



**GRAFENTHAL**<sup>®</sup>  
IT PRODUCTS • GERMANY

Handbuch

**GRAFENTHAL**

**DAVIDE TINY PC**

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## About this manual

This manual provides information about the hardware and software features of your PC, organized through the following chapters:

### **Chapter 1: Getting to know your DAVIDE**

This chapter details the hardware components of your PC.

### **Chapter 2: Using your DAVIDE**

This chapter provides you with information on using your PC.

### **Chapter 3: Upgrading your DAVIDE**

This chapter provides you with information on how to upgrade the memory modules, wireless modules, and hard disk drive / solid state drive of your PC.

### **Appendix**

This section includes notices and safety statements your PC.

## Conventions used in this manual

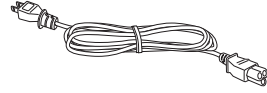
To highlight key information in this manual, some text are presented as follows:

**IMPORTANT!** This message contains vital information that must be followed to complete a task.

**NOTE:** This message contains additional information and tips that can help complete tasks.

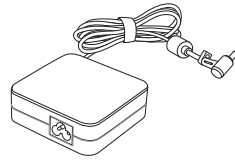
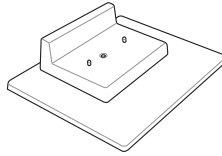
**WARNING!** This message contains important information that must be followed to keep you safe while performing certain tasks and prevent damage to your VivoMini's data and components.

## Package contents



DAVIDE TINY PC main box

Powercord\*



Antenna

Stand

AC adapter\*

---

### NOTE:

- \*Actual product specifications and package contents may vary depending on the model type, country, or region.
  - If the device or any of its components fail or malfunction during normal or proper use and it is still within the warranty period, bring the device and the warranty card to you nearest GRAFENTHAL Service Partner.
-

1

*Getting to know your DAVIDE TINY PC*

# Features

## Overview

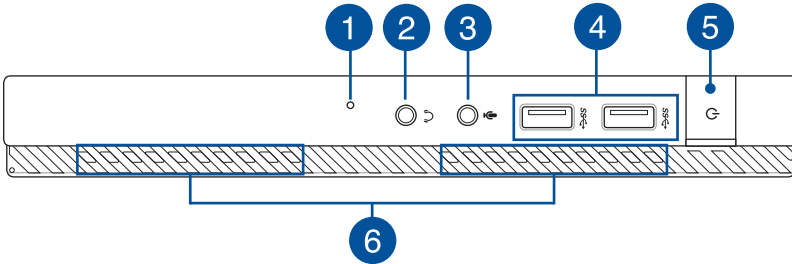
1





### Main box

The main box contains the operating system and main hardware peripherals of your PC. It also includes a set of I/O ports that connects your PC to external devices.

## Main box

### Front panel

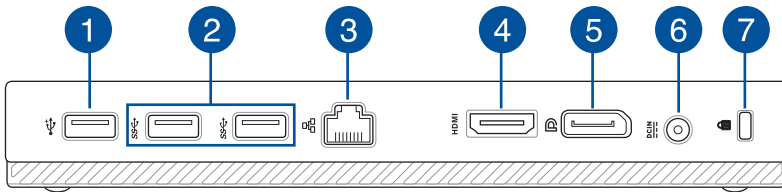


- 1 BIOS key**  
Before booting up the system, insert a straightened paper clip into this hole to enter BIOS.
- 2  Headphone jack**  
This port allows you to connect amplified speakers or headphones.
- 3  Microphone jack**  
The microphone jack is designed to connect to a microphone used for video conferencing, voice narrations, or simple audio recordings.
- 4  USB 3.1 Gen 1 port**  
The USB 3.1 Gen 1 (Universal Serial Bus) port provides a transfer rate up to 5 Gbit/s and is backward compatible to USB 2.0.
- 5  Power button**  
The power button allows you to turn the PC on or off. You can also press the power button once to put your PC to sleep mode.
- 6 Air vents**  
The air vents allow air to enter and leave your PC chassis.

**IMPORTANT!** For optimum air flow, ensure that the air vents are free from obstructions.



## Rear panel



1



### USB 2.0 port

The USB (Universal Serial Bus) port is compatible with USB 2.0 or USB 1.1 devices such as keyboards, pointing devices, flash disk drives, external HDDs, speakers, cameras and printers.

### USB 2.0 port for the USB bridge\*

This USB 2.0 port is exclusive for use with the USB bridge. Insert the USB bridge into this port to connect the main box with the docking of your PC.

---

**NOTE:** For more details about using this exclusively with the USB bridge, refer to the *Using your PC* section in this user guide.

---

2



### USB 3.1 Gen 1 port

The USB 3.1 Gen 1 (Universal Serial Bus) port provides a transfer rate up to 5 Gbit/s and is backward compatible to USB 2.0.

