1517.10R	6B.QPEN7.032
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Arabic NK.I1517.1E3	6B.QPDN7.032
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS FR/Arabic NK.I1517.1EL	6B.QPDN7.001
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Belgium NK.I1517.1EG	6B.QPDN7.002
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Brazilian Portuguese NK.I1517.1EH	6B.QPDN7.003
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS US International w/ Bulgaria NK.I1517.1EE	6B.QPDN7.004
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS US International w/ Canadian French NK.I1517.1ED	6B.QPDN7.005
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS SLO/CRO NK.I1517.1EU	6B.QPDN7.006
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS CZ/SK NK.I1517.1EJ	6B.QPDN7.007
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Danish NK.I1517.1EK	6B.QPDN7.008
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS French NK.I1517.1EM	6B.QPDN7.009
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS German NK.I1517.1EN	6B.QPDN7.010
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Greek NK.I1517.1E5	6B.QPDN7.011
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS US International w/ Hebrew NK.I1517.1EC	6B.QPDN7.012

Category	Description	Acer Part No.
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Hungarian NK.I1517.1EP	6B.QPDN7.013
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Persian NK.I1517.1E9	6B.QPDN7.014
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Italian NK.I1517.1EQ	6B.QPDN7.015
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 103KS Japanese NK.I1513.3ET	6B.QPDN7.016
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Korean NK.I1517.1E6	6B.QPDN7.017
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS ALA-Spanish NK.I1517.1EF	6B.QPDN7.018
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Norwegian NK.I1517.1ES	6B.QPDN7.019
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Portuguese NK.I1517.1ET	6B.QPDN7.020
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Russian NK.I1517.1E7	6B.QPDN7.021
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Nordic NK.I1517.1ER	6B.QPDN7.022
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Spanish NK.I1517.1EV	6B.QPDN7.023
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Sweden NK.I1517.1EW	6B.QPDN7.024
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Swiss/G NK.I1517.1EX	6B.QPDN7.025
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Traditional Chinese NK.I1517.1E4	6B.QPDN7.026
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Thailand NK.I1517.1EA	6B.QPDN7.027
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS Turkish NK.I1517.1EY	6B.QPDN7.028
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS US International NK.I1517.1EB	6B.QPDN7.029

Table 1-4. FRU List (Continued)

Category	Description	Acer Part No.	
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 100KS UK NK.I1517.1EZ	6B.QPDN7.030	
	KEYBOARD ASSY COPILOT W/ UPPER CASE BL QV05P_N40BWL 99KS Ukrainian NK.I1517.1E8	6B.QPDN7.031	
LCD			
	LED LCD Panel AUO 15.6"W FHD None Glare B156HAN08.4 HW 0A LF 250nit 25ms 800:1 (eDP, value IPS, narrow border, 144Hz)	KL.15605.066	
	LED LCD Panel CMI 15.6"W FHD IPS None Glare N156HRA-EA1 C1 250nit NTSC 45% 144Hz 25ms 800:1 (Narrow border, 3.2t)	KL.1560D.044	
	LED LCD Panel AUO 15.6"W FHD IPS None Glare B156HAN12.H H/W 4A 300nit sRGB 100% 165Hz 9ms 1000:1 (Narrow border, OD GTG 3ms, 2.6t, DDS)	KL.15605.079	
	LED LCD Panel BOE 15.6"W FHD None Glare NV156FHM-NY0 V8.0 LF 300nit 9ms 1000:1 (eDP,IPS,165Hz,OD GTG3ms,narrow,2.6t, DDS)	KL.1560E.037	
LCD BEZEL			
	LCD BEZEL	62.QNAN7.001	
LCD COVER			
N	LCD COVER N15.6FHDSURILBY2 144HZ	61.QPDN7.001	
	LCD COVER N15.6FHDSSRIBY2+ 165HZ	61.QPDN7.002	
LOWER CASE			
	LOWER CASE	64.QNAN7.001	

