Promethean

UNDERSTANDING USB-C CONNECTIVITY

USB

TYPE - C

Learn about USB-C and connectivity, to understand which cables will work with your ActivPanel.

USB Type-C (USB-C) is a modern and flexible way for devices to connect with each other, and is quickly becoming the new "standard" for device connectivity. It can transfer data really fast and can deliver power to charge devices. It does, however, also come with some key challenges, as described below.

USB-C Challenges

While USB-C is a widely adopted and versatile standard, there are some challenges associated with its use:

Confusion & Compatibility

USB-C supports a range of features, but not all USB-C cables or ports necessarily support those same features. This can lead to confusion, as not every cable may support high-speed data transfer, power delivery, and/or display alternate modes.

Quality of cables

The USB-C ecosystem includes cables of varying quality. Some may not meet the required standards, leading to issues such as unreliable data transfer, slower charging, or even potential damage to devices. Users need to be cautious about the quality of the cables they purchase.

Authentication challenges

The use of authentication chips in USB-C cables can be both an advantage and a challenge. While it helps ensure compatibility and security, it can also lead to issues if a device does not recognize a particular cable due to authentication problems.

Cable length

USB-C cables beyond 1-2 meters face challenges with signal degradation, which can lead to Insufficient power delivery, reduced data transfer speeds, potential compatibility issues and unstable image, touch and/or sound signals.

Quality and certification become crucial, and active cables may be needed to maintain signal integrity over longer distances, though these can be more expensive. Also, there is no guarantee these cables will work with your device, as manufacturers may implement USB-C ports differently based on the intended use of the device.

Thorough testing of such cables is highly recommended, before purchase!

ActivPanel & USB-C Connectivity

USB-C facilitates the transmission of image signals (DisplayPort Alternate Mode), audio signals (USB audio support), and touch signals between a device and the ActivPanel. When connected using a USB-C cable, ActivPanel serves as an extended or duplicated display for the device, plays audio from the device and enables touch interaction.

However, the specific capabilities and features depend on the USB-C implementation in your specific device, as well as the software and drivers supporting these functionalities.

Promethean includes a high-quality 2m USB-C cable with every ActivPanel.
We advise you to always use this cable, to ensure full connectivity and functionality with your panel.