Getac

X600
X600 Pro

USER MANUAL

Rugged Mobile Computing Solutions

December 2021

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NOTE

The information in this manual is subject to change without notice.
For the latest version of the manual, please visit the Getac website at www.getac.com.

Table of Contents

Chapter 1 Getting Started 1
Getting the Computer Running 2
Connecting to AC Power 2
Turning On and Off the Computer 3
Taking a Look at the Computer 4
Front Components 4
Rear Components 4
Left-Side Components 6
Right-Side Components 7
Top-open Components 9
Bottom Components 12

Chapter 2 Operating Your Computer 14
Using the Keyboard 15
Typewriter Keys 15
Cursor-Control Keys 15
Numeric Keypad 16
Function Keys 16
Fn Key 16
Hot Keys 17
Windows Keys 18
Using the Touchpad 19
Configuring the Touchpad 20
Using Network and Wireless Connections 21
Using the LAN 21
Using the WLAN 21
Using the Bluetooth Feature 22
Using the WWAN Feature (Optional) 23

Chapter 3 Managing Power 25
AC Adapter 26

Battery Pack 27
Charging the Battery Pack 27
Initializing the Battery Pack 28
Checking the Battery Level 28
Battery Low Signals and Actions 29
Replacing the Battery Pack 30
Power-Saving Tips 31

Appendix A Specifications 32

Appendix B Regulatory Information 34
Safety Notices 35
About the Battery 35
About the AC Adapter 37
Heat Related Concerns 38
North America 39
USA 39
Canada 42
User Notification of Take-back Service 43
Europe Marking and Compliance Notices 44
Statements of Compliance 44
Restriction of Hazardous Substances (RoHS) Directive 46
ENERGY STAR 47
About Battery and External Enclosure Replacement 48
Battery 48
External Enclosure 48

Chapter 1

Getting Started

This chapter first tells you step by step how to get the computer up and running. Then, you will find a section briefly introducing the external components of the computer.

NOTE: The information in this document applies to both **X600** and **X600 Pro** models though most illustrations show the **X600** model as the example. The difference between the **X600 Pro** model and **X600** model is that the former has an expansion unit at the bottom providing extra functions.

Getting the Computer Running

Connecting to AC Power

CAUTION: Use only the AC adapter included with your computer. Using other AC adapters may damage the computer.

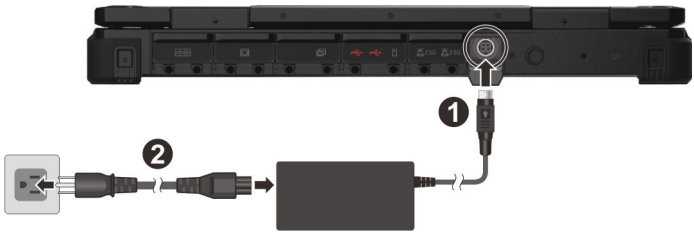
NOTE:

- The battery pack is shipped to you in power saving mode that protects it from charging/discharging. It will get out of the mode to be ready for use when you install the battery pack and connect AC power to the computer for the very first time.
- When the AC adapter is connected, it also charges the battery pack. For information on using battery power, see Chapter 3.

You must use AC power when starting up the computer for the very first time.

1. Plug the DC cord of the AC adapter to the power connector of the computer (❶).

2. Plug the female end of the AC power cord to the AC adapter and the male end to an electrical outlet (❷).



3. Power is being supplied from the electrical outlet to the AC adapter and onto your computer. Now, you are ready to turn on the computer.

Turning On and Off the Computer

Turning On

1. Open the top cover by pulling the cover latch and lifting up the cover. You can tilt the cover forward or backward for optimal viewing clarity.

2. Press the power button (⏻). The Windows operating system should start.

Turning Off

When you finish a working session, you can stop the system by turning off the power or leaving it in Sleep or Hibernation mode:

To...	Do this...
Power off (Shutdown)	Select **Start** → ⏻ **Power** → **Shut down**.
Sleep	Use one of these methods: ● Press the power button.* ● Close the top cover.* ● Press **Fn** + **F12**.* ● Select **Start** → ⏻ **Power** → **Sleep**.
Hibernate	By default, this option is not shown in the Start menu. If you want to use the feature, set up accordingly in Windows settings.

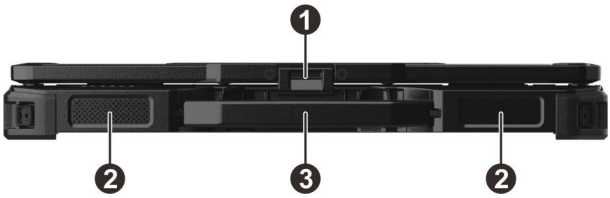
* “Sleep” is the default result of the action. You can change what the action does through Windows settings.

Taking a Look at the Computer

NOTE: Depending on the specific model you purchased, the color and look of your model may not exactly match the graphics shown in this document.

CAUTION: You need to open the protective covers to access the connectors. When not using a connector, make sure to close the cover completely for water- and dust-proof integrity. (Engage the locking mechanism if existing.)

Front Components



Ref	Component	Description
1	**Top cover latch**	Locks the top cover.
2	**Stereo speaker**	Sends out sound and voice from the computer.
3	**Handle**	Provides a convenient way to carry the computer. **NOTE:** When carrying the computer around, always use the handle or the carrying strap (purchased separately).

