

## **TOUGHBOOK 40 FAQs**

### **What modular areas on the TOUGHBOOK 40 are user-replaceable?**

There are eight modular areas. The memory (RAM), storage (SSD), battery and even the keyboard are user-replaceable. The storage drive has a quick-release latch for easy and fast removal. In addition, there are four other expansion areas that can accommodate optical drives, authentication readers as well as additional I/O, batteries and a second storage drive and barcode reader. This unparalleled customization enables companies and agencies the ability to help futureproof, simplify ordering, shorten lead times and decrease downtime.

### **What is the difference between “expansion areas”, “expansion pack” and “xPAK’s”?**

The expansion areas are the four modular areas on the TOUGHBOOK 40. The expansion packs (or xPAK’s for short) are the accessories that fit into one of the four expansion areas.

### **Can I buy an expansion pack (xPAK) post-purchase or do I have to buy it at time of purchase of the laptop?**

The xPAK’s can be purchased as accessories (at purchase or post-purchase) and are user-replaceable.

### **How complicated is it to remove an xPAK? Do I need special training?**

Panasonic designed the xPAK’s to be easily inserted and removed. On the TOUGHBOOK 40, most areas just a screwdriver and a handful of screws, and some areas are even toolless just using a slide lever. But all areas were designed to also be very simple and straightforward and user-replaceable.

### **I don’t want my users to be able to remove the xPAK’s and SSD. Can I lock them down?**

Yes, Panasonic designed the xPAK’s as well as the main SSD so if an IT department wants to, they could be locked down by simply inserting a screw. Panasonic offers a SKU (FZ-VSW551U) with a bag of 14 interchangeable screws (mix of silver and black) that can be used to lock down the various expansion areas as well as replacements for the screws from the keyboard, memory and xPAK’s.

### **What screws are included in FZ-VSW551U?**

There are 14 interchangeable screws (mix of silver and black) that can be used to lock down the various expansion areas as well as replacements for the screws from the keyboard, memory and xPAK’s.

### **Is the SSD removable?**

Yes, it is end-user removable and has a quick-release lever for easy detaching. If an IT department wants to, they can purchase an optional locking screw that will secure the SSD and help it prevent from coming loose by accident. A set of 14 screws are including in sku # FZ-VSW551U.

### **Are the batteries removable?**

Yes, they are end-user removable and have a quick-release lever for easy detaching.

### **What is a hot-swappable battery?**

A hot-swappable battery lets users swap one of the two batteries (2<sup>nd</sup> battery is optional) in the unit without needing to shut down or suspend the laptop first. Both batteries are identical and can go in either the left or right battery slot.

### **How is MobileMark 30 different than MobileMark 25?**

The TOUGHBOOK 40 Mk3 real-world battery life is longer than the Mk2; however, the Mk3 battery life is now reported using MobileMark 30 instead of MobileMark 25. MobileMark 30 is a newer version of the test standard that utilizes more aggressive test which results in lower test scores of battery life.

### **How can I scan a barcode using the Barcode Reader xPAK?**

There is a barcode trigger button located on the xPAK. In addition, you can assign one of the P1-P4 buttons (or the A1-A4 keys) to be a barcode trigger. The default setting for the trigger button is the laser stays on for 8 seconds or until a barcode is scanned. This allows a user to hold a driver's license and be able to press the trigger button using the same hand for easy one-handed operation.

### **Does it have a AI CPU? What is a NPU?**

The TOUGHBOOK 40 processors have up to 16 CPU cores, 8 GPU cores and a NPU which is a dedicated artificial intelligence (AI) engine. The processors intelligently pick which to use for an AI task depending on the type and complexity. They can perform up to 97 overall peak TOPS, which can be further boosted when equipped with the industry's first 8GB dGPU that can perform up to 34.5 overall peak TOPS.

### **Does a dGPU just improve graphics?**

Actually, a dGPU can improve not just graphics, but AI tasks. The TOUGHBOOK 40 is powered by the industry's first 8GB GDDR6 dGPU – it has 56 AI Accelerators, can perform up to 34.5 overall peak TOPS, 17 TFLOPS of peak FP32 and features the Radiance Display™ Engine for breathtaking visual clarity and fidelity.

### **Does AMD have coding tools similar to Nvidia's CUDA?**

Yes, but AMD's version is called ROCm and is open-source (CUDA is proprietary). With ROCm, software program can optimize AI and graphic workloads to run much faster. And AMD has tools to help port CUDA code to ROCm for easy migration. If you have any need any assistance, please contact your Panasonic or AMD representative.

### **What is Intel vPro™ technology?**

Essential for businesses and agencies, it allows remote management for IT departments and adds security including Intel® Hardware Shield.

### **What are the tetra-array microphones?**

The TOUGHBOOK 40 is the only rugged laptop with four microphones – all of the microphones along with AI noise reduction help to improve the accuracy of the speech recognition so it can offer class leading accuracy whether in a quiet room or noisy environment. This is especially critical in real-world environments that have a lot of background noise from sirens, wind, highways, construction, other people talking, etc.