3



### LAN(RJ-45) port

The eight-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

4



### HDMI port

The HDMI (High Definition Multimedia Interface) port supports a Full-HD device such as an LCD TV or monitor to allow viewing on a larger external display.

5 

### DisplayPort

The DisplayPort sends high-performance digital output from your PC to a display device such as an LCD TV or HD monitor.

6 

### Power input

The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

---

**WARNING!** The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.

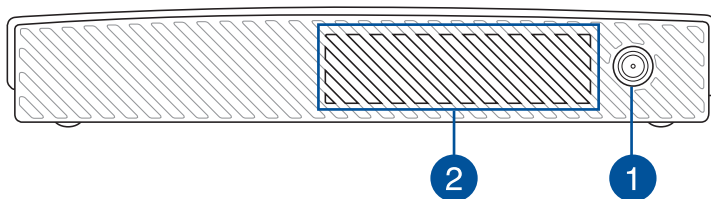
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7 

### Kensington® security slot

The Kensington® security slot allows you to secure your PC using Kensington® compatible security products.

## Right side



1

### Wireless antenna jack

The jack is used to connect the supplied wireless antenna to enhance wireless signal reception.

2

### Air vents

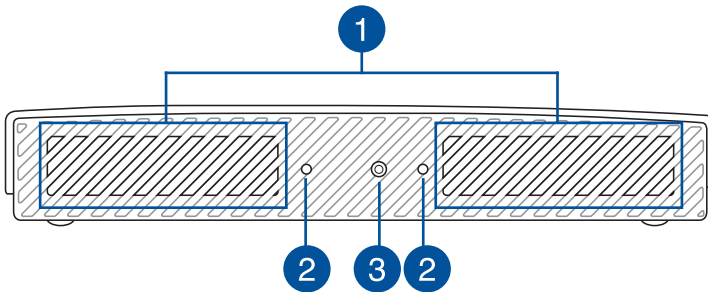
The air vents allow air to enter and leave your PC chassis.

---

**IMPORTANT!** For optimum air flow, ensure that the air vents are free from obstructions.

---

## Left side



1

### Air vents

The air vents allow air to enter and leave your PC chassis.

---

**IMPORTANT!** For optimum air flow, ensure that the air vents are free from obstructions.

---

2

### Guide slots for the PC stand

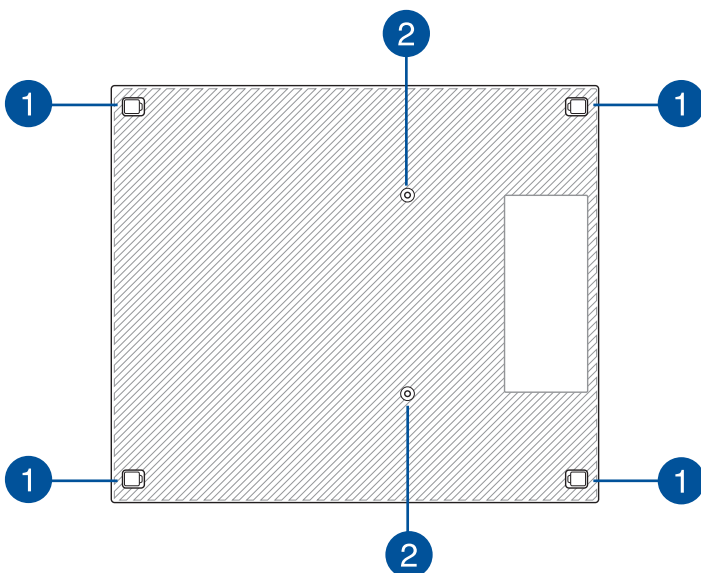
These slots allow you to properly orient your PC when connecting it with the bundled stand. It also provides additional support to ensure that your device is held securely in place.

3

### Screw hole for the PC stand

This screw hole allows you to attach and secure your PC with its bundled stand.

## Bottom side



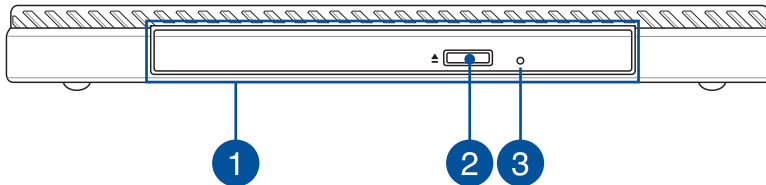
- 1 Removable rubber feet**

These removable rubber feet has two functions: it protects your PC while laid on a flat surface with the bottom side down and also covers the chassis screws of your PC.
- 2 Screw holes for the optional docking**

This screw hole allows you to connect and secure your PC with its optional docking.

## Docking (optional)

### Front panel



#### 1 Optical Drive (optional)

This support compact discs (CD), digital video discs (DVD), and/or Blu-ray discs (BD), and recordable (R) or re-writable (RW) discs. Consult product specifications for details on included optical drive.