Rear Components

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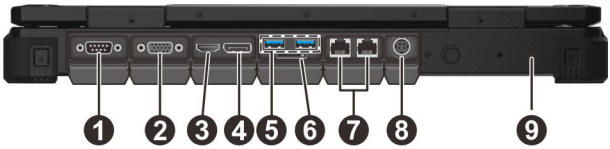
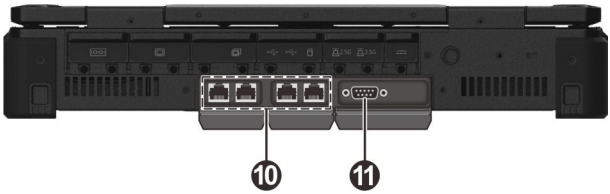


X600 Pro



Ref	Component	Description
❶	**Serial connector** (COM1)	Connects a serial device. **NOTE:** Can be configured as RS-232 or RS-422.
❷	Depending on the model, the component can be one of the following:	
	VGA connector	Connects an external display monitor.
	Serial connector (COM2)	Connects a serial device. **NOTE:** Can be configured as RS-232 or RS-422.
❸	**HDMI connector**	Connects a HDMI monitor or TV set.
❹	**DisplayPort connector**	Connects a DisplayPort monitor or TV set.
❺	**USB 3.2 Gen 2 port**	Connects a USB device.
❻	**SIM card slot** (optional)	Accepts a SIM card for models having the WWAN module. **NOTE:** The slot still exists but cannot be used for models without the WWAN module.
❼	**RJ45 connector** (LAN1 and LAN2)	Connects the LAN cable.
❽	**Power connector**	Connects the AC adapter.
❾	**Kensington lock**	Locks the computer to a stationary object for security.
❿	**RJ45 connector** (optional)	Connects the LAN cable.
⓫	**Serial connector** (COM2 or COM3)	Connects a serial device. **NOTE:** Can be configured as RS-232 or RS-422.

Left-Side Components

For covers with an arrowhead icon, push the cover toward one side to unlock and the other side to lock. The arrowhead points to the side for unlocking.

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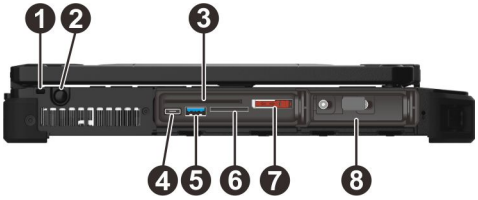

X600 Pro

Ref	Component	Description
❶	**Tether hole**	Stylus tethered to this hole.
❷	**Stylus slot**	For storing the stylus (optional).
❸	**Smart card reader**	Accepts a smart card for additional security feature.
❹	**USB-C Thunderbolt™ 4 port**	Connects to devices that support Thunderbolt or USB-C connection.
❺	**USB 3.2 Gen 2 port**	Connects a USB device.
❻	**Storage card reader** (optional)	Accepts an SD card for removable storage media.
❼	**SSD canister**	Contains the solid-state drive, which is the C drive storing the operating system of your computer. **CAUTION:** This device is not hot-swappable. Do not remove it without turning off the system first.

Ref	Component	Description
❽	**Battery pack** (2)	Supplies power to your computer when external power is not connected.
❾	**Optical disc drive**	Accepts an optical disc.
		Can be replaced by a battery pack (purchased separately). **NOTE:** The additional battery pack alone cannot be the power source for starting up the computer.

Right-Side Components

For covers with an arrowhead icon, push the cover toward one side to unlock and the other side to lock. The arrowhead points to the side for unlocking.

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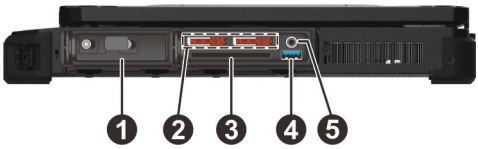
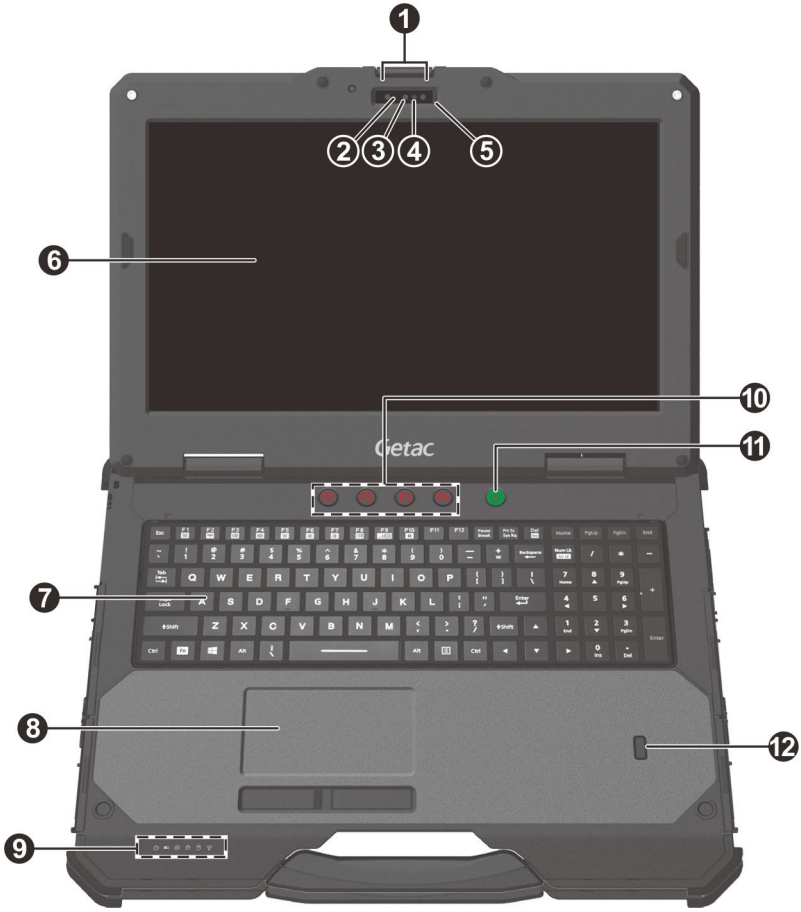


X600 Pro

Ref	Component	Description
❶	**Battery pack** (1)	Supplies power to your computer when external power is not connected.
❷	**SSD canister** (optional)	Contains the additional solid-state drive for more storage capacity. **CAUTION:** This device is not hot-swappable. Do not remove it without turning off the system first.

