# Handle two USB ports on CCP VC/VA.

The CCpilot VC/VA contains two USB ports. One port is located in the multipin connector 1 (grey connector) and function as a host interface. This port can be used for application for data transfer or the connection of a peripheral such as a mouse or keyboard.

The second USB port which interface through a micro USB connector is located under a cover on the backside of the device. This port supports an USB OTG interface, i.e. acting as both host and device interfaces. Using the port in USB device mode, it's only for enable OS updates through a connected PC with appropriate tool installed. In USB host mode, it supports the same functionality as the USB host port in the main connector..
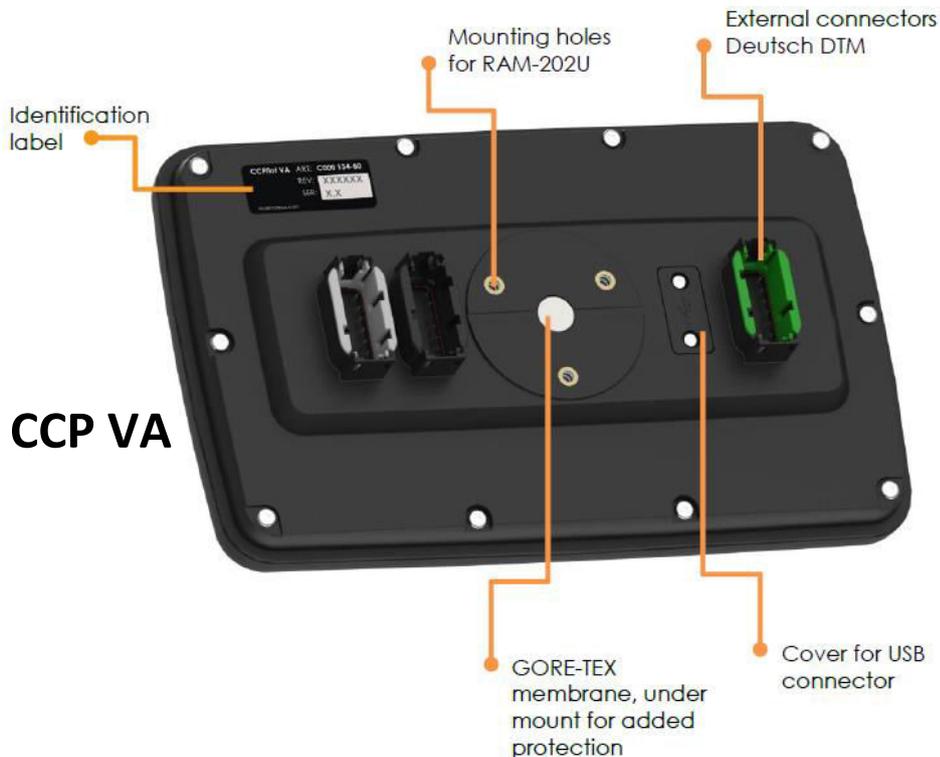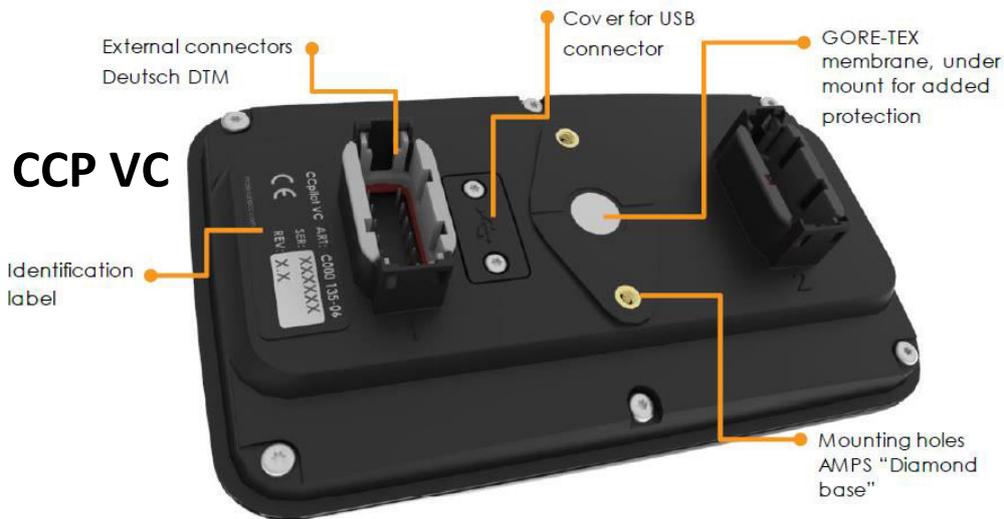
When there is no USB stick inserted in the USB slots and you use the following command:

fdisk -l | grep /dev/sd
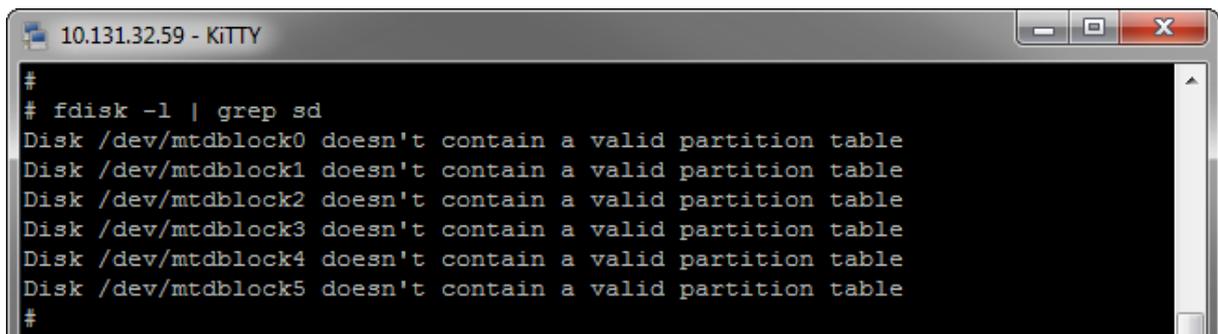
Even though there is no USB stick inserted, you get a listing output from the command. The code example used for CCP XS and VS must be tested to see if the result from system command can be used to detect if there is a USB inserted and also to determine that there is NO USB inserted!