**NOTE:** DVD R/RW is optional and is available on selected models only.

#### 2 Optical Disk Drive electronic eject button

Press this button to eject the optical drive tray.

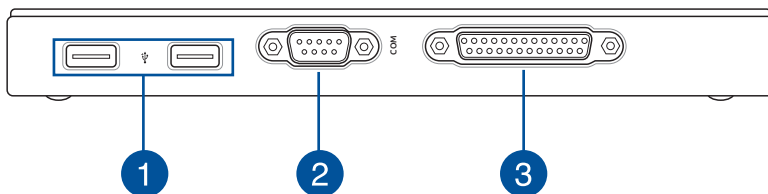
You can also eject the drive tray using your media player or by right-clicking the optical drive icon in Windows File Explorer and clicking Eject.



#### 3 Optical Disc Drive manual eject hole

The manual eject hole is used to eject the drive tray in case the electronic eject button does not work.

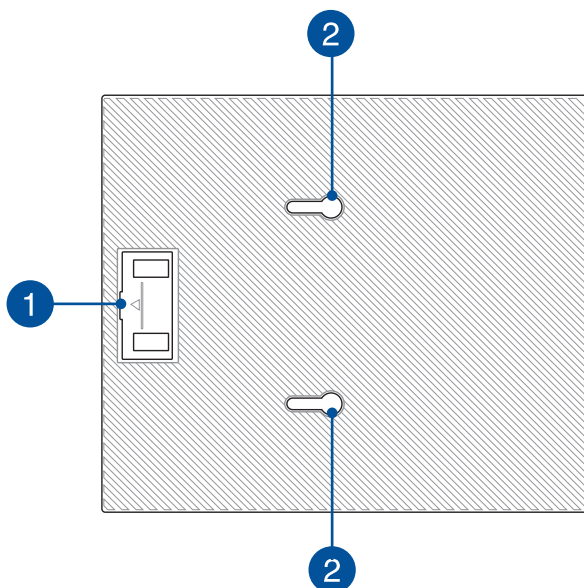
**WARNING!** Use the manual eject hole only when the electronic eject button does not work.

## Rear panel



- 1**  **USB 2.0 port**  
The USB (Universal Serial Bus) port is compatible with USB 2.0 or USB 1.1 devices such as keyboards, pointing devices, flash disk drives, external HDDs, speakers, cameras and printers.
- 2**  **Serial (COM) connector**  
The 9-pin serial (COM) connector allows you to connect devices that have serial ports such as mouse, modem, or printers.
- 3** **Parallel port**  
This parallel port allows you to connect your PC to external devices that use parallel port connectors, such as printers and scanners.

## Top side



### 1 USB bridge compartment

This compartment contains the bundled USB bridge that allows you to connect the docking with the main box of your PC.

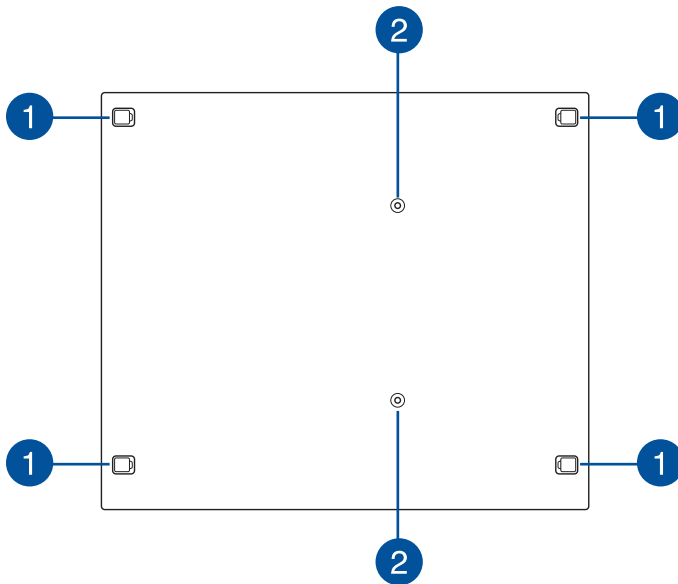
**NOTE:** For more details, refer to the *Connecting the optional docking to the main box* section in this user guide.

### 2 Main box latches

These latches allow you to securely attach the main box to the docking.



## Bottom side



- 1 Removable rubber feet**

These removable rubber feet have two functions: they protect your PC while it is laid on a flat surface with the bottom side down and also cover the chassis screws of your docking.
- 2 Screw holes for the VESA mount**

These screw holes allow you to connect and secure your PC to a VESA mount.