Ref	Component	Description
❸	Select models have one of the below components.	
	ExpressCard slot	Accepts an ExpressCard/34 or ExpressCard/54 for additional functions.
	PC card slot	Accepts a PC card for additional functions.
❹	**USB 3.2 Gen 2 port**	Connects a USB device.
❺	**Combo audio connector**	Connects a set of headphones or external speakers with amplifier.
		Supports a headset microphone with 4-pole TRRS 3.5mm jack.
❻	**Additional battery pack** (optional)	Provides additional battery power to your computer. **NOTE:** The additional battery pack alone cannot be the power source for starting up the computer.
❼	**PC card slot**	Accepts a PC card for additional functions.
❽	**ExpressCard slot**	Accepts an ExpressCard/34 or ExpressCard/54 for additional functions.

Top-open Components



Ref	Component	Description
❶	**Microphone**	Receives sound and voice for the computer.
❷	**Camera indicator** (optional)	Lights up when the camera is in use.
❸	**IR sensor** (optional)	Detects the infrared energy of objects to form an image. The sensor flashes red light when in use.

Ref	Component	Description
		The near infrared (IR) imaging capability allows you to use Windows Hello face authentication.
❹	**Camera lens** (optional)	Allows you to use the camera function.
❺	**Camera cover** (optional)	Covers the camera lens. Slide the camera cover toward the right to use the camera; slide it toward the left for privacy protection.
❻	**LCD screen**	Displays the output of the computer. Select models have the touchscreen feature.
❼	**Keyboard**	Serves as the data input device of the computer.
❽	**Touchpad**	Serves as the pointing device of the computer.
❾	**Indicators**	
	⏻ **Power**	Lights green when computer is on.
		Blinks green when computer is in Sleep mode.
	Battery	Lights amber when the battery is being charged.
		Lights green when battery charging is completed.
		Blinks green to indicate the battery's built-in high temperature protection mechanism is activated. **CAUTION:** Do not remove the battery during this period.
		Blinks red (once per second) when the battery's capacity is below 10%.
		Blinks red rapidly (once per 0.5 second) when there is a thermal protection problem. Ask for repair service in case this happens.
		Blinks amber when the battery charging is in an abnormal state. Replace the battery in case this happens.
	Caps Lock	Lights green when Caps Lock is on.
	Num Lock	Lights green when Num Lock is on.

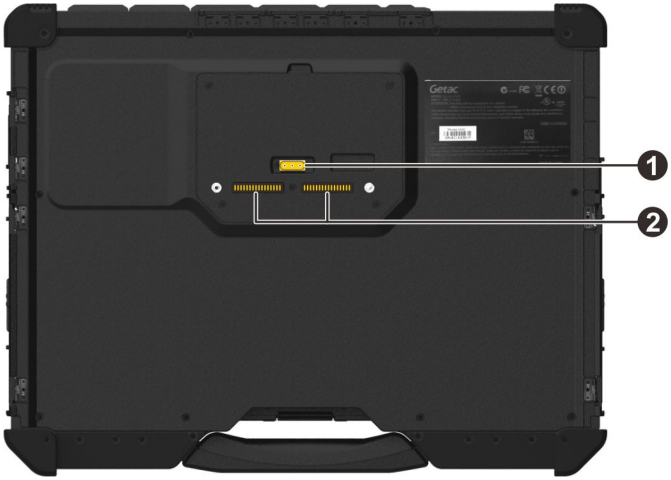
Ref	Component	Description
	Hard Disk	Blinks green when the computer is accessing the hard disk (SSD).
	Airplane mode	Lights green when the RF radio of any RF feature (WLAN/Bluetooth/WWAN) is on. If Airplane mode is switched on, the light turns off.
❿	**P1 button**	Toggles the sunlight-readable mode on or off. In sunlight-readable mode, the LCD brightness is increased to the highest level.
	P2 button	Switches the ECO mode to the next choice. Each ECO mode is a combination of power settings that results in different power consumptions.
	P3 button	Toggles Blackout mode on or off. In Blackout mode, the LCD backlight, keyboard/ button backlight, and LED indicators are all turned off; and the sound is muted.
	P4 button	Switches the Airplane mode on or off. Airplane mode turns off all wireless radios (such as WLAN, Bluetooth, and WWAN).
⓫	**Power button**	Turns the power on or off. (The default “off” state is “Sleep mode.”)
⓬	**Fingerprint scanner** (optional)	Serves as the fingerprint verification, preventing unauthorized access to your computer.

NOTE: The hardware buttons (P1 to P4) can be re-defined using G-Manager. For detailed information of button settings and behavior, see the online help of G-Manager.

Bottom Components

X600

X600 Pro



Ref	Component	Description
❶	**Antenna pass-through** (optional)	Connects to the docking station for using external WWAN/WLAN/GPS antenna.

Ref	Component	Description
❷	**Docking connector**	Connects to the office or vehicle dock (purchased separately).

Chapter 2

Operating Your Computer

This chapter provides information about the use of the computer.

If you are new to computers, reading this chapter will help you learn the operating basics. If you are already a computer user, you may choose to read only the parts containing information unique to your computer.

CAUTION:

- Do not expose your skin to the computer when operating it in a very hot or cold environment.
- The computer can get uncomfortably warm when you use it in high temperatures. As a safety precaution in such a circumstance, do not place the computer on your lap or touch it with your bare hands for extended periods of time. Prolonged body contact can cause discomfort and potentially a burn.

Using the Keyboard

Your keyboard has all the standard functions of a full-sized computer keyboard plus an **Fn** key added for specific functions.