### **What is an infrared webcam? What is Microsoft Hello?**

The combination of an infrared (IR) webcam on TOUGHBOOK 40 and Windows Hello allows customers to use 3D facial recognition or fingerprint scanning (on units equipped with a fingerprint reader) for user authentication.

### **What is the maximum number of users that can set up their faces using Microsoft Hello?**

There is no theoretical maximum. Up to 99 has been tested. Each user will need to set their own account, but multiple users can set up their own account.

### **What color is the backlight on the keyboard?**

The TOUGHBOOK 40 has a color-selectable backlit keyboard letting users select from four preset colors as well as define their own custom colors. And the programmable buttons (P4 by default) and keys (A4 by default) toggles between white, red and any two selectable colors to allow the keyboard color be easily changed on the fly. There are 4 keyboard brightness levels plus off. Also standard is an onscreen notification system that displays what the keyboard brightness is.

### **Can I set the backlight of the keyboard to turn off at a certain amount of time of inactivity to save battery?**

Yes, this can be adjusted in the BIOS under the “Main” tab, then “Backlight Keyboard Settings” (Backlight Timeout). You can choose the timeout (delay) to be up to 1 minute of inactivity before the keyboard backlight is turned off. And you can choose different settings for when the TOUGHBOOK 40 is plugged in verses on battery. By default, it is turned off when the unit is plugged in and 30 seconds when it is on battery. To wake the backlight, simply touch any key or touchpad.

### **How does the Gen2 resistive touchpad differ than the Gen1 resistive touchpads in the market?**

Panasonic developed an all new touchpad that is still pressure sensitive (resistive) so it can work with gloves or in the rain, but is much easier (sensitive) to move. In essence, it provides the best of both worlds – a pressure sensitive touchpad that feels like it is capacitive. Panasonic also took the opportunity to make the largest touchpad it has ever made in a TOUGHBOOK device – 60% larger than on the TOUGHBOOK 31. And, in addition, Panasonic reengineered the touchpad buttons to be easier to click and provide more tactile response.

### **What is Night Mode? How is it different from Concealed Mode?**

Night Mode is Panasonic’s application that can apply a screen effect to reduce night blindness, eye strain and neural stimulation by applying one of 12 screen effects (colors, inversion, grayscale, blue light reduction), keyboard color and brightness. It is triggered either manually, or automatically based on the time of day or the amount of light. Concealed Mode is also a Panasonic application that can dim or turn off the display when a combination of keys is pressed, along with some other settings include turning off the keyboard LED’s and turning off the volume.

### **Do any integrated options require a bump out?**

No, the TOUGHBOOK 40 has a flat bottom on all configurations. No configuration requires a bump out.

### **Can I read/write to the DVD drive & Blu-ray drive?**

Yes, both can read/write. Special read only versions can be requested at time of purchase of a TOUGHBOOK 40 and will require a different SKU.

### **Does it come with a stylus pen and tether?**

Yes, as well as a stylus holder.

### **What are the different cellular (WWAN) modems available?**

The TOUGHBOOK 40 offers the choice between two different modems. The 4G modem (EM7690) supports LTE, LTE-A and speeds up to 2 Gbps. The 5G modem (EM9291) supports 4G (LTE, LTE-A) as well as 5G (Sub6, C-band) and speeds up to 3.5 Gbps. Both modems seamlessly connect to the best available network without any disruption or intervention by the user. And both modems support FirstNet® (band 14), CBRS Private LTE (band 48) and have dual SIM (physical SIM + eSIM) for maximum flexibility.

### **How many SIM slots does it have?**

2 slots for maximum flexibility. One physical NanoSIM (4FF) and one eSIM.

#### **What is the square padding on the inside of the door by the SIM port**

The padding is designed to help to ensure the SIM card does not come out due to vibrations or drops (to be effective the door must be closed). This style makes it much easier to manage deployments since no tools are needed to remove/install a SIM cover. And you never have to worry about a losing a SIM cover. However, a SIM cover is an option on the TOUGHBOOK 40 for those who still prefer it – contact the Panasonic Service Group for details.

#### **What functionality does the Thunderbolt™ 4 USB-C port on TOUGHBOOK 40 support?**

The port can be used for fast 40 Gbps data transfer, connecting to monitors and peripherals, charging cell phones, and even charging the PC itself with Power Delivery.

#### **Can I reuse my AC adapters from the TOUGHBOOK 56, TOUGHBOOK 33 and TOUGHBOOK 31?**

Yes!

#### **What is Local Platform Erase?**

Can easily and securely wipe the entire contents of the PC including the OS and partition. Instead of overwriting data which takes more time and SSD's have limited read/writes, Secure Wipe applies a voltage spike to erase contents. Instead of taking minutes or hours, it takes less than one minute. It can be accessed in the BIOS under the Security tab.

#### **What is the difference between IP66 and IP65?**

The difference is in the water rating. IP65 is water projected from by a nozzle. IP66 is water projected by a powerful jet. So, the pressure is more powerful (3x more) but also there is much more volume of water per minute coming out (8x more).