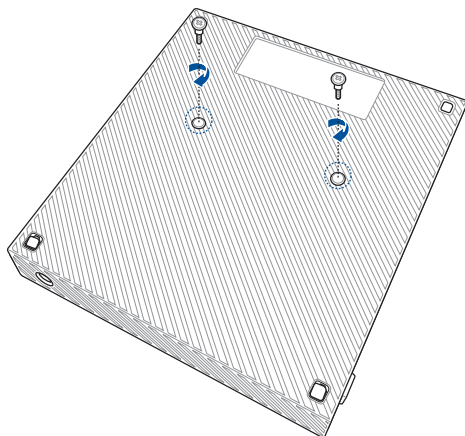
# 2

*Using your DAVIDE TINY PC*

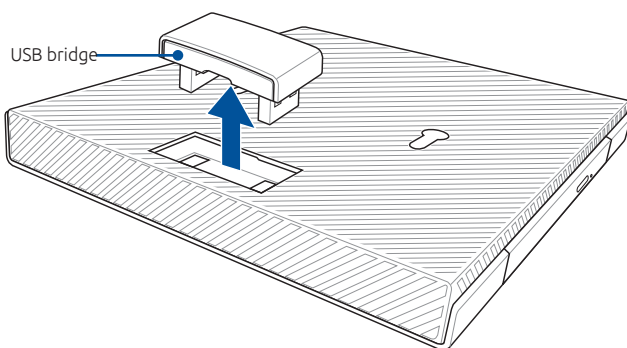
## Connecting the optional docking to the main box

If you purchased the optional docking together with the main box, refer to the following steps to setup the docking with your PC.

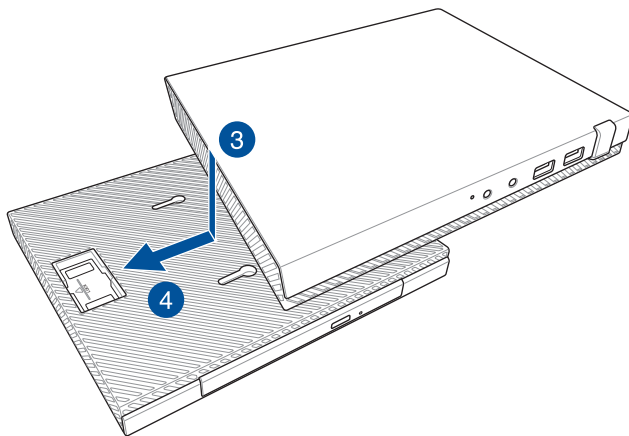
1. Attach two bundled screws on the bottom side of the main box.



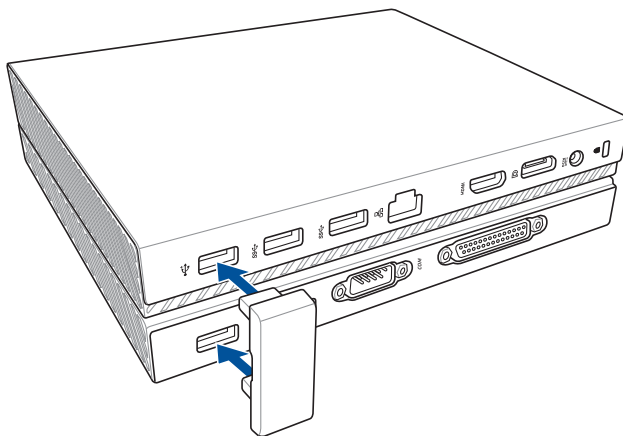
2. Detach the USB bridge from the USB bridge compartment.



3. Align and insert the screws on the bottom side of the main box into the main box latches on the docking.
4. Gently push the main box to the left to completely attach it with the docking.



5. Attach the USB bridge into its designated USB 2.0 ports on the main box and the docking.



## Getting started

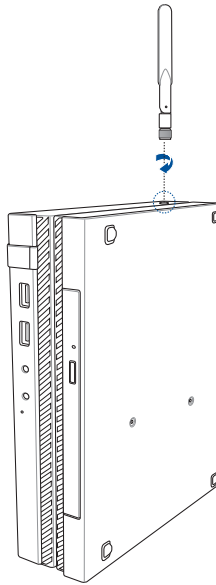
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**NOTE:** The illustrations in this section are for reference only and may vary per model.

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### Connecting the wireless antenna

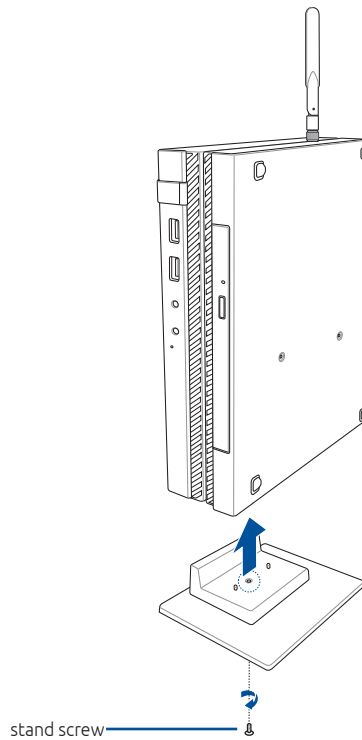
Connect the wireless antenna to your PC to enhance the wireless signal. Ensure that the wireless antenna is in an upright position (90° angle) to get the best wireless reception.