The standard functions of the keyboard can be further divided into four major categories:

- Typewriter keys
- Cursor-control keys
- Numeric keys
- Function keys

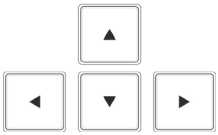
Typewriter Keys

Typewriter keys are similar to the keys on a typewriter. Several keys are added such as the **Ctrl**, **Alt**, **Esc**, and lock keys for special purposes.

The Control (**Ctrl**) / Alternate (**Alt**) key is normally used in combination with other keys for program-specific functions. The Escape (**Esc**) key is usually used for stopping a process. Examples are exiting a program and canceling a command. The function depends on the program you are using.

Cursor-Control Keys

Cursor-control keys are generally used for moving and editing purposes.



NOTE: The word "cursor" refers to the indicator on the screen that lets you know exactly where on your screen anything you type will appear. It can take the form of a vertical or horizontal line, a block, or one of many other shapes.

Numeric Keypad

Numeric keys facilitate entering of numbers and calculations. When Num Lock is on, the numeric keys are activated; meaning you can use these keys to enter numerals.

When Num Lock is off, the keys serve as cursor-control keys.

Function Keys

On the top row of the keys are the function keys: **F1** to **F12**. Function keys are multi-purpose keys that perform functions defined by individual programs.

Fn Key

The **Fn** key, at the lower left corner of the keyboard, is used with another key to perform the alternative function of a key. To perform a desired function, first press and hold **Fn**, then press the other key.

Hot Keys

Hot keys refer to a combination of keys that can be pressed any time to activate special functions of the computer. Most hot keys operate in a cyclic way. Each time a hot key combination is pressed, it shifts the corresponding function to the other or next choice.

You can easily identify the hot keys with the icons imprinted on the keytop. The hot keys are described next.

Key	Description
Fn F1	Switches the keyboard backlight off or on (with 4-level brightness).*
Fn F2	Switches the RF (radio frequency) radio on and off. When off, all wireless modules (such as WLAN, Bluetooth, and WWAN) cannot be used. When on, individual settings of the module work.
Fn F3	Decreases the sound volume.
Fn F4	Increases the sound volume.
Fn F5	Decreases the LCD brightness.
Fn F6	Increases the LCD brightness.
Fn F7	Switches the system sound output off (mute) or on.
Fn F8	Switches the display backlight off or on.

Key	Description
Fn F9	Switches the display output to the next choice if an external display is connected. Choices are: LCD only ↓ LCD + External display (Duplicate) ↓ LCD + External display (Extend) ↓ External display only The hot keys are equivalent to Windows logo key + **P**.
Fn F10	Serves as the sleep button that you can define with Windows' **Power Options**.

TABLE NOTE: * means "select models only."

Windows Keys

The keyboard has two keys that perform Windows-specific functions: Windows Logo key and Application key.

The Windows Logo key opens the **Start** menu and performs software-specific functions when used in combination with other keys. The Application key usually has the same effect as a right mouse click.

Using the Touchpad

CAUTION: Do not use a sharp object such as a pen on the touchpad. Doing so may damage the touchpad surface.

NOTE: For optimal performance of the touchpad, keep your fingers and the pad clean and dry. When tapping on the pad, tap lightly. Do not use excessive force.

The touchpad is a pointing device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection with the buttons.

The touchpad consists of a rectangular pad (work surface) and a left and a right button. To use the touchpad, place your forefinger or thumb on the pad. The rectangular pad acts like a miniature duplicate of your display. As you slide your fingertip across the pad, the pointer (also called cursor) on the screen moves accordingly. When your finger reaches the edge of the pad, simply relocate yourself by lifting the finger and placing it on the other side of the pad.

Here are some common terms that you should know when using the touchpad:

Term	Action
Point	Move your finger on the pad until the cursor points to the selection on the screen.
Click	Press and release the left button. –or– Tap gently anywhere on the pad.

Term	Action
Double-click	Press and release the left button twice in quick succession. –or– Tap twice on the pad rapidly.
Drag and drop	Press and hold the left button, then move your finger until you reach your destination (drag). Finally, release the button (drop) when you finish dragging your selection to the destination. The object will drop into the new location. –or– Gently tap twice on the pad and on the second tap, keep your finger in contact with the pad. Then, move your finger across the pad to drag the selected object to your destination. When you lift your finger from the pad, the selected object will drop into place.

TABLE NOTE: If you swap the left and right buttons, “tapping” on the touchpad as an alternative method of pressing the left button will no longer be valid.

Configuring the Touchpad

You may want to configure the touchpad to suit your needs. For example, if you are a left-handed user, you can swap the two buttons so that you can use the right button as the left button and vice versa. You can also change the size of the on-screen pointer, the speed of the pointer, and so on.

To configure the touchpad, go to **Settings → Devices → Touchpad** (for Windows 10) or **Settings → Bluetooth & devices → Touchpad** (for Windows 11).

Using Network and Wireless Connections

Using the LAN

The LAN (Local Area Network) module allows you to connect your computer to a network. It supports data transfer rate up to 2.5 Gbps.

Your computer supports two LAN modules (LAN1 and LAN2) so you can connect to two networks at the same time.

Select **X600 Pro** models have four more LAN modules.

Using the WLAN

The WLAN (Wireless Local Area Network) module supports IEEE 802.11ax, compatible with 802.11a/b/g/n/ac.

Turning On/Off the WLAN Radio

To turn on the WLAN radio:

Select the network icon in the lower right of the taskbar. Then, select the **Wi-Fi** button.

To turn off the WLAN radio:

You can turn off the WLAN radio the same way you turn it on.

If you want to quickly turn off all wireless radio, simply switch on Airplane mode. You can control the Airplane mode using one of the below methods.

- Press the **P4** button (defined as Airplane mode by default)
- Press **Fn+F1**.
- Select the network icon in the lower right of the taskbar. Then, select the **Airplane mode** button.