Category	Description	Acer Part No.
MAINBOARD		
	Mainboard ANV15-41 AMD R57535HS GN21-X2 6GB	NB.QPE11.001
MEMORY	Γ	
	Memory HYNIX SO-DIMM DDRV 5600 8GB HMCG66AGBSA LF+HF 1anm, A-die 1Rx16	KN.8GB0G.082
	Memory KINGSTON SO-DIMM DDRV 5600 8GB ACR56S46BS6HA-8KM LF+HF HA-A	KN.8GB07.073
	Memory HYNIX SO-DIMM DDRV 5600 16GB HMCG78AGBSA LF+HF 1anm, A-die 1Rx8	KN.16G0G.039
	Memory KINGSTON SO-DIMM DDRV 5600 16GB ACR56S46BS8HA-16KM LF+HF HA-A	KN.16G07.046
METAL		
1 A	HINGE L	33.QNAN7.001
	HINGE R	33.QNAN7.002
POWER CORD		
	POWER CORD 1M 125V EUR+KOR BLACK	27.NE307.015
	POWER CORD 1M 125V US BLACK	27.NE307.003
	POWER CORD 1M 125V JAP BLACK	27.NE307.001
	POWER CORD 1M 125V TAIWAN BLACK	27.NE307.002
	POWER CORD 1M 125V ARG BLACK	27.NE307.004
	POWER CORD 1M 125V AUS BLACK	27.NE307.005
	POWER CORD 1M 125V BRAZIL BLACK	27.NE307.006
	POWER CORD 1M 125V CHINA BLACK	27.NE307.007
	POWER CORD 1M 125V DENMARK BLACK	27.NE307.008

Category	Description	Acer Part No.
	POWER CORD 1M 125V INDIA BLACK	27.NE307.009
	POWER CORD 1M 125V ISRAEL BLACK	27.NE307.010
	POWER CORD 1M 125V ITL BLACK	27.NE307.011
	POWER CORD 1M 125V S.AFRICA BLACK	27.NE307.012
	POWER CORD 1M 125V SWISS BLACK	27.NE307.013
	POWER CORD 1M 125V UK BLACK	27.NE307.014
SPEAKER/MICROPHONE		
4	SPEAKER R+L	23.QNAN7.003
THERMAL		
	HEAT SINK	24.QPDN7.001
TOUCHPAD		
	TOUCHPAD MODULE N- FINGERPRINT SKU NC.24611.06Z	56.QNAN7.001
	TOUCHPAD MODULE N- FINGERPRINT SKU NC.24611.08F	56.QNAN7.002
WIRELESS LAN		
A Carl and	Wireless LAN AZUREWAVE 802.11ax (Wi-Fi 6) BT5.2 MT7921_AW-XB468NF Mediatek 2x2 M.2 2230 PCIe	KE.11X0Z.001
MISCELLANEOUS		
	LCD ADHESIVE ,206*6.5*0.6 144HZ LCD	47.QNAN7.001
	LCD ADHESIVE 206*6.5*1.1 165HZ LCD	47.QNAN7.002

Table 1-4. FRU List (Continued)

Category	Description	Acer Part No.
	SPONGE W/MYLAR,CONDTAPE	47.QNAN7.003
	MYLAR FOR THERMAL	47.QGCN7.003
	FOIL COMPOSITE W/ PAD	47.QMBN7.001
	FOIL CU W/ MYLAR,GRAPHITE SHEET	47.QJQN7.005
	INSULATOR MYLAR ON BATTERY CABLE	47.HUVN7.002
	RUBBER W/FABRIC MESH	47.QNAN7.004
	RUBBER SI W/FABRIC	47.QPDN7.001
	ACETATE TAPE FOR BATTERY(21*21mm)	47.HKKN7.001
	MYLAR FFC COONECTOR	47.KE4N7.004
0	RUBBER SI MB	47.QNAN7.005
88888	LCD ALIGNMENT MYLAR 10*8*0.5MM	47.QJLN7.008

Table 1-5. Screw List

Category	Description	Acer Part No.
*	SCREW M2.0*2.5-IBZNNYLOKD7.0 IRON	86.HQBN7.002
9	SCREW M2.5*6-I(BNI)(NYLOK)IRON	86.SHXN7.004
<b>**</b>	SCREW M2.5*1.8-H(BNI,NY,D5.0,T4.0,IT)STL	86.R19N7.001
ß	SCREW M2.0*3.0-I(BZN)(NYLOK)IRON	86.GDEN7.001
	SCREW M2.5*2.5-I(BNI)(NYLOK)T=0.6	86.SHXN7.003
Ø.	SCREW M2.0*2.0-I(NI,NYLOK)STL	86.VSYN7.002

# Updating your software

Please visit <u>http://go.acer.com/?id=17883</u>

## Removing your personal data

There are three options to choose from:

- Option 1: Select Start > Settings <sup>(3)</sup> > Update & Security ⊂ > Recovery. Under Reset this PC, select Get started. Open Recovery settings.
- Option 2: Restart your PC to get to the sign-in screen, then press and hold down the Shift key while you select the Power () icon > Restart in the lower-right corner of the screen. After your computer restarts, select Troubleshoot > Reset this PC.
- Option 3: Select Start ■, then press and hold down the Shift key while you select the Power () icon > Restart to restart your computer into Recovery Mode. After your computer restarts, select Troubleshoot > Reset this PC.