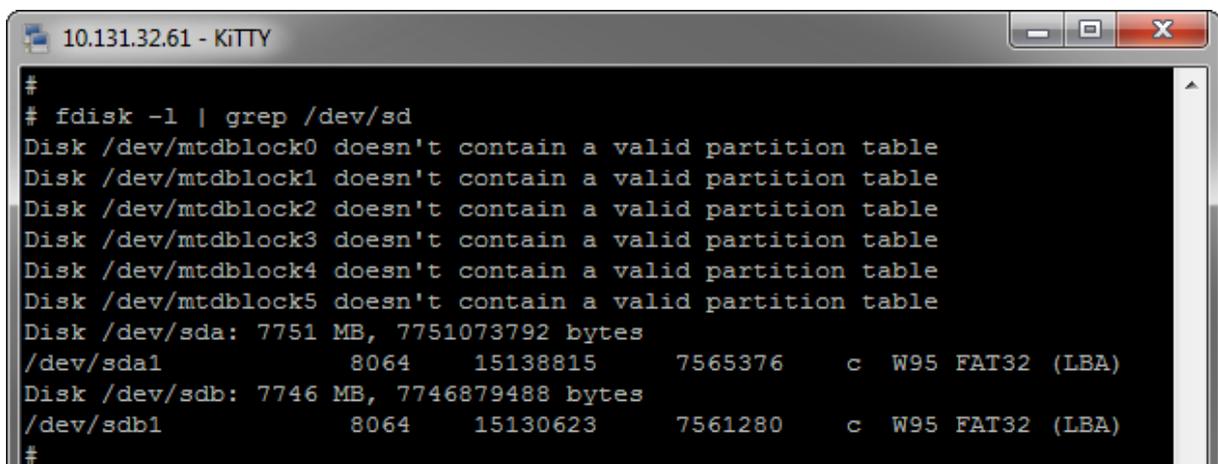If you insert an USB stick in the USB slot (in the cable harness) and then use the same command:

fdisk -l | grep /dev/sd
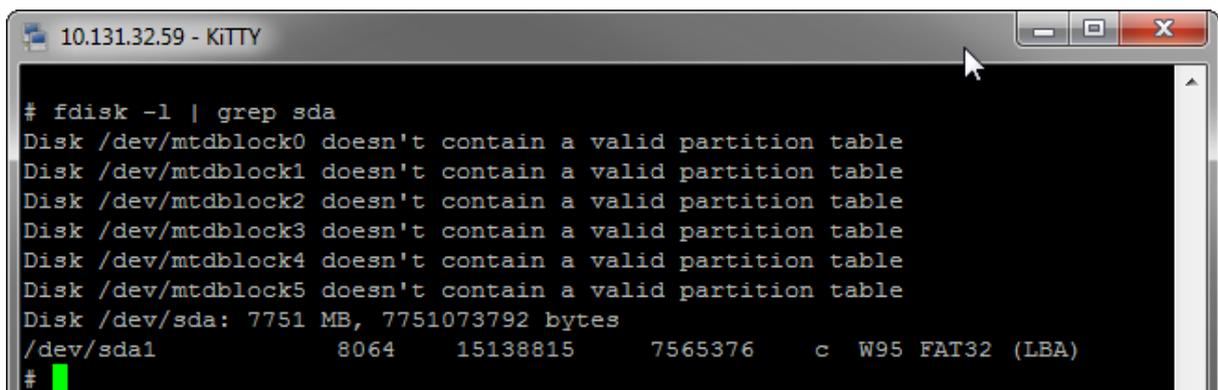
As you can see, there is additional info at the end of the output from the command listing the USB stick as device 'sda1'.

If a second USB is inserted, using an USB adapter (USB Mini male ← → ASB A Female), the fdisk command gives the following feedback:

As you can see, there is more info added listing also the second USB stick with device name 'sdb1'.

Code example

```
#define + MAX_NUM_DEVICES 7
void check_usb()
{
  char i;
  char cmd[256];

  for (i = 0x61; i < (0x61 + MAX_NUM_DEVICES); i++)
  {
    // Check if device /dev/sdx1 exists
    sprintf(cmd, "fdisk -l | grep /dev/sd%c", i);
    if (system(cmd) == 0)              // NOTE! 0(zero) means NO error!
    {
      // Check if device is mounted anywhere
      sprintf(cmd, "mount | grep /dev/sd%c", i);
      if (system(cmd) == 0)            // NOTE! 0(zero) means NO error!
      {
        // Device is mounted
        printLog("Found device /dev/sd%c, device is already mounted.\n");
        // The USB is present! Use it as you wish!
        ...
      }
      else
      {
        ...
      }
    }
  }
}
```

Note, the code included in the if-statement (above) must be tested and analyzed:

```
    if (system(cmd) == 0)              // NOTE! 0(zero) means NO error!
    {
            ...
```

The result from system-command needs to be checked, when there is no USB inserted and when one is inserted...