Connecting to a WLAN Network

1. Make sure that the WLAN function is enabled (as described above).

2. Click the network icon in the lower right of the task bar.
3. In the list of available wireless networks, click a network, and then click **Connect**.
4. Some networks require a network security key or passphrase. To connect to one of those networks, ask your network administrator or Internet service provider (ISP) for the security key or passphrase.

For more information on setting a wireless network connection, refer to Windows online help.

Using the Bluetooth Feature

The Bluetooth technology allows short-range wireless communications between devices without requiring a cable connection. Data can be transmitted through walls, pockets and briefcases as long as two devices are within range.

Turning On/Off the Bluetooth Radio

To turn on the Bluetooth radio:

Go to **Settings → Devices → Bluetooth & other devices** (for Windows 10) or **Settings → Bluetooth & devices** (for Windows 11). Slide the **Bluetooth** switch to the **On** position.

To turn off the Bluetooth radio:

You can turn off the Bluetooth radio the same way you turn it on.

If you want to quickly turn off all wireless radio, simply switch on Airplane mode. You can control the Airplane mode using one of the below methods.

- Press the **P4** button (defined as Airplane mode by default)
- Press **Fn+F1**.
- Select the network icon in the lower right of the taskbar. Then, select the **Airplane mode** button.

Connecting to another Bluetooth Device

1. Make sure that the Bluetooth function is enabled (as described above).
2. Make sure that the target Bluetooth device is turned on, discoverable and within close range. (See the documentation that came with the Bluetooth device.)
3. Windows 10: Go to **Settings** → **Devices** → **Bluetooth & other devices** → **Add Bluetooth or other device** → **Bluetooth**.

   Windows 11: Go to **Settings** → **Bluetooth & devices** → **Add device** → **Bluetooth**.
4. Select the device you want to connect from the search results.
5. Depending on the type of Bluetooth device that you want to connect to, you will need to enter the pertinent information.

For detailed information on using the Bluetooth feature, see Windows' online Help.

Using the WWAN Feature (Optional)

A WWAN (Wireless Wide Area Network) uses mobile telecommunication cellular network technologies to transfer data. The WWAN module of your computer supports 3G and 4G LTE.

NOTE: Your model only supports data transmission; voice transmission is not supported.

Installing a SIM Card

1. Turn off the computer and disconnect the AC adapter.
2. Open the cover of the SIM card slot.
3. Remove one screw to detach the small metal plate that covers the SIM card slot.
4. Insert the SIM card into the slot. Make sure the golden contact area on the card is facing upward and the beveled corner on the SIM card facing inward.
5. Close the cover.

Turning On/Off the WWAN Radio

To turn on the WWAN radio:

Select the network icon in the lower right of the taskbar. Then, select the **Cellular** button.

To turn off the WWAN radio:

You can turn off the WWAN radio the same way you turn it on.

If you want to quickly turn off all wireless radio, simply switch on Airplane mode. You can control the Airplane mode using one of the below methods.

- Press the **P4** button (defined as Airplane mode by default)
- Press **Fn+F1**.
- Select the network icon in the lower right of the taskbar. Then, select the **Airplane mode** button.

Setting up a WWAN Connection

Go to **Settings** → **Network & Internet** → **Cellular**. (For detailed information on cellular settings in Windows, see Microsoft Support website.)

Chapter 3

Managing Power

Your computer operates either on external AC power or on internal battery power.

This chapter tells you how you can effectively manage power. To maintain optimal battery performance, it is important that you use the battery in the proper way.

AC Adapter

CAUTION:

- The AC adapter is designed for use with your computer only. Connecting the AC adapter to another device can damage the adapter.
- The AC power cord supplied with your computer is for use in the country where you purchased your computer. If you plan to go overseas with the computer, consult your dealer for the appropriate power cord.
- When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or computer.
- When unplugging the connector, always hold the plug head. Never pull on the cord.

The AC adapter serves as a converter from AC (Alternating Current) to DC (Direct Current) power because your computer runs on DC power, but an electrical outlet usually provides AC power. It also charges the battery pack when connected to AC power.

The adapter operates on any voltage in the range of 100 V – 240 V AC.

Battery Pack

The battery pack is the internal power source for the computer. It is rechargeable using the AC adapter.

The computer has two main battery packs. If you have the **X600 Pro** model, up to two additional battery packs are supported.

CAUTION: Always keep both battery packs installed, especially when the computer is running on battery power. A battery pack can be removed only when it is not being charged/discharged or if it is being hot-swapped.

Charging the Battery Pack

NOTE:

- Charging will not start if the battery's temperature is outside the allowed range, which is between 0 °C (32 °F) and 50 °C (122 °F). Once the battery's temperature meets the requirements, charging automatically resumes.
- During charging, do not disconnect the AC adapter before the battery has been fully charged; otherwise, you will get a prematurely charged battery.
- The battery has a high temperature protection mechanism which limits the maximum charge of the battery to 80% of its total capacity in the event of high temperature conditions. In such conditions, the battery will be regarded as fully charged at 80% capacity.
- The battery level may automatically lessen due to the self-discharge process, even when the battery pack is fully charged. This happens no matter if the battery pack is installed in the computer.

To charge the battery pack, connect the AC adapter to the computer and an electrical outlet. The Battery Indicator (▭) on the computer glows amber to indicate that charging is in progress. You are advised to keep the computer power off while the battery is being charged. When the battery is fully charged, the Battery Indicator lights green.

CAUTION: After the computer has been fully recharged, do not immediately disconnect and reconnect the AC adapter to charge it again. Doing so may damage the battery.

Initializing the Battery Pack

You need to initialize a new battery pack before using it for the first time or when the actual operating time of a battery pack is much less than expected. Initializing is the process of fully charging, discharging, and then charging. It can take several hours.

The G-Manager program provides a tool called “Battery Recalibration” for the purpose.

Checking the Battery Level

NOTE: Any battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the computer.

The operating time of a fully charged battery pack depends on how you are using the computer. When your applications often access peripherals, you will experience a shorter operating time.