## Mounting your PC on the stand

To mount your PC on the stand:

1. Locate the mounting hole at the bottom of your PC.
2. Align the stand's mounting hole with the mounting hole on your PC, then secure it in place with the stand screw.



**IMPORTANT!** Ensure that your PC is mounted on its stand before placing it on a stable and flat surface.

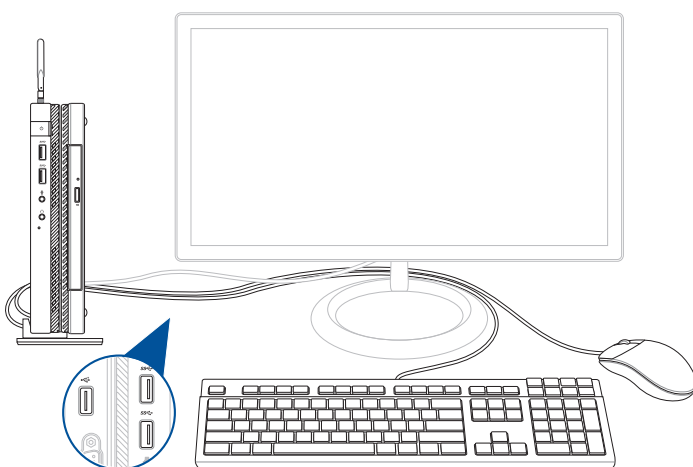
## Connect the USB cable from keyboard or mouse

You can connect generally any USB keyboard and mouse to your PC. You can also connect a USB dongle for a wireless keyboard and mouse set.

### To connect a keyboard and mouse to your VivoMini:

Connect the USB cable from your keyboard and mouse to any of the USB ports of your PC.

**NOTE:** The keyboard varies with country or region.



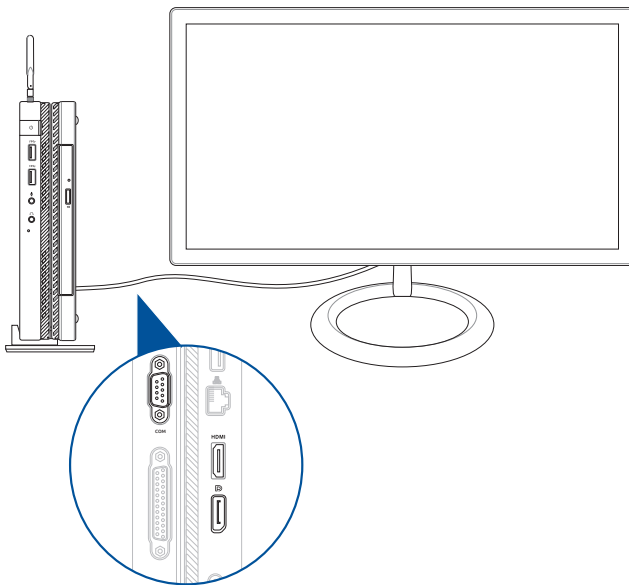
## Connect a display panel to your PC

You can connect a display panel or projector to your PC that has the following connectors:

- HDMI connector
- DisplayPort connector
- COM connector

### To connect a display panel to your PC:

Connect one end of an HDMI, DisplayPort, or a COM cable to an external display, and the other end of the cable to your PC's HDMI, DisplayPort or COM port.

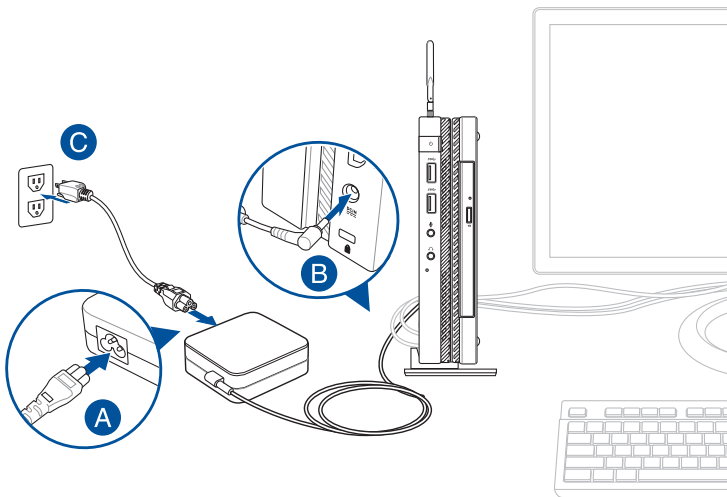




## Connect the AC power adapter to your PC

### To connect the AC power adapter to your PC:

- A. Connect the power cord to the AC power adapter.
- B. Connect the DC power connector into your PC's power (DC) input.
- C. Plug the AC power adapter into a 100V~240V power source.

