



DOCUMENT NO: TT-CATPLUS-20-002  
 REVISION: 01

**TECHNICAL TIP**

**TITLE: USB/FIBER CONNECT ORDER FOR CATALYST+**

<b>Instrument/Model:</b>	CatalystPlus/CatalystPlusHD		
<b>Initiator:</b>	Michael Götz	<b>Date:</b>	28.12.2020
<b>TT Completion Status:</b>	<input type="checkbox"/> Incorporated into Service and/or Training Manual: Manual Document Number: _____ Manual Revision: _____  <input type="checkbox"/> The Service Bulletin is Obsolete <input type="checkbox"/> Other, Explain:		
<b>Systems Affected:</b>	<input checked="" type="checkbox"/> All System in the field <input type="checkbox"/> Selected Systems <input type="checkbox"/> Affected S/N list attached <input type="checkbox"/> None		
<b>Status / Priority</b>	<input type="checkbox"/> Immediate (Open/Schedule Call) <input type="checkbox"/> Perform Next Visit <input checked="" type="checkbox"/> Procedural/Informational (No action needed)		

**Definition(s):**

- Device Manager = Microsoft Windows® Hardware manager
- c4D = C-Rad client software
- Catalyst+ = C-Rad surface detection system hardware
- Service Tool = C-Rad Software used by service e.g. set coordinate system.
- SnapcalX = Software to calibrate the Catalyst+ scanner
- DLS Scanner = Vialux scanner hardware
- Asmedia Card = Hardware that provides Hi-Speed USB3.1 connector
- PM-Box = C-Rad Hardware to control DLS Scanner

**Distribution:**

- C-Rad Internal
- Distributors
- C-Rad User

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**Purpose:**

At the Install of Catalyst+/Catalyst+HD it was recognized that the PM box shown in the Device Manager / Service Tool as “Catalyst+/PM-Box” was missing.  
In some cases, the cause was a wrong connected DLS Scanner to the internal USB ports of the client Computer. The DLS-Scanner must be connected to the Asmedia Card (delivered with the Catalyst+HW). If the DLS-Scanner is/was accidentally connected to the internal USB\*s the PM-Box of the Catalyst+ is not able to be detected anymore on the internal USB’s. If the PM Box is not detected at the internal USB\*s anymore, the known solution to get the operating system detecting the PM-Box again is a reimage or reset Win10. As both ways are extremely time consuming, please follow procedure below upon further notice.  
Additional information to define the marking of the fiber/USB extender connections to have a reliable way to identify connections and less chance to misidentify.

**Procedure:**

After installing the Catalyst+/Catalyst+HD hardware, do NOT (Picture 1) install the Vialux Power Supply so that the Vialux hardware will not be powered. Connect all fiber cables and power connection to the PM and USB extenders. Add the power button and power up the system.

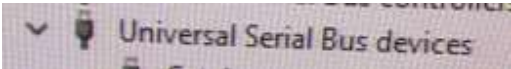


**Picture 1**

Start the Catalyst+(HD) client computer and open the device manager by right click on the windows flag lower left corner and choose “Device Manager” (Picture 2). At the Device Manager scroll down and fold out the Universal Serial Bus devices (Picture 3)



**Picture 4**

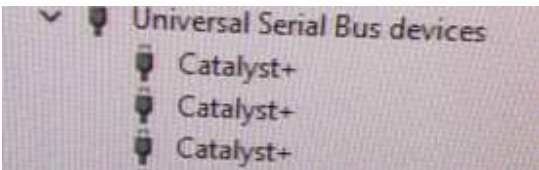


**Picture 3**



**Picture 2**

When connecting the fibers to USB extenders and the USB extenders to the client computer to the internal USB sockets (Picture 4).



Picture 5

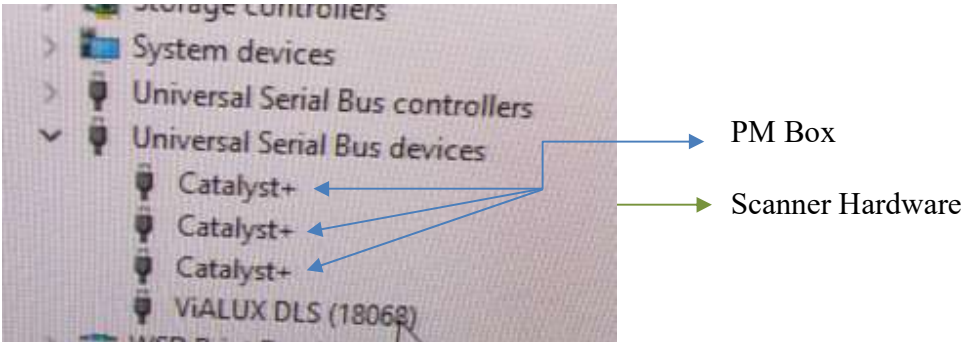
When plug an “extended” PM box in the socket, the Device manager will show “Catalyst+” (Picture 5) If not, try another fiber or extender. Do this until you see all PM-Box Catalyst+ devices of the system you install.

If not all PM-Box(es) get found, you can use your laptop with USB3 socket to troubleshoot. Connect the PM-Box direct to your laptop (exclude the USB extender, the Device manager of the Laptop should then show the Catalyst+. This way you can check the whole way up to the extender at client computer.

When all PM-Boxes of your system shown in the device manager of the client computer you can connect the not connected USB 3.1 extender to the Asmedia card of the client computer. Add power to the DLS scanner hardware (Picture 6) and check with the Service Tool the status of the PM-Box(es), DLS-Scanner(s) and synchronization (Picture7).

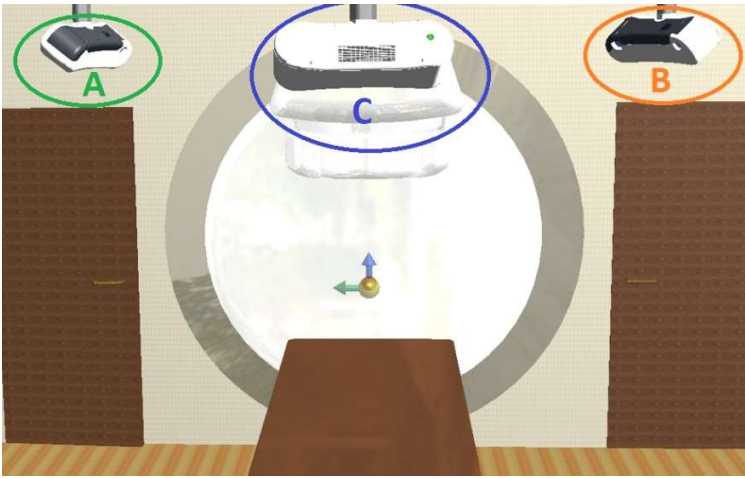


Picture 6



Picture 7

Best Practice is to name all fiber cables from Catalyst+(HD) and mark them at all to be installed systems Identical for all fibers, fiber extender and extender itself :



- Front View:
- Left DLS-Scanner = A1
  - Left PM-Box = A2
  - Right DLS-Scanner = B1
  - Right PM-Box = B2
  - Master DLS Scanner = C1
  - Master PM-Box = C2