By Operating System

You can find the battery icon on the Windows taskbar (lower-right corner). The icon shows the approximate battery level.

By Gas Gauge

On the exterior side of the battery pack is a gas gauge for displaying the estimated battery charge.

When the battery pack is not installed in the computer and you want to know the battery charge, you can press the push-button to see the number of LEDs that light up. Each LED represents 20% charge.

Battery Low Signals and Actions

The battery icon changes appearance to display the current state of the battery.

Battery Icon	Battery Level	Description
	Discharging	The icon shows the charge remaining in 10-percent increments until the charge reaches the low-battery level.
	Low	The battery charge has reached the low-battery level.
	Critically low	The battery charge has reached the critical battery level. By default, Windows will display a notification and put your computer into Hibernation.

When the battery is low, the computer's Battery Indicator ( ) also blinks red to alert you to take actions.

Always respond to low-battery by connecting the AC adapter, placing your computer in Hibernation mode, or turning off the computer.

Replacing the Battery Pack

CAUTION:

- There is danger of explosion if the battery is incorrectly replaced. Replace the battery only with the computer manufacturer's optional battery packs. Discard used batteries according to the dealer's instructions.
- Do not attempt to disassemble the battery pack.
- A battery pack can get hot due to long working hours. Do not touch a hot battery pack with bare hands. After removing a battery pack, put it in a well-ventilated area.

Main Battery Packs

NOTE: You can hot swap one battery pack while the other one is supplying the power. The appropriate temperature range for hot swapping the battery pack is between -21°C (-5.8 °F) and 45 °C (113 °F).

1. Skip this step if you are hot swapping the battery pack.

   Turn off the computer and disconnect the AC adapter. After turning off the computer, allow a cool-down time of at least 5 minutes before removing the battery pack.

2. Locate the battery pack you want to remove (1 or 2). Open the protective cover.

3. Pull the strip and slide the battery pack out of the slot.

4. With the strip facing outward, insert the new battery pack all the way into the slot.

5. Close the cover and slide it toward the locked position ( ).

CAUTION: Make sure the cover is correctly locked, not revealing the underneath red part.

Power-Saving Tips

Aside from enabling your computer's power saving mode, you can do your part to maximize the battery's operating time by following these suggestions.

- Do not disable Power Management.
- Decrease the LCD brightness to the lowest comfortable level.
- Shorten the length of time before Windows turn off the display.
- When not using a connected device, disconnect it.
- Turn off the wireless radio if you are not using the wireless module (such as WLAN, Bluetooth, or WWAN).
- Turn off the computer when you are not using it.

Appendix A

Specifications

NOTE: Specifications are subject to change without any prior notice.

Parts		Specifications
CPU		- Intel® TGL lake H - Intel® TGL lake (Xeon)
BIOS		Insyde, 32MB flash EEPROM, UEFI, supporting TPM, vPro, NIST, Computrace, self-diagnostics, Asset Tag, and WMI
RAM		8/16/32GB DDR4 SO-DIMM slots x 4, maximum capacity 128GB, 3200MHz
Display	Panel	15.6-inch (16:9) wide TFT LCD, 1920×1080 FHD, dimmer mode, blackout mode, capacitive multi-touch - 10 points (option)
	Controller	UMA - Intel® UHD Graphics Option: Discrete GPU
Audio	Features	High-Definition audio
	Microphone	Integrated x 2, Mic Array
	Speaker	2W × 2
Keyboard		Standard keys with numeric pad keys, 12 function keys, special **Fn** (Function) key and Windows keys, water-proof membrane, with backlight
Pointing device		Glide touchpad with 2 buttons
SSD (solid-state drive)		SATA III or PCIe (option) interface, M.2 2280 form factor, 512GB/1TB/2TB Up to three SSDs (SSD 0/1/2) can be installed, with SSD 0 as the C: drive containing the operating system
Optical disc drive (on the expansion unit)		SATA interface, Super-Multi DVD drive or Blu-ray DVD drive (option)
I/O ports	Standard	USB-C Thunderbolt 4, USB 3.2 Gen 2 x 4, RJ45 x 2, combo audio (4-pole TRRS 3.5mm type), HDMI, DisplayPort, serial (RS-232/RS-422), VGA or serial (RS-232/RS-422), docking, tri antenna pass-through (option)
	On the expansion unit	RJ45 x 4 (option), serial (RS-232/RS-422)

Parts		Specifications
Card slots	Standard	SD card (option) Smart Card ExpressCard/54 or PC Card (option)
	On the expansion unit	ExpressCard/54 PC Card
LAN		Intel® KTI225LM, 2.5 Gbps speed
Wireless LAN + Bluetooth		Intel® Wi-Fi 6E AX210+ Bluetooth 5.2 combo, LAN1 and LAN2
WWAN (option)		4G/5G, external accessible SIM card slot
GPS (option)		UART Option: LTE GPS or dedicated GPS/Glonass
Camera (option)		FHD Webcam, IR sensor (option)
Security		Kensington lock TPM 2.0 (option) Fingerprint scanner (option)
Power	AC adapter	Universal AC adapter, 150 W or 230 W (for models with discrete GPU), input: 100-240 V AC, output: 19 V
	Battery pack	Main: two battery packs Lithium-ion Cylindrical type, 6-cell, 6900 mAh, 75 Wh
		On the expansion unit: up to two battery packs as options Lithium-ion Prismatic type, 6-cell, 4200 mAh, 46 Wh
Dimension		X600: 402x320x46.5 mm
		X600 Pro: 402x320x65.5 mm
Weight		X600: 4.43 kg
		X600 Pro: 5.45 kg

Appendix B

Regulatory Information

This appendix provides regulatory statements and safety notices on your computer.

NOTE: Marking labels located on the exterior of your computer indicate the regulations that your model complies with. Please check the marking labels and refer to the corresponding statements in this appendix. Some notices apply to specific models only.