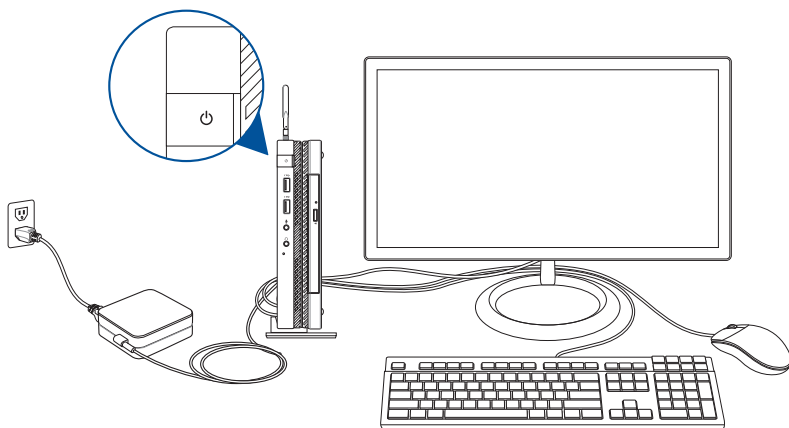


### IMPORTANT!

- We strongly recommend that you use only the AC power cord that came with your PC.
- We strongly recommend that you use a grounded wall socket while using your PC.
- The socket outlet must be easily accessible and near your PC.
- To disconnect your PC from its main power supply, unplug your PC from the power socket.

## Turn on your PC

Press the power button to turn on your PC.



## Turning your PC off

If your PC is unresponsive, press and hold the power button for at least four (4) seconds until your PC turns off.

## Putting your PC to sleep

To put your PC on Sleep mode, press the Power button once.

## Entering the BIOS Setup

BIOS (Basic Input and Output System) stores system hardware settings that are needed for system startup in the PC.

In normal circumstances, the default BIOS settings apply to most conditions to ensure optimal performance. Do not change the default BIOS settings except in the following circumstances:

- An error message appears on the screen during the system bootup and requests you to run the BIOS Setup.
- You have installed a new system component that requires further BIOS settings or update.

**WARNING!** Inappropriate BIOS settings may result to instability or boot failure. We strongly recommend that you change the BIOS settings only with the help of a trained service personnel.

## Quickly enter the BIOS

To quickly enter the BIOS:

- Press the power button for at least four (4) seconds to shut down your PC, then insert a straightened paper clip into the BIOS key slot, and press the power button again to turn your PC back on and enter BIOS.

**NOTE:** POST (Power-On Self Test) is a series of software controlled diagnostic tests that run when you turn on your PC.

## Load default BIOS settings

To load the default values for each of the parameters in your BIOS:

- Enter the BIOS by following the steps mentioned in the *Quickly enter the BIOS* section.
- Navigate to the **Exit** menu.
- Select the **Load Optimized Defaults** option, or you may press <F5>.
- Select **Yes** to load the default BIOS values.



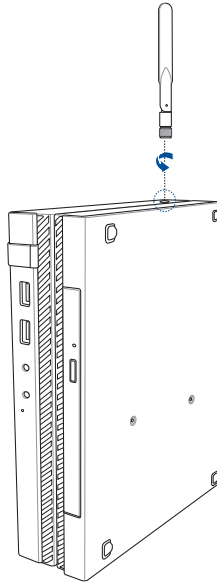
# 3

*Upgrading your DAVIDE Tiny PC*

## Installing 2.5" hard disk drive / solid state drive

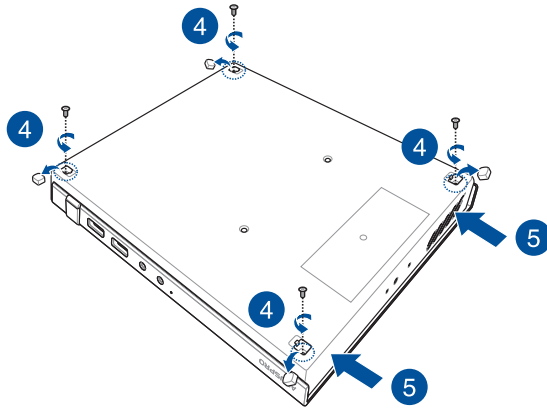
To install or upgrade the hard disk drives / solid state drives:

1. Turn off your PC then disconnect all cables and peripherals.
2. Remove the antenna from your PC.

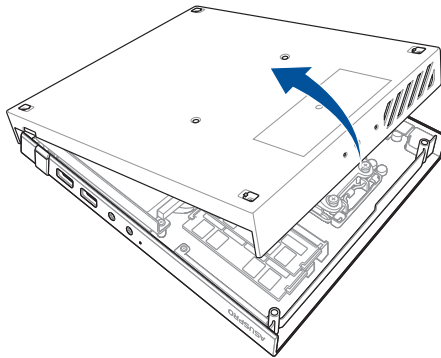


3. Place the PC on a flat stable surface, with the side with the rubber feet facing upwards.

- Using a flat-head screwdriver or straightened paper clip, remove the rubber feet from the sockets, then remove the four (4) screws securing the bottom cover.
- Push the bottom cover from the left side towards the right side.

