

The Rules of Charging

To ensure that your products continue to function without interruption, several strategies can be considered. One option is to purchase two units of the same product, allowing you to use one while the other charges. Another approach is to replace the battery when it reaches the end of its life, ensuring the product continues to run smoothly. Alternatively, you can charge the product while using it, so it remains powered as you continue with your tasks.

For example, with small electronic devices like a portable electric lamp, you can easily use it while charging. The same applies to mobile phones—you can continue using your phone for calls, browsing, and running apps while it's plugged into a charger. Modern smartphones are designed to operate efficiently even while charging, with minimal impact on performance, allowing you to stay connected and productive.

In the past, mobile phones allowed for battery replacements, which extended their use time. However, portable electric lamps typically do not support easy battery changes, making them dependent on continuous charging for extended use.

Similarly, laptops are designed to be used while charging. Whether you're working, gaming, or watching videos, you can keep your laptop plugged into a power source for uninterrupted use. Most laptops come with battery management systems that prevent overcharging, ensuring the device works smoothly even when plugged in.

However, when it comes to electric vehicles, charging during use is not feasible. Due to the high energy consumption required for driving, you cannot charge an electric car while it is in operation. The charging process needs more time and a stable power supply, which cannot be maintained while the vehicle is being driven. This is why careful planning of the vehicle's charging schedule is essential to ensure the battery is sufficiently charged before embarking on longer journeys.

When discussing the Rules of Charging, it's important to consider two key factors: whether the battery is removable and whether the product can be used while charging. These two factors ultimately determine how we can use these products continuously.

For inexpensive products with low switching costs, like portable electric lamps, we can choose to buy a second unit for continuous use. However, for more expensive items like mobile phones or electric cars, we tend to rely on charging them while in use instead of purchasing additional devices.

Take the portable electric lamp, for example—it's usually fixed in a location in our room. If I want to use it continuously, I would need to buy a power bank to keep it charged. Alternatively, I could purchase another portable electric lamp and switch between the two, allowing for continuous use by charging one while the other is in use.