Safety Notices

About the Battery

If the battery is mishandled, it may cause fire, smoke or an explosion and the battery's functionality will be seriously damaged. The safety instructions listed below must be followed.

Danger

- Do not immerse the battery with liquid such as water, sea water or soda.
- Do not charge/discharge or place the battery in high-temperature (more than 80 °C / 176 °F) locations, such as near a fire, heater, in a car in direct sunlight, etc.
- Do not use unauthorized chargers.
- Do not force a reverse-charge or a reverse-connection.
- Do not connect the battery with AC plug (outlet) or car plugs.
- Do not adapt the battery to unspecified applications.
- Do not short circuit the battery.
- Do not drop or subject the battery to impacts.
- Do not penetrate with a nail or strike with a hammer.
- Do not directly solder the battery.
- Do not disassemble the battery.
- Keep the battery away from an extremely low air pressure environment as it may result in an explosion or the leakage of flammable liquid or gas.

Warning

- Keep the battery away from infants.
- Stop using the battery if there are noticeable abnormalities such as abnormal smell, heat, deformities, or discoloration.
- Stop charging if the charging process cannot be finished.

- In case of a leaking battery, keep the battery away from flames and do not touch it.
- Pack the battery tightly during transport.

Caution

- Do not use the battery where static electricity (more than 100V) exists that might damage the protection circuit of the battery.
- When children are using the system, parents or adults must ensure that they are using the system and battery correctly.
- Keep the battery away from flammable materials during charging and discharging.
- In case lead wires or metal objects come out from the battery, you must seal and insulate them completely.

Caution Texts Concerning Lithium Batteries

DANISH
ADVARSEL! Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

NORWEGIAN
ADVARSEL: Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

SWEDISH
VARNING: Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

FINNISH
VAROITUS: Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan valmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

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

DEUTSCH
VORSICHT: Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

FRENCH
ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Attention (for USA Users)

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

About the AC Adapter

- Use only the AC adapter supplied with your computer. Use of another type of AC adapter will result in malfunction and/or danger.
- If a ground/earth pin attachment plug on the AC power cord is provided, always plug the cord into a grounded/earthed outlet. Do not disable ground/earth pin of the plug/cord.
- Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.
- Allow adequate ventilation around the adapter when using it to operate the device or charge the battery. Do not cover the AC adapter with paper or other objects that will reduce cooling. Do not use the AC adapter while it is inside a carrying case.
- Connect the adapter to a proper power source. The voltage requirements are found on the product case and/or packaging.
- Do not use the adapter if the cord becomes damaged.
- Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

Heat Related Concerns

Your device may become very warm during normal use. It complies with the user-accessible surface temperature limits defined by the International Standards for Safety. Still, sustained contact with warm surfaces for long periods of time may cause discomfort or injury. To reduce potential heat-related concerns, follow these guidelines:

- Keep your device and its AC adapter in a well-ventilated area when in use or charging. Allow for adequate air circulation under and around the device.
- Use common sense to avoid situations where your skin is in contact with your device or its AC adapter when it's operating or connected to a power source. For example, don't sleep with your device or its AC adapter, or place it under a blanket or pillow, and avoid contact between your body and your device when the AC adapter is connected to a power source. Take special care if you have a physical condition that affects your ability to detect heat against the body.
- If your device is used for long periods, its surface can become very warm. While the temperature may not feel hot to the touch, if you maintain physical contact with the device for a long time, for example if you rest the device on your lap, your skin might suffer a low-heat injury.
- If your device is on your lap and gets uncomfortably warm, remove it from your lap and place it on a stable work surface.
- Never place your device or AC adapter on furniture or any other surface that might be marred by exposure to heat since the base of your device and the surface of the AC adaptor may increase in temperature during normal use.

North America

USA

Federal Communications Commission Radio Frequency Interference Statement

NOTE:

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 the 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 into 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.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Please note:

The use of a non-shielded interface cable with this equipment is prohibited.

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

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

For general notebook computers in normal use, you (or any other person in the vicinity) should keep a minimum separation distance of 20 cm away from the front panel of the device to ensures that the RF exposure levels comply with the RF exposure requirement.

For devices designed to be operated at closer proximities, their antennas cannot satisfy the separation distance. Such devices are evaluated with the Specific Absorption Rate (SAR). You (or any other person in the vicinity) should keep a minimum separation distance of 25 mm away from the front panel of the device to ensures that the RF exposure levels comply with the RF exposure requirement.

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Address	15495 Sand Canyon Rd., Suite 350 Irvine, CA 92618 USA
Phone	+1-949-681-2900

ANSI Warning

Equipment approved for UL 121201/CSA C22.2 NO. 213, Nonincendive Electrical Equipment for use in Class 1, Division 2, Group A, B, C, and D.
Maximum ambient temperature: 40°C

EXPLOSION HARZARD WARNINGS:

- External connections/hubs through the connectors as mentioned (USB connector, Ethernet connector, phone connector, VGA port, HDMI port, DP port, serial port, power supply connector, microphone jack, and headphones jack) are not to be used in a hazardous location. When used with a docking station (such as the office dock or vehicle dock), the docking/undocking of the equipment must be conducted outside the hazardous area. Docking/undocking in a hazardous area is prohibited. Any external card (such as the micro-SIM card and SD card) must not be removed or replaced while the circuit is live or unless the area is free of ignitable concentrations.

- The computer is to be only powered from the battery pack while in Hazardous Locations. Power adapter is not certified to use in Hazardous Locations and not to be used in Hazardous Locations.
- BATTERY MUST ONLY BE CHANGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.

California Proposition 65

For California USA:

Proposition 65, a California law, requires warnings to be provided to California consumers when they might be exposed to chemical(s) identified by Proposition 65 as causing cancer and birth defects or other reproductive harm.