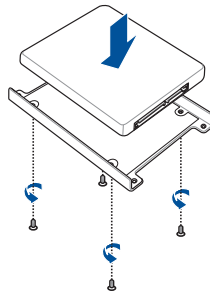


- Lift the bottom cover from the left side to remove the bottom cover.





7. Secure the HDD/SSD to the bracket using four (4) screws.

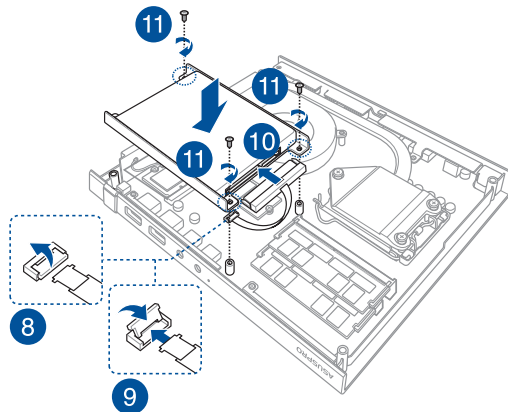


8. Lift the flap on the SATA connector.

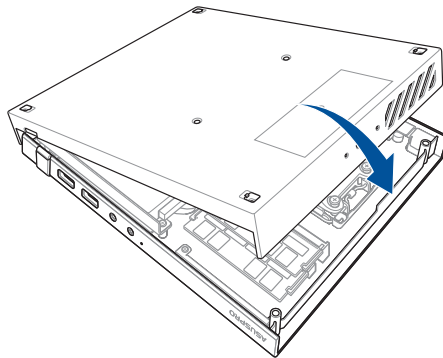
9. Connect the SATA cable to the SATA connector, then push the flap down to secure the cable.

10. Connect the HDD/SSD connector cable to the HDD/SSD.

11. Carefully place the HDD/SSD and bracket assembly into the drive bay, then secure the HDD/SSD and bracket assembly to the drive bay using the bundled three HDD drive bay screws.

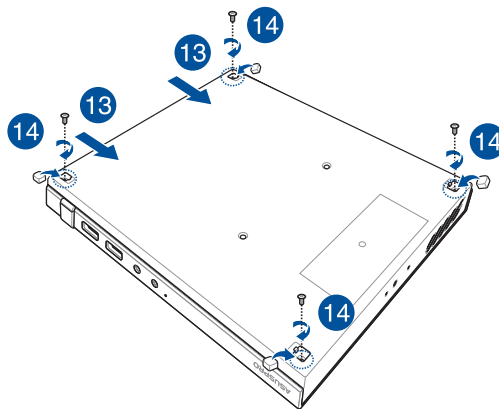


12. Replace the bottom cover of your PC.



13. Push the bottom cover from the right side towards the left side.

14. Secure the bottom cover with the four (4) screws removed earlier, then replace the rubber feet.



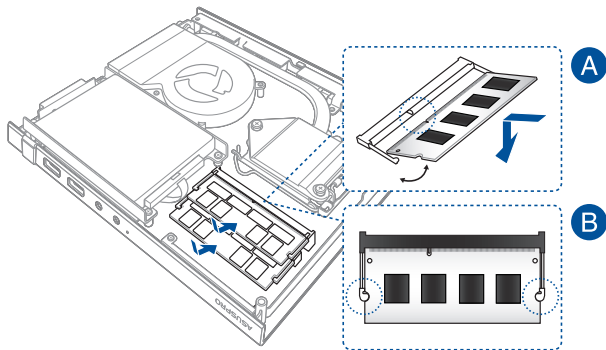
## Upgrading memory modules

Your PC comes with two SO-DIMM memory slots that allow you to install DDR4.

**IMPORTANT!** Refer to <http://www.GRAFENTHAL.de> for the list of compatible DIMMs. You can only install a DDR4 to the PC's DIMM Slot

To install or upgrade the memory modules:

1. Follow steps 1-6 under the *Installing 2.5" hard disk drive / solid state drive* section to remove the bottom cover of your PC.
2. Align and insert the memory module into the slot (A) and press it down (B) until it is securely seated in place.