Almost all electronic products contain 1 or more of the chemicals listed under Proposition 65. This does not mean the products pose a significant risk of exposure. As the consumers have the right to know about the products they purchase, we are giving this warning on our packaging and user manual to keep our consumers well informed.

⚠ WARNING

This product can expose you to chemicals including lead, TBBPA or formaldehyde, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Canada

Canadian ICES-003

CAN ICES-3(B)/NMB-3(B)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : 1) L'appareil ne doit pas produire de brouillage; 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

L'appareil peut interrompre automatiquement la transmission en cas d'absence d'informations à transmettre ou de panne opérationnelle. Notez que ceci n'est pas destiné à interdire la transmission d'informations de contrôle ou de signalisation ou l'utilisation de codes répétitifs lorsque cela est requis par la technologie.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

l'appareil fonctionnant dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire les risques de brouillage préjudiciable pour les systèmes mobiles par satellite dans le même canal.

User Notification of Take-back Service

To customers in United States and Canada:

Getac believes in providing our customers with easy-to-use solutions to recycle your Getac-brand products for free. Getac understands the customers will likely be recycling multiple items at once and as such. Getac wants to make the recycling process for these larger shipments as streamlined as possible. Getac works with recycling vendors with the highest standards for protecting our environment, ensuring worker safety, and complying with global environmental laws. Our commitment to recycling our old equipment grows out of our work to protect the environment in many ways. For more information, see the Getac Web site at https://www.getac.com/us/environmental-certifications/.

Please see the product type below for information on Getac product, battery and packaging recycling in USA and Canada.

- **For Product Recycling:**
  If you have a Getac computer that needs to go to a recycling house, Getac can help you. Just contact us at (866) 394 – 3822 or by email at **GUSA.RecycleProgram@getac.com** to obtain a prepaid shipping label at no charge to you, pack up your equipment in a box of your choice and send it off.
- **For Battery Recycling:**
  The batteries used to power your portable Getac products contain hazardous materials. While they pose no risk to you during normal use, they should never be disposed with other wastes. Getac provides a free take-back service for recycling your batteries from Getac products. To recycle the battery, please contact us at (866) 394 – 3822 or by email at **GUSA.RecycleProgram@getac.com**.
- **For Packaging Recycling:**
  Getac has chosen the packaging materials used to transport our products carefully, to balance the requirements of shipping the product to you safely while minimizing the amount of material used. Our packaging for notebooks and tablets is recyclable and manufactured using elemental chlorine-free processes. They contain 90 percent (by weight) recycled content. Your packaging materials can be recycled at your local recycling center. Or, if you would like Getac to recycle your packaging, please contact us at (866) 394 – 3822 and we will make arrangements for you.

If you have the above for recycling, please visit our website https://www.getac.com/us/environmental-certifications/

Europe Marking and Compliance Notices

Statements of Compliance

English
This product follows the provisions of the European Directive 2014/53/EU.

Danish
Dette produkt er i overensstemmelse med det europæiske direktiv 2014/53/EU.

Dutch
Dit product is in navolging van de bepalingen van Europees Directief 2014/53/EU.

Finnish
Tämä tuote noudattaa EU-direktiivin 2014/53/EU määräyksiä.

French
Ce produit est conforme aux exigences de la Directive Européenne 2014/53/EU.

German
Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 2014/53/EU.

Greek
Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 2014/53/EU.

Icelandic
Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 2014/53/EU.

Italian
Questo prodotto è conforme alla Direttiva Europea 2014/53/EU.

Norwegian
Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 2014/53/EU.

Portuguese
Este produto cumpre com as normas da Diretiva Européia 2014/53/EU.

Spanish
Este producto cumple con las normas del Directivo Europeo 2014/53/EU.

Swedish
Denna produkt har tillverkats i enlighet med EG-direktiv 2014/53/EU.

Notices

Max power:
WWAN: dBm
WLAN 2.4G: dBm
WLAN 5G: dBm
BT: dBm
RFID: - dBuA/m at 10m

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

	BE	BG	CZ	DK	DE	EE
	IE	EL	ES	FR	HR	IT
	CY	LV	LT	LU	HU	MT
	NL	AT	PL	PT	RO	SI
	SK	FI	SE	NO	IS	LI
	CH	TR	UK (NI)			

Restriction or Requirement in the UK: 5150 to 5350 MHz indoor-use only.

	UK

	Waste Electrical and Electronic Equipment (WEEE) This symbol means that according to local laws and regulations your product shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Proper recycling of your product will protect human health and the environment.

	Battery Directive — Information for Users In the European Union, this label indicates that the batteries in this product should be collected separately and not be disposed of with household waste. Substances in batteries can have a potential impact on health and environment and you have a role in recycling waste batteries thus contributing to the protection, preservation, and improvement of the quality of the environment.

Restriction of Hazardous Substances (RoHS) Directive

EU RoHS

Getac products meet the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment. For more information about RoHS, go to: https://www.getac.com/us/environment/

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Phone	+49 (0) 211-984819-0

Company name	Getac UK Ltd.
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ENERGY STAR

ENERGY STAR® is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

Please reference ENERGY STAR® related information from http://www.energystar.gov.

As an ENERGY STAR® Partner, Getac Technology Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

All Getac products with ENERGY STAR® logo comply with the ENERGY STAR® standard, and the power management feature is enabled by default. Getac's ENERGY STAR® qualified products are listed on the EPA website. https://www.energystar.gov/products

About Battery and External Enclosure Replacement

Battery

The batteries of your product include two or more battery packs and a button cell (or called RTC battery). All batteries are available from Getac authorized service centers.

The battery pack is user-replaceable. Replacement instructions can be found in “Replacing the Battery Pack” in Chapter 3. The bridge battery and button cell must be replaced by Getac authorized service centers.

Visit the website at http://us.getac.com/support/support-select.html for authorized service center information.

External Enclosure

The external enclosure of the product can be removed using screwdrivers. The external enclosure can then be reused or refurbished.