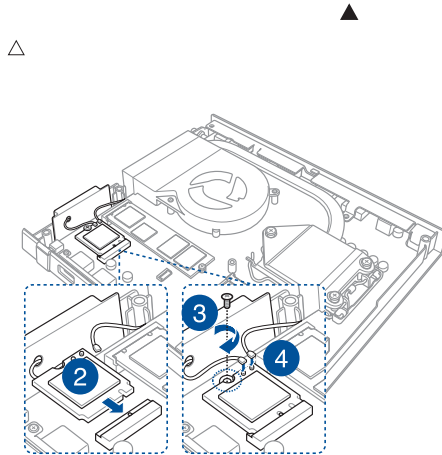
3. Follow steps 12-14 under the *Installing 2.5" hard disk drive / solid state drive* section to replace the bottom cover of your PC.

## Installing or upgrading the wireless card

Your PC includes a M.2(NGFF) slot that supports a M.2 wireless and bluetooth module.

To install or upgrade a wireless card:

1. Follow steps 1-6 under the *Installing 2.5" hard disk drive / solid state drive* section to remove the bottom cover of your PC.
2. Align and insert the wireless card into its slot inside the PC.
3. Secure the wireless card with a screw.
4. Connect the black antenna to MAIN or and the white antenna to AUX or on the wireless card (C).



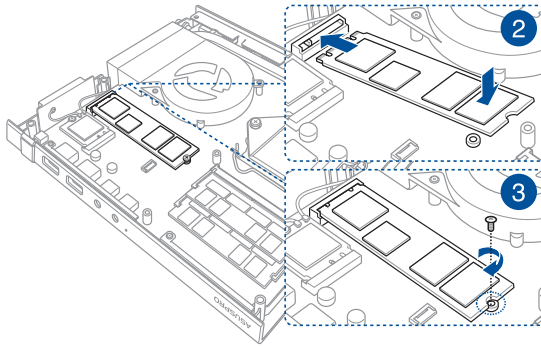
5. Follow steps 12-14 under the *Installing 2.5" hard disk drive / solid state drive* section to replace the bottom cover of your PC.

## Installing or upgrading the M.2 SSD

Your PC includes a M.2(NGFF) slot that supports a M.2 SSD.

To install or upgrade the M.2 SSD:

1. Follow steps 1-6 under the *Installing 2.5" hard disk drive / solid state drive* section to remove the bottom cover of your PC.
2. Align and insert the M.2 SSD into its slot inside the PC.
3. Secure the M.2 SSD with a screw.



4. Follow steps 12-14 under the *Installing 2.5" hard disk drive / solid state drive* section to replace the bottom cover of your PC.

# Appendix

## Safety information

Your DAVIDE Tiny PC is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

## Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water or a heated source.
- Set up the system on a stable surface.
- Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- Use this product in environments with ambient temperatures between 0°C and 35°C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.
- This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

## Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug the power cord from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.
  - The system performance changes.

### Lithium-Ion Battery Warning

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

### NO DISASSEMBLY

**The warranty does not apply to the products that have been disassembled by users**



**DO NOT** throw the DAVIDE Tiny PC in municipal waste.

This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Check local technical support services for product recycling.

## Regulatory notices

### REACH

Complying with the REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) regulatory framework, we publish the chemical substances in our products at GRAFENTHAL REACH website at <http://GRAFENTHAL.de>

### GRAFENTHAL Recycling/Takeback Services

GRAFENTHAL recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components, as well as the packaging materials. Please go to <http://GRAFENTHAL.de> for the detailed recycling information in different regions.

### COATING NOTICE

**IMPORTANT!** To provide electrical insulation and maintain electrical safety, a coating is applied to insulate the device except on the areas where the I/O ports are located.

### Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.



If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**IMPORTANT!** Outdoor operations in the 5.15~5.25 GHz band is prohibited. This device has no Ad-hoc capability for 5250~5350 and 5470~5725 MHz.

**CAUTION!** Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

### **RF exposure warning**

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

## **ISED Radiation Exposure Statement for Canada**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with ISED RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting. End users must follow the specific operating instructions for satisfying RF exposure compliance.

Operation is subject to the following two conditions:

- This device may not cause interference and
- This device must accept any interference, including interference that may cause undesired operation of the device.

## **Compliance Statement of Innovation, Science and Economic Development Canada (ISED)**

This Class B digital apparatus complies with Canadian ICES-003, RSS-210, and CAN ICES-3(B)/NMB-3(B).

This device complies with Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## **Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)**

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003, RSS-210 et CAN ICES-3(B)/NMB-3(B).

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

## Wireless Operation Channel for Different Domains

N. America	2.412-2.462 GHz	Ch01 through CH11
Japan	2.412-2.484 GHz	Ch01 through Ch14
Europe ETSI	2.412-2.472 GHz	Ch01 through Ch13

## Regional notice for Singapore

Complies with  
IMDA Standards  
DB103778

This GRAFENTHAL product complies with IMDA Standards.

## Regional notice for California



### WARNING

Cancer and Reproductive Harm -  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**ENERGY STAR** complied  
product

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**NOTE:** Energy Star is NOT supported on FreeDOS and Linux